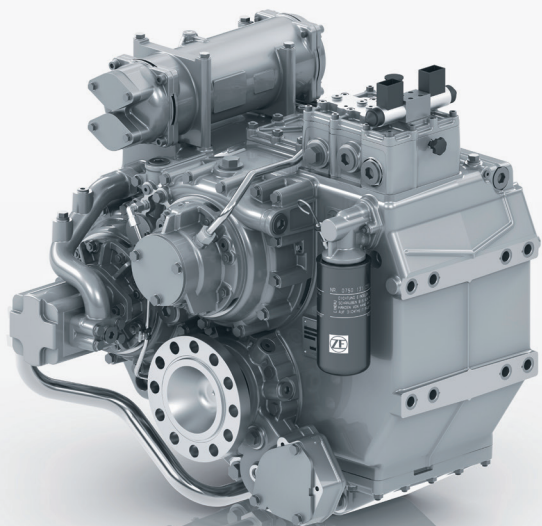


PRODUCT SELECTION GUIDE 2014



Marine Propulsion Systems



Content

INTRODUCTION	page	2
SALES, AFTERSALES OFFICES & SERVICE COMPETENCE CENTERS	page	4
ZF DUTY CLASSIFICATION DEFINITIONS	page	10
APPLICATION ENGINEERING DATA	page	12
KEY TO CONFIGURATIONS AND MODEL DESIGNATIONS	page	14
TRANSMISSION CONFIGURATION AND TYPE	page	16
PLEASURE DUTY, SINGLE SPEED	page	28
PLEASURE DUTY, 2 SPEED	page	58
LIGHT DUTY, SINGLE SPEED	page	64
LIGHT DUTY, 2 SPEED	page	98
MEDIUM DUTY	page	104
CONTINUOUS DUTY	page	138
DRAWINGS AND DIMENSIONS	page	182
SAE BELL HOUSING DIMENSIONS	page	211
OTHER PRODUCTS – PLEASURE CRAFT	page	212
OTHER PRODUCTS – COMMERCIAL AND FAST CRAFT	page	226
APPROXIMATE CONVERSIONS	page	243

This selection guide is intended to help the reader select an appropriate ZF Marine product. Contact ZF for assistance in determining an appropriate product in case of particular applications and requirements. Please read the respective comments that apply to the selected product.

Model numbers, ratings, text and data contained in this brochure are subject to change without notification.

Detailed information including technical data sheets can be obtained from the website www.zf.com/marine

MARINE PROPULSION SYSTEMS

The ZF Marine Group supplies transmissions, propellers, surface-drive systems and electronic control systems for all types of vessels.

The "Marine Propulsion Systems" business unit of the global ZF Group is a leader in the marine driveline market.

Coordinated through its headquarters at the location ZF Padova, Italy, ZF Marine employs 1,300 people worldwide and achieved sales of 265 million Euro in 2012.

ZF Marine supplies propulsion systems and components for all types of vessels – motor yachts, water sports boats, defence craft, high-speed ferries, workboats and commercial vessels, with a power range from 10 to 14,000 kW – to customers including major shipyards and engine manufacturers worldwide.

The product portfolio includes a comprehensive range of transmissions (reversing and non-reversing), propellers, POD-drive systems, steering systems and CANbus-compatible electronic control systems, azimuth thrusters, tunnel thrusters and sail drives.

**For further information about the ZF Marine Group,
please refer to www.zf.com/marine**

SALES, AFTERSALES & SERVICE COMPETENCE CENTERS

ZF utilizes a global network of factory owned locations and independent business partners to support our customers. Approximately 400 partners worldwide are dedicated to Sales, Aftersales and Service of ZF Marine products.

To find your nearest ZF product support, please contact your Regional Competence Center from the list below or visit: www.zf.com and follow: Products & Services/Service Network to find a ZF partner in your country.

service.marine@zf.com
www.zf.com/contact

PRODUCT COMPETENCE CENTERS

PLEASURE CRAFT APPLICATIONS

ZF Padova s.r.l.*

Via Penghe, 48
35030 Caselle di Selvazzano (PD)
ITALY
Tel. +39 049 8299 311
Fax +39 049 8299 550
info.zfpadova@zf.com

ZF Padova s.r.l. – Location Arco

Via S. Andrea, 16
38062 Arco (Trento)
ITALY
Tel. +39 0464 580-555
service.marine@zf.com

COMMERCIAL AND FAST CRAFT TRANSMISSIONS

ZF Friedrichshafen AG Marine Propulsion Systems

Ehlersstr. 50
D – 88046 Friedrichshafen
GERMANY
Tel. +49 (0)7541 77 2207
service.marine@zf.com

COMMERCIAL CRAFT THRUSTERS

ZF Marine Krimpen B.V.
Zaag 27, P.O. Box 2020
2930 AA Krimpen aan de Lek,
THE NETHERLANDS
Tel. +31 180 331 000
service.marine@zf.com

REGIONAL COMPETENCE CENTERS

NORTH AMERICA, MEXICO, CENTRAL AMERICA, CARIBBEAN

ZF Marine Propulsion Systems

Miramar, LLC
15351 SW 29th Street, Suite 300
Miramar, Florida 33027
USA
Tel. +1 954 441-4040
service.marine.na@zf.com

SOUTH AMERICA

ZF do Brasil Ltda

Av. Conde Zeppelin, 1935 Eden
18103-000 Sorocaba-SP,
BRAZIL
Tel. +55 4009 2158
service.marine.sa@zf.com

EURASIA

ZF Marine Eurasia Makina Tic.Ltd.Sti.

Adil Mah. Demokrasi Cad.
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34935 Sultanbeyli – Istanbul
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Tel. +90 216 592 1144
service.marine.eurasia@zf.com

RUSSIA, CENTRAL ASIA

ZF Marine Russia

Salova street, 53 Building 1A,
192102 Saint Petersburg
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Tel. +7 812 449 92 96
service.marine.ru@zf.com

AFRICA

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29 Proton Crescent,
Stikland Bellville 7530
SOUTH AFRICA
Tel. +27 21 950 6300
info.zfsa@zf.com

ASIA PACIFIC

ZF Asia Pacific Pte. Ltd.

20 Harbour Drive,
06-01 PSA Vista
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Fax +65 6773 7537
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ZF Marine Middle East LLC

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Tel. + 971 6 5747 074
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INDIA

ZF Marine Middle East LLC India Branch

A 308, Gokul Arcade
Sahar Road, Vile Parle (East)
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service.marine.ind@zf.com

CHINA

ZF Services (China) Co., Ltd.

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District, Shanghai, 200023,
P.R.CHINA
Tel. +86 21 2350 0600
Fax. +86 21 2350 0601
Info.zf-services.cn@zf.com
www.zf.com/cn

AUSTRALIA

ZF Services Australia Pty Ltd.

14 Lidco Street
Arndell Park, NSW 2148
AUSTRALIA
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info.zf-services.au@zf.com

LOCAL COMPETENCE CENTERS EUROPE

BELGIUM

See BENELUX

BENELUX

ADSvanSTIGT

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THE NETHERLANDS
Tel. +31 183 650 000
Fax +31 183 650 001
info@vanstigt.com

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7, Larnacos Str, 1035
P.O. Box 21168, 1503 Nicosia
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Tel. +357 22586300
Fax +357 22430294
industrial@charpilakoutas.com.cy
www.pilakoutas-industrial.com

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(responsible for Croatia,
ex. Yugoslavia countries
and Albania)
Stupari 18b, 51216 Viškovo
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Tel. +385 (51) 683 242
Fax +385 (51) 682 384
zf-marine@duing.hr
www.duing.hr

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2630 Taastrup
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Tel. +45 70 22 62 43
Fax +45 70 22 26 43
zfdk@zf.com

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Baltic Marine Group AS

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Paljassaare tee 14, 10313 Tallinn
ESTONIA
Tel. +372 68 333 00
Fax +372 68 333 01
bm@bm.ee

FINLAND

Atoy Oy

Ruukintie 7-9, 02330 Espoo
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Tel. +358 9 682 71
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92167 ANTONY Cedex
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Tel. +33 (0) 1 70 74 79 59
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Fax +30 210 417 5441
malerdos@malerdos.gr
www.malerdos.gr

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GREECE
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tekmar@hol.gr

Ariexpo S.A.

68, Alimou Avenue, Alimos
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Fax +30 210 983 1346
ariexpo@tee.gr
www.ariexpo.gr

ITALY**ZF Padova s.r.l.***

Via Penghe, 48
35030 Caselle di Selvazzano (PD)
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Fax +39 02 4884 3807
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LUXEMBURG

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17, Main Street
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MALTA
Tel. +356 21 640 703
Mob. +356 7906 9229
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mylake@maltanet.net

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NORWAY**KGK Norge As**

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0664 Oslo
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Tel. +47 22 88 46 80
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80-266 Gdansk
POLAND
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Facsimile: +48 58 739 86 44
www.marineworks.eu

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Avenida Fuentemar, 11
28823 Coslada (Madrid)
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Tel. +34 91 485 2698
Fax +34 91 485 0036
jorge.torre@zf.com

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19149 Sollentuna (Stockholm)
SWEDEN
Tel. +46 8 923 000
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Abbeyfield Road
Lenton
Nottingham NG7 2SX
ENGLAND
Tel. +44 844 257 0333
Fax +44 844 257 0666
E-mail: peter.nelmes@zf.com

* Manufacturing locations

ZF DUTY CLASSIFICATION DEFINITIONS

P Pleasure Duty

Highly intermittent operation with very large variations in engine speed and power.

- Average engine operation hours limit: 500 hours/year (for mechanical ("M") transmissions: 300 hours/years)
- Typical hull forms: Planing
- Applications: Private, non-commercial, non-charter, leisure activities, no racing

L Light Duty

Intermittent operation with large variations in engine speed and power.

- Average engine operation hours limit: 2500 hours/year (for hydraulic transmissions smaller than ZF 2000 series: 2000 hours/year)
- Typical hull forms: Planing and semi-displacement
- Typical applications: Private and charter, sport/leisure activities, government applications, no racing

M Medium Duty

Intermittent operation with some variations in engine speed and power.

- Average engine operation hours limit: 4000 hours/year (for transmissions smaller than ZF 2000 series and workboat ZF W2300 series: 3500 hours/year)
- Typical hull forms: Semi-displacement and displacement
- Typical applications: Charter and commercial craft (example: crew boats) sport/leisure activities, government applications

C Continuous Duty

Continuous operation with little or no variations in engine speed and power.

- Average engine operation hours limit: unlimited
- Typical hull forms: Displacement
- Typical applications: Heavy duty commercial vessels

Surface-Drive Applications

For applications with surface-drives please contact ZF Marine for product selection assistance.

Torsional Vibration and Torsional Couplings

The responsibility for ensuring complete propulsion system torsional vibration and stress analysis compatibility rests with the overall propulsion system integrator. The analysis must include excitations induced by the engine governor.

ZF cannot accept any liability for gearbox noise or for damage to the gearbox, the flexible coupling or to other parts of the drive unit caused by torsional vibrations. Contact ZF for further information and assistance.

For single engine powered boats, where loss of propulsion can result in loss of control, ZF recommends and Survey Societies normally require the use of a torsional limit stop.

It is the buyer's responsibility to specify this option. ZF cannot accept any liability for personal injury, loss of life or damage or loss of property due to the failure of the buyer to specify a torsional limit stop. ZF selects torsional couplings on the basis of nominal input torque at commonly rated engine speeds. Consult ZF for details concerning speed limits of standard offered torsional couplings, which can be below transmission limits. Special torsional couplings may be required for Survey Society requirements.

APPLICATION ENGINEERING DATA

Ratings

Ratings apply to marine diesel engines at the indicated speeds. At other engine speeds, the respective power capacity (kW) of the transmission can be obtained by multiplying the Power/Speed ratio by the speed.

Approximate conversion factors:

1 kW	=	1.36 metric hp
1 kW	=	1.34 U.S. hp (SAE)
1 U.S. hp	=	1.014 metric hp
1 Nm	=	0.74 lb.ft

Ratings apply to right hand turning engines, i.e. engines having counterclockwise rotating flywheels when viewing the flywheel end of the engine. These ratings allow full power through forward and reverse gear trains, unless otherwise stated. Contact your nearest ZF Sales and Service office for ratings applicable to gas turbines, as well as left hand turning engines, and marine transmissions for large horsepower capacity engines. Ratings apply to marine transmissions currently in production or in development and are subject to change without prior notice.

NOTE: the maximum rated input power must not be exceeded (see respective ratings in the technical data sheets).

Safe Operation Notice

The safe operation of ZF products depends upon adherence to technical data presented in our brochures. Safe operation also depends upon proper installation, operation and routine maintenance and inspection under prevailing conditions and recommendations set forth by ZF. Damage to transmission caused by repeated or continuous emergency manoeuvres or abnormal operation is not covered under warranty. It is the responsibility of users and not ZF to provide and install guards and safety devices, which may be required by recognized safety standards of the respective country (e.g. for U.S.A. – the Occupational Safety Act of 1970 and its subsequent provisions).

Monitoring Notice

The safe operation of ZF products depends upon adherence to ZF monitoring recommendations presented in our operating manuals,

etc. It is the responsibility of users and not ZF to provide and install monitoring devices and safety interlock systems as may be deemed prudent by ZF. Consult ZF for details and recommendations.

Survey Society Classification

In most cases, the maximum medium and continuous duty ratings permitted by ZF are accepted in full by major classification societies. If classification is required, contact ZF regarding proper procedures (also for yacht service and ice classification service).

Trolling Valves

Trolling valves are available as an option on most models of marine transmissions. In most cases, trolling valves are easily retrofitted. A thermostatic oil by-pass valve may be required to maintain proper operation and recommended oil temperature. Consult ZF for details and limits.

Non-Standard Ratios (+)

Where non-standard ratios are indicated (+) these are available on request and may incur additional price/longer delivery compared to standard ratios. Consult ZF for details.

Non-Reversing and 'U'-Drive Options

In principle, all transmissions are available as non-reversing units (for instance, for controllable pitch propeller applications). Many parallel shaft transmissions can also be supplied with input and output on the same side ('U'-drive). Consult ZF for details.

Power Take-Offs (PTO'S)

All PTO'S are retrofittable except where stated otherwise. Most transmissions can be offered with clutchable or permanently driven (live) PTO'S. Consult ZF for details and limits.

Dimensions and Weights

Dimensions and weights refer to transmissions with bell housing (where appropriate) but excluding options such as: trolling valves, power take-offs, propeller shaft companion flanges, torsional couplings etc.

KEY TO CONFIGURATIONS AND MODEL DESIGNATIONS

NR:	Non-Reversing
NR2:	Non-Reversing, two shafts (input above output)
NR2B:	Non-Reversing, two shafts (input below output)
NR2H:	Non-Reversing, two shafts (input horizontal output)
NC:	No clutch
SG:	Spur Gear
SGDL:	Spur Gear Diagonal Left
SGDR:	Spur Gear Diagonal Right
SGU:	Remote U-Drive
TS:	2-Speed (power-shifting)
No Letter:	Vertically Offset (input above output)
M:	Mechanical clutch actuation
A:	Down-Angle
IV:	Integral Vee-drive (flanged on to engine)
V:	Remote Vee-drive
D:	Diagonal
H:	Horizontal
C:	Coaxial
B:	Input below output

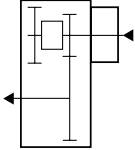
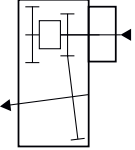
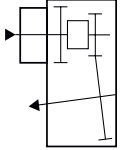
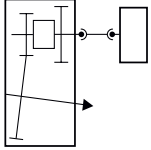
Shaft Rotation

These designations are not part of the model name but the required shaft rotation must be specified when ordering the transmissions. This is particularly important for non-reversing (NR) transmissions.

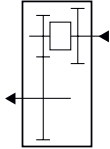
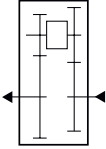
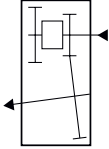
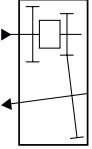
- Engine-wise(EW): output-shaft rotates in same direction as input shaft, or
- Counter Engine-wise(CEW): output-shaft rotates in opposite direction to input shaft

For standard reversing transmissions full power can be transmitted through either the forward or the reverse gear trains, unless stated otherwise.

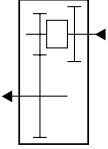
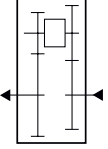
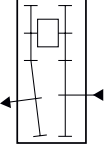
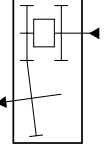
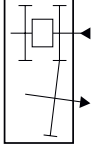
TRANSMISSION CONFIGURATION AND TYPE

	PARALLEL OFFSET	OFFSET DOWN-ANGLE	INTEGRAL V-DRIVE	REMOTE V-DRIVE
TRANSMISSION FAMILY (2 Speed)				
ZF 90	ZF 90 TS	ZF 90 ATS	ZF 90 IVTS	
ZF 115		ZF 115 ATS	ZF 115 IVTS	
ZF 325	ZF 325 TS	ZF 325 ATS	ZF 325 IVTS	
ZF 550	ZF 550 TS	ZF 550 ATS		
ZF 665	ZF 665 TS	ZF 665 ATS		

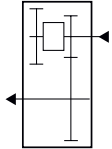
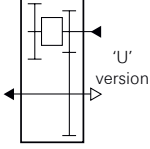
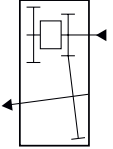
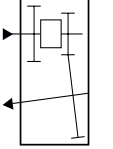
TRANSMISSION CONFIGURATION AND TYPE

	PARALLEL OFFSET	COAXIAL	OFFSET DOWN-ANGLE	V-DRIVE
TRANSMISSION FAMILY				
ZF M (mechanical)	ZF 12 M, ZF 15 M, ZF 25 M, ZF 30 M		ZF 15 MA ZF 25 MA	ZF 15 MIV
ZF 25	ZF 25		ZF 25 A	
ZF 45	ZF 45-1	ZF 45 C	ZF 45 A	ZF 45 IV ZF 45-1 IV
ZF 63	ZF 63	ZF 63 C	ZF 63 A	ZF 63 IV
ZF 80			ZF 80 A ZF 85 A	ZF 80 IV ZF 85 IV

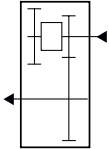
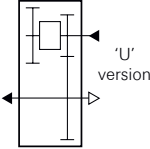
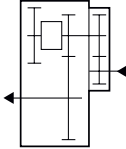
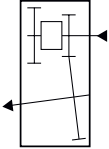
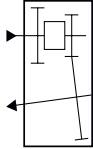
TRANSMISSION CONFIGURATION AND TYPE

	PARALLEL OFFSET	COAXIAL OR NEAR COAX. PARALLEL	NEAR COAX. DOWN-ANGLE	OFFSET DOWN-ANGLE	V-DRIVE
TRANSMISSION FAMILY					
ZF 220	ZF 220, ZF W220			ZF 220 A	
ZF 280 ZF 286	ZF 280-1 ZF 286			ZF 280-1 A ZF 286 A	ZF 280 IV ZF 286 IV
ZF 301 ZF 305	ZF 305-3	ZF 301 C	ZF 301 A	ZF 305-3 A	
ZF 320 ZF 325	ZF 325-1 ZF W320 ZF W325			ZF 325-1 A	ZF 325 IV
ZF 335				ZF 335 A	ZF 335 IV
ZF 350	ZF W350-1				
ZF 360 ZF 370	ZF 360			ZF 360 A	ZF 360 IV ZF 370 V
ZF 500 ZF 510 ZF 550	ZF 500 ZF 550			ZF 500-1 A ZF 510-1 A ZF 550 A	ZF 500-1 IV ZF 510 V ZF 550 V
ZF 665 ZF W650	ZF 665 ZF W650			ZF 665 A	ZF 665 V

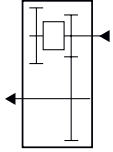
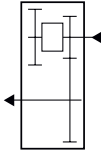
TRANSMISSION CONFIGURATION AND TYPE

	PARALLEL OFFSET	EXTENDED PARALLEL OFFSET	OFFSET DOWN-ANGLE	V-DRIVE
TRANSMISSION FAMILY				
ZF W1800	ZF W1800 ZF W1700			
ZF 2000	ZF 2000, ZF 2050 ZF 2060, ZF 2070 ZF 2150 ZF 2075	ZF 2200, ZF 2250 ZF 2260, ZF 2270 ZF 2300, ZF 2350 ZF 2360, ZF 2370 ZF W2300, ZF W2350 ZF W2450 ZF 2275, ZF 2375	ZF 2000 A ZF 2050 A ZF 2060 A ZF 2070 A ZF 2150 A ZF 2075 A	ZF 2000 V ZF 2050 V ZF 2060 V ZF 2070 V ZF 2150 V ZF 2075 V
ZF 3000	ZF 3000 ZF 3050 ZF 3055 ZF 3060 ZF 3070	ZF 3310, ZF 3311 ZF 3350, ZF 3351 ZF 3355, ZF 3356 ZF 3360, ZF 3361 ZF 3711, ZF 3751 ZF 3756, ZF 3761 ZF W3710, ZF 3750 ZF W3310, ZF W3350 ZF W3355, ZF W3750 ZF 3370	ZF 3000 A ZF 3050 A ZF 3055 A ZF 3060 A ZF 3070 A ZF 3150 A ZF 3155 A ZF 3160 A ZF 3170 A	ZF 3000 V ZF 3050 V ZF 3055 V ZF 3060 V ZF 3070 V ZF 3150 V ZF 3155 V ZF 3160 V ZF 3170 V
ZF 5000	ZF 5000 ZF 5050 ZF 5055 ZF 5060	ZF 5300, ZF 5311 ZF 5350, ZF 5351 ZF 5355, ZF 5356 ZF 5360, ZF 5361 ZF W5300, ZF W5350 ZF W5355	ZF 5000 A ZF 5050 A ZF 5055 A ZF 5060 A	ZF 5000 V ZF 5050 V ZF 5055 V ZF 5060 V

TRANSMISSION CONFIGURATION AND TYPE

	PARALLEL OFFSET	EXTENDED PARALLEL OFFSET	COAXIAL OR NEAR COAX. PARALLEL	OFFSET DOWN-ANGLE	'V' DRIVE
TRANSMISSION FAMILY					
ZF 7600	ZF 7600, ZF 7650 ZF 7600 NR2H, ZF 7600 NR2 ZF 7600 NR2B, ZF 7650 NR2H ZF 7650 NR2, ZF 7650 NR2B	ZF 7640, ZF 7641 ZF 7645, ZF 7646 ZF W7610, ZF W7615 ZF W7640, ZF W7645 ZF 7661, ZF 7666		ZF 7600 A ZF 7650 A	ZF 7600 V ZF 7650 V
ZF 9000	ZF 9000, ZF 9000 NR2H ZF 9000 NR2, ZF 9000 NR2B ZF 9050, ZF 9050 NR2H ZF 9050 NR2, ZF 9050 NR2B ZF 9055, ZF 9055 NR2B ZF 9055 NR2, ZF 9055 NR2H ZF 9060, ZF 9060 NR2H ZF 9060 NR2, ZF 9060 NR2B	ZF 9300, ZF 9311 ZF 9350, ZF 9351 ZF 9355, ZF 9356 ZF 9360, ZF 9361		ZF 9000 A ZF 9050 A ZF 9055 A ZF 9060 A	ZF 9000 V ZF 9050 V ZF 9055 V ZF 9060 V
ZF 23500			ZF 23560 C, ZF 23860 C		
ZF 24000	ZF 24060 NR2, ZF 24060 NR2H ZF 24060 NR2B, ZF 24060 D	ZF 24360 D	ZF 24360 SG, ZF 24360 SGDL/DR ZF 24060 SGC		
ZF 30000	ZF 30050 NR2, ZF 30050 NR2H ZF 30050 NR2B		ZF 30350 SG, ZF 30350 SGDL/DR ZF 30050 SGC		
ZF 40000	ZF 40060 NR2, ZF 40060 NR2H ZF 40060 NR2B		ZF 40360 SG, ZF 40360 SGDL/DR ZF 40060 SGC		
ZF 43000	ZF 43700 NR2				
ZF 53000	ZF 53000 NR2H, ZF 53000 NR2B ZF 53500 NR2H, ZF 53500 NR2B ZF 53800 NR2H, ZF 53800 NR2B				
ZF 60000	ZF 60000 NR2H				
ZF 83000	ZF 83700 NR2H, ZF 83750 NR2H				

TRANSMISSION CONFIGURATION AND TYPE

	PARALLEL OFFSET	EXTENDED PARALLEL OFFSET
TRANSMISSION FAMILY		
ZF W11000	ZF W11000, ZF W11000 NR ZF W11010, ZF W11010 NR ZF W11020, ZF W11020 NR ZF W11030, ZF W11030 NR ZF W11050, ZF W11050 NR/NC	ZF W11100, ZF W11100 NR, ZF W11110, ZF W11110 NR ZF W11120, ZF W11120 NR, ZF W11130, ZF W11130 NR ZF W11150, ZF W11150 NR/NC, ZF W11200, ZF W11200 NR ZF W11210, ZF W11210 NR, ZF W11220, ZF W11220 NR ZF W11230, ZF W11230 NR, ZF W11250, ZF W11250 NR/NC
ZF W17000	ZF W17000, ZF W17000 NR ZF W17010, ZF W17010 NR ZF W17030, ZF W17030 NR ZF W17050, ZF W17050 NR	ZF W17100, ZF W17100 NR, ZF W17110, ZF W17110 NR ZF W17130, ZF W17130 NR, ZF W17150, ZF W17150 NR ZF W17200, ZF W17200 NR, ZF W17210, ZF W17210 NR ZF W17230, ZF W17230 NR, ZF W17250, ZF W17250 NR
ZF W23000		ZF W23100 NR/NC
ZF W33000		ZF W33100 NR/NC
ZF W43000	ZF W43000 NR/NC	ZF W43100 NR/NC
ZF W63000	ZF W63000 NR/NR2H	
ZF W83000	ZF W83000 NR/NC	ZF W83100 NR/NC
ZF W93000		ZF W93300 NC
ZF W103000		ZF W103100 NC

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 12 M	2.136	1.955	0.0131	0.0176
	2.632	1.955	0.0111	0.0149
ZF 15 M	1.556	1.955	0.0152	0.0204
	1.875	1.955		
ZF 15 MA 8 degrees	1.875	1.955	0.0152	0.0204
	2.136	1.955	0.0131	0.0176
	2.632	1.955	0.0111	0.0149
ZF 15 MIV 15 degrees	2.134	2.224	0.0152	0.0204
	2.718	2.224	0.0111	0.0149
	2.995	2.224		
ZF 25 M	1.880	2.095	0.0262	0.0351
	2.273	2.095	0.0216	0.0289
	2.737	2.722	0.0177	0.0237
ZF 25 MA 8 degrees	2.227	2.737	0.0215	0.0288
	2.737	2.737	0.0177	0.0237
ZF 30 M	2.148	2.636	0.0241	0.0323
	2.696	2.636		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner adaptor.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2800 rpm		3000 rpm		3600 rpm					
37	49	39	53	47	63	5000	13	29	
31	42	33	45	40	54	5000			
3000 rpm		3600 rpm		3800 rpm					
46	61	55	73	55	74	5000	13	29	
46	61	55	73	55	74	5000	13.5	30	
39	53	47	63	50	67	5000			
33	45	40	54	42	57	5000			
46	61	55	73	55	74	5000	20	44	
33	45	40	54	42	57	5000			
79	105	80	107	80	107	5000	18.5	41	
65	87	78	104	80	107	5000			
53	71	64	85	67	90	5000			
64	86	77	104	80	107	5000	21	46	
53	71	64	85	67	90	5000			
72	97	87	116	92	123	5000	23	51	

Note: For all "M" (Mechanical) transmissions reduce power capacity by the following shock factors:

1 cylinder engine ÷ 1.25,

2 cylinder engine ÷ 1.20,

3 cylinder engine ÷ 1.15

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 25	1.969	1.969	0.0325	0.0435
	2.800	2.800	0.0251	0.0337
ZF 25 A 8 degrees	1.548	1.548	0.0325	0.0435
	1.926	1.926		
	2.480*	2.480	0.0277	0.0372
	2.292	2.292	0.0262	0.0351
	2.714	2.714	0.0251	0.0337
ZF 45 A 8 degrees	1.256	1.256	0.0471	0.0632
	1.514	1.514		
	2.034	2.034		
	2.435	2.435	0.0440	0.0590
ZF 45 C ¹	1.000	1.031	0.0555	0.0744
ZF 45 IV ¹ 20 degrees	1.207	1.244	0.0555	0.0744
	1.462	1.507		
ZF 45-1	2.200	2.200	0.0471	0.0632
	2.512	2.512		
	3.031	3.031		
	3.741	3.741		
ZF 45-1 IV ¹ 20 degrees	1.207	1.244	0.0646	0.0866
	1.462	1.507		
ZF 63	1.256	1.250	0.0712	0.0955
	1.514	1.521		
	1.750*	1.770		
	1.933	1.973		
	2.480	2.476	0.0591	0.0792
	2.783	2.799		
ZF 63 A 8 degrees	1.216	1.215	0.0712	0.0955
	1.563	1.583		
	2.037	2.017		
	2.522	2.536	0.0623	0.0836
	2.682	2.709		
ZF 63 C ¹	1.000	1.031	0.0712	0.0955

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
3000 rpm		3600 rpm		3800 rpm					
97	131	117	157	123	165	5500	24	53	SAE 3, 4, 5, B/W, Yanmar JH
75	101	90	121	95	128	5500			
97	131	117	157	123	165	5500	24	53	
83	112	100	134	105	141	5500			
79	105	94	126	99	133	5500			SAE 3, 4, 5, B/W, Yanmar JH
75	101	90	121	95	128	5500			
2800 rpm		3300 rpm		3800 rpm					
132	177	155	209	179	240	5500	28	62	
123	165	145	195	167	224	5500			SAE 3, 4, 5, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
155	208	183	246	211	283	5500	31	68	
155	208	183	246	211	283	5500	47	103	SAE 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
132	177	155	209	179	240	5500	60	132	
181	243	213	286	246	329	5500	47	103	SAE 2, 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
199	267	235	315	271	363	5500	46	101	
165	222	195	261	224	301	5500			SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
199	267	235	315	271	363	5500	44	97	
174	234	206	276	237	317	5500			
199	267	235	315	271	363	5500	32	70	SAE 3, 4, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6

¹ For ZF 45 C, ZF 45 IV, ZF 45-1 IV, ZF 63 C and ZF 88 C - Full power in 'A' POS only, 'B' POS for docking and low speed maneuvering.

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 63 IV 12 degrees	1.294	1.288	0.0712	0.0955
	1.560	1.567		
	1.992	2.033		
	2.477	2.528		
ZF 80 A 8 degrees	1.567	1.567	0.0984	0.1320
	1.750	1.750		
	1.962	1.962		
	2.500	2.500		
ZF 80 IV 12 degrees	1.644	1.638	0.0984	0.1320
	2.008	1.996		
	2.493	2.468		
ZF 85 A 8 degrees	1.567	1.567	0.1114	0.1494
	1.750	1.750		
	1.962	1.962		
	2.500	2.500		
ZF 85 IV 12 degrees	1.644	1.638	0.1114	0.1494
	2.008	1.996		
	2.493	2.468		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2800 rpm		3300 rpm		3800 rpm		5500	62	136	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
199	267	235	315	271	363				
184 247		217	291	250	336				
2800 rpm		3000 rpm		3300 rpm		5500	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
276	370	295	396	325	436				
276 370		295	396	325	436				
312 418		334	448	368	493	4500	86	189	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
312 418		334	448	368	493				
312 418		334	448	368	493				
312 418		334	448	368	493	3500	86	189	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
312 418		334	448	368	493				
312 418		334	448	368	493				

PLEASURE DUTY GASOLINE SINGLE SPEED

P

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 25	1.969	1.969	0.0325	0.0435
	2.800	2.800	0.0251	0.0337
ZF 25 A 8 degrees	1.548	1.548	0.0325	0.0435
	1.926	1.926		
	2.480*	2.480	0.0277	0.0372
	2.292	2.292	0.0262	0.0351
	2.714	2.714	0.0251	0.0337
ZF 45 A 8 degrees	1.256	1.256	0.0471	0.0632
	1.514	1.514		
	2.034	2.034		
	2.435	2.435	0.0440	0.0590
ZF 45 C ¹	1.000	1.031	0.0555	0.0744
ZF 45 IV ¹ 20 degrees	1.207	1.244	0.0555	0.0744
	1.462	1.507		
ZF 45-1 IV ¹ 20 degrees	1.207	1.244	0.0646	0.0866
	1.462	1.507		
ZF 63	1.256	1.250	0.0712	0.0955
	1.514	1.521		
	1.750*	1.770		
	1.933	1.973		
	2.480	2.476	0.0591	0.0792
	2.783	2.799		
ZF 63 A 8 degrees	1.216	1.215	0.0712	0.0955
	1.563	1.583		
	2.037	2.017		
	2.522	2.536	0.0623	0.0836
2.682	2.709			
ZF 63 C ¹	1.000	1.031	0.0712	0.0955
ZF 63 IV 12 degrees	1.294	1.288	0.0712	0.0955
	1.560	1.567		
	1.992	2.033		
	2.477	2.528	0.0659	0.0883

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
4000 rpm		4400 rpm		4800 rpm					
130	174	143	192	156	209	5500	24	53	SAE 3, 4, 5, B/W, Yanmar JH
101	135	111	148	121	162	5500			
130	174	143	192	156	209	5500	24	53	SAE 3, 4, 5, B/W, Yanmar JH
111	149	122	164	133	179	5500			
105	140	115	154	126	169	5500			
101	135	111	148	121	162	5500			
188	253	207	278	226	303	5500	28	62	SAE 3, 4, 5, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
176	236	194	259	211	283	5500			
222	298	244	327	266	357	5500	31	68	SAE 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
222	298	244	327	266	357	5500	47	103	SAE 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
258	347	284	381	310	416	5500	47	103	SAE 3, 4, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
285	382	313	420	342	458	5500	46	101	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
236	317	260	348	283	380	5500			
285	382	313	420	342	458	5500	44	97	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
249	334	274	368	299	401	5500			
285	382	313	420	342	458	5500	32	70	SAE 3, 4, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
285	382	313	420	342	458	5500	62	136	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
263	353	290	389	316	424	5500			

¹ For ZF 45 C, ZF 45 IV, ZF 45-1 IV, ZF 63 C and ZF 88 C - Full power in 'A' POS only, 'B' POS for docking and low speed maneuvering.

PLEASURE DUTY GASOLINE SINGLE SPEED

P

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 80 A 8 degrees	1.567	1.567	0.0984	0.1320
	1.750	1.750		
	1.962	1.962		
	2.500	2.500		
ZF 85 A 8 degrees	1.567	1.567	0.1114	0.1494
	1.750	1.750		
	1.962	1.962		
	2.500	2.500		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
4000 rpm		4400 rpm		4800 rpm		4500	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
394	528	433	581	--	--				
446	598	490	657	--	--	4500	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 220	1.000, 1.128*, 1.237*, 1.400*, 1.500, 1.963	0.0985	0.1321
	2.478		
	3.000	0.0855	0.1147
ZF 220 A 10 degrees	1.235, 1.533, 1.750*, 2.040	0.0932	0.1250
	2.455	0.0855	0.1147
ZF 280 IV 14 degrees	1.252, 1.561, 1.772, 2.063	0.1398	0.1875
	2.276*, 2.556	0.1205	0.1616
	3.094*	0.1016	0.1362
ZF 280-1	0.814*, 1.000, 1.056*, 1.139*, 1.214*, 1.300*	0.1398	0.1875
	1.514, 1.719*, 2.000		
	2.478	0.1205	0.1616
ZF 280-1 A 7 degrees	1.118, 1.483, 1.769, 2.000, 2.227*	0.1398	0.1875
	2.476*	0.1205	0.1616
ZF 286	1.237, 1.400*, 1.500, 1.774, 1.966	0.1715	0.2300
	0.923, 1.000, 2.269	0.1641	0.2200
	2.481	0.1506	0.2019
ZF 286 A 7 degrees	1.200, 1.333, 1.484, 1.750, 1.962	0.1715	0.2300
	2.208	0.1506	0.2019
	2.391	0.1471	0.1973
ZF 286 IV 14 degrees	1.266, 1.535, 1.815, 2.011	0.1715	0.2300
	2.322	0.1620	0.2172
	2.539	0.1491	0.2000
ZF 301 A 10 degrees	1.190, 1.516, 2.005, 2.301*, 2.551*, 2.901	0.1285	0.1723
ZF 301 C	1.106, 1.179*, 1.236*, 1.296*, 1.408, 1.862	0.1446	0.1939
	2.137*, 2.694		
	1.004*	0.1116	0.1497
ZF 305-3	1.220, 1.297*, 1.486, 1.758, 1.968	0.2192	0.2939
	0.884, 0.923*, 1.000	0.2143	0.2874
	2.250	0.1946	0.2609
	2.500	0.1783	0.2391
	2.917	0.1556	0.2087

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2300 rpm		2800 rpm		3200 rpm					
227	304	276	370	315	423	4500	63	139	SAE 2, 3, 3 CAT
197	264	240	321	274	367	4500			
214	287	261	350	298	400	4500	50	110	SAE 2, 3, B/W, 3 CAT
197	264	240	321	274	367	4500			
2500 rpm		2800 rpm		3300 rpm					
349	469	391	525	461	619	3300	106	233	SAE 2, 3, 3 CAT
301	404	337	453	398	533	3300			
254	341	284	381	335	449	3300			
349	469	391	525	461	619	3300	73	161	SAE 1, 2, 3, 3 CAT
301	404	337	453	398	533	3300			
286	383	320	429	377	506	3300			
349	469	391	525	461	619	3300	73	161	SAE 1, 2, 3, 3 CAT
301	404	337	453	398	533	3300			
429	575	480	644	566	759	3300	86	189	SAE 1, 2, 3, 3 CAT
410	550	459	616	541	726	3300			
376	505	422	565	497	666	3300			
324	435	363	487	428	574	3300			
429	575	480	644	566	759	3300	77	169	SAE 1, 2, 3, 3 CAT
376	505	422	565	497	666	3300			
368	493	412	552	485	651	3300			
344	462	386	517	454	609	3300			
429	575	480	644	566	759	3300	130	286	SAE 1, 2, 3, 3 CAT
405	543	454	608	535	717	3300			
373	500	418	560	492	660	3300			
2300 rpm		2500 rpm		2800 rpm					
296	396	321	431	360	482	3000	87	191	SAE 1, 2, 3, 3 CAT
333	446	362	485	405	543	3000	87	191	SAE 1, 2, 3, 3 CAT
257	344	279	374	313	419	3000			
2100 rpm		2300 rpm		2500 rpm					
460	617	504	676	548	735	3000	98	216	SAE 1, 2, 3
450	604	493	661	536	719	3000			
409	548	447	600	486	652	3000			
374	502	410	550	446	598	3000			
327	438	358	480	389	522	3000			

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 305-3 A 7 degrees	1.200, 1.514, 1.733, 2.037	0.2192	0.2939
	2.179	0.1864	0.2499
	2.423	0.1718	0.2304
ZF 325 IV 14 degrees	1.216, 1.485, 1.733, 1.793*, 2.037	0.2595	0.3480
	2.417	0.2334	0.3130
ZF 325-1	1.167*, 1.225*, 1.459, 1.727, 2.033	0.2594	0.3478
	1.000, 1.050*, 2.250*	0.2432	0.3262
	2.500	0.2334	0.3130
	2.957	0.2043	0.2740
ZF 325-1 A 7 degrees	1.216, 1.485, 1.733, 2.037, 2.240*	0.2595	0.3480
	2.417	0.2334	0.3130
ZF 335 A 7 degrees	1.441, 1.594, 1.767, 1.964, 2.192	0.2917	0.3912
	2.458	0.2675	0.3588
ZF 335 IV 14 degrees	1.441, 1.594, 1.767, 1.964, 2.192	0.2917	0.3912
	2.458	0.2675	0.3588
ZF 360	0.925*, 1.045, 1.125*, 1.237, 1.500, 1.774 1.966, 2.185, 2.480, 2.625	0.2917	0.3912
	2.917	0.2512	0.3369
ZF 360 A 7 degrees	1.216, 1.485, 1.767, 1.964, 2.192, 2.478 2.609	0.2917	0.3912
ZF 360 IV 14 degrees	1.216, 1.485, 1.767, 1.964, 2.192, 2.478	0.2917	0.3912
ZF 370 V 10 degrees			
	1.125, 1.263, 1.529, 1.774, 2.000, 2.222 2.480	0.2917	0.3912
ZF 500	1.000*, 1.125, 1.237, 1.500, 1.774, 1.966	0.3913	0.5248
	0.925*, 2.185*	0.3654	0.4901
	2.480	0.3404	0.4565
	2.625	0.3242	0.4347
	2.917	0.2675	0.3588
ZF 500-1 A 7 degrees	1.216, 1.485, 1.767, 1.964	0.3913	0.5248
	2.192	0.3683	0.4939
	2.478	0.3242	0.4347
	2.609	0.3080	0.4130

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2500 rpm					
460	617	504	676	548	735	3000	97	213	SAE 1, 2, 3
391	525	429	575	466	625	3000			
361	484	395	530	430	576	3000			
545	731	597	800	649	870	3000	185	407	
490	657	537	720	584	782	3000			SAE 1, 2 Optional
545	730	597	800	648	870	3000	130	286	
511	685	559	750	608	815	3000			SAE 1
490	657	537	720	584	782	3000			
429	575	470	630	511	685	3000			
545	731	597	800	649	870	3000	130	286	
490	657	537	720	584	782	3000			SAE 1
613	822	671	900	729	978	3000	159	350	
562	753	615	825	669	897	3000			SAE 1
613	822	671	900	729	978	3000	215	473	
562	753	615	825	669	897	3000			
613	822	671	900	729	978	3000	185	407	
528	707	578	775	628	842	3000			SAE 1, 0*
613	822	671	900	729	978	3000	187	411	
613	822	671	900	729	978	3000	230	506	SAE 1
2100 rpm		2300 rpm		2450 rpm					
613	822	671	900	715	958	3000	194	427	SAE 1, 0*
822	1102	900	1207	959	1286	3000	185	407	
767	1029	841	1127	895	1201	3000			
715	959	783	1050	834	1118	3000			
681	913	746	1000	794	1065	3000			
562	753	615	825	655	879	3000			
822	1102	900	1207	959	1286	3000	192	422	SAE 1, 0*
773	1037	847	1136	902	1210	3000			
681	913	746	1000	794	1065	3000			
647	867	708	950	754	1012	3000			

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 500-1 IV 14 degrees	1.216, 1.485, 1.767, 1.964	0.3913	0.5248
	2.200	0.3837	0.5145
	2.478	0.3518	0.4718
	3.000	0.2917	0.3912
ZF 510 V 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000, 2.222	0.3913	0.5248
	2.480	0.3566	0.4783
ZF 510-1 A 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000, 2.222	0.3913	0.5248
	2.480	0.3654	0.4901
ZF 550	1.111*, 1.182*, 1.262*, 1.400*, 1.500, 1.743 1.833, 2.000	0.3913	0.5248
	2.233, 2.593	0.3729	0.5000
	0.936*	0.3654	0.4901
	3.042	0.3059	0.4102
ZF 550 A 10 degrees	1.525, 1.757*, 1.971	0.3913	0.5248
	2.517	0.3729	0.5000
	2.960	0.3246	0.4353
ZF 550 V 10 degrees	1.525, 1.757*, 1.971	0.3913	0.5248
	2.517	0.3729	0.5000
	2.960	0.3246	0.4353
ZF 665	1.111, 1.182, 1.262, 1.400, 1.500, 1.743 2.000, 2.233	0.4476	0.6003
	2.593	0.3997	0.5360
	3.042	0.3518	0.4718
ZF 665 A 10 degrees	1.525, 1.757, 1.971, 2.226	0.4476	0.6003
	2.448	0.4156	0.5573
	2.517	0.3890	0.5217
	2.960	0.3524	0.4725
ZF 665 V 10 degrees	1.525, 1.757, 1.971, 2.226	0.4476	0.6003
	2.448	0.4156	0.5573
	2.517	0.3890	0.5217
	2.960	0.3524	0.4725
ZF 2000	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519, 2.760*, 2.958	0.4580	0.6142
	2.714*, 2.920	0.4580	0.6142
ZF 2000 A 10 degrees	3.250*	0.3243	0.4349

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm					
822	1102	900	1207	959	1286	3000	230	506	SAE 1
806	1080	882	1183	940	1261	3000			
739	991	809	1085	862	1156	3000			
613	822	671	900	715	958	3000			
822	1102	900	1207	959	1286	3000	200	440	
749	1004	820	1100	874	1172	3000			
822	1102	900	1207	959	1286	3000	193	425	SAE 1, 0*
767	1029	841	1127	895	1201	3000			
822	1102	900	1207	959	1286	3000	242	532	SAE 0*, 1
783	1050	858	1150	914	1225	3000			
767	1029	841	1127	895	1201	3000			
642	861	703	943	749	1005	3000			
822	1102	900	1207	959	1286	3000	256	563	SAE 0*, 1
783	1050	858	1150	914	1225	3000			
682	914	747	1001	795	1066	3000			
822	1102	900	1207	959	1286	3000	260	572	
783	1050	858	1150	914	1225	3000			
682	914	747	1001	795	1066	3000			
940	1261	1030	1381	1097	1471	3000	248	546	SAE 0*, 1
839	1126	919	1233	979	1313	3000			
739	991	809	1085	862	1156	3000			
940	1261	1030	1381	1097	1471	3000	253	557	SAE 0*, 1
873	1170	956	1282	1018	1365	3000			
817	1095	895	1200	953	1278	3000			
740	992	810	1087	863	1158	3000			
940	1261	1030	1381	1097	1471	3000	252	554	
873	1170	956	1282	1018	1365	3000			
817	1095	895	1200	953	1278	3000			
740	992	810	1087	863	1158	3000			
962	1290	1053	1413	1122	1505	2600	340	748	SAE 1, 0
962	1290	1053	1413	1122	1505	2600	348	766	SAE 1, 0
681	913	746	1000	795	1065	2600			

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 2000 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467 2.714*, 2.920	0.4580	0.6142
	3.250*	0.3243	0.4349
ZF 2050	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.5028	0.6743
ZF 2050 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5028	0.6743
ZF 2050 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5028	0.6743
ZF 2060	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.5511	0.7390
	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5511	0.7390
ZF 2060 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5511	0.7390
ZF 2060 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5511	0.7390
ZF 2070²	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.5844	0.7837
	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5844	0.7837
ZF 2070 A² 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5844	0.7837
ZF 2070 V² 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5844	0.7837
ZF 2075²	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.5850	0.7845
	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5850	0.7845
ZF 2075 A² 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5850	0.7845
ZF 2075 V² 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.5850	0.7845
ZF 2150	2.760* 2.958	0.5028	0.6743
	0.4802	0.6440	
ZF 2150 A 10 degrees	2.714*, 2.920 3.250*	0.5028	0.6743
	0.4057	0.5440	
ZF 2150 V 10 degrees	2.714*, 2.920 3.250*	0.5028	0.6743
	0.4057	0.5440	
ZF 2200	3.000, 3.519*	0.4580	0.6142
ZF 2250	3.000, 3.519*	0.5029	0.6744

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm					
962	1290	1053	1413	1122	1505	2600	352	774	
681	913	746	1000	795	1065	2600			
1056	1416	1157	1551	1232	1652	2600	342	752	
1056	1416	1157	1551	1232	1652	2600	350	770	
1056	1416	1157	1551	1232	1652	2600	354	779	
1157	1552	1268	1700	1350	1811	2450	342	752	
1157	1552	1268	1700	1350	1811	2450	350	770	
1157	1552	1268	1700	1350	1811	2450	354	779	
2000 rpm		2100 rpm		2300 rpm					
1169	1567	1227	1646	1344	1802	2300	342	752	
1169	1567	1227	1646	1344	1802	2300	350	770	
1169	1567	1227	1646	1344	1802	2300	354	779	
2100 rpm		2300 rpm		2450 rpm					
1229	1648	1346	1804	1433	1922	2450	342	752	
1229	1648	1346	1804	1433	1922	2450	350	770	
1229	1648	1346	1804	1433	1922	2450	354	779	
1056	1416	1157	1551	1232	1652	2600	344	757	
1008	1352	1104	1481	1177	1578	2600			
1056	1416	1157	1551	1232	1652	2600	352	774	
852	1142	933	1251	994	1333	2600			
1056	1416	1157	1551	1232	1652	2600	356	783	
852	1142	933	1251	994	1333	2600			
962	1290	1053	1413	1122	1505	2600	404	889	
1056	1416	1157	1551	1232	1652	2600	406	893	

² The ZF 2070, ZF 2075 and ZF 305-2 Series are not suitable for Surface-Drive applications.

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 2260	3.000, 3.519*	0.5511	0.7390
ZF 2270	3.000	0.5840	0.7831
ZF 2275	3.000	0.5850	0.7845
ZF 2300 ⁹	4.000, 4.444	0.4580	0.6142
ZF 2350 ⁹	4.000, 4.444	0.5029	0.6744
	4.760*	0.4802	0.6440
ZF 2360 ⁹	4.000, 4.444	0.5511	0.7390
ZF 2370 ⁹	4.000, 4.444	0.5840	0.7831
ZF 2375 ⁹	4.000, 4.444	0.5850	0.7845
ZF 3050	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.6165	0.8268
ZF 3050 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520, 2.750*, 3.000*	0.6165	0.8268
	3.280*	0.5354	0.7180
ZF 3050 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.6165	0.8268
ZF 3050 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520, 2.750*, 3.000*	0.6165	0.8268
	3.280*	0.5354	0.7180
ZF 3055	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.6489	0.8702
ZF 3055 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520, 2.750*, 3.000*	0.6489	0.8702
	3.280*	0.5841	0.7833
ZF 3055 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.6489	0.8702
ZF 3055 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520, 2.750*, 3.000*	0.6489	0.8702
	3.280*	0.5841	0.7833

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm		2450	406	893	SAE 1, 0
1157	1552	1268	1700	1350	1811				
2000 rpm		2100 rpm		2300 rpm					
1168	1566	1226	1645	1343	1801	2300	406	893	SAE 0
2100 rpm		2300 rpm		2450 rpm					
1229	1648	1346	1804	1433	1922	2450	406	893	SAE 0
962	1290	1053	1413	1122	1505	2600	434	955	SAE 1, 0
1056	1416	1157	1551	1232	1652	2600	436	959	SAE 1, 0
1008	1352	1104	1481	1177	1578	2600			
1157	1552	1268	1700	1350	1811	2450	436	959	SAE 1, 0
2000 rpm		2100 rpm		2300 rpm					
1168	1566	1226	1645	1343	1801	2300	436	959	SAE 0
2100 rpm		2300 rpm		2450 rpm					
1229	1648	1346	1804	1433	1922	2450	436	959	SAE 0
1295	1736	1418	1902	1511	2026	2600	482	1060	SAE 1, 0
1295	1736	1418	1902	1511	2026	2600	485	1067	SAE 1, 0
1124	1508	1231	1651	1312	1759	2600			
1295	1736	1418	1902	1511	2026	2600	482	1060	
1295	1736	1418	1902	1511	2026	2600	500	1100	
1124	1508	1231	1651	1312	1759	2600			
1363	1827	1492	2001	1590	2132	2600	487	1071	SAE 1, 0
1363	1827	1492	2001	1590	2132	2600	490	1078	SAE 1, 0
1227	1645	1343	1802	1431	1919	2600			
1363	1827	1492	2001	1590	2132	2600	482	1060	
1363	1827	1492	2001	1590	2132	2600	505	1111	
1227	1645	1343	1802	1431	1919	2600			

³ D - transmissions only for counter engine wise rotation available (waterjet application). Reversing feature for cleaning the jet possible.

⁹ U-drive version also available.

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 3060	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.7313	0.9807
ZF 3060 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.7313	0.9807
	3.280*	0.6489	0.8702
ZF 3060 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645* 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240* 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.7313	0.9807
ZF 3060 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.7313	0.9807
	3.280*	0.6489	0.8702
ZF 3070	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*	0.7920	1.0621
ZF 3070 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*	0.7920	1.0621
ZF 3070 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*	0.7920	1.0621
ZF 3150 A 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.6165	0.8268
ZF 3160 A 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.7313	0.9807
ZF 3160 V 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.7313	0.9807
ZF 3170 A 10 degrees	1.500*, 1.759*, 1.963, 2.240	0.7923	1.0624
ZF 3170 V 10 degrees	1.500*, 1.759*, 1.963, 2.240	0.7923	1.0624
ZF 3350 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.6165	0.8268
ZF 3355 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.6489	0.8702
ZF 3360 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.7313	0.9807
ZF 3370 ⁹	3.519*, 4.000, 4.478	0.7920	1.0621
ZF 5000	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*, 2.963	0.8440	1.1318
ZF 5000 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.8440	1.1318

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm					
1536	2059	1682	2256	1792	2403	2450	487 1071	SAE 1, 0	
1536	2059	1682	2256	1792	2403	2450	490 1078	SAE 1, 0	
1363	1827	1492	2001	1590	2132	2450			
1536	2059	1682	2256	1792	2403	2450	482 1060		
1536	2059	1682	2256	1792	2403	2450	505 1111		
1363	1827	1492	2001	1590	2132	2450			
1663	2231	1822	2443	1941	2602	2450	487 1071	SAE 1, 0	
1663	2231	1822	2443	1941	2602	2450	490 1078	SAE 1, 0	
1663	2231	1822	2443	1941	2602	2450	505 1111		
1295	1736	1418	1902	1511	2026	2600	470 1034	SAE 1, 0	
1536	2059	1682	2256	1792	2403	2450	470 1034	SAE 1, 0	
1536	2059	1682	2256	1792	2403	2450	485 1067		
1664	2231	1822	2444	1941	2603	2450	470 1034	SAE 1, 0	
1664	2231	1822	2444	1941	2603	2450	485 1067		
1295	1736	1418	1902	1511	2026	2600	665 1463	SAE 1, 0	
1363	1827	1492	2001	1590	2132	2600	670 1474	SAE 1, 0	
1536	2059	1682	2256	1792	2403	2450	670 1474	SAE 1, 0	
1663	2231	1822	2443	1941	2602	2450	670 1474	SAE 1, 0	
1772	2377	1941	2603	2068	2773	2600	740 1628	SAE 0, 00	
1772	2377	1941	2603	2068	2773	2600	750 1650	SAE 0, 00	

³ D - transmissions only for counter engine wise rotation available (waterjet application). Reversing feature for cleaning the jet possible.

⁹ U-drive version also available.

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 5000 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.8440	1.1318
ZF 5050	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731* 2.963	0.9435	1.2652
ZF 5050 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222* 3.429*	0.9435	1.2652
ZF 5050 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222* 3.429*	0.9435	1.2652
ZF 5060	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731* 2.963	1.0052	1.3480
ZF 5060 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222* 3.429*	1.0052	1.3480
ZF 5060 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222* 3.429*	1.0052	1.3480
ZF 5300 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.8440	1.1318
ZF 5350 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.9435	1.2652
ZF 5360 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040 5.500	1.0052	1.3480
ZF 7600	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905 3.174*	1.3717	1.8395
ZF 7600 A 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957 3.286* 3.450*	1.3717	1.8395

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm					
1772	2377	1941	2603	2068	2773	2600	768	1690	
1981	2657	2170	2910	2311	3100	2600	740	1628	SAE 0, 00
1897	2543	2077	2786	2213	2967	2600			
1981	2657	2170	2910	2311	3100	2600	750	1650	SAE 0, 00
1803	2418	1975	2648	2104	2821	2600			
1663	2231	1822	2443	1941	2602	2600			
1981	2657	2170	2910	2311	3100	2600	768	1690	
1803	2418	1975	2648	2104	2821	2600			
1663	2231	1822	2443	1941	2602	2600			
2111	2831	2312	3100	2463	3303	2600	740	1628	SAE 0, 00
1981	2657	2170	2910	2311	3100	2600			
2111	2831	2312	3100	2463	3303	2600	750	1650	SAE 0, 00
1981	2657	2170	2910	2311	3100	2600			
1920	2575	2103	2820	2240	3004	2600			
2111	2831	2312	3100	2463	3303	2600	768	1690	
1981	2657	2170	2910	2311	3100	2600			
1920	2575	2103	2820	2240	3004	2600			
1772	2377	1941	2603	2068	2773	2600	950	2090	SAE 0, 00
1981	2657	2170	2910	2311	3100	2600	950	2090	SAE 0, 00
2111	2831	2312	3100	2463	3303	2600	950	2090	SAE 0, 00
2081	2791	2279	3057	2428	3256	2600			
1800 rpm		2000 rpm		2100 rpm					
2469	3311	2743	3679	2881	3863	2300	970	2134	SAE 00
2332	3127	2591	3474	2720	3648	2300			
2469	3311	2743	3679	2881	3863	2300	1125	2475	SAE 00
2373	3182	2637	3536	2768	3713	2300			
2332	3127	2591	3474	2720	3648	2300			

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 7600 NR2	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.3717	1.8395
	3.174*	1.2954	1.7372
ZF 7600 NR2B	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.3717	1.8395
	3.174*	1.2954	1.7372
ZF 7600 NR2H ¹⁰	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.3717	1.8395
	3.174*	1.2954	1.7372
ZF 7600 V 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.3717	1.8395
	3.286*	1.3183	1.7679
	3.450*	1.2954	1.7372
ZF 7640	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238* 4.500	1.3717	1.8395
		1.3236	1.7749
ZF 7645	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238* 4.500	1.4031	1.8816
ZF 7650	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.4031	1.8816
	3.174*	1.3403	1.7974
ZF 7650 A 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957, 3.286* 3.450*	1.4031	1.8816
		1.3613	1.8255
ZF 7650 NR2	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.4031	1.8816
	3.174*	1.3403	1.7974
ZF 7650 NR2B	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.4031	1.8816
	3.174*	1.3403	1.7974
ZF 7650 NR2H ¹⁰	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.4031	1.8816
	3.174*	1.3403	1.7974
ZF 7650 V 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957, 3.286* 3.450*	1.4031	1.8816
		1.3613	1.8255
ZF 9055	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7595	2.3595
	3.250*	1.6571	2.2222
	3.448*	1.5834	2.1233

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
2469	3311	2743	3679	2881	3863	2300	705	1551	
2332	3127	2591	3474	2720	3648	2300			
2469	3311	2743	3679	2881	3863	2300	705	1551	
2332	3127	2591	3474	2720	3648	2300			
2469	3311	2743	3679	2881	3863	2300	705	1551	
2332	3127	2591	3474	2720	3648	2300			
2469	3311	2743	3679	2881	3863	2300	1125	2475	
2373	3182	2637	3536	2768	3713	2300			
2332	3127	2591	3474	2720	3648	2300			
2469	3311	2743	3679	2881	3863	2300	1325	2915	
2382	3195	2647	3550	2779	3727	2300			
2526	3387	2806	3763	2947	3951	2300	1325	2915	
2526	3387	2806	3763	2947	3951	2300	970	2134	SAE 00
2413	3235	2681	3595	2815	3775	2300			
2526	3387	2806	3763	2947	3951	2300	1125	2475	SAE 00
2450	3286	2723	3651	2859	3833	2300			
2526	3387	2806	3763	2947	3951	2300	705	1551	
2413	3235	2681	3595	2815	3775	2300			
2526	3387	2806	3763	2947	3951	2300	720	1584	
2413	3235	2681	3595	2815	3775	2300			
2526	3387	2806	3763	2947	3951	2300	705	1551	
2413	3235	2681	3595	2815	3775	2300			
2526	3387	2806	3763	2947	3951	2300	1125	2475	
2450	3286	2723	3651	2859	3833	2300			
3167	4247	3519	4719	3695	4955	2300	1400	3080	SAE 00
2983	4000	3314	4444	3480	4667	2300			
2850	3822	3167	4247	3325	4459	2300			

¹⁰ Left and Right version available.

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9055 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.7595	2.3595
	3.208*	1.6571	2.2222
	3.462*	1.5834	2.1233
ZF 9055 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7595	2.3595
	3.250*	1.6571	2.2222
	3.448*	1.5834	2.1233
ZF 9055 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7595	2.3595
	3.250*	1.6571	2.2222
	3.448*	1.5834	2.1233
ZF 9055 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7595	2.3595
	3.250*	1.6571	2.2222
	3.448*	1.5834	2.1233
ZF 9055 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.7595	2.3595
	3.208*	1.6571	2.2222
	3.462*	1.5834	2.1233
ZF 9060	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967
ZF 9060 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.8252	2.4477
	3.208*	1.7381	2.3309
	3.462*	1.6381	2.1967
ZF 9060 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967
ZF 9060 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967
ZF 9060 NR2H	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
3167 4247	3519 4719	3695 4955		2300	1380 3036			SAE 00	
2983 4000	3314 4444	3480 4667	2300						
2850 3822	3167 4247	3325 4459	2300						
3167 4247	3519 4719	3695 4955	2300	1040 2288					
2983 4000	3314 4444	3480 4667	2300						
2850 3822	3167 4247	3325 4459	2300						
3167 4247	3519 4719	3695 4955	2300	1040 2288					
2983 4000	3314 4444	3480 4667	2300						
2850 3822	3167 4247	3325 4459	2300						
3167 4247	3519 4719	3695 4955	2300	1400 3080					
2983 4000	3314 4444	3480 4667	2300						
2850 3822	3167 4247	3325 4459	2300						
3285 4406	3650 4895	3833 5140	2300	1400 3080				SAE 00	
3129 4196	3476 4662	3650 4895	2300						
2949 3954	3276 4393	3440 4613	2300						
3285 4406	3650 4895	3833 5140	2300	1380 3036				SAE 00	
3129 4196	3476 4662	3650 4895	2300						
2949 3954	3276 4393	3440 4613	2300						
3285 4406	3650 4895	3833 5140	2300	1040 2288					
3129 4196	3476 4662	3650 4895	2300						
2949 3954	3276 4393	3440 4613	2300						
3285 4406	3650 4895	3833 5140	2300	1040 2288					
3129 4196	3476 4662	3650 4895	2300						
2949 3954	3276 4393	3440 4613	2300						

¹⁰ Left and Right version available.

PLEASURE DUTY SINGLE SPEED

P

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9060 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.8252	2.4477
	3.208*	1.7381	2.3309
	3.462*	1.6381	2.1967
ZF 9355 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.7595	2.3595
	5.185*	1.5119	2.0275
ZF 9356 ⁹	3.538, 3.760*, 3.958, 4.522	1.7595	2.3595
	5.185*	1.5119	2.0275
ZF 9360	3.538, 3.760*, 3.958, 4.522	1.8252	2.4477
	5.185*	1.6381	2.1967
ZF 9361	3.538, 3.760*, 3.958, 4.522	1.8252	2.4477
	5.185*	1.6381	2.1967

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
3285	4406	3650	4895	3833	5140	2300	1400	3080	
3129	4196	3476	4662	3650	4895	2300			
2949	3954	3276	4393	3440	4613	2300			
3167	4247	3519	4719	3695	4955	2300	1910	4202	
2721	3650	3024	4055	3175	4258	2300			
3167	4247	3519	4719	3695	4955	2300	2430	5346	
2721	3650	3024	4055	3175	4258	2300			
3285	4406	3650	4895	3833	5140	2300	1910	4202	
2949	3954	3276	4393	3440	4613	2300			
3285	4406	3650	4895	3833	5140	2300	2430	5346	
2949	3954	3276	4393	3440	4613	2300			

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

PLEASURE DUTY 2 SPEED

P

MODEL	RATIOS				POWER/RPM	
	1st 'A'	1st 'B'	2nd 'A'	2nd 'B'	kW	hp
ZF 90 ATS 8 degrees	1.216	1.215	0.946	0.945	0.0848	0.1137
	1.563	1.583	1.216	1.231		
	2.037	2.017	1.584	1.569		
ZF 90 IVTS 12 degrees	1.294	1.288	1.006	1.002	0.0848	0.1137
	1.560	1.567	1.213	1.219		
	1.992	2.033	1.549	1.581		
	2.477	2.528	1.927	1.967		
ZF 90 TS	1.256	1.250	0.977	0.972	0.0848	0.1137
	1.514	1.521	1.178	1.183		
	1.933	1.973	1.503	1.535		
	2.480	2.476	1.929	1.926		
	2.783	2.799	2.165	2.177		
ZF 115 ATS 8 degrees	1.567	1.567	1.219	1.219	0.1114	0.1494
	1.750	1.750	1.361	1.361		
	1.962	1.962	1.526	1.526		
	2.500	2.500	1.945	1.945		
ZF 115 IVTS 12 degrees	1.644	1.638	1.279	1.274	0.1114	0.1494
	2.008	1.996	1.562	1.553		
	2.493	2.468	1.939	1.920		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2800 rpm		3300 rpm		3800 rpm		5500	64	141	SAE 3, B/W, 3 CAT, Yanmar 4LH
237	318	280	375	322	432				
237	318	280	375	322	432				
209	280	246	330	284	380	5500	82	180	SAE 3, B/W, 3 CAT, Yanmar 4LH
237	318	280	375	322	432				
237	318	280	375	322	432				
184	247	217	291	250	335	5500	67	147	SAE 3, B/W, 3 CAT, Yanmar 4LH
2600 rpm		2800 rpm		3300 rpm					
290	388	312	418	368	493				
290	388	312	418	368	493	3300	82	180	SAE 2, 3, B/W, 3 CAT
290	388	312	418	368	493				
290	388	312	418	368	493	3300	107	235	SAE 2, 3, B/W, 3 CAT

PLEASURE DUTY 2 SPEED

P

MODEL	RATIOS		POWER/RPM				
	1st	2nd	kW	hp			
ZF 325 ATS 7 degrees	1.216	0.968,1.011,1.062,1.087,1.113	0.2594	0.3478			
	1.485	1.182,1.235,1.297,1.327,1.359					
	1.733	1.380,1.441,1.514,1.549,1.586					
	2.037	1.622,1.694,1.779,1.821,1.864					
	2.240*	1.783,1.862,1.956,2.002,2.050					
	2.417	1.924,2.009,2.111,2.160,2.212			0.2334	0.3130	
ZF 325 IVTS 14 degrees	1.216	0.968,1.011,1.062,1.087,1.113	0.2594	0.3478			
	1.485	1.182,1.235,1.297,1.327,1.359					
	1.733	1.380,1.441,1.514,1.549,1.586					
	1.793*	1.427,1.490,1.565,1.603,1.641					
	2.037	1.622,1.694,1.779,1.821,1.864					
	2.417	1.924,2.009,2.111,2.160,2.212			0.2334	0.3130	
ZF 325 TS	1.000	0.796,0.831,0.873,0.894,0.915	0.2594	0.3478			
	1.167*	0.929,0.970,1.019,1.043,1.068					
	1.225*	0.975,1.019,1.070,1.095,1.121					
	1.459	1.162,1.213,1.275,1.305,1.336					
	1.727	1.375,1.436,1.509,1.544,1.581					
	2.033	1.619,1.691,1.776,1.818,1.861					
	2.250*	1.791,1.871,1.965,2.011,2.059					
	2.500	1.990,2.079,2.184,2.235,2.288			0.2334	0.3130	
	2.957	2.354,2.458,2.582,2.643,2.706			0.2043	0.2740	
	ZF 550 ATS 10 degrees	1.525			1.225,1.277,1.325,1.363,1.401	0.3602	0.4830
		1.757*			1.411,1.471,1.526,1.571,1.613		
1.971		1.583,1.650,1.712,1.762,1.810					
2.517		2.022,2.107,2.187,2.251,2.312					
2.960		2.377,2.478,2.572,2.646,2.718	0.3246	0.4353			
ZF 550 TS	1.111	0.892,0.930,0.965,0.993,1.020	0.3602	0.4830			
	1.182*	0.949,0.989,1.027,1.057,1.085					
	1.262*	1.013,1.056,1.096,1.128,1.159					
	1.400*	1.124,1.172,1.216,1.252,1.286					
	1.500	1.205,1.256,1.303,1.341,1.378					
	1.743	1.400,1.459,1.514,1.558,1.601					
	2.000	1.606,1.674,1.738,1.788,1.837					
	2.233	1.794,1.870,1.941,1.997,2.051					
	2.593	2.082,2.171,2.253,2.318,2.381					
	3.042	2.443,2.547,2.643,2.719,2.793			0.3058	0.4100	

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2300 rpm		2500	180	396	SAE 1
467	626	545	730	597	800				
420	563	490	657	537	720				
467	626	545	730	597	800	2500	235	517	SAE 1
420	563	490	657	537	720	2500	180	396	SAE 1
467	626	545	730	597	800				
420	563	490	657	537	720				
368	493	429	575	470	630	2500	180	396	SAE 1
2100 rpm		2300 rpm		2450 rpm					
756	1014	828	1111	883	1183				
682	914	747	1001	795	1066	2500	344	757	SAE 1
756	1014	828	1111	883	1183				
642	861	703	943	749	1005				

PLEASURE DUTY 2 SPEED

P

MODEL	RATIOS		POWER/RPM			
	1st	2nd	kW	hp		
ZF 665 ATS 10 degrees	1.525	1.225,1.277,1.325,1.363,1.401	0.4348	0.5830		
	1.757	1.411,1.471,1.526,1.571,1.613				
	1.971	1.583,1.650,1.712,1.762,1.810				
	2.226	1.788,1.863,1.934,1.990,2.044				
	2.448	1.966,2.050,2.127,2.189,2.248			0.4156	0.5573
	2.517	2.022,2.107,2.187,2.251,2.312			0.3890	0.5217
	2.960	2.377,2.478,2.572,2.646,2.718	0.3524	0.4725		
ZF 665 TS	1.111	0.892,0.930,0.965,0.993,1.020	0.4348	0.5830		
	1.182	0.949,0.989,1.027,1.057,1.085				
	1.262	1.013,1.056,1.096,1.128,1.159				
	1.400	1.124,1.172,1.216,1.252,1.286				
	1.500	1.205,1.256,1.303,1.341,1.378				
	1.743	1.400,1.459,1.514,1.558,1.601				
	2.000	1.606,1.674,1.738,1.788,1.837				
	2.233	1.794,1.870,1.941,1.997,2.051				
	2.593	2.082,2.171,2.253,2.318,2.381			0.3997	0.5360
	3.042	2.443,2.547,2.643,2.719,2.793			0.3518	0.4718

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm		2500	353	777	SAE 1
913	1224	1000	1341	1065	1428				
873	1170	956	1282	1018	1365				
817	1095	895	1200	953	1278				
740	992	810	1087	863	1158				
913	1224	1000	1341	1065	1428				
839	1126	919	1233	979	1313	2500	344	757	SAE 1
739	991	809	1085	862	1156				

LIGHT DUTY SINGLE SPEED

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 12 M	2.136	1.955	0.0118	0.0159
	2.632	1.955	0.0099	0.0133
ZF 15 M	1.556	1.955	0.0137	0.0184
	1.875	1.955		
ZF 15 MA 8 degrees	1.875	1.955	0.0137	0.0184
	2.136	1.955	0.0118	0.0159
	2.632	1.955	0.0099	0.0133
ZF 15 MIV 15 degrees	2.134	2.224	0.0137	0.0184
	2.718	2.224	0.0099	0.0133
	2.995	2.224		
ZF 25 M	1.880	2.095	0.0237	0.0317
	2.273	2.095	0.0195	0.0261
	2.737	2.722	0.0159	0.0213
ZF 25 MA 8 degrees	2.227	2.737	0.0194	0.0260
	2.737	2.737	0.0159	0.0213
ZF 30 M	2.148	2.636	0.0216	0.0289
	2.696	2.636		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner adaptor.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2800 rpm		3000 rpm		3600 rpm					
33	44	35	48	43	57	5000	13	29	SAE 4, 5, 6, B/W, Yanmar JH Max input power 50 kW.
28	37	30	40	36	48	5000			
38	52	41	55	49	66	5000	13	29	SAE 4, 5, 6, B/W, Yanmar JH Max input power 50 kW. Ratio 1.556 'B' Pos max torque 120 Nm. Ratio 1.875 'B' Pos max torque 120 Nm.
38	52	41	55	49	66	5000	13.5	30	SAE 4, 5, 6, B/W, Yanmar JH Max input power 50 kW. Ratio 1.875 'B' Pos max torque 120 Nm.
33	44	35	48	43	57	5000			
28	37	30	40	36	48	5000			
38	52	41	55	49	66	5000	20	44	SAE 4, 5, B/W, Yanmar JH Max input power 50 kW. Ratio 2.134 'B' Pos max torque 120 Nm.
28	37	30	40	36	48	5000			
66	89	71	95	72	97	5000	18.5	41	SAE 4, 5, B/W, Yanmar JH Max input power 72 kW.
55	73	58	78	70	94	5000			
45	60	48	64	57	77	5000			
54	73	58	78	70	94	5000	21	46	SAE 4, 5, B/W, Yanmar JH Max input power 72 kW. Ratio 2.227 'B' Pos max torque 169 Nm.
45	60	48	64	57	77	5000			
60	81	65	87	78	104	5000	23	51	4 & 5 Yanmar JH Max input power 86 kW. Ratio 2.148 'B' Pos max torque 185 Nm. Ratio 2.696 'B' Pos max torque 185 Nm.

Note: For all "M" (Mechanical) transmissions reduce power capacity by the following shock factors:

1 cylinder engine ÷ 1.25,

2 cylinder engine ÷ 1.20,

3 cylinder engine ÷ 1.15

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS		POWER/RPM			
	'A' Pos	'B' Pos	kW	hp		
ZF 25	1.969	1.969	0.0249	0.0334		
	2.800	2.800	0.0239	0.0320		
ZF 25 A 8 degrees	1.548	1.548	0.0249	0.0334		
	1.926	1.926				
	2.292	2.292				
	2.480*	2.480				
	2.714	2.714	0.0239	0.0320		
ZF 45 A 8 degrees	1.256	1.256	0.0450	0.0604		
	1.514	1.514				
	2.034	2.034				
	2.435	2.435			0.0418	0.0560
ZF 45 C ¹	1.000	1.031	0.0414	0.0555		
ZF 45 IV ¹ 20 degrees	1.207	1.244	0.0414	0.0555		
	1.462	1.507				
ZF 45-1	2.200	2.200	0.0455	0.0611		
	2.512	2.512				
	3.031	3.031				
	3.741	3.741				
ZF 45-1 IV ¹ 20 degrees	1.207	1.244	0.0482	0.0646		
	1.462	1.507				
ZF 63	1.256	1.250	0.0677	0.0909		
	1.514	1.521				
	1.750*	1.770				
	1.933	1.973				
	2.480	2.476			0.0563	0.0755
	2.783	2.799				
ZF 63 A 8 degrees	1.216	1.215	0.0679	0.0910		
	1.563	1.583				
	2.037	2.017				
	2.522	2.536			0.0557	0.0747
	2.682	2.709				

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM		WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp	RPM	kg	lb		
2100 rpm		2500 rpm		2800 rpm						
52	70	62	84	70	94	5500	24	53	SAE 3, 4, 5, B/W, Yanmar JH	
50	67	60	80	67	90	5500				
52	70	62	84	70	94	5500	24	53	SAE 3, 4, 5, B/W, Yanmar JH	
50	67	60	80	67	90	5500				
95	127	113	151	126	169	5500	28	62	SAE 3, 4, 5, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6	
88	118	104	140	117	157	5500				
87	116	103	139	116	155	5500	31	68	SAE 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6	
2800 rpm		3300 rpm		3800 rpm						
116	155	136	183	157	211	5500	47	103	SAE 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6	
2100 rpm		2500 rpm		2800 rpm						
96	128	114	153	128	171	5500	60	132	SAE 2, 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6	
2800 rpm		3300 rpm		3800 rpm						
135	181	159	213	183	245	5500	47	103	SAE 3, 4, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6	
2100 rpm		2500 rpm		2800 rpm						
142	191	169	227	190	254	5500	46	101	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6	
118	159	141	189	158	212	5500				
142	191	170	227	190	255	5500	44	97	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6	
117	157	139	187	156	209	5500				

¹ For ZF 45 C, ZF 45 IV, ZF 45-1 IV, ZF 63 C and ZF 88 C - Full power in 'A' POS only, 'B' POS for docking and low speed maneuvering.

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 63 C ¹	1.000	1.031	0.0501	0.0671
ZF 63 IV 12 degrees	1.294 1.560 1.992	1.288 1.567 2.033	0.0679	0.0910
	2.477	2.528	0.0628	0.0843
ZF 80 A 8 degrees	1.567 1.750 1.962 2.500	1.567 1.750 1.962 2.500	0.0921	0.1236
ZF 80 IV 12 degrees	1.644 2.008 2.493	1.638 1.996 2.468	0.0921	0.1236
ZF 85 A 8 degrees	1.567 1.750 1.962 2.500	1.567 1.750 1.962 2.500	0.1043	0.1399
ZF 85 IV 12 degrees	1.644 2.008 2.493	1.638 1.996 2.468	0.1043	0.1399

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2500 rpm		2800 rpm		5500	32	70	SAE 3, 4, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
105	141	125	168	140	188				
142	191	170	227	190	255	5500	62	136	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
132	177	157	211	176	236	5500			
194	259	230	309	258	346	4500	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
194	259	230	309	258	346	3500	86	189	
219	294	261	350	292	392	4500	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
219	294	261	350	292	392	3500	86	189	

¹ For ZF 45 C, ZF 45 IV, ZF 45-1 IV, ZF 63 C and ZF 88 C - Full power in 'A' POS only, 'B' POS for docking and low speed maneuvering.

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 220	1.000, 1.128*, 1.237*, 1.400*, 1.500, 1.963 2.478	0.0887	0.1189
	3.000	0.0769	0.1031
	ZF 220 A 10 degrees	1.235, 1.533, 1.750*, 2.040 2.455	0.0877
ZF 280 IV 14 degrees	1.252, 1.561, 1.772, 2.063 2.276*, 2.556	0.1162	0.1559
	3.094*	0.1085	0.1455
	ZF 280-1	0.814*, 1.000, 1.056*, 1.139*, 1.214*, 1.300* 1.514, 1.719*, 2.000 2.478	0.1162
ZF 280-1 A 7 degrees	1.118, 1.483, 1.769, 2.000 2.227*, 2.476*	0.1085	0.1455
	3.000	0.1026	0.1376
	ZF 286	1.237, 1.400*, 1.500, 1.774, 1.966, 2.269 0.923, 1.000 2.481	0.1545
ZF 286 A 7 degrees	1.200, 1.333, 1.484, 1.750, 1.962 2.208	0.1491	0.2000
	2.391	0.1372	0.1840
	2.500	0.1193	0.1599
ZF 286 IV 14 degrees	1.266, 1.535, 1.815, 2.011 2.322	0.1545	0.2071
	2.539	0.1417	0.1900
	ZF 301 A 10 degrees	1.190, 1.516, 2.005, 2.301*, 2.551*, 2.901	0.1372
ZF 301 C	1.106, 1.179*, 1.236*, 1.296*, 1.408, 1.862 2.137*, 2.694 1.004*	0.1285	0.1723
		0.0997	0.1337
	ZF 305-3	0.884, 0.923*, 1.000, 1.220, 1.297*, 1.486 1.758, 1.968 2.250	0.1864
	2.500	0.1755	0.2353
	2.917	0.1632	0.2189
		0.1461	0.1959

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2500 rpm		2800 rpm					
186	250	222	297	248	333	4500	63	139	SAE 2, 3, 3 CAT
161	216	192	258	215	289	4500			
184	247	219	294	246	329	4500	50	110	SAE 2, 3, B/W, 3 CAT
166	222	197	265	221	296	4500			
244	327	291	390	325	436	3300	106	233	SAE 2, 3, 3 CAT
228	306	271	364	304	407	3300			
192	257	229	306	256	343	3300			
244	327	291	390	325	436	3300	73	161	SAE 1, 2, 3, 3 CAT
228	306	271	364	304	407	3300			
215	289	257	344	287	385	3300			
244	327	291	390	325	436	3300	73	161	SAE 1, 2, 3, 3 CAT
228	306	271	364	304	407	3300			
324	435	386	518	432	580	3300	86	189	SAE 1, 2, 3, 3 CAT
313	420	373	500	418	560	3300			
288	386	343	460	384	515	3300			
250	336	298	400	334	448	3300			
324	435	386	518	432	580	3300	77	169	SAE 1, 2, 3, 3 CAT
298	399	354	475	397	532	3300			
282	378	336	450	376	504	3300			
266	357	317	425	355	476	3300			
324	435	386	518	432	580	3300	130	286	SAE 1, 2, 3, 3 CAT
298	399	354	475	397	532	3300			
288	386	343	460	384	515	3300			
243	326	289	388	324	434	3000	87	191	SAE 1, 2, 3, 3 CAT
270	362	321	431	360	482	3000	87	191	SAE 1, 2, 3, 3 CAT
209	281	249	334	279	374	3000			
2100 rpm		2300 rpm		2500 rpm					
391	525	429	575	466	625	3000	98	216	SAE 1, 2, 3
369	494	404	541	439	588	3000			
343	460	375	504	408	547	3000			
307	411	336	451	365	490	3000			

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 305-3 A 7 degrees	1.200, 1.514, 1.733, 2.037	0.1864	0.2499
	2.179	0.1755	0.2353
	2.423	0.1632	0.2189
ZF 325 IV 14 degrees	1.216, 1.485, 1.733, 1.793*, 2.037	0.2340	0.3138
	2.417	0.2108	0.2827
ZF 325-1	1.000, 1.050*, 1.167*, 1.225*, 1.459, 1.727 2.033, 2.250*	0.2340	0.3138
	2.500	0.2107	0.2825
	2.957	0.1881	0.2522
ZF 325-1 A 7 degrees	1.216, 1.485, 1.733, 2.037, 2.240*	0.2340	0.3138
	2.417	0.2108	0.2827
ZF 335 A 7 degrees	1.441, 1.594, 1.767, 1.964	0.2660	0.3567
	2.192	0.2594	0.3478
	2.458	0.2432	0.3262
ZF 335 IV 14 degrees	1.441, 1.594, 1.767, 1.964	0.2660	0.3567
	2.192	0.2594	0.3478
	2.458	0.2432	0.3262
ZF 360	0.925*, 1.045, 1.125*, 1.237, 1.500, 1.774 1.966, 2.185, 2.480, 2.625	0.2660	0.3567
	2.917	0.2351	0.3152
ZF 360 A 7 degrees	1.216, 1.485, 1.767, 1.964, 2.192, 2.478 2.609	0.2660	0.3567
ZF 360 IV 14 degrees	1.216, 1.485, 1.767, 1.964, 2.192, 2.478	0.2660	0.3567
ZF 370 V 10 degrees			
	1.125, 1.263, 1.529, 1.774, 2.000, 2.222 2.480	0.2660	0.3567
ZF 500	1.125, 1.237, 1.500, 1.774, 1.966	0.3566	0.4783
	0.925*, 1.000*, 2.185*	0.3242	0.4347
	2.480	0.3080	0.4130
	2.625	0.2917	0.3912
	2.917	0.2594	0.3478
ZF 500-1 A 7 degrees	1.216, 1.485, 1.767, 1.964	0.3566	0.4783
	2.192	0.3242	0.4347
	2.478	0.3080	0.4130
	2.609	0.2917	0.3912

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2500 rpm					
391	525	429	575	466	625	3000	97	213	SAE 1, 2, 3
369	494	404	541	439	588	3000			
343	460	375	504	408	547	3000			
491	659	538	722	585	785	3000	185	407	
443	594	485	650	527	707	3000			SAE 1, 2 Optional
491	659	538	722	585	785	3000	130	286	
442	593	485	650	527	706	3000			SAE 1
395	530	433	580	470	630	3000			
491	659	538	722	585	785	3000	130	286	
443	594	485	650	527	707	3000			
559	749	612	820	665	892	3000	159	350	SAE 1
545	730	597	800	648	870	3000			
511	685	559	750	608	815	3000			
559	749	612	820	665	892	3000	215	473	SAE 1
545	730	597	800	648	870	3000			
511	685	559	750	608	815	3000			
559	749	612	820	665	892	3000	185	407	SAE 1, 0*
494	662	541	725	588	788	3000			
559	749	612	820	665	892	3000	187	411	SAE 1, 0*
559	749	612	820	665	892	3000	230	506	
2100 rpm		2300 rpm		2450 rpm					
559	749	612	820	652	874	3000	194	427	
749	1004	820	1100	874	1172	3000	185	407	SAE 1, 0*
681	913	746	1000	794	1065	3000			
647	867	708	950	754	1012	3000			
613	822	671	900	715	958	3000			
545	730	597	800	635	852	3000			
749	1004	820	1100	874	1172	3000	192	422	
681	913	746	1000	794	1065	3000			SAE 1, 0*
647	867	708	950	754	1012	3000			
613	822	671	900	715	958	3000			

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 500-1 IV 14 degrees	1.216, 1.485, 1.767, 1.964	0.3566	0.4783
	2.200	0.3242	0.4347
	2.478	0.3080	0.4130
	3.000	0.2756	0.3696
ZF 510 V 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000	0.3566	0.4783
	2.222	0.3404	0.4565
	2.480	0.3242	0.4347
ZF 510-1 A 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000	0.3566	0.4783
	2.222	0.3404	0.4565
	2.480	0.3242	0.4347
ZF 550	0.936*, 1.111*, 1.182*, 1.262*, 1.400*, 1.500 1.743, 1.833, 2.000, 2.233, 2.593	0.3246	0.4353
	3.042	0.2759	0.3700
ZF 550 A 10 degrees	1.525, 1.757*, 1.971, 2.517	0.3246	0.4353
	2.960	0.2759	0.3700
ZF 550 V 10 degrees	1.525, 1.757*, 1.971, 2.517	0.3246	0.4353
	2.960	0.2759	0.3700
ZF 665	1.111, 1.182, 1.262, 1.400, 1.500, 1.743 2.000	0.3729	0.5000
	2.233, 2.593	0.3654	0.4901
	3.042	0.2917	0.3912
ZF 665 A 10 degrees	1.525, 1.757, 1.971	0.3729	0.5000
	2.226, 2.448	0.3654	0.4901
	2.517	0.3566	0.4783
	2.960	0.2917	0.3912
ZF 665 V 10 degrees	1.525, 1.757, 1.971	0.3729	0.5000
	2.226, 2.448	0.3654	0.4901
	2.517	0.3566	0.4783
	2.960	0.2917	0.3912
ZF 2000	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519, 2.760*	0.4061	0.5446
	2.958	0.3758	0.5040
ZF 2000 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467 2.714*, 2.920	0.4061	0.5446
	3.250*	0.2926	0.3923

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm					
749	1004	820	1100	874	1172	3000	230	506	SAE 1
681	913	746	1000	794	1065	3000			
647	867	708	950	754	1012	3000			
579	776	634	850	675	905	3000			
749	1004	820	1100	874	1172	3000	200	440	
715	959	783	1050	834	1118	3000			SAE 1, 0*
681	913	746	1000	794	1065	3000			
749	1004	820	1100	874	1172	3000	193	425	
715	959	783	1050	834	1118	3000			
681	913	746	1000	794	1065	3000			
682	914	747	1001	795	1066	3000	242	532	SAE 0*, 1
579	777	635	851	676	907	3000			SAE 0*, 1
682	914	747	1001	795	1066	3000	256	563	
579	777	635	851	676	907	3000			
682	914	747	1001	795	1066	3000	260	572	
579	777	635	851	676	907	3000			
783	1050	858	1150	914	1225	3000	248	546	SAE 0*, 1
767	1029	841	1127	895	1201	3000			SAE 0*, 1
613	822	671	900	715	958	3000			
783	1050	858	1150	914	1225	3000	253	557	
767	1029	841	1127	895	1201	3000			
749	1004	820	1100	874	1172	3000			
613	822	671	900	715	958	3000			SAE 1, 0
783	1050	858	1150	914	1225	3000	252	554	
767	1029	841	1127	895	1201	3000			
749	1004	820	1100	874	1172	3000			
613	822	671	900	715	958	3000			
853	1144	934	1252	995	1334	2600	340	748	SAE 1, 0
789	1058	864	1159	921	1235	2600			SAE 1, 0
853	1144	934	1252	995	1334	2600	348	766	
614	824	673	902	717	961	2600			

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM		
		kW	hp	
ZF 2000 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467 2.714*, 2.920	0.4061	0.5446	
	3.250*	0.2926	0.3923	
ZF 2050	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.4382	0.5877	
ZF 2050 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.4382	0.5877	
ZF 2050 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.4382	0.5877	
ZF 2150	2.760*	0.4382	0.5877	
	2.958	0.4057	0.5440	
ZF 2150 A 10 degrees	2.714*, 2.920	0.4382	0.5877	
	3.250*	0.3717	0.4985	
ZF 2150 V 10 degrees	2.714*, 2.920 3.250*	0.4382	0.5877	
ZF 2200	3.000, 3.519*	0.4062	0.5447	
ZF 2250	3.000, 3.519*	0.4382	0.5877	
ZF 2300 ⁹	4.000, 4.444	0.4062	0.5447	
ZF 2350 ⁹	4.000, 4.444, 4.760*	0.4382	0.5877	
ZF 3000	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5062	0.6788	
	ZF 3000 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5062	0.6788
	3.280*	0.4542	0.6091	
ZF 3000 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5062	0.6788	
	3.280*	0.4542	0.6091	
	ZF 3050	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5614	0.7528
ZF 3050 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5614	0.7528	
	3.280*	0.5062	0.6788	
	ZF 3050 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645* 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240* 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5614	0.7528

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm		2600	352	774	
853	1144	934	1252	995	1334				
614	824	673	902	717	961	2600			
920	1234	1008	1352	1074	1440	2600	342	752	SAE 1, 0
920	1234	1008	1352	1074	1440	2600	350	770	SAE 1, 0
920	1234	1008	1352	1074	1440	2600	354	779	
920	1234	1008	1352	1074	1440	2600	344	757	SAE 1, 0
852	1142	933	1251	994	1333	2600			
920	1234	1008	1352	1074	1440	2600	352	774	SAE 1, 0
781	1047	855	1147	911	1221	2600			
920	1234	1008	1352	1074	1440	2600	356	783	
781	1047	855	1147	911	1221	2600			
853	1144	934	1253	995	1334	2600	404	889	SAE 1, 0
920	1234	1008	1352	1074	1440	2600	406	893	SAE 1, 0
853	1144	934	1253	995	1334	2600	434	955	SAE 1, 0
920	1234	1008	1352	1074	1440	2600	436	959	SAE 1, 0
1063	1425	1164	1561	1240	1663	2600	482	1060	SAE 1, 0
1063	1425	1164	1561	1240	1663	2600	485	1067	SAE 1, 0
954	1279	1045	1401	1113	1492	2600			
1063	1425	1164	1561	1240	1663	2600	500	1100	
954	1279	1045	1401	1113	1492	2600			
1179	1581	1291	1731	1375	1844	2600	482	1060	SAE 1, 0
1179	1581	1291	1731	1375	1844	2600	485	1067	SAE 1, 0
1063	1425	1164	1561	1240	1663	2600			
1179	1581	1291	1731	1375	1844	2600	482	1060	

³ D - transmissions only for counter engine wise rotation available (waterjet application). Reversing feature for cleaning the jet possible.

⁹ U-drive version also available.

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 3050 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5614	0.7528
	3.280*	0.5062	0.6788
ZF 3055	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5847	0.7841
ZF 3055 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5847	0.7841
	3.280*	0.5354	0.7180
ZF 3055 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645* 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240* 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5847	0.7841
ZF 3055 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5847	0.7841
	3.280*	0.5354	0.7180
ZF 3060	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.6674	0.8950
ZF 3060 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.6674	0.8950
	3.280*	0.6002	0.8049
ZF 3060 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645* 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240* 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.6674	0.8950
ZF 3060 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.6674	0.8950
	3.280*	0.6002	0.8049
ZF 3150 A 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.5614	0.7528
ZF 3160 A 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.6674	0.8950
ZF 3160 V 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.6674	0.8950
ZF 3310 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5052	0.6775
ZF 3311 ^{9 11}	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5052	0.6775
ZF 3350 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5614	0.7528
ZF 3351 ^{9 11}	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5614	0.7528

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm		2600	500	1100	
1179	1581	1291	1731	1375	1844				
1063	1425	1164	1561	1240	1663	2600			
1228	1647	1345	1803	1433	1921	2600	487	1071	SAE 1, 0
1228	1647	1345	1803	1433	1921	2600	490	1078	SAE 1, 0
1124	1508	1231	1651	1312	1759	2600			
1228	1647	1345	1803	1433	1921	2600	482	1060	
1228	1647	1345	1803	1433	1921	2600	505	1111	
1124	1508	1231	1651	1312	1759	2600			
1402	1880	1535	2059	1635	2193	2450	487	1071	SAE 1, 0
1402	1880	1535	2059	1635	2193	2450	490	1078	SAE 1, 0
1260	1690	1380	1851	1471	1972	2450			
1402	1880	1535	2059	1635	2193	2450	482	1060	
1402	1880	1535	2059	1635	2193	2450	505	1111	
1260	1690	1380	1851	1471	1972	2450			
1179	1581	1291	1731	1375	1844	2600	470	1034	SAE 1, 0
1402	1880	1535	2059	1635	2193	2450	470	1034	SAE 1, 0
1402	1880	1535	2059	1635	2193	2450	485	1067	
1061	1423	1162	1558	1238	1660	2600	665	1463	SAE 1, 0
1061	1423	1162	1558	1238	1660	2600	850	1870	SAE 0, 1
1179	1581	1291	1731	1375	1844	2600	665	1463	SAE 1, 0
1179	1581	1291	1731	1375	1844	2600	850	1870	SAE 0, 1

³ D - transmissions only for counter engine wise rotation available (waterjet application). Reversing feature for cleaning the jet possible.

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 3355 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5847	0.7841
ZF 3356 ^{9 11}	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5847	0.7841
ZF 3360 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.6674	0.8950
ZF 3361 ^{9 11}	3.519*, 4.000, 4.478, 4.727*, 5.000	0.6674	0.8950
ZF 3711 ⁹	5.545, 5.952	0.5052	0.6775
ZF 3751 ⁹	5.545, 5.952	0.5614	0.7528
ZF 3756 ⁹	5.545, 5.952	0.5847	0.7841
ZF 3761 ⁹	5.545, 5.952	0.6674	0.8950
ZF 5000			
ZF 5000	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*, 2.963	0.7508	1.0068
ZF 5000 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222*	0.7508	1.0068 0.6675 0.8952
ZF 5000 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222*	0.7508	1.0068 0.6675 0.8952
ZF 5050	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731* 2.963	0.9157	1.2280 0.8717 1.1690
ZF 5050 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222* 3.429*	0.9157	1.2280 0.8272 1.1093 0.7508 1.0068
ZF 5050 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222* 3.429*	0.9157	1.2280 0.8272 1.1093 0.7508 1.0068
ZF 5060	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731* 2.963	0.9738	1.3059 0.9435 1.2652
ZF 5060 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962 3.222* 3.429*	0.9738	1.3059 0.9157 1.2280 0.8483 1.1376

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm					
1228	1647	1345	1803	1433	1921	2600	670 1474	SAE 1, 0	
1228	1647	1345	1803	1433	1921	2600	855 1881	SAE 0, 1	
1402	1880	1535	2059	1635	2193	2450	670 1474	SAE 1, 0	
1402	1880	1535	2059	1635	2193	2450	850 1870	SAE 0, 1	
1061	1423	1162	1558	1238	1660	2600	920 2024	SAE 0, 1	
1179	1581	1291	1731	1375	1844	2600	920 2024	SAE 0, 1	
1228	1647	1345	1803	1433	1921	2600	920 2024	SAE 0, 1	
1402	1880	1535	2059	1635	2193	2450	920 2024	SAE 0, 1	
1800 rpm		2100 rpm		2300 rpm					
1351	1812	1577	2114	1727	2316	2600	740 1628	SAE 0, 00	
1351	1812	1577	2114	1727	2316	2600	750 1650	SAE 0, 00	
1202	1611	1402	1880	1535	2059	2600			
1351	1812	1577	2114	1727	2316	2600	768 1690		
1202	1611	1402	1880	1535	2059	2600			
1648	2210	1923	2579	2106	2824	2600	740 1628	SAE 0, 00	
1569	2104	1831	2455	2005	2689	2600			
1648	2210	1923	2579	2106	2824	2600	750 1650	SAE 0, 00	
1489	1997	1737	2330	1903	2551	2600			
1351	1812	1577	2114	1727	2316	2600			
1648	2210	1923	2579	2106	2824	2600	768 1690		
1489	1997	1737	2330	1903	2551	2600			
1351	1812	1577	2114	1727	2316	2600			
1753	2351	2045	2742	2240	3004	2600	740 1628	SAE 0, 00	
1698	2277	1981	2657	2170	2910	2600			
1753	2351	2045	2742	2240	3004	2600	750 1650	SAE 0, 00	
1648	2210	1923	2579	2106	2824	2600			
1527	2048	1781	2389	1951	2616	2600			

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 5060 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.9738	1.3059
	3.222*	0.9157	1.2280
	3.429*	0.8483	1.1376
ZF 5300 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.7508	1.0068
ZF 5311 ⁹	3.471*, 4.033, 4.464, 5.040	0.7508	1.0068
ZF 5350 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.9157	1.2280
ZF 5351 ⁹	3.471*, 4.033, 4.464, 5.040	0.9157	1.2280
ZF 5360 ^{9 11}	2.947*, 3.471*, 4.033, 4.464	0.9738	1.3059
	5.040	0.9435	1.2652
	5.500	0.8717	1.1690
ZF 5361 ⁹	3.471*, 4.033, 4.464	0.9738	1.3059
	5.040	0.9435	1.2652
	5.500	0.8717	1.1690
ZF 7600	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.3403	1.7974
	3.174*	1.2954	1.7372
ZF 7600 A 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.3403	1.7974
	3.286*	1.3088	1.7551
	3.450*	1.2954	1.7372
ZF 7600 NR2	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.3403	1.7974
	3.174*	1.2954	1.7372
	ZF 7600 NR2B	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.3403
ZF 7600 NR2H ¹⁰	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773* 2.905	1.3403	1.7974
	3.174*	1.2954	1.7372
	ZF 7600 V 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.3403
ZF 7640	3.286*	1.3088	1.7551
	3.450*	1.2954	1.7372
	ZF 7641	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238* 4.500	1.3403
ZF 7641	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238* 4.500	1.3403	1.7974
	4.500	1.2954	1.7372

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2300 rpm		2600	768	1690	
1753	2351	2045	2742	2240	3004				
1648	2210	1923	2579	2106	2824	2600			
1527	2048	1781	2389	1951	2616	2600			
1351	1812	1577	2114	1727	2316	2600	950	2090	SAE 0, 00
1351	1812	1577	2114	1727	2316	2600	1290	2838	SAE 0, 00
1648	2210	1923	2579	2106	2824	2600	950	2090	SAE 0, 00
1648	2210	1923	2579	2106	2824	2600	1290	2838	SAE 0, 00
1753	2351	2045	2742	2240	3004	2600	950	2090	SAE 0, 00
1698	2277	1981	2657	2170	2910	2600			
1569	2104	1831	2455	2005	2689	2600			
1753	2351	2045	2742	2240	3004	2600	1290	2838	SAE 0, 00
1698	2277	1981	2657	2170	2910	2600			
1569	2104	1831	2455	2005	2689	2600			
1800 rpm		2000 rpm		2100 rpm		2300	970	2134	SAE 00
2413	3235	2681	3595	2815	3775				
2332	3127	2591	3474	2720	3648	2300			
2413	3235	2681	3595	2815	3775	2300	1125	2475	SAE 00
2356	3159	2618	3510	2748	3686	2300			
2332	3127	2591	3474	2720	3648	2300			
2413	3235	2681	3595	2815	3775	2300	705	1551	
2332	3127	2591	3474	2720	3648	2300			
2413	3235	2681	3595	2815	3775	2300	705	1551	
2332	3127	2591	3474	2720	3648	2300			
2413	3235	2681	3595	2815	3775	2300	1125	2475	
2356	3159	2618	3510	2748	3686	2300			
2332	3127	2591	3474	2720	3648	2300			
2413	3235	2681	3595	2815	3775	2300	1325	2915	
2332	3127	2591	3474	2720	3648	2300			
2413	3235	2681	3595	2815	3775	2300	1750	3850	
2332	3127	2591	3474	2720	3648	2300			

⁹ U-drive version also available.

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 7645	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238* 4.500	1.4031	1.8816
ZF 7646	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238* 4.500	1.4031	1.8816
ZF 7650	1.545*, 1.828*, 2.037	1.4031	1.8816
	2.231*	1.3822	1.8536
	2.565	1.3508	1.8114
	2.773*	1.3351	1.7904
	2.905	1.3194	1.7693
	3.174*	1.2984	1.7412
ZF 7650 A 8 degrees	1.486*, 2.033	1.4031	1.8816
	2.250*	1.3822	1.8536
	2.538	1.3508	1.8114
	2.957	1.2984	1.7412
	3.286*	1.2565	1.6851
	3.450*	1.2356	1.6570
ZF 7650 NR2	1.545*, 1.828*, 2.037	1.4031	1.8816
	2.231*	1.3822	1.8536
	2.565	1.3508	1.8114
	2.773*	1.3351	1.7904
	2.905	1.3194	1.7693
	3.174*	1.2984	1.7412
ZF 7650 NR2B	1.545*, 1.828*, 2.037	1.4031	1.8816
	2.231*	1.3822	1.8536
	2.565	1.3508	1.8114
	2.773*	1.3351	1.7904
	2.905	1.3194	1.7693
	3.174*	1.2984	1.7412
ZF 7650 NR2H ¹⁰	1.545*, 1.828*, 2.037	1.4031	1.8816
	2.231*	1.3822	1.8536
	2.565	1.3508	1.8114
	2.773*	1.3351	1.7904
	2.905	1.3194	1.7693
	3.174*	1.2984	1.7412

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
2526	3387	2806	3763	2947	3951	2300	1325	2915	
2526	3387	2806	3763	2947	3951	2300	1750	3850	
2526	3387	2806	3763	2947	3951	2300	970	2134	SAE 00
2488	3336	2764	3707	2903	3892	2300			
2431	3261	2702	3623	2837	3804	2300			
2403	3223	2670	3581	2804	3760	2300			
2375	3185	2639	3539	2771	3716	2300			
2337	3134	2597	3482	2727	3657	2300			
2526	3387	2806	3763	2947	3951	2300	1125	2475	SAE 00
2488	3336	2764	3707	2903	3892	2300			
2431	3261	2702	3623	2837	3804	2300			
2403	3223	2670	3581	2804	3760	2300			
2375	3185	2639	3539	2771	3716	2300			
2337	3134	2597	3482	2727	3657	2300			
2526	3387	2806	3763	2947	3951	2300	705	1551	
2488	3336	2764	3707	2903	3892	2300			
2431	3261	2702	3623	2837	3804	2300			
2403	3223	2670	3581	2804	3760	2300			
2375	3185	2639	3539	2771	3716	2300			
2337	3134	2597	3482	2727	3657	2300			
2526	3387	2806	3763	2947	3951	2300	720	1584	
2488	3336	2764	3707	2903	3892	2300			
2431	3261	2702	3623	2837	3804	2300			
2403	3223	2670	3581	2804	3760	2300			
2375	3185	2639	3539	2771	3716	2300			
2337	3134	2597	3482	2727	3657	2300			
2526	3387	2806	3763	2947	3951	2300	705	1551	
2488	3336	2764	3707	2903	3892	2300			
2431	3261	2702	3623	2837	3804	2300			
2403	3223	2670	3581	2804	3760	2300			
2375	3185	2639	3539	2771	3716	2300			
2337	3134	2597	3482	2727	3657	2300			

¹⁰ Left and Right version available.

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM		INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
		kW	hp	1800 rpm		2000 rpm		2100 rpm			kg	lb	
				kW	hp	kW	hp	kW	hp				
ZF 7650 V 8 degrees	1.486*, 2.033	1.4031	1.8816	2526	3387	2806	3763	2947	3951	2300	1125	2475	
	2.250*	1.3822	1.8536	2488	3336	2764	3707	2903	3892	2300			
	2.538	1.3508	1.8114	2431	3261	2702	3623	2837	3804	2300			
	2.957	1.2984	1.7412	2337	3134	2597	3482	2727	3657	2300			
	3.286*	1.2565	1.6851	2262	3033	2513	3370	2639	3539	2300			
	3.450*	1.2356	1.6570	2224	2983	2471	3314	2595	3480	2300			
ZF 7661	4.577*, 4.760*, 5.000, 5.435	1.3403	1.7974	2413	3235	2681	3595	2815	3775	2300	2520	5544	
	5.952	1.3026	1.7468	2345	3144	2605	3494	2735	3668	2300			
	6.250	1.2254	1.6433	2206	2958	2451	3287	2573	3451	2300			
	6.500*	1.2245	1.6421	2204	2956	2449	3284	2571	3448	2300			
	6.833*	0.9870	1.3236	1777	2382	1974	2647	2073	2780	2300			
				2526	3387	2806	3763	2947	3951	2300	2520	5544	
ZF 7666	4.577*, 4.760*, 5.000, 5.435, 5.952	1.4031	1.8816	2413	3235	2681	3595	2815	3775	2300	2520	5544	
	6.250	1.3403	1.7974	2413	3235	2681	3595	2815	3775	2300			
	6.500*	1.2245	1.6421	2204	2956	2449	3284	2571	3448	2300			
	6.833*	0.9870	1.3236	1777	2382	1974	2647	2073	2780	2300			
ZF 9000	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.5000	2.0115	2700	3621	3000	4023	3150	4224	2300	1400	3080	SAE 00
	3.250*	1.4143	1.8967	2546	3414	2829	3793	2970	3983	2300			
	3.448*	1.3524	1.8135	2434	3264	2705	3627	2840	3808	2300			
				2700	3621	3000	4023	3150	4224	2300	1380	3036	SAE 00
ZF 9000 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.5000	2.0115	2700	3621	3000	4023	3150	4224	2300	1380	3036	SAE 00
	3.208*	1.4143	1.8967	2546	3414	2829	3793	2970	3983	2300			
	3.462*	1.3524	1.8135	2434	3264	2705	3627	2840	3808	2300			
ZF 9000 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.5000	2.0115	2700	3621	3000	4023	3150	4224	2300	1040	2288	
	3.250*	1.4143	1.8967	2546	3414	2829	3793	2970	3983	2300			
	3.448*	1.3524	1.8135	2434	3264	2705	3627	2840	3808	2300			
				2700	3621	3000	4023	3150	4224	2300	1040	2288	
ZF 9000 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.5000	2.0115	2700	3621	3000	4023	3150	4224	2300	1040	2288	
	3.250*	1.4143	1.8967	2546	3414	2829	3793	2970	3983	2300			
	3.448*	1.3524	1.8135	2434	3264	2705	3627	2840	3808	2300			
				2700	3621	3000	4023	3150	4224	2300	1040	2288	
ZF 9000 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.5000	2.0115	2700	3621	3000	4023	3150	4224	2300	1040	2288	
	3.250*	1.4143	1.8967	2546	3414	2829	3793	2970	3983	2300			
	3.448*	1.3524	1.8135	2434	3264	2705	3627	2840	3808	2300			
				2700	3621	3000	4023	3150	4224	2300	1400	3080	
ZF 9000 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.5000	2.0115	2700	3621	3000	4023	3150	4224	2300	1400	3080	
	3.208*	1.4143	1.8967	2546	3414	2829	3793	2970	3983	2300			
	3.462*	1.3524	1.8135	2434	3264	2705	3627	2840	3808	2300			

* Special Order Ratio.

¹⁰ Left and Right version available.

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9050	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6381	2.1967
	3.250*	1.5429	2.0691
	3.448*	1.4738	1.9764
ZF 9050 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.6381	2.1967
	3.208*	1.5429	2.0691
	3.462*	1.4738	1.9764
ZF 9050 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6381	2.1967
	3.250*	1.5429	2.0691
	3.448*	1.4738	1.9764
ZF 9050 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6381	2.1967
	3.250*	1.5429	2.0691
	3.448*	1.4738	1.9764
ZF 9050 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6381	2.1967
	3.250*	1.5429	2.0691
	3.448*	1.4738	1.9764
ZF 9050 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.6381	2.1967
	3.208*	1.5429	2.0691
	3.462*	1.4738	1.9764
ZF 9055	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7381	2.3309
	3.250*	1.6381	2.1967
	3.448*	1.5652	2.0990
ZF 9055 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.7381	2.3309
	3.208*	1.6381	2.1967
	3.462*	1.5652	2.0990
ZF 9055 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7381	2.3309
	3.250*	1.6381	2.1967
	3.448*	1.5652	2.0990
ZF 9055 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7381	2.3309
	3.250*	1.6381	2.1967
	3.448*	1.5652	2.0990

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
2949	3954	3276	4393	3440	4613	2300	1400	3080	SAE 00
2777	3724	3086	4138	3240	4345	2300			
2653	3558	2948	3953	3095	4150	2300			
2949	3954	3276	4393	3440	4613	2300	1380	3036	SAE 00
2777	3724	3086	4138	3240	4345	2300			
2653	3558	2948	3953	3095	4150	2300			
2949	3954	3276	4393	3440	4613	2300	1040	2288	
2777	3724	3086	4138	3240	4345	2300			
2653	3558	2948	3953	3095	4150	2300			
2949	3954	3276	4393	3440	4613	2300	1040	2288	
2777	3724	3086	4138	3240	4345	2300			
2653	3558	2948	3953	3095	4150	2300			
2949	3954	3276	4393	3440	4613	2300	1400	3080	
2777	3724	3086	4138	3240	4345	2300			
2653	3558	2948	3953	3095	4150	2300			
3129	4196	3476	4662	3650	4895	2300	1400	3080	SAE 00
2949	3954	3276	4393	3440	4613	2300			
2817	3778	3130	4198	3287	4408	2300			
3129	4196	3476	4662	3650	4895	2300	1380	3036	SAE 00
2949	3954	3276	4393	3440	4613	2300			
2817	3778	3130	4198	3287	4408	2300			
3129	4196	3476	4662	3650	4895	2300	1040	2288	
2949	3954	3276	4393	3440	4613	2300			
2817	3778	3130	4198	3287	4408	2300			
3129	4196	3476	4662	3650	4895	2300	1040	2288	
2949	3954	3276	4393	3440	4613	2300			
2817	3778	3130	4198	3287	4408	2300			

¹⁰ Left and Right version available.

LIGHT DUTY SINGLE SPEED

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9055 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.7381	2.3309
	3.250*	1.6381	2.1967
	3.448*	1.5652	2.0990
ZF 9055 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.7381	2.3309
	3.208*	1.6381	2.1967
	3.462*	1.5652	2.0990
ZF 9060	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967
ZF 9060 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.8252	2.4477
	3.208*	1.7381	2.3309
	3.462*	1.6381	2.1967
ZF 9060 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967
ZF 9060 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967
ZF 9060 NR2H	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.8252	2.4477
	3.250*	1.7381	2.3309
	3.448*	1.6381	2.1967
ZF 9060 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.8252	2.4477
	3.208*	1.7381	2.3309
	3.462*	1.6381	2.1967
ZF 9300 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.5000	2.0115
	5.185*	1.2952	1.7369
ZF 9311 ⁹	3.538, 3.760*, 3.958, 4.522	1.5000	2.0115
	5.185*	1.2952	1.7369
ZF 9350 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.6381	2.1967
	5.185*	1.4071	1.8870
ZF 9351 ⁹	3.538, 3.760*, 3.958, 4.522	1.6381	2.1967
	5.185*	1.4071	1.8870

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
3129	4196	3476	4662	3650	4895	2300	1040	2288	
2949	3954	3276	4393	3440	4613	2300			
2817	3778	3130	4198	3287	4408	2300			
3129	4196	3476	4662	3650	4895	2300	1400	3080	
2949	3954	3276	4393	3440	4613	2300			
2817	3778	3130	4198	3287	4408	2300			
3285	4406	3650	4895	3833	5140	2300	1400	3080	
3129	4196	3476	4662	3650	4895	2300			
2949	3954	3276	4393	3440	4613	2300			
3285	4406	3650	4895	3833	5140	2300	1380	3036	
3129	4196	3476	4662	3650	4895	2300			
2949	3954	3276	4393	3440	4613	2300			
3285	4406	3650	4895	3833	5140	2300	1040	2288	
3129	4196	3476	4662	3650	4895	2300			
2949	3954	3276	4393	3440	4613	2300			
3285	4406	3650	4895	3833	5140	2300	1040	2288	
3129	4196	3476	4662	3650	4895	2300			
2949	3954	3276	4393	3440	4613	2300			
3285	4406	3650	4895	3833	5140	2300	1400	3080	
3129	4196	3476	4662	3650	4895	2300			
2949	3954	3276	4393	3440	4613	2300			
2700	3621	3000	4023	3150	4224	2300	1910	4202	
2331	3126	2590	3474	2720	3647	2300			
2700	3621	3000	4023	3150	4224	2300	2430	5346	
2331	3126	2590	3474	2720	3647	2300			
2949	3954	3276	4393	3440	4613	2300	1910	4202	
2533	3397	2814	3774	2955	3963	2300			
2949	3954	3276	4393	3440	4613	2300	2430	5346	
2533	3397	2814	3774	2955	3963	2300			

⁹ U-drive version also available.

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9355 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.7381	2.3309
	5.185*	1.4952	2.0051
ZF 9356 ⁹	3.538, 3.760*, 3.958, 4.522	1.7381	2.3309
	5.185*	1.4952	2.0051
ZF 9360	3.538, 3.760*, 3.958, 4.522	1.8252	2.4477
	5.185*	1.6381	2.1967
ZF 9361	3.538, 3.760*, 3.958, 4.522	1.8252	2.4477
	5.185*	1.6381	2.1967
ZF 23560 C (IV=1.000)	1.721, 2.278, 2.839, 3.577	2.6639	3.5723
ZF 23560 C (IV=1.130)	4.042	2.3574	3.1613
ZF 23560 C (IV=1.273)	4.552*	2.0926	2.8062
ZF 23560 C (IV=1.432)	5.122*	1.8601	2.4944
ZF 23860 C (IV=0.492)	0.697*, 0.847*, 1.121*, 1.397*, 1.760*	5.4141	7.2605
ZF 24060 D ^{10 11}	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.6597	3.5667
	3.947*	2.4063	3.2269
ZF 24060 NR2	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.6597	3.5667
	3.947*	2.4063	3.2269
ZF 24060 NR2B	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.6597	3.5667
	3.947*	2.4063	3.2269
ZF 24060 NR2H ¹⁰	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.6597	3.5667
	3.947*	2.4063	3.2269
ZF 24060 SGC ¹¹ (IV=1.000)	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.6597	3.5667
	3.947*	2.4063	3.2269
ZF 24060 SGC ¹¹ (IV=1.173)	4.630	2.0513	2.7509
ZF 24060 SGC ¹¹ (IV=1.280)	5.052	1.8799	2.5210
ZF 24060 SGC ¹¹ (IV=1.354)	5.344	1.7772	2.3832

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
3129	4196	3476	4662	3650	4895	2300	1910	4202	
2691	3609	2990	4010	3140	4211	2300			
3129	4196	3476	4662	3650	4895	2300	2430	5346	
2691	3609	2990	4010	3140	4211	2300			
3285	4406	3650	4895	3833	5140	2300	1910	4202	
2949	3954	3276	4393	3440	4613	2300			
3285	4406	3650	4895	3833	5140	2300	2430	5346	
2949	3954	3276	4393	3440	4613	2300			
4795	6430	5328	7145	5594	7502	2100	2600	5720	
4243	5690	4715	6323	4951	6639	2100	2600	5720	
3767	5051	4185	5612	4394	5893	2100	2600	5720	
3348	4490	3720	4989	3906	5238	2100	2600	5720	
750 rpm		900 rpm		1000 rpm					
4061	5445	4873	6534	5414	7260	1050	2600	5720	
1800 rpm		2000 rpm		2100 rpm					
4787	6420	5319	7133	5585	7490	2100	2450	5390	
4331	5808	4813	6454	5053	6776	2100			
4787	6420	5319	7133	5585	7490	2100	1890	4158	
4331	5808	4813	6454	5053	6776	2100			
4787	6420	5319	7133	5585	7490	2100	1890	4158	
4331	5808	4813	6454	5053	6776	2100			
4787	6420	5319	7133	5585	7490	2100	1860	4092	
4331	5808	4813	6454	5053	6776	2100			
4787	6420	5319	7133	5585	7490	2100	3150	6930	
4331	5808	4813	6454	5053	6776	2100			
3692	4952	4103	5502	4308	5777	2100	3150	6930	
3384	4538	3760	5042	3948	5294	2100	3150	6930	
3199	4290	3554	4766	3732	5005	2100	3150	6930	

⁹ U-drive version also available.

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 24360 D ^{9 10 11}	4.036, 5.087, 5.950	2.6597	3.5667
	6.421	2.4063	3.2269
ZF 24360 SG ^{9 10 11} (IV=1.000)	4.036, 5.087, 5.950	2.6597	3.5667
	6.421	2.4063	3.2269
ZF 24360 SG ^{9 10 11} (IV=1.173)	6.980	2.2673	3.0405
ZF 24360 SG ^{9 10 11} (IV=1.280)	7.616	2.0779	2.7865
ZF 24360 SG ^{9 10 11} (IV=1.354)	8.056	1.9643	2.6342
	8.694	1.7772	2.3832
ZF 30050 NR2 ¹²	1.514*, 1.735, 1.906, 2.032, 2.207*	3.4721	4.6562
ZF 30050 NR2B ¹²	1.514*, 1.735, 1.906, 2.032, 2.207*	3.4721	4.6562
ZF 30050 NR2H ^{10 12}	1.514*, 1.735, 1.906, 2.032, 2.207*	3.4721	4.6562
ZF 30050 SGC ¹¹ (IV=0.759)	1.542, 1.955, 2.483	3.5059	4.7014
	2.807	3.3388	4.4775
	2.994	3.1719	4.2536
ZF 30350 SG ^{9 10 11} (IV=0.759)	3.062, 4.514	3.5059	4.7014
	4.871	3.1719	4.2536
ZF 40060 NR2 ¹²	1.514*, 1.735, 1.906	4.5550	6.1083
ZF 40060 NR2B ¹²	1.514*, 1.735, 1.906	4.5550	6.1083
ZF 40060 NR2H ^{10 12}	1.514*, 1.735, 1.906	4.5550	6.1083
ZF 40060 SGC ¹¹ (IV=0.522)	1.588	5.0952	6.8328
ZF 40060 SGC ¹¹ (IV=0.603)	1.554, 2.097	4.5538	6.1068
	2.381	3.9894	5.3499
ZF 40360 SG ^{9 10 11} (IV=0.522)	2.107, 2.655, 3.106	5.0952	6.8328
	3.352	4.6097	6.1818
ZF 40360 SG ^{9 10 11} (IV=0.603)	2.434, 3.068, 3.589	4.5538	6.1068
	3.873	3.9894	5.3499

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2000 rpm		2100 rpm					
4787	6420	5319	7133	5585	7490	2100	3870	8514	
4331	5808	4813	6454	5053	6776	2100			
4787	6420	5319	7133	5585	7490	2100	4500	9900	
4331	5808	4813	6454	5053	6776	2100			
4081	5473	4535	6081	4761	6385	2100	4500	9900	
3740	5016	4156	5573	4364	5852	2100	4500	9900	
5356	4741	3929	5268	4125	5532	2100	4500	9900	
3199	4290	3554	4766	3732	5005	2100			
1100 rpm		1200 rpm		1300 rpm					
3819	5122	4167	5587	4514	6053	2300	1900	4180	
3819	5122	4167	5587	4514	6053	2300	1900	4180	
3819	5122	4167	5587	4514	6053	2300	1870	4114	
1200 rpm		1400 rpm		1600 rpm					
4207	5642	4908	6582	5609	7522	1600	3160	6952	
4007	5373	4674	6268	5342	7164	1600			
3806	5104	4441	5955	5075	6806	1600			
4207	5642	4908	6582	5609	7522	1600	4575	10065	
3806	5104	4441	5955	5075	6806	1600			
1100 rpm		1200 rpm		1300 rpm					
5010	6719	5466	7330	5921	7941	2300	2010	4422	
5010	6719	5466	7330	5921	7941	2300	2010	4422	
5010	6719	5466	7330	5921	7941	2300	1880	4136	
900 rpm		1000 rpm		1100 rpm					
4586	6149	5095	6833	5605	7516	1100	3170	6974	
1000 rpm		1200 rpm		1300 rpm					
4554	6107	5465	7328	5920	7939	1300	3170	6974	
3989	5350	4787	6420	5186	6955	1300			
900 rpm		1000 rpm		1100 rpm					
4586	6149	5095	6833	5605	7516	1100	4625	10175	
4149	5564	4610	6182	5071	6800	1100			
900 rpm		1100 rpm		1300 rpm					
4098	5496	5009	6717	5920	7939	1300	4625	10175	
3590	4815	4388	5885	5186	6955	1300			

⁹ U-drive version also available.

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

LIGHT DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 53000 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	6.0733	8.1444
ZF 53000 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	6.0733	8.1444
ZF 53500 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	7.8534	10.5316
ZF 53500 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	7.8534	10.5316
ZF 53800 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129	8.3770	11.2337
ZF 53800 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129	8.3770	11.2337
ZF 60000 NR2H ¹⁰	1.500, 2.125, 2.226, 2.741	9.5288	12.7783

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
750 rpm		1000 rpm		1300 rpm					
4555	6108	6073	8144	7895	10588	1350	3900 8580		
4555	6108	6073	8144	7895	10588	1350	3750 8250		
5890	7899	7853	10532	10209	13691	1350	3825 8415		
5890	7899	7853	10532	10209	13691	1350	3980 8756		
6283	8425	8377	11234	10890	14604	1350	4080 8976		
6283	8425	8377	11234	10890	14604	1350	3925 8635		
7147	9584	9529	12778	12387	16612	1350	4650 10230		

¹⁰ Left and Right version available.

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

LIGHT DUTY 2 SPEED



MODEL	RATIOS				POWER/RPM	
	1st 'A'	1st 'B'	2nd 'A'	2nd 'B'	kW	hp
ZF 90 ATS 8 degrees	1.216	1.215	0.946	0.945	0.0753	0.1010
	1.563	1.583	1.216	1.231		
	2.037	2.017	1.584	1.569		
ZF 90 IVTS 12 degrees	1.294	1.288	1.006	1.002	0.0752	0.1008
	1.560	1.567	1.213	1.219		
	1.992	2.033	1.549	1.581		
ZF 90 TS	2.477	2.528	1.927	1.967	0.0697	0.0935
	1.256	1.250	0.977	0.972	0.0752	0.1008
	1.514	1.521	1.178	1.183		
1.933	1.973	1.503	1.535			
ZF 115 ATS 8 degrees	2.480	2.476	1.929	1.926	0.0624	0.0837
	2.783	2.799	2.165	2.177		
	1.567	1.567	1.219	1.219		
1.750	1.750	1.361	1.361			
1.962	1.962	1.526	1.526			
ZF 115 IVTS 12 degrees	2.500	2.500	1.945	1.945	0.1043	0.1399
	1.644	1.638	1.279	1.274		
	2.008	1.996	1.562	1.553		
	2.493	2.468	1.939	1.920		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2500 rpm		2800 rpm					
158	212	188	252	211	283	5500	64	141	SAE 3, B/W, 3 CAT, Yanmar 4LH
158	212	188	252	211	282	5500	82	180	SAE 3, B/W, 3 CAT, Yanmar 4LH
146	196	174	234	195	262	5500			
158	212	188	252	211	282	5500	67	147	SAE 3, B/W, 3 CAT, Yanmar 4LH
131	176	156	209	175	234	5500			
219	294	261	350	292	392	3300	82	180	SAE 2, 3, B/W, 3 CAT
219	294	261	350	292	392	3300	107	235	SAE 2, 3, B/W, 3 CAT

LIGHT DUTY 2 SPEED



MODEL	RATIOS		POWER/RPM				
	1st	2nd	kW	hp			
ZF 325 ATS 7 degrees	1.216	0.968,1.011,1.062,1.087,1.113	0.2340	0.3138			
	1.485	1.182,1.235,1.297,1.327,1.359					
	1.733	1.380,1.441,1.514,1.549,1.586					
	2.037	1.622,1.694,1.779,1.821,1.864					
	2.240*	1.783,1.862,1.956,2.002,2.050					
	2.417	1.924,2.009,2.111,2.160,2.212			0.2107	0.2825	
ZF 325 IVTS 14 degrees	1.216	0.968,1.011,1.062,1.087,1.113	0.2340	0.3138			
	1.485	1.182,1.235,1.297,1.327,1.359					
	1.733	1.380,1.441,1.514,1.549,1.586					
	1.793*	1.427,1.490,1.565,1.603,1.641					
	2.037	1.622,1.694,1.779,1.821,1.864					
	2.417	1.924,2.009,2.111,2.160,2.212			0.2107	0.2825	
ZF 325 TS	1.000	0.796,0.831,0.873,0.894,0.915	0.2340	0.3138			
	1.167*	0.929,0.970,1.019,1.043,1.068					
	1.225*	0.975,1.019,1.070,1.095,1.121					
	1.459	1.162,1.213,1.275,1.305,1.336					
	1.727	1.375,1.436,1.509,1.544,1.581					
	2.033	1.619,1.691,1.776,1.818,1.861					
	2.250*	1.791,1.871,1.965,2.011,2.059					
	2.500	1.990,2.079,2.184,2.235,2.288			0.2107	0.2825	
	2.957	2.354,2.458,2.582,2.643,2.706			0.1784	0.2393	
	ZF 550 ATS 10 degrees	1.525			1.225,1.277,1.325,1.363,1.401	0.3246	0.4353
		1.757*			1.411,1.471,1.526,1.571,1.613		
1.971		1.583,1.650,1.712,1.762,1.810					
2.517		2.022,2.107,2.187,2.251,2.312					
2.960		2.377,2.478,2.572,2.646,2.718	0.2759	0.3700			
ZF 550 TS	1.111	0.892,0.930,0.965,0.993,1.020	0.3246	0.4353			
	1.182*	0.949,0.989,1.027,1.057,1.085					
	1.262*	1.013,1.056,1.096,1.128,1.159					
	1.400*	1.124,1.172,1.216,1.252,1.286					
	1.500	1.205,1.256,1.303,1.341,1.378					
	1.743	1.400,1.459,1.514,1.558,1.601					
	2.000	1.606,1.674,1.738,1.788,1.837					
	2.233	1.794,1.870,1.941,1.997,2.051					
	2.593	2.082,2.171,2.253,2.318,2.381					
	3.042	2.443,2.547,2.643,2.719,2.793			0.2759	0.3700	

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2300 rpm		2500	180	396	SAE 1
421	565	491	659	538	722				
379	509	442	593	485	650				
421	565	491	659	538	722	2500	235	517	SAE 1
379	509	442	593	485	650	2500	180	396	SAE 1
421	565	491	659	538	722	2500			
379	509	442	593	485	650	2500			
321	431	375	502	410	550	2500	180	396	SAE 1
2100 rpm		2300 rpm		2450 rpm		2500			
682	914	747	1001	795	1066				
579	777	635	851	676	907				
682	914	747	1001	795	1066	2500	344	757	SAE 1
579	777	635	851	676	907	2500	180	396	SAE 1

LIGHT DUTY 2 SPEED



MODEL	RATIOS		POWER/RPM	
	1st	2nd	kW	hp
ZF 665 ATS 10 degrees	1.525	1.225,1.277,1.325,1.363,1.401	0.3729	0.5000
	1.757	1.411,1.471,1.526,1.571,1.613		
	1.971	1.583,1.650,1.712,1.762,1.810		
	2.226	1.788,1.863,1.934,1.990,2.044	0.3654	0.4901
	2.448	1.966,2.050,2.127,2.189,2.248		
	2.517	2.022,2.107,2.187,2.251,2.312		
2.960	2.377,2.478,2.572,2.646,2.718	0.2917	0.3912	
ZF 665 TS	1.111	0.892,0.930,0.965,0.993,1.020	0.3729	0.5000
	1.182	0.949,0.989,1.027,1.057,1.085		
	1.262	1.013,1.056,1.096,1.128,1.159		
	1.400	1.124,1.172,1.216,1.252,1.286		
	1.500	1.205,1.256,1.303,1.341,1.378		
	1.743	1.400,1.459,1.514,1.558,1.601		
	2.000	1.606,1.674,1.738,1.788,1.837		
	2.233	1.794,1.870,1.941,1.997,2.051		
	2.593	2.082,2.171,2.253,2.318,2.381		
	3.042	2.443,2.547,2.643,2.719,2.793		

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2300 rpm		2450 rpm		2500	353	777	SAE 1
783	1050	858	1150	914	1225				
767	1029	841	1127	895	1201				
749	1004	820	1100	874	1172	2500			
613	822	671	900	715	958				
783	1050	858	1150	914	1225	2500	344	757	SAE 1
767	1029	841	1127	895	1201				
613	822	671	900	715	958				

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 12 M	2.136	1.955	0.0111	0.0149
	2.632	1.955	0.0097	0.0131
ZF 15 M	1.556	1.955	0.0131	0.0176
	1.875	1.955	0.0121	0.0163
ZF 15 MA 8 degrees	1.875	1.955	0.0121	0.0163
	2.136	1.955	0.0111	0.0149
	2.632	1.955	0.0097	0.0131
ZF 15 MIV 15 degrees	2.134	2.224	0.0121	0.0163
	2.718	2.224	0.0097	0.0131
	2.995	2.224		
ZF 25 M	1.880	2.095	0.0210	0.0282
	2.273	2.095	0.0172	0.0230
	2.737	2.722	0.0142	0.0191
ZF 25 MA 8 degrees	2.227	2.737	0.0172	0.0230
	2.737	2.737	0.0141	0.0190
ZF 30 M	2.148	2.636	0.0193	0.0258
	2.696	2.636		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner adaptor.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2500 rpm		2800 rpm					
23	31	28	37	31	42	5000	13	29	SAE 4, 5, 6, B/W, Yanmar JH Max input power 46 kW.
20	27	24	33	27	37	5000			
27	37	33	44	37	49	5000	13	29	SAE 4, 5, 6, B/W, Yanmar JH Max input power 46 kW.
26	34	30	41	34	46	5000			
26	34	30	41	34	46	5000	13.5	30	SAE 4, 5, 6, B/W, Yanmar JH Max input power 46 kW.
23	31	28	37	31	42	5000			
20	27	24	33	27	37	5000			
26	34	30	41	34	46	5000	20	44	SAE 4, 5, B/W, Yanmar JH Max input power 46 kW.
20	27	24	33	27	37	5000			
44	59	53	71	59	79	5000	18.5	41	SAE 4, 5, B/W, Yanmar JH Max input power 64 kW.
36	48	43	58	48	64	5000			
30	40	36	48	40	53	5000			
36	48	43	58	48	64	5000	21	46	SAE 4, 5, B/W, Yanmar JH Max input power 64 kW.
30	40	35	47	40	53	5000			
40	54	48	65	54	72	5000	23	51	4 & 5 Yanmar JH Max input power 76 kW.

Note: For all "M" (Mechanical) transmissions reduce power capacity by the following shock factors:

1 cylinder engine ÷ 1.25,

2 cylinder engine ÷ 1.20,

3 cylinder engine ÷ 1.15

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 25	1.969	1.969	0.0213	0.0285
	2.800	2.800	0.0203	0.0272
ZF 25 A 8 degrees	1.548	1.548	0.0213	0.0285
	1.926	1.926		
	2.292	2.292		
	2.480*	2.480		
	2.714	0.0203	0.0272	
ZF 45 A 8 degrees	1.256	1.256	0.0382	0.0513
	1.514	1.514		
	2.034	2.034		
	2.435	2.435		
		0.0357	0.0479	
ZF 45-1	2.200	2.200	0.0440	0.0590
	2.512	2.512		
	3.031	3.031		
	3.741	3.741		
ZF 63	1.256	1.250	0.0539	0.0723
	1.514	1.521		
	1.750*	1.770		
	1.933	1.973		
	2.480	2.476		
	2.783	2.799		
ZF 63 A 8 degrees	1.216	1.215	0.0578	0.0775
	1.563	1.583		
	2.037	2.017		
	2.522	2.536		
	2.682	2.709		
ZF 63 IV 12 degrees	1.294	1.288	0.0578	0.0775
	1.560	1.567		
	1.992	2.033		
	2.477	2.528		
ZF 80 A 8 degrees	1.567	1.567	0.0739	0.0991
	1.750	1.750		
	1.962	1.962		
	2.500	2.500		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2500 rpm		2800 rpm					
45	60	53	71	60	80	5500	24	53	SAE 3, 4, 5, B/W, Yanmar JH
43	57	51	68	57	76	5500			
45	60	53	71	60	80	5500	24	53	
43	57	51	68	57	76	5500			SAE 3, 4, 5, B/W, Yanmar JH
80	108	96	128	107	144	5500	28	62	
75	101	89	120	100	134	5500			
92	124	110	147	123	165	5500	60	132	SAE 2, 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
113	152	135	181	151	202	5500	46	101	
109	146	130	174	145	195	5500			
121	163	145	194	162	217	5500	44	97	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
113	152	135	181	151	202	5500			
100	134	119	159	133	179	5500			
121	163	145	194	162	217	5500	62	136	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
113	152	135	181	151	202	5500			
109	146	130	174	145	195	5500			
155	208	185	248	207	278	4500	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 80 IV 12 degrees	1.644	1.638	0.0739	0.0991
	2.008	1.996		
	2.493	2.468		
ZF 85 A 8 degrees	1.567	1.567	0.0838	0.1123
	1.750	1.750		
	1.962	1.962		
	2.500	2.500		
ZF 85 IV 12 degrees	1.644	1.638	0.0889	0.1192
	2.008	1.996		
	2.493	2.468		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2500 rpm		2800 rpm		3500	86	189	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
155	208	185	248	207	278				
176	236	209	281	235	315				
187	250	222	298	249	334	3500	86	189	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
176	236	209	281	235	315				

MEDIUM DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 220	1.000, 1.128*, 1.237*, 1.400*	0.0746	0.1000
	1.500, 1.963, 2.478	0.0698	0.0937
	3.000	0.0598	0.0802
ZF 220 A 10 degrees	1.235	0.0746	0.1000
	1.533, 1.750*, 2.040	0.0698	0.0937
	2.455	0.0629	0.0844
ZF W220	2.617	0.0792	0.1062
	3.133	0.0768	0.1029
	3.555	0.0696	0.0934
	3.960	0.0644	0.0864
	4.636	0.0552	0.0740
ZF 280 IV 14 degrees	1.252, 1.561, 1.772, 2.063	0.0904	0.1212
	2.276*, 2.556	0.0844	0.1132
	3.094*	0.0711	0.0953
ZF 280-1	0.814*, 1.000, 1.056*, 1.139*, 1.214*, 1.300*	0.0904	0.1212
	1.514, 1.719*, 2.000		
	2.478	0.0844	0.1132
	3.000	0.0806	0.1081
ZF 280-1 A 7 degrees	1.118, 1.483, 1.769, 2.000	0.0904	0.1212
	2.227*, 2.476*	0.0844	0.1132
ZF 286	1.237, 1.400*, 1.500, 1.774, 1.966, 2.269	0.1152	0.1545
	0.923, 1.000, 2.481	0.1053	0.1413
	2.917	0.0959	0.1286
ZF 286 A 7 degrees	1.200, 1.333, 1.484, 1.750, 1.962	0.1152	0.1545
	2.208	0.1086	0.1456
	2.391, 2.500	0.1005	0.1348
ZF 286 IV 14 degrees	1.266, 1.535, 1.815, 2.011	0.1152	0.1545
	2.322	0.1086	0.1456
	2.539	0.1053	0.1413
ZF 301 A 10 degrees	1.190, 1.516, 2.005, 2.301*, 2.551*, 2.901	0.0911	0.1222
ZF 301 C	1.106, 1.179*, 1.236*, 1.296*, 1.408	0.1070	0.1435
	1.862, 2.137*, 2.694	0.0963	0.1292

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
2100 rpm		2500 rpm		2800 rpm					
157	210	186	250	209	280	3200	63	139	SAE 2, 3, 3 CAT
147	197	175	234	196	262	3200			
126	168	149	200	167	225	3200			
157	210	186	250	209	280	4500	50	110	SAE 2, 3, B/W, 3 CAT
147	197	175	234	196	262	4500			
132	177	157	211	176	236	4500			
166	223	198	265	222	297	3200	105	231	SAE 2, 3, 3 CAT
161	216	192	257	215	288	3200			
146	196	174	233	195	261	3200			
135	181	161	216	180	242	3200			
116	155	138	185	155	207	3200			
190	254	226	303	253	339	3300	106	233	SAE 2, 3, 3 CAT
177	238	211	283	236	317	3300			
149	200	178	238	199	267	3300			
190	254	226	303	253	339	3300	73	161	SAE 1, 2, 3, 3 CAT
177	238	211	283	236	317	3300			
169	227	202	270	226	303	3300			
190	254	226	303	253	339	3300	73	161	SAE 1, 2, 3, 3 CAT
177	238	211	283	236	317	3300			
242	324	288	386	323	432	3300	86	189	SAE 1, 2, 3, 3 CAT
221	297	263	353	295	396	3300			
201	270	240	322	269	360	3300			
242	324	288	386	323	432	3300	77	169	SAE 1, 2, 3, 3 CAT
228	306	271	364	304	408	3300			
211	283	251	337	281	377	3300			
242	324	288	386	323	432	3300	130	286	
228	306	271	364	304	408	3300			SAE 1, 2, 3, 3 CAT
221	297	263	353	295	396	3300			
191	257	228	305	255	342	3000	87	191	
225	301	268	359	300	402	3000	87	191	SAE 1, 2, 3, 3 CAT
202	271	241	323	270	362	3000			

MEDIUM DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 305-3	0.884, 0.923*, 1.000, 1.220, 1.297*, 1.486 1.758, 1.968	0.1423	0.1908
	2.250	0.1305	0.1750
	2.500	0.1220	0.1636
	2.917	0.1084	0.1453
ZF 305-3 A 7 degrees	1.200, 1.514, 1.733, 2.037	0.1423	0.1908
	2.179	0.1305	0.1750
	2.423	0.1220	0.1636
ZF W320	2.958	0.1775	0.2380
	4.048	0.1635	0.2192
	4.526	0.1491	0.2000
	4.950	0.1332	0.1786
ZF 325 IV 14 degrees	1.216, 1.485, 1.733, 1.793*, 2.037	0.1776	0.2382
	2.417	0.1669	0.2238
ZF 325-1	1.000, 1.050*, 1.167*, 1.225*, 1.459, 1.727 2.033, 2.250*	0.1775	0.2380
	2.500	0.1669	0.2238
	2.957	0.1473	0.1976
ZF 325-1 A 7 degrees	1.216, 1.485, 1.733, 2.037, 2.240*	0.1776	0.2382
	2.417	0.1669	0.2238
ZF W325	2.933*, 3.407, 3.958	0.1953	0.2619
	4.409	0.1793	0.2404
	4.913	0.1546	0.2073
	5.167*	0.1438	0.1928
ZF 335 A 7 degrees	1.441, 1.594, 1.767, 1.964	0.2130	0.2856
	2.192	0.1927	0.2584
	2.458	0.1781	0.2389
ZF 335 IV 14 degrees	1.441, 1.594, 1.767, 1.964	0.2130	0.2856
	2.192	0.1927	0.2584
	2.458	0.1781	0.2389
ZF W350-1	3.026*, 3.500, 3.968, 4.536, 4.962, 5.458* 5.955	0.2379	0.3190
	6.409*	0.2079	0.2787
ZF 360	0.925*, 1.045, 1.125*, 1.237, 1.500, 1.774 1.966, 2.185, 2.480, 2.625	0.2130	0.2856
	2.917	0.1953	0.2619

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2300 rpm					
256	343	299	401	327	439	3000	98	216	SAE 1, 2, 3
235	315	274	367	300	402	3000			
220	294	256	344	281	376	3000			
195	262	228	305	249	334	3000			
256	343	299	401	327	439	3000	97	213	SAE 1, 2, 3
235	315	274	367	300	402	3000			
220	294	256	344	281	376	3000			
319	428	373	500	408	547	2400	270	594	SAE 1, 2
294	395	343	460	376	504	2400			
268	360	313	420	343	460	2400			
240	322	280	375	306	411	2400			
320	429	373	500	408	548	3000	185	407	SAE 1, 2 Optional
300	403	351	470	384	515	3000			
319	428	373	500	408	547	3000	130	286	SAE 1
300	403	351	470	384	515	3000			
265	356	309	415	339	454	3000			
320	429	373	500	408	548	3000	130	286	SAE 1
300	403	351	470	384	515	3000			
352	471	410	550	449	602	2600	315	693	SAE 1
323	433	376	505	412	553	2600			
278	373	325	435	355	477	2600			
259	347	302	405	331	443	2600			
383	514	447	600	490	657	3000	159	350	SAE 1
347	465	405	543	443	594	3000			
321	430	374	502	410	549	3000			
383	514	447	600	490	657	3000	215	473	SAE 1
347	465	405	543	443	594	3000			
321	430	374	502	410	549	3000			
428	574	500	670	547	734	2400	500	1100	SAE 0, 1
374	502	436	585	478	641	2400			
383	514	447	600	490	657	3000	185	407	SAE 1, 0*
352	471	410	550	449	602	3000			

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 360 A 7 degrees	1.216, 1.485, 1.767, 1.964, 2.192, 2.478 2.609	0.2130	0.2856
ZF 360 IV 14 degrees	1.216, 1.485, 1.767, 1.964, 2.192, 2.478	0.2130	0.2856
ZF 370 V 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000, 2.222 2.480	0.2130	0.2856
ZF 500	1.125, 1.237, 1.500, 1.774, 1.966	0.2694	0.3613
	2.185*	0.2486	0.3334
	0.925*, 1.000*, 2.480, 2.625	0.2279	0.3056
	2.917	0.1988	0.2667
ZF 500-1 A 7 degrees	1.216, 1.485, 1.767, 1.964	0.2694	0.3613
	2.192	0.2486	0.3334
	2.478	0.2279	0.3056
	2.609	0.2130	0.2856
ZF 500-1 IV 14 degrees	1.216, 1.485, 1.767, 1.964	0.2574	0.3452
	2.200	0.2486	0.3334
	2.478	0.2279	0.3056
	3.000	0.2071	0.2778
ZF 510 V 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000	0.2694	0.3613
	2.222, 2.480	0.2486	0.3334
ZF 510-1 A 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000	0.2694	0.3613
	2.222, 2.480	0.2486	0.3334
ZF 550	0.936*, 1.111*, 1.182*, 1.262*, 1.400*, 1.500 1.743, 1.833, 2.000, 2.233, 2.593	0.2577	0.3456
	3.042	0.2347	0.3147
ZF 550 A 10 degrees	1.525, 1.757*, 1.971, 2.517	0.2576	0.3454
	2.960	0.2346	0.3145
ZF 550 V 10 degrees	1.525, 1.757*, 1.971, 2.517	0.2576	0.3454
	2.960	0.2346	0.3145
ZF W650	3.605*, 4.057, 4.531, 5.138, 5.357*, 5.593	0.2576	0.3454
	6.120	0.2450	0.3286
	6.417	0.2346	0.3145

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2300 rpm					
383	514	447	600	490	657	3000	187	411	SAE 1, 0*
383	514	447	600	490	657	3000	230	506	SAE 1
1800 rpm		2100 rpm		2250 rpm					
383	514	447	600	479	643	3000	194	427	
485	650	566	759	606	813	3000	185	407	SAE 1, 0*
447	600	522	700	559	750	3000			
410	550	478	642	513	688	3000			
358	480	418	560	447	600	3000			
485	650	566	759	606	813	3000	192	422	SAE 1, 0*
447	600	522	700	559	750	3000			
410	550	478	642	513	688	3000			
383	514	447	600	479	643	3000			
463	621	541	725	579	777	3000	230	506	SAE 1
447	600	522	700	559	750	3000			
410	550	478	642	513	688	3000			
373	500	435	583	466	625	3000			
485	650	566	759	606	813	3000	200	440	
447	600	522	700	559	750	3000			
485	650	566	759	606	813	3000	193	425	SAE 1, 0*
447	600	522	700	559	750	3000			
464	622	541	726	580	778	3000	242	532	SAE 0*, 1
422	566	493	661	528	708	3000			
464	622	541	725	580	777	3000	256	563	SAE 0*, 1
422	566	493	661	528	708	3000			
464	622	541	725	580	777	3000	260	572	
422	566	493	661	528	708	3000			
1800 rpm		2100 rpm		2300 rpm					
464	622	541	725	592	795	2600	561	1234	SAE 0, 1
441	591	515	690	564	756	2600			
422	566	493	661	539	723	2600			

MEDIUM DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 665	1.111, 1.182, 1.262, 1.400, 1.500, 1.743 2.000	0.3107	0.4166
	2.233, 2.593	0.2901	0.3890
	3.042	0.2382	0.3195
ZF 665 A 10 degrees	1.525, 1.757, 1.971	0.3107	0.4166
	2.226	0.2901	0.3890
	2.448, 2.517	0.2817	0.3777
	2.960	0.2486	0.3334
ZF 665 V 10 degrees	1.525, 1.757, 1.971	0.3107	0.4166
	2.226, 2.448	0.2901	0.3890
	2.517	0.2817	0.3777
	2.960	0.2486	0.3334
ZF 2000	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.3210	0.4305
	2.760*	0.2953	0.3960
	2.958	0.2698	0.3619
ZF 2000 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467 2.714*	0.3210	0.4305
	2.920	0.3072	0.4120
	3.250*	0.2860	0.3835
ZF 2000 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467 2.714*	0.3210	0.4305
	2.920	0.3072	0.4120
	3.250*	0.2860	0.3835
ZF 2050	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.3771	0.5057
ZF 2050 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.3771	0.5057
ZF 2050 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.3771	0.5057
ZF 2150	2.760*	0.3490	0.4680
	2.958	0.3210	0.4305
ZF 2150 A 10 degrees	2.714*	0.3771	0.5057
	2.920	0.3581	0.4802
	3.250*	0.3333	0.4470

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2250 rpm					
559	750	652	875	699	937	3000	248	546	SAE 0*, 1
522	700	609	817	653	875	3000			
429	575	500	671	536	719	3000			
559	750	652	875	699	937	3000	253	557	SAE 0*, 1
522	700	609	817	653	875	3000			
507	680	592	793	634	850	3000			
447	600	522	700	559	750	3000			
559	750	652	875	699	937	3000	252	554	
522	700	609	817	653	875	3000			
507	680	592	793	634	850	3000			
447	600	522	700	559	750	3000			
578	775	674	904	722	969	2600	340	748	SAE 1, 0
532	713	620	832	664	891	2600			
486	651	567	760	607	814	2600			
578	775	674	904	722	969	2600	348	766	SAE 1, 0
553	742	645	865	691	927	2600			
515	690	601	805	643	863	2600			
578	775	674	904	722	969	2600	352	774	
553	742	645	865	691	927	2600			
515	690	601	805	643	863	2600			
679	910	792	1062	848	1138	2600	342	752	SAE 1, 0
679	910	792	1062	848	1138	2600	350	770	SAE 1, 0
679	910	792	1062	848	1138	2600	354	779	
628	842	733	983	785	1053	2600	344	757	SAE 1, 0
578	775	674	904	722	969	2600			
679	910	792	1062	848	1138	2600	352	774	SAE 1, 0
645	864	752	1009	806	1081	2600			
600	805	700	939	750	1006	2600			

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 2150 V 10 degrees	2.714*	0.3771	0.5057
	2.920	0.3581	0.4802
	3.250*	0.3333	0.4470
ZF 2200	3.000, 3.519*	0.3210	0.4305
ZF 2250	3.000, 3.519*	0.3771	0.5057
ZF 2300 ⁹	4.000, 4.444	0.3210	0.4305
ZF 2350 ⁹	4.000, 4.444, 4.760*	0.3771	0.5057
ZF 3000	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.4194	0.5624
ZF 3000 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.4194	0.5624
	3.280*	0.3554	0.4766
ZF 3000 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.4194	0.5624
	3.280*	0.3554	0.4766
ZF 3050	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5153	0.6910
ZF 3050 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5153	0.6910
	3.280*	0.4194	0.5624
ZF 3050 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5153	0.6910
ZF 3050 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.5153	0.6910
	3.280*	0.4194	0.5624
ZF 3055	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563*, 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.5508	0.7386
		0.5331	0.7149
ZF 3055 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*	0.5508	0.7386
	3.000*	0.5331	0.7149
	3.280*	0.4552	0.6104

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2250 rpm					
679	910	792	1062	848	1138	2600	356	783	
645	864	752	1009	806	1081	2600			
600	805	700	939	750	1006	2600			
578	775	674	904	722	969	2600	404	889	SAE 1, 0
679	910	792	1062	848	1138	2600	406	893	SAE 1, 0
578	775	674	904	722	969	2600	434	955	SAE 1, 0
679	910	792	1062	848	1138	2600	436	959	SAE 1, 0
755	1012	881	1181	944	1265	2600	482	1060	SAE 1, 0
755	1012	881	1181	944	1265	2600	485	1067	SAE 1, 0
640	858	746	1001	800	1072	2600			
755	1012	881	1181	944	1265	2600	500	1100	
640	858	746	1001	800	1072	2600			
928	1244	1082	1451	1159	1555	2600	482	1060	SAE 1, 0
928	1244	1082	1451	1159	1555	2600	485	1067	SAE 1, 0
755	1012	881	1181	944	1265	2600			
928	1244	1082	1451	1159	1555	2600	482	1060	
928	1244	1082	1451	1159	1555	2600	500	1100	
755	1012	881	1181	944	1265	2600			
991	1330	1157	1551	1239	1662	2600	487	1071	SAE 1, 0
960	1287	1119	1501	1199	1608	2600			
991	1330	1157	1551	1239	1662	2600	490	1078	SAE 1, 0
960	1287	1119	1501	1199	1608	2600			
819	1099	956	1282	1024	1373	2600			

³ D - transmissions only for counter engine wise rotation available (waterjet application). Reversing feature for cleaning the jet possible.

⁹ U-drive version also available.

MEDIUM DUTY SINGLE SPEED



MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 3055 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645* 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240* 2.375*, 2.500, 2.609*, 2.773*	0.5508	0.7386
	2.952*	0.5331	0.7149
ZF 3055 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*	0.5508	0.7386
	3.000*	0.5331	0.7149
	3.280*	0.4552	0.6104
ZF 3150 A 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.5153	0.6910
ZF 3310 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.4194	0.5624
ZF 3311 ^{9 11}	3.519*, 4.000, 4.478, 4.727*, 5.000	0.4194	0.5624
ZF 3350 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5153	0.6910
ZF 3351 ^{9 11}	3.519*, 4.000, 4.478, 4.727*, 5.000	0.5153	0.6910
ZF 3355 ⁹	3.519*, 4.000, 4.478, 4.727*	0.5508	0.7386
	5.000	0.5331	0.7149
ZF 3356 ^{9 11}	3.519*, 4.000, 4.478, 4.727*	0.5508	0.7386
	5.000	0.5331	0.7149
ZF 3361 ^{9 11}	3.519*, 4.000, 4.478, 4.727*	0.5800	0.7778
	5.000	0.5570	0.7469
ZF 3711 ⁹	5.545, 5.952	0.4194	0.5624
ZF 3751 ⁹	5.545, 5.952	0.5153	0.6910
ZF 3756 ⁹	5.545, 5.952	0.5331	0.7149
ZF 3761 ⁹	5.545	0.5800	0.7778
	5.952	0.5570	0.7469
ZF 5000	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*, 2.963	0.6670	0.8945
ZF 5000 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.6670	0.8945
ZF 5000 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.6670	0.8945
ZF 5050	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*, 2.963	0.7466	1.0012

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2250 rpm					
991	1330	1157	1551	1239	1662	2600	482	1060	
960	1287	1119	1501	1199	1608	2600			
991	1330	1157	1551	1239	1662	2600	505	1111	
960	1287	1119	1501	1199	1608	2600			
819	1099	956	1282	1024	1373	2600			
928	1244	1082	1451	1159	1555	2600	470	1034	SAE 1, 0
755	1012	881	1181	944	1265	2600	665	1463	SAE 1, 0
755	1012	881	1181	944	1265	2600	850	1870	SAE 0, 1
928	1244	1082	1451	1159	1555	2600	665	1463	SAE 1, 0
928	1244	1082	1451	1159	1555	2600	850	1870	SAE 0, 1
991	1330	1157	1551	1239	1662	2600	670	1474	SAE 1, 0
960	1287	1119	1501	1199	1608	2600			
991	1330	1157	1551	1239	1662	2600	855	1881	SAE 0, 1
960	1287	1119	1501	1199	1608	2600			
1044	1400	1218	1633	1305	1750	2450	850	1870	SAE 0, 1
1003	1344	1170	1568	1253	1681	2450			
755	1012	881	1181	944	1265	2600	920	2024	SAE 0, 1
928	1244	1082	1451	1159	1555	2600	920	2024	SAE 0, 1
960	1287	1119	1501	1199	1608	2600	920	2024	SAE 0, 1
1044	1400	1218	1633	1305	1750	2450	920	2024	SAE 0, 1
1003	1344	1170	1568	1253	1681	2450			
1800 rpm		1900 rpm		2100 rpm					
1201	1610	1267	1700	1401	1878	2600	740	1628	SAE 0, 00
1201	1610	1267	1700	1401	1878	2600	750	1650	SAE 0, 00
1201	1610	1267	1700	1401	1878	2600	768	1690	
1344	1802	1419	1902	1568	2103	2600	740	1628	SAE 0, 00

³ D - transmissions only for counter engine wise rotation available (waterjet application). Reversing feature for cleaning the jet possible.

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 5050 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.7466	1.0012
	3.222*	0.7120	0.9549
	3.429*	0.6670	0.8945
ZF 5050 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.7466	1.0012
	3.222*	0.7120	0.9549
	3.429*	0.6670	0.8945
ZF 5055	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*	0.8906	1.1943
	2.963	0.8288	1.1114
ZF 5055 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.8906	1.1943
	3.222*	0.8063	1.0812
	3.429*	0.7225	0.9689
ZF 5055 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.8906	1.1943
	3.222*	0.8063	1.0812
	3.429*	0.7225	0.9689
ZF 5300 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.6670	0.8945
ZF 5311 ⁹	3.471*, 4.033, 4.464, 5.040	0.6670	0.8945
ZF 5350 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.7466	1.0012
ZF 5351 ⁹	3.471*, 4.033, 4.464, 5.040	0.7466	1.0012
ZF 5355 ^{9 11}	2.947*, 3.471*, 4.033, 4.464 5.040	0.8906	1.1943
	5.040	0.8377	1.1234
	5.500	0.7447	0.9987
ZF 5356 ⁹	3.471*, 4.033, 4.464 5.040	0.8906	1.1943
	5.040	0.8377	1.1234
	5.500	0.7447	0.9987

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm	1900 rpm	1900 rpm	2100 rpm						
1344	1802	1419	1902	1568	2103	2600	750 1650	SAE 0, 00	
1282	1719	1353	1814	1495	2005	2600			
1201	1610	1267	1700	1401	1878	2600			
1344	1802	1419	1902	1568	2103	2600	768 1690		
1282	1719	1353	1814	1495	2005	2600			
1201	1610	1267	1700	1401	1878	2600			
1603	2150	1692	2269	1870	2508	2600	740 1628	SAE 0, 00	
1492	2001	1575	2112	1740	2334	2600			
1603	2150	1692	2269	1870	2508	2600	750 1650	SAE 0, 00	
1451	1946	1532	2054	1693	2271	2600			
1301	1744	1373	1841	1517	2035	2600			
1603	2150	1692	2269	1870	2508	2600	768 1690		
1451	1946	1532	2054	1693	2271	2600			
1301	1744	1373	1841	1517	2035	2600			
1800 rpm	2000 rpm	2250 rpm							
1201	1610	1334	1789	1501	2013	2600	950 2090	SAE 0, 00	
1800 rpm	1900 rpm	2100 rpm							
1201	1610	1267	1700	1401	1878	2600	1290 2838	SAE 0, 00	
1800 rpm	2000 rpm	2250 rpm							
1344	1802	1493	2002	1680	2253	2600	950 2090	SAE 0, 00	
1800 rpm	1900 rpm	2100 rpm							
1344	1802	1419	1902	1568	2103	2600	1290 2838	SAE 0, 00	
1800 rpm	2000 rpm	2250 rpm							
1603	2150	1781	2389	2004	2687	2600	950 2090	SAE 0, 00	
1508	2022	1675	2247	1885	2528	2600			
1340	1798	1489	1997	1676	2247	2600			
1800 rpm	1900 rpm	2100 rpm							
1603	2150	1692	2269	1870	2508	2600	1290 2838	SAE 0, 00	
1508	2022	1592	2134	1759	2359	2600			
1340	1798	1415	1897	1564	2097	2600			

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 7600	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.2356	1.6570
	2.905	1.1937	1.6008
	3.174*	1.0577	1.4184
ZF 7600 A 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.2356	1.6570
	3.286*, 3.450*	0.9958	1.3354
ZF 7600 NR2	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.2356	1.6570
	2.905	1.1937	1.6008
	3.174*	1.0577	1.4184
ZF 7600 NR2B	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.2356	1.6570
	2.905	1.1937	1.6008
	3.174*	1.0577	1.4184
ZF 7600 NR2H ¹⁰	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.2356	1.6570
	2.905	1.1937	1.6008
	3.174*	1.0577	1.4184
ZF 7600 V 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.2356	1.6570
	3.286*	0.9958	1.3354
	3.450*	0.9110	1.2217
ZF 7640	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.2356	1.6570
	4.500	1.1110	1.4899
ZF 7641	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.2356	1.6570
	4.500	1.1110	1.4899
ZF 7645	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.3131	1.7609
	4.500	1.2440	1.6682
ZF 7646	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.3131	1.7609
	4.500	1.2440	1.6682
ZF 7650	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.3131	1.7609
	2.905		
	3.174*	1.2356	1.6570
ZF 7650 A 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.3131	1.7609
	3.286*	1.2220	1.6387
	3.450*	1.1361	1.5236
ZF 7650 NR2	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.2984	1.7412
	2.905		
	3.174*	1.2356	1.6570
ZF 7650 NR2B	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.2984	1.7412
	2.905		
	3.174*	1.2356	1.6570

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2000 rpm					
1977	2651	2224	2983	2471	3314	2300	970	2134	SAE 00
1910	2561	2149	2881	2387	3202	2300			
1692	2269	1904	2553	2115	2837	2300			
1977	2651	2224	2983	2471	3314	2300	1125	2475	SAE 00
1593	2137	1792	2404	1992	2671	2300			
1977	2651	2224	2983	2471	3314	2300	705	1551	
1910	2561	2149	2881	2387	3202	2300			SAE 00
1692	2269	1904	2553	2115	2837	2300			
1977	2651	2224	2983	2471	3314	2300	705	1551	
1910	2561	2149	2881	2387	3202	2300			SAE 00
1692	2269	1904	2553	2115	2837	2300			
1977	2651	2224	2983	2471	3314	2300	705	1551	
1910	2561	2149	2881	2387	3202	2300			SAE 00
1692	2269	1904	2553	2115	2837	2300			
1977	2651	2224	2983	2471	3314	2300	1125	2475	
1593	2137	1792	2404	1992	2671	2300			SAE 00
1458	1955	1640	2199	1822	2443	2300			
1977	2651	2224	2983	2471	3314	2300	1325	2915	
1778	2384	2000	2682	2222	2980	2300			SAE 00
1977	2651	2224	2983	2471	3314	2300	1750	3850	
1778	2384	2000	2682	2222	2980	2300			
2101	2817	2364	3170	2626	3522	2300	1325	2915	SAE 00
1990	2669	2239	3003	2488	3336	2300			
2101	2817	2364	3170	2626	3522	2300	1750	3850	
1990	2669	2239	3003	2488	3336	2300			SAE 00
2101	2817	2364	3170	2626	3522	2300	970	2134	
1977	2651	2224	2983	2471	3314	2300			
2101	2817	2364	3170	2626	3522	2300	1125	2475	SAE 00
1955	2622	2200	2950	2444	3277	2300			
1818	2438	2045	2742	2272	3047	2300			
2077	2786	2337	3134	2597	3482	2300	705	1551	SAE 00
1977	2651	2224	2983	2471	3314	2300			
2077	2786	2337	3134	2597	3482	2300	720	1584	
1977	2651	2224	2983	2471	3314	2300			SAE 00

¹⁰ Left and Right version available.

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM		INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
		kW	hp	kW	hp	kW	hp	kg	lb				
ZF 7650 NR2H ¹⁰	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.2984	1.7412	2077	2786	2337	3134	2597	3482	2300	705	1551	
	2.905												
	3.174*	1.2356	1.6570	1977	2651	2224	2983	2471	3314	2300			
ZF 7650 V 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.3131	1.7609	2101	2817	2364	3170	2626	3522	2300	1125	2475	
	3.286*	1.2220	1.6387	1955	2622	2200	2950	2444	3277	2300			
	3.450*	1.1361	1.5236	1818	2438	2045	2742	2272	3047	2300			
ZF 7661	4.577*, 4.760*, 5.000, 5.435	1.2356	1.6570	1977	2651	2224	2983	2471	3314	2300	2520	5544	
	5.952	1.1937	1.6008	1910	2561	2149	2881	2387	3202	2300			
	6.250	1.1110	1.4899	1778	2384	2000	2682	2222	2980	2300			
	6.500*	1.0450	1.4014	1672	2242	1881	2523	2090	2803	2300			
	6.833*	0.9110	1.2217	1458	1955	1640	2199	1822	2443	2300			
ZF 7666	4.577*, 4.760*, 5.000, 5.435, 5.952	1.3131	1.7609	2101	2817	2364	3170	2626	3522	2300	2520	5544	
	6.250	1.2220	1.6387	1955	2622	2200	2950	2444	3277	2300			
	6.500*	1.0450	1.4014	1672	2242	1881	2523	2090	2803	2300			
	6.833*	0.9110	1.2217	1458	1955	1640	2199	1822	2443	2300			
ZF 9000	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3825	1.8540	2212	2966	2489	3337	2765	3708	2300	1400	3080	SAE 00
	3.250*	1.3060	1.7513	2090	2802	2351	3152	2612	3503	2300			
	3.448*	1.2425	1.6662	1988	2666	2237	2999	2485	3332	2300			
ZF 9000 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.3825	1.8540	2212	2966	2489	3337	2765	3708	2300	1380	3036	SAE 00
	3.208*	1.3060	1.7513	2090	2802	2351	3152	2612	3503	2300			
	3.462*	1.2425	1.6662	1988	2666	2237	2999	2485	3332	2300			
ZF 9000 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3825	1.8540	2212	2966	2489	3337	2765	3708	2300	1040	2288	
	3.250*	1.3060	1.7513	2090	2802	2351	3152	2612	3503	2300			
	3.448*	1.2425	1.6662	1988	2666	2237	2999	2485	3332	2300			
ZF 9000 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3825	1.8540	2212	2966	2489	3337	2765	3708	2300	1040	2288	
	3.250*	1.3060	1.7513	2090	2802	2351	3152	2612	3503	2300			
	3.448*	1.2425	1.6662	1988	2666	2237	2999	2485	3332	2300			
ZF 9000 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3825	1.8540	2212	2966	2489	3337	2765	3708	2300	1040	2288	
	3.250*	1.3060	1.7513	2090	2802	2351	3152	2612	3503	2300			
	3.448*	1.2425	1.6662	1988	2666	2237	2999	2485	3332	2300			
ZF 9000 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.3825	1.8540	2212	2966	2489	3337	2765	3708	2300	1400	3080	
	3.208*	1.3060	1.7513	2090	2802	2351	3152	2612	3503	2300			
	3.462*	1.2425	1.6662	1988	2666	2237	2999	2485	3332	2300			

* Special Order Ratio.

¹⁰ Left and Right version available.

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9050	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.4660	1.9659
	3.250*	1.3825	1.8540
	3.448*	1.3200	1.7701
ZF 9050 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.4660	1.9659
	3.208*	1.3825	1.8540
	3.462*	1.3200	1.7701
ZF 9050 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.4660	1.9659
	3.250*	1.3825	1.8540
	3.448*	1.3200	1.7701
ZF 9050 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.4660	1.9659
	3.250*	1.3825	1.8540
	3.448*	1.3200	1.7701
ZF 9050 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.4660	1.9659
	3.250*	1.3825	1.8540
	3.448*	1.3200	1.7701
ZF 9050 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.4660	1.9659
	3.208*	1.3825	1.8540
	3.462*	1.3200	1.7701
ZF 9055	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6250	2.1792
	3.250*	1.5050	2.0183
	3.448*	1.4170	1.9002
ZF 9055 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.6250	2.1792
	3.208*	1.5050	2.0183
	3.462*	1.4170	1.9002
ZF 9055 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6250	2.1792
	3.250*	1.5050	2.0183
	3.448*	1.4170	1.9002
ZF 9055 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6250	2.1792
	3.250*	1.5050	2.0183
	3.448*	1.4170	1.9002

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2000 rpm					
2346	3145	2639	3539	2932	3932	2300	1400	3080	SAE 00
2212	2966	2489	3337	2765	3708	2300			
2112	2832	2376	3186	2640	3540	2300			
2346	3145	2639	3539	2932	3932	2300	1380	3036	SAE 00
2212	2966	2489	3337	2765	3708	2300			
2112	2832	2376	3186	2640	3540	2300			
2346	3145	2639	3539	2932	3932	2300	1040	2288	
2212	2966	2489	3337	2765	3708	2300			
2112	2832	2376	3186	2640	3540	2300			
2346	3145	2639	3539	2932	3932	2300	1040	2288	
2212	2966	2489	3337	2765	3708	2300			
2112	2832	2376	3186	2640	3540	2300			
2346	3145	2639	3539	2932	3932	2300	1400	3080	
2212	2966	2489	3337	2765	3708	2300			
2112	2832	2376	3186	2640	3540	2300			
2600	3487	2925	3923	3250	4358	2300	1400	3080	SAE 00
2408	3229	2709	3633	3010	4037	2300			
2267	3040	2551	3420	2834	3800	2300			
2600	3487	2925	3923	3250	4358	2300	1380	3036	SAE 00
2408	3229	2709	3633	3010	4037	2300			
2267	3040	2551	3420	2834	3800	2300			
2600	3487	2925	3923	3250	4358	2300	1040	2288	
2408	3229	2709	3633	3010	4037	2300			
2267	3040	2551	3420	2834	3800	2300			
2600	3487	2925	3923	3250	4358	2300	1040	2288	
2408	3229	2709	3633	3010	4037	2300			
2267	3040	2551	3420	2834	3800	2300			

¹⁰ Left and Right version available.

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9055 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.6250	2.1792
	3.250*	1.5050	2.0183
	3.448*	1.4170	1.9002
ZF 9055 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.6250	2.1792
	3.208*	1.5050	2.0183
	3.462*	1.4170	1.9002
ZF 9300 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.3825	1.8540
	5.185*	1.1850	1.5891
ZF 9311 ⁹	3.538, 3.760*, 3.958, 4.522	1.3825	1.8540
	5.185*	1.1850	1.5891
ZF 9350 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.4660	1.9659
	5.185*	1.2575	1.6863
ZF 9351 ⁹	3.538, 3.760*, 3.958, 4.522	1.4660	1.9659
	5.185*	1.2575	1.6863
ZF 9355 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.6250	2.1792
	5.185*	1.4170	1.9002
ZF 9356 ⁹	3.538, 3.760*, 3.958, 4.522	1.6250	2.1792
	5.185*	1.4170	1.9002
ZF 11850	5.000*, 5.960, 6.565*	1.6250	2.1792
	6.909	1.5501	2.0787
	8.158*	1.3250	1.7769
ZF 11850 NR	5.000*, 5.960*	1.7750	2.3803
	6.565*	1.6250	2.1792
	6.909	1.5501	2.0787
	8.158*	1.3250	1.7769
ZF 23560 C (IV=1.000)			
	1.721, 2.278, 2.839, 3.577	2.2514	3.0192
ZF 23560 C (IV=1.130)			
	4.042	1.9924	2.6718
ZF 23560 C (IV=1.273)			
	4.552*	1.7686	2.3717
ZF 23560 C (IV=1.432)			
	5.122*	1.5725	2.1087
ZF 23860 C (IV=0.492)			
	0.697*, 0.847*, 1.121*, 1.397*, 1.760*	4.5759	6.1364

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2000 rpm					
2600	3487	2925	3923	3250	4358	2300	1040	2288	
2408	3229	2709	3633	3010	4037	2300			
2267	3040	2551	3420	2834	3800	2300			
2600	3487	2925	3923	3250	4358	2300	1400	3080	
2408	3229	2709	3633	3010	4037	2300			
2267	3040	2551	3420	2834	3800	2300			
2212	2966	2489	3337	2765	3708	2300	1910	4202	
1896	2543	2133	2860	2370	3178	2300			
2212	2966	2489	3337	2765	3708	2300	2430	5346	
1896	2543	2133	2860	2370	3178	2300			
2346	3145	2639	3539	2932	3932	2300	1910	4202	
2012	2698	2263	3035	2515	3373	2300			
2346	3145	2639	3539	2932	3932	2300	2430	5346	
2012	2698	2263	3035	2515	3373	2300			
2600	3487	2925	3923	3250	4358	2300	1910	4202	
2267	3040	2551	3420	2834	3800	2300			
2600	3487	2925	3923	3250	4358	2300	2430	5346	
2267	3040	2551	3420	2834	3800	2300			
2600	3487	2925	3923	3250	4358	2100	3840	8448	
2480	3326	2790	3742	3100	4157	2100			
2120	2843	2385	3198	2650	3554	2100			
2840	3808	3195	4285	3550	4761	2100	3460	7612	
2600	3487	2925	3923	3250	4358	2100			
2480	3326	2790	3742	3100	4157	2100			
2120	2843	2385	3198	2650	3554	2100			
1600 rpm		1800 rpm		2050 rpm					
3602	4831	4053	5435	4615	6189	2100	2600	5720	
3188	4275	3586	4809	4084	5477	2100	2600	5720	
2830	3795	3183	4269	3626	4862	2100	2600	5720	
2516	3374	2830	3796	3224	4323	2100	2600	5720	
700 rpm		800 rpm		900 rpm					
3203	4295	3661	4909	4118	5523	1000	2600	5720	

⁹ U-drive version also available.

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 24060 D ^{10 11}	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.2513	3.0191
	3.947*	2.0368	2.7313
ZF 24060 NR2	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.2513	3.0191
	3.947*	2.0368	2.7313
ZF 24060 NR2B	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.2513	3.0191
	3.947*	2.0368	2.7313
ZF 24060 NR2H ¹⁰	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.2513	3.0191
	3.947*	2.0368	2.7313
ZF 24060 SGC ¹¹ (IV=1.000)	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476	2.2513	3.0191
	3.947*	2.0368	2.7313
ZF 24060 SGC ¹¹ (IV=1.173)	4.630	1.7363	2.3285
ZF 24060 SGC ¹¹ (IV=1.280)	5.052	1.5913	2.1340
ZF 24060 SGC ¹¹ (IV=1.354)	5.344	1.5043	2.0173
ZF 24360 D ^{9 10 11}	4.036, 5.087, 5.950	2.2513	3.0191
	6.421	2.0368	2.7313
ZF 24360 SG ^{9 10 11} (IV=1.000)	4.036, 5.087, 5.950	2.2513	3.0191
	6.421	2.0368	2.7313
ZF 24360 SG ^{9 10 11} (IV=1.173)	6.980	1.9191	2.5735
	7.616	1.7588	2.3587
ZF 24360 SG ^{9 10 11} (IV=1.280)	8.056	1.6627	2.2297
	8.694	1.5043	2.0173
ZF 30050 NR2 ¹²	1.514*, 1.735, 1.906, 2.032, 2.207*	2.9391	3.9413
	1.514*, 1.735, 1.906, 2.032, 2.207*	2.9391	3.9413
ZF 30050 NR2B ¹²	1.514*, 1.735, 1.906, 2.032, 2.207*	2.9391	3.9413
	1.514*, 1.735, 1.906, 2.032, 2.207*	2.9391	3.9413
ZF 30050 NR2H ^{10 12}	1.514*, 1.735, 1.906, 2.032, 2.207*	2.9391	3.9413
	1.514*, 1.735, 1.906, 2.032, 2.207*	2.9391	3.9413
ZF 30050 SGC ¹¹ (IV=0.759)	1.542, 1.955, 2.483	2.9676	3.9797
	2.807	2.8263	3.7901
	2.994	2.6849	3.6005
ZF 30350 SG ^{9 10 11} (IV=0.759)	3.062, 4.514	2.9676	3.9797
	4.871	2.6849	3.6005

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2050 rpm					
3602	4830	4052	5434	4615	6189	2100	2450	5390	
3259	4370	3666	4916	4175	5599	2100			
3602	4830	4052	5434	4615	6189	2100	1890	4158	
3259	4370	3666	4916	4175	5599	2100			
3602	4830	4052	5434	4615	6189	2100	1890	4158	
3259	4370	3666	4916	4175	5599	2100			
3602	4830	4052	5434	4615	6189	2100	1860	4092	
3259	4370	3666	4916	4175	5599	2100			
3602	4830	4052	5434	4615	6189	2100	3150	6930	
3259	4370	3666	4916	4175	5599	2100			
2778	3726	3125	4191	3559	4773	2100	3150	6930	
2546	3414	2864	3841	3262	4375	2100	3150	6930	
2407	3228	2708	3631	3084	4135	2100	3150	6930	
3602	4830	4052	5434	4615	6189	2100	3870	8514	
3259	4370	3666	4916	4175	5599	2100			
3602	4830	4052	5434	4615	6189	2100	4500	9900	
3259	4370	3666	4916	4175	5599	2100			
3070	4118	3454	4632	3934	5276	2100	4500	9900	
2814	3774	3166	4246	3606	4835	2100	4500	9900	
2660	3568	2993	4014	3409	4571	2100	4500	9900	
2407	3228	2708	3631	3084	4135	2100			
1000 rpm		1150 rpm		1250 rpm					
2939	3941	3380	4533	3674	4927	2300	1900	4180	
2939	3941	3380	4533	3674	4927	2300	1900	4180	
2939	3941	3380	4533	3674	4927	2300	1870	4114	
1200 rpm		1400 rpm		1600 rpm					
3561	4776	4155	5572	4748	6367	1600	3160	6952	
3392	4548	3957	5306	4522	6064	1600			
3222	4321	3759	5041	4296	5761	1600			
1100 rpm		1300 rpm		1570 rpm					
3264	4378	3858	5174	4659	6248	1570	4575	10065	
2953	3961	3490	4681	4215	5653	1570			

⁹ U-drive version also available.

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 40060 NR2 ¹²	1.514*, 1.735, 1.906	4.2304	5.6730
ZF 40060 NR2B ¹²	1.514*, 1.735, 1.906	4.2304	5.6730
ZF 40060 NR2H ^{10 12}	1.514*, 1.735, 1.906	4.2304	5.6730
ZF 40060 SGC ¹¹ (IV=0.522)	1.588	4.3129	5.7837
ZF 40060 SGC ¹¹ (IV=0.585)	1.507, 2.032 2.307	4.2276 3.4840	5.6694 4.6721
ZF 40360 SG ^{9 10 11} (IV=0.522)	2.107, 2.655, 3.106 3.352	4.3129 3.9019	5.7837 5.2325
ZF 40360 SG ^{9 10 11} (IV=0.585)	2.360, 2.974, 3.478 3.754	4.2276 3.4840	5.6694 4.6721
ZF 43700 NR2	2.516, 3.037, 3.500, 3.739 3.909 4.478 4.684 4.952 5.579 5.950	5.2000 5.0125 4.6148 4.4238 4.1739 3.2890 2.8460	6.9733 6.7218 6.1885 5.9324 5.5973 4.4106 3.8165
ZF 53000 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	5.5497	7.4423
ZF 53000 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	5.5497	7.4423
ZF 53500 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	7.3298	9.8295
ZF 53500 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	7.3298	9.8295
ZF 53600 NR2H ¹⁰	2.481, 2.917, 3.476, 3.700 4.000 4.500	7.2800 6.7209 5.7889	9.7626 9.0129 7.7630
ZF 53800 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129	8.0000	10.7282

* Special Order Ratio.

⁹ U-drive version also available.

¹⁰ Left and Right version available.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1000 rpm		1150 rpm		1250 rpm					
4230	5673	4865	6524	5288	7091	2300	2010 4422		
4230	5673	4865	6524	5288	7091	2300	2010 4422		
4230	5673	4865	6524	5288	7091	2300	1880 4136		
900 rpm		1000 rpm		1100 rpm					
3882	5205	4313	5784	4744	6362	1100	3170 6974		
900 rpm		1000 rpm		1200 rpm					
3805	5102	4228	5669	5073	6803	1200	3170 6974		
3136	4205	3484	4672	4181	5607	1200			
900 rpm		1000 rpm		1050 rpm					
3882	5205	4313	5784	4529	6073	1050	4625 10175		
3512	4709	3902	5233	4097	5494	1050			
1000 rpm		1100 rpm		1230 rpm					
4228	5669	4650	6236	5200	6973	1230	4625 10175		
3484	4672	3832	5139	4285	5747	1230			
1000 rpm		1150 rpm		1300 rpm					
5200	6973	5980	8019	6760	9065	1350	9300 20460		
5012	6722	5764	7730	6516	8738	1350			
4615	6189	5307	7117	5999	8045	1350			
4424	5932	5087	6822	5751	7712	1350			
4174	5597	4800	6437	5426	7277	1350			
3289	4411	3782	5072	4276	5734	1350			
2846	3817	3273	4389	3700	4961	1350			
750 rpm		1000 rpm		1200 rpm					
4162	5582	5550	7442	6660	8931	1350	3900 8580		
4162	5582	5550	7442	6660	8931	1350	3750 8250		
5497	7372	7330	9829	8796	11795	1350	3825 8415		
5497	7372	7330	9829	8796	11795	1350	3980 8756		
1000 rpm		1200 rpm		1300 rpm					
7280	9763	8736	11715	9464	12691	1350	9900 21780		
6721	9013	8065	10816	8737	11717	1350			
5789	7763	6947	9316	7526	10092	1350			
750 rpm		1000 rpm		1200 rpm					
6000	8046	8000	10728	9600	12874	1350	4080 8976		

¹¹ PTI also available (Hybrid).

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

MEDIUM DUTY SINGLE SPEED

M

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 53800 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129	8.0000	10.7282
ZF 60000 NR2H ¹⁰	1.500, 2.125, 2.226, 2.741	9.1000	12.2033
ZF 60500 NR2H ¹⁰	1.500, 2.125, 2.226, 2.367	10.0000	13.4102
ZF 83700 NR2H ¹⁰	2.867, 3.462, 4.227, 4.800	8.0000	10.7282
	5.591	6.7200	9.0117
ZF 83750 NR2H ¹⁰	2.867, 3.462, 4.227	10.0000	13.4102
	4.800	9.0800	12.1765
	5.591	7.8000	10.4600

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
750 rpm		1000 rpm		1200 rpm					
6000	8046	8000	10728	9600	12874	1350	3925 8635		
6825	9152	9100	12203	10920	14644	1350	4650 10230		
7500	10058	10000	13410	12000	16092	1350	4650 10230		
1000 rpm		1150 rpm		1300 rpm					
8000	10728	9200	12337	10400	13947	1350	15500 34100		
6720	9012	7728	10363	8736	11715	1350			
900 rpm		1000 rpm		1050 rpm					
9000	12069	10000	13410	10500	14081	1100	15500 34100		
8172	10959	9080	12176	9534	12785	1100			
7020	9414	7800	10460	8190	10983	1100			

¹⁰ Left and Right version available.

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 12 M	2.136	1.955	0.0105	0.0140
	2.632	1.955	0.0094	0.0126
ZF 15 M	1.556	1.955	0.0126	0.0169
	1.875	1.955	0.0115	0.0154
ZF 15 MA 8 degrees	1.875	1.955	0.0115	0.0154
	2.136	1.955	0.0103	0.0138
	2.632	1.955	0.0094	0.0126
ZF 15 MIV 15 degrees	2.134	2.224	0.0115	0.0154
	2.718	2.224	0.0094	0.0126
	2.995	2.224		
ZF 25 M	1.880	2.095	0.0190	0.0254
	2.273	2.095	0.0153	0.0205
	2.737	2.722	0.0127	0.0170
ZF 25 MA 8 degrees	2.227	2.737	0.0153	0.0205
	2.737	2.737	0.0126	0.0169
ZF 30 M	2.148	2.636	0.0173	0.0232
	2.696	2.636		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner adaptor.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2300 rpm		2600 rpm					
19	25	24	32	27	37	5000	13	29	SAE 4, 5, 6, B/W, Yanmar JH Max input power 40 kW.
17	23	22	29	25	33	5000			
23	30	29	39	33	44	5000	13	29	SAE 4, 5, 6, B/W, Yanmar JH Max input power 40 kW.
21	28	26	36	30	40	5000			
21	28	26	36	30	40	5000	13.5	30	SAE 4, 5, 6, B/W, Yanmar JH Max input power 40 kW.
18	25	24	32	27	36	5000			
17	23	22	29	25	33	5000			
21	28	26	36	30	40	5000	20	44	SAE 4, 5, B/W, Yanmar JH Max input power 40 kW.
17	23	22	29	25	33	5000			
34	46	44	58	49	66	5000	18.5	41	SAE 4, 5, B/W, Yanmar JH Max input power 57 kW.
28	37	35	47	40	53	5000			
23	31	29	39	33	44	5000			
28	37	35	47	40	53	5000			
23	30	29	39	33	44	5000	21	46	SAE 4, 5, B/W, Yanmar JH Max input power 57 kW.
31	42	40	53	45	60	5000	23	51	
									4 & 5 Yanmar JH Max input power 68 kW.

Note: For all "M" (Mechanical) transmissions reduce power capacity by the following shock factors:

1 cylinder engine ÷ 1.25,

2 cylinder engine ÷ 1.20,

3 cylinder engine ÷ 1.15

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS		POWER/RPM			
	'A' Pos	'B' Pos	kW	hp		
ZF 25	1.969	1.969	0.0172	0.0230		
	2.800	2.800	0.0166	0.0223		
ZF 25 A 8 degrees	1.548	1.548	0.0172	0.0230		
	1.926	1.926				
	2.292	2.292				
	2.480*	2.480				
	2.714	0.0166	0.0223			
ZF 45 A 8 degrees	1.256	1.256	0.0312	0.0418		
	1.514	1.514				
	2.034	2.034				
	2.435	2.435			0.0287	0.0385
ZF 45-1	2.200	2.200	0.0429	0.0576		
	2.512	2.512				
	3.031	3.031				
	3.741	3.741				
ZF 63	1.256	1.250	0.0442	0.0593		
	1.514	1.521				
	1.750*	1.770				
	1.933	1.973				
	2.480	2.476			0.0434	0.0581
	2.783	2.799				
ZF 63 A 8 degrees	1.216	1.215	0.0471	0.0632		
	1.563	1.583	0.0443	0.0594		
	2.037	2.017				
	2.522	2.536	0.0387	0.0520		
	2.682	2.709				
ZF 63 IV 12 degrees	1.294	1.288	0.0471	0.0632		
	1.560	1.567	0.0442	0.0593		
	1.992	2.033				
	2.477	2.528	0.0434	0.0581		
ZF 80 A 8 degrees	1.567	1.567	0.0616	0.0826		
	1.750	1.750				
	1.962	1.962				
	2.500	2.500				

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2400 rpm					
31	41	36	48	41	55	3200	24	53	SAE 3, 4, 5, B/W, Yanmar JH
30	40	35	47	40	54	3200			
31	41	36	48	41	55	3200	24	53	SAE 3, 4, 5, B/W, Yanmar JH
30	40	35	47	40	54	3200			
56	75	66	88	75	100	3200	28	62	SAE 3, 4, 5, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
52	69	60	81	69	92	3200			
77	104	90	121	103	138	3200	60	132	SAE 2, 3, 4, B/W, Yanmar 4LH-4JH, Volvo 30-40, Volvo D4-D6
80	107	93	124	106	142	3200	46	101	
85	114	99	133	113	152	3200	44	97	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
80	107	93	125	106	143	3200			
70	94	81	109	93	125	3200			
85	114	99	133	113	152	3200	62	136	SAE 3, 4, 5, B/W, Yanmar 4LH, Volvo 30-40, Volvo D4-D6
80	107	93	124	106	142	3200			
78	105	91	122	104	140	3200			
111	149	129	173	148	198	3200	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS		POWER/RPM	
	'A' Pos	'B' Pos	kW	hp
ZF 80 IV 12 degrees	1.644	1.638	0.0616	0.0826
	2.008	1.996		
	2.493	2.468		
ZF 85 A 8 degrees	1.567	1.567	0.0696	0.0934
	1.750	1.750		
	1.962	1.962		
	2.500	2.500		
ZF 85 IV 12 degrees	1.644	1.638	0.0726	0.0973
	2.008	1.996		
	2.493	2.468		

* Special Order Ratio.

'A' POS = continuous running position (normally AHEAD).

'B' POS = reverse position.

B/W = Borg Warner connection integrated with all casings except ZF 25, ZF 25 A, ZF 45-1.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2400 rpm					
111	149	129	173	148	198	3200	86	189	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
125	168	146	196	167	224	3200	69	152	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
131	175	152	204	174	234	3200	86	189	SAE 2, 3, B/W, 3 CAT, Volvo D4-D6
125	168	146	196	167	224	3200			

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 220	1.000, 1.128*, 1.237*, 1.400*	0.0603	0.0809
	1.500, 1.963, 2.478	0.0592	0.0793
	3.000	0.0513	0.0688
ZF 220 A 10 degrees	1.235	0.0603	0.0809
	1.533, 1.750*, 2.040	0.0581	0.0779
	2.455	0.0524	0.0702
ZF W220	2.617	0.0666	0.0893
	3.133	0.0615	0.0824
	3.555	0.0562	0.0754
	3.960	0.0510	0.0684
	4.636	0.0462	0.0619
ZF 280-1	0.814*, 1.000, 1.056*, 1.139*, 1.214*, 1.300*	0.0775	0.1039
	1.514, 1.719*, 2.000		
	2.478	0.0724	0.0970
	3.000	0.0667	0.0894
ZF 280-1 A 7 degrees	1.118, 1.483, 1.769, 2.000	0.0775	0.1039
	2.227*, 2.476*	0.0724	0.0970
ZF 286	1.237, 1.400*, 1.500, 1.774, 1.966, 2.269	0.1047	0.1404
	0.923, 1.000, 2.481	0.0959	0.1286
	2.917	0.0875	0.1174
ZF 286 A 7 degrees	1.200, 1.333, 1.484, 1.750, 1.962	0.1047	0.1404
	2.208, 2.391, 2.500	0.0906	0.1215
ZF 301 A 10 degrees	1.190, 1.516, 2.005, 2.301*, 2.551*, 2.901	0.0681	0.0913
ZF 301 C	1.106, 1.179*, 1.236*, 1.296*, 1.408, 1.862	0.0733	0.0983
	2.137*		
	2.694	0.0716	0.0960
ZF 305-3	0.884, 0.923*, 1.000, 1.220, 1.297*, 1.486	0.1296	0.1738
	1.758, 1.968		
	2.250	0.1154	0.1547
	2.500	0.1136	0.1524
	2.917	0.1012	0.1356
ZF 305-3 A 7 degrees	1.200, 1.514, 1.733, 2.037	0.1296	0.1738
	2.179	0.1154	0.1547
	2.423	0.1136	0.1524

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1800 rpm		2100 rpm		2300 rpm					
109	146	127	170	139	186	3200	63	139	SAE 2, 3, 3 CAT
106	143	124	167	136	182	3200			
92	124	108	144	118	158	3200			
109	146	127	170	139	186	3200	50	110	SAE 2, 3, BW, 3 CAT
105	140	122	164	134	179	3200			
94	126	110	147	120	161	3200			
120	161	140	188	153	205	3200	105	231	SAE 2, 3, 3 CAT
111	148	129	173	141	190	3200			
101	136	118	158	129	173	3200			
92	123	107	144	117	157	3200			
83	111	97	130	106	142	3200			
139	187	163	218	178	239	3300	73	161	SAE 1, 2, 3, 3 CAT
130	175	152	204	166	223	3300			
120	161	140	188	153	206	3300			
139	187	163	218	178	239	3300	73	161	
130	175	152	204	166	223	3300			SAE 1, 2, 3, 3 CAT
188	253	220	295	241	323	3300	86	189	SAE 1, 2, 3, 3 CAT
173	232	201	270	221	296	3300			
158	211	184	247	201	270	3300			
188	253	220	295	241	323	3300	77	169	
163	219	190	255	208	279	3300			SAE 1, 2, 3, 3 CAT
123	164	143	192	157	210	3000	87	191	SAE 1, 2, 3, 3 CAT
132	177	154	206	169	226	3000	87	191	
129	173	150	202	165	221	3000			SAE 1, 2, 3, 3 CAT
1600 rpm		1800 rpm		2100 rpm					
207	278	233	313	272	365	3000	98	216	SAE 1, 2, 3
185	248	208	279	242	325	3000			
182	244	205	274	239	320	3000			
162	217	182	244	212	285	3000			
207	278	233	313	272	365	3000	97	213	
185	248	208	279	242	325	3000			SAE 1, 2, 3
182	244	205	274	239	320	3000			

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W320	2.958	0.1491	0.2000
	4.048	0.1368	0.1834
	4.526	0.1284	0.1722
	4.950	0.1160	0.1556
ZF 325-1	1.000, 1.050*, 1.167*, 1.225*, 1.459, 1.727 2.033, 2.250*	0.1556	0.2087
	2.500	0.1450	0.1945
	2.957	0.1326	0.1778
ZF 325-1 A 7 degrees	1.216, 1.485, 1.733, 2.037, 2.240*	0.1556	0.2087
	2.417	0.1450	0.1945
ZF W325	2.933*, 3.407, 3.958	0.1657	0.2221
	4.409	0.1533	0.2056
	4.913	0.1326	0.1778
	5.167*	0.1243	0.1667
ZF 335 A 7 degrees	1.441, 1.594, 1.767, 1.964, 2.192	0.1802	0.2417
	2.458	0.1699	0.2279
ZF W350-1	3.026*, 3.500, 3.968, 4.536, 4.962, 5.458* 5.955	0.2071	0.2778
	6.409*	0.1781	0.2389
ZF 360	0.925*, 1.045, 1.125*, 1.237, 1.500, 1.774 1.966, 2.185, 2.480, 2.625	0.1802	0.2417
	2.917	0.1775	0.2380
ZF 360 A 7 degrees	1.216, 1.485, 1.767, 1.964, 2.192, 2.478 2.609	0.1802	0.2417
ZF 370 V 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000, 2.222 2.480	0.1802	0.2417
ZF 500	1.125, 1.237, 1.500, 1.774, 1.966	0.2486	0.3334
	2.185*	0.2279	0.3056
	0.925*, 1.000*	0.2217	0.2973
	2.480	0.2079	0.2787
	2.625	0.1988	0.2667
	2.917	0.1864	0.2499
ZF 500-1 A 7 degrees	1.216, 1.485, 1.767, 1.964	0.2486	0.3334
	2.192	0.2279	0.3056
	2.478	0.2079	0.2787
	2.609	0.1988	0.2667

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2100 rpm					
239	320	268	360	313	420	2400	270	594	SAE 1, 2
219	293	246	330	287	385	2400			
205	275	231	310	270	362	2400			
186	249	209	280	244	327	2400			
249	334	280	376	327	438	3000	130	286	
232	311	261	350	305	408	3000			SAE 1
212	284	239	320	278	373	3000			
249	334	280	376	327	438	3000	130	286	SAE 1
232	311	261	350	305	408	3000			SAE 1
265	355	298	400	348	467	2600	315	693	
245	329	276	370	322	432	2600			
212	284	239	320	278	373	2600			
199	267	224	300	261	350	2600			
288	387	324	435	378	507	3000	159	350	
272	365	306	410	357	479	3000			SAE 1
331	444	373	500	435	583	2400	500	1100	
285	382	321	430	374	502	2400			SAE 0, 1
288	387	324	435	378	507	3000	185	407	
284	381	319	428	373	500	3000			
288	387	324	435	378	507	3000	187	411	SAE 1, 0*
288	387	324	435	378	507	3000	194	427	SAE 1, 0*
398	533	447	600	522	700	3000	185	407	
365	489	410	550	478	642	3000			
355	476	399	535	466	624	3000			
333	446	374	502	436	585	3000			
318	427	358	480	418	560	3000			
298	400	335	450	391	525	3000			
398	533	447	600	522	700	3000	192	422	
365	489	410	550	478	642	3000			SAE 1, 0*
333	446	374	502	436	585	3000			
318	427	358	480	418	560	3000			

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 510 V 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000	0.2486	0.3334
	2.222, 2.480	0.2279	0.3056
ZF 510-1 A 10 degrees	1.125, 1.263, 1.529, 1.774, 2.000	0.2486	0.3334
	2.222, 2.480	0.2279	0.3056
ZF 550	0.936*, 1.111*, 1.182*, 1.262*, 1.400*, 1.500 1.743, 1.833, 2.000, 2.233	0.2492	0.3342
	2.593	0.2399	0.3217
	3.042	0.1991	0.2669
ZF 550 A 10 degrees	1.525, 1.757*, 1.971	0.2492	0.3342
	2.517	0.2398	0.3216
	2.960	0.1990	0.2668
ZF 550 V 10 degrees	1.525, 1.757*, 1.971	0.2492	0.3342
	2.517	0.2398	0.3216
	2.960	0.1990	0.2668
ZF W650	3.605*, 4.057, 4.531, 5.138, 5.357*, 5.593	0.2487	0.3335
	6.120	0.2252	0.3020
	6.417	0.2105	0.2822
ZF 665	1.111, 1.182, 1.262, 1.400, 1.500, 1.743 2.000	0.2901	0.3890
	2.233, 2.593	0.2692	0.3610
	3.042	0.2237	0.2999
ZF 665 A 10 degrees	1.525, 1.757, 1.971	0.2901	0.3890
	2.226, 2.448	0.2692	0.3610
	2.517	0.2652	0.3557
	2.960	0.2382	0.3195
ZF 665 V 10 degrees	1.525, 1.757, 1.971	0.2901	0.3890
	2.226	0.2692	0.3610
	2.448, 2.517	0.2652	0.3557
	2.960	0.2382	0.3195
ZF W1700	3.500*, 4.057, 4.394, 4.967, 5.393, 6.160 6.458	0.2487	0.3335
	6.923*	0.2249	0.3016
ZF W1800	3.500*, 4.057, 4.394, 4.967	0.3108	0.4168
	5.393	0.2983	0.4001
	6.160	0.2817	0.3777
	6.458	0.2584	0.3466
	6.923*	0.2249	0.3016

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2100 rpm					
398	533	447	600	522	700	3000	200	440	
365	489	410	550	478	642	3000			
398	533	447	600	522	700	3000	193	425	SAE 1, 0*
365	489	410	550	478	642	3000			
399	535	449	602	523	702	3000	242	532	SAE 0*, 1
384	515	432	579	504	676	3000			
318	427	358	480	418	561	3000			
399	535	449	602	523	702	3000	256	563	SAE 0*, 1
384	515	432	579	504	675	3000			
318	427	358	480	418	560	3000			
399	535	449	602	523	702	3000	260	572	
384	515	432	579	504	675	3000			
318	427	358	480	418	560	3000			
398	534	448	600	522	700	2600	561	1234	SAE 0, 1
360	483	405	544	473	634	2600			
337	452	379	508	442	593	2600			
464	622	522	700	609	817	3000	248	546	SAE 0*, 1
431	578	485	650	565	758	3000			
358	480	403	540	470	630	3000			
464	622	522	700	609	817	3000	253	557	SAE 0*, 1
431	578	485	650	565	758	3000			
424	569	477	640	557	747	3000			
381	511	429	575	500	671	3000			
464	622	522	700	609	817	3000	252	554	
431	578	485	650	565	758	3000			
424	569	477	640	557	747	3000			
381	511	429	575	500	671	3000			
398	534	448	600	522	700	2100	642	1412	SAE 1, 0
360	483	405	543	472	633	2100			
497	667	559	750	653	875	2100	642	1412	SAE 1, 0
477	640	537	720	626	840	2100			
451	604	507	680	592	793	2100			
413	554	465	624	543	728	2100			
360	483	405	543	472	633	2100			

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 2000	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.2817	0.3777
	2.760*	0.2595	0.3480
	2.958	0.2454	0.3291
ZF 2000 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467 2.714*	0.2817	0.3777
	2.920	0.2550	0.3419
	3.250*	0.2162	0.2900
ZF 2000 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467 2.714*	0.2817	0.3777
	2.920	0.2550	0.3419
	3.250*	0.2162	0.2900
ZF 2050	1.086*, 1.250*, 1.350*, 1.436*, 1.500, 1.639* 1.765*, 2.032, 2.276*, 2.519	0.3111	0.4172
	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.3111	0.4172
ZF 2050 A 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.3111	0.4172
	2.760*	0.2866	0.3843
ZF 2050 V 10 degrees	1.267*, 1.512*, 1.763, 2.029, 2.250*, 2.467	0.3111	0.4172
	2.958	0.2711	0.3636
ZF 2150	2.714*	0.3111	0.4172
	2.920	0.2817	0.3777
	3.250*	0.2388	0.3203
ZF 2150 A 10 degrees	2.714*	0.3111	0.4172
	2.920	0.2817	0.3777
	3.250*	0.2388	0.3203
ZF 2150 V 10 degrees	2.714*	0.3111	0.4172
	2.920	0.2817	0.3777
	3.250*	0.2388	0.3203
ZF 2200	3.000, 3.519*	0.2819	0.3780
ZF 2250	3.000, 3.519*	0.3111	0.4172
ZF 2300 ⁹	4.000, 4.444	0.2819	0.3780
ZF W2300	3.028*, 3.500*, 4.000, 4.444, 4.760*	0.2819	0.3780
	4.000, 4.444	0.3109	0.4169
ZF 2350 ⁹	4.000, 4.444	0.3109	0.4169
	4.760*	0.2985	0.4003
ZF W2350	3.028*, 3.500*, 4.000, 4.444	0.3109	0.4169
	4.760*	0.2985	0.4003
ZF W2450	5.036, 5.500	0.3109	0.4169

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2100 rpm					
451	604	507	680	592	793	2100	340	748	SAE 1, 0
415	557	467	626	545	731	2100			
393	527	442	592	515	691	2100			
451	604	507	680	592	793	2100	348	766	SAE 1, 0
408	547	459	615	535	718	2100			
346	464	389	522	454	609	2100			
451	604	507	680	592	793	2100	352	774	
408	547	459	615	535	718	2100			
346	464	389	522	454	609	2100			
498	668	560	751	653	876	2100	342	752	SAE 1, 0
498	668	560	751	653	876	2100	350	770	SAE 1, 0
498	668	560	751	653	876	2100	354	779	
459	615	516	692	602	807	2100	344	757	SAE 1, 0
434	582	488	654	569	763	2100			
498	668	560	751	653	876	2100	352	774	SAE 1, 0
451	604	507	680	592	793	2100			
382	512	430	577	502	673	2100			
498	668	560	751	653	876	2100	356	783	
451	604	507	680	592	793	2100			
382	512	430	577	502	673	2100			
451	605	507	680	592	794	2100	404	889	SAE 1, 0
498	668	560	751	653	876	2100	406	893	SAE 1, 0
451	605	507	680	592	794	2100	434	955	SAE 1, 0
451	605	507	680	592	794	2100	590	1298	SAE 0, 1
497	667	560	750	653	876	2100	436	959	SAE 1, 0
478	641	537	721	627	841	2100			
497	667	560	750	653	876	2100	590	1298	SAE 0, 1
478	641	537	721	627	841	2100			
497	667	560	750	653	876	2100	760	1672	SAE 0

⁹ U-drive version also available.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 3000	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.3980	0.5337
ZF 3000 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.3980	0.5337
	3.280*	0.3400	0.4559
ZF 3000 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.3980	0.5337
	3.280*	0.3400	0.4559
ZF 3050	1.093*, 1.250*, 1.343*, 1.441*, 1.500, 1.563* 1.645*, 1.700*, 1.733*, 1.800*, 1.828*, 2.037 2.240*, 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.4664	0.6254
ZF 3050 A 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.4664	0.6254
	3.280*	0.4105	0.5505
ZF 3050 D ³	1.093*, 1.250*, 1.441*, 1.500, 1.563*, 1.645* 1.700*, 1.733*, 1.800*, 1.828*, 2.037, 2.240* 2.375*, 2.500, 2.609*, 2.773*, 2.952*	0.4664	0.6254
ZF 3050 V 10 degrees	1.351*, 1.486*, 1.750*, 2.034, 2.259*, 2.520 2.750*, 3.000*	0.4664	0.6254
	3.280*	0.4105	0.5505
ZF 3150 A 10 degrees	1.500*, 1.759*, 1.963, 2.240, 2.478*	0.4664	0.6254
ZF 3310 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.3980	0.5337
ZF W3310	3.519*, 4.000, 4.478, 4.727*, 5.000	0.3980	0.5337
ZF 3350 ⁹	3.519*, 4.000, 4.478, 4.727*, 5.000	0.4750	0.6370
ZF W3350	3.519*, 4.000, 4.478, 4.727*, 5.000	0.4750	0.6370
ZF W3355	3.519*, 4.000	0.5556	0.7451
	4.478	0.5298	0.7105
	4.727*	0.5089	0.6824
	5.000	0.4838	0.6487
ZF W3710	5.545, 5.952	0.3980	0.5337
ZF W3750	5.545, 5.952	0.4750	0.6370

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2100 rpm					
637	854	716	961	836	1121	2100	482 1060	SAE 1, 0	
637	854	716	961	836	1121	2100	485 1067	SAE 1, 0	
544	730	612	821	714	957	2100			
637	854	716	961	836	1121	2100	500 1100		
544	730	612	821	714	957	2100			
746	1001	839	1126	979	1313	2100	482 1060	SAE 1, 0	
746	1001	839	1126	979	1313	2100	485 1067	SAE 1, 0	
657	881	739	991	862	1156	2100			
746	1001	839	1126	979	1313	2100	482 1060		
746	1001	839	1126	979	1313	2100	500 1100		
657	881	739	991	862	1156	2100			
746	1001	839	1126	979	1313	2100	470 1034	SAE 1, 0	
637	854	716	961	836	1121	2100	665 1463	SAE 1, 0	
637	854	716	961	836	1121	2100	850 1870	SAE 0, 1	
760	1019	855	1147	997	1338	2100	665 1463	SAE 1, 0	
760	1019	855	1147	997	1338	2100	850 1870	SAE 0, 1	
1200 rpm		1600 rpm		1800 rpm					
667	894	889	1192	1000	1341	1800	855 1881	SAE 0, 1	
636	853	848	1137	954	1279	1800			
611	819	814	1092	916	1228	1800			
581	778	774	1038	871	1168	1800			
1600 rpm		1800 rpm		2100 rpm					
637	854	716	961	836	1121	2100	920 2024	SAE 0, 1	
760	1019	855	1147	997	1338	2100	920 2024	SAE 0, 1	

³ D - transmissions only for counter engine wise rotation available (waterjet application). Reversing feature for cleaning the jet possible.

⁹ U-drive version also available.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W3755	4.538*, 5.042*	0.5556	0.7451
	5.545	0.5131	0.6881
	5.952	0.4838	0.6487
ZF 5000	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*, 2.963	0.5497	0.7372
ZF 5000 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.5497	0.7372
ZF 5000 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.5497	0.7372
ZF 5050	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*, 2.963	0.6319	0.8474
ZF 5050 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.6319	0.8474
	3.222*	0.5864	0.7864
	3.429*	0.5497	0.7372
ZF 5050 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.6319	0.8474
	3.222*	0.5864	0.7864
	3.429*	0.5497	0.7372
ZF 5055	1.256*, 1.526, 1.771*, 2.031, 2.233*, 2.500 2.731*	0.7331	0.9831
	2.963	0.6880	0.9226
ZF 5055 A 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.7331	0.9831
	3.222*	0.6880	0.9226
	3.429*	0.6319	0.8474
ZF 5055 V 8 degrees	1.512*, 1.757*, 2.029, 2.250*, 2.467, 2.714* 2.962	0.7331	0.9831
	3.222*	0.6880	0.9226
	3.429*	0.6319	0.8474
ZF 5300 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.5497	0.7372
ZF W5300	3.471*, 4.033, 4.464, 5.040	0.5497	0.7372
ZF 5350 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.6319	0.8474
ZF W5350	3.471*, 4.033, 4.464, 5.040	0.6319	0.8474
ZF 5355 ^{9 11}	2.947*, 3.471*, 4.033, 4.464, 5.040	0.7331	0.9831
	5.500	0.6670	0.8945

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		2100 rpm					
889	1192	1000	1341	1167	1565	2100	920	2024	SAE 0, 1
821	1101	924	1239	1077	1445	2100			
774	1038	871	1168	1016	1362	2100			
1600 rpm		1800 rpm		1900 rpm					
880	1180	990	1327	1045	1401	2000	740	1628	SAE 0, 00
880	1180	990	1327	1045	1401	2000	750	1650	SAE 0, 00
880	1180	990	1327	1045	1401	2000	768	1690	
1011	1356	1137	1525	1201	1610	2000	740	1628	SAE 0, 00
1011	1356	1137	1525	1201	1610	2000	750	1650	SAE 0, 00
938	1258	1055	1415	1114	1494	2000			
880	1180	990	1327	1045	1401	2000			
1011	1356	1137	1525	1201	1610	2000	768	1690	
938	1258	1055	1415	1114	1494	2000			
880	1180	990	1327	1045	1401	2000			
1173	1573	1320	1770	1393	1868	2000	740	1628	SAE 0, 00
1101	1476	1238	1661	1307	1753	2000			
1173	1573	1320	1770	1393	1868	2000	750	1650	SAE 0, 00
1101	1476	1238	1661	1307	1753	2000			
1011	1356	1137	1525	1201	1610	2000			
1173	1573	1320	1770	1393	1868	2000	768	1690	
1101	1476	1238	1661	1307	1753	2000			
1011	1356	1137	1525	1201	1610	2000			
880	1180	990	1327	1045	1401	2000	950	2090	SAE 0, 00
880	1180	990	1327	1045	1401	1900	1290	2838	SAE 0, 00
1011	1356	1137	1525	1201	1610	2000	950	2090	SAE 0, 00
1011	1356	1137	1525	1201	1610	1900	1290	2838	SAE 0, 00
1173	1573	1320	1770	1393	1868	2000	950	2090	SAE 0, 00
1067	1431	1201	1610	1267	1700	2000			

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W5355	3.471*, 4.033, 4.464, 5.040	0.7331	0.9831
	5.500	0.6670	0.8945
ZF 7600	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.0262	1.3761
	2.905	1.0052	1.3480
	3.174*	0.9319	1.2497
ZF 7600 A 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.0262	1.3761
	3.286*	0.9635	1.2920
	3.450*	0.9319	1.2497
ZF 7600 NR2	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.0262	1.3761
	2.905	1.0052	1.3480
	3.174*	0.9319	1.2497
ZF 7600 NR2B	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.0262	1.3761
	2.905	1.0052	1.3480
	3.174*	0.9319	1.2497
ZF 7600 NR2H ¹⁰	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.0262	1.3761
	2.905	1.0052	1.3480
	3.174*	0.9319	1.2497
ZF 7600 V 8 degrees	1.486*, 2.033, 2.250*, 2.538, 2.957	1.0262	1.3761
	3.286*	0.9635	1.2920
	3.450*	0.9319	1.2497
ZF W7610	4.577*, 5.000, 5.435	1.0262	1.3761
	5.952	1.0052	1.3480
	6.250	0.9635	1.2920
	6.500*	0.9319	1.2497
	6.833*	0.8377	1.1234
ZF W7615	4.577*, 5.000, 5.435	1.1518	1.5446
	5.952	1.1058	1.4828
	6.250	1.0597	1.4211
ZF 7640	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.0262	1.3761
	4.500	0.9634	1.2919
ZF W7640	3.440, 3.625*, 3.826*, 4.000, 4.238*	1.0262	1.3761
	4.500	0.9634	1.2919
ZF 7641	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.0262	1.3761
	4.500	0.9634	1.2919
ZF 7645	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.1518	1.5446
	4.500	1.0785	1.4463

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1600 rpm		1800 rpm		1900 rpm					
1173	1573	1320	1770	1393	1868	1900	1290	2838	SAE 0, 00
1067	1431	1201	1610	1267	1700	1900			
1200 rpm		1600 rpm		1800 rpm					
1231	1651	1642	2202	1847	2477	1800	970	2134	SAE 00
1206	1618	1608	2157	1809	2426	1800			
1118	1500	1491	2000	1677	2250	1800			
1231	1651	1642	2202	1847	2477	1800	1125	2475	SAE 00
1156	1550	1542	2067	1734	2326	1800			
1118	1500	1491	2000	1677	2250	1800			
1231	1651	1642	2202	1847	2477	1800	705	1551	
1206	1618	1608	2157	1809	2426	1800			
1118	1500	1491	2000	1677	2250	1800			
1231	1651	1642	2202	1847	2477	1800	705	1551	
1206	1618	1608	2157	1809	2426	1800			
1118	1500	1491	2000	1677	2250	1800			
1231	1651	1642	2202	1847	2477	1800	1125	2475	
1156	1550	1542	2067	1734	2326	1800			
1118	1500	1491	2000	1677	2250	1800			
1231	1651	1642	2202	1847	2477	1800	2520	5544	
1206	1618	1608	2157	1809	2426	1800			
1156	1550	1542	2067	1734	2326	1800			
1118	1500	1491	2000	1677	2250	1800			
1005	1348	1340	1797	1508	2022	1800			
1382	1854	1843	2471	2073	2780	1800	2520	5544	
1327	1779	1769	2373	1990	2669	1800			
1272	1705	1695	2274	1907	2558	1800			
1231	1651	1642	2202	1847	2477	1800	1325	2915	
1156	1550	1541	2067	1734	2325	1800			
1231	1651	1642	2202	1847	2477	1800	1750	3850	
1156	1550	1541	2067	1734	2325	1800			
1231	1651	1642	2202	1847	2477	1800	1750	3850	
1156	1550	1541	2067	1734	2325	1800			
1382	1854	1843	2471	2073	2780	1800	1325	2915	
1294	1736	1726	2314	1941	2603	1800			

¹⁰ Left and Right version available.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W7645	3.440, 3.625*, 3.826*, 4.000, 4.238*	1.1518	1.5446
	4.500	1.0785	1.4463
ZF 7646	3.308*, 3.440, 3.625*, 3.826*, 4.000, 4.238*	1.1518	1.5446
	4.500	1.0785	1.4463
ZF 7650	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.1518	1.5446
	2.905	1.1058	1.4828
	3.174*	1.0157	1.3621
ZF 7650 A 8 degrees	1.486*, 2.033, 2.250*, 2.538	1.1518	1.5446
	2.957	1.1058	1.4828
	3.286*	1.0597	1.4211
	3.450*	1.0157	1.3621
ZF 7650 NR2	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.1518	1.5446
	2.905	1.1058	1.4828
	3.174*	1.0157	1.3621
ZF 7650 NR2B	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.1518	1.5446
	2.905	1.1058	1.4828
	3.174*	1.0157	1.3621
ZF 7650 NR2H ¹⁰	1.545*, 1.828*, 2.037, 2.231*, 2.565, 2.773*	1.1518	1.5446
	2.905	1.1058	1.4828
	3.174*	1.0157	1.3621
ZF 7650 V 8 degrees	1.486*, 2.033, 2.250*, 2.538	1.1518	1.5446
	2.957	1.1058	1.4828
	3.286*	1.0597	1.4211
	3.450*	1.0157	1.3621
ZF 7661	4.577*, 4.760*, 5.000, 5.435	1.0262	1.3761
	5.952	1.0052	1.3480
	6.250	0.9635	1.2920
	6.500*	0.9319	1.2497
	6.833*	0.8377	1.1234
ZF 7666	4.577*, 4.760*, 5.000, 5.435, 5.952	1.1518	1.5446
	6.250	1.0695	1.4343
	6.500*	1.0345	1.3872
	6.833*	0.9298	1.2469
ZF 9000	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.2200	1.6360
	3.250*	1.1501	1.5422
	3.448*	1.1000	1.4751

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1200 rpm		1600 rpm		1800 rpm					
1382	1854	1843	2471	2073	2780	1800	1750	3850	
1294	1736	1726	2314	1941	2603	1800			
1382	1854	1843	2471	2073	2780	1800	1750	3850	
1294	1736	1726	2314	1941	2603	1800			
1382	1854	1843	2471	2073	2780	1800	970	2134	SAE 00
1327	1779	1769	2373	1990	2669	1800			
1219	1635	1625	2179	1828	2452	1800			
1382	1854	1843	2471	2073	2780	1800	1125	2475	SAE 00
1327	1779	1769	2373	1990	2669	1800			
1272	1705	1695	2274	1907	2558	1800			
1219	1635	1625	2179	1828	2452	1800			
1382	1854	1843	2471	2073	2780	1800	705	1551	
1327	1779	1769	2373	1990	2669	1800			
1219	1635	1625	2179	1828	2452	1800			
1382	1854	1843	2471	2073	2780	1800	705	1551	
1327	1779	1769	2373	1990	2669	1800			
1219	1635	1625	2179	1828	2452	1800			
1382	1854	1843	2471	2073	2780	1800	1125	2475	
1327	1779	1769	2373	1990	2669	1800			
1272	1705	1695	2274	1907	2558	1800			
1219	1635	1625	2179	1828	2452	1800			
1231	1651	1642	2202	1847	2477	1800	2520	5544	
1206	1618	1608	2157	1809	2426	1800			
1156	1550	1542	2067	1734	2326	1800			
1118	1500	1491	2000	1677	2250	1800			
1005	1348	1340	1797	1508	2022	1800			
1382	1854	1843	2471	2073	2780	1800	2520	5544	
1283	1721	1711	2295	1925	2582	1800			
1241	1665	1655	2220	1862	2497	1800			
1116	1496	1488	1995	1674	2244	1800			
1464	1963	1952	2618	2196	2945	1800	1400	3080	SAE 00
1380	1851	1840	2468	2070	2776	1800			
1320	1770	1760	2360	1980	2655	1800			

¹⁰ Left and Right version available.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9000 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.2200	1.6360
	3.208*	1.1501	1.5422
	3.462*	1.1000	1.4751
ZF 9000 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.2200	1.6360
	3.250*	1.1501	1.5422
	3.448*	1.1000	1.4751
ZF 9000 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.2200	1.6360
	3.250*	1.1501	1.5422
	3.448*	1.1000	1.4751
ZF 9000 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.2200	1.6360
	3.250*	1.1501	1.5422
	3.448*	1.1000	1.4751
ZF 9000 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.2200	1.6360
	3.208*	1.1501	1.5422
	3.462*	1.1000	1.4751
ZF 9050	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3560	1.8185
	3.250*	1.2556	1.6838
	3.448*	1.2000	1.6092
ZF 9050 A 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.3560	1.8185
	3.208*	1.2556	1.6838
	3.462*	1.2000	1.6092
ZF 9050 NR2	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3560	1.8185
	3.250*	1.2556	1.6838
	3.448*	1.2000	1.6092
ZF 9050 NR2B	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3560	1.8185
	3.250*	1.2556	1.6838
	3.448*	1.2000	1.6092
ZF 9050 NR2H ¹⁰	1.515*, 1.742*, 2.036, 2.269*, 2.400*, 2.542 2.739*, 2.957	1.3560	1.8185
	3.250*	1.2556	1.6838
	3.448*	1.2000	1.6092

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1200 rpm	1600 rpm	1800 rpm							
1464	1963	1952	2618	2196	2945	1800	1380	3036	SAE 00
1380	1851	1840	2468	2070	2776	1800			
1320	1770	1760	2360	1980	2655	1800			
1464	1963	1952	2618	2196	2945	1800	1040	2288	
1380	1851	1840	2468	2070	2776	1800			
1320	1770	1760	2360	1980	2655	1800			
1464	1963	1952	2618	2196	2945	1800	1040	2288	
1380	1851	1840	2468	2070	2776	1800			
1320	1770	1760	2360	1980	2655	1800			
1464	1963	1952	2618	2196	2945	1800	1040	2288	
1380	1851	1840	2468	2070	2776	1800			
1320	1770	1760	2360	1980	2655	1800			
1464	1963	1952	2618	2196	2945	1800	1400	3080	
1380	1851	1840	2468	2070	2776	1800			
1320	1770	1760	2360	1980	2655	1800			
1627	2182	2170	2910	2441	3273	1800	1400	3080	SAE 00
1507	2021	2009	2694	2260	3031	1800			
1440	1931	1920	2575	2160	2897	1800			
1627	2182	2170	2910	2441	3273	1800	1380	3036	SAE 00
1507	2021	2009	2694	2260	3031	1800			
1440	1931	1920	2575	2160	2897	1800			
1627	2182	2170	2910	2441	3273	1800	1040	2288	
1507	2021	2009	2694	2260	3031	1800			
1440	1931	1920	2575	2160	2897	1800			
1627	2182	2170	2910	2441	3273	1800	1040	2288	
1507	2021	2009	2694	2260	3031	1800			
1440	1931	1920	2575	2160	2897	1800			

¹⁰ Left and Right version available.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 9050 V 8 degrees	1.750*, 1.967, 2.259*, 2.462, 2.750*, 2.958	1.3560	1.8185
	3.208*	1.2556	1.6838
	3.462*	1.2000	1.6092
ZF 9300 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.2200	1.6360
	5.185*	1.0501	1.4081
ZF 9311 ⁹	3.538, 3.760*, 3.958, 4.522	1.2200	1.6360
	5.185*	1.0501	1.4081
ZF 9350 ^{9 11}	3.538, 3.760*, 3.958, 4.522	1.3560	1.8185
	5.185*	1.1470	1.5382
ZF 9351 ⁹	3.538, 3.760*, 3.958, 4.522	1.3560	1.8185
	5.185*	1.1470	1.5382
ZF W11000 ⁴	2.056*, 2.548*, 3.074, 3.583	1.2501	1.6763
	4.000	1.1501	1.5422
ZF W11000 NC ⁴	2.056*, 2.548*, 3.074, 3.583	1.4000	1.8774
	4.000	1.3250	1.7769
ZF W11000 NR ⁴	2.056*, 2.548*, 3.074, 3.583	1.4000	1.8774
	4.000	1.3250	1.7769
ZF W11010 ⁴	2.056*, 2.548*, 3.074, 3.583, 4.000, 4.500*	1.3250	1.7769
ZF W11010 NR ⁴	2.056*, 2.548*, 3.074, 3.583	1.4901	1.9982
ZF W11020 ⁴	2.056*, 2.548*, 3.074, 3.583, 4.000	1.4000	1.8774
	4.000	1.4501	1.9446
ZF W11020 NC ⁴	2.056*, 2.548*, 3.074, 3.583	1.6000	2.1456
	4.000	1.4501	1.9446
ZF W11020 NR ⁴	2.056*, 2.548*, 3.074, 3.583	1.6000	2.1456
	4.000	1.4501	1.9446
ZF W11030 ⁴	2.056*, 2.548*, 3.074, 3.583	1.4901	1.9982
	4.000	1.4501	1.9446
ZF W11030 NR ^{4 7}	2.056*, 2.548*, 3.074	1.6701	2.2396
ZF W11050 ⁴	2.056*, 2.548*, 3.074, 3.583	1.6000	2.1456
ZF W11050 NC ^{4 7}	2.056*, 2.548*, 3.074	1.7750	2.3803
ZF W11050 NR ^{4 7}	2.056*, 2.548*, 3.074	1.7750	2.3803
ZF W11100 ⁴	5.087	1.2501	1.6763
	5.667*	1.1850	1.5891
	6.000	1.1501	1.5422
ZF W11100 NC ⁴	4.000*, 4.600*, 5.087	1.4000	1.8774
	5.667*	1.3820	1.8533

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1200 rpm		1600 rpm		1800 rpm					
1627	2182	2170	2910	2441	3273	1800	1400 3080		
1507	2021	2009	2694	2260	3031	1800			
1440	1931	1920	2575	2160	2897	1800			
1464	1963	1952	2618	2196	2945	1800	1910 4202		
1260	1690	1680	2253	1890	2535	1800			
1464	1963	1952	2618	2196	2945	1800	2430 5346		
1260	1690	1680	2253	1890	2535	1800			
1627	2182	2170	2910	2441	3273	1800	1910 4202		
1376	1846	1835	2461	2065	2769	1800			
1627	2182	2170	2910	2441	3273	1800	2430 5346		
1376	1846	1835	2461	2065	2769	1800			
1000 rpm		1200 rpm		1600 rpm					
1250	1676	1500	2012	2000	2682	1900	2860 6292		
1150	1542	1380	1851	1840	2468	1900			
1400	1877	1680	2253	2240	3004	1900	2420 5324		
1325	1777	1590	2132	2120	2843	1900			
1400	1877	1680	2253	2240	3004	1900	2480 5456		
1325	1777	1590	2132	2120	2843	1900			
1325	1777	1590	2132	2120	2843	1900	2860 6292		
1490	1998	1788	2398	2384	3197	1900	2480 5456		
1400	1877	1680	2253	2240	3004	1900	2860 6292		
1600	2146	1920	2575	2560	3433	1900	2420 5324		
1450	1945	1740	2333	2320	3111	1900			
1600	2146	1920	2575	2560	3433	1900	2480 5456		
1450	1945	1740	2333	2320	3111	1900			
1490	1998	1788	2398	2384	3197	1900	2860 6292		
1450	1945	1740	2333	2320	3111	1900			
1670	2240	2004	2687	2672	3583	1900	2480 5456		
1600	2146	1920	2575	2560	3433	1900	2860 6292		
1775	2380	2130	2856	2840	3808	1900	2420 5324		
1775	2380	2130	2856	2840	3808	1900	2480 5456		
1250	1676	1500	2012	2000	2682	1900	3340 7348		
1185	1589	1422	1907	1896	2543	1900			
1150	1542	1380	1851	1840	2468	1900			
1400	1877	1680	2253	2240	3004	1900	2900 6380		
1382	1853	1658	2224	2211	2965	1900			

⁴ Higher engine speeds can be evaluated on request.

⁷ EW version can be evaluated on request.

⁹ U-drive version also available.

¹¹ PTI also available (Hybrid).

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W11100 NR ⁴	4.000*, 4.600*, 5.087	1.4000	1.8774
	5.667*	1.3820	1.8533
ZF W11110 ⁴	5.087, 5.667*, 6.000	1.3250	1.7769
ZF W11110 NR ⁴	4.600*, 5.087	1.4901	1.9982
ZF W11120 ⁴	4.600*, 5.087, 5.667*	1.4000	1.8774
ZF W11120 NC ⁴	4.000*, 4.600*	1.6000	2.1456
	5.087	1.5250	2.0451
ZF W11120 NR ⁴	4.000*, 4.600*	1.6000	2.1456
	5.087	1.5250	2.0451
ZF W11130 ⁴	4.600*, 5.087	1.4901	1.9982
ZF W11130 NR ^{4 7}	3.516*, 4.000*	1.6701	2.2396
	4.600*	1.6350	2.1925
ZF W11150 ⁴	4.000*, 4.600*	1.6000	2.1456
	5.087	1.5250	2.0451
ZF W11150 NC ^{4 7}	3.516*, 4.000*	1.7750	2.3803
	4.600*	1.6350	2.1925
ZF W11150 NR ^{4 7}	3.516*, 4.000*	1.7750	2.3803
ZF W11200 ⁴	6.565*, 6.909, 7.286	1.2501	1.6763
	7.700*	1.1501	1.5422
ZF W11200 NC ⁴	5.960*, 6.565*, 6.909	1.4000	1.8774
ZF W11200 NR ⁴	5.960*, 6.565*, 6.909	1.4000	1.8774
ZF W11210 ⁴	6.565*, 6.909, 7.286	1.3250	1.7769
ZF W11210 NR ⁴	5.444*, 5.960, 6.565*	1.4901	1.9982
	6.909	1.4501	1.9446
	7.286	1.3820	1.8533
	7.700*	1.3250	1.7769
ZF W11220 ⁴	5.960, 6.565*, 6.909	1.4000	1.8774
	7.286	1.3820	1.8533
	7.700*	1.3250	1.7769
ZF W11220 NC ⁴	5.000*, 5.444*, 5.960	1.6000	2.1456
	6.565*	1.5501	2.0787
	6.909	1.5000	2.0115
	7.286	1.4501	1.9446
	7.700*	1.3800	1.8506

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1000 rpm		1200 rpm		1600 rpm					
1400	1877	1680	2253	2240	3004	1900	2960	6512	
1382	1853	1658	2224	2211	2965	1900			
1325	1777	1590	2132	2120	2843	1900	3340	7348	
1490	1998	1788	2398	2384	3197	1900	2960	6512	
1400	1877	1680	2253	2240	3004	1900	3340	7348	
1600	2146	1920	2575	2560	3433	1900	2900	6380	
1525	2045	1830	2454	2440	3272	1900			
1600	2146	1920	2575	2560	3433	1900	2960	6512	
1525	2045	1830	2454	2440	3272	1900			
1490	1998	1788	2398	2384	3197	1900	3340	7348	
1670	2240	2004	2687	2672	3583	1900	2960	6512	
1635	2193	1962	2631	2616	3508	1900			
1600	2146	1920	2575	2560	3433	1900	3340	7348	
1525	2045	1830	2454	2440	3272	1900			
1775	2380	2130	2856	2840	3808	1900	2900	6380	
1635	2193	1962	2631	2616	3508	1900			
1775	2380	2130	2856	2840	3808	1900	2960	6512	
1250	1676	1500	2012	2000	2682	1900	3840	8448	
1150	1542	1380	1851	1840	2468	1900			
1400	1877	1680	2253	2240	3004	1900	3400	7480	
1400	1877	1680	2253	2240	3004	1900	3460	7612	
1325	1777	1590	2132	2120	2843	1900	3840	8448	
1490	1998	1788	2398	2384	3197	1900	3460	7612	
1450	1945	1740	2333	2320	3111	1900			
1382	1853	1658	2224	2211	2965	1900			
1325	1777	1590	2132	2120	2843	1900			
1400	1877	1680	2253	2240	3004	1900	3840	8448	
1382	1853	1658	2224	2211	2965	1900			
1325	1777	1590	2132	2120	2843	1900			
1600	2146	1920	2575	2560	3433	1900	3400	7480	
1550	2079	1860	2494	2480	3326	1900			
1500	2012	1800	2414	2400	3218	1900			
1450	1945	1740	2333	2320	3111	1900			
1380	1851	1656	2221	2208	2961	1900			

⁴ Higher engine speeds can be evaluated on request.

⁷ EW version can be evaluated on request.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W11220 NR ⁴	5.000*, 5.444*, 5.960	1.6000	2.1456
	6.565*	1.5501	2.0787
	6.909	1.5000	2.0115
	7.286	1.4501	1.9446
	7.700*	1.3800	1.8506
ZF W11230 ⁴	5.444*, 5.960, 6.565*	1.4901	1.9982
	6.909	1.4501	1.9446
ZF W11230 NR ^{4 7}	4.613*, 5.000*, 5.444*	1.6701	2.2396
	5.960	1.6350	2.1925
ZF W11250 ⁴	5.000*, 5.444*, 5.960	1.6000	2.1456
	6.565*	1.5250	2.0451
	8.158*	1.1000	1.4751
ZF W11250 NC ^{4 7}	4.613*, 5.000*, 5.444*	1.7750	2.3803
	5.960	1.6350	2.1925
	8.158*	1.1000	1.4751
ZF W11250 NR ^{4 7}	4.613*, 5.000*, 5.444*	1.7750	2.3803
	8.158*	1.1000	1.4751
ZF W17000 ^{4 5}	1.974*, 2.500*, 3.034, 3.500*, 3.958, 4.571	1.8501	2.4810
ZF W17000 NR ^{4 5 6}	1.974*, 2.500*, 3.034	2.1301	2.8564
ZF W17010 ^{4 5}	1.974*, 2.500*, 3.034, 3.500*, 3.958	2.0000	2.6820
	4.571	1.9200	2.5748
ZF W17010 NR ^{4 5 6}	1.974*, 2.500*, 3.034, 3.500*, 3.958	2.2501	3.0174
	4.571	1.9200	2.5748
ZF W17030 ^{4 5}	1.974*, 2.500*, 3.034, 3.500*, 3.958	2.1301	2.8564
ZF W17030 NR ^{4 5 7}	1.974*, 2.500*, 3.034, 3.500*	2.4740	3.3177
	3.958	2.3000	3.0844
ZF W17050 ^{4 5}	1.974*, 2.500*, 3.034, 3.500*, 3.958	2.2501	3.0174
ZF W17050 NR ^{4 5 7}	1.974*, 2.500*, 3.034	2.6670	3.5765
	3.500*	2.5000	3.3526
ZF W17100 ^{4 5}	5.000, 5.522*, 6.000	1.8501	2.4810
ZF W17100 NR ^{4 5 6}	4.556*, 5.000, 5.522*	2.1301	2.8564
	6.000	1.9200	2.5748
ZF W17110 ^{4 5}	4.556*, 5.000, 5.522*	2.0000	2.6820
	6.000	1.9200	2.5748
ZF W17110 NR ^{4 5 6}	4.556*, 5.000, 5.522*	2.2501	3.0174
ZF W17130 ^{4 5}	4.556*, 5.000, 5.522*	2.1301	2.8564

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1000 rpm		1200 rpm		1600 rpm					
1600	2146	1920	2575	2560	3433	1900	3460	7612	
1550	2079	1860	2494	2480	3326	1900			
1500	2012	1800	2414	2400	3218	1900			
1450	1945	1740	2333	2320	3111	1900			
1380	1851	1656	2221	2208	2961	1900			
1490	1998	1788	2398	2384	3197	1900	3840	8448	
1450	1945	1740	2333	2320	3111	1900			
1670	2240	2004	2687	2672	3583	1900	3460	7612	
1635	2193	1962	2631	2616	3508	1900			
1600	2146	1920	2575	2560	3433	1900	3840	8448	
1525	2045	1830	2454	2440	3272	1900			
1100	1475	1320	1770	1760	2360	1900			
1775	2380	2130	2856	2840	3808	1900	3400	7480	
1635	2193	1962	2631	2616	3508	1900			
1100	1475	1320	1770	1760	2360	1900			
1775	2380	2130	2856	2840	3808	1900	3460	7612	
1100	1475	1320	1770	1760	2360	1900			
1850	2481	2220	2977	2960	3970	1600	4550	10010	
2130	2856	2556	3428	3408	4570	1600	3900	8580	
2000	2682	2400	3218	3200	4291	1600	4550	10010	
1920	2575	2304	3090	3072	4120	1600			
2250	3017	2700	3621	3600	4828	1600	3900	8580	
1920	2575	2304	3090	3072	4120	1600			
2130	2856	2556	3428	3408	4570	1600	4620	10164	
2474	3318	2969	3981	3958	5308	1600	3940	8668	
2300	3084	2760	3701	3680	4935	1600			
2250	3017	2700	3621	3600	4828	1600	4620	10164	
2667	3577	3200	4292	4267	5722	1600	3940	8668	
2500	3353	3000	4023	4000	5364	1600			
1850	2481	2220	2977	2960	3970	1600	5350	11770	
2130	2856	2556	3428	3408	4570	1600	4750	10450	
1920	2575	2304	3090	3072	4120	1600			
2000	2682	2400	3218	3200	4291	1600	5350	11770	
1920	2575	2304	3090	3072	4120	1600			
2250	3017	2700	3621	3600	4828	1600	4750	10450	
2130	2856	2556	3428	3408	4570	1600	5420	11924	

⁴ Higher engine speeds can be evaluated on request.

⁵ Classification: on request. In most cases standard ratings are accepted by major classification bureau. Ratings are valid for application without class notation.

⁶ EW version is also available.

⁷ EW version can be evaluated on request.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W17130 NR ^{4 5 7}	3.967, 4.556*	2.4740	3.3177
	5.000	2.4000	3.2185
	5.250	2.3000	3.0844
ZF W17150 ^{4 5}	4.556*, 5.000, 5.522*	2.2501	3.0174
ZF W17150 NR ^{4 5 7}	3.967	2.6670	3.5765
	4.556*	2.6000	3.4867
ZF W17200 ^{4 5}	6.000, 6.522, 6.909*, 7.238	1.8501	2.4810
ZF W17200 NR ^{4 5 6}	6.000, 6.522, 6.909*	2.1301	2.8564
	7.238	1.9200	2.5748
ZF W17210 ^{4 5}	6.000, 6.522, 6.909*	2.0000	2.6820
	7.238	1.9200	2.5748
ZF W17210 NR ^{4 5 6}	6.000, 6.522	2.2501	3.0174
ZF W17230 ^{4 5}	6.000, 6.522, 6.909*	2.1301	2.8564
ZF W17230 NR ^{4 5 7}	5.654*	2.4740	3.3177
	6.000	2.4000	3.2185
	6.250*	2.3000	3.0844
ZF W17250 ^{4 5}	6.000, 6.522*	2.2501	3.0174
ZF W17250 NR ^{4 5 7}	5.654*	2.5000	3.3526
ZF W23100 NC ⁵	2.472	3.3160	4.4469
	3.032	2.8701	3.8488
	3.310	2.7000	3.6208
	3.478	2.5600	3.4330
	4.074	2.4270	3.2547
	4.478	2.2128	2.9674
	4.952	2.0206	2.7097
	5.619	1.7101	2.2932
	5.950	1.4960	2.0062
	7.091	0.6667	0.8941
	ZF W23100 NR ⁵	2.472, 3.032, 3.310	2.7000
3.478		2.5600	3.4330
4.074		2.4270	3.2547
4.478		2.2128	2.9674
4.952		2.0206	2.7097
5.619		1.7101	2.2932
5.950		1.4960	2.0062
7.091		0.6667	0.8941

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1000 rpm		1200 rpm		1600 rpm					
2474	3318	2969	3981	3958	5308	1600	4790	10538	
2400	3218	2880	3862	3840	5150	1600			
2300	3084	2760	3701	3680	4935	1600			
2250	3017	2700	3621	3600	4828	1600	5420	11924	
2667	3577	3200	4292	4267	5722	1600	4790	10538	
2600	3487	3120	4184	4160	5579	1600			
1850	2481	2220	2977	2960	3970	1600	5800	12760	
2130	2856	2556	3428	3408	4570	1600	5250	11550	
1920	2575	2304	3090	3072	4120	1600			
2000	2682	2400	3218	3200	4291	1600	5800	12760	
1920	2575	2304	3090	3072	4120	1600			
2250	3017	2700	3621	3600	4828	1600	5250	11550	
2130	2856	2556	3428	3408	4570	1600	5870	12914	
2474	3318	2969	3981	3958	5308	1600	5290	11638	
2400	3218	2880	3862	3840	5150	1600			
2300	3084	2760	3701	3680	4935	1600			
2250	3017	2700	3621	3600	4828	1600	5870	12914	
2500	3353	3000	4023	4000	5364	1600	5290	11638	
750 rpm		1000 rpm		1200 rpm					
2487	3335	3316	4447	3979	5336	1200	3800	8360	
2153	2887	2870	3849	3444	4619	1200			
2025	2716	2700	3621	3240	4345	1200			
1920	2575	2560	3433	3072	4120	1200			
1820	2441	2427	3255	2912	3906	1200			
1660	2226	2213	2967	2655	3561	1200			
1515	2032	2021	2710	2425	3252	1200			
1283	1720	1710	2293	2052	2752	1200			
1122	1505	1496	2006	1795	2407	1200			
500	671	667	894	800	1073	1200			
2025	2716	2700	3621	3240	4345	1200	4700	10340	
1920	2575	2560	3433	3072	4120	1200			
1820	2441	2427	3255	2912	3906	1200			
1660	2226	2213	2967	2655	3561	1200			
1515	2032	2021	2710	2425	3252	1200			
1283	1720	1710	2293	2052	2752	1200			
1122	1505	1496	2006	1795	2407	1200			
500	671	667	894	800	1073	1200			

⁴ Higher engine speeds can be evaluated on request.

⁵ Classification: on request. In most cases standard ratings are accepted by major classification bureau. Ratings are valid for application without class notation.

⁶ EW version is also available.

⁷ EW version can be evaluated on request.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 23560 C (IV=1.000)	1.721, 2.278, 2.839, 3.577	1.7802	2.3873
ZF 23560 C (IV=1.130)	4.042	1.5754	2.1126
ZF 23560 C (IV=1.273)	4.552*	1.3984	1.8753
ZF 23560 C (IV=1.432)	5.122*	1.2429	1.6668
ZF 23860 C (IV=0.492)	0.697*, 0.847*, 1.121*, 1.397*, 1.760*	3.6178	4.8516
ZF 24060 D ^{10 11}	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476 3.947*	1.7801	2.3872
ZF 24060 NR2	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476 3.947*	1.7801	2.3872
ZF 24060 NR2B	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476 3.947*	1.7801	2.3872
ZF 24060 NR2H ¹⁰	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476 3.947*	1.7801	2.3872
ZF 24060 SGC ¹¹ (IV=1.000)	1.514*, 2.032, 2.577, 2.760*, 3.043, 3.476 3.947*	1.7801	2.3872
ZF 24060 SGC ¹¹ (IV=1.173)	4.630	1.3729	1.8411
ZF 24060 SGC ¹¹ (IV=1.280)	5.052	1.2582	1.6873
ZF 24060 SGC ¹¹ (IV=1.354)	5.344	1.1894	1.5950
ZF 24360 D ^{9 10 11}	4.036, 5.087, 5.950 6.421	1.7801	2.3872
ZF 24360 SG ^{9 10 11} (IV=1.000)	4.036, 5.087, 5.950 6.421	1.7801	2.3872
ZF 24360 SG ^{9 10 11} (IV=1.173)	6.980	1.6399	2.1991
ZF 24360 SG ^{9 10 11} (IV=1.280)	7.616	1.3907	1.8649

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1200 rpm		1600 rpm		1800 rpm					
2136	2865	2848	3820	3204	4297	1800	2600	5720	
1890	2535	2521	3380	2836	3803	1800	2600	5720	
1678	2250	2237	3001	2517	3376	1800	2600	5720	
1492	2000	1989	2667	2237	3000	1800	2600	5720	
500 rpm		600 rpm		700 rpm					
1809	2426	2171	2911	2532	3396	750	2600	5720	
1200 rpm		1600 rpm		1800 rpm					
2136	2865	2848	3819	3204	4297	1800	2450	5390	
1933	2592	2577	3455	2899	3887	1800			
2136	2865	2848	3819	3204	4297	1800	1890	4158	
1933	2592	2577	3455	2899	3887	1800			
2136	2865	2848	3819	3204	4297	1800	1890	4158	
1933	2592	2577	3455	2899	3887	1800			
2136	2865	2848	3819	3204	4297	1800	1860	4092	
1933	2592	2577	3455	2899	3887	1800			
2136	2865	2848	3819	3204	4297	1800	3150	6930	
1933	2592	2577	3455	2899	3887	1800			
1647	2209	2197	2946	2471	3314	1800	3150	6930	
1510	2025	2013	2700	2265	3037	1800	3150	6930	
1427	1914	1903	2552	2141	2871	1800	3150	6930	
2136	2865	2848	3819	3204	4297	1800	3870	8514	
1933	2592	2577	3455	2899	3887	1800			
2136	2865	2848	3819	3204	4297	1800	4500	9900	
1933	2592	2577	3455	2899	3887	1800			
1968	2639	2624	3519	2952	3958	1800	4500	9900	
1669	2238	2225	2984	2503	3357	1800	4500	9900	

⁹ U-drive version also available.

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM		
		kW	hp	
ZF 24360 SG ^{9 10 11} (IV=1.354)	8.056	1.3147	1.7630	
	8.694	1.1894	1.5950	
ZF 30050 NR2 ¹²	1.514*, 1.735, 1.906, 2.032, 2.207*	2.3239	3.1164	
ZF 30050 NR2B ¹²	1.514*, 1.735, 1.906, 2.032, 2.207*	2.3239	3.1164	
ZF 30050 NR2H ^{10 12}	1.514*, 1.735, 1.906, 2.032, 2.207*	2.3239	3.1164	
ZF 30050 SGC ¹¹ (IV=0.759)	1.542, 1.955, 2.483	2.3465	3.1467	
	2.807	2.2347	2.9967	
	2.994	2.1229	2.8469	
ZF 30350 SG ^{9 10 11} (IV=0.759)	3.062, 4.514	2.3465	3.1467	
	4.871	2.1229	2.8469	
ZF W33100 NC ⁵	2.485	4.3620	5.8495	
	2.966	3.9970	5.3600	
	3.423	3.8000	5.0959	
	3.714	3.6730	4.9256	
	4.273	3.3280	4.4629	
	4.524	3.1946	4.2840	
	4.708	3.0880	4.1410	
	4.957	2.9570	3.9654	
	5.318	2.4290	3.2573	
ZF W33100 NR ⁵	2.485, 2.966, 3.423	3.8000	5.0959	
	3.714	3.6730	4.9256	
	4.273	3.3280	4.4629	
	4.524	3.1946	4.2840	
	4.708	3.0880	4.1410	
	4.957	2.9570	3.9654	
	5.318	2.4290	3.2573	
ZF 40060 NR2 ¹²	1.514*, 1.735, 1.906	3.0487	4.0884	
	ZF 40060 NR2B ¹²	1.514*, 1.735, 1.906	3.0487	4.0884
	ZF 40060 NR2H ^{10 12}	1.514*, 1.735, 1.906	3.0487	4.0884

* Special Order Ratio.

⁵ Classification: on request. In most cases standard ratings are accepted by major classification bureau. Ratings are valid for application without class notation.

⁹ U-drive version also available.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
1200 rpm		1600 rpm		1800 rpm					
1578	2116	2103	2821	2366	3173	1800	4500	9900	
1427	1914	1903	2552	2141	2871	1800			
900 rpm		1000 rpm		1100 rpm					
2091	2805	2324	3116	2556	3428	1800	1900	4180	
2091	2805	2324	3116	2556	3428	1800	1900	4180	
2091	2805	2324	3116	2556	3428	1800	1870	4114	
1000 rpm		1200 rpm		1400 rpm					
2346	3147	2816	3776	3285	4405	1400	3160	6952	
2235	2997	2682	3596	3129	4195	1400			
2123	2847	2548	3416	2972	3986	1400			
1000 rpm		1200 rpm		1380 rpm					
2346	3147	2816	3776	3238	4342	1380	4575	10065	
2123	2847	2548	3416	2930	3929	1380			
600 rpm		750 rpm		1000 rpm					
2617	3510	3271	4387	4362	5850	1000	4500	9900	
2398	3216	2998	4020	3997	5360	1000			
2280	3058	2850	3822	3800	5096	1000			
2204	2955	2755	3694	3673	4926	1000			
1997	2678	2496	3347	3328	4463	1000			
1917	2570	2396	3213	3195	4284	1000			
1853	2485	2316	3106	3088	4141	1000			
1774	2379	2218	2974	2957	3965	1000			
1457	1954	1822	2443	2429	3257	1000			
1258	1686	1572	2108	2096	2811	1000			
2280	3058	2850	3822	3800	5096	1000	6080	13376	
2204	2955	2755	3694	3673	4926	1000			
1997	2678	2496	3347	3328	4463	1000			
1917	2570	2396	3213	3195	4284	1000			
1853	2485	2316	3106	3088	4141	1000			
1774	2379	2218	2974	2957	3965	1000			
1457	1954	1822	2443	2429	3257	1000			
1258	1686	1572	2108	2096	2811	1000			
900 rpm		1000 rpm		1100 rpm					
2744	3680	3049	4088	3354	4497	1800	2010	4422	
2744	3680	3049	4088	3354	4497	1800	2010	4422	
2744	3680	3049	4088	3354	4497	1800	1880	4136	

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 40060 SGC ¹¹ (IV=0.522)	1.588	3.4102	4.5731
ZF 40360 SG ^{9 10 11} (IV=0.522)	2.107, 2.655, 3.106 3.352	3.4102 4.5731 3.0852 4.1374	
ZF W43000 NC ⁵	2.536 2.960 3.667 3.714 3.950 4.409	5.6301 7.5500 5.0701 6.7991 3.9501 5.2971 3.8600 5.1763 3.4720 4.6561 2.7560 3.6959	
ZF W43000 NR ⁵	2.536, 2.960 3.667 3.714 3.950 4.409	5.2000 6.9733 3.9501 5.2971 3.8600 5.1763 3.4720 4.6561 2.7560 3.6959	
ZF W43100 NC ⁵	2.516 3.037 3.500 3.739 3.909 4.478 4.684 4.952 5.579 5.950	6.1600 8.2607 5.8200 7.8047 5.4301 7.2818 5.2600 7.0538 5.0125 6.7218 4.6148 6.1885 4.4238 5.9324 4.1739 5.5973 3.2890 4.4106 2.8460 3.8165	
ZF W43100 NR ⁵	2.516, 3.037, 3.500, 3.739 3.909 4.478 4.684 4.952 5.579 5.950	5.2000 6.9733 5.0125 6.7218 4.6148 6.1885 4.4238 5.9324 4.1739 5.5973 3.2890 4.4106 2.8460 3.8165	
ZF 53000 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	5.5497 7.4423	

* Special Order Ratio.

⁵ Classification: on request. In most cases standard ratings are accepted by major classification bureau. Ratings are valid for application without class notation.

⁹ U-drive version also available.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
700 rpm		800 rpm		1000 rpm					
2387	3201	2728	3658	3410	4573	1000	3170 6974		
700 rpm		800 rpm		940 rpm					
2387	3201	2728	3658	3206	4299	940	4625 10175		
2160	2896	2468	3310	2900	3889	940			
600 rpm		750 rpm		1000 rpm					
3378	4530	4223	5663	5630	7550	1000	5400 11880		
3042	4079	3803	5099	5070	6799	1000			
2370	3178	2963	3973	3950	5297	1000			
2316	3106	2895	3882	3860	5176	1000			
2083	2794	2604	3492	3472	4656	1000			
1654	2218	2067	2772	2756	3696	1000			
3120	4184	3900	5230	5200	6973	1000	6400 14080		
2370	3178	2963	3973	3950	5297	1000			
2316	3106	2895	3882	3860	5176	1000			
2083	2794	2604	3492	3472	4656	1000			
1654	2218	2067	2772	2756	3696	1000			
3696	4956	4620	6196	6160	8261	1000	6800 14960		
3492	4683	4365	5854	5820	7805	1000			
3258	4369	4073	5461	5430	7282	1000			
3156	4232	3945	5290	5260	7054	1000			
3007	4033	3759	5041	5012	6722	1000			
2769	3713	3461	4641	4615	6189	1000			
2654	3559	3318	4449	4424	5932	1000			
2504	3358	3130	4198	4174	5597	1000			
1973	2646	2467	3308	3289	4411	1000			
1708	2290	2134	2862	2846	3817	1000			
3120	4184	3900	5230	5200	6973	1000	9300 20460		
3007	4033	3759	5041	5012	6722	1000			
2769	3713	3461	4641	4615	6189	1000			
2654	3559	3318	4449	4424	5932	1000			
2504	3358	3130	4198	4174	5597	1000			
1973	2646	2467	3308	3289	4411	1000			
1708	2290	2134	2862	2846	3817	1000			
750 rpm		900 rpm		1000 rpm					
4162	5582	4995	6698	5550	7442	1350	3900 8580		

¹⁰ Left and Right version available.

¹¹ PTI also available (Hybrid).

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF 53000 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	5.5497	7.4423
ZF 53500 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	7.3298	9.8295
ZF 53500 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129 2.464	7.3298	9.8295
ZF 53800 NR2B ¹²	1.487, 1.694, 1.771, 1.853, 1.912, 2.129	8.0000	10.7282
ZF 53800 NR2H ^{10 12}	1.487, 1.694, 1.771, 1.853, 1.912, 2.129	8.0000	10.7282
ZF 60000 NR2H ¹⁰	1.500, 2.125, 2.226, 2.741	9.1000	12.2033
ZF 60500 NR2H ¹⁰	1.500, 2.125, 2.226, 2.367	10.0000	13.4102
ZF W63000 NR ⁵			
	2.481	7.3600	9.8699
	2.917	7.3017	9.7917
	3.476	6.0247	8.0793
	4.000	4.6123	6.1851
	4.500	3.6644	4.9140
ZF W63000 NR2H ⁵			
	2.481	7.3600	9.8699
	2.917	7.3017	9.7917
	3.476	6.0247	8.0793
	4.000	4.6123	6.1851
	4.500	3.6644	4.9140
ZF W83000 NC ⁵			
	2.536	10.8501	14.5502
	2.960	10.0000	13.4102
	3.261	8.9829	12.0463
	3.500	8.1766	10.9651
	3.900	6.7728	9.0824
	4.300	5.6203	7.5370
	4.591	4.8426	6.4941

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
750 rpm		900 rpm		1000 rpm					
4162	5582	4995	6698	5550	7442	1350	3750 8250		
5497	7372	6597	8847	7330	9829	1350	3825 8415		
5497	7372	6597	8847	7330	9829	1350	3980 8756		
6000	8046	7200	9655	8000	10728	1350	4080 8976		
6000	8046	7200	9655	8000	10728	1350	3925 8635		
6825	9152	8190	10983	9100	12203	1350	4650 10230		
7500	10058	9000	12069	10000	13410	1350	4650 10230		
600 rpm		750 rpm		1000 rpm					
4416	5922	5520	7402	7360	9870	1000	9200 20240		
4381	5875	5476	7344	7302	9792	1000			
3615	4848	4519	6059	6025	8079	1000			
2767	3711	3459	4639	4612	6185	1000			
2199	2948	2748	3686	3664	4914	1000			
4416	5922	5520	7402	7360	9870	1000	9900 21780		
4381	5875	5476	7344	7302	9792	1000			
3615	4848	4519	6059	6025	8079	1000			
2767	3711	3459	4639	4612	6185	1000			
2199	2948	2748	3686	3664	4914	1000			
500 rpm		600 rpm		750 rpm					
5425	7275	6510	8730	8138	10913	750	9270 20394		
5000	6705	6000	8046	7500	10058	750			
4491	6023	5390	7228	6737	9035	750			
4088	5483	4906	6579	6132	8224	750			
3386	4541	4064	5449	5080	6812	750			
2810	3768	3372	4522	4215	5653	750			
2421	3247	2906	3896	3632	4871	750			

⁵ Classification: on request. In most cases standard ratings are accepted by major classification bureau. Ratings are valid for application without class notation.

¹⁰ Left and Right version available.

¹² Intermittent operation with some variations in engine speed and power, 5000 hours/year.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W83100 NC ⁵	2.486	11.5101	15.4352
	3.031	10.7600	14.4294
	3.300	10.2000	13.6784
	3.962	9.6001	12.8740
	4.333	8.9651	12.0224
	4.609	8.4927	11.3889
	4.818	8.1923	10.9860
	5.095	7.6629	10.2762
	5.450	6.8613	9.2011
	5.950	5.7110	7.6586
6.364	5.1711	6.9346	
ZF W83100 NR ⁵	2.486, 3.031, 3.300	10.2000	13.6784
	3.962	9.6001	12.8740
	4.333	8.9651	12.0224
	4.609	8.4927	11.3889
	4.818	8.1923	10.9860
	5.095	7.6629	10.2762
	5.450	6.8613	9.2011
	5.950	5.7110	7.6586
6.364	5.1711	6.9346	
ZF 83700 NR2H ¹⁰	2.867, 3.462, 4.227, 4.800	8.0000	10.7282
	5.591	6.7200	9.0117
ZF 83750 NR2H ¹⁰	2.867, 3.462, 4.227	10.0000	13.4102
	4.800	9.0800	12.1765
	5.591	7.8000	10.4600
ZF W93300 NC ⁵	2.486	17.2778	23.1699
	3.161	15.4000	20.6517
	3.516	14.4200	19.3375
	3.929	12.7701	17.1249
	4.545	11.5820	15.5317
	5.000	10.3230	13.8434
	5.789	8.1035	10.8669

* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
500 rpm		600 rpm		750 rpm		750	14800	32560	
5755	7718	6906	9261	8633	11576				
5380	7215	6456	8658	8070	10822				
5100	6839	6120	8207	7650	10259				
4800	6437	5760	7724	7200	9655				
4483	6011	5379	7213	6724	9017				
4246	5694	5096	6833	6370	8542				
4096	5493	4915	6592	6144	8239				
3831	5138	4598	6166	5747	7707				
3431	4601	4117	5521	5146	6901				
1000 rpm		1150 rpm		1300 rpm		750	16600	36520	
2855	3829	3427	4595	4283	5744				
2586	3467	3103	4161	3878	5201				
5100	6839	6120	8207	7650	10259				
4800	6437	5760	7724	7200	9655				
4483	6011	5379	7213	6724	9017				
4246	5694	5096	6833	6370	8542				
4096	5493	4915	6592	6144	8239				
3831	5138	4598	6166	5747	7707				
3431	4601	4117	5521	5146	6901				
900 rpm		1000 rpm		1050 rpm		1100	15500	34100	
9000	12069	10000	13410	10500	14081				
8172	10959	9080	12176	9534	12785				
500 rpm		550 rpm		600 rpm		600	21000	46200	
7020	9414	7800	10460	8190	10983				
8639	11585	9503	12743	10367	13902				
7700	10326	8470	11358	9240	12391				
7210	9669	7931	10636	8652	11603				
6385	8562	7024	9419	7662	10275				
5791	7766	6370	8542	6949	9319				
5162	6922	5678	7614	6194	8306				
4052	5433	4457	5977	4862	6520				

⁵ Classification: on request. In most cases standard ratings are accepted by major classification bureau. Ratings are valid for application without class notation.

¹⁰ Left and Right version available.

CONTINUOUS DUTY SINGLE SPEED

C

MODEL	RATIOS	POWER/RPM	
		kW	hp
ZF W103100 NC ⁵	2.438	24.0000	32.1845
	3.231	22.7340	30.4868
	3.583	20.8000	27.8933
	4.000	19.4910	26.1379
	4.238	18.2000	24.4066

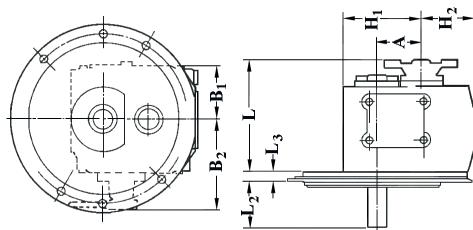
* Special Order Ratio.

INPUT POWER CAPACITY						MAX RPM	WEIGHT		BELL HSGS. AND NOTES
kW	hp	kW	hp	kW	hp		kg	lb	
400 rpm		428 rpm		500 rpm		500	27000 59400		
9600	12874	10272	13775	12000	16092				
9094	12195	9730	13048	11367	15243				
8320	11157	8902	11938	10400	13947				
7796	10455	8342	11187	9745	13069				
7280	9763	7790	10446	9100	12203				

⁵ Classification: on request. In most cases standard ratings are accepted by major classification bureau. Ratings are valid for application without class notation.

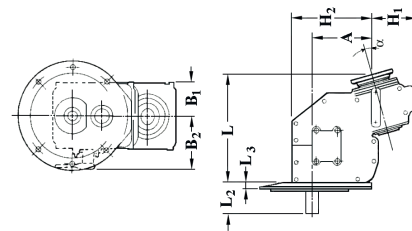
DRAWINGS AND DIMENSIONS

Vertical Offset
Direct Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	C	H ₁	H ₂	L	L ₂	L ₃	BELL HSG.		
ZF 12 M	72.0 (2.83)	80.0 (3.15)	134 (5.25)	-	122 (4.80)	89.0 (3.50)	192 (7.56)	60.0 (2.36)	15.0 (0.59)	B/W	13.0 (29.0)	0.60 (0.66)
ZF 15 M	72.0 (2.83)	80.0 (3.17)	134 (5.25)	-	122 (4.80)	89.0 (3.50)	193 (7.58)	60.0 (2.36)	15.0 (0.59)	B/W	13.0 (29.0)	0.60 (0.66)
ZF 25 M	85.0 (3.35)	96.0 (3.78)	149 (5.85)	-	139 (5.47)	93.0 (3.66)	218 (8.56)	65.0 (2.56)	17.5 (0.69)	B/W	18.5 (41.0)	0.75 (0.80)
ZF 30 M	90.0 (3.54)	103 (4.07)	149 (5.86)	-	144 (5.67)	94.0 (3.70)	254 (10.0)	62.5 (2.46)	-		23.0 (50.0)	1.00 (1.06)

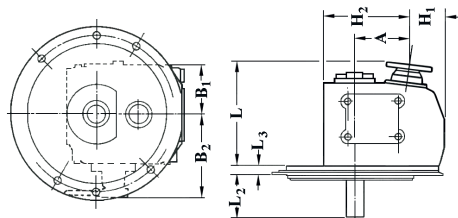
V-Drive
Direct Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	Angle	A	B ₁	B ₂	B ₃	H ₁	H ₂	L	L ₂	L ₃		
ZF 15 MIV	15.0	147 (5.79)	80.0 (3.15)	133 (5.24)	106 (4.17)	197 (7.76)	265 (10.4)	60.0 (2.36)	15.0 (0.59)	B/W	20.0 (44.0)	1.00 (1.06)

DRAWINGS AND DIMENSIONS

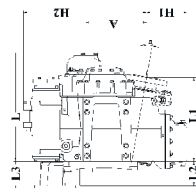
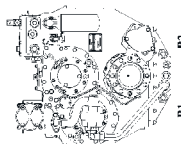
Down Angle
Direct Mount



MODEL	Angle	mm (inches)										Weight kg (lb)	Oil l (US qt)
		A	B ₁	B ₂	H ₁	H ₂	L	L ₂	L ₃	BELL HSG.			
ZF 15 MA	8.0	91.8 (3.61)	80.0 (3.15)	133 (5.22)	78.2 (3.08)	142 (5.59)	193 (7.60)	60.0 (2.36)	15.0 (0.59)	B/W	13.5 (30.0)	0.56 (0.61)	
ZF 25 MA	8.0	110 (4.32)	96.0 (3.78)	149 (5.85)	84.3 (3.32)	164 (6.44)	223 (8.76)	65.0 (2.56)	17.5 (0.69)	B/W	21.0 (47.0)	0.75 (0.80)	

DRAWINGS AND DIMENSIONS

Down Angle Direct Mount

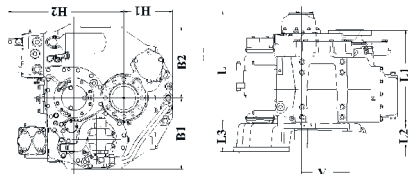


MODEL	Angle	mm (inches)											Weight kg (lb)	Oil l (US qt)
		A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.			
ZF 25 A	8.0	115 (4.54)	147 (5.79)	147 (5.79)	75.0 (2.94)	228 (8.98)	283 (11.5)	216 (8.50)	82.5 (3.25)	17.5 (0.69)	BW	24.0 (53.0)	1.80 (1.90)	
ZF 45 A	8.0	126 (4.94)	158 (6.20)	158 (6.20)	78.5 (3.09)	270 (10.6)	305 (12.0)	228 (8.96)	65.0 (2.56)	11.0 (0.43)	3	28.0 (62.0)	2.50 (2.65)	
ZF 63 A	8.0	144 (5.67)	178 (6.99)	178 (6.99)	82.0 (3.23)	284 (11.2)	329 (13.0)	265 (10.4)	65.0 (2.56)	11.0 (0.43)	3	44.0 (97.0)	4.00 (4.20)	
ZF 80 A	8.0	160 (6.30)	210 (8.27)	210 (8.27)	112 (4.41)	303 (11.9)	374 (14.7)	281 (11.4)	71.0 (2.79)	11.0 (0.43)	3	68.0 (152)	5.50 (5.80)	
ZF 85 A	8.0	160 (6.30)	210 (8.27)	210 (8.27)	112 (4.41)	303 (11.9)	379 (14.9)	291 (11.4)	71.0 (2.79)	11.0 (0.43)	3	69.0 (152)	5.50 (5.80)	
ZF 220 A	10.0	145 (5.69)	187 (7.38)	187 (7.38)	116 (4.57)	230 (9.06)	376 (14.8)	246 (9.70)	83.0 (3.66)	40.0 (1.57)	2	50.0 (110)	4.00 (4.20)	
ZF 280-1 A	7.0	147 (5.77)	215 (8.46)	175 (6.89)	114 (4.47)	282 (11.1)	362 (14.3)	280 (11.0)	71.0 (2.80)	35.5 (1.40)	2	73.0 (161)	3.30 (3.50)	
ZF 286 A	7.0	149 (5.87)	215 (8.46)	215 (8.46)	126 (4.96)	315 (12.4)	418 (16.5)	300 (11.8)	55.0 (2.16)	35.5 (1.40)	2	77.0 (170)	5.00 (5.32)	
ZF 305-3 A	7.0	169 (6.65)	254 (10.0)	254 (10.0)	123 (4.84)	395 (15.6)	435 (17.1)	315 (12.4)	55.0 (2.17)	45.0 (1.77)	1	97.0 (213)	5.00 (5.30)	
ZF 325-1 A	7.0	180 (7.09)	265 (10.4)	265 (10.4)	128 (5.03)	350 (13.8)	480 (18.9)	365 (14.4)	55.0 (2.17)	45.0 (1.77)	1	130 (286)	5.50 (5.80)	
ZF 335 A	7.0	183 (7.20)	285 (10.4)	285 (10.4)	140 (5.51)	348 (13.7)	545 (21.4)	420 (16.5)	-	-	1	159 (350)	6.00 (6.30)	
ZF 360 A	7.0	195 (7.67)	280 (11.0)	280 (11.0)	165 (6.50)	379 (14.9)	621 (24.4)	495 (19.5)	-	-	1	187 (412)	10.0 (10.6)	
ZF 500-1 A	7.0	195 (7.67)	280 (11.0)	280 (11.0)	165 (6.50)	379 (14.9)	621 (24.4)	495 (19.5)	-	-	1	182 (423)	10.0 (10.6)	
ZF 510-1 A	10.0	217 (8.54)	298 (11.7)	298 (11.7)	174 (6.85)	400 (15.7)	622 (24.5)	492 (19.4)	-	-	1	193 (425)	13.0 (13.7)	
ZF 550 A	10.0	268 (10.6)	310 (12.2)	310 (12.2)	156 (6.14)	435 (17.1)	676 (26.6)	524 (20.6)	-	-	1	256 (564)	16.0 (17.0)	
ZF 665 A	10.0	268 (10.6)	310 (12.2)	310 (12.2)	156 (6.14)	435 (17.1)	676 (26.6)	524 (20.6)	-	-	1	253 (557)	16.0 (17.0)	
ZF 2000 A	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	595 (23.4)	394 (15.5)	115 (4.53)	115 (4.53)	1	348 (765)	21.0 (22.3)	
ZF 2050 A	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	595 (23.4)	394 (15.5)	115 (4.53)	115 (4.53)	1	350 (770)	21.0 (22.3)	
ZF 2060 A	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	595 (23.4)	394 (15.5)	115 (4.53)	115 (4.53)	1	350 (770)	21.0 (22.3)	

MODEL	Angle	mm (inches)											Weight kg (lb)	Oil l (US qt)
		A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.			
ZF 2070 A	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	595 (23.4)	394 (15.5)	115 (4.53)	115 (4.53)	0	350 (770)	21.0 (22.3)	
ZF 2075 A	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	595 (23.4)	394 (15.5)	115 (4.53)	115 (4.53)	0	350 (770)	21.0 (22.3)	
ZF 2150 A	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	595 (23.4)	394 (15.5)	115 (4.53)	115 (4.53)	1	352 (774)	21.0 (22.3)	
ZF 3000 A	10.0	327 (12.9)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	485 (1 069)	31.0 (32.9)	
ZF 3050 A	10.0	327 (12.9)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	485 (1 069)	31.0 (32.9)	
ZF 3055 A	10.0	327 (12.9)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	490 (1 080)	31.0 (32.9)	
ZF 3060 A	10.0	327 (12.9)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	490 (1 080)	31.0 (32.9)	
ZF 3070 A	10.0	327 (12.9)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	490 (1 080)	31.0 (32.9)	
ZF 3150 A	10.0	302 (11.9)	365 (14.4)	365 (14.4)	178 (7.00)	640 (25.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	470 (1 036)	31.0 (32.9)	
ZF 3160 A	10.0	302 (11.9)	365 (14.4)	365 (14.4)	178 (7.00)	640 (25.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	470 (1 036)	31.0 (32.9)	
ZF 3170 A	10.0	302 (11.9)	365 (14.4)	365 (14.4)	178 (7.00)	640 (25.2)	668 (26.3)	452 (17.8)	132 (5.19)	150 (5.90)	0	470 (1 036)	31.0 (32.9)	
ZF 5000 A	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	776 (30.6)	539 (21.2)	149 (5.90)	180 (7.10)	0	750 (1 650)	42.0 (44.5)	
ZF 5050 A	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	776 (30.6)	539 (21.2)	149 (5.90)	180 (7.10)	0	750 (1 650)	42.0 (44.5)	
ZF 5055 A	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	776 (30.6)	539 (21.2)	149 (5.90)	180 (7.10)	0	750 (1 650)	42.0 (44.5)	
ZF 5060 A	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	776 (30.6)	539 (21.2)	149 (5.90)	180 (7.10)	0	750 (1 650)	42.0 (44.5)	
ZF 7600 A	8.0	448 (17.6)	500 (19.7)	500 (19.7)	263 (10.4)	868 (34.2)	760 (29.9)	653 (25.7)	138 (5.41)	-	00	1,125 (2 475)	75.0 (79.5)	
ZF 7650 A	8.0	448 (17.6)	500 (19.7)	500 (19.7)	263 (10.4)	868 (34.2)	760 (29.9)	653 (25.7)	138 (5.41)	-	00	1,125 (2 475)	75.0 (79.5)	
ZF 9000 A	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	897 (35.3)	615 (24.2)	164 (6.46)	-	-	1,380 (3 036)	80.0 (84.8)	
ZF 9050 A	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	897 (35.3)	615 (24.2)	164 (6.46)	-	-	1,380 (3 036)	80.0 (84.8)	
ZF 9055 A	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	897 (35.3)	615 (24.2)	164 (6.46)	-	-	1,380 (3 036)	80.0 (84.8)	
ZF 9060 A	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	897 (35.3)	615 (24.2)	164 (6.46)	-	-	1,380 (3 036)	80.0 (84.8)	

DRAWINGS AND DIMENSIONS

Vertical Offset Direct Mount



MODEL	mm (inches)										BELL HSG.	L ₃	L ₂	L ₁	L	H ₂	H ₁	B ₂	B ₁	A	Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃													
ZF 25	99.0 (3.90)	147 (5.79)	147 (5.79)	101 (3.98)	212 (8.35)	296 (11.7)	270 (10.6)	82.5 (3.25)	17.5 (0.69)	BW	-	-	-	-	-	-	-	-	-	24.0 (65.0)	2.00 (2.10)	
ZF 45-1	151 (5.94)	170 (6.69)	170 (6.69)	139 (5.47)	271 (10.7)	303 (11.9)	221 (8.70)	74.0 (2.91)	20.0 (0.79)	-	-	-	-	-	-	-	-	-	-	60.0 (132)	3.00 (3.20)	
ZF 63	127 (4.98)	178 (6.99)	178 (6.99)	118 (4.67)	266 (10.5)	329 (13.0)	273 (10.8)	65.0 (2.56)	11.0 (0.43)	3	-	-	-	-	-	-	-	-	-	46.0 (103)	3.80 (4.00)	
ZF 220	135 (5.31)	215 (8.46)	175 (6.88)	125 (4.92)	281 (11.1)	386 (15.2)	287 (11.3)	84.5 (3.72)	35.5 (1.40)	2	-	-	-	-	-	-	-	-	-	63.0 (139)	3.50 (3.71)	
ZF W220	210 (8.27)	218 (8.58)	218 (8.58)	210 (8.27)	425 (16.7)	397 (15.6)	309 (12.2)	87.0 (3.43)	13.0 (0.51)	2	-	-	-	-	-	-	-	-	-	105 (231)	7.00 (7.40)	
ZF 280-1	146 (5.75)	230 (9.06)	175 (6.88)	131 (5.16)	301 (11.9)	394 (15.5)	299 (11.8)	71.0 (2.80)	34.5 (1.36)	-	-	-	-	-	-	-	-	-	-	73.0 (161)	4.00 (4.20)	
ZF 286	146 (5.75)	230 (9.06)	230 (9.06)	150 (5.91)	315 (12.4)	457 (18.0)	316 (12.4)	55.0 (2.17)	17.5 (0.69)	1	-	-	-	-	-	-	-	-	-	86.0 (189)	5.30 (5.60)	
ZF W320	245 (9.65)	295 (11.6)	295 (11.6)	248 (9.76)	395 (15.6)	598 (23.5)	443 (17.4)	83.0 (3.27)	70.0 (2.76)	1	-	-	-	-	-	-	-	-	-	170 (595)	21.0 (22.3)	
ZF 325-1	165 (6.50)	265 (10.4)	265 (10.4)	156 (6.14)	355 (14.0)	489 (19.2)	382 (15.0)	55.0 (2.17)	46.0 (1.77)	1	-	-	-	-	-	-	-	-	-	130 (286)	7.20 (7.60)	
ZF W325	245 (9.65)	295 (11.6)	295 (11.6)	248 (9.76)	453 (17.8)	572 (22.5)	390 (15.4)	64.0 (2.52)	-	1	-	-	-	-	-	-	-	-	-	315 (694)	16.0 (17.0)	
ZF W350-1	335 (13.2)	335 (13.2)	335 (13.2)	315 (12.4)	585 (23.0)	636 (25.0)	500 (19.7)	92.0 (3.62)	-	-	-	-	-	-	-	-	-	-	-	500 (1,101)	23.0 (24.4)	
ZF 360	180 (7.09)	290 (11.4)	290 (11.4)	167 (6.57)	358 (14.1)	633 (24.9)	544 (21.4)	-	-	-	-	-	-	-	-	-	-	-	-	185 (407)	9.00 (9.50)	
ZF 550	200 (7.87)	310 (12.2)	310 (12.2)	200 (7.87)	400 (15.8)	676 (26.6)	537 (21.1)	-	-	1	-	-	-	-	-	-	-	-	-	242 (533)	16.0 (17.0)	
ZF W650	365 (15.4)	355 (14.0)	355 (14.0)	340 (13.4)	652 (25.7)	577 (20.4)	390 (15.4)	99.0 (3.90)	100 (3.94)	1	-	-	-	-	-	-	-	-	-	561 (1,235)	26.0 (27.6)	
ZF 665	390 (15.4)	400 (15.8)	400 (15.8)	364 (14.3)	692 (27.2)	595 (23.4)	435 (17.1)	132 (5.19)	115 (4.53)	-	-	-	-	-	-	-	-	-	-	248 (546)	16.0 (17.0)	
ZF W1700	390 (15.4)	400 (15.8)	400 (15.8)	364 (14.3)	692 (27.2)	595 (23.4)	435 (17.1)	132 (5.19)	115 (4.53)	-	-	-	-	-	-	-	-	-	-	642 (1,412)	45.0 (47.7)	
ZF W1800	390 (15.4)	400 (15.8)	400 (15.8)	364 (14.3)	692 (27.2)	595 (23.4)	421 (16.6)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	642 (1,412)	45.0 (47.7)	
ZF 2050	220 (8.66)	320 (12.6)	320 (12.6)	203 (8.00)	515 (20.3)	595 (23.4)	421 (16.6)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	340 (748)	21.0 (22.3)	
ZF 2060	220 (8.66)	320 (12.6)	320 (12.6)	203 (8.00)	515 (20.3)	595 (23.4)	421 (16.6)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	342 (752)	21.0 (22.3)	

MODEL	mm (inches)										BELL HSG.	L ₃	L ₂	L ₁	L	H ₂	H ₁	B ₂	B ₁	A	Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃													
ZF 2070	220 (8.66)	320 (12.6)	320 (12.6)	203 (8.00)	515 (20.3)	595 (23.4)	421 (16.6)	115 (4.53)	115 (4.53)	0	-	-	-	-	-	-	-	-	-	342 (752)	21.0 (22.3)	
ZF 2075	220 (8.66)	320 (12.6)	320 (12.6)	203 (8.00)	515 (20.3)	595 (23.4)	421 (16.6)	115 (4.53)	115 (4.53)	0	-	-	-	-	-	-	-	-	-	342 (752)	21.0 (22.3)	
ZF 2150	220 (8.66)	320 (12.6)	320 (12.6)	203 (8.00)	515 (20.3)	595 (23.4)	421 (16.6)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	344 (756)	21.0 (22.3)	
ZF 2200	280 (11.0)	330 (13.0)	330 (13.0)	250 (9.84)	612 (24.1)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	404 (888)	22.0 (23.3)	
ZF 2250	280 (11.0)	330 (13.0)	330 (13.0)	250 (9.84)	612 (24.1)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	406 (895)	22.0 (23.3)	
ZF 2260	280 (11.0)	330 (13.0)	330 (13.0)	250 (9.84)	612 (24.1)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	406 (895)	22.0 (23.3)	
ZF 2270	280 (11.0)	330 (13.0)	330 (13.0)	250 (9.84)	612 (24.1)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	0	-	-	-	-	-	-	-	-	-	406 (893)	22.0 (23.3)	
ZF 2275	280 (11.0)	330 (13.0)	330 (13.0)	250 (9.84)	612 (24.1)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	0	-	-	-	-	-	-	-	-	-	406 (893)	22.0 (23.3)	
ZF W2300	335 (13.2)	340 (13.4)	340 (13.4)	300 (11.8)	667 (26.3)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	434 (955)	27.0 (28.6)	
ZF 2350	335 (13.2)	340 (13.4)	340 (13.4)	300 (11.8)	667 (26.3)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	436 (959)	27.0 (28.6)	
ZF W2350	335 (13.2)	340 (13.4)	340 (13.4)	300 (11.8)	667 (26.3)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	0	-	-	-	-	-	-	-	-	-	436 (959)	27.0 (28.6)	
ZF 2360	335 (13.2)	340 (13.4)	340 (13.4)	300 (11.8)	667 (26.3)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	1	-	-	-	-	-	-	-	-	-	436 (959)	27.0 (28.6)	
ZF 2370	335 (13.2)	340 (13.4)	340 (13.4)	300 (11.8)	667 (26.3)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	0	-	-	-	-	-	-	-	-	-	436 (959)	27.0 (28.6)	
ZF 2375	335 (13.2)	340 (13.4)	340 (13.4)	300 (11.8)	667 (26.3)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	0	-	-	-	-	-	-	-	-	-	436 (959)	27.0 (28.6)	
ZF W2460	390 (15.4)	400 (15.8)	400 (15.8)	365 (14.4)	702 (27.6)	589 (23.2)	435 (17.1)	115 (4.53)	115 (4.53)	-	-	-	-	-	-	-	-	-	-	760 (1,672)	30.0 (31.8)	
ZF 3000	255 (10.0)	365 (14.4)	365 (14.4)	250 (9.84)	593 (23.4)	668 (26.3)	485 (19.1)	132 (5.20)	150 (5.90)	0	-	-	-	-	-	-	-	-	-	482 (1,062)	31.0 (32.9)	
ZF 3050	255 (10.0)	365 (14.4)	365 (14.4)	250 (9.84)	593 (23.4)	668 (26.3)	485 (19.1)	132 (5.20)	150 (5.90)	0	-	-	-	-	-	-	-	-	-	482 (1,062)	31.0 (32.9)	
ZF 3060	255 (10.0)	365 (14.4)	365 (14.4)	250 (9.84)	593 (23.4)	668 (26.3)	485 (19.1)	132 (5.20)	150 (5.90)	0	-	-	-	-	-	-	-	-	-	487 (1,073)	31.0 (32.9)	
ZF 3070	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)	0	-	-	-	-	-	-	-	-	-	487 (1,073)	31.0 (32.9)	
ZF W3310	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)	0	-	-	-	-	-	-	-	-	-	665 (1,463)	36.0 (38.2)	
ZF 3311	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)	0	-	-	-	-	-	-	-	-	-	850 (1,870)	36.0 (38.2)	
ZF 3350	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)	0	-	-	-	-	-	-	-	-	-	850 (1,870)	36.0 (38.2)	

DRAWINGS AND DIMENSIONS

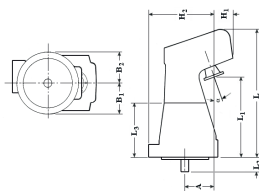
MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.		
ZF W3350	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		850 (1,870)	36.0 (38.2)
ZF 3351	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		850 (1,870)	36.0 (38.2)
ZF 3355	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)	0	670 (1,474)	36.0 (38.2)
ZF W3355	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		855 (1,881)	36.0 (38.2)
ZF 3356	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		855 (1,881)	36.0 (38.2)
ZF 3360	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)	0	670 (1,474)	36.0 (38.2)
ZF 3361	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		850 (1,870)	36.0 (38.2)
ZF 3370	385 (15.2)	375 (14.8)	375 (14.8)	345 (13.6)	722 (28.4)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		670 (1,474)	36.0 (38.2)
ZF W3710	445 (17.5)	425 (16.7)	425 (16.7)	410 (16.1)	782 (30.8)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		920 (2,024)	38.0 (40.3)
ZF 3711	445 (17.5)	425 (16.7)	425 (16.7)	410 (16.1)	782 (30.8)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		920 (2,024)	38.0 (40.3)
ZF W3750	445 (17.5)	425 (16.7)	425 (16.7)	410 (16.1)	782 (30.8)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		920 (2,024)	38.0 (40.3)
ZF 3751	445 (17.5)	425 (16.7)	425 (16.7)	410 (16.1)	782 (30.8)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		920 (2,024)	38.0 (40.3)
ZF W3755	445 (17.5)	425 (16.7)	425 (16.7)	410 (16.1)	782 (30.8)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		920 (2,024)	38.0 (40.3)
ZF 3756	445 (17.5)	425 (16.7)	425 (16.7)	410 (16.1)	782 (30.8)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		920 (2,024)	38.0 (40.3)
ZF 3761	445 (17.5)	425 (16.7)	425 (16.7)	410 (16.1)	782 (30.8)	670 (26.4)	595 (23.4)	132 (5.20)	150 (5.90)		920 (2,024)	38.0 (40.3)
ZF 5000	295 (11.6)	425 (16.7)	425 (16.7)	270 (10.6)	690 (27.2)	776 (31.1)	565 (22.2)	149 (5.90)	180 (7.10)		740 (1,628)	40.0 (42.4)
ZF 5050	295 (11.6)	425 (16.7)	425 (16.7)	270 (10.6)	690 (27.2)	776 (31.1)	565 (22.2)	149 (5.90)	180 (7.10)		740 (1,628)	40.0 (42.4)
ZF 5055	295 (11.6)	425 (16.7)	425 (16.7)	270 (10.6)	690 (27.2)	776 (31.1)	565 (22.2)	149 (5.90)	180 (7.10)		740 (1,628)	40.0 (42.4)
ZF 5060	295 (11.6)	425 (16.7)	425 (16.7)	270 (10.6)	690 (27.2)	776 (31.1)	565 (22.2)	149 (5.90)	180 (7.10)		740 (1,628)	40.0 (42.4)
ZF 5300	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		950 (2,090)	60.0 (54.0)
ZF W5300	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		1,290 (2,840)	60.0 (54.0)
ZF 5311	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		1,290 (2,840)	60.0 (54.0)
ZF 5350	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		950 (2,090)	60.0 (54.0)
ZF W5350	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		1,290 (2,840)	60.0 (54.0)
ZF 5355	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		950 (2,090)	60.0 (54.0)
ZF W5355	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		1,290 (2,840)	60.0 (54.0)

MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.		
ZF 5356	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		1,290 (2,840)	60.0 (54.0)
ZF 5360	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		950 (2,090)	60.0 (54.0)
ZF 5361	460 (18.1)	465 (18.3)	465 (18.3)	415 (16.3)	855 (33.6)	776 (31.1)	570 (22.3)	149 (5.90)	180 (7.10)		1,290 (2,840)	60.0 (54.0)
ZF 7600	340 (13.4)	500 (19.7)	500 (19.7)	348 (13.7)	694 (27.3)	759 (29.9)	640 (25.2)	146 (5.75)	-	00	970 (2,134)	75.0 (79.5)
ZF W7610	600 (23.6)	630 (24.8)	630 (24.8)	560 (22.1)	960 (37.8)	761 (30.0)	773 (30.4)	146 (5.75)	250 (9.84)		2,520 (5,544)	120 (128)
ZF W7615	600 (23.6)	630 (24.8)	630 (24.8)	560 (22.1)	960 (37.8)	761 (30.0)	773 (30.4)	146 (5.75)	250 (9.84)		2,520 (5,544)	120 (128)
ZF 7640	450 (17.7)	500 (19.7)	500 (19.7)	430 (16.9)	806 (31.7)	761 (30.0)	657 (25.9)	146 (5.75)	-		1,325 (2,915)	80.0 (84.8)
ZF W7640	450 (17.7)	500 (19.7)	500 (19.7)	430 (16.9)	806 (31.7)	761 (30.0)	657 (25.9)	146 (5.75)	-		1,750 (3,850)	80.0 (84.8)
ZF 7645	450 (17.7)	500 (19.7)	500 (19.7)	430 (16.9)	806 (31.7)	761 (30.0)	657 (25.9)	146 (5.75)	-		1,750 (3,850)	80.0 (84.8)
ZF W7645	450 (17.7)	500 (19.7)	500 (19.7)	430 (16.9)	806 (31.7)	761 (30.0)	657 (25.9)	146 (5.75)	-		1,750 (3,850)	80.0 (84.8)
ZF 7646	450 (17.7)	500 (19.7)	500 (19.7)	430 (16.9)	806 (31.7)	761 (30.0)	657 (25.9)	146 (5.75)	-		1,750 (3,850)	80.0 (84.8)
ZF W7646	450 (17.7)	500 (19.7)	500 (19.7)	430 (16.9)	806 (31.7)	761 (30.0)	657 (25.9)	146 (5.75)	-		1,750 (3,850)	80.0 (84.8)
ZF 7650	340 (13.4)	500 (19.7)	500 (19.7)	348 (13.7)	694 (27.3)	759 (29.9)	640 (25.2)	146 (5.75)	-	00	970 (2,134)	75.0 (79.5)
ZF 7661	600 (23.6)	630 (24.8)	630 (24.8)	560 (22.1)	960 (37.8)	761 (30.0)	773 (30.4)	146 (5.75)	250 (9.84)		2,520 (5,544)	120 (128)
ZF 7666	600 (23.6)	630 (24.8)	630 (24.8)	560 (22.1)	960 (37.8)	761 (30.0)	773 (30.4)	146 (5.75)	250 (9.84)		2,520 (5,544)	120 (128)
ZF 9000	390 (15.4)	545 (21.5)	545 (21.5)	405 (15.9)	800 (31.5)	897 (35.3)	640 (25.2)	164 (6.46)	-		1,400 (3,080)	80.0 (84.8)
ZF 9050	390 (15.4)	545 (21.5)	545 (21.5)	405 (15.9)	800 (31.5)	897 (35.3)	640 (25.2)	164 (6.46)	-		1,400 (3,080)	80.0 (84.8)
ZF 9060	390 (15.4)	545 (21.5)	545 (21.5)	405 (15.9)	800 (31.5)	897 (35.3)	640 (25.2)	164 (6.46)	-		1,400 (3,080)	80.0 (84.8)
ZF 9311	545 (21.5)	570 (22.5)	570 (22.5)	485 (19.1)	968 (38.1)	897 (35.3)	714 (28.1)	164 (6.46)	-		1,910 (4,202)	90.0 (95.4)
ZF 9350	545 (21.5)	570 (22.5)	570 (22.5)	485 (19.1)	968 (38.1)	897 (35.3)	714 (28.1)	164 (6.46)	-		2,430 (5,346)	90.0 (95.4)
ZF 9351	545 (21.5)	570 (22.5)	570 (22.5)	485 (19.1)	968 (38.1)	897 (35.3)	714 (28.1)	164 (6.46)	-		1,910 (4,202)	90.0 (95.4)
ZF 9355	545 (21.5)	570 (22.5)	570 (22.5)	485 (19.1)	968 (38.1)	897 (35.3)	714 (28.1)	164 (6.46)	-		2,430 (5,346)	90.0 (95.4)
ZF 9360	545 (21.5)	570 (22.5)	570 (22.5)	485 (19.1)	968 (38.1)	897 (35.3)	714 (28.1)	164 (6.46)	-		1,910 (4,202)	90.0 (95.4)
ZF 9361	545 (21.5)	570 (22.5)	570 (22.5)	485 (19.1)	968 (38.1)	897 (35.3)	714 (28.1)	164 (6.46)	-		2,430 (5,346)	90.0 (95.4)

DRAWINGS AND DIMENSIONS

V-Drive

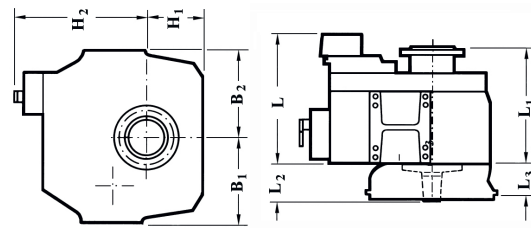
Direct Mount



MODEL	mm (inches)											Weight kg (lb)	Oil l (US qt)
	Angle	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.		
ZF 45 IV	20.0	126 (4.96)	131 (5.15)	136 (5.35)	83.0 (3.27)	309 (12.2)	554 (21.8)	348 (13.7)	64.5 (2.54)	219 (8.61)	B/W	47.0 (103)	3.00 (3.15)
ZF 45-1 IV	20.0	126 (4.96)	131 (5.15)	136 (5.35)	83.0 (3.27)	309 (12.2)	554 (21.8)	348 (13.7)	64.5 (2.54)	219 (8.61)		47.0 (103)	3.00 (3.15)

Co-axial or Near Co-Axial

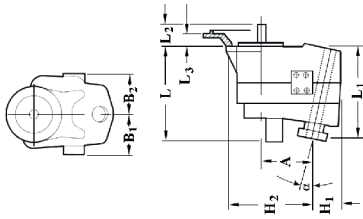
Direct Mount



MODEL	mm (inches)											Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.			
ZF 45 C	-	136 (5.33)	131 (5.16)	145 (5.71)	198 (7.80)	-	267 (10.5)	64.5 (2.54)	-	-	B/W	31.0 (68.0)	2.00 (2.10)
ZF 63 C	-	136 (5.33)	131 (5.16)	145 (5.71)	198 (7.80)	-	267 (10.5)	64.5 (2.54)	-	-	B/W	32.0 (70.0)	2.00 (2.10)
ZF 301 C	-	235 (9.25)	235 (9.25)	200 (7.87)	270 (10.7)	480 (18.9)	344 (13.5)	89.3 (3.52)	80.0 (3.15)	2		87.0 (191)	6.00 (6.30)

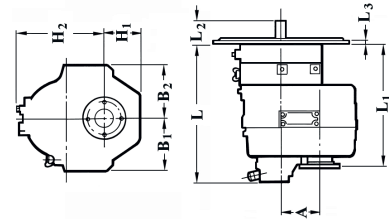
DRAWINGS AND DIMENSIONS

V-Drive Direct Mount



MODEL	mm (inches)											Weight kg (lb)	Oil l (US qt)
	Angle	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.		
ZF 63 IV	12.0	219 (8.61)	178 (6.99)	178 (6.99)	107 (4.22)	355 (14.0)	329 (12.9)	326 (12.8)	65.0 (2.56)	111.0 (0.43)	3	62.0 (136)	4.00 (4.20)
ZF 80 IV	12.0	246 (9.69)	190 (7.48)	190 (7.48)	132 (5.20)	389 (15.3)	370 (14.6)	375 (14.8)	76.0 (2.99)	111.0 (0.43)	3	86.0 (189)	7.00 (7.40)
ZF 85 IV	12.0	246 (9.69)	190 (7.48)	190 (7.48)	132 (5.20)	389 (15.3)	370 (14.6)	375 (14.8)	76.0 (2.99)	111.0 (0.43)	3	86.0 (189)	7.00 (7.40)

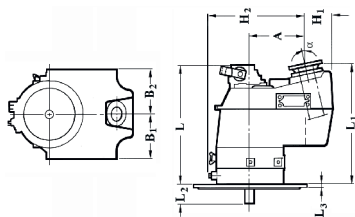
2 Speed Vertical Offset Direct Mount



MODEL	mm (inches)											Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃	BELL HSG.			
ZF 90 TS	127 (4.98)	178 (6.99)	178 (6.99)	119 (4.67)	319 (12.6)	484 (19.1)	414 (16.3)	76.0 (2.99)	111.0 (0.43)	3	67.0 (148)	3.50 (3.71)	
ZF 325 TS	165 (6.50)	265 (10.4)	265 (10.4)	156 (6.14)	424 (16.7)	714 (28.1)	607 (23.9)	-	-	0	180 (396)	6.50 (6.90)	
ZF 550 TS	200 (7.87)	310 (12.2)	310 (12.2)	200 (7.87)	400 (15.8)	884 (34.8)	737 (29.0)	-	-	1	344 (758)	15.0 (15.9)	
ZF 665 TS	200 (7.87)	310 (12.2)	310 (12.2)	200 (7.87)	400 (15.8)	884 (34.8)	737 (29.0)	-	-	1	344 (758)	15.0 (15.9)	

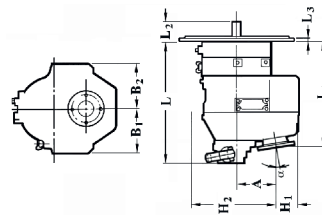
DRAWINGS AND DIMENSIONS

2 Speed V-Drive Direct Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)	
	Angle	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃			BELL HSG.
ZF 90 VTS	12.0	219 (9.00)	178 (6.99)	178 (6.99)	107 (4.22)	415 (16.3)	485 (19.1)	467 (18.4)	76.0 (2.99)	11.0 (0.43)	3	82.0 (181)	4.50 (4.77)
ZF 115 VTS	12.0	246 (10.0)	190 (7.48)	190 (7.48)	132 (5.20)	445 (17.5)	532 (20.9)	516 (20.3)	76.0 (2.99)	11.0 (0.43)	--	107 (236)	7.50 (7.95)
ZF 325 VTS	14.0	378 (14.9)	220 (8.66)	292 (11.5)	-	714 (28.1)	249 (9.80)	-	-	-	-	235 (518)	8.00 (8.50)

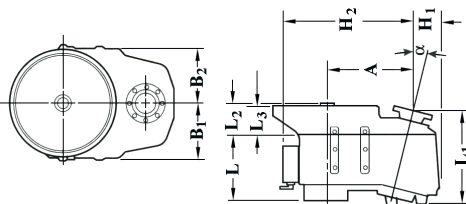
2 Speed Down Angle Direct Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)	
	Angle	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃			BELL HSG.
ZF 90 ATS	8.0	144 (6.00)	178 (6.99)	178 (6.99)	82.0 (3.23)	336 (13.2)	484 (19.1)	406 (16.0)	76.0 (2.99)	11.0 (0.43)	3	84.0 (181)	3.50 (3.71)
ZF 115 ATS	8.0	160 (6.00)	210 (8.27)	210 (8.27)	112 (4.41)	356 (14.0)	537 (21.1)	432 (17.0)	76.0 (2.99)	11.0 (0.43)	-	82.0 (181)	6.00 (6.36)
ZF 325 ATS	7.0	180 (7.09)	265 (10.4)	265 (10.4)	128 (5.04)	439 (17.3)	703 (27.7)	590 (23.2)	-	-	-	180 (396)	6.50 (6.90)
ZF 550 ATS	10.0	289 (10.6)	310 (12.2)	310 (12.2)	157 (6.17)	592 (23.3)	884 (34.8)	724 (28.5)	-	-	1	358 (784)	15.0 (15.9)
ZF 665 ATS	10.0	269 (10.6)	310 (12.2)	310 (12.2)	157 (6.17)	592 (23.3)	884 (34.8)	724 (28.5)	-	-	-	353 (777)	15.0 (15.9)

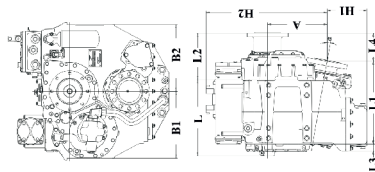
DRAWINGS AND DIMENSIONS

V-Drive Direct Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)	
	Angle	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃			BELL HSG.
ZF 280 IV	14.0	331 (13.0)	184 (7.24)	184 (7.24)	90.1 (3.55)	501 (19.7)	385 (15.6)	265 (11.2)	59.0 (2.32)	34.5 (1.36)	3	106 (233)	5.00 (5.30)
ZF 286 IV	14.0	358 (14.1)	185 (7.28)	225 (8.86)	100 (3.94)	-	212 (8.35)	322 (12.7)	165 (6.50)	223 (8.76)	-	130 (286)	5.00 (5.30)
ZF 325 IV	14.0	378 (14.9)	220 (8.66)	242 (9.53)	140 (5.51)	655 (25.8)	489 (19.3)	357 (14.0)	55.0 (2.17)	45.0 (1.77)	1	185 (407)	8.00 (8.50)
ZF 335 IV	14.0	380 (15.0)	292 (11.5)	220 (8.66)	145 (5.70)	627 (24.7)	514 (20.2)	387 (15.2)	54.4 (2.14)	45.0 (1.77)	-	215 (474)	9.50 (10.0)
ZF 360 IV	14.0	392 (15.4)	292 (11.5)	220 (8.66)	145 (5.70)	627 (24.7)	358 (14.1)	372 (14.6)	280 (11.0)	-	-	230 (507)	9.50 (10.0)
ZF 500-1 IV	14.0	392 (15.4)	292 (11.5)	220 (8.66)	145 (5.70)	627 (24.7)	358 (14.1)	372 (14.6)	280 (11.0)	-	-	230 (507)	9.00 (9.50)

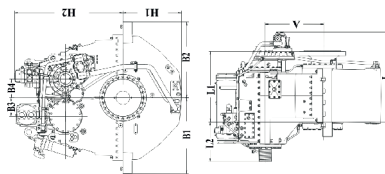
V-Drive Remote Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)	
	Angle	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃			L ₄
ZF 370 V	10.0	217 (8.52)	288 (11.7)	288 (11.7)	167 (6.58)	357 (14.0)	489 (17.3)	439 (17.3)	123 (4.84)	-	125 (4.92)	194 (428)	12.0 (12.7)
ZF 510 V	10.0	217 (8.52)	298 (11.7)	298 (11.7)	167 (6.58)	357 (14.0)	439 (17.3)	439 (17.3)	123 (4.84)	-	125 (4.92)	200 (441)	12.0 (12.7)
ZF 550 V	10.0	269 (10.6)	310 (12.2)	310 (12.2)	156 (6.13)	550 (21.7)	452 (17.8)	452 (17.8)	134 (5.28)	-	95.0 (3.74)	260 (573)	16.0 (17.0)
ZF 665 V	10.0	289 (10.6)	310 (12.2)	310 (12.2)	156 (6.13)	550 (21.7)	452 (17.8)	452 (17.8)	134 (5.28)	-	95.0 (3.74)	252 (555)	16.0 (17.0)
ZF 2000 V	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	375 (14.8)	394 (15.5)	200 (7.87)	50.0 (1.97)	111 (4.37)	352 (774)	21.0 (22.3)
ZF 2050 V	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	375 (14.8)	394 (15.5)	200 (7.87)	50.0 (1.97)	111 (4.37)	354 (778)	21.0 (22.3)
ZF 2060 V	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	375 (14.8)	394 (15.5)	200 (7.87)	50.0 (1.97)	111 (4.37)	354 (778)	21.0 (22.3)
ZF 2070 V	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	375 (14.8)	394 (15.5)	200 (7.87)	50.0 (1.97)	111 (4.37)	354 (778)	21.0 (22.3)
ZF 2075 V	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	375 (14.8)	394 (15.5)	200 (7.87)	50.0 (1.97)	111 (4.37)	354 (778)	21.0 (22.3)
ZF 2080 V	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	375 (14.8)	394 (15.5)	200 (7.87)	50.0 (1.97)	111 (4.37)	354 (778)	21.0 (22.3)
ZF 2150 V	10.0	280 (11.0)	320 (12.6)	320 (12.6)	167 (6.57)	575 (22.6)	375 (14.8)	394 (15.5)	200 (7.87)	50.0 (1.97)	111 (4.37)	356 (784)	21.0 (22.3)
ZF 3000 V	10.0	327 (12.8)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	418 (16.4)	452 (15.5)	253 (9.96)	38.5 (1.51)	153 (6.02)	500 (1,102)	31.0 (32.9)
ZF 3050 V	10.0	327 (12.8)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	418 (16.4)	452 (15.5)	253 (9.96)	38.5 (1.51)	153 (6.02)	500 (1,102)	31.0 (32.9)
ZF 3055 V	10.0	327 (12.8)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	418 (16.4)	452 (15.5)	253 (9.96)	38.5 (1.51)	153 (6.02)	505 (1,111)	31.0 (32.9)
ZF 3060 V	10.0	327 (12.8)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	418 (16.4)	452 (15.5)	253 (9.96)	38.5 (1.51)	153 (6.02)	505 (1,111)	31.0 (32.9)
ZF 3070 V	10.0	327 (12.8)	365 (14.4)	365 (14.4)	218 (8.59)	665 (26.2)	418 (16.4)	452 (15.5)	253 (9.96)	38.5 (1.51)	153 (6.02)	505 (1,111)	31.0 (32.9)
ZF 3160 V	10.0	302 (11.9)	365 (14.4)	365 (14.4)	178 (7.00)	640 (25.2)	418 (16.4)	452 (15.5)	253 (9.96)	50.0 (2.00)	153 (6.02)	485 (1,068)	31.0 (32.9)
ZF 3170 V	10.0	302 (11.9)	365 (14.4)	365 (14.4)	178 (7.00)	640 (25.2)	418 (16.4)	452 (15.5)	253 (9.96)	50.0 (2.00)	153 (6.02)	485 (1,068)	31.0 (32.9)
ZF 5000 V	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	425 (16.7)	539 (21.2)	285 (11.2)	49.0 (1.90)	136 (5.40)	768 (1,690)	42.0 (44.5)
ZF 5050 V	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	425 (16.7)	539 (21.2)	285 (11.2)	49.0 (1.90)	136 (5.40)	768 (1,690)	42.0 (44.5)
ZF 5060 V	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	425 (16.7)	539 (21.2)	285 (11.2)	49.0 (1.90)	136 (5.40)	768 (1,690)	42.0 (44.5)
ZF 5065 V	8.0	369 (14.5)	425 (16.7)	425 (16.7)	221 (8.70)	764 (30.1)	425 (16.7)	539 (21.2)	285 (11.2)	49.0 (1.90)	136 (5.40)	768 (1,690)	42.0 (44.5)
ZF 7650 V	8.0	448 (17.6)	500 (19.7)	500 (19.7)	263 (10.4)	868 (34.2)	791 (31.1)	653 (25.7)	236 (9.30)	118 (4.63)	68.6 (2.70)	1,125 (2,475)	75.0 (79.5)
ZF 9000 V	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	533 (21.0)	615 (24.2)	332 (13.1)	76.0 (3.00)	157 (6.18)	1,400 (3,080)	80.0 (84.8)
ZF 9055 V	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	533 (21.0)	615 (24.2)	332 (13.1)	76.0 (3.00)	157 (6.18)	1,400 (3,080)	80.0 (84.8)
ZF 9055 V	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	533 (21.0)	615 (24.2)	332 (13.1)	76.0 (3.00)	157 (6.18)	1,400 (3,080)	80.0 (84.8)
ZF 9060 V	8.0	475 (18.7)	545 (21.5)	545 (21.5)	340 (13.4)	858 (33.8)	533 (21.0)	615 (24.2)	332 (13.1)	76.0 (3.00)	157 (6.18)	1,400 (3,080)	80.0 (84.8)

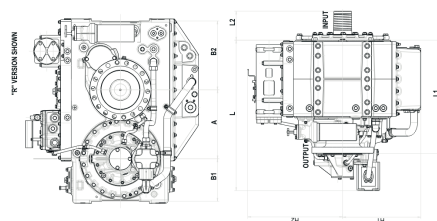
DRAWINGS AND DIMENSIONS

Diagonal Offset Remote Mount



MODEL	mm (inches)											Oil I (US qt)
	A	B ₁	B ₂	B ₃	B ₄	H ₁	H ₂	L	L ₁	L ₂	Weight Kg (lb)	
ZF 3050 D	140 (5.52)	365 (14.4)	365 (14.4)	213 (8.39)	213 (8.39)	250 (9.84)	593 (23.4)	670 (26.4)	485 (19.1)	132 (5.20)	482 (1,062)	31.0 (32.9)
ZF 3055 D	140 (5.52)	365 (14.4)	365 (14.4)	213 (8.39)	213 (8.39)	250 (9.84)	593 (23.4)	670 (26.4)	485 (19.1)	132 (5.20)	482 (1,062)	31.0 (32.9)
ZF 3060 D	140 (5.52)	365 (14.4)	365 (14.4)	-	-	250 (9.84)	593 (23.4)	670 (26.4)	485 (19.1)	132 (5.20)	482 (1,062)	31.0 (32.9)
ZF 24060 D	421 (16.6)	640 (25.2)	640 (25.2)	220 (8.70)	220 (8.70)	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	479 (18.8)	2,450 (5,390)	150 (160)
ZF 24360 D	675 (26.6)	890 (35.1)	890 (35.1)	220 (8.70)	220 (8.70)	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	448 (17.6)	3,870 (8,532)	200 (212)

Horizontal Offset Remote Mount

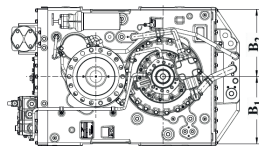
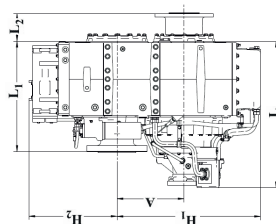


MODEL	mm (inches)											Oil I (US qt)
	A	B ₁	B ₂	B ₃	B ₄	H ₁	H ₂	L	L ₁	L ₂	Weight Kg (lb)	
ZF 7600 NR2H	340 (13.4)	220 (8.66)	320 (12.6)	400 (15.8)	400 (15.8)	519 (20.4)	795 (31.0)	795 (31.0)	638 (25.1)	146 (5.75)	705 (1,551)	50.0 (53.0)
ZF 7650 NR2H	340 (13.4)	220 (8.66)	320 (12.6)	400 (15.8)	400 (15.8)	519 (20.4)	795 (31.0)	795 (31.0)	638 (25.1)	146 (5.75)	705 (1,551)	50.0 (53.0)
ZF 9000 NR2H	390 (15.4)	240 (9.45)	390 (15.4)	445 (17.5)	445 (17.5)	540 (19.8)	851 (33.5)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9050 NR2H	390 (15.4)	240 (9.45)	390 (15.4)	445 (17.5)	445 (17.5)	540 (19.8)	851 (33.5)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9055 NR2H	390 (15.4)	240 (9.45)	390 (15.4)	445 (17.5)	445 (17.5)	540 (19.8)	851 (33.5)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9060 NR2H	390 (15.4)	240 (9.45)	390 (15.4)	445 (17.5)	445 (17.5)	540 (19.8)	851 (33.5)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 24060 NR2H	475 (18.7)	315 (12.4)	460 (18.1)	480 (18.9)	480 (18.9)	637 (25.1)	1,316 (51.8)	1,316 (51.8)	750 (29.5)	196 (7.70)	1,860 (4,092)	90.0 (95.0)
ZF 30050 NR2H	475 (18.7)	315 (12.4)	460 (18.1)	480 (18.9)	480 (18.9)	637 (25.1)	1,316 (51.8)	1,316 (51.8)	750 (29.5)	196 (7.70)	1,870 (4,114)	90.0 (95.0)
ZF 40060 NR2H	475 (18.7)	315 (12.4)	460 (18.1)	480 (18.9)	480 (18.9)	637 (25.1)	1,316 (51.8)	1,316 (51.8)	750 (29.5)	196 (7.70)	1,880 (4,136)	90.0 (95.0)

DRAWINGS AND DIMENSIONS

2-Shaft, Non-Reversing, (Input BELOW Output)

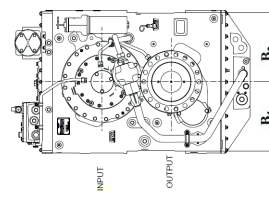
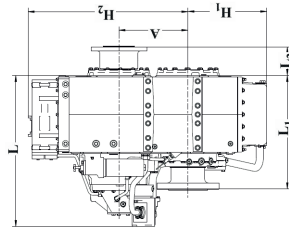
Remote Mount



MODEL	mm (inches)								Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂		
ZF 7600 NR2B	340 (13.4)	352 (13.8)	352 (13.8)	750 (29.5)	520 (20.5)	795 (31.3)	638 (25.1)	146 (5.70)	705 (1,551)	50.0 (53.0)
ZF 7650 NR2B	340 (13.4)	352 (13.8)	352 (13.8)	750 (29.5)	520 (20.5)	795 (31.3)	638 (25.1)	146 (5.70)	720 (1,584)	50.0 (53.0)
ZF 9000 NR2B	390 (15.4)	390 (15.4)	390 (15.4)	835 (32.9)	503 (19.8)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9050 NR2B	390 (15.4)	390 (15.4)	390 (15.4)	835 (32.9)	503 (19.8)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9055 NR2B	390 (15.4)	390 (15.4)	390 (15.4)	835 (32.9)	503 (19.8)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 24060 NR2B	475 (18.7)	455 (17.9)	455 (17.9)	915 (36.0)	637 (25.1)	1,316 (51.8)	750 (29.5)	196 (7.70)	1,890 (4,158)	90.0 (95.0)
ZF 30050 NR2B	475 (18.7)	455 (17.9)	455 (17.9)	915 (36.0)	637 (25.1)	1,316 (51.8)	750 (29.5)	196 (7.70)	1,900 (4,180)	90.0 (95.0)
ZF 40060 NR2B	475 (18.7)	455 (17.9)	455 (17.9)	915 (36.0)	637 (25.1)	1,316 (51.8)	750 (29.5)	196 (7.70)	2,010 (4,422)	90.0 (95.0)
ZF 53000 NR2B	600 (23.6)	575 (22.6)	575 (22.6)	1,400 (55.1)	770 (30.3)	-	995 (39.2)	716 (28.2)	3,900 (8,580)	200 (212)
ZF 53500 NR2B	600 (23.6)	575 (22.6)	575 (22.6)	1,400 (55.1)	770 (30.3)	-	995 (39.2)	746 (29.4)	3,980 (8,756)	200 (212)
ZF 53800 NR2B	600 (23.6)	575 (22.6)	575 (22.6)	1,400 (55.1)	770 (30.3)	-	995 (39.2)	746 (29.4)	4,080 (8,976)	200 (212)

2-Shaft, Non-Reversing, (Input ABOVE Output)

Remote Mount

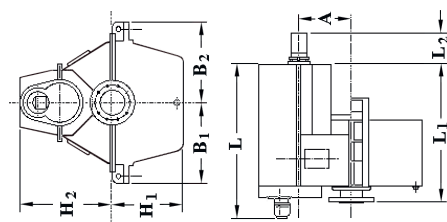


MODEL	mm (inches)								Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂		
ZF 7600 NR2	340 (13.4)	352 (13.8)	352 (13.8)	400 (15.7)	870 (34.2)	795 (31.3)	638 (25.1)	146 (5.70)	705 (1,551)	50.0 (53.0)
ZF 7650 NR2	340 (13.4)	352 (13.8)	352 (13.8)	400 (15.7)	870 (34.2)	795 (31.3)	638 (25.1)	146 (5.70)	705 (1,551)	50.0 (53.0)
ZF 9000 NR2	390 (15.4)	390 (15.4)	390 (15.4)	445 (17.5)	893 (35.2)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9050 NR2	390 (15.4)	390 (15.4)	390 (15.4)	445 (17.5)	893 (35.2)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9055 NR2	390 (15.4)	390 (15.4)	390 (15.4)	445 (17.5)	893 (35.2)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 9060 NR2	390 (15.4)	390 (15.4)	390 (15.4)	445 (17.5)	893 (35.2)	851 (33.5)	640 (25.2)	164 (6.46)	1,040 (2,288)	60.0 (63.6)
ZF 24060 NR2	475 (18.7)	455 (17.9)	455 (17.9)	480 (18.9)	1,072 (42.2)	1,316 (51.8)	750 (29.5)	196 (7.70)	1,890 (4,158)	90.0 (95.0)
ZF 30050 NR2	475 (18.7)	455 (17.9)	455 (17.9)	480 (18.9)	1,072 (42.2)	1,316 (51.8)	750 (29.5)	196 (7.70)	1,900 (4,180)	90.0 (95.0)
ZF 40060 NR2	475 (18.7)	455 (17.9)	455 (17.9)	480 (18.9)	1,072 (42.2)	1,316 (51.8)	750 (29.5)	196 (7.70)	2,010 (4,422)	90.0 (95.0)

DRAWINGS AND DIMENSIONS

MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂	L ₃			
ZF W17050 NR	475 (18.7)	785 (30.9)	785 (30.9)	610 (24.0)	940 (37.0)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	890 (35.0)	3,940 (8,668)	171 (181)	
ZF W17100	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,350 (11,770)	171 (181)	
ZF W17100 NR	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	4,750 (10,450)	171 (181)	
ZF W17110	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,350 (11,770)	171 (181)	
ZF W17110 NR	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	4,750 (10,450)	171 (181)	
ZF W17130	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,420 (11,924)	171 (181)	
ZF W17130 NR	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	4,790 (10,538)	171 (181)	
ZF W17150	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,420 (11,924)	171 (181)	
ZF W17150 NR	600 (23.6)	850 (33.5)	850 (33.5)	725 (28.5)	1,030 (40.6)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	4,790 (10,538)	171 (181)	
ZF W17200	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,900 (12,760)	187 (198)	
ZF W17200 NR	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,250 (11,550)	187 (198)	
ZF W17210	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,900 (12,760)	187 (198)	
ZF W17210 NR	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,250 (11,550)	187 (198)	
ZF W17230	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,970 (12,914)	187 (198)	
ZF W17230 NR	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,290 (11,638)	187 (198)	
ZF W17250	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,970 (12,914)	187 (198)	
ZF W17250 NR	700 (27.6)	925 (36.4)	925 (36.4)	825 (32.5)	1,180 (46.5)	1,866 (73.5)	1,504 (59.2)	488 (19.2)	925 (36.4)	5,290 (11,638)	187 (198)	

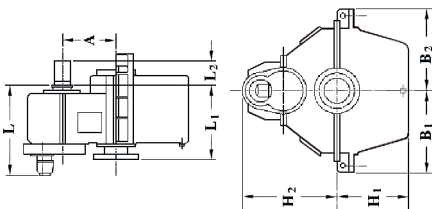
Vertical Offset
Remote Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂				
ZF W23100 NR	630 (24.8)	810 (31.9)	810 (31.9)	710 (28.0)	1,010 (39.6)	1,448 (57.0)	1,301 (51.2)	288 (11.3)	4,700 (10,340)	210 (223)		
ZF W33100 NR	700 (27.6)	860 (33.9)	860 (33.9)	800 (31.5)	1,260 (49.6)	1,596 (62.8)	1,493 (58.8)	301 (11.9)	6,080 (13,376)	280 (297)		
ZF W43000 NR	600 (23.6)	860 (33.9)	860 (33.9)	800 (31.5)	1,210 (47.6)	1,768 (69.6)	1,588 (62.9)	336 (13.2)	6,400 (14,080)	280 (297)		
ZF W43100 NR	770 (30.3)	995 (39.2)	995 (39.2)	900 (35.4)	1,380 (54.3)	1,768 (69.6)	1,653 (65.1)	336 (13.2)	9,300 (20,460)	370 (392)		
ZF 43700 NR2	770 (30.3)	995 (39.2)	995 (39.2)	900 (35.4)	1,380 (54.3)	1,768 (69.6)	1,653 (65.1)	336 (13.2)	9,300 (20,460)	370 (392)		
ZF W63000 NR	670 (26.4)	995 (39.2)	995 (39.2)	900 (35.4)	1,367 (53.6)	1,836 (72.3)	1,785 (70.3)	346 (13.6)	9,200 (20,240)	370 (392)		
ZF W63100 NR	980 (38.6)	1,230 (48.4)	1,230 (48.4)	1,120 (44.1)	1,760 (69.3)	1,989 (78.3)	2,059 (81.1)	376 (14.8)	16,600 (36,520)	720 (763)		

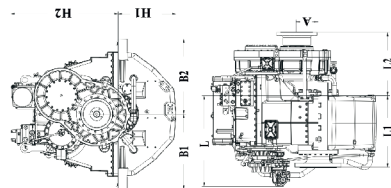
DRAWINGS AND DIMENSIONS

Vertical Offset Remote Mount



MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂				
ZF W23100 NC	630 (24.8)	810 (31.9)	810 (31.9)	710 (28.0)	1,120 (44.1)	930 (36.0)	730 (31.1)	250 (9.80)			3,800 (8,360)	210 (223)
ZF W33100 NC	700 (27.6)	860 (33.9)	860 (33.9)	800 (31.5)	1,350 (53.1)	1,040 (40.9)	880 (34.6)	290 (11.4)			4,500 (9,900)	280 (297)
ZF W43000 NC	600 (23.6)	860 (33.9)	860 (33.9)	800 (31.5)	1,255 (49.4)	1,100 (43.3)	930 (36.6)	340 (13.4)			5,400 (11,880)	280 (297)
ZF W43100 NC	770 (30.3)	995 (39.2)	995 (39.2)	900 (35.4)	1,432 (56.4)	1,100 (43.3)	985 (38.8)	340 (13.4)			6,800 (14,960)	370 (392)
ZF W63000 NC	750 (29.5)	1,090 (42.9)	1,090 (42.9)	1,000 (39.4)	1,562 (61.5)	1,225 (48.2)	1,130 (44.5)	360 (14.2)			9,270 (20,394)	600 (636)
ZF W83100 NC	980 (38.6)	1,230 (48.4)	1,230 (48.4)	1,120 (44.1)	1,792 (70.6)	1,225 (48.2)	1,210 (47.6)	360 (14.2)			14,800 (32,560)	720 (763)
ZF W93300 NC	980 (38.6)	1,235 (48.6)	1,235 (48.6)	1,125 (44.3)	2,140 (84.2)	1,915 (75.4)	2,490 (98.0)	425 (16.7)			21,000 (46,200)	800 (848)
ZF W103100 NC	1,120 (44.1)	1,375 (54.1)	1,375 (54.1)	1,340 (52.7)	1,810 (71.3)	1,840 (72.4)	2,190 (86.2)	425 (16.7)			27,000 (57,200)	1,050 (1,113)

Near Co-Axial Remote Mount

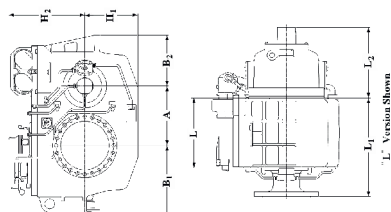


MODEL	mm (inches)										Weight kg (lb)	Oil l (US qt)
	A	B ₁	B ₂	B ₃	B ₄	H ₁	H ₂	L	L ₁	L ₂		
ZF 23560 C (IV=1.000)	-	592 (23.3)	592 (23.3)	-	440 (17.3)	1,113 (43.8)	1,217 (47.9)	934 (36.8)	221 (8.70)	2,600 (5,727)	180 (191)	
ZF 23560 C (IV=1.130)	-	592 (23.3)	592 (23.3)	-	440 (17.3)	1,113 (43.8)	1,217 (47.9)	934 (36.8)	221 (8.70)	2,600 (5,727)	180 (191)	
ZF 23560 C (IV=1.273)	-	592 (23.3)	592 (23.3)	-	440 (17.3)	1,113 (43.8)	1,217 (47.9)	934 (36.8)	221 (8.70)	2,600 (5,727)	180 (191)	
ZF 23560 C (IV=1.432)	-	592 (23.3)	592 (23.3)	-	440 (17.3)	1,113 (43.8)	1,217 (47.9)	934 (36.8)	221 (8.70)	2,600 (5,727)	180 (191)	
ZF 23560 C (IV=0.492)	-	592 (23.3)	592 (23.3)	-	440 (17.3)	1,113 (43.8)	1,217 (47.9)	934 (36.8)	221 (8.70)	2,600 (5,727)	180 (191)	
ZF 24060 SGC (IV=1.000)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,150 (6,930)	150 (160)	
ZF 24060 SGC (IV=1.173)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,150 (6,930)	150 (160)	
ZF 24060 SGC (IV=1.280)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,150 (6,930)	150 (160)	
ZF 24060 SGC (IV=1.354)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,150 (6,930)	150 (160)	
ZF 24360 SG (IV=1.000)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,500 (9,921)	200 (212)	
ZF 24360 SG (IV=1.173)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,500 (9,921)	200 (212)	
ZF 24360 SG (IV=1.280)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,500 (9,921)	200 (212)	
ZF 24360 SG (IV=1.354)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,500 (9,921)	200 (212)	
ZF 30050 SGC (IV=0.759)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,150 (6,930)	150 (160)	
ZF 30050 SGC (IV=0.759)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,500 (9,921)	200 (212)	
ZF 40060 SGC (IV=0.522)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,150 (6,930)	150 (160)	
ZF 40060 SGC (IV=0.585)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,170 (6,974)	150 (160)	
ZF 40060 SGC (IV=0.603)	-	640 (25.2)	640 (25.2)	-	513 (20.2)	1,022 (40.2)	1,041 (41.0)	750 (29.5)	776 (30.6)	3,170 (6,974)	150 (160)	
ZF 40360 SG (IV=0.522)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,625 (10,196)	200 (212)	
ZF 40360 SG (IV=0.585)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,625 (10,196)	200 (212)	
ZF 40360 SG (IV=0.603)	254 (10.0)	890 (35.1)	890 (35.1)	-	690 (27.2)	1,289 (50.7)	1,072 (42.2)	845 (33.3)	745 (29.3)	4,625 (10,196)	200 (212)	

DRAWINGS AND DIMENSIONS

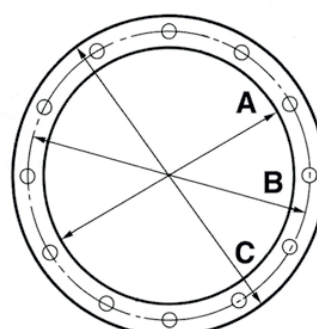
SAE BELL HOUSING DIMENSIONS

MODEL	mm (inches)										Weight kg (lb)	Oil (US qt)
	A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂				
ZF 53000 NR2H	600 (23.6)	730 (28.7)	515 (20.3)	535 (21.1)	770 (30.3)	705 (27.8)	995 (39.2)	716 (28.2)	3,750 (8,250)	200 (212)		
ZF 53500 NR2H	600 (23.6)	730 (28.7)	515 (20.3)	535 (21.1)	770 (30.3)	705 (27.8)	995 (39.2)	746 (29.4)	3,825 (8,425)	200 (212)		
ZF 53600 NR2H	670 (26.4)	948 (37.3)	772 (30.4)	770 (30.3)	1,146 (45.1)	759 (29.9)	996 (39.2)	1,136 (44.7)	9,900 (21,780)	300 (318)		
ZF 53800 NR2H	600 (23.6)	730 (28.7)	515 (20.3)	535 (21.1)	770 (30.3)	705 (27.8)	995 (39.2)	761 (30.0)	3,925 (8,415)	200 (212)		
ZF 60000 NR2H	665 (26.2)	750 (29.5)	590 (23.2)	600 (23.6)	819 (32.2)	715 (28.1)	1,045 (41.1)	817 (32.1)	4,650 (10,230)	200 (212)		
ZF 60500 NR2H	670 (26.4)	750 (29.5)	590 (23.2)	600 (23.6)	819 (32.2)	715 (28.1)	1,045 (41.1)	817 (32.1)	4,650 (10,230)	200 (212)		
ZF W63000 NR2H	670 (26.4)	948 (37.3)	772 (30.4)	770 (30.3)	1,146 (45.1)	1,531 (60.3)	1,768 (69.6)	364 (14.3)	9,900 (21,780)	300 (318)		
ZF 83700 NR2H	880 (34.6)	1,135 (44.7)	825 (32.5)	950 (37.4)	1,217 (47.9)	910 (35.8)	1,229 (48.4)	1,147 (45.2)	15,500 (34,100)	500 (530)		
ZF 83750 NR2H	880 (34.6)	1,135 (44.7)	825 (32.5)	950 (37.4)	1,217 (47.9)	910 (35.8)	1,229 (48.4)	1,147 (45.2)	15,500 (34,100)	500 (530)		



Horizontal Offset Remote Mount

SAE No.	A		B		C		Bolt Holes		
	inch	mm	inch	mm	inch	mm	No.	Diameter	
							inch	mm	
00	31	787,40	33 1/2	850,90	34 3/4	882,65	16	17/32	13,49
0	25 1/2	647,70	26 3/4	679,45	28	711,20	16	17/32	13,49
1/2	23	584,20	24 3/8	619,13	25 1/2	647,70	12	17/32	13,49
1	20 1/8	511,18	20 7/8	530,23	21 3/4	552,45	12	15/32	11,91
2	17 5/8	447,68	18 3/8	466,73	19 1/4	488,95	12	15/32	10,32
3	16 1/8	409,58	16 7/8	428,63	17 3/4	450,85	12	13/32	10,32
4	14 1/4	361,95	15	381,00	15 7/8	403,23	12	13/32	10,32
5	12 3/8	314,33	13 1/8	333,38	14	355,60	8	13/32	10,32
6	10 1/2	266,70	11 1/4	285,75	12 1/8	307,98	8	13/32	10,32



OTHER PRODUCTS

PLEASURE CRAFT

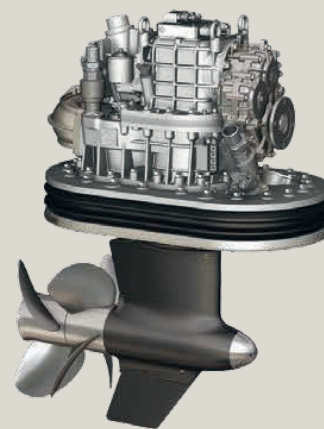
Content

CONTROL SYSTEMS	page 214 to 215
ZF POD 2500 – 2800	page 216 to 217
ZF POD 4000	page 218 to 219
SAIL DRIVE	page 220 to 221
SEAREX	page 222 to 223
FIXED PITCH PROPELLERS	page 224 to 225

ZF POD 2500 – 2800

MODEL	RATIOS	POWER/RPM		INPUT POWER CAPACITY						MAX RPM	WEIGHT	
		kW/rpm	hp/rpm	kW	hp	kW	hp	kW	hp		kg	lb
				3000 rpm		3300 rpm		3800 rpm				
ZF POD 2500	2,012 2,139 2,236	0,073	0,098	219	293	241	323	277	372	5000	240	528
ZF POD 2800	1,372 1,459 1,525	0,112	0,150	336	450	370	495	426	570	3800	260	573
	1,497 1,591 1,664	0,098	0,131	294	394	323	433	372	499	3800		
	1,754 1,865 1,950	0,084	0,113	252	338	277	371	319	428	4400		
	2,012 2,139 2,236	0,073	0,098	219	293	241	323	277	372	5000		
ZF POD 2800-1	1,497 1,591 1,664	0,109	0,145	326	436	358	480	412	552	3800	260	573
	1,754 1,865 1,950	0,109	0,145	326	436	358	480	412	552	4400		

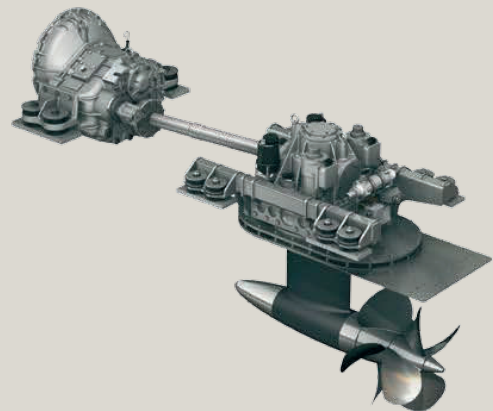
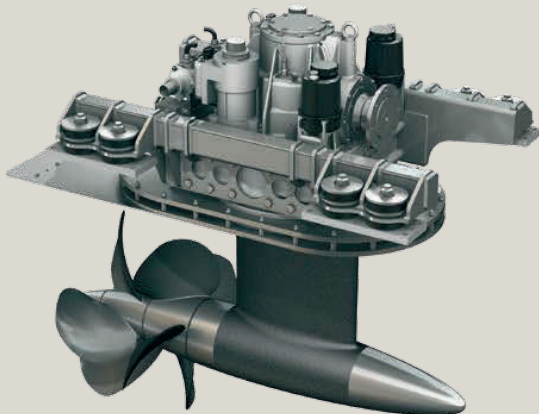
Above ratings are valid for pleasure duty only
AND NOT FOR CHARTER APPLICATIONS;
 please refer to ZF Offices for other uses



ZF POD 4000

MODEL	RATIOS	POWER/RPM		INPUT POWER CAPACITY						MAX RPM	WEIGHT	
		kW/rpm	hp/rpm	kW	hp	kW	hp	kW	hp		kg	lb
				2100 rpm		2300 rpm		2450 rpm				
ZF POD 4000	1,985	0,385	0,516	809	1083	886	1187	943	1264	2500	~1000	~2200

Above ratings are valid for pleasure duty only
AND NOT FOR CHARTER APPLICATIONS;
 please refer to ZF Offices for other uses

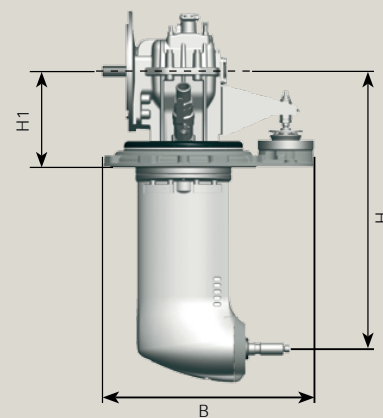
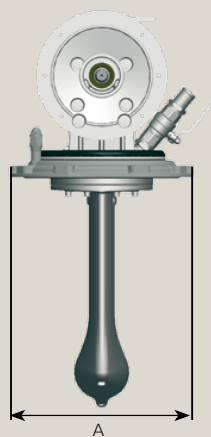


SAIL DRIVE

MODEL	RATIOS	POWER/RPM		INPUT POWER CAPACITY				Max RPM	Weight		Clamp ring flange dia. - A		Clamp ring flange dia. - B		Drop - H		Height-H1	
		kW/rpm	hp/rpm	kW	hp	kW	hp		kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
				3200		3600												
ZF SD 10	2,23	0,0153	0,0208	50	67	55	75	3800	40	88	378	15	463	18	605	24	210	8
	2,49	0,0153	0,0208	50	67	55	75											
ZF SD 12	2,23	0,0188	0,0256	60	82	68	92	3800	40	88	378	15	463	18	605	24	210	8
	2,49	0,0188	0,0256	60	82	68	92											

Propeller downpropping is not accepted. In the need of special approval please contact ZF for official release whereas acceptable.

Above ratings are valid for pleasure duty only; please refer to ZF Offices for other uses

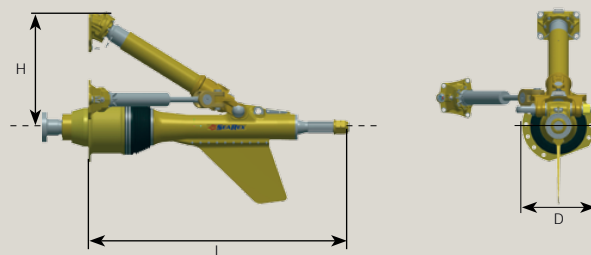
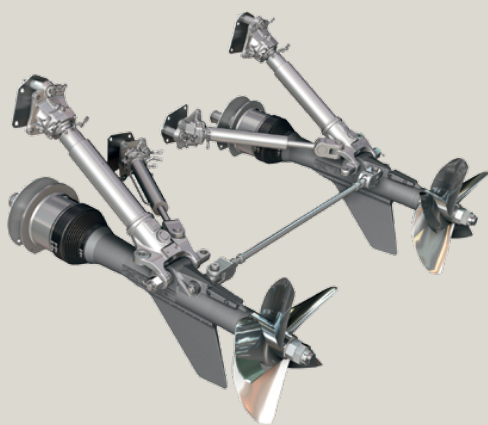


SEAREX

MODEL	MAX Input Torque		Max Input Power HP at prop. RPM		Weight *		Diam. propeller shaft		Transom flange diam. - D		Mounting Height-H		Overall Length-L	
	Nm	ftlb	1500 RPM	1150 RPM	kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
SeaRex 120 S	9090	6784	1915	-	370	815	85	3,35	432	17	813	32	1617	63,7
SeaRex 140 S	15070	11246	3175	-	708	1559	108	4,25	540	21,25	848	33,4	1958	77,1
SeaRex 160 S	24000	17910	-	3875	990	2181	120	4,72	584	23	988	38,9	2221	87,4

Above ratings are valid for pleasure duty only;
please refer to ZF Offices for other uses

* Weights refer to one tail assembly as per drawing below



FIXED PITCH PROPELLERS

MODEL	Blades	Pitch ratio	Area ratio	Skew angles	Section type	Ship speed	Remarks
						knots	
ZF FP KCA - Series	3, 4 5, 6	0.60-2.00	0.20-1.10	0 degree	Ogival	25-35	Most widely use propeller series.Suitable for most applications. Cupped available.
ZF FP KCA - C Series	3, 4, 5	0.60-2.00	0.50-1.10	25 30 35 degrees	Ogival	25-35	Modified from standard KCA series for commercial application with specific thickness.
ZF FP KCA - S Series	3, 4 5, 6	0.60-2.00	0.50-1.10	25 30 35 degrees	Ogival	25-35	Modified from standard KCA series for smooth application. Suitable for most applications. Cupped available.
ZF FP KA - Series	3, 4, 5	0.60-1.60	0.55-0.75	0 degree, skew available	Aerofoil		Suitable for accelerating nozzle propellers and bow or stern thrusters.
ZF FP NACA - Series	3, 4, 5 6,7,8	0.80-1.60	0.50-1.40	According to design	Aerofoil	< 25	Theoretical design propellers series.
ZF FP NR - Series	3, 4, 5	1.00-2.00	0.50-1.00	0 30 degrees	Crescent	35-40	Suitable for higher speed range in trans-cavitating applications.
ZF FP EV - Series	3, 4, 5 6, 7, 8	0.80-1.60	0.50-1.40	According to design	Mixed Foils		Theoretical design propellers series for better cavitations control.
ZF FP NF - Series	3, 4, 5, 6, 7, 8	0.80-1.60	0.50-1.40	According to design	New Foil		Theoretical design propellers series.
ZF FP SPP - Series	5, 6	0.90-1.80	0.70-1.10	According to design	SPP, SC		Suitable for different surface drive applications.



ZF FP KCA - Series



ZF FP KCA - S Series



ZF FP NACA - Series



ZF FP KA - Series



ZF FP NR - Series



ZF FP EV - Series



ZF FP NF - Series



ZF FP SPP - Series

OTHER PRODUCTS COMMERCIAL AND FAST CRAFT

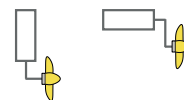
Content

WELL MOUNTED AZIMUTH THRUSTERS	page	227
CONTRA ROTATING AZIMUTH THRUSTERS	page	228
DECK MOUNTED AZIMUTH THRUSTERS	page	229
RETRACTABLE AZIMUTH THRUSTERS	page	230
FIXED PITCH TUNNEL THRUSTERS	page	231
CONTROLLABLE PITCH TUNNEL THRUSTERS	page	232
SHALLOW DRAUGHT THRUSTERS	page	233

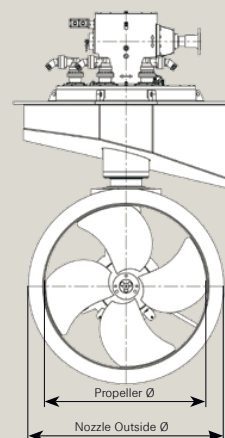
WELL MOUNTED AZIMUTH THRUSTERS

MODEL	Max. power*		Typical prop. dia. open		Typical prop. dia. nozzle	
	kW	hp	mm	inch	mm	inch
ZF AT 2000 WM-FP	200	268	750	30	700	28
ZF AT 3000 WM-FP	300	402	1050	41	1000	39
ZF AT 400 WM-FP	440	590	1150	45	1100	43
ZF AT 4000 WM-FP	525	704	1350	53	1300	51
ZF AT 5000 WM-FP	825	1105	1700	67	1650	65
ZF AT 6000 WM-FP	1200	1608	1950	77	1900	75
ZF AT 7000 WM-FP	1650	2211	2300	91	2200	87
ZF AT 8000 WM-FP	2000	2680	2500	98	2400	94

Available as L-drive and Z-drive



* Rating, subject to classification and application.
mentioned data for indication purpose only.
Consult ZF Marine Krimpen's technical staff to determine applicable power for each specific use.



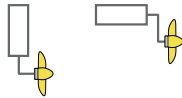
CONTRA ROTATION AZIMUTH THRUSTERS

MODEL	Max. power*		Propeller dia. pulling propeller		Propeller dia. pushing propeller	
	kW	hp	mm	inch	mm	inch
ZF AT 2000 WM-CR	150	201	700	28	670	26
ZF AT 3000 WM-CR	300	402	1125	44	1000	39
ZF AT 400 WM-CR	385	516	1000	39	960	38
ZF AT 4000 WM-CR	435	583	1250	49	1150	45
ZF AT 5000 WM-CR	770	1032	1400	55	1250	49

DECK MOUNTED AZIMUTH THRUSTERS

MODEL**	Max. power*		Typical prop. dia. open		Typical prop. dia. nozzle	
	kW	hp	mm	inch	mm	inch
ZF AT 2000 DM-FP	180	241	750	30	700	28
ZF AT 3000 DM-FP	300	402	1050	41	1000	39
ZF AT 400 DM-FP	440	590	1150	45	1100	43
ZF AT 4000 DM-FP	525	704	1350	53	1300	51
ZF AT 5000 DM-FP	825	1105	1700	67	1650	65
ZF AT 6000 DM-FP	1200	1608	2100	83	2050	81

Available as L-drive and Z-drive

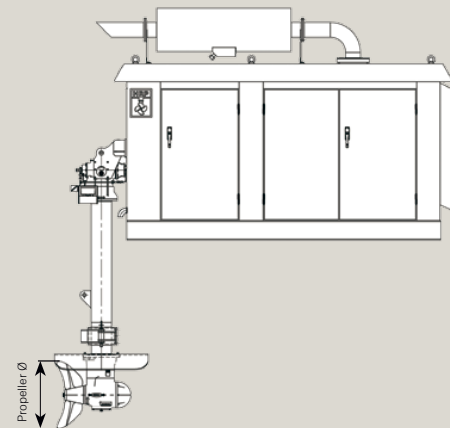
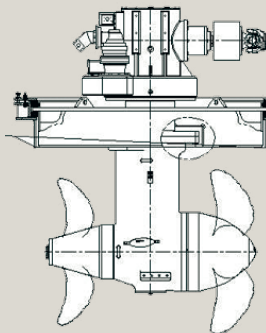


* Rating, subject to classification and application. mentioned data for indication purpose only.
Consult ZF Marine Krimpen's technical staff to determine applicable power for each specific use.

Available as Z-drive



* Rating, subject to classification and application. mentioned data for indication purpose only.
Consult ZF Marine Krimpen's technical staff to determine applicable power for each specific use.
**Can be supplied with any type or make of diesel engine



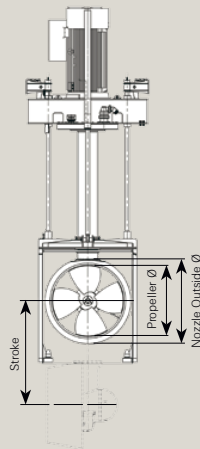
RETRACTABLE AZIMUTH THRUSTERS

MODEL	Max. power*		Typical prop. dia. nozzle	
	kW	hp	mm	inch
ZF AT 2000 RT-FP	200	268	700	28
ZF AT 3000 RT-FP	300	402	1000	39
ZF AT 400 RT-FP	440	590	1150	45
ZF AT 4000 RT-FP	525	704	1300	51
ZF AT 5000 RT-FP	825	1105	1650	65
ZF AT 6000 RT-FP	1200	1608	1900	75
ZF AT 7000 RT-FP	1650	2211	2200	87
ZF AT 8000 RT-FP	2000	2680	2400	94

Available as L-drive and Z-drive



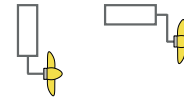
* Rating, subject to classification and application. mentioned data for indication purpose only.
Consult ZF Marine Krimpen's technical staff to determine applicable power for each specific use.



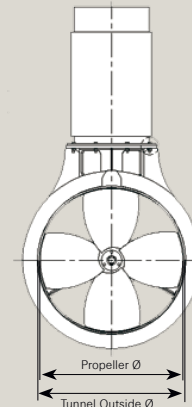
FIXED PITCH TUNNEL THRUSTERS

MODEL	Max. power*		Typical prop. dia.		Tunnel outer dia.		Tunnel wall thickness stand.		Tunnel length standard	
	kW	hp	mm	inch	mm	inch	mm	inch	mm	inch
ZF TT 1000 FP**	100	134	600	24	660	26	15	0,6	1000	39
ZF TT 2000 FP**	200	268	700	28	760	30	15	0,6	1000	39
ZF TT 3000 FP	300	402	1050	41	1110	44	15	0,6	1000	39
ZF TT 400 FP	440	590	1150	45	1220	48	15	0,6	1000	39
ZF TT 4000 FP	525	704	1350	53	1420	60	16	0,6	1000	39
ZF TT 5000 FP	825	1105	1650	65	1730	70	18	0,7	2000	79
ZF TT 6000 FP	1200	1608	1900	75	1990	80	20	0,8	2000	79
ZF TT 7000 FP	1650	2211	2300	91	2400	90	22	0,9	2200	80
ZF TT 8000 FP	2000	2680	2450	97	2550	100	22	0,9	2550	100

Available as L-drive and Z-drive



* Rating, subject to classification and application. mentioned data for indication purpose only.
Consult ZF Marine Krimpen's technical staff to determine applicable power for each specific use.
** Also available in AI. gearbox and tunnel



CONTROLLABLE PITCH TUNNEL THRUSTERS

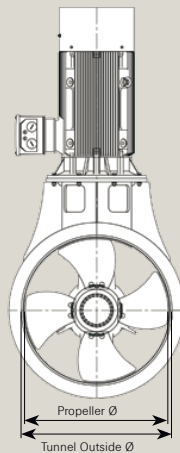
MODEL	Max. power*		Typical prop. dia.		Tunnel outer dia.		Tunnel wall thickness stand.		Tunnel length standard	
	kW	hp	mm	inch	mm	inch	mm	inch	mm	inch
ZF TT 4000 CP	500	670	1350	53	1420	60	16	0,6	1500	59
ZF TT 5000 CP	850	1139	1650	65	1730	70	18	0,7	2000	79

Available as L-drive and Z-drive



* Rating, subject to classification and application. mentioned data for indication purpose only.

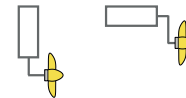
Consult ZF Marine Krimpen's technical staff to determine applicable power for each specific use.



SHALLOW DRAUGHT THRUSTERS

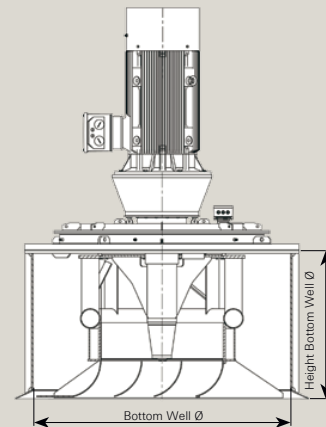
MODEL	Max. power*		Diameter outer well approx.		Height of outer well approx.	
	kW	hp	mm	inch	mm	inch
ZF SDT 2000 FP	100	134	1030	41	615	24
ZF SDT 3000 FP	195	261	1460	58	867	34
ZF SDT 4000 FP	350	469	1960	77	1158	46
ZF SDT 5000 FP	575	771	2520	99	1493	59
ZF SDT 6000 FP	825	1105	3060	121	1805	71

Available as L-drive and Z-drive



* Rating, subject to classification and application. mentioned data for indication purpose only.

Consult ZF Marine Krimpen's technical staff to determine applicable power for each specific use.



APPROXIMATE CONVERSIONS

MULTIPLY	BY	TO GET OR MULTIPLY	BY	TO GET
SI UNIT	CONV. FACTOR	USA NON-SI UNIT	CONV. FACTOR	SI UNIT
LENGTH				
millimeter (mm)	x 0,03937	= inch	x 25,4	= mm
(1 inch=25,4 mm exactly)				
centimeter (cm) 10 mm	x 0,3937	= inch	x 2,54	= cm
meter (m) 1000 mm	x 3,28	= foot	x 0,305	= m
kilometer (km) 1000 m	x 0,539	= nautical mile	x 1,854	= km
kilometer (km) 1000 m	x 0,62	= statute mile	x 1,61	= km
AREA				
millimeter ² (mm ²)	x 0,00155	= inch ²	x 645	= mm ²
centimeter ² (cm ²)	x 0,155	= inch ²	x 6,45	= cm ²
meter ² (m ²)	x 10,8	= foot ²	x 0,0929	= m ²
meter ² (m ²)	x 1,2	= yard ²	x 0,836	= m ²
VOLUME				
centimeter ³ (cm ³)	x 0,061	= inch ³	x 16,4	= cm ³
liter (l) dm ³	x 61	= inch ³	x 0,016	= l
milliliter (ml) (1ml=1cm ³)	x 0,034	= oz-liq	x 29,6	= ml
liter (l) 1000 ml	x 1,06	= quart	x 0,946	= l
liter (l) dm ³	x 0,26	= gallon	x 3,79	= l
meter ³ (m ³) 1000 l	x 1,3	= yard ³	x 0,76	= m ³
MASS				
gram (g)	x 0,035	= ounce	x 28,3	= g
kilogram (kg) 1000 g	x 2,2	= pound	x 0,454	= kg
metric ton (t) 1000 kg	x 1,1	= ton (short)	x 0,907	= t
FORCE (N = kg · m/s²)				
newton (N)	x 0,225	= pound	x 4,45	= N
kilonewton (kN)	x 225	= pound	x 0,00445	= kN
TORQUE				
newton meter (Nm)	x 8,9	= lb in.	x 0,113	= Nm
newton meter (Nm)	x 0,74	= lb ft.	x 1,36	= Nm
PRESSURE (Pa = N/m²)				
kilopascal (kPa)	x 4,0	= in. H ₂ O	x 0,249	= kPa
kilopascal (kPa)	x 0,30	= in. Hg	x 3,38	= kPa
kilopascal (kPa)	x 0,145	= psi	x 6,89	= kPa
bar	x 14,5	= psi	x 0,069	= bar
Newton/mm ²	x 145,04	= psi	x 0,0069	= bar
STRESS (Pa = N/m²)				
megapascal (MPa)	x 145	= psi	x 0,00689	= MPa
POWER (W = J/s)				
kilowatt (kW)	x 1,36	= PS(cv)	x 0,736	= k W
kilowatt (kW)	x 1,34	= HP	x 0,746	= k W
kilowatt (kW)	x 0,948	= Btu/s	x 1,055	= k W
watt (W)	x 0,74	= ft.lb/s	x 1,36	= W
ENERGY (J = N·m)				
kilojoule (kJ)	x 0,948	= Btu	x 1,055	= kJ
joule (J)	x 0,239	= calorie	x 4,19	= J
VELOCITY AND ACCELERATION				
meter per sec ² (m/s ²)	x 3,28	= ft/s ²	x 0,305	= m/s ²
meter per sec (m/s)	x 3,28	= ft/s	x 0,305	= m/s
kilometer per hour (km/h)	x 0,62	= mph	x 1,61	= km/h
HORSE POWER/TORQUE				
BHP x 5252	=	Torque (lb ft)	kW x 9550	=
RPM	=	Torque (Nm)	RPM	=
Metric HP	x 0,9863	=	U.S. Horsepower	
U.S. HP	x 1,014	=	Metric HP	
TEMPERATURE				
°C = (°F - 32) / 1,8		°F = (°C x 1,8) + 32		
FLOW RATE				
liter/min (l/min)	x 0,264	= US gal/min	x 3,785	= l/min
MILES				
Nautical Mile	x 1,15078	= Statute Mile	x 0,86897	= Naut. Mile

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MOTION AND MOBILITY