

ZF 43700 NR2

Vertical offset, remote mount marine transmission.

Description

- Marine transmission with reduction drive gearing and hydraulically actuated multi-disc clutch for engagement .
- Output shaft rotating in the opposite direction to that of the input shaft.
- Easy onboard maintenance .
- Design, manufacture and quality control standards comply with ISO 9001 .

Features

- Case hardened and precisely ground gear teeth for long life and smooth running .
- Robust, torsion - resistant housing (cast iron/welded steel) .
- Output shaft thrust bearing designed to take maximum propeller thrust astern and ahead .
- Free standing .
- Compact, space-saving design, complete with integral oil cooler, pump and full-flow filter .
- Integrated brackets .
- Modular component design for fast and easy service and repair. .
- Smooth and reliable clutch operation with hydraulically controlled clutch engagement and electrical actuation .
- Trailing pump to guarantee adequate transmission lubrication when the output shaft is rotated with the input shaft stationary. .
- Suitable for twin engine installations. The reversible oil pump permits the use of right hand or left hand rotation engine .

Options

- Propeller shaft flange and coupling bolt sets .
- PTO (live) .
- Standby oil pump .
- Classification by all major Classification Societies on request .
- Monitoring devices fitted and connected to a terminal box as required .

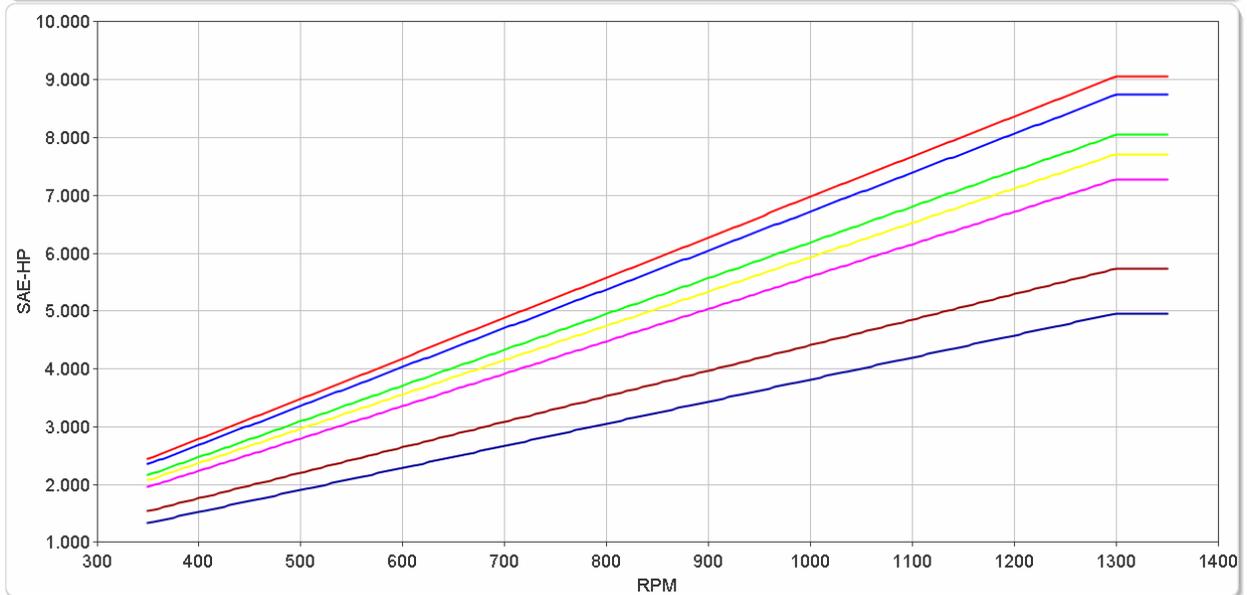
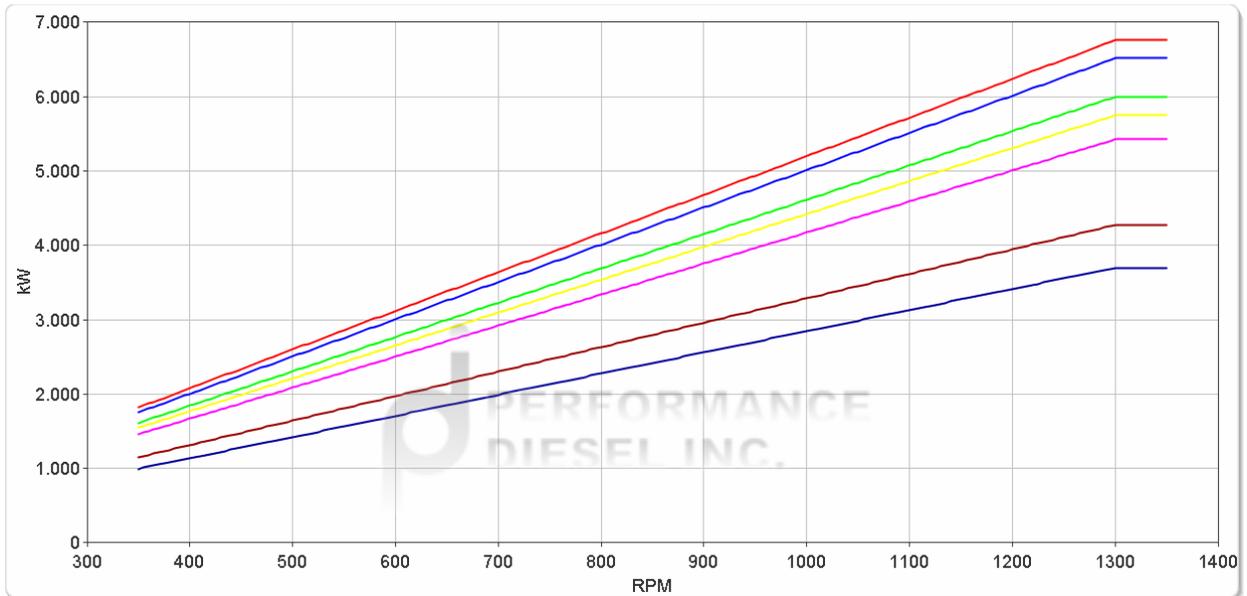
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Ratings

Medium Duty

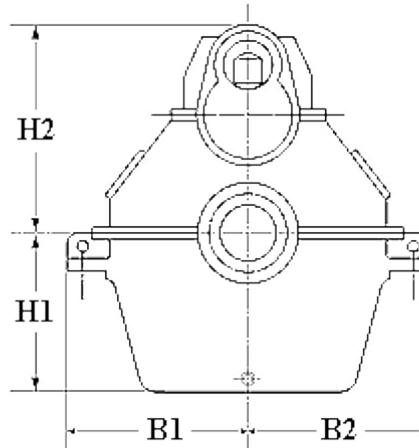
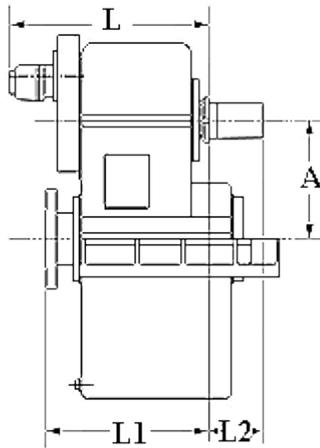
RATIOS	MAX. TORQUE		POWER/RPM		INPUT POWER CAPACITY						MAX. RPM
	Nm	ftlb	kW	hp	1000 rpm		1150 rpm		1300 rpm		
					kW	hp	kW	hp	kW	hp	
2.516, 3.037, 3.500, 3.739	49660	36627	5.2000	6.9733	5200	6973	5980	8019	6760	9065	1350
3.909	47869	35306	5.0125	6.7218	5012	6722	5764	7730	6516	8738	1350
4.478	44071	32505	4.6148	6.1885	4615	6189	5307	7117	5999	8045	1350
4.684	42247	31160	4.4238	5.9324	4424	5932	5087	6822	5751	7712	1350
4.952	39861	29400	4.1739	5.5973	4174	5597	4800	6437	5426	7277	1350
5.579	31410	23167	3.2890	4.4106	3289	4411	3782	5072	4276	5734	1350
5.950	27179	20046	2.8460	3.8165	2846	3817	3273	4389	3700	4961	1350

* Special Order Ratio.



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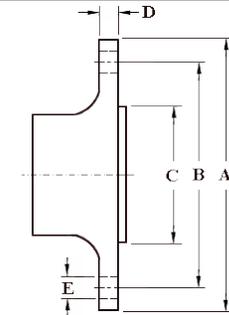
Dimensions



mm (inches)							
A	B ₁	B ₂	H ₁	H ₂	L	L ₁	L ₂
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)
Weight kg (lb)				Oil Capacity Litre (US qt)			
9,300 (20,460)				370 (392)			

Output Coupling Dimensions

A		B		C		D		Bolt Holes		
mm	in	mm	in	mm	in	mm	in	No.	Diameter (E)	
									mm	in
650	25.6	560	22.0	355	14.0	63.0	2.48	14	37.0	1.46



Duty Definitions

MEDIUM DUTY DEFINITION Intermittent operation with some variations in engine speed and power

Average engine operating 4000 hours/year.
hours limit: 3500 hours/year for gearboxes smaller than ZF 2000 series and workboat ZF W2700 series.

Typical hull forms: Semi-displacement and displacement
Typical applications: Charter and commercial craft (example: crew boats and fast ferries), and naval and police activities.

Duty 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, gasoline (petrol) engines, 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 Operating 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.

Torsional Responsibility and Torsional Couplings

The responsibility for ensuring torsional compatibility rests with the assembler of the drive and driven equipment. ZF can accept no liability for gearbox noise caused by vibrations or for damage to the gearbox, the flexible coupling or to other parts of the drive unit caused by this kind of vibration. Contact ZF for further information and assistance. ZF recommends the use of a torsional limit stop for single engine powered boats, wherein loss of propulsion power can result in loss of control. It is the buyer's responsibility to specify this option, which can result in additional cost and a possible increase in installation length.

ZF can accept no 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 ratings and commonly accepted rated engine governed speeds. Consult ZF for details concerning speed limits of standard offering torsional couplings, which can be less than the transmission limit. Special torsional couplings may be required for Survey Society Ice Classification requirements.

