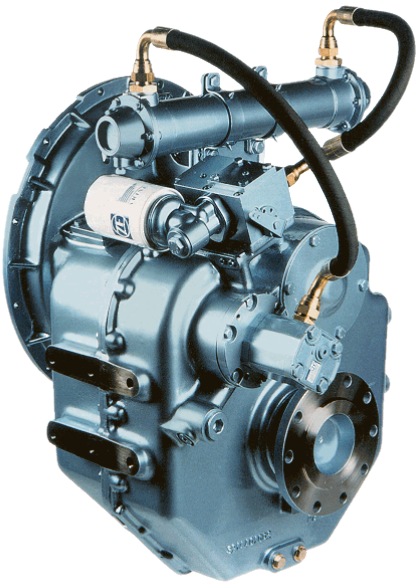


ZF W325

Vertical offset, direct mount marine transmission.

Description

- Robust design also withstands continuous duty in workboat applications .
- Fully works tested, reliable and simple to install .
- Design, manufacture and quality control standards comply with ISO 9001 .
- Reverse reduction marine transmission with hydraulically actuated multi-disc clutches .
- Compatible with all types of engines and propulsion systems .

Features

- Case hardened and precisely ground gear teeth for long life and smooth running .
- Compact, space saving design .
- Output shaft thrust bearing designed to take maximum propeller thrust astern and ahead .
- Smooth and reliable hydraulic shifting with control lever for attachment of push-pull cable .
- Suitable for twin engine installations (same ratio and torque capacity in ahead or astern mode) .
- Replaceable oil filter cartridge .
- Durable cast iron construction .

Options

- Engine-matched torsional coupling .
- Propeller shaft flange and coupling bolt sets .
- Classification by all major Classification Societies on request .
- Oil cooler complete with fittings and flexible oil hoses .
- Trolling valve for slow-speed drive .
- PTOs (live or clutchable - retrofittable) .
- SAE 1 bell housing .
- Mounting brackets for rigid connection to foundation .

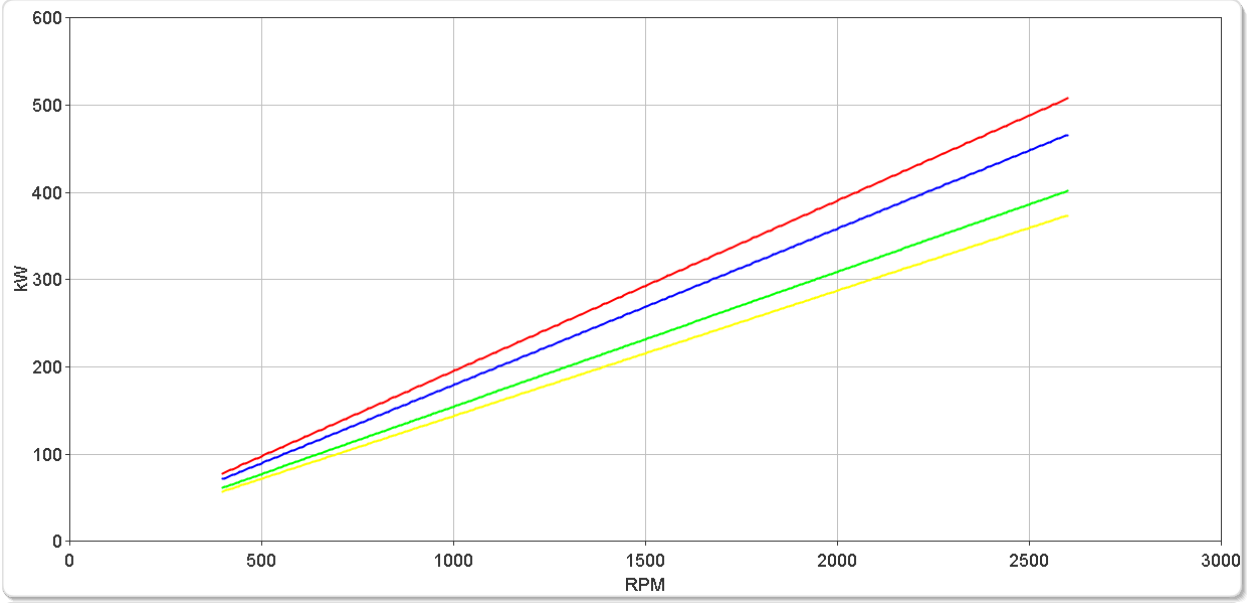
ZF W325

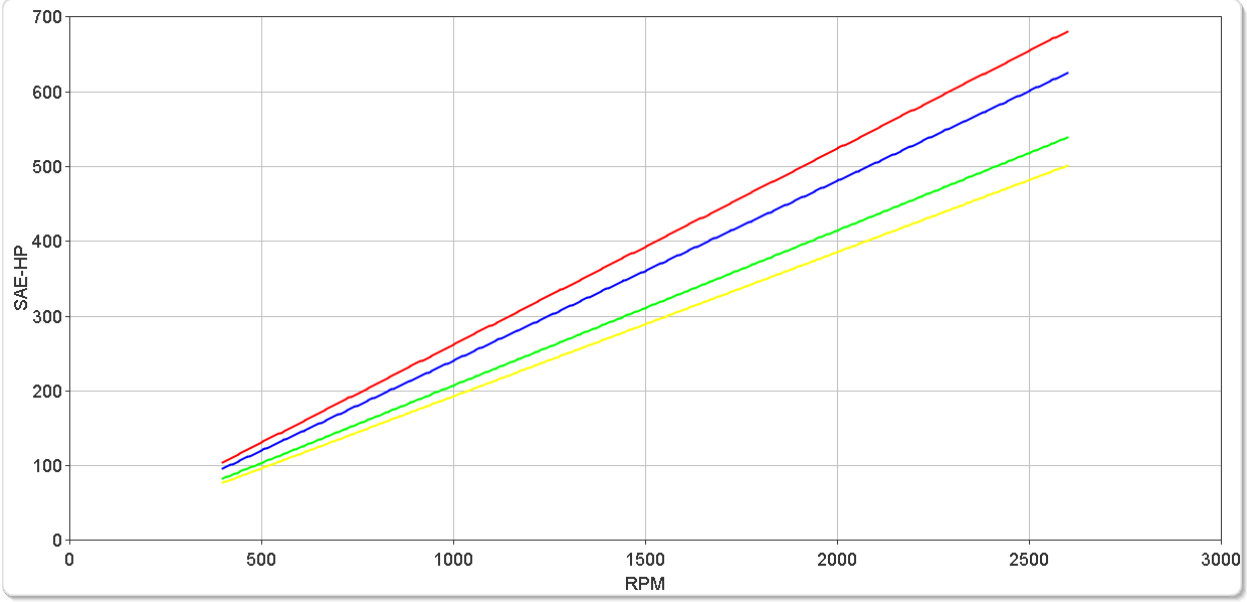
Ratings

Medium Duty

RATIOS	MAX. TORQUE		POWER/RPM		INPUT POWER CAPACITY						MAX. RPM
	Nm	ftlb	kW	hp	kW	hp	kW	hp	kW	hp	
					1800 rpm		2100 rpm		2300 rpm		
2.933*, 3.407, 3.958	1865	1376	0.1953	0.2619	352	471	410	550	449	602	2600
4.409	1712	1263	0.1793	0.2404	323	433	376	505	412	553	2600
4.913	1476	1089	0.1546	0.2073	278	373	325	435	355	477	2600
5.167*	1373	1013	0.1438	0.1928	259	347	302	405	331	443	2600

* Special Order Ratio.





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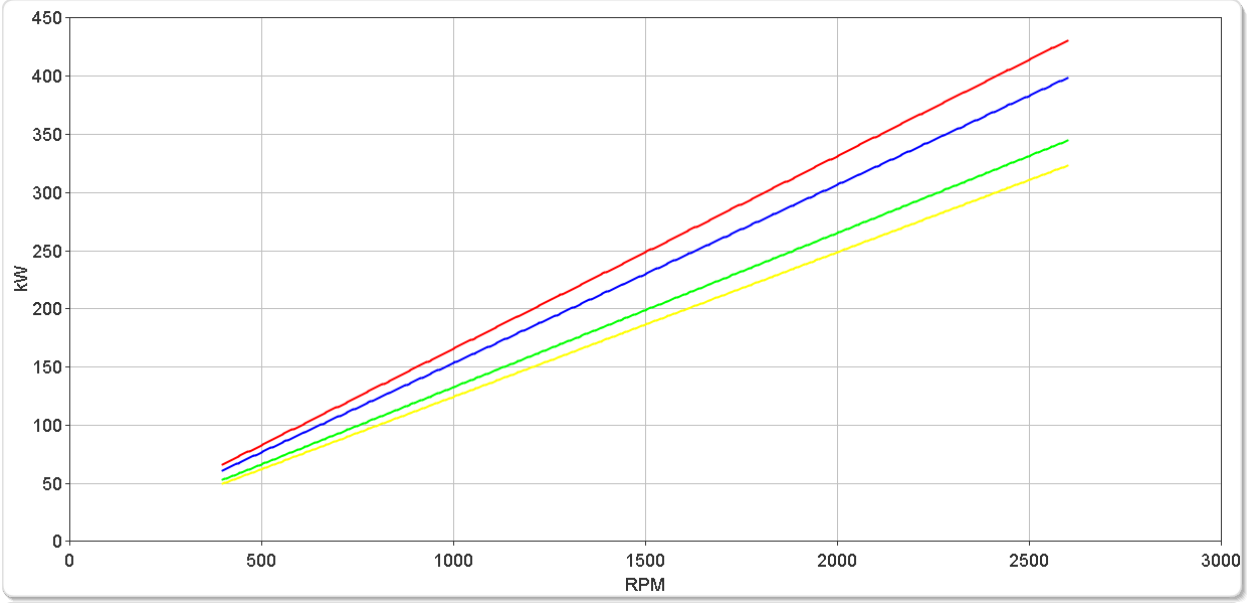
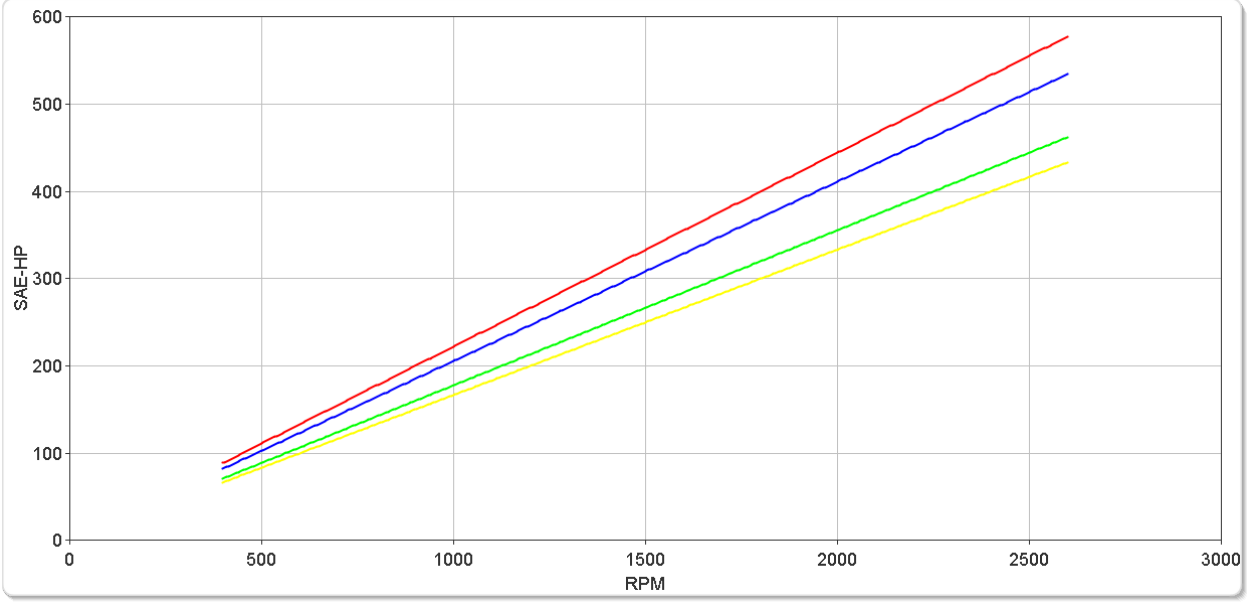
ZF W325
Ratings

Continuous Duty

RATIOS	MAX. TORQUE		POWER/RPM		INPUT POWER CAPACITY						MAX. RPM
	Nm	ftlb	kW	hp	kW	hp	kW	hp	kW	hp	
					1600 rpm		1800 rpm		2100 rpm		
2.933*, 3.407, 3.958	1582	1167	0.1657	0.2221	265	355	298	400	348	467	2600
4.409	1464	1080	0.1533	0.2056	245	329	276	370	322	432	2600
4.913	1266	934	0.1326	0.1778	212	284	239	320	278	373	2600
5.167*	1187	875	0.1243	0.1667	199	267	224	300	261	350	2600

* Special Order Ratio.





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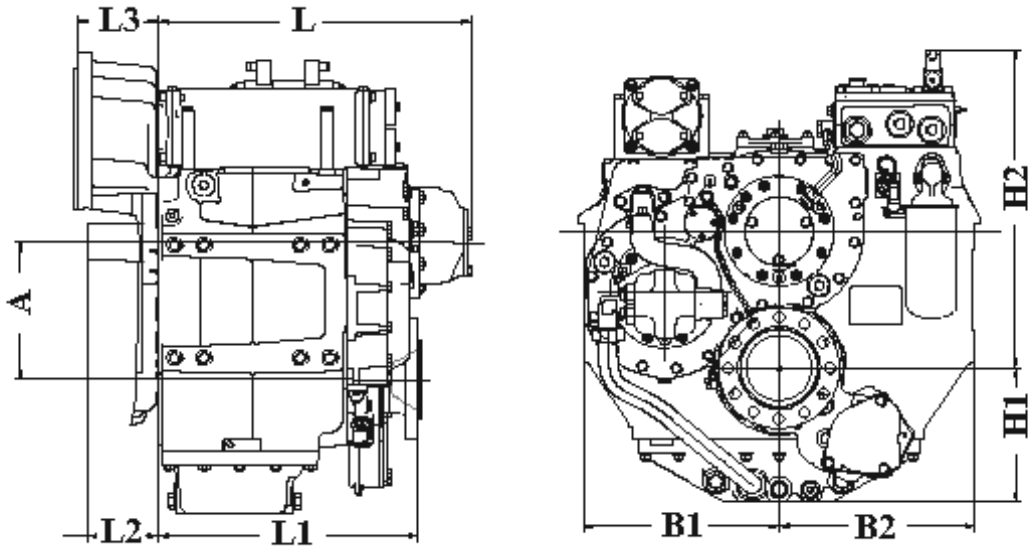
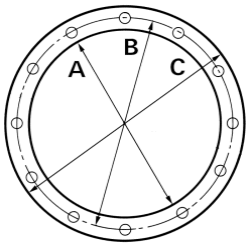
ZF W325
Dimensions



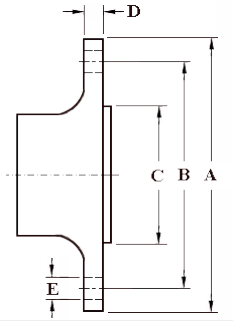
mm (inches)									
A	B_1	B_2	H_1	H_2	L	L_1	L_2	L_3	Bell Hsg.
245 (9.65)	295 (11.6)	295 (11.6)	248 (9.76)	453 (17.8)	572 (22.5)	390 (15.4)	64.0 (2.52)	-	1
Weight kg (lb)					Oil Capacity Litre (US qt)				
315 (694)					16.0 (17.0)				

SAE Bell Housing Dimensions



SAE No.	A		B		C		Bolt Holes		
							No.	Diameter	
	mm	in	mm	in	mm	in		mm	in
1	511.18	20.125	530.23	20.875	552.45	21.75	12	11.91	15/32

Output Coupling Dimensions



A		B		C		D		Bolt Holes		
								No.	Diameter (E)	
mm	in	mm	in	mm	in	mm	in		mm	in
225	8.86	196	7.72	140	5.51	18.0	0.71	10	16.2	0.64

This coupling applies to ratios 2.933 and 3.407, refer to the installation drawing for other ratios.

Refer to the Installation Drawing for detail.

Duty Definitions

MEDIUM DUTY DEFINITION	Intermittent operation with some variations in engine speed and power
Average engine operating hours limit:	4000 hours/year. 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.
CONTINUOUS DUTY DEFINITION	Continuous operation with little or no variations in engine speed and power
Average engine operating hours limit:	Unlimited
Typical hull forms:	Displacement.
Typical applications:	Heavy duty commercial vessels, tugs, fishing boats.

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.