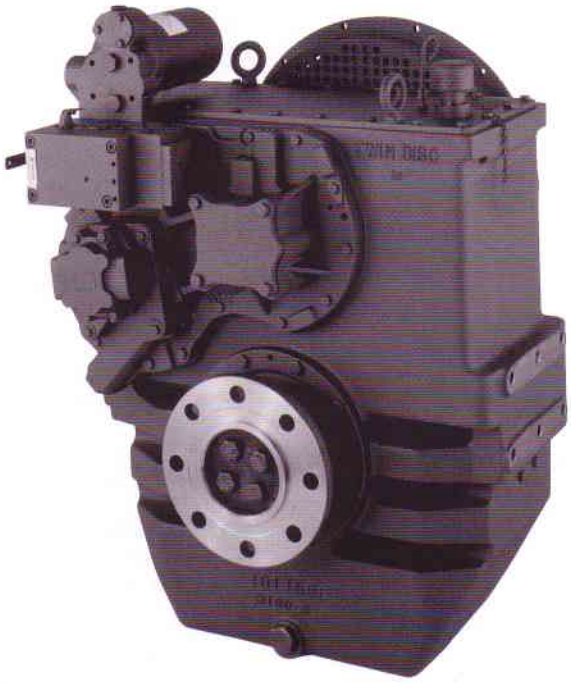
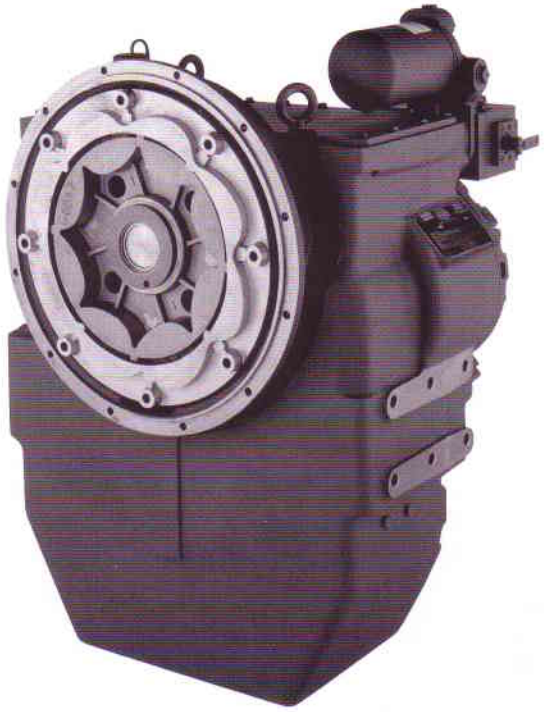
Reverse Reduction Marine Transmission 406 to 594 kW 544 to 797 hp



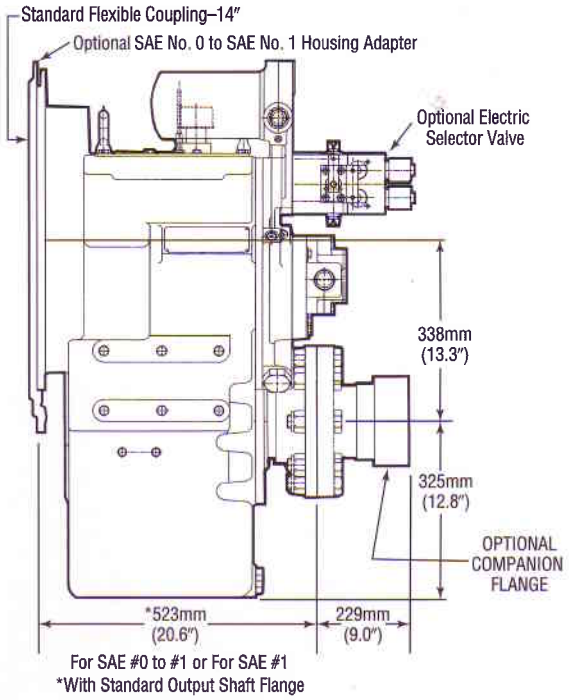


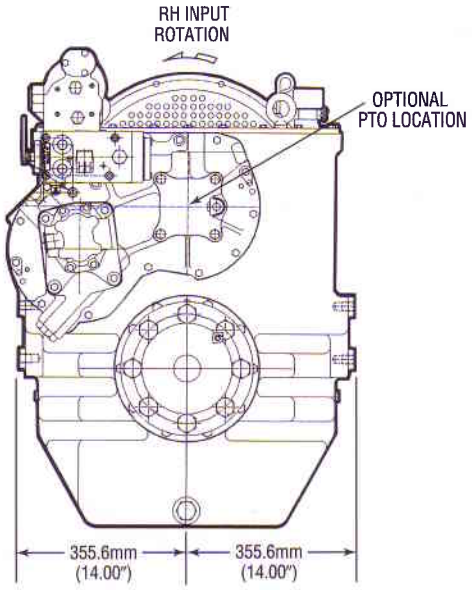
The MG-516 Marine Transmission design and manufacturing is based on the latest in gear/clutch technology. The result: a high capacity, compact, reverse-reduction marine transmission ideally suited for the rugged service encountered by today's hard working diesel engines. For use in vessels such as fishboats, towboats, tugs, ferries, crewboats, etc.

All ratios are available in one housing configuration. Identical capacity and ratios in forward or reverse eliminate the need for opposite rotation engines. Transmissions can be specified for use with LH Rotation Engines. The MG-516 offers unusually good access for service of major components without having to be removed from the engine.

MODEL ASSY. DWG.	REDUCTION RATIOS:1	INPUT RATINGS – KILOWATTS (HORSEPOWER)			MIN./MAX. INPUT SPEEDS RPM
		CONTINUOUS AND MEDIUM DUTY	INTERMEDIATE DUTY		
		1800 RPM	2100 RPM	2300 RPM	
XA7470G	3.06	447 (600)	573 (768)	594 (797)	500 min. 2500 max.
	3.50	447 (600)	549 (736)	569 (763)	
	4.04	447 (600)	521 (699)	540 (724)	
	4.52	447 (600)	510 (684)	526 (705)	
	5.05	447 (600)	492 (660)	508 (681)	
	6.00	406 (544)	470 (630)	498 (668)	

Please refer to back cover for service classification definitions. Consult Twin Disc Inc. for MG-516 Pleasure Craft Ratings.





Specifications–MG–516:

- Dry weight – 720 kg (1584 lbs.)
- SAE housing #1
- Input coupling 14" torsional type
- Oil strainer/oil filter standard
- Oil pressure/oil temperature gauge standard

Options:

- 14" size torsional input couplings
- SAE 0 to SAE 1 housing adapters
- Free-standing arrangement - consult TDI
- Alternate output flange
- Companion flange
- Raw/fresh water type heat exchangers
- Electric, 12V or 24V, selector valve
- Electric or mechanical trolling valves
- Mounting brackets
- Remote mounted filter kit
- PTOs – for driving customer's hydraulic pump:
  - Live PTO
    Size 32-4
    Size 38-4
  - With hydraulic clutch
    Size 32-4
    Size 38-4
  - PTO torque capacity
    Size 32-4, 592 N-m (436 lb-ft)
    Size 38-4, 1187 N-m (875 lb-ft)

Note: PTOs run engine direction/engine speed

- ABS certificates and other survey societies certificates - consult TDI for more details.

Specifications subject to change without prior notice in the interest of continual product improvements.

Service Classification Definitions

Intermediate Duty

Hour usage of up to 2000 hours/year (for models MG-5114 and smaller) and up to 3000 hours/year (for models MG-5141 and larger) with 50% of the operating time at full engine rating.

Typical applications include planing hull vessels such as ferries, fishing boats, some crew boats, and also come displacement hull yachts as well as some bow and stern thruster applications.

Medium Duty

Hours usage of up to 4000 hours/year with up to 80% of operating time at full engine power. This duty classification is for usage where some variations in engine speed/power occur as part of normal vessel operation.

Typical vessels include mid-water trawlers, crew/supply boats, ferries, and some inland water tow boats.

Continuous Duty

For use in continuous operation with little or no variation in engine speed/power settings.

Typical vessels include fishing trawlers, tow/tug boats and ocean going vessels.

Important Notice: *Torsional Vibration* Disregarding propulsion system torsional compatibility could cause damage to components in the drive train resulting in loss of mobility. At minimum, system incompatibility could result in gear clatter at low speeds.

The responsibility for ensuring that the torsional compatibility of the propulsion system is satisfactory rests with the assembler of the drive and driven equipment.

Torsional vibration analysis can be made by the engine builder, marine survey societies, independent consultants and others. Twin Disc is prepared to assist in finding solutions to potential torsional problems that relate to the marine transmission.

Twin Disc, Incorporated reminds users of these products that their safe operation depends on use in compliance with engineering information provided in this bulletin. Users are also reminded that safe operation depends on proper installation, operation and routine maintenance and inspection under prevailing conditions. It is the responsibility of user (and not Twin Disc, Incorporated) to provide and install guards or safety devices which may be required by recognized safety standards or by the Occupational Safety and Health Act of 1970 and its subsequent provisions.

Twin Disc, Incorporated
Racine, Wisconsin 53403, U.S.A.
262-638-4000/262-638-4482 (fax)
http://www.twindisc.com
Singapore, Australia, Italy
Twin Disc International S.A.
1400 Nivelles, Belgium

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