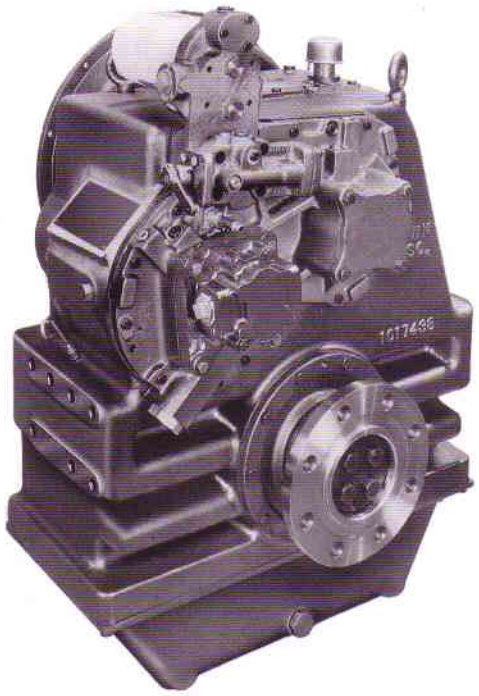
BULLETIN 319-D-170

Model MG-5170DC

From the Family of Twin Disc Critical Performance Products

Twin Disc Reverse Reduction Marine Transmission 459 to 578 kW 615 to 775 hp



MG-5170DC shown with standard equipment.

The MG-5170DC Deep Ratio Transmission features the latest gear/clutch technology. The result is a high capacity, reverse-reduction transmission for the rugged service encountered by today's hard working diesel engines.

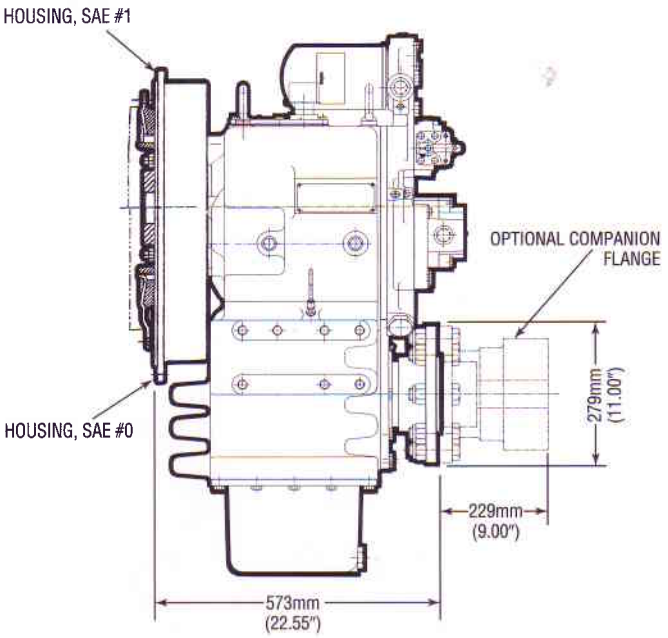
Its advanced design features compact envelope dimensions; strong, high grade iron housings; carburized, hardened and single helical gearing; responsive oil controlled and oil cooled forward and reverse clutches.

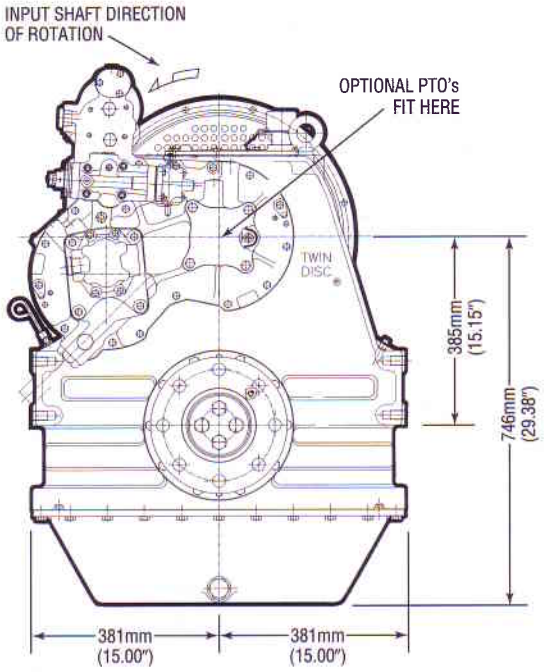
Identical capacity and ratios in forward and reverse eliminate the need for opposite rotation engines.

The MG-5170DC 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)			MAX. RATED INPUT SPEED AND MIN. ENGINE LOW IDLE SPEED RPM
		CONTINUOUS DUTY 1800 RPM	MEDIUM DUTY 1800 RPM	INTERMEDIATE DUTY 2100 RPM	
1017463	4.06, 4.50, 5.03, 5.95	507 (680)	537 (720)	578 (775)	2500 max.
	6.53, 6.95	459 (615)	459 (615)	545 (731)	450 min.

Please refer to back cover for service classification definitions.
*Ratings shown for use with standard rotation engines. Consult Twin Disc for use with non-standard rotation engines.





Specifications:

- Dry weight – 850 kg (1871 lbs.)
- SAE housings #1/ #0
- Input coupling 14"/18" Torsional type with torsional stop standard
- Oil strainer/oil filter – standard
- Oil pressure gauge standard
- RPM pickup ports

Options:

- Heat exchangers – raw and fresh water
- PTOs – Run engine direction and engine speed
  - Live SAE C 592 N•m (437 lb-ft)
  - Live SAE C-C 1186 N•m (875 lb-ft)
  - With hydraulic disconnect clutch SAE C 592 N•m (437 lb-ft)
  - With hydraulic disconnect clutch SAE C-C 1186 N•m (875 lb-ft)
- Oil temperature gauge
- Trolling valve
- Electric selector valve, 12 volt/ 24 volt
- Mounting brackets
- Companion flange
- Remote mounted filter

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

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 some displacement hull yachts as well as some bow and stern thruster applications.

Medium Duty

For usage where some variation in engine speed/power occurs as part of the normal vessel operation.

Other limits: 4000 hours/year and up to 80% of the time at 100% engine rating. 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

Bulletin 319-D-170 3/00

Printed in United States of America