# Twin Disc Marine Transmission MG-5050 Series

## MAXIMUM 272 KW (365 HP) @ 2800 RPM [PLEASURE CRAFT DUTY]

### STANDARD EQUIPMENT

MG-5050 SC & MG-5050 A

11.5" torsional input couplings Clutch fill rate-of-rise valve Oil strainer SAE housings no. 3 and 2



OPTIONS	MG-5050 SC & MG-5050 A
12V or 24V electric selector valves	х
Companion flange/bolt set	х
Live PTO - SAE 'B' 2/4-bolt	
37 kW (50 hp) @ 1800 rpm	
Turns at engine speed and same as engine direction of rotation.	х
Mounting brackets	х
Oil temperature/pressure gauges - mechanical type	х
Raw/fresh water heat exchangers	х
Single/dual stage 11.5" torsional input couplings	х
Trolling valve	х
Weight (dry weight with Standard Equipment)	82 kg

Contact Twin Disc for Survey Society Approvals and Classifications. Specifications subject to change without prior notice in the interest of continual product improvement.

#### INPUT RATINGS – KILOWATTS (KW) (HORSEPOWER [HP])\*

MG-5050 SC	Reduction	Pleasure Craft Duty		Intermediate Duty		Continuous Duty		Max rated input speed
	:1	@2600 RPM	@2800 RPM	@2500 RPM	@2800 RPM	@2100 RPM	@2400 RPM	and min. engine low idle speed RPM
	1.23, 1.53, 1.71, 2.04	253 kW (339 hp)	272 kW (365 hp)	165 kW (221 hp)		113 kW (152 hp)	129 kW (173 hp)	3300 max. 500 min.
	2.45	221 kW (297 hp)	239 kW (320 hp)					
	3.00	213 kW (286 hp)	230 kW (308 hp)				108 kW (145 hp)	125 kW (166 hp)

			raft Duty	Intermediate Duty		Continuous Duty		Max rated input speed	
A 0	Ratios :1	@2600 RPM	@2800 RPM	@2500 RPM	@2800 RPM	@2100 RPM	@2400 RPM	and min. engine low idle speed RPM	
MG-5050	1.12, 1.26, 1.50, 1.80, 2.04	253 kW (339 hp)	272 kW (365 hp)	165 kW (221 hp)	185 kW (248 hp)	113 kW (152 hp)	129 kW (173 hp)	3300 max. 500 min.	
	2.50	221 kW (297 hp)	239 kW (320 hp)	]					

#### SERVICE CLASSIFICATION DEFINITIONS

**Pleasure Craft [PC]:** Up to 500 hours/year, low load factor usage planing hull vessels where typical full engine throttle operation is less than 10% of total time. The balance of operation at 80% of full engine throttle or less. Marine transmissions for use in long range pleasure cruisers, sportfish charter boats/ patrol boats do not qualify for Pleasure Craft Service.

Note: Some revenue producing applications such as Planing Hull Bristol Bay Gillnetter do qualify under Pleasure Craft rating definition.

*Light Duty [LD]:* Relatively low hour usage (less than 1500 hours per year) where full throttle operation is 2 hours out of 12. Typical applications include planing hull vessels such as fire boats, sportfish charter boats, and patrol/custom boats. This rating is also applicable to some bow and stern thruster applications.

**Intermediate Duty [ID]:** Hour usage of up to 2000 hours/year (for models MG-5114 Series and smaller) and up to 3000 hours/year (for models larger than MG-5114 Series) 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 some displacement hull yachts as well as some bow and stern thruster applications.

**Medium Duty** [**MD**]: Hour 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 [CD]:** For use in continuous operation with little or no variation in engine speed/power setting. Typical vessels include fishing trawlers, tow/tug boats and ocean going vessels.

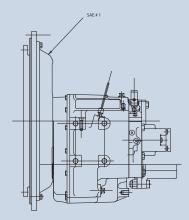
*Important Notice:* Torsional Vibration: Disregarding propulsion system torsional compatibility could cause damage to components in the drive train resulting in loss of mobility. At minimum, system incompatibility could result in gear clatter at low speeds.

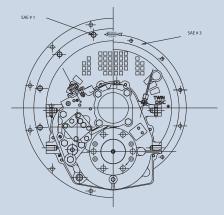
The responsibility for ensuring that the torsional compatibility of the propulsion system is satisfactory rests with the assembler of the drive and driven equipment.

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 the 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 provision.

MG-5050







Twin Disc, Incorporated Racine, Wisconsin 53403 U.S.A Phone +1-262-638-4000 Fax +1-262-638-4482 www.twindisc.com

TD-Bulletin-MG-5050 Series – 11/2006 © 2006, Twin Disc, Incorporated Printed in the United States of America