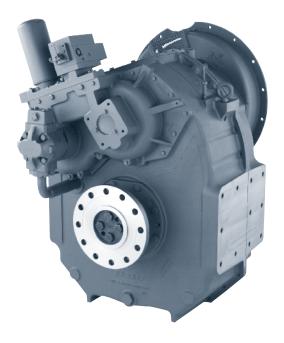
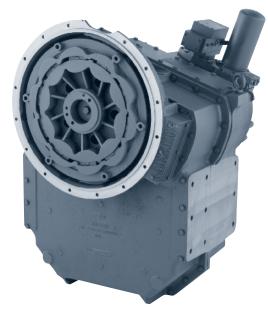
# MAXIMUM 718 KW (962 HP) @ 1800 RPM [INTERMEDIATE DUTY]

# **STANDARD EQUIPMENT**

### MG-520-1 HP

Mechanical selector valve Oil strainer and oil filter SAE housing no. 0 SAE 18" torsional coupling





OPTIONS	MG-520-1 HP
12V or 24V electric selector valves	x
Companion flange/bolt set	х
Live PTO SAEJ744 – hydraulic pump drive	
Size: 127-4, 32-4 (SAE 4 bolt 'C')	
Torque rating: 592 N·m (436 lb-ft)	
Note: PTO runs @ engine speed and engine direction	X
Oil pressure/oil temperature gauges	х
Raw/fresh water heat exchangers	х
Trolling valve (mechanical or electrical)	х
Weight (dry weight – alloy housing)	562 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])\*

1HP	Reduction Intermediate I		Medium Duty		Continuous Duty		Maximum rated input speed
	Ratios :1	@1800 RPM	@1600 RPM	@1800 RPM	@1600 RPM	@1800 RPM	and minimum engine low idle speed RPM
520	4.49, 5.00, 6.11	718 kW (962 hp)	608 kW (815 hp)	685 kW (918 hp)	568 kW (731 hp)	639 kW (857 hp)	500 RPM low idle 2500 RPM max.
Ŗ	7.0	667 kW (894 hp)	573 kW (768 hp)	645 kW (865 hp)	559 kW (750 hp)	629 kW (843 hp)	
	7.42	623 kW (835 hp)	536 kW (719 hp)	603 kW (809 hp)	531 kW (712 hp)	597 kW (801 hp)	

<sup>\*</sup> Ratings shown for use with standard right hand rotation engines.

#### 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.

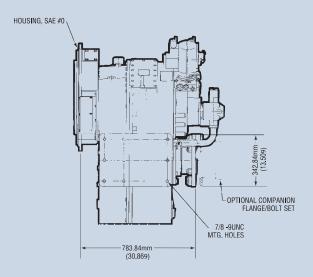
*Important Notice:* Torsional Vibration: Disregarding propulsion system torsional compatibility could cause damage to components in the drive train resulting in loss of mobility. At minimum, system incompatibility could result in gear clatter at low speeds.

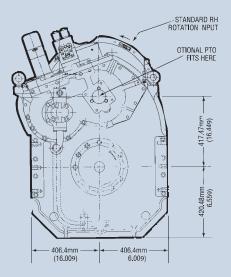
The responsibility for ensuring that the torsional compatibility of the propulsion system is satisfactory rests with the assembler of the drive and driven equipment.

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-520-1HP







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