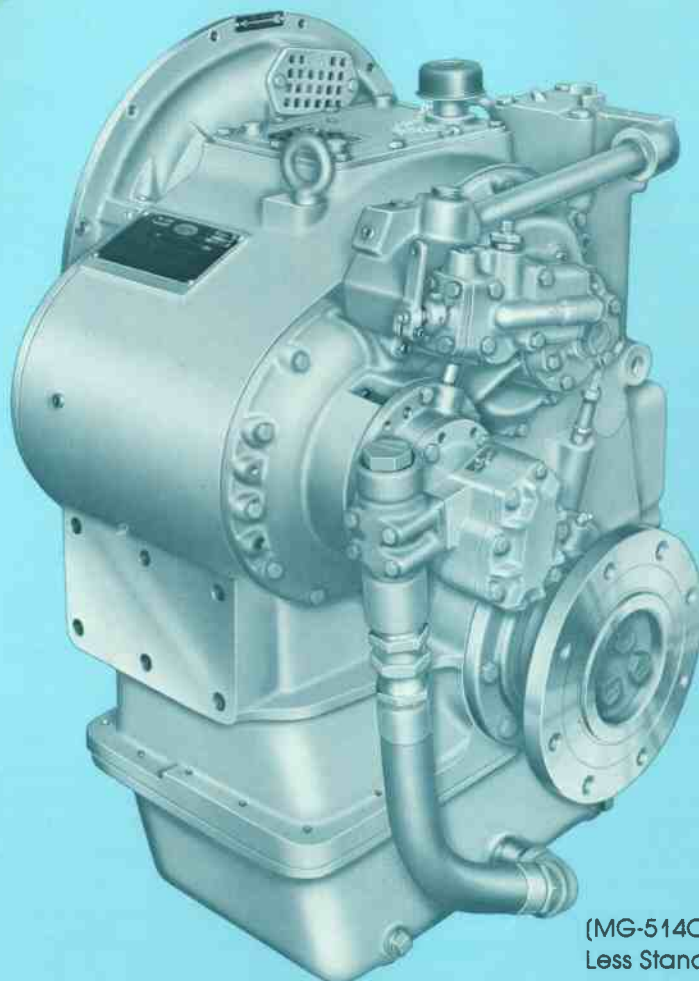


# Model MG-514C Marine Transmission

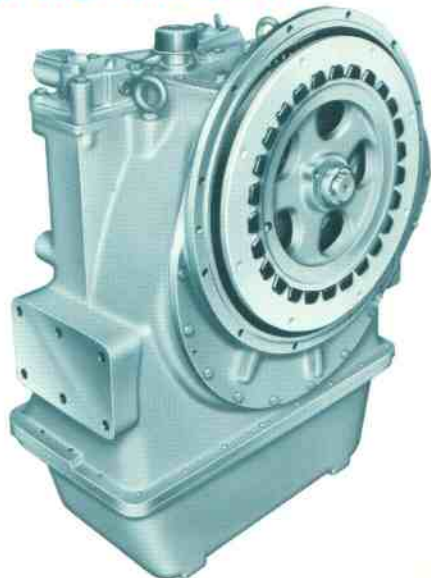
188 to 515 kW  
(252 to 690 hp)



(MG-514C Deep Case Model Shown  
Less Standard Companion Flange)

# Model MG-514C

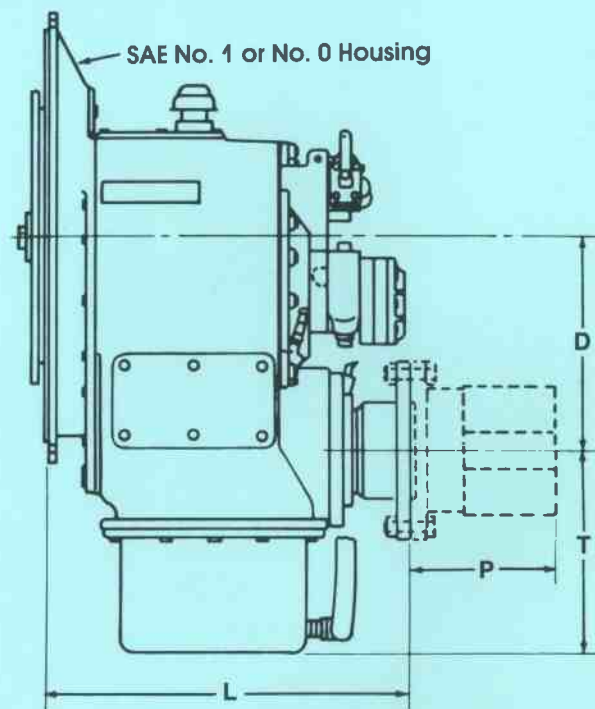
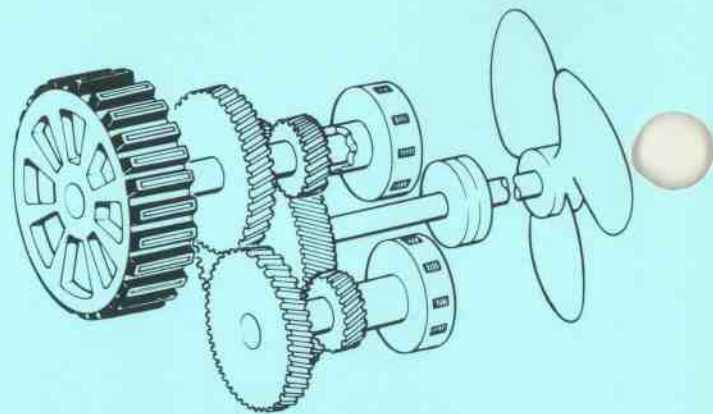
## Marine Transmission



- Oil controlled clutch engagement
- Carburized, hardened and ground gears
- Instant response—oil-cooled clutches
- Emergency come-home feature
- Built with jig-bore accuracy
- Rubber block drive
- Ratios: 1.51:1, 2.00:1, 2.50:1, 3.00:1, 3.50:1, 4.13:1, 4.50:1, 5.16:1 and 6.00:1
- Equipped with either SAE No. 1 or No. 0 housing
- Dry flywheel housing
- Identical ratios forward or reverse
- Clutches removable with transmission attached to engine
- Bearings, gears and clutches positively lubricated with 100% filtered oil
- Optional top power take-off available

The MG-514C Marine Transmission is designed for use with high-speed or medium-speed diesel engines on commercial applications that include crewboats, fishboats, towboats, tugs, ferries, etc. Thousands of MG-514's are in use today the world over.

The 1.51:1, 2.00:1, 2.50:1, 3.00:1 and 3.50:1 ratio units are identical in design except for the size of the pinions and countershaft gear. The 4.13:1, 4.50:1, 5.16:1 and 6.00:1 ratio units use a deeper case as the center distance of the gears is greater. Because of the greater torque through the countershaft of these deeper case units, a large propeller flange has been designed that uses fitted bolts. Therefore, a companion flange with line-reamed holes is furnished as standard equipment. For the 1.51:1, 2.00:1, 2.50:1, 3.00:1 and 3.50:1 ratio units, an optional coupling flange can be furnished to fit the smaller propeller flange. All ratios include carburized, hardened and ground helical gears that are straddle-mounted on anti-friction bearings on short, rigid shafts.



### Use Certified Print for Installation

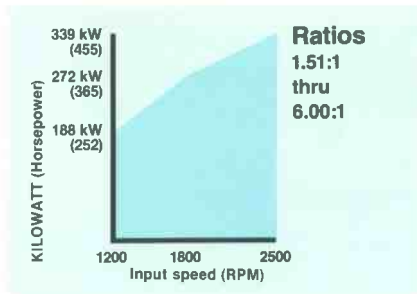
DWG. NO.	RATIOS	L	P	T	D	APPROX. DRY WGT.
X9784-C	1.51:1, 2.00:1	495.8 mm (19.52")	203.2 mm (8.00"*)	248.2 mm (9.77")	236.7 mm (9.32")	524 kg (1155 lbs.)
	2.50:1, 3.00:1					
	3.50:1					
X9786-C	4.13:1, 4.50:1	562.4 mm (22.14")	228.6 mm (9.00")	324.4 mm (12.77")	337.6 mm (13.29")	658 kg (1450 lbs)
	5.16:1, 6.00:1					

\*Optional equipment for these ratios.

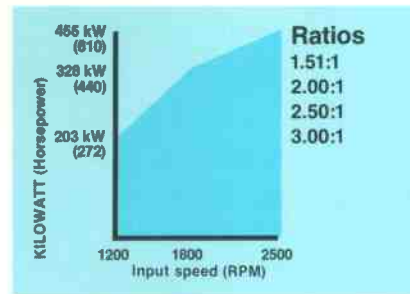
### Trolling Valve

An optional trolling valve is available for the MG-514C. The trolling valve provides the ability to obtain lower propeller speeds than would be possible at engine idle speed with the clutch fully engaged. If a raw water heat exchanger is used, then a thermostatic oil bypass valve is recommended for use in the transmission oil circuit to provide proper sump oil temperature for consistent trolling valve operation.

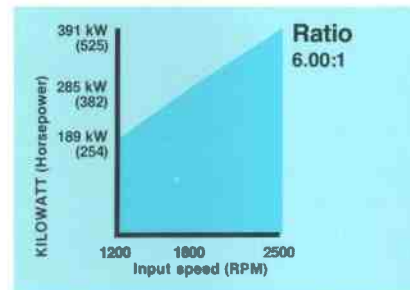
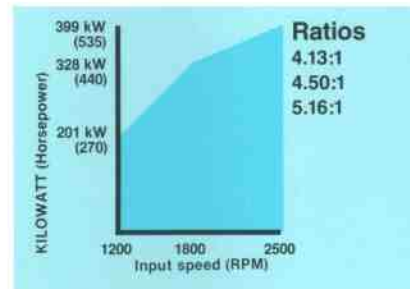
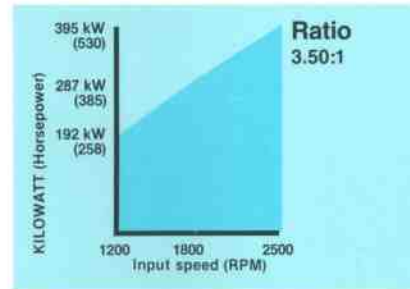
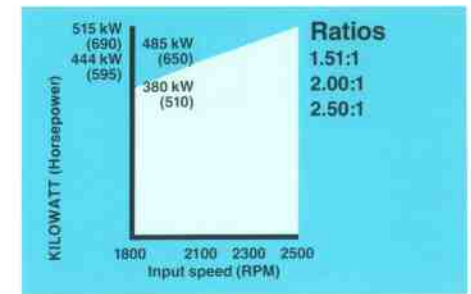
## Continuous Duty



## Intermediate Duty



## Pleasure Craft (Planing Hull)



## Heat Exchanger

Three heat exchanger kits are available for the MG-514C. Each kit consists of a heat exchanger with flexible hose, mounting plates and necessary fittings for installation near the marine transmission. Customers who wish to furnish their own heat exchanger should contact the nearest Twin Disc or marine engine distributor. When ordering, specify if raw or fresh water is to be used in the heat exchanger. Two fresh water kits—K-92, K-93; raw water kit, K-94.

## IMPORTANT NOTICE

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.