

# Twin Disc - MG 509

STATUS	Available
REF. NUMBER	GB807
MANUFACTURE	Twin Disc
TYPE	MG 509
RED.	2,00:1
HP IND	470 hp
RPM IND	max 3000
FABRIKS NR.	Serial 5D0781 Spec S-3606
VESSEL	Det gule rev
REMARKS	259 kg









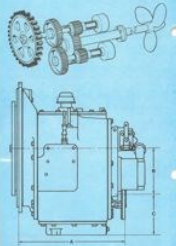
# Model MG-509 Marine Transmission



- Oil controlled clutch engagement
- Carburized and hardened gears
- Emergency come-home feature
- Built with lightness accuracy
- Rubber block drive
- Ratios: 1.45:1, 2.00:1, 2.48:1, 2.95:1, 3.39:1, 3.83:1, 4.50:1 and 4.95:1
- Equipped with either SAE No. 1 or No. 2 housing
- Dry flywheel housing
- Both clutches removable with transmission attached
- Identical performance and ratio forward or reverse
- Hydraulically-actuated and oil-cooled clutches with smooth, fast, fingertip response

The MG-509 Marine Transmission is the most advanced marine transmission in its horsepower range and the most compact. The carburized and hardened gears are identical in design except for the size of the pinions and the external gear. The 3.83:1, 4.50:1 and 4.95:1 ratio units use a deeper case as the center distance of the gears is greater. The carburized and hardened gears are available in either right-hand or left-hand rotation. The transmission may be purchased with an SAE No. 1 or No. 2 housing.

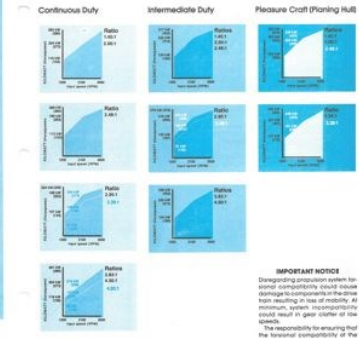
Three driving rings are available with the No. 1 housing and one driving ring with the No. 2 housing. Maximum safe speed with Part No. A-4911 driving ring is 2300 rpm. The MG-509 is designed for full horsepower operation continuously in either forward or reverse direction. An externally-mounted heat exchanger, top-mounted power take-off, a mating propeller shaft coupling flange and a trolling valve assembly are available as optional equipment with the MG-509 Marine Transmission. The



**Use Certified Print for Installation**

DWG NO.	RATIOS	A	B	C	APPROX. DRY WGT.	
X9816-F	1.45:1	396.7 mm	419.6 mm	173.2 mm	148.6 mm	259 kg
	2.00:1	(15.62")	(16.52")	(6.82")	(5.85")	(570 lbs)
	2.48:1					
	2.95:1					
	3.39:1					
X9835	3.83:1	441.5 mm	464.3 mm	241.0 mm	238.8 mm	327 kg
	4.50:1	(17.38")	(18.28")	(9.49")	(9.40")	(720 lbs)
	4.95:1					

**Heat Exchanger**  
The heat exchanger kit consists of a heat exchanger with flexible hoses and necessary fittings for installation on the top cover plate of the 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. Heat exchanger can be remotely-mounted if a top PID is used.



**IMPORTANT NOTICE**  
Downgrading operation system for special compatibility could cause damage to components or the drive train resulting in loss of mobility. At minimum, system incompatibility could result in gear chatter or the drive train.

The responsibility for ensuring that the correct components or the propulsion system is satisfactory rests with the user of the drive and drive equipment.

Internal vibration analysis can be made for the drive under normal survey conditions. Internal and external vibration analysis can be made for the drive under special conditions. A vibration analysis report is available for purchase. 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. Heat exchanger can be remotely-mounted if a top PID is used.

For Service Classification Definitions see back cover

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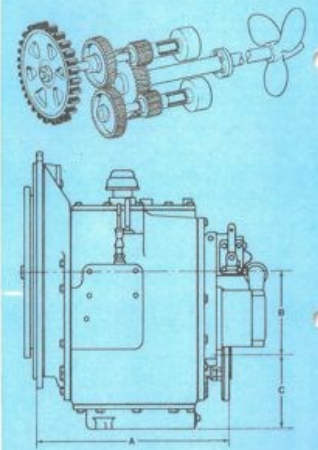


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- Dry flywheel housing
- Both clutches removable with transmission attached to engine
- Identical performance and ratio forward or reverse
- Hydraulically-actuated and oil-cooled clutches with smooth, fast, fingertip response

The MG-509 Marine Transmission is the most popular marine transmission in its horsepower range. The 1.45:1, 2.00:1, 2.48:1, 2.95:1 and 3.39:1 ratio units are identical in design except for the size of the pinions and the countershaft gear. The 3.83:1, 4.50:1 and 4.95:1 ratio units use a deeper case as the center distance of the gears is greater. The carburized and hardened gears are available in either right-hand or left-hand rotation. The transmission may be purchased with an SAE No. 1 or No. 2 housing.

Three driving rings are available with the No. 1 housing and one driving ring with the No. 2 housing. Maximum safe speed with Part No. A-4911 driving ring is 2300 rpm. The MG-509 is designed for full horsepower operation continuously in either forward or reverse position.

An externally-mounted heat exchanger, top-mounted power take-off, a mating propeller shaft coupling flange and a trolling valve assembly are available as optional equipment with the MG-509 Marine Transmission. The



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trolling valve is applicable to both right-hand and left-hand rotation engines turning either right-hand or left-hand propellers.

**Heat Exchanger**  
Kits available from Twin Disc consist of a heat exchanger with flexible hoses and necessary fittings for installation on the top cover plate of the 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. Heat exchanger can be remotely-mounted if a top PID is used.

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