

GB2297-M - Twin Disc

STATUS

Available

REF. NUMBER

GB2297-M

MANUFACTURE

Twin Disc

TYPE

MG 509

RED.

2,00:1

HP IND

325

RPM IND

2100

FABRIKS NR.

Serie 5BP438 Bom. 37213



Model MG-509 Marine Transmission



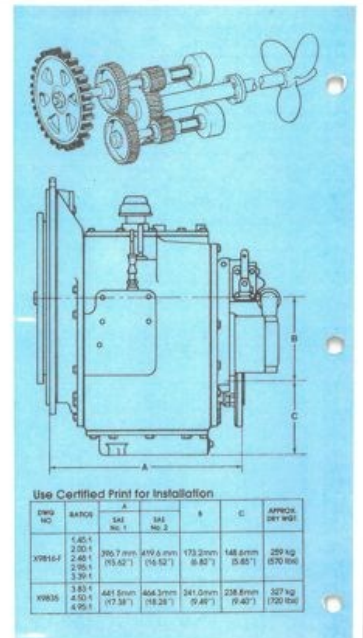
- Oil controlled clutch engagement
- Carbureted and hardened gears
- Emergency come-home feature
- Built with jig-bore accuracy
- Rubber block drive
- Ratios: 1.45:1, 2.00:1, 2.48:1, 2.95:1, 3.39:1, 3.83:1, 4.50:1 and 4.95:1
- Equipped with either SAE No. 1 or No. 2 housing
- Dry flywheel housing
- Both clutches removable with transmission attached to engine
- Identical performance and ratios forward or reverse
- Hydraulically-actuated and oil-cooled clutches shift 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 carbureted and hardened gears are shackle-mounted on anti-friction bearings on short, rigid shafts. 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-4914 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



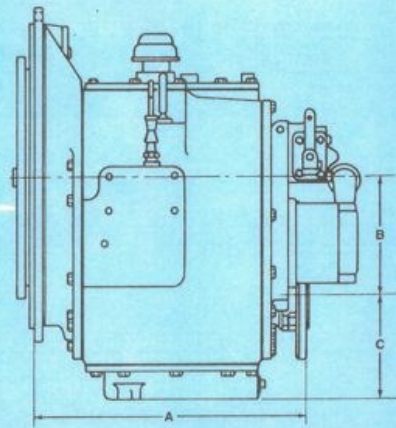
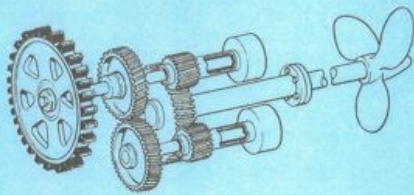
Use Certified Print for Installation

ENG. NO.	RATIO	A	B	C	APPROX. DRY WEIGHT
X98164	1.45:1	395.7 mm (15.58")	173.2 mm (6.82")	148.6 mm (5.85")	229 kg (510 lbs)
	2.00:1	419.5 mm (16.52")	173.2 mm (6.82")	148.6 mm (5.85")	229 kg (510 lbs)
	2.48:1	443.3 mm (17.45")	173.2 mm (6.82")	148.6 mm (5.85")	229 kg (510 lbs)
X9825	3.83:1	461.5 mm (18.13")	182.2 mm (7.17")	158.8 mm (6.25")	277 kg (611 lbs)
	4.50:1	485.3 mm (19.07")	182.2 mm (7.17")	158.8 mm (6.25")	277 kg (611 lbs)
	4.95:1	509.1 mm (20.04")	182.2 mm (7.17")	158.8 mm (6.25")	277 kg (611 lbs)

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 PTO is used.



Use Certified Print for Installation

DWG NO.	RATIOS	A		B	C	APPROX. DRY WGT.
		SAE No. 1	SAE No. 2			
X9816-F	1.45:1					
	2.00:1					
	2.48:1	396.7 mm (15.62")	419.6 mm (16.52")	173.2 mm (6.82")	148.6 mm (5.85")	259 kg (570 lbs)
	2.95:1					
X9635	3.53:1	441.5 mm (17.38")	464.3 mm (18.28")	241.0 mm (9.49")	238.8 mm (9.40")	327 kg (720 lbs)
	4.52:1					
	4.95:1					

**Model MG-509
Marine Transmission**



- Oil controlled clutch engagement
- Constant and hardened gears
- Emergency cone-bone feature
- Built with light-bone alloy
- Ball-bearing drive
- Ratios: 1.45:1, 2.00:1, 2.48:1, 2.95:1, 3.53:1, 4.52:1 and 4.95:1
- Equipped with either SAE No. 1 or No. 2 housing
- Oil splash housing
- Both clutches removable with transmission obtained to engine
- Identical performance and ratio forward or reverse
- Hydro-mechanical and cone-bone feature with smooth, fast, finger 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 3.53:1 ratios are identical in design except for the size of the gears and the input/output shaft. The 4.52:1 and 4.95:1 ratios use a slinger drive on the center distance of the gears to provide the constant and hardened gear oil lubrication on distribution bearing or ball-roller shafts. The transmission may be purchased with an SAE No. 1 or No. 2 housing.

Three string rings are available with the No. 1 housing and one string ring with the No. 2 housing. Maximum shaft speed with Part No. A4911 driving ring is 2000 rpm. The MG-509 is designed for full horsepower operation continuously at rated torque or reverse power. An externally mounted heat exchanger, top-mounted cover board, mounting brackets and coupling flange and a hydraulic release assembly are available as optional equipment with the MG-509 Marine Transmission. The



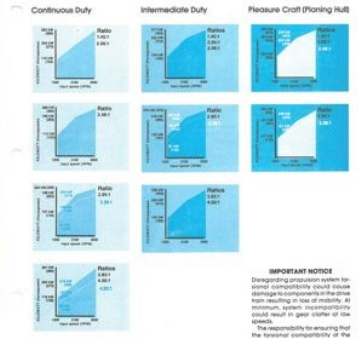
Use Certified Print for Installation

SAE No.	SAE No. 1	SAE No. 2	SAE No. 1	SAE No. 2	SAE No. 1	SAE No. 2
1.45:1	396.7	419.6	173.2	148.6	259	259
2.00:1						
2.48:1	396.7	419.6	173.2	148.6	259	259
2.95:1						
3.53:1	441.5	464.3	241.0	238.8	327	327
4.52:1						
4.95:1						

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

Heat Exchanger

This accessory heat exchanger is available in combination with the MG-509 Marine Transmission. Customers who wish to install a heat exchanger should contact the nearest Cummins distributor. When ordering specify the type of heat exchanger to be used in the heat exchanger. Heat exchanger can be retrofitted to any MG-509.



IMPORTANT NOTICE

Downgrading propulsion system for lower compatibility could cause damage to components in the drive train resulting in loss of mobility. At minimum, system incompatibility could result in gear chatter or the engine. The responsibility for ensuring that the horsepower compatibility of the propulsion system is satisfactory rests with the designer of the drive and driven equipment. Technical information, analysis, and data for the engine, gearbox, normal turner, and other parts are prepared to assist in finding solutions to potential bearing problems that relate to the marine transmission.

For Service Classification Definitions see book 6000.