



PRM 260



Full Hydraulic Operation In-line or Offset Output Shaft

The PRM 260 gearbox is purpose built for use with both pleasure craft and commercial boats; it's twin countershaft design provides separate oil-operated multi-disc clutches (no adjustment required) for ahead or astern drive allowing full rated power to be transmitted continuously in either direction. The PRM 260 is offered in two different configurations, in-line and with offset output shaft. The reduction ratios offered (1.96:1 and 2.94:1) are available for left-hand or right-hand propeller rotation is 'ahead' making the PRM 260 particularly well suited to twin engine installations.

The gear case is constructed of high grade cast iron, internally ribbed for rigidity and strength, and consists of two separate halves to facilitate servicing the oil pump and hydraulic control valves being externally mounted for easy accessibility.

The PRM 260C input shaft, spline, adaptor flange and mounting pads are as used on the Borg Warner (Velvet Drive) and Paragon gearboxes.

The hydraulic operating system functions on normal lubricating oil of the same viscosity as that used in the engine, avoiding the need to use automatic transmission fluid, and ensures rapid response to movements of the operating lever for good boat handling. The operating lever has a positive neutral detent and is suitable for use with proprietary single lever remote control operating systems.

Robust and reliable, the hydraulic is nevertheless provided with a mechanical lock up device for added security, so that in the unlikely event of a hydraulic failure the boat can be brought safely back to port. Access to this device is via the detachable manifold on the rear of the gear case.

The trolling valve is also offered as an optional extra. This is electronically operated which allows variable speed of the propeller to zero whilst allowing a maximum engine speed of up to 1200rpm.

PRM 260 Marine Gearbox - Nominal Power Ratings

Ratios	Pleasure		Light Commercial		Heavy Commercial	
	BHP	kW	BHP	kW	BHP	kW
1.96:1	3.65	2.72	3.36	2.51	3.08	2.31
2.94:1	3.65	2.72	3.36	2.51	3.08	2.31

Maximum operating speeds - 4500rev/min intermittent - 4000 rev/min continuous

Note: These powers are expressed in BHP and kW per 100 rev/min engine operating speed and are measured at the engine flywheel. Ratings have been established to ensure the long trouble free life of the gearbox which should not, therefore, be used at powers in excess of those shown.



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Service Classification Definitions - Pleasure

Limited to planing hull pleasure craft, operation at full engine throttle should not exceed 5% of total time, with balance of usage at 90% of full throttle engine speed or less. Maximum operation 500 hours per year. The selection of PRM marine transmissions according to this classification for any commercial boat, or in sport-fishing charter boats or in range pleasure cruisers is not approved.

Service Classification Definitions - Light Commercial

Planing or semi-displacement craft used in pleasure or commercial applications may qualify for light commercial rating is annual usage is less than 1500 hours and full throttle operation is limited, with most operating time at partial throttle.

Service Classification Definitions - Heavy Commercial

PRM Marine Ltd recommends that all displacement and semi-displacement craft used for commercial applications should be classed as heavy commercial duty. In vessels of this type (including trawlers, purse seiners, lobsters and crab boats, tugs, ferries, offshore supply boats etc.) the marine gearbox is expected to work at full governed engine speed. The power setting of the engine must be known and must be written within the gearbox's permissible heavy commercial rating.

Important Note:

- 1) It is essential for the engine, transmission model, reduction ratio and propeller size to be correctly matched so that the engine can attain it's rated speed appropriate to the relevant service classification without labouring.**
- 2) It is also necessary to ensure the torsional compatibility of the complete propulsion system from engine through to propeller, since disregarding this may result in gear noise, particularly at low speed operation, and may even result in damage to the engine as well as the transmission components.**

Operating Pressure

Minimum - 1800kPa (265lb/in²). Maximum - 2180kPa (320lb/in²). Two tapped holes 1/8" BSP on the top, and M18 on the side of the valve block are provided so that a pressure gauge can be fitted if required.

Oil Cooling

The normal operating temperature should be in the range of 50°C to 80°C range and should not be permitted to exceed 90°C. An oil cooler is necessary to ensure that correct operating temperature are maintained, and the valve block is provided with two 3/5" BSP connectors to allow it to be fitted.

Propeller Thrust

Both ahead and astern thrust is carried by the output shaft bearings which are of adequate capacity for all factory approved ratings.

Propeller Free Wheeling

The PRM 260 output shaft can be rotated continuously with the gearbox in neutral. It is therefore not necessary to fit a propshaft brake in such applications.



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Approximate Weight & Oil Capacity

Gearbox	Approximate Dry Weight		Oil Capacity	
PRM260D	48kg (106lb)	Excluding adaptor, drive coupling and oil cooler	1.5 litres (2.64 pints)	Plus the amount require to fill the cooling circuit
PRM260C	63kg (138lb)		1.70 litres (3.0 pints)	

Flexible Input Coupling for PRM 260

Part Number	Outside Diameter		No.	Mounting Hole Pattern				Remarks
	in	mm		Diameter		Pitch Circle Dia		
				in	mm	in	mm	
MT1224	9.50	241.3	8	0.344	8.74	8.750	222.3	SAE 7½ in
MT12222	12.375	314.3	6	Multi Punched - Dimensions on application				
			8	0.375	9.53	11.625	295.3	SAE 10 in
MT1162	13.875	352.4	8	0.433	10.99	13.125	333.4	SAE 11 ½ in
MT1213	14.25	362.0	6	0.320	8.13	11.625	295.3	Perkins 4-236
			6	Multi Punched - Dimensions on application				
MT4911	13.875	352.4	8	0.433	10.99	13.125	333.4	SAE 11 ½ in High Deflection
MT4912	14.25	362.0	6	0.320	8.13	11.625	295.3	Perkins 4-236
			6	Multi Punched - Dimensions on application				High Deflection
MT4913	12.375	314.3	6	Multi Punched - Dimensions on application				
			8	0.375	9.53	11.625	295.3	SAE 10 in High Deflection
Mt4914	9.50	241.3	8	0.344	8.74	8.750	222.3	SAE 7 ½ in High Deflection
MT1468	14.25	362.0	6	Multi Punched - Dimensions on application				(For 260C)



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Adaptor Flanges for PRM 260

Weight - kg	Description	Weight - kg	Weight - lbs
MT8074S/A	SAE 2 Adaptor Flange	13.0	28.7
MT845S/A	SAE 2 Adaptor Flange	11.0	24.3
MT1210S/A	SAE 4 Adaptor Flange	10.0	22.0
MT1209S/A	SAE 5 Adaptor Flange	7.0	15.4
MT1426S/A	B/W (Velvet Drive) Adaptor Flange	4.3	9.5

Other Accessories for PRM 260

Part Number	Description	Weight - kg	Weight - lbs
MT913S/A	Oil Cooler	1.2	2.6
MT915	Oil Pipe (pair)	0.5	1.1
MT784	Oil Cooler Mounting Bracket	0.2	0.4
MT771	Tailshaft Half Coupling (pilot bored)	2.5	5.5
MT1104	Tailshaft Flexible Coupling	1.5	3.3
MT0214	Neutral Safety Start Switch	0.04	0.1
MT4733	Oil Pressure Gauge (Direct Mounting)	0.1	0.2
MT4990	Trolling Valve Assembly 12v	9.5	20.9
MT4991	Trolling Valve Assembly 24v	9.5	20.9



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