



PRM90 Gearbox

Simple mechanical operation, lightweight, compact & rugged

The PRM90 gearbox is designed for use in pleasure craft where a simple lightweight transmission is required.

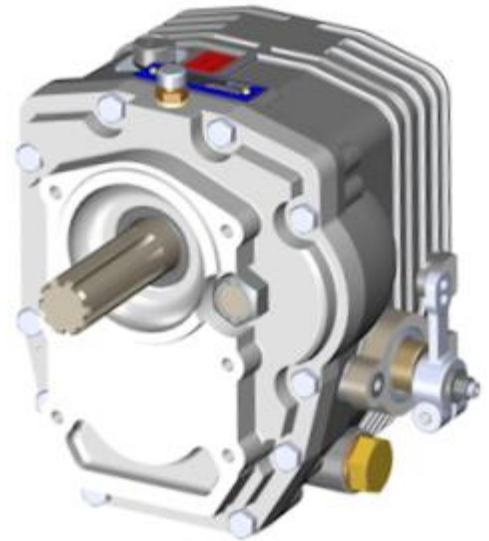
The cone clutches for both ahead and astern are mechanically operated and require no adjustment.

The gearbox is purpose built to operate with standard rotation engines i.e. providing a clockwise rotation of the gearbox input shaft when viewed on input. In forward drive the output shaft rotates opposite to input shaft therefore requiring a right-hand propeller.

The reduction ratios offered are:
2.04:1 and 2.50:1 with a common astern ratio of 2.5:1

The heavy duty aluminium gearcase is externally ribbed for strength and heat dissipation and therefore requires no oil cooler.

Direction actuation is by a lever with positive detent positions for ahead, neutral and astern. It is suitable for use with proprietary remote control operating systems which must be of the single lever dual action type, i.e. MORSE MT3 or SL3 which operates the engine throttle in conjunction with the gear lever.



Nominal Power Ratings, PRM90 Marine Gearbox

Model	Ahead Ratio	Pleasure		Light Commercial	
		kW	BHP	kW	BHP
90D2	2.04:1	0.94	1.26	0.62	0.83
90D2.5	2.50:1	0.82	1.10	0.54	0.73
Max. Input Power		37	50	25	33

Maximum operating speeds: 5000 rev/min

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.

Oil Cooling

The normal operating temperature should be in the range 50° to 95° using a good quality Automatic Transmission Fluid.

Propeller Free Wheeling

The PRM90 output shaft can be rotated continuously with the gearbox in neutral. It is therefore not necessary to fit a propshaft brake when running with the engine shut down, for example when sailing.

Approximate Weight & Oil Capacity

Approximate dry weight: 13kg (28.7lb)
Oil Capacity: 0.3 litres (0.5 pint)

Flexible Input Coupling for PRM90

Part Number	Outside Diameter		Mounting Hole Pattern				Remarks	
	mm.	in.	No.	Diameter		Pitch Circle Dia.		
				mm	in	mm		in
MT8109	215.9	8.50	6	8.74	0.344	200.0	7.875	SAE 6 ½ in
MT8110	241.3	9.50	8	8.74	0.344	222.25	8.750	SAE 7 ½ in
MT8111	298.5	11.75	6	8.13	0.320	200.0	7.875	
			6	8.13	0.320	250.0	9.843	
			6	8.13	0.320	269.9	10.625	
			6	8.13	0.320	273.1	10.750	
MT8112	156.0	6.12	5	6.35	0.250	142.1	5.593	
MT8113	151.5	5.965	8	6.50	0.256	140.0	5.512	Hawker Siddeley Marine
MT8114	266.7	10.50	6	8.10	0.320	244.5	9.625	Mitsubishi
MT8115	190.0	7.48	6	8.10	0.320	170.0	6.693	Nanni / Yanmar

Adaptor Flanges for PRM90

Part Number	Description	Weight	
		kg	lb
MT4901S/A	SAE5 adaptor	7.5	16.5
MT4902S/A	SAE4 adaptor	10.1	22.0
MT8083S/A	B/W (Velvet Drive) adaptor	1.4	3.1

Other Accessories for PRM90

Part Number	Description	Weight	
		kg	lb
MT3054	Tail shaft half coupling (pilot bored)	1.3	2.9
MT3056	Tail shaft flexible coupling	0.7	1.5

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