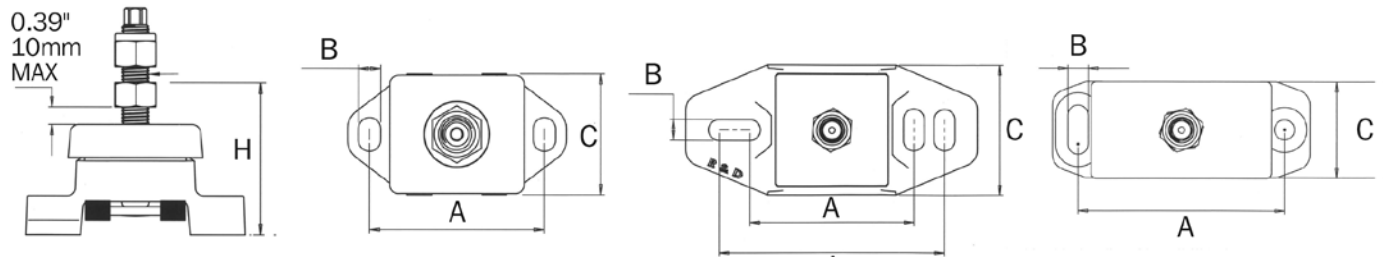


R & D Marine Engine drive plates, mountings & couplings

Engine mountings



Style	Sheer						Double-acting						Yanmar						
	A	B	C	H	S	Full Load	A	B	C	H	S	Full Load	A	B	C	H	S	Full Load	
	(mm)	(mm)	(mm)	(mm)	Thread	Rating, Kg	(mm)	(mm)	(mm)	(mm)	Thread	Rating, Kg	(mm)	(mm)	(mm)	(mm)	Thread	Rating, Kg	
C-Type	102	13	72	56	5/8" UNF	86, 136	Sheer, large	102	13	92	71	3/4" UNF	345						
Sheer, small	102	13	56	56	5/8" UNF	42, 78	Double-acting	102-140	13	70	78	5/8" or 3/4"	190, 305						
Sheer, medium	102	13	70	78	5/8" or 3/4"	80, 105, 156, 255, 309	Yanmar Y50	128	12.5	60	100	M16	60						
Sheer, long	127-140	13	70	78	5/8" or 3/4"	81, 106, 187, 256, 310	Yanmar Y70-Y200	175	12.5	60	100	M16	60, 73, 109, 146						

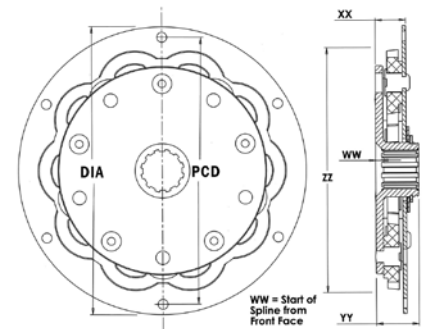
Engine and gearbox weight is often split 40/60 front/rear. Full load of selected mount should be about twice the weight of the corner of the engine it is supporting.

Flywheel drive plates

Drive Plate Selection

If replacing an existing R & D drive plate, look for its code number (something like "15M2") stamped close to the edge if the plate on the gearbox side. Otherwise, do the following:-

1. Identify the spline of your gearbox from the table below.
2. Chose element. Select High Def for 3 or 4-cyl engines and for 6-cyl with light flywheels like Cummins and Perkins, as these are best at eliminating gearbox rattle. Hammer Head can be used if there is not enough space for the High Def element though rattle absorption is not as good. Loop elements can be used on 6-cylinder engines like Ford and Gardner with heavier flywheels where rattle is not a major problem.
3. Measure your flywheel in both Imperial and Metric units, as most common flywheels are drilled in Imperial, fractional dimensions. If the flywheel is recessed to take the drive plate, order "M/C O.D.". Almost any size plate can be supplied and can be drilled on any P.C.D. that is more than about 1/2" (13mm) bigger than the ZZ dimension of the element.



Gearbox Spline Sizes

Diameter No. of gearbox models

Diameter (mm)	No. of splines	gearbox models
19.7	17	PRM Delta
22.6	20	Volvo MS, Yanmar SD
25.4	10	PRM100-280, Volvo 100 Z-drive
28.6	10	PRM 175-265, 310
28.84	17	PRM 301-750
29	10	PRM 60-90, 120-150, ZF 5-15, B/W 500, TMC30-60
35.4	26	B/W 71-73, 5000, 6000, PRM C, Paragon, TMP1200, Twin Disc 5010, 502, TM 93-880, Volvo MS3-5, SD 110, 250-280 drive, ZF 25-220,
38.1	10	Parsons
40.5	18	PRM 601, 1000
41.3	10	SCG MRF350
44.8	20	PRM 1500, 1750
52.3	32	SCG MRF350HD

Element details

Torque	Code	Rotation	XX	YY	WW	ZZ
HP/100RPM			(mm)	(mm)	(mm)	(mm)
HIGH DEF						
1.9	AM	Anti-clockwise	25.4	32	0	127
3.8	AN	Anti-clockwise	25.4	35	5	182
5.7	AL	Anti-clockwise	26.4	34	12.5	194
9.5	AD	Anti-clockwise	29	36	6	235
13.3	AE	Anti-clockwise	31.8	39	0	302
HAMMER HEAD						
1.9	W	Either	25.4	32	2.3	127
3.0	D	Either	25.4	35	5	175
4.8	Y	Either	28.7	35	5	182
5.7	AJ	Either	29.5	36	8.1	150
5.9	L	Either	25.4	35	5	175
6.7	U	Either	28.7	35	5	182
10.5	R	Either	28.7	35	5	182

Element details

Torque	Code	Rotation	XX	YY	WW	ZZ
HP/100RPM			(mm)	(mm)	(mm)	(mm)
LOOP						
1.1	A	Either	25.4	32	0	127
1.9	B	Either	25.4	32	0	127
3.4	E	Either	25.4	35	5	207
3.8	F	Either	29.5	36	8.1	158
4.8	G	Either	25.4	35	5	207
5.1	H	Either	29.5	36	5	183
5.7	J	Either	29.5	36	8.1	158
6.3	K	Either	28.7	35	5	207
7.6	M	Either	25.4	35	5	207
8.6	H	Either	29.5	36	5	183
8.6	V	Either	28.7	35	5	207
10.5	P	Either	28.7	35	5	207
14.3	S	Either	31.8	35	5	207
22.9	Z	Anti-clockwise	44.2	57.2	0	330

Flexible shaft couplings

Gearbox Flange Type	Number of Holes	Size S	Pitch Circ P	Register R	Thicknesses T (mm)	Ratings HP/100RPM
4" standard	4	10mm	3 3/4"	2 1/2"	32.5, 32.5, 35.6	3, 5, 8
4" Volvo	4	10mm	80mm	60mm	32.5, 32.5, 35.6	3, 5, 8
5" Standard	4	7/16"	4 1/4"	2 1/2"	32.5, 32.5, 35.6	8, 13, 20
4" Yanmar	4	10mm	78mm	60mm	45, 45, 52.4	3, 5, 8
5" Yanmar	4	10mm	100mm	65mm	45	10
5 3/4" Twin Disc	6	5/8"	4 3/4"	3"	47.5, 49.8, 55.4	20, 28, 37
6" Standard	6	1/2"	4 3/4"	3"	47.5, 49.8	20, 28

In order to select an appropriate coupling, first identify the diameter of the output flange of the gearbox. Then take the full HP rating of the engine, multiply it by the gear ratio of the gearbox and divide it by the full RPM of the engine, in hundreds.

For example, with a 120HP, 2500RPM engine and a 2.9:1 gearbox, this would be 120 times 2.9 divided by 25 which is 13.93 HP/100RPM on the propeller shaft. So a coupling should be selected that is a little more than this figure

