

## Clarkson 24 x 38 Horizontal Bill of Materials

ITEM	SECTION	LENGTH	MATERIAL	NOTES
Main Bearings	10dia	9	Bronze	2No Req'd
Crank Shaft	8dia	80	PGMS	Or Silver Steel
Piston Rod	5dia	68	303 Stainless	
Crosshead	16dia	13	Bronze	
Valve	12 x 8	20	Bronze	
Valve Nut	5 x 3	10	Brass	Or Bronze
Valve Clevis	5 x 5	9.5	Mild Steel	
Valve Rod	2.5dia	70	303 Stainless	
Conrod	0.5" dia	105	Mild Steel	
Crank Pin	8 dia	15	Mild Steel	
Big End	10 dia	6	Bronze	
Ecc Rod	6 x 2	103	Mild Steel	
Crosshead Pin	3 dia	12	Mild Steel	
Vave Pin	2.5 dia	6	Mild Steel	
Piston Gland	10 dia	6	Brass	Or Bronze
Valve Gland	8 dia	6	Brass	Or Bronze
Cladding	0.5 thick	75 x 50	Aluminium	
Flywheel Rim	115OD x 100ID	16	Steel Tube	Optional
Studs	2.5 dia	300 total	Mild  Steel	Or 3/32" dia
Nuts	M2.5	32No	Steel	Small Hex Preferable
Nuts	M2	1No	Steel	Small Hex Preferable
Bolts	M2 x 16	1No	Steel	Small Hex Preferable
Screws Roundhead	M1.6 x 4	6No	Brass	Only if fitting cladding
Grub Screw	M3 x 3	2No	Steel	
O Ring	19.4 x 2.4		Viton	Metric O Ring

-Valve Clevis , Crosshead Pin, valve pin, Conrod all from same 0.5 dia material

-Main bearings, Big End Bearing, Piston & Valve Glands and Valve nut from same material suggest 7/16" Colphos

-Crosshead and Valve from same material suggest 17mm dia PB1

All sizes shown are the minimum required, make allowances for holding and parting/sawing.

<https://www.m-machine-metals.co.uk/downloads/Metals%20catalogue.pdf>