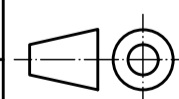



PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	Stand		Wood (Oak)
2	1	Base Plaque		Copper
3	1	Base		Steel
4	2	Lower Base Bearing Holder		Brass, Soft Yellow
5	1	Base Bearing Lower Holder2		Brass, Soft Yellow
6	1	Crankshaft		Stainless Steel
7	2	Upper Base Bearing Holder		Brass, Soft Yellow
8	1	Base Bearing Upper Holder 2		Brass, Soft Yellow
9	2	Assembly Eccentric		
10	4	Eccentric Rod		Stainless Steel
11	2	Bearing Keeper		Stainless Steel
12	4	Connecting Rod		Brass, Soft Yellow
13	2	Crankrod		Stainless Steel
14	2	Crosshead		Brass, Soft Yellow
15	2	Crankrod Pin		Copper
16	2	Crankrod Bolt		Copper
17	2	Welding Assembly Standard		Welded Steel Mild
18	2	Cylinder Packnut		Brass, Soft Yellow
19	2	Cylinder Cover Lower		Brass, Soft Yellow
20	1	Cylinder Right		Cast Steel
21	1	Cylinder left		Cast Steel
22	2	Steam Piston		Stainless Steel
23	4	Steam Piston Ring		Stainless Steel
24	2	Piston Rod		Stainless Steel
25	2	Cylinder Packing		Rubber
26	2	Upper Cylinder Cover		Cast Steel
27	2	Valve Plate		Copper Alloy
28	2	Steamchest		Steel
29	2	Valve Packnut		Brass, Soft Yellow
30	2	Slide Valve		Stainless Steel
31	2	Slide Valve Holder		Stainless Steel
32	2	Steam Chest Slide Valve Rod		Stainless Steel
33	2	Reverse Gear link		Copper
34	1	Reverse Gear Lever Rod		Stainless Steel
35	1	Flywheel		Steel
36	1	Reverse Gear Lever		Steel
37	2	Reverse Gear Lever Link		Copper Alloy
38	4	Reverse Gear Drag Link		Copper
39	2	Steamchest Cover		Steel
40	1	Assembly Cylinder Piping Exit		
41	1	Assembly Cylinder Piping Entry		
42	2	Cylinder Pipe Connector		Brass, Soft Yellow
43	6	DIN 84 - M6 x 20	Slotted Cheese Head Screw	Steel, Mild
44	4	DIN 84 - M6 x 45	Slotted Cheese Head Screw	Steel, Mild
45	4	DIN 125 - A 13	Washer	Steel, Mild
46	12	DIN 128 - A4	Spring Washer	Steel, Mild
47	66	DIN 128 - A6	Spring Washer	Steel, Mild
48	4	DIN 128 - A12	Spring Washer	Steel, Mild
49	4	DIN 912 - M4 x 30	Cylinder Head Cap Screw	Steel, Mild
50	8	DIN 912 - M4 x 35	Cylinder Head Cap Screw	Steel, Mild
51	16	DIN 912 - M6 x 12	Cylinder Head Cap Screw	Steel, Mild
52	16	DIN 912 - M6 x 20	Cylinder Head Cap Screw	Steel, Mild
53	4	DIN 912 - M12 x 55	Cylinder Head Cap Screw	Steel, Mild
54	6	DIN 916 - M4 x 5	Hexagon Socket Set Screw	Steel, Mild
55	14	DIN 933 - M6 x 20	Hex-Head Bolt	Steel, Mild
56	10	DIN 934 - M6	Hex Nut	Steel, Mild
57	2	DIN 934 - M8	Hex Nut	Steel, Mild
58	4	DIN 1587 - M12	Hexagon Domed Cap Nuts	Steel, Mild
59	7	DIN 71412 - AM 6 (coned short)	Lubricating Nipple, coned Type A	Steel, Mild

Revision	Date	Description							
Engineered by:				Name:	Date:	Scale: 1 : 2			
			Designer: Approved:	Galba, J. Galba, J.	13/02/2010 13/02/2010	SheetSize: A1			
Project: <b>Miniature Steam Engine</b>						Material:			
Title: <b>Vertical Twin Steam Engine with Reverse Gear Main Assembly</b>						Total Mass: 22,687 kg			
 <b>Inventor Wizard</b>			Drawingnumber:				Sheet: <b>0001</b>		
			Design State: <b>Released</b>				Drawing made with autodesk Inventor Revisions only permitted by CAE		

Corresponding symbols										▽	▽	▽▽	▽▽	▽▽▽	▽▽▽▽	▽▽▽▽▽	
Roughness Classes ( NBN 88-02   ISO 1302 )										Nt1	Nt10	N9	N8	N7	N6	N5	N4
Roughness Value "Ra" in µm ( NBN 88-02   ISO 1302 )										25	12,5	6,3	3,2	1,6	0,8	0,4	0,2
Allowable deviations for dimensions without tolerance indication (machined surfaces)																	
For measurements ( deviations in mm )										Fillet and chamfers				Angles ( in ° and ' )			
Accuracy class (ISO 2768 )	Dimensions in mm								Dimensions in mm				Length of the shortest leg				
	0,5 to 1	>1 to 3	>3 to 6	>6 to 30	>30 to 120	>120 to 400	>400 to 1000	>1000 to 10000	0,5 to 3	>3 to 6	>6 to 30	>30 to 120	0,5 to 10	>10 to 30	>30 to 100	>100 to 300	
Fine	+0,05	+0,05	+0,1	+0,1	+0,15	+0,2	+0,25	+0,3	±0,2	±0,1	±0,1	±0,1	±0,2	±0,1	±0,1	±0,1	
Medium	+0,1	+0,1	+0,2	+0,2	+0,3	+0,3	+0,4	+0,5	±0,2	±0,1	±0,1	±0,1	±0,2	±0,1	±0,1	±0,1	
Rough	+0,2	+0,3	+0,5	+0,5	+0,8	+1,0	+1,2	+1,5	±0,3	±0,2	±0,2	±0,2	±0,3	±0,2	±0,2	±0,2	
Very Rough	-	+0,5	+1	+1,5	+2,5	+4	+6	+8	±0,4	±1	±2	±4	±8	±10	±12	±15	