



ITEM QTY		PARTS LIST	
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	Floor	
2	2	Wood Pin	
3	1	Base	
4	1	Bearing	
5	2	Plain Bearing	
6	1	Crankshaft	
7	1	Eccentric Hub	
8	1	Eccentric Strap	
9	1	Column	
10	1	Beam	
11	1	Cylinder	
12	1	Inlet	
13	1	Piston	
14	1	Piston Rod	
15	1	Piston Rod Head	
16	2	Beam Linkage	
17	1	Connecting Rod Link	
18	1	Connecting Rod Head	
19	4	Linkage Rod	
20	1	Cylinder Head	
21	1	Valve	
22	2	Valve Linkage Rod	
23	1	Valve Linkage Bolt	
24	2	Valve Linkage Stud	
25	2	Valve Linkage	
26	1	Valve Linkage Rocker	
27	1	Valve Linkage Dual Rocker	
28	1	Eccentric Strap Rod	
29	1	Eccentric Strap Head	
30	1	Piston Support Beam	
31	1	Piston Support Rod	
32	1	Centrifugal Pump Housing	
33	1	Centrifugal Pump Bearing	
34	1	Centrifugal Pump Shaft	
35	1	Centrifugal Pump Impeller	
36	1	Centrifugal Pump Cover	
37	1	Pulley	
38	1	Centrifugal Pump Pulley	
39	1	DIN 94 - 2 x 12	Split Pin
40	1	DIN 625 SKF - SKF 61900	Single row ball bearings
41	8	DIN 912 - M6 x 16	Cylinder Head Cap Screw
42	2	DIN 913 - M3 x 4	Hexagon Socket Set Screw
43	2	DIN 913 - M4 x 10	Hexagon Socket Set Screw
44	1	DIN 1587 - M4	Hexagon Domed Cap Nuts
45	8	DIN 6799 - 3,2	Retaining Washer
46	1	DIN 6799 - 8	Retaining Washer
47	2	ISO 7045 - M4 x 16 - 4.8 - H	Cross Recessed Pan Head Machine Screw
48	1	DIN 7991 - M6x40	Hexagon socket countersunk head cap screws
49	1	DIN 6885 - A 3 x 3 x 22	Parallel Key
50	1	V-Belt	
51	1	ISO 2491 - A 5 x 3 x 14	Thin parallel keys

Break Sharp Edges: 0,1 mm

Revision	Date	Description	Name:	Date:	Scale:	
Engineered by:			Designer: Galba, J.	1/12/2010	SheetSize: A1	
			Approved: Galba, J.	13/01/2010		
Project:		Miniature Model Steam Engine		Material:		
Title:		Beam Engine with Centrifugal Pump Assembly		Total Mass: 10,645 kg		
Drawingnumber:						Sheet: 0001
Design State: Released						Revisions only permitted by CAD

Corresponding symbols		Roughness Classes ( NBN 88-02 ) ( ISO 1302 )		Roughness Value "Ra" in µm ( NBN 88-02 ) ( ISO 1302 )	
▽	▽▽	N11	N10	N9	N8
▽▽	▽▽▽	25	12,5	6,3	3,2
▽▽▽	▽▽▽▽	1,6	0,8	0,4	0,2

  

Accuracyclass ISO 2768	Dimensions in mm						Dimensions in mm						Angles ( in ° and ' )	
	0,5	±0,5	±0,6	±0,7	±0,8	±1,0	0,5	±0,5	±0,6	±0,7	±0,8	±1,0	±10	±15
Fine	±0,05	±0,05	±0,06	±0,07	±0,08	±0,10	±0,05	±0,05	±0,06	±0,07	±0,08	±0,10	±10'	±15'
Medium	±0,1	±0,1	±0,12	±0,15	±0,18	±0,22	±0,1	±0,1	±0,12	±0,15	±0,18	±0,22	±10'	±15'
Rough	±0,2	±0,3	±0,4	±0,5	±0,6	±0,8	±0,2	±0,3	±0,4	±0,5	±0,6	±0,8	±10'	±15'
Very Rough	±0,5	±1	±1,5	±2,5	±4	±6	±0,5	±1	±1,5	±2,5	±4	±6	±10'	±15'

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