ITEM NO.	PART NUMBER	MATERIAL	QTY.
1	BASE	WOOD	1
2	BASE FRAME	BRASS	1
3	BIG END	BRONZE	2
4	CRANK BEARING	BRASS	1
5	CRANKPLATE	BRASS	2
6	CRANK SHAFT	SILVER STL	1
7	CRANKPIN-1	SILVER STL	1
8	CRANKPIN-2	SILVER STL	1
9	CYLINDER	BRASS	2
10	CYLINDER BLOCK	BRASS	2
11	CYLINDER BLOCK STUD	BRASS	2
12	FLYWHEEL	MILD STEEL	1
13	PISTON	BRASS	2
14	PISTON STEM	BRASS	2
15	STIFFENING PLATE 1	BRASS	2
16	STIFFENING PLATE 2	BRASS	1
17	SPRING	SPRING STL	2
18	TOP BLOCK	BRASS	2
19	WOOD SCREW	STEEL	2
20	NUT	MILD STEEL	2

PILOT HOLES ONLY
SCALE 1:1
SCALE 1:1
SCALE 1:1
SCALE 1:1
PRESS FIT INTO ITEM 5
SCALE 1:1
SCALE 1:1
2mm THICK
SCALE 1:1
PRESS FIT INTO ITEM 5
PRESS FIT INTO ITEM 5
SCALE 2:1
SCALE 2:1
SCALE 1:1
SCALE 1:1
SCALE 1:1
SOLDER TO BASE FRAME
SCALE 1:1
SCALE 1:1
SOLDER TO ITEM 10
SCALE 1:1
PRESS FIT INTO ITEM 10 AND SOLDER
SCALE 1:1
SCALE 1:1
PRESS FIT INTO ITEM 13 AND SOLDER
SCALE 1:1
SCALE 1:1
SOLDER
SOLDER
SOLDER
SOLDER
SOLDER
SOLDER
SOLDER
SCALE 1:1
PRESS FIT INTO ITEM 3 AND SOLDER
SCALE 1:1

NOTES:
1 AS A GUIDE LINE OF HOW TO BUILD THIS STEAM ENGINE, REFER TO MODELBOUWER MAGAZINE JANUARY 1978
2. ALL TOLERANCES +/- 0.1mm
3. REMOVE ALL BURRS AND SHARP EDGES

PISTON ASSEMBLIES

TITLE

TWIN OSCILLATING BOXER STEAM ENGINE
GENERAL ARRANGEMENT & PARTS

REV	DESCRIPTION	DATE
B	ISSUED TO NVM	02/2007
A	ISSUED TO NVM	11/2006

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DATE	SCALE	CAD FILE / REV
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