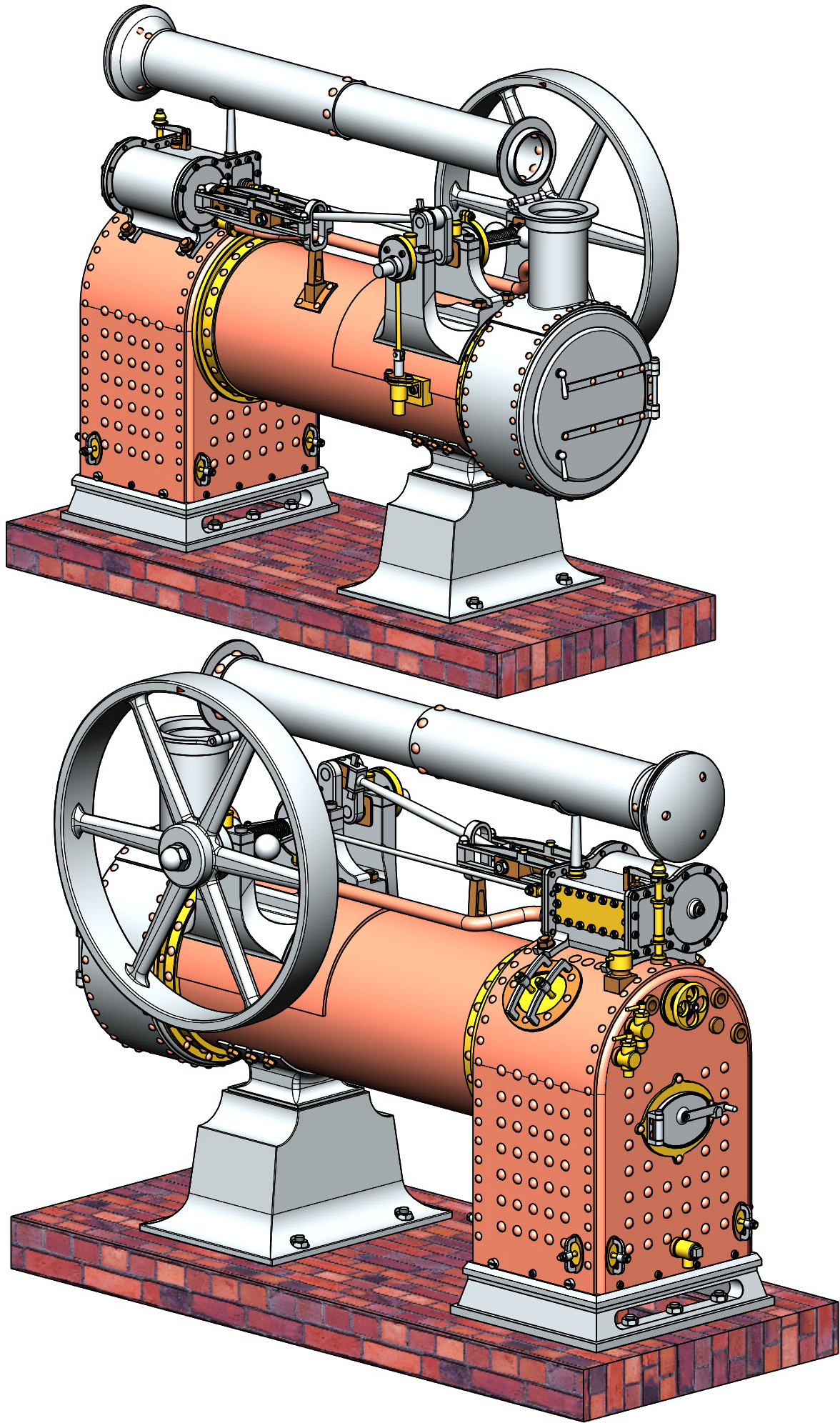




QTY.	PART NUMBER
1	09B-32-00-1-01-MOUNTING BASE
1	09B-32-00-1-02-BOILER
1	09B-32-00-1-03-SMOKE BOX
1	09B-32-00-1-04-CRANK SHAFT BEARING SADDLE
1	09B-32-00-1-05-FIRE BOX+BACKHEAD
1	09B-32-00-1-06-CYLINDER+VALVE CHEST
1	09B-32-00-1-07-CYLINDER FRONT COVER
1	09B-32-00-1-08-CYLINDER REAR COVER
1	09B-32-00-1-09-CROSSHEAD GUIDE
6	09B-32-00-1-10-NIPPLE 11x8xM6
1	09B-32-00-1-11-NIPPLE 9x7xM4
1	09B-32-00-1-12-WATER FILLER
1	09B-32-00-1-13-LARGE INSPECTION HOLE COLLAR
1	09B-32-00-1-14-LARGE INSPECTION HOLE COVER
2	09B-32-00-1-15-LARGE INSPECTION HOLE CLAMP
6	09B-32-00-1-16-SMALL INSPECTION HOLE COVER
6	09B-32-00-1-17-SMALL INSPECTION HOLE CLAMP
1	09B-32-00-1-18-FIRE GRATE
1	09B-32-00-1-19-FIRE DOOR HINGE
1	09B-32-00-1-20-FIRE DOOR LEDGE
2	09B-32-00-1-21-BOILER STAY
1	09B-32-00-1-22-EXHAUST PIPE
1	09B-32-00-1-23-STEAM SUPPLY CONTROL VALVE
1	09B-32-00-1-24-BLOW DOWN VALVE
2	09B-32-00-1-25-WATER LEVEL VALVE
2	09B-32-00-1-26-SMOKE BOX DOOR LOCKING SCREW
1	09B-32-00-1-27-CHIMNEY STAND
1	09B-32-00-1-29-DUMMY SAFETY VALVE SPRING HOLDER
1	09B-32-00-1-30-SAFETY VALVE+LEVER
1	09B-32-00-1-31-DUMMY WATER PUMP
1	09B-32-00-1-32-FIRE DOOR
70	09B-32-00-1-33-FIRE BOX STAY
50	09B-32-00-1-34-FIRE BOX STAY
1	09B-32-00-2-01-CRANK SHAFT+FLYWHEEL
1	09B-32-00-2-02-PISTON+CROSSHEAD
1	09B-32-00-2-03-CON-ROD
1	09B-32-00-2-04-GOVERNOR CONTOL COLLAR
2	09B-32-00-2-05-GOVERNOR FLY LINK
2	09B-32-00-2-06-GOVERNOR FLY WEIGHT LINK
1	09B-32-00-2-07-SLIDE VALVE ECCENTRIC
1	09B-32-00-2-08-SLIDE VALVE
1	09B-32-00-2-09-ECCENTRIC STRAP
1	09B-32-00-2-10-DUMMY PUMP ECCENTRIC
1	09B-32-00-2-11-DUMMY PUMP ECCENTRIC STRAP
1	09B-32-00-2-12-DUMMY PUMP PISTON
1	09B-32-00-2-13-CHIMNEY
7	09B-32-00-M2 NUT
2	09B-32-00-M2 WASHER
24	09B-32-00-M2.5 NUT
2	09B-32-00-M2.5 WASHER
3	09B-32-00-M2.5x3 A-K GRUB SCREW
16	09B-32-00-M2.5x6 A-K CYL HEAD SCREW
2	09B-32-00-M2.5x7-COUNTER SINK RIVET
4	09B-32-00-M2.5x8 A-K CYL HEAD SCREW
6	09B-32-00-M2x4 A-K CYL HEAD SCREW
4	09B-32-00-M3 DOME NUT
6	09B-32-00-M3 NUT
48	09B-32-00-M3.5x5-ROUND HEAD RIVET
4	09B-32-00-M3x14 A-K CYL HEAD SCREW
6	09B-32-00-M3x2.5-ROUND HEAD RIVET
58	09B-32-00-M3x3-ROUND HEAD RIVET
10	09B-32-00-M3x3.5-ROUND HEAD RIVET
2	09B-32-00-M3x4-ROUND HEAD RIVET
18	09B-32-00-M3x4.5-ROUND HEAD RIVET
95	09B-32-00-M3x5-ROUND HEAD RIVET
6	09B-32-00-M3x5.5-ROUND HEAD RIVET
51	09B-32-00-M3x6 A-K CYL HEAD SCREW
2	09B-32-00-M3x7-ROUND HEAD RIVET
2	09B-32-00-M3x8 A-K CYL HEAD SCREW
10	09B-32-00-M4 NUT BRONZE
2	09B-32-00-M4 NUT
7	09B-32-00-M4 WASHER BRONZE
2	09B-32-00-M4 WASHER
2	09B-32-00-M4x10 A-K CYL HEAD SCREW
16	09B-32-00-M4x3-ROUND HEAD RIVET
1	09B-32-00-M4x5 A-K CYL HEAD SCREW
6	09B-32-00-M4x5-COUNTER SINK RIVET
10	09B-32-00-M5 NUT BRONZE
13	09B-32-00-M5 NUT
4	09B-32-00-M5 WASHER BRONZE
6	09B-32-00-M5x14 A-K CYL HEAD SCREW
1	09B-32-00-M8 DOME NUT
1	09B-32-00-M8 WASHER

ADDITIONAL NOTES ABOUT THESE DRAWINGS:

1) NO MATERIALS HAVE BEEN SPECIFIED ON THESE DRAWINGS. THE BUILDER TO CHOOSE ITS OWN PREFERRED MATERIAL FOR THE PARTS/COMPONENTS. THE FOLLOWING COLOURS ON THE DRAWINGS INDICATES POSSIBLE MATERIALS WHICH CAN BE USED FOR PARTS: YELLOW=BRASS, LIGHT GREY=ALUMINIUM OR MILD STEEL, REDDISH BROWN=COPPER, DARK BROWN=BRONZE OR GUN METAL, WHITISH=SILVER STEEL OR STAINLESS STEEL

2) PRESSURE GAUGE.

THE RANGE OF THE PRESSURE GAUGE TO BE DETERMENT AFTER MAXIMUM BOILER PRESSURE IS ESTABLISHED AND THE AVAILABILITY ON THE MARKET. THE PRESSURE GAUGE IS A PROPRIETY ITEM AND NOT SHOWN ON THESE DRAWINGS.

3) PIPING

PREFERABLY ALL PIPING TO BE COPPER. THE PIPING ON THE DRAWINGS ARE INDICATIVE ONLY. THE BUILDER TO ESTABLISH THE PIPE LENGTH AND ROUTE FROM WORK PIECE. THE PIPE SIZES ARE INDICATIVE ONLY. THE BUILDER TO ESTABLISH THE AVAILABILITY OF THE PIPE SIZE(S) FROM THE LOCAL SUPPLIER(S). THE PIPE NUT(S) TO BE ADJUSTED TO THE USED PIPE SIZE.

4) BOILER.

REFER TO SHEET01 FOR WARNING

BOILER INSULATION AND BOILER CLADDING ARE NOT SHOWN ON THESE DRAWINGS.

IF BOILER INSULATION AND BOILER CLADDING ARE PREFERRED THEN THE THE FOLLOWING COULD BE CONSIDERED: INSULATION MATERIAL 2mm THICK AND CLADDING 0.5mm THICK.

THE BOILER STRAPS TO BE DESIGNED BY BUILDER.

5) BOILER WATER LEVEL INDICATOR. (WATER GAUGE)

A WATER GAUGE IS NOT SHOWN ON THESE DRAWINGS. THE BUILDER TO DESIGN ITS OWN OR PURCHASE FROM A MODEL SUPPLIER

6) SAFETY VALVE.

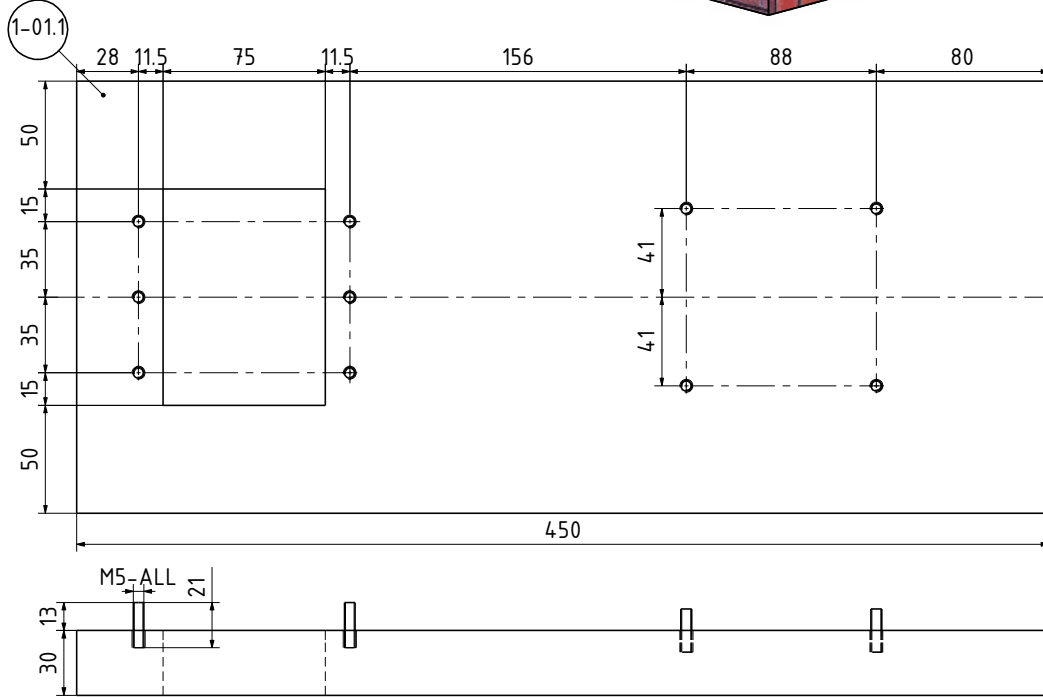
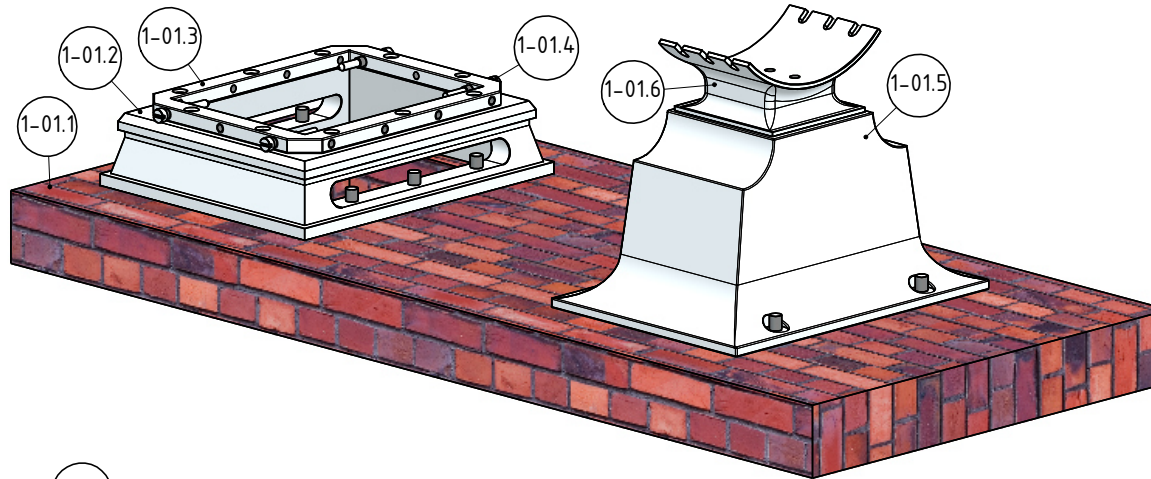
THE SPRING FOR THE SAFETY VALVE TO BE CALCULATED AFTER THE MAXIMUM BOILER PRESSURE IS ESTABLISHED. SPRING IS NOT SHOWN ON THESE DRAWINGS

7) DUMMY PARTS.

IF PREFERRED SOME OF THE DUMMY PARTS COULD BE REPLACED WITH REAL OPERATING PART(S). THE BUILDER TO DESIGN THE PART OR ALTERNATIVELY PURCHASE.

7) ENHANCEMENT

THE APPEARANCE COULD BE ENHANCED BY ADDING SOME EXTRA PART(S) SUCH AS A WHISTLE. .



SCALE 1:3.5

NOTES: THE LITHOGRAPH OF THIS ENGINE WAS PUBLISHED ON THE "MODELENGINEERINGWEBSITE" WEBSITE. THE HEADING OF THE LITHOGRAPH READS: 10-HORSE POWER SEMI-FIXED ENGINE - INTERNATIONAL EXHIBITION. MESSRS ROBEY AND CO, ENGINEERS, LINCOLN.

TITLE
A MODEL OF A 10 HORSE POWER SEMI-FIXED
STEAM ENGINE (BORE=32mm STROKE=50mm)

DRAWING CONTENTS
ISOMETRIC VIEWS, NOTES, BILL OF
MATERIALS PARTS AND ASSEMBLIES

PROJECT No 09B-32-00
JDW DRAUGHTING SERVICES
J.A.M. DE WAAL. 12 BRIGHTWELL STREET PAPA KURA
2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB:
0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION
DATE SEPTEMBER 2021
SHEET: 02 OF 09
JDWDS
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MODEL SCALE: 1:1
DWG SCALE: 1:1 @A3 OR AS SHOWN
A3 No: 09B-32-00-SHT02

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