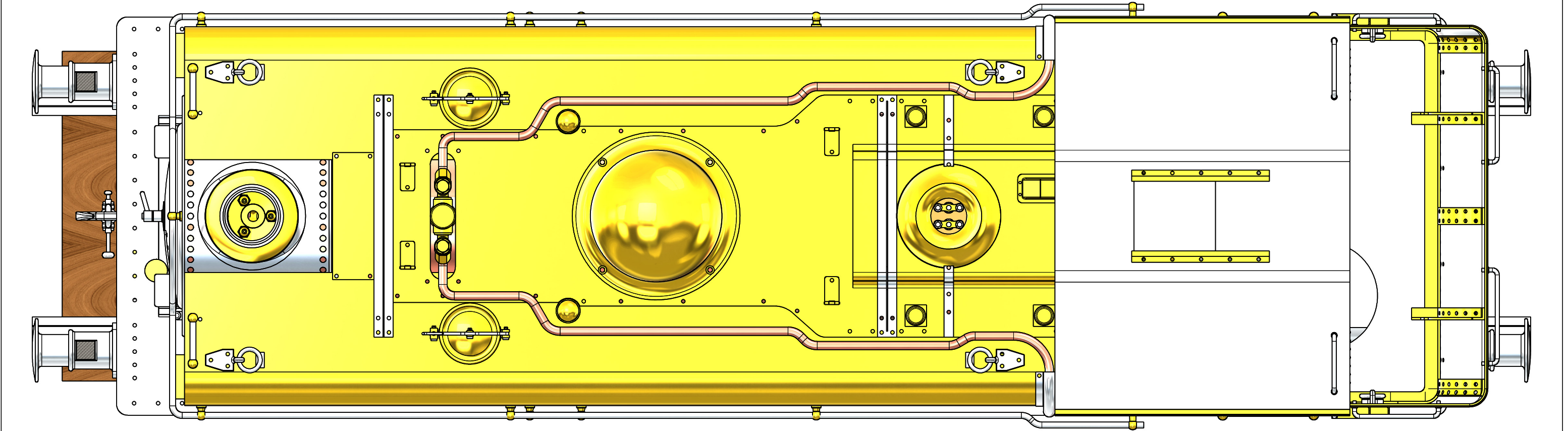




QTY.	PART NUMBER	QTY.	PART NUMBER	QTY.	PART NUMBER
1	07B-04-00-1-01-UNDER FRAME	1	07B-04-00-2-03-WEIGHSHAFT	1	07B-04-00-4-30-JOCKEY VALVE TRIP
1	07B-04-00-1-02-FRONT BUFFER BEAM	1	07B-04-00-2-04-REACH ROD	1	07B-04-00-4-31-JOCKEY VALVE LINKAGE
1	07B-04-00-1-03-REAR BUFFER BEAM	1	07B-04-00-2-05-REVERSER OPERATOR HANDLE	1	07B-04-00-4-32-DUAL SAFETY VALVE
1	07B-04-00-1-04-FRONT DRAW HOOK	2	07B-04-00-2-06-COUPLED WHEEL SET	1	07B-04-00-4-33-WATER LEVEL GAUGE
1	07B-04-00-1-05-REAR DRAW HOOK	1	07B-04-00-2-07-DRIVING WHEEL SET	2	07B-04-00-4-34-BACKHEAD PLUG
4	07B-04-00-1-06-BUFFER	2	07B-04-00-2-08-COUPLING ROD	1	07B-04-00-5-01-WATER TANK SHELL
4	07B-04-00-1-07-SPRING HANGER BRACKET	2	07B-04-00-2-09-CON-ROD	1	07B-04-00-5-02-WATER TANK FRONT YOKE
4	07B-04-00-1-07-SPRING HANGER BRACKET	1	07B-04-00-2-10-ECCENTRICS	1	07B-04-00-5-03-WATER TANK REAR YOKE
4	07B-04-00-1-08-HORN BLOCK	2	07B-04-00-2-11-VALVE ROD	3	07B-04-00-5-04-DUMMY TEST BUSH+STOPPER
4	07B-04-00-1-09-LEAF SPRING	2	07B-04-00-2-12-ROCKER ARMS	4	07B-04-00-5-05-INSPECTION COVER
2	07B-04-00-1-10-REAR HORN BLOCK	2	07B-04-00-2-13-DIE BLOCK	4	07B-04-00-5-06-COVER PLATE
1	07B-04-00-1-11-BRAKE HANGER BRACKET	2	07B-04-00-2-14-EXPANSION LINK	1	07B-04-00-5-07-NRT VALVE COVER
2	07B-04-00-1-11-BRAKE HANGER BRACKET	2	07B-04-00-2-15-LIFTING LINK	2	07B-04-00-5-08-WATER VALVE FLANGE
1	07B-04-00-1-11-BRAKE HANGER BRACKET	1	07B-04-00-2-16-ECCENTRIC STRAP TYPE-1	4	07B-04-00-5-09-LIFTING RING
2	07B-04-00-1-11-BRAKE HANGER BRACKET	1	07B-04-00-2-16-ECCENTRIC STRAP TYPE-1	2	07B-04-00-5-10-WATER TANK VENT
1	07B-04-00-1-12-MOTION PLATE	1	07B-04-00-2-17-ECCENTRIC STRAP TYPE-2	2	07B-04-00-5-11-WATER TANK FILLER
3	07B-04-00-1-13-BRAKE HANGER	1	07B-04-00-2-17-ECCENTRIC STRAP TYPE-2	1	07B-04-00-5-12-BLOWER PIPE COVER
3	07B-04-00-1-13-BRAKE HANGER	1	07B-04-00-2-18-LUBRICATOR SWING ARM	2	07B-04-00-5-13-WATER TANK HAND RAIL-1
6	07B-04-00-1-14-BRAKE SHOE	2	07B-04-00-2-19-LUBRICATOR OPERATING ROD	2	07B-04-00-5-14-WATER TANK HAND RAIL-2
1	07B-04-00-1-15-INNER BRAKE CYLINDER BRACKET	1	07B-04-00-3-01-SMOKE BOX SHELL	1	07B-04-00-5-15-OTER STEAM DOME
1	07B-04-00-1-16-STEAM BRAKE CYLINDER	1	07B-04-00-3-02-PETTICOAT	1	07B-04-00-5-16-SAFETY VALVE COVER
1	07B-04-00-1-17-STEAM BRAKE CYL PISTON	1	07B-04-00-3-03-CHIMNEY	6	07B-04-00-5-17-WATER TANK HAND RAIL SUPPORT
1	07B-04-00-1-18-MAIN BRAKE SHAFT	1	07B-04-00-3-04-WATER TANK SUPPORT BRACKET	1	07B-04-00-6-01-DRIVERS CABIN SHELL
1	07B-04-00-1-19-MIDDLE BRAKE CROSS BEAM	1	07B-04-00-3-04-WATER TANK SUPPORT BRACKET	1	07B-04-00-6-02-COAL BUNKER FRONT END
2	07B-04-00-1-20-REAR BRAKE CROSS BEAM	1	07B-04-00-3-05-CROSSBAR-SUPPORT BRACKETS	1	07B-04-00-6-03-CABIN CENTER WOOD FLOOR
2	07B-04-00-1-21-FRONT BRAKE ROD	1	07B-04-00-3-06-SMOKE BOX DOOR	1	07B-04-00-6-04-CABIN LEFT WOOD FLOOR
2	07B-04-00-1-22-MIDDLE BRAKE ROD	1	07B-04-00-3-07-SMOKE BOX HAND RAIL SUPPORT	1	07B-04-00-6-05-CABIN RIGHT WOOD FLOOR
2	07B-04-00-1-23-OUTER REAR BRAKE ROD	1	07B-04-00-4-01-BOILER SHELL	1	07B-04-00-6-06-CABIN BACK PLATE DOORS
2	07B-04-00-1-24-INNER REAR BRAKE ROD	4	07B-04-00-4-02-LARGE WATER TUBE	1	07B-04-00-6-07-CAVITY COVER
1	07B-04-00-1-25-VALANCE	24	07B-04-00-4-03-SMALL WATER TUBE	1	07B-04-00-6-08-FRONT DOOR JAMB
1	07B-04-00-1-25-VALANCE	3	07B-04-00-4-04-WASHOUT+BLOWNDOWN BUSH	1	07B-04-00-6-08-FRONT DOOR JAMB
2	07B-04-00-1-26-RAIL IRON	1	07B-04-00-4-05-BRAKE VALVE BUSH+PIPE	1	07B-04-00-6-09-CABIN DOOR
2	07B-04-00-1-26-RAIL IRON	1	07B-04-00-4-06-REGULATOR BUSH	1	07B-04-00-6-09-CABIN DOOR
1	07B-04-00-1-27-FRONT SANDING BOX	2	07B-04-00-4-07-WATER GAUGE BUSH	2	07B-04-00-6-10-DRIVER TIP UP SEAT
1	07B-04-00-1-27-FRONT SANDING BOX	2	07B-04-00-4-08-SPARE BUSH	2	07B-04-00-6-11-CABIN BUNKER SIDE STEP
1	07B-04-00-1-28-REAR SANDING BOX	56	07B-04-00-4-09A-STAY D=5xL=19	2	07B-04-00-6-12-LIFTING RING
1	07B-04-00-1-28-REAR SANDING BOX	14	07B-04-00-4-09B-STAY D=5xL=20	2	07B-04-00-6-13-CABIN FRONT WINDOW FRAME
1	07B-04-00-1-29-REAR SANDING BOXES CROSS LINK	40	07B-04-00-4-09C-STAY D=5xL=21	2	07B-04-00-6-14-CABIN FRONT OPENING WIDOW
1	07B-04-00-1-30-REAR SANDING BOX OPERATING SPINDLE	14	07B-04-00-4-09D-STAY D=5xL=22	2	07B-04-00-6-15-CABIN REAR OPENING WINDOW
1	07B-04-00-1-31-CYLINDER BLOCK	14	07B-04-00-4-09E-STAY D=5xL=23	2	07B-04-00-6-16-CABIN REAR WNDOW PROTECTION BARS
1	07B-04-00-1-32-DRAIN COCK+ MOUNTING PLATE	28	07B-04-00-4-09F-STAY D=5xL=25	2	07B-04-00-6-17-CABIN VERTICAL HAND RAIL
1	07B-04-00-1-32-DRAIN COCK+ MOUNTING PLATE	6	07B-04-00-4-09G-STAY D=7xL=183	4	07B-04-00-6-18-CABIN DOOR HAND RAIL
1	07B-04-00-1-32-DRAIN COCK+ MOUNTING PLATE	6	07B-04-00-4-09H-STAY D=7xL=178	4	07B-04-00-6-19-COAL BUNKER REAR HOOK
1	07B-04-00-1-32-DRAIN COCK+ MOUNTING PLATE	10	07B-04-00-4-09I-STAY D=7xL=72	3	07B-04-00-6-20-COAL BUNKER REAR LANTARN BRACKET
2	07B-04-00-1-33-BANJO FITTING FOR DRAIN COCK	10	07B-04-00-4-09J-STAY D=7xL=72.5	1	07B-04-00-6-21-CABIN WIND SHIELD SLIDE BAR+SHIELD
1	07B-04-00-1-34-DRAIN COCK PULL ROD-1	6	07B-04-00-4-10-FIRE HOLE STAY	1	07B-04-00-6-22-CABIN AWS BELL+MOUTING PLATE
1	07B-04-00-1-34-DRAIN COCK PULL ROD-1	1	07B-04-00-4-11-INNER DOME COVER	1	07B-04-00-6-23-DRIVERS CABIN ROOF
1	07B-04-00-1-35-DRAINCOCK CROSS SHAFT	1	07B-04-00-4-12-ASH PAN DAMPER	2	07B-04-00-6-24-CABIN ROOF HAND RAIL
2	07B-04-00-1-36-DRAIN COCK FRONT PULL ROD-2	1	07B-04-00-4-13-ASH PAN+GRATE	2	07B-04-00-6-25-COAL BUNKER REAR HAND RAIL
1	07B-04-00-1-37-MECHANICAL LUBRICATOR	1	07B-04-00-4-14-DOUBLE NON RETURN VALVES	2	07B-04-00-6-26-COAL BUNKER SIDE HAND RAIL
1	07B-04-00-1-38-LEFT AND RIGHT FOOT PLATE	1	07B-04-00-4-15-REGULATOR BODY+MAIN DELIVERY STEAM PIPE	2	07B-04-00-6-27-CABIN HAND RAIL SUPPORT
3	07B-04-00-1-39A-WHEEL SPLASHER TYPE-1	1	07B-04-00-4-16-SUPER HEATER-1	1	07B-04-00-7-01-NON RETURN VALVES PIPING
1	07B-04-00-1-39A-WHEEL SPLASHER TYPE-1	1	07B-04-00-4-17-SUPER HEATER-2	1	07B-04-00-7-01-NON RETURN VALVES PIPING
1	07B-04-00-1-39B-WHEEL SPLASHER TYPE-2	1	07B-04-00-4-17-SUPER HEATER-2	1	07B-04-00-7-02-INJECTOR WATER SUPPLY PIPE-1
1	07B-04-00-1-39B-WHEEL SPLASHER TYPE-2	1	07B-04-00-4-18-STEAM DRY HEADER	1	07B-04-00-7-02-INJECTOR WATER SUPPLY PIPE-1
1	07B-04-00-1-40-FRONT SANDING BOX CON-ROD	1	07B-04-00-4-19-FIRE DOOR SYSTEM	1	07B-04-00-7-03-INJECTOR WATER SUPPLY PIPE-2
1	07B-04-00-1-40-FRONT SANDING BOX CON-ROD	1	07B-04-00-4-20-FIRE HOLE BAFFLE	2	07B-04-00-7-04-DUMMY INJECTOR
1	07B-04-00-1-41-EXTENDED FRONT SANDING BOX CON-ROD	1	07B-04-00-4-21-TEA CAN TRAY	1	07B-04-00-7-05-STEAM SUPPLY PIPE
1	07B-04-00-1-42-DRAIN COCK PULL ROD-3	1	07B-04-00-4-22-STEAM SUPPLY TURRET	1	07B-04-00-7-05-STEAM SUPPLY PIPE
1	07B-04-00-1-43-DRAIN COCK PULL ROD-4	1	07B-04-00-4-23-REGULATOR HANDLE	2	07B-04-00-7-06-IN JECTOR OVERFLOW PIPE
1	07B-04-00-1-44-FRONT SANDING OPERATING LEVER	1	07B-04-00-4-24-WHISTLE VALVE	1	07B-04-00-7-07-GENERAL EXTERNAL HAND RAIL
1	07B-04-00-1-45-HAND BRAKE COLUMN	2	07B-04-00-4-25-DUMMY COCK	2	07B-04-00-7-08-INJECTOR DELIVERY PIPE COVER
1	07B-04-00-1-46-EXHAUST PIPE+BLOWER	2	07B-04-00-4-26-BLOWER AND STEAM HEATING ISOLATING VALE	1	07B-04-00-M184mm-RAIL
2	07B-04-00-1-47-WATER SUPPLY VALVE	1	07B-04-00-4-27-DUMMY CARRAIGE HEATING STEAM VALVE		
2	07B-04-00-2-01-PISTON+CROSSHEAD	1	07B-04-00-4-28-INJECTOR STEAM VALVE		
1	07B-04-00-2-02-SLIDE VALVE	1	07B-04-00-4-28-INJECTOR STEAM VALVE		
1	07B-04-00-2-02-SLIDE VALVE	1	07B-04-00-4-29-DUMMY JOCKEY VALVE		

NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME IN OCTOBER 2014 BY DOUG HEWSON. THE ENGINE SHOWN ON THESE DRAWINGS WAS CONVERTED FROM 5"(127mm) TO 7.25"(184mm)

TITLE	DRAWING CONTENTS	PROJECT No 07B-04-00 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 FEBRUARY 2026 SHEET: 04 OF 25	MODEL SCALE: 1:8 DWG SCALE: 1:2.25 @A2 OR AS SHOWN Copyright © J.A.M. DE WAAL PAPA KURA NZ A2 No:07B-04-00-SHT-04
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PLEASE NOTE THIS IS AN "A2" SIZE SHEET

IMPORTANT NOTE:
BEFORE STARTING: IT IS STRONGLY ADVISED THAT THE BOILER AS SHOWN ON THESE DRAWINGS SHOULD BE INSPECTED BY AN AUTHORISED PROFESSIONAL ENGINEER AND THE WORKING AND MAXIMUM BOILER PRESSURE TO BE CALCULATED.
MAKE SURE THE BOILER FULLY COMPLIES WITH THE LOCAL RULES AND REGULATIONS OF MODEL BOILERS. A COMPLIANCE AND SAFETY/TEST CERTIFICATE SHOULD BE OBTAINED.

DUE TO THE LACK OF INFORMATION ON THE ORIGINAL DRAWING(S), SUCH AS VIEWS, DIMENSIONS, SECTIONS ETC AND/OR CLARITY OF COMPONENTS, OMITTED PARTS/COMPONENTS, SOME OF THE COMPONENTS MIGHT NOT BE AS CONSTRUCTED ORIGINALLY OR AS THE ORIGINAL DESIGNER INTENDED

GENERAL NOTES:
0. ALL DRAWINGS ARE IN METRIC MEASUREMENTS
1. ALL ENGINEERING PRACTICES SHALL BE APPLIED WITH REGARDS TO HOLE AND SHAFT TOLERANCES.
2. WHERE SCREWS OR BOLTS ARE USED THE CLEARANCE HOLES SHALL BE APPROXIMATELY 5% TO 8% LARGER THAN THE MATCHING TAPPED HOLE.
3. PREFERABLY ALL TAPPED HOLES AND MATCHING SCREWS AND/OR BOLTS TO BE METRIC FINE (MF)
4. MATERIALS SPECIFIED ON THE DRAWINGS ARE INDICATIVE ONLY. THE BUILDER CAN MAKE HIS/HER OWN MATERIAL CHOICE.
5. ALL CONNECTIONS/JOINTS WHICH HAVE STEAM PRESSURE APPLIED TO IT SHALL BE SILVER/HARD SOLDERED.
6. COMPRESSION SPRINGS ARE DRAWN IN COMPRESSED STATE (CP). UNCOMPRESSED STATE IS APPROX 40% TO 60% LONGER THEN COMPRESSED STATE.
7. WHERE PREFERRED SCREW OR RIVETED CONNECTIONS CAN BE OMITTED AND PARTS CAN BE BONDED TOGETHER BY USING EITHER HIGH STRENGTH GLUE, EPOXY RESIN, OR SOLDER.
8. PARTS WHICH ARE DIRECTLY EXPOSED TO STEAM AND/OR WATER SHOULD BE CONSTRUCTED USING NON-FERROUS OR NON CORROSIVE MATERIAL SUCH AS BRASS, BRONZE, GUNMETAL, STAINLESS STEEL, COPPER OR MONEL.
9. THE ORDER IN WHICH THE PARTS/COMPONENTS ARE MANUFACTURED AND THE MODEL IS ASSEMBLED IS ENTIRELY LEFT TO THE BUILDER/MODEL MAKER.
10. A COLOUR SCHEME FOR THIS PROJECT IS ENTIRELY LEFT UP TO THE MODEL MAKER.
11. THE MANNER IN WHICH THE PARTS/COMPONENTS ARE MANUFACTURED IS ENTIRELY LEFT UP TO THE BUILDER.
12. USE LOCITITE, ON SCREW OR PRESS FIT CONNECTIONS OR SURFACES, WERE DEEMED NECESSARY TO PREVENT PARTS FROM LOOSENING.
13. WASHERS AND/OR SPRING WASHERS SHALL BE USED WHERE DEEMED NECESSARY.
14. USE SEALING GASKETS WERE DEEMED NECESSARY.
15. REMOVE ALL SHARP EDGES
XX. ERRORS AND/OR OMISSIONS MAY OCCUR IN THE DRAWINGS, DO NOT HESITATE TO CONTACT ME SO THAT THE ERRORS/OMISSIONS CAN BE RECTIFIED.

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) FASTENERS.
NO FASTENERS SUCH AS BOLTS, SCREWS, RIVETS, NUTS AND WASHERS HAVE BEEN SHOWN ON THESE DRAWINGS. THE BUILDER TO CHOOSE ITS OWN PREFERRED TYPE OF FASTENERS.
IF RIVETS ARE USED THE BUILDER TO DETERMEN WHAT TYPE AND LENGTH
2) PRESSURE GAUGE.
THE RANGE OF THE PRESSURE GAUGE(S) TO BE DETERMENT AFTER MAXIMUM BOILER PRESSURE IS ESTABLISHED AND THE AVAILABILITY ON THE MARKET. THE PRESSURE GAUGE IS A PROPRIETY ITEM. THE PRESSURE GAUGES ARE 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.
BEFORE STARTING: THE BOILER AS SHOWN ON THESE DRAWING SHOULD BE INSPECTED BY AN AUTHORISED PROFESSIONAL ENGINEER. THE RUNNING AND MAXIMUM BOILER PRESSURE TO BE CALCULATED. MAKE SURE THE THE BOILER FULLY COMPLIES WITH THE LOCAL RULES AND REGULATIONS OF MODEL BOILERS. A COMPLIANCE AND TEST CERTIFICATE SHOULD BE OBTAINED.
BOILER INSULATION IS NOT SHOWN ON THESE DRAWINGS.
IF BOILER INSULATION IS PREFERRED THEN THE BUILDER TO SOURCE THE APPROPRIATE MATERIAL AND THICKNESS
5) 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.

OTHER ABBREVIATIONS
AS = AS SHOWN
DP = DEEP
DAA= DRILL AFTER ASSEMBLY
D&TAA= DRILL AND TAP AFTER ASSEMBLY
CF = CLOSE FIT (SIZE FOR SIZE)
PF = PRESS FIT
PFAA= PRESS FIT AFTER ASSEMBLY
PCD = PITCH CIRCLE DIAMETER
RM = REAM
HEX = HEXACON, 6SIDED
CP = COMPRESSED
KNL = KNURLED
CSK = COUNTERSINK
PL = PLACES
DWL= DOWEL
SPF= SPOTFACE
(TH)ESOP=(TAPPED)HOLES EQUALLY SPACED ON PCD
(TH)ESOC=(TAPPED)HOLES EQUALLY SPACED ON CIRCUMFERENCE
OD = OUTSIDE DIAMETER
ID = INSIDE DIAMETER
MAX/MIN = CRITICAL DIMENSION
[SA-xxx]= SUB ASSEMBLY-xxx