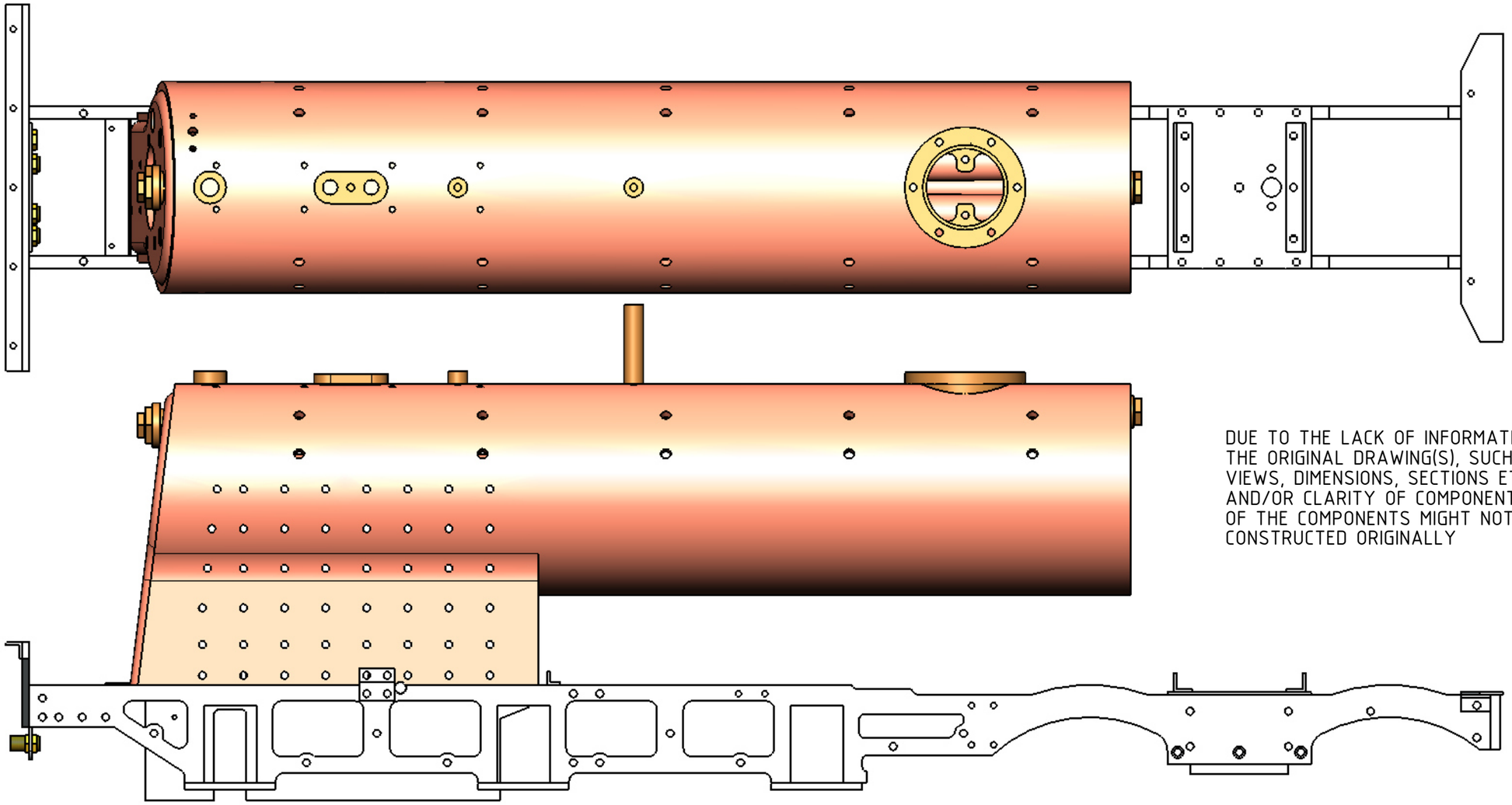
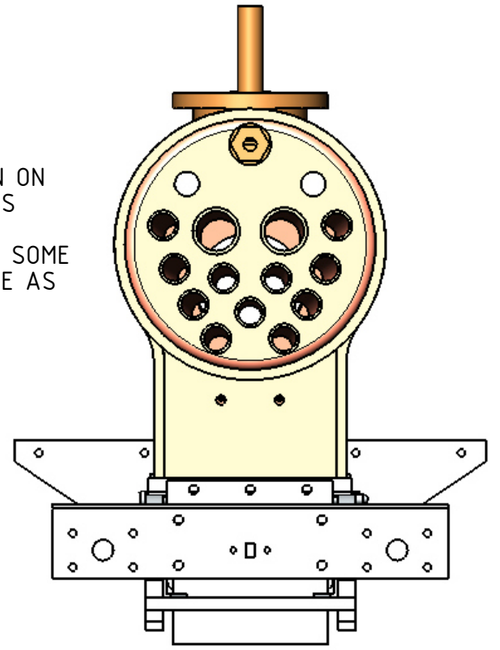


IMPORTANT NOTE:
BEFORE STARTING: IT IS STRONGLY ADVISED THAT THE BOILER AS SHOWN ON THESE DRAWINGS SHOULD BE INSPECTED BY AN AUTHORISED PROFESSIONAL ENGINEER AND THE WORKING AND MAXIMUM BOILER PRESSURE TO BE CALCULATED.
MAKE SURE THE BOILER FULLY COMPLIES WITH THE LOCAL RULES AND REGULATIONS OF MODEL 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, SOME OF THE COMPONENTS MIGHT NOT BE AS CONSTRUCTED ORIGINALLY



STANDARD 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 LOCTITE, 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. INQUIRE AT THE APPROPRIATE AUTHORITIES WHETHER OR NOT THIS BOILER REQUIRE A PRESSURE TEST CERTIFICATE.
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.
3) 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.

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
(T)HESOP=(TAPPED)HOLES EQUALLY SPACED ON PCD
(T)HESOC=(TAPPED)HOLES EQUALLY SPACED ON CIRCUMFERENCE
OD = OUTSIDE DIAMETER
ID = INSIDE DIAMETER
MAX/MIN = CRITICAL DIMENSION
SA-xxx = SUB ASSEMBLY-xxx

QTY.	PART NUMBER
1	07A-10-01-1-01-UNDER FRAME
1	07A-10-01-1-02-BOILER
2	07A-10-01-1-04-BOILER WATER TUBE TYPE-1
11	07A-10-01-1-05-BOILER WATER TUBE TYPE-2
1	07A-10-01-1-03-ASHPAN
1	07A-10-01-1-06-REAR GRATE+MOUNTS
2	07A-10-01-1-07-FRONT MOVABLE GRATE MOUNT
1	07A-10-01-1-08-FRONT MOVABLE GRATE

NOTES: THE DRAWING OF A COAL FIRED BOILER WAS FIRST PUBLISHED IN THE "MODELBOUWER" 1989 PAGE 429. THE ORIGINAL DRAWING WAS FOR A 3.5inch LOCOMOTIVE, IT WAS CONVERTED TO SUIT A 5inch LOCOMOTIVE NCS 76 (REFER TO PROJECT 07A-10-00)

TITLE
A COAL FIRED BOILER FOR THE STEAM LOCO NCS 76 OF THE DUTCH RAILWAYS

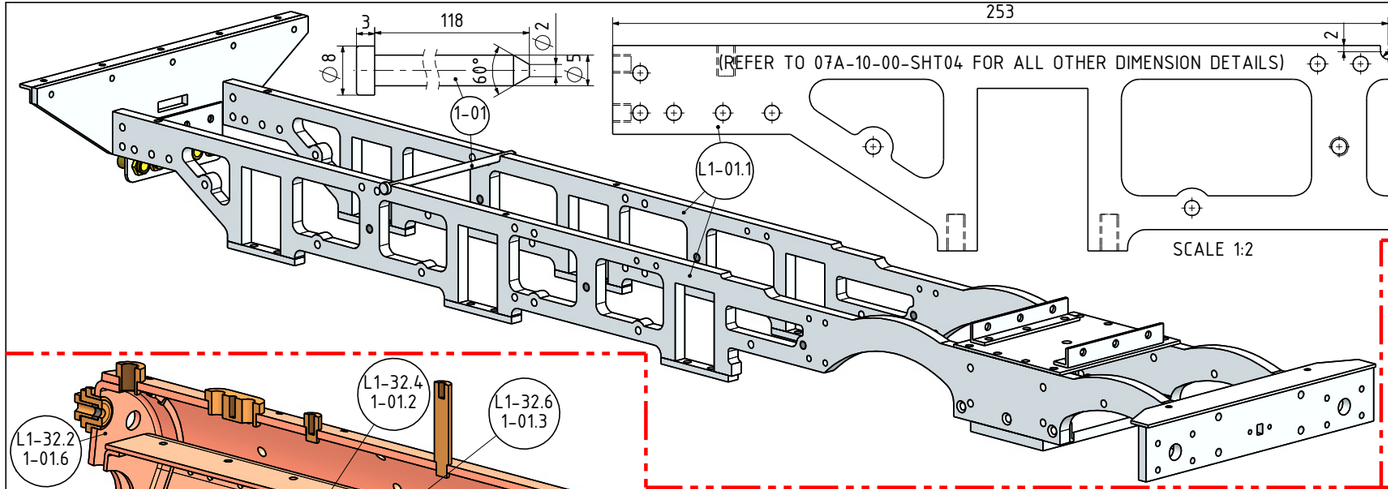
DRAWING CONTENTS
GENERAL ARRANGEMENT, NOTES AND BILL OF MATERIALS

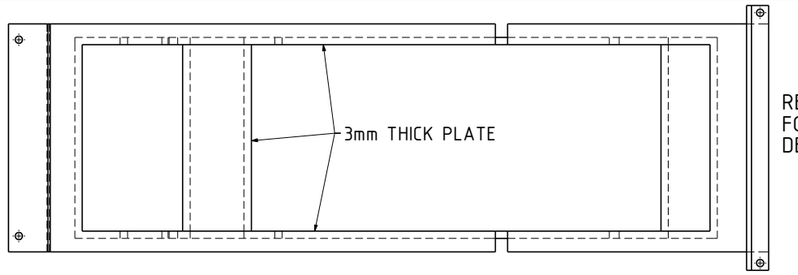
PROJECT No 07A-10-01

JDW DRAUGHTING SERVICES
J.A.M. DE WAAL. 12 BRIGHTWELL STREET PAPAKURA 2110. NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@xtra.co.nz.

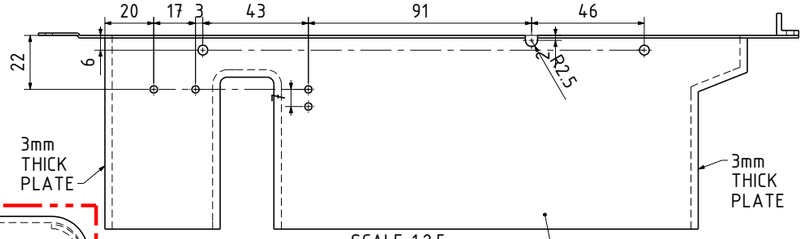
PROJECTION | JDWDS | MODEL SCALE: 1:11.3 (127mm/5inch)
DWG SCALE: 1:1 @A3 OR AS SHOWN
DATE JUNE 2022
Copyright © J.A.M. DE WAAL PAPAKURA NZ
SHEET: 01 OF 03 | A3 | No: 07A-10-01-SHT01

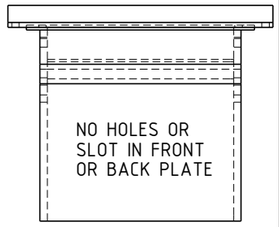
DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES

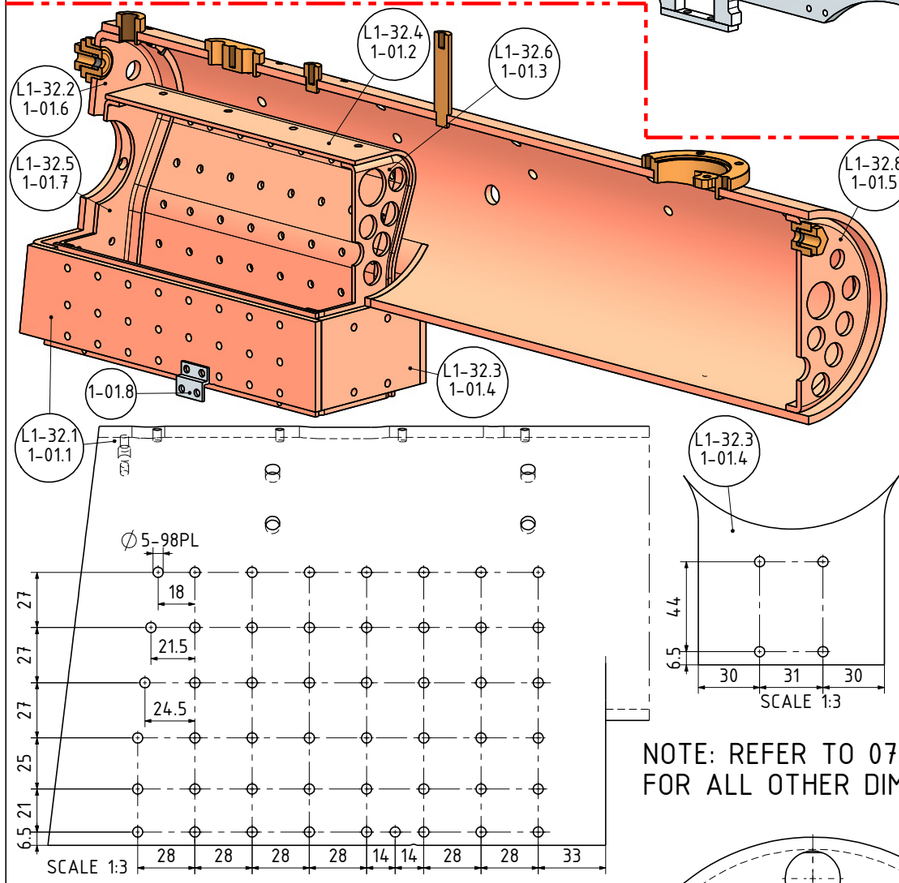


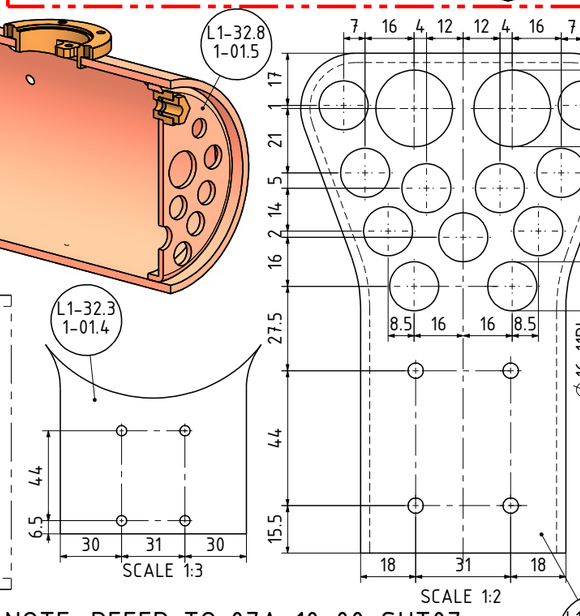


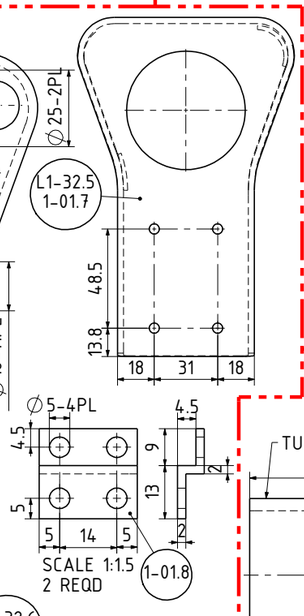
REFER TO 07A-10-00-SHT08 FOR ALL OTHER DIMENSION DETAILS





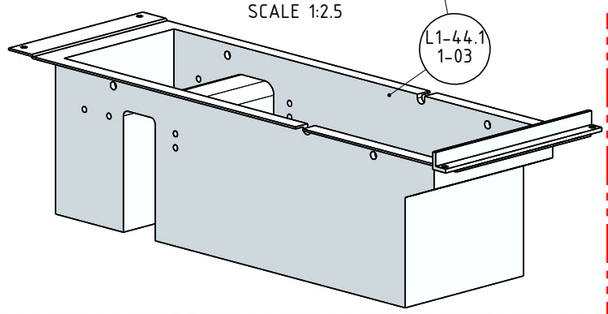


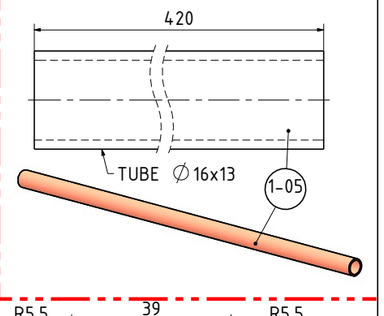


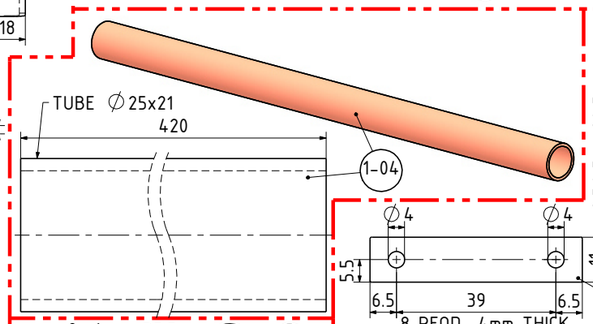


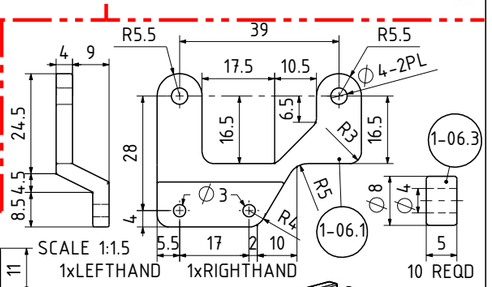
NOTE: REFER TO 07A-10-00-SHT07 FOR ALL OTHER DIMENSION DETAILS

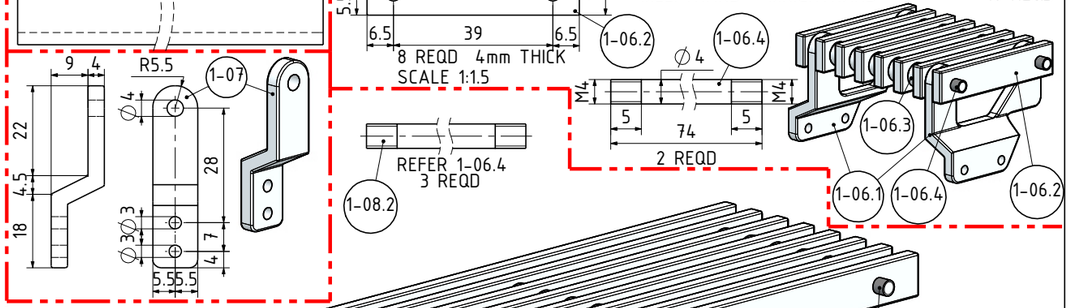
L1-32.6 1-01.3

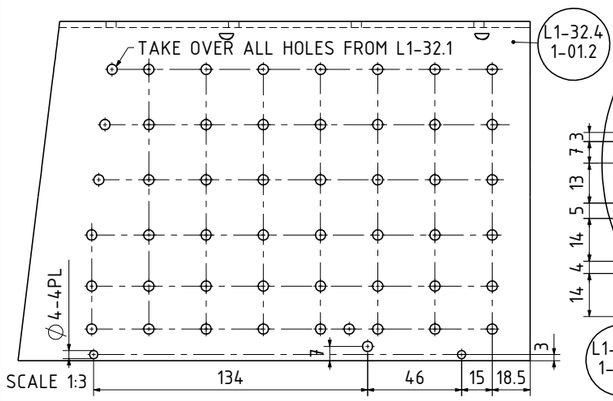


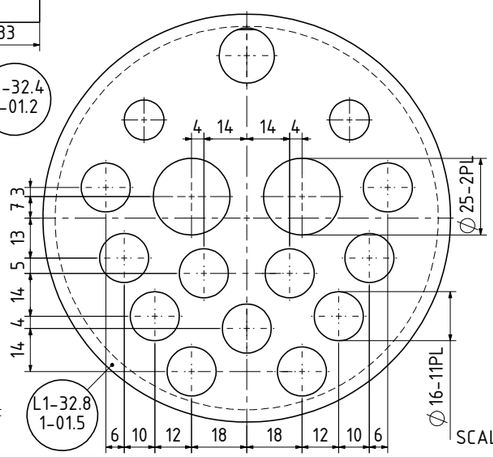


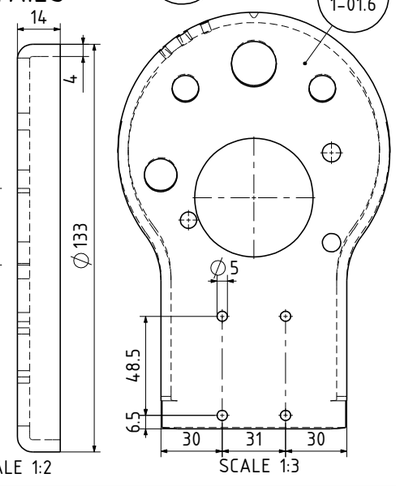












NOTES: THE DRAWING OF A COAL FIRED BOILER WAS FIRST PUBLISHED IN THE "MODELBOUWER" 1989 PAGE 429. THE ORIGINAL DRAWING WAS FOR A 3.5inch LOCOMOTIVE, IT WAS CONVERTED TO SUIT A 5inch LOCOMOTIVE NCS 76 (REFER TO PROJECT 07A-10-00)

TITLE
A COAL FIRED BOILER FOR THE STEAM LOCO NCS 76 OF THE DUTCH RAILWAYS

DRAWING CONTENTS
PARTS AND ASSEMBLIES

JDW DRAUGHTING SERVICES
J.A.M. DE WAAL. 12 BRIGHTWELL STREET PAPAKURA 2110. NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECT No 07A-10-01

PROJECTION

JDWDS

DATE JUNE 2022

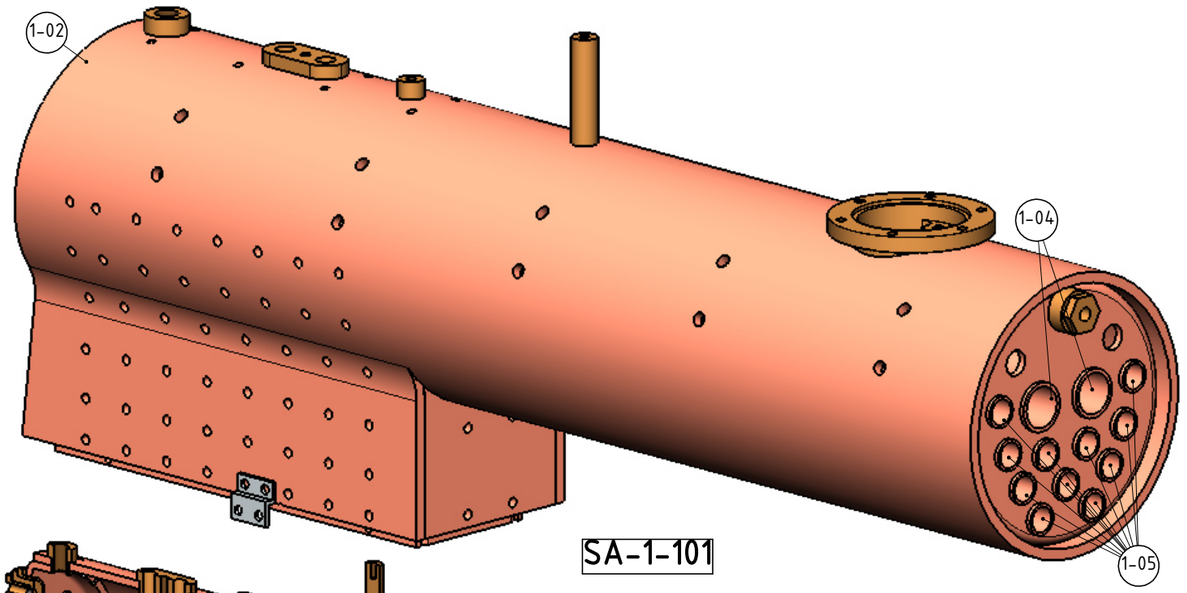
MODEL SCALE: 1:11.3 (127mm/5inch)

DWG SCALE: 1:1 @A3 OR AS SHOWN

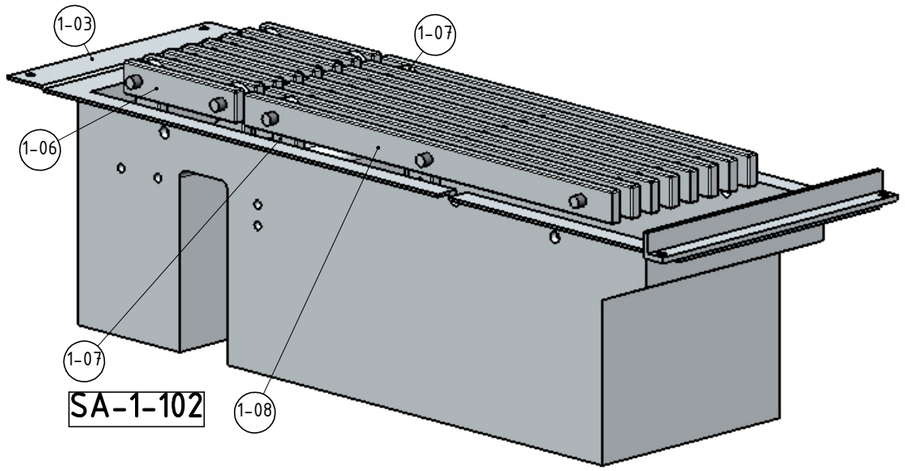
Copyright © J.A.M. DE WAAL PAPAKURA NZ

SHEET: 02 OF 03 A3 No: 07A-10-01-SHT02

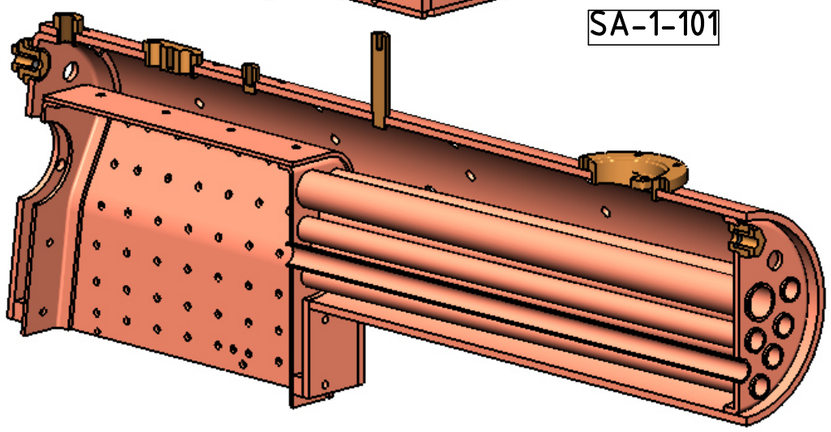
DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES

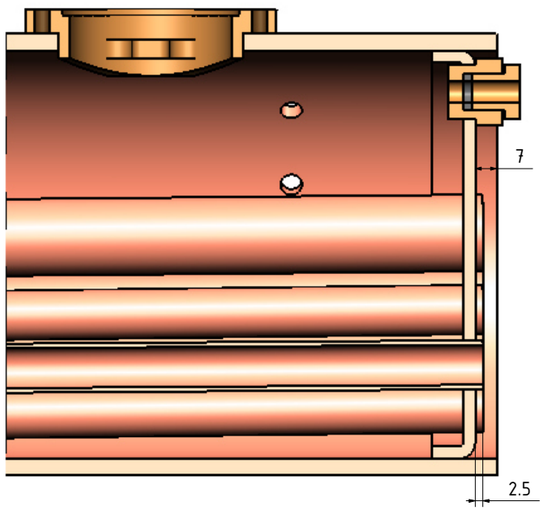


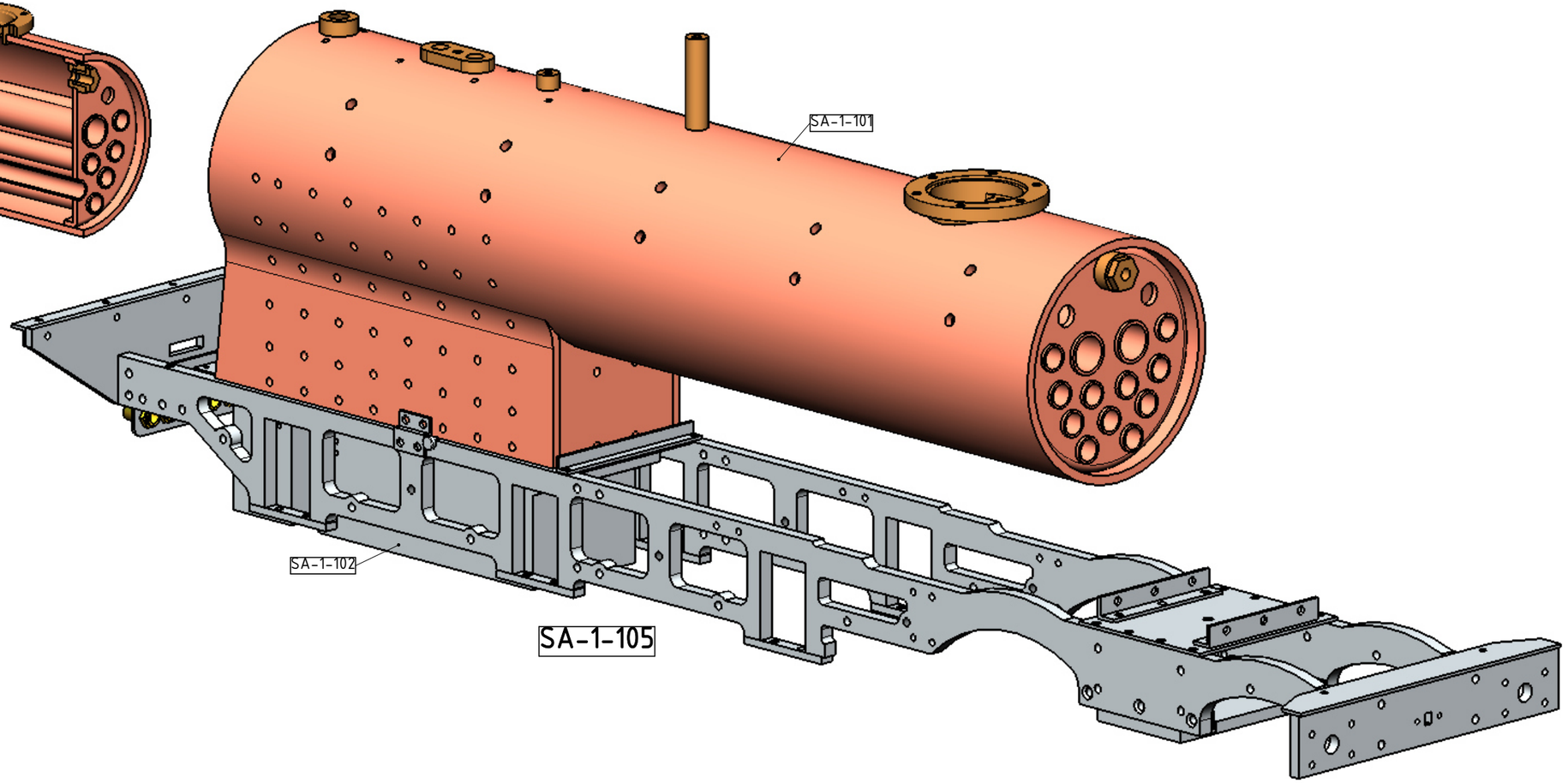
SA-1-101



SA-1-102







SA-1-105

NOTES: THE DRAWING OF A COAL FIRED BOILER WAS FIRST PUBLISHED IN THE "MODELBOUWER" 1989 PAGE 429. THE ORIGINAL DRAWING WAS FOR A 3.5inch LOCOMOTIVE, IT WAS CONVERTED TO SUIT A 5inch LOCOMOTIVE NCS 76 (REFER TO PROJECT 07A-10-00)

TITLE

A COAL FIRED BOILER FOR THE STEAM LOCO NCS 76 OF THE DUTCH RAILWAYS

DRAWING CONTENTS

PARTS AND ASSEMBLIES

PROJECT No 07A-10-01

JDW DRAUGHTING SERVICES
J.A.M. DE WAAL. 12 BRIGHTWELL STREET PAPAKURA 2110. NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION JDWDS

DATE JUNE 2022

SHEET: 03 OF 03

MODEL SCALE: 1:11.3 (127mm/5inch)

DWG SCALE: 1:1 @A3 OR AS SHOWN

Copyright © J.A.M. DE WAAL PAPAKURA NZ

A3 No: 07A-10-01-SHT03

DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES