GENERAL NOTES:

O. 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

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 MONEI

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

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

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. 2) PRESSURE GAUGE

NO PRESSURE GAUGE IS SHOWN ON THESE DRAWING. 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

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) HOSES

THE FLEXIBLE HOSES BETWEEN THE LOCOMOTIVE AND THE TENDER ARE NOT SHOWN ON THESE DRAWINGS. 6) ENHANCEMENT

THE APPEARANCE OF THE LOCOMOTIVE COULD BE ENHANCED BY ADDING SOME EXTRA PARTS SUCH AS: LAMP HOLDERS,

FRONT AND REAR LIGHTS, FLAG HOLDERS, BRAKE SYSTEM etc.

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

(444)(1-01.1 THESE HOLES 52.5 .5 48.25 CAN BE OMITTED В⊕ B= Ø 2.5CSK Ø 11.5 C= Ø 3 D= Ø 3CSK E= M3.5 B-B-B-E 10PI R6.5 € REFERENCE LINE 57 25.5 3 49 49 70 2.5mm THICK 2 REQD SCALE 1:1.5 17 \emptyset 9.5 , 6.5 1-01.2 OPPOSITE FACE EQUAL M3-6PL 28.5 1-01.13 1-01.7 . 6 -01.10) \emptyset 6 19 16.5 16.5 19 32 16 ∞ -01.3 8 2 2 ==== Ø 2.5CSK-8PL M6 42 42 _M6_ m‡ 44 -01.14 -- -01.1 10.5 Ø 14 40 M6_ 3mm THICK Ø 14 -01.18 14 1-01.1 B 1-01.9 22 20.5 9.5 9.5 20.5 22 2.5 -01.4 Ø 2,5-4PL Ø 3-4PL 1-01.5) 2 REQD 5-8PL 1-01.8) -ф -⊕-ANGLE 6x6x1 R5_ 5.5 19 M6 -R28 1-01.19 OPPOSITE FACE EQUAL 2mm THICK 2 REOD (1xLH+1xRH) P. 5 OPPOSITE 2.5 FACE 11 (1-01.17 0-RING SECTION A-A R2.5 ALL EQUAL 2 REQD (1xLH+1xRH) SEAL 2 REQD THE ORIGINAL DRAWINGS AND ARTICLES WERE DOWNLOADED AROUND 15 YEARS AGO. THE DESIGN AND ORGINAL DRAWINGS WERE BY MARTIN EVANS, AND PUBLISHED IN "MODEL MECHANICS" MAGAZINE FROM 1979 AND 1980 PROJECT No 07B-25-00

COAL FIRED 4-4-0 STEAM LOCOMOTIVE CALLED "EAGLE" FOR 2.5"/64mm GAUGE

NOTES, PARTS AND ASSEMBLIES

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MODEL SCALE: 1:22.5 DWG SCALE: 1:1 @A3 OR AS SHOWN Copyright S J.A.M. DE WAAL PAPAKURA NZ A3 No:07B-25-00-SHT03 SHEET: 03 OF 11 DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES