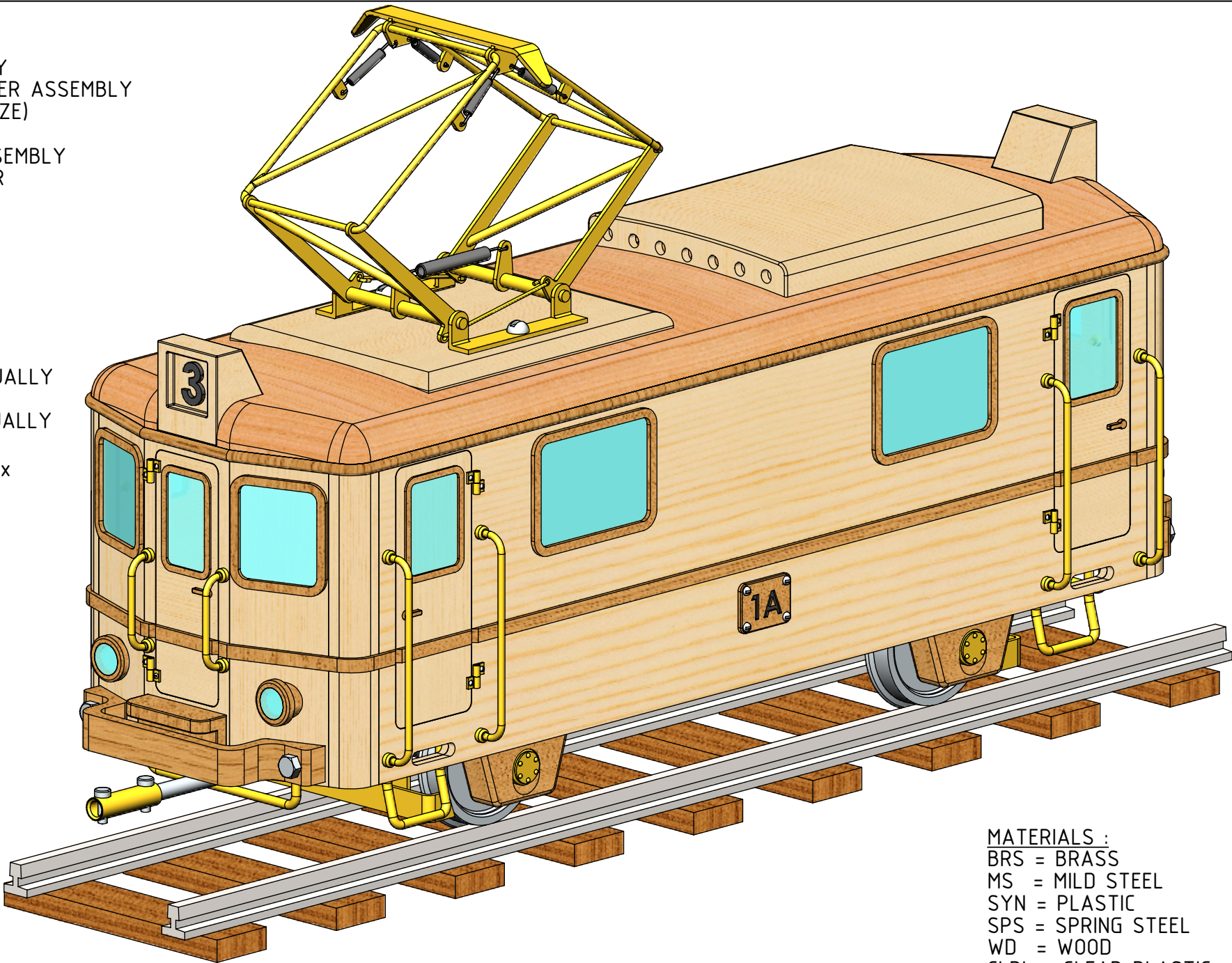
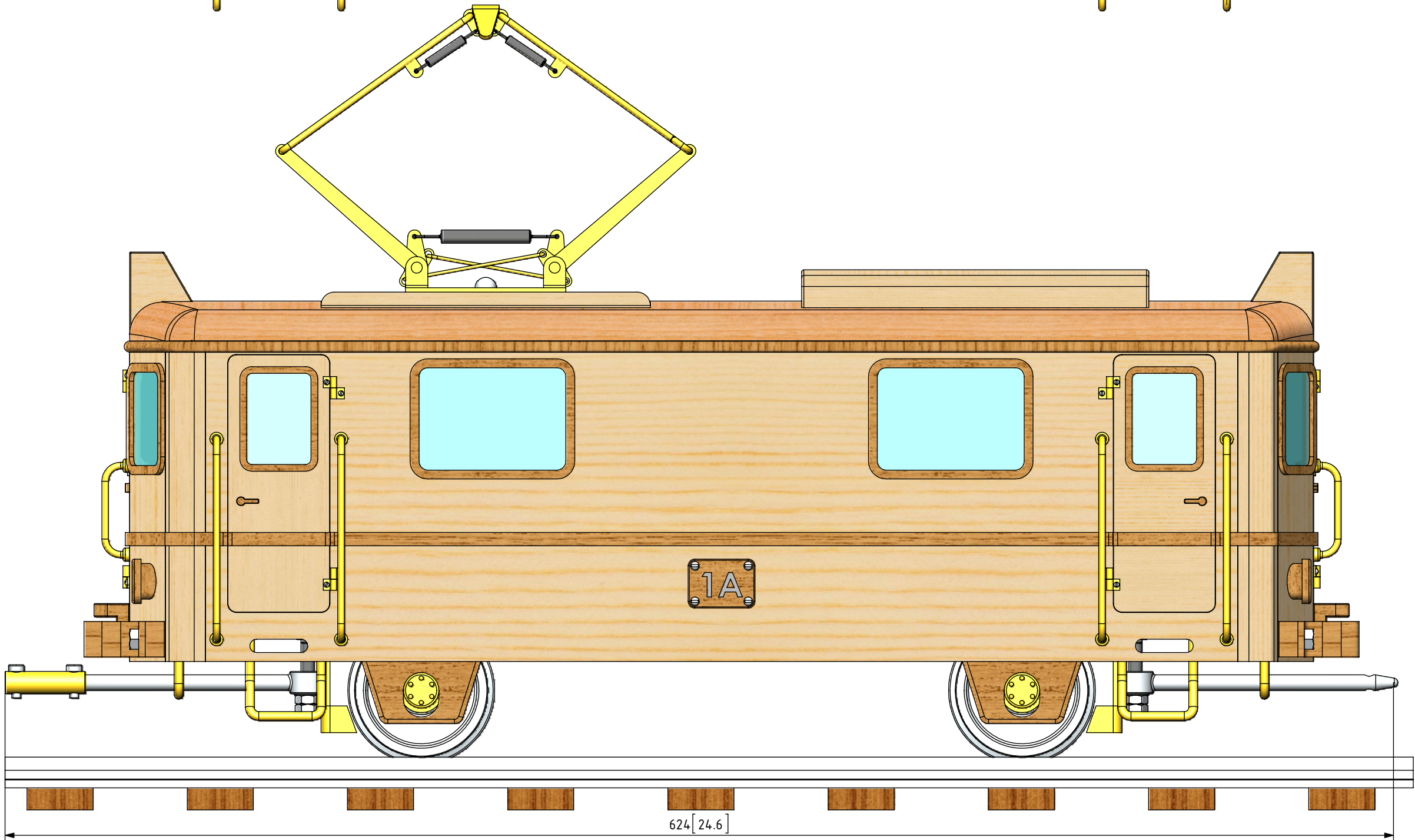
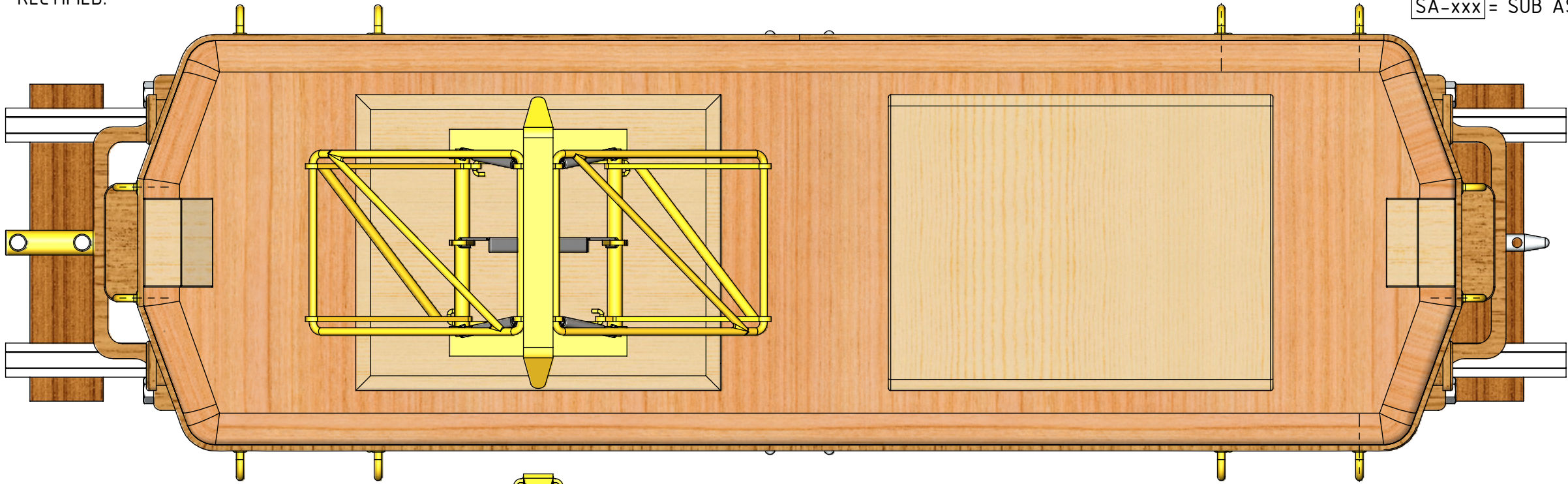


- NOTES:
0. ALL DRAWINGS ARE IN METRIC MEASUREMENTS
  1. ALL ENGINEERING PRACTICES SHALL BE APPLIED WITH REGARDS TO HOLE AND SHAFT TOLERANCES.
  2. WHERE SCREWS OR BOLTS ARE USED THE CLEARANCE HOLES SHALL BE APPROXIMATELY 5% TO 8% LARGER THAN THE MATCHING TAPPED HOLE.
  3. PREFERABLY ALL TAPPED HOLES 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 SPRINGWASHERS SHALL BE USED WHERE DEEMED NECESSARY.
- XX. ERRORS AND/OR OMISSIONS MAY OCCUR IN THE DRAWINGS, DO NOT HESITATE TO CONTACT ME SO THAT THE ERRORS/OMISSIONS CAN BE RECTIFIED.

- OTHER ABBREVIATIONS
- 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  
[SA-xxx]= SUB ASSEMBLY-xxx



MATERIALS :

BRS = BRASS  
MS = MILD STEEL  
SYN = PLASTIC  
SPS = SPRING STEEL  
WD = WOOD  
CLPL = CLEAR PLASTIC

| QTY. | PART NUMBER                                 |
|------|---------------------------------------------|
| 1    | BOEMELTJE-1A-1-01-ENGINE BODY               |
| 4    | BOEMELTJE-1A-1-02-WHEEL BEARING             |
| 4    | BOEMELTJE-1A-1-03-BEARING SPRING            |
| 2    | BOEMELTJE-1A-1-04-BUMPER                    |
| 2    | BOEMELTJE-1A-1-05-FRONT STEP                |
| 4    | BOEMELTJE-1A-1-06-FRONT HAND RAIL           |
| 8    | BOEMELTJE-1A-1-07-SIDE HAND RAIL            |
| 4    | BOEMELTJE-1A-1-08-HEAD LAMP                 |
| 2    | BOEMELTJE-1A-1-09-FRONT DOOR                |
| 12   | BOEMELTJE-1A-1-10-DOOR HINGE                |
| 2    | BOEMELTJE-1A-1-11-SIDE DOOR                 |
| 2    | BOEMELTJE-1A-1-11-SIDE DOOR                 |
| 4    | BOEMELTJE-1A-1-12-FRONT WINDOW              |
| 4    | BOEMELTJE-1A-1-13-SIDE WINDOW               |
| 2    | BOEMELTJE-1A-1-14-WHEEL GUARD               |
| 2    | BOEMELTJE-1A-1-15-PULL ROD SUPPORT BRACKET  |
| 4    | BOEMELTJE-1A-1-16-SIDE STEP                 |
| 1    | BOEMELTJE-1A-1-17-ROOF                      |
| 2    | BOEMELTJE-1A-1-18-ROOF SINGAGE              |
| 1    | BOEMELTJE-1A-1-19-PULL ROD COUPLING         |
| 1    | BOEMELTJE-1A-1-19-PULL ROD COUPLING         |
| 2    | BOEMELTJE-1A-1-20-WHEEL+AXLE                |
| 2    | BOEMELTJE-1A-1-21-NUMBER PLATE              |
| 1    | BOEMELTJE-1A-1-22-PANTOGRAPH ROOF BASE      |
| 2    | BOEMELTJE-1A-1-23-PANTOGRAPH ARM-1          |
| 2    | BOEMELTJE-1A-1-24-PANTOGRAPH STABILIZER ROD |
| 2    | BOEMELTJE-1A-1-25-PANTOGRAPH ARM-2          |
| 1    | BOEMELTJE-1A-1-26-PANTOGRAPH COLLECTOR      |
| 1    | BOEMELTJE-1A-1-27-PANTOGRAPH CENTER SPRING  |
| 4    | BOEMELTJE-1A-1-28-PANTOGRAPH TOP SPRING     |
| 1    | BOEMELTJE-1A-89mm-RAIL                      |
| 24   | BOEMELTJE-1A-M1.5x4-ROUND HEAD WOOD SCREW   |
| 8    | BOEMELTJE-1A-M2.5x6-ROUND HEAD WOOD SCREW   |
| 24   | BOEMELTJE-1A-M3 NUT-BRASS                   |
| 10   | BOEMELTJE-1A-M3x25-ROUND HEAD WOOD SCREW    |
| 24   | BOEMELTJE-1A-M4 NUT-BRASS                   |
| 16   | BOEMELTJE-1A-M6 NUT                         |
| 2    | BOEMELTJE-1A-M6 WASHER                      |
| 4    | BOEMELTJE-1A-M6x12 HEX BOLT                 |
| 2    | BOEMELTJE-1A-M6x20 HEX BOLT                 |
| 4    | BOEMELTJE-1A-M6x25 HEX BOLTS                |
| 2    | BOEMELTJE-1A-M6x44 HEX BOLT                 |

PLEASE NOTE THIS IS AN A2 SIZE SHEET

NOTES: THE ORIGINAL DRAWINGS AND ARTICLE WERE FIRST PUBLISHED IN THE "MODELBOUWER" MAGAZINE OF No3 20 MARCH 1952 UNDER THE TITLE "HET BOEMELTJE". DRAWINGS BY H.F.ENTER. SOME MODIFICATIONS/ALTERATIONS HAS BEEN MADE BY ME.

|                                                                             |                                                    |                                                                                                                                      |                   |                                         |
|-----------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------|
| TITLE                                                                       | DRAWING CONTENTS                                   | PROJECT No 04-09-00                                                                                                                  | PROJECTION        | MODEL SCALE: 1:16.1                     |
| A SIMPLE FREELANCE ELECTRIC LOCOMOTIVE CALLED "BOEMELTJE-1A" FOR 89mm GAUGE | GENERAL ARRANGEMENT, BOM, NOTES AND ISOMETRIC VIEW | JDW DRAUGHTING SERVICES                                                                                                              | JDWDS             | DWG SCALE:1:1 @ A2 OR AS SHOWN          |
|                                                                             |                                                    | 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. | DATE: AUGUST 2018 | Copyright © J.A.M. DE WAAL PAPA KURA NZ |
|                                                                             |                                                    |                                                                                                                                      | SHEET: 01 OF 03   | A2 No: 04-09-00-SHT01                   |