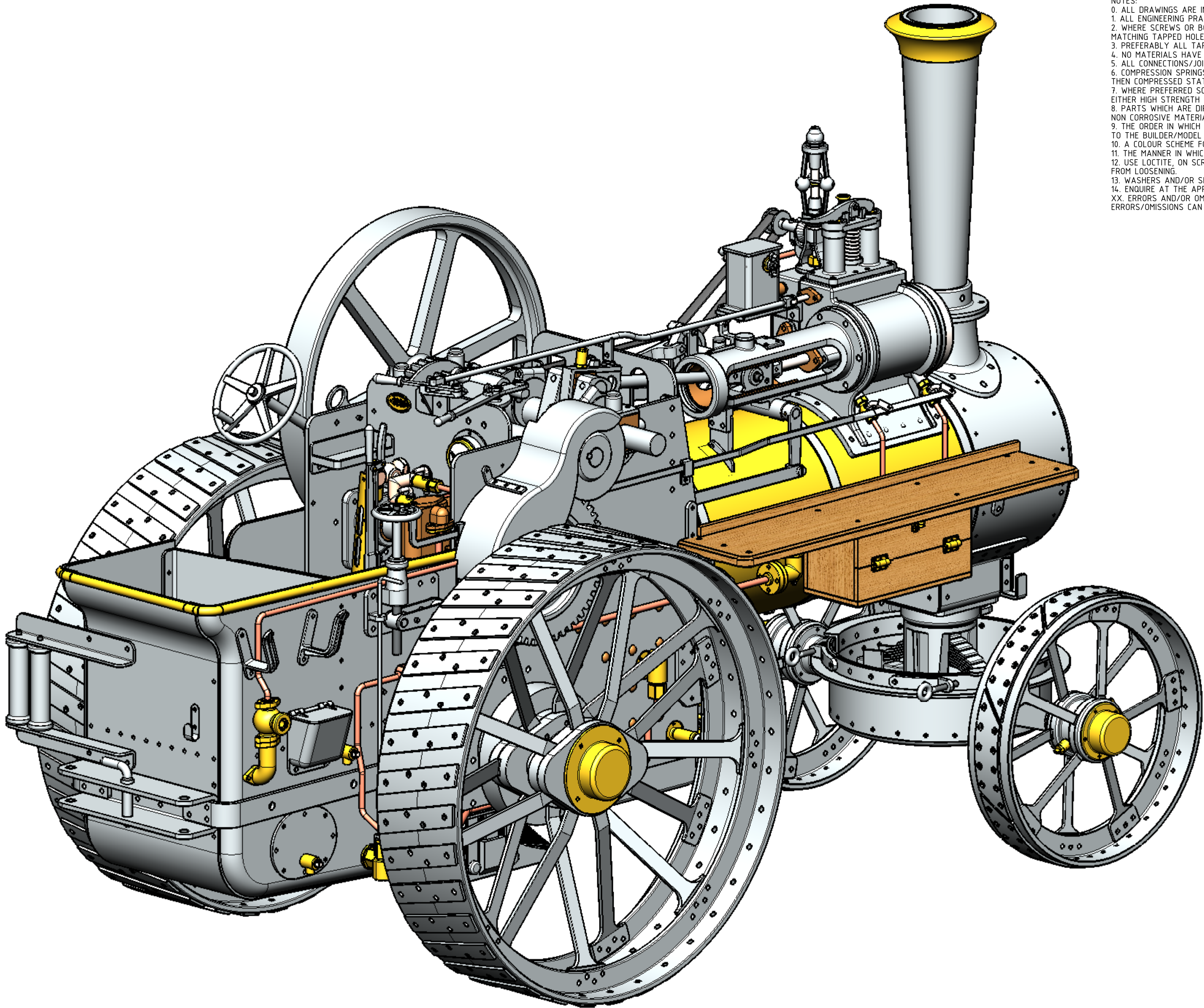
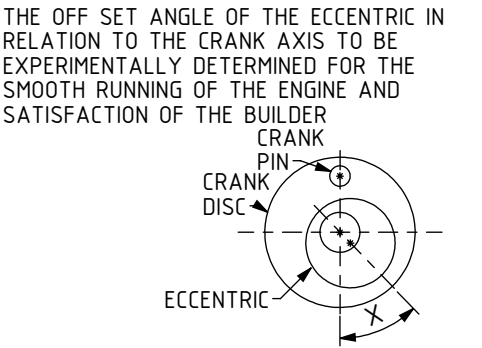




NOTES:
0. ALL DRAWINGS ARE IN METRIC MEASUREMENTS
1. ALL ENGINEERING PRACTICES SHALL BE APPLIED WITH REGARDS TO HOLE AND SHAFT TOLERANCES.
2. WHERE SCREWS OR BOLTS ARE USED THE CLEARANCE HOLES SHALL BE APPROXIMATELY 5% TO 8% LARGER THAN THE MATCHING TAPPED HOLE.
3. PREFERABLY ALL TAPPED HOLES AND MATCHING SCREWS AND/OR BOLTS TO BE METRIC FINE (MF)
4. NO MATERIALS HAVE BEEN SPECIFIED ON THE DRAWINGS. 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. ENQUIRE 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.

OTHER ABBREVIATIONS
DP = DEEP
DAA= DRILL AFTER ASSEMBLY
D&TAA= DRILL AND TAP AFTER ASSEMBLY
CF = CLOSE FIT (SIZE FOR SIZE)
PF = PRESS FIT
PF&A= 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



EXTRA NOTES AND COMMENT BY THE AUTHOR OF THESE DRAWINGS.
1) NO FASTENERS, SUCH AS BOLTS, NUTS, RIVETS, HAVE BEEN SHOWN ON THESE DRAWINGS. THE BUILDER MAY HAVE A PREFERENCE FOR USING A PARTICULAR TYPE OF FASTENER FOR PARTICULAR AREA'S.
2) IF RIVETS ARE USED IN THE BOILER AREA THAN COPPER RIVETS SHOULD BE THE FIRST CHOICE. HOW EVER THE BUILDER TO DECIDE WHAT TO USE.
3) THE STEERING CHAIN(S) ARE NOT SHOWN ON THE ASSEMBLY DRAWINGS. AN APPROXIMATE LENGTH OF CHAIN HAS BEEN SHOWN ON DRAWING 08-13-00-SHT21, THE BUILDER TO TO DECIDE HOW TO WIND THE STEERING CHAIN ON TO DRUM AND TO CONNECT TO THE SPUD PAN EYEBOLTS.
4) AS MUCH AS POSSIBLE ALL COMPONENTS/PARTS HAVE BEEN IDENTIFIED, HOWEVER IF ANYTHING IS UNCLAR PLEASE DO NOT HESITATE TO CONTACT ME.
5) NORMALLY I SPECIFY POSSIBLE MATERIALS FOR CERTAIN/ALL COMPONENTS/PARTS HOWEVER THIS CASE IT IS ENTIRELY LEFT TO THE BUILDER WHAT MATERIAL TO USE. JUST GIVE THE BUILDER SOME INDICATION OF THE MATERIAL COLOUR ON THESE DRAWINGS THE FOLLOWING: YELLOW-BRASS, BROWN-BRONZE/GUNMETAL, GREY-MILD STEEL/ALUMINIUM, WHITE-SILVER STEEL/STAINLESS STEEL

NOTE: THE ORIGINAL DRAWINGS WERE FOUND ON THE INTERNET AND WERE EXTRACTED FROM OLD ENGINEERING MAGAZINES. THE ORIGINAL DRAWINGS TITLE WAS:"THE ALLCHIN M.E. TRACTION ENGINE" DESIGNED BY W.J. HUGHES. (NO DATE)

TITLE		DRAWING CONTENTS		PROJECT No: 08-13-00		PROJECTION		MODEL SCALE: 1:1	
A MODEL OF A STEAM TRACTION ENGINE AS BUILT BY W. ALLCHIN LTD, NORTHAMPTON		GENERAL ARRANGEMENT, NOTES. ISOMETRIC VIEW (REAR)		JDW DRAUGHTING SERVICES J.A.M. DE WAAL. 12 BRIGHTWELL STREET PAKAPURA 2110. NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@xtra.co.nz.		JDWDS		DWG SCALE:NTS @ A2 OR AS SHOWN	
						DATE: FEBRUARY 2019		J.A.M. DE WAAL PAKAPURA NZ	
						SHEET: 06 OF 27		A2 No 08-13-00-SHT-06	