



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.  
 7. COMPRESSION SPRINGS ARE DRAWN IN COMPRESSED STATE (CP). UNCOMPRESSED STATE IS APPROX 40% TO 60% LONGER THEN COMPRESSED STATE.  
 8. PARTS WHICH ARE DIRECTLY EXPOSED TO STEAM AND/OR WATER SHOULD BE CONSTRUCTED USING NON-FERROUS OR NON CORROISVE 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/MODELMAKER.  
 11. ERRORS AND/OR OMISSIONS MAY OCCUR IN THE DRAWINGS. DO NOT HESITATE TO CONTACT ME SO THAT THE ERRORS/OMISSIONS CAN BE RECTIFIED.

MATERIAL ABBREVIATIONS:  
 ALU = ALUMINIUM  
 BRS = BRASS  
 BRZ = BRONZE OR GUNMETAL (BRZ/GM)  
 CI = CAST IRON  
 CU = COPPER  
 GRA = GRAPHITE  
 MS = MILD STEEL/BRIGHT MILD STEEL  
 S/S = SILVER STEEL OR STAINLESS STEEL  
 SPS = SPRING STEEL  
 SYN = SYNTHETIC MATERIAL SUCH AS VETON, NYLON, TEFLON OR RUBBER  
 IN GENERAL SYNTHETIC MATERIALS SHOULD BE ABLE TO WITHSTAND THE HEAT AND PRESSURE(S) APPLIED TO THEM.  
 PEEK = POLYETHER ETHER KETONE.  
 PTFE = POLYTETRAFLUOROETHYLENE  
 nnn/nnn MEANS THAT EITHER MATERIAL CAN BE USED.

OTHER ABBREVIATIONS  
 DP = DEEP  
 PF = PRESS FIT  
 PCD = PITCH CIRCLE DIAMETER  
 RM = REAM  
 HEX = HEXAGON, 6SIDED  
 CP = COMPRESSED  
 KNL = KNURLED  
 SDF = SLIDING FIT  
 [SA-n-xxx] = SUB ASSEMBL-n-xxx

NOTES: THE ORIGINAL DRAWINGS WERE MADE BY "DVBYDT" AND DOWNLOADED FROM THE MEM WEBSITE		PROJECT No 09E-16-00	
TITLE <b>A SIMPLE 1 CYLINDER VERTICAL STEAM ENGINE 12mm BORE x 12mm STROKE</b>		DRAWING CONTENTS <b>PARTS &amp; ASSEMBLIES</b>	
PROJECTOR <b>JDWDS</b>		MODEL SCALE: 1:1 DWG SCALE: 1:1 @A3 OR AS SHOWN	
DATE SEPTEMBER-2015		DRAWN BY J.A.M. DE WAAL PAPAOKURA NZ	
SHEET: 02 OF 02		A3 No: DVBYDT-02	

