

QTY.	PART NUMBER	QTY.	PART NUMBER
1	COMPOUND-1-01-BASE PLATE	6	COMPOUND-M4x8 A-K CYL HEAD SCREW
3	COMPOUND-1-02-CRANK SHAFT BEARING	2	COMPOUND-M4x9.5 A-K GRUB SCREW
1	COMPOUND-1-03-FRONT COLUMN-TYPE-1	28	COMPOUND-M4x10 A-K CYL HEAD SCREW
1	COMPOUND-1-04-REAR COLUMN-TYPE-1	12	COMPOUND-M4x12 A-K CYL HEAD SCREW
1	COMPOUND-1-05-FRONT COLUMN-TYPE-2	24	COMPOUND-M4x14 A-K CYL HEAD SCREW
1	COMPOUND-1-06-REAR COLUMN-TYPE-2	4	COMPOUND-M4x18 A-K CYL HEAD SCREW
1	COMPOUND-1-07-FRONT COLUMN CROSS TIE	4	COMPOUND-M4x24 A-K CYL HEAD SCREW
2	COMPOUND-1-08-REAR COLUMN CROSS TIE	4	COMPOUND-M5 DOME NUT
2	COMPOUND-1-09-COLUMN TIE ROD	6	COMPOUND-M5 NUT
1	COMPOUND-1-10-CYLINDERS BASE PLATE	5	COMPOUND-M5 WASHER
1	COMPOUND-1-11-HIGH + LOW PRESSURE CYLINDER	1	COMPOUND-M5 WING NUT
1	COMPOUND-1-12-CYLINDERS TOP PLATE	33	COMPOUND-M5x12 A-K CYL HEAD SCREW
1	COMPOUND-1-13-LOW PRESSURE CYLINDER COVER	5	COMPOUND-M5x14 A-K CYL HEAD SCREW
1	COMPOUND-1-14-HIGH PRESSURE CYLINDER COVER	10	COMPOUND-M5x16 A-K CYL HEAD SCREW
1	COMPOUND-1-15-LOW PRESSURE VALVE CHEST	2	COMPOUND-M5x90 STUD
1	COMPOUND-1-16-HIGH PRESSURE VALVE CHEST	12	COMPOUND-M6 DOME NUT
2	COMPOUND-1-17-PISTON GLAND	6	COMPOUND-M6 NUT
2	COMPOUND-1-18-VALVE GLAND	8	COMPOUND-M6x16 A-K CYL HEAD SCREW
1	COMPOUND-1-19-HP CYLINDER OILER HOUSING	2	COMPOUND-M6x22 A-K CYL HEAD SCREW
2	COMPOUND-1-20-HP OILER VALVE	4	COMPOUND-M6x32 A-K CYL HEAD SCREW
4	COMPOUND-1-21-CYLINDER DRAIN COCK	2	COMPOUND-M8 DOME NUT
1	COMPOUND-1-22-STEAM INLET PIPE	3	COMPOUND-M8 NUT
1	COMPOUND-1-23-HP VALVE CHEST ELBOW	1	COMPOUND-M8 WASHER
1	COMPOUND-1-24-HP VALVE CHEST RELIEVE VALVE	1	COMPOUND-M8x8 A-K CYL HEAD SCREW
1	COMPOUND-1-25-RELIEVE VALVE STEM NUT	4	COMPOUND-M10 NUT
1	COMPOUND-1-26-RELIEVE VALVE STEM		
1	COMPOUND-1-27-TRANSFER STEAM PIPE		
1	COMPOUND-1-28-EXHAUST STEAM PIPE CONNECTOR		
1	COMPOUND-1-29-REVERSER ROD BEARING BRACKET		
1	COMPOUND-1-30-REVERSER ROD BEARING PLATE		
2	COMPOUND-1-31-CROSSHEAD GUIDE		
1	COMPOUND-1-32-AIR PUMP LEVER BEARING PLATE		
1	COMPOUND-1-33-AIR PUMP HOUSING		
1	COMPOUND-1-34-AIR PUMP BOTTOM VALE PLATE		
1	COMPOUND-1-35-AIR PUMP TOP VALE PLATE		
1	COMPOUND-1-36-AIR PUMP TOP COVER		
1	COMPOUND-1-37-AIR PUMP PISTON GLAND		
1	COMPOUND-1-38-AIR PUMP PISTON ROD GUIDE		
1	COMPOUND-1-39-BILGE PUMP HOUSING		
2	COMPOUND-1-40-BILGE PUMP PURGE VALVE		
1	COMPOUND-1-41-FEED PUMP HOUSING		
2	COMPOUND-1-42-SLIDE VALVE GUIDE BRACKET		
1	COMPOUND-2-01-CRANKSHAFT PART-A		
4	COMPOUND-2-01-CRANKSHAFT PART-B		
2	COMPOUND-2-01-CRANKSHAFT PART-C		
1	COMPOUND-2-01-CRANKSHAFT PART-D		
1	COMPOUND-2-01-CRANKSHAFT PART-E		
4	COMPOUND-2-02-ECCENTRIC SHEAVE		
1	COMPOUND-2-03-LP-PISTON+CROSSHEAD		
1	COMPOUND-2-04-HP-PISTON+CROSSHEAD		
1	COMPOUND-2-05-HP + LP CON-ROD		
1	COMPOUND-2-05-HP + LP CON-ROD		
1	COMPOUND-2-06-LP CROSSHEAD PIN		
1	COMPOUND-2-07-HP CROSSHEAD PIN		
1	COMPOUND-2-08-HP CROSSHEAD EYE-BOLT		
1	COMPOUND-2-09-BILGE PUMP PISTON		
1	COMPOUND-2-10-AIR PUMP LEVER PIVOT AXLE		
2	COMPOUND-2-11-AIR PUMP LEVER ARM		
2	COMPOUND-2-12-AIR PUMP LEVER LINK		
1	COMPOUND-2-13-AIR PUMP PISTON + CROSSHEAD		
1	COMPOUND-2-14-AIR PUMP LEVER ARM END AXLE		
1	COMPOUND-2-15-AIR PUMP CROSSHEAD SLIDE BLOCK		
1	COMPOUND-2-16-FEED PUMP PISTON		
1	COMPOUND-2-17-FEED PUMP CON-ROD		
4	COMPOUND-2-18-ECCENTRIC STRAP+ROD		
2	COMPOUND-2-19-EXPANSION LINK		
1	COMPOUND-2-20-CONTROL HANDLE		
1	COMPOUND-2-21-CONTROL LEVER		
1	COMPOUND-2-22-CONTROL LEVER SHAFT		
4	COMPOUND-2-23-CONTROL LIFTING LINK		
2	COMPOUND-2-24-EXPANSION SLIDE BLOCK		
2	COMPOUND-2-25-SLIDE VALVE SPINDLE		
1	COMPOUND-2-26-HP-SLIDE VALVE		
1	COMPOUND-2-27-LP-SLIDE VALVE		
8	COMPOUND-M3 DOME NUT		
4	COMPOUND-M3x5 A-K GRUB SCREW		
8	COMPOUND-M3x8 A-K CYL HEAD SCREW		
32	COMPOUND-M4 DOME NUT		
8	COMPOUND-M4 NUT		
29	COMPOUND-M4 WASHER		

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
 PEEK= POLYETHER ETHER KETONE
 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.

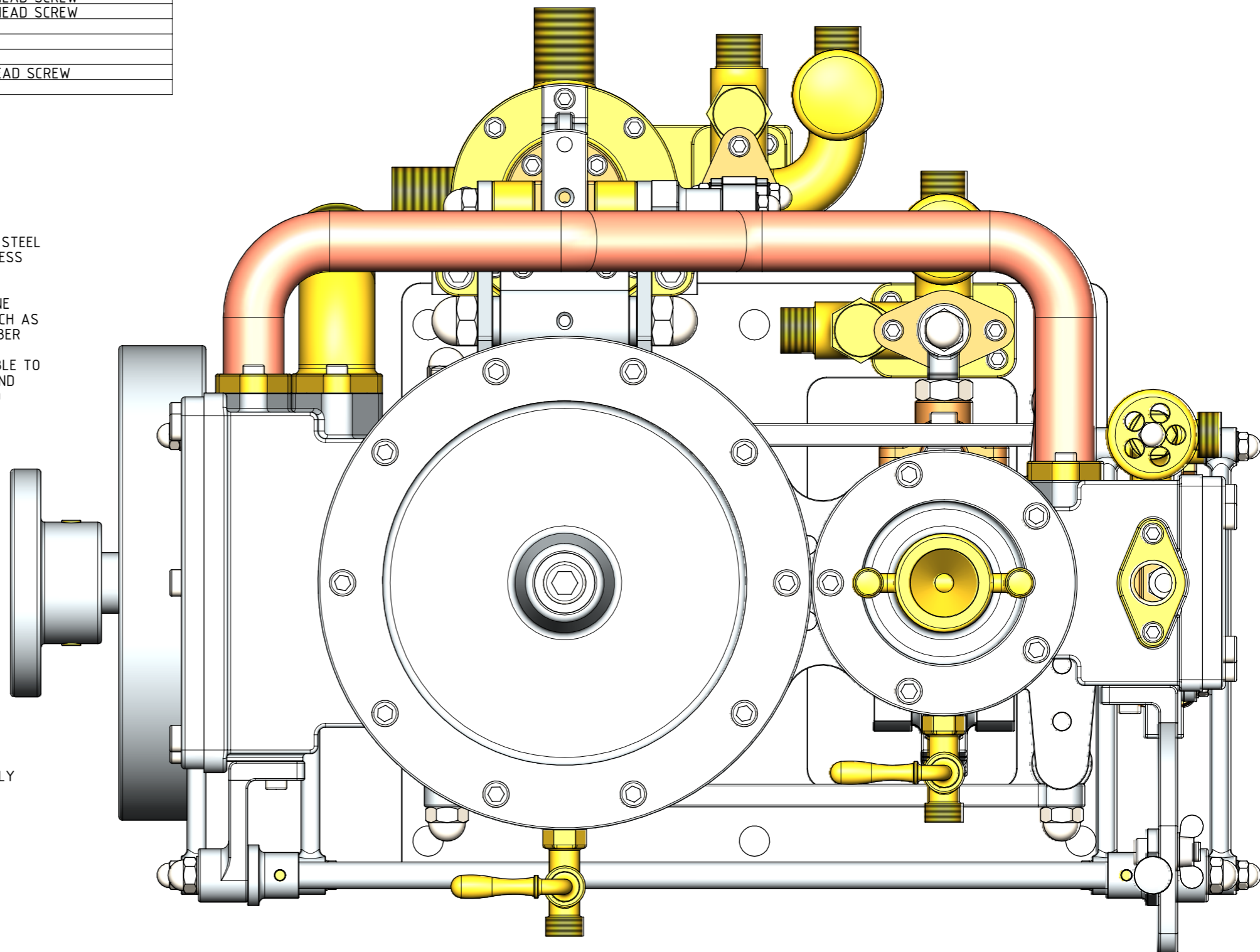
nnn/nnn MEANS THAT EITHER MATERIAL CAN BE USED

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
 (T)HESOP=(TAPPED)HOLES EQUALLY SPACED ON PCD
 (T)HESOC=(TAPPED)HOLES EQUALLY SPACED ON CIRCUMFERENCE
 [SA-xxx]= SUB ASSEMBLY-xxx

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. WASHER 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.



NOTES: FOUND THE ORIGINAL DRAWINGS ON THE INTERNET. THE TITLE OF THE ORIGINAL DRAWINGS WAS: "MACHINE A VAPEUR W.WHITE & SONS-VECTIS WORKS-W COWES". DESIGNER JEAN LE BOT. DATE AUGUST 1970. CONVERTED TO METRIC BY J. GRIMONPON.

TITLE
A MODEL OF A TWIN CYLINDER VERTICAL COMPOUND STEAM ENGINE

DRAWING CONTENTS
TOP VIEW, BILL OF MATERIALS AND NOTES

PROJECT No 09C-29-00
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PROJECTION
 DATE APRIL 2018
 SHEET: 03 OF 09
 MODEL SCALE: 1:1
 DWG SCALE: NTS @A3 OR AS SHOWN
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 A3 No: COMPOUND-03