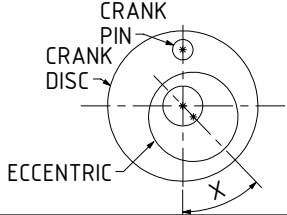


QTY.	PART NUMBER
1	DONKEY-1-01-BASE PLATE
1	DONKEY-1-02-CYLINDER
1	DONKEY-1-02-CYLINDER
2	DONKEY-1-03-VALVE SPINDLE GLAND NUT
2	DONKEY-1-04-CROSSHEAD GUIDE
2	DONKEY-1-05-PISTON ROD GLAND NUT
2	DONKEY-1-06-CYLINDER FRONT COVER
2	DONKEY-1-07-CROSSHEAD GUIDE HOLDING BRACKET
2	DONKEY-1-08-WINCH DRUM BEARING STAND
1	DONKEY-1-09-DUMMY BOILER
1	DONKEY-1-10-DUMMY BOILER FIRE BOX DOOR
4	DONKEY-1-11-VALVE CHEST INLET NIPPLE
2	DONKEY-1-12-VALVE CHEST INLET STOPPER
1	DONKEY-1-13-STEAM SUPPLY VALVE BRACKET
1	DONKEY-1-14-STEAM SUPPLY VALVE BODY
1	DONKEY-1-15-STEAM SUPPLY VALVE+HANDLE
6	DONKEY-1-16-STEAM PIPE NUT
1	DONKEY-1-17-STEAM SUPPLY PIPE
1	DONKEY-1-18-EXHAUST STEAM PIPE
1	DONKEY-1-18-EXHAUST STEAM PIPE
1	DONKEY-1-19-DUMMY BOILER CLADDING
1	DONKEY-1-20-CLUTCH LEVER HANDLE BLOCK
2	DONKEY-2-01-PISTON+ROD+CROSSHEAD
1	DONKEY-2-02-CRANKSHAFT
1	DONKEY-2-03-CRANK DISC
1	DONKEY-2-03-CRANK DISC
2	DONKEY-2-04-CON-ROD
2	DONKEY-2-05-SLIDE VALVE+SPINDLE
2	DONKEY-2-06-ECCENTRIC SHEAVE
1	DONKEY-2-07-ECCENTRIC STRAP
1	DONKEY-2-07-ECCENTRIC STRAP
1	DONKEY-2-08-WINCH DRUM SHAFT
1	DONKEY-2-09-WINCH DRUM GEARWHEEL
1	DONKEY-2-10-CRANKSHAFT GEARWHEEL
2	DONKEY-2-11-CLUTCH SHOE
1	DONKEY-2-12-CLUTCH SLIDER HUB
2	DONKEY-2-13-CLUTCH SLIDER BLOCK
2	DONKEY-2-14-CLUTCH SLIDER BLOCK LINK
1	DONKEY-2-15-WINCH DRUM
1	DONKEY-2-16-PRESSURE SPRING
1	DONKEY-2-17-CLUTCH OPERATER HANDLE
1	DONKEY-2-18-HANDLE GUIDE SCREW
4	DONKEY-M3 NUT
4	DONKEY-M3 WASHER-BRASS
4	DONKEY-M3x4.5 GRUB SREW
10	DONKEY-M3x6 A-K CYL HEAD SCREW
4	DONKEY-M3x12 A-K CYL HEAD SCREW
8	DONKEY-M4 DOME NUT
8	DONKEY-M4 NUT
2	DONKEY-M4 WASHER-BRASS
2	DONKEY-M4x5 GRUB SREW
2	DONKEY-M4x14 GRUB SREW
24	DONKEY-M4x18 A-K CYL HEAD SCREW
3	DONKEY-M4x36 A-K CYL HEAD SCREW
8	DONKEY-M4x38 STUD
2	DONKEY-M5 NUT
2	DONKEY-M5x9 A-K CYL HEAD SCREW
4	DONKEY-M5x11 GRUB SREW
2	DONKEY-M5x22 A-K C-SINK SCREW
8	DONKEY-M5x22 A-K CYL HEAD SCREW
4	DONKEY-M5x34 A-K CYL HEAD SCREW
2	DONKEY-M6 NUT
4	DONKEY-M8x26 A-K CYL HEAD SCREW
4	DONKEY-M8x36 A-K CYL HEAD SCREW
1	DONKEY-M10x18 A-K CYL HEAD SCREW
1	DONKEY-M10x50 A-K CYL HEAD SCREW

THE OFF SET ANGLE OF THE ECCENTRIC IN RELATION TO THE CRANK AXIS TO BE EXPERIMENTALLY DETERMINED FOR THE SMOOTH RUNNING OF THE ENGINE AND SATISFACTION OF THE BUILDER



- 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.

MATERIAL ABBREVIATIONS:

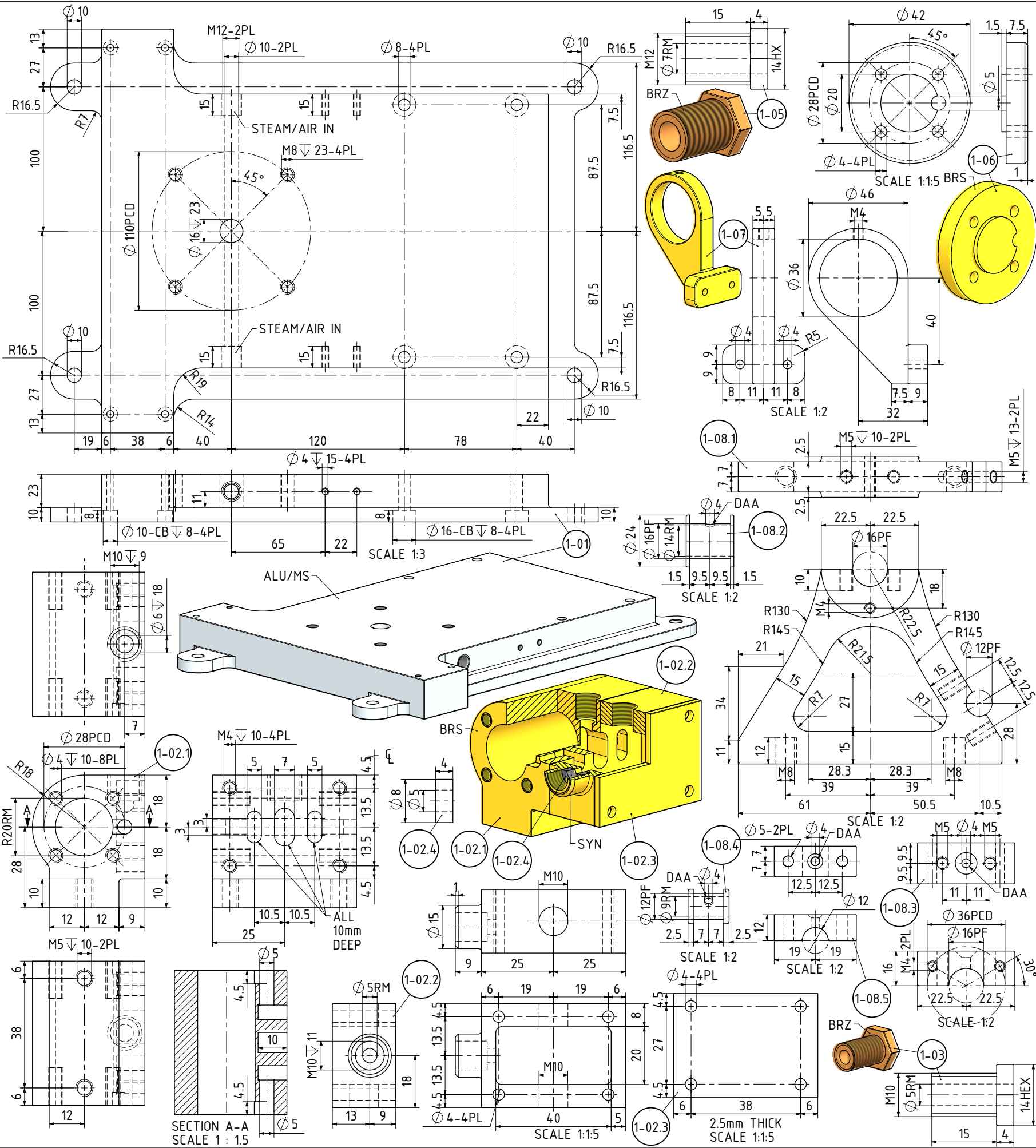
ALU = ALUMINIUM
HALU= HARD ALUMINIUM
BRS = BRASS
BRZ = BRONZE OR GUNMETAL (BRZ/GM)
CI = CAST IRON
CU = COPPER
GRA = GRAPHITE
MS = MILD STEEL/BRIGHT MILD STEEL
SS = SILVER STEEL OR STAINLESS STEEL
SPS = SPRING STEEL
PEEK= POLYETHER ETHER KETONE
SYN = SYNTHETIC MATERIAL SUCH AS VETON, NYLON, TEFLON OR RUBBER

IN GENERAL SYNTHETIC MATERIALS SOULD 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
CB = COUNTER BORE
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



NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DRAWING'S TITLE IS "BRIANS DONKEY". THE DRAFTER/DESINGER OF THIS MODEL IS BRIAN RUPNOW. I HAVE CONVERTED THE DDRAWINGS TO METRIC MEASUREMENTS

TITLE

A 2x1 CYLINDER STEAM ENGINE OPERATED WINCH WITH CLUTCH (STEAM DONKEY)

DRAWING CONTENTS

BILL OF MATERIALS, NOTES PARTS AND ASSEMBLY

PROJECT No 09B-20-00

JDW DRAUGHTING SERVICES

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PROJECTION

JDWDS

DATE JULY 2018

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SHEET: 02 OF 05

A3

No: 09B-20-00-SHT02

MODEL SCALE: 1:1

DWG SCALE: 1:1 @A3 OR AS SHOWN