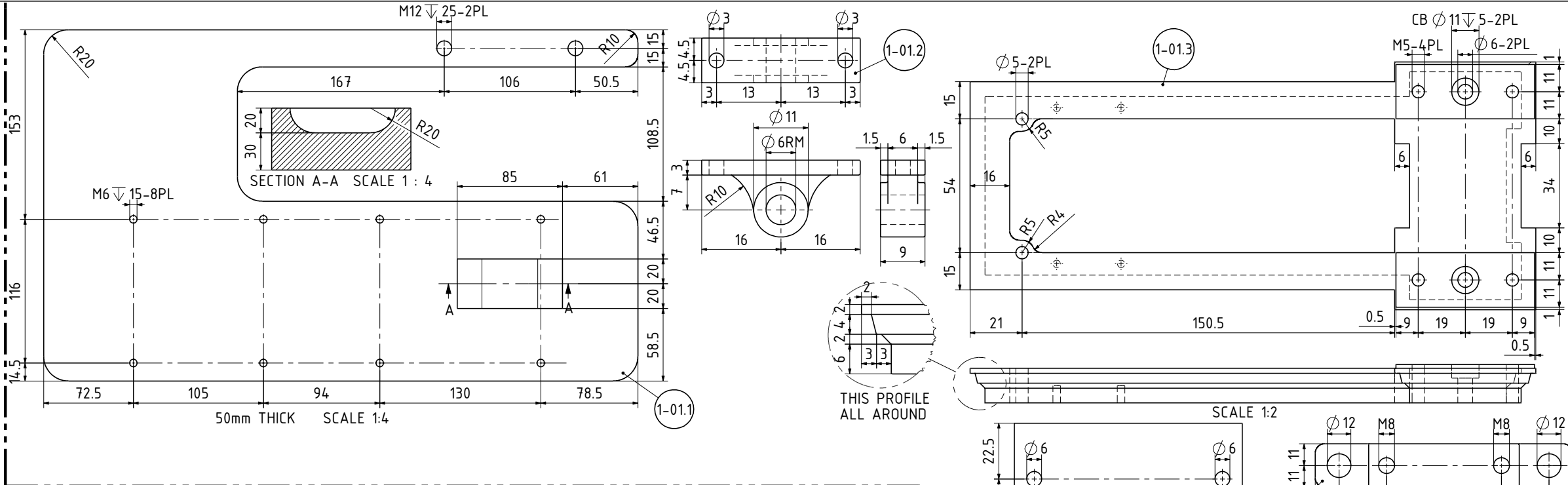
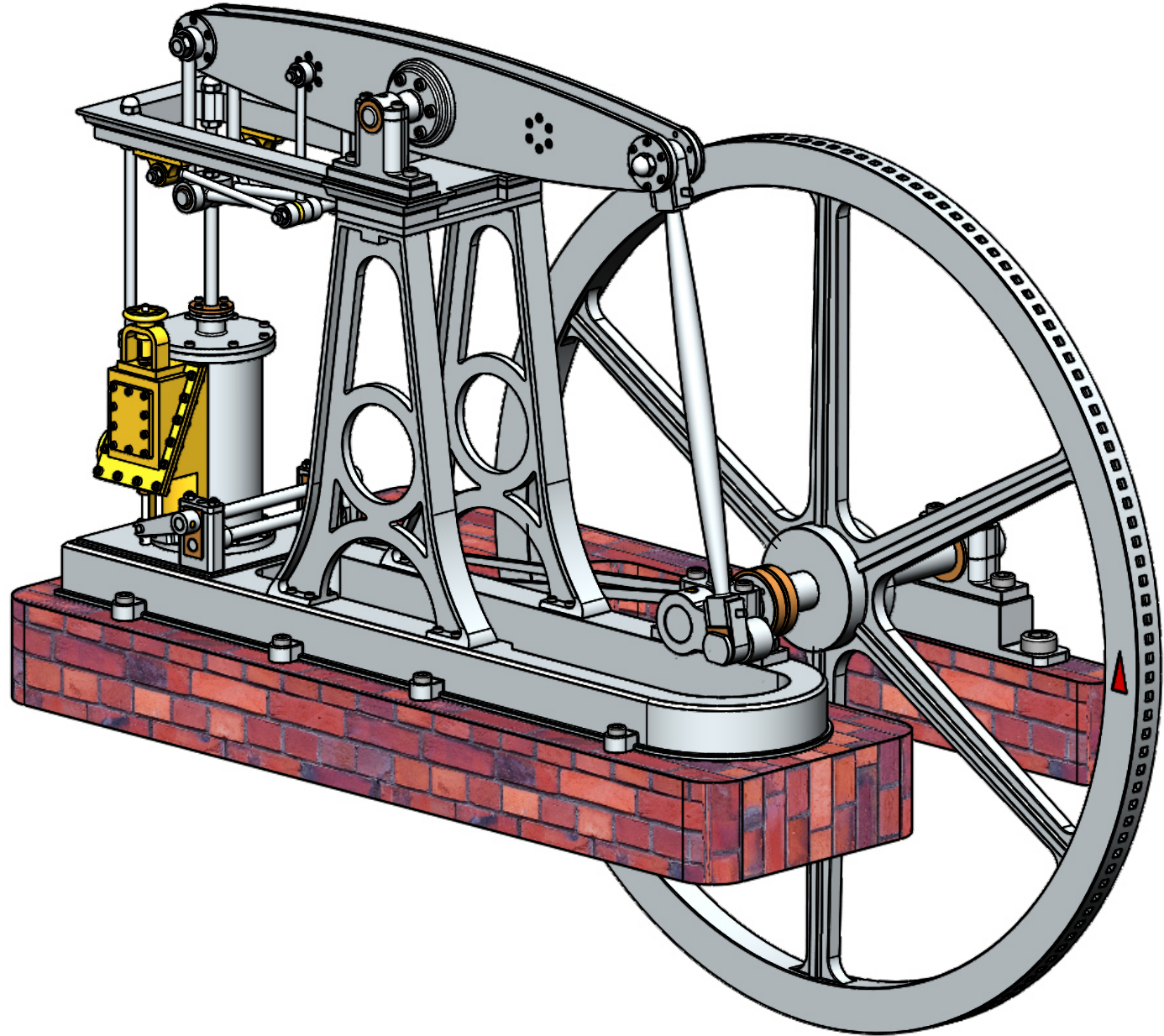
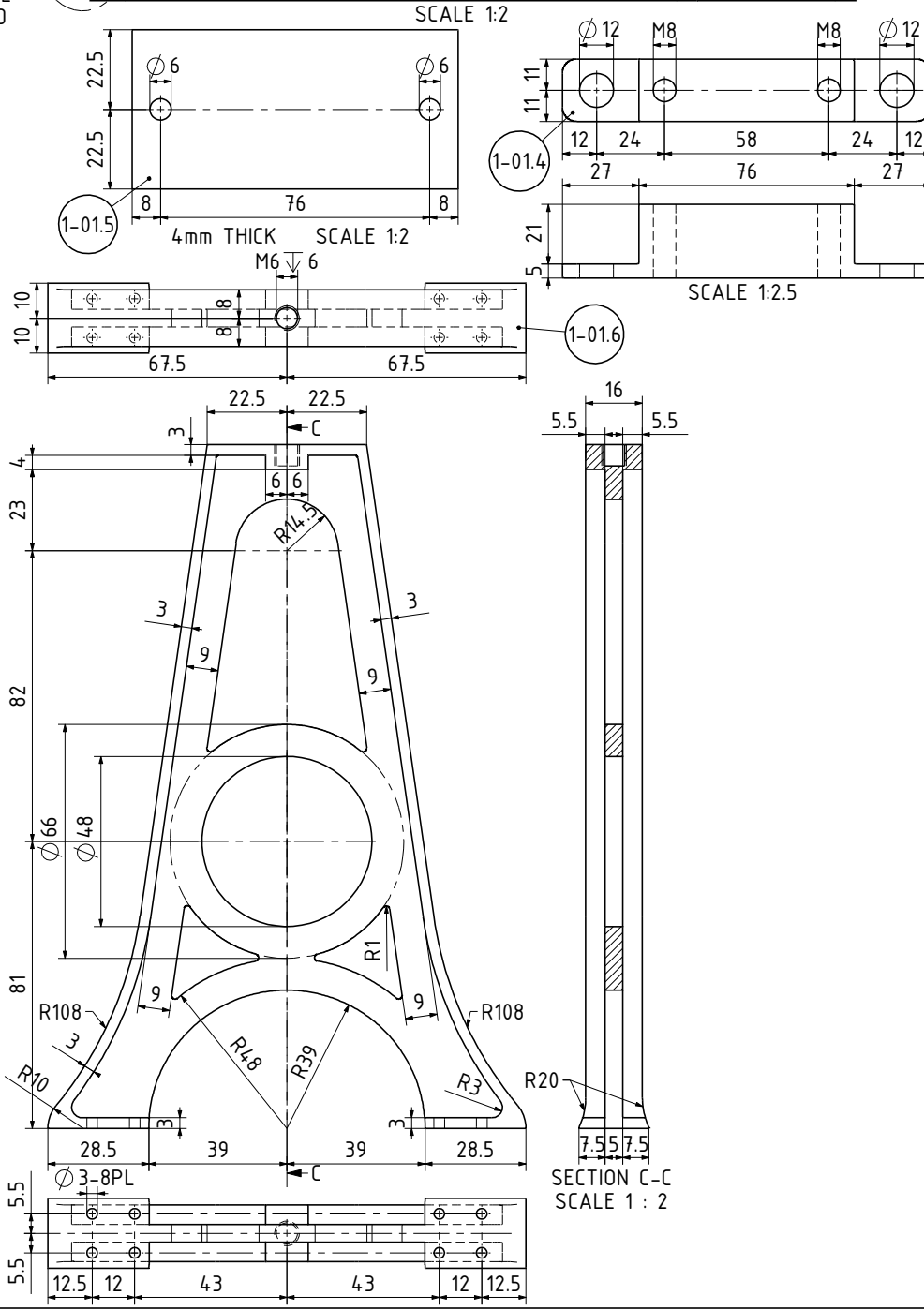


OTHER ABBREVIATIONS
AS = AS SHOWN
DP = DEEP
D&TAA= DRILL AND TAP
AFTER ASSEMBLY
CF = CLOSE FIT (SIZE FOR
SIZE)
PF = PRESS FIT
PFAA= PRESS FIT AFTER
ASSEMBLY
PCD = PITCH CIRCLE DIAMETER
RM = REAM
HEX = HEXACON, 6SIDED
CP = COMPRESSED
KNL = KNURLED
CSK = COUNTERSINK
PL = PLACES
DWL= DOWEL
SPF= SPOTFACE
(T)HESOP=(TAPPED)HOLES
EQUALLY SPACED ON PCD
(T)HESOC=(TAPPED)HOLES
EQUALLY SPACED ON
CIRCUMFERENCE
OD = OUTSIDE DIAMETER
ID = INSIDE DIAMETER
MAX/MIN = CRITICAL
DIMENSION
[SA-xxx]= SUB ASSEMBLY-xxx

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



QTY.	PART NUMBER
1	09E-53-00-1-01-BASE PLATE
2	09E-53-00-1-02-CRANKSHAFT BEARING
2	09E-53-00-1-03-BALANCED BEAM BEARING
1	09E-53-00-1-04-CYLINDER+VALVE CHEST
1	09E-53-00-1-05-CYLINDER TOP COVER
2	09E-53-00-1-06-TOP FRAME SUPPORT COLUMN
2	09E-53-00-1-07-VALVE ROCKER SHAFT BEARING BLOCK
1	09E-53-00-2-01-CRANKSHAFT+FLYWHEEL
1	09E-53-00-2-02-BALANCED BEAM
1	09E-53-00-2-03-BEAM CON-ROD END BEARING
1	09E-53-00-2-04-BEAM CROSSHEAD END BEARING
1	09E-53-00-2-05-CON-ROD
1	09E-53-00-2-06-PISTON+CROSSHEAD
2	09E-53-00-2-07-CROSSHEAD LINK-A
2	09E-53-00-2-08-CROSSHEAD LINK-B.
2	09E-53-00-2-09-BEAM LINK
2	09E-53-00-2-10-CROSS LINK
1	09E-53-00-2-11-LINK SHAFT
1	09E-53-00-2-12-VALVE LOWER ROCKER SHAFT
1	09E-53-00-2-13-VALVE UPPER ROCKER SHAFT
1	09E-53-00-2-14-MAIN SLIDE VALVE ECCENTRIC SHEAVE
2	09E-53-00-2-15-MAIN VALVE ECCENTRIC STRAP
1	09E-53-00-2-16-MAIN SLIDE VALVE
1	09E-53-00-2-17-SECOND SLIDE VALVE ECCENTRIC SHEAVE
1	09E-53-00-2-18-SECOND VALVE ADJUSTING NUT
1	09E-53-00-2-19-SECOND SLIDE VALVE
1	09E-53-00-2-20-HAND WHEEL
2	09E-53-00-M12x30 A-K CYL HEAD SCREW
12	09E-53-00-M2.5x10 A-K C-SINK SCREW
26	09E-53-00-M2.5x6 A-K CYL HEAD SCREW
24	09E-53-00-M2.5x8 A-K C-SINK SCREW
10	09E-53-00-M3 NUT
8	09E-53-00-M3x14 A-K CYL HEAD SCREW
4	09E-53-00-M3x42 A-K CYL HEAD SCREW
14	09E-53-00-M3x6 A-K CYL HEAD SCREW
28	09E-53-00-M3x8 A-K CYL HEAD SCREW
9	09E-53-00-M4 NUT
6	09E-53-00-M4 WASHER
16	09E-53-00-M4x14 A-K CYL HEAD SCREW
2	09E-53-00-M5 DOME NUT
3	09E-53-00-M5 NUT
4	09E-53-00-M5x22 A-K CYL HEAD SCREW
2	09E-53-00-M6 DOME NUT
2	09E-53-00-M6 NUT
2	09E-53-00-M6 WASHER
2	09E-53-00-M6x18 A-K CYL HEAD SCREW
12	09E-53-00-M6x24 A-K CYL HEAD SCREW
2	09E-53-00-M8 NUT
4	09E-53-00-M8x18 A-K CYL HEAD SCREW



NOTES: FOUND ORIGINAL DRAWING/PRINT ON THE INTERNET. DRAFTER/DESINGER CHAY W. TIAY DATED 1948 TITLE: "BEAM PUMPING ENGINE, BY EASTONS & ANDERSONS CICA 1870, INSTALLED AT BANSTEAD HOSPITAL, SURREY."

TITLE 1 CYLINDER NON REVERSING BALANCED BEAM
ENGINE WITH MEYER'S VARIABLE EXPANSION
SLIDE VALVES (BORE=40mm STROKE=84mm)

DRAWING CONTENTS
ISOMETRIC VIEW, BILL OF MATERIALS
NOTES, PARTS AND ASSEMBLIES

PROJECT No 09E-53-00
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PROJECTION
DATE MAY 2021
SHEET: 01 OF 06
JDWDS
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MODEL SCALE: 1:1
DWG SCALE: 1:1 @A3 OR AS SHOWN
A3 No: 09E-53-00-SHT02

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