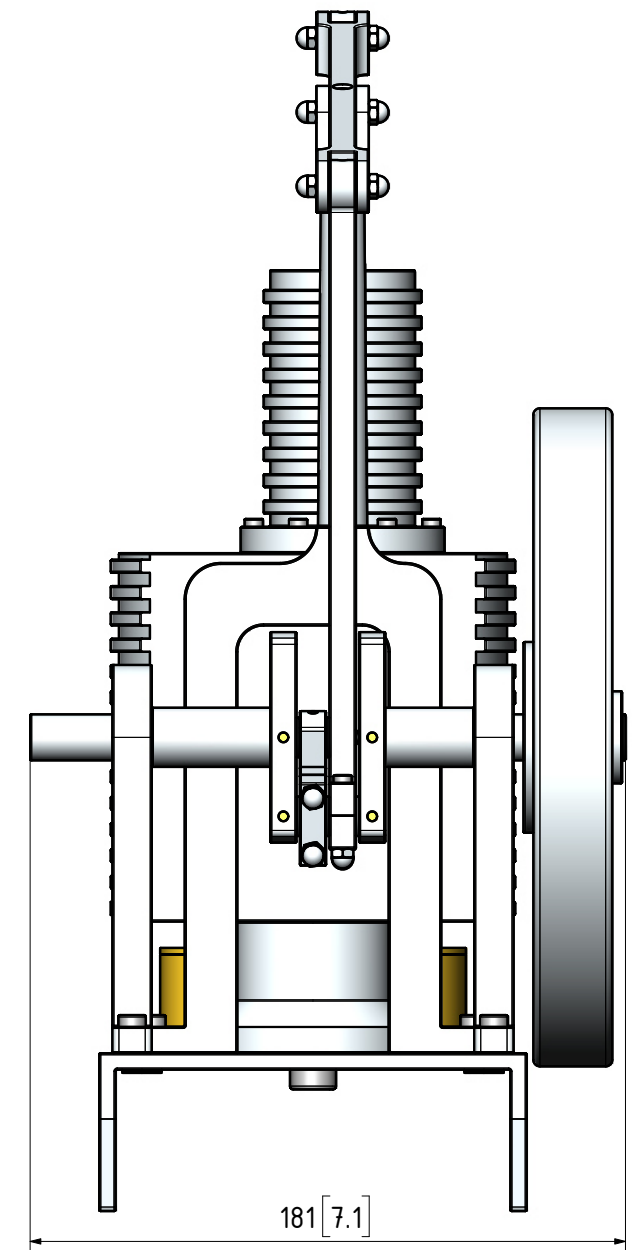
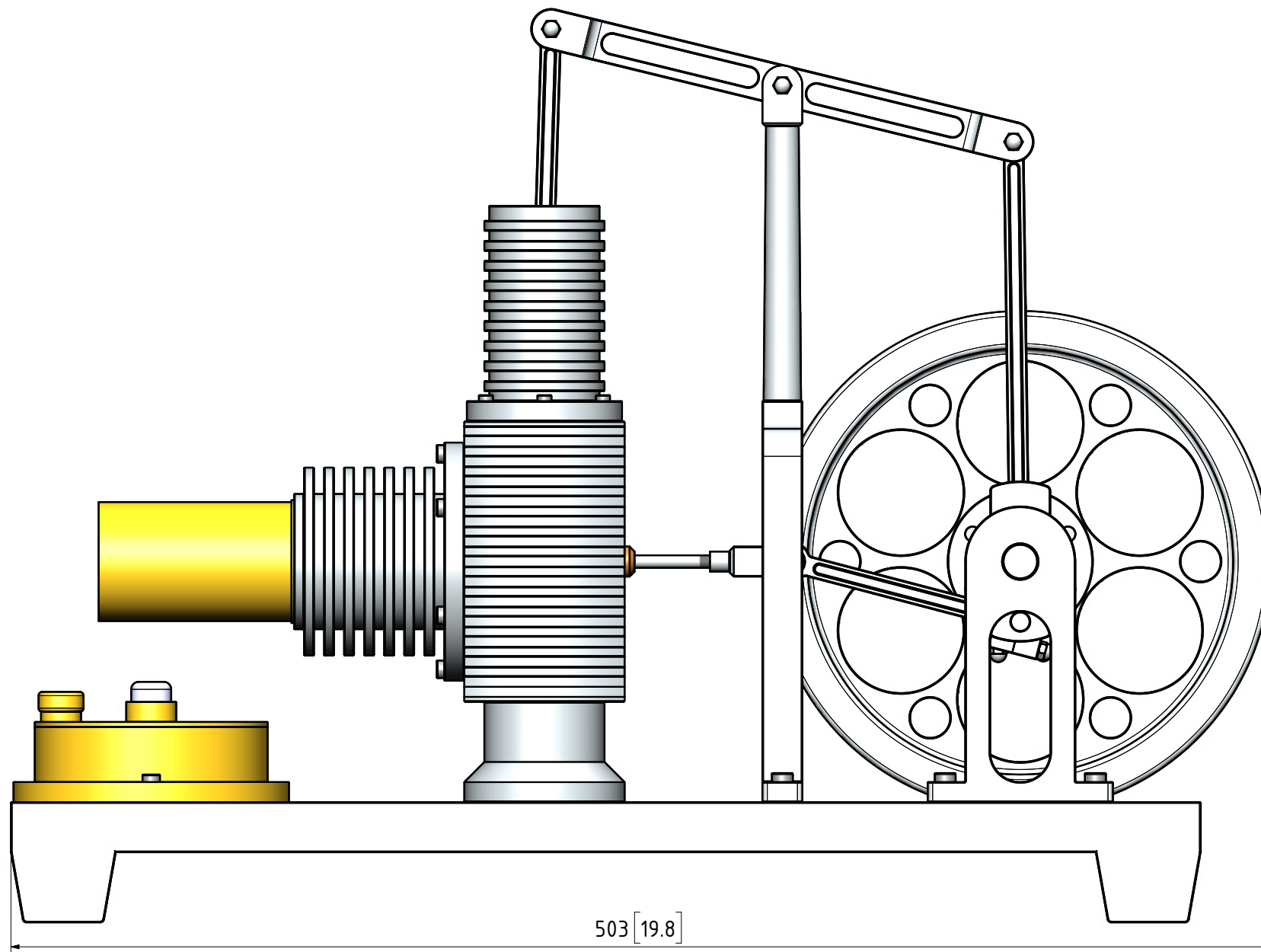
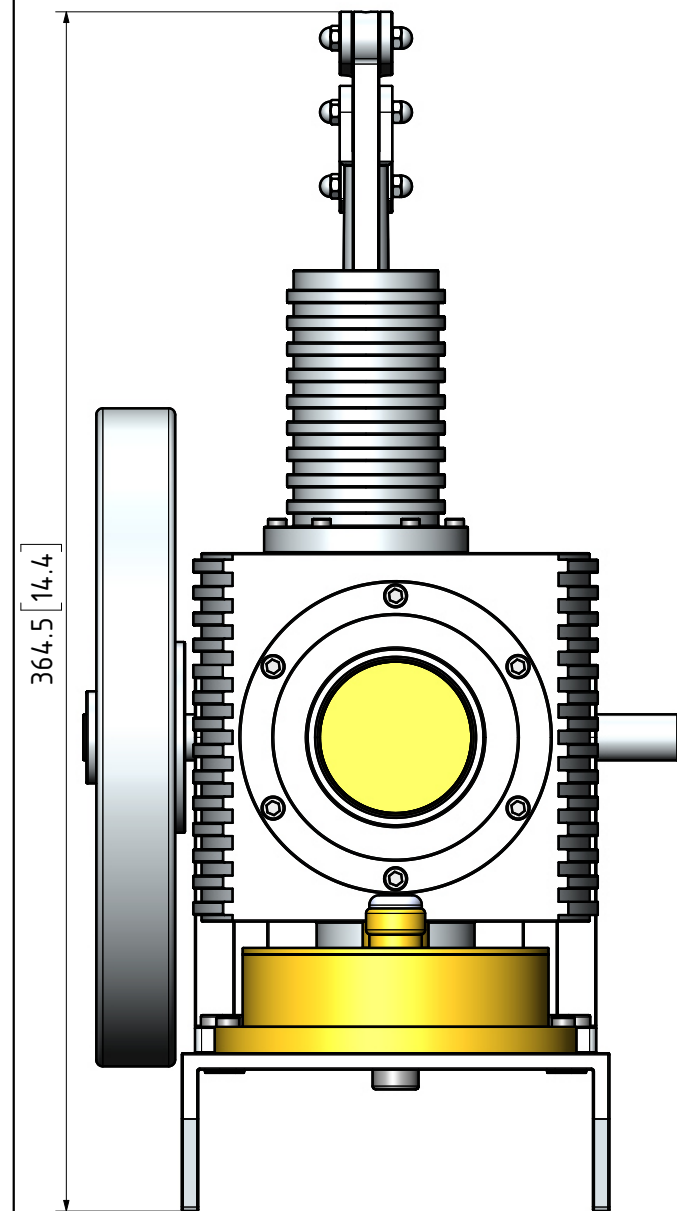
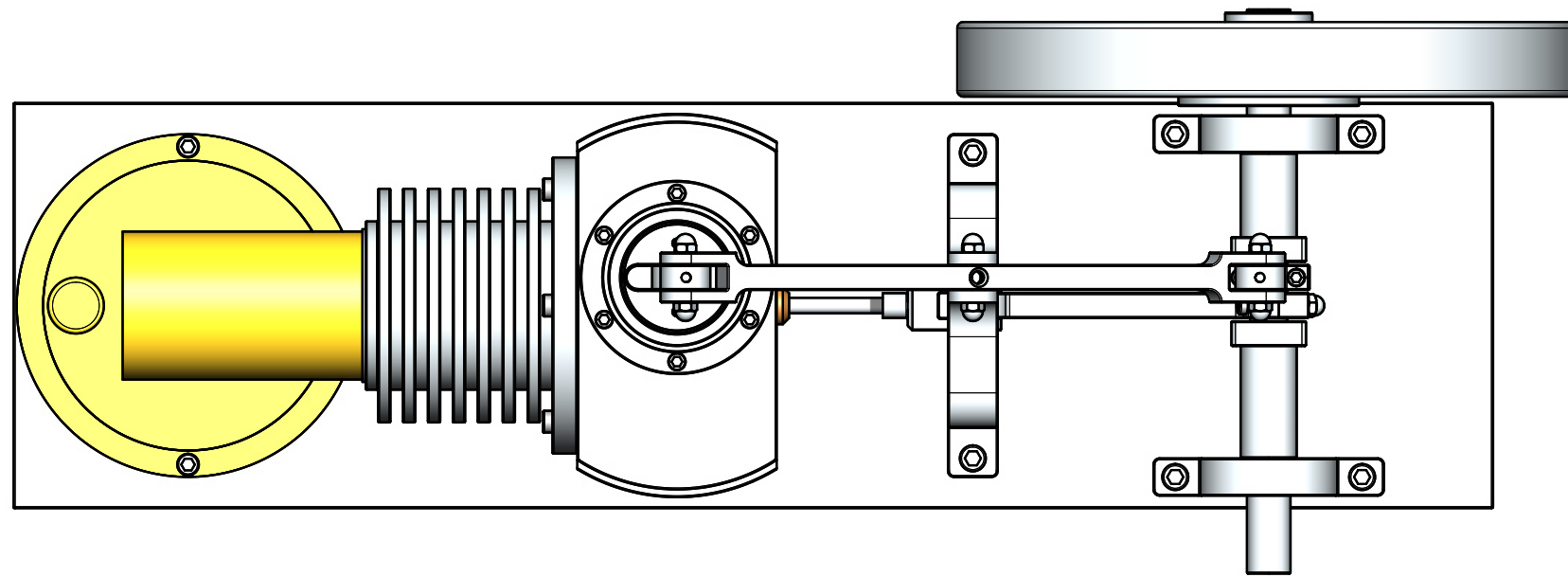


QTY.	PART NUMBER
1	05A-15-00-1-01-BASE PLATE
2	05A-15-00-1-02-CRANK SHAFT BALL BEARINGS
1	05A-15-00-1-03-CYLINDER BLOCK
1	05A-15-00-2-01-BALANCED BEAM
1	05A-15-00-2-02-CRANK SHAFT+FLYWHEEL
1	05A-15-00-2-03-POWER PISTON
1	05A-15-00-2-04-POWER PISTON CON-ROD
1	05A-15-00-2-05-BEAM CON-ROD
1	05A-15-00-2-06-DISPLACER
1	05A-15-00-2-07-DISPLACER CON-ROD
1	05A-15-00-M10x24 A-K CYL HEAD SCREW
2	05A-15-00-M3x6 A-K GRUB SCREW
13	05A-15-00-M4 DOME NUT
6	05A-15-00-M4x18 A-K CYL HEAD SCREW
4	05A-15-00-M4x24 A-K CYL HEAD SCREW
2	05A-15-00-M5x14 A-K CYL HEAD SCREW
6	05A-15-00-M5x18 A-K CYL HEAD SCREW
6	05A-15-00-M6x14 A-K CYL HEAD SCREW
6	05A-15-00-M6x18 A-K CYL HEAD SCREW



NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DRAWINGS WERE MADE BY R.F.TUPER, AND DATED AUGUST 2010.

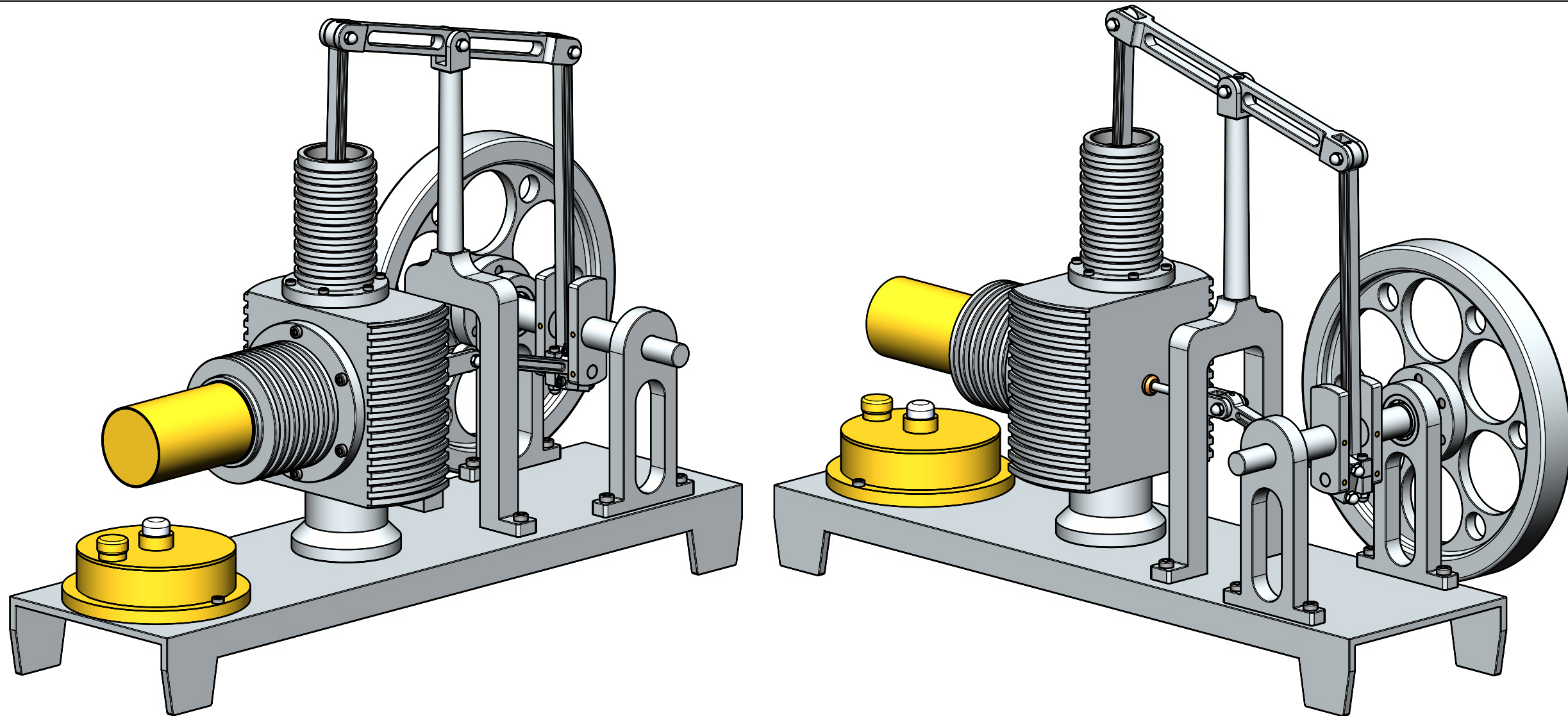
TITLE
STIRLING ENGINE SCOTCH YOKE TYPE

DRAWING CONTENTS
GENERAL ARRANGEMENT,
BILL OF MATERIALS

PROJECT No 05A-15-00
JDW DRAUGHTING SERVICES
J.A.M. DE WAAL, 12 BRIGHTWELL STREET PAPAURA
2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB:
0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION
DATE AUGUST 2020
SHEET: 01 OF 06
JDWDS
MODEL SCALE: 1:1
DWG SCALE: 1:1 @A4 OR AS SHOWN
Copyright © J.A.M. DE WAAL PAPAURA NZ
A4 No: 05A-15-00-SHT01

DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES



OTHER ABBREVIATIONS

AS = AS SHOWN
 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 = HEXAGON, 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
 SA-xxx = SUB ASSEMBLY-xxx

MATERIAL ABBREVIATIONS:

ALU = ALUMINIUM
 HALU= HARD ALUMINIUM
 BRZ = 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 SHOULD BE ABLE TO WITHSTAND THE HEAT AND PRESSURE(S) APPLIED TO THEM.

nnn/nnn MEANS THAT EITHER MATERIAL CAN BE USED

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.

NOTE FROM THE AUTHOR OF THE ORIGINAL DRAWINGS

Stirling Scotch Yoke Engine

By RF Tuper

These are the first set of drawings that I have ever done for someone else to use and it is the first time I have used

this new CAD program (ViaCAD V6 Pro).

I have tried to give the builder what information he or she will need to build the engine but at the same time I did not want to over load the drawings.

All of the dimensions are in inches unless otherwise noted.

You may have to do some simple math to get all of the dimensions that you may need.

NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DRAWINGS WERE MADE BY R.F.TUPER, AND DATED AUGUST 2010.

TITLE
STIRLING ENGINE SCOTCH YOKE TYPE

DRAWING CONTENTS
ISOMETRIC VIEWS AND NOTES

PROJECT No 05A-15-00

JDW DRAUGHTING SERVICES

J.A.M. DE WAAL, 12 BRIGHTWELL STREET PAPAURA
 2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB:
 0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION

JDWDS

DATE AUGUST 2020

SHEET: 02 OF 06

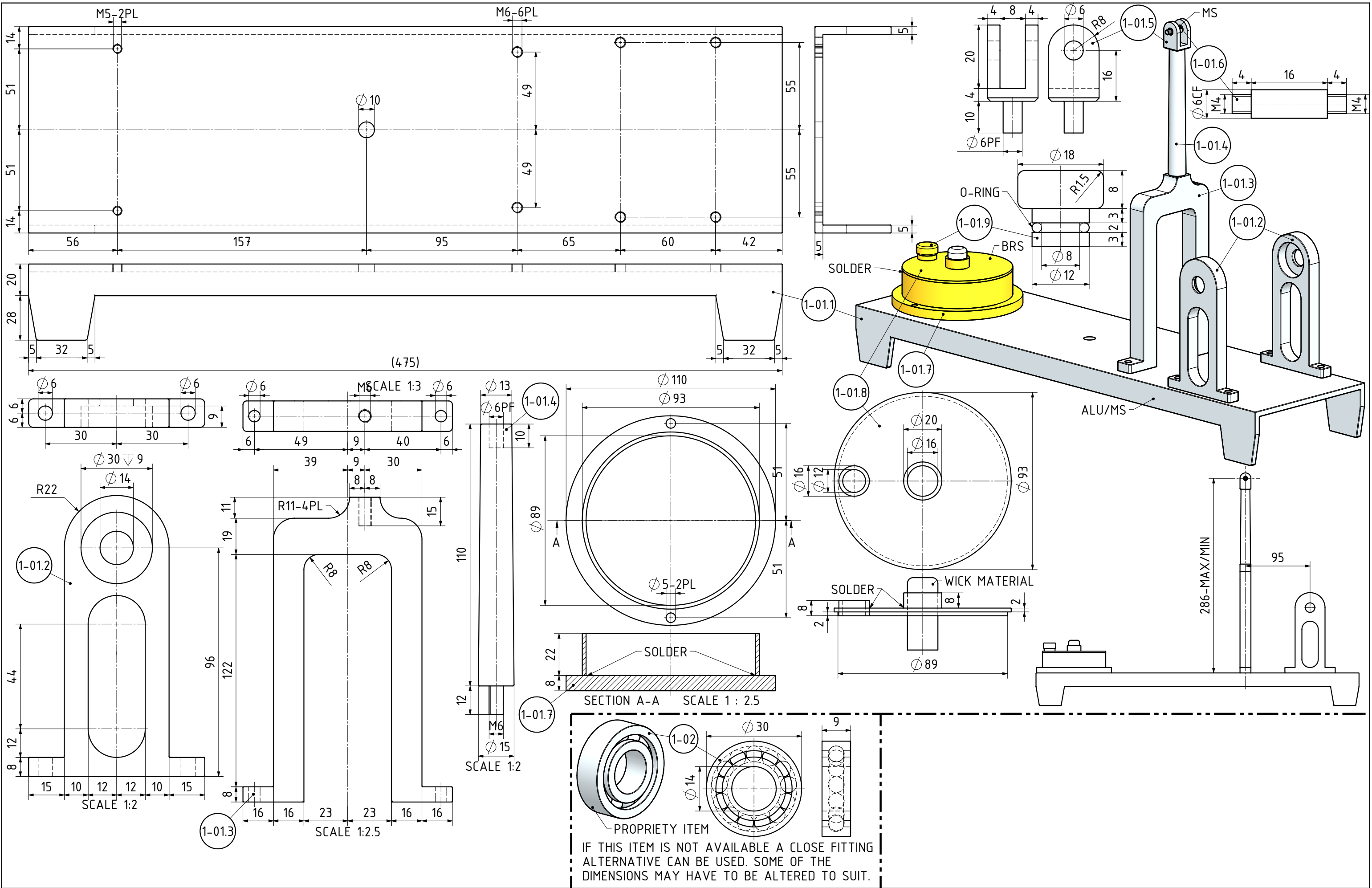
MODEL SCALE: 1:1

DWG SCALE: 1:1 @A4 OR AS SHOWN

Copyright © J.A.M. DE WAAL PAPAURA NZ

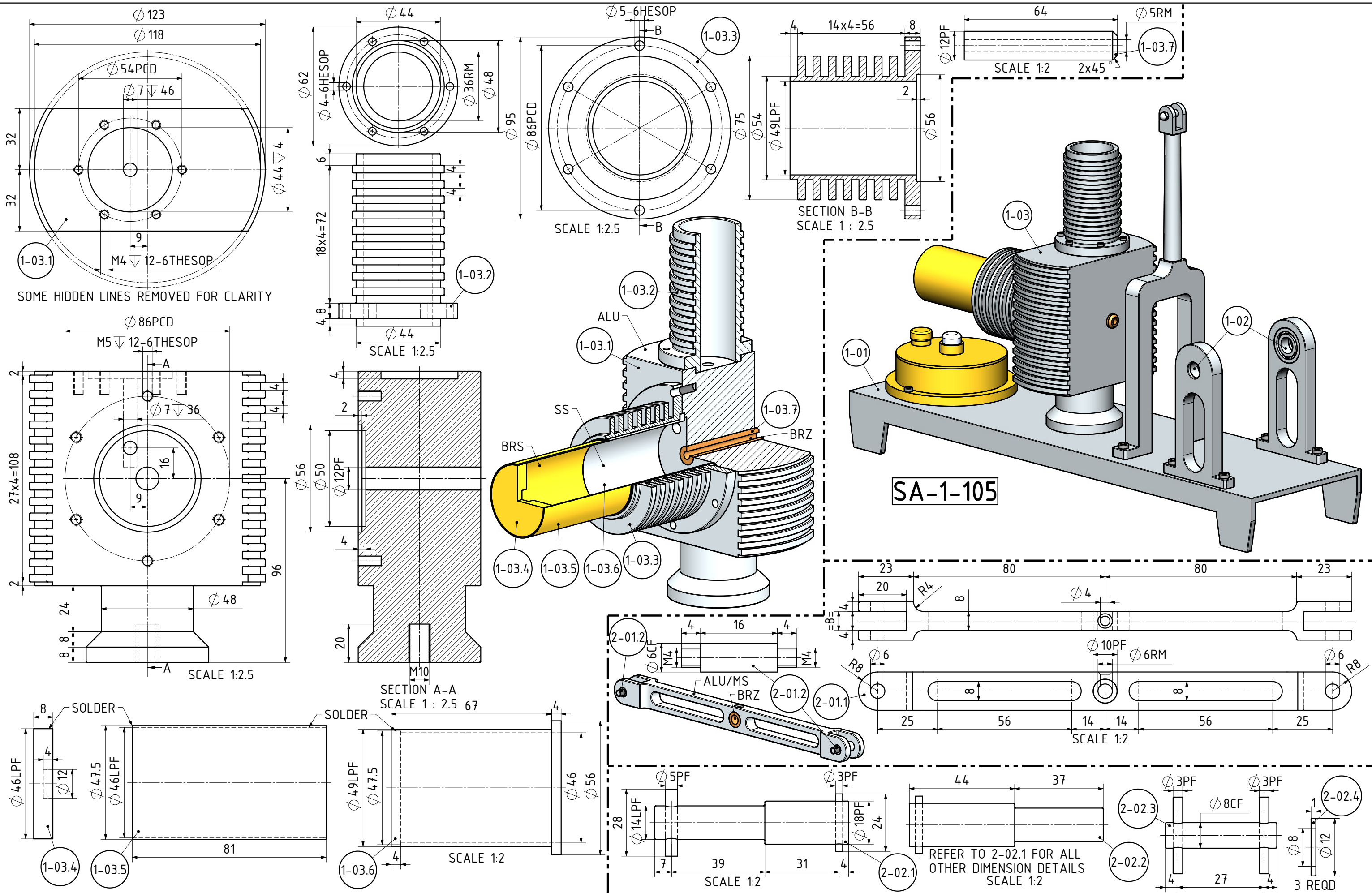
A4 No: 05A-15-00-SHT02

DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES



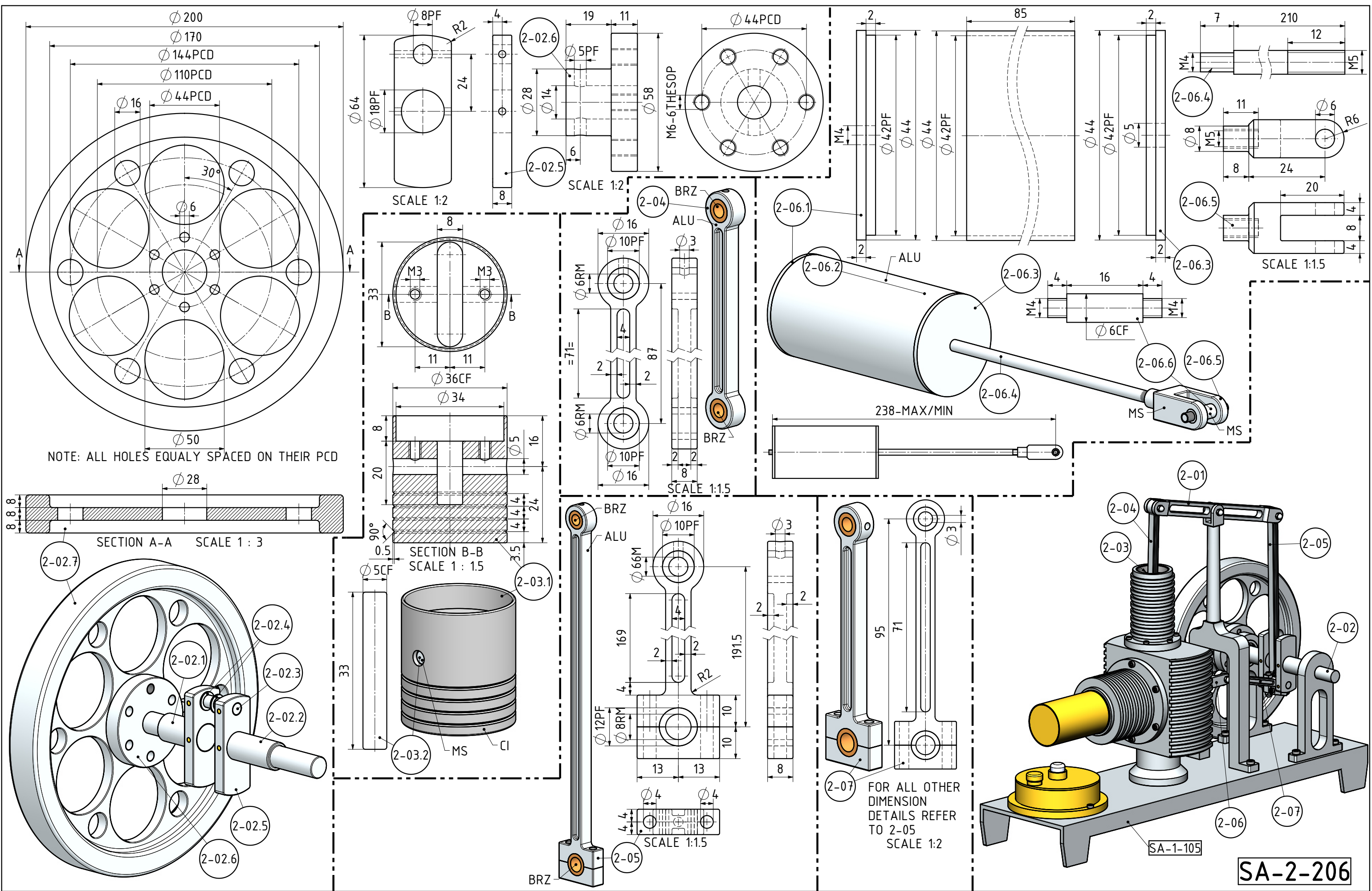
NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DRAWINGS WERE MADE BY R.F.TUPER, AND DATED AUGUST 2010.		PROJECT No 05A-15-00		PROJECTION	MODEL SCALE: 1:1
TITLE STIRLING ENGINE SCOTCH YOKE TYPE		JDW DRAUGHTING SERVICES		JDWDS	DWG SCALE: 1:1 @A4 OR AS SHOWN
DRAWING CONTENTS PARTS AND ASSEMBLIES		J.A.M. DE WAAL, 12 BRIGHTWELL STREET PAKAPURA 2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@extra.co.nz.		DATE	Copyright © J.A.M. DE WAAL PAKAPURA NZ
				AUGUST 2020	
				SHEET: 03 OF 06	A4 No: 05A-15-00-SHT03

DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES



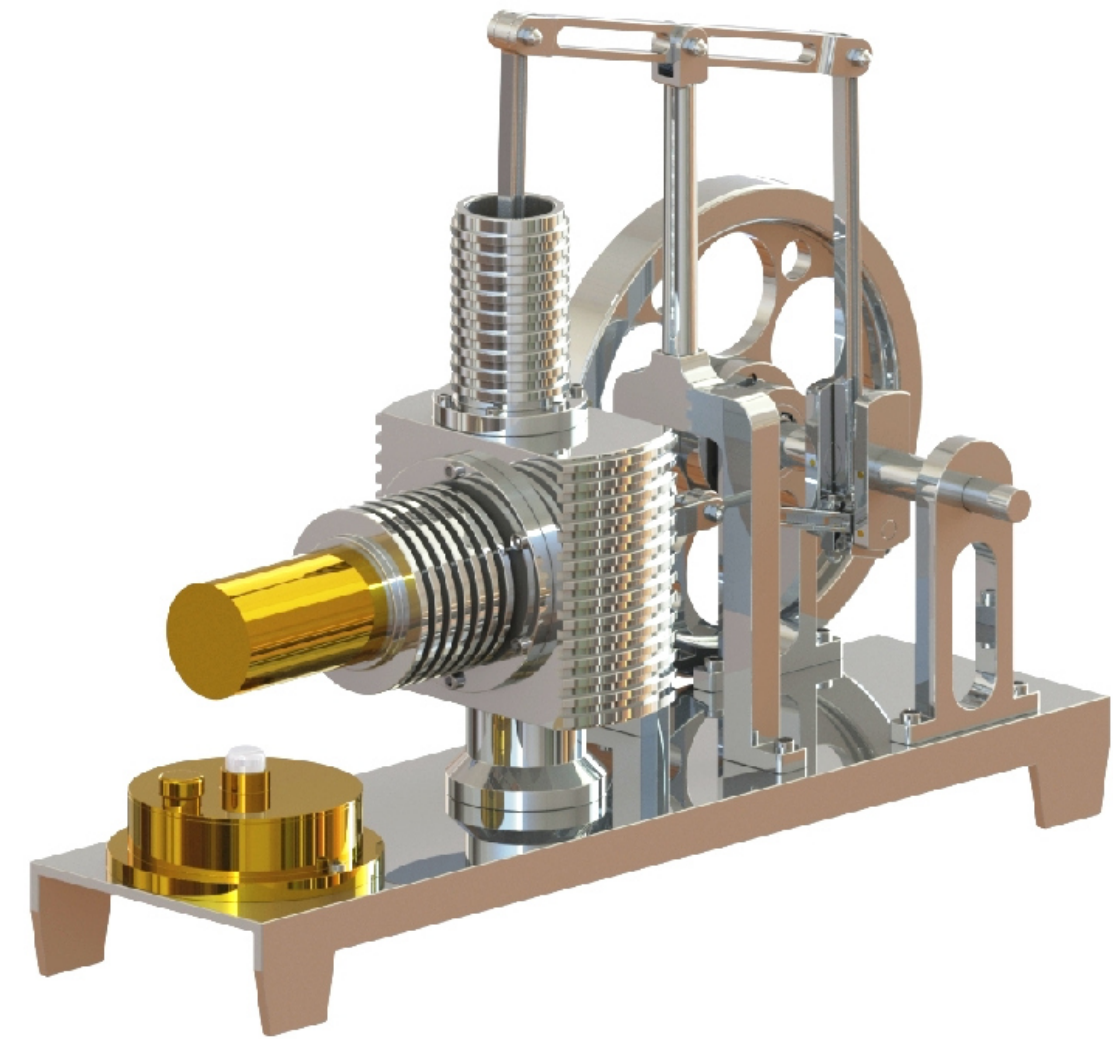
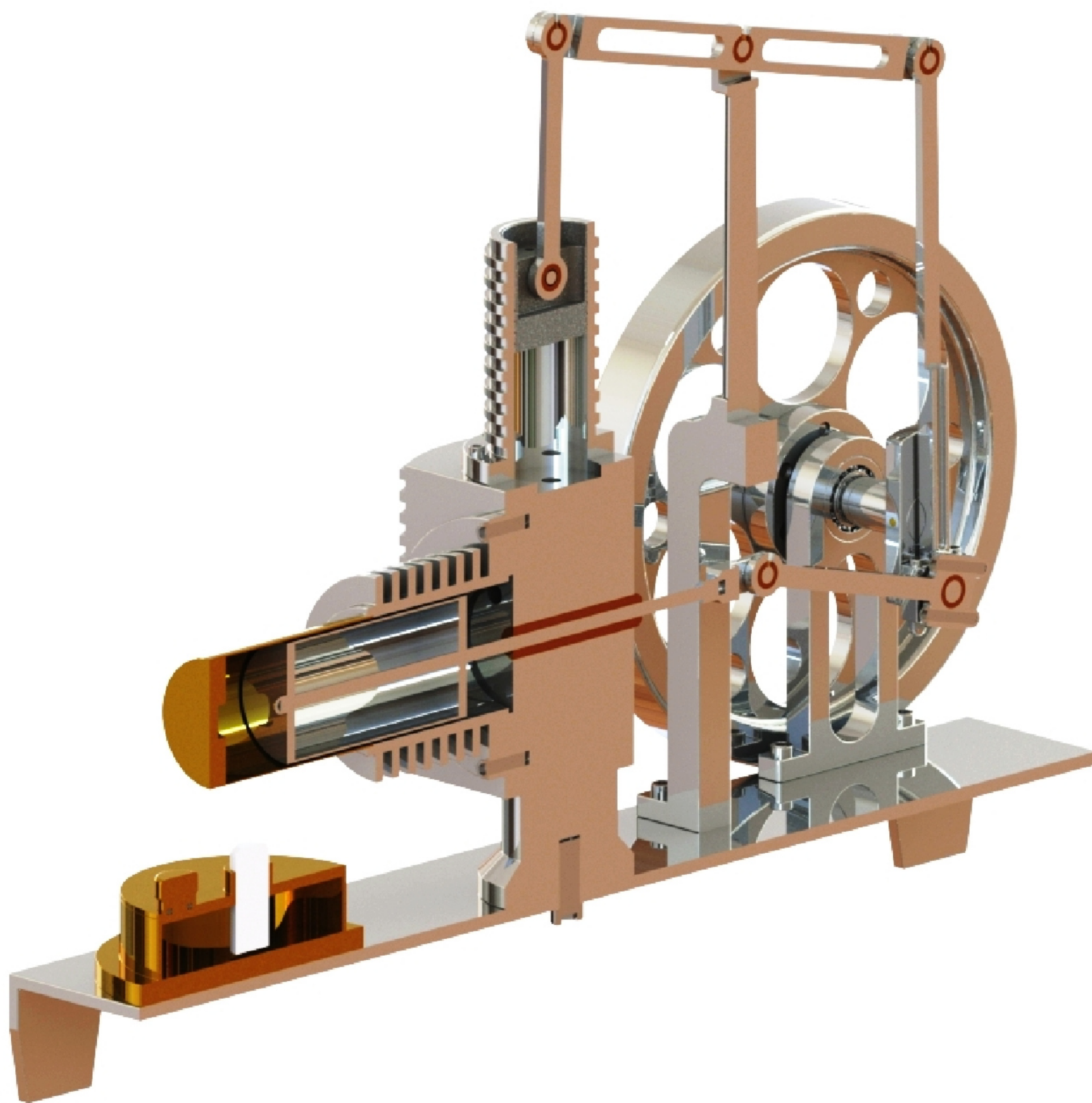
NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DRAWINGS WERE MADE BY R.F.TUPER, AND DATED AUGUST 2010.

<p>TITLE STIRLING ENGINE SCOTCH YOKE TYPE</p>	<p>DRAWING CONTENTS PARTS AND ASSEMBLIES</p>	<p>PROJECT No 05A-15-00 JDW DRAUGHTING SERVICES J.A.M. DE WAAL, 12 BRIGHTWELL STREET PAKAKURA 2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@extra.co.nz.</p>	<p>PROJECTION JDWDS DATE AUGUST 2020</p>	<p>MODEL SCALE: 1:1 DWG SCALE: 1:1 @A4 OR AS SHOWN Copyright © J.A.M. DE WAAL PAKAKURA NZ SHEET: 04 OF 06 A4 No: 05A-15-00-SHT04</p>
--	---	--	---	---



NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DRAWINGS WERE MADE BY R.F.TUPER, AND DATED AUGUST 2010.		PROJECT No 05A-15-00		PROJECTION JDWDS		MODEL SCALE: 1:1	
TITLE STIRLING ENGINE SCOTCH YOKE TYPE		DRAWING CONTENTS PARTS AND ASSEMBLIES		J.D.W. 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.		DWG SCALE: 1:1 @A4 OR AS SHOWN DATE AUGUST 2020 Copyright © J.A.M. DE WAAL PAKAPURA NZ	
				SHEET: 05 OF 06		A4 No: 05A-15-00-SHT05	

DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES



NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DRAWINGS WERE MADE BY R.F.TUPER, AND DATED AUGUST 2010.

TITLE
STIRLING ENGINE SCOTCH YOKE TYPE

DRAWING CONTENTS
RENDERED PICTURES

PROJECT No 05A-15-00
 JDW DRAUGHTING SERVICES
 J.A.M. DE WAAL, 12 BRIGHTWELL STREET PAPAURA
 2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB:
 0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION 	JDWDS	MODEL SCALE: 1:1
DATE AUGUST 2020	Copyright © J.A.M. DE WAAL PAPAURA NZ	DWG SCALE: 1:1 @A4 OR AS SHOWN
SHEET: 06 OF 06	A4	No: 05A-15-00-SHT06

DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES