

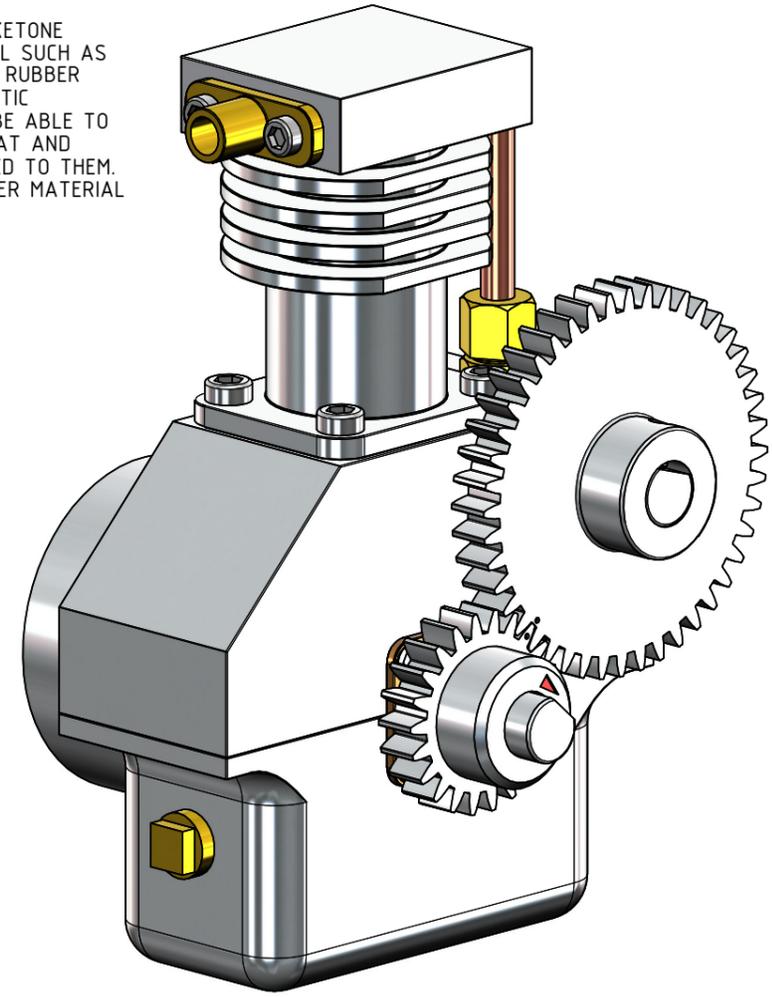
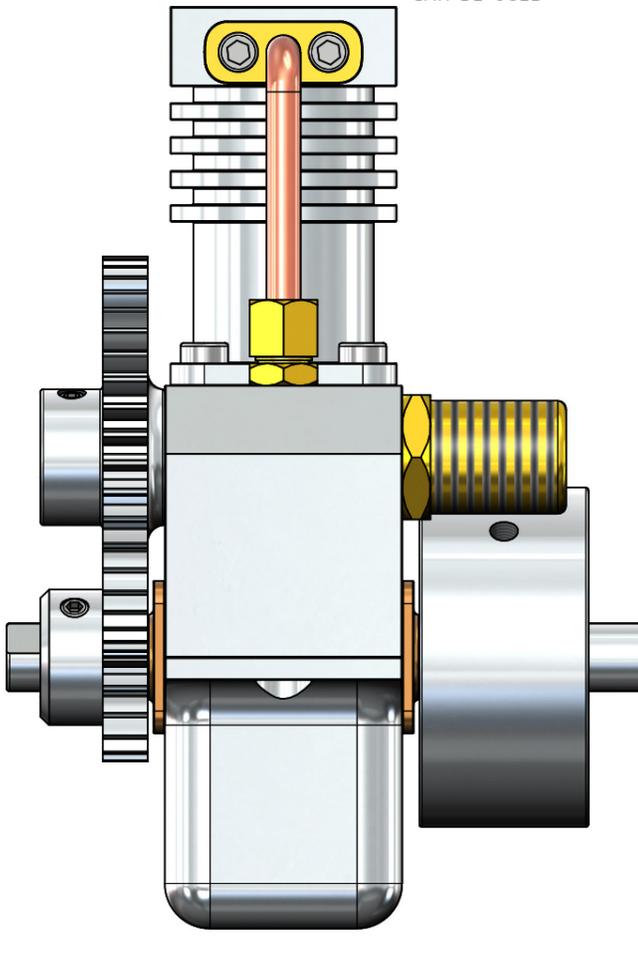
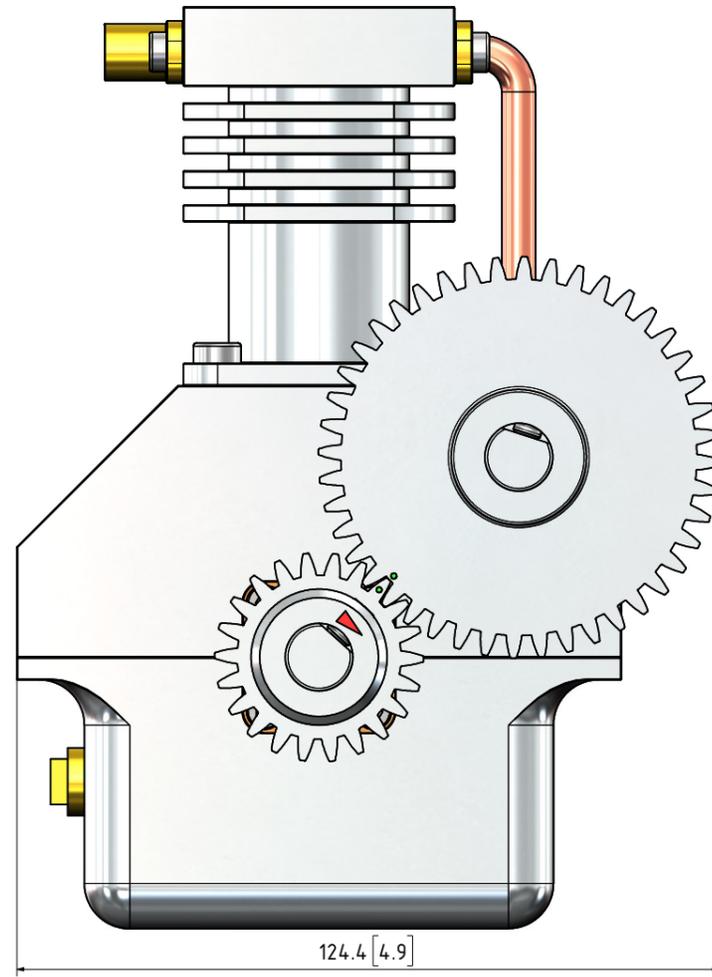
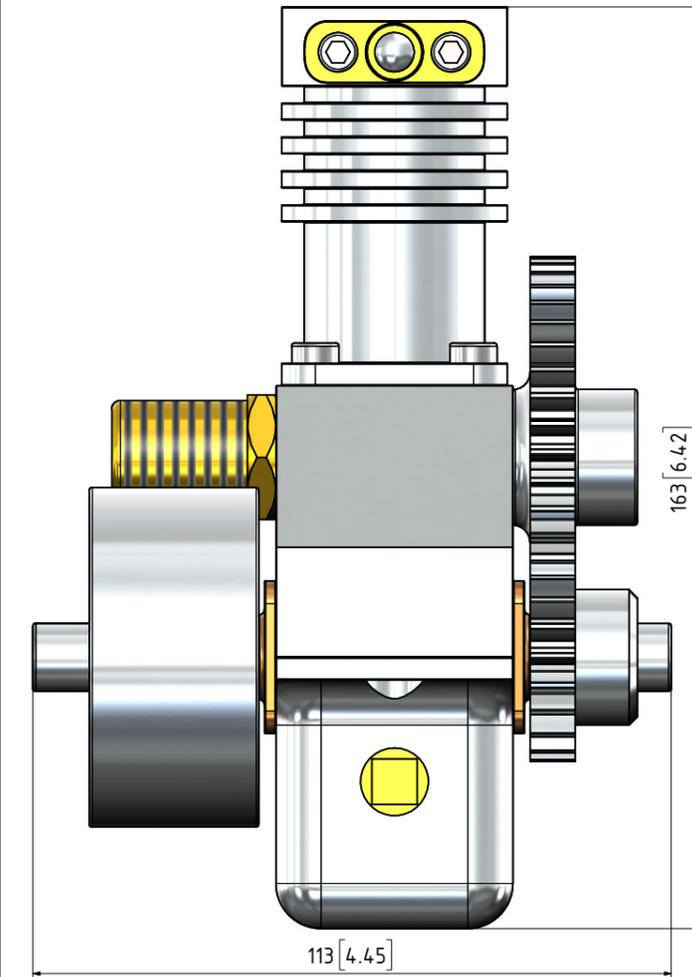
- GENERAL NOTES:
0. ALL DRAWINGS ARE IN METRIC MEASUREMENTS
 1. ALL ENGINEERING PRACTICES SHALL BE APPLIED WITH REGARDS TO HOLE AND SHAFT TOLERANCES.
 2. WHERE SCREWS OR BOLTS ARE USED THE CLEARANCE HOLES SHALL BE APPROXIMATELY 5% TO 8% LARGER THAN THE MATCHING TAPPED HOLE.
 3. PREFERABLY ALL TAPPED 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 SPRING WASHERS SHALL BE USED WHERE DEEMED NECESSARY.
 14. REMOVE ALL SHARP EDGES
 - XX. ERRORS AND/OR OMISSIONS MAY OCCUR IN THE DRAWINGS, DO NOT HESITATE TO CONTACT ME SO THAT THE ERRORS/OMISSIONS CAN BE RECTIFIED.

DUE TO THE LACK OF INFORMATION ON THE ORIGINAL DRAWING(S), SUCH AS VIEWS, DIMENSIONS, SECTIONS ETC AND/OR CLARITY OF COMPONENTS, OMITTED PARTS/COMPONENTS, SOME OF THE COMPONENTS MIGHT NOT BE AS CONSTRUCTED ORIGINALLY OR AS THE ORIGINAL DESIGNER INTENDED

MATERIAL ABBREVIATIONS:

- ALU = ALUMINIUM
 - HALU= HARD ALUMINIUM
 - BRS = BRASS
 - PBRZ= PHOSPHORE BRONZE
 - 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

- 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 = 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



QTY.	PART NUMBER
1	09D-32-00-1-01-ENGINE BLOCK
1	09D-32-00-1-02-STEAM INLET NOZZLE
1	09D-32-00-1-03-CYLINDER
1	09D-32-00-2-01-CRANKSHFT
1	09D-32-00-2-02-PISTON
1	09D-32-00-2-03-CON-ROD
1	09D-32-00-2-04-ROTARY VALVE
2	09D-32-00-M4 DOME NUT
2	09D-32-00-M4x18 A-K CYL HEAD SCREW
8	09D-32-00-M4x8 A-K C-SINK SCREW
4	09D-32-00-M5x12 A-K CYL HEAD SCREW
2	09D-32-00-M5x7.5 A-K GRUB SCREW
4	09D-32-00-M6x16 A-K CYL HEAD SCREW

NOTES: THIS ENGINE WAS DEVELOPED BY JDW AND IS BASED ON A SIMILAR V8 ENGINE BY LATE CHUCK FELLOWS. IF SOMEONE BUILD THIS ENGINE LET ME KNOW WHETHER OR NOT IT IS RUNNING SATISFACTORY AND SMOOTHLY

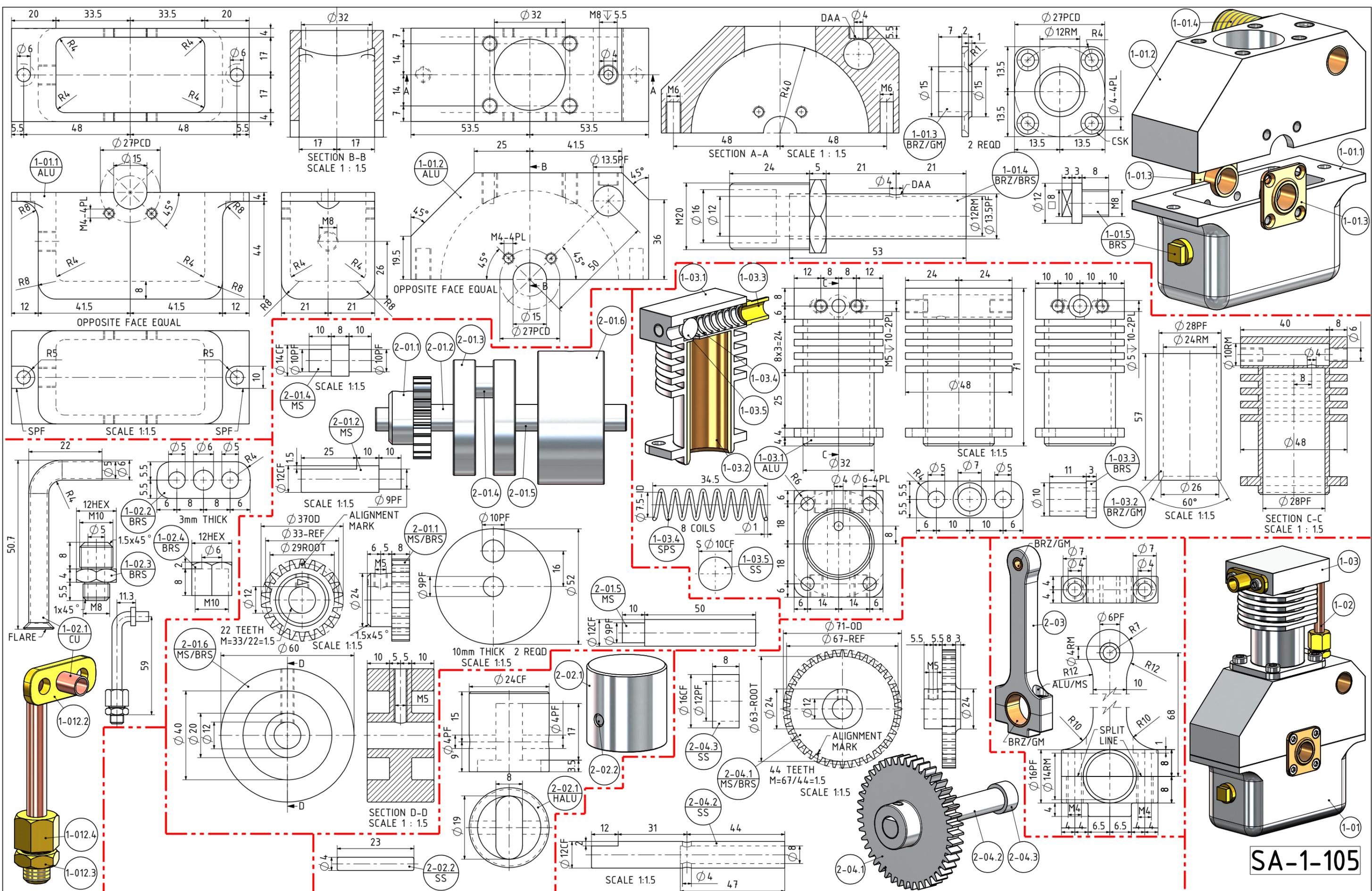
TITLE
AN EXPERIMENTAL 1 CYLINDER VERTICAL STEAM ENGINE WITH ROTARY VALVE

DRAWING CONTENTS
GENERAL ARRANGEMENT, ISOMETRIC VIEW, NOTES, BILL OF MATERIALS

PROJECT No 09D-32-00
 JDW DRAUGHTING SERVICES
 J.A.M. DE WAAL, 12 BRIGHTWELL STREET PAPAOKURA
 2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION
JDWDS
 DATE MARCH 2025
 SHEET: 01 OF 03

MODEL SCALE: 1:1
 DWG SCALE: 1:1 @A3 OR AS SHOWN
 Copyright © J.A.M. DE WAAL PAPAOKURA NZ
A3 No:09D-32-00-SHT-01



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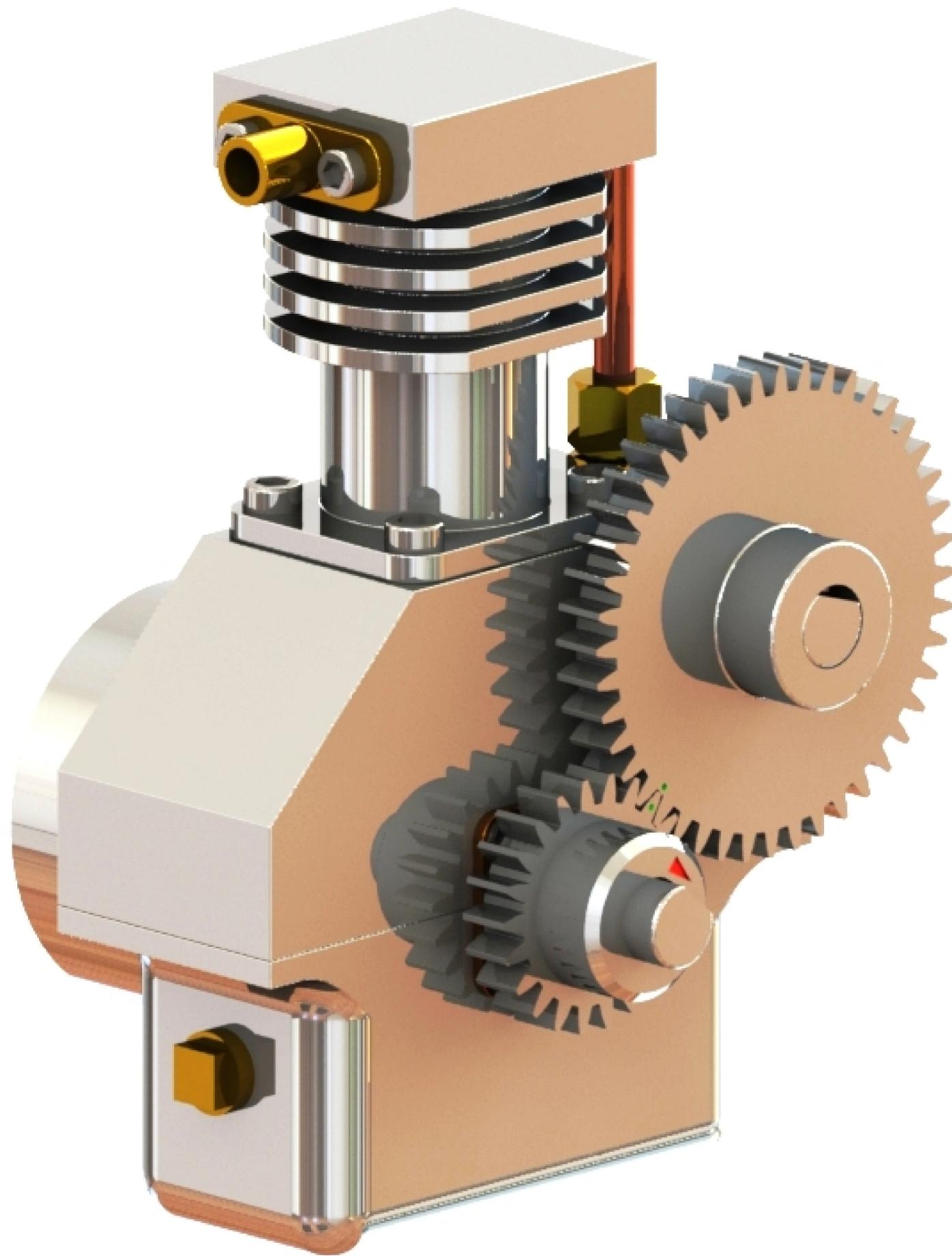
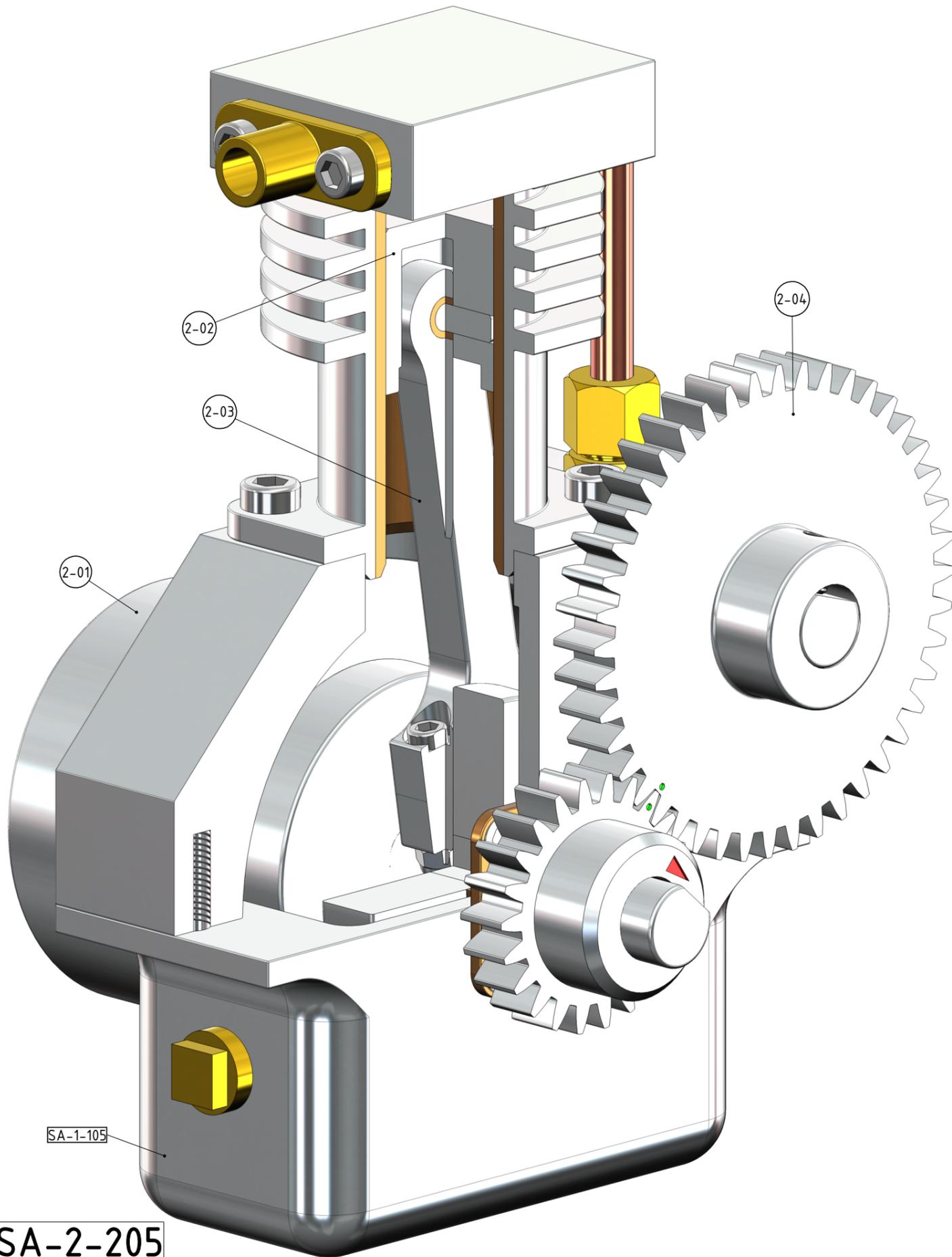
TITLE
AN EXPERIMENTAL 1 CYLINDER VERTICAL STEAM ENGINE WITH ROTARY VALVE

DRAWING CONTENTS
PARTS AND ASSEMBLIES

PROJECT No 09D-32-00
 JDW DRAUGHTING SERVICES
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 2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB: 0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION	JDWDS	MODEL SCALE: 1:1
DATE	MARCH 2025	DWG SCALE: 1:1 @A3 OR AS SHOWN
SHEET: 02 OF 03	A3	No:09D-32-00-SHT-02

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SA-2-205

NOTES: THIS ENGINE WAS DEVELOPED BY JDW AND IS BASED ON A SIMILAR V8 ENGINE BY LATE CHUCK FELLOWS. IF SOMEONE BUILD THIS ENGINE LET ME KNOW WHETHER OR NOT IT IS RUNNING SATISFACTORY AND SMOOTHLY

TITLE
**AN EXPERIMENTAL 1 CYLINDER VERTICAL
 STEAM ENGINE WITH ROTARY VALVE**

DRAWING CONTENTS
**PARTS AND ASSEMBLIES
 RENDERED PICTURE**

PROJECT No 09D-32-00
 JDW DRAUGHTING SERVICES
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 2110, NEW ZEALAND. PHONE: 0064 09 2988815. MOB:
 0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION	JDWDS	MODEL SCALE: 1:1
DATE	MARCH 2025	DWG SCALE: 1:1 @A3 OR AS SHOWN
SHEET: 03 OF 03		Copyright © J.A.M. DE WAAL PAKAPURA NZ
		A3 No:09D-32-00-SHT-03

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