

NOTES: THE ORIGINAL DRAWING WERE DOWN LOADED FROM THE INTERNET. GO TO THE FOLLOWING WEBSITES: <http://www.douglas-self.com/MUSEUM/POWER/rotaryengines/rotaryeng9.htm#you> <http://www.douglas-self.com/MUSEUM/POWER/rotaryengines/rotaryengmodel.htm>

TITLE  
**A MODEL OF A ROTATING PISTON STEAM ENGINE (? THE MAGUIRE ENGINE)**

DRAWING CONTENTS  
**GENERAL ARRANGEMENT.**

PROJECT No 09E-60-00  
 JDW DRAUGHTING SERVICES  
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PROJECTION	<b>JDWDS</b>	MODEL SCALE: 1:1
DATE	AUGUST 2022	DWG SCALE: 1:1 @A3 OR AS SHOWN
SHEET: 01 OF 04		Copyright © J.A.M. DE WAAL PAKAPURA NZ
A3		No: 09E-60-00-SHT-01

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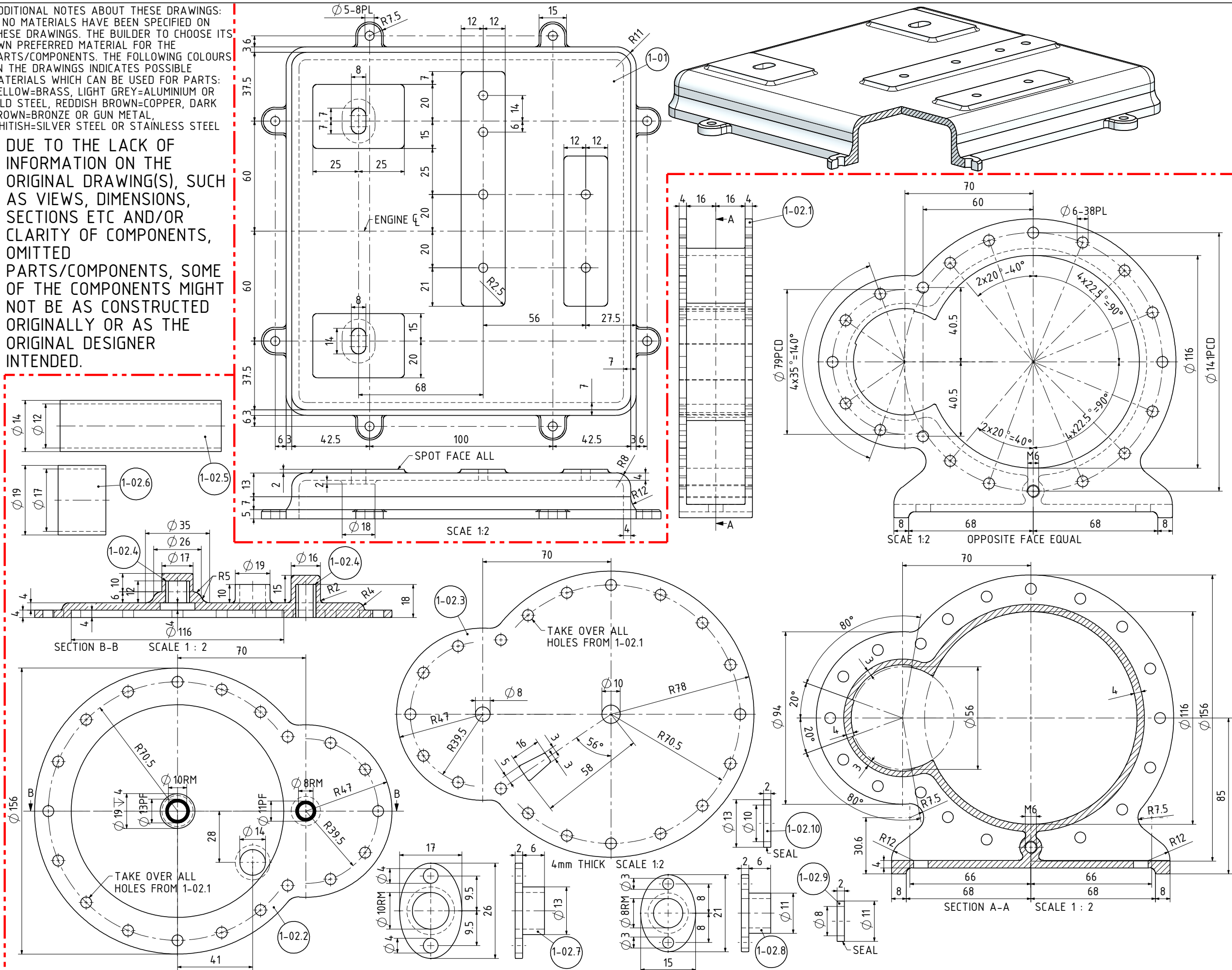
QTY.	PART NUMBER
1	09E-60-00-1-01-BASE
1	09E-60-00-1-02-CYLINDER
2	09E-60-00-1-03-MAIN BEARING
1	09E-60-00-1-04-AUX. BEARING
1	09E-60-00-2-01-PISTON+VALVE+SHAFT
1	09E-60-00-2-02-AUX. PISTON
2	09E-60-00-M3x10 A-K CYL HEAD SCREW
2	09E-60-00-M3x8 A-K CYL HEAD SCREW
4	09E-60-00-M4x16 A-K CYL HEAD SCREW
2	09E-60-00-M4x8 A-K CYL HEAD SCREW
6	09E-60-00-M5 NUT
6	09E-60-00-M5x20 A-K CYL HEAD SCREW
40	09E-60-00-M6 NUT
41	09E-60-00-M6x18 A-K CYL HEAD SCREW
2	09E-60-00-M8 NUT
2	09E-60-00-M8x26 A-K CYL HEAD SCREW

ADDITIONAL NOTES ABOUT THESE DRAWINGS:  
 1) NO MATERIALS HAVE BEEN SPECIFIED ON THESE DRAWINGS. THE BUILDER TO CHOOSE ITS OWN PREFERRED MATERIAL FOR THE PARTS/COMPONENTS. THE FOLLOWING COLOURS ON THE DRAWINGS INDICATES POSSIBLE MATERIALS WHICH CAN BE USED FOR PARTS: YELLOW=BRASS, LIGHT GREY=ALUMINIUM OR MILD STEEL, REDDISH BROWN=COPPER, DARK BROWN=BRONZE OR GUN METAL, WHITISH-SILVER STEEL OR STAINLESS STEEL

**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.**

- GENERAL NOTES:
- ALL DRAWINGS ARE IN METRIC MEASUREMENTS
  - ALL ENGINEERING PRACTICES SHALL BE APPLIED WITH REGARDS TO HOLE AND SHAFT TOLERANCES.
  - WHERE SCREWS OR BOLTS ARE USED THE CLEARANCE HOLES SHALL BE APPROXIMATELY 5% TO 8% LARGER THAN THE MATCHING TAPPED HOLE.
  - PREFERABLY ALL TAPPED HOLES AND MATCHING SCREWS AND/OR BOLTS TO BE METRIC FINE (MF)
  - MATERIALS SPECIFIED ON THE DRAWINGS ARE INDICATIVE ONLY. THE BUILDER CAN MAKE HIS/HER OWN MATERIAL CHOICE.
  - ALL CONNECTIONS/JOINTS WHICH HAVE STEAM PRESSURE APPLIED TO IT SHALL BE SILVER/HARD SOLDERED.
  - COMPRESSION SPRINGS ARE DRAWN IN COMPRESSED STATE (CP), UNCOMPRESSED STATE IS APPROX 40% TO 60% LONGER THEN COMPRESSED STATE.
  - 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.
  - 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.
  - THE ORDER IN WHICH THE PARTS/COMPONENTS ARE MANUFACTURED AND THE MODEL IS ASSEMBLED IS ENTIRELY LEFT TO THE BUILDER/MODEL MAKER.
  - A COLOUR SCHEME FOR THIS PROJECT IS ENTIRELY LEFT UP TO THE MODEL MAKER.
  - THE MANNER IN WHICH THE PARTS/COMPONENTS ARE MANUFACTURED IS ENTIRELY LEFT UP TO THE BUILDER.
  - USE LOCTITE, ON SCREW OR PRESS FIT CONNECTIONS OR SURFACES, WERE DEEMED NECESSARY TO PREVENT PARTS FROM LOOSENING.
  - 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.

- 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



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**A MODEL OF A ROTATING PISTON STEAM ENGINE (? THE MAGUIRE ENGINE)**

DRAWING CONTENTS  
**PARTS AND ASSEMBLIES, NOTE AND BILL OF MATERIALS**

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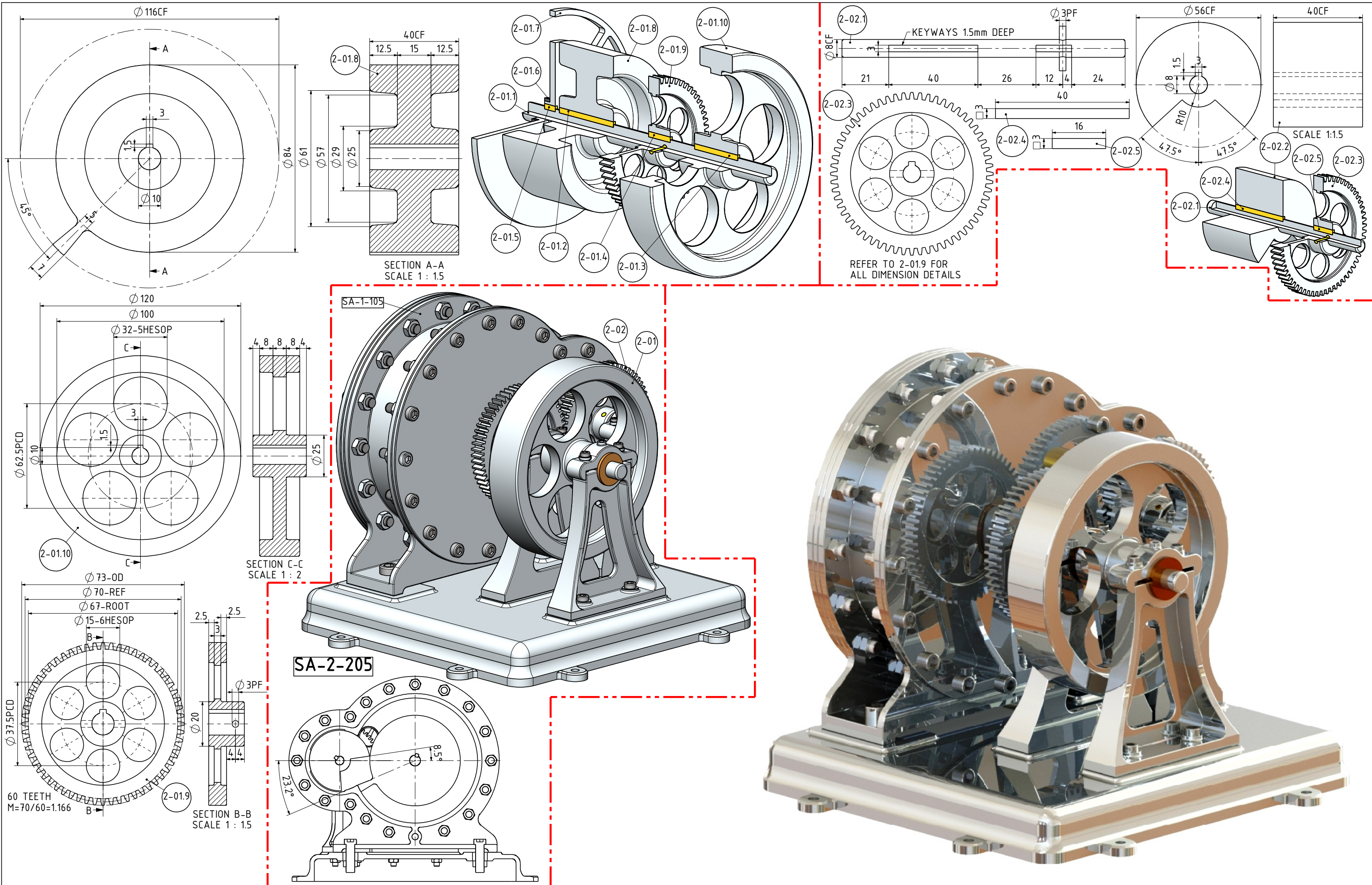
PROJECTION **JDWDS** MODEL SCALE: 1:1  
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