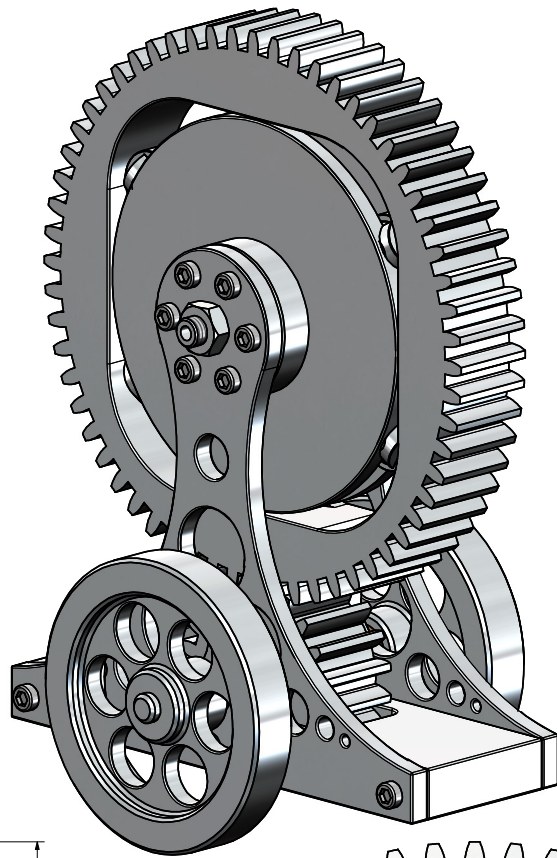




nnn/nnn MEANS THAT EITHER MATERIAL
CAN BE USED

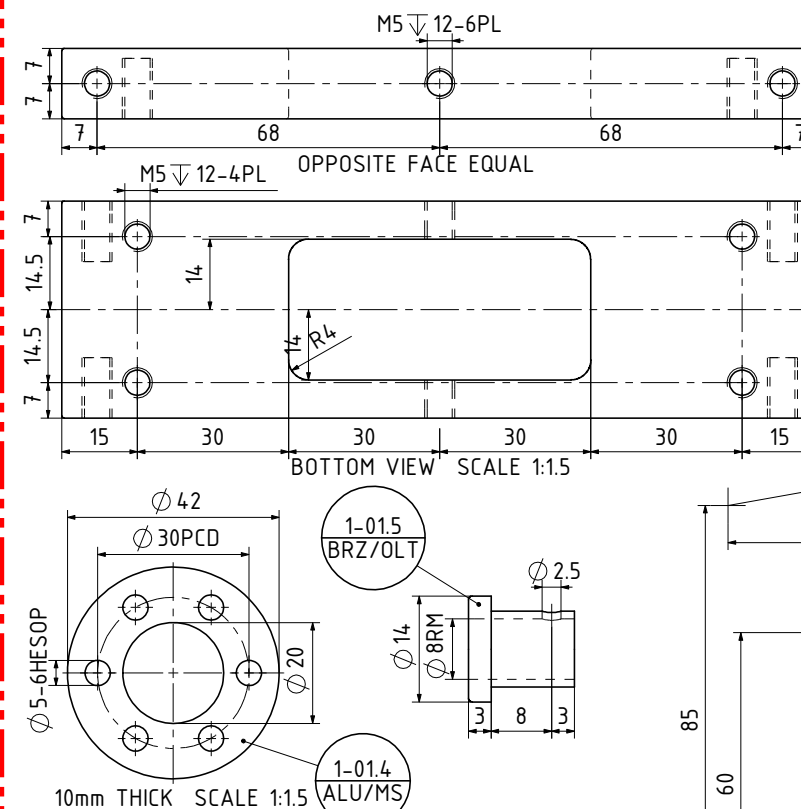
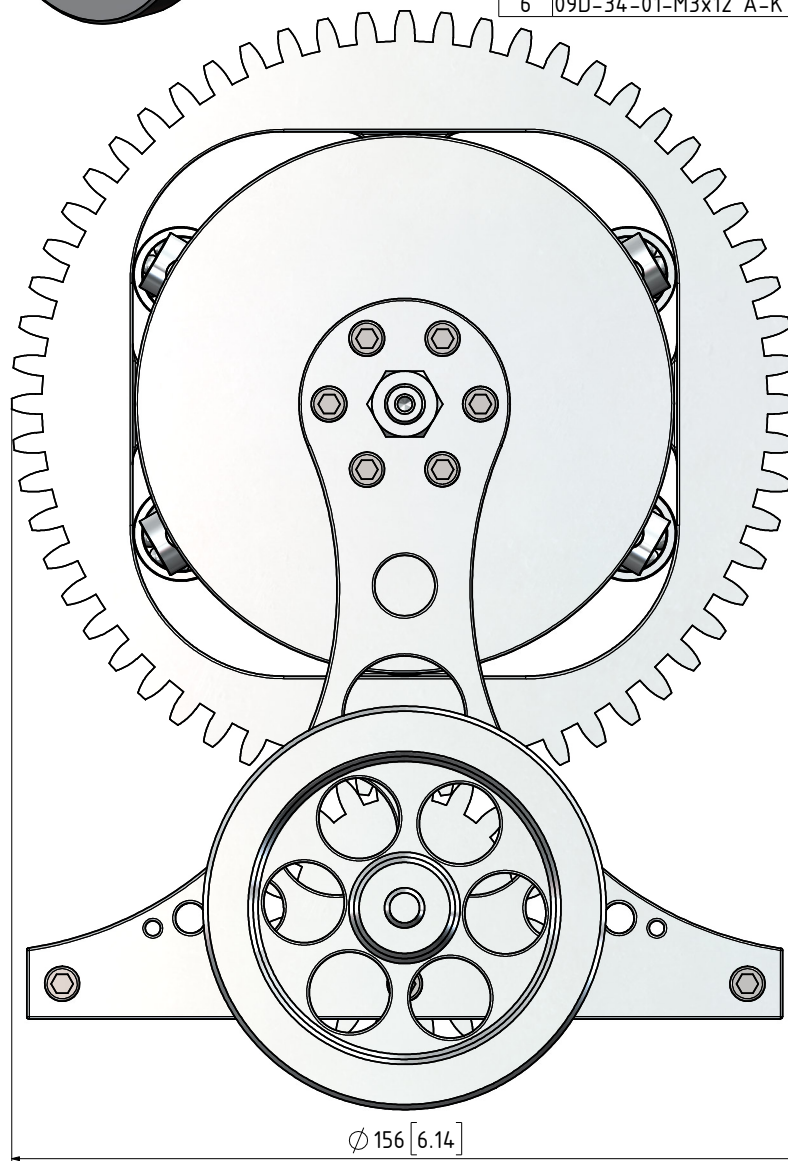
QTY.	PART NUMBER
1	09D-34-01-1-01-BASE FRAME
1	09D-34-01-2-01-RING GEAR+HUB
1	09D-34-01-2-04-GEAR WHEEL+FLYWHEEL
2	09D-34-01-M4x6 A-K GRUB SCREW
6	09D-34-01-M5x14 A-K CYL HEAD SCREW
6	09D-34-01-M5x32 A-K CYL HEAD SCREW
4	09D-34-01-M5x9 A-K CYL HEAD SCREW
2	09D-34-01-M8 NUT
6	09D-34-01-2-02-PISTON
6	09D-34-01-2-03-ROLLER BEARING 6x19x6
6	09D-34-01-M3x12 A-K GRUB SCREW

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:

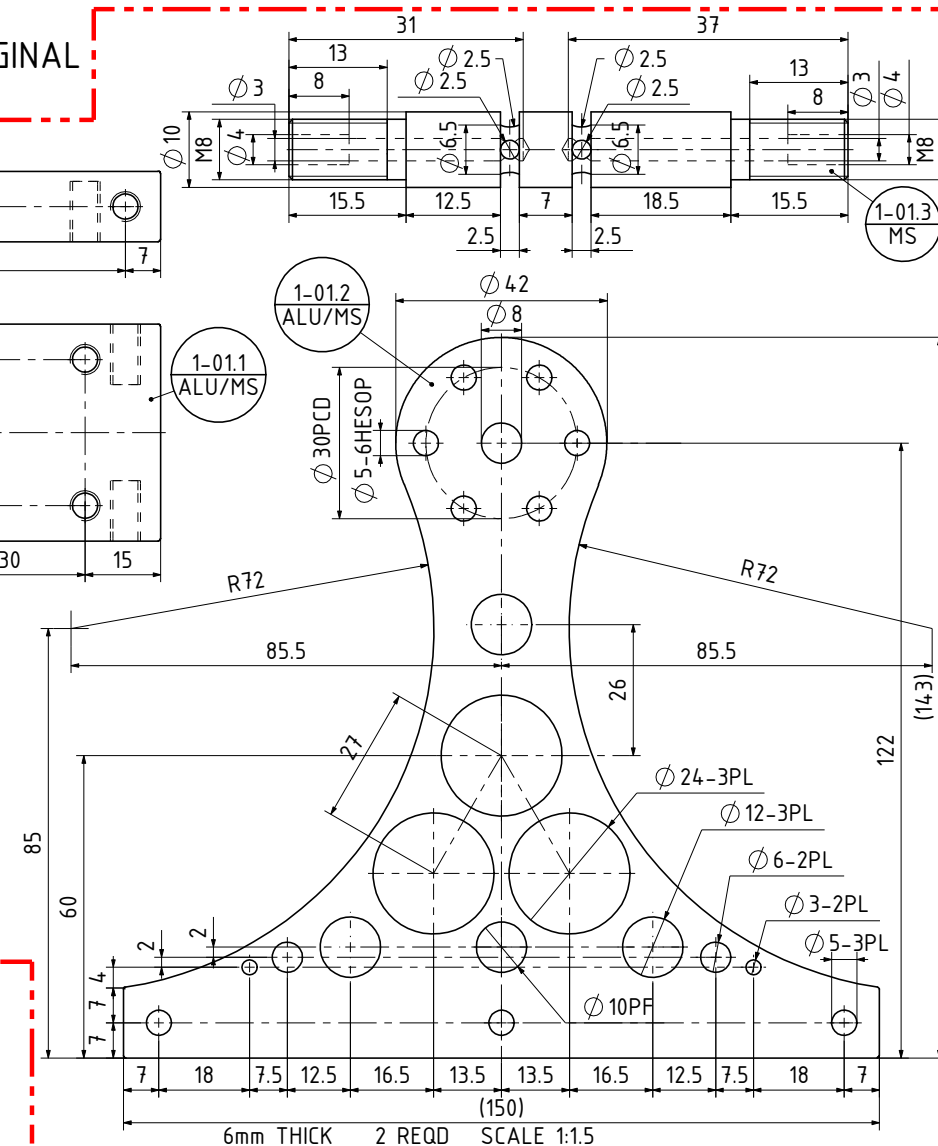
1. ALL DRAWINGS ARE IN METRIC MEASUREMENTS
1. ALL ENGINEERING PRACTICES SHALL BE APPLIED WITH REGARDS TO HOLE AND SHAFT TOLERANCES.
2. WHERE SCREWS OR BOLTS ARE USED THE CLEARANCE HOLES SHALL BE APPROXIMATELY 5% TO 8% LARGER THAN THE MATCHING TAPPED HOLE.
3. PREFERABLY ALL TAPPED HOLES AND MATCHING SCREWS 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. USE SEALING GASKETS WERE DEEMED NECESSARY.
15. 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



TO SEE THIS ENGINE RUN GO TO THE LINK BELOW

<http://www.youtube.com/watch?v=C1oe3oULID0>



NOTES: THE ORIGINAL DRAWINGS WERE GIVEN TO ME. THE ORIGINAL DESIGN AND BUILT WERE BY KEN IRWIN IN SOUTH AFRICA. THE ENGINE SHOWN ON THESE DRAWINGS ARE BASED ON THE DRAWINGS KEN IRWIN PLUS SOME EXTRA'S ADDED TO IT. THE ENGINE 1.2 TIMES LARGER.

TITLE	AN EXPERIMENTAL 6 CYL. RADIAL STEAM/AIR ENGINE USING A 4 LOBE SQUARE GEARWHEEL
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DRAWING CONTENTS

G.A., ISOMETRIC VIEW, NOTES, BOM, PARTS AND ASSEMBLIES

PROJECT No 09D-34-01

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0211791000 E-MAIL: dewaal@xtra.co.nz.

PROJECTION 	JDWDS	MODEL SCALE: 1:1
DATE MAY 2025		DWG SCALE: 1:1 @A3 OR AS SHOWN
		Copyright © J.A.M. DE WAAL PAPAKURA NZ
SHEET: 01 OF 02	A3	No:09D-34-01-SHT-01

DRAWINGS ARE FOR PERSONAL USE ONLY NOT FOR COMMERCIAL PURPOSES