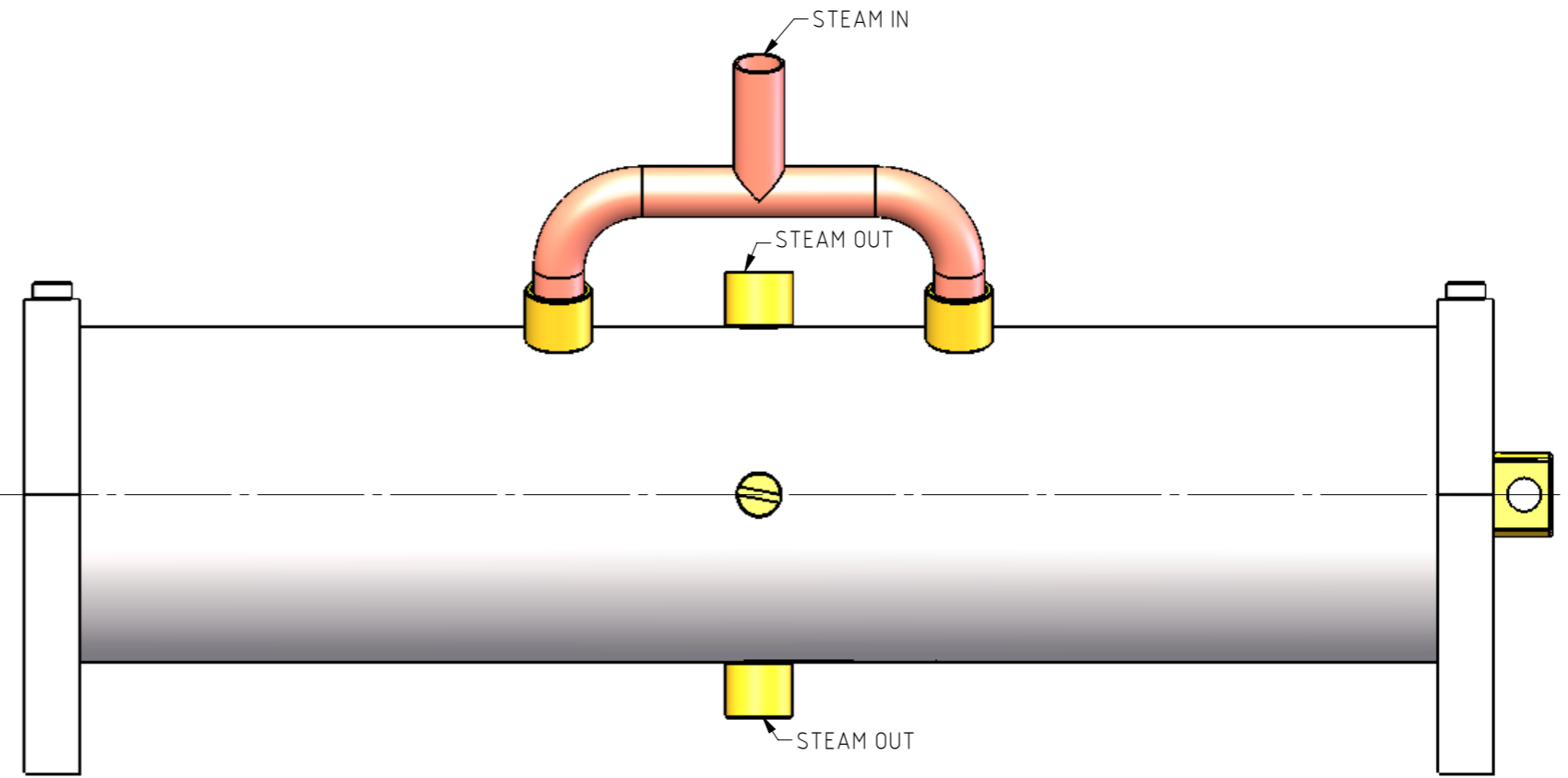


TOP VIEW



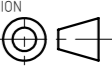
SIDE VIEW

TITLE  
 EXPERIMENTAL HORIZONTAL TWIN CYLINDER LINEAR STEAM ENGINE  
 GENERAL ARRANGEMENT

REV	DESCRIPTION	DATE
A	ISSUED TO NVM	01/2009

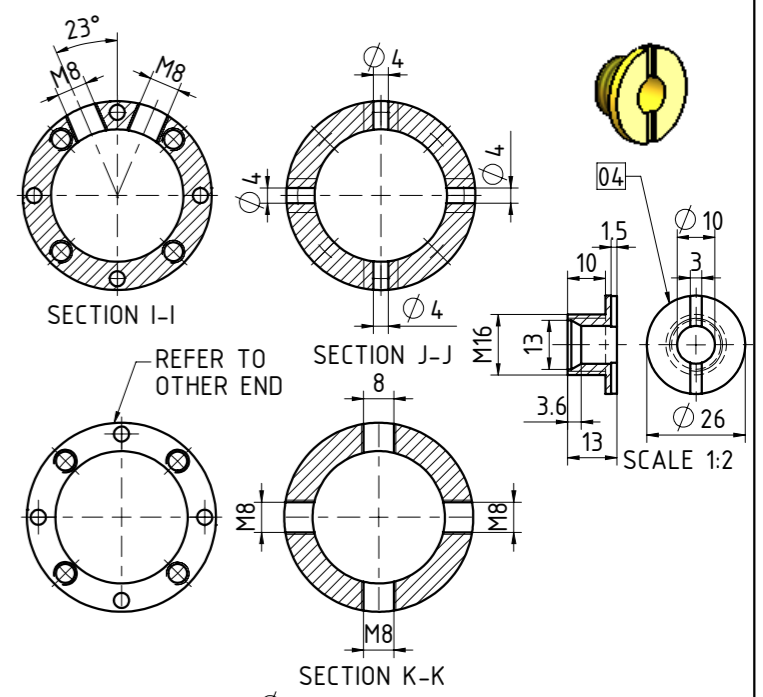
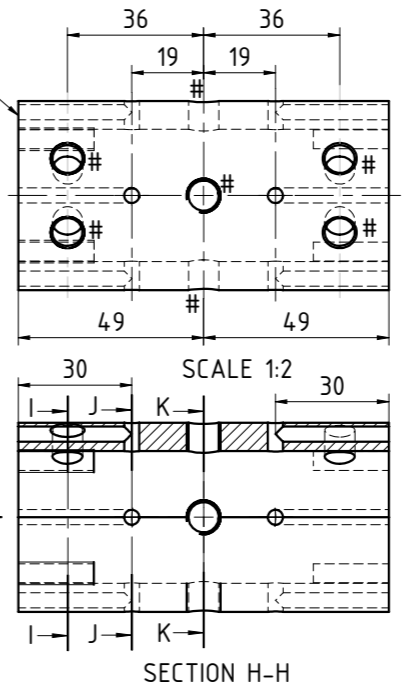
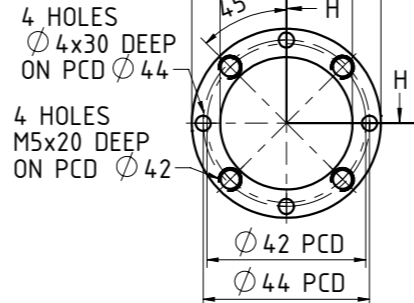
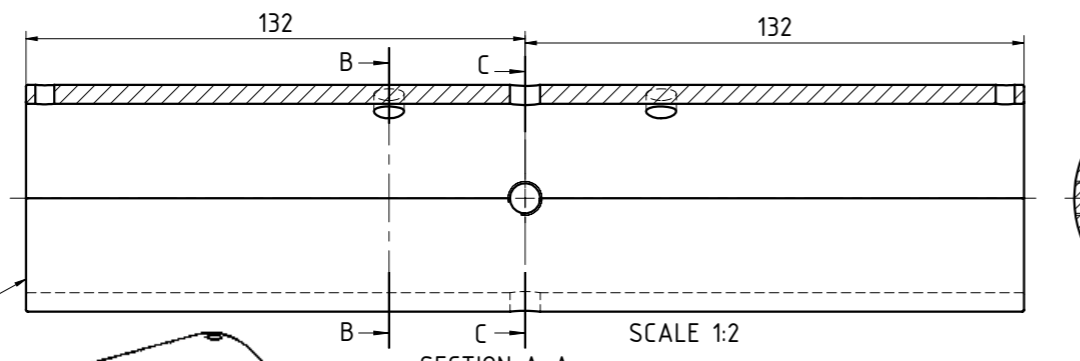
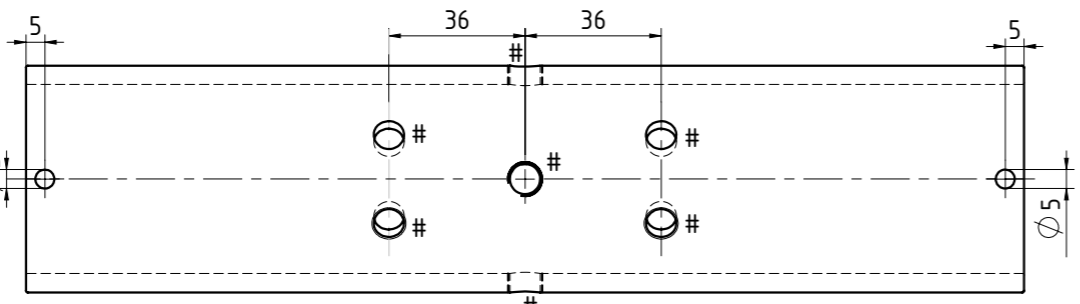
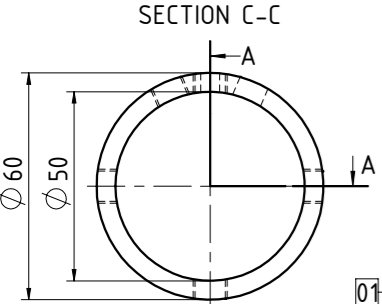
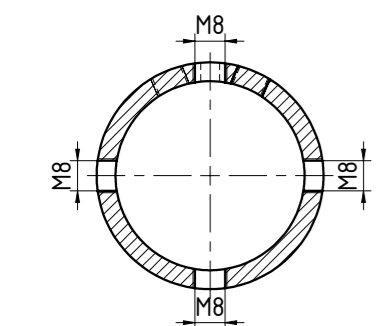
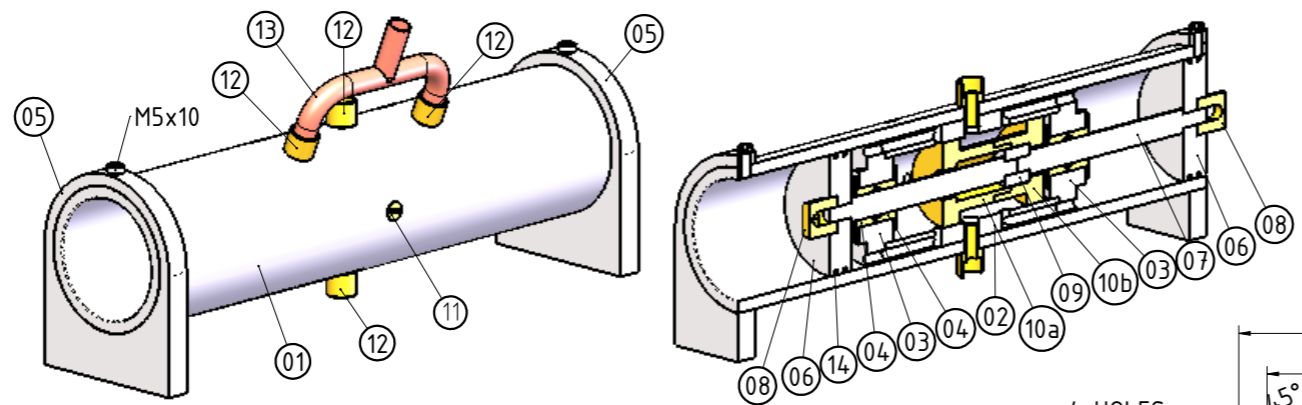
JDW DRAUGHTING SERVICES  
 12 BRIGHTWELL STREET  
 PAPAURA NEW ZEALAND  
 TEL/FAX 0064-09-2988815  
 E-MAIL:dewaal@xtra.co.nz

DRAWN BY  
 J.A.M. DE WAAL  
 DATE  
 APRIL 2006

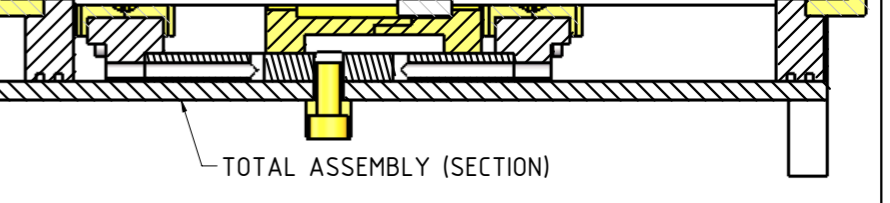
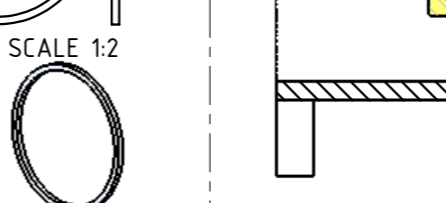
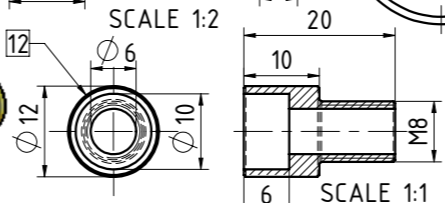
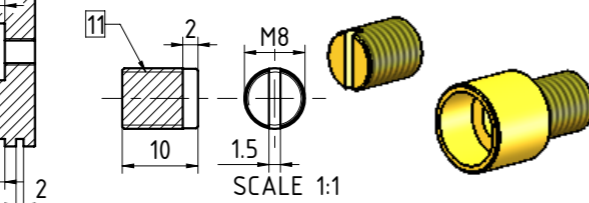
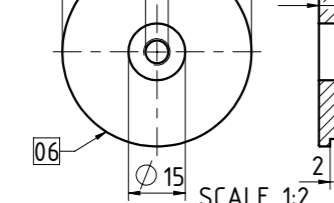
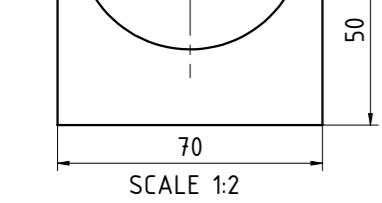
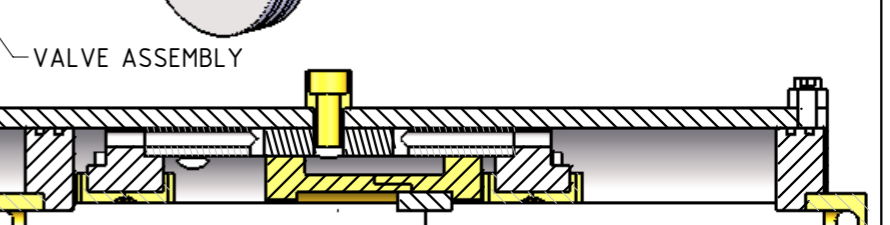
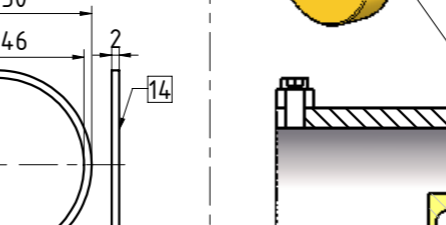
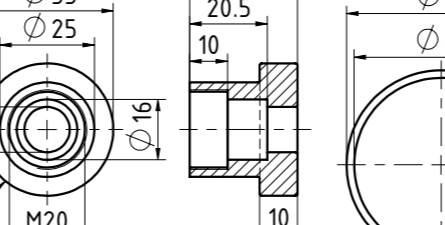
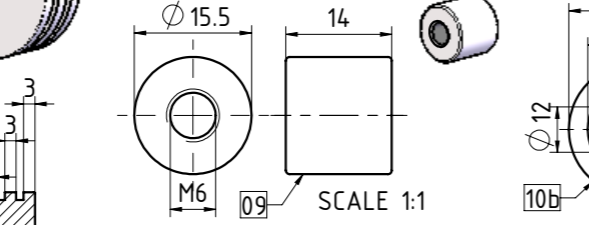
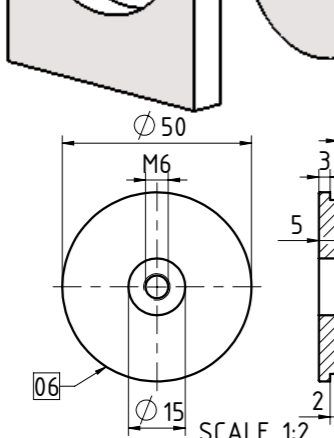
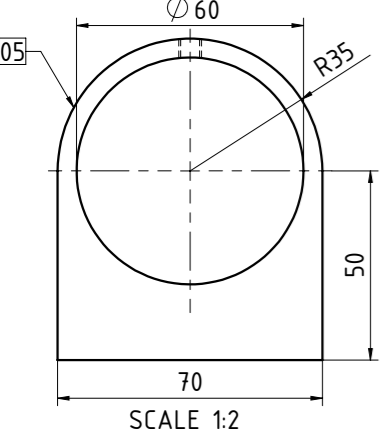
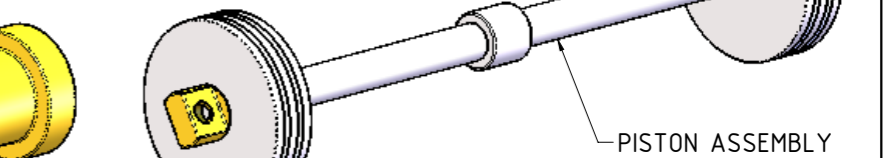
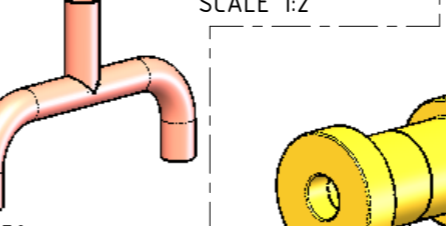
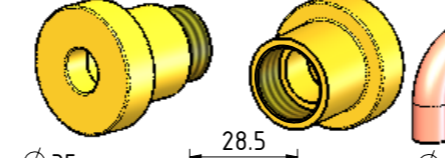
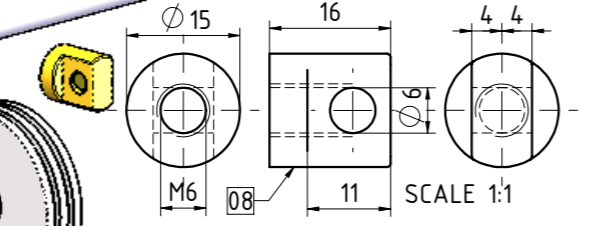
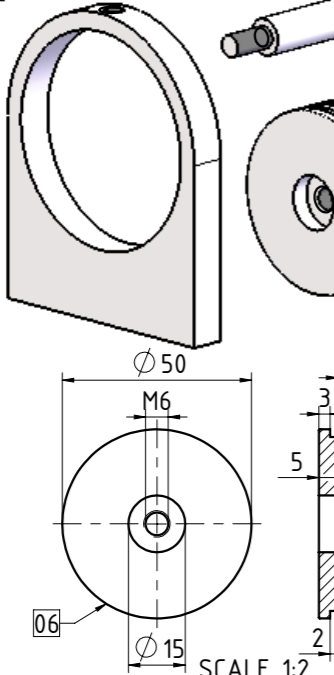
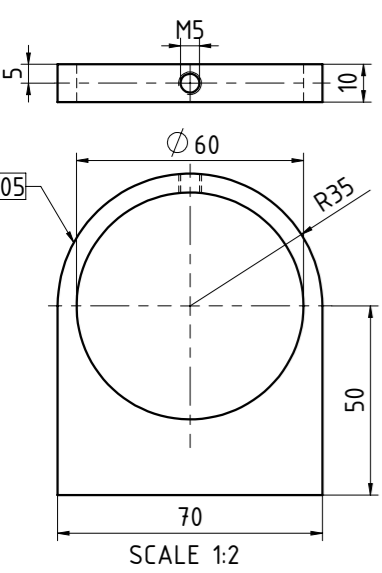
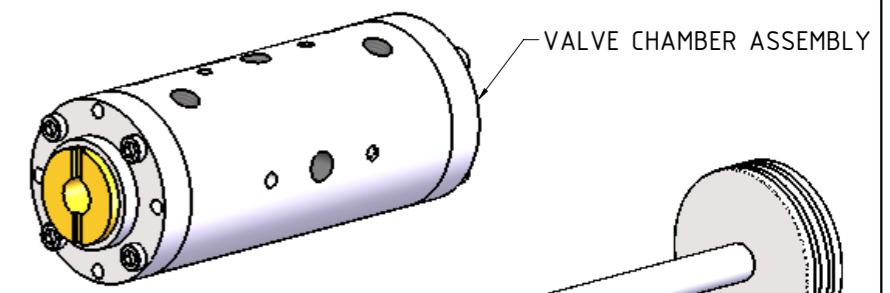
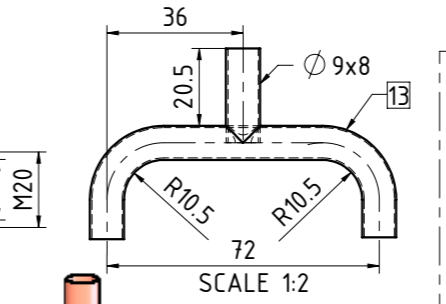
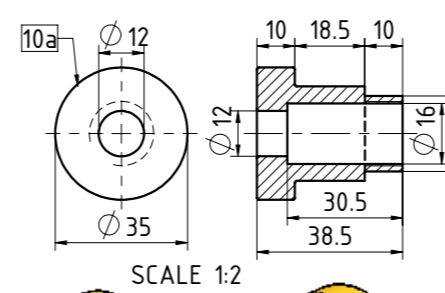
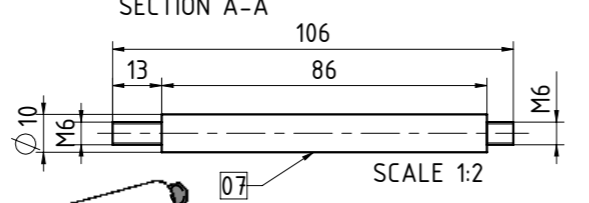
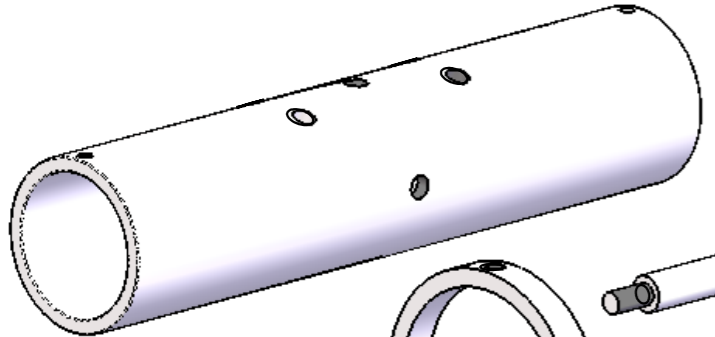
PROJECTION  
  
 SCALE  
 AS SHOWN

DRAWING NUMBER  
 LSTM-000  
 CAD FILE  
 REV  
 A

QTY.	TOTAL ASSEMBLY	DWG No
1	01-CYLINDER	
1	02-VALVE CHAMBER	
2	03-SEPARATION PLATE	
4	04-SEALING SCREW	
2	05-SUPPORT BRACKET	
2	06-PISTON	
2	07-PISTON ROD	
2	08-PISTON LOCK NUT	
1	09-VALVE NOCKER	
1	10a-VALVE-1	
1	10b-VALVE-2	
4	11-SCREW PLUG	
4	12-IN-OUT NIPPLE	
1	13-INLET PIPE	
4	14-PISTON RING	
2	M5x10 ALLEN KEY	
8	M5x20 ALLEN KEY	



NOTE: ALL HOLES MARKED "#" TO BE DRILLED AND/OR TAPPED AFTER VALVE CHAMBER IS INSERTED INTO CYLINDER



TITLE  
**EXPERIMENTAL HORIZONTAL TWIN CYLINDER LINEAR STEAM ENGINE ASSEMBLIES AND PARTS**

JDW DRAUGHTING SERVICES 12 BRIGHTWELL STREET PAPAURA NEW ZEALAND TEL/FAX 0064-09-2988815 E-MAIL: dewaal@xtra.co.nz			DRAWN BY J.A.M. DE WAAL	PROJECTION 	DRAWING NUMBER LSTM-001
A ISSUED TO NVM REV DESCRIPTION DATE	01/2009 DATE	APRIL 2006 DATE	SCALE AS SHOWN	CAD FILE REV A	A

P1=PISTON1=ZUIGER1  
 P2=PISTON2=ZUIGER2  
 V=VALVE=SCHUIF

EXHAUST STEAM=AFGEWERKTE STOOM  
 FRESH HIGH PRESSURE STEAM=HOGE DRUK STOOM  
 PORT OPEN=POORT OPEN  
 PORT CLOSED=POORT DICHT  
 DIRECTION OF MOVEMENT=RICHTING VAN BEWEGING

EXPANSION=UITZETTING

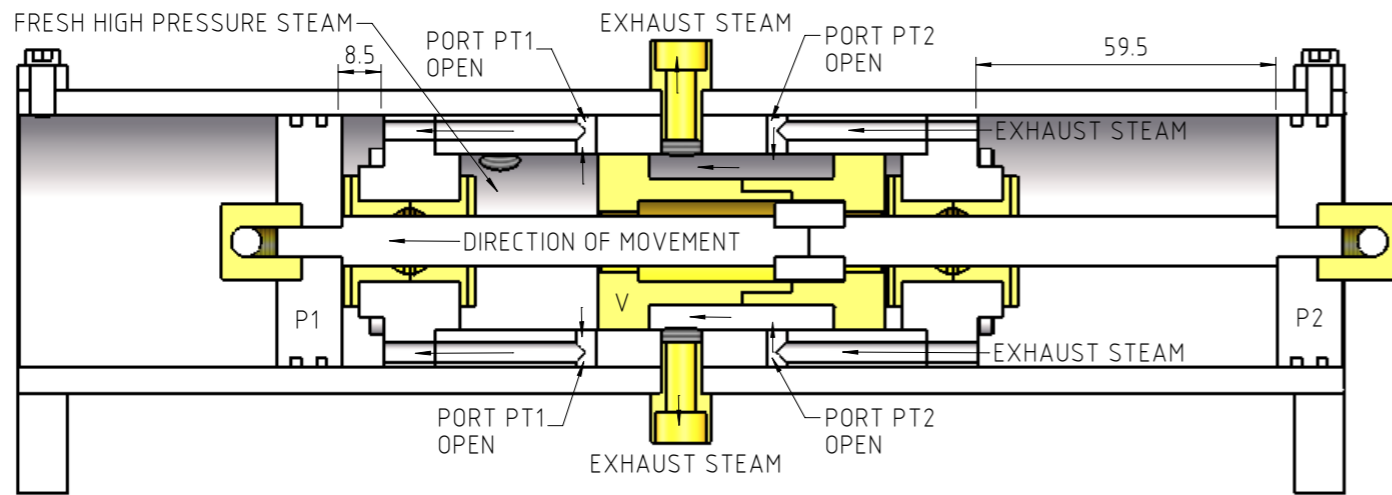


FIGURE-1

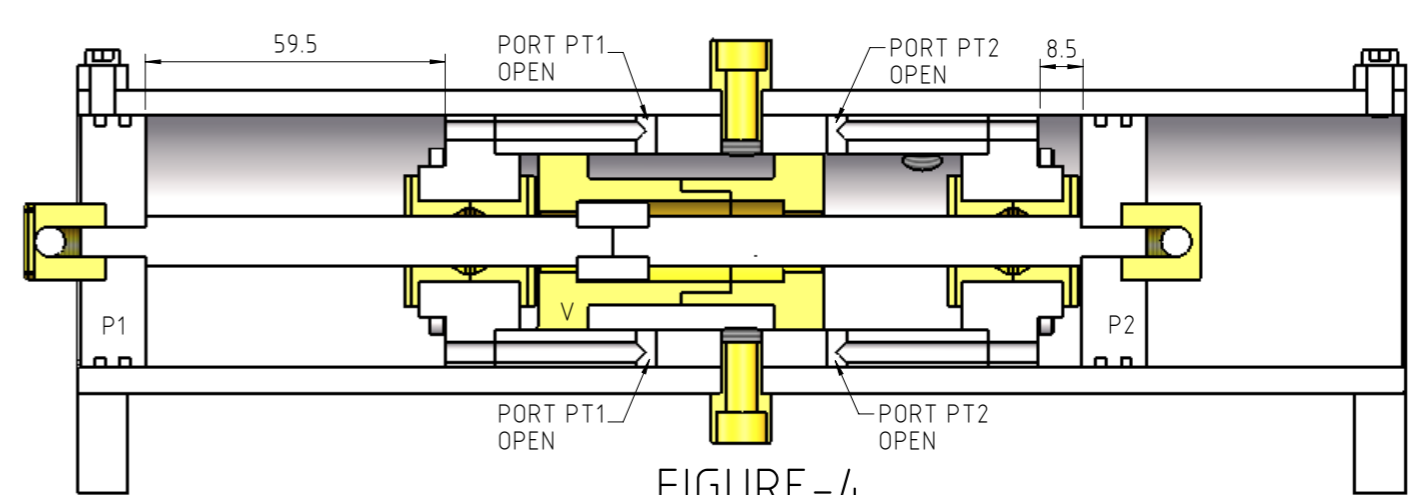


FIGURE-4

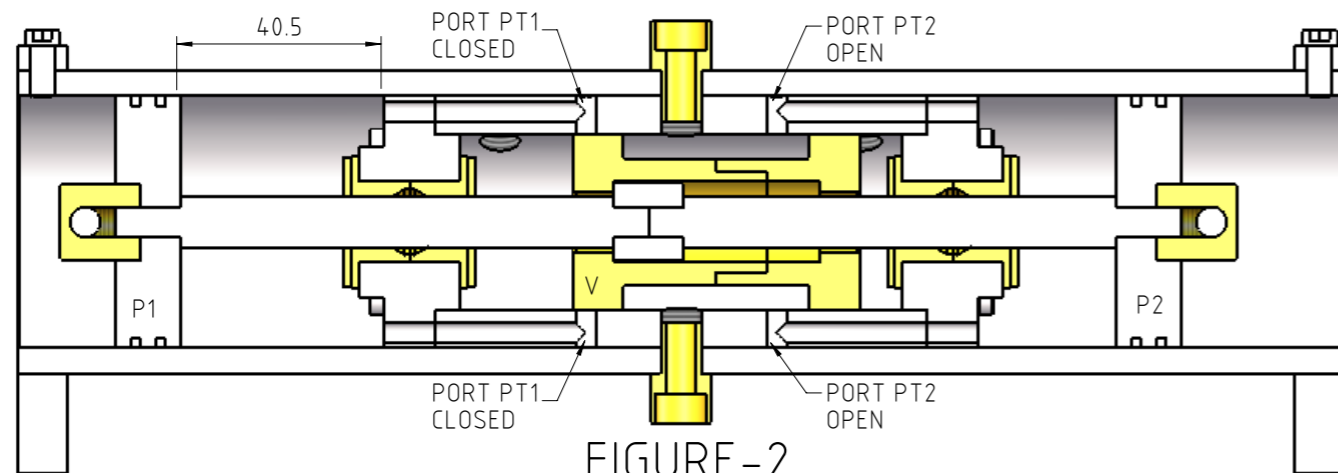


FIGURE-2

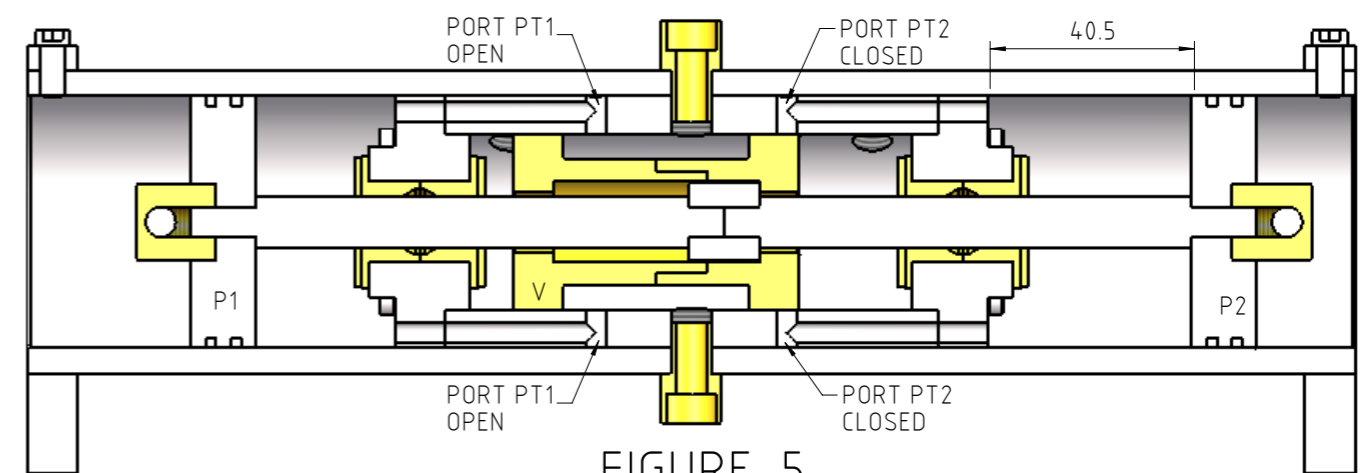


FIGURE-5

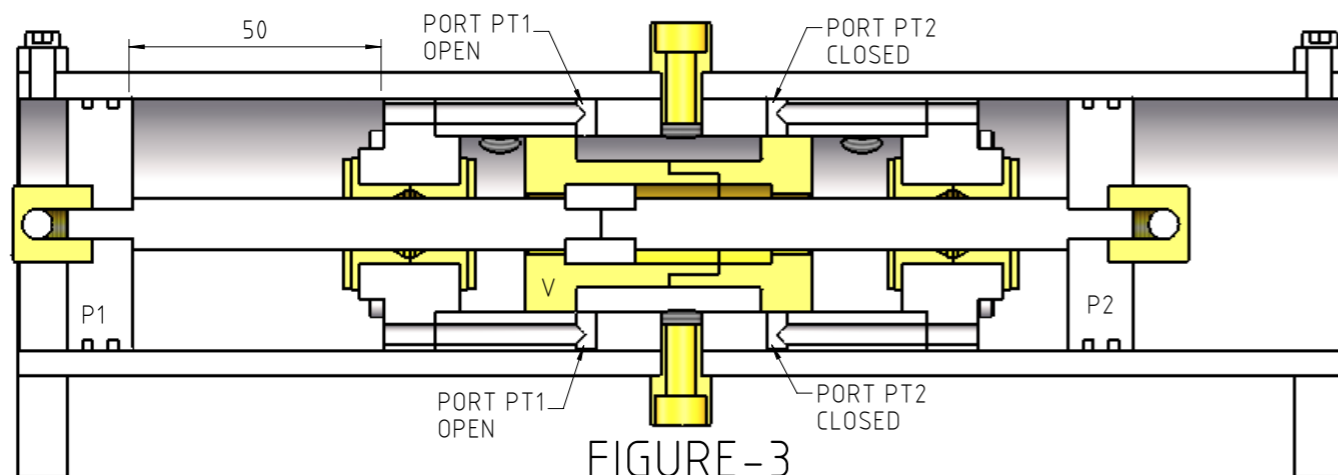


FIGURE-3

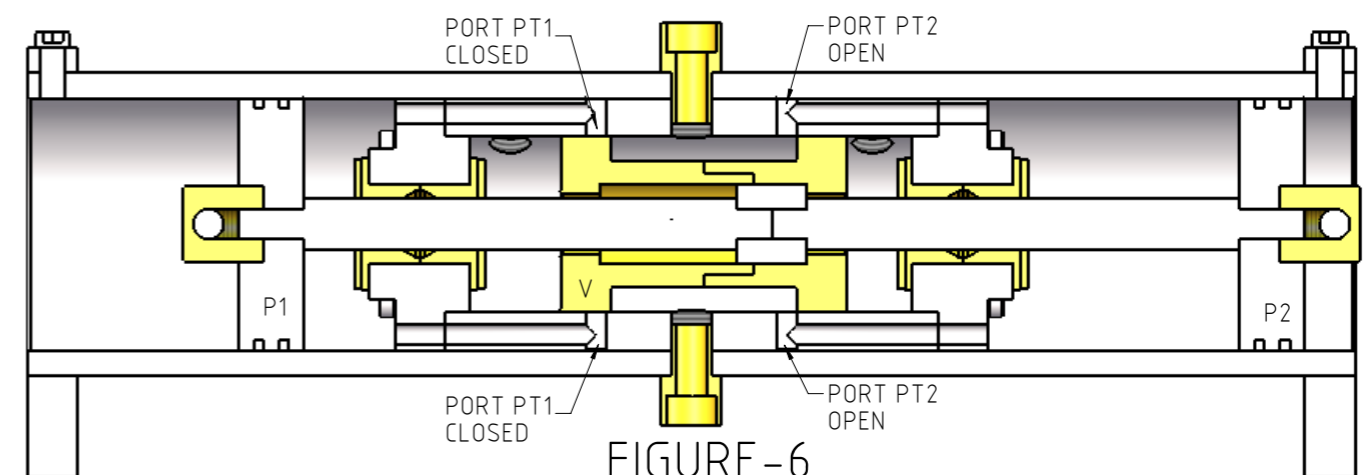


FIGURE-6

TITLE  
 EXPERIMENTAL HORIZONTAL TWIN CYLINDER LINEAR STEAM ENGINE  
 STEAM SCHEMATIC

JDW DRAUGHTING SERVICES 12 BRIGHTWELL STREET PAPAURA NEW ZEALAND TEL/FAX 0064-09-2988815 E-MAIL:dewaal@xtra.co.nz			DRAWN BY J.A.M. DE WAAL	PROJECTION 	DRAWING NUMBER LSTM-002
A ISSUED TO NVM 01/2009 REV DESCRIPTION DATE			DATE APRIL 2006	SCALE AS SHOWN	CAD FILE REV A

# EXPERIMENTAL HORIZONTAL TWIN CYLINDER LINEAR STEAM ENGINE DESIGNED BY Mr J.A.M. DE WAAL, PAPAKURA, NEW ZEALAND

NOTE: THESE DRAWINGS HAVE BEEN CONVERTED TO SOLIDWORKS 2011 DATED 06-06-2013

EXPERIMENTAL HORIZONTAL TWIN CYLINDER LINEAR STEAM ENGINE  
EXPERIMENTELE HORIZONTALA DUBBEL CILINDER LINEAIRE STOOM MACHINE

DATE	APRIL 2007	COMMENTS
NVM DWG No		THIS EXPERIMENTAL STEAM ENGINE WAS DESIGNED ONLY AND WAS NOT BUILT  DIT EXPERIMENTELE STOOM MACHINE WAS ONTWORPEN MAAR WAS NOOIT GEBOUWT.
DRAWN BY	J.A.M. DE WAAL	
MODEL SCALE	NTS	
DRAWING SCALE	AS SHOWN	

TITLE  
EXPERIMENTAL HORIZONTAL TWIN CYLINDER LINEAR STEAM ENGINE  
COVER SHEET

		JDW DRAUGHTING SERVICES 12 BRIGHTWELL STREET PAPAKURA NEW ZEALAND TEL/FAX 0064-09-2988815 E-MAIL:dewaal@xtra.co.nz	DRAWN BY J.A.M. DE WAAL	PROJECTION 	DRAWING NUMBER LSTM-CS
A	ISSUED TO NVM	01/2009	DATE APRIL 2006	SCALE AS SHOWN	REV A
REV	DESCRIPTION	DATE			