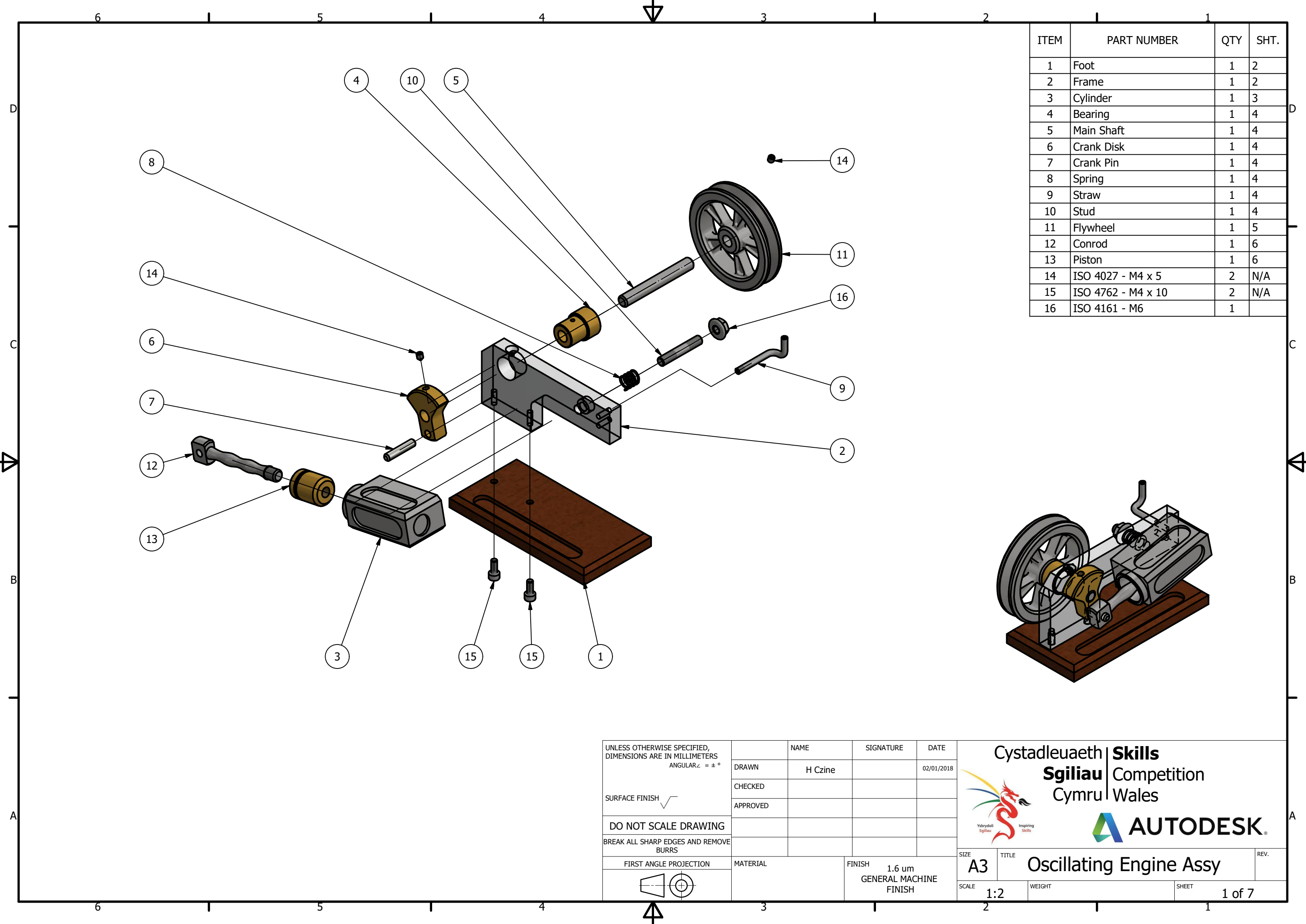




ITEM	PART NUMBER	QTY	SHT.
1	Foot	1	2
2	Frame	1	2
3	Cylinder	1	3
4	Bearing	1	4
5	Main Shaft	1	4
6	Crank Disk	1	4
7	Crank Pin	1	4
8	Spring	1	4
9	Straw	1	4
10	Stud	1	4
11	Flywheel	1	5
12	Conrod	1	6
13	Piston	1	6
14	ISO 4027 - M4 x 5	2	N/A
15	ISO 4762 - M4 x 10	2	N/A
16	ISO 4161 - M6	1	

UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN MILLIMETERS
ANGULAR $\angle = \pm ^\circ$

SURFACE FINISH

DO NOT SCALE DRAWING

BREAK ALL SHARP EDGES AND REMOVE
BURRS

FIRST ANGLE PROJECTION

NAME
H Czine

CHECKED

APPROVED

MATERIAL

SIGNATURE

DATE
02/01/2018

FINISH
1.6 μ m
GENERAL MACHINE
FINISH

SIZE
A3

SCALE
1:2

WEIGHT

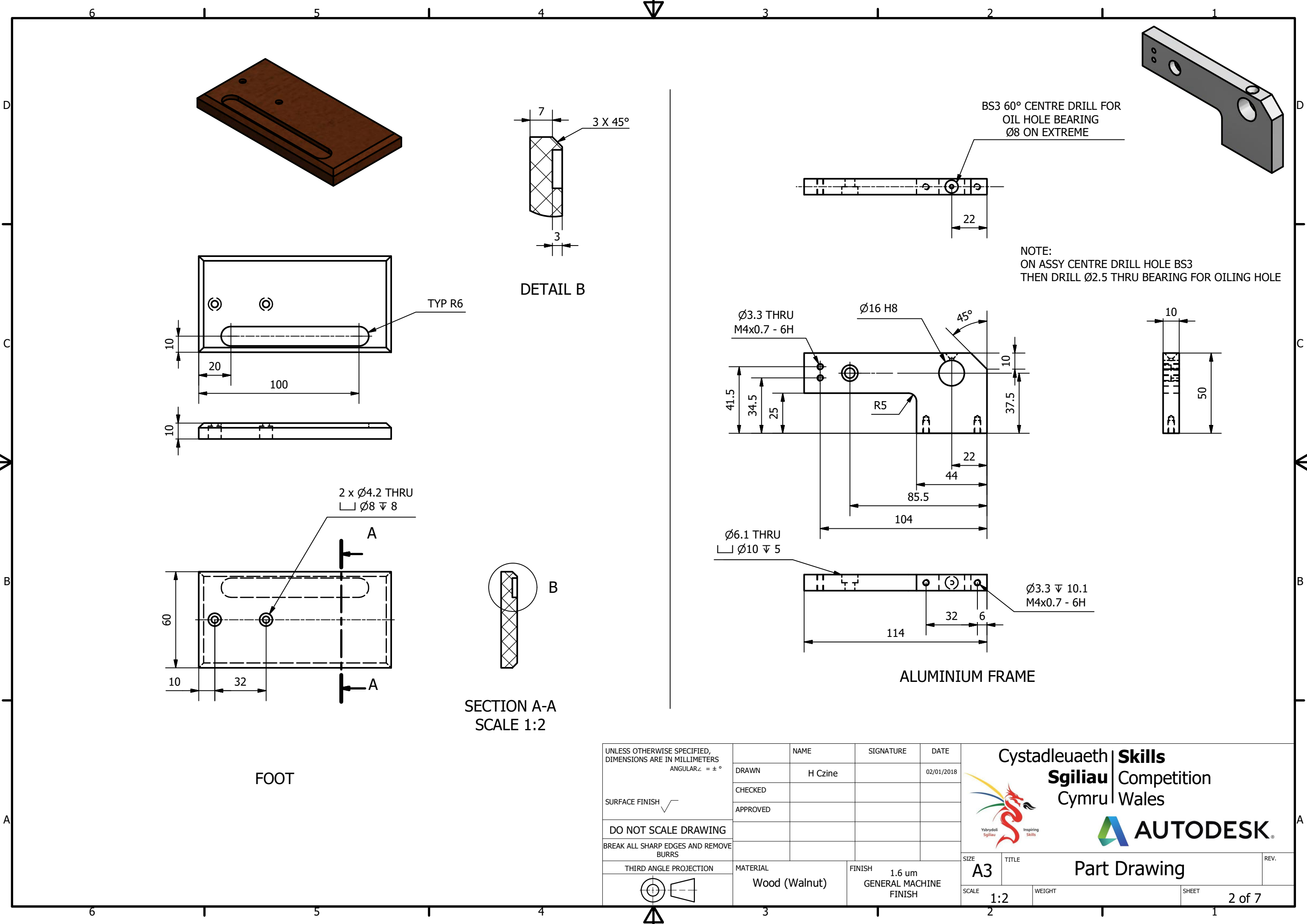
SHEET
1 of 7

Cystadleuaeth Skills
Sgiliau Competition
Cymru Wales

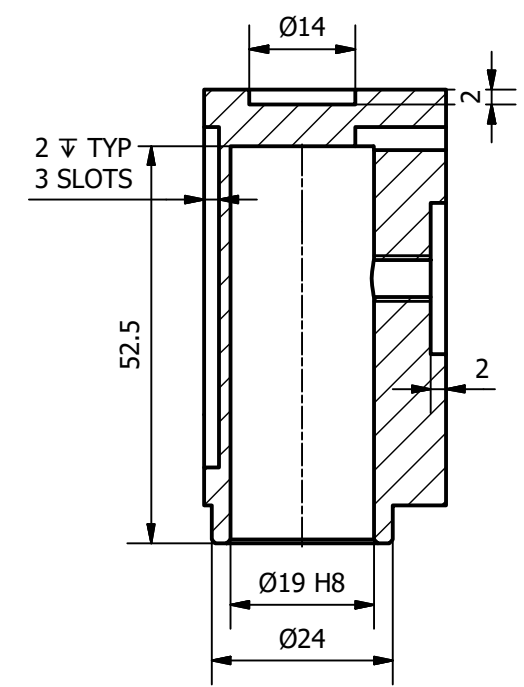
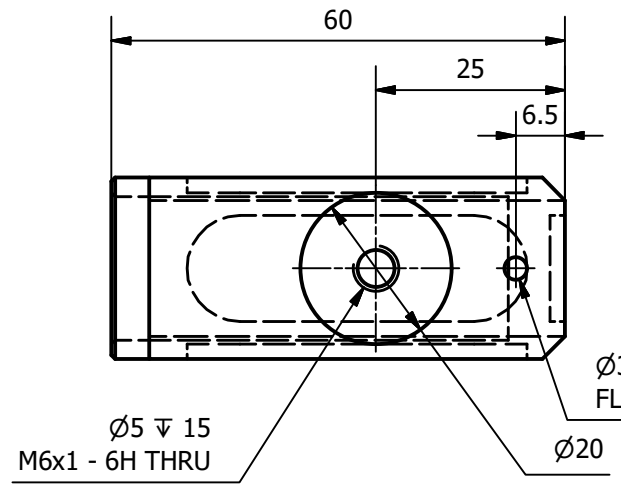
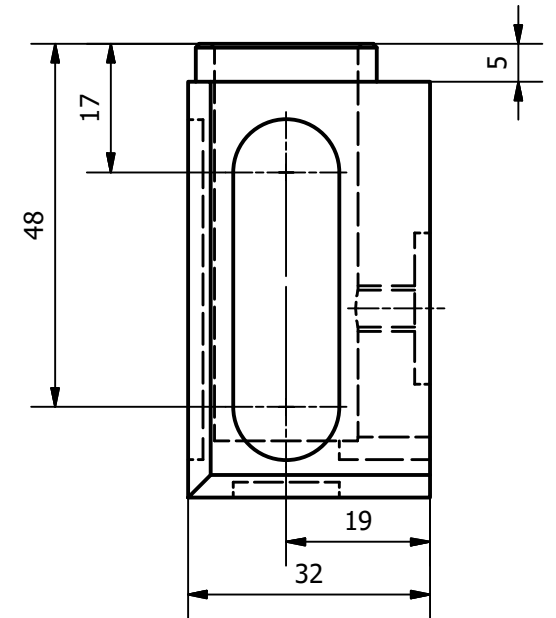
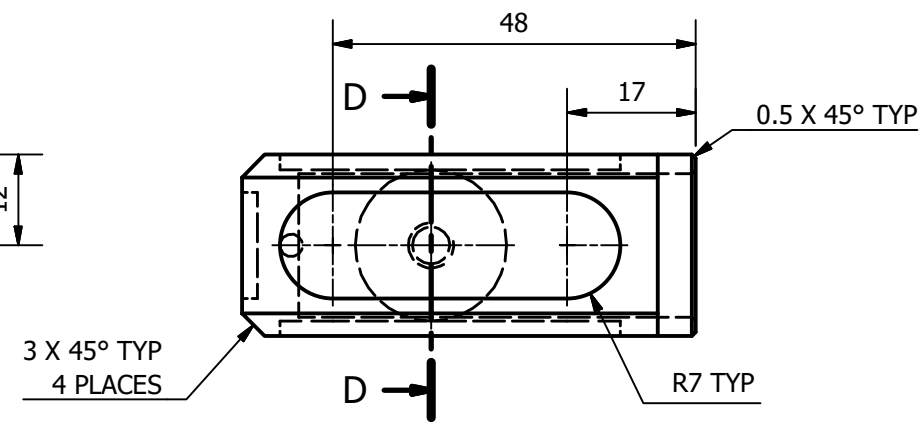
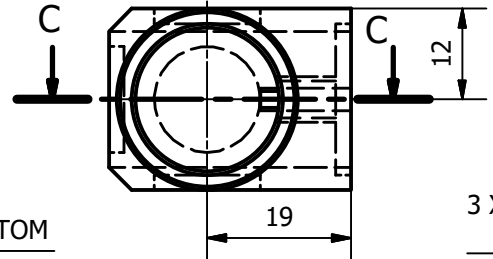
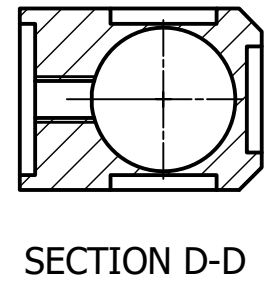
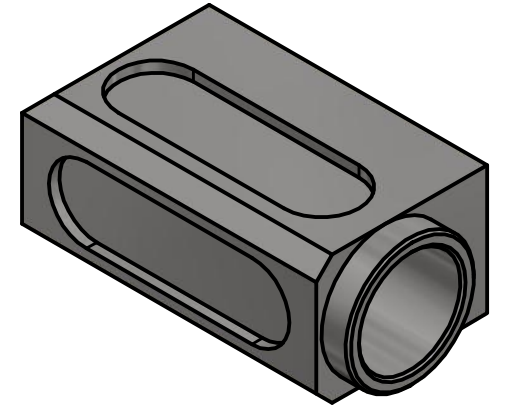
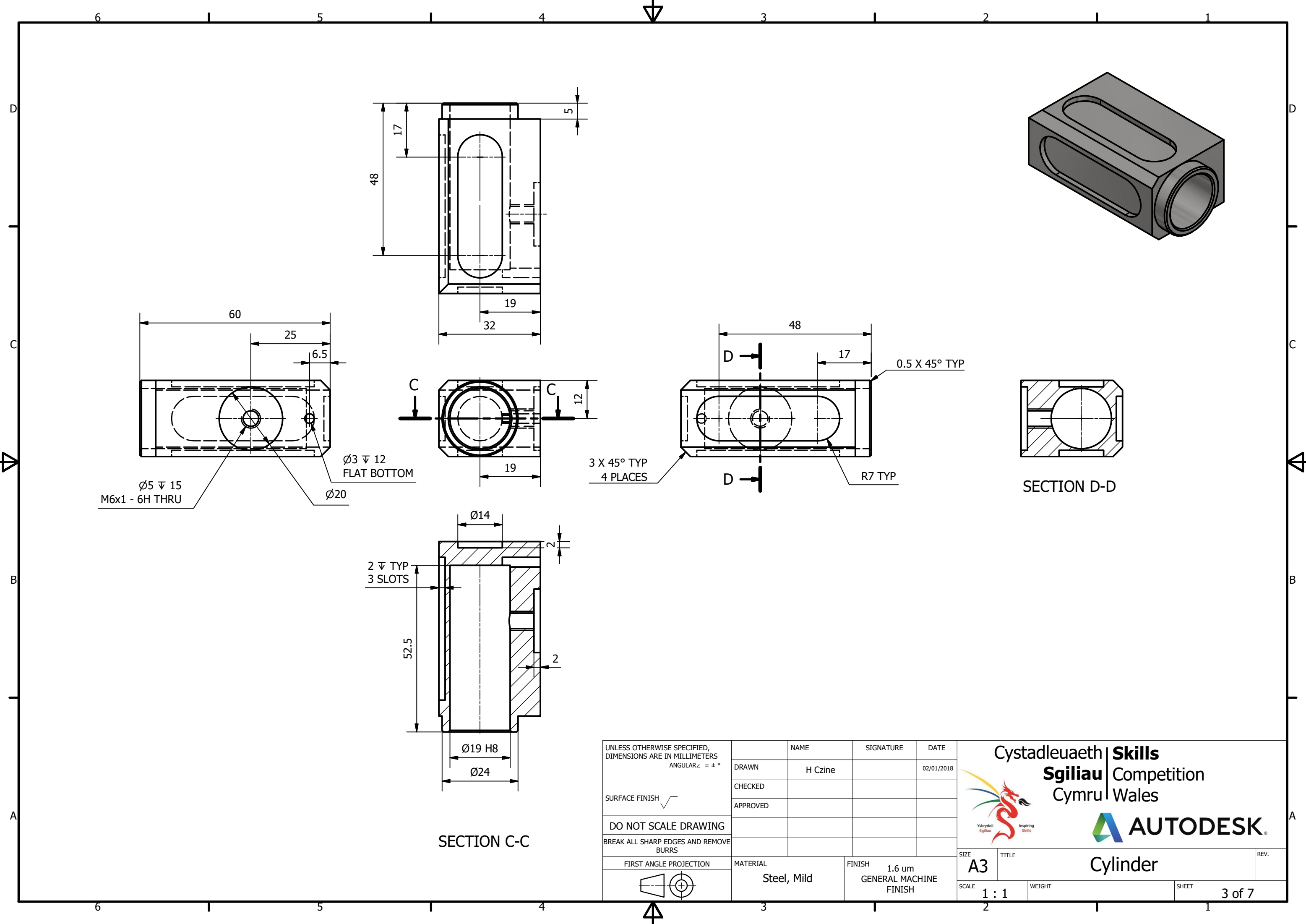
AUTODESK

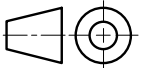
Oscillating Engine Assy

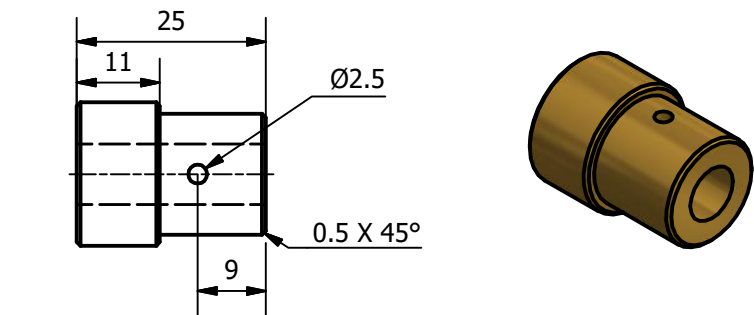
REV.



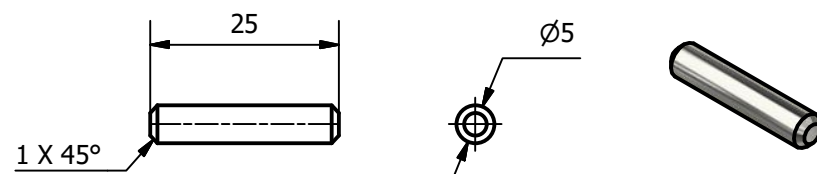
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS ANGULAR ∠ = ± °	NAME	SIGNATURE	DATE	Cystadleuaeth Sgiliau Inspiring Skills Skills Sgiliau Competition Wales AUTODESK	
	DRAWN	H Czine	02/01/2018		
	CHECKED				
	APPROVED				
SURFACE FINISH ✓				SIZE A3	
DO NOT SCALE DRAWING					
BREAK ALL SHARP EDGES AND REMOVE BURRS				TITLE Part Drawing	
THIRD ANGLE PROJECTION	MATERIAL Wood (Walnut)	FINISH 1.6 µm GENERAL MACHINE FINISH	SCALE 1:2	WEIGHT	SHEET 2 of 7



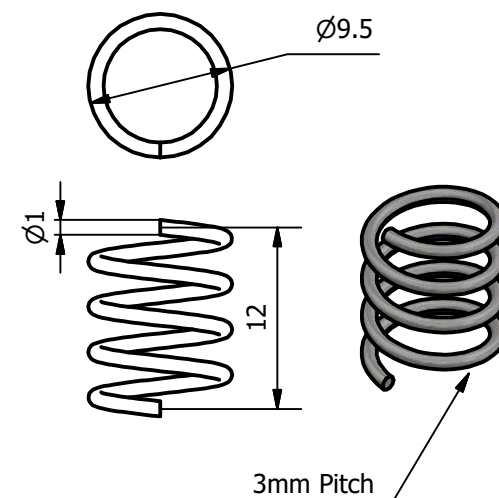
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS ANGULAR ∠ = ± ° SURFACE FINISH  DO NOT SCALE DRAWING BREAK ALL SHARP EDGES AND REMOVE BURRS FIRST ANGLE PROJECTION 		NAME	SIGNATURE	DATE	 Cystadleuaeth Sgiliau Skills Competition Cymru Wales  SIZEA3 TITLECylinder SCALE1 : 1 WEIGHT SHEET3 of 7 REV.				
	DRAWN	H Czine		02/01/2018					
	CHECKED								
	APPROVED								
			</						



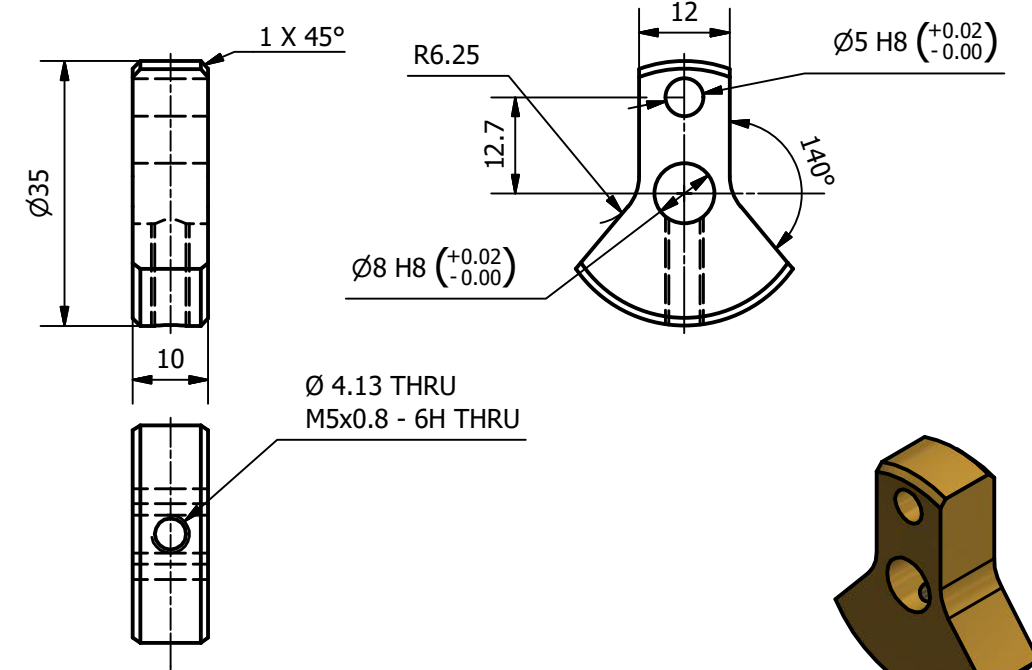
4.1 BRASS BUSH BEARING X1 OFF 1:1



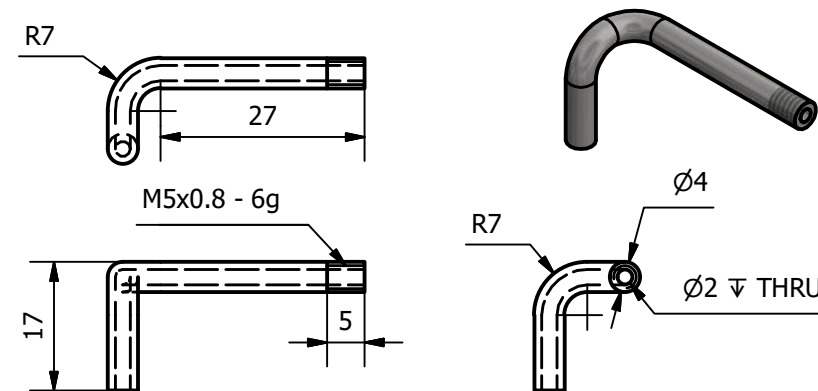
4.2 SILVER STEEL CRANK PIN X1 OFF 1:1



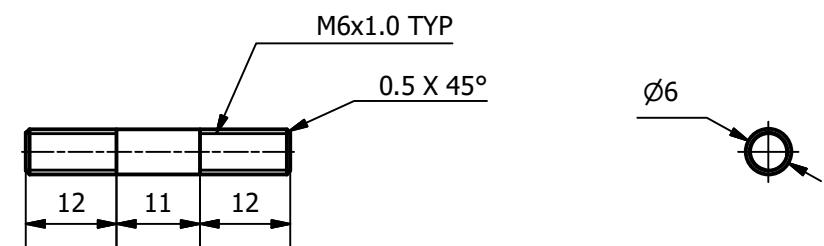
4.4 CARBON STEEL SPRING X1 OFF 1:1



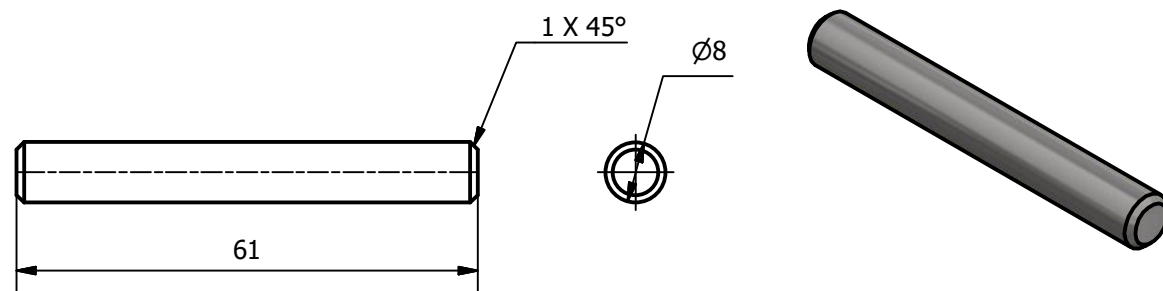
4.5 BRASS CRANK DISK X1 OFF 1:1



4.6 PLAIN CARBON STEEL STRAW X1 OFF 1:1



4.7 PLAIN CARBON STEEL STUD X1 OFF 1:1

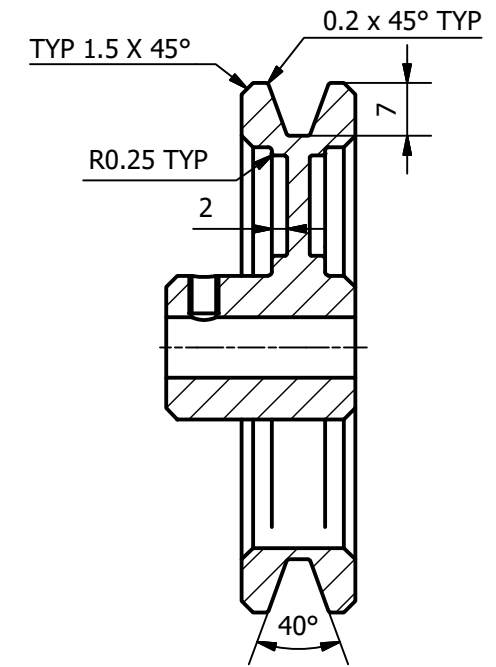
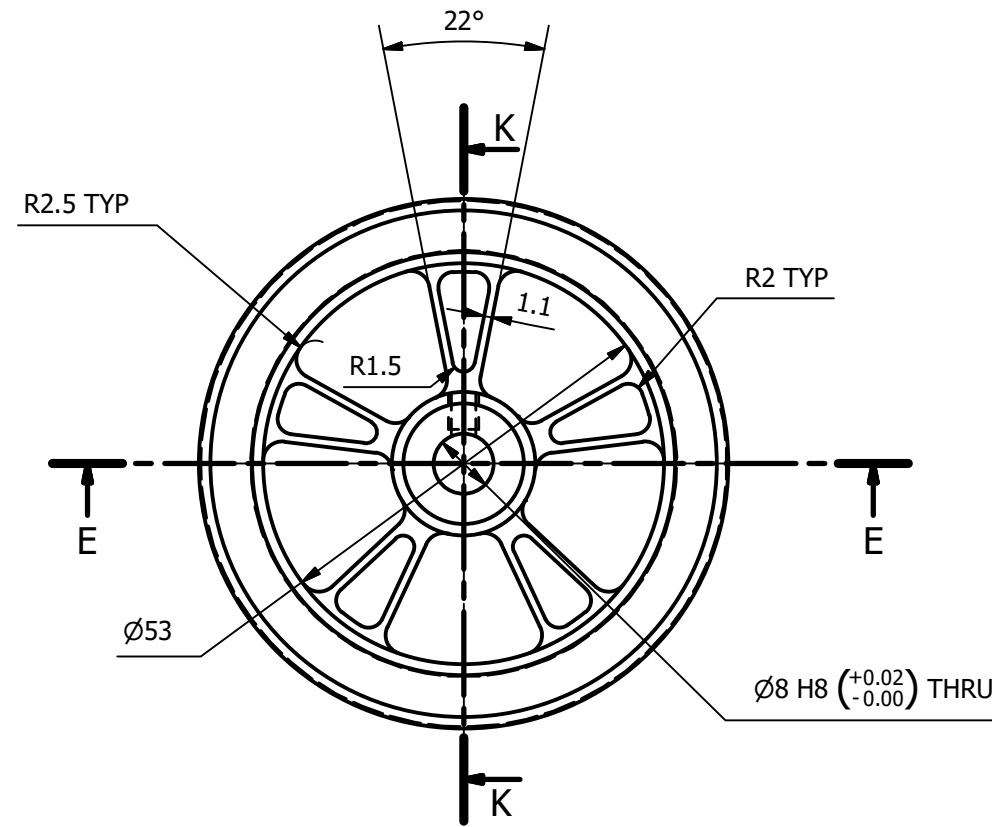
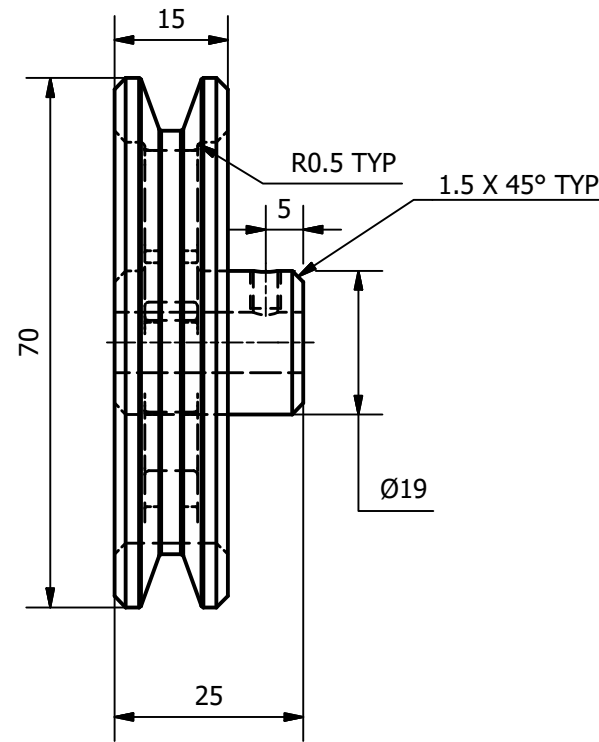


4.3 BDMS MAIN SHAFT X1 OFF 1:1

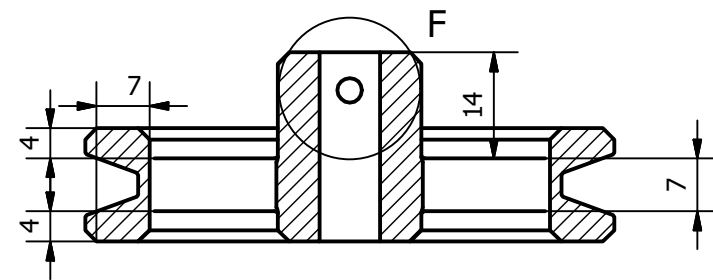
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS ANGULAR $\angle = \pm ^\circ$				
SURFACE FINISH	DRAWN	NAME	SIGNATURE	DATE
	CHECKED	H Czine		02/01/2018
	APPROVED			
DO NOT SCALE DRAWING				
BREAK ALL SHARP EDGES AND REMOVE BURRS				
THIRD ANGLE PROJECTION				

MATERIAL		FINISH	
Brass, Soft Yellow		1.6 μ m GENERAL MACHINE FINISH	

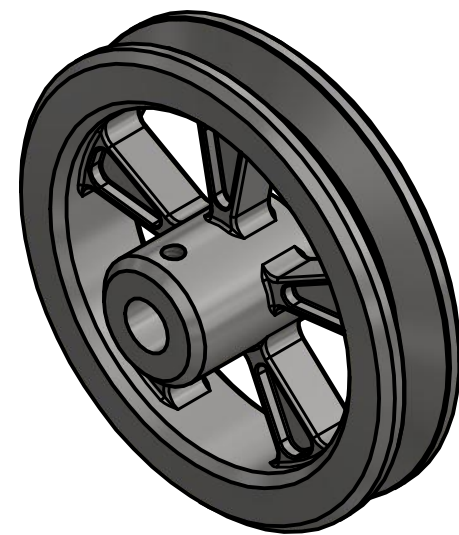
Cystadleuaeth Skills Sgiliau Competition Cymru Wales			
AUTODESK			
SIZE	TITLE		REV.
A3	Part Drawing		
SCALE	WEIGHT	SHEET	
1 : 1		4 of 7	



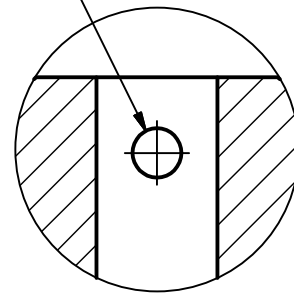
SECTION K-K
SCALE 1 : 1



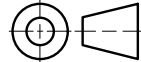
SECTION E-E
SCALE (1 : 1)

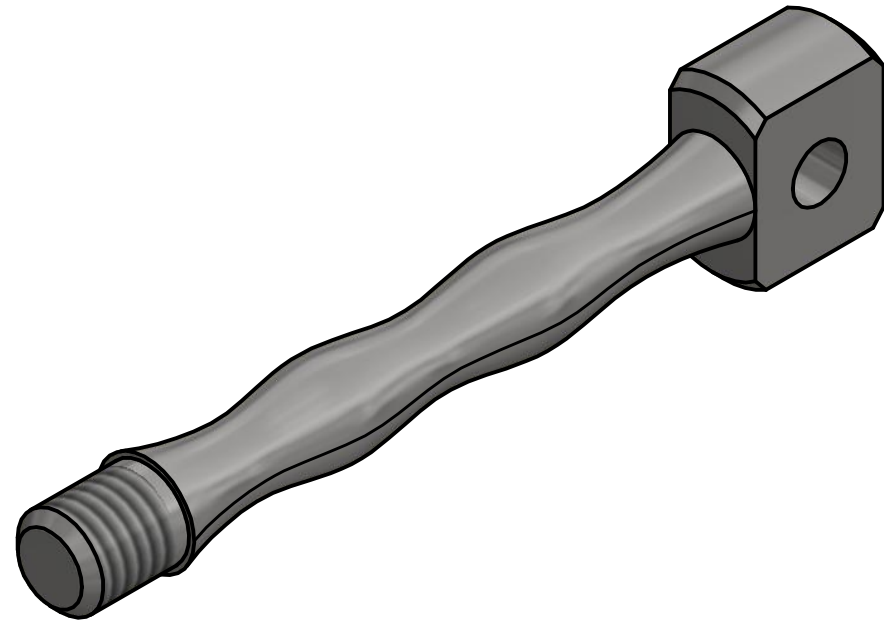


Ø3.3 - 8 DEEP
M4x0.7 - 6H

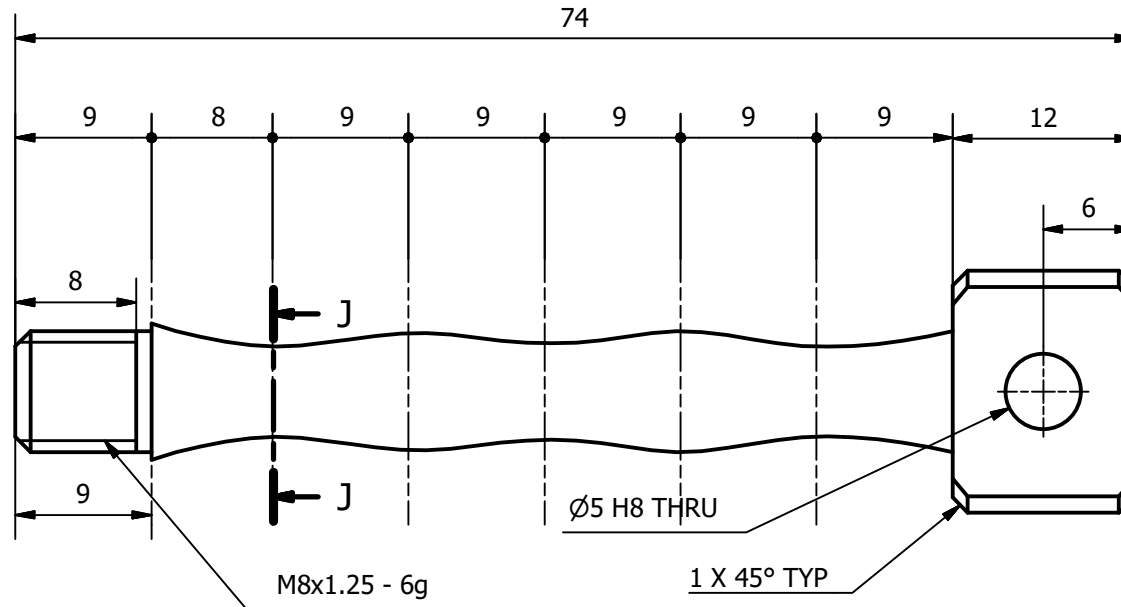
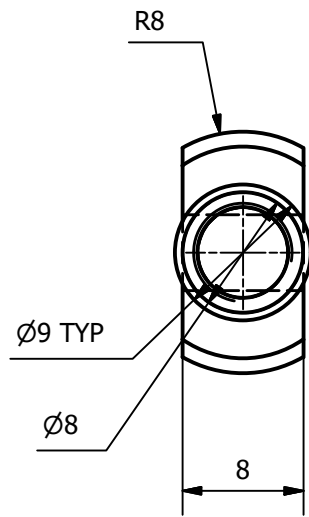
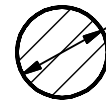


DETAIL F
SCALE 2 : 1

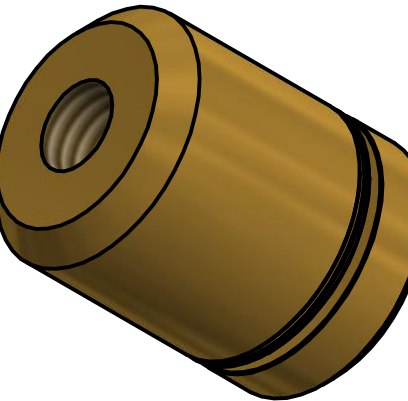
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS ANGULAR $\angle = \pm ^\circ$		NAME	SIGNATURE	DATE	 Cystadleuaeth Sgiliau Cymru Skills Competition Wales 		
	DRAWN	H Czine		02/01/2018			
	CHECKED						
	APPROVED						
SURFACE FINISH 							
DO NOT SCALE DRAWING							
BREAK ALL SHARP EDGES AND REMOVE BURRS							
THIRD ANGLE PROJECTION	MATERIAL		FINISH		SIZE	TITLE	REV.
	Steel, Mild		1.6 um GENERAL MACHINE FINISH		A3	Flywheel	
					SCALE	WEIGHT	SHEET
					1 : 1		5 of 7



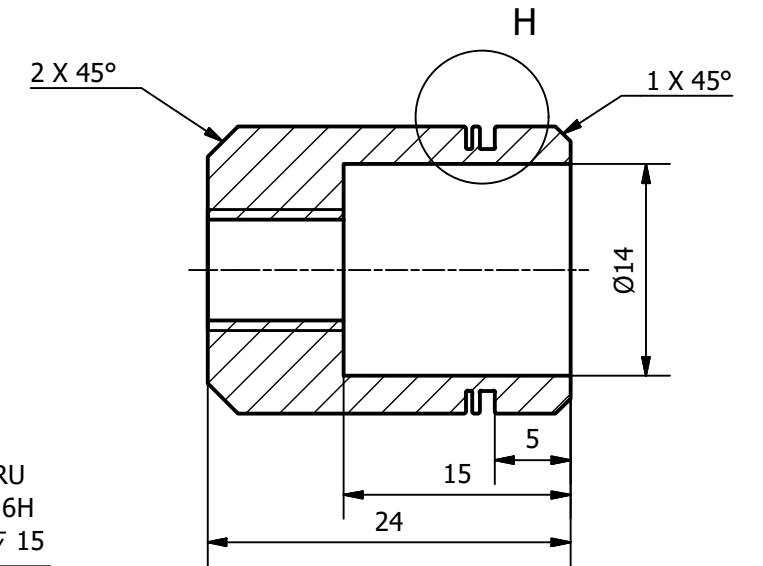
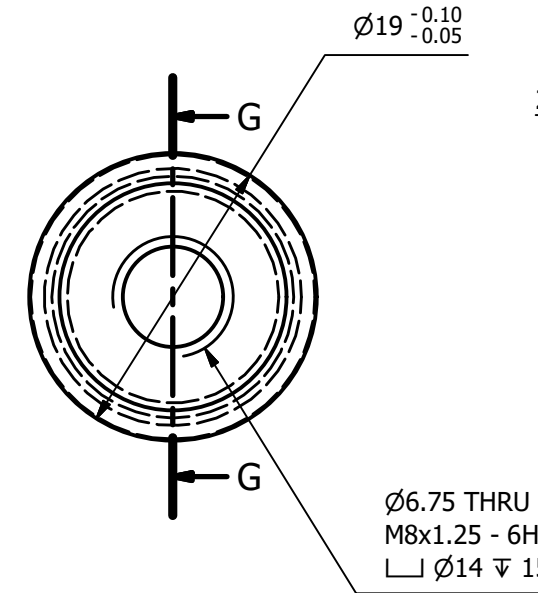
DETAIL J-J
SCALE 2 : 1



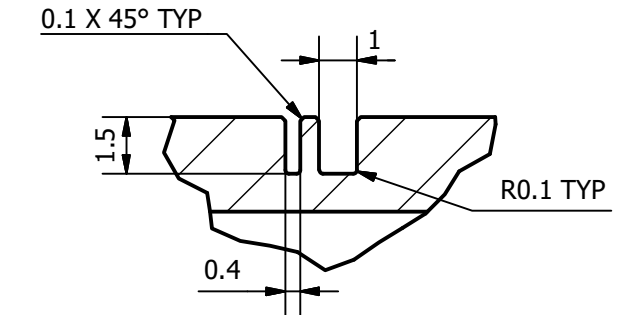
6.1 CONROD MILD STEEL 1:1



6.2 PISTON BRASS 2:1



SECTION G-G
SCALE 2 : 1

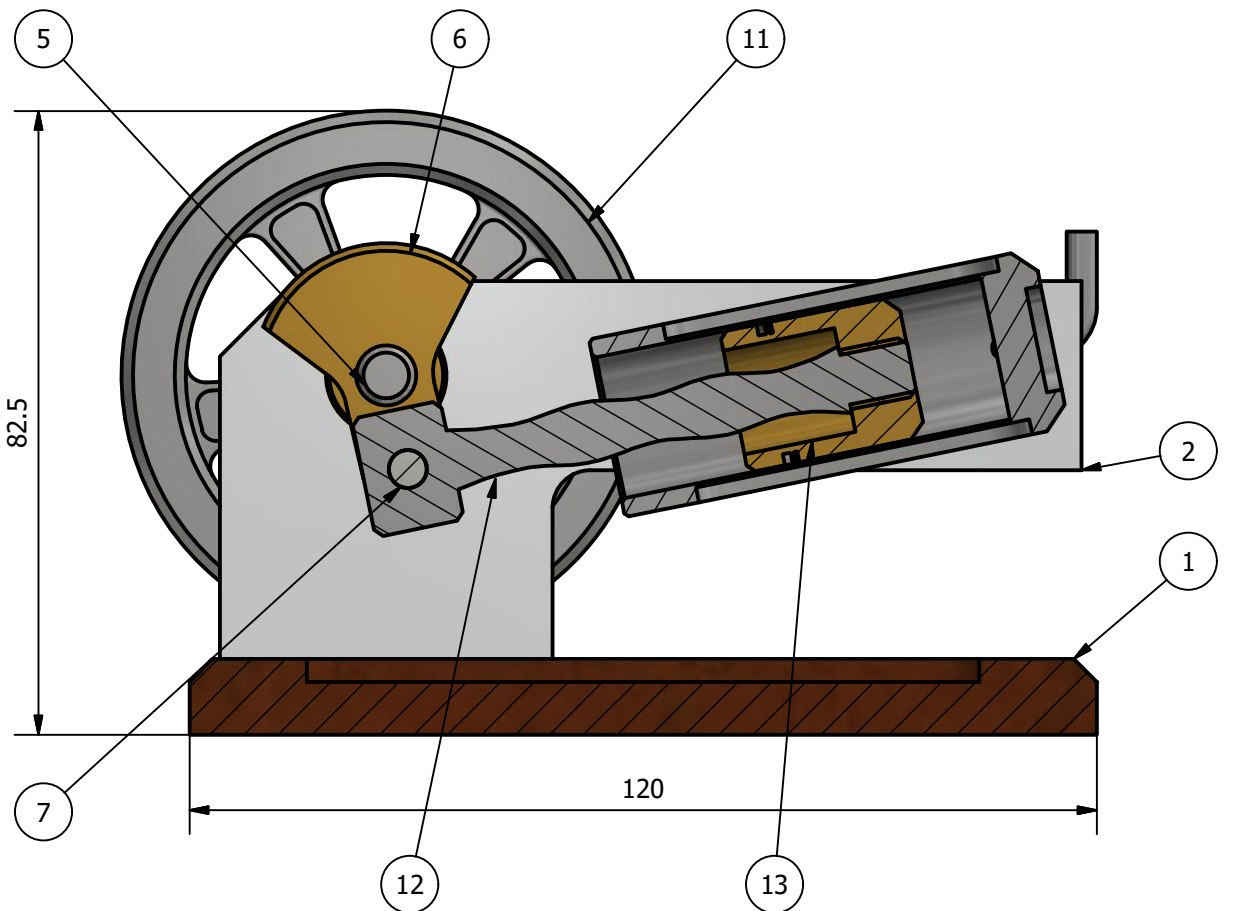
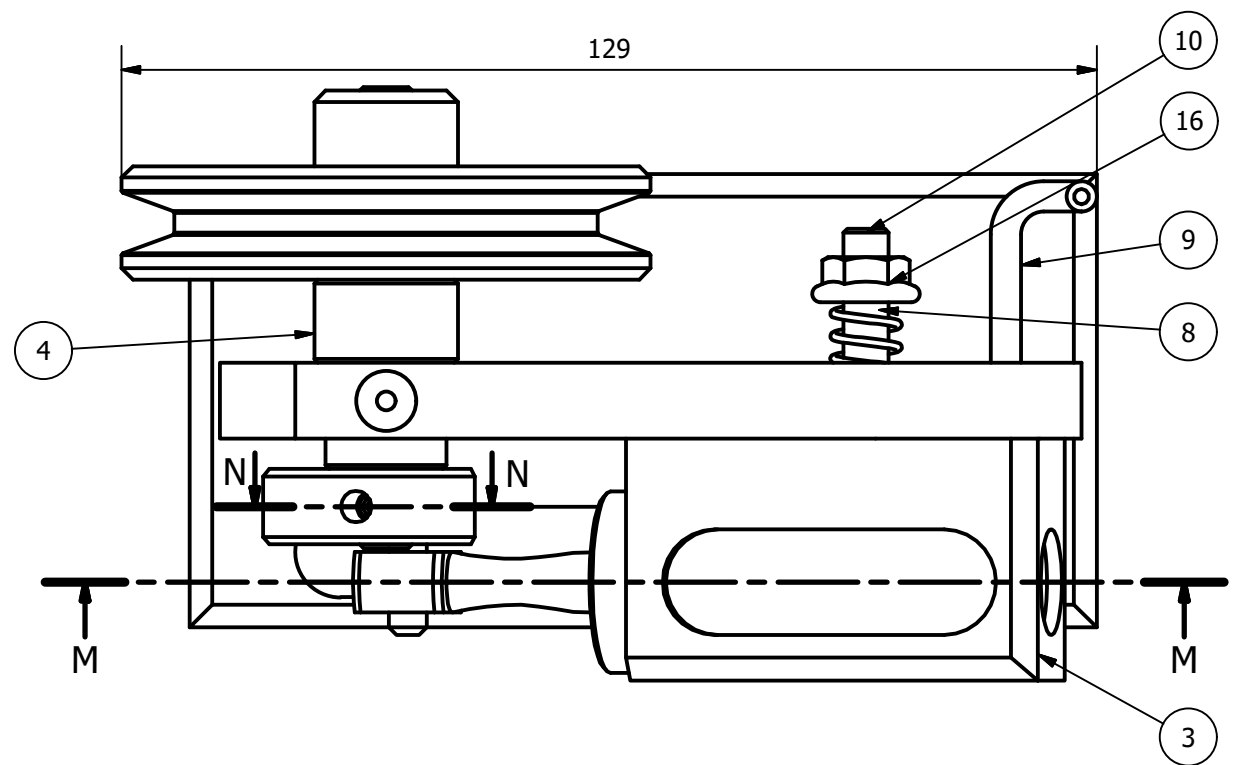


DETAIL H
SCALE 5 : 1

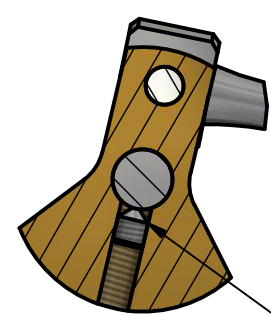
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS ANGULAR $\angle = \pm ^\circ$			
SURFACE FINISH			
DO NOT SCALE DRAWING			
BREAK ALL SHARP EDGES AND REMOVE BURRS			
THIRD ANGLE PROJECTION			

NAME	SIGNATURE	DATE
DRAWN H Czine		02/01/2018
CHECKED		
APPROVED		
MATERIAL Steel, Mild		
FINISH 1.6 μ m GENERAL MACHINE FINISH		

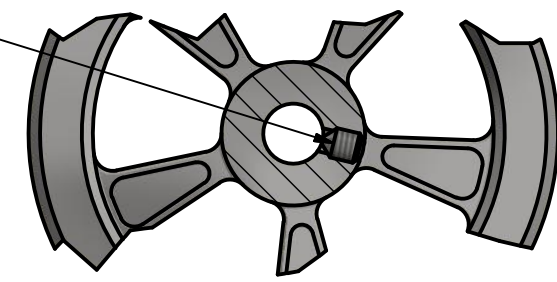
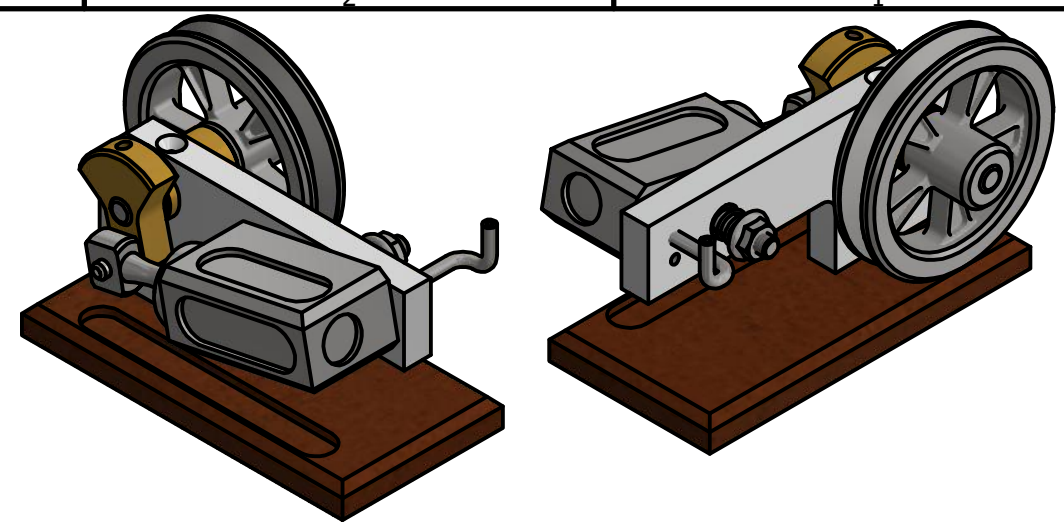
Cystadleuaeth Skills Sgiliau Competition Cymru Wales		AUTODESK	
SIZE A3	TITLE Part Drawing	REV.	
SCALE 2 : 1	WEIGHT	SHEET 6 of 7	



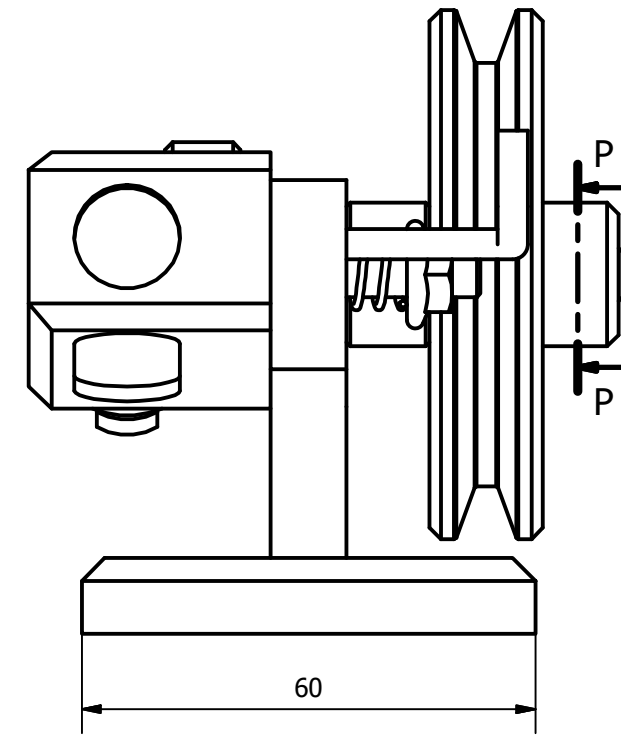
SECTION M-M
SCALE 1 : 1



SECTION N-N
SCALE 1 : 1



SECTION P-P
SCALE 1 : 1



ITEM	QTY	PART NUMBER	MASS	VOLUME
1	1	Foot		
2	1	Frame		
3	1	Cylinder		
4	1	Bearing		
5	1	Main Shaft		
6	1	Crank Disk		
7	1	Crank Pin		
8	1	Spring		
9	1	Straw		
10	1	Stud		
11	1	Flywheel		
12	1	Conrod		
13	1	Piston		
14	2	ISO 4027 - M4 x 5		
15	2	ISO 4762 - M4 x 10		
16	1	ISO 4161 - M6		

UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN MILLIMETERS
ANGULAR $\angle = \pm ^\circ$

SURFACE FINISH

DO NOT SCALE DRAWING

BREAK ALL SHARP EDGES AND REMOVE
BURRS

THIRD ANGLE PROJECTION

DRAWN	NAME	SIGNATURE	DATE
CHECKED	H Czine		02/01/2018
APPROVED			

Cystadleuaeth **Skills**
Sgiliau Competition
Cymru Wales

AUTODESK

SIZE	TITLE	REV.
A3	Oscillating Engine Assy	
SCALE	WEIGHT	SHEET
1 : 1		7 of 7

FINISH 1.6 μ m
GENERAL MACHINE
FINISH