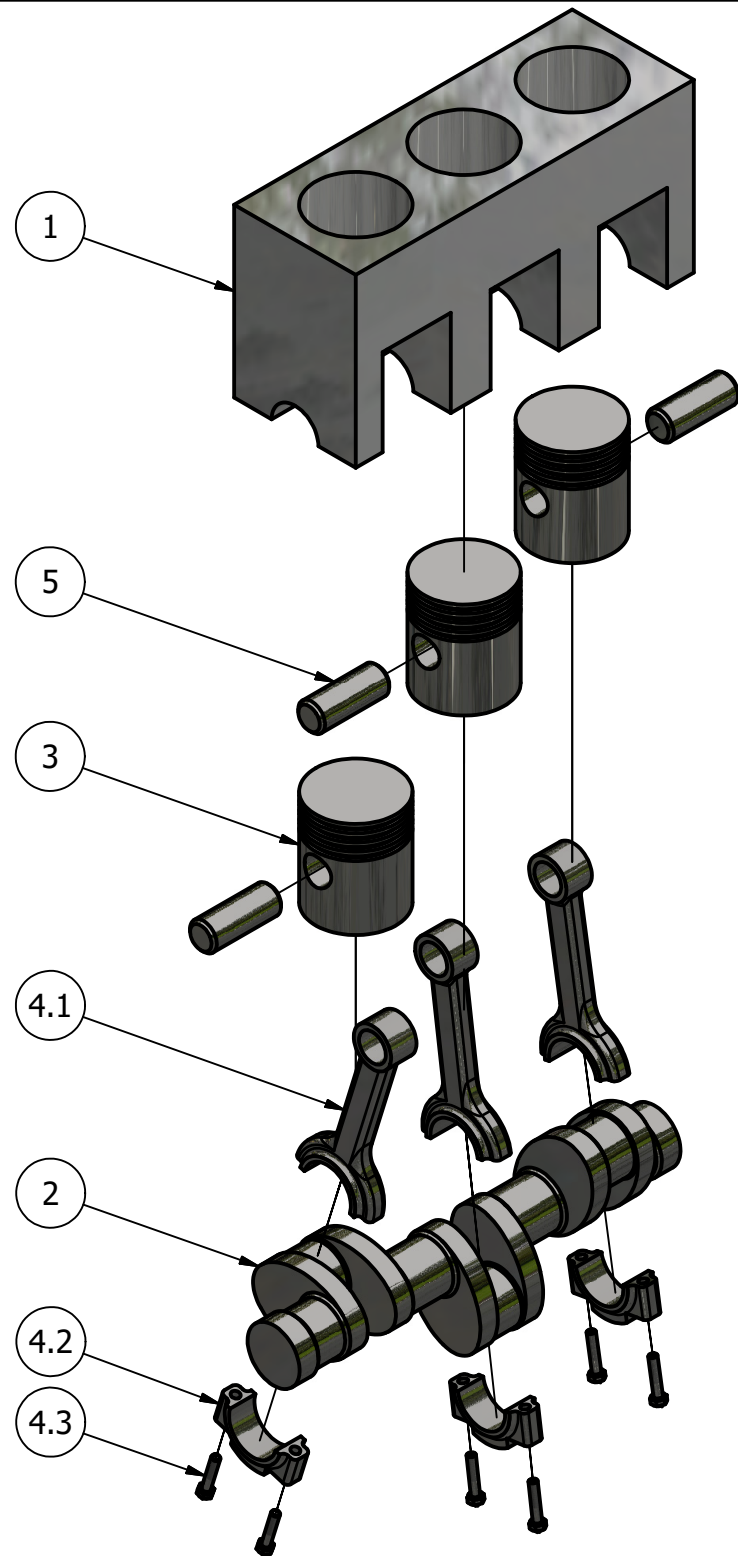


PARTS LIST

ITEM	QTY	PART NUMBER	MATERIAL	DESCRIPTION
1	1	ENGINE BLOCK	ALUMINUM	
2	1	CRANK SHAFT	STEEL	
3	3	PISTON	STEEL	
4	1	CONNECTING ROD SUB-ASSEMBLY		
4.1	3	CONNECTING ROD TOP	STEEL	
4.2	3	CONNECTING ROD BOTTOM	STEEL	
4.3	6	HEX BOLT	STEEL	M5x0.8 6H ∇ 28
5	3	PISTON PIN	STEEL	

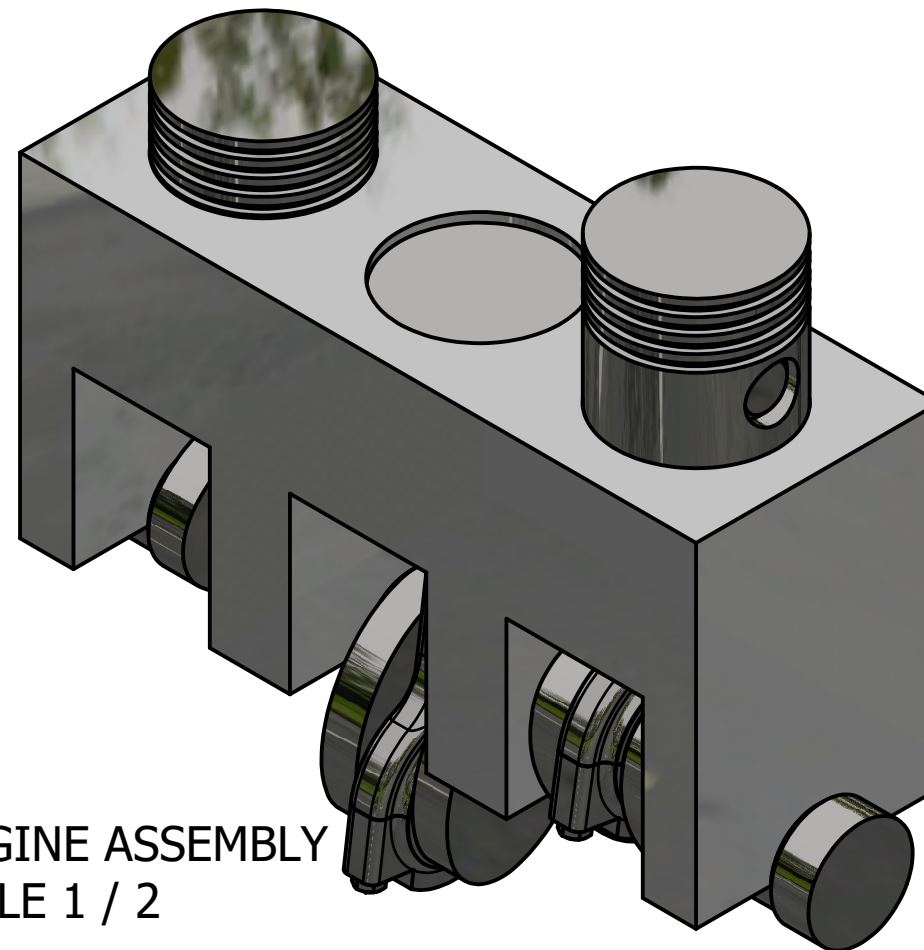


PISTON ENGINE EXPLODED
SCALE 1 / 4

GENERAL NOTES:

ALL ROUNDS AND FILLETS TO BE R3 UNLESS OTHERWISE SPECIFIED
ALL CHAMFERS TO BE 2 X 45° UNLESS OTHERWISE SPECIFIED

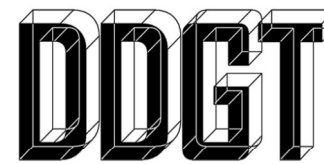
PISTON ENGINE ASSEMBLY
SCALE 1 / 2



LEGEND:

- ° DEGREES
- ∅ DIAMETER
- R RADIUS
- ∇ DEPTH

METRIC



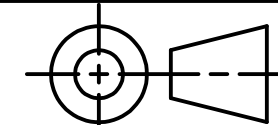
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TOLERANCES UNLESS SPECIFIED:
MILLIMETERS:
WHOLE NUMBER = ± .5
X = ± .25
XX = ± .12

ANGLES ±1 DEGREE

SURFACES \surd 32

COURSE: DDGT 240

INVENTOR DRAWING NAME:
PISTON ENGINE

FIG #: 20.69

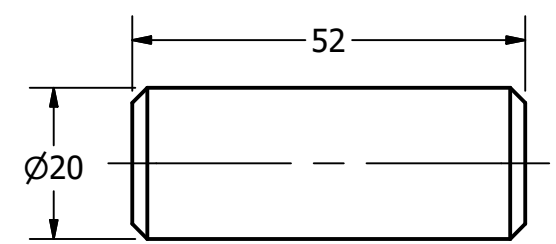
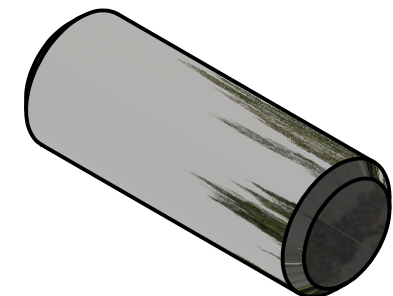
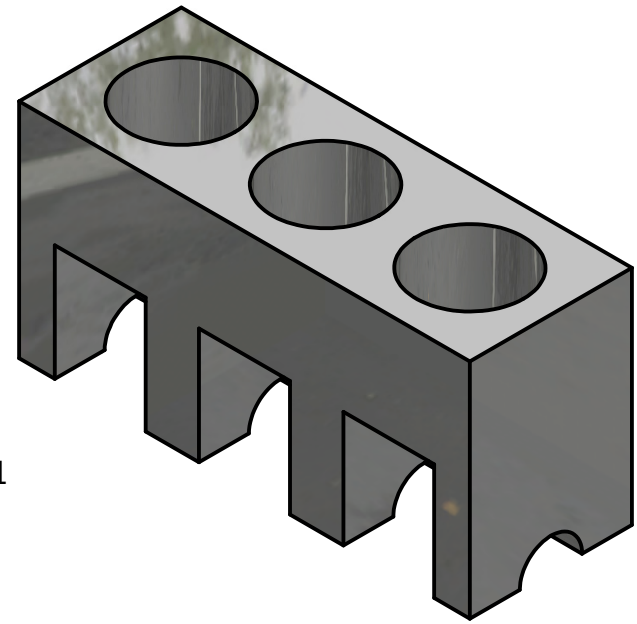
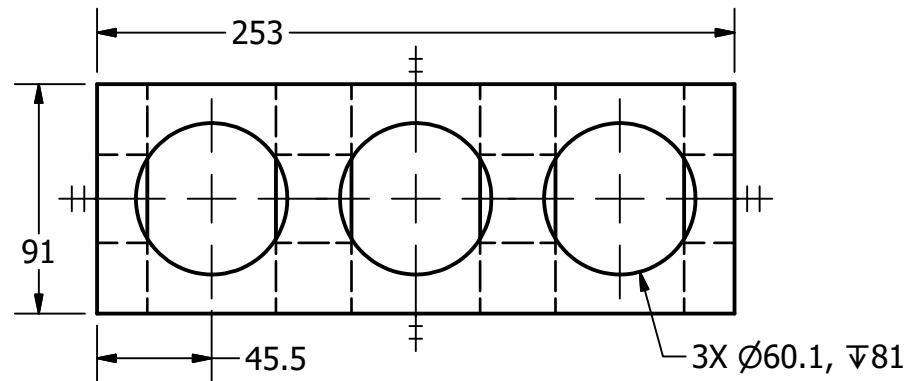
DRAFTER: M. ENCINIAS

DATE: 9/5/2019

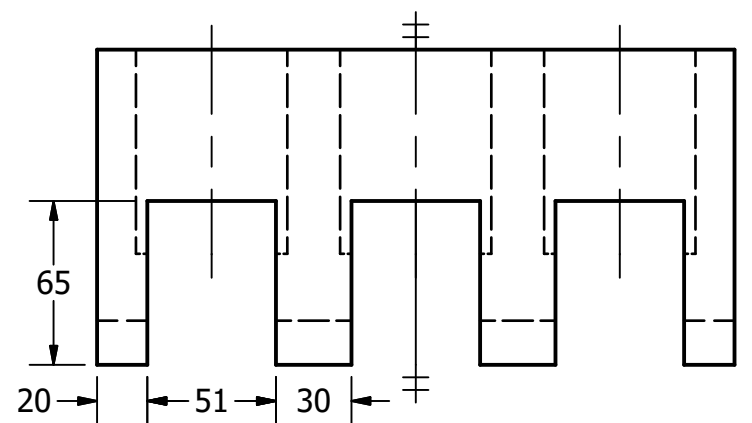
SCALE: AS NOTED

PAGE #: 1 OF 4

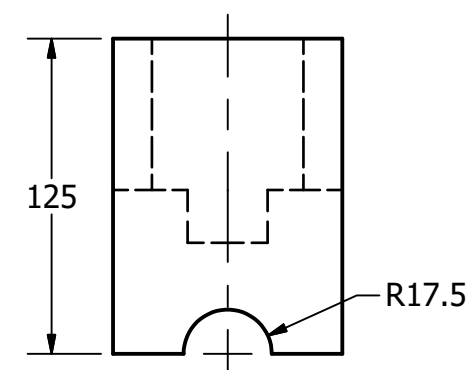
PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	ENGINE BLOCK
5	3	PISTON PIN



PISTON PIN
SCALE 1 : 1



ENGINE BLOCK
SCALE 1 / 3



LEGEND:

- ° DEGREES
- Ø DIAMETER
- R RADIUS
- ∇ DEPTH

METRIC

GENERAL NOTES:

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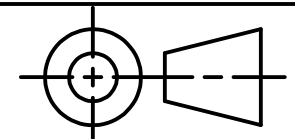
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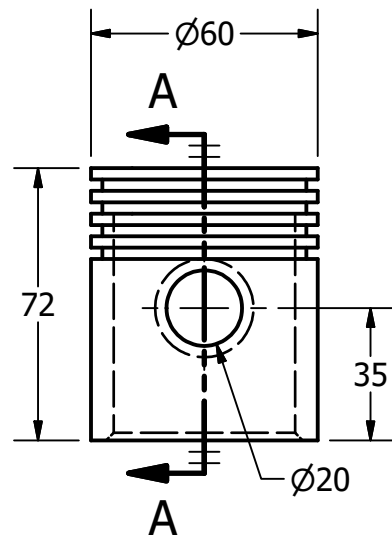
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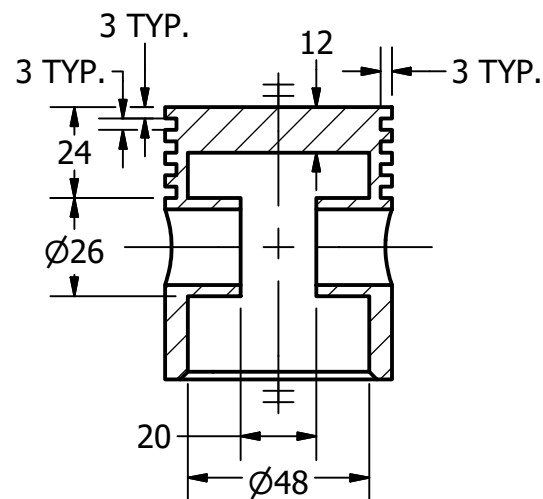
TOLERANCES UNLESS SPECIFIED:
MILLIMETERS:
WHOLE NUMBER = ± .5
X = ± .25
XX = ± .12
ANGLES ±1 DEGREE
SURFACES 32 ✓

COURSE:	DDGT 240
INVENTOR DRAWING NAME:	PISTON ENGINE
FIG #:	20.69
DRAFTER:	M. ENCINIAS
DATE:	9/5/2019
SCALE:	AS NOTED
PAGE #:	2 OF 4

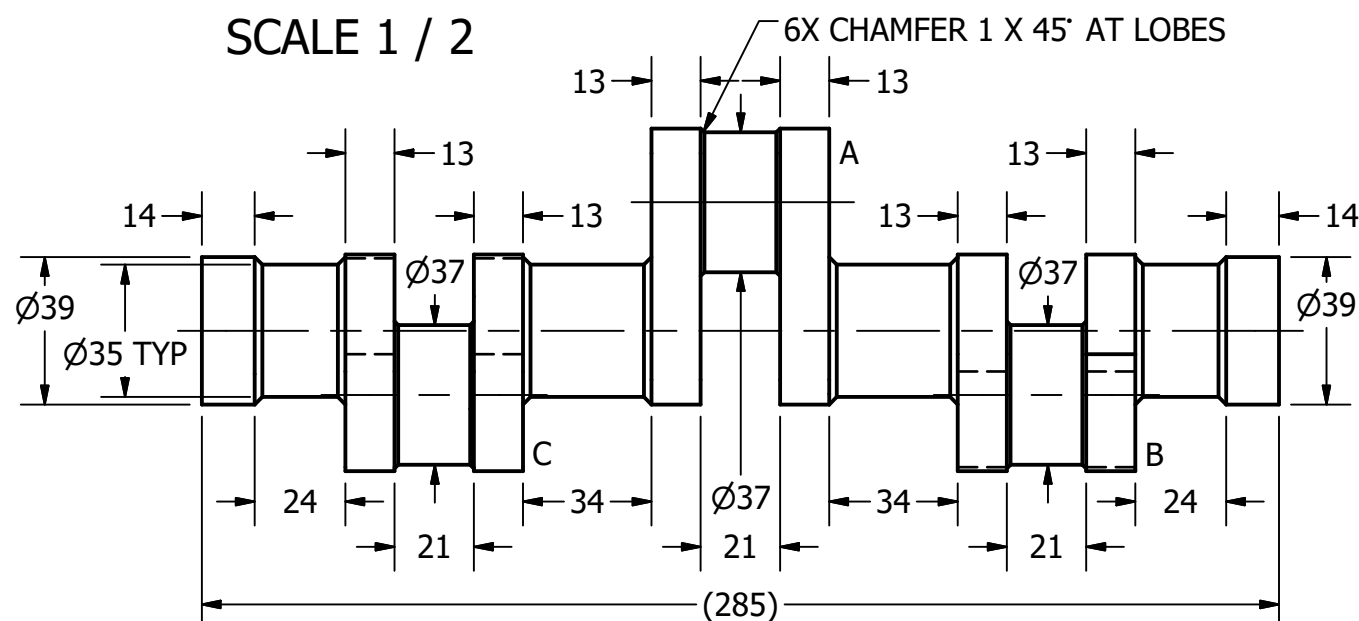
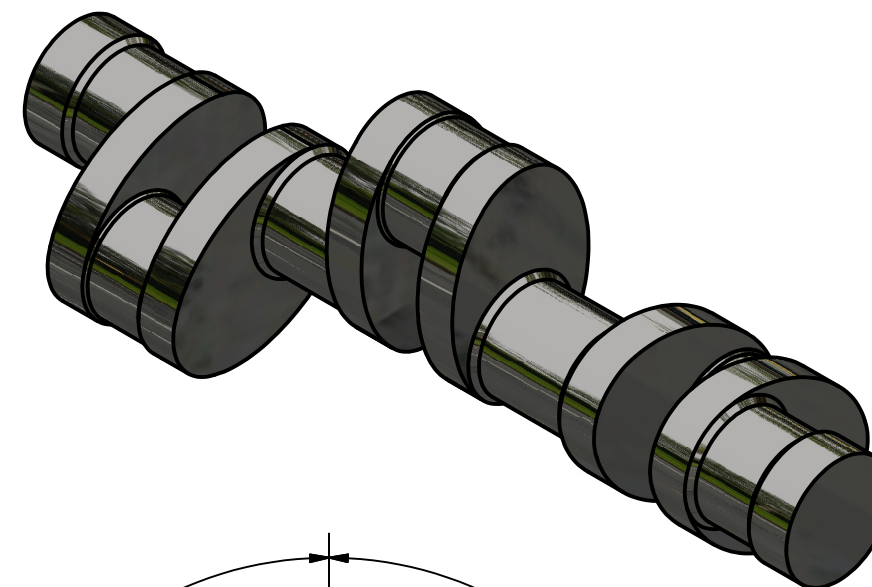
PARTS LIST		
ITEM	QTY	PART NUMBER
2	1	CRANK SHAFT
3	3	PISTON



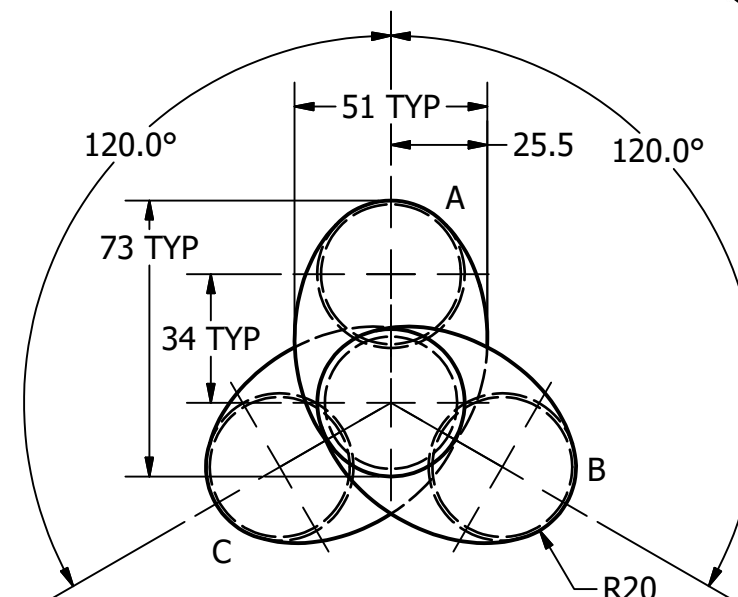
PISTON
SCALE 1 / 2



SECTION A-A
SCALE 1 / 2



CRANK SHAFT
SCALE 1 / 2



LEGEND:

- ° DEGREES
- ∅ DIAMETER
- R RADIUS
- ∇ DEPTH

METRIC

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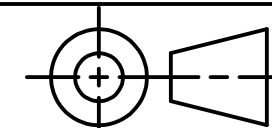
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COURSE: DDGT 240

INVENTOR DRAWING NAME:
PISTON ENGINE

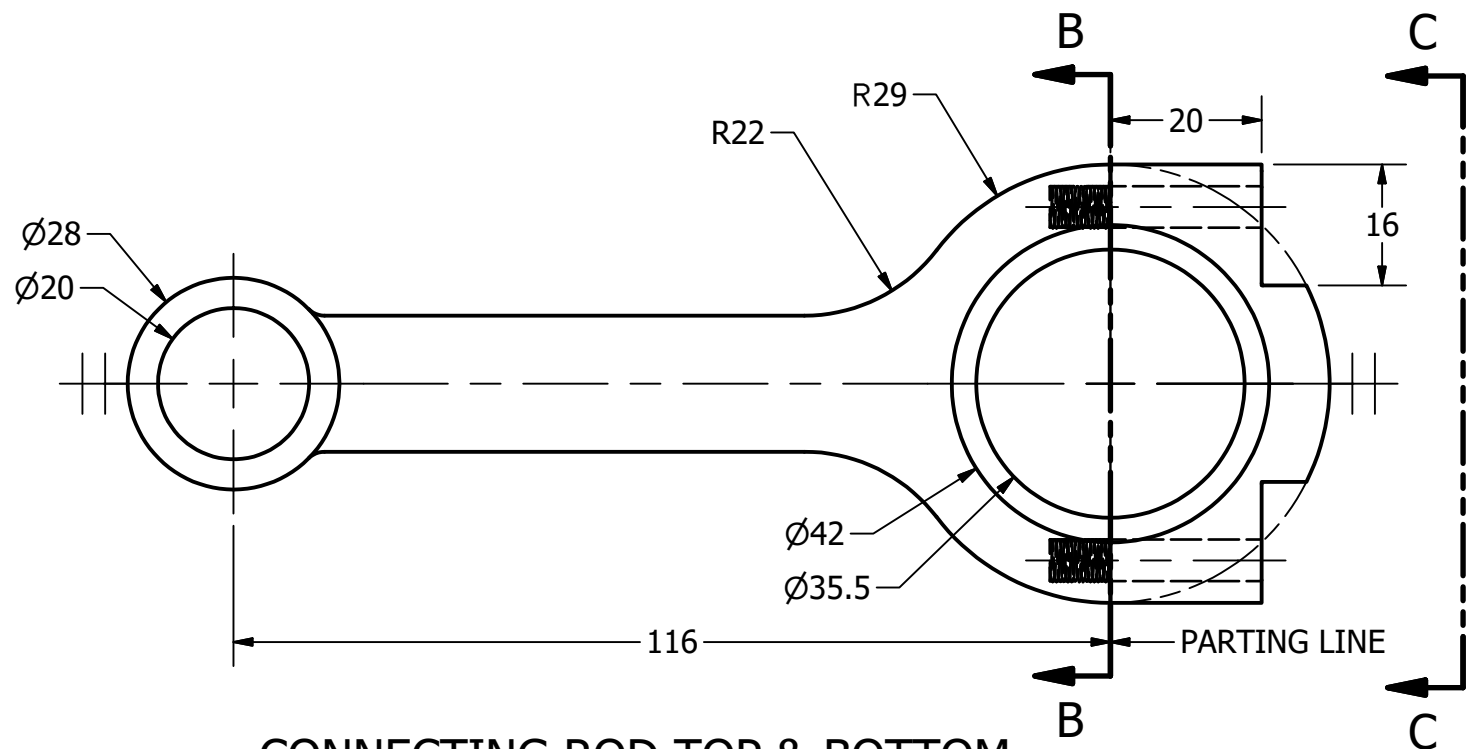
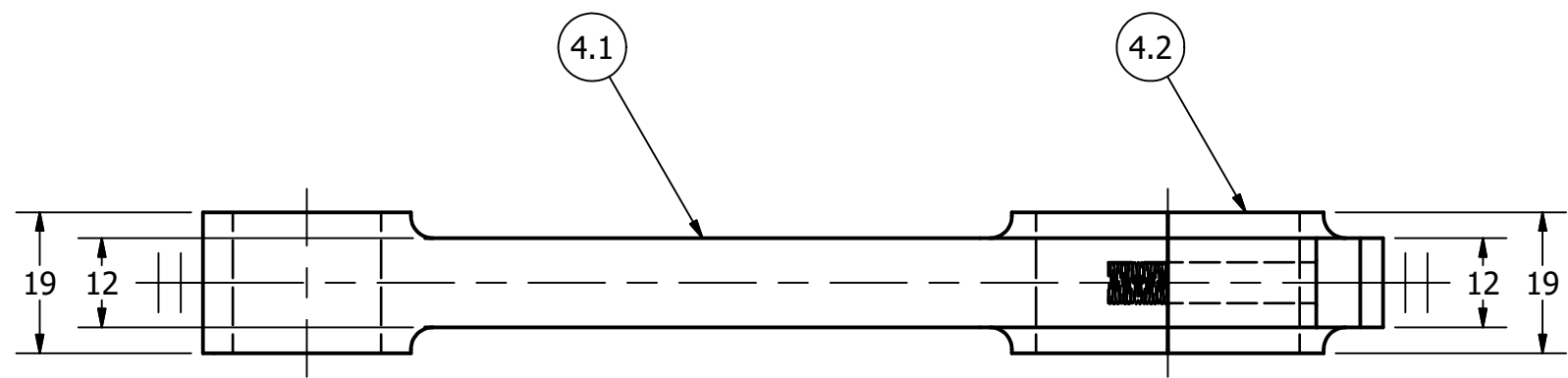
FIG #: 20.69

DRAFTER: M. ENCINIAS

DATE: 9/5/2019

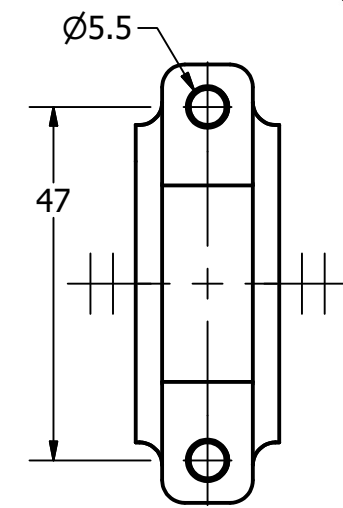
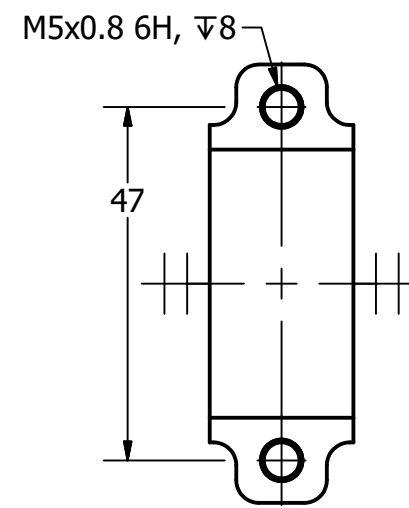
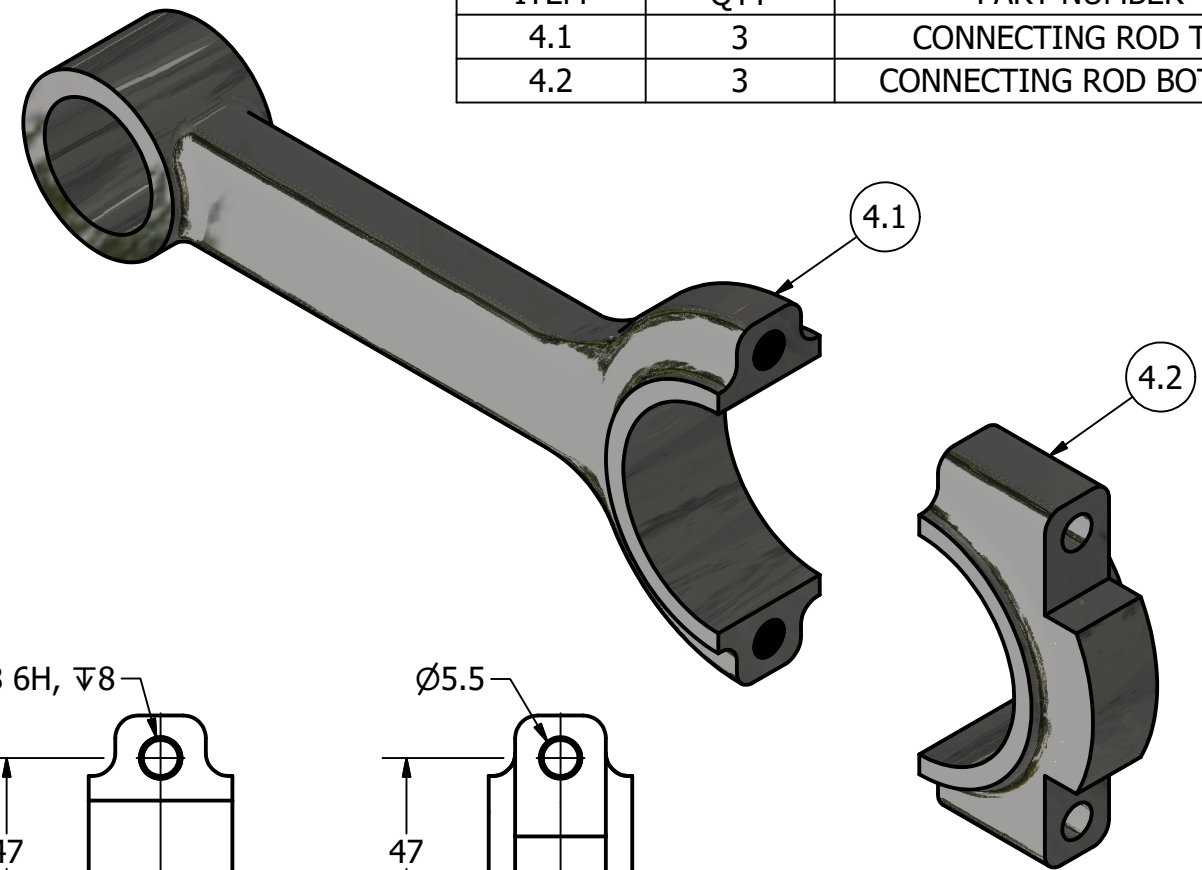
SCALE: AS NOTED

PAGE #: 3 OF 4



CONNECTING ROD TOP & BOTTOM
SCALE 1 : 1

PARTS LIST		
ITEM	QTY	PART NUMBER
4.1	3	CONNECTING ROD TOP
4.2	3	CONNECTING ROD BOTTOM



LEGEND:

- ° DEGREES
- ϕ DIAMETER
- R RADIUS
- ∇ DEPTH

METRIC

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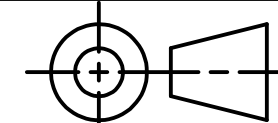
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SURFACES $\sqrt{32}$

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INVENTOR DRAWING NAME:
PISTON ENGINE

FIG #: 20.69

DRAFTER: M. ENCINIAS

DATE: 9/5/2019

SCALE: AS NOTED

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