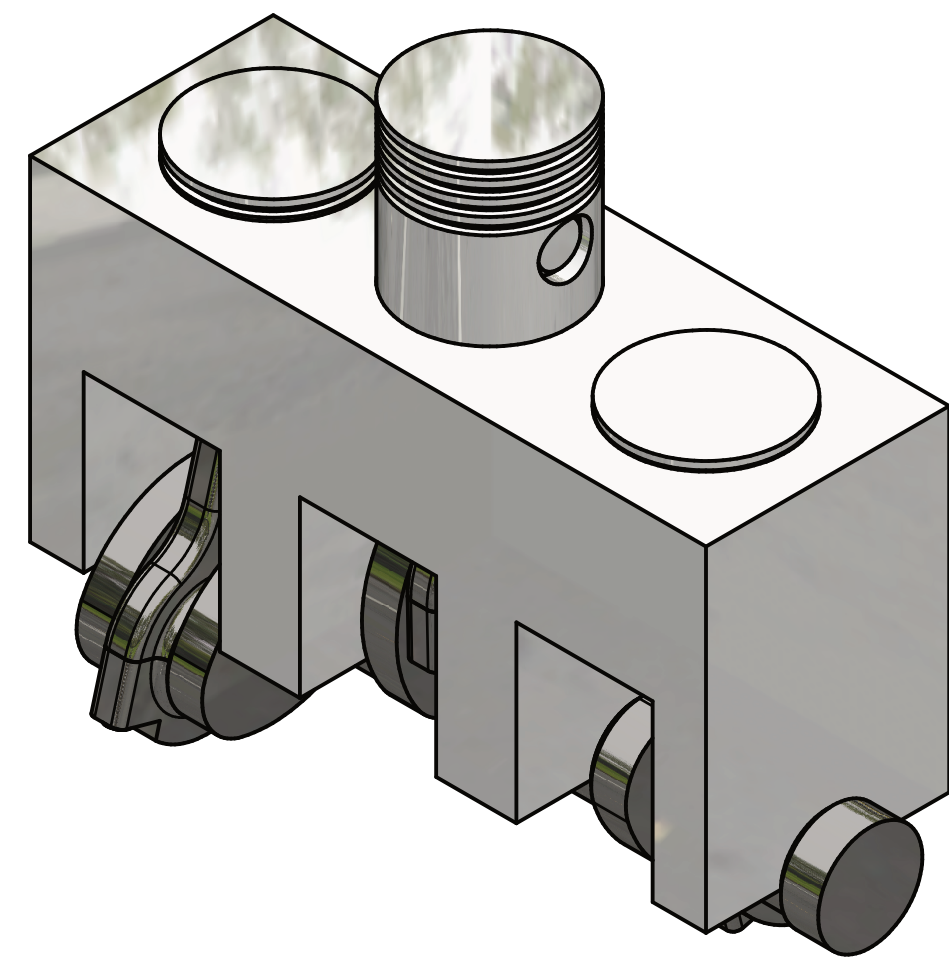


PARTS LIST				
ITEM	QTY	PART NUMBER	MATERIAL	DESCRIPTION
1	1	ENGINE BLOCK	ALUMINUM	
2	1	CRANK SHAFT	STEEL	
3	3	PISTON	STEEL	
5	3	PISTON PIN	STEEL	
4	3	CONNECTING ROD	STEEL	
4.1	1	CONNECTING ROD TOP	STEEL	
4.2	1	CONNECTING ROD BOTTOM	STEEL	
4.3	2	HEX HEAD SCREW	STEEL	91280A238_Medium-Strength Class 8.8



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ENGINE BLOCK ASSEMBLED
SCALE 1 / 2

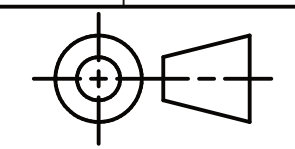
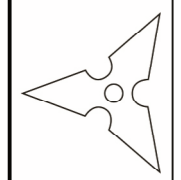
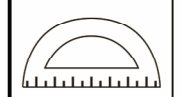
METRIC

GENERAL NOTES:

ALL FILLETS AND ROUNDS R3 UNLESS OTHERWISE STATED.
ALL CHAMFERS ARE 2 X 45 UNLESS OTHERWISE STATED.

LEGEND:

- Ø DIAMETER
- R RADIUS
- DEGREES



TOLERANCES UNLESS SPECIFIED:
DECIMAL INCHES:
X = ±.020
XX = ±.010
XXX = ±.005
FRACTIONAL ±1/64"
ANGLES ±1 DEGREE
SURFACES $\sqrt{32}$

CLASS: DDGT 240

ASSIGNMENT #: 64

INVENTOR DRAWING NAME:
ENGINE BLOCK

FIG #: 20-69

MANAGER: G.STROMMEN

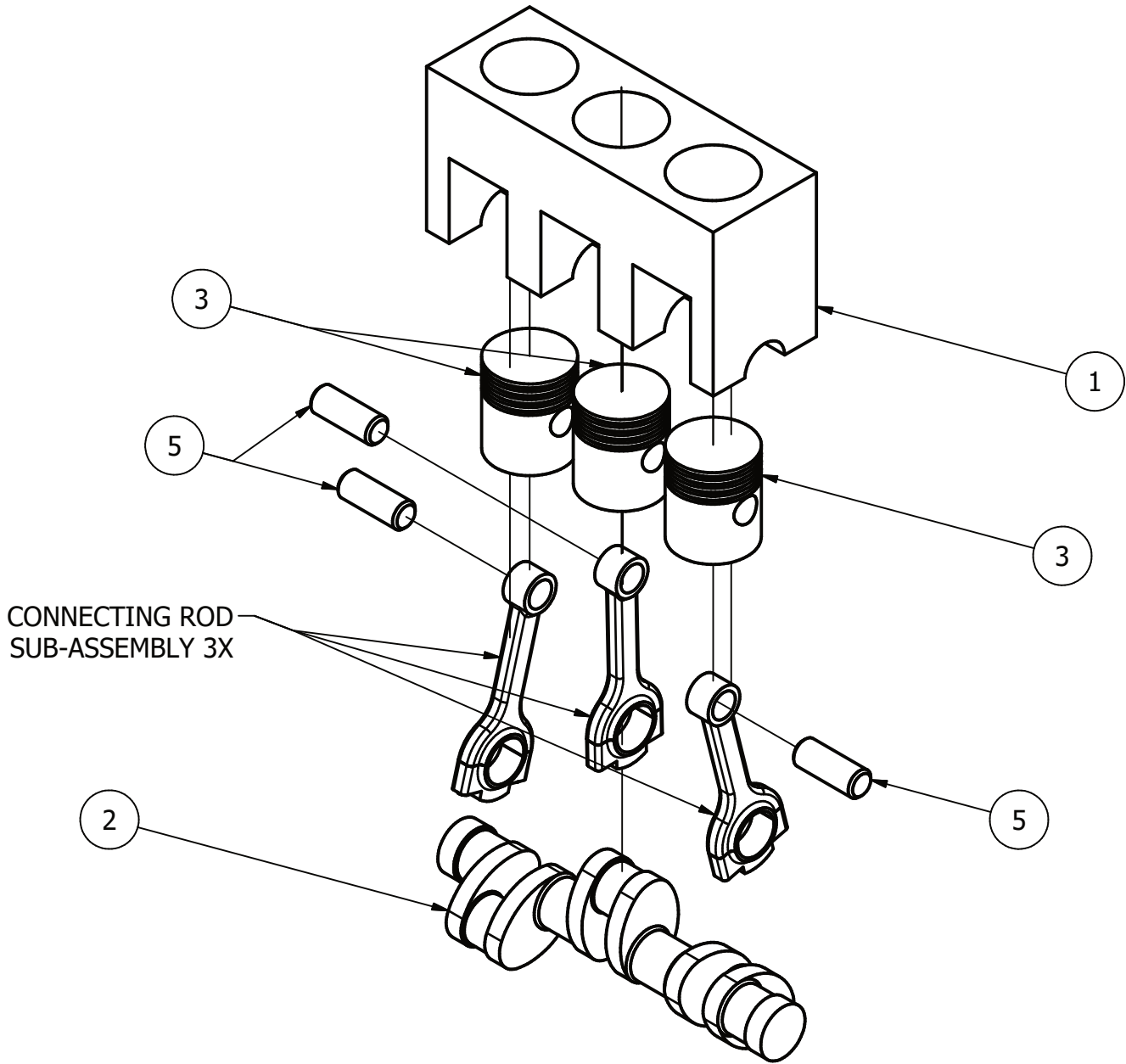
DRAFTER: A. MOSTAFA

DATE: 10/18/2023

SCALE: AS NOTED

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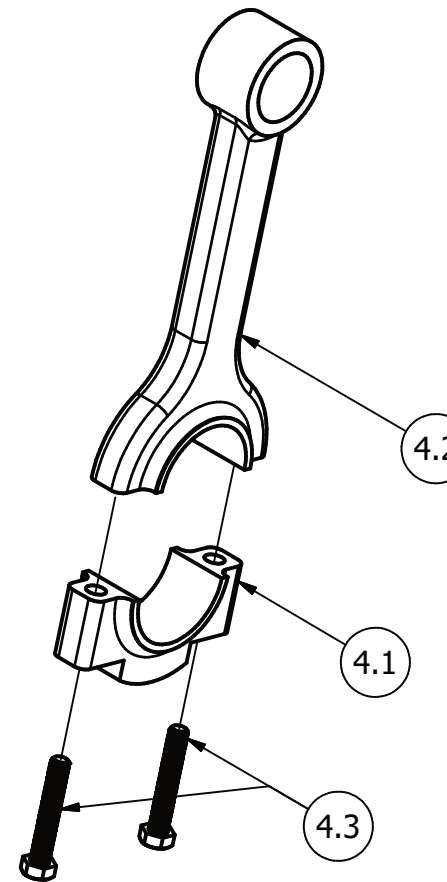
ENGINE BLOCK EXPLODED VIEW
SCALE 1 / 4

METRIC

GENERAL NOTES:

ALL FILLETS AND ROUNDS R3 UNLESS OTHERWISE STATED.
ALL CHAMFERS ARE 2 X 45 UNLESS OTHERWISE STATED.

PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	ENGINE BLOCK
3	3	PISTON
5	3	PISTON PIN
2	1	CRANK SHAFT
4	3	CONNECTING ROD
4.1	1	CONNECTING ROD TOP
4.2	1	CONNECTING ROD BOTTOM
4.3	2	HEX HEAD SCREW



CONNECTING ROD SUB-ASSEMBLY
SCALE 1 / 2

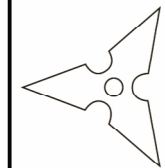
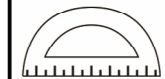
LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES

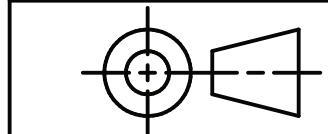


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XXX = ±.005
FRACTIONAL ±1/64"
ANGLES ±1 DEGREE
SURFACES $\sqrt{\text{V}}$

CLASS: DDGT 240

ASSIGNMENT #: 64

INVENTOR DRAWING NAME:
ENGINE BLOCK

FIG #: 20-69

MANAGER: G.STROMMEN

DRAFTER: A. MOSTAFA

DATE: 10/18/2023

SCALE: AS NOTED

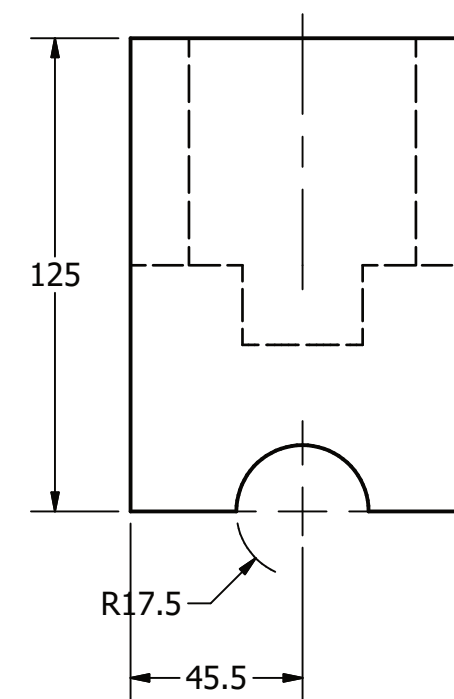
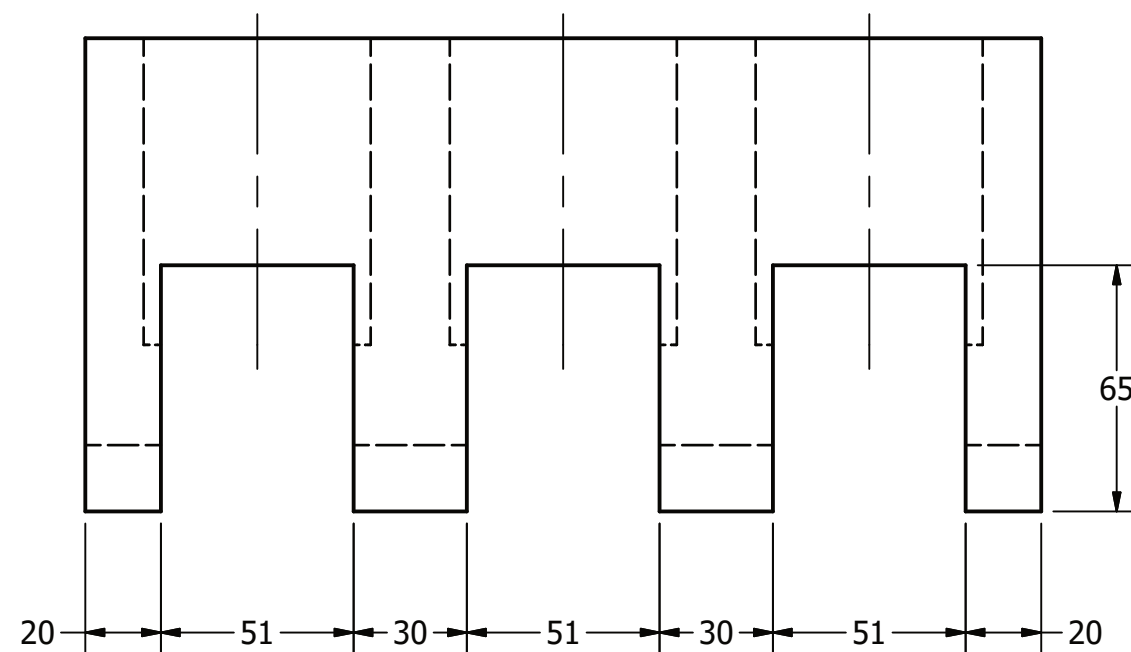
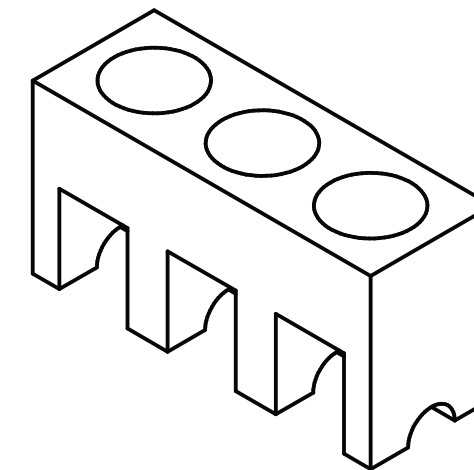
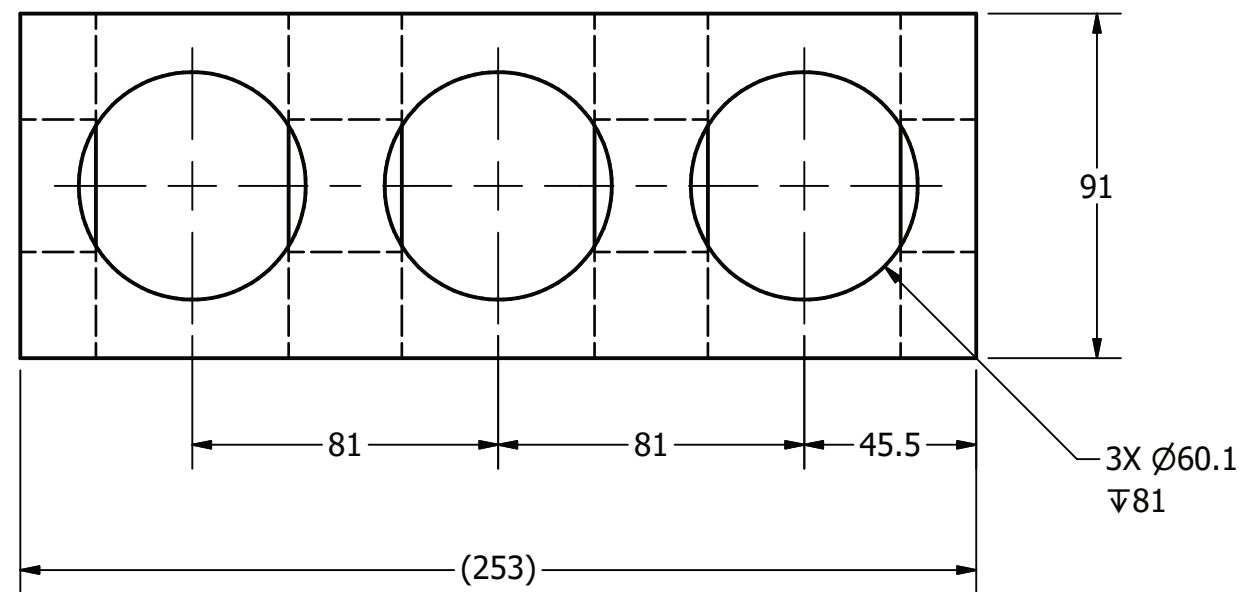
PAGE #: 2 OF 6

PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	ENGINE BLOCK



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METRIC

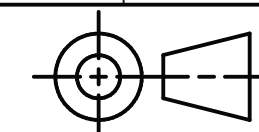
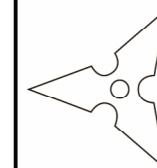
GENERAL NOTES:

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ALL CHAMFERS ARE 2 X 45 UNLESS OTHERWISE STATED.

ENGINE BLOCK
SCALE 1 / 2

LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES



TOLERANCES UNLESS SPECIFIED:
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X = ±.020
XX = ±.010
XXX = ±.005
FRACTIONAL ±1/64"
ANGLES ±1 DEGREE
SURFACES $\sqrt{\text{32}}$

CLASS: DDGT 240

ASSIGNMENT #: 64

INVENTOR DRAWING NAME:
ENGINE BLOCK

FIG #: 20-69

MANAGER: G.STROMMEN

DRAFTER: A. MOSTAFA

DATE: 10/18/2023

SCALE: AS NOTED

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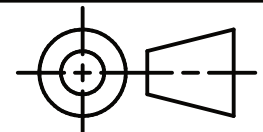
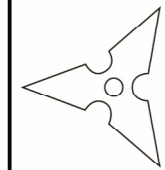
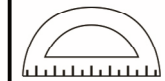
PARTS LIST		
ITEM	QTY	PART NUMBER
2	1	CRANK SHAFT



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XXX = ±.005
FRACTIONAL ±1/64"
ANGLES ±1 DEGREE
SURFACES $\sqrt{\text{32}}$

CLASS: DDGT 240

ASSIGNMENT #: 64

INVENTOR DRAWING NAME:
ENGINE BLOCK

FIG #: 20-69

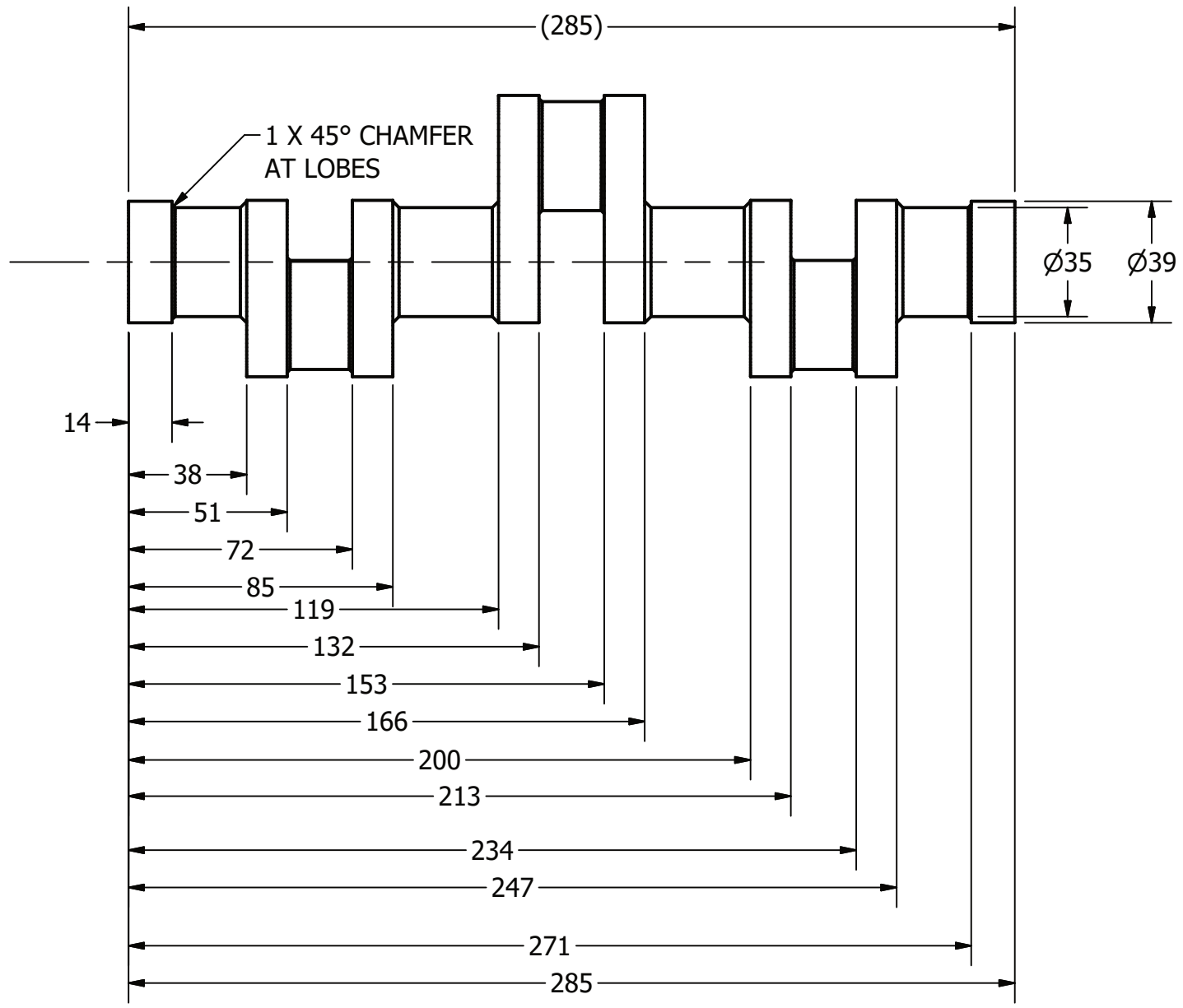
MANAGER: G.STROMMEN

DRAFTER: A. MOSTAFA

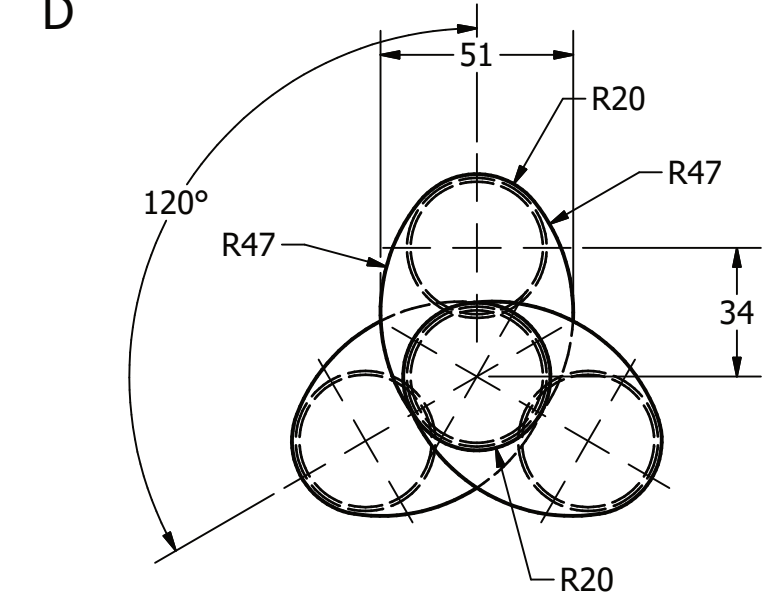
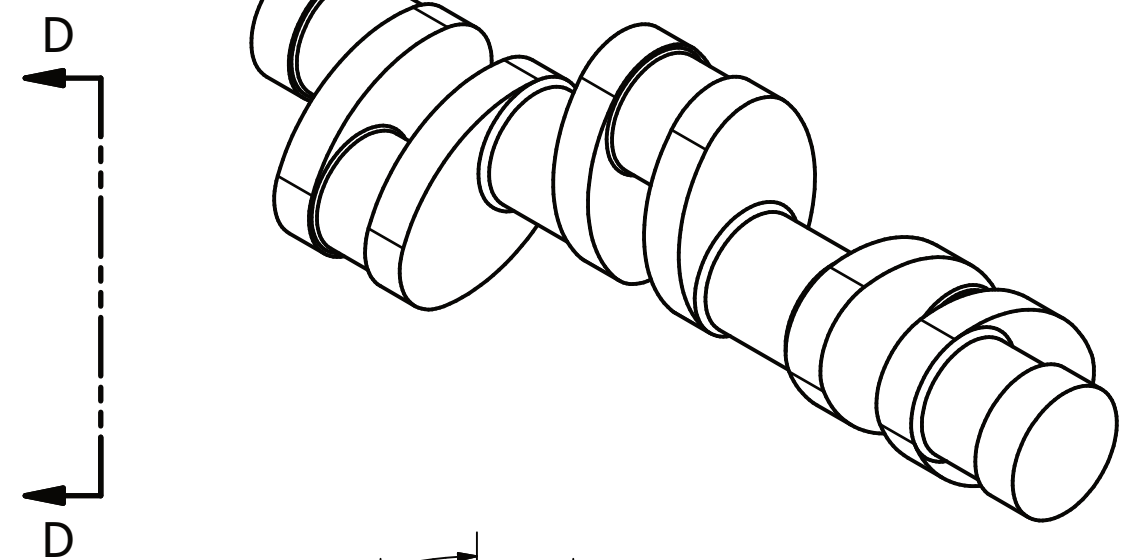
DATE: 10/18/2023

SCALE: AS NOTED

PAGE #: 4 OF 6



CRANK SHAFT
SCALE 1 / 2



DIMENSIONS FOR LOBE
ARE TYPICAL FOR ALL
LOCATIONS.

VIEW D-D
SCALE 1 / 2

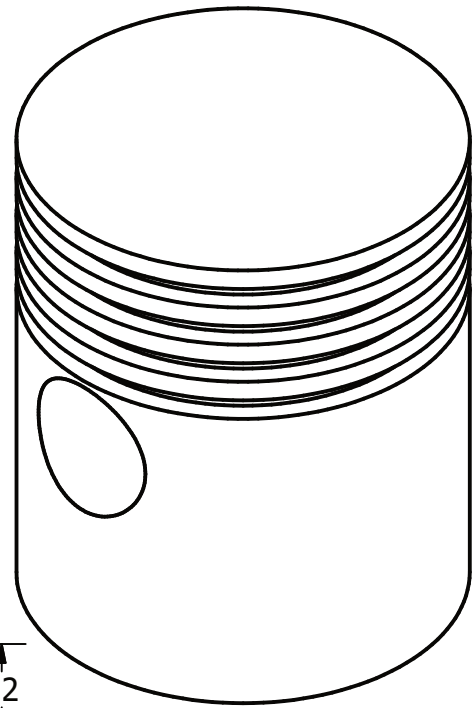
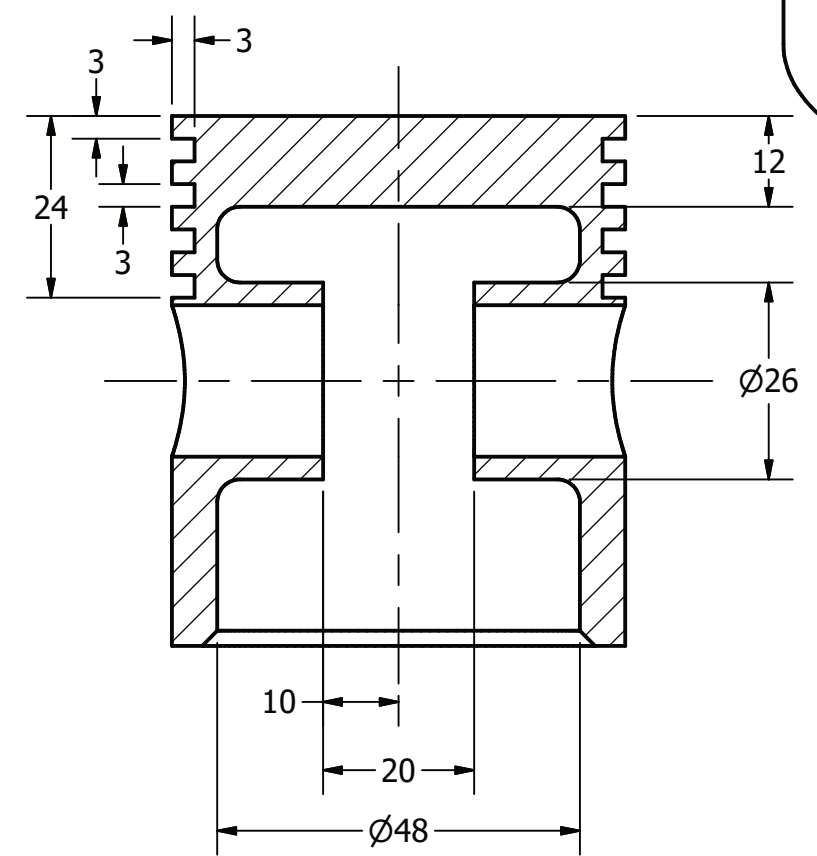
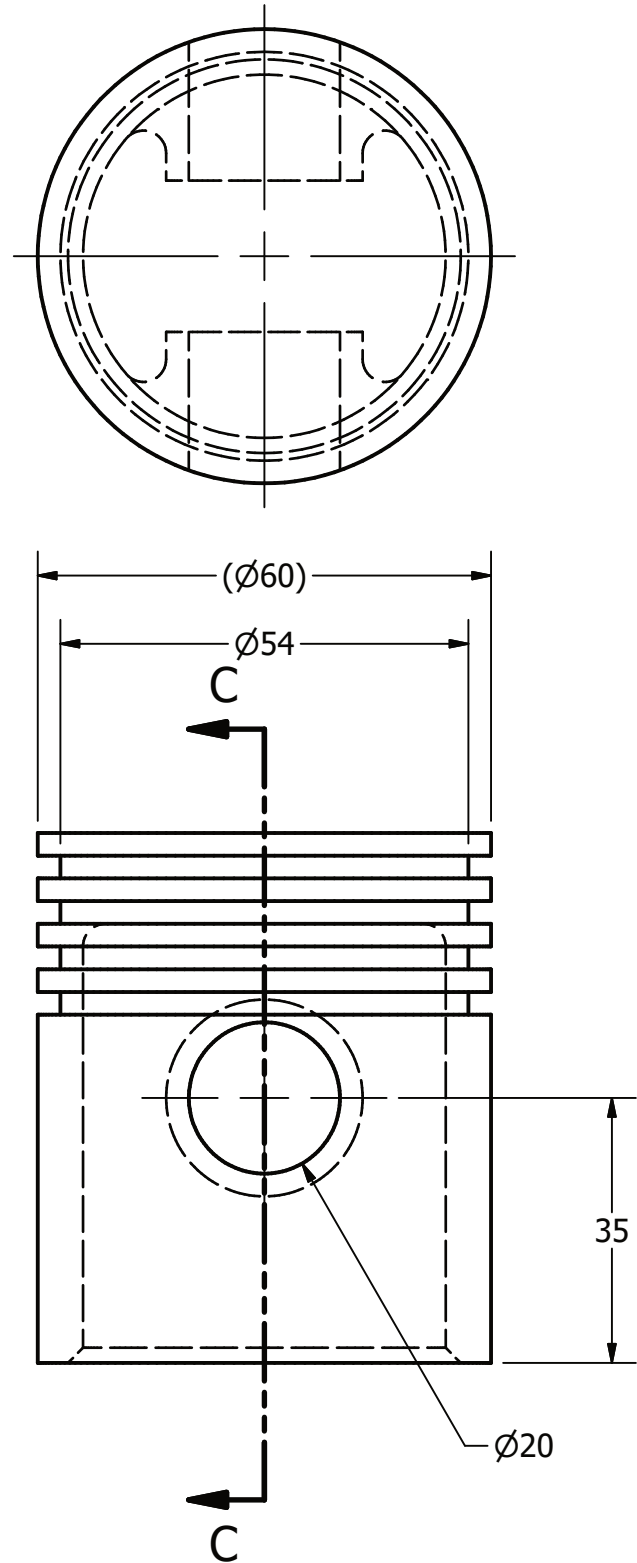
METRIC

LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES

GENERAL NOTES:

ALL FILLETS AND ROUNDS R3 UNLESS OTHERWISE STATED.
ALL CHAMFERS ARE 2 X 45 UNLESS OTHERWISE STATED.

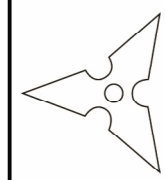
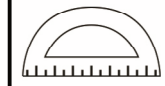


PARTS LIST		
ITEM	QTY	PART NUMBER
3	3	PISTON

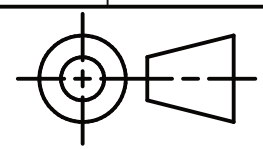


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XXX = ±.005
FRACTIONAL ±1/64"
ANGLES ±1 DEGREE
SURFACES 32 ✓

CLASS: DDGT 240

ASSIGNMENT #: 64

INVENTOR DRAWING NAME:
ENGINE BLOCK

FIG #: 20-69

MANAGER: G.STROMMEN

DRAFTER: A. MOSTAFA

DATE: 10/18/2023

SCALE: AS NOTED

PAGE #: 5 OF 6

METRIC

GENERAL NOTES: PISTON SCALE 1 : 1
ALL FILLETS AND ROUNDS R3 UNLESS OTHERWISE STATED.
ALL CHAMFERS ARE 2 X 45 UNLESS OTHERWISE STATED.

SECTION C-C
SCALE 1 : 1

LEGEND:

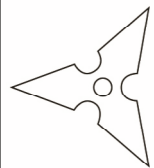
- Ø DIAMETER
- R RADIUS
- ° DEGREES

PARTS LIST		
ITEM	QTY	PART NUMBER
5	3	PISTON PIN
4.1	3	CONNECTING ROD TOP
4.2	3	CONNECTING ROD BOTTOM

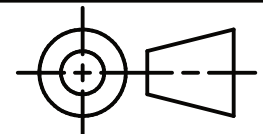


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ANGLES ±1 DEGREE
SURFACES 32

CLASS: DDGT 240

ASSIGNMENT #: 64

INVENTOR DRAWING NAME:
ENGINE BLOCK

FIG #: 20-69

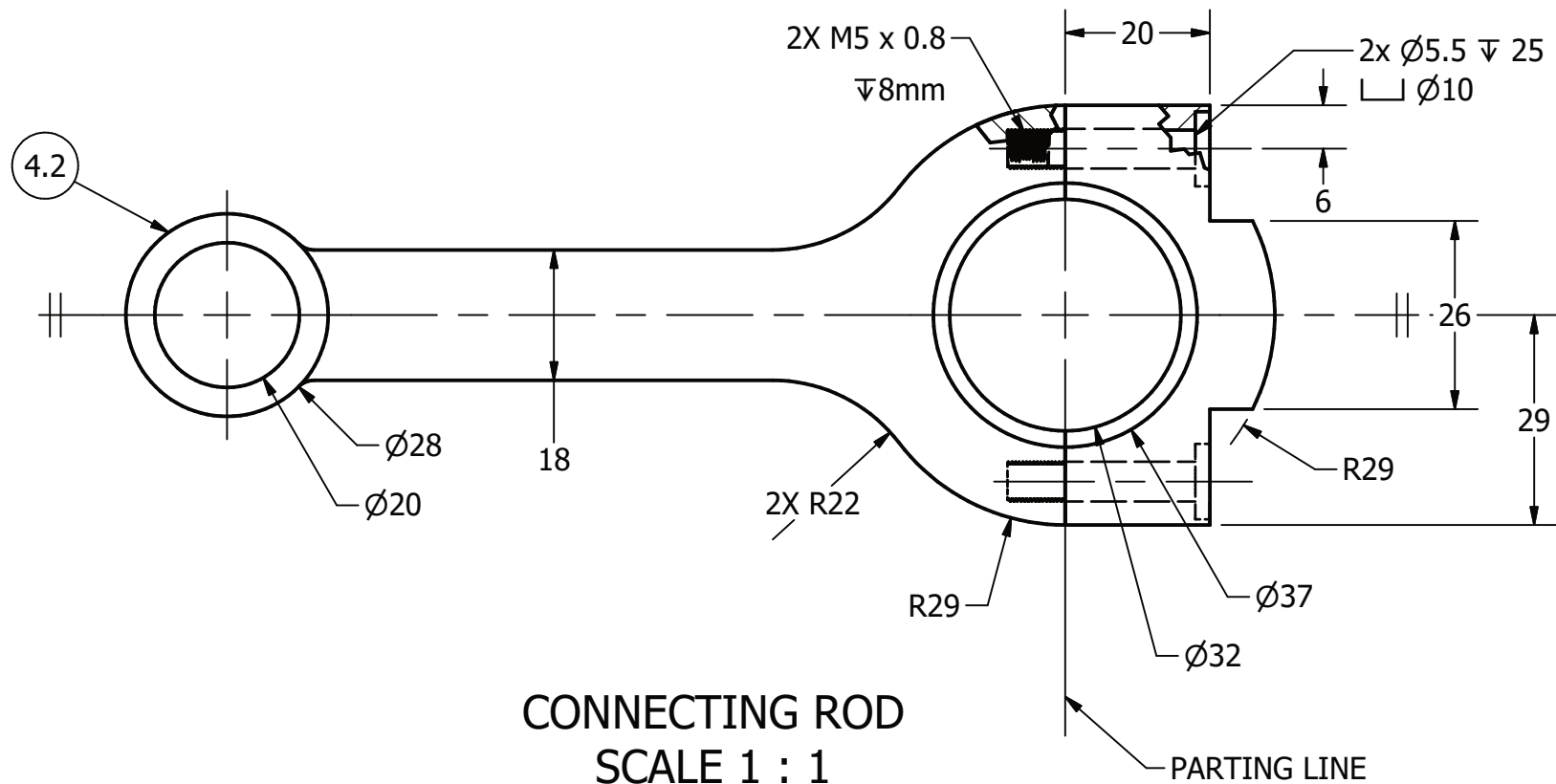
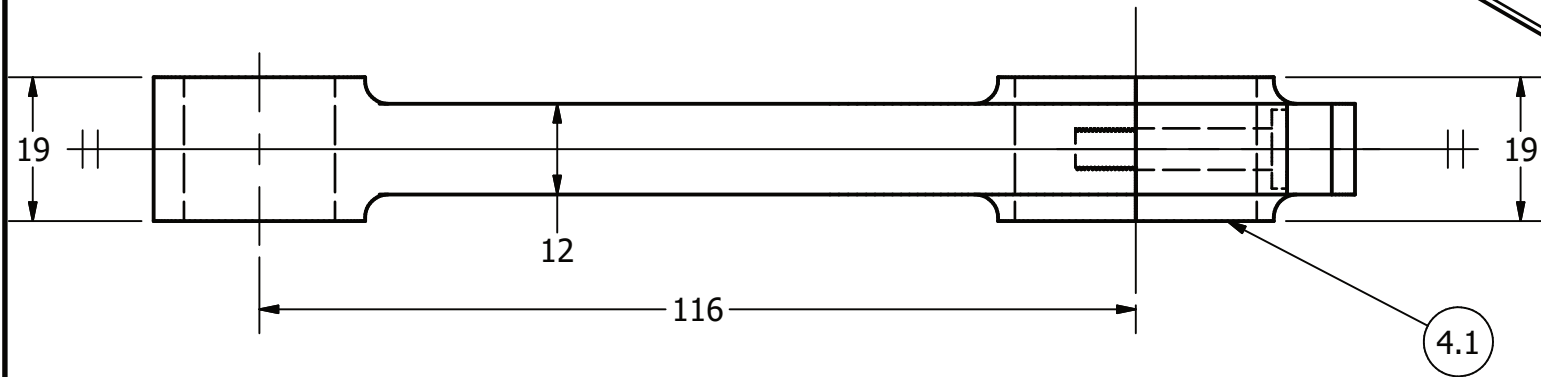
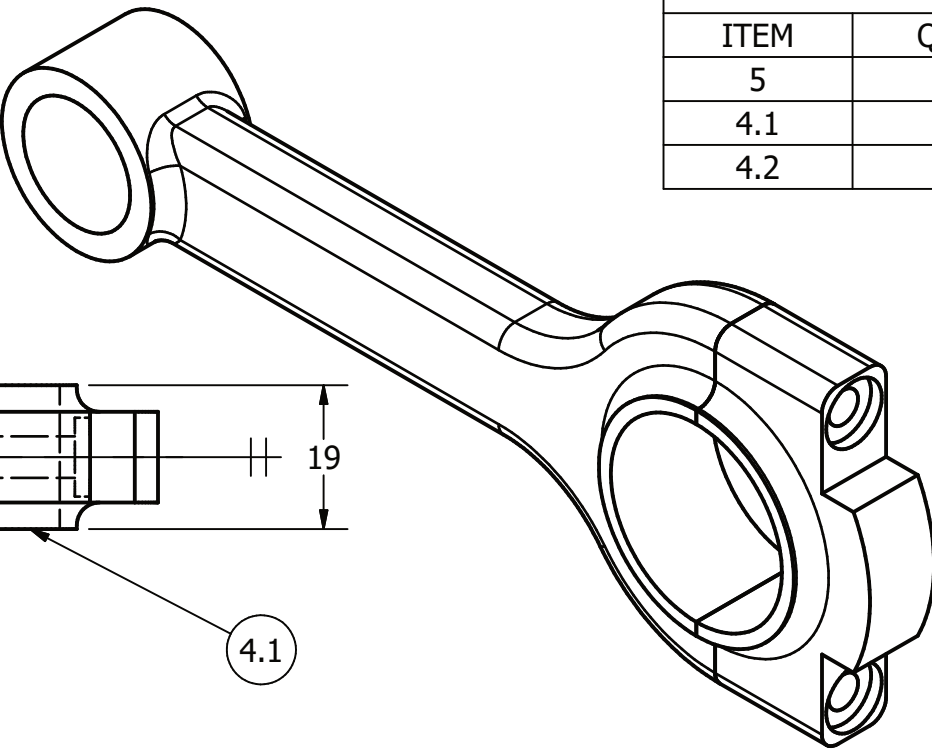
MANAGER: G.STROMMEN

DRAFTER: A. MOSTAFA

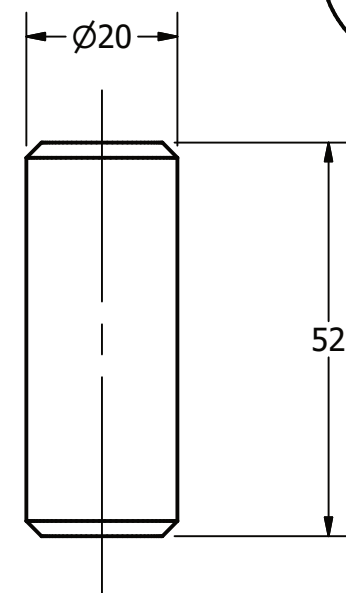
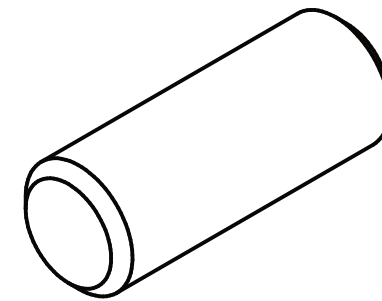
DATE: 10/18/2023

SCALE: AS NOTED

PAGE #: 6 OF 6



CONNECTING ROD
SCALE 1 : 1



PISTON PIN
SCALE 1 : 1

METRIC

LEGEND:

- Ø DIAMETER
- R RADIUS
- DEGREES

GENERAL NOTES:

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ALL CHAMFERS ARE 2 X 45 UNLESS OTHERWISE STATED.