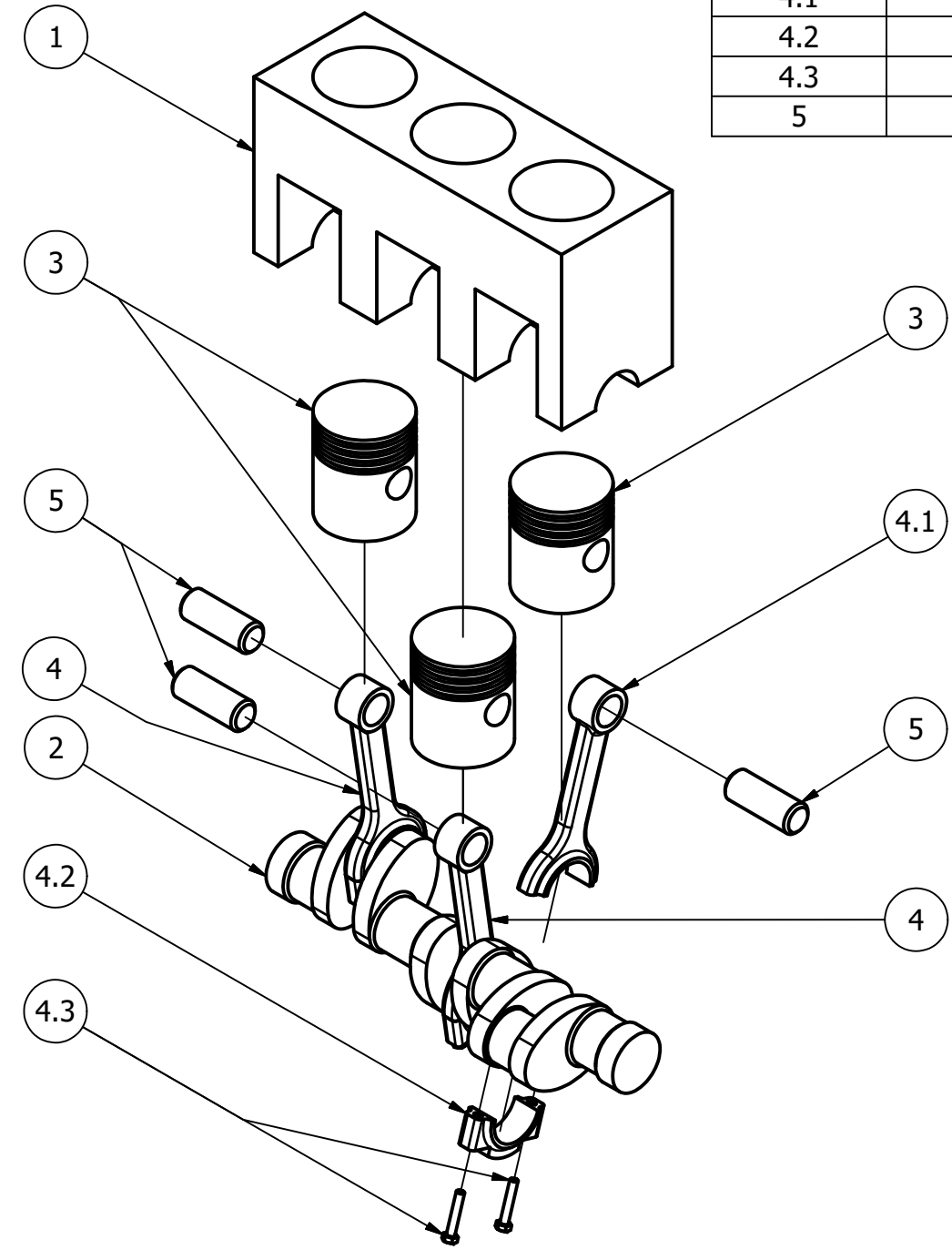
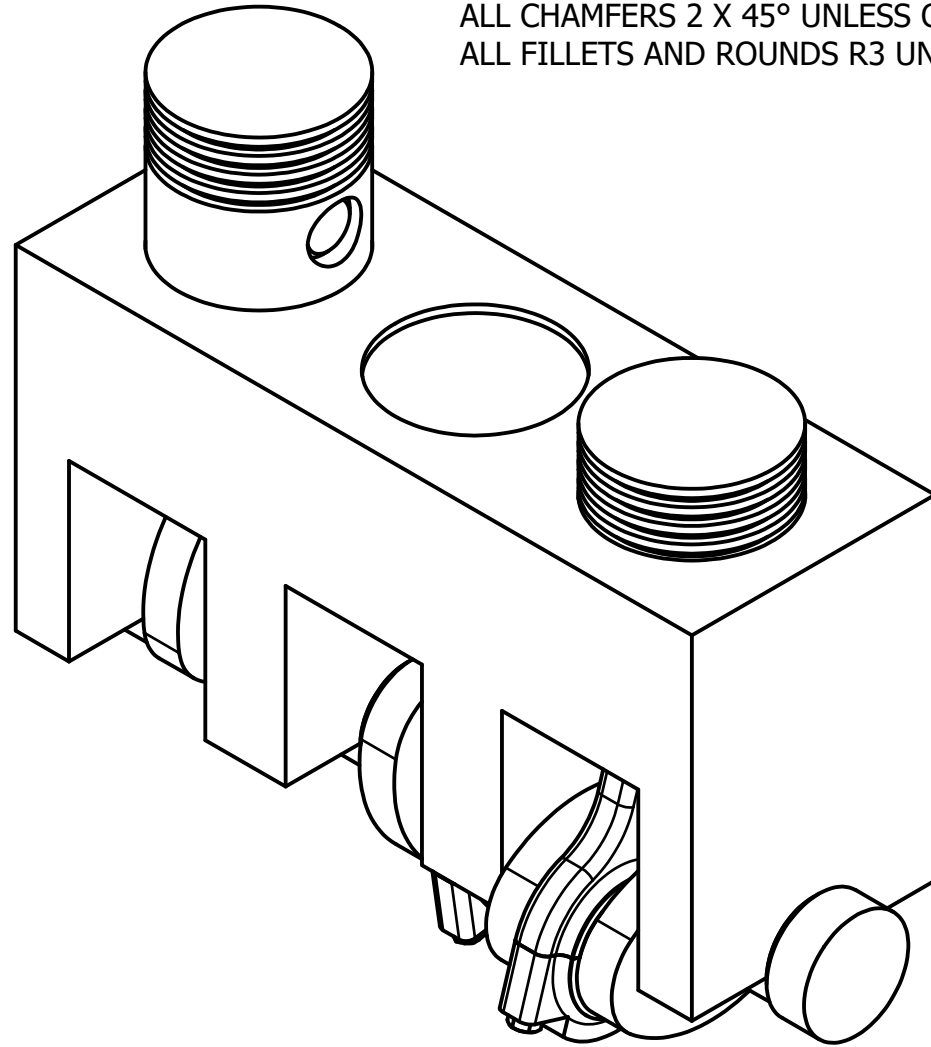


**METRIC**

PARTS LIST				
ITEM	QTY	PART NUMBER	MATERIAL	DESCRIPTION
1	1	ENGINE BLOCK	ALUMINUM	
2	1	CRANKSHAFT	STEEL	
3	3	PISTON	STEEL	
4	3	CONNECTING ROD SUB-ASSEMBLY	STEEL	
4.1	1	CONNECTING ROD TOP	STEEL	
4.2	1	CONNECTING ROD BOTTOM	STEEL	
4.3	2	HEX BOLT	STANDARD	BS 3692 - M5 x 28
5	3	PISTON PIN	STEEL	



**EXPLODED ASSEMBLY  
SCALE 1 / 4**



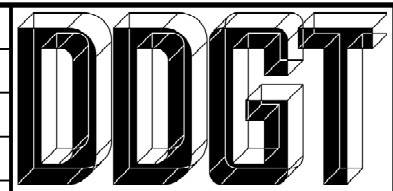
**ENGINE MODEL ASSEMBLY  
SCALE 1 / 2**

**GENERAL NOTES:**

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

**LEGEND:**

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



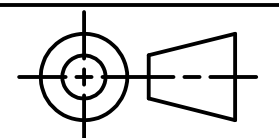
DIGITAL DESIGN  
GRAPHICS  
TECHNOLOGY

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CosmicToysAndPuzzles@gmail.com  
http://ddgt.net/StudentPages/szepeda



TOLERANCES UNLESS SPECIFIED:  
MILLIMETERS:  
WHOLE NUMBERS = ±.5  
XX = ±.25  
XXX = ±.12  
FRACTIONAL ±1/64"  
ANGLES ±1 DEGREE  
SURFACES  $\sqrt{\quad}$

CLASS: DDGT 240

ASSIGNMENT #: #64

INVENTOR DRAWING NAME:  
**ENGINE MODEL**

FIG #: 20.69

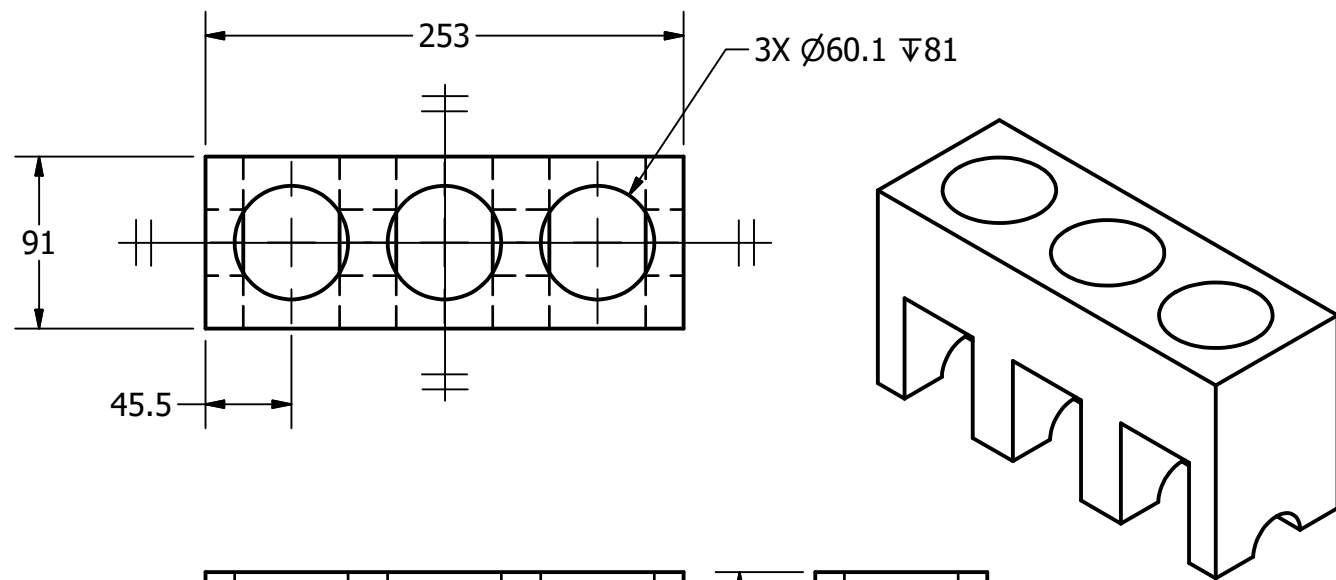
MANAGER: G. STROMMEN

DRAFTER: S. ZEPEDA

DATE: 12/7/2023

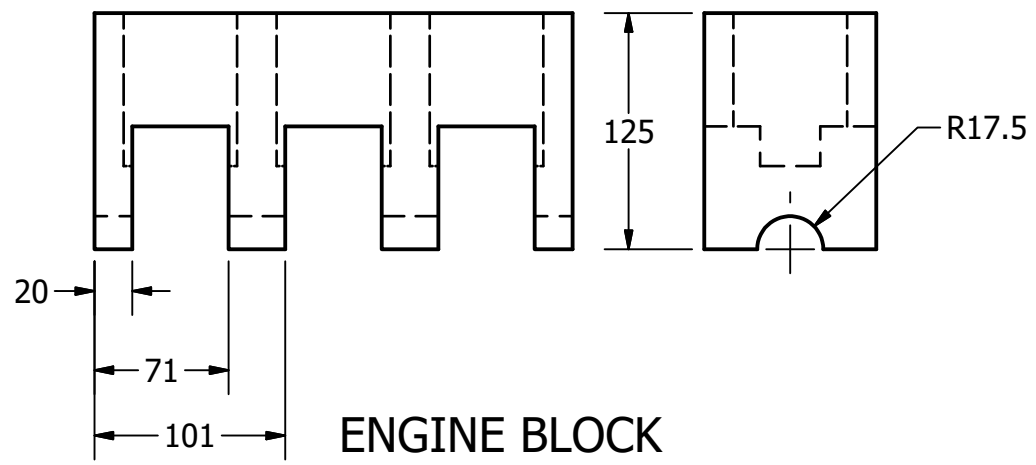
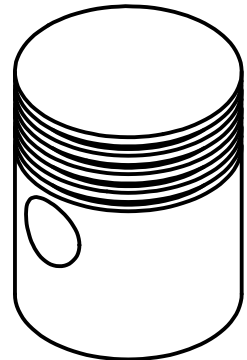
SCALE: AS NOTED

PAGE #: 1 OF 3



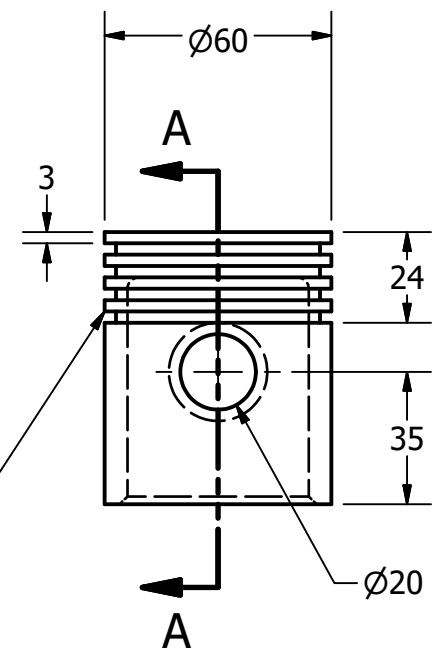
METRIC

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

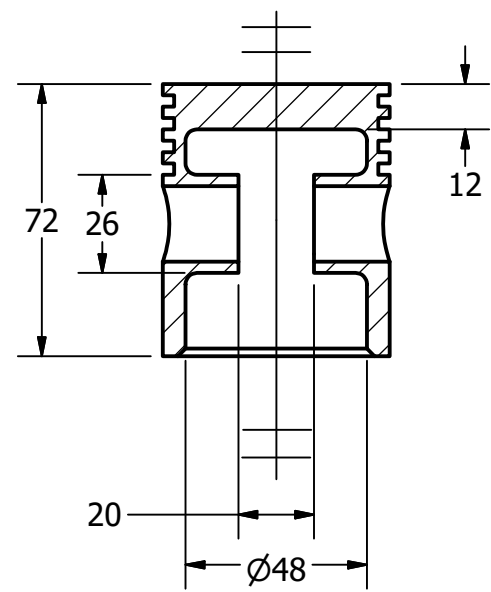


ENGINE BLOCK  
SCALE 1 / 4

RING LANDS ARE 3 WIDE,  
RING GROOVES ARE  
3 WIDE AND 3 DEEP



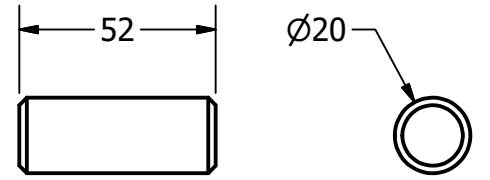
PISTON  
SCALE 1 / 2



SECTION A-A  
SCALE 1 / 2

**LEGEND:**

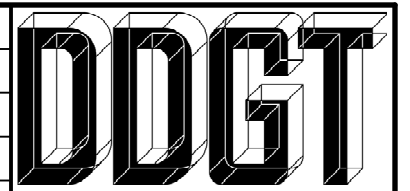
- Ø DIAMETER
- R RADIUS
- ° DEGREES
- ∇ DEPTH



PISTON PIN  
SCALE 1 / 2

**GENERAL NOTES:**

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



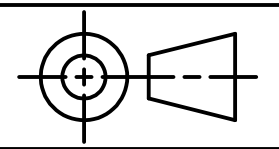
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XXX = ±.12  
FRACTIONAL ±1/64"  
ANGLES ±1 DEGREE  
SURFACES 32

CLASS: DDGT 240

ASSIGNMENT #: #64

INVENTOR DRAWING NAME:  
ENGINE MODEL

FIG #: 20.69

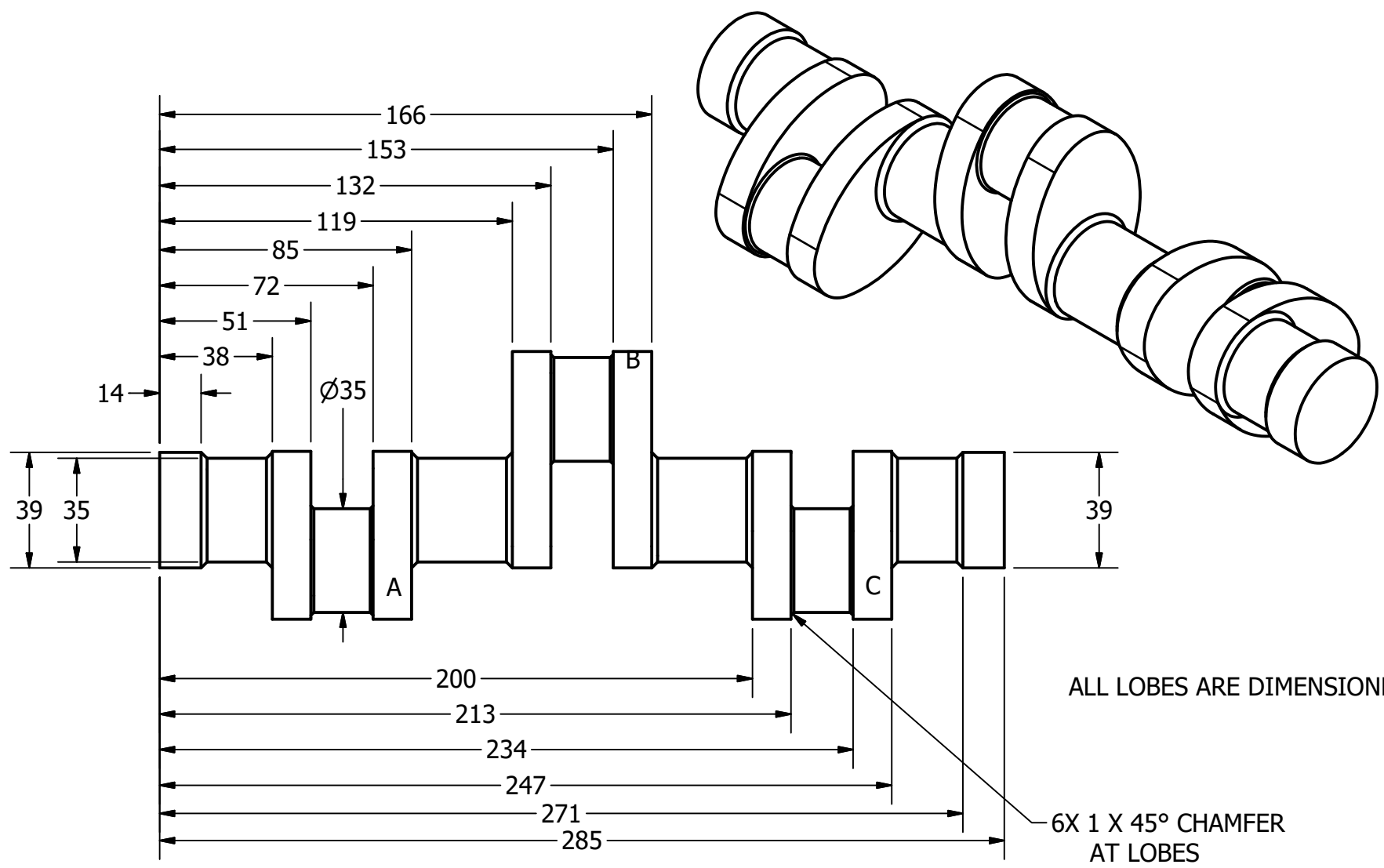
MANAGER: G. STROMMEN

DRAFTER: S. ZEPEDA

DATE: 12/7/2023

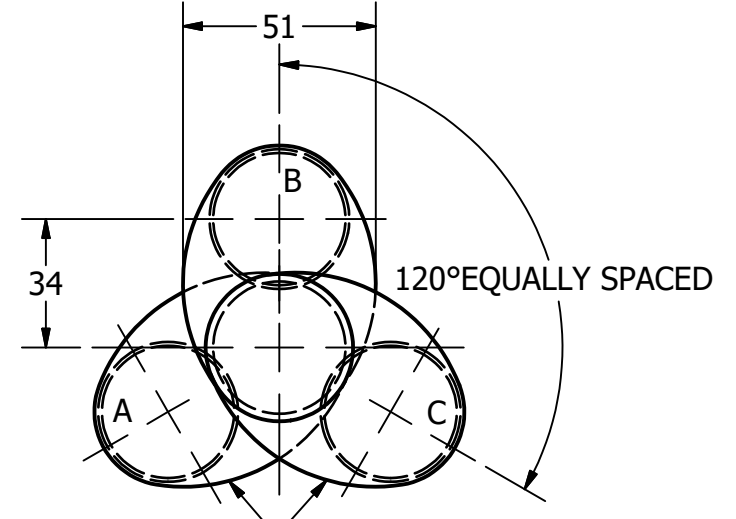
SCALE: AS NOTED

PAGE #: 2 OF 3

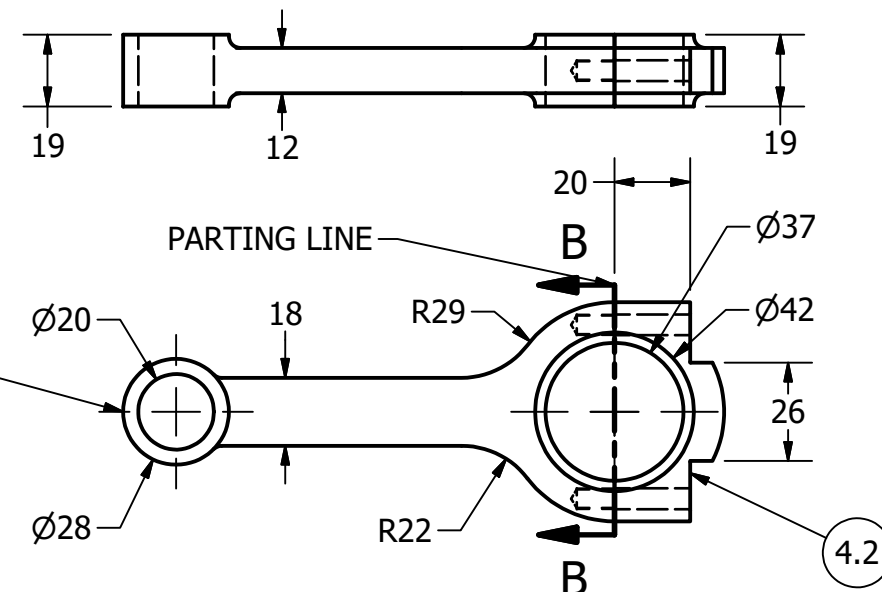
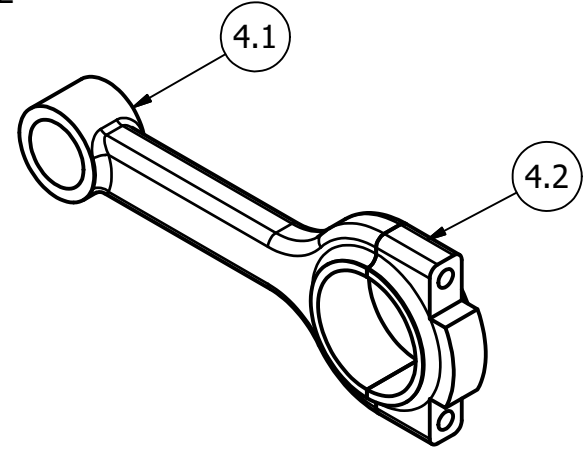


CRANKSHAFT  
SCALE 1 / 2

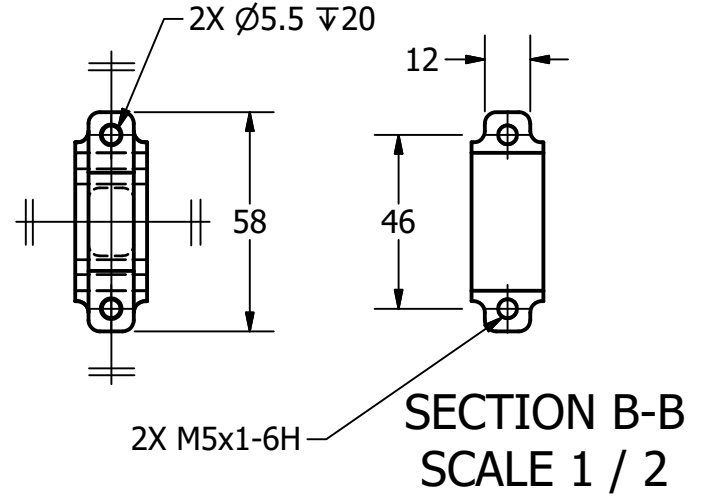
PARTS LIST		
ITEM	QTY	PART NUMBER
2	1	CRANKSHAFT
4	3	CONNECTING ROD SUB-ASSEMBLY
4.1	1	CONNECTING ROD TOP
4.2	1	CONNECTING ROD BOTTOM



ALL LOBES ARE DIMENSIONED THE SAME



CONNECTING ROD SUB-ASSEMBLY  
SCALE 1 / 2

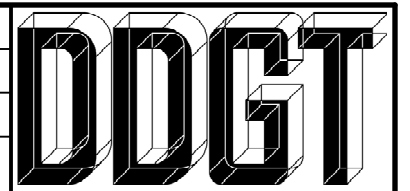


SECTION B-B  
SCALE 1 / 2

METRIC

- LEGEND:**
- Ø DIAMETER
  - R RADIUS
  - ° DEGREES
  - ∇ DEPTH

**GENERAL NOTES:**  
 ALL CHAMFERS 2 X 45° UNLESS OTHERWISE SPECIFIED  
 ALL FILLETS AND ROUNDS R3 UNLESS OTHERWISE SPECIFIED

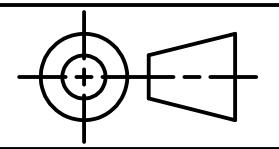


DIGITAL DESIGN  
GRAPHICS  
TECHNOLOGY

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CLASS: DDGT 240

ASSIGNMENT #: #64

INVENTOR DRAWING NAME:  
ENGINE MODEL

FIG #: 20.69

MANAGER: G. STROMMEN

DRAFTER: S. ZEPEDA

DATE: 12/7/2023

SCALE: AS NOTED

PAGE #: 3 OF 3