

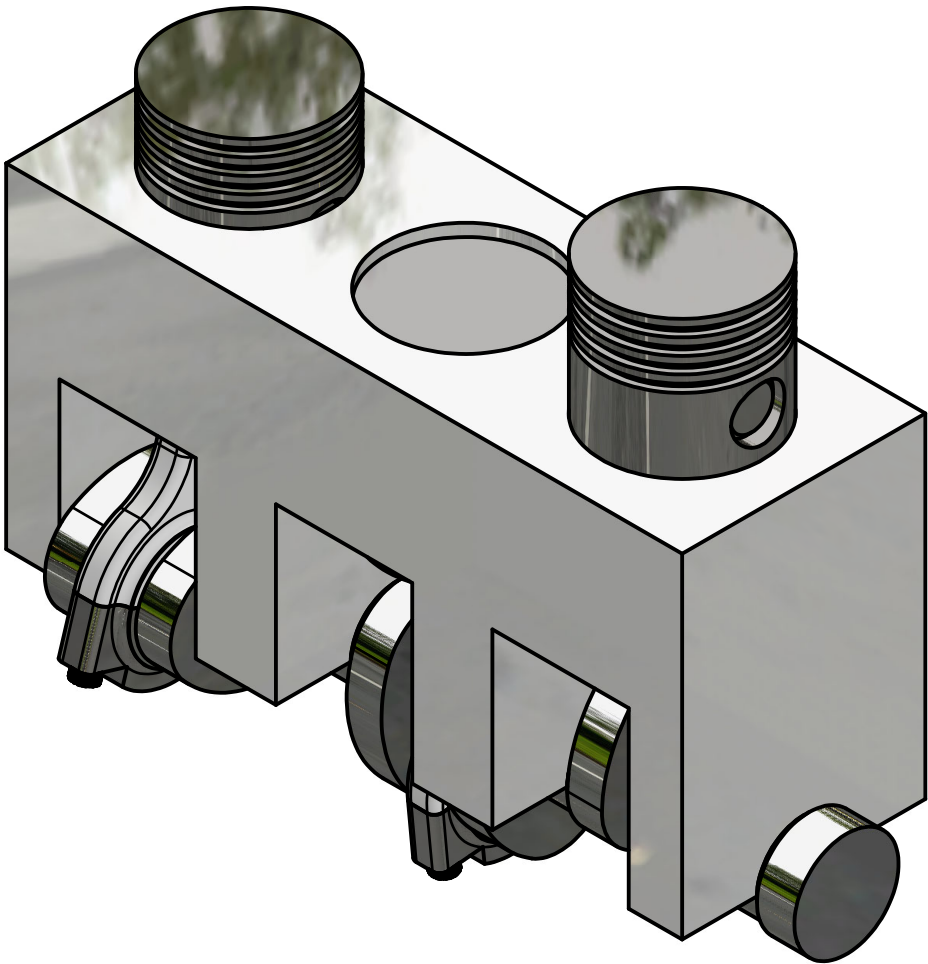
METRIC

PARTS LIST				
ITEM	QTY	PART NUMBER	MATERIAL	DESCRIPTION
1	1	ENGINE BLOCK	ALUMINUM	
2	1	CRANK SHAFT	STEEL	
3	3	PISTON PIN	STEEL	
4	3	PISTON	STEEL	
5	3	CONNECTING ROD		SUB-ASSEMBLY
5.1	1	CONNECTING ROD TOP	STEEL	
5.2	1	CONNECTING ROD BOTTOM	STEEL	
5.3	2	SOCKET HEAD SCREW	ALLOY STEEL	McMASTER CARR 91290A194



DIGITAL DESIGN
GRAPHICS
TECHNOLOGY

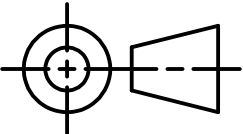
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3 PISTON ENGINE
SCALE 1 / 2

LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES
- SPOTFACE/
COUNTERBORE
- COUNTERSINK
- DEPTH



TOLERANCES UNLESS SPECIFIED:
MILLIMETERS:
WHOLE NUMBERS = ±.5
X = ±.25
XX = ±.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: N. HENDERSON

DATE: 10/29/2024

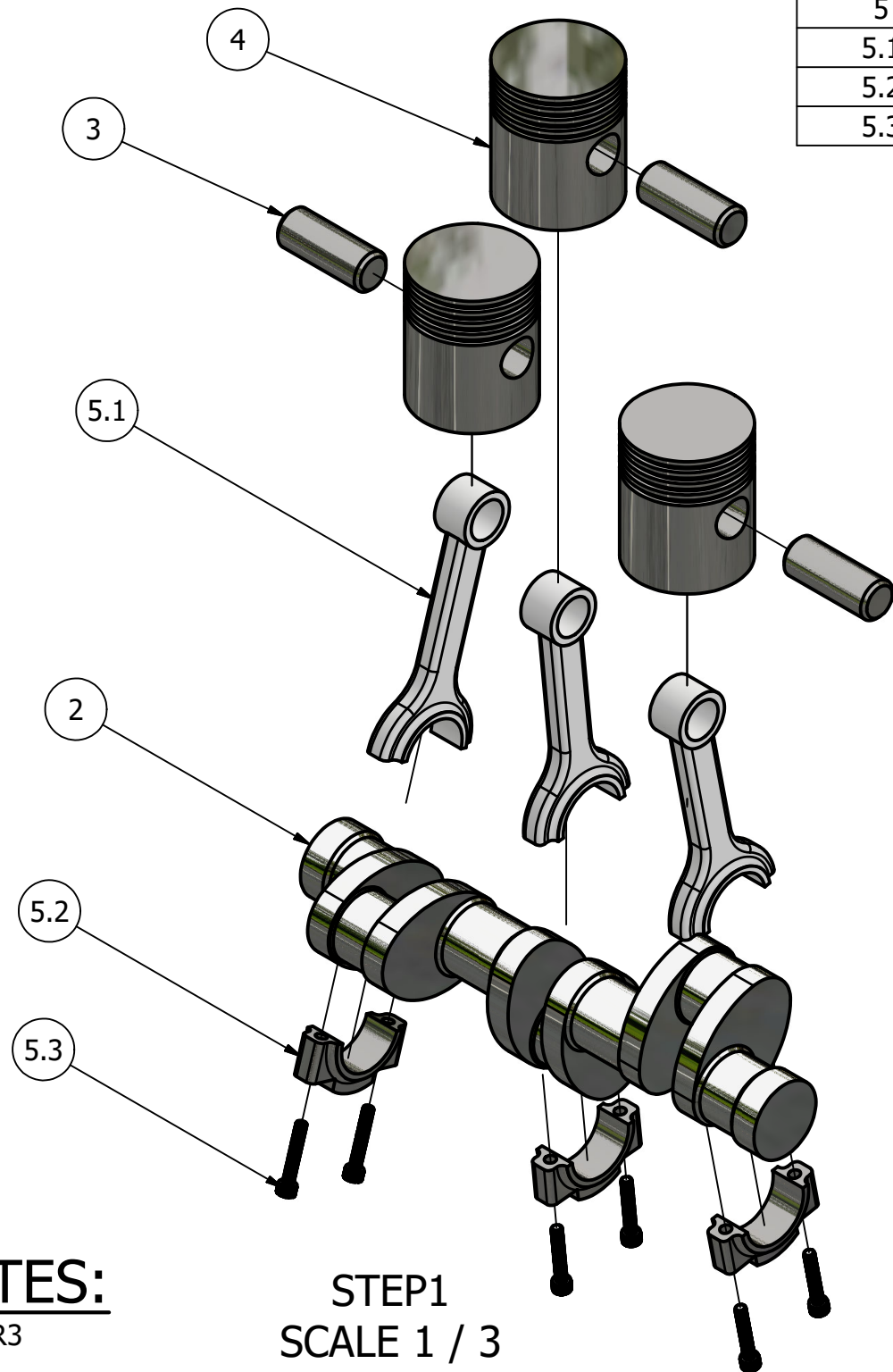
SCALE: AS NOTED

PAGE #: 1 OF 7

GENERAL NOTES:

ALL ROUNDS AND FILLETS R3

METRIC



GENERAL NOTES:
ALL ROUNDS AND FILLETS R3

PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
2	1	CRANK SHAFT	STEEL
3	3	PISTON PIN	STEEL
4	3	PISTON	STEEL
5	3	CONNECTING ROD	
5.1	1	CONNECTING ROD TOP	STEEL
5.2	1	CONNECTING ROD BOTTOM	STEEL
5.3	2	SOCKET HEAD SCREW	ALLOY STEEL

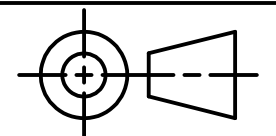
LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES
- SPOTFACE/
COUNTERBORE
- ∨ COUNTERSINK
- ▽ DEPTH



DIGITAL DESIGN
GRAPHICS
TECHNOLOGY

WWW.DDGT.NET



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MILLIMETERS:
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X = ±.25
XX = ±.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: N. HENDERSON

DATE: 10/29/2024

SCALE: AS NOTED

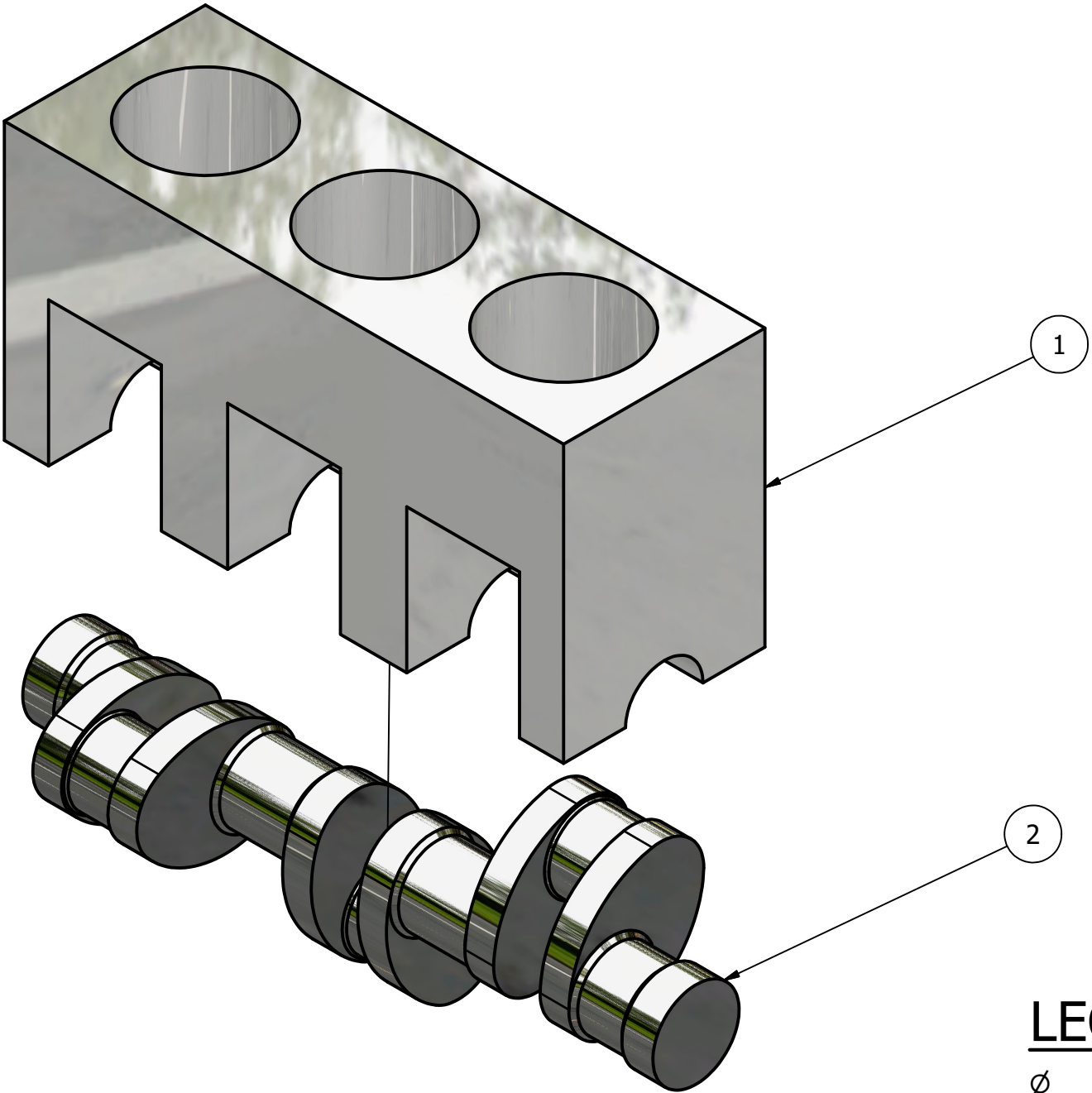
PAGE #: 2 OF 7

PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	ENGINE BLOCK
2	1	CRANK SHAFT



DIGITAL DESIGN
GRAPHICS
TECHNOLOGY

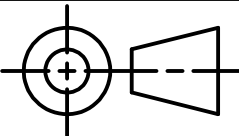
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STEP 2
SCALE 1 / 2

LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES
- ⌊ SPOTFACE/
COUNTERBORE
- ∨ COUNTERSINK
- ↯ DEPTH



TOLERANCES UNLESS SPECIFIED:
MILLIMETERS:
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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: N. HENDERSON

DATE: 10/29/2024

SCALE: AS NOTED

PAGE #: 3 OF 7

METRIC

GENERAL NOTES:
ALL ROUNDS AND FILLETS R3

METRIC

GENERAL NOTES:

ALL ROUNDS AND FILLETS R3

PARTS LIST		
ITEM	QTY	PART NUMBER
5	3	CONNECTING ROD
5.1	1	CONNECTING ROD TOP
5.2	1	CONNECTING ROD BOTTOM
5.3	2	SOCKET HEAD SCREW

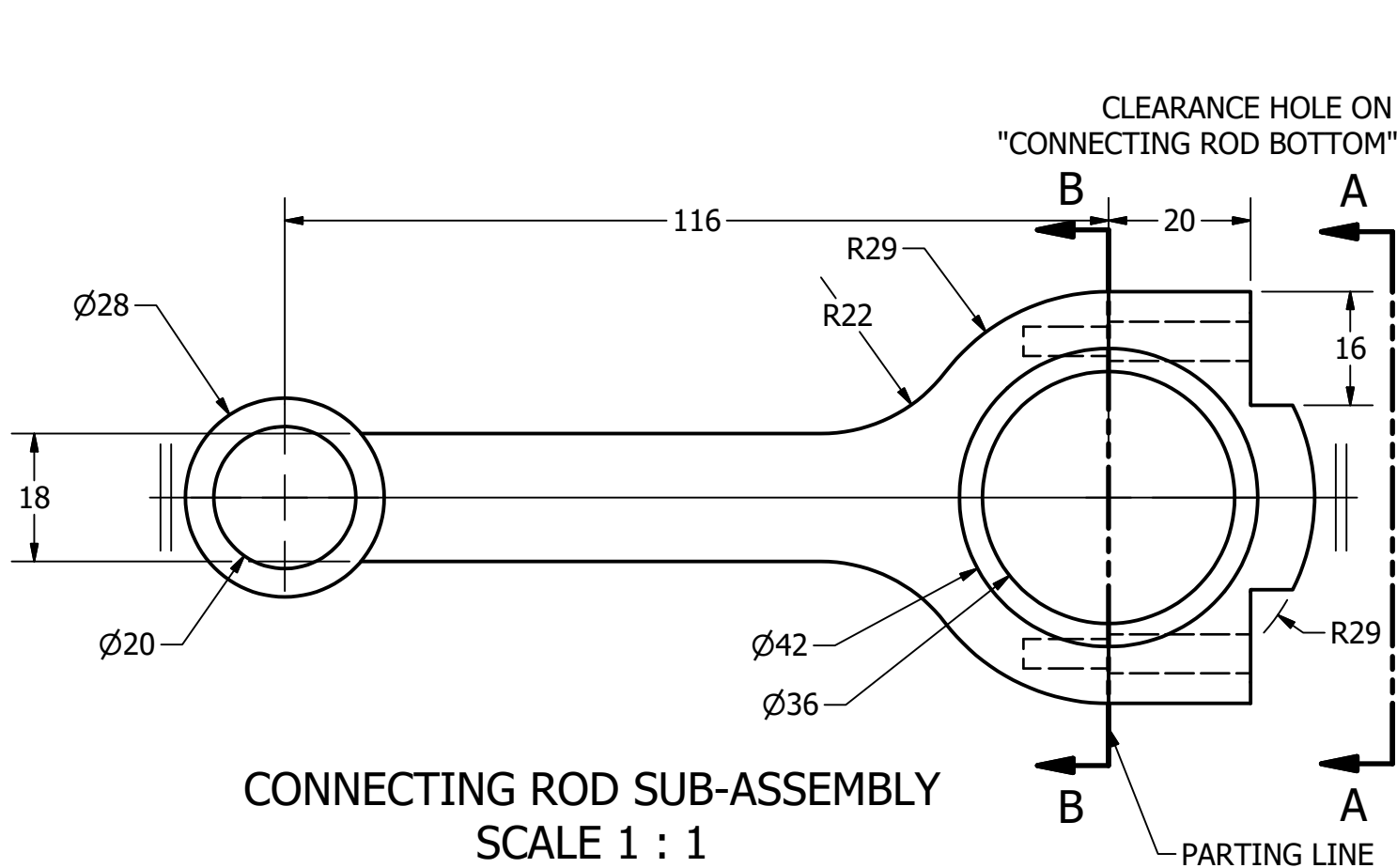
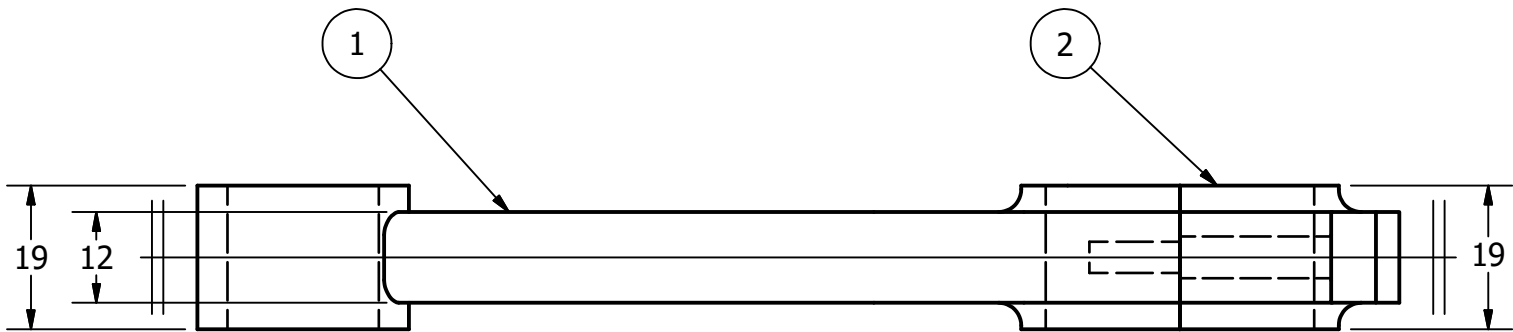


DIGITAL DESIGN
GRAPHICS
TECHNOLOGY

WWW.DDGT.NET

LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES
- SPOTFACE/
COUNTERBORE
- ✓ COUNTERSINK
- ▽ DEPTH

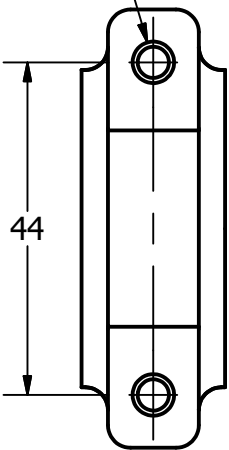


Ø5.5
▽20

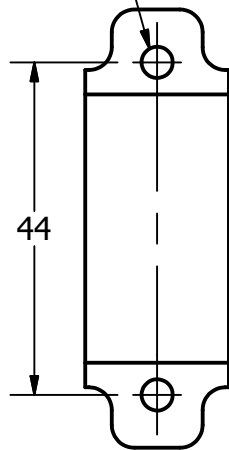
CLEARANCE HOLE ON PART
"CONNECTING ROD BOTTOM" ONLY

M5X0.8 - 6H
▽12

THREADED HOLE ON PART
"CONNECTING ROD TOP" ONLY



VIEW A-A
SCALE 1 : 1



SECTION B-B
SCALE 1 : 1

TOLERANCES UNLESS SPECIFIED:
MILLIMETERS:
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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: N. HENDERSON

DATE: 10/29/2024

SCALE: AS NOTED

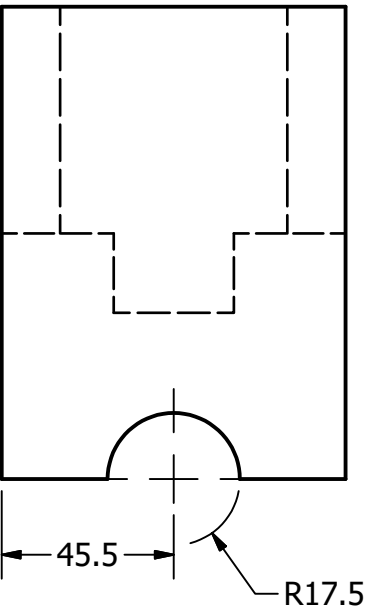
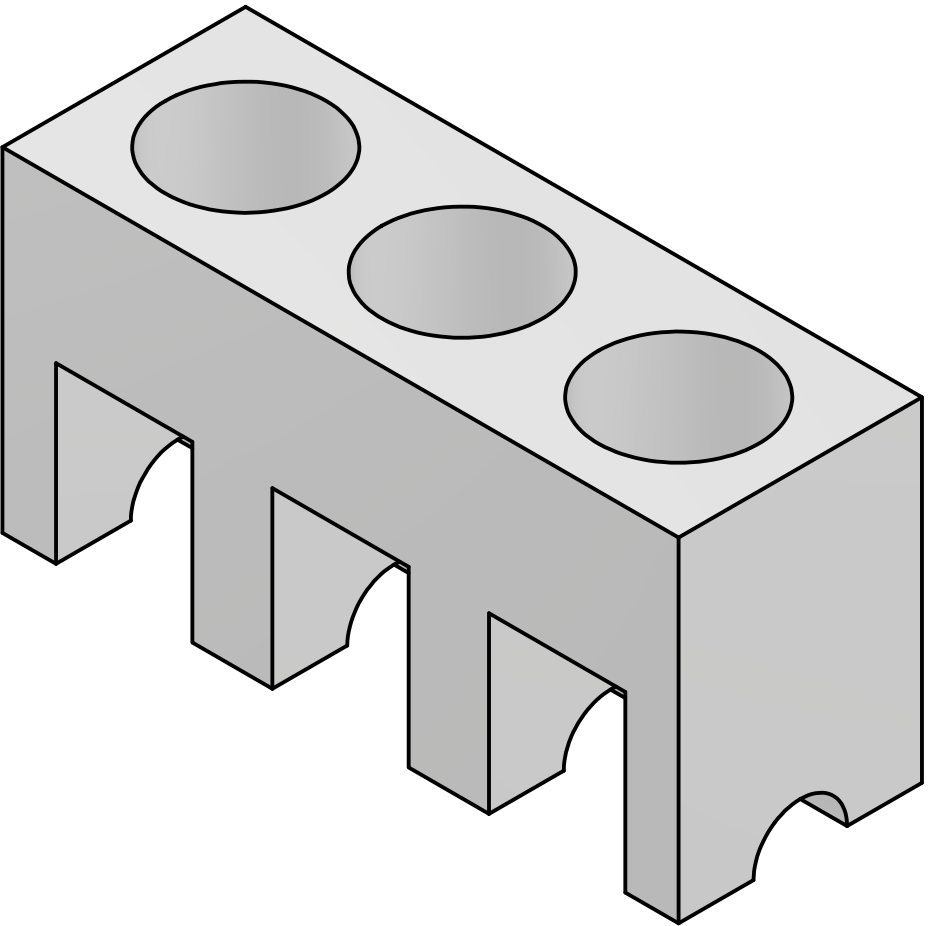
PAGE #: 4 OF 7

PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	ENGINE BLOCK



DIGITAL DESIGN
GRAPHICS
TECHNOLOGY

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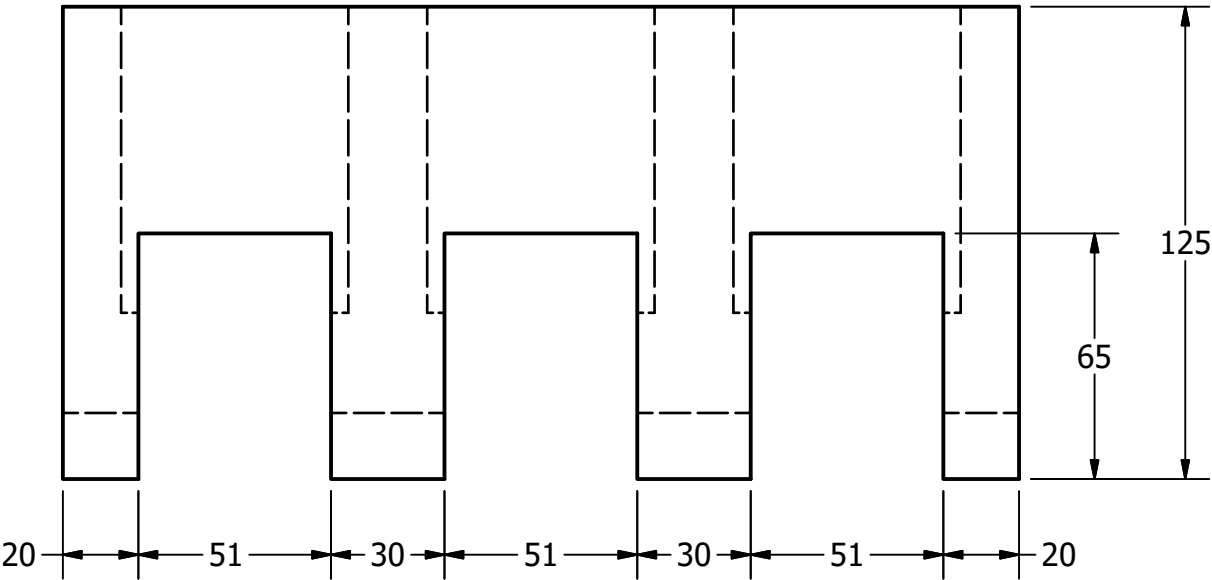
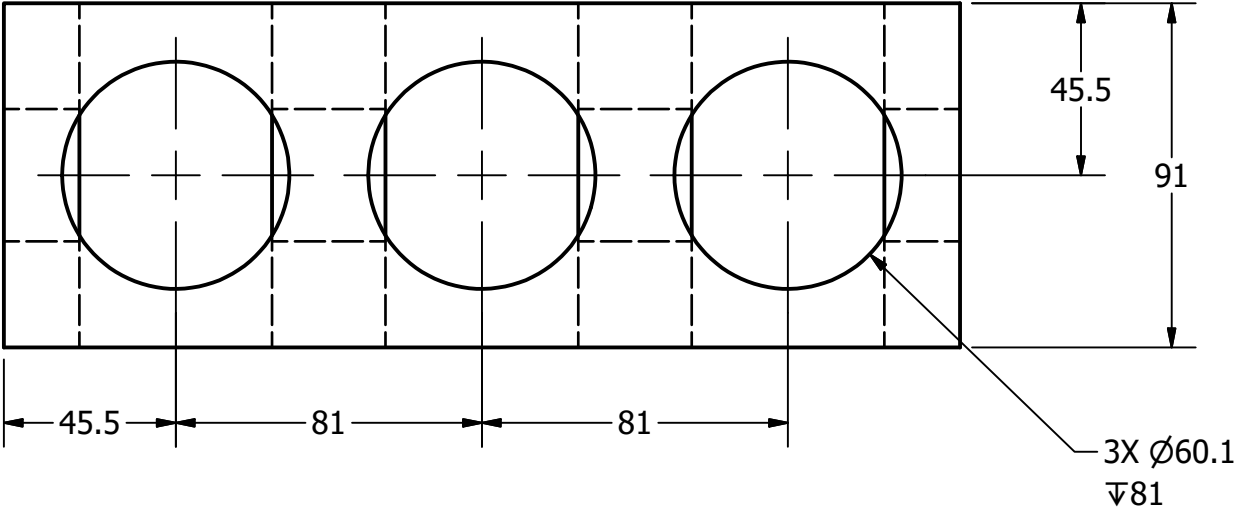


LEGEND:

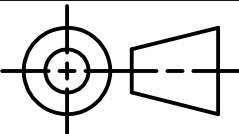
- Ø DIAMETER
- R RADIUS
- ° DEGREES
- SPOTFACE/
COUNTERBORE
- ✓ COUNTERSINK
- ▽ DEPTH

GENERAL NOTES:
ALL ROUNDS AND FILLETS R3

METRIC



ENGINE BLOCK
SCALE 1 / 2



TOLERANCES UNLESS SPECIFIED:
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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: N. HENDERSON

DATE: 10/29/2024

SCALE: AS NOTED

PAGE #: 5 OF 7

PARTS LIST		
ITEM	QTY	PART NUMBER
2	1	CRANK SHAFT

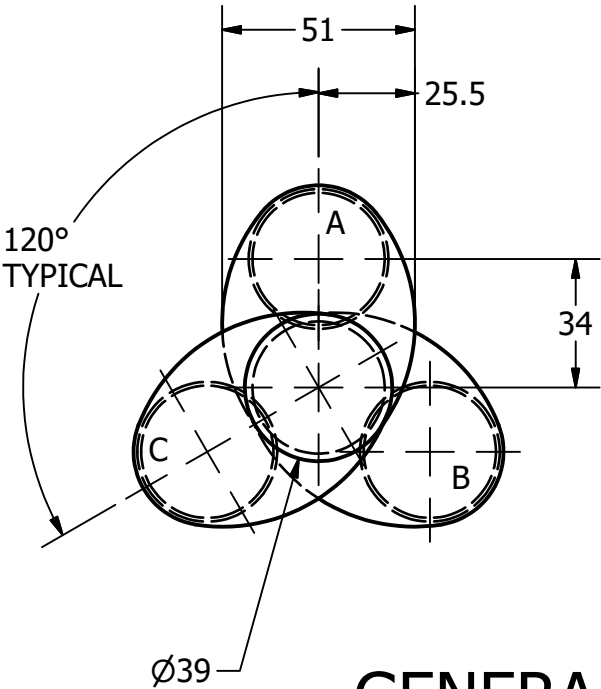
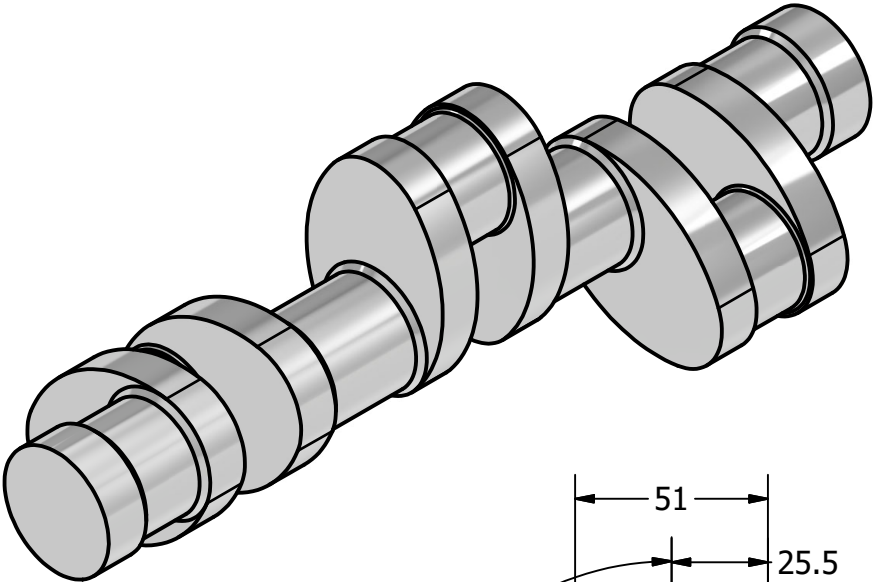


DIGITAL DESIGN
GRAPHICS
TECHNOLOGY

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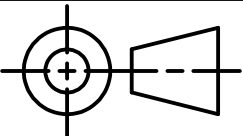
LEGEND:

- Ø DIAMETER
- R RADIUS
- ° DEGREES
- SPOTFACE/
COUNTERBORE
- ∨ COUNTERSINK
- ▽ DEPTH



GENERAL NOTES:

ALL ROUNDS AND FILLETS R3



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ANGLES ±1 DEGREE
SURFACES 32 √

CLASS: DDGT 240

ASSIGNMENT #: #64

INVENTOR DRAWING NAME:
ENGINE MODEL

FIG #: 20.69

MANAGER: G. STROMMEN

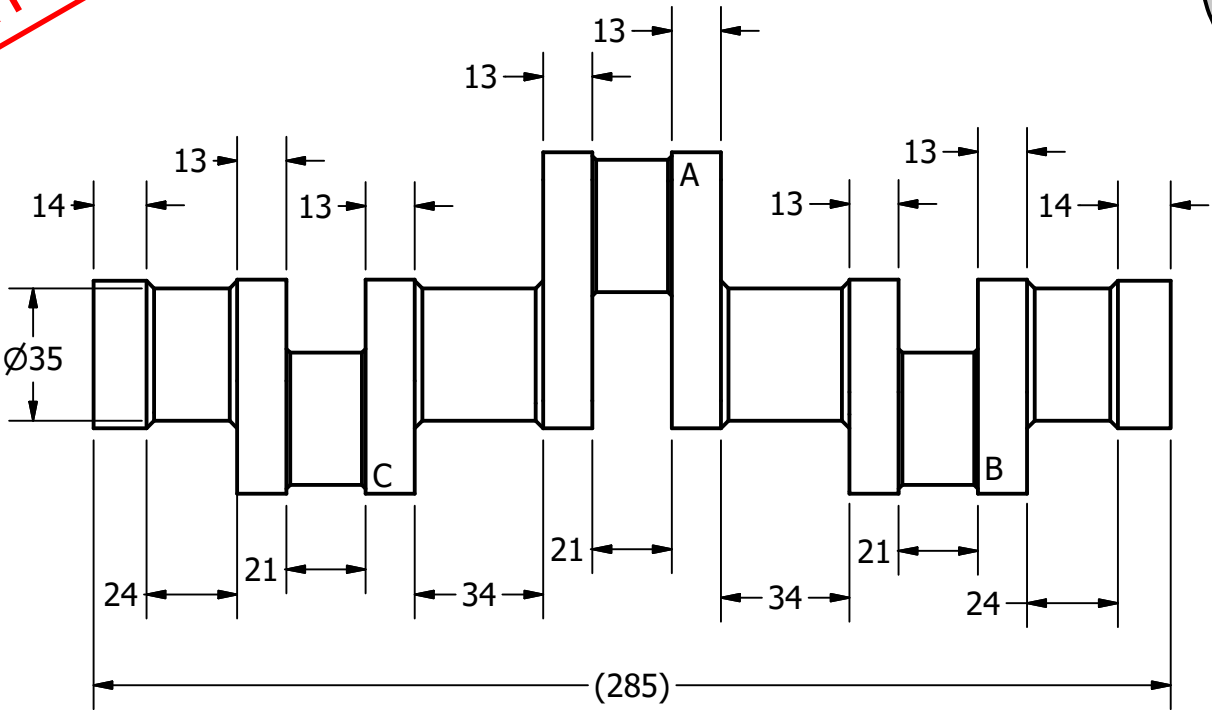
DRAFTER: N. HENDERSON

DATE: 10/29/2024

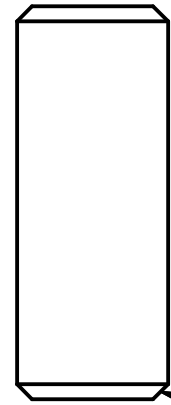
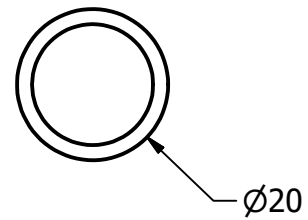
SCALE: AS NOTED

PAGE #: 6 OF 7

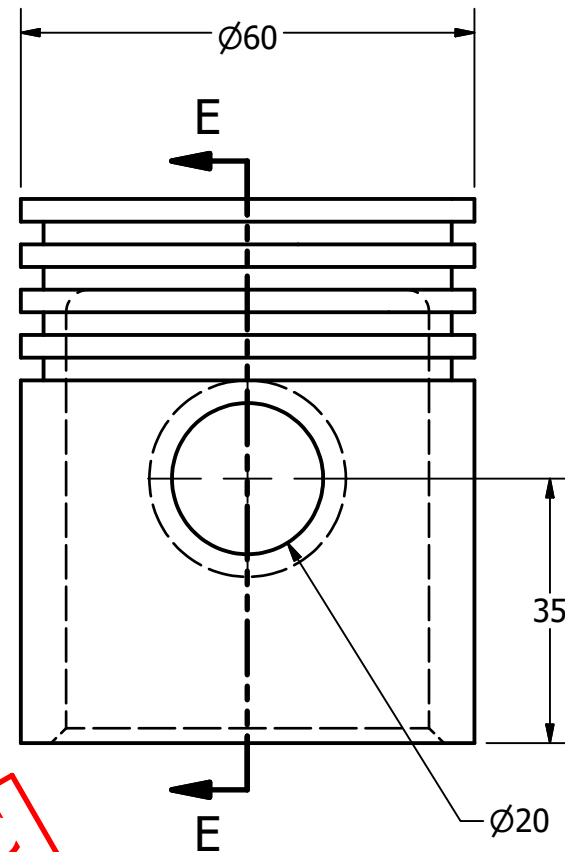
METRIC



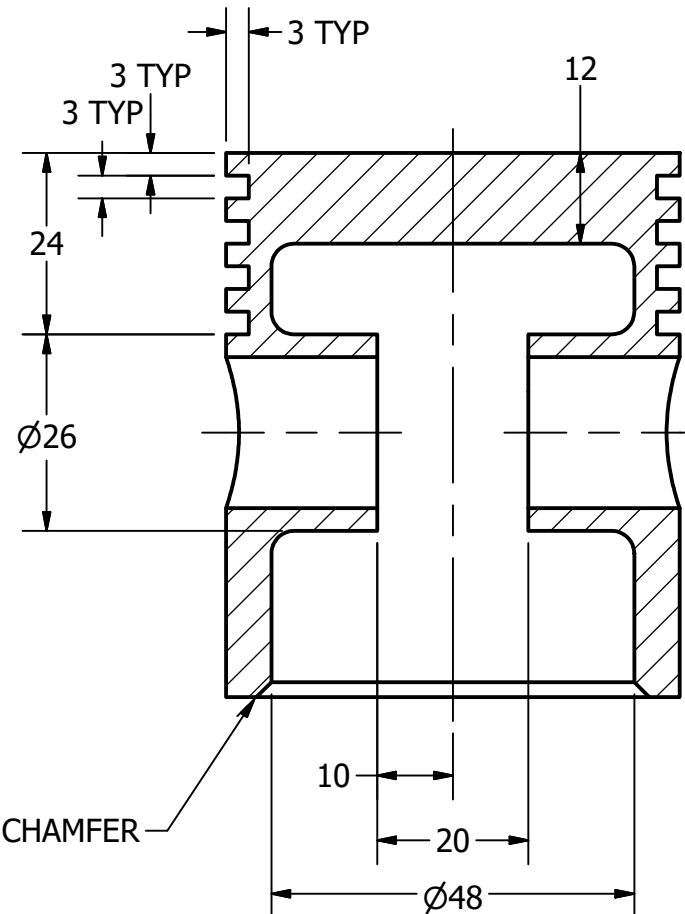
CRANK SHAFT
SCALE 1 / 2



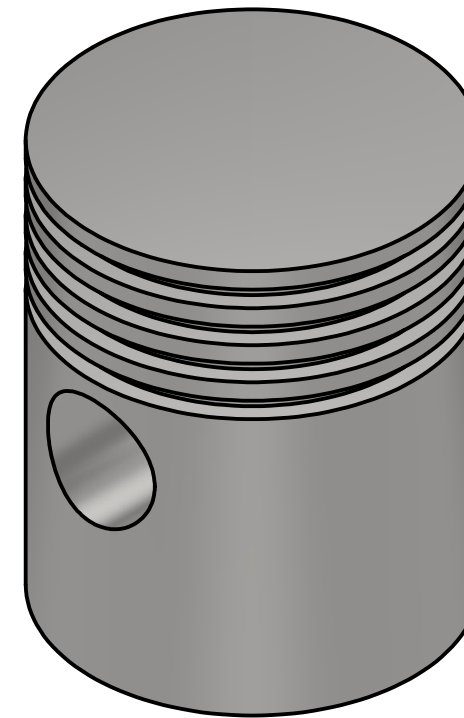
PIN
SCALE 1 : 1



PISTON
SCALE 1 : 1



SECTION E-E
SCALE 1 : 1



GENERAL NOTES:
ALL ROUNDS AND FILLETS R3

LEGEND:

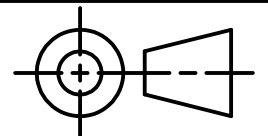
- Ø DIAMETER
- R RADIUS
- ° DEGREES
- SPOTFACE/COUNTERBORE
- ∇ COUNTERSINK
- ▽ DEPTH

PARTS LIST		
ITEM	QTY	PART NUMBER
3	3	PISTON PIN
4	3	PISTON



DIGITAL DESIGN
GRAPHICS
TECHNOLOGY

WWW.DDGT.NET



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CLASS: DDGT 240

ASSIGNMENT #: #64

INVENTOR DRAWING NAME:
ENGINE MODEL

FIG #: 20.69

MANAGER: G. STROMMEN

DRAFTER: N. HENDERSON

DATE: 10/29/2024

SCALE: AS NOTED

PAGE #: 7 OF 7

METRIC