

**WARNING - This is a new format for application options.**

If you have been accustomed to printing the application option page by using CTL - P, be aware that the use of that key combination will cause the entire book to print.

To print a single page, choose the File menu item at the top left of this window and then select the Print command on the drop down menu. Then a pop-up window will give you the opportunity to specify whether you want to print the entire book, a group of pages or a single page.

**DATA INCLUDED IN THIS BOOK IS SUBJECT TO CHANGE WITHOUT NOTICE.**

Option compatibilities, option drawings, and other data listed in this book are subject to change. Consult the Cummins IMS database for the latest information or contact your Cummins representative. The dimensions shown in this book are included for comparative purposes and should not be used for other purposes.

# N14-G (GENERATOR) DRIVE ENGINE PRODUCT SUMMARY

**May, 2000**

Model Name	Configuration Number	Application	Max Gross BHP (SAE)	
			1800 rpm	1500 rpm
N14-G1	D093638GX03	Standby	465	430
		Prime Power	420	380
		Continuous	350	340
N14-G2	D093638GX03	Standby	535	N/A
		Prime Power	480	N/A
		Continuous	375	N/A
* For Explanation of Option by Configuration Section see below				

**\* Note:**

- All components and accessories are mounted and plumbed or wired unless otherwise noted.
- Graphics for standard configuration options may be seen on the installation diagrams.
- N.A. denotes item not available.
- [G] denotes "General Option Category".
- [M] denotes "Mandatory Option Category".

**Caution:**

Proving torsional compatibility of an engine-generator set is the responsibility of the generator-set assembler. Cummins will supply the appropriate engine mass elastic data necessary for the calculations and is prepared to offer assistance with torsional questions concerning the engine.

# AC-Keydata

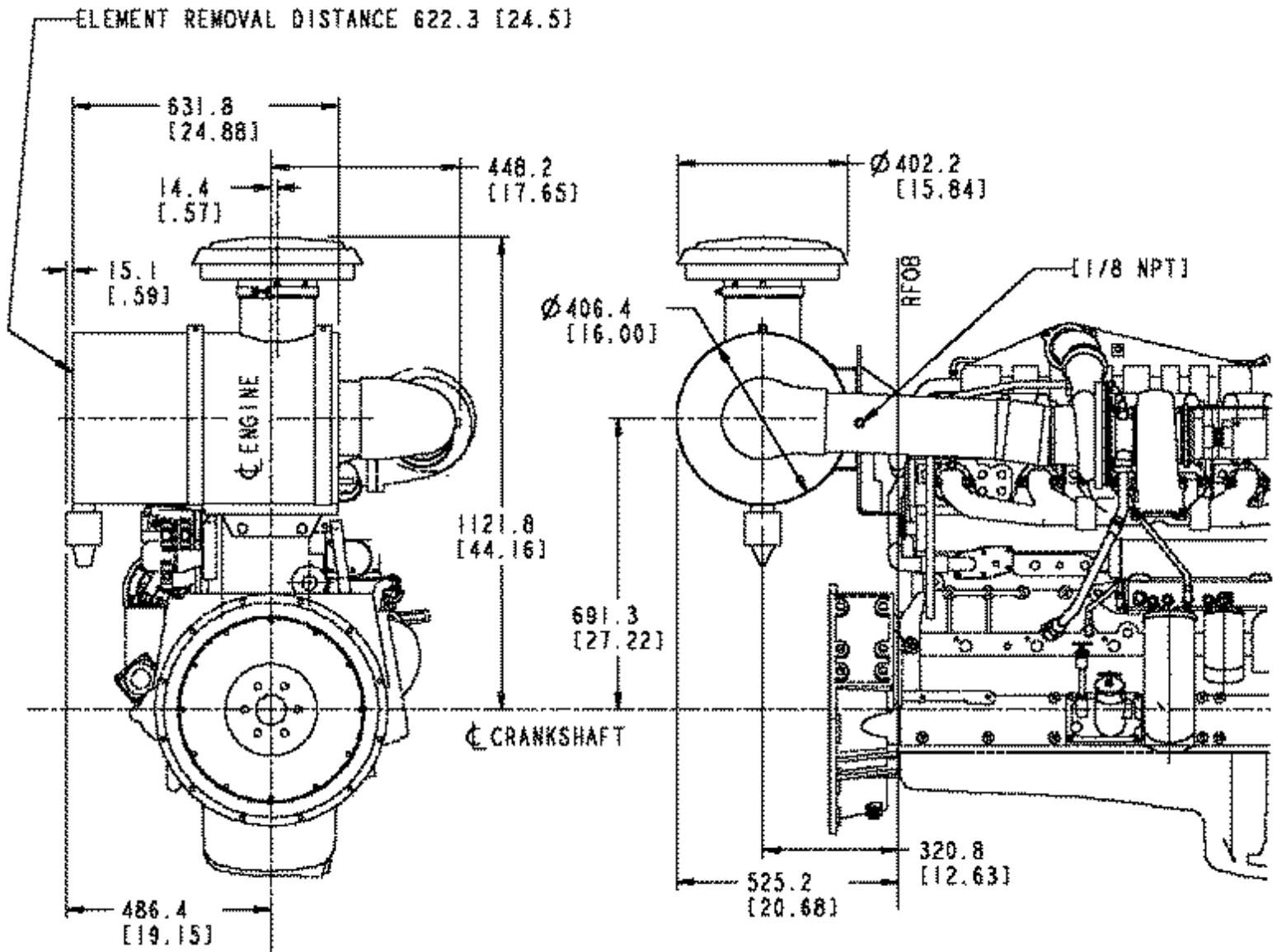
Option #	Model/Size	Duty Rating	Inlet/Outlet Size	Mounted or Kitted
<a href="#">AC 1152</a>	FVG16-0152	Heavy Duty	178 mm [7.0 in.]	Supplied in kit
<a href="#">AC 1153</a>	FVG16-0152	Heavy Duty	178 mm [7.0 in.]	Mounted
<a href="#">AC 1154</a>			178 mm [7.0 in.]	
<a href="#">AC 1160</a>	FA-632–CU Single Stage	Normal	178 mm [7.0 in.]	Mounted



# AC 1153

## AC - Air Cleaner

Revision Date: 03/00



Option #	Model/Size	Duty Rating	Inlet/Outlet Size	Mounted or Kitted
AC 1153	FVG16-0152	Heavy Duty	178 mm [7.0 in.]	Mounted

Mounted Air Cleaner.

Side Inlet and End Outlet dia.: 178 mm [7.0 in.]

Duty Rating: Heavy Duty

Manufacturer: Donaldson

Model: FVG16-0152

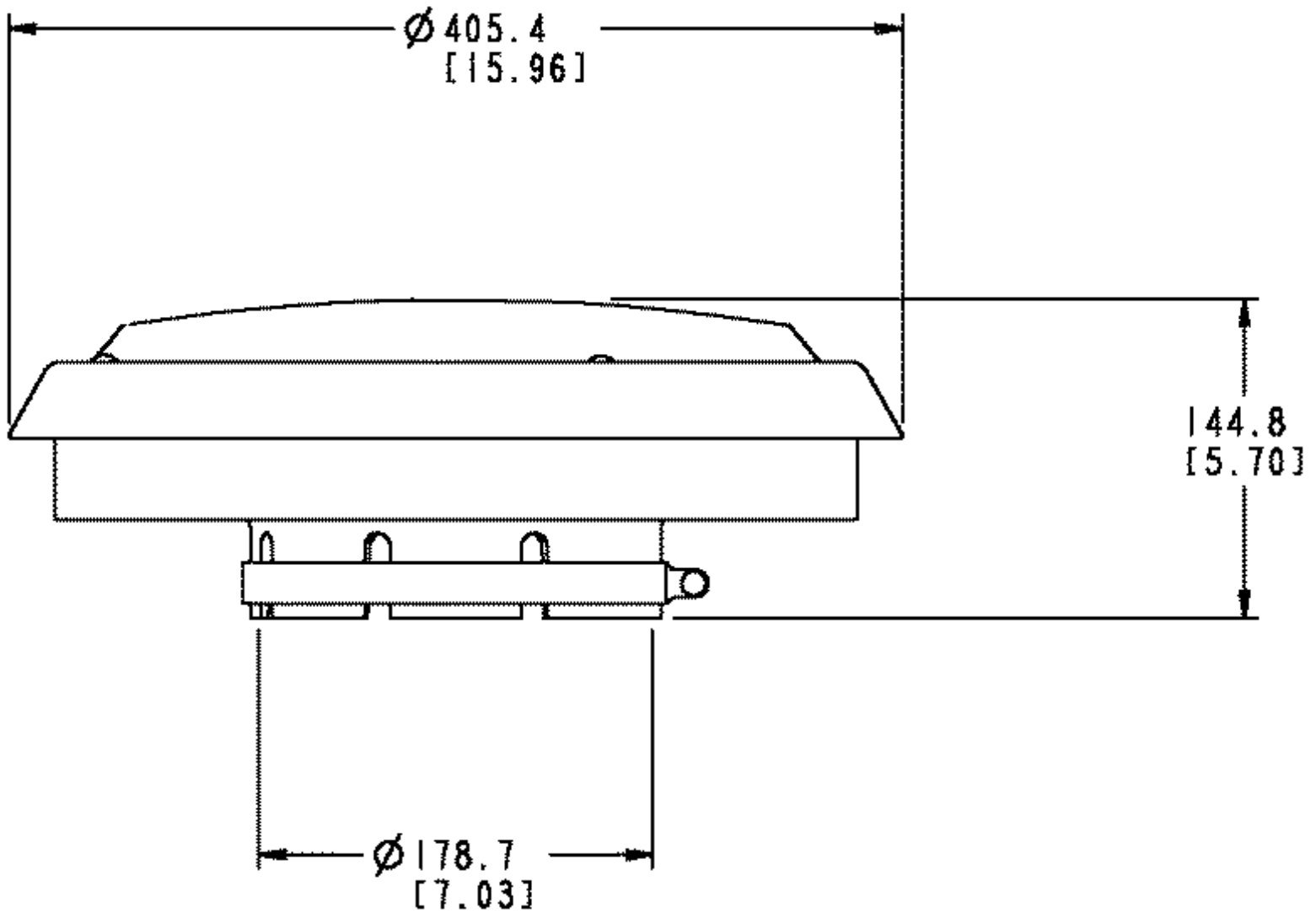
Environment Capability: Outdoor

**Includes Air Inlet Cap and Dust Ejector Valve.**

# AC 1154

## AC - Air Cleaner

Revision Date: 03/00



Option #	Model/Size	Duty Rating	Inlet/Outlet Size	Mounted or Kitted
AC 1154			178 mm [7.0 in.]	

Air cleaner cap for 178 mm [7.0 in.] intake diameter.

# AC 1160

## AC - Air Cleaner

Revision Date: 03/00



Option #	Model/Size	Duty Rating	Inlet/Outlet Size	Mounted or Kitted
AC 1160	FA-632-CU Single Stage	Normal	178 mm [7.0 in.]	Mounted

Mounted Air Cleaner.

Duty Rating: Normal

Manufacturer: FRAM

Model: FA-632-CU Single Stage

Environment Capability: Indoor

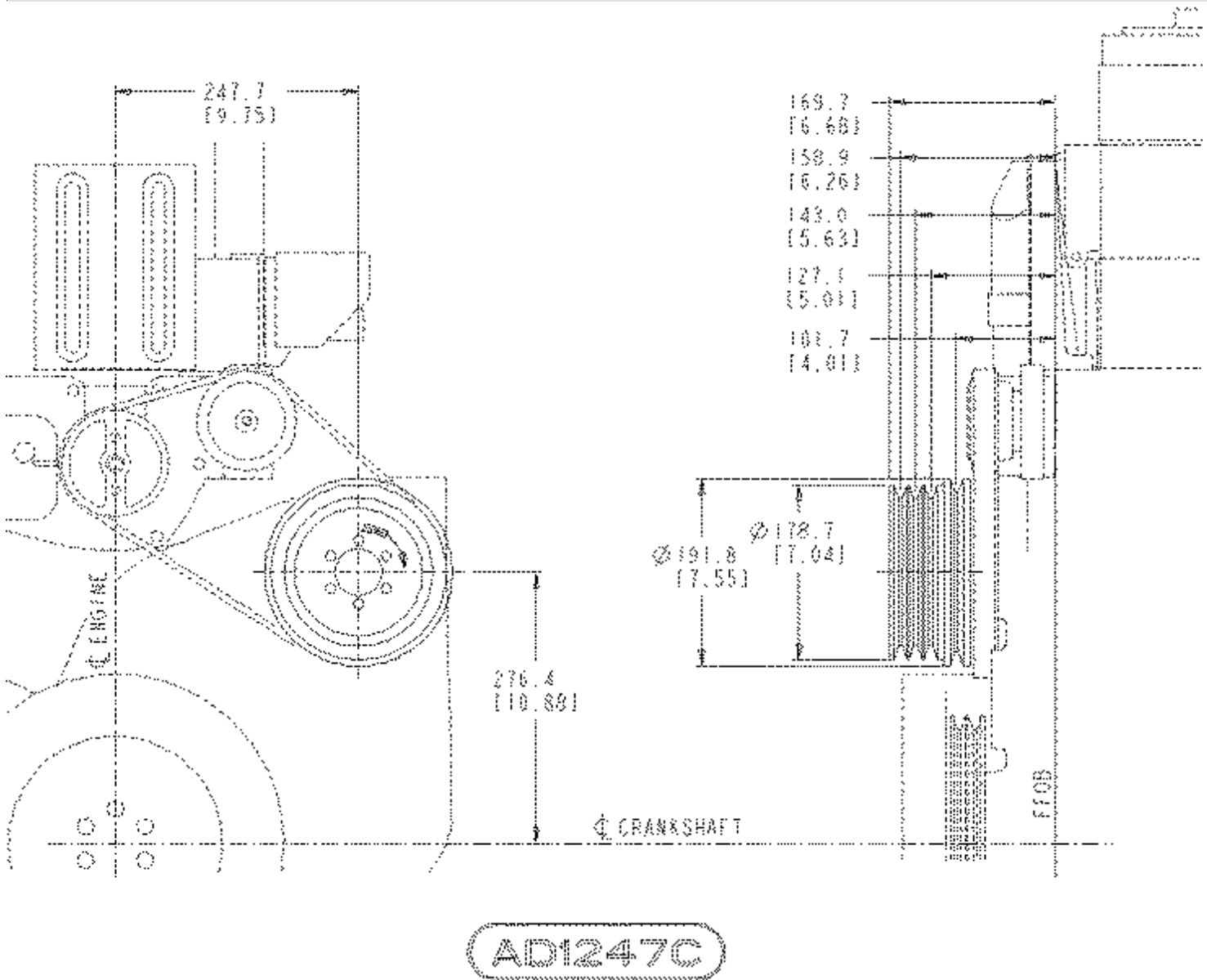
# AD-Keydata

Option #	Groove	Bolt Circle	HP	Notes
<a href="#">AD 1247</a>	Four	—	—	Three grooves 179 mm [7.04 in.] dia. and one groove of 192 mm [7.55 in.] dia. to drive accessories
<a href="#">AD 1248</a>				No content option
<a href="#">AD 1270</a>	Three	—	—	Two grooves 179 mm [7.04 in.] dia. to drive fan and one groove of 179 mm [7.04 in.] dia. to drive accessories.
<a href="#">AD 1272</a>	Three			Two grooves 179 mm [7.04 in.] dia. to drive fan and one groove of 192 mm [7.55 in.] dia. to drive accessories.

# AD 1247

## AD - Accessory Drive Pulley

Revision Date: 03/00



Option #	Groove	Bolt Circle	HP	Notes
AD 1247	Four	—	—	Three grooves 179 mm [7.04 in.] dia. and one groove of 192 mm [7.55 in.] dia. to drive accessories

Four groove pulley rotates clockwise at engine speed. Pulley has three 179 mm [7.04 in.] dia. V-belt grooves for 12.7 mm [0.50 in.] belts and one 192 mm [7.55 in.] dia. V-belt groove for a 12.7 mm [0.50 in.] belt to drive accessories. Pulley grooves are 13.09 mm [0.515 in.] V type.

# AD 1248

## AD - Accessory Drive Pulley

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Groove	Bolt Circle	HP	Notes
AD 1248				No content option

No content option.

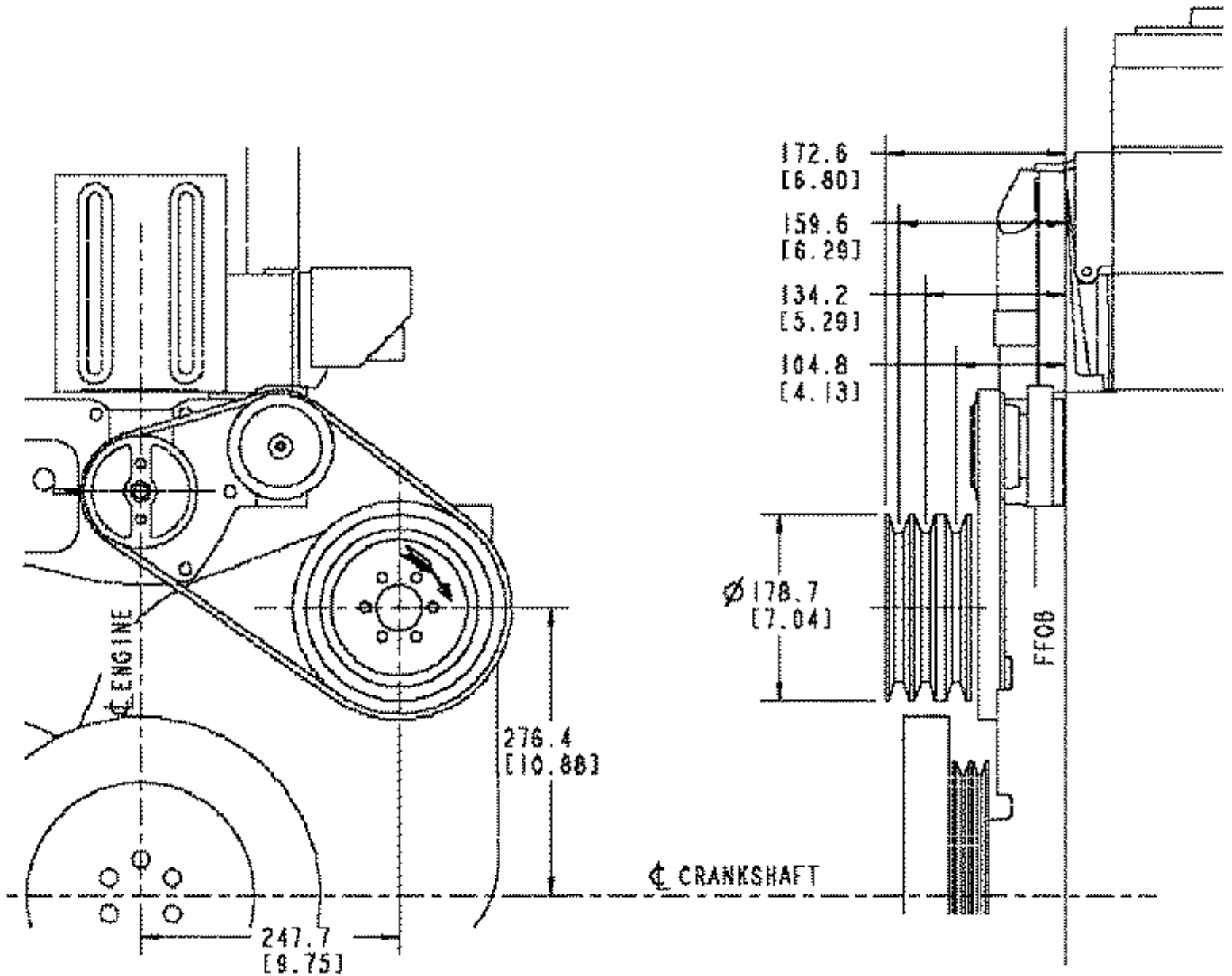
For use when there is no future requirements to drive a fan or other accessories from the accessory drive pulley.

Intended drive: None

# AD 1270

## AD - Accessory Drive Pulley

Revision Date: 04/01



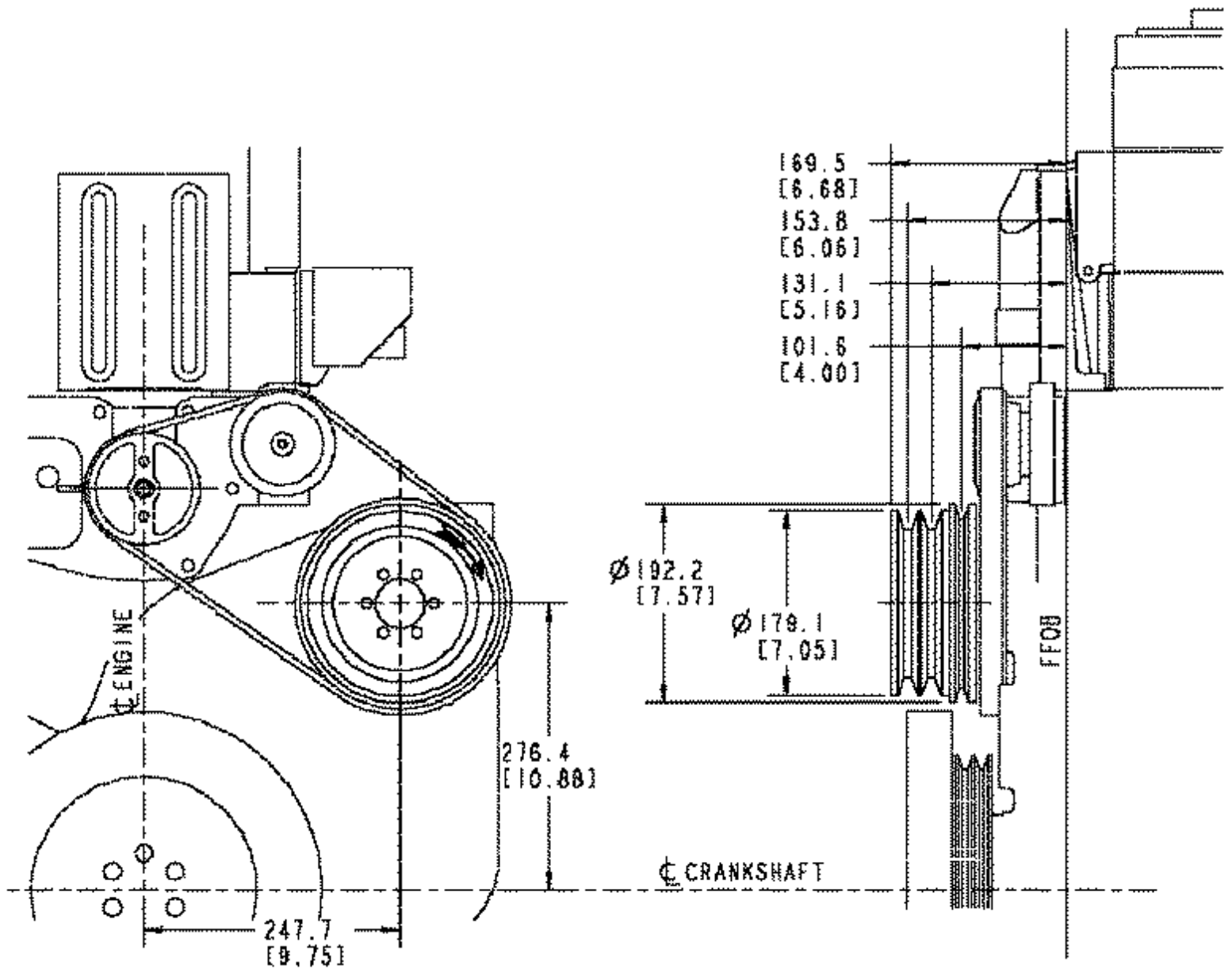
Option #	Groove	Bolt Circle	HP	Notes
AD 1270	Three	—	—	Two grooves 179 mm [7.04 in.] dia. to drive fan and one groove of 179 mm [7.04 in.] dia. to drive accessories.

Fan and accessory drive pulley rotates at engine speed in same direction as crankshaft. Has two 179 mm [7.04 in.] dia. V-belt grooves for 22 mm [0.875 in.] belts to drive fan and one 179 mm [7.04 in.] dia. V-belt groove for 22 mm [0.875 in.] belt to drive accessory. Fan and accessory grooves are 20.32 mm [0.800 in.] type.

# AD 1272

## AD - Accessory Drive Pulley

Revision Date: 04/01



Option #	Groove	Bolt Circle	HP	Notes
AD 1272	Three			Two grooves 179 mm [7.04 in.] dia. to drive fan and one groove of 192 mm [7.55 in.] dia. to drive accessories.

Fan and accessory drive pulley rotates at engine speed in same direction as crankshaft. Has two 179 mm [7.04 in.] dia. V-belt grooves for 22 mm [0.875 in.] belts to drive fan and one 192 mm [7.55 in.] dia. V-belt groove for 12.7 mm [0.50 in.] belt to drive accessory. Fan grooves are 20.32 mm [0.800 in.] type, accessory groove is 13.08 [0.515 in.] type.

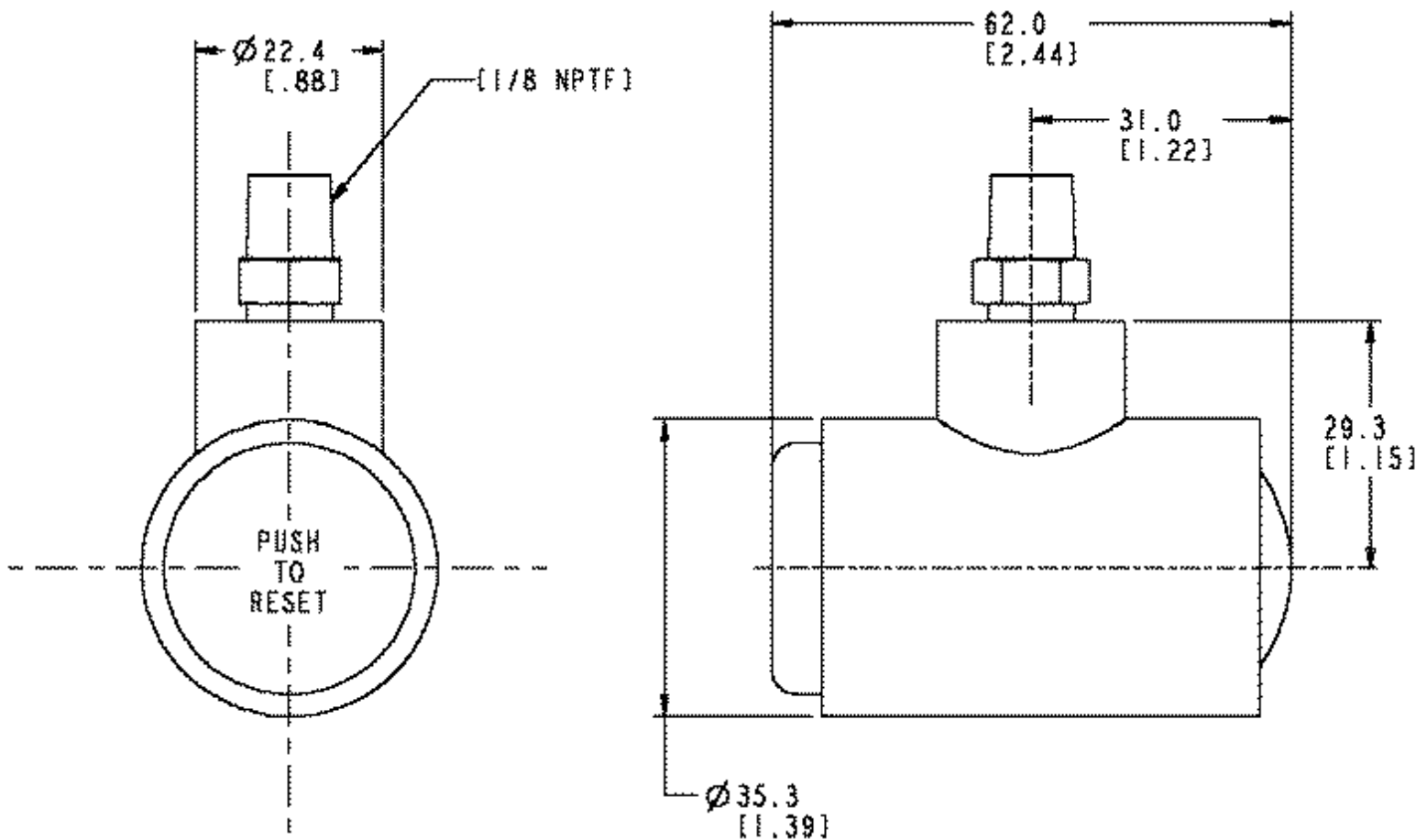
# AG-Keydata

Option #	Restriction	Notes
<a href="#">AG 1008</a>	635 mm H <sub>2</sub> O [25 in. H <sub>2</sub> O]	

# AG 1008

## AG - Air Restriction Indicator

Revision Date: 05/00



Option #	Restriction	Notes
AG 1008	635 mm H <sub>2</sub> O [25 in. H <sub>2</sub> O]	

All air cleaner restriction indicators are set at 635 mm H<sub>2</sub>O [25 in. H<sub>2</sub>O] of water.

Single air cleaner restriction service indicator.

Mounted at the factory to air cleaner or intake piping as appropriate.

**Use only with mounted air cleaner.**

# AP-Keydata

Option #	Agency	Tier Level	Notes
<a href="#">AP 1001</a>	Non Certified		
<a href="#">AP 1019</a>	Certified,US EPA/CARB		

# AP 1001

## AP - Agency Approval

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Agency	Tier Level	Notes
AP 1001	Non Certified		

APPROVAL AGENCY: Non Certified

This option may only be used in applications that do not require certification. It may not be used in the U.S. for industrial non-road or automotive applications without an exemption.

# AP 1019

## AP - Agency Approval

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Agency	Tier Level	Notes
AP 1019	Certified,US EPA/CARB		

This certification states that the engine complies with certain emissions requirements established by the US EPA/CARB, tested in accordance with ISO 8178 D2 and is in compliance with the 1996 Mobile Off-Highway standard. For emissions levels per the D2 cycle, please refer to the Engine Data Sheet.

For emissions levels per the D2 cycle, please refer to the Engine Data Sheet.

# BC-Keydata

Option #	Base Engine Hardware	Notes
<a href="#">BC 1002</a>	Standard	G-Drive application

# BC 1002

## BC - Base Components

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Base Engine Hardware	Notes
BC 1002	Standard	G-Drive application

Base Components

Aspiration: Turbocharged/Jacket Water Aftercooled

Base Engine Hardware: Standard

Product: 96N14-STC

Application: G-Drive

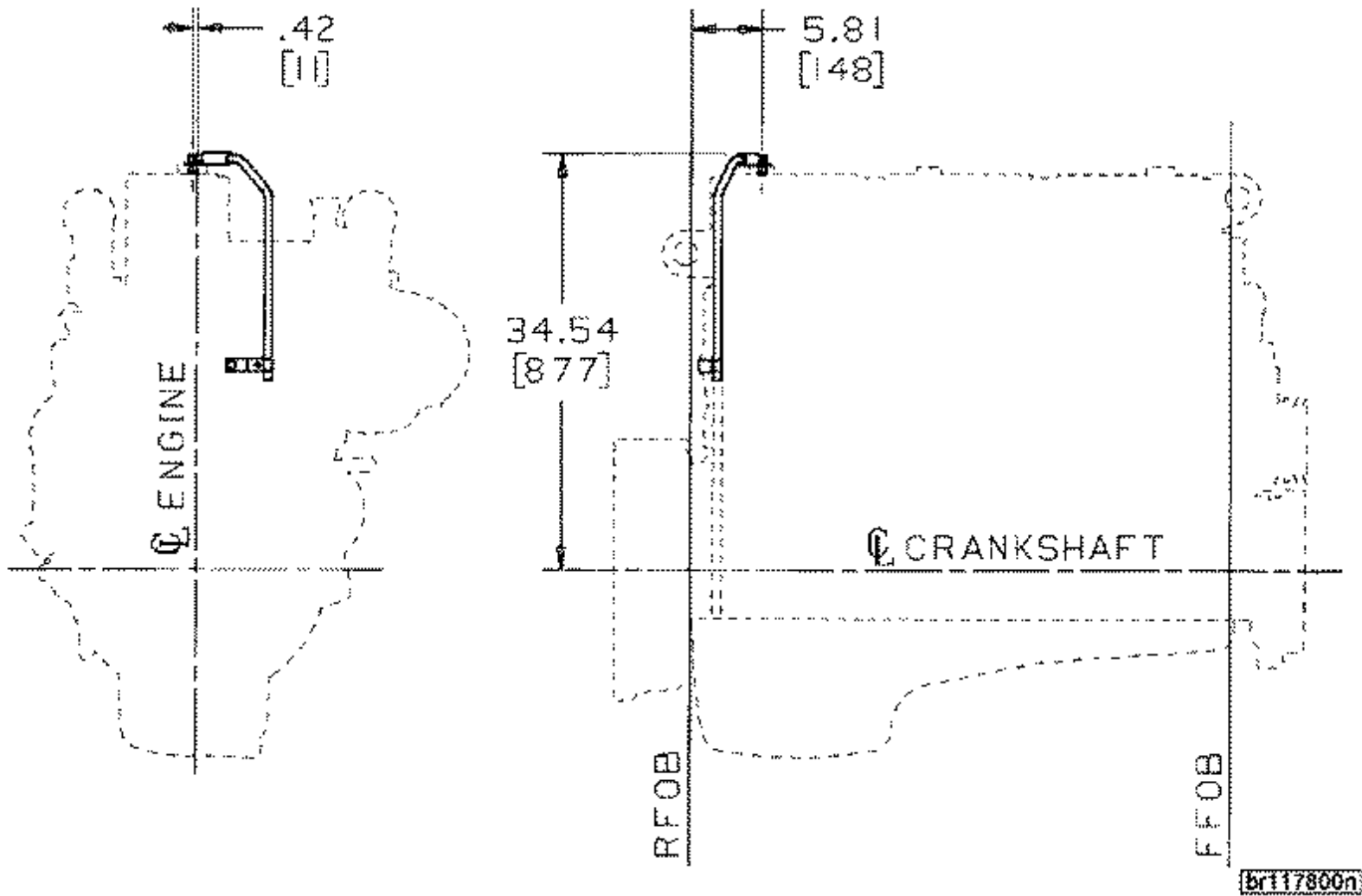
# BR-Keydata

Option #	Mounting Location	Notes
<a href="#">BR 1178</a>	Located over #6 cylinder	Tube clipped and terminated below top of block
<a href="#">BR 1185</a>	Breather located over #6 cylinder	Tube terminates below oil pan rail
<a href="#">BR 1224</a>	Located over #6 cylinder	Tube extends to rear corner of cylinder block

# BR 1178

## BR - Crankcase Breather

Revision Date: 05/00



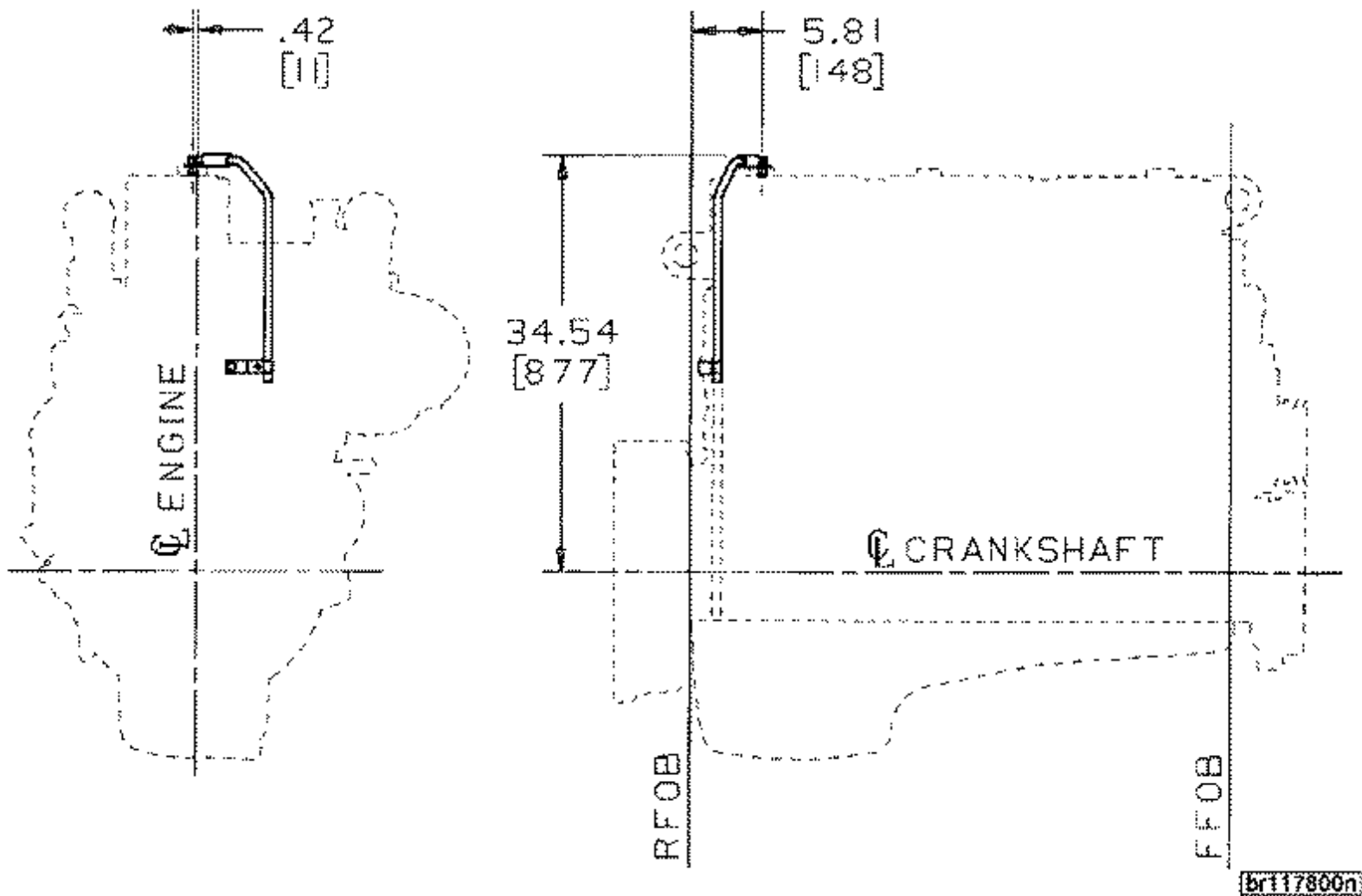
Option #	Mounting Location	Notes
BR 1178	Located over #6 cylinder	Tube clipped and terminated below top of block

Breather located over #6 cylinder. Vent tube extends from #6 cylinder toward rear corner of exhaust side of block. Tube clipped and terminated below top of block.

# BR 1185

## BR - Crankcase Breather

Revision Date: 06/00



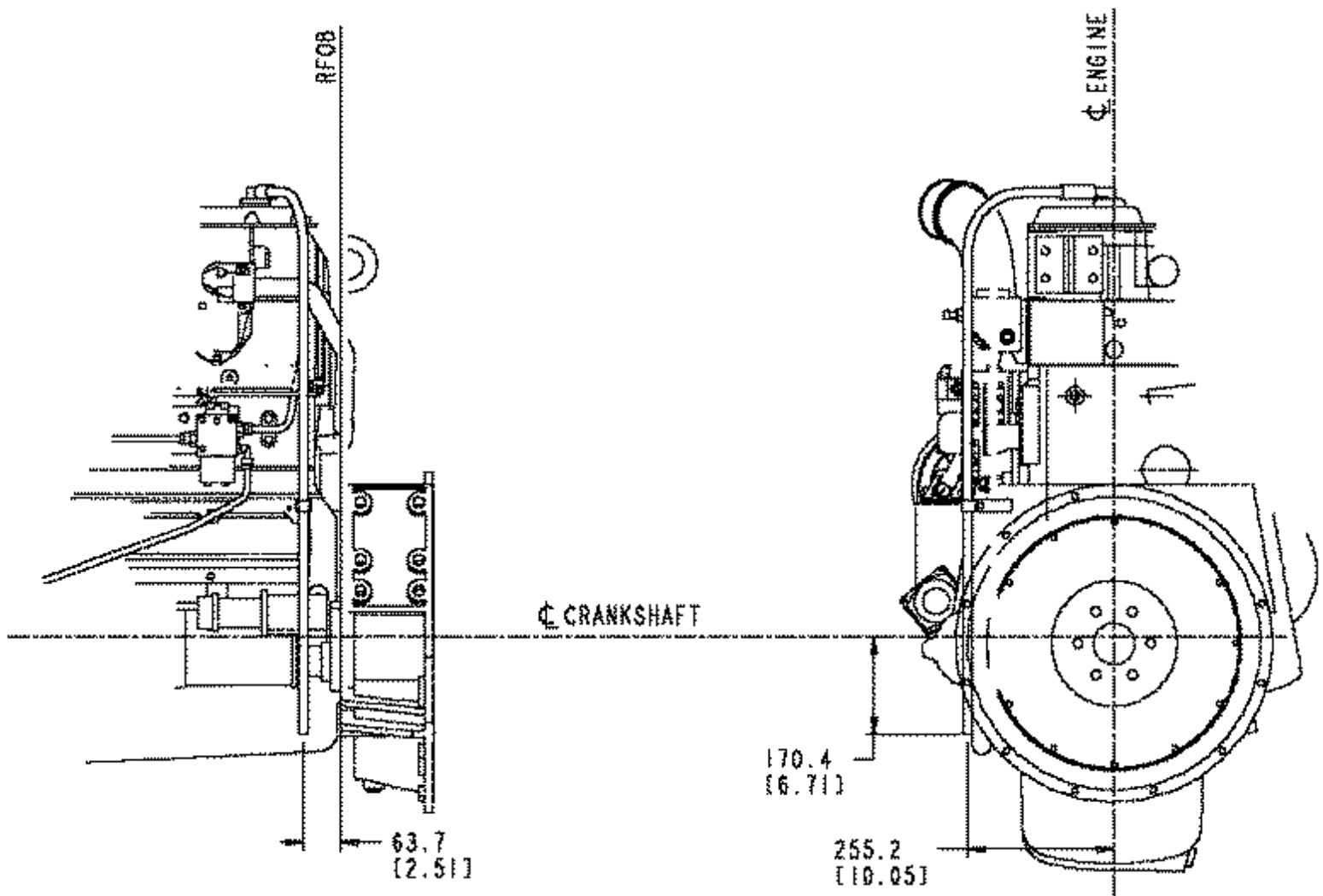
Option #	Description	Notes
BR 1185	Breather located over #6 cylinder	Tube terminates below oil pan rail

Breather located over #6 cylinder. Vent tube extends from #6 cylinder toward rear corner of exhaust side of block. Tube terminates below oil pan rail.

# BR 1224

## BR - Crankcase Breather

Revision Date: 06/00



Option #	Mounting Location	Notes
BR 1224	Located over #6 cylinder	Tube extends to rear corner of cylinder block

Breather located over #6 cylinder. Vent tube, extends from #6 cylinder with hose, routed down fuel pump side to rear corner of cylinder block.

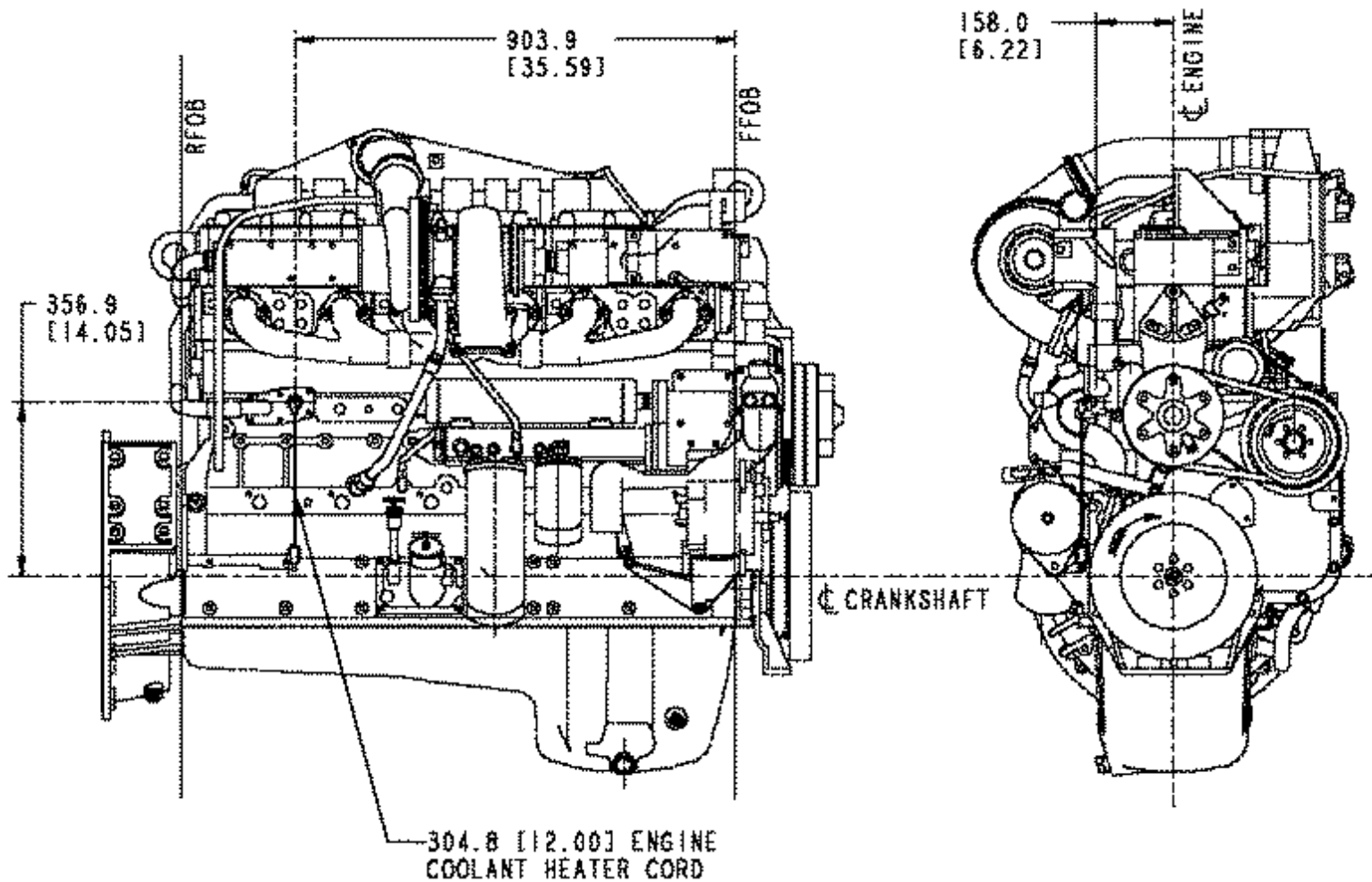
# CH-Keydata

Option #	Wattage/Volts	Cord Length	Location	Notes
<a href="#">CH 1004</a>	1500W/120V	305 mm [12.0 in.]	Rear of water header plate	
<a href="#">CH 1005</a>	1500W/120V	3.05 M [10 ft.]	Rear of water header plate	

# CH 1004

## CH - Coolant Heater Starting Aid

Revision Date: 06/00



Option #	Wattage/Volts	Cord Length	Location	Notes
CH 1004	1500W/120V	305 mm [12.0 in.]	Rear of water header plate	

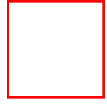
1500W, 120V coolant heater with 305 mm [12.0 in.] cord mounted in rear of water header plate.

**Note:** NOTE: Electrical cord contained in this option; coolant heater contained in dependent WA option.

# CH 1005

## CH - Coolant Heater Starting Aid

Revision Date: 06/00



Option #	Wattage/Volts	Cord Length	Location	Notes
CH 1005	1500W/120V	3.05 M [10 ft.]	Rear of water header plate	

1500W, 120V coolant heater with 3.05 M [10 ft.] cord mounted in rear of water header plate.

**Note:** Electrical cord contained in this option; coolant heater contained in dependent WA option.

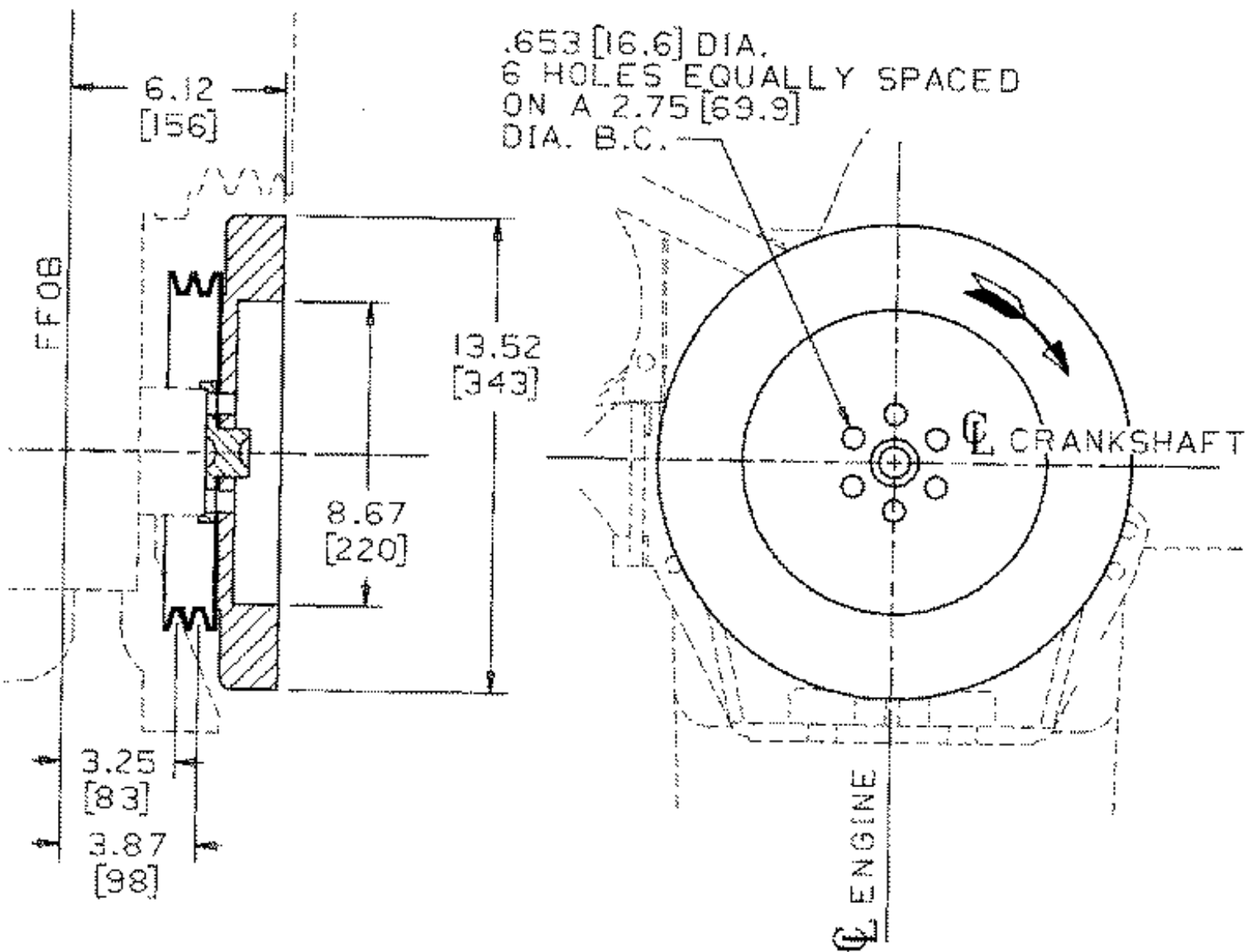
# DA-Keydata

Option #	Type/Dia	Add'l Drive Pulleys	PTO Provision	Engine Rated Speed
<a href="#">DA 1178</a>	Viscous damper/343 mm [13.52 in.]	No	No	2100 RPM
<a href="#">DA 1216</a>	Poly V, 215.9 mm [8.5 in.]	Yes	No	2100 RPM
<a href="#">DA 1217</a>	Poly-V, 185.1 mm [7.29 in.]	Yes	No	2100 RPM

# DA 1178

## DA - Vibration Damper

Revision Date: 03/00



Option #	Type/Dia	Add'l Drive Pulleys	PTO Provision	Engine Rated Speed
DA 1178	Viscous damper/343 mm [13.52 in.]	No	No	2100 RPM

Vibration damper with alternator driving crank pulley having two 13 mm [0.5 in.] V-grooves. Includes mounting hardware to crankshaft. No front PTO provision.

**Note:** Inertia Information: Ifw=1.98 lb.in.sec.sq.

Ihsg=0.94 lb.in.sec.sq.

# DA 1216

## DA - Vibration Damper

Revision Date: 03/00

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**(No Graphics Required)**

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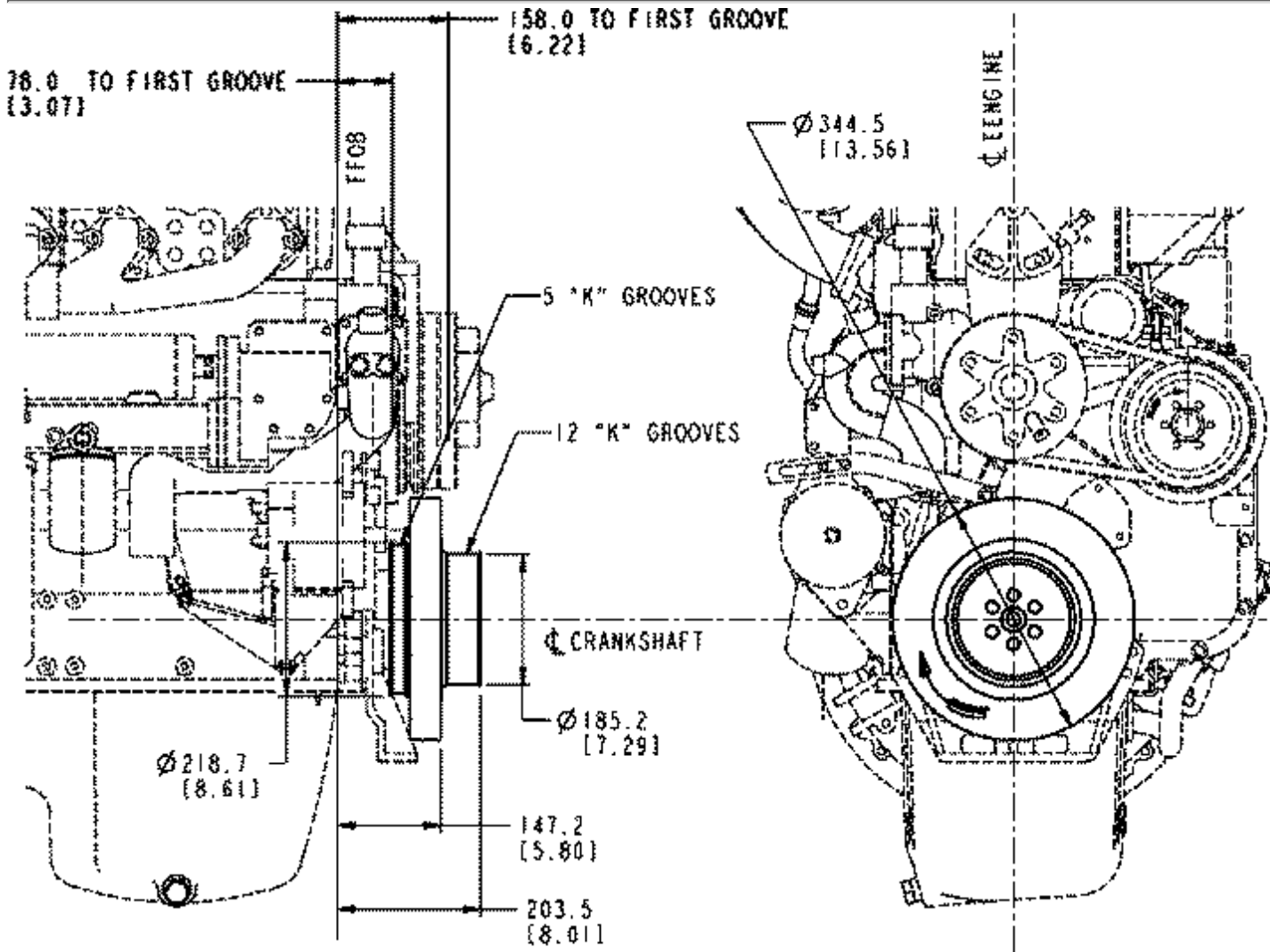
Option #	Type/Dia	Add'l Drive Pulleys	PTO Provision	Engine Rated Speed
DA 1216	Poly V, 215.9 mm [8.5 in.]	Yes	No	2100 RPM

Vibration damper for crank driven fan drives with 1:1 fan ratios. Alternator drive pulley groove type, Poly V, 215.9 mm [8.5 in.], 5 rib, `K'-section

# DA 1217

## DA - Vibration Damper

Revision Date: 04/00



DA1217.MCS

Option #	Type/Dia	Add'l Drive Pulleys	PTO Provision	Engine Rated Speed
DA 1217	Poly-V, 185.1 mm [7.29 in.]	Yes	No	2100 RPM

Viscous vibration damper for fan drives with 0.86, 0.75, 0.65 and 0.55:1 fan ratios. Poly-V, 185.1 mm [7.29 in.] 5 rib, `K' section groove alternator drive pulley.

# DF-Keydata

Option #	Descripton	Shaft	Max Torque	Notes
<a href="#">DF 1009</a>				

# DF 1009

## DF - Front Gear Train Accessory Drive

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Descripton	Shaft	Max Torque	Notes
DF 1009				

### SAE A Pump Mounting Flange

No content option to indicate pump is blanked-off. Use when SAE A hydraulic pump drive is required for customer supplied hydraulic pump or that no drive provision is required.

**Note:** Hydraulic pump coupling driven from rear of engine gear housing. Pump rotates in same direction of engine with drive ratio of 1.5:1.

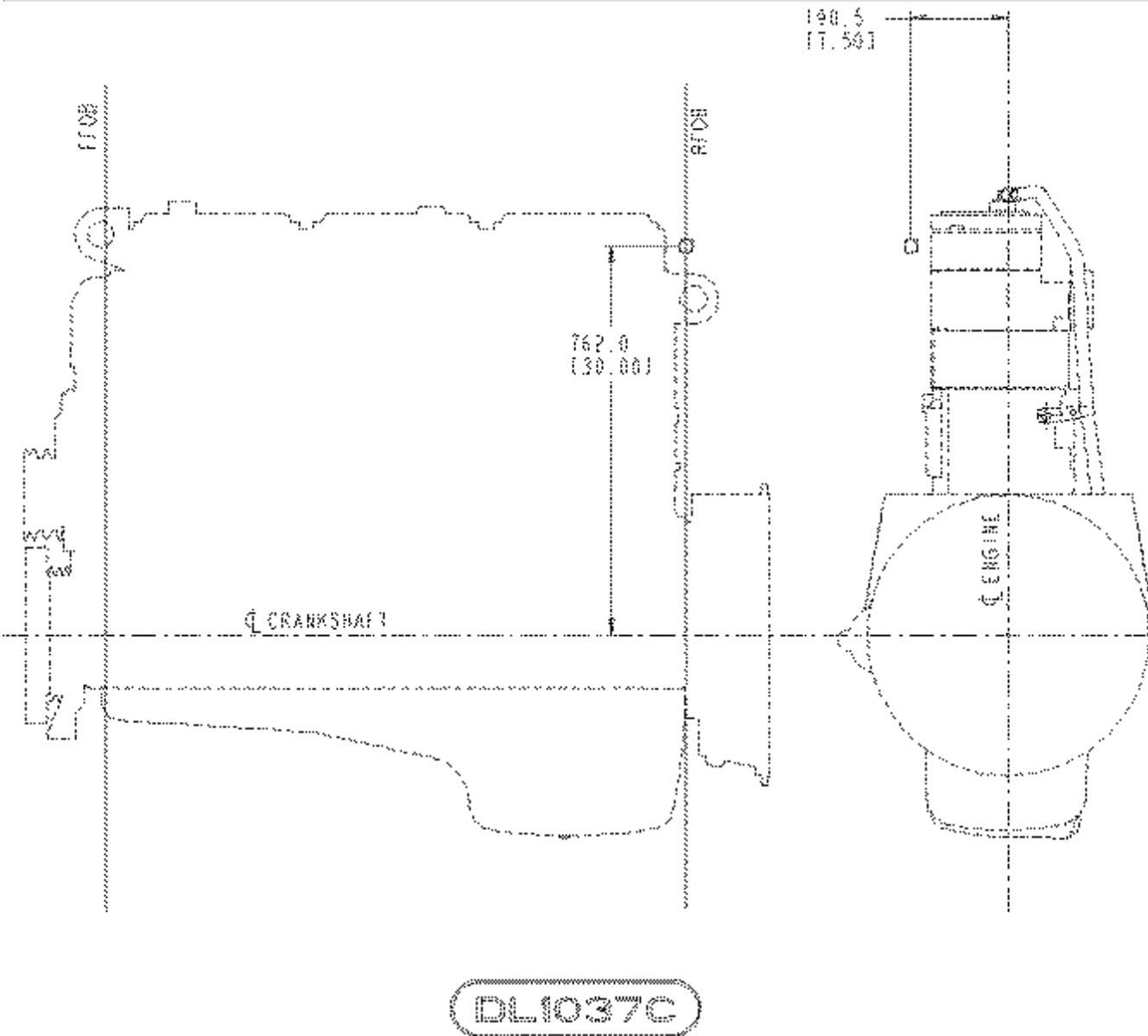
# DL-Keydata

Option #	Plumbing for	Attachment Location	Attachment Size	Notes
<a href="#">DL 1037</a>	Fuel drain	Mounted at rear corner of rear valve cover	3/4-16 UNF-2A	

# DL 1037

## DL - Fuel Drain Location

Revision Date: 03/00



Option #	Plumbing for	Attachment Location	Attachment Size	Notes
DL 1037	Fuel drain	Mounted at rear corner of rear valve cover	3/4-16 UNF-2A	

Injector drain on fuel pump side of engine for use with check valves mounted at rear corner of rear valve cover. See FT options for contents.

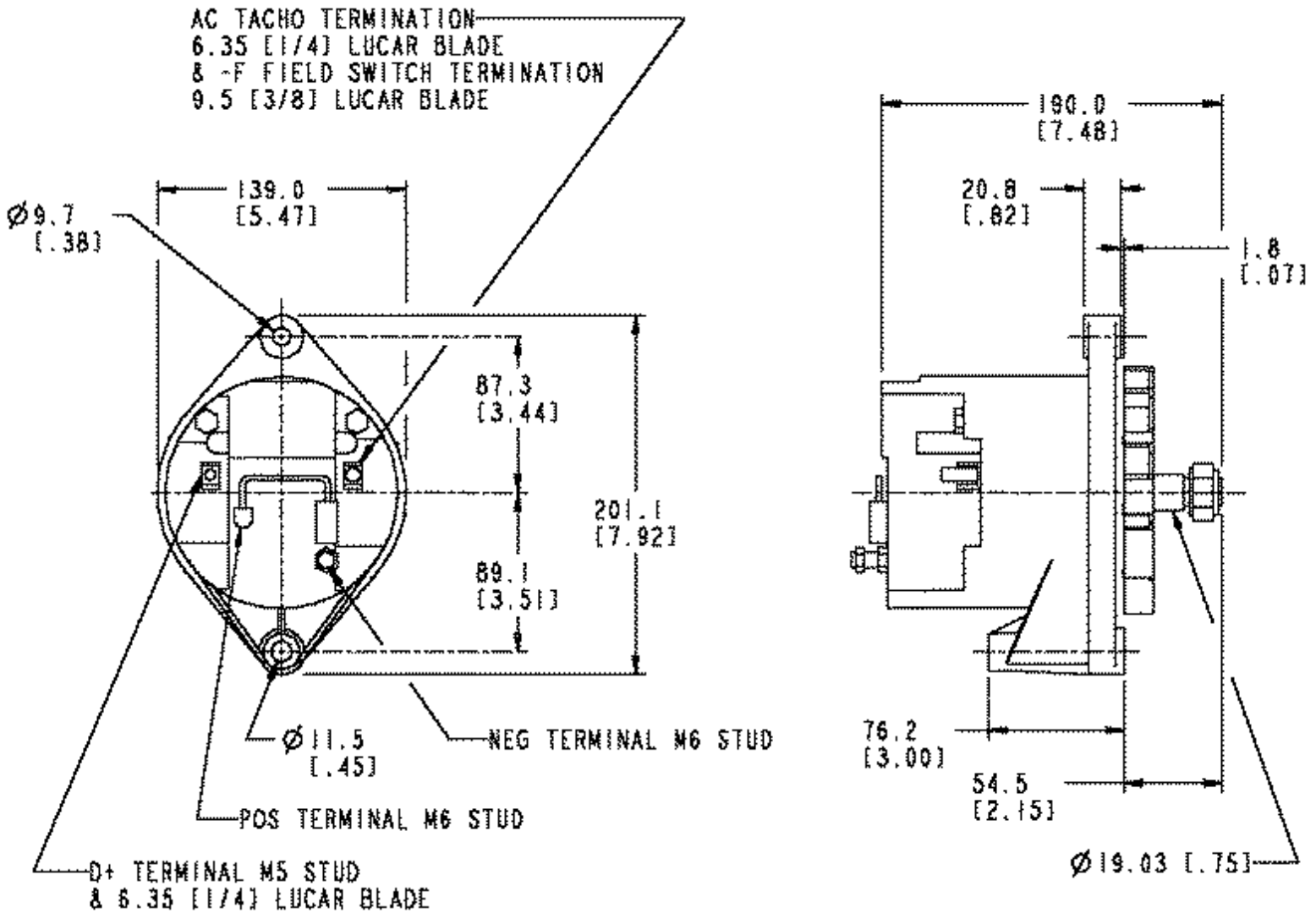
# EE-Keydata

Option #	Manuf/Model	Voltage/Amps	Notes
<a href="#">EE 1205</a>	Butec A5524/16	28V 55A	Built— in voltage regulator
<a href="#">EE 1211</a>	Delco Remy/ 20 SI-300	24V/35A	Length: 160 mm [6.3 in.]

# EE 1205

## EE - Alternator

Revision Date: 03/00



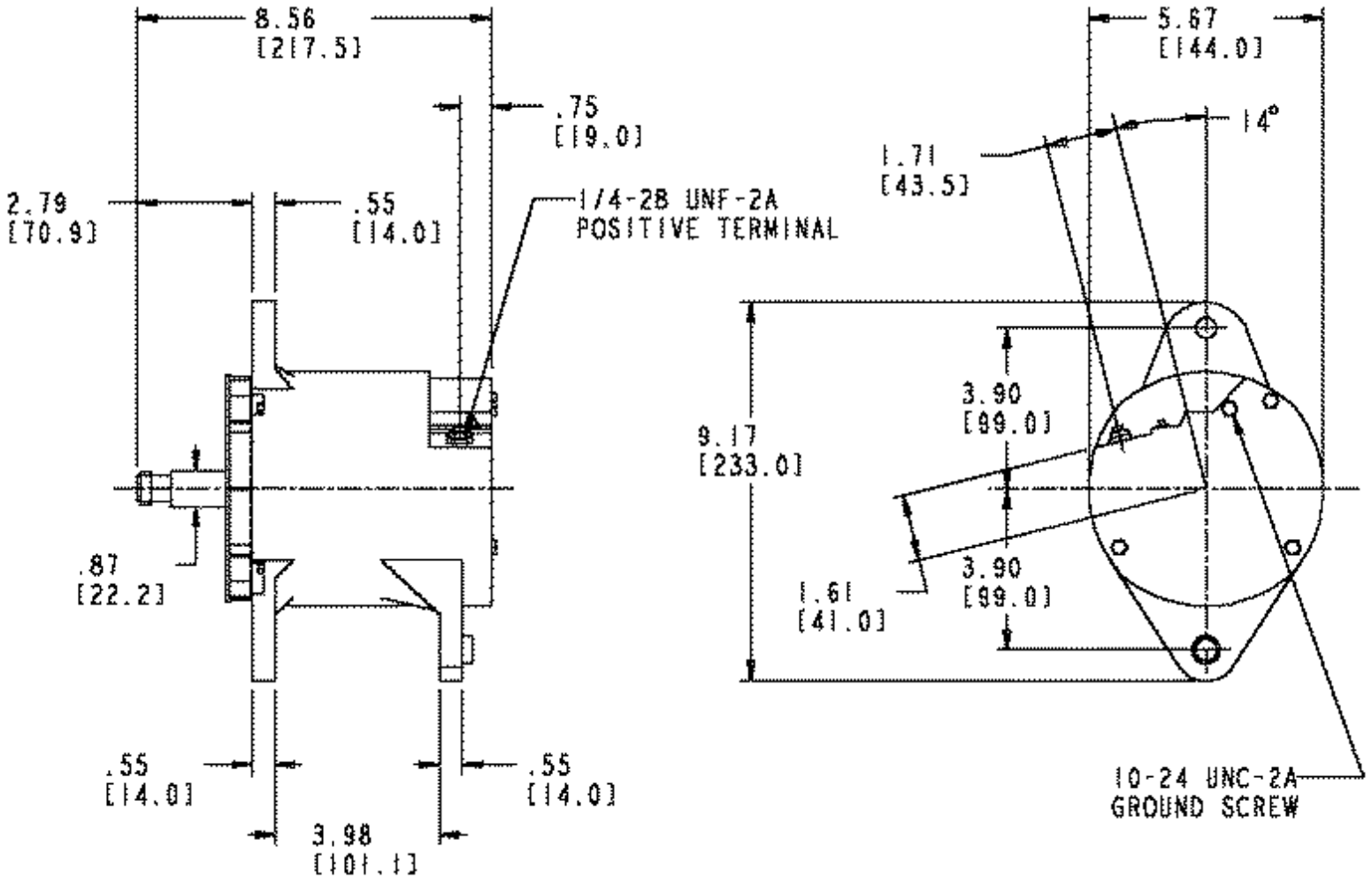
Option #	Manuf/Model	Voltage/Amps	Notes
EE 1205	Butec A5524/16	28V 55A	Built— in voltage regulator

28V 55A Butec A5524/16 alternator with built— in voltage regulator.

# EE 1211

## EE - Alternator

Revision Date: 05/00



Option #	Manufacturer/ Model	Voltage/ Amps	Notes
EE 1211	Delco Remy/ 20 SI-300	24V/35A	Length: 160 mm [6.3 in.]

Grounding method: Negative  
 Insulation provisions: No  
 Sealing Provisions: No  
 Built-in voltage regulator: Yes  
 Ground wire supplier: Customer  
 Unique characteristics: None  
 Charging System: Standard  
 Battery Terminal: 1/4 — 28  
 R Terminal: Pin

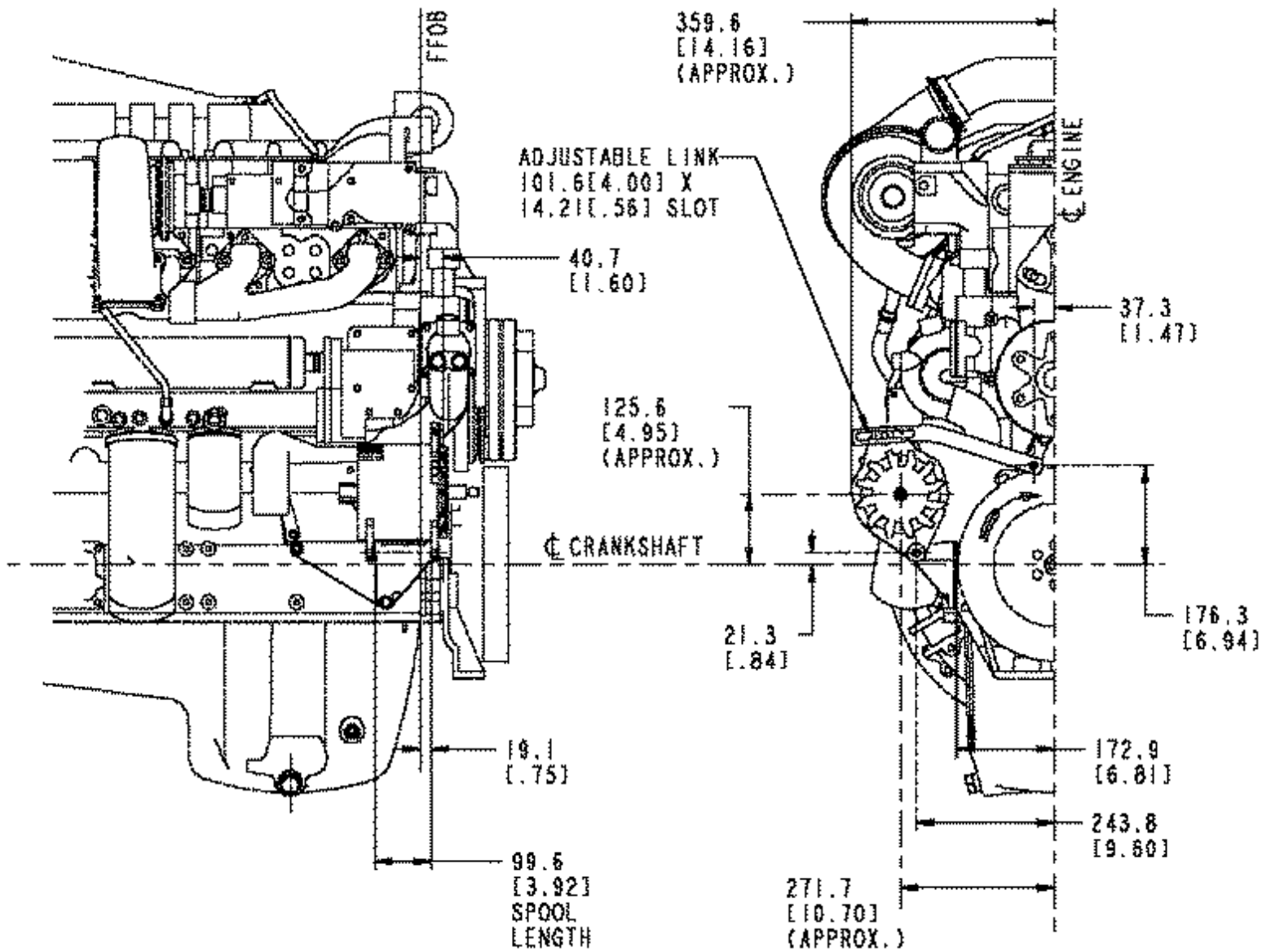
# EH-Keydata

Option #	Use With	Mount Type	Drive Ratio	Notes
<a href="#">EH 1037</a>	Delco Remy and Leece-Neville			
<a href="#">EH 1038</a>	Delco Remy and Leece-Neville			Used with fixed fan drive

# EH 1037

## EH - Alternator Mounting

Revision Date: 03/00



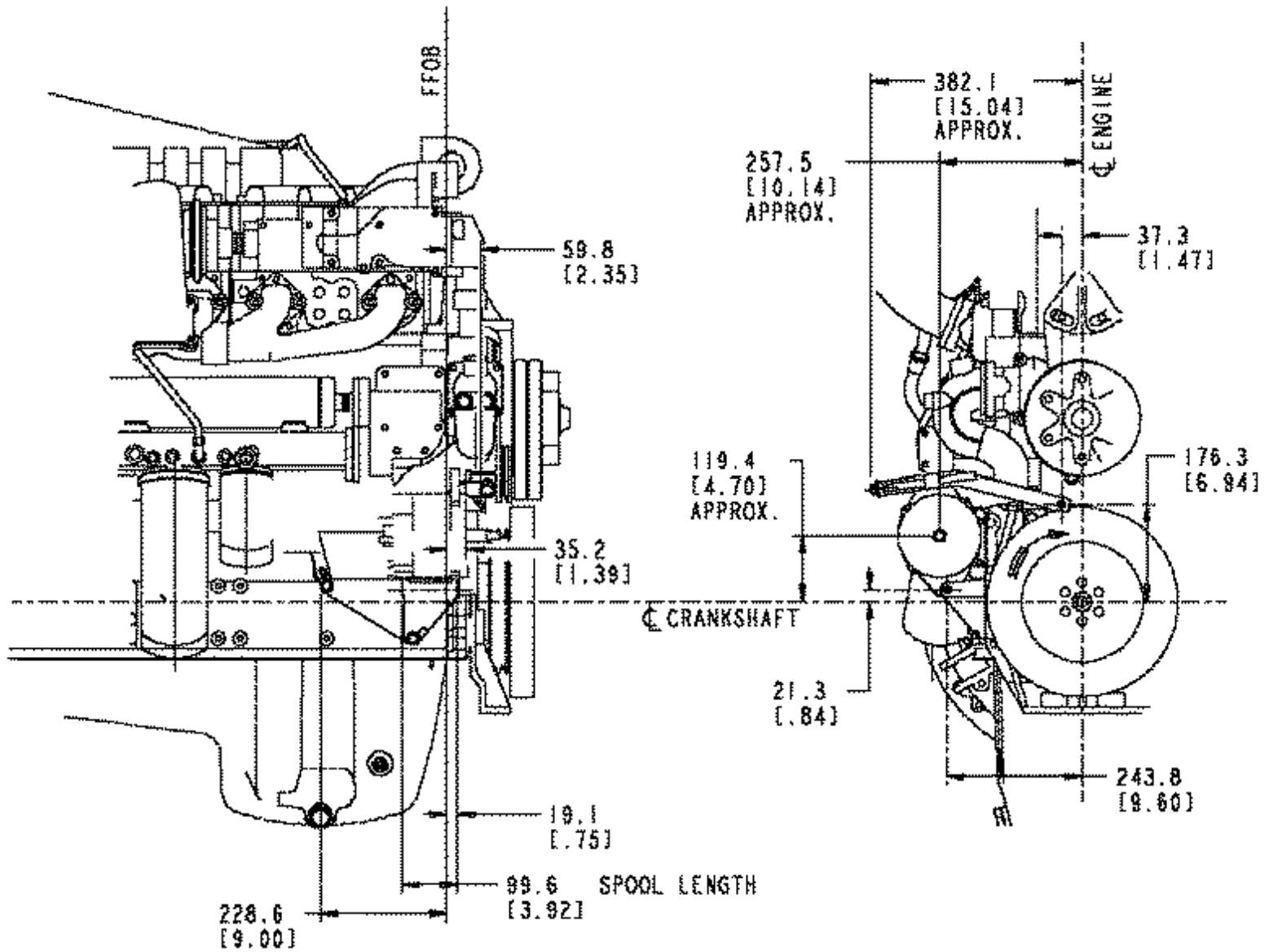
Option #	Use With	Mount Type	Drive Ratio	Notes
EH 1037	Delco Remy and Leece-Neville			

Alternator mounting for Delco Remy and Leece-Neville alternators.

# EH 1038

## EH - Alternator Mounting

Revision Date: 05/00



Option #	Use With	Mount Type	Drive Ratio	Notes
EH 1038	Delco Remy and Leece-Neville			Used with fixed fan drive

Alternator mounting for Delco Remy and Leece-Neville alternators. Contains jackscrew tensioner adjusting link. Used with fixed fan drive.

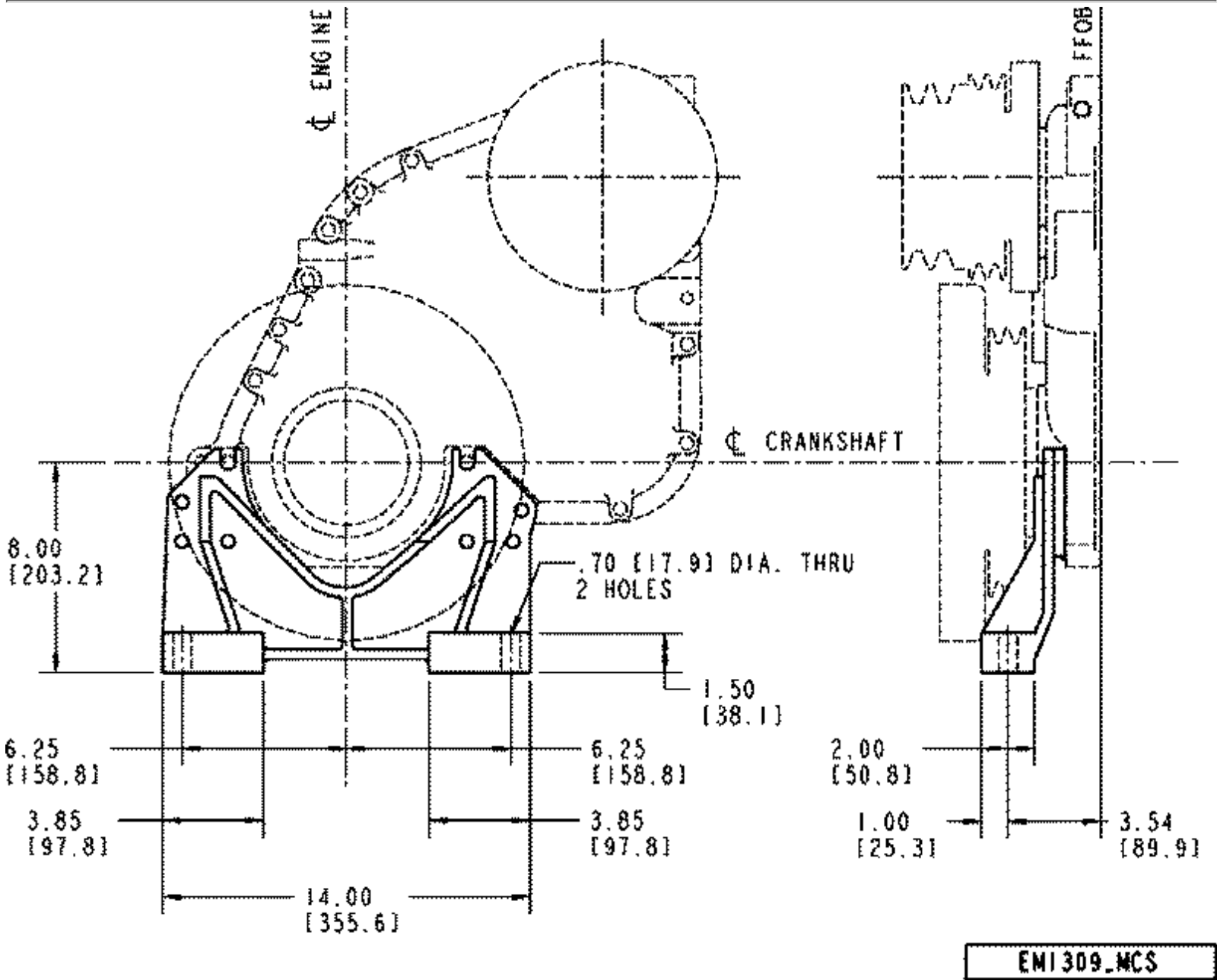
# EM-Keydata

Option #	Type	Attachment Hole	Damper	Notes
<a href="#">EM 1309</a>	Pad	Two hole	Yes	

# EM 1309

## EM - Front Engine Support

Revision Date: 03/00



Option #	Type	Attachment Hole	Damper	Notes
EM 1309	Pad	Two hole	Yes	

Two hole wide span, pad type front engine support for 0 deg. engine tilt.

# ES-Keydata

Option #	Description	Notes
<a href="#">ES 1022</a>	EFC governor actuator is installed in fuel pump AFC cavity	Includes an engine mounted magnetic pickup. For use with stationary applications only
<a href="#">ES 1023</a>	EFC governor actuator is installed in fuel pump AFC cavity	Use with customer supplied governor control module and magnetic pick-up
<a href="#">ES 1025</a>	EFC governor actuator is installed in fuel pump AFC cavity	Includes an engine mounted magnetic pick-up.
<a href="#">ES 1026</a>	EFC governor actuator is installed in the fuel pump AFC cavity	Includes engine mounted magnetic pick-up.

# ES 1022

## ES - Electronic Governor

Revision Date: 05/00

### (No Graphics Required)

Option #	Description	Notes
ES 1022	EFC governor actuator is installed in fuel pump AFC cavity	Includes an engine mounted magnetic pickup. For use with stationary applications only

Cummins digital EFC governor.

24V DC normally closed system.

Includes control unit with speed and droop adjustments supplied in kit. Does not include load sensing module.

Fuel pump governor: limiting speed.

EFC governor actuator is installed in fuel pump AFC cavity.

Control unit requires a 24V DC negative ground power supply.

**Includes an engine mounted magnetic pickup.**

**For use with stationary applications only.**

# ES 1023

## ES - Electronic Governor

Revision Date: 05/00

**(No Graphics Required)**

Option #	Description	Notes
ES 1023	EFC governor actuator is installed in fuel pump AFC cavity	Use with customer supplied governor control module and magnetic pick-up

Cummins EFC governor. Includes normally closed actuator mounted in fuel pump AFC cavity and AFC style PTG/AUTO fuel pump. Requires 24V, insulated or negative ground power supply.

**For use with customer supplied governor control module and magnetic pick-up.**

# ES 1025

## ES - Electronic Governor

Revision Date: 05/00

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### (No Graphics Required)

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Option #	Description	Notes
ES 1025	EFC governor actuator is installed in fuel pump AFC cavity	Includes an engine mounted magnetic pick-up.

Cummins EFC governor.

24V DC normally closed system.

Control unit requires a 24V DC negative ground power supply.

Fuel pump governor: Limiting speed

EFC governor actuator is installed in fuel pump AFC cavity.

Includes control unit with speed and droop adjustments supplied in kit.

Does not include load sensing module.

**Includes an engine mounted magnetic pick-up.**

# ES 1026

## ES - Electronic Governor

Revision Date: 05/00

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### (No Graphics Required)

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Option #	Description	Notes
ES 1026	EFC governor actuator is installed in the fuel pump AFC cavity	Includes engine mounted magnetic pick-up.

Cummins EFC governor.

24V DC normally closed system.

Fuel pump governor: limiting speed.

EFC governor actuator is installed in the fuel pump AFC cavity.

Includes a plug-in type control module installed in the engine instrument panel or generator control panel.

Does not include load sensing module.

Control module requires a 24V DC negative ground power supply.

# FA-Keydata

Option #	Bolt Circle mm	Drive Ratio	Fan Center mm	Tensioner Type
<a href="#">FA 1331</a>	88.9 mm [3.5 in.]	1:1	514.4 mm [20.25 in.]	Manual
<a href="#">FA 1369</a>				
<a href="#">FA 1392</a>		0.86:1	514.4 [20.25]	Manual
<a href="#">FA 1396</a>		1.21:1	375.92 mm [14.80 in.]	Manual
<a href="#">FA 1398</a>	139.7 mm [5.5 in.]	1:1	303.2 mm [13.00 in.]	Automatic
<a href="#">FA 1400</a>	139.7 mm [5.5 in.]	0.86:1	330 mm [13.0 in.]	Automatic
<a href="#">FA 1402</a>	139.7 mm [5.5 in.]	0.86:1	381 mm [15.0 in.]	Automatic
<a href="#">FA 1422</a>	139.7 mm [5.5 in.]	0.65:1	406.7 mm [16.01 in.]	Automatic

# FA 1331

## FA - Fan Drive

**Revision Date:** 06/00



Option #	Bolt Circle mm	Drive Ratio	Fan Center mm	Tensioner Type
FA 1331	88.9 mm [3.5 in.]	1:1	514.4 mm [20.25 in.]	Manual

Belt Driven 1:1 Ratio - Continuous Drive Fan Hub, base support, bracket, two 22 mm [0.875 in.] belts and fan hub adjusting screw.

Fan Center Style: Adjustable

Fan Hub Pilot Diameter: 65 mm [2.56 in.]

Fan Bracket Type: Vertical Adjusting

Pulley Groove Type: Dual [0.8 in.] V

Fan Pulley Diameter: 179 mm [7.0 in.]

Fan Drive Groove Location: 129.8 mm [5.11 in.]

Fan Hub Adjusting Screw Supplier: Cummins

Belt Tension Method: Manual

Fan Bracket Mounting Location: Block Mounted

Fan Mounting Surface Location: 201 mm [7.9 in.]

# FA 1369

## FA - Fan Drive

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Bolt Circle mm	Drive Ratio mm	Fan Center mm	Tensioner Type
FA 1369				

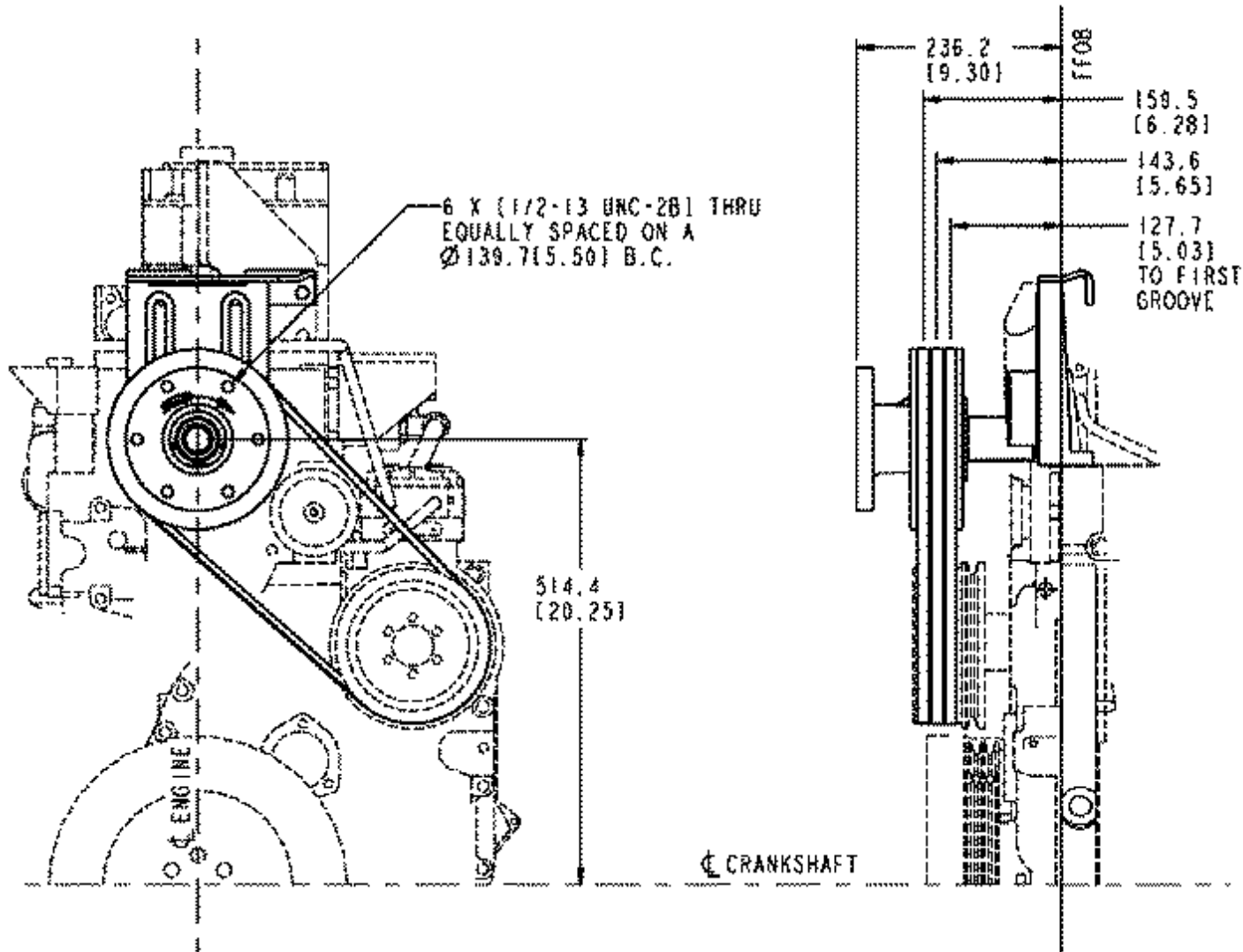
No content option. When customer has no future requirements to drive fan from accessory drive pulley. Also may be used when the customer supplies own fan drive on a triangulated fan drive arrangement.

**For use when the customer has no future requirements to drive a fan from the accessory drive pulley.**

# FA 1392

## FA - Fan Drive

Revision Date: 04/00



FA1392\_NCS

Option #	Bolt Circle mm	Drive Ratio	Fan Center mm	Tensioner Type
FA 1392		0.86:1	514.4 [20.25]	Manual

Cummins supplied fan drive.

Fan Center Location: 514.35 mm [20.25 in.]

Fan Drive Ratio: 0.86:1

Fan Center Style: Adjustable

Fan Hub Pilot Diameter: 81 mm [3.18 in.]

Fan Bracket Type: Vertical Adjusting

Pulley Groove Type: Three 0.515 in. V

Fan Pulley Diameter: 208 mm [8.2 in.]

Fan Drive Groove Location: 130 mm [5.11 in.]

FA 1392

Fan Hub Adjusting Screw Supplier: Cummins

Belt Tensioning Method: Manual

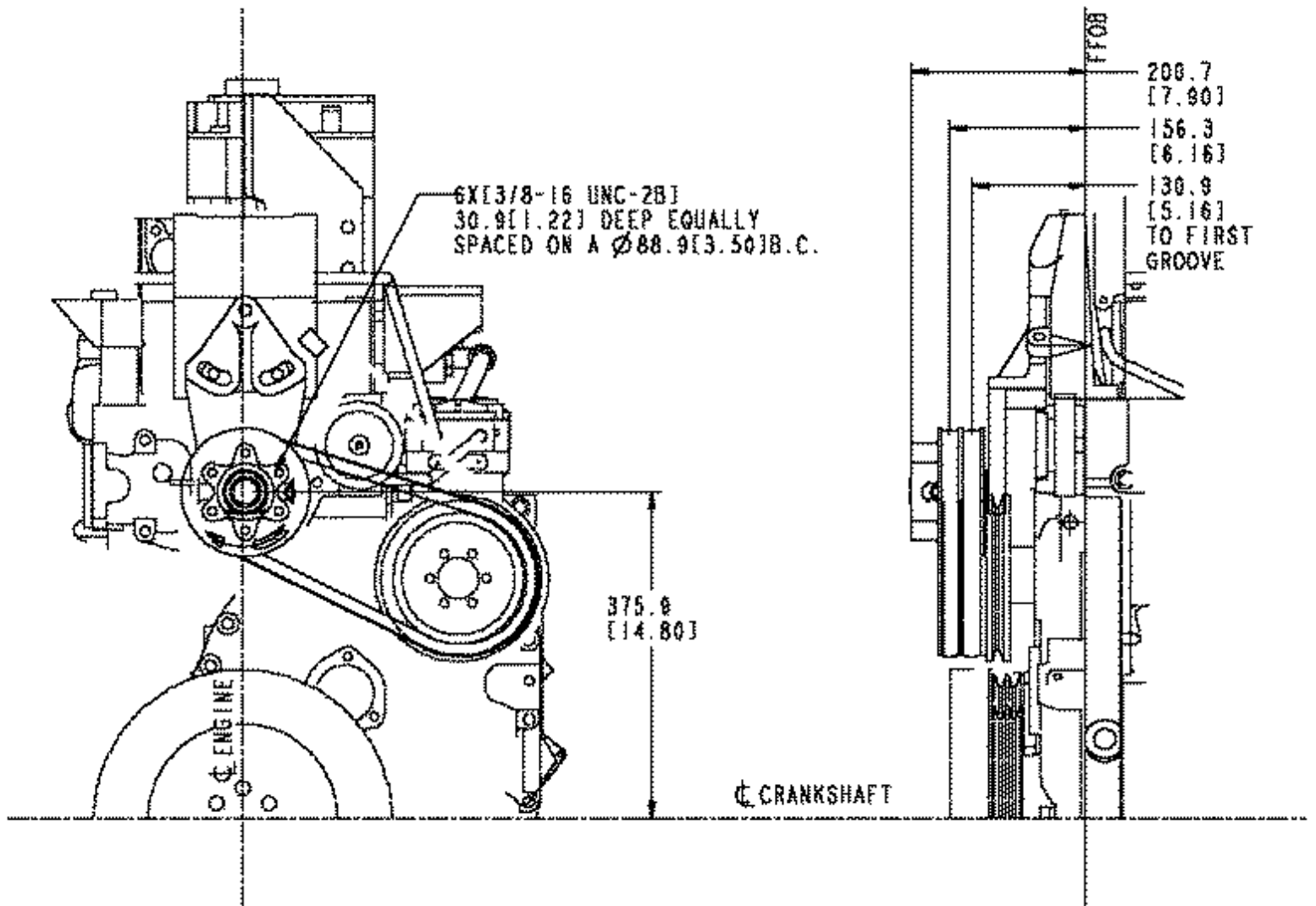
Fan Bracket Mounting Location: Block Mounted

Fan Mounting Surface Location: 236 mm [9.3 in.]

# FA 1396

## FA - Fan Drive

Revision Date: 03/00



Option #	Bolt Circle mm	Drive Ratio	Fan Center mm	Tensioner Type
FA 1396		1.21:1	375.92 mm [14.80 in.]	Manual

Cummins supplied fan drive.

Fan Center Location: 375.92 mm [14.80 in.]

Fan Drive Ratio: 1.21:1

Fan Center Style: Adjustable

Fan Hub Pilot Diameter: 65 mm [2.56 in.]

Fan Bracket Type: Pivot

Pulley Groove Type: Dual 0.800 in. V

Fan Pulley Diameter: 147.701 mm [5.815 in.]

Fan Drive Groove Location: 130.9 mm [5.16 in.]

Fan Hub Adjusting Screw Supplier: Cummins

Belt Tensioning Method: Manual

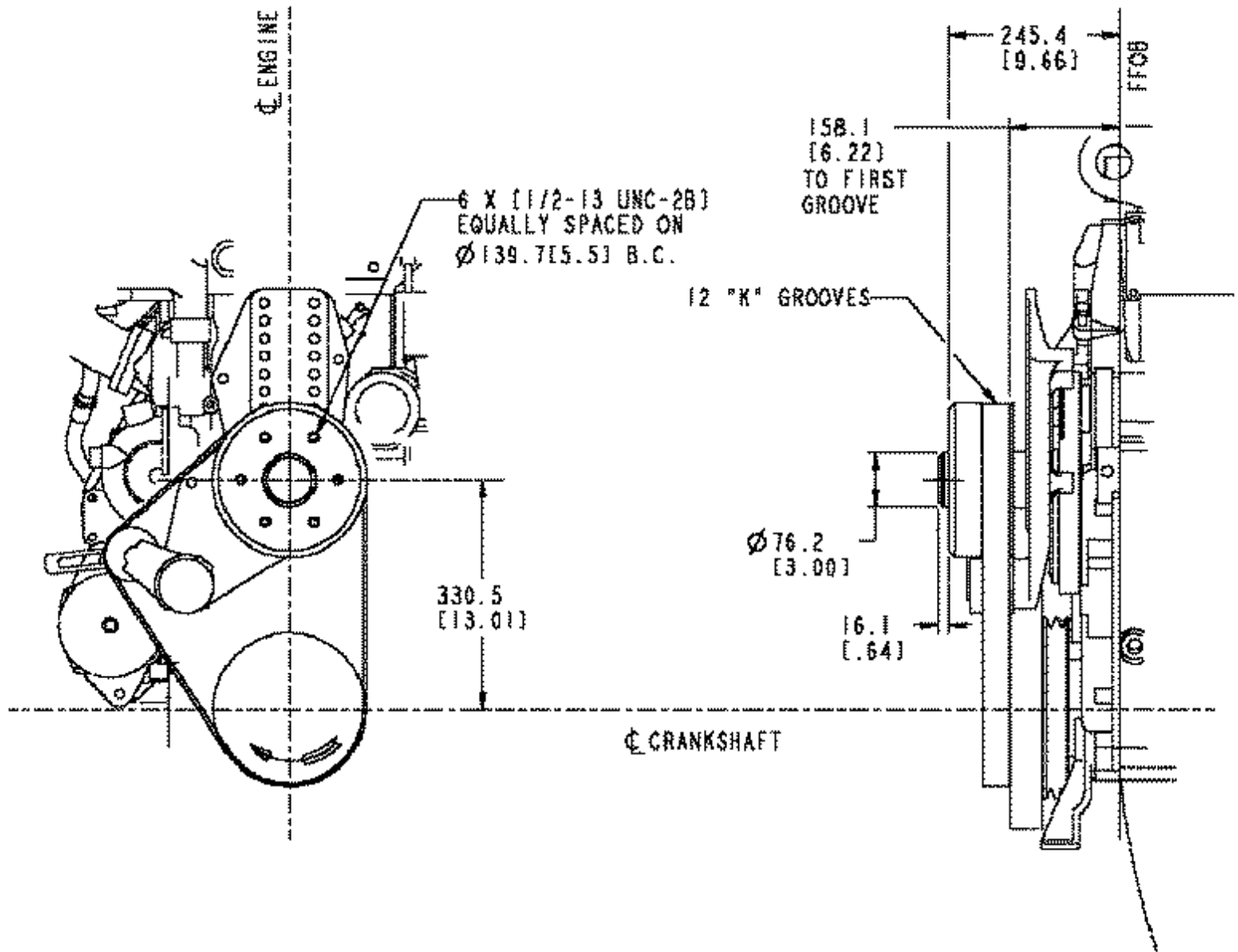
Fan Bracket Mounting Location: Block Mounted

Fan Mounting Surface Location: 200.66 mm [7.9 in.]

# FA 1398

## FA - Fan Drive

Revision Date: 05/00



Option #	Bolt Circle mm	Drive Ratio mm	Fan Center mm	Tensioner Type
FA 1398	139.7 mm [5.5 in.]	1:1	303.2 mm [13.00 in.]	Automatic

Cummins supplied fan drive.

Fan Center Location: 330.2 mm [13 in.]

Fan Drive Ratio: 1.00:1

Fan Center Style: Fixed

Fan Hub Pilot Diameter: 76.2 mm [3.0 in.]

Pulley Groove Type: Poly V 12 Rib `K`

Fan Pulley Diameter: 215.9 mm [8.500 in.]

Fan Drive Groove Location: 158.09 mm [6.224 in.]

Belt Tensioning Method: Automatic

Fan Bracket Mounting Location: Front of water pump

FA 1398

Fan Mounting Surface Location: 245.364 mm [9.66 in.]

Maximum Torque Capability: 203.7 N•m [150.0 lb.ft.]

Maximum Fan Inertia: 1.32 N•m —sec sq [10 in.lb-sec sq]

Maximum Bending Moment: 62.242 N•m [550 in.lb]

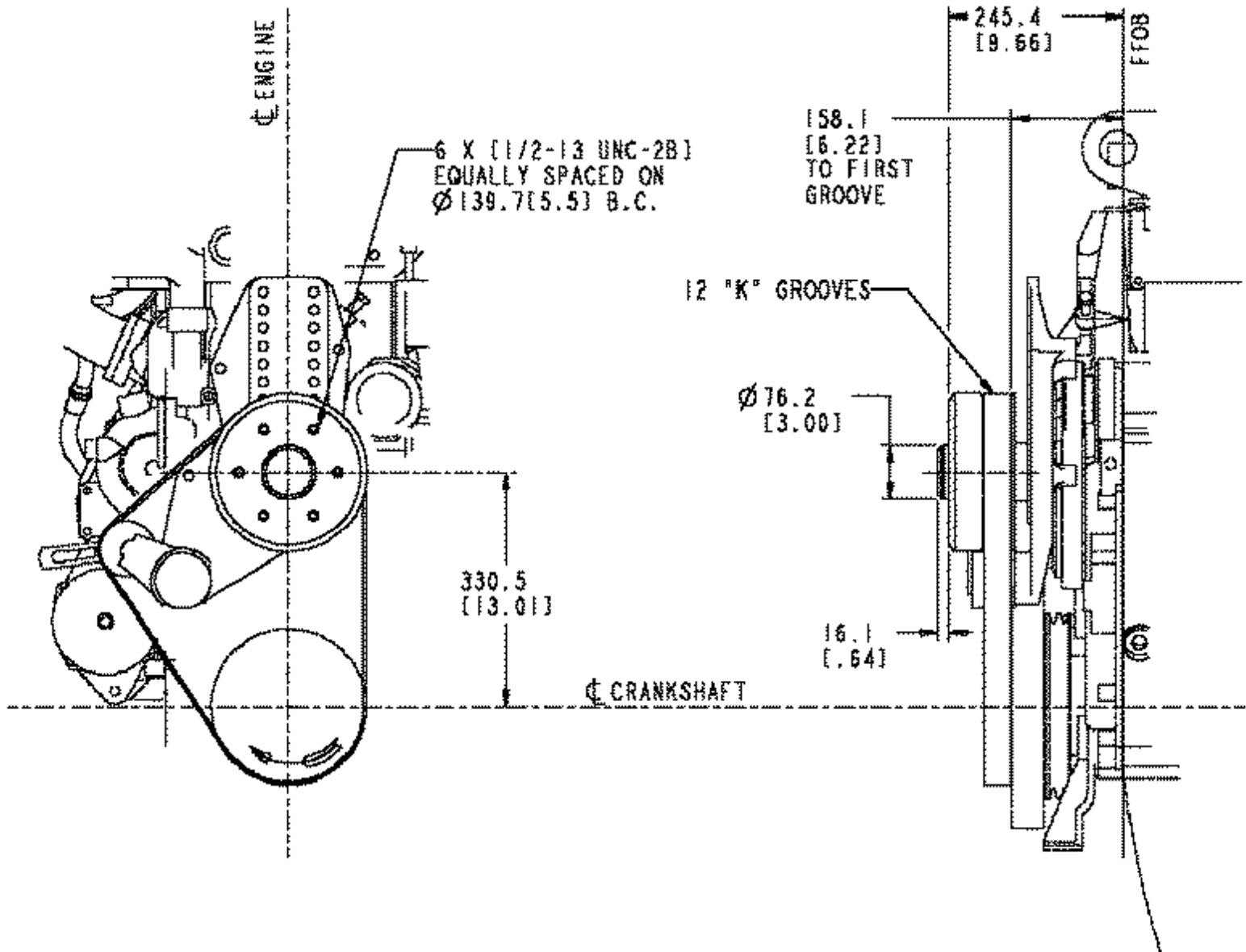
Maximum Fan Weight: 49.9 kg [110 lb.]

Maximum Fan Spacer Thickness: 127 mm [5.0 in.]

# FA 1400

## FA - Fan Drive

Revision Date: 05/00



Option #	Bolt Circle mm	Drive Ratio mm	Fan Center mm	Tensioner Type
FA 1400	139.7 mm [5.5 in.]	0.86:1	330 mm [13.0 in.]	Automatic

Cummins supplied fan drive.

Fan Center Location: 330.2 mm [13.00 in.]

Fan Drive Ratio: 0.86:1

Fan Center Style: Fixed

Fan Hub Pilot Diameter: 76.2 mm [3.0 in.]

Pulley Groove Type: Poly V 12 Rib `K`

Fan Pulley Diameter: 215.9 mm [8.500 in.]

Fan Drive Groove Location: 158.09 mm [6.224 in.]

Belt Tension Method: Automatic

Fan Bracket Mounting Location: Front of Water Pump

## FA 1400

Fan Mounting Surface Location: 245.364 mm [9.66 in.]

Maximum Torque Capability: 237.65 N•m [175.0 lb.ft.]

Maximum Fan Inertia: 1.697 N•m —sec sq [550 in.lb]

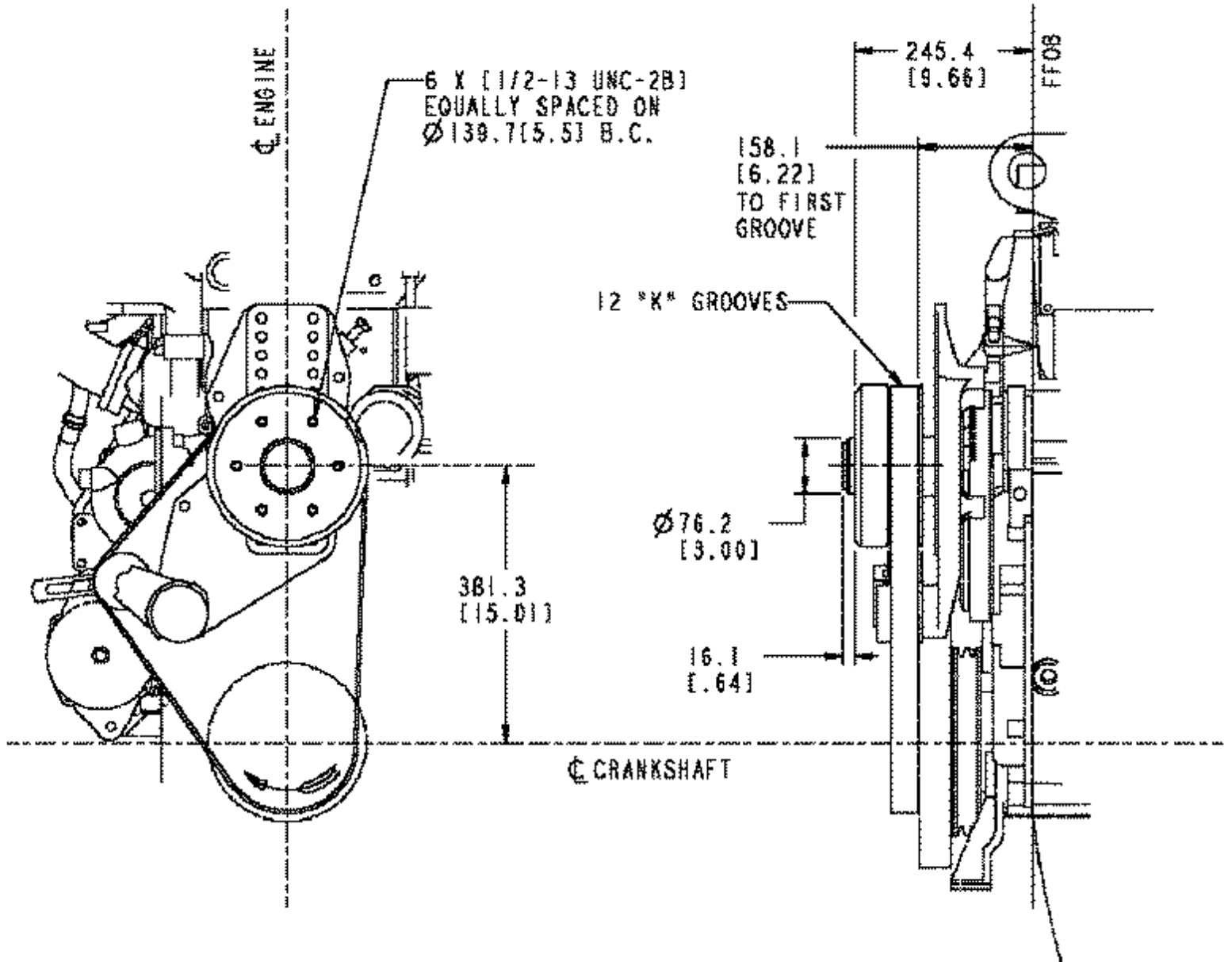
Maximum Fan Weight: 49.9 kg [110 lb.]

Maximum Fan Spacer Thickness: 127 mm [5.0 in.]

# FA 1402

## FA - Fan Drive

Revision Date: 05/00



Option #	Bolt Circle mm	Drive Ratio mm	Fan Center mm	Tensioner Type
FA 1402	139.7 mm [5.5 in.]	0.86:1	381 mm [15.0 in.]	Automatic

Cummins supplied fan drive.

Fan Center Location: 381 mm [15.00 in.]

Fan Drive Ratio: 0.86:1

Fan Center Style: Fixed

Fan Hub Pilot Diameter: 76.2 mm [3.0 in.]

Pulley Groove Type: Poly V 12 Rib 'K'

Fan Pulley Diameter: 215.9 mm [8.500 in.]

Fan Drive Groove Location: 158.09 mm [6.224 in.]

Belt Tension Method: Automatic

FA 1402

Fan Bracket Mounting Location: Front of Water Pump

Fan Mounting Surface Location: 245.364 mm [9.66 in.]

Maximum Torque Capability: 237.65 N•m [175.0 lb.ft.]

Maximum Fan Inertia: 1.697 N•m —sec sq [15 in.lb-sec sq]

Maximum Bending Moment: 62.242 N•m [550 in.lb]

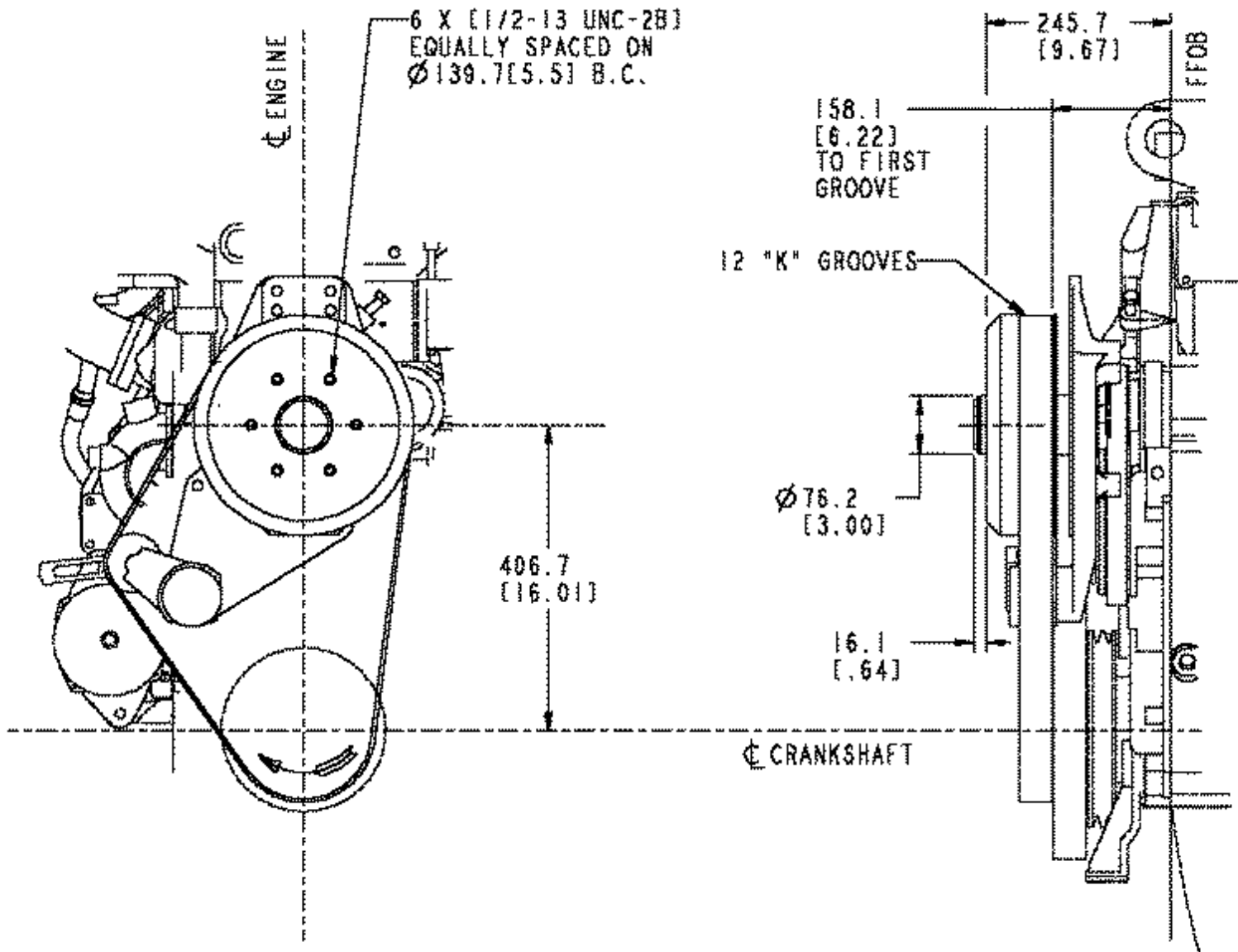
Maximum Fan Weight: 49.9 kg [110 lb.]

Maximum Fan Spacer Thickness: 127 mm [5.0 in.]

# FA 1422

## FA - Fan Drive

Revision Date: 05/00



Option #	Bolt Circle mm	Drive Ratio mm	Fan Center mm	Tensioner Type
FA 1422	139.7 mm [5.5 in.]	0.65:1	406.7 mm [16.01 in.]	Automatic

Cummins supplied fan drive.

Fan Center Location: 406.4 mm [16.00 in.]

Fan Drive Ratio: 0.65:1

Fan Center Style: Fixed

Fan Hub Pilot Diameter: 76.2 mm [3.0 in.]

Pulley Groove Type: Poly V 12 Rib `K`

Fan Pulley Diameter: 286.512 mm [11.280 in.]

Fan Drive Groove Location: 158.09 mm [6.224 in.]

Belt Tension Method: Automatic

Fan Bracket Mounting Location: Front of Water Pump

Fan Mounting Surface Location: 245.364 mm [9.66 in.]

Maximum Torque Capability: 312.34 N•m [230.0 lb.ft.]

Maximum Fan Inertia: 2.829 N•m —sec sq [25 in.lb-sec sq]

Maximum Bending Moment: 62.242 N•m [550 in.lb]

Maximum Fan Weight: 49.9 kg [110 lb.]

Maximum Fan Spacer Thickness: 127 mm [5.0 in.]

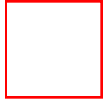
# FF-Keydata

Option #	Element	Filtration	Water Separator/WIF Sensor	Location/Notes
<a href="#">FF 1230</a>	Single spin-on	10 micron fuel filter	Mounted on rear of fuel pump	Straight inlet fitting
<a href="#">FF 1233</a>	Dual spin-on	10 micron fuel filter		
<a href="#">FF 1240</a>	Single spin-on	10 micron fuel filter	Mounted on rear of fuel pump	Straight inlet fitting
<a href="#">FF 1246</a>	Dual spin-on	10 micron fuel filter	Mounted above pan rail at center of the fuel pump	

# FF 1230

## FF - Fuel Filter

Revision Date: 03/00



<b>Option #</b>	<b>Element</b>	<b>Filtration</b>	<b>Water Separator/WIF Sensor</b>	<b>Location/Notes</b>
FF 1230	Single spin-on	10 micron fuel filter	Mounted on rear of fuel pump	Straight inlet fitting

Single spin-on fuel/water separator mounted on rear of fuel pump. Provides straight inlet fitting. Contains 10 micron fuel filter. Can be used with all fuel pump types, but must be used on CENTRY or EFC actuated fuel pump applications.

# FF 1233

## FF - Fuel Filter

Revision Date: 03/00



Option #	Element	Filtration	Water Separator/WIF Sensor	Location/Notes
FF 1233	Dual spin-on	10 micron fuel filter		

Dual spin-on fuel filters mounting above pan rail at the center of the fuel pump side of engine. Has 90 degree fuel inlet fitting. To be used with straight fuel pump inlet fitting. Contains 10 micron fuel filter. Can be used with all fuel pump types, but must be used on CENTRY or AFC actuated fuel pump applications.

# FF 1240

## FF - Fuel Filter

Revision Date: 03/00



Option #	Element	Filtration	Water Separator/WIF Sensor	Location/Notes
FF 1240	Single spin-on	10 micron fuel filter	Mounted on rear of fuel pump	Straight inlet fitting

Single spin-on fuel/water separator mounted on rear of fuel pump.

Provides straight inlet fitting.

Contains 10 micron fuel filter.

Can be used with all fuel pump types, but must be used on CENTRY or EFC actuated fuel pump applications.

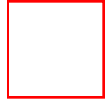
Contains smaller element (FS 1001) to overcome foul condition with hydraulic pump when filter is mounted direct to the fuel (REF FF 1230).

First released for Case Quad tractors.

# FF 1246

## FF - Fuel Filter

Revision Date: 03/00



Option #	Element	Filtration	Water Separator/WIF Sensor	Location/Notes
FF 1246	Dual spin-on	10 micron fuel filter		Mounted above pan rail at center of the fuel pump

Dual spin-on fuel/water separator mounted above pan rail at center of the fuel pump side of engine. Has 90 degree fuel inlet fitting. To be used with straight fuel pump inlet fitting. Contains 10-micron fuel filters.

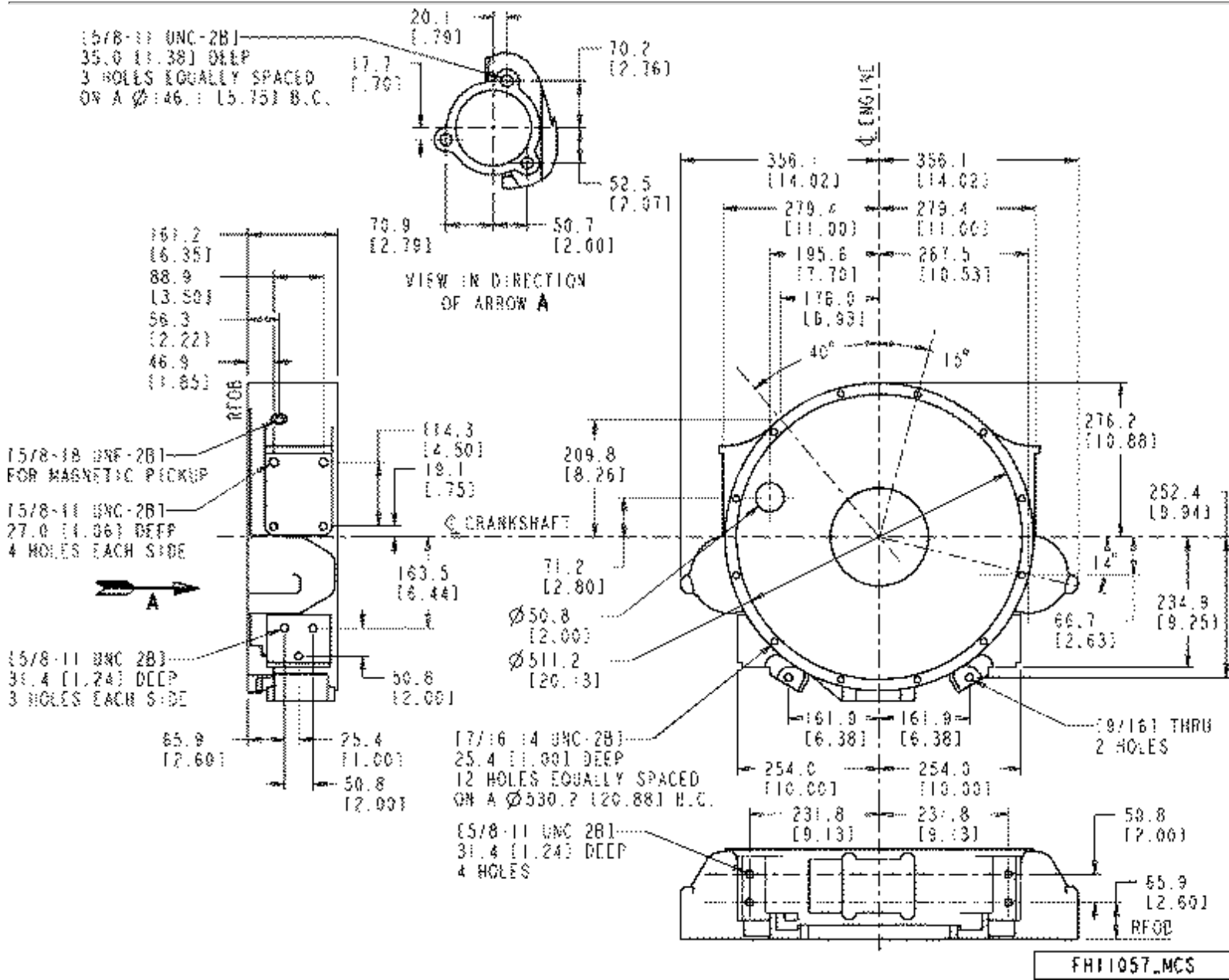
# FH-Keydata

Option #	SAE/Wet or Dry	Application	Housing Material	Starter Quadrant
<a href="#">FH 1504</a>		Hardware for customer supplied flywheel housing		
<a href="#">FH 11057</a>	SAE #1/Dry	High and low vertical pads	Cast iron	#2
<a href="#">FH 11071</a>	SAE#0/Dry	Vertical pads	Aluminum	Quadrant #2 and #3

# FH 11057

## FH - Flywheel Housing

Revision Date: 07/01



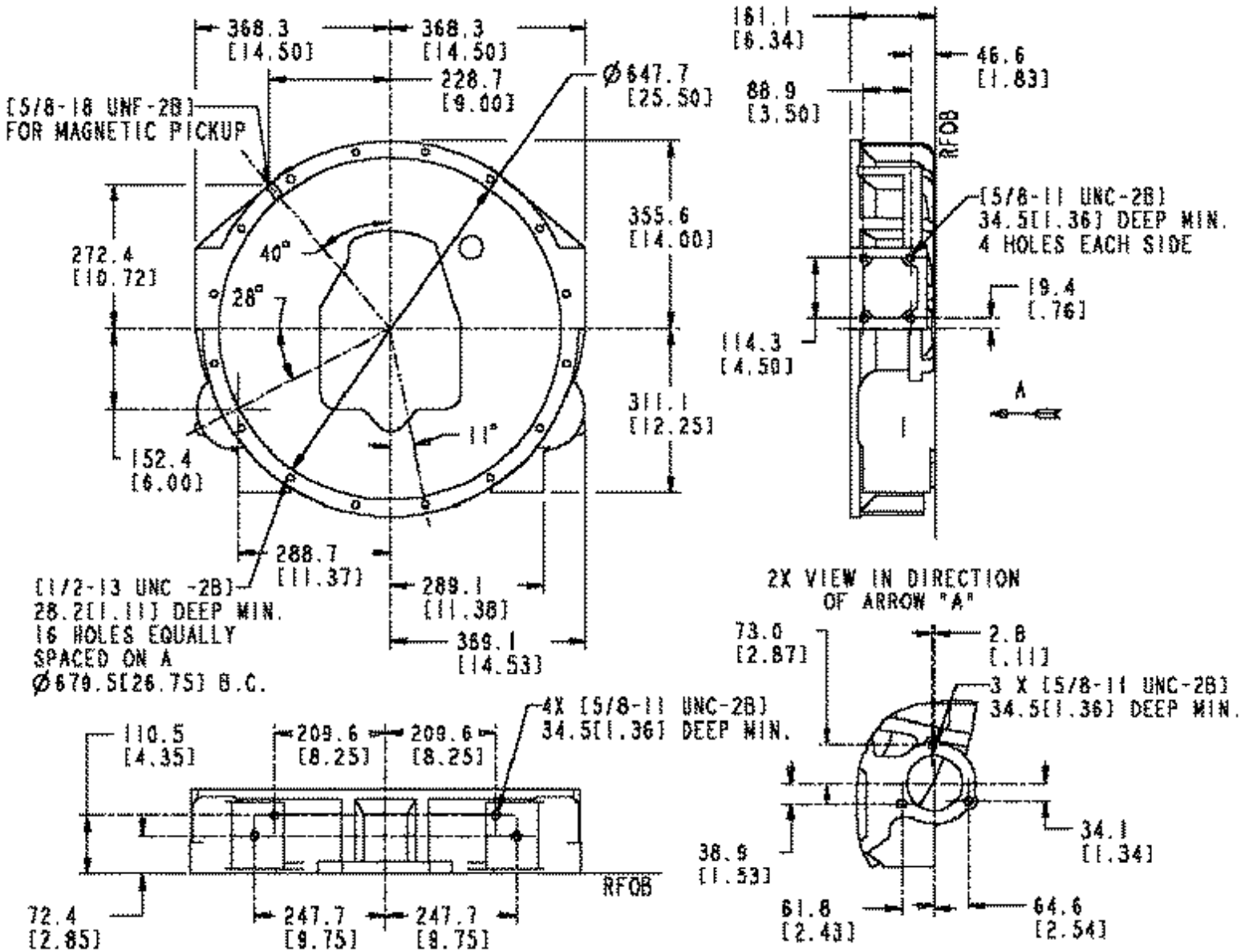
Option #	SAE/Wet or Dry	Application	Housing Material	Starter Quadrant
FH 11057	SAE #1/Dry	High and low vertical pads	Cast iron	#2

SAE #1 dry type closed cast iron flywheel housing with both high and low mounting pads machined. Starter bore machined on exhaust side only, No. 2 quadrant. Has provision for magnetic pick-up.

# FH 11071

## FH - Flywheel Housing

Revision Date: 05/00



Option #	SAE/Wet or Dry	Application	Housing Material	Starter Quadrant
FH 11071	SAE#0/Dry	Vertical pads	Aluminum	Quadrant #2 and #3

For dry applications. Aluminum flywheel housing with starter locations in quadrant #2 and #3. Housing machined for 5/8-18 threaded magnetic pickup.

# FH 1504

## FH - Flywheel Housing

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	SAE/Wet or Dry	Application	Housing Material	Starter Quadrant
FH 1504		Hardware for customer supplied flywheel housing		

Hardware for customer supplied flywheel housing. Includes rear crankshaft oil seal, mounting hardware, and 13 mm [0.500 in.] dowel pins. Does not include dust cover.

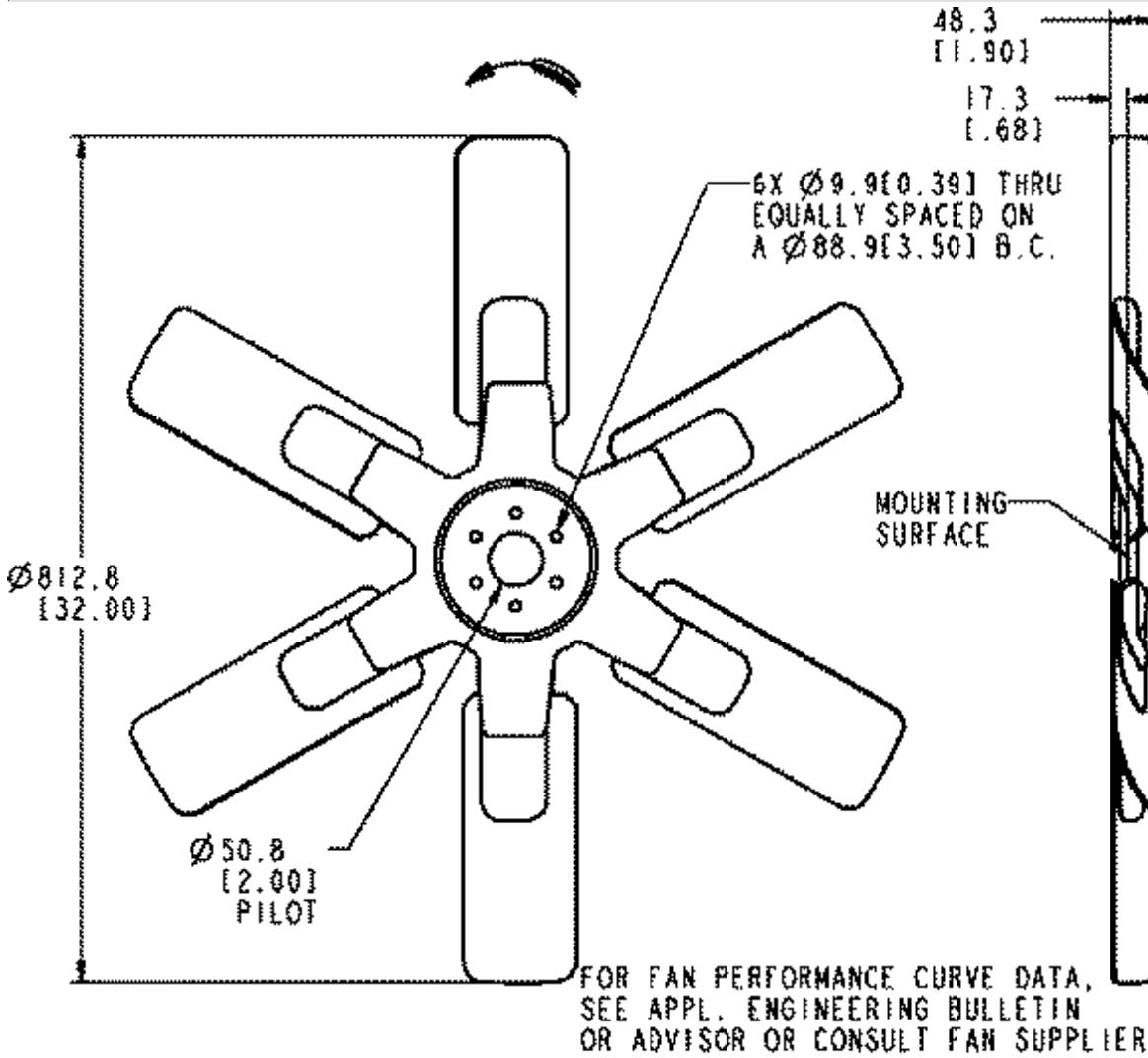
# FN-Keydata

Option #	Type	Diameter	Max Speed	Material
<a href="#">FN 1008</a>	Right hand blower / Left hand sucker	812.8 mm [32 in.]		
<a href="#">FN 3608</a>	Blower	914 mm [36 in.]	1950 RPM	Aluminum
<a href="#">FN 3610</a>	Sucker	914.4 mm [36 in.]	1950 RPM	Aluminum

# FN 1008

## FN - Fan

Revision Date: 03/00



**FN1008\_MCS**

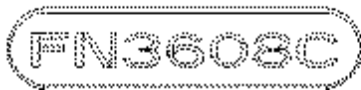
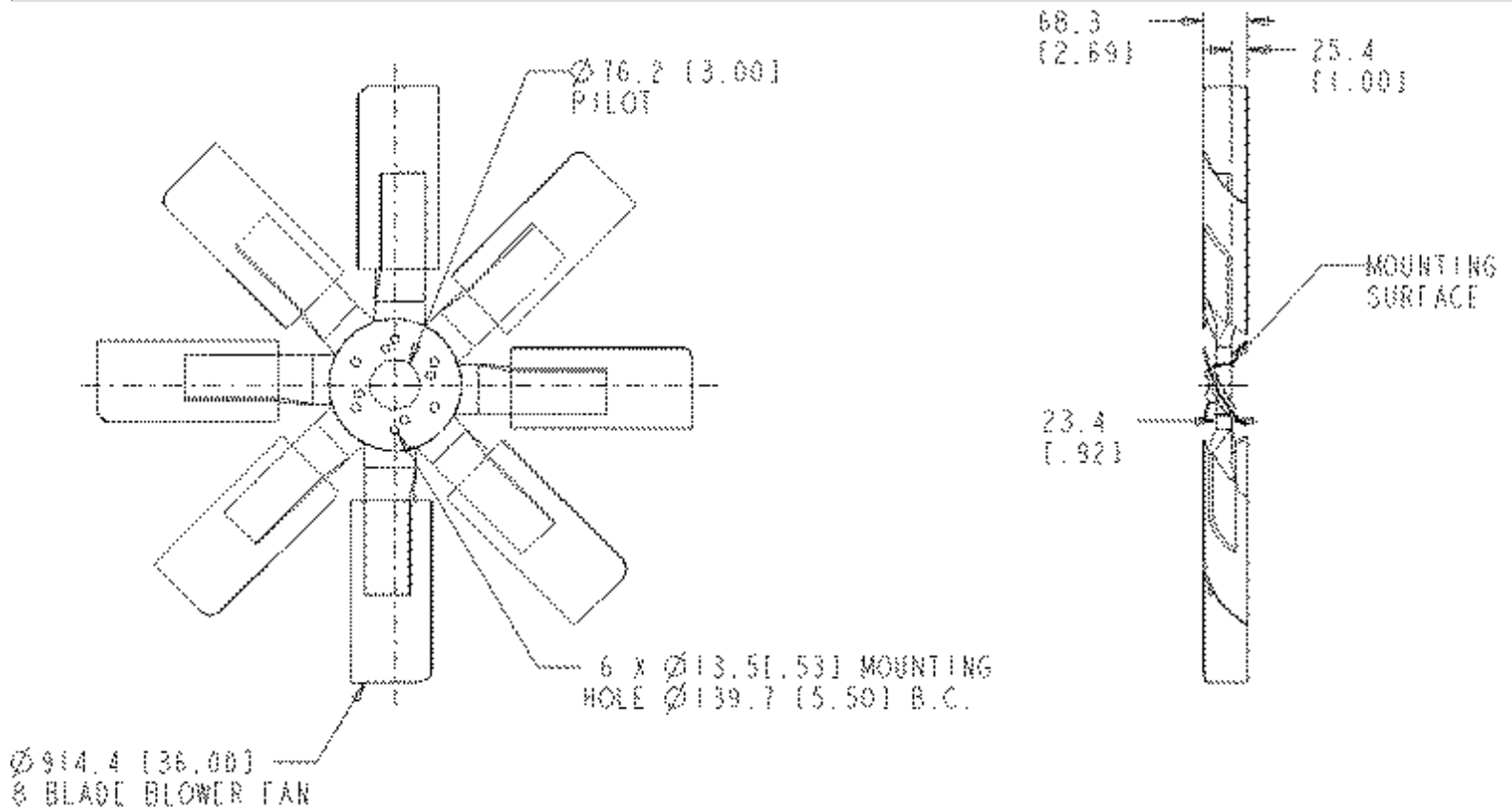
Option #	Type	Diameter	Max Speed	Material
FN 1008	Right hand blower / Left hand sucker	812.8 mm [32 in.]		

Engine fan.  
 Diameter: 812.8 mm [32 in.]  
 Number of Blades: 6  
 Type of Fan: Right hand blower / Left hand sucker  
 Maximum Speed Limitation: TBD  
 Mounting Bolt Circle Diameter: 89 mm [3.5 in.]  
 Mounting Flange Thickness: TBD  
 Material: TBD  
 Pilot Diameter: 51 mm [2.0 in.]

# FN 3608

## FN - Engine Fan

Revision Date: 08/00



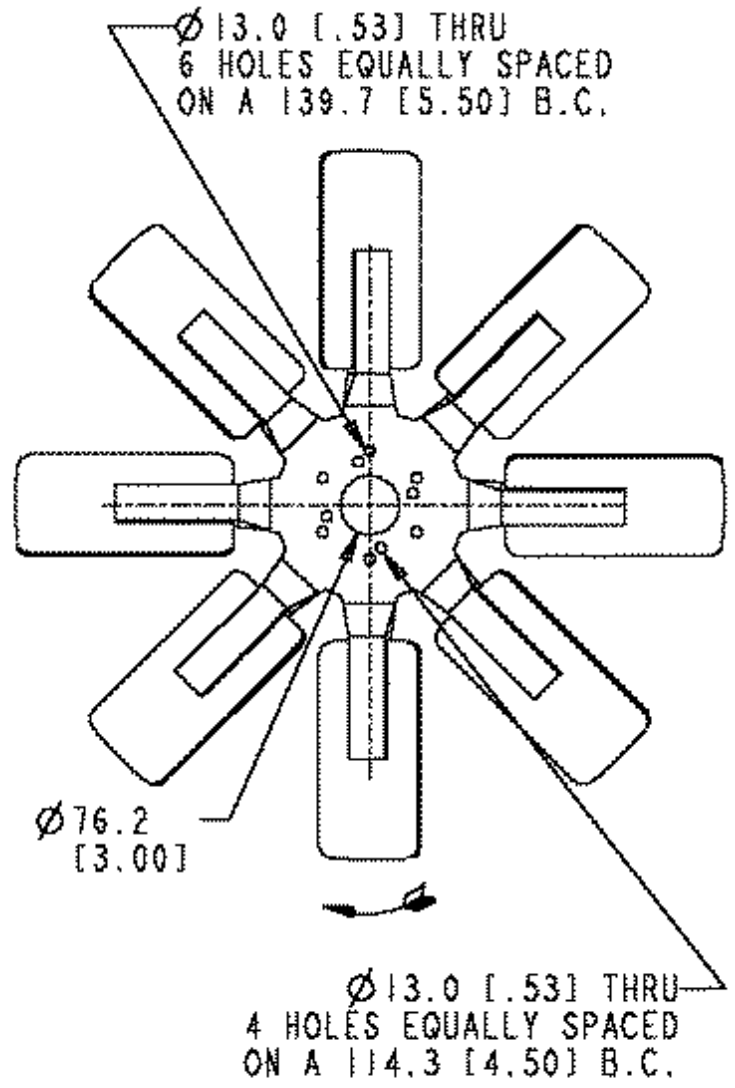
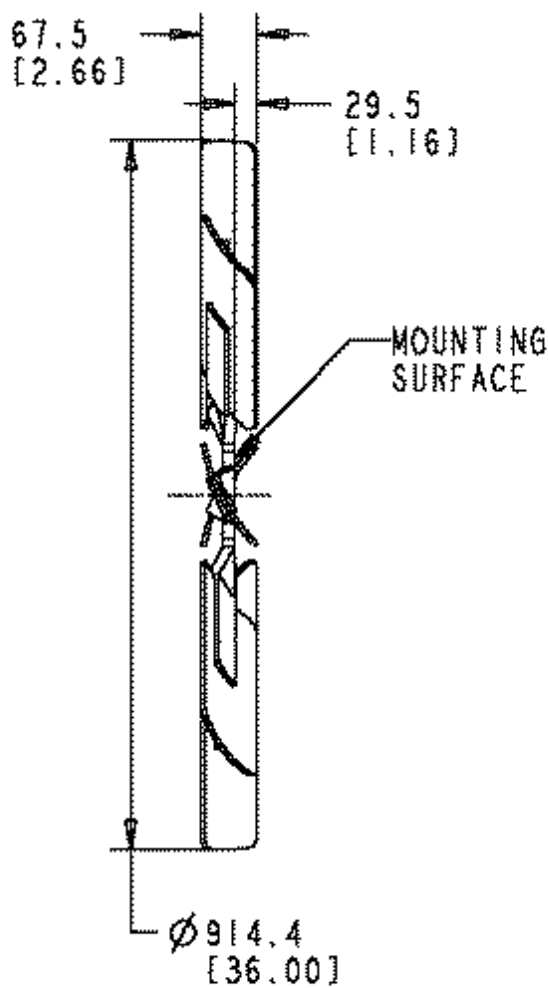
Option #	Type	Diameter	Max Speed	Material
FN 3608	Blower	914 mm [36 in.]	1950 RPM	Aluminum

914 mm [36 in.] dia. aluminum blower type 8-blade fan. 140 mm [5.5 in.] B.C. and 76 mm [3 in.] dia. pilot. Mounting flange thickness is 25.6 mm [1.01 in.]. Kitted.  
**Maximum Fan Speed = 1950 RPM.**

# FN 3610

## FN - Fan

Revision Date: 08/00



FOR FAN PERF CURVE DATA SEE  
 APPL. ENGR BULL OR ADVISOR  
 OR CONSULT FAN SUPPLIER

Option #	Type	Diameter	Max Speed	Material
FN 3610	Sucker	914.4 mm [36 in.]	1950 RPM	Aluminum

Engine fan.  
 Diameter: 914.4 mm [36 in.]  
 Number of Blades: 8  
 Type of Fan: Sucker  
 Maximum Sped Limitation: 1950 RPM  
 Mounting Bolt Circle Diameter: 140 mm [5.5 in.]  
 Mounting Flange Thickness: 16.1 mm [0.634 in.]  
 Material: Aluminum  
 Pilot Diameter: 76 mm [3.0 in.]  
 Kitted: Yes

# FR-Keydata

Option #	Horsepower/Kilowatts	Speed	CPL	Certified
<a href="#">FR 10020</a>	535 BHP 399 kW <sub>m</sub>	1800 rpm	CPL 2287	EPA, CARB
<a href="#">FR 10027</a>	347 kW <sub>m</sub> [465 BHP] 320 kW <sub>m</sub> [430 BHP]	1800 rpm	CPL 2287	EPA, CARB
		1500 rpm	CPL 2287	EPA, CARB

# FR 10020

## FR - Power Rating

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Horsepower/Kilowatts	Speed	CPL	Certified
FR 10020	535 BHP 399 kWm	1800 rpm	CPL 2287	EPA, CARB

Engine performance capability in accordance with ISO-3046 conditions of:

- 100 kPa [29.53 in. Hg] barometric pressure
- 110 m [361 ft.] altitude
- 25 °C [77 °F] air inlet temperature
- 30% relative humidity

Using No. 2 diesel fuel per ASTM D-975.

**For use with N14-G2 only.**

**Standby Power Application Only.**

# FR 10027

## FR - Power Rating

Revision Date: 05/00

### (No Graphics Required)

Option #	Horsepower/Kilowatts	Speed	CPL	Certified
FR 10027	347 kWm [465 BHP]	1800 rpm	CPL 2287	EPA, CARB
	320 kWm [430 BHP]	1500 rpm	CPL 2287	EPA, CARB

Engine performance capability in accordance with ISO-3046 conditions of:

- 100 kPa [29.53 in. Hg] barometric pressure
- 110 m [361 ft.] altitude 25 °C [77 °F] air inlet temperature
- 30% relative humidity

Using No. 2 diesel fuel per ASTM D-975.

**For use with N14-G1 only.**

**Standby Power Application Only.**

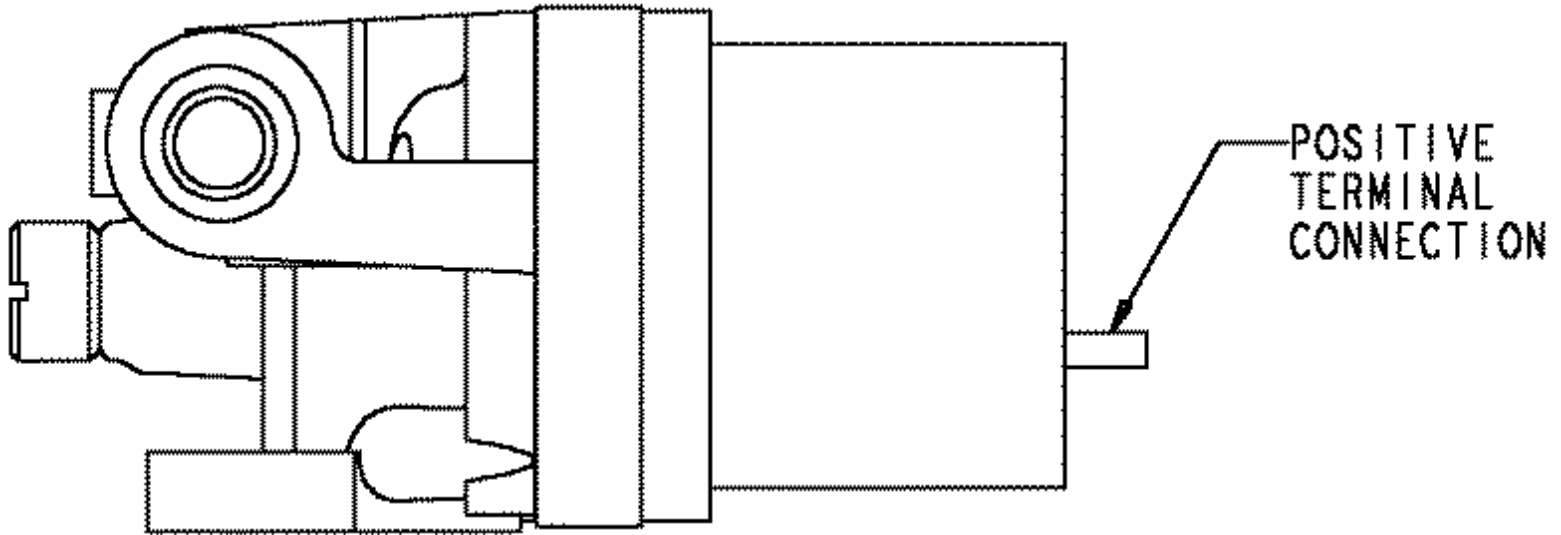
# FV-Keydata

Option #	Volts/Description	Location	Notes
<a href="#">FV 1024</a>	24V DC rapid restart	Fuel pump mounted	

# FV 1024

## FV - Fuel Shutoff Valve

Revision Date: 05/00



Option #	Volts/Description	Location	Notes
FV 1024	24V DC rapid restart	Fuel pump mounted	

24V DC solenoid operated rapid restart fuel shut-off valve.  
Single/Internal ground.

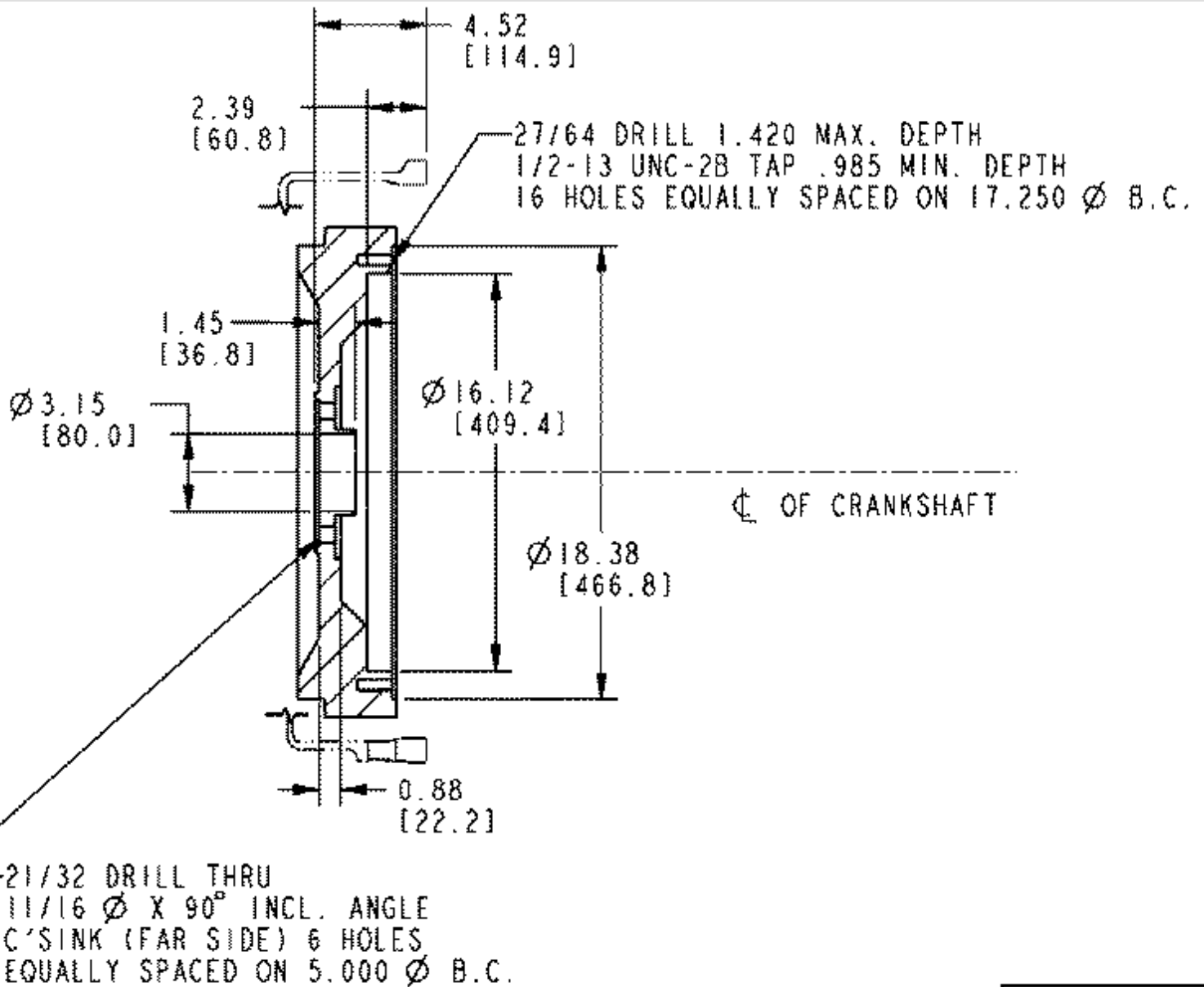
# FW-Keydata

Option #	SAE	Pilot Bearing Bore Dia.	Ring Gear Pitch/Tooth	Indicated Drive
<a href="#">FW 1010</a>	SAE #1	80 mm [3.15 in.]	6/8-118	SAE 14 OCC
<a href="#">FW 1502</a>				

# FW 1010

## FW - Flywheel

Revision Date: 05/00



FW1010\_MCS

Option #	SAE	Pilot Bearing Bore Dia.	Ring Gear Pitch/Tooth	Indicated Drive
FW 1010	SAE #1	80 mm [3.15 in.]	6/8-118	SAE 14 OCC

Meets SAE J162 for No. 514 Generator Flex Disc. Also meets SAE J620C for SAE 14 Overcenter Clutch.

Provisions for 356 mm [14. in.] overcenter clutch adaptation. Includes 118 tooth, 6/8 pitch ring gear for 276 mm [10.85 in.] starter center distance.

# FW 1502

## FW - Flywheel

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	SAE	Pilot Bearing Bore Dia.	Ring Gear Pitch/Tooth	Indicated Drive
FW 1502				

No content option.

Used when flywheel is omitted.

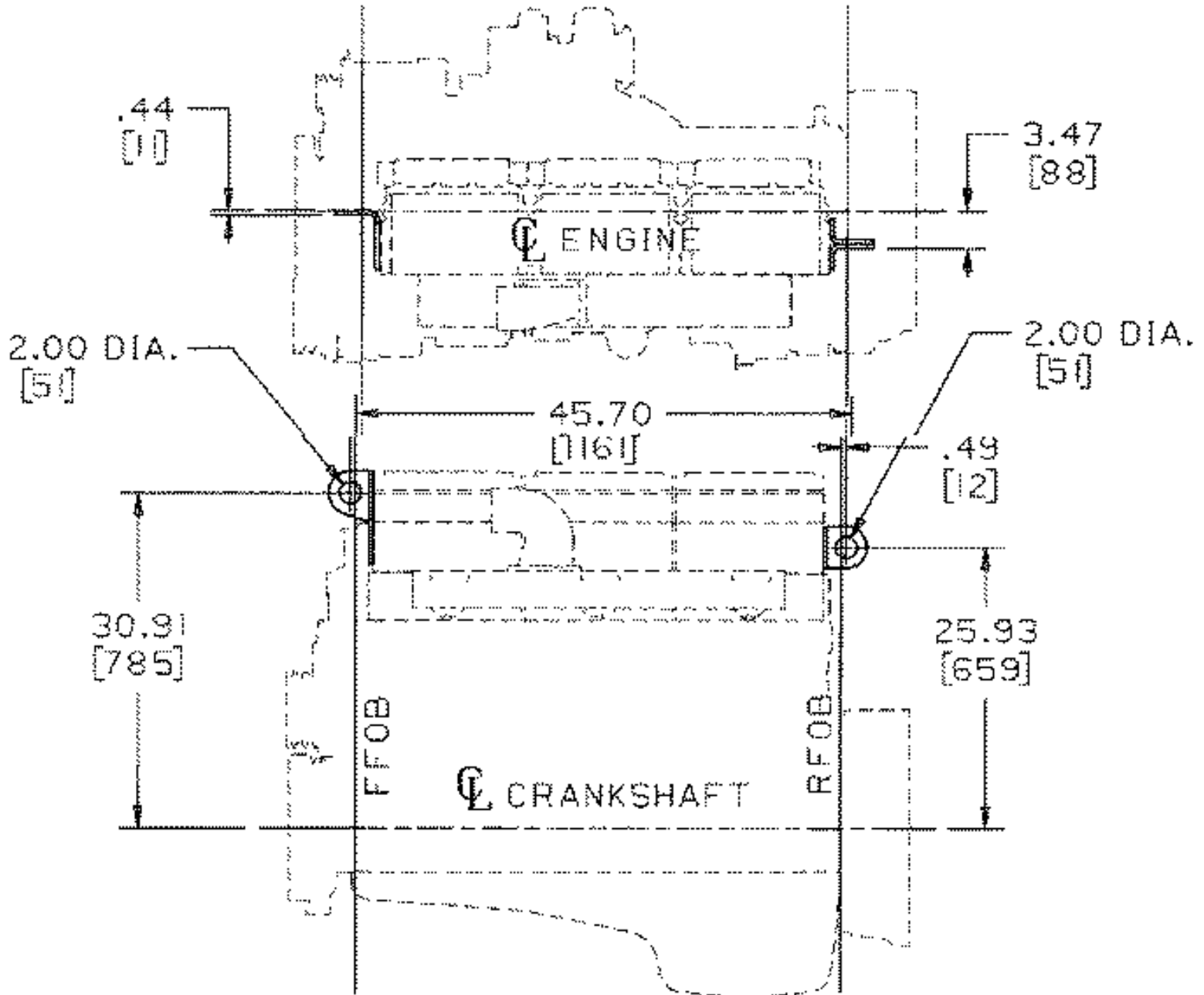
# LA-Keydata

Option	Bracket	Bracket Provided	Max. Lifting Load	Notes
<a href="#">LA 1061</a>	Two	Yes-two	—	Studded capscrew for mounting tube clips

# LA 1061

## LA - Lifting Arrangement

Revision Date: 06/00



Option	Bracket	Bracket Provided	Max. Lifting Load	Notes
LA 1061	Two	Yes-two	—	Studded capscrew for mounting tube clips

Brackets located at front and rear of engine, mounted on cylinder heads.

# LE-Keydata

Option #	Description
<a href="#">LE 1002</a>	

# LE 1002

## LE - Engine Performance Test

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Description
LE 1002	

Engine Test performance. Ship copy of Engine Test Log with engine.

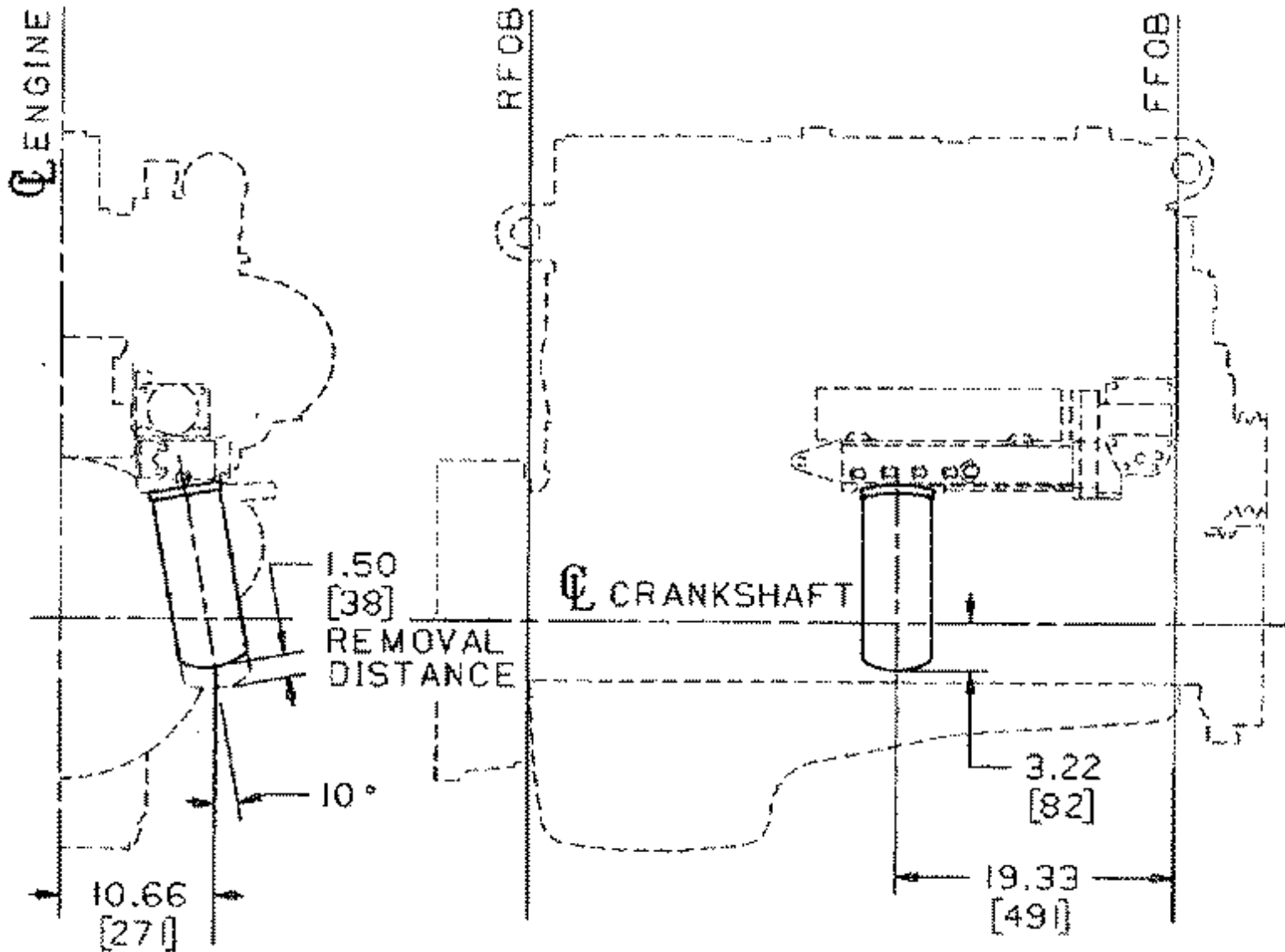
# LF-Keydata

Option #	Type	Hose Length	Location	Notes
<a href="#">LF 1173</a>	Combination, full flow/bypass	N/A	Direct to filter head	Direct
<a href="#">LF 1213</a>	Combo			

# LF 1173

## LF - Lube Oil Filter

Revision Date: 06/00



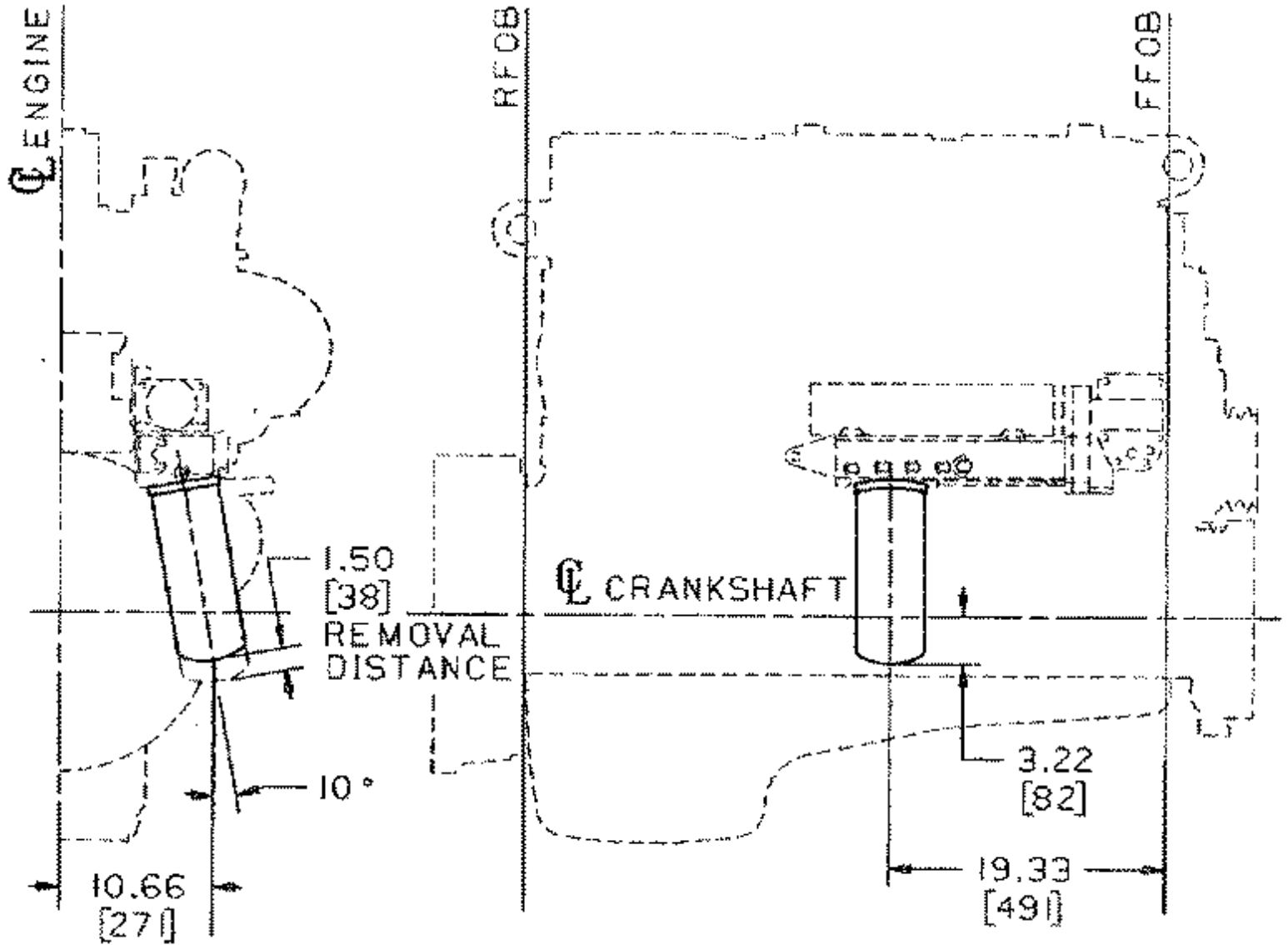
Option #	Type	Hose Length	Location	Notes
LF 1173	Combination, full flow/bypass	N/A	Direct to filter head	Direct

Engine mounted, spin-on, combination, full flow/bypass lube oil filter.  
 Bypass oil filter hose fittings in cooler and block are orientated upward at approx 12:00 positions to give the hose an upward loop.  
 This is the standard bypass hose position.

# LF 1213

## LF - Oil Filter

Revision Date: 05/00



Option #	Type	Hose Length	Location	Notes
LF 1213	Combo			

Engine mounted, spin-on, combination, full flow/bypass lube oil filter.  
 Bypass oil filter hose fittings in cooler and block are orientated upward at approx 12:00 positions to give the hose an upward loop.  
 This is the standard bypass hose position.

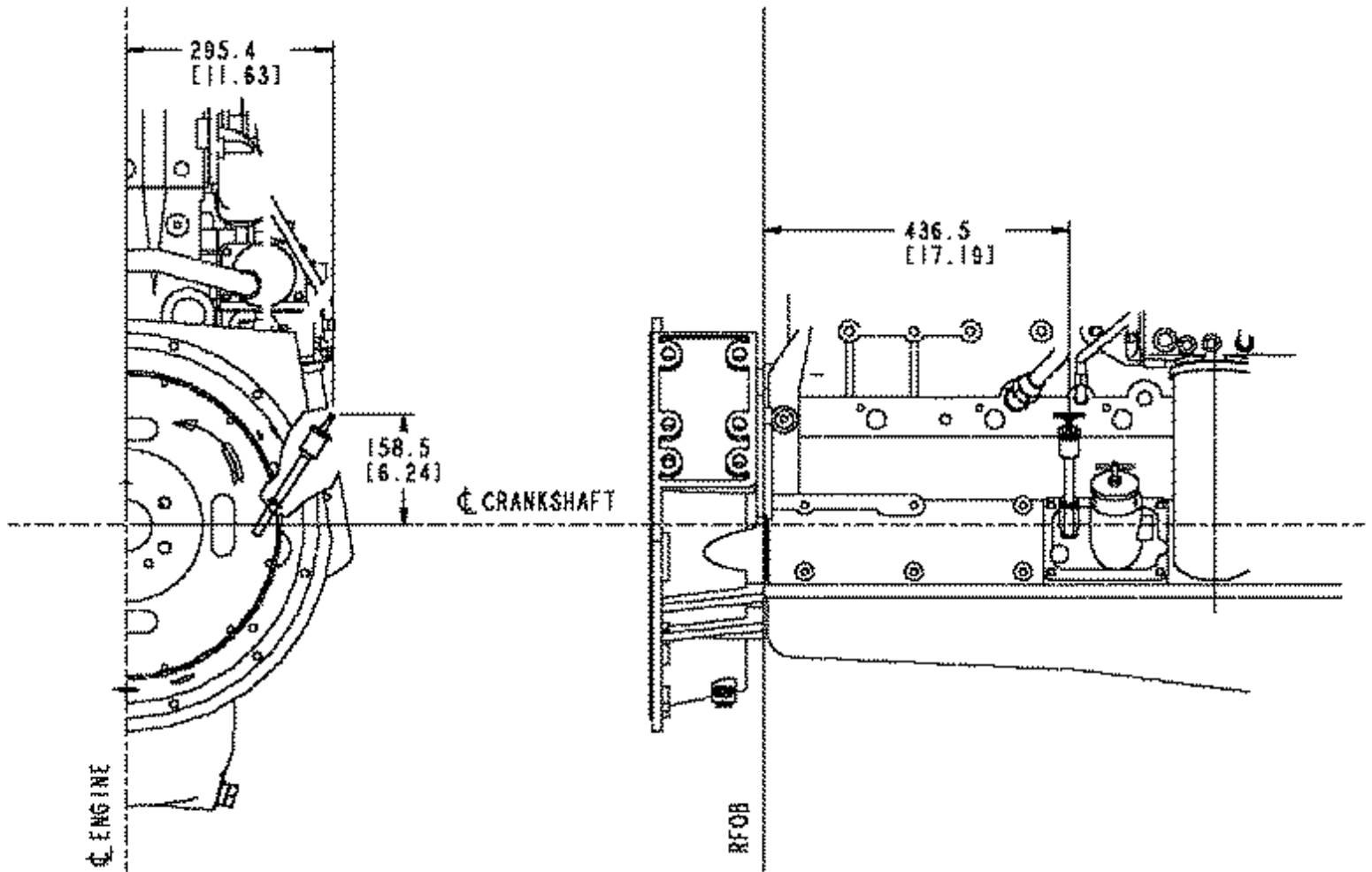
# LG-Keydata

Option #	Handle Orientation	Location of Entry Into Oil Pan	Use With	Power Angle
<a href="#">LG 1018</a>	Right	HHC		0 deg

# LG 1018

## LG - Oil Level Gauge

Revision Date: 06/00



Option #	Handle Orientation	Location of Entry Into Oil Pan	Use With	Power Angle
LG 1018	Right	HHC		0 deg

Oil level dipstick and tube for rear sump oil pan. Calibrated for 0 deg. power angle and 0 deg. tilt. Tube is 114 mm [4.5 in.] long, and press-fit type.

**Note:** Calibrated for 36 L [9.5 U.S. gal.] high and 28.4 L [7.5 U.S. gal.] low.

# LO-Keydata

Option #	Notes
<a href="#">LO 1002</a>	Includes tag stating that engine is filled with lubricating oil

# LO 1002

## LO - Lubricating Oil

Revision Date: 06/00

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**(No Graphics Required)**

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Option #	Notes
LO 1002	Includes tag stating that engine is filled with lubricating oil

Use 15W40 lubricating oil for filling engine prior to shipment. Includes tag stating that engine is filled with lubricating oil.

# LT-Keydata

Option #	Description
<a href="#">LT 1054</a>	N14-G G-Drive engine
<a href="#">LT 1060</a>	Literature

# LT 1054

## LT - Literature

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Description
LT 1054	N14-G G-Drive engine

Literature for N14-G G-Drive engine.

Includes:

- Engine Parts Catalog
- Operation and Maintenance manual

Supplied in kit.

# LT 1060

## LT - Literature

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Description
LT 1060	Literature

Literature for G-Drive engines. This option specifies declaration of incorporation in accordance with E.C. machinery directive 89/392/EEC as amended by E.C. directive 91/368/EEC.

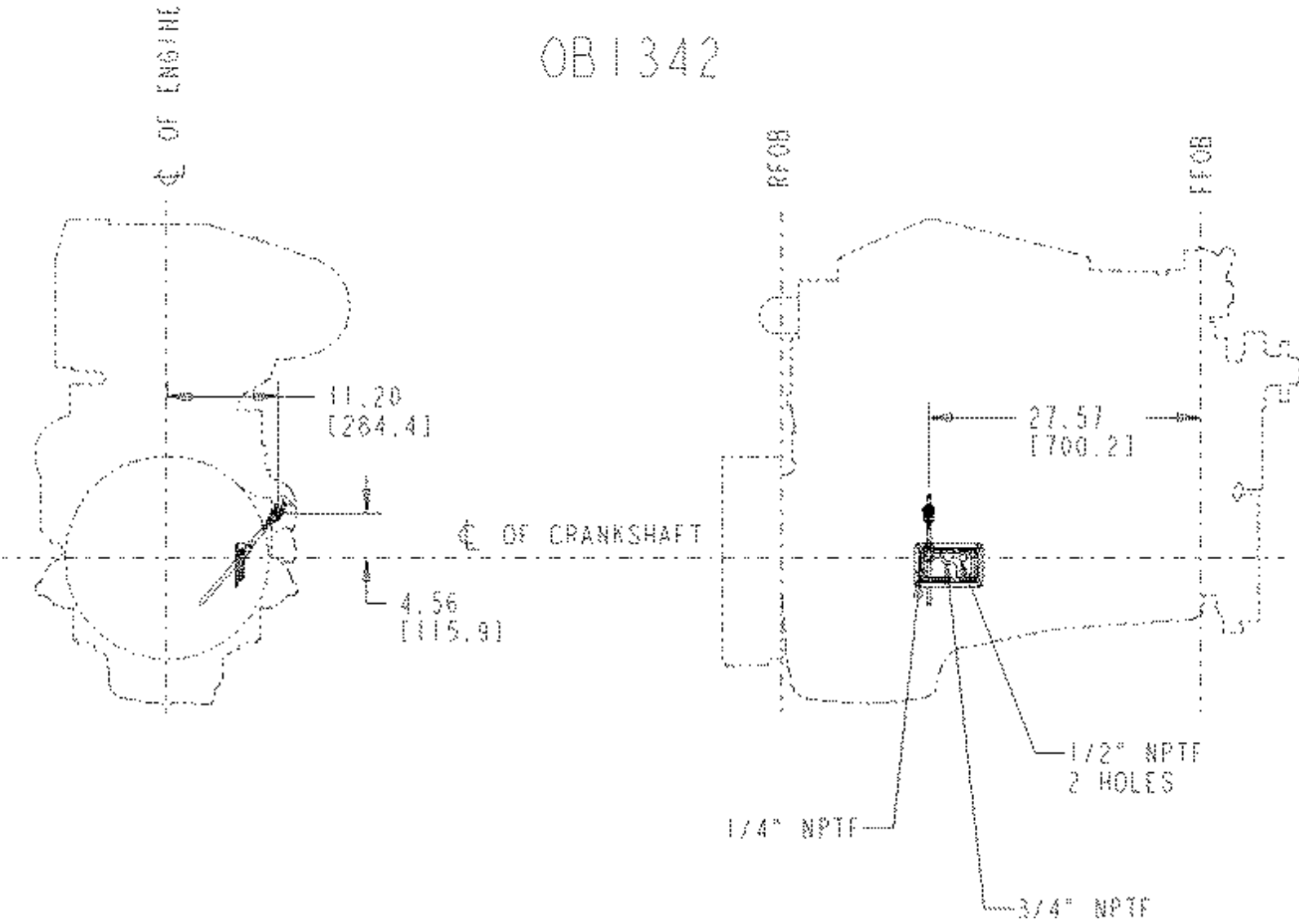
# OB-Keydata

Option #	Location	Fill Type	With Dipstick	Notes
<a href="#">OB 1342</a>	Exhaust side of engine	N/A	Yes	Has provision for press-fit type oil gauge tube
<a href="#">OB 1347</a>	Exhaust side of engine	T-handle	Yes	Has provision for press-fit type oil gauge tube

# OB 1342

## OB - Oil Fill Arrangement

Revision Date: 05/00



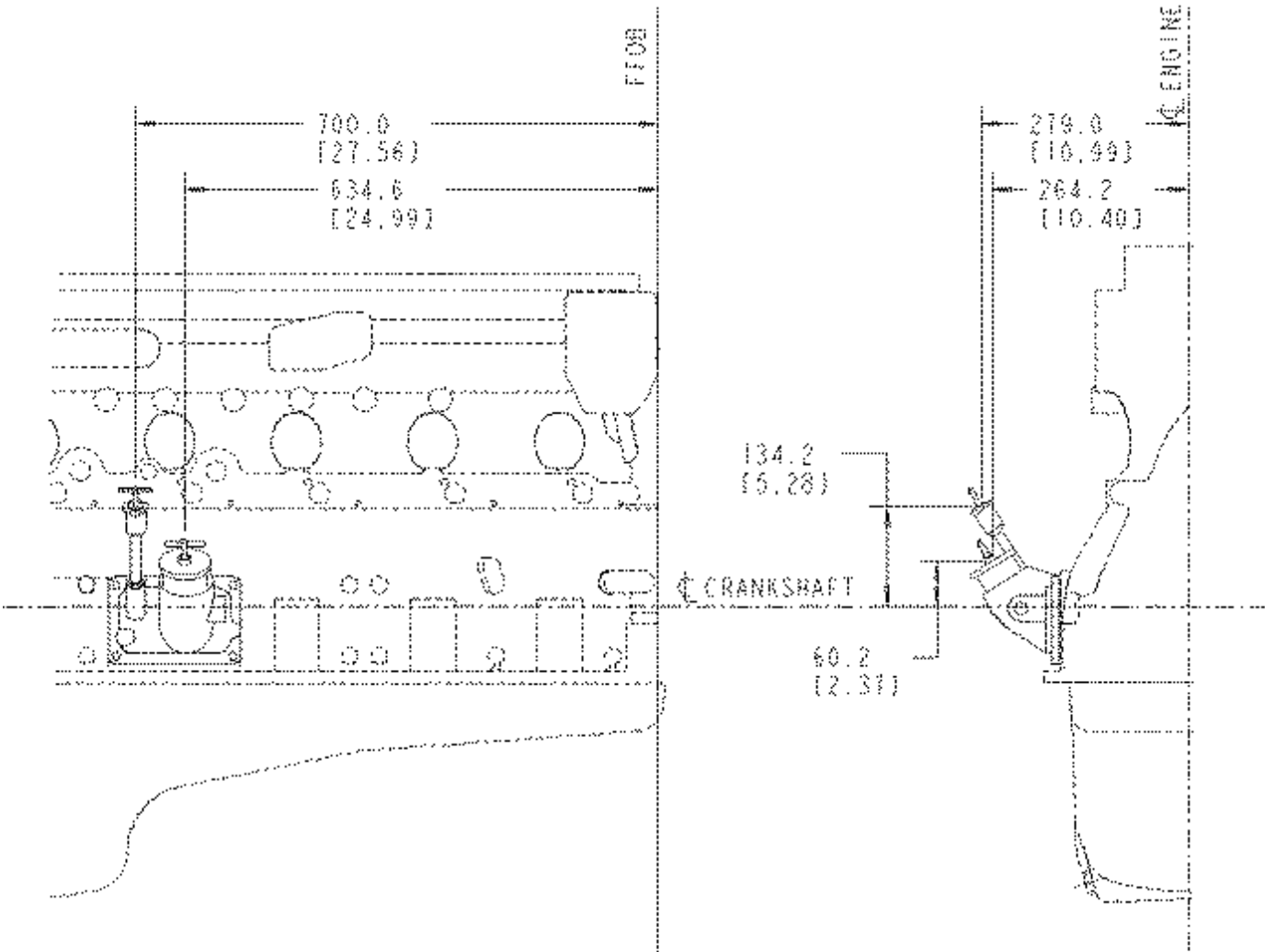
Option #	Location	Fill Type	With Dipstick	Notes
OB 1342	Exhaust side of engine	N/A	Yes	Has provision for press-fit type oil gauge tube

Hand hole cover located on exhaust side of engine.  
 Has provision for press-fit type oil gauge tube.  
 No provision for oil fill.

# OB 1347

## OB - Oil Fill Arrangement

Revision Date: 05/00



**OB1347C**

Option #	Location	Fill Type	With Dipstick	Notes
OB 1347	Exhaust side of engine	T-handle	Yes	Has provision for press-fit type oil gauge tube

Hand hole cover located on exhaust side of engine with 25 mm [1.0 in.] oil filler tube. Has provision for press-fit type oil gauge tube.

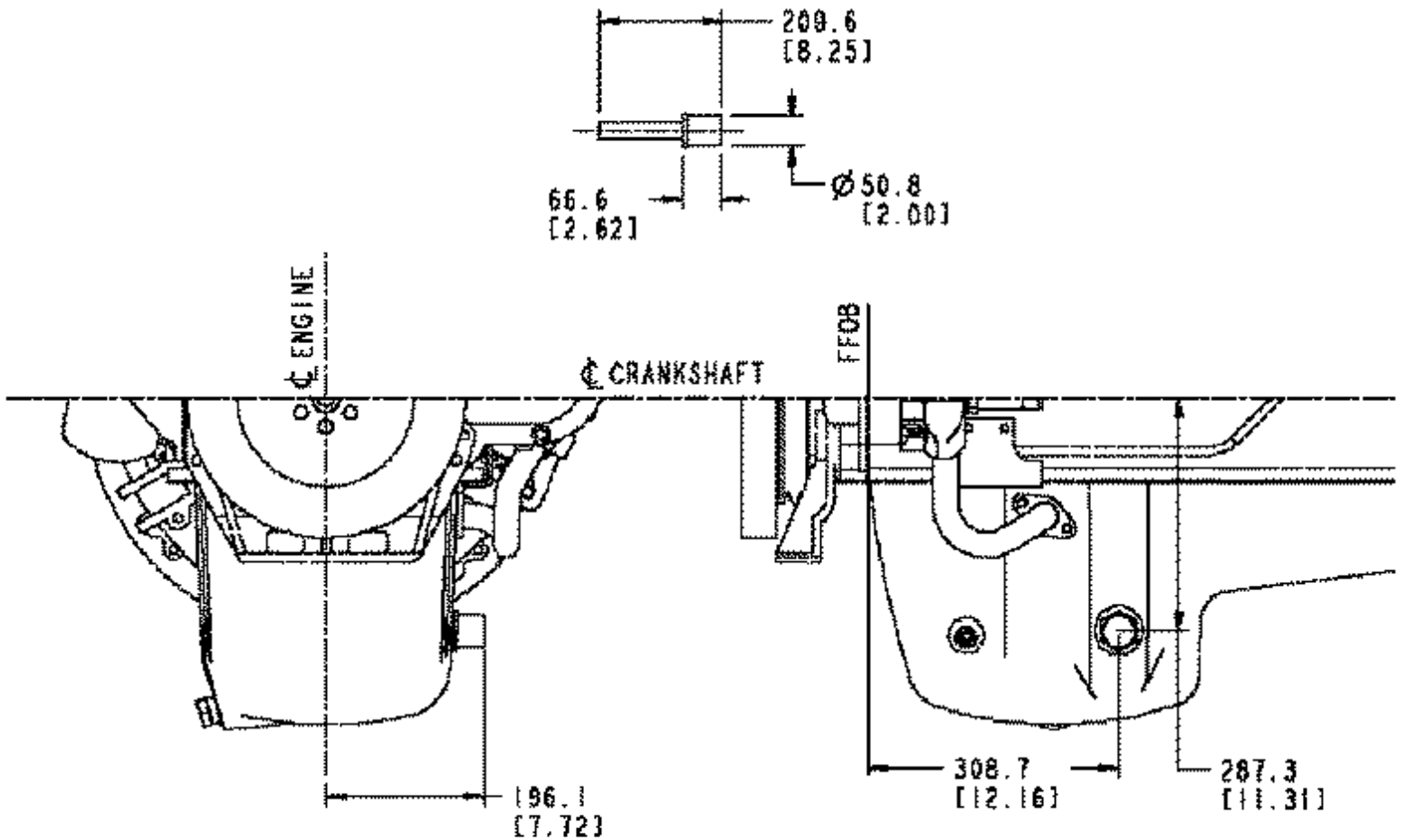
# OH-Keydata

Option #	Description	Voltage/Watts	Cord Length
<a href="#">OH 1003</a>	Factory installed	240V AC, 300W	

# OH 1003

## OH - Oil Heater Starting Aid

Revision Date: 05/00



	WATTS	VOLTS
OH1002	300	120
OH1003	300	240

**OH1003**

Option #	Description	Voltage/Watts	Cord Length
OH 1003	Factory installed	240V AC, 300W	

Mounted 240V AC, 300W oil heater starting aid with provision for cord.

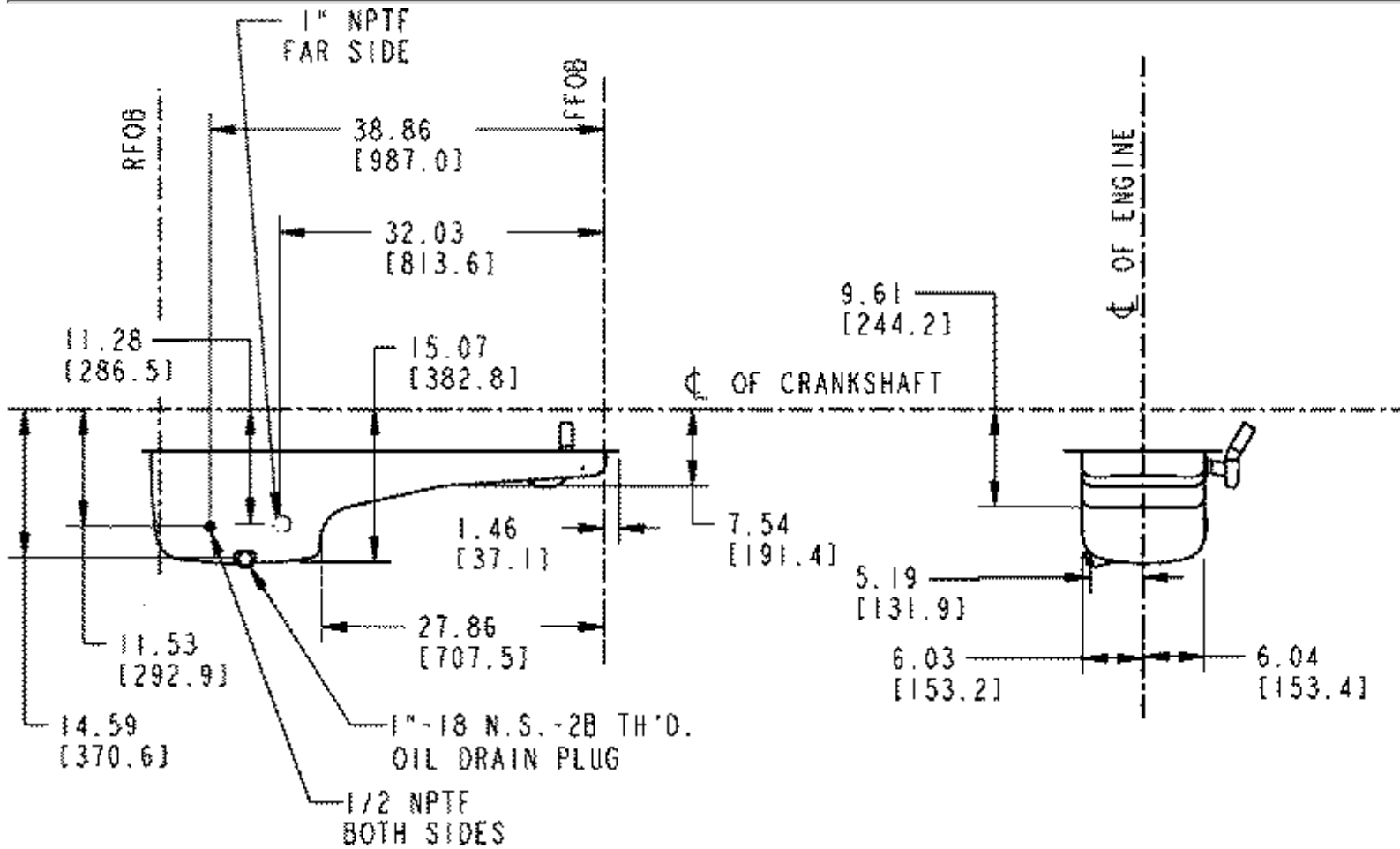
# OP-Keydata

Option #	Type/Material	Sump Location	Angularity	Capacity
<a href="#">OP 1449</a>	Stamped steel	Rear	Front down: 45 deg. Front up: 45 deg. Side to side: 45 deg.	36 L [9.5 U.S. gal]

# OP 1449

## OP - Oil Pan

Revision Date: 04/00



OP1449.MCS

Option #	Type/Material	Sump Location	Angularity	Capacity
OP 1449	Stamped steel	Rear	Front down: 45 deg. Front up: 45 deg. Side to side: 45 deg.	36 L [9.5 U.S. gal]

Rear sump, stamped steel oil pan.

**Angularity**

- Front down: 45 deg.
- Front up: 45 deg.
- Side to side: 45 deg.

**Oil pan capacity:** 36 litres [9.5 U.S. gal.]

# PR-Keydata

Option #	Description
<a href="#">PR 1002</a>	Light
<a href="#">PR 1003</a>	Heavy Tarp-B on FW/FA
<a href="#">PR 1007</a>	Light Ferrocote on FW
<a href="#">PR 1010</a>	Light Ferrocote and cheese cloth on FW/FA

# PR 1002

## PR - Corrosion Preventive

Revision Date: 06/00

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**(No Graphics Required)**

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Option #	Description
PR 1002	Light

“Light” rustproofing on flywheel and fan bracket mounting areas. Use on engines having normal exposure to the environment during shipping and storage.

# PR 1003

## PR - Corrosion Preventative

Revision Date: 06/00

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**(No Graphics Required)**

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Option #	Description
PR 1003	Heavy Tarp-B on FW/FA

“Heavy” rustproofing using Tarp—B on flywheels and fan bracket mounting areas of engines having severe exposure to the environment during shipping and storage (i.e. engines shipped on open trailers, stored in uncontrolled environment storage areas, and/or subjected to salt air).

# PR 1007

## PR - Corrosion Preventative

Revision Date: 06/00

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**(No Graphics Required)**

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Option #	Description
PR 1007	Light Ferrocote on FW

“Light” rustproofing with Ferrocote (5856HF-3) on “flywheels only” of engines having normal exposure to the environment during shipping and storage (i.e. engines shipped on closed trailers and/or stored in controlled environment storage areas).

# PR 1010

## PR — Corrosion Preventative

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Description
PR 1010	Light Ferrocote and cheese cloth on FW/FA

“Light” rustproofing using Ferrocote (5856HF-3) and cheese cloth on flywheel and fan brackets mounting areas of engines having normal exposure to the environment during shipping and storage. (i.e. engines shipped on closed trailers and/or stored in a controlled environment storage areas).

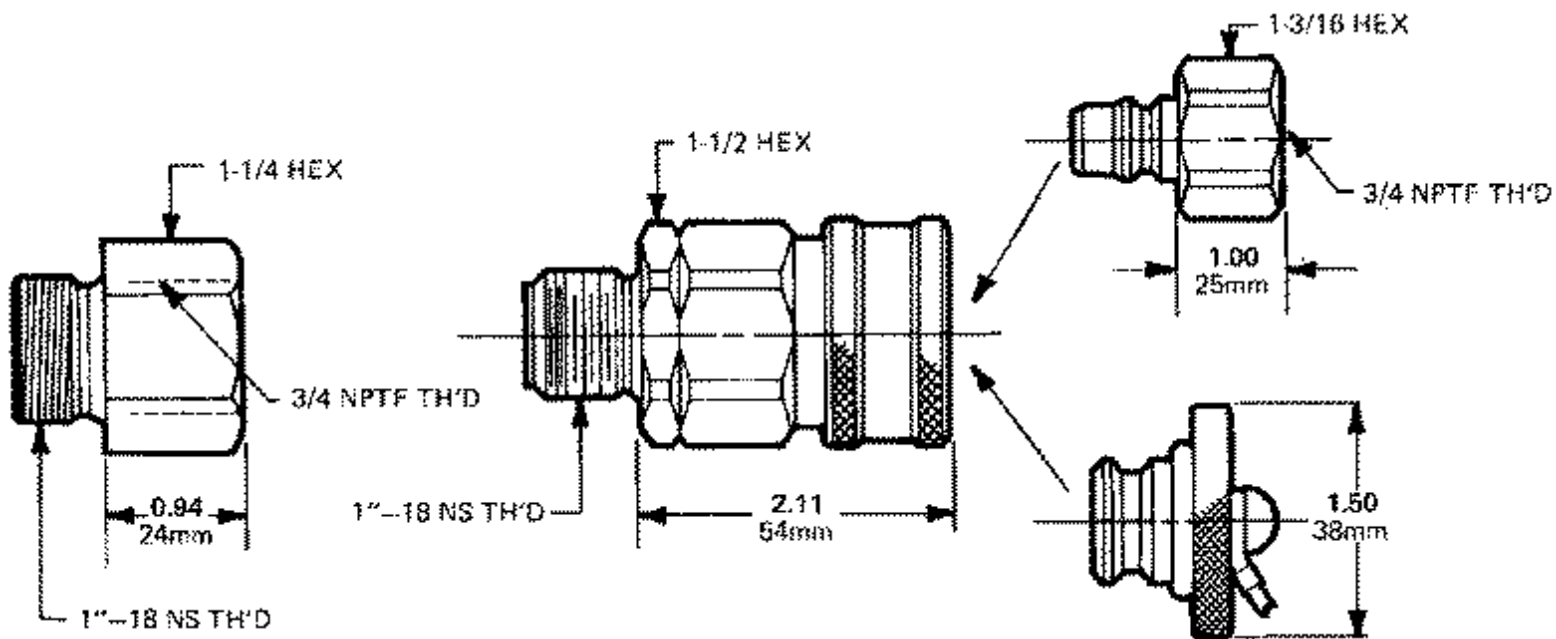
# RD-Keydata

Option #	Supply Method	Connection Type	Components Supplied	Notes
<a href="#">RD 1004</a>	Supplied in kit	Threaded female	Item far left in graphic only	—
<a href="#">RD 1013</a>	Mounted in oil pan		Aluminum or steel stamped	

# RD 1004

## RD - Remote Oil Drain

Revision Date: 05/00



Option #	Supply Method	Connection Type	Components Supplied	Notes
RD 1004	Supplied in kit	Threaded female	Item far left in graphic only	—

Oil pan drain adapter with 3/4 in. NPTF for remote drain.

**Supplied in kit.**

# RD 1013

## RD - Remote Oil Drain

Revision Date: 03/00



Option #	Supply Method	Connection Type	Oil Pan Material
RD 1013	Mounted in oil pan		Aluminum or steel stamped

Remote oil drain.

Supply Method: Mounted in oil pan

Items included: 1-18 UNS-2A threaded shutoff valve

Oil Pan Material: Aluminum or steel stamped

**This is an oil drain that uses a locking draincock in place of the standard drain plug for quick drainage.**

# SD-Keydata

Option #	Type	Description
<a href="#">SD 1030</a>		
<a href="#">SD 1031</a>		
<a href="#">SD 1032</a>		
<a href="#">SD 1037</a>		
<a href="#">SD 1038</a>		

# SD 1030

## SD - Monitoring Switches

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Type	Description
SD 1030		

Oil Pressure switch

Mounting: 1/8 NPT

Activates: 35 +/- 3 PSI [71.3 +/- 6.1 in. Hg]

Deactivates: 25 +/- 3 PSI [50.9 +/- 6.1 Hg]

Includes adaptive harness (Packard Part No. 12047911).

# SD 1031

## SD - Monitoring Switches

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Type	Description
SD 1031		

Coolant temperature switch

Mounting: 1/2 NPT

Activates: 106 +/- 1.7 °C [223 +/- 3 °F]

Deactivates: 103 +/- 1.7 °C [218 +/- 3 °F]

Includes adaptive harness (Packard Part No. 12047911).

# SD 1032

## SD - Monitoring Switches

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Type	Description
SD 1032		

Coolant pressure switch

Mounting: 1/2 NPT

Activates: 14 PSI [28.5 in. Hg] Max.

Deactivates: 6 +/- 2 PSI [12 +/- 4 in. Hg]

Includes adaptive harness (Packard Part No. 12047911).

# SD 1037

## SD - Monitoring Switches

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Type	Description
SD 1037		

Overspeed switch.

Barber-Colman Dynalco 24V solid state triple element speed switch with manual reset for crank cut-out, paralleling and overspeed shutdown.

For use with semi-automatic or automatic paralleling.

Adjustment range of N.O. crank cut-out contact 300-700 RPM; set to trip at 325 RPM.

Adjustment range of N.O. paralleling contact 600-2100 RPM; set to trip at 800 RPM.

Adjustment range of N.O. and N.C. overspeed shutdown contacts 1500-4000 RPM; set to trip at 2070 RPM.

Supplied in kit.

**Note:** NOTE: The above settings are for SAE #0 flywheels with 142 teeth in the ring gear. When used with SAE #1 flywheel with 118 teeth or SAE #00 flywheel with 168 teeth, switch must be re-adjusted to correct speed. Requires magnetic pick-up, contained in dependent option EO 1701 for operation.

# SD 1038

## SD - Monitoring Switches

Revision Date: 03/00

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**(No Graphics Required)**

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Option #	Type	Description
SD 1038		

Engine monitoring system.

Two low lube oil pressure switches. One switch provides an alarm on decreasing pressure at 124 +/- 14 kPa [18 +/- 2 PSI].

A second switch shuts the engine down on decreasing pressure at 83 +/- 14 kPa [12 +/- 2 PSI].

Two high coolant temperature switches. One switch provides an alarm on increasing temperature at 102 +/- 1.7 °C [215 +/- 3 °F].

A second switch shuts the engine down on increasing temperature at 106 +/- 1.7 °C [223 +/- 3 °F]

A separate low coolant temperature switch provides an alarm on decreasing temperature at 32 +/- 1 °C [90 +/- 2 °F].

**Cannot be used with Cummins supplied engine wiring harness.**

# SK-Keydata

Option #	Description	Disposition	Material	Notes
<a href="#">SK 1005</a>	Skid used with fan to flywheel engine.		Wooden box	No content option
<a href="#">SK 1006</a>	Front shipping bracket and mounting screws for fan to flywheel bare engine		Wooden skid	Domestic use only
<a href="#">SK 1007</a>	Skid for fan to flywheel engine		Wooden	Domestic use only
<a href="#">SK 1008</a>	Front shipping bracket for fan to flywheel bare engine		Wooden skid	For international use only
<a href="#">SK 1011</a>	Export boxing for shipment of engine equipped with front support		Wooden	Use on units already equipped with a front support

# SK 1005

## SK - Shipping Skid

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Description	Disposition	Material	Notes
SK 1005	Skid used with fan to flywheel engine.		Wooden box	No content option

No content option.

Wooden box-type shipping skid used with fan to flywheel engine.

# SK 1006

## SK - Shipping Skid

Revision Date: 05/00

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**(No Graphics Required)**

Option #	Description	Disposition	Material	Notes
SK 1006	Front shipping bracket and mounting screws for fan to flywheel bare engine		Wooden skid	Domestic use only

Front shipping bracket and mounting screws for fan to flywheel bare engine on wooden shipping skid.

**For domestic use only.**

# SK 1007

## SK - Shipping Skid

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Description	Disposition	Material	Notes
SK 1007	Skid for fan to flywheel engine		Wooden	Domestic use only

No content option.

Wooden shipping skid for fan to flywheel engine.

**For domestic use only.**

# SK 1008

## SK - Shipping Arrangement

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Description	Disposition	Material	Notes
SK 1008	Front shipping bracket for fan to flywheel bare engine		Wooden skid	For international use only

Front shipping bracket for fan to flywheel bare engine on wooden shipping skid

**For international use only.**

# SK 1011

## SK - Shipping Arrangement

Revision Date: 05/00

**(No Graphics Required)**

Option #	Description	Disposition	Material	Notes
SK 1011	Export boxing for shipment of engine equipped with front support		Wooden	Use on units already equipped with a front support

Export boxing for shipment of engine equipped with front support.

Does not contain shipping bracket.

**Does not contain shipping bracket.**

**Use on units already equipped with a front support.**

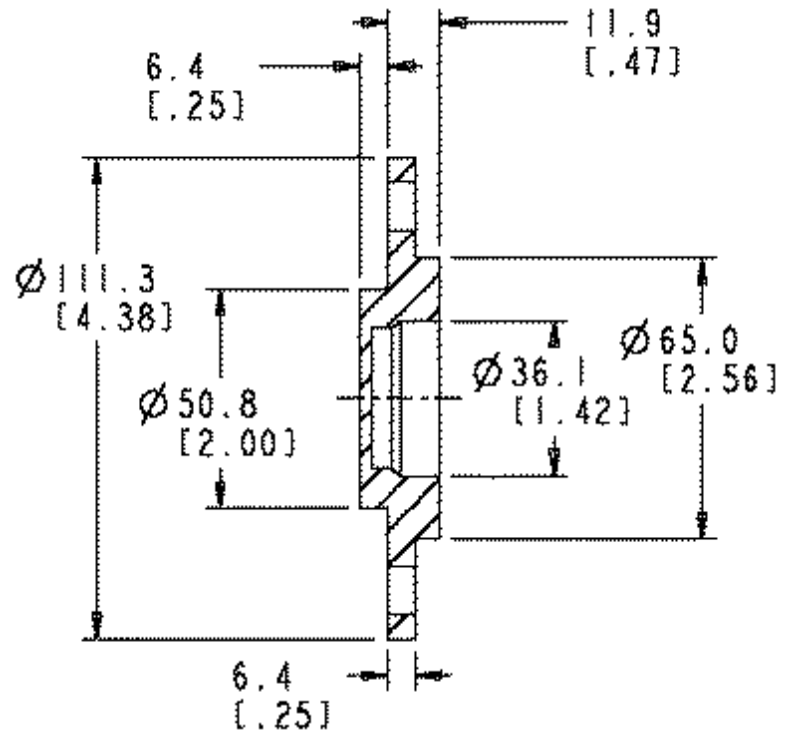
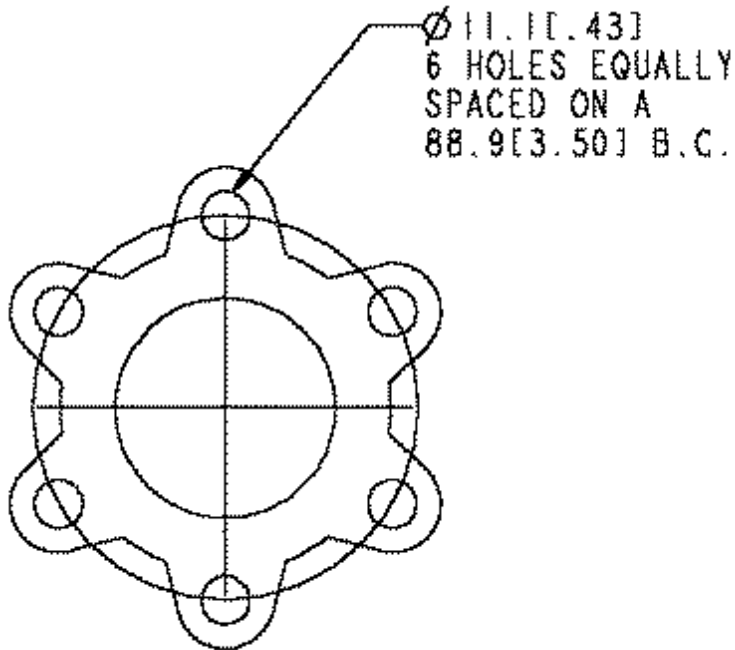
# SP-Keydata

Option #	Description	Thickness	Bolt Circle Dia.	Notes
<a href="#">SP 1035</a>		6 mm [0.25 in.]	89 mm [3.5 in.]	
<a href="#">SP 1036</a>		19 mm [0.75 in.]	89 mm [3.5 in.]	
<a href="#">SP 1042</a>		9 mm [0.3 in.]	140 mm [5.5 in.]	
<a href="#">SP 1048</a>		63 mm [2.5 in.]	140 mm [5.5 in.]	
<a href="#">SP 1057</a>	Fan spacer	25 mm [1.0 in.]	140 mm [5.5 in.]	

# SP 1035

## SP - Fan Spacer

Revision Date: 05/00



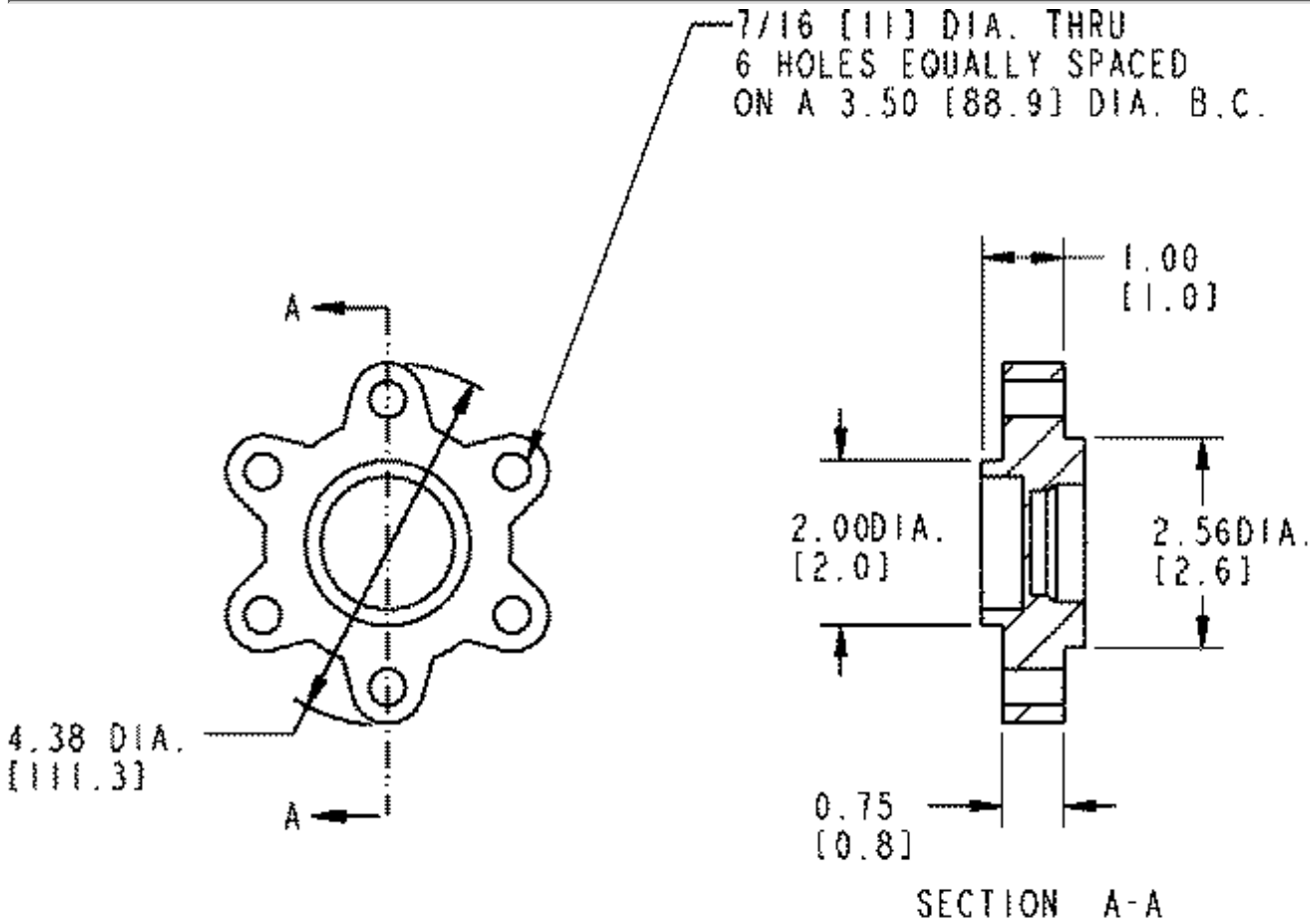
Option #	Description	Thickness	Bolt Circle Dia.	Notes
SP 1035		6 mm [0.25 in.]	89 mm [3.5 in.]	

Fan pilot and spacer providing 6 mm [0.25 in.] total spacing. Has 51 mm [2.0 in.] fan pilot. Fits hubs with 65 mm [2.6 in.] bore. Six mounting holes on 89 mm [3.5 in.] B.C.

# SP 1036

## SP - Fan Spacer

Revision Date: 05/00



SP1036.MCS

Option #	Description	Thickness	Bolt Circle Dia.	Notes
SP 1036		19 mm [0.75 in.]	89 mm [3.5 in.]	

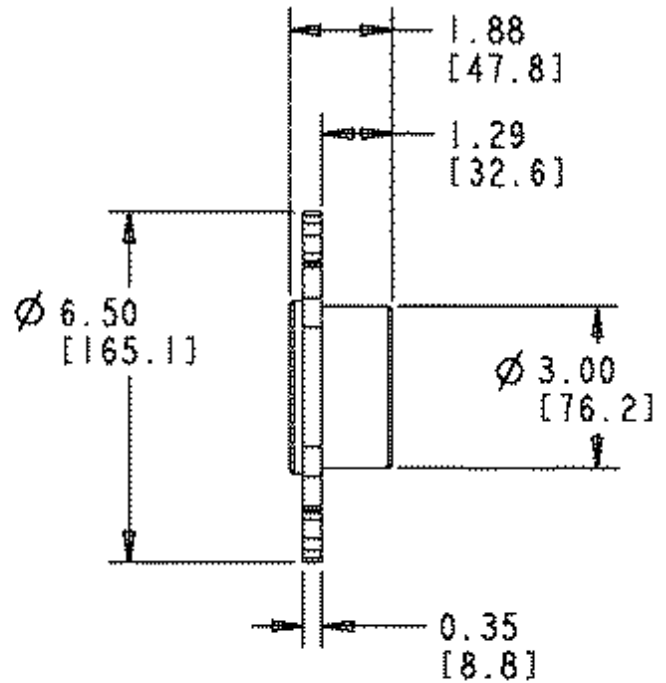
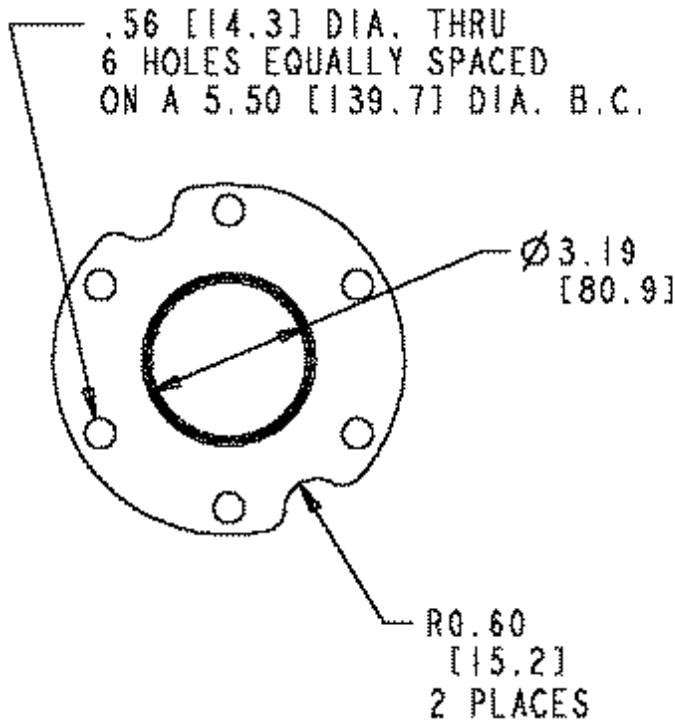
Fan pilot and spacer providing 19 mm [0.75 in.] total spacing. Has 51 mm [2.0 in.] fan pilot. Fits hubs with 65 mm [2.6 in.] bore. Six mounting holes on 89 mm [3.5 in.] B.C.  
Supplied in kit.

# SP 1042

## SP - Fan Spacer

Revision Date: 05/00

SP1042



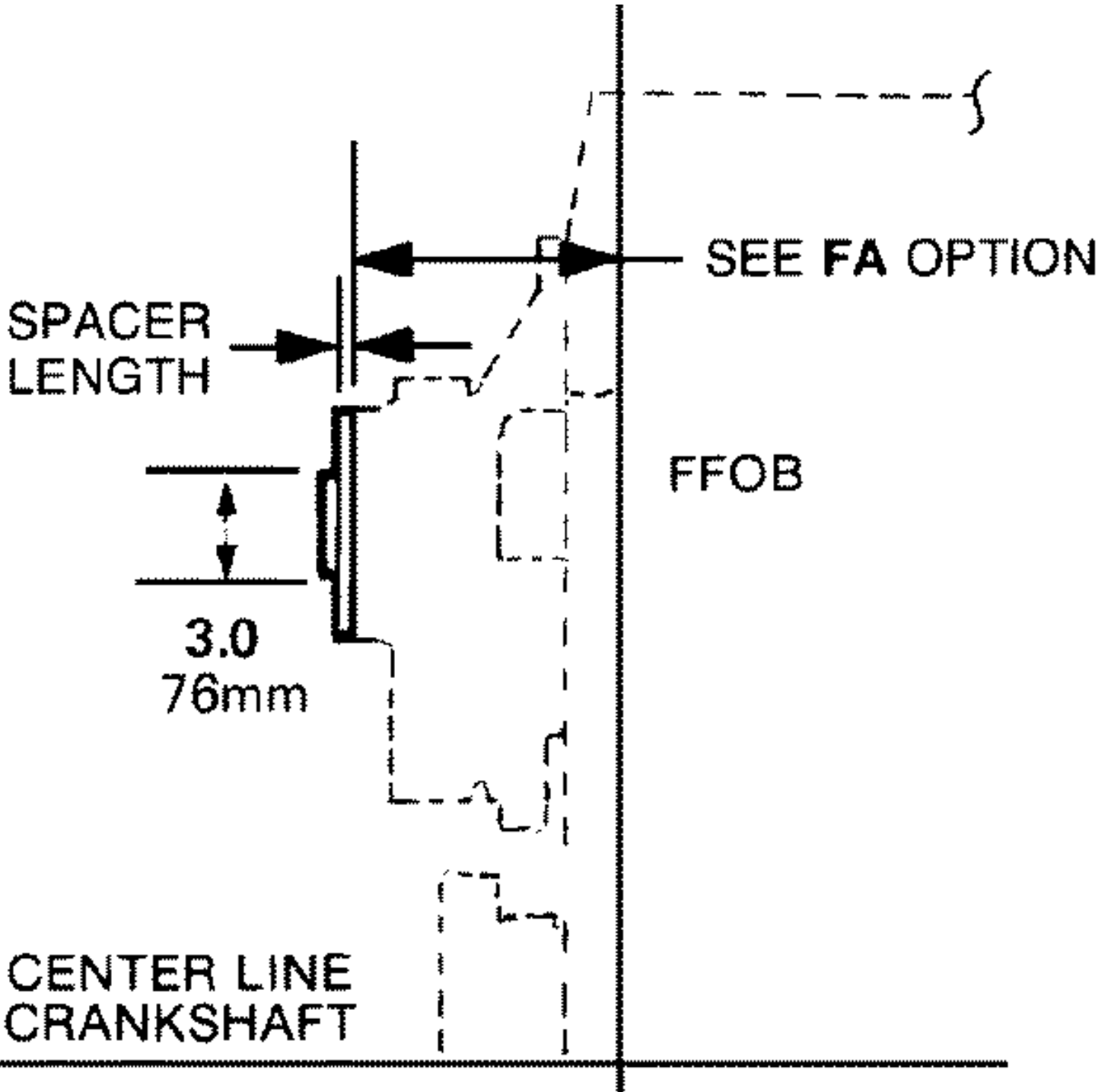
Option #	Description	Thickness	Bolt Circle Dia.	Notes
SP 1042		9 mm [0.3 in.]	140 mm [5.5 in.]	

Fan hub pilot only providing 9 mm [0.3 in.] total spacing. Has 76 mm [3.0 in.] fan pilot. Fits hubs with 81 mm [3.2 in.] bore. Six mounting holes on 140 mm [5.5 in.] B.C.

# SP 1048

## SP - Fan Spacer

Revision Date: 05/00



Option #	Description	Thickness	Bolt Circle Dia.	Notes
SP 1048		63 mm [2.5 in.]	140 mm [5.5 in.]	

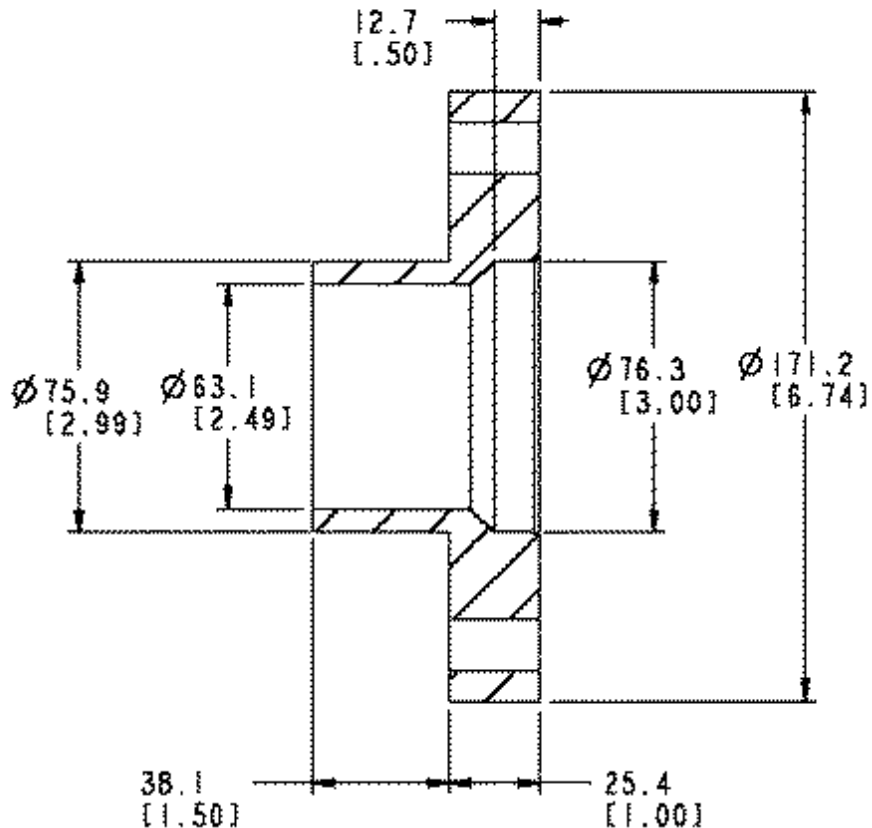
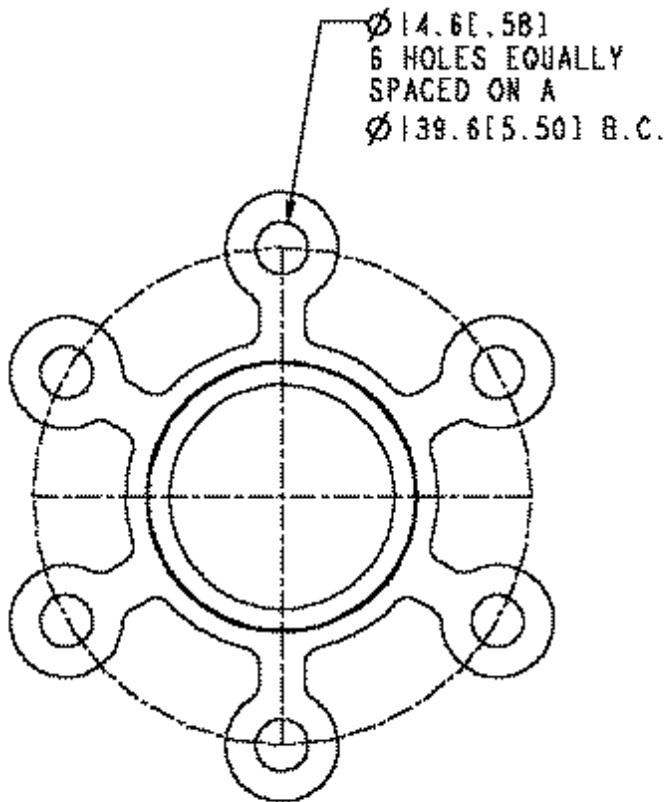
SP 1048

Fan pilot and spacer providing 63 mm [2.5 in.] total spacing. Has 76 mm [3.0 in.] fan pilot. Fits hubs with 65 mm [2.6 in.] bore. Six mounting holes on 140 mm [5.5 in.] B.C.

# SP 1057

## SP - Fan Spacer

Revision Date: 05/00



Option #	Description	Thickness	Bolt Circle Dia.	Notes
SP 1057	Fan spacer	25 mm [1.0 in.]	140 mm [5.5 in.]	

Fan pilot and spacer providing 25 mm [1.0 in.] fan spacing. Has 76 mm [3.0 in.] fan pilot and six mounting holes on a 140 mm [5.5 in.] B.C.

# SS-Keydata

Option #	Description
<a href="#">SS 1079</a>	Beige paint

# SS 1079

## SS - Paint

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Description
SS 1079	Beige paint

Cummins beige paint. Includes primer.

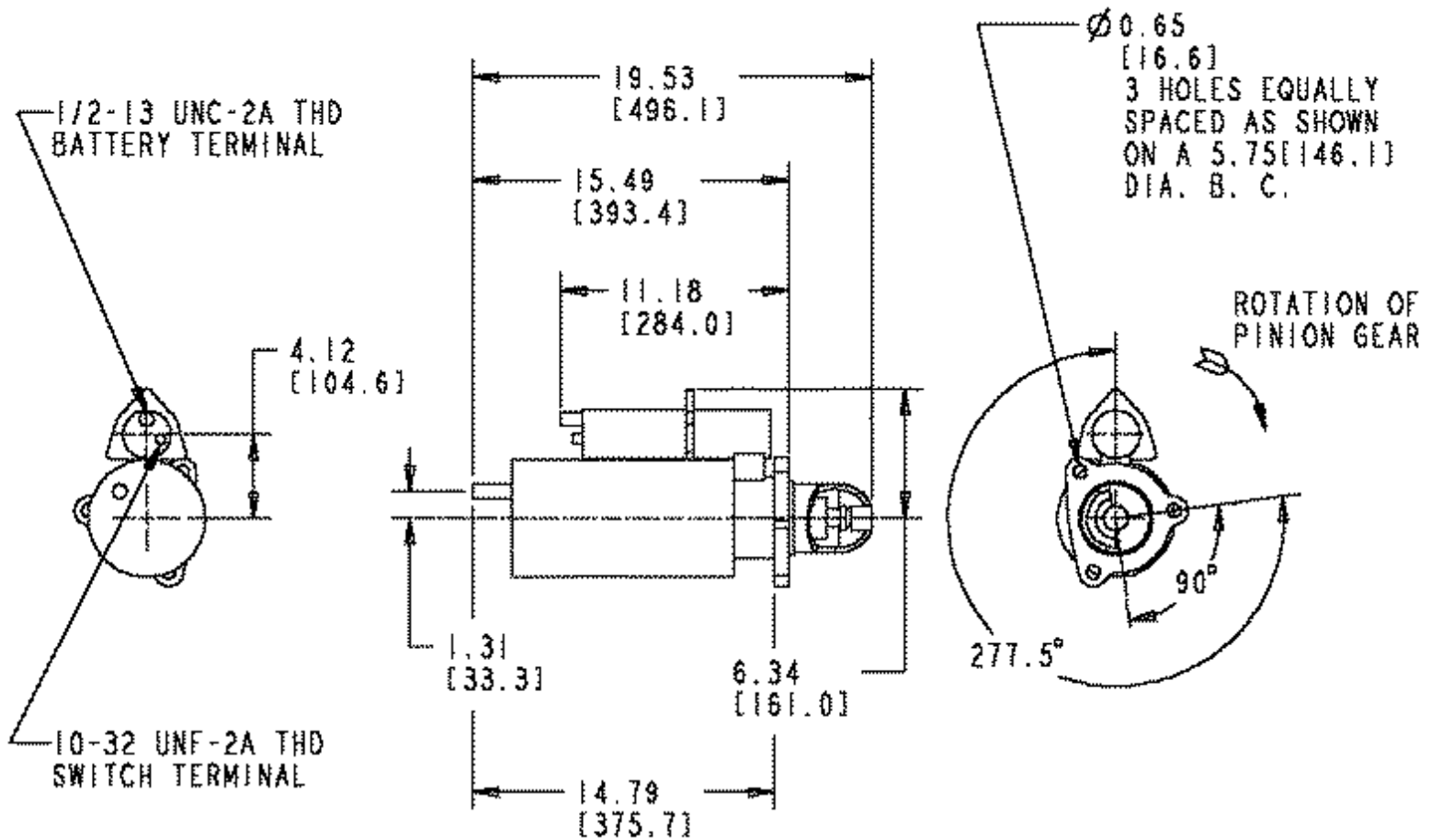
# ST-Keydata

Option #	Voltage/kW	Mfg/Model	Pinion Gear Pitch	Notes
<a href="#">ST 1340</a>	24V/25 kW	Delco Remy 42MT 400	6/8	Solenoid angle: 277.5 degrees
<a href="#">ST 1343</a>				Customer supplied starting motor

# ST 1340

## ST - Starting Motor

Revision Date: 03/00



# ST 1340

Option #	Voltage/kW	Mfg/Model	Pinion Gear Pitch	Notes
ST 1340	24V/25 kW	Delco Remy 42MT 400	6/8	Solenoid angle: 277.5 degrees

24V Delco Remy 42MT, type 400 positive engagement starter with solenoid positioned at 277.5 deg. Right hand (clockwise) rotation.

UNIQUE CHARACTERISTICS: Insulated and with ground strap.

Starter Location: 2nd Quadrant

Starter Length: 496 mm [19.53 in.]

# ST 1343

## ST - Starting Motor

Revision Date: 05/00

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**(No Graphics Required)**

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Option #	Voltage/kW	Mfg/Model	Pinion Gear Pitch	Notes
ST 1343				Customer supplied starting motor

No content option for customer supplied motor.

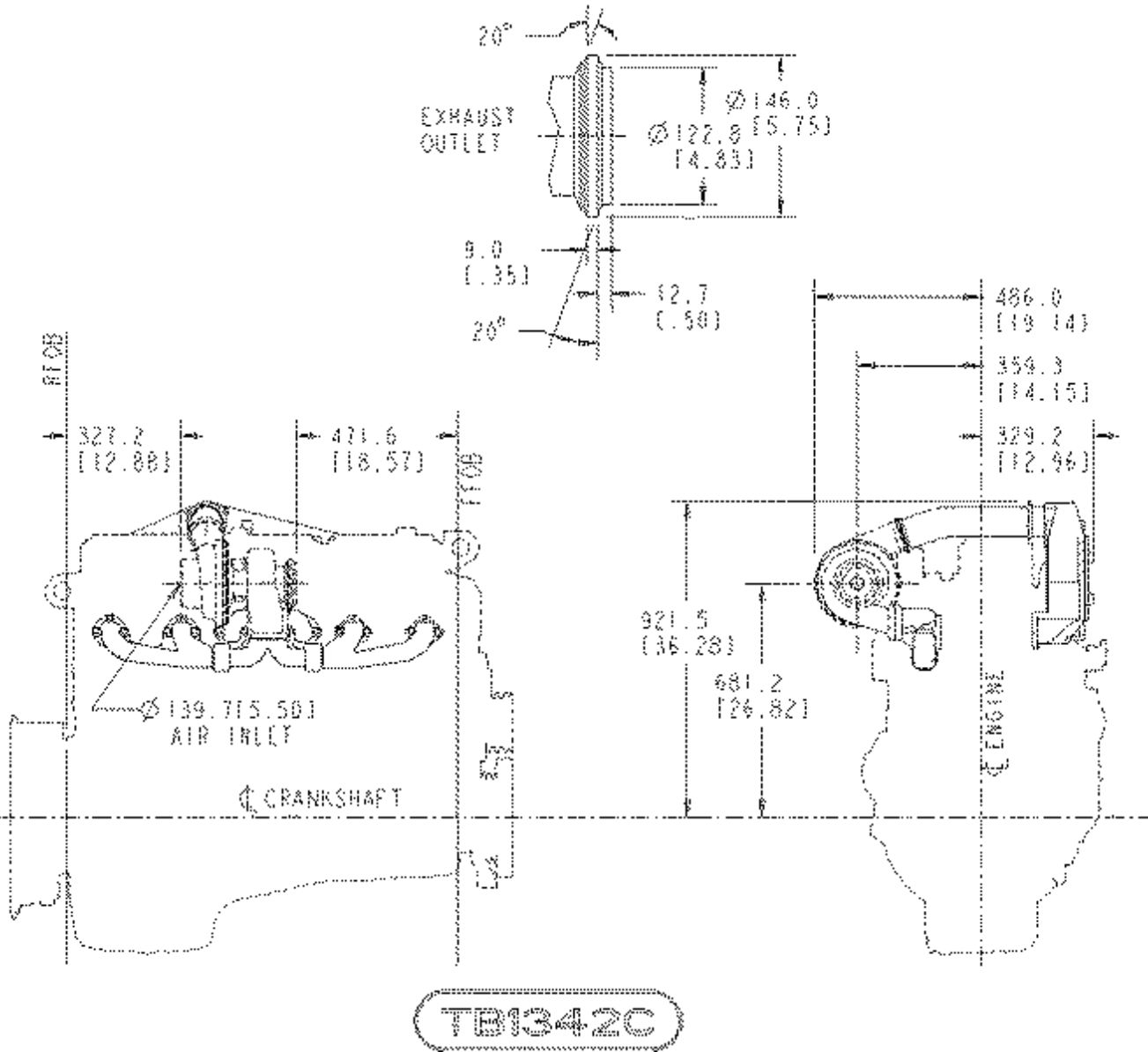
# TB-Keydata

Option #	Mount/Exhaust Outlet Location	Wastegate	Water-Cooled	Notes
<a href="#">TB 1342</a>	High mount/front out	No	No	JWAC

# TB 1342

## TB - Turbocharger Arrangement

Revision Date: 05/00



**TB1342C**

Option #	Mount/Exhaust Outlet Location	Wastegate	Water-Cooled	Notes
TB 1342	High mount/front out	No	No	JWAC

Three piece exhaust manifold and mounting for front out turbo with vertical mounting flange. Used with rear aftercooler plumbing. Includes air intake manifold, aftercooler core and mounting.

# TH-Keydata

Option #	Description	Outlet Diameter	Notes
<a href="#">TH 1139</a>		64 mm [2.50 in.] and is oriented straight upward	
<a href="#">TH 1141</a>		64 mm [2.50 in.] and is oriented straight upward	

# TH 1139

## TH - Water Outlet Connection

Revision Date: 03/00



Option #	Description	Outlet Diameter	Notes
TH 1139		64 mm [2.50 in.] and is oriented straight upward	

Thermostat housing.

Dual thermostat housing and mounting to water pump for engines without automatic transmissions and without air compressor. Water outlet O.D. is cast 64 mm [2.50 in.] and is oriented straight upward. Located 787 mm [31 in.] vertical and 203 mm [8.0 in.] outboard from the crankshaft centerline and 102 mm [4.0 in.] rearward from FFOB.

# TH 1141

## TH - Water Outlet Connection

Revision Date: 03/00



Option #	Description	Outlet Diameter	Notes
TH 1141		64 mm [2.50 in.] and is oriented straight upward	

Thermostat housing.

Dual thermostat housing and mounting to water pump. For engines without automatic transmissions and without air compressor. Water outlet O.D. is cast 64 mm [2.50 in.] and is oriented straight forward. The outlet is located 762 mm [30 in.] up and 203 mm [8.0 in.] outboard from the crankshaft centerline and 25 mm [1.0 in.] forward from the FFOB.

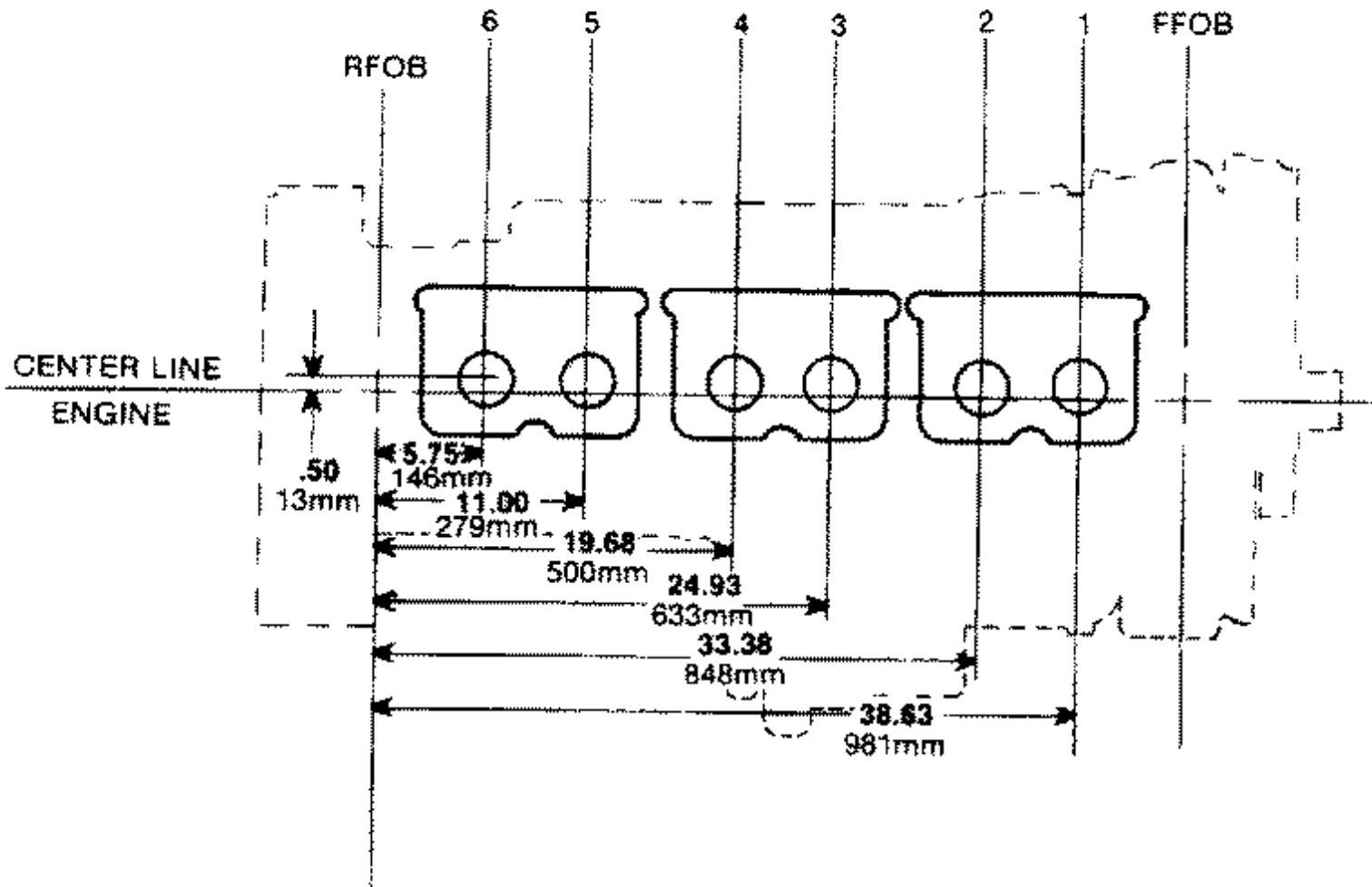
# VC-Keydata

Option #	Description	Oil Fill Location	Breather Included	Notes
<a href="#">VC 1031</a>	Cast aluminum	Over No. 1 cylinder	Yes	Breather located over No. 6 cylinder
<a href="#">VC 1037</a>	Stamped steel	Over No. 1 cylinder	Yes	Breather located over No. 6 cylinder
<a href="#">VC 1046</a>	Cast aluminum	Hand hole cover	Yes	Breather located over No. 6 cylinder
<a href="#">VC 1047</a>	Stamped steel	Hand hole cover	Yes	Breather located over No. 6 cylinder

# VC 1031

## VC - Valve Cover

Revision Date: 05/00



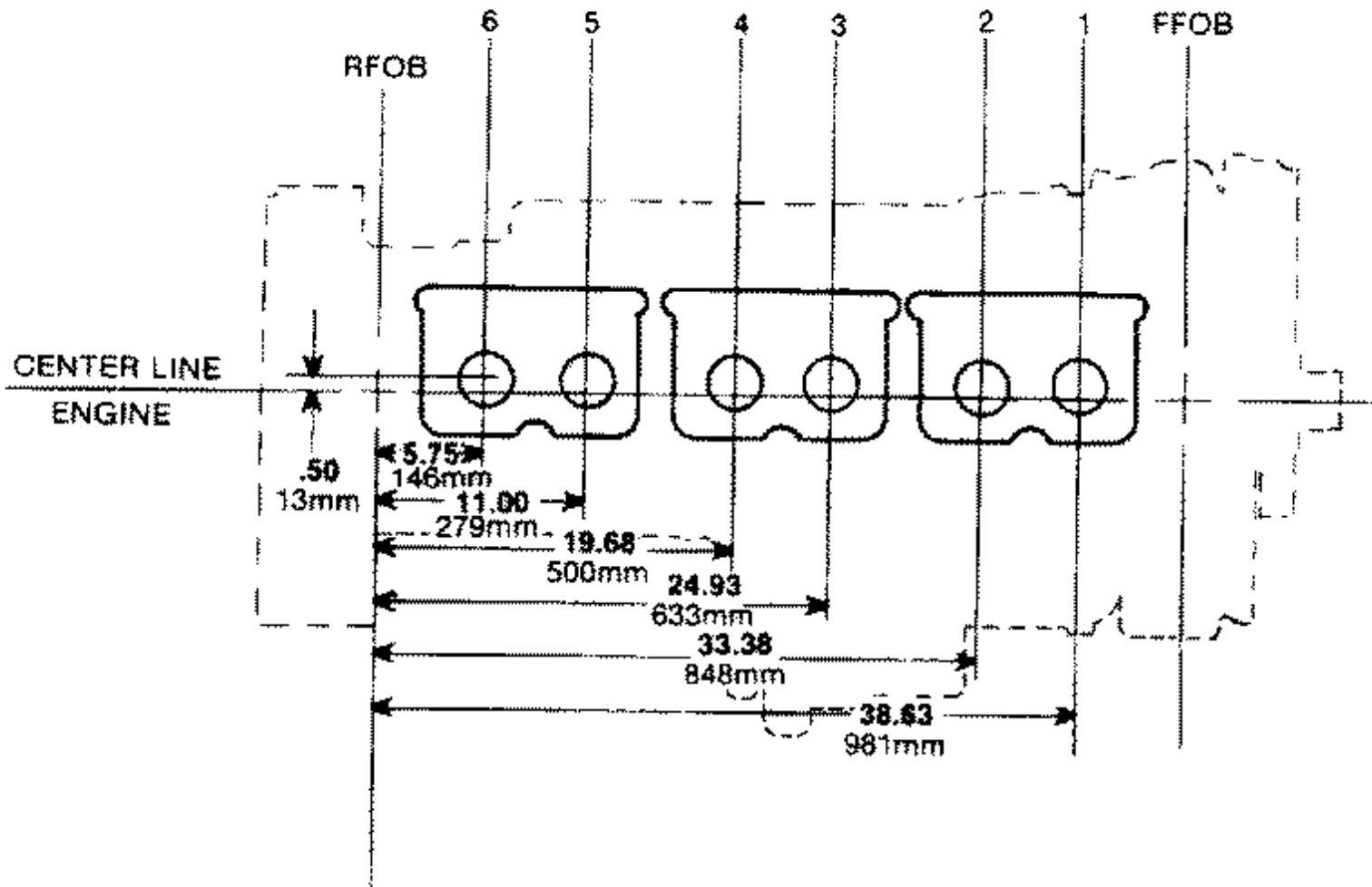
Option #	Description	Oil Fill Location	Breather Included	Notes
VC 1031	Cast aluminum	Over No. 1 cylinder	Yes	Breather located over No. 6 cylinder

Cast aluminum red valve cover with oil fill over No. 1 cylinder and breather located over No. 6 cylinder.

# VC 1037

## VC - Valve Cover

Revision Date: 05/00



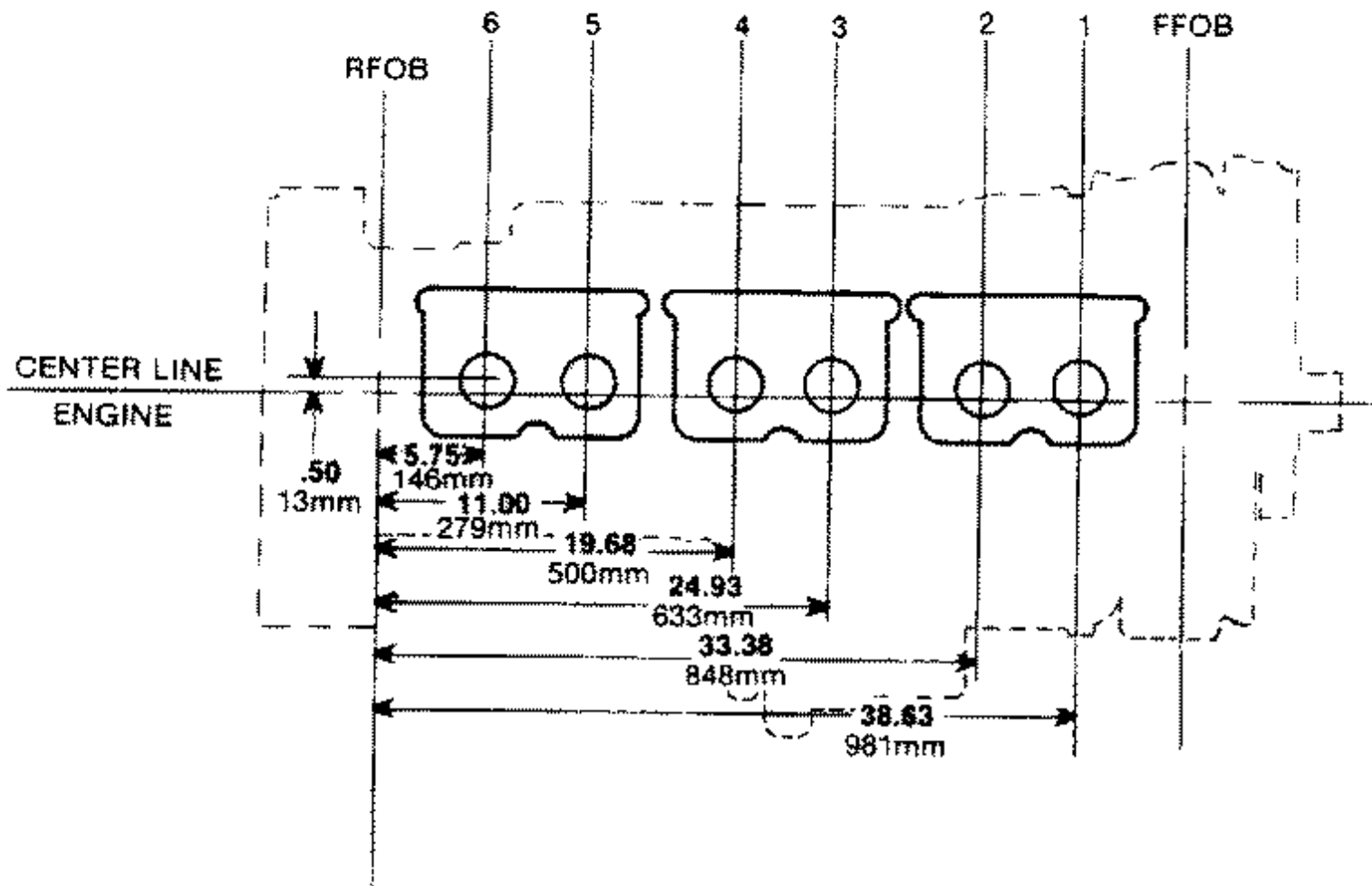
Option #	Description	Oil Fill Location	Breather Included	Notes
VC 1037	Stamped steel	Over No. 1 cylinder	Yes	Breather located over No. 6 cylinder

Stamped steel valve cover with oil fill over No. 1 cylinder and breather located over No. 6 cylinder.

# VC 1046

## VC - Valve Cover

Revision Date: 06/00



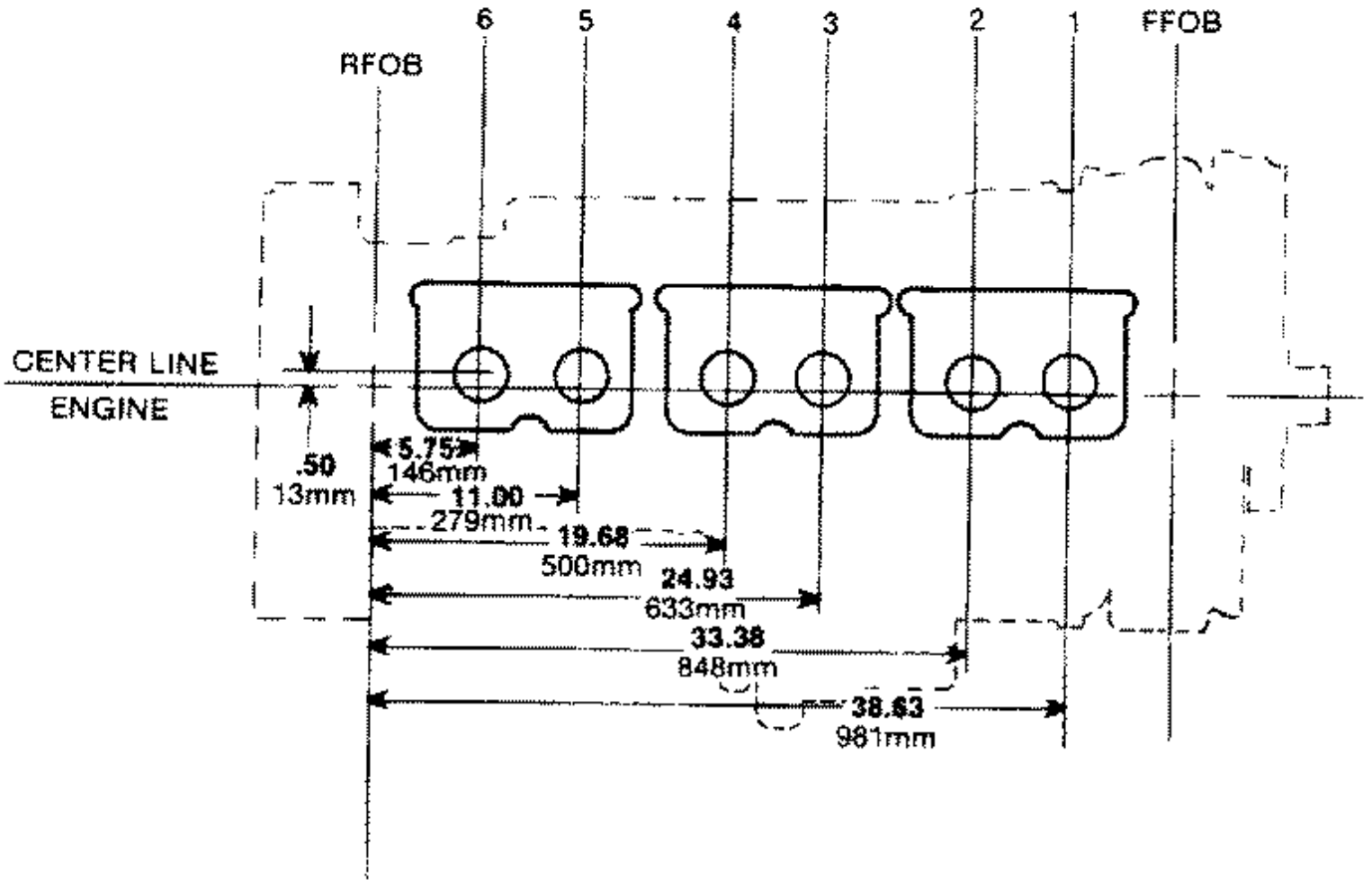
Option #	Description	Oil Fill Location	Breather Included	Notes
VC 1046	Cast aluminum	Hand hole cover	Yes	Breather located over No. 6 cylinder

Cast aluminum red valve cover with oil fill in hand hole cover and breather located over No. 6 cylinder.

# VC 1047

## VC - Valve Cover

Revision Date: 06/00



Option #	Description	Oil Fill Location	Breather Included	Notes
VC 1047	Stamped steel	Hand hole cover	Yes	Breather located over No. 6 cylinder

Stamped steel valve cover with oil fill in hand hole cover and breather located over No. 6 cylinder.

# VT-Keydata

Option #	Location	Notes
<a href="#">VT 1002</a>	Pan rail toward rear of engine	For use with non-CENTRY™ fuel pumps and without SAE B hydraulic pump behind oil pump

# VT 1002

## VT - Variable Timing Valve Location

Revision Date: 05/00

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**(No Graphics Required)**

Option #	Location	Notes
VT 1002	Pan rail toward rear of engine	For use with non-CENTRY™ fuel pumps and without SAE B hydraulic pump behind oil pump

No content option (only a pointer to selection) for low mount oil control valve located on pan rail toward rear of engine.

**For use with or without fuel line check valves and without SAE-B hydraulic pump behind oil pump.**

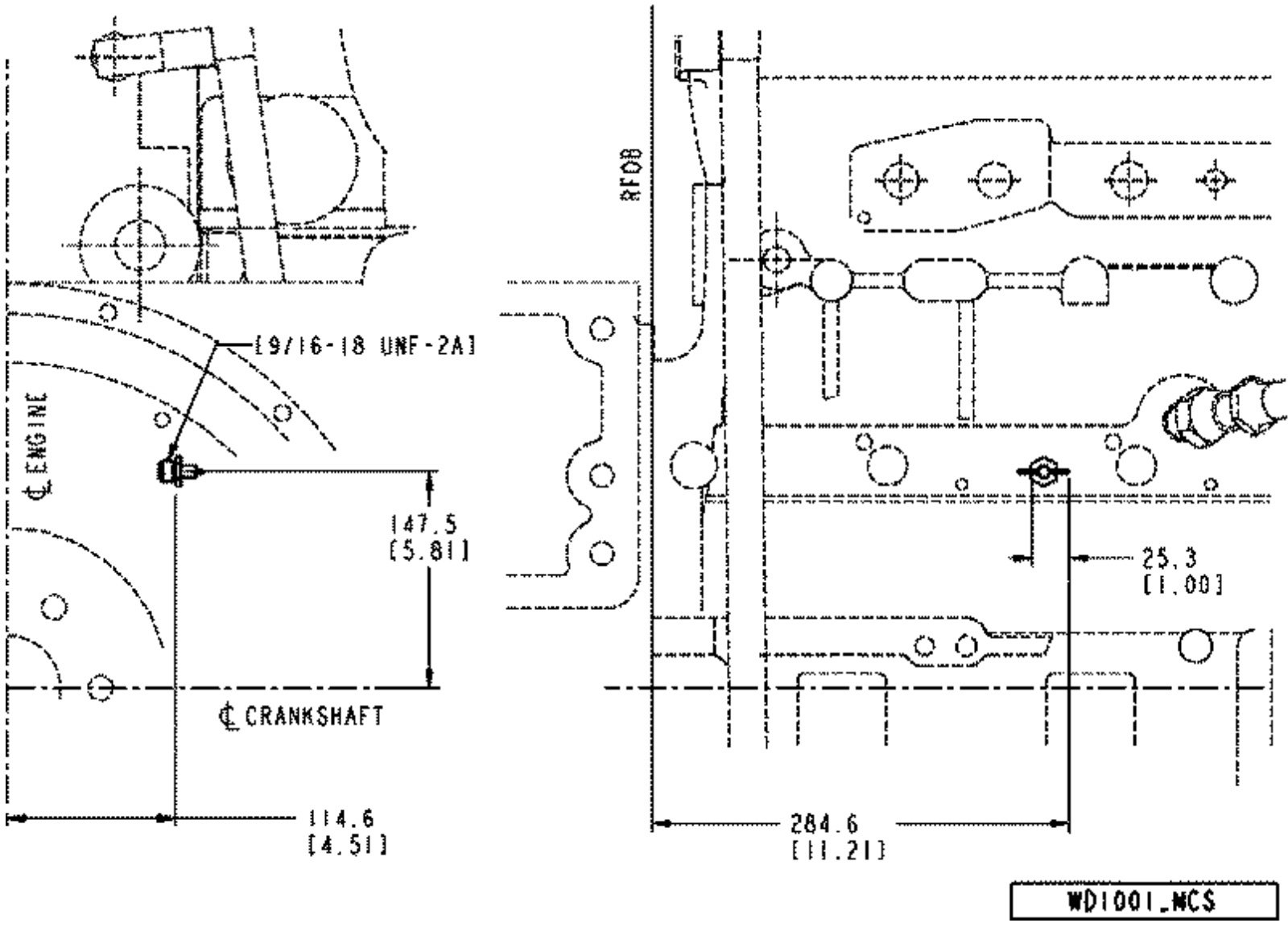
# WD-Keydata

Option #	Location	Notes
<a href="#">WD 1001</a>	Exhaust side at rear of engine	

# WD 1001

## WD - Water Discharge Plumbing

Revision Date: 05/00



Option #	Location	Notes
WD 1001	Exhaust side at rear of engine	

Draincock for water jacket located on exhaust side at rear of engine.  
Exhaust side of engine in block.

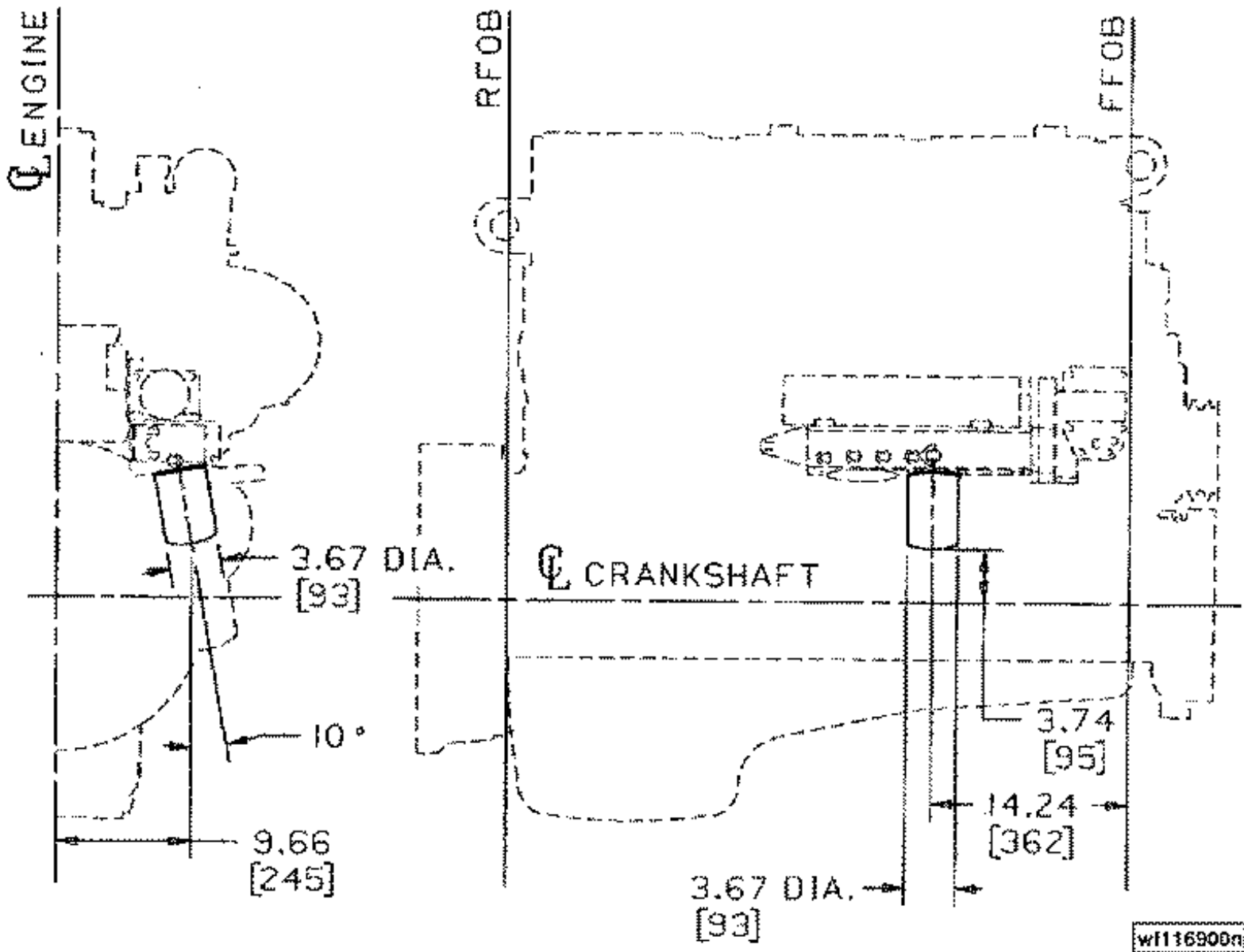
# WF-Keydata

Option #	Supplier/Type	Mounting	DCA4 Plus Units	Notes
<a href="#">WF 1169</a>	Cummins/spin-on	Oil cooler	23	Coolant system capacity of 30–57 litres [8–15 U.S. gal.]
<a href="#">WF 1195</a>	Cummins/spin-on	Oil cooler	4	

# WF 1169

## WF - Corrosion Resistor

Revision Date: 06/00



wf116900n

Option #	Supplier/Type	Mounting	DCA4 Plus Units	Notes
WF 1169	Cummins/spin-on	Oil cooler	23	Coolant system capacity of 30–57 litres [8–15 U.S. gal.]

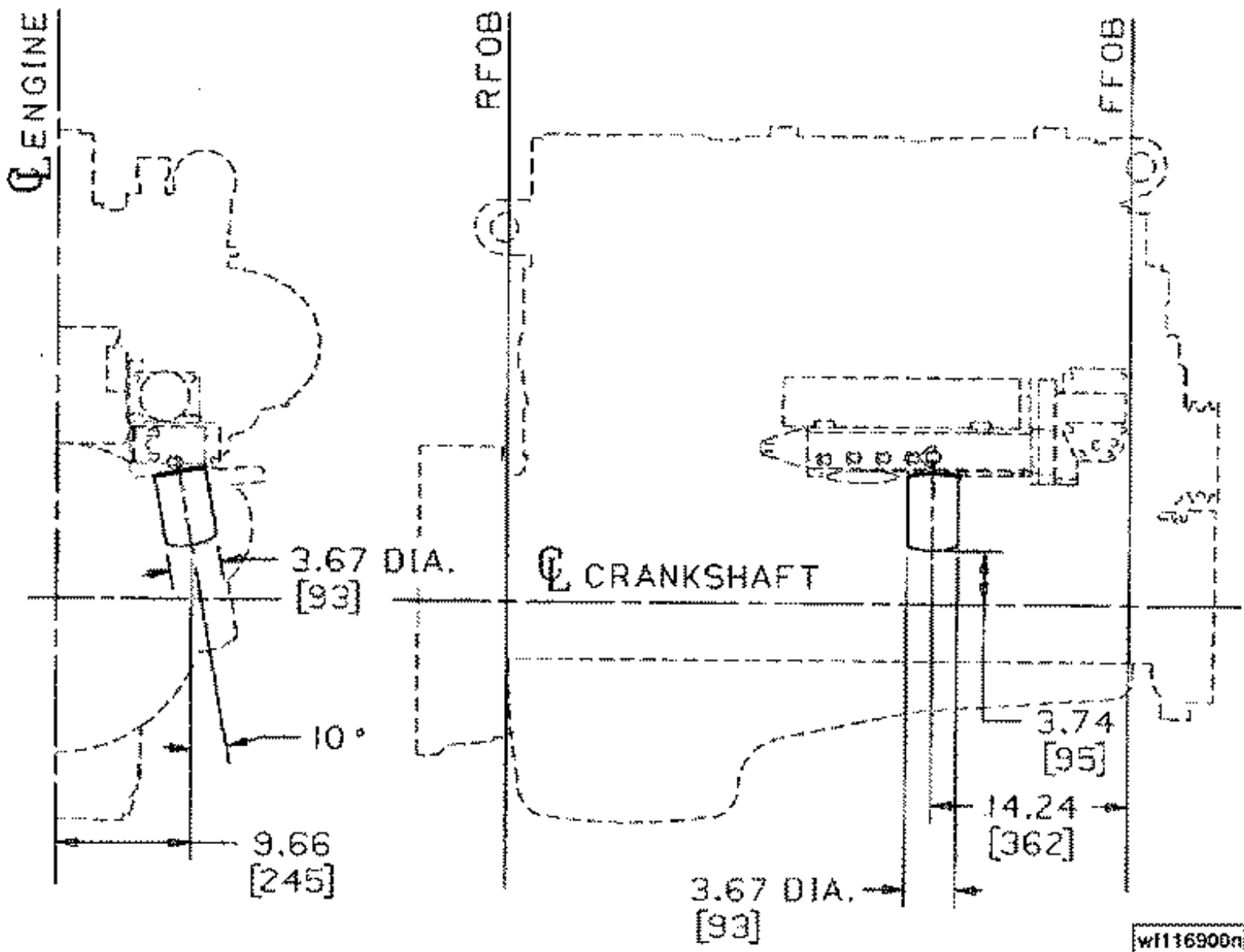
Water system corrosion filter. Filter head and mounting are integral part of oil cooler assembly. Contains one filter element with 23 DCA units, achieving a system concentration of 1.5–3.0 DCA units per cooling system gallon.

**For use with cooling systems with capacities from 30.28 to 56.76 litres [8 to 15 U. S. gal.].**

# WF 1195

## WF - Corrosion Resistor

Revision Date: 05/00



wf116900n

Option #	Supplier/Type	Mounting	DCA4 Plus Units	Notes
WF 1195	Cummins/spin-on	Oil cooler	4	

Water system corrosion filter.  
 Filter head and mounting are integral part of cooler assembly.  
 SCA type: DCA4-Plus  
 DCA Units: 4

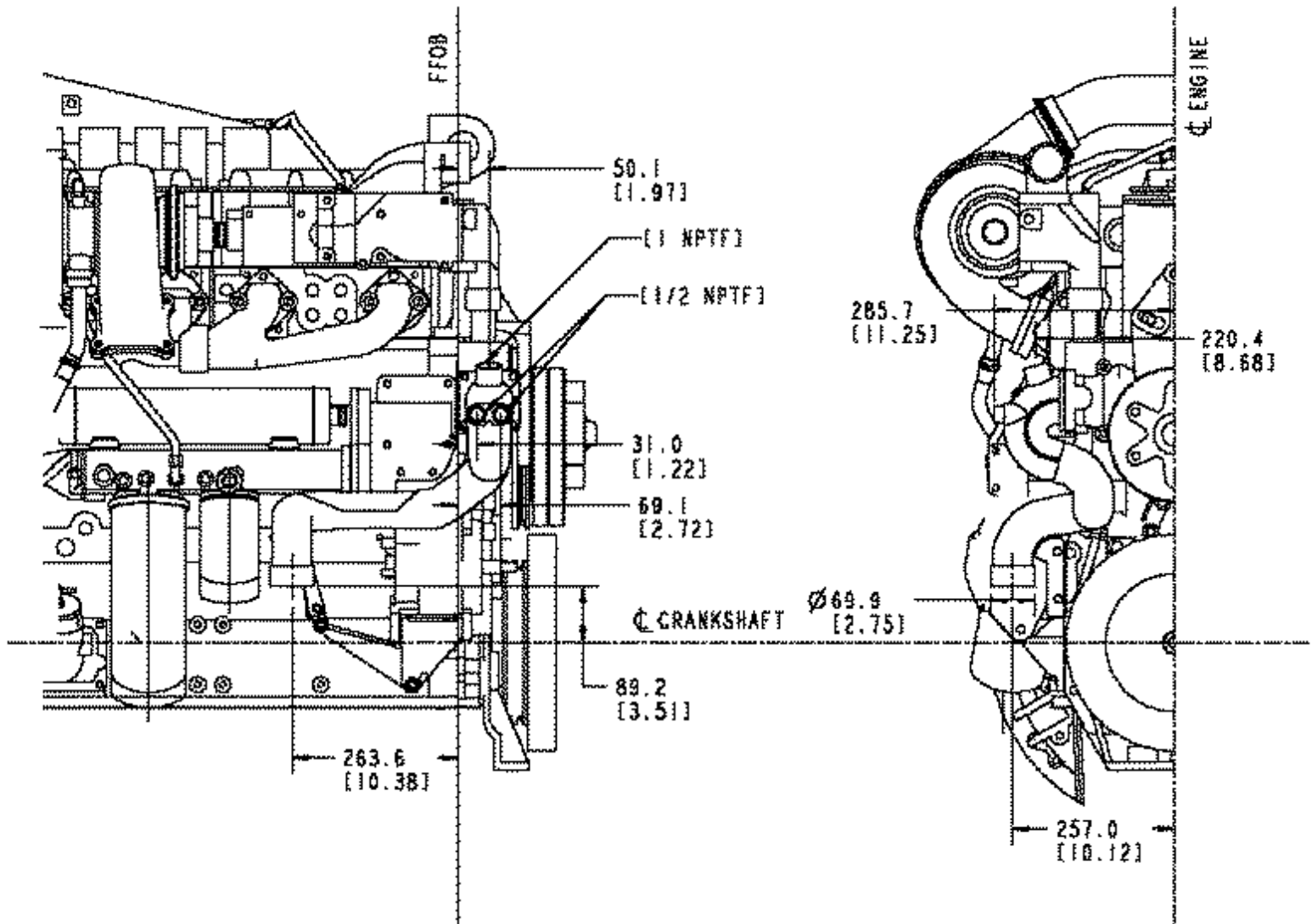
# WI-Keydata

Option #	Inlet O.D.	Orientation	Notes
<a href="#">WI 1077</a>	70 mm [2.75 in.]	Pointing straight down	

# WI 1077

## WI - Water Inlet Connection

Revision Date: 05/00



Option #	Inlet O.D.	Orientation	Notes
WI 1077	70 mm [2.75 in.]	Pointing straight down	

One piece water inlet connection. Has 70 mm [2.75 in.] O.D. hose connection located between oil filter and alternator pointing straight down. Has 1/2 NPT hole, 19.0 mm [0.75 in.] hole reduced to 13 mm [0.50 in], and 25.4 mm [1.00 in] hole plugged.

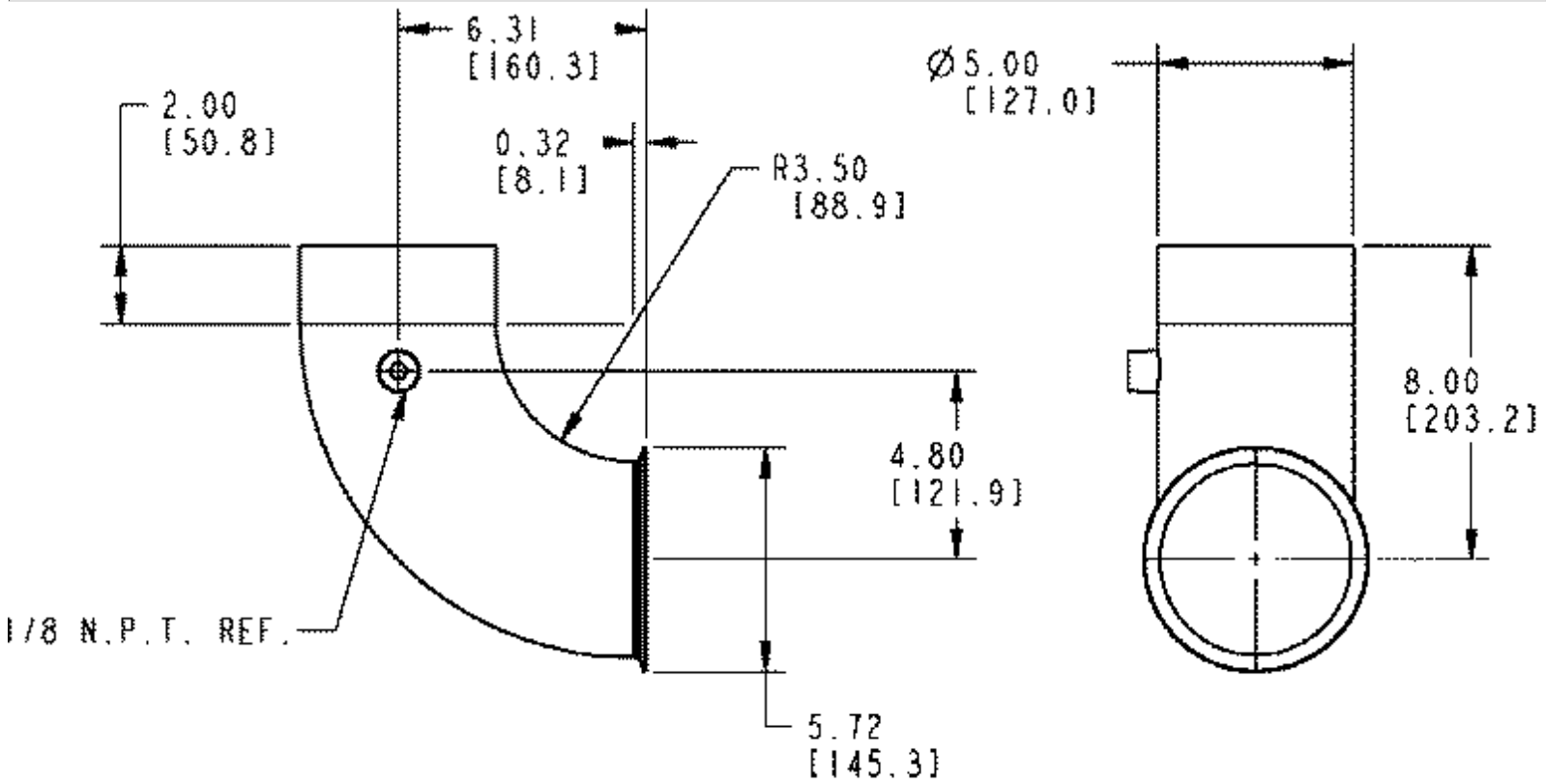
# XS-Keydata

Option #	Description	Connection O.D.	Marmon Type	Notes
<a href="#">XS 1041</a>	90 deg. elbow	127 mm [5.0 in.]	Yes	

# XS 1041

## XS - Exhaust Outlet Connection

Revision Date: 05/00



XS1041\_NCS

Option #	Description	Connection O.D.	Marmon Type	Notes
XS 1041	90 deg. elbow	127 mm [5.0 in.]	Yes	

One 90 deg. 127 mm [5.0 in.] O.D. turbocharger exhaust connection. Includes one 127 mm [5.0 in.] Marmon type V-band clamp.