

C Series
Generator Drive
Sales Handbook

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C SERIES GENERATOR DRIVE

Sales Handbook Usage Instructions

In addition to option graphics and text, this sales handbook contains other information to assist in the development of customer engine specification or quotation. Please read all information in this handbook prior to the quotation and ordering of engines.

1. Table of Contents
2. Product Summary Page - Cross reference of technical configuration numbers, model names, product identifiers, pricing specifications and power ratings. These numbers will assist you in selecting the product identifiers for use when placing orders.

Product Identifier - A means of identifying base engines, controlling the maximum horsepower and rated speed of each base model. Each product identifier has its own base engine price and is a mandatory option. Add the product identifier for the desired engine model to the engine order or specification sheet similar to other mandatory options.

Graphics and Notes Section.

Option by Configuration Section - Appendix A

This section is not used by the Generator Drive Sales Handbooks

Installation Drawings - Appendix B

In addition to the hard copies located in Appendix B, a listing of current installation drawings available on the Industrial Customer Engineering Technical Data Web site may be accessed by using the link below:

http://cobmk4.cob.cummins.com/installations/installations_1.html

CADD files available. Request from CADD Marketing department.

DATA INCLUDED IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. Option compatibilities, configuration information, option drawings and other data listed in this manual are subject to change. Consult the Cummins IMS database and the Technical Data Intranet site (<http://cobmk4.cob.cummins.com/curves/database/options/options.html>) for the latest information or contact your Cummins representative. To view the CLS menu screen type 'ECVZ CEC' in IMS. Select PF key associated with the desired activity. CLS 'PRIC' Pricing Specifications and CLS options can be exploded to show part number content through IMS screens 'ECWC CEC' and 'ECWD CEC'. Dimensions included in this handbook are included for comparing only and should not be used for other purposes.

Mailing Address Changes

Please refer any address changes, corrections or deletions to R. M. (Ruth) Mattox, (812-377-3826).

Technical Data Issues:

Please refer any questions or revisions regarding technical content of the Sales Handbook to Jim Peters, (812-377-5966).

All Other Issues:

Contact C.E. (Charles) Faulkner, (812-377-3867).

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**C SERIES GENERATOR DRIVE
ENGINE
PRODUCT SUMMARY**

August 2000

Model Name	Configuration Number	Application	Max Gross BHP (SAE)	
			1800 rpm	1500 rpm
6CT8.3-G2	D412033GX02	Standby	207	181
		Prime Power	188	164
		Continuous	153	137
6CTA8.3-G2	D413034GX02	Standby	277	241
		Prime Power	252	219
		Continuous	213	178
6CTAA8.3-G1	D413035GX02	Standby	317	272
		Prime Power	285	245
		Continuous	268	161

* 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".

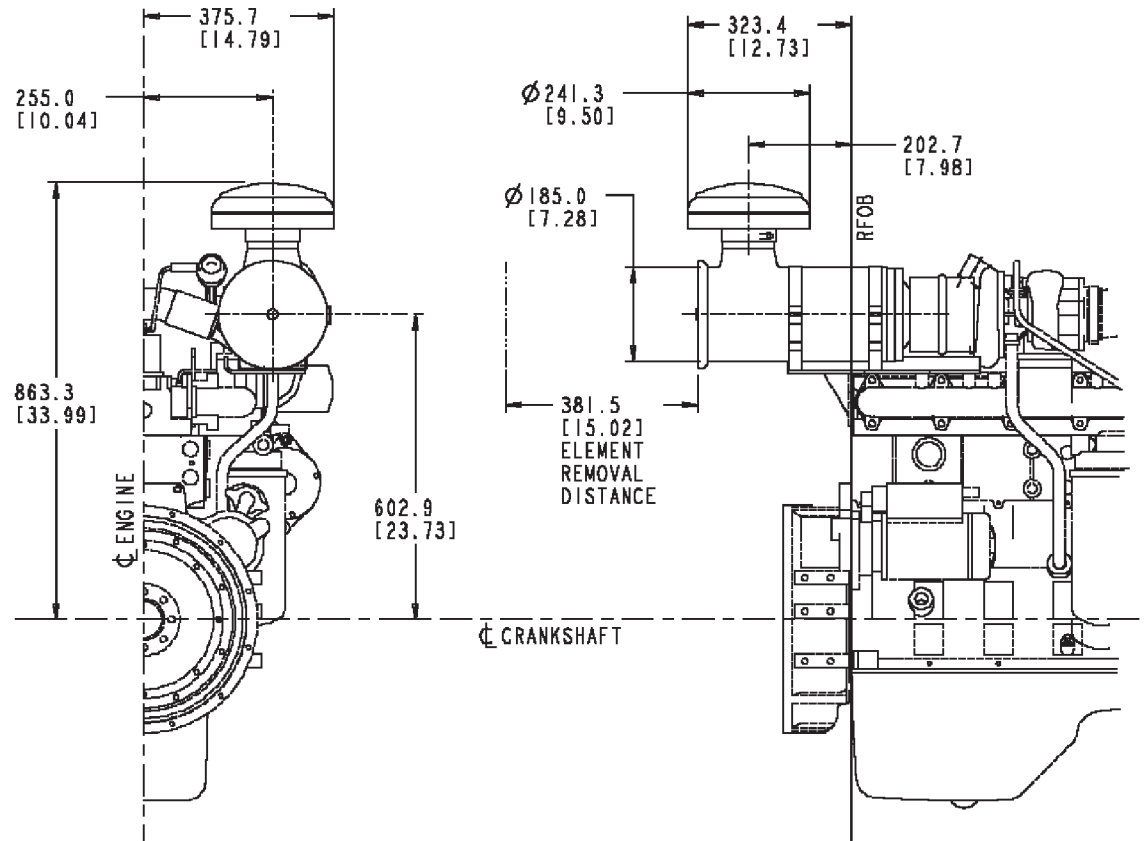
Caution:

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.

C SERIES GENERATOR DRIVE

AC - Air Cleaner

AC9056



AC9056 [G]

Option #	Mfg./Model	Duty Rating	Open or Closed Crankcase Ventilation	Inlet/Outlet Dia.	Mounted or Kitted	Notes
AC 9056	Coopers	Light	-	104.6 mm [4.12 in.]	Mounted	Outdoor use

Duty rating: Light
 Air cleaner exhaust O.D.: 104.6 mm [4.12 in.]
 Mounting location: Engine - rear
 Manufacturer: Coopers
 Filter quantity: 1

Environment capability: Outdoor

Filter disposition: Reusable

Supply method: Mounted

Engine family: C series

Structure code: 02 EBM

Cylinders: 6

Aspiration: Jacket water aftercooled, turbocharged

Starpac

This option includes air cleaner plumbing as follows:

Hose type: Hump

Size to size: 101.6 mm [4 in.] to 101.6 mm [4 in.]

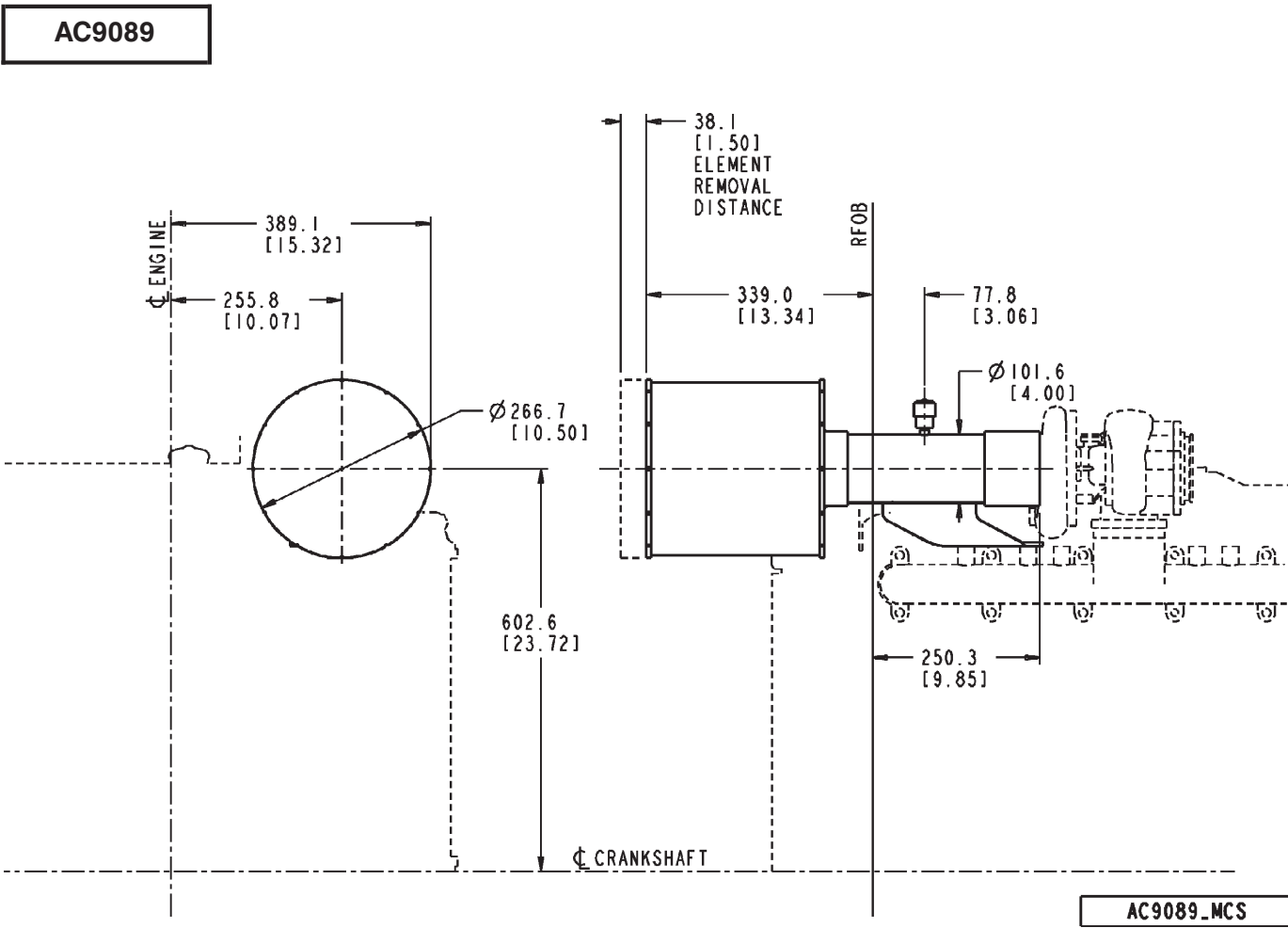
Hose length: 127.0 mm [5 in.]

Hose material: 25002

Clamp supplier: Cummins

C SERIES GENERATOR DRIVE

AC - Air Cleaner



AC9089 [G]

Option #	Mfg./Model	Duty Rating	Open or Closed Crankcase Ventilation	Inlet/Outlet Dia.	Mounted or Kitted	Notes
AC 9089	Donaldson	Medium	-	101.6 mm [4 in.]	Mounted	Outdoor use

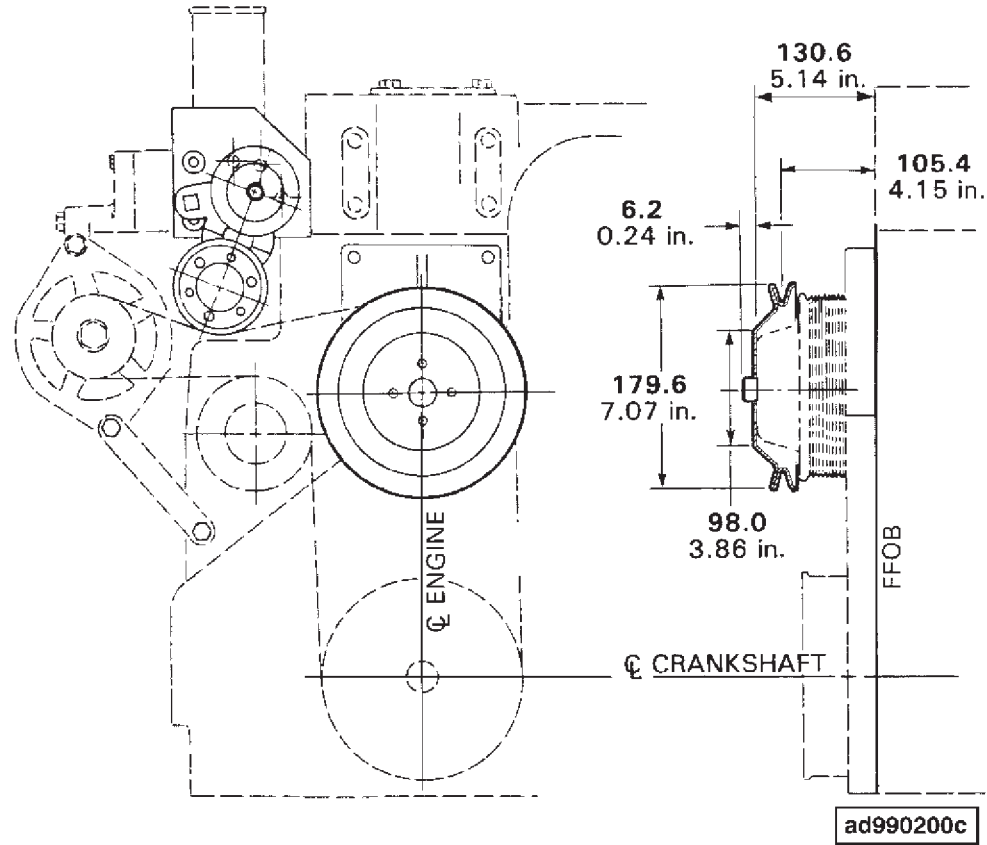
Medium duty air cleaner.
 Mounting location: Rear of engine
 Manufacturer: Donaldson
 Filter quantity: 1

Environment capability: Outdoor
Filter disposition: Disposable
Supply method: Mounted
Additional support bracket required: Yes
Restriction indicator: Manual
Manual restriction indicator fitted to tube #3283206.

C SERIES GENERATOR DRIVE

AD - Accessory Drive Pulley

AD9003



AD9003 [G]

Option #	Belt Type/Grooves	Pulley Dia.	Torque @ rpm	Drive Ratio	Notes
AD 9003	12.7 mm [1/2 in.] V/Single	179.55 mm [7.069]	-	1.00:1	-

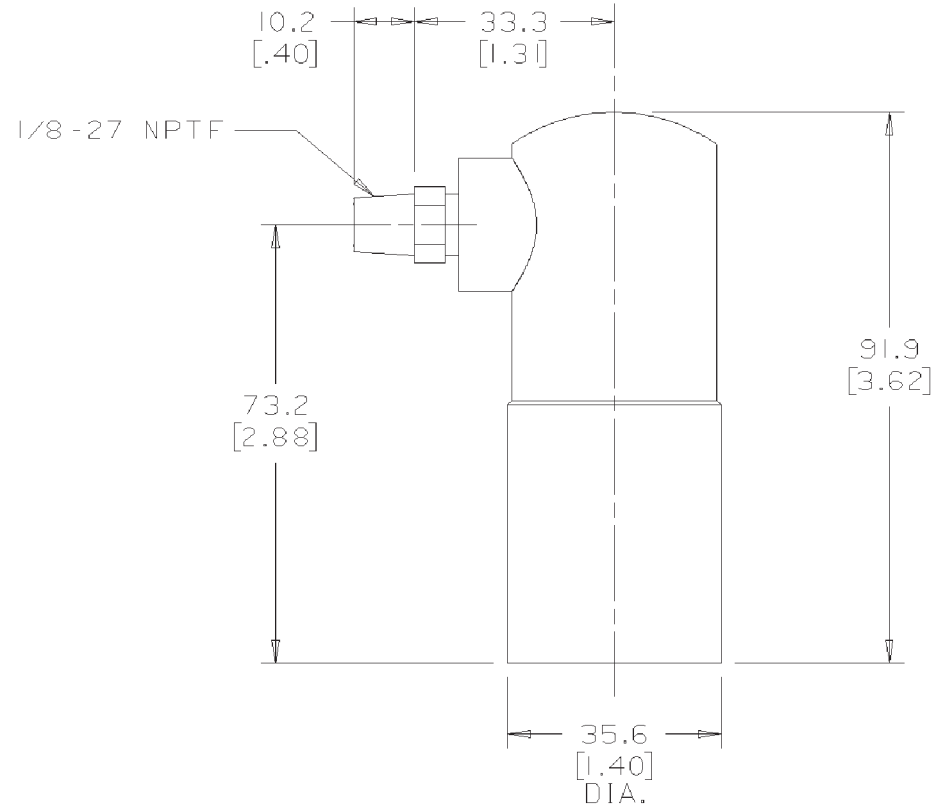
Groove count: 1
 Pulley diameter: 179.55 mm [7.069 in.]
 Effective diameter: 175.37 mm [6.904 in.]
 Pitch diameter: 172.82 mm [6.804 in.]
 Pulley construction/type: 1 piece 1/2 in. V

Pulley rotation: Clockwise
Pulley ratio to engine speed: 1.00:1
Required fan hub material: Cast iron
Structure code: 02 EBM
Bolt circle: 50.0 mm [1.97 in.], 60.0 mm [2.36 in.]
Engine family: B & C series

C SERIES GENERATOR DRIVE

AG - Air Cleaner Restriction Service

AG8002



AG8002 [G]

Option #	Restriction	Notes
AG 8002	635 mm [25 in.] H ₂ O	Kitted

For mounting to Customer supplied air intake system.

AP - Agency Approval

AP9160

(No Graphics Required)

AP9160 [M]

Option #	Agency	Emission Level				Notes
AP 9160	EPA, CARB	Tier 1, Tier 1				-

Certification agency: EPA, CARB
 Application: Generator
 Certification year: 2000
 Mfg. location: USA
 Language: English and French

Use with FR 90240 (6CT8.3-G2), FR 90241 (6CT8.3-G2), FR 90242 (6CTA8.3-G2), or FR 90243 (6CTA8.3-G2).

C SERIES GENERATOR DRIVE

AP - Agency Approval

AP9301

(No Graphics Required)

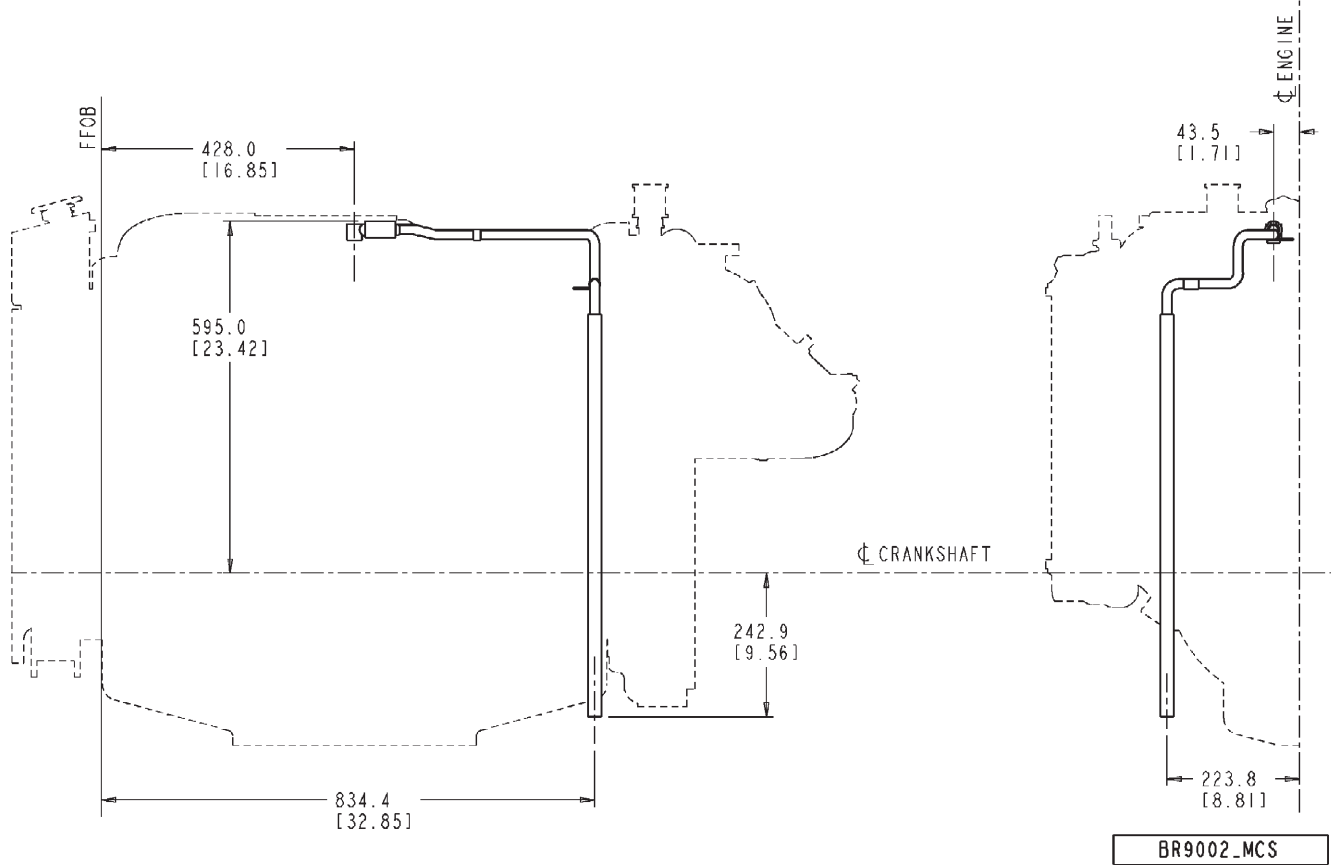
AP9301 [G]

Option #	Agency	Emission Level				Notes
AP 9301	EPA, CARB	Tier 2, Tier 2				-

Certification by: EPA, CARB
Application: Generator
Certification level: Tier 2, Tier 2
Special allowance: None
Cert. agent: EPA, EPA
Comments: N/A
Fuel type: Diesel
Manufacturer of record: Cummins
Language: English
Structure code: 02 EBM
Engine family: B series, C series

BR - Crankcase Breather

BR9002



BR9002 [M]

Option #	Open or Closed Crankcase Ventilation	Mounting Location	Material Type/Length			Notes
BR 9002	Open	Valve cover between 3 & 4 cylinders	-			Breather tube to fuel pump side below oil pan rail

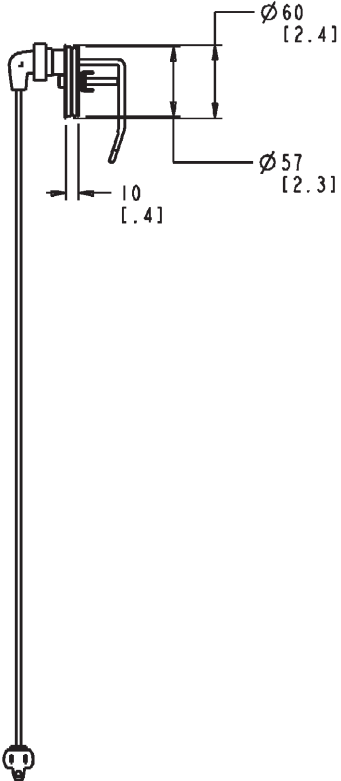
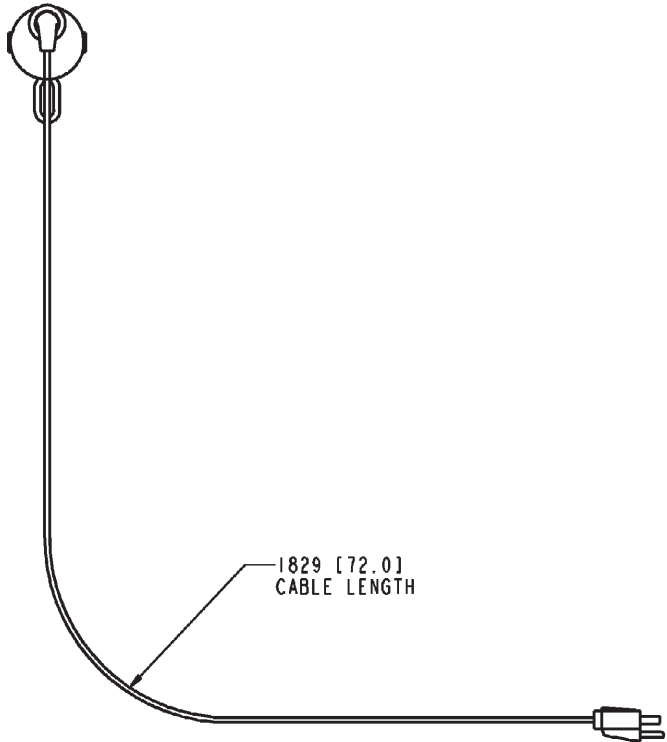
Structure code: 02 EBM
 Engine design phase: Current product
 Breather type: Open

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Breather vent tube end location: Below oil pan rail
Tube routing: Fuel pump side
Attachment clip provision: Yes
Breather vent location: Between 3 & 4 cylinders
Required mounting provision: 22.26 mm [0.876 in.] dia.
Filter supply method: Mounted
Fuel type: Diesel
Plumbing mounting responsibility: Cummins
Tube routes ahead of rear lift bracket: No
Attaches to front cover: No

CH - Coolant Heater Starting Aid

CH9039



09SEP2004 CH9010_MCS

CH9039 [G]

Option #	Volts/Wattage	Cord Length	Location	Elec. Plug Type		Notes
CH 9039	240V/1000W	1829 mm [72 in.]	Freeze plug	U.S. male plug		Mounted

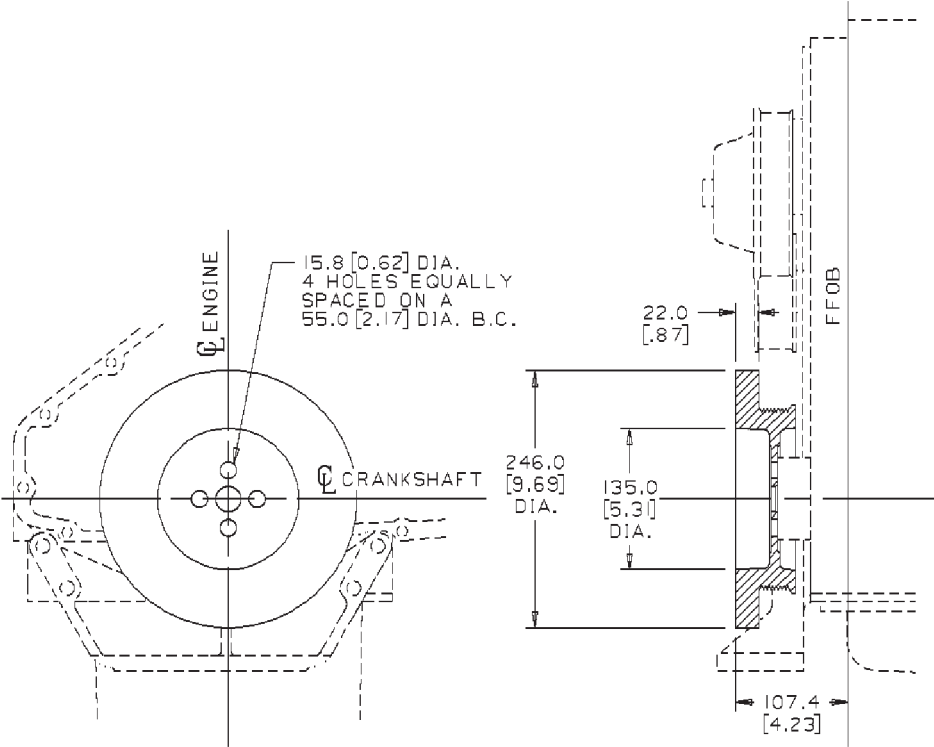
Cord sheathing: Plastic
 Type: Water only
 Male plug type: U.S.
 Plug type: Freeze plug
 Operation type: Automatic

C SERIES GENERATOR DRIVE

Cord provision: Yes
Controlled temp. range: 48.8 to 37.7 °C [120 to 100 °F]

DA - Vibration Dampers

DA9022



DA9022 [M]

Option #	Fan Drive Crank Pulley Dia.	Additional Drive Pulleys	PTO Provision	Max. Speed	# Holes/Bolt Circle	Notes
DA 9022	173.76 mm [6.841 in.]	None	No	2200 rpm	-	-

Engine family: C series
 Vibration damper with 8 groove pulley mounted on front of crankshaft.
 Damper pulley effective diameter: 173.76 mm [6.841 in.]
 Damper diameter: 246.00 mm [9.685 in.]

C SERIES GENERATOR DRIVE

Damper rpm limitation: 2200 rpm and below

Damper type: Rubber

Pulley type: Cast 8 groove

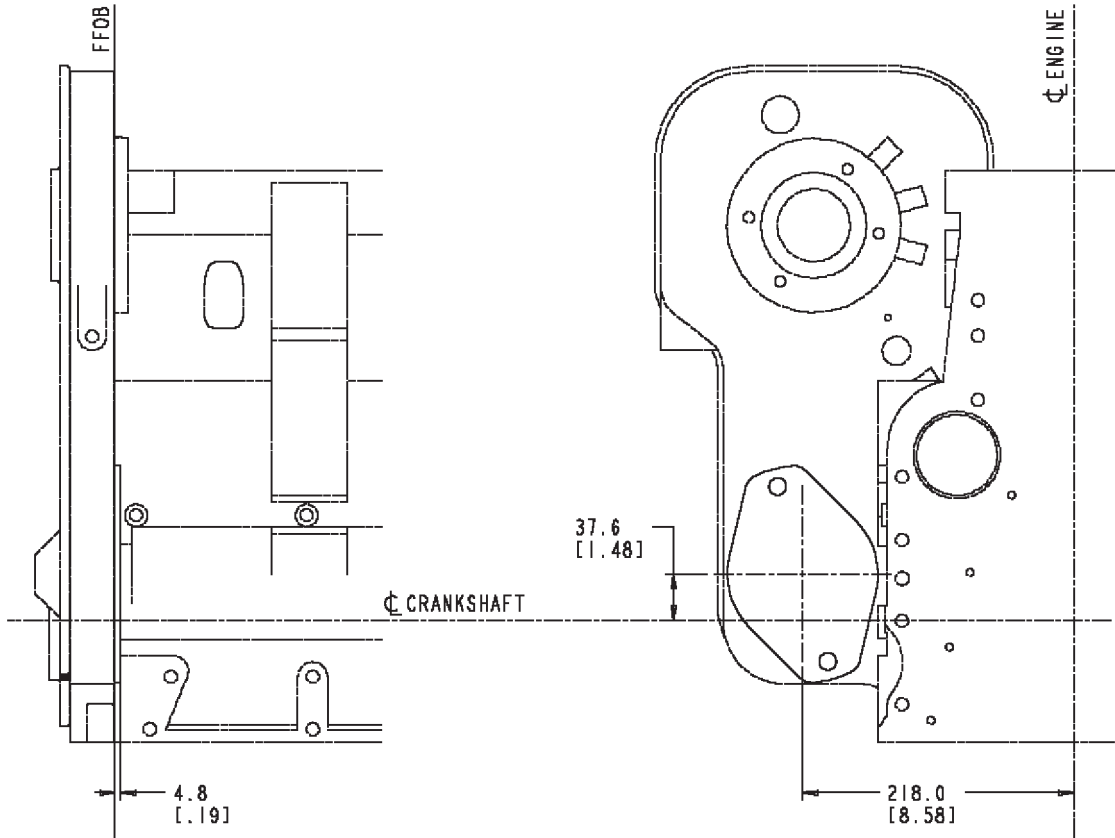
FPTO provision: No

High inertia damper: No

Tach. pick-up provision: No

DF - Front Gear Train Accessory Drive

DF9063



DF9063 [M]

Option #	Description	Shaft Type	Torque @ rpm	Drive Ratio	Location	Notes
DF 9063	Cover Plate	-	-	-	-	-

Cover plate provided: Yes
 Structure code: 02 EBM
 Engine families: C series
 Cover plate only, to be selected when no air compressor, sea water pump or gear driven vacuum pump is selected.

C SERIES GENERATOR DRIVE

EC - Thermostat

EC9002

(No Graphics Required)

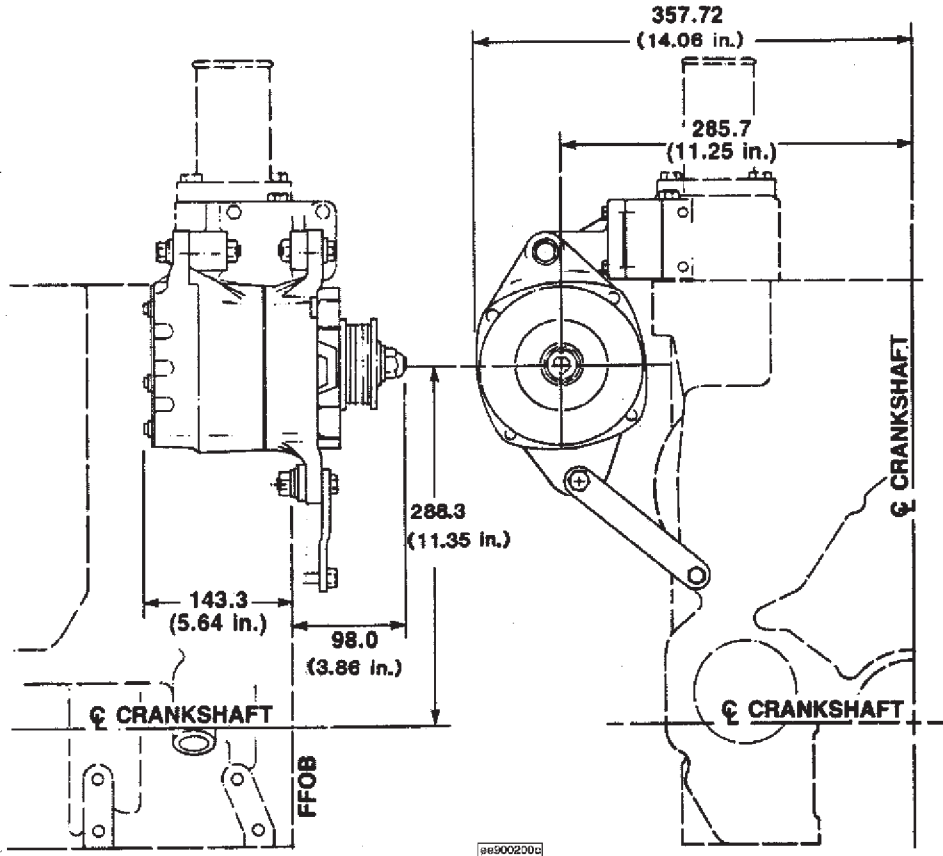
EC9002 [M]

Option #	Description	Opening Temp.				Notes
EC 9002	Jiggle-pin	83 °C [180 °F]				Vented

Number of thermostats: 2
Requires by-pass housing: No
Required housing bore dia. 43.50 mm [1.713 in.]
Full open temperature: 95 °C [203 °F]

EE - Alternator

EE9002



EE9002 [M]

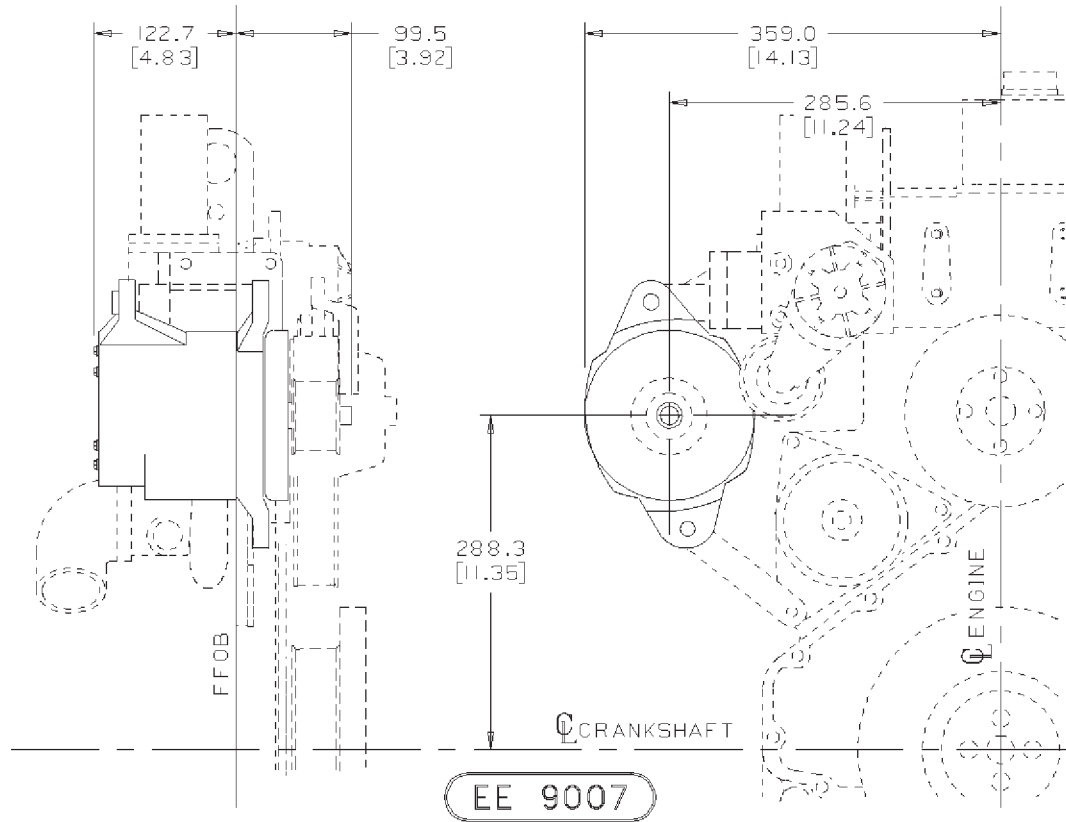
Option #	Mfr./Model	Voltage/Amps	Mounting Type	Grounding Type	Cummins-Branded	Notes
EE 9002	Delco Remy/ 20 SI	12V/60A	-	Negative	-	Does not function with horizontal oil filter

Functions with Horizontal Oil Filter: No
 Alternator Body Length 143.0 mm [5.63 in.]

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EE - Alternator

EE9007



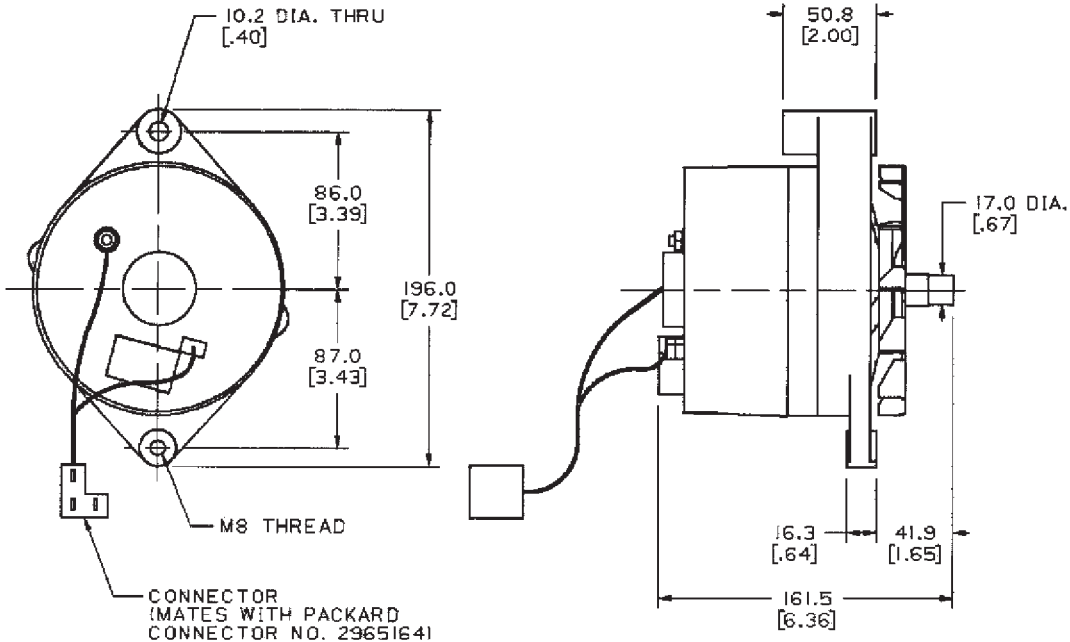
EE9007 [M]

Option #	Mfr./Model	Voltage/Amps	Mounting Type	Grounding Type	Cummins-Branded	Notes
EE 9007	Delco Remy/ 20 SI	24V/35A	-	Negative	-	Does not function with horizontal oil filter

Functions with horizontal oil filter: No
 Alternator body length: 143.0 mm [5.63 in.]
 Engine family: B series, C series

EE - Alternator

EE9023



EE 9023

EE9023 [M]

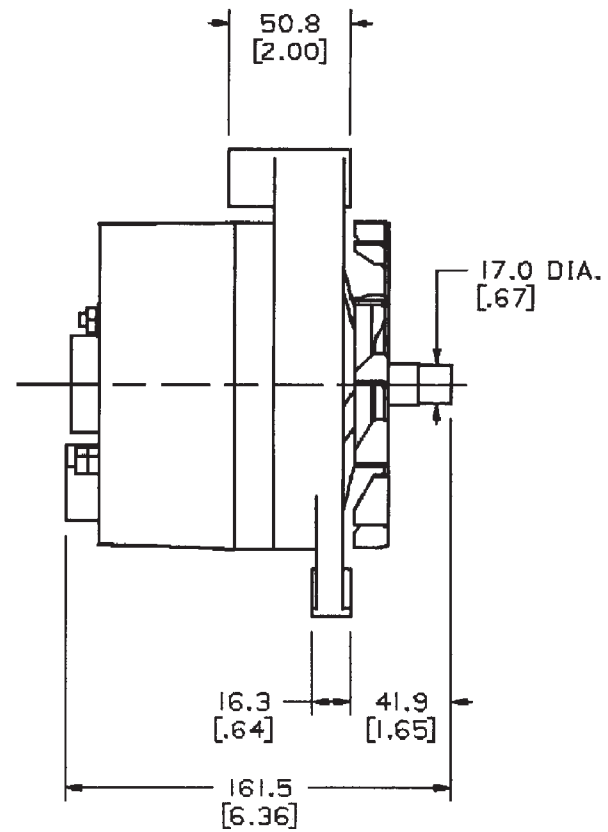
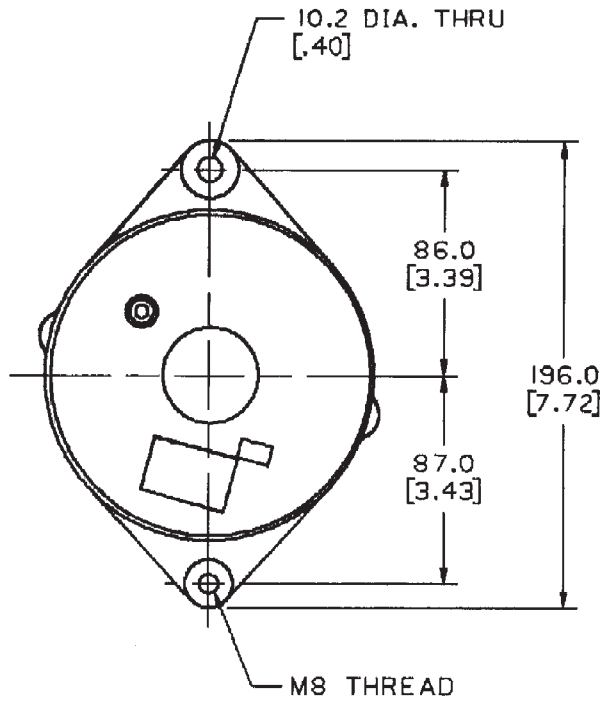
Option #	Mfr./Model	Voltage/Amps	Mounting Type	Grounding Type	Cummins-Branded	Notes
EE 9023	Bosch/ K1	12V/65A	-	-	-	Functions with horizontal oil filter

Functions with Horizontal Oil Filter: Yes
 Alternator Body Length 128.0 mm [5.04 in.]
 Engine family: B series, C series

C SERIES GENERATOR DRIVE

EE - Alternator

EE9051



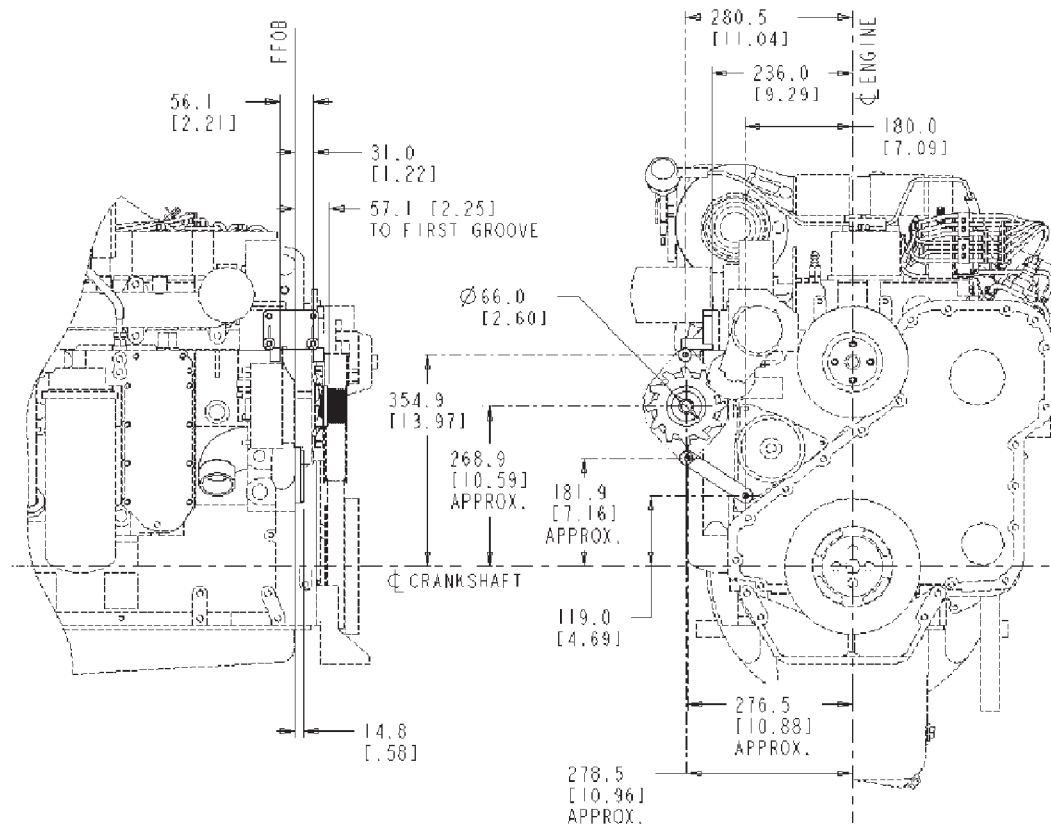
EE9051 [M]

Option #	Mfr./Model	Voltage/Amps	Mounting Type	Grounding Type	Cummins-Branded	Notes
EE 9051	Bosch/ K1	12V/65A	-	Negative	-	Functions with horizontal oil filter

Functions with Horizontal Oil Filter: Yes
 Alternator Body Length: 128.0 mm [5.04 in.]
 Engine family: B series, C series
Does not include wiring harness.

EH - Alternator Mounting

EH9020



EH9020 [M]

Option #	Use With	Mount Type	Drive Ratio	Belt Type	Tensioner Type	Notes
EH 9020	Bosch K-1	50.8 mm [2 in.] spool	-	-	-	Effective damper pulley dia. 173.76 mm [6.8 in.]

Pulley retainer provided: Yes
 Alternator pulley provided: Yes
 Belt supplier: Cummins
 Belt tensioner supplier: Cummins

C SERIES GENERATOR DRIVE

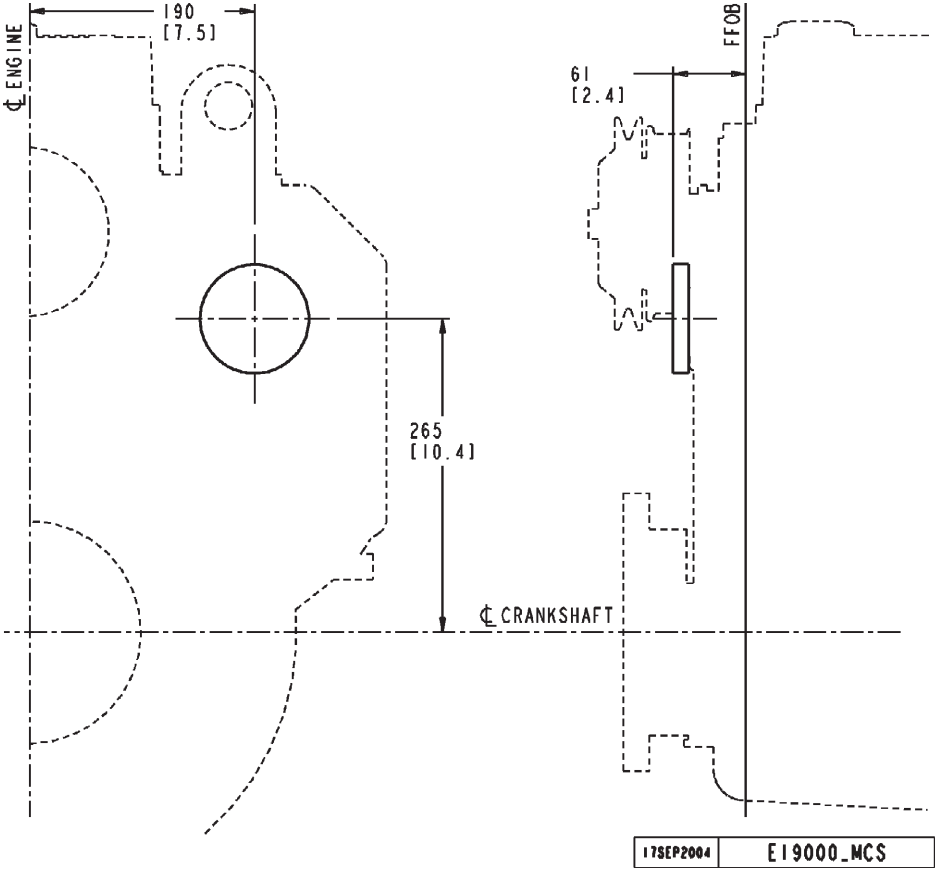
Alternator mount type: 50.8 mm [2 in.] spool
Damper pulley effective diameter: 173.76 mm [6.841 in.]
Alternator driven by aux. belt: No
Required tensioner pulley material: Steel
Pad for freon compressor provided: No
Alternator manufacturer/model: Bosch K-1
Stud for wiring harness attachment: No
Alt. tail support required: No
Ref. compressor mtg. hardware included: No
Tall tensioner bracket: No

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Alternator Drive Speed: 2.8
Alternator Mount Type: 101.6 mm [4 in.] hinge
Maximum Amperage @ 14 Volt: 130
Maximum Amperage @ 28 Volt: 80
Pulley Loc. Hor. from Crank C/L 286 mm [11.25 in.]
Pulley Loc. Vert. from Crank C/L 287.6 mm [11.32 in.]
Damper Pulley Effective Diameter: 173.76 mm [6.84 in.]
Alternator Driven by AUX Belt: No
Required Tensioner Pulley Material: Steel
Pad for Freon Compressor Provided: No
Alternator Manufacturer/Model:
 Bosch N1 up to 14V/110A
 Bosch N-1 up to 28V/80A
 Delco Remy 20 SI up to 12V/60A
 Delco Remy 20 SI up to 24/60A
 Delco Remy 22 SI 12V/100A
 Delco Remy 22 SI 12V/130A
 Delco Remy 22 SI 12V/160A
 Delco Remy 22 SI 24V/70A
Required Water Pump Pulley Type: Hardened, Standard
Stud for Wiring Harness Attachment: No
ALT. Tail Support Required: No
REF. Compressor MTG Hardware Included: No
Tail Tensioner Bracket: No

EI - Electronic Engine Monitor

EI9000



EI9000 [M]

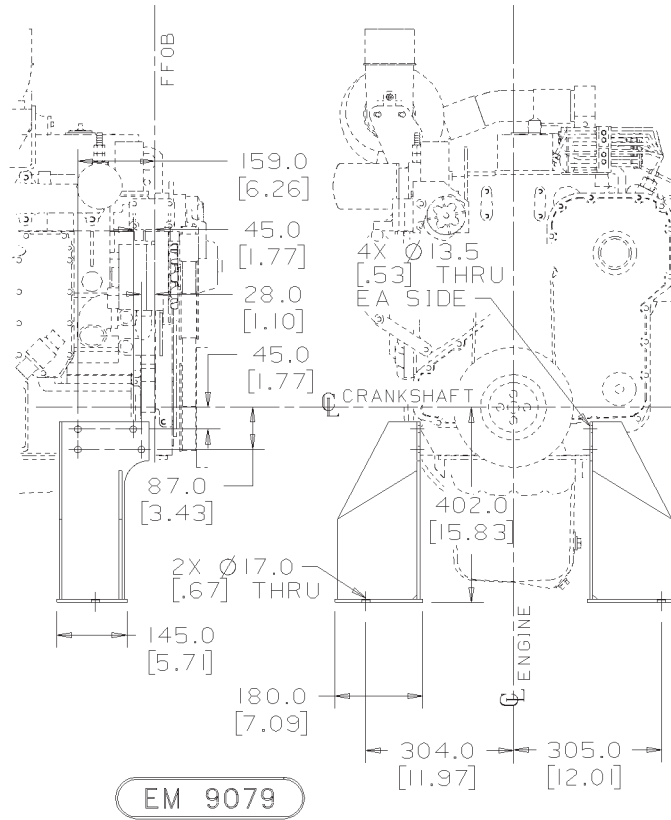
Option #	Tach.Type	Orientation	Drive Type	Connection Type	Notes
EI 9000	-	-	-	-	No content option

No content option. For B and C series engine families. To provide accessory hole cover when no mechanical tachometer drive or front oil fill is specified.

C SERIES GENERATOR DRIVE

EM - Front Engine Support

EM9079



EM9079 [G]

Option #	Type	Attachment Hole	Damper Size	Weight	Notes
EM 9079	-	-	-	-	-

For C series starpac G-Drive engines. Consists of two pedestal type mounts.

C SERIES GENERATOR DRIVE

Mount material: 30,175

These are special integral engine and radiator mounts.

Note:

This option is available only on engines built at Darlington Engine Plant.

ES - Electronic Speed Governor

ES9016

(No Graphics Required)

ES9016 [G]

Option #	Description					Notes
ES 9016	12V electronic governor					-

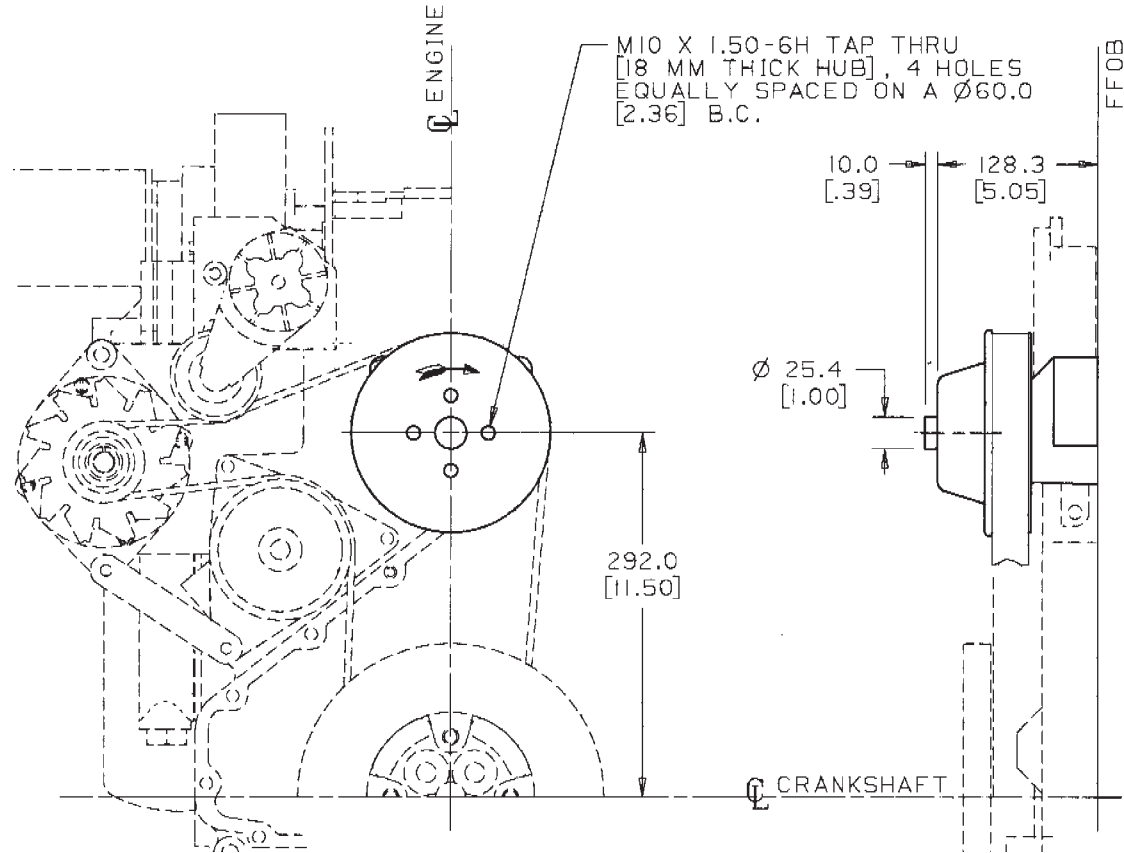
ETR engine control system.
 Structure code: 02 EBM
 Engine design phase: Current product
 Supply method: Mounted
 Supplier: Barber-Coleman
 Voltage: 12V
 Actuator supplied: Yes
 Controller supplied: Yes
 Wiring harness supplied: No
 Linkage/mag pick-up supplied: Yes
 Restricted fuel pump: Bosch P3000
 Fuel pump governor: RSV
 Controller adjustable features: No
 Linear system: With standard controller
 Restricted fuel pump: Bosch A or Bosch P3000

Supplied in a kit. Includes actuator, controller, mounting hardware, linkage, magnetic pick up and calibration procedure.

C SERIES GENERATOR DRIVE

FA - Fan Drive Arrangement

FA9053



FA9053 [M]

Option #	Bolt Circle	Drive Ratio	Fan Center	Tensioner Type	Fan Drive	Notes
FA 9053	60.0 mm [2.36 in.]	1.10 : 1	292.0 mm [11.50 in.]	-	-	-

Horizontal offset: 0.0mm [0.00 in.]

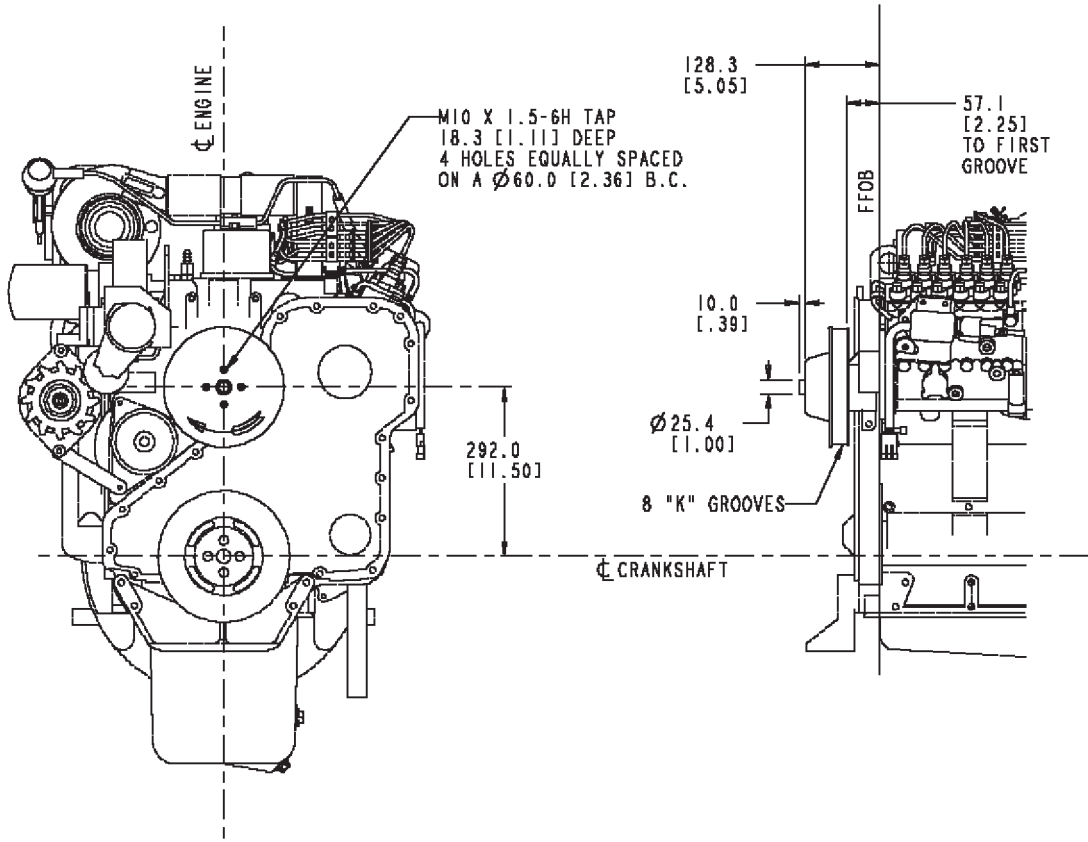
Fan hub pulley material: Spun steel

Required damper pulley diameter: 173.76 mm [6.841 in.]

Unique characteristic: Increased fan weight capability

FA - Fan Drive Arrangement

FA9057



FA9057 [M]

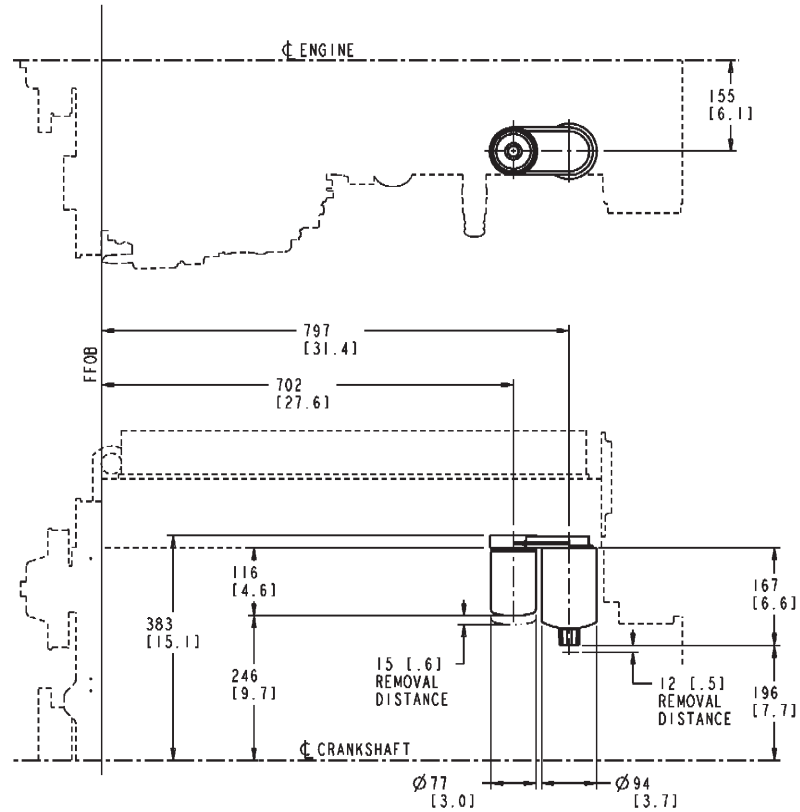
Option #	Bolt Circle	Drive Ratio	Fan Center	Tensioner Type	Fan Drive	Notes
FA 9057	60.0 mm [2.36 in.]	0.87:1	292.0 mm [11.50 in.]	-	-	Increased fan weight capability

Horizontal offset: 0.0 mm [0.00 in.]
 Fan hub pulley material: Spun steel
 Required damper pulley diameter: 173.76 mm [6.84 in.]
 Unique characteristic: Increased fan weight capability

C SERIES GENERATOR DRIVE

FF - Fuel Filter

FF9009



FF9009_MCS

FF9009 [M]

Option #	Element	Filtration	Water Separator/WIF Sensor	Location/Notes
FF 9009	Dual Spin	25 Microns	Water Separator	Mounted rearward, parallel to centerline of crankshaft

Mtg. Angle from Crank C/L: Parallel to crank
 First Filter Horiz. from Crank C/L 158 mm [6.22 in.]
 First Filter Vert. from Crank C/L 348.748 mm [13.73 in.]
 First Filter Loc from FF0B: -402 mm [-15.82 in.]

Filter Location: Under # 5 cylinder head

Compatible with Lift Pump: Yes

Air Heater Connection Provided: No

2nd Fltr Location Horz from FFOB: 158.0 mm [6.22 in.]

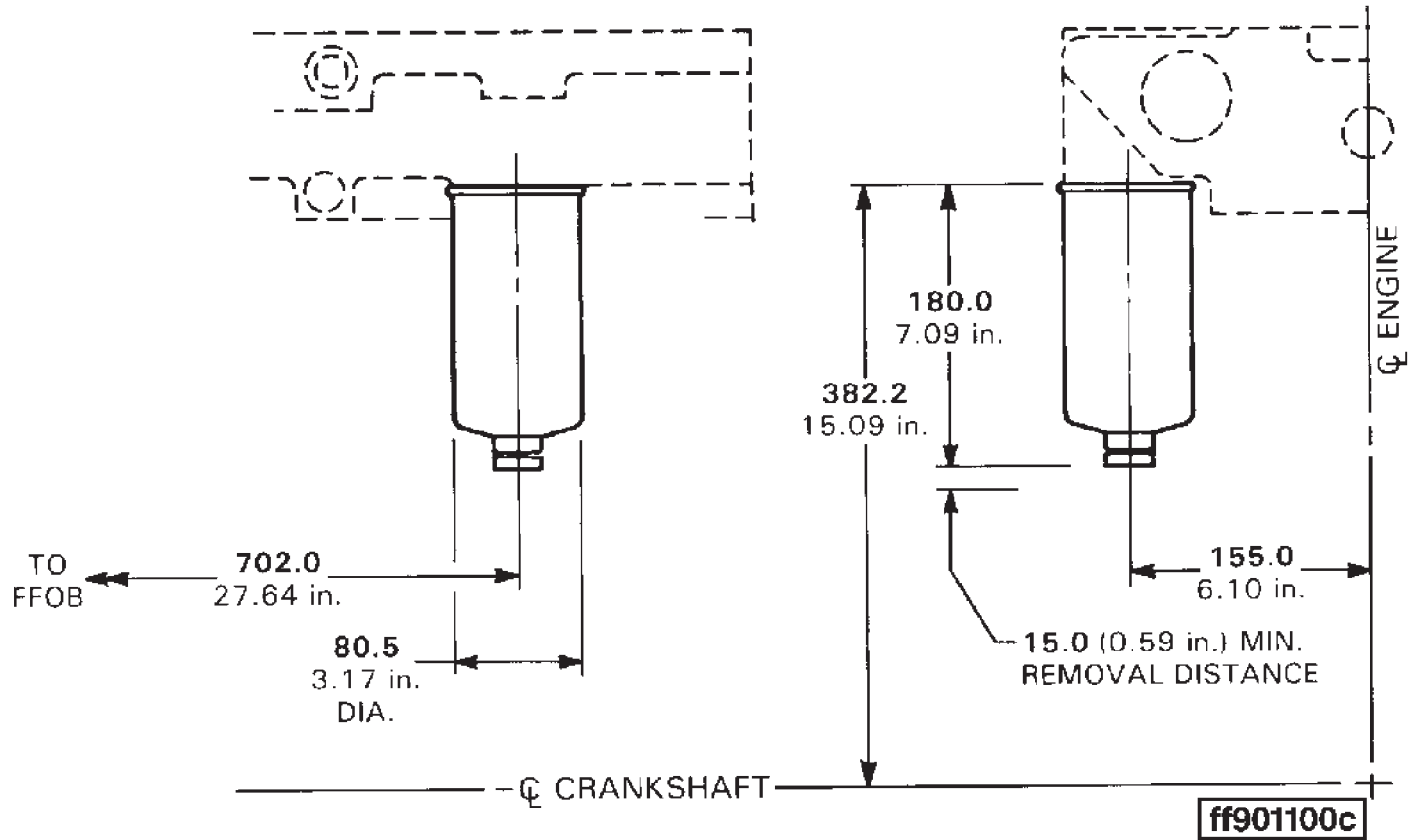
2nd Fltr Location Vert. from FFOB: 328.248 mm [12.92 in.]

2nd Fltr Location from FFOB: -497.0 mm [-19.56 in.]

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FF - Fuel Filter

FF9011



FF9011 [M]

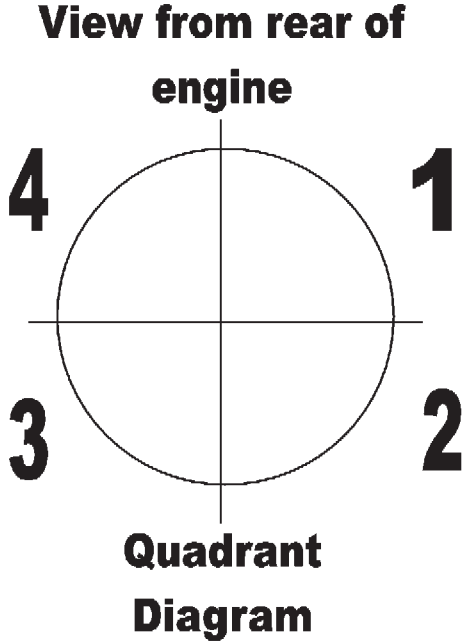
Option #	Element	Filtration	Water Separator/WIF Sensor	Location/Notes
FF 9011	Single Spin On	25 micron absolute.	Water Separator	Mounted under head cylinder #5.

Compatible with Lift Pump: Yes
Heater Element Included: No

FH - Flywheel Housing

Reference

Starter quadrant location on the flywheel housing as viewed from rear of engine as illustrated below



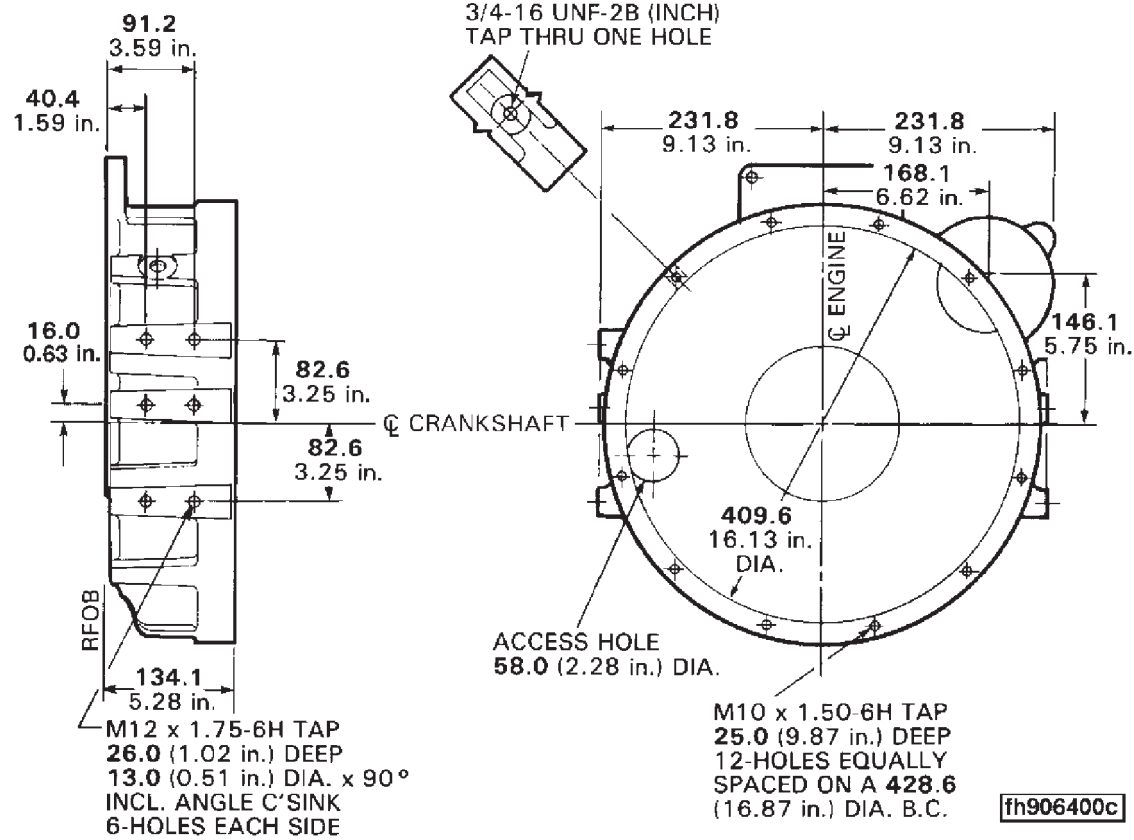
Reference [G]

Option #	SAE	Application	Housing material	Starter quadrant	Notes	Weight	Value Code
Reference							

C SERIES GENERATOR DRIVE

FH - Flywheel Housing

FH9030



FH9030 [M]

Option #	SAE/Wet or Dry	Engine Mount Type	Material/Duty Type	Starter Quadrant	Weight	Notes
FH 9030	#3, dry	Pad	Aluminum	#1	-	-

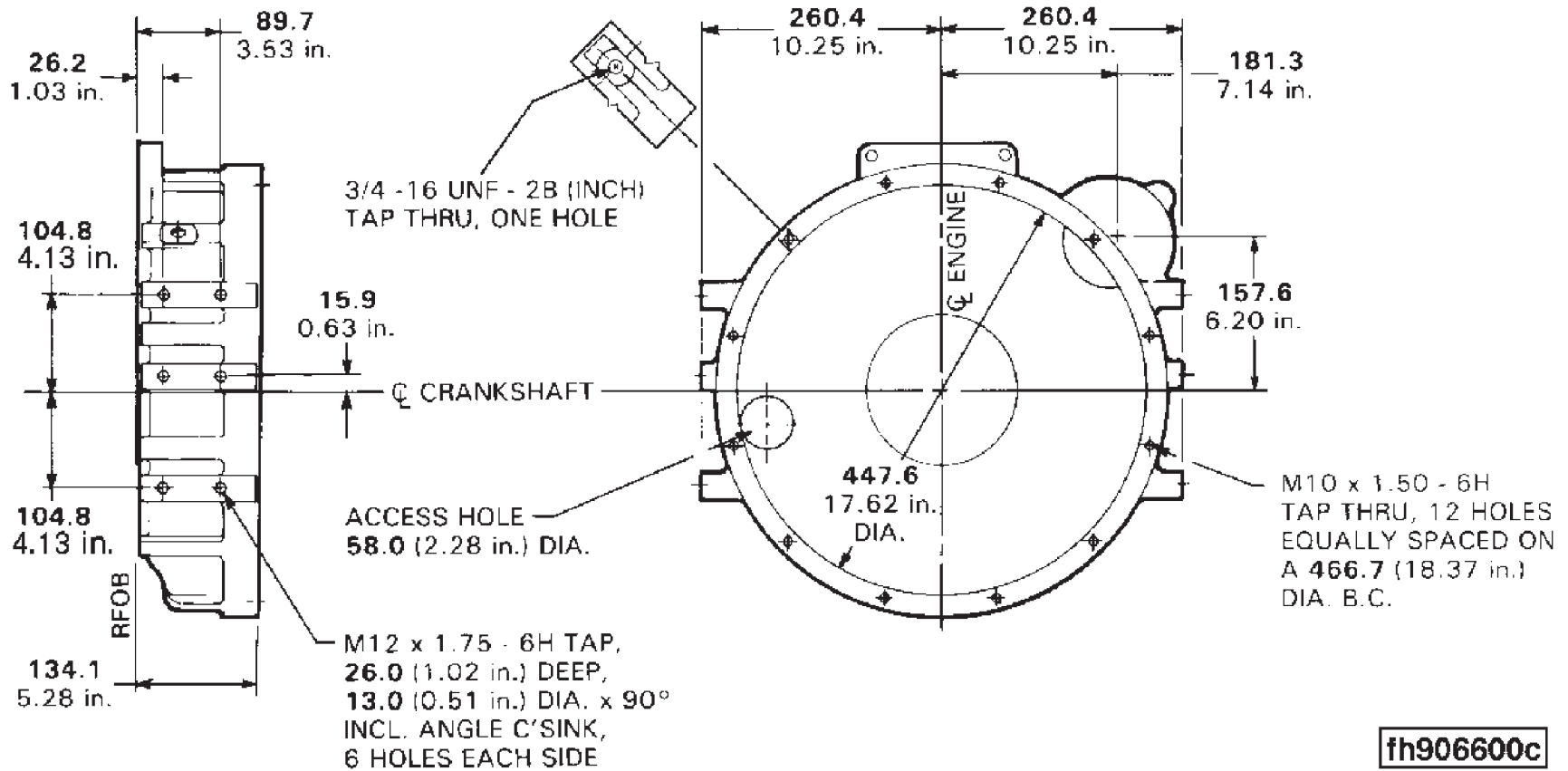
Structure code: 02 EBM
 Engine design phase: Current product
 Wet/dry clutch: Dry
 Housing material: Aluminum
 SAE size or type: SAE 3

Starter mount SAE: SAE #3 - 3 bolt 120 degree
Starter mount thread type: Metric
Starter quadrant: 1st
Starter pad offset from RFOB: 0.0 mm [0.00 in.]
Starter mounting hole dia.: 92.05 mm [3.624 in.]
Mount type: Pad
Engine mounting hole dimension: M12 x 1.75-6H
Number of mounting holes: 12
Engine mount top hole +/- CR C/L: 82.56 mm [3.250 in.]
Tach. sensor location: 4th
Tach. size: 3/4 - 16 UNF
Tach. count: 1
Trans. mtg. holes count/thread: 12 - M10 x 1.50 6H
Starter pad +/- CR C/L Y axis: 146.14 mm [5.754 in.]
Starter pad +/- CR C/L X axis: 168.12 mm [6.619 in.]
Starter bore angle: 49 deg.
Flywheel hsg. attachment provision: Cylinder block
Starter center distance: 222.758 mm [8.7700 in.]
Doweled for oil pan: No
Engine family: C series
Brazil may use rear cover p/n 3357700 instead of p/n 3911699

C SERIES GENERATOR DRIVE

FH - Flywheel Housing

FH9032



fh906600c

FH9032 [M]

Option #	SAE/Wet or Dry	Engine Mount Type	Material/Duty Type	Starter Quadrant	Weight	Notes
FH 9032	#2, dry	Pad	Aluminum	#1	-	-

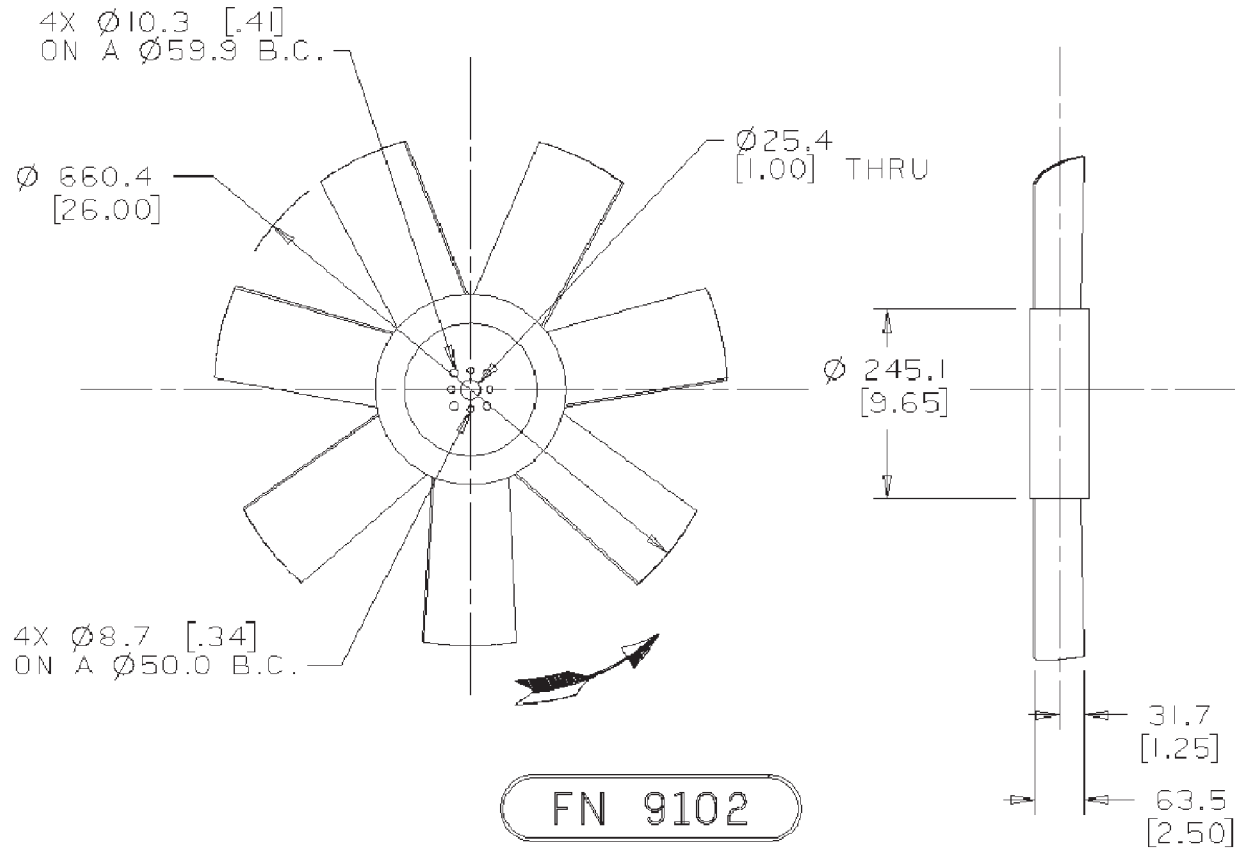
Structure code: 02 EBM
 Engine design phase: Current product
 Wet/dry clutch: Dry
 Housing material: Aluminum
 SAE size or type: SAE 2

Starter mount SAE: SAE # 3 - 3 bolt 120 deg.
Starter mount thread type: Metric
Starter quadrant: 1st
Starter pad offset from RFOB: 0.00 mm [0.00 in.]
Starter mounting hole dia.: 106.0 mm [4.17 in.]
Mount type: Pad
Engine mounting hole dimension: M12 x 1.75-6H
Number of mounting holes: 12
Engine mount top hole +/- CR C/L: 104.78 mm [4.125 in.]
Tach. sensor location: 4th
Tach. size: 3/4 - 16 UNF
Tach. count: 1
Trans. mtg. holes count/thread: 12 - M10 x 1.50 6H
Starter pad +/- CR C/L Y axis: 157.59 mm [6.204 in.]
Starter pad +/- CR C/L X axis: 181.29 mm [7.137 in.]
Starter bore angle: 49 deg.
Flywheel hsg. attachment provision: Cylinder block
Starter center distance: 240.21 [9.457 in.]
Doweled for oil pan: No
Engine family: C series
Brazil may use rear cover p/n 3357700 instead of p/n 3911699

C SERIES GENERATOR DRIVE

FN - Fan

FN9054



FN 9102

FN9054 [G]

Option #	Type/No. Blades	Diameter	Max. Speed	Material	Weight	Notes
FN 9054	Blower/7	660.4 mm [26 in.]	2600 rpm	Plastic	3.04 kg [6.70 lb.]	-

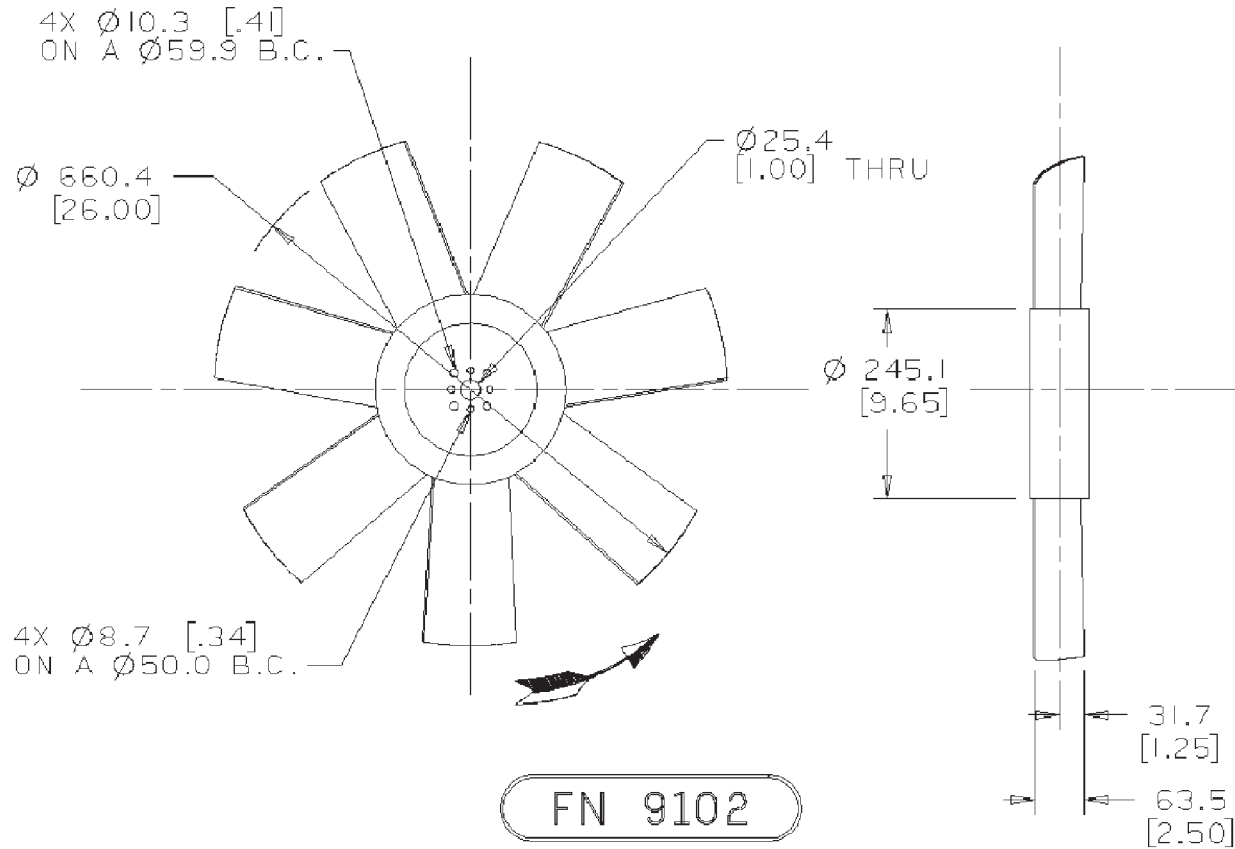
Fan blade count: 7
 Mounting flange thickness: 3.00 mm [0.118 in.]
 Fan weight: 3.03 kg [6.68 lb.]
 Fan pilot diameter: 25.4 mm [1.00 in.]
 Fan inertia: 0.095 kg•m² [2.254 lb-ft.²]

Required mounting capscrews: M10 x 4 / M8 x 4 on 60 mm [2.36 in.] / 50 mm [1.96 in.] B.C.

C SERIES GENERATOR DRIVE

FN - Fan

FN9102



FN 9102

FN9102 [G]

Option #	Type/No. Blades	Diameter	Max. Speed	Material	Weight	Notes
FN 9102	Blower/7	660.4 mm [26 in.]	2600 rpm	Plastic	3.04 kg [6.70 lb.]	-

Fan blade count: 7
 Mounting flange thickness: 3.80 mm [0.150 in.]
 Fan Wweight: 3.04 kg [6.70 lb.]
 Fan pilot diameter: 25.4 mm [1.00 in.]
 Fan inertia: 0.095 kg•m² [2.254 lb-ft.²]

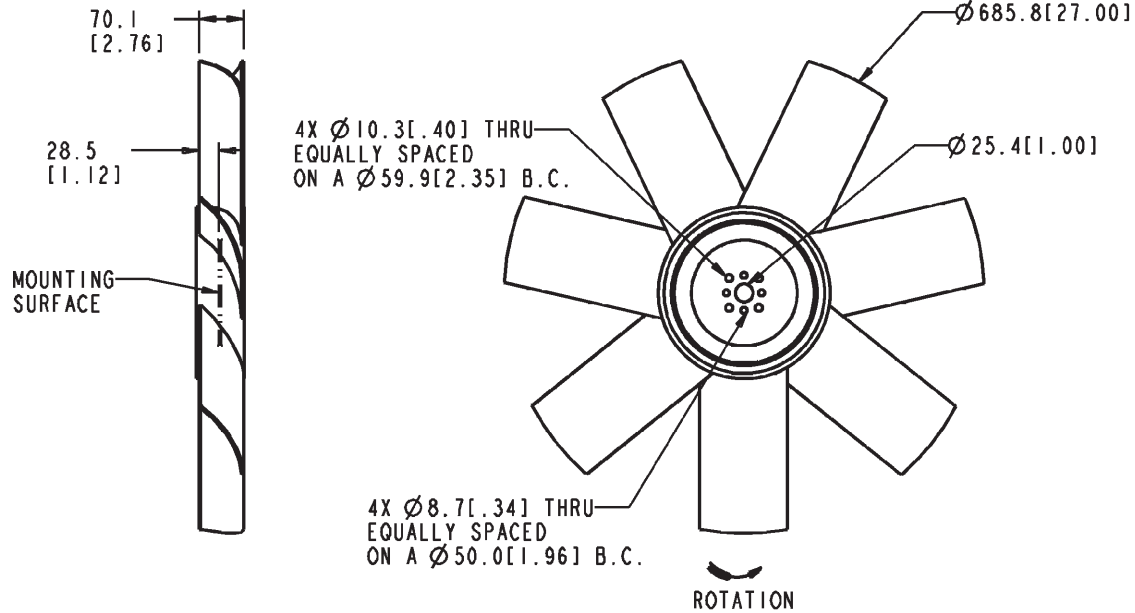
Includes mounting parts for use with SP 9022.

This hardware is available only on engines built at Darlington Engine Plant

C SERIES GENERATOR DRIVE

FN - Fan

FN9118



FOR FAN PERFORMANCE CURVE DATA, SEE APPL. ENGINEERING BULLETIN OR ADVISOR OR CONSULT FAN SUPPLIER

FN9118_MCS

FN9118 [G]

Option #	Type/No. Blades	Diameter	Max. Speed	Material	Weight	Notes
FN 9118	Blower/7	685.8 mm [27 in.]	2600 rpm	Plastic	3.13 kg [6.90 lb.]	-

Fan blade count: 7
 Mounting flange thickness: 3.00 mm [0.118 in.]
 Fan diameter: 685.8 mm [27 in.]
 Fan weight: 3.13 kg [6.90 lb.]
 Fan pilot diameter: 25.4 mm [1.00 in.]

Fan inertia: 0.1 kg•m² [2.373 lb-ft.²]

Required mounting capscrews: M10 x 4/ M8 x 4 on 60 mm [2.36 in.] / 50 mm [1.96 in.] B.C.

This hardware is available only on engines built at Darlington Engine Plant.

C SERIES GENERATOR DRIVE

FR - Fuel Rating

FR90240

(No Graphics Required)

FR90240 [M]

Option #	Standby	Prime	Continuous	Certification Level	Notes
FR 90240	-	154 kW [207 bhp] @ 1800 rpm	135 kW [181 bhp] @ 1500 rpm	Tier 1, Tier 1	-

Advertised hp: 154 kW [207 bhp] @ 1800 rpm
Secondary adv. hp: 135 kW [181 bhp] @ 1500 rpm
Governed hp: 154 kW [207 bhp] @ 1800 rpm
Governor regulation: 4.8%
Torque peak: N/A @ N/A
Fuel pump manufacturer/model: Bosch A3500
Fuel pump mounted angle: 35 deg.
Governor type: RSV
Fuel pump type: Inline
High pressure fuel line I.D.: 1.8 mm [0.07 in.]
Low idle setting: 900 rpm
High idle: 1950 rpm
Engine application: Generator
CPL: 2216
Certified by: EPA, CARB
Engine cylinders: 6
Engine family: C series
Structure code: 02 EBM
Manufacturer of record: Cummins
Fuel type: Diesel
Cylinder head material: Cast iron
Latch-out linkage provision: Yes
External oiling provision: Yes or No
Peak power: 154 kW [207 bhp] @ 1800 rpm
Peak power rpm: 1800 rpm
Governor break: 1860 rpm
Derate to no air curve provision: Yes
Engine design phase: Current product
Engine aspiration: Turbocharged
Cert. level: Tier 1. Tier 1

Special allowance: None

Fuel pump gear timing (deg. crank): 0 deg. retarded

For use with 6CT8.3-G2 only.

C SERIES GENERATOR DRIVE

FR - Fuel Rating

FR90241

(No Graphics Required)

FR90241 [M]

Option #	Standby	Prime	Continuous	Certification Level	Notes
FR 90241	-	135 kW [181 bhp] @ 1500 rpm	154 kW [207 bhp] @ 1800 rpm	Tier 1, Tier 1	-

Advertised hp: 135 kW [181 bhp] @ 1500 rpm
Secondary adv. hp: 154 kW [207 bhp] @ 1800 rpm
Governed hp: 135 kW [181 bhp] @ 1500 rpm
Governor regulation: 5%
Torque peak: N/A @ N/A
Fuel pump manufacturer/model: Bosch A3500
Fuel pump mounted angle: 35 deg.
Governor type: RSV
Fuel pump type: Inline
High pressure fuel line I.D.: 1.8 mm [0.07 in.]
Low idle setting: 900 rpm
High idle: 1575 rpm
Engine application: Generator
CPL: 2216
Certified by: EPA, CARB
Engine cylinders: 6
Engine family: C series
Structure code: 02 EBM
Manufacturer of record: Cummins
Fuel type: Diesel
Cylinder head material: Cast iron
Latch-out linkage provision: Yes
External oiling provision: Yes or No
Peak power: 154 kW [207 bhp] @ 1800 rpm
Peak power rpm: 1800 rpm
Governor break: 1500 rpm
Derate to no air curve provision: Yes
Engine design phase: Current product
Engine aspiration: Turbocharged
Cert. level: Tier 1. Tier 1

Special allowance: TPEM

Fuel pump gear timing (deg. crank): 0 deg. retarded

For use with 6CT8.3-G2 only.

C SERIES GENERATOR DRIVE

FR - Fuel Rating

FR90242

(No Graphics Required)

FR90242 [M]

Option #	Standby	Prime	Continuous	Certification Level	Notes
FR 90242	-	207 kW [277 bhp] @ 1800 rpm	180 kW [241 bhp] @ 1500 rpm	Tier 1, Tier 1	-

Advertised hp: 207 kW [277 bhp] @ 1800 rpm
 Secondary adv. hp: 180 kW [241 bhp] @ 1500 rpm
 Governed hp: 207 kW [277 bhp] @ 1800 rpm
 Governor regulation: 8.6%
 Torque peak: N/A @ N/A
 Fuel pump manufacturer/model: Bosch P3000
 Fuel pump mounted angle: 35 deg.
 Governor type: RSV
 Boost control provided: No
 Fuel pump type: Inline
 High pressure fuel line I.D.: 1.8 mm [0.07 in.]
 Low idle setting: 800 rpm
 High idle: 1955 rpm
 Engine application: Generator
 CPL: 2218
 Certified by: EPA, CARB
 Engine cylinders: 6
 Engine family: C series
 Structure code: 02 EBM
 Manufacturer of record: Cummins
 Fuel type: Diesel
 Cylinder head material: Cast iron
 Latch-out linkage provision: Yes
 External oiling provision: Yes or No
 Peak power: 207 kW [277 bhp] @ 1800 rpm
 Peak power rpm: 1800 rpm
 Governor break: 1800 rpm
 Derate to no air curve provision: Yes
 Engine design phase: Current product
 Engine aspiration: Turbocharged

Cert. level: Tier 1. Tier 1
Special allowance: TPEM
Fuel pump gear timing (deg. crank): 0 deg. retarded
For use with 6CTA8.3-G2 only.

C SERIES GENERATOR DRIVE

FR - Fuel Rating

FR90243

(No Graphics Required)

FR90243 [M]

Option #	Standby	Prime	Continuous	Certification Level	Notes
FR 90243	-	180 kW [241 bhp] @ 1500 rpm	207 kW [277 bhp] @ 1800 rpm	Tier 1, Tier 1	-

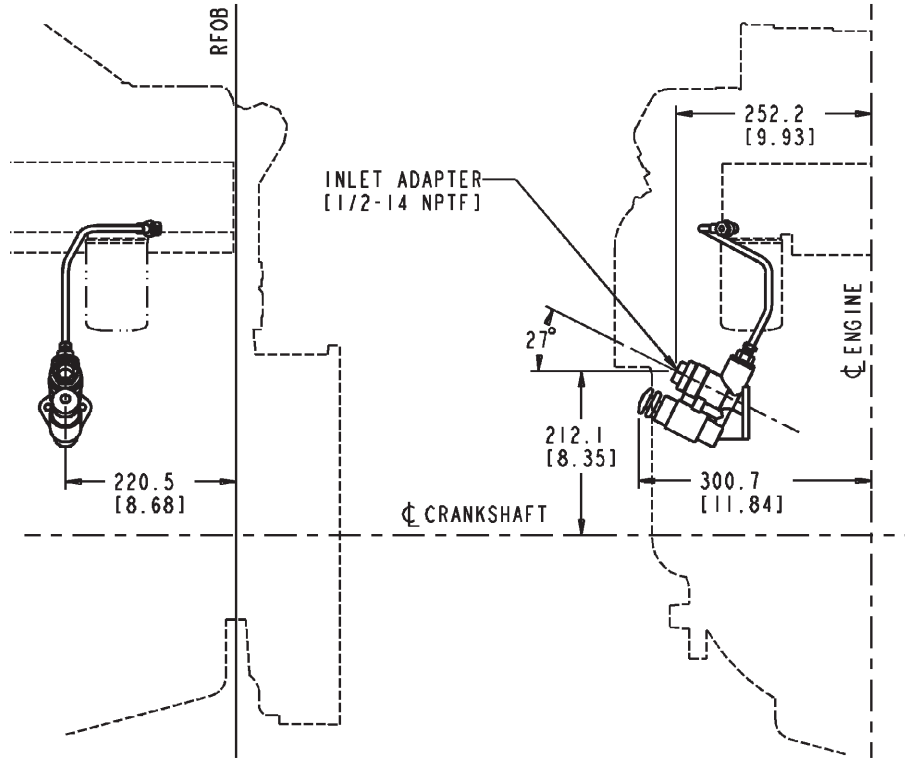
Advertised hp: 180 kW [241 bhp] @ 1500 rpm
Secondary adv. hp: 207 kW [277 bhp] @ 1800 rpm
Governed hp: 180 kW [241 bhp] @ 1500 rpm
Governor regulation: 5%
Torque peak: N/A @ N/A
Fuel pump manufacturer/model: Bosch P3000
Fuel pump mounted angle: 35 deg.
Governor type: RSV
Boost control provided: No
Fuel pump type: Inline
High pressure fuel line I.D.: 1.8 mm [0.07 in.]
Low idle setting: 900 rpm
High idle: 1575 rpm
Engine application: Generator
CPL: 2218
Certified by: EPA, CARB
Engine cylinders: 6
Engine family: C series
Structure code: 02 EBM
Manufacturer of record: Cummins
Fuel type: Diesel
Cylinder head material: Cast iron
Latch-out linkage provision: Yes
External oiling provision: Yes or No
Peak power: 207 kW [277 bhp] @ 1800 rpm
Peak power rpm: 1800 rpm
Governor break: 1500 rpm
Derate to no air curve provision: Yes
Engine design phase: Current product
Engine aspiration: Turbocharged

Cert. level: Tier 1. Tier 1
Special allowance: TPEM
Fuel pump gear timing (deg. crank): 0 deg. retarded
For use with 6CTA8.3-G2 only.

C SERIES GENERATOR DRIVE

FS - Fuel System Accessories

FS9089



FS9089_MCS

FS9089 [G]

Option #	Description					Notes
FS 9089	Lift pump					-

Structure code 02 EBM
 Pump style: Piston
 Pump stand measured flow: 183-229 litre/hr [48.3-60.5 U.S. gph]
 Pump measured flow (pump rpm): 1250 rpm
 Fuel inlet size: 1/2-14 NPTF

Filter location: Under #5 cylinder head
Pre-filter provided: No
Engine design phase: Current product
Solenoid bracket provision: No
Fuel cooler plumbing provision: N/A
Unique characteristics: Includes M6 mounting studs
Restricted fuel pump: Bosch MW, Bosch P3000, Bosch P7100, Nippondenso EP-9
Cylinders: 6
Engine family: C series

C SERIES GENERATOR DRIVE

FV - Fuel Shutoff Valve

FV9000

(No Graphics Required)

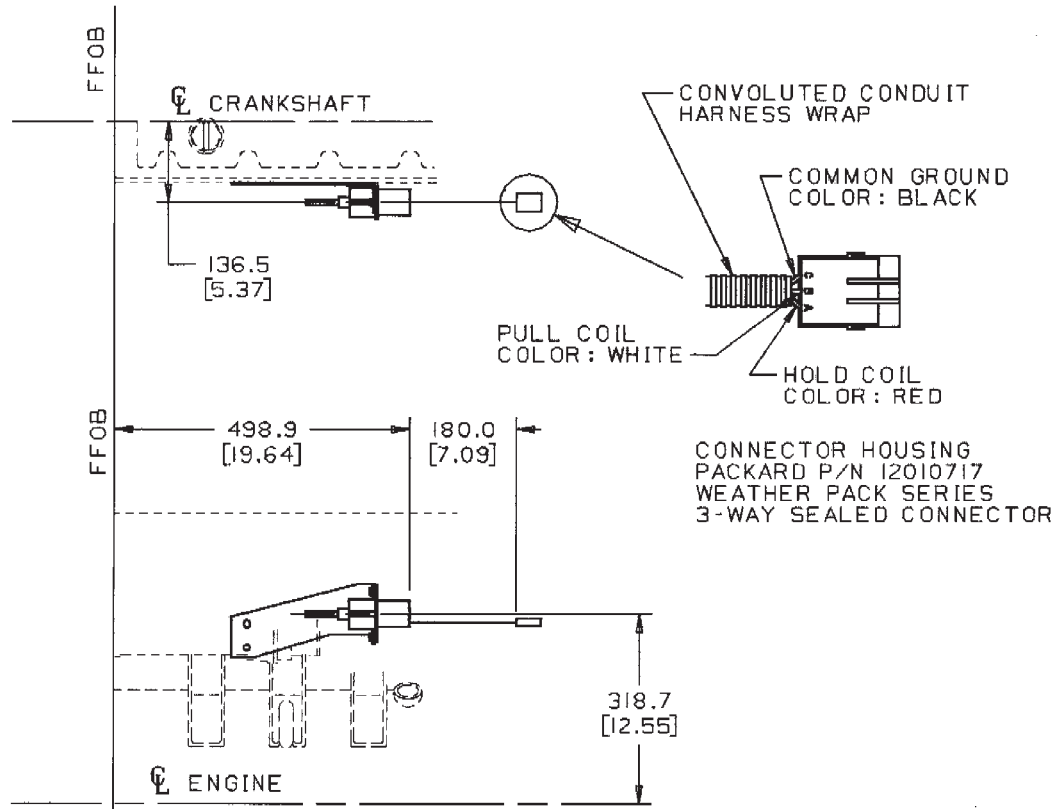
FV9000 [G]

Option #	Voltage/Amps	Location	Type			Notes
FV 9000	-	-	-			Customer supplied mechanical fuel shutoff valve for Bosch 'A' and 'MW' fuel pumps

Customer supplied mechanical fuel shutoff valve for Bosch 'A' and 'MW' fuel pumps with RSV governor.
No content option.

FV - Fuel Shutoff Valve

FV9086



FV9086 [G]

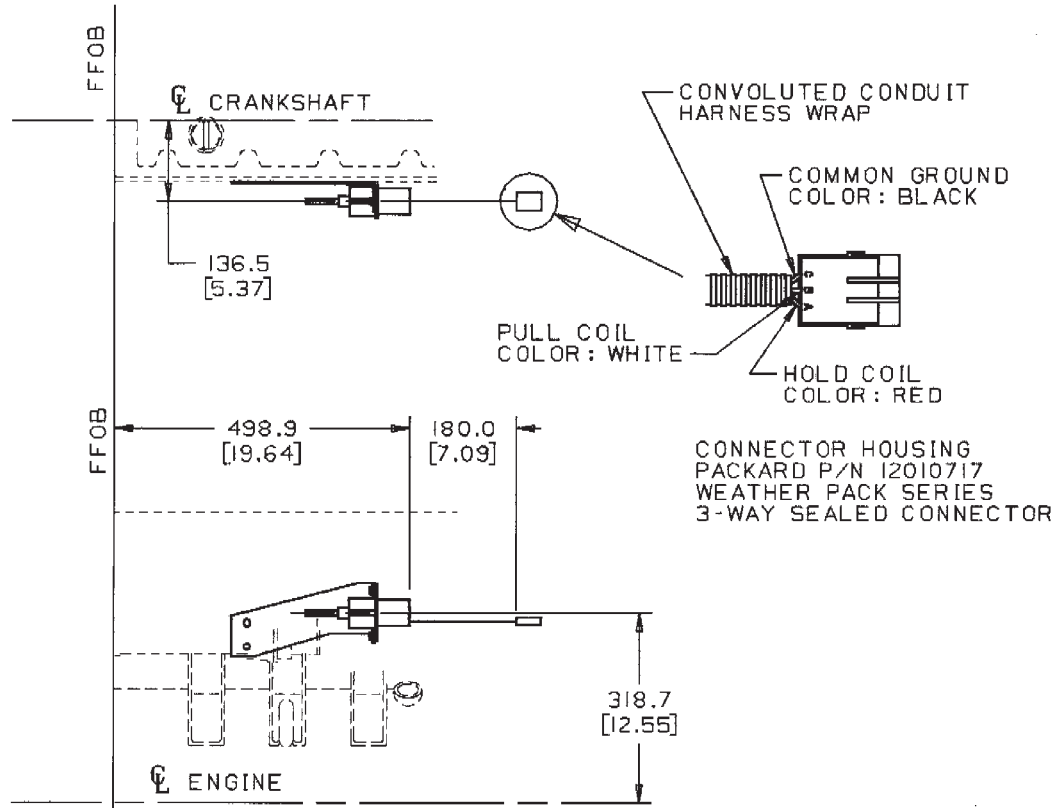
Option #	Voltage/Amps	Location	Type			Notes
FV 9086	12V	-	Synchro-Start			-

Direct link, activate to run, fuel pump shutoff valve. Solenoid to be oriented with wiring pigtail at 6 o'clock position when mounted on engine. **Includes brackets, actuator and mounting for Bosch 'A' pump with RSV governor.**

C SERIES GENERATOR DRIVE

FV - Fuel Shutoff Valve

FV9087



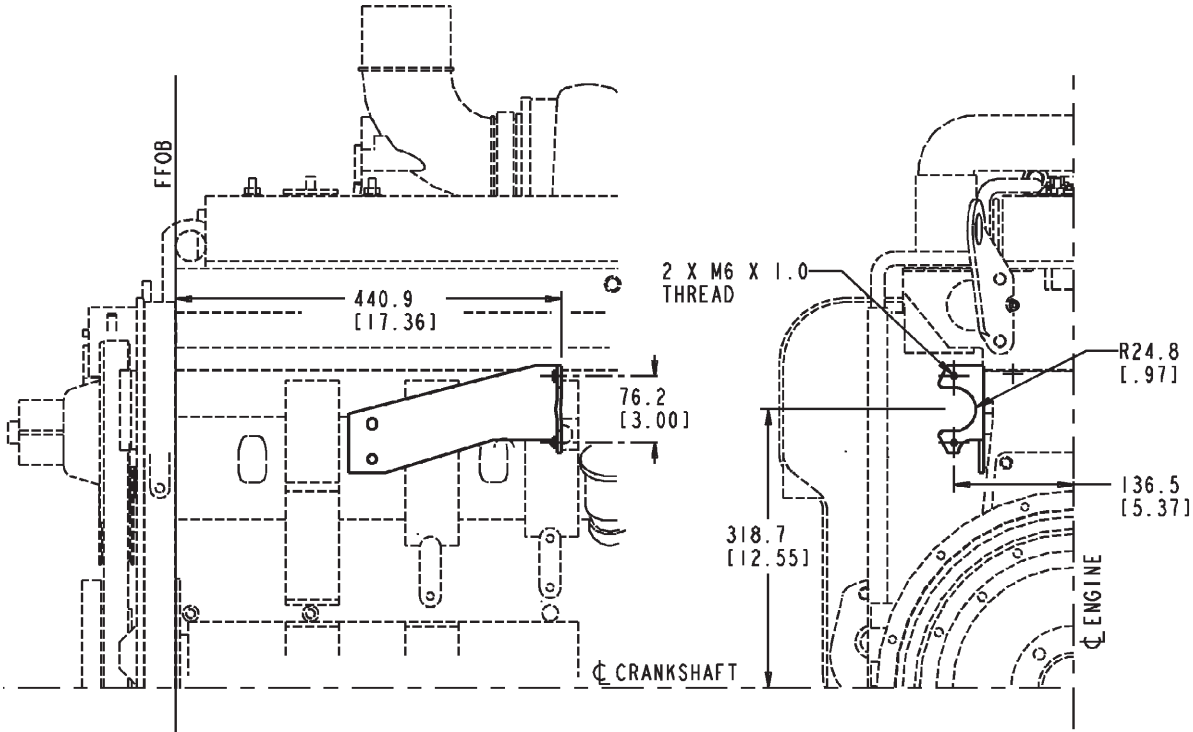
FV9087 [G]

Option #	Voltage/Amps	Location	Type			Notes
FV 9087	24V	-	Synchro-Start			-

Direct link, activate to run, fuel pump shutoff valve. Solenoid to be oriented with wiring pigtail at 6 o'clock position when mounted on engine. Includes brackets, actuator and mounting for Bosch 'A' pump with RSV governor.

FV - Fuel Shutoff Valve

FV9098



FV9098.MCS

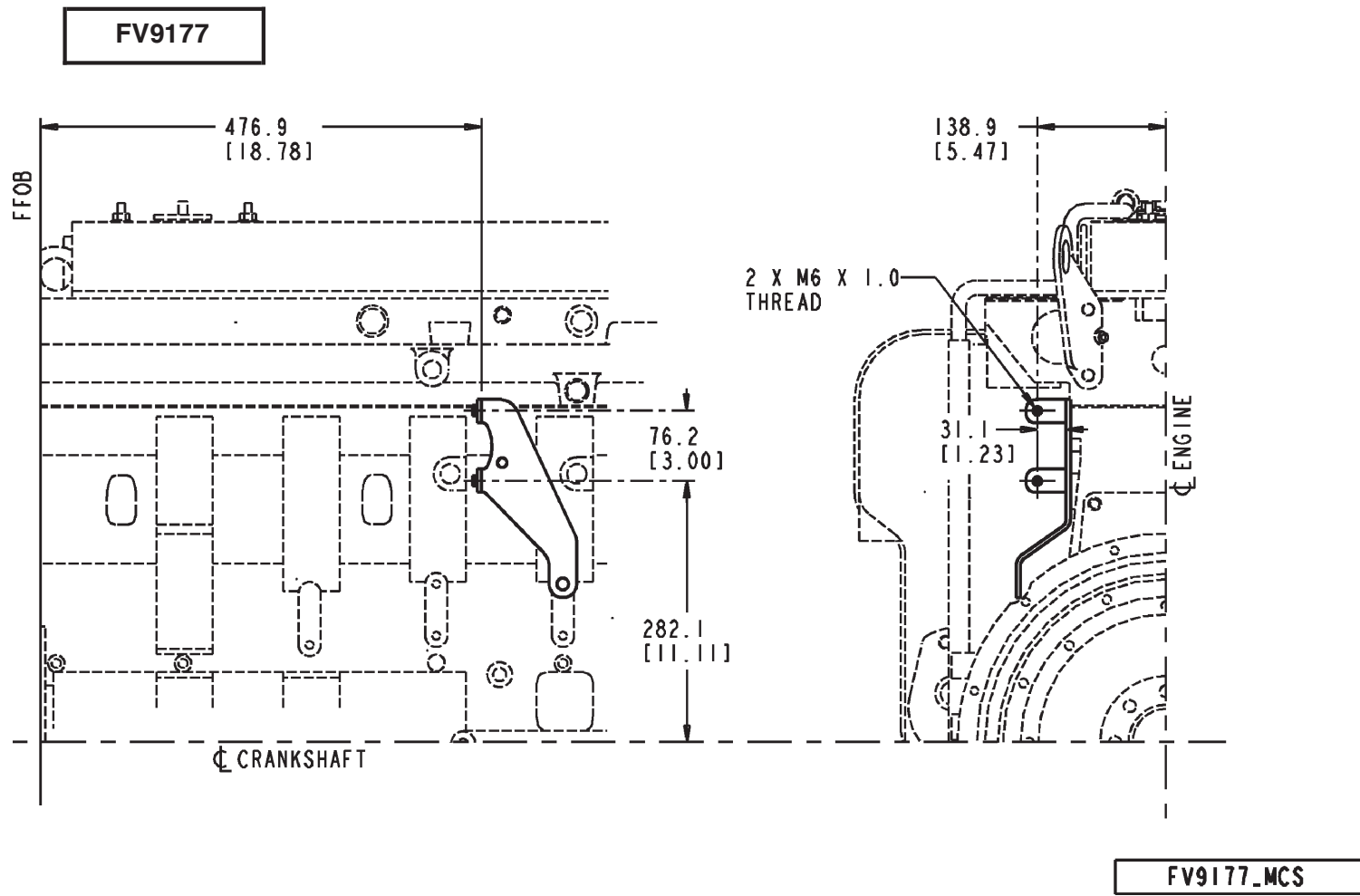
FV9098 [G]

Option #	Voltage/Amps	Location	Type			Notes
FV 9098	-	-	Syncro-Start			-

Customer supplied fuel shutoff valve.
 Includes solenoid bracket and mounting screws for direct link solenoid. Solenoid to be oriented with wiring pigtail at 6 o'clock position when mounted on engine.
 For use with Bosch A/RSV.

C SERIES GENERATOR DRIVE

FV - Fuel Shutoff Valve



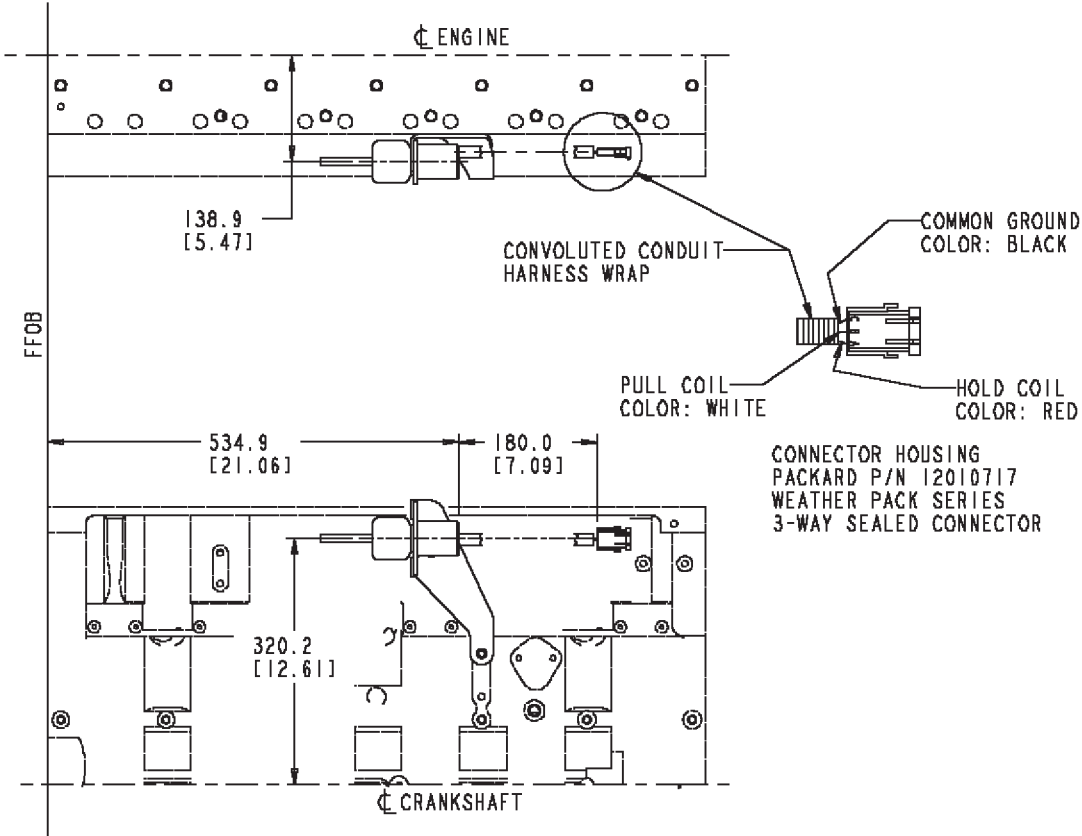
FV9177 [G]

Option #	Voltage/Amps	Location	Type			Notes
FV 9177	-	-	Syncro-Start			-

Customer supplied fuel shutoff valve.
Includes solenoid bracket and mounting screws for direct link solenoid.
For use with Bosch P3000/RSV.

FV - Fuel Shutoff Valve

FV9206



FV9206 [G]

Option #	Voltage/Amps	Location	Type	Notes
FV 9206	12V	-	Syncro-Start	Direct link fuel pump

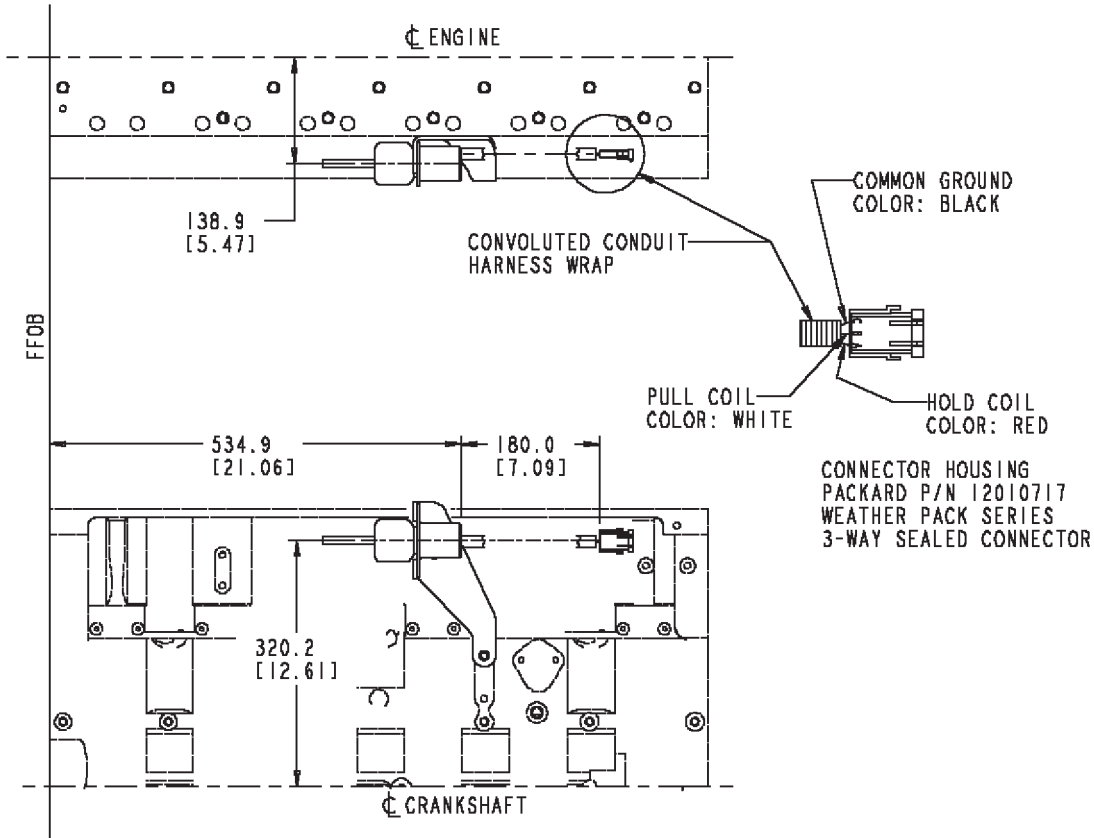
Valve activation: Electrical
 Structure code: 02 EBM
 Engine design phase: Current product
 Voltage: 12V
 Valve manufacturer: Syncro-Start

C SERIES GENERATOR DRIVE

Shutoff valve supplier: Cummins
Solenoid activation: ATR
Unique characteristics: Direct link fuel pump
Cylinders: 6
Bolt-on governor: No
Fuel pump manufacturer/model: Bosch P3000
Pump governor type: RSV
Engine family: C series
Solenoid to be oriented with wiring pigtail at 6 o'clock position when mounted on engine

FV - Fuel Shutoff Valve

FV9207



FV9207 [G]

Option #	Voltage/Amps	Location	Type	Notes
FV 9207	24V	-	Syncro-Start	Direct link fuel pump

Valve activation: Electrical
 Structure code: 02 EBM
 Engine design phase: Current product
 Voltage: 24V
 Valve manufacturer: Syncro-Start

C SERIES GENERATOR DRIVE

Shutoff valve supplier: Cummins

Solenoid activation: ATR

Unique characteristics: Direct link fuel pump

Cylinders: 6

Bolt-on governor: No

Fuel pump manufacturer/model: Bosch P3000

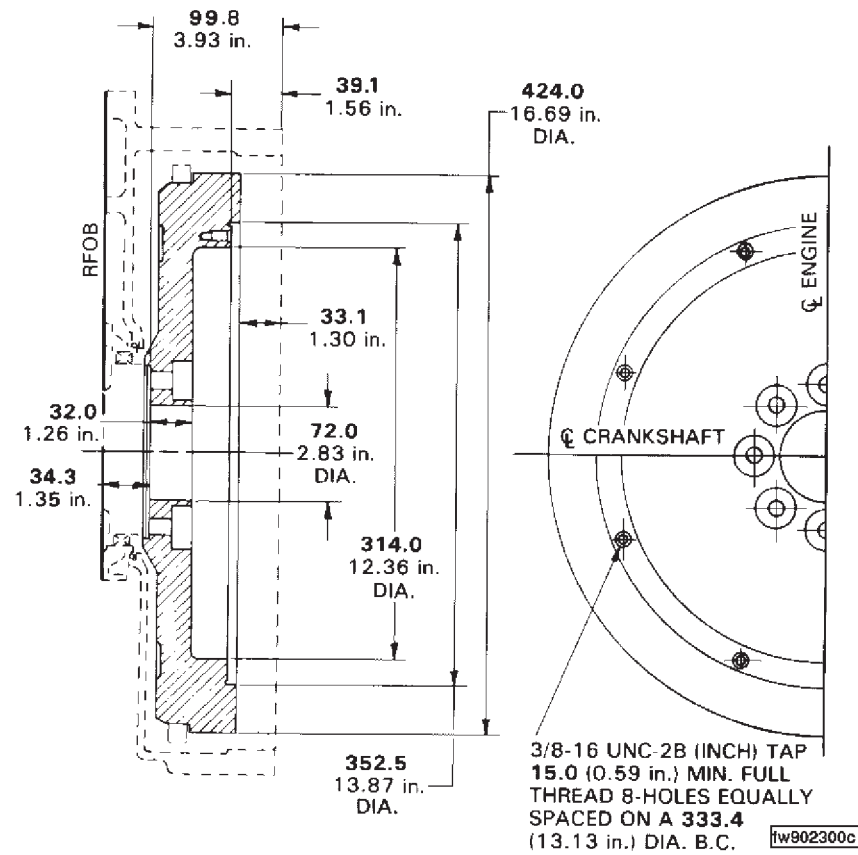
Pump governor type: RSV

Engine family: C series

Solenoid to be oriented with wiring pigtail at 6 o'clock position when mounted on engine

FW - Flywheel

FW9023



FW9023 [M]

Option #	Use with FH SAE#	Pilot Bearing Bore Dia.	Ring Gear Pitch/Teeth	Indicated Drive/Clutch Size	# Holes/Bolt Circle	Notes
FW 9023	#2	71.973 mm [2.8336 in.]	8/10-138	292.1 mm [11.5 in.] O.C. clutch	-	Material spec. 41,044

Material specification: 41,044
 Ring Gear Pitch Diameter: 438.15 mm [17.250 in.]
 Crank Flange to Ring Gear Leading Edge: 9.075 mm [0.3573 in.]

C SERIES GENERATOR DRIVE

Maximum rpm: 3700

Clutch Mounting Bolt Circle: 333.38 mm [13.125 in.]

Clutch Mounting Hole Count: 8

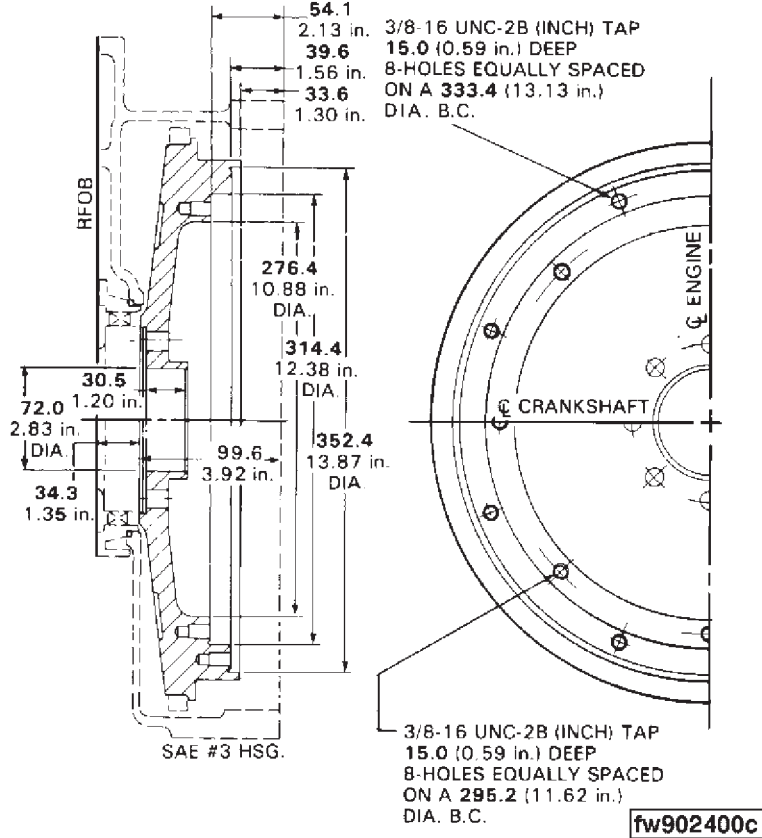
Clutch Mounting Hole Nomenclature: 3/8-16 UNC

Moment of Inertia: 1.17 kg/m² [27.7 lb/ft²]

Required Starter Center Distance: 234.19 mm [9.220 in.]

FW - Flywheel

FW9024



FW9024 [M]

Option #	Use with FH SAE#	Pilot Bearing Bore Dia.	Ring Gear Pitch/Teeth	Indicated Drive/Clutch Size	# Holes/Bolt Circle	Notes
FW 9024	3	71.973 mm [2.8336 in.]	8/10-127	254.0 mm [10 in.] & 292.1 mm [11.5 in.] O.C. Clutch	-	Material spec. 40,001

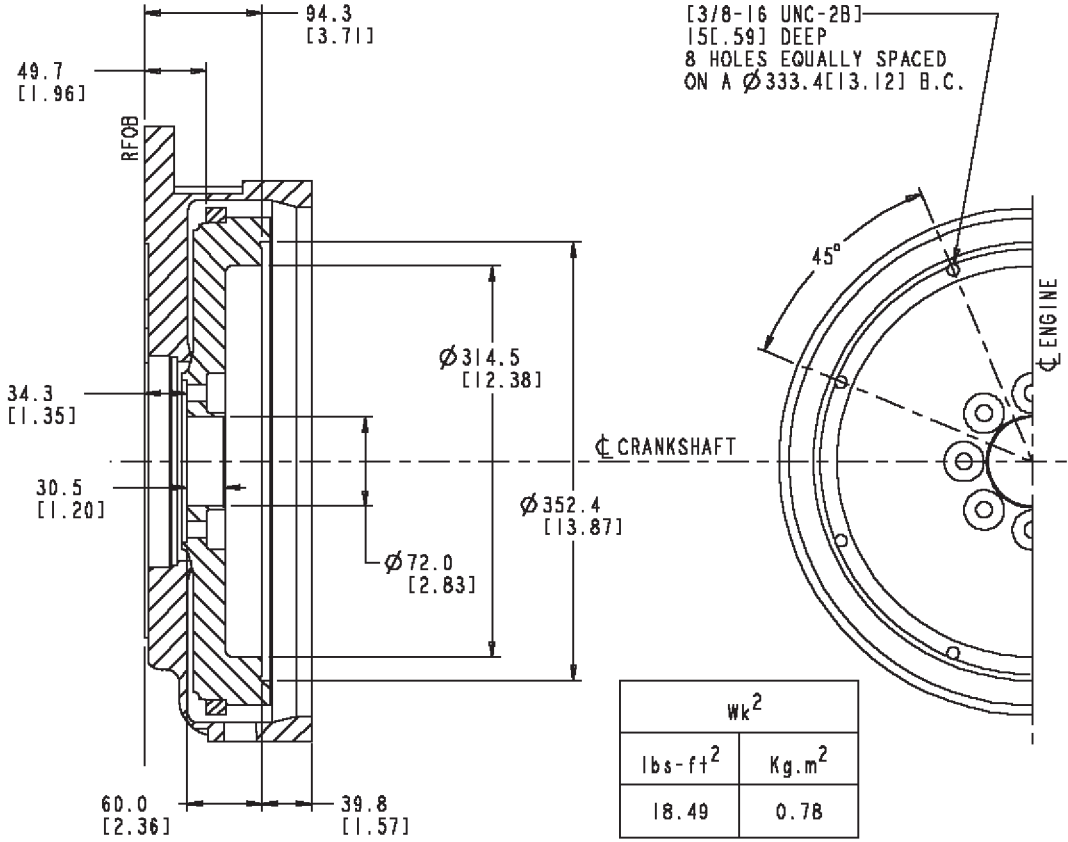
Ring gear pitch diameter: 403.225 mm [15.875 in.]
 Crank flange to ring gear leading edge: 15.13 mm [0.596 in.]
 Maximum rpm: 2850 rpm

C SERIES GENERATOR DRIVE

Clutch mounting bolt circle: 333.38 mm [13.125 in.]
Clutch mounting hole count: 16
Clutch mounting hole nomenclature: 3/8-16 UNC-2B
Moment of inertia: 0.56 kg•m² [13.289 lb-ft.²]
Required starter center distance: 216.40 mm [8.520 in.]
Multiple clutch face bolt circle
Material specification: 40,001

FW - Flywheel

FW9120



FW9120 [M]

Option #	Use with FH SAE#	Pilot Bearing Bore Dia.	Ring Gear Pitch/Teeth	Indicated Drive/Clutch Size	# Holes/Bolt Circle	Notes
FW 9120	3	71.973 mm [2.8336 in.]	8/10-127	292.1 mm [11.5 in.] O.C. Clutch	-	-

Material specification: 41,044
 Ring Gear Pitch Diameter: 403.225 mm [15.875 in.]
 Crank Flange to Ring Gear Leading Edge: 15.43 mm [0.607 in.]

C SERIES GENERATOR DRIVE

Maximum rpm: 3970

Clutch Mounting Bolt Circle: 333.38 mm [13.125 in.]

Clutch Mounting Hole Count: 8

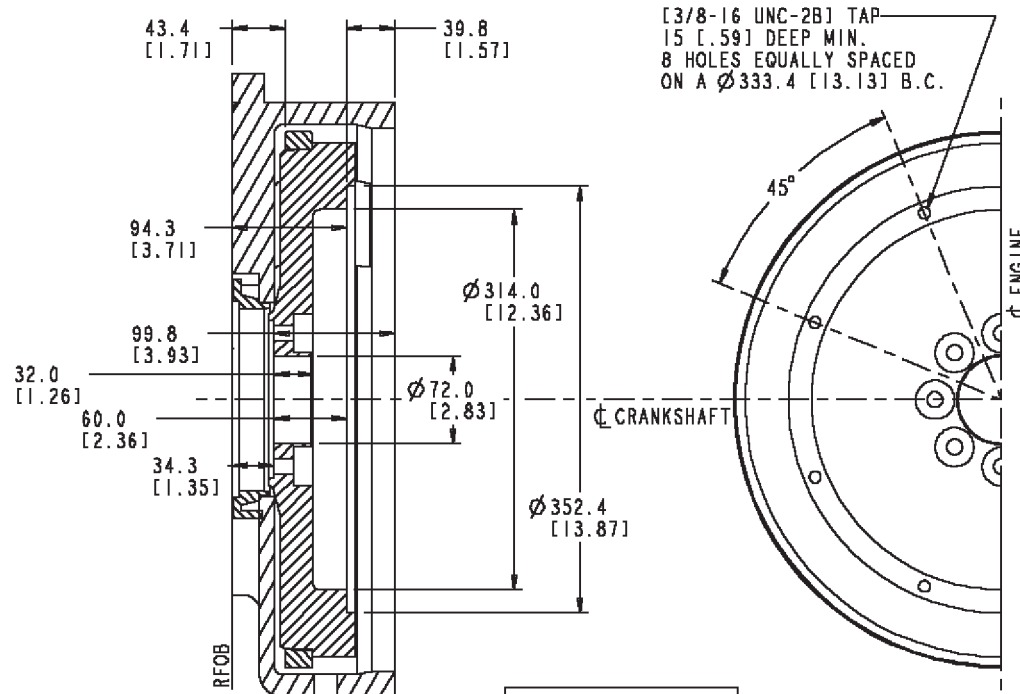
Clutch Mounting Hole Nomenclature: 3/8-16 UNC-2B

Moment of Inertia: 0.78 kg/m² [18.5 lb/ft²]

Required Starter Center Distance: 216.40 mm [8.520 in.]

FW - Flywheel

FW9232



Wk ²	
lbs-ft ²	Kg.m ²
27.4	1.17

FW9232 [M]

Option #	Use with FH SAE#	Pilot Bearing Bore Dia.	Ring Gear Pitch/Teeth	Indicated Drive/Clutch Size	# Holes/Bolt Circle	Notes
FW 9232	2	71.973 mm [2.8336 in.]	8/10-138	292.1 mm [11.5 in.] O.C. Clutch	-	-

Material specification: 41,044
 Ring gear pitch diameter: 438.15 mm [17.25 in.]
 Crank flange to ring gear leading edge: 9.075 mm [0.3573 in.]

C SERIES GENERATOR DRIVE

Maximum rpm: 3700 rpm

Clutch mounting bolt circle: 333.38 mm [13.125 in.]

Clutch mounting hole count: 8

Clutch mounting hole nomenclature: 3/8-16 UNC-2B

Moment of inertia: 1.17 kg/m² [27.7 lb/ft²]

Required starter center distance: 234.19 mm [9.220 in.]

Conforms to SAE housing to wheel standard: Yes

FX - External Oiling

FX9004

(No Graphics Required)

FX9004 [M]

Option #	Description					Notes
FX 9004	Injection pump oil supply					-

External oiling provision: No
 Latch out provision: Yes
 Air compressor provision: No
 Connection hose material: M213
 Restricted fuel pump governor: RSV
 Structure language: 02 EBM
 Location/length/orientation: #3 hole/508 mm [20 in.]/9:00
 Engine family: C series
 Restricted fuel pump mfg./model: Bosch MW, Bosch A, Bosch P3000

C SERIES GENERATOR DRIVE

FX - External Oiling

FX9015

(No Graphics Required)

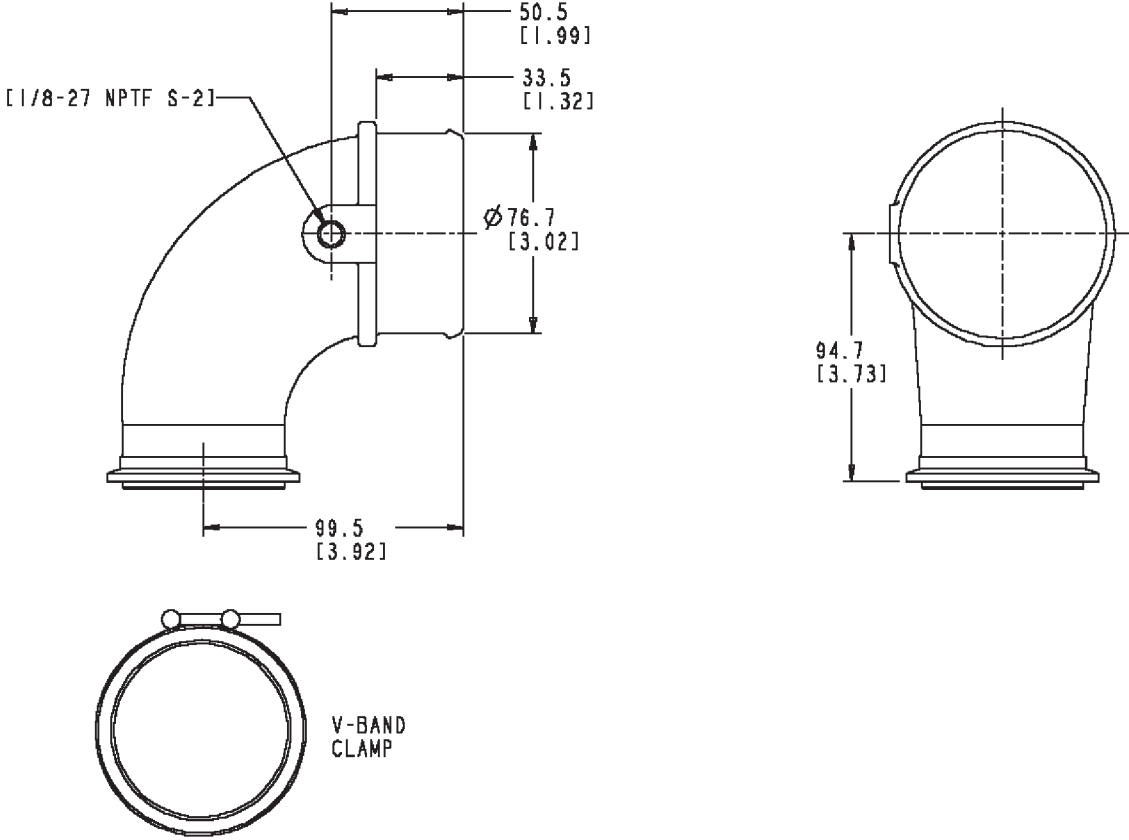
FX9015 [M]

Option #	Description					Notes
FX 9015	Injection pump oil supply					-

Restricted fuel pump governor: RSV
Location/length/orientation: #2 hole/508 mm [20 in.]/5:00
Restricted fuel pump mfg./model: Bosch MW, Bosch A, Bosch P3000

IC - Air Intake Accessories

IC9024



IC9024 [M]

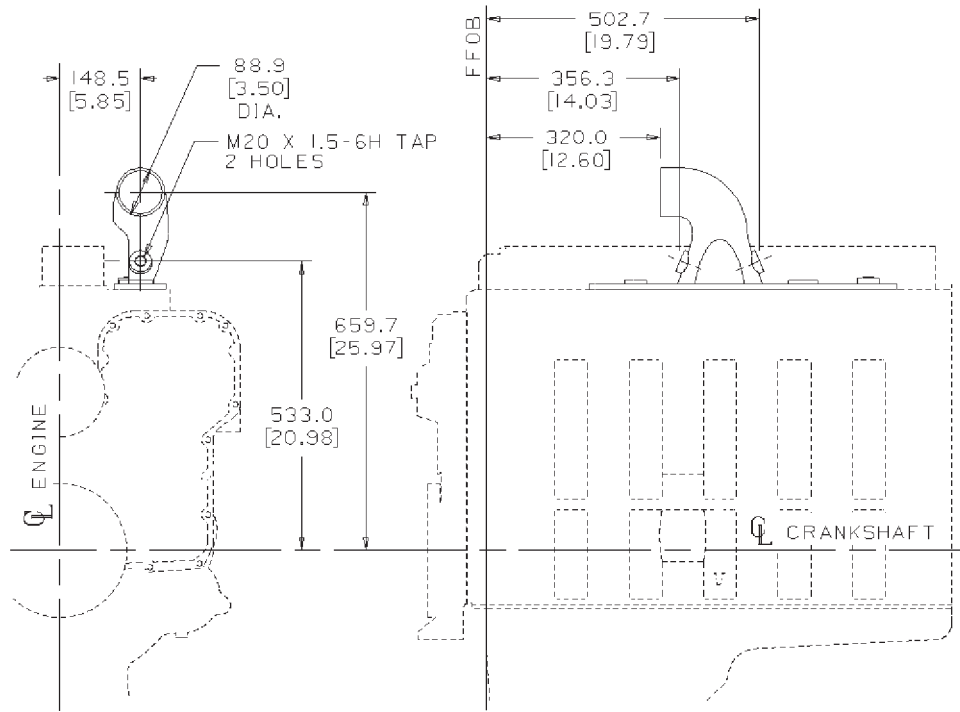
Option #	Description/Dia.	Orientation/Location	Hose Material			Notes
IC 9024	76.2 mm [3.0 in.] O.D.	90 deg. rotatable	-			Mounted

Turbo compressor outlet connection

C SERIES GENERATOR DRIVE

IC - Air Intake Accessories

IC9125



IC 9074

IC9125 [M]

Option #	Description/Dia.	Orientation/Location	Hose Material			Notes
IC 9125	Intake conn. & cover 88.9 mm [3.5 in.] I.D.	-	-			-

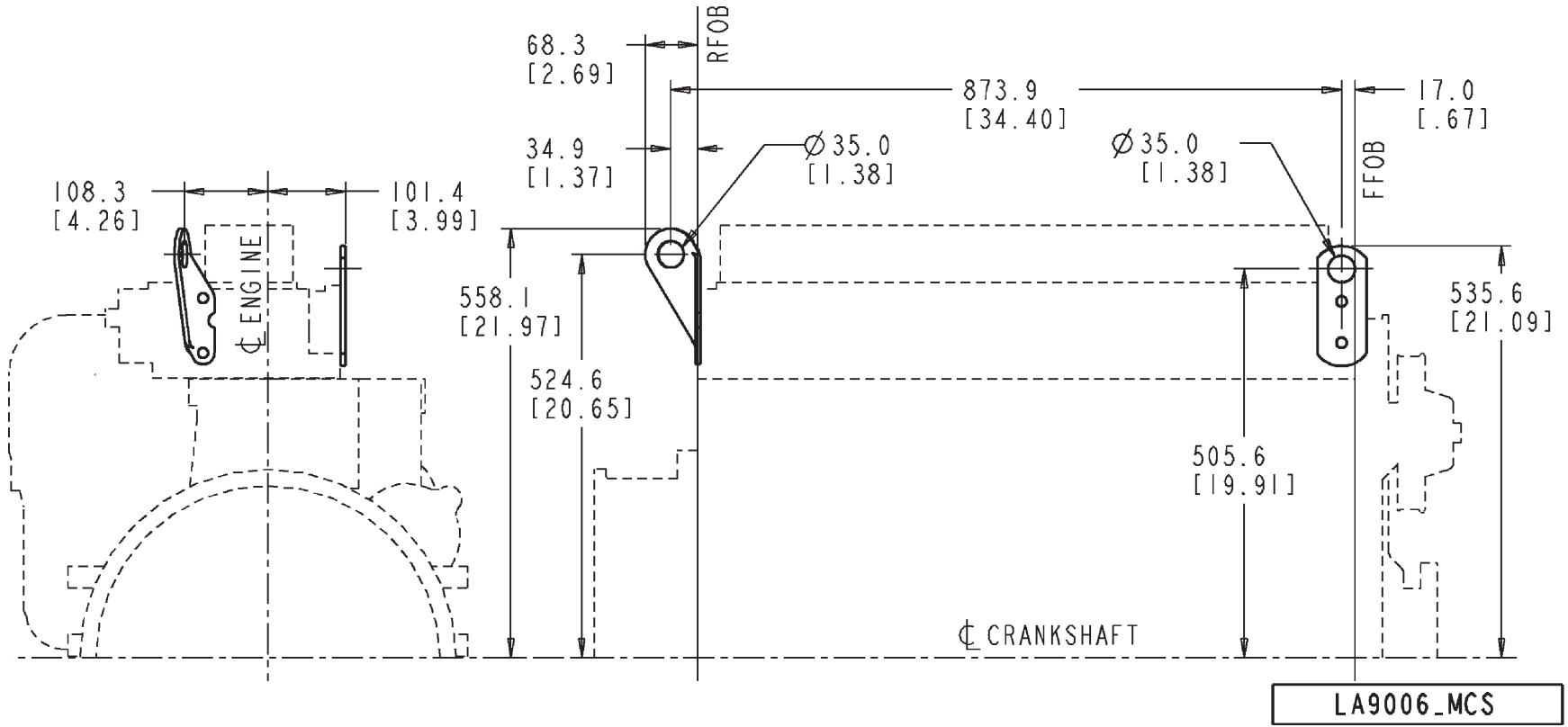
Connection I.D.: 88.9 mm [3.5 in.]
 Construction: One piece
 Connection: Beaded
 Heater capabilities: No

Notched head: No
Intake air sensor provision: Yes

C SERIES GENERATOR DRIVE

LA - Lifting Arrangement

LA9006



LA9006_MCS

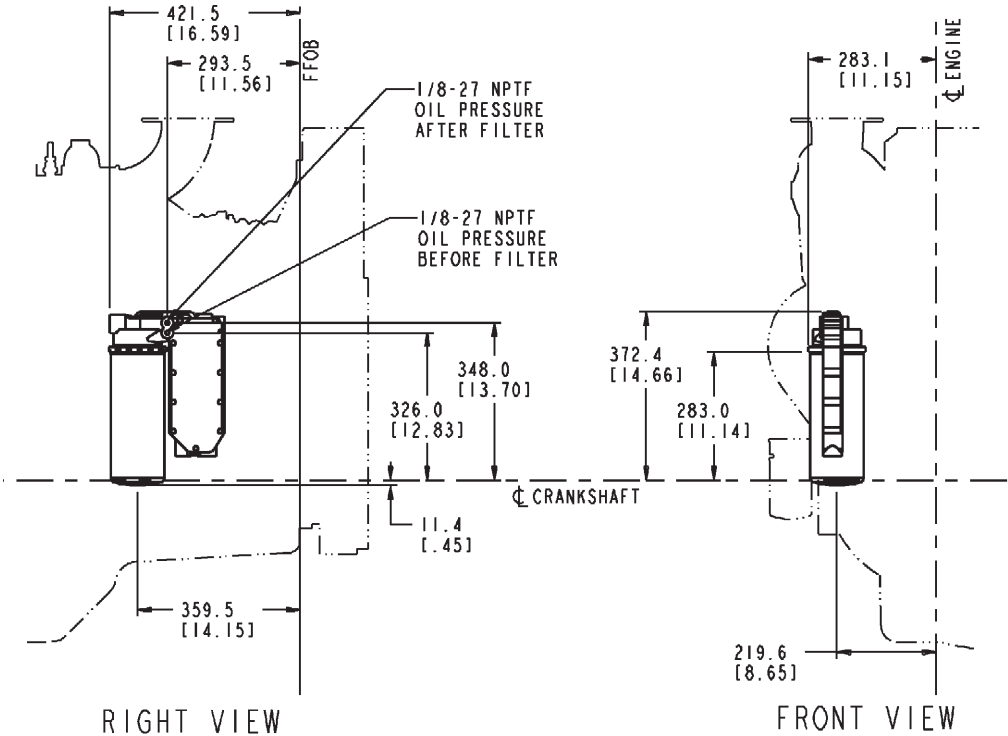
LA9006 [M]

Option #	Bracket Location	# of Brackets	Maximum Lifting Load		Notes
LA 9006	Front and rear	(1) each	907.2 kg [2000 lb.]		Capscrew length: 25.0 mm [0.98 in.]

Front and rear lifting bracket arrangement for C Series engines. 907.2 kg [2000 lb.] maximum lifting load.
Rear bracket orientation: 78 deg. from RFOB.

LC - Engine Oil Cooler

LC9028



LC9028_MCS

LC9028 [M]

Option #	Description					Notes
LC 9028	Vertical Plate					Full Flow bypass

Cooler type: Plate
 Mounting position/location: Vertical
 Filter material: Cellulose
 Unique characteristics: With full flow bypass filter
 Filter head thickness: 43.50 mm [1.713 in.]

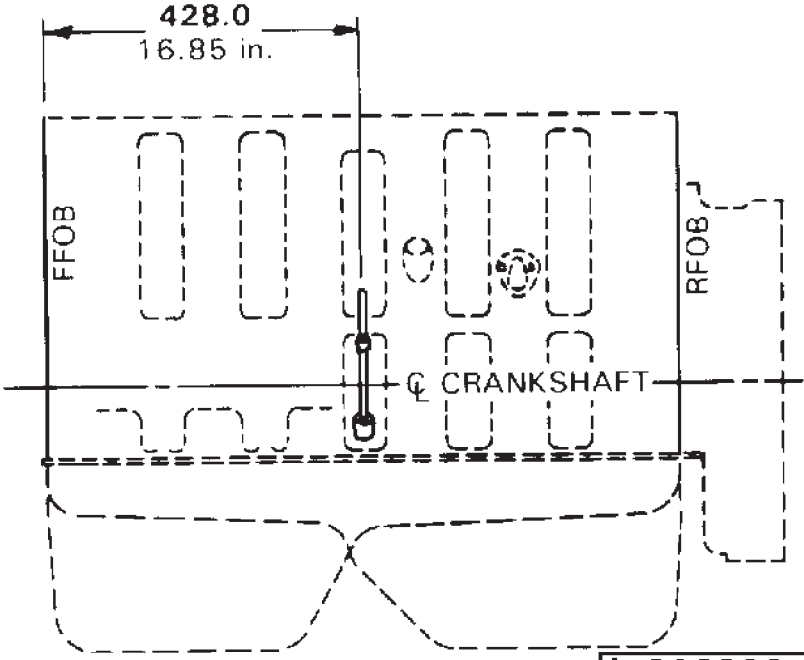
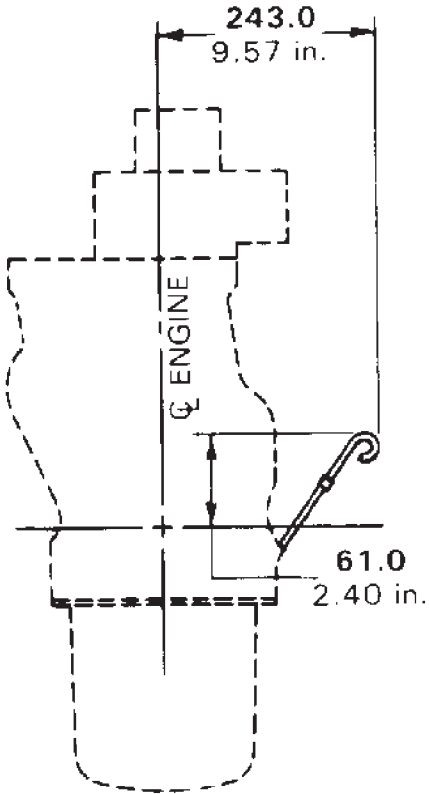
C SERIES GENERATOR DRIVE

Pressure relief set 448.2 kPa [65 psi]

Restricted aspiration: Charge air cooled, jacket water and sea water aftercooled, turbocharged

LG - Oil Level Gauge

LG9028



lg902800c

LG9028 [M]

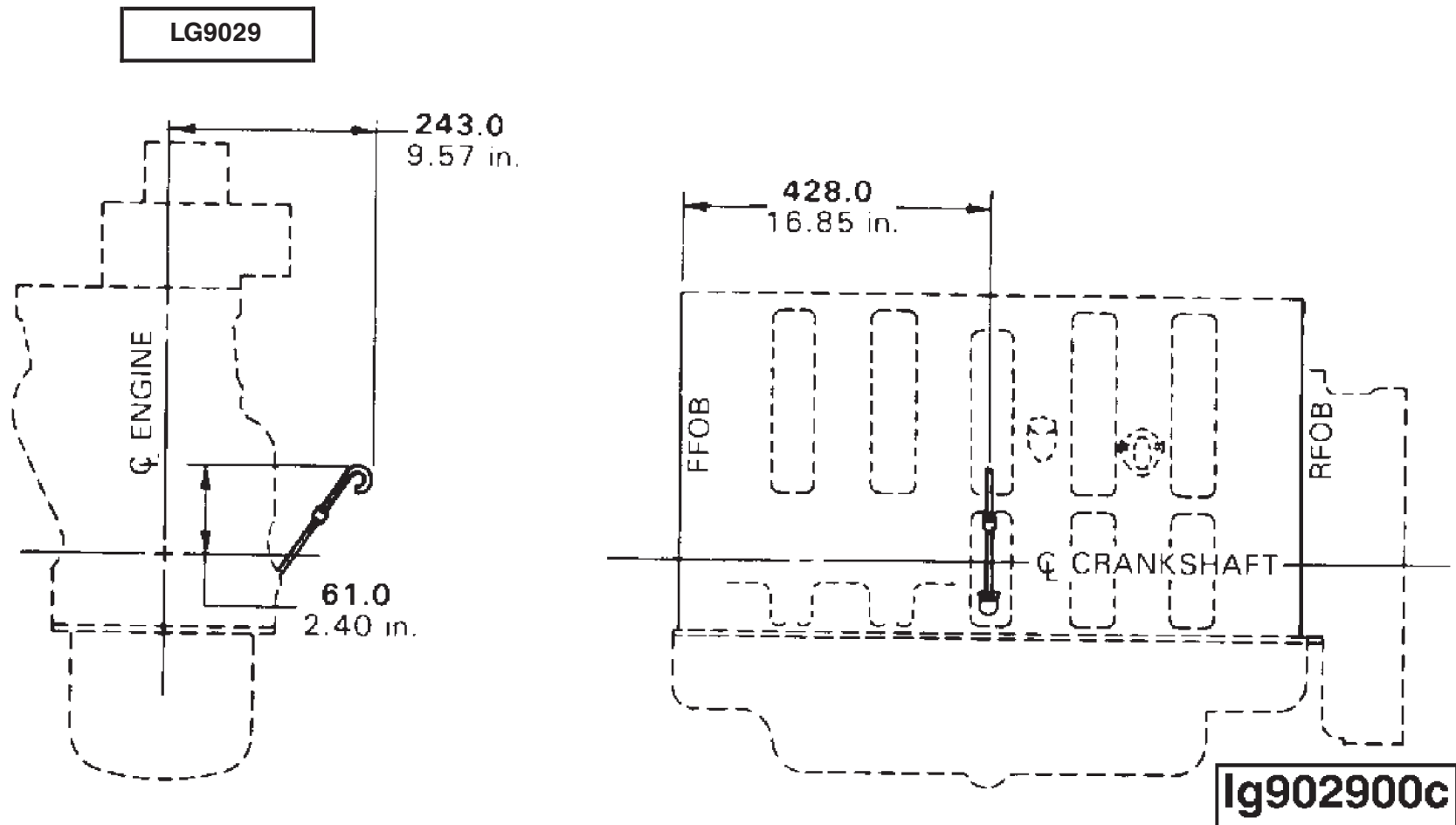
Option #	Handle Orientation / Pull Direction	Dipstick Port Location	Use With OP Type	Power Angle	Locking	Notes
LG 9028	Vertical	428.0 mm [16.85 in.] FFOB	Open breather	0 deg.	-	-

Oil Pan High Limit: 18.9 litre [20 U.S. qt.]
 Oil Pan Low Limit: 15.1 litre [16 U.S. qt.]
 Oil Pan Sump: Front or Rear

C SERIES GENERATOR DRIVE

Entry Location from FFOB 428.0 mm [16.85 in.]
Tube Block Entry Side: Fuel Pump Side
Power Angle: 0 deg.
Engine Tilt: 0 deg.
Tube Termination Side: Fuel Pump Side
Tube Effective Length: 65.0 mm [2.56 in.]
Pull Direction: Vertical

LG - Oil Level Gauge



LG9029 [M]

Option #	Handle Orientation / Pull Direction	Dipstick Port Location	Use With OP Type	Power Angle	Locking	Notes
LG 9029	Vertical	428.0 mm [16.85 in.] FFOB	Open breather	0 deg.	-	Fuel pump side

Oil pan high limit: 18.9 litre [20 U.S. qt.]
 Oil pan low limit: 15.1 litre [16 U.S. qt.]
 Oil pan sump: Center
 Entry location from FFOB: 428.0 mm [16.85 in.]

C SERIES GENERATOR DRIVE

Tube block entry side: Fuel pump side
Pull direction: Vertical
Power angle: 0 deg.
Engine tilt: 0 deg.
Tube termination side: Fuel pump side
Tube Effective Length: 65.0 mm [2.56 in.]
Restricted breather type: Open
Restricted fuel pump type: Inline

NP - Noise Panel

NP9008

(No Graphics Required)

NP9008 [G]

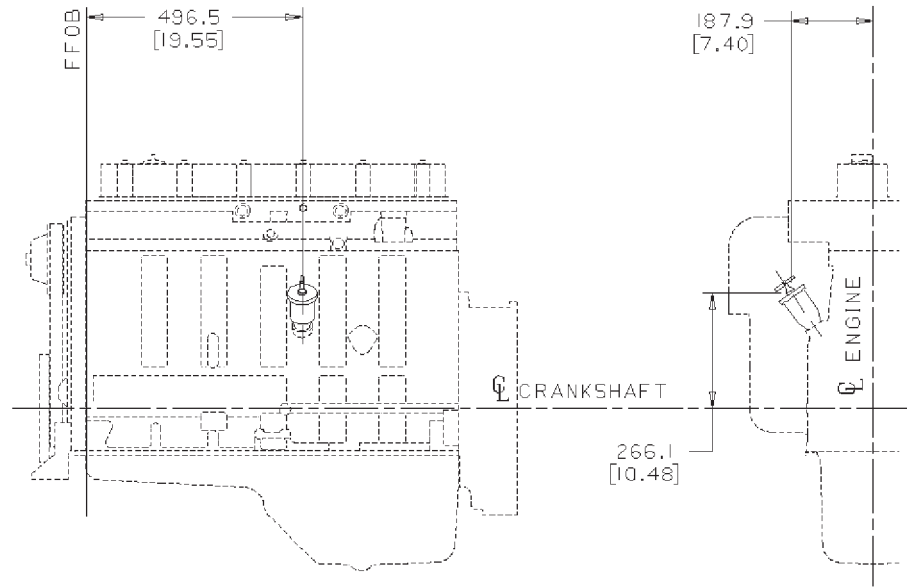
Option #	Description	dBa Reduction				Notes
NP 9008	Pointer option	-				No Content

Noise dampening capabilities for front gear cover. No content option used as a pointer to select the correct front gear cover assembly with damping plate for noise reduction.

C SERIES GENERATOR DRIVE

OB - Oil Fill Arrangement

OB9006



OB 9006

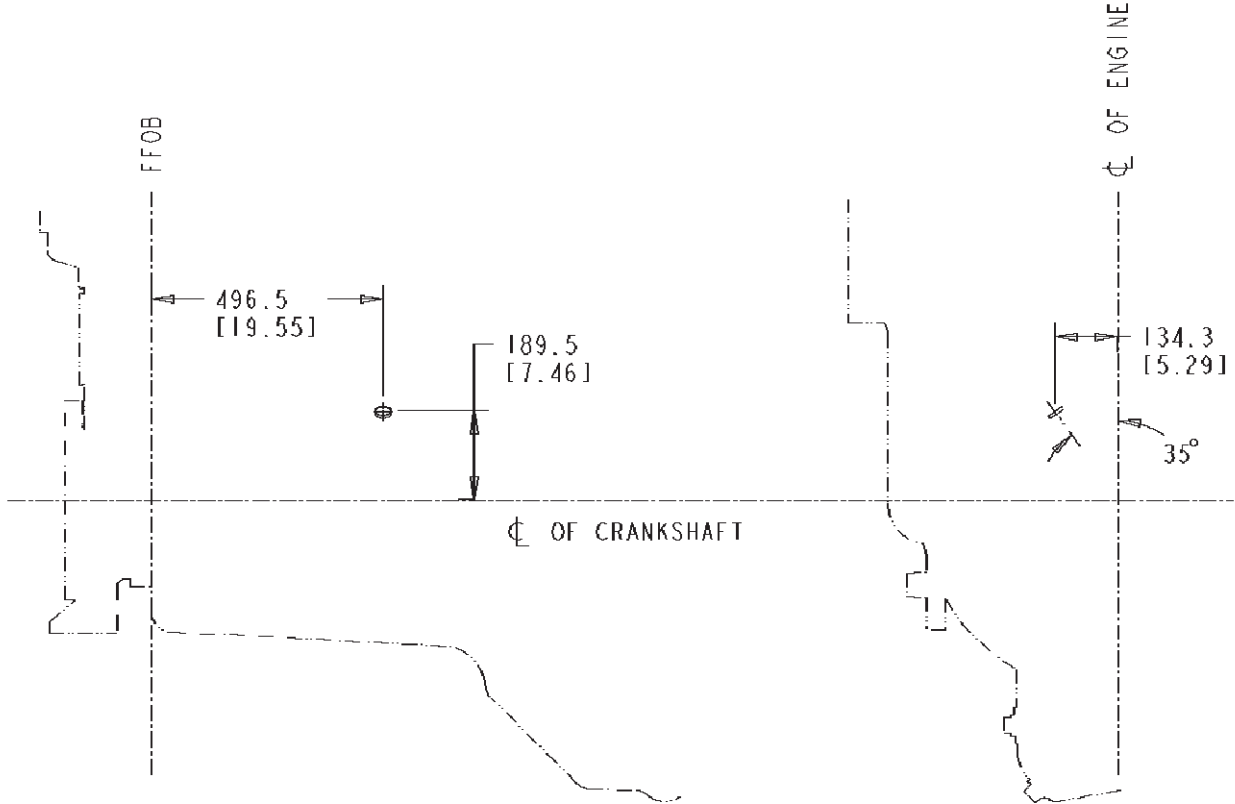
OB9006 [M]

Option #	Location	Fill Type	With Dipstick	Cap OEM-Supplied	Notes
OB 9006	Fuel pump side of the engine	Tube with expandable filler cap	None	-	-

Oil fill location: Fuel pump side
 Fill position from FFOB: 496.5 mm [19.55 in.]
 Position vert. from crank C/L: 266.1 mm [10.48 in.]
 Position horiz. from crank C/L: 187.9 mm [7.40 in.]

OB - Oil Fill Arrangement

OB9008



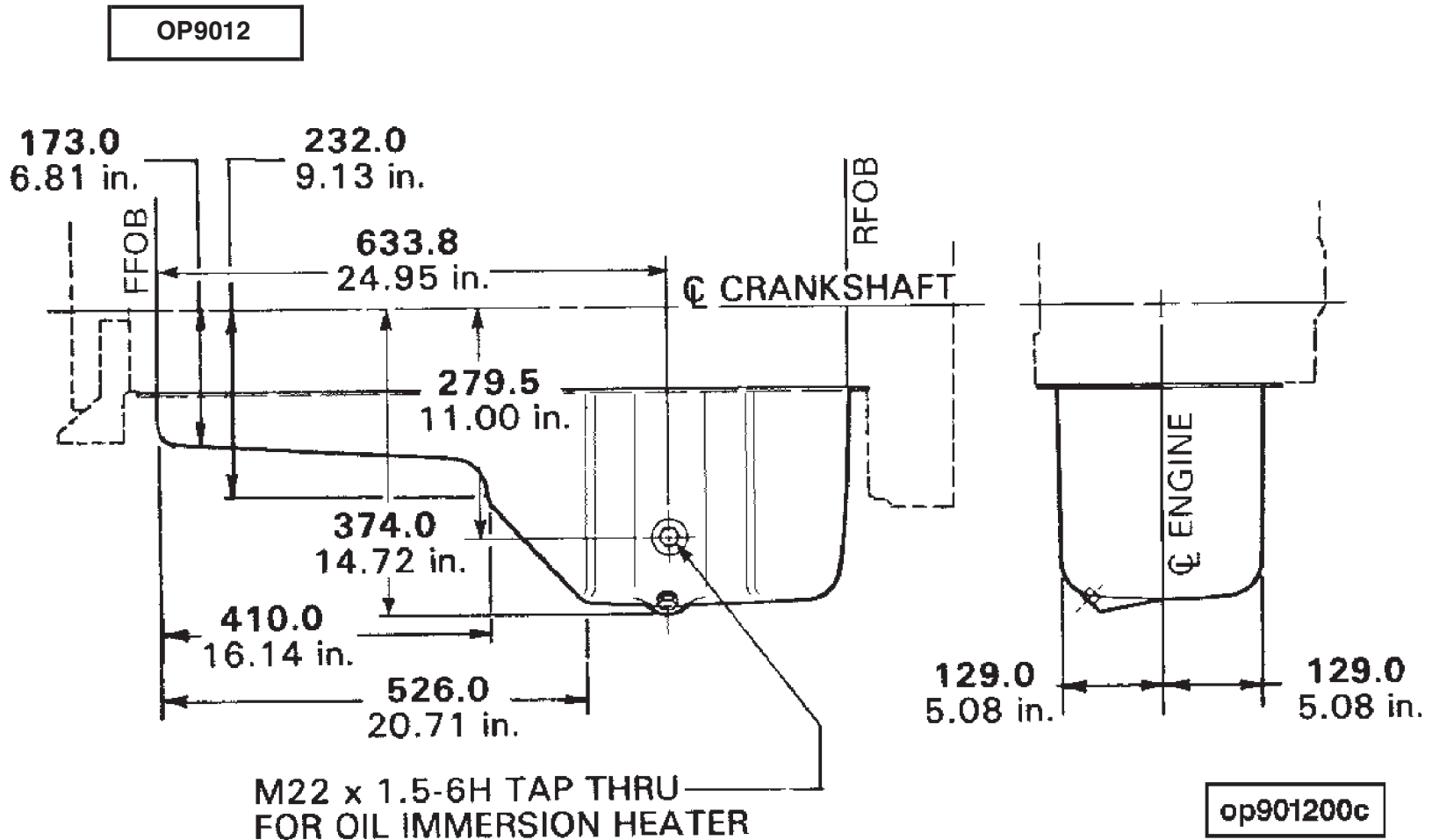
OB9008 [M]

Option #	Location	Fill Type	With Dipstick	Cap OEM-Supplied		Notes
OB 9008	F.P. side	None on side	-	-		Expansion plug

Expansion plug for use when no side oil fill tube is specified.
 Restricted breather type: Open

C SERIES GENERATOR DRIVE

OP - Oil Pan



OP9012 [M]

Option #	Sump Type/Material	Drain Location	Angularity	Capacity	Weight	Notes
OP 9012	Rear sump/ Stamped steel	Fuel pump side	45 deg. all Directions	High: 18.9 litre [20 U.S. qt.] Low: 15.1 litre [16 U.S. qt.]	-	-

22 mm [0.87 in.] hole for immersion type oil heater and M18 hole for drain plug on fuel pump side of engine.

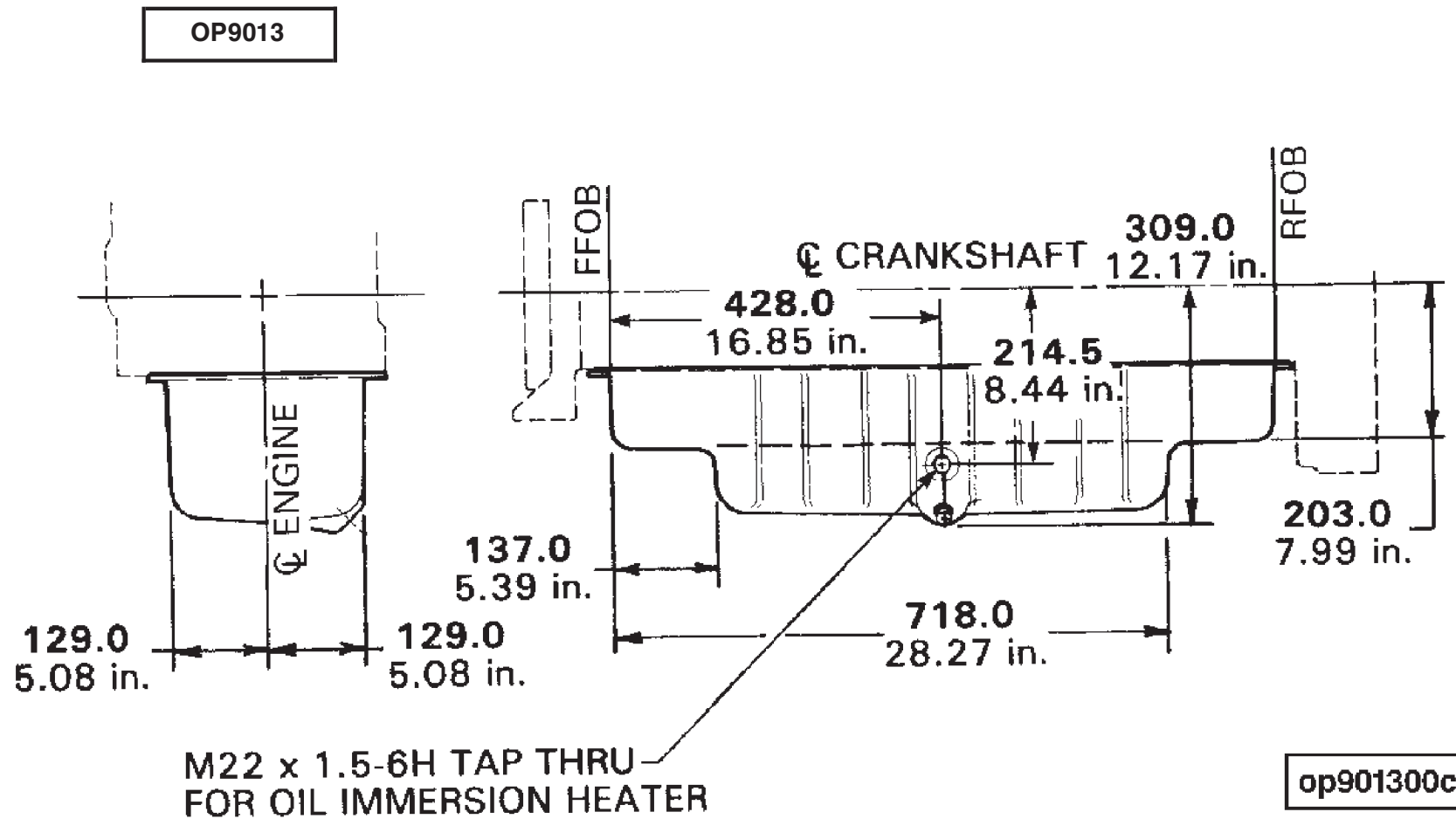
Oil Pan Capacity Level:

High level: 18.9 litre [20 U.S. qt.]

Low level: 15.1 litre [16 U.S. qt.]

C SERIES GENERATOR DRIVE

OP - Oil Pan



OP9013 [M]

Option #	Sump Type/Material	Drain Location	Angularity	Capacity	Weight	Notes
OP 9013	Center sump/ Stamped steel	Fuel pump side	35 deg. front up 35 deg. rear down 45 deg. side to side	High: 18.9 litre [20 U.S. qt.] Low: 15.1 litre [16 U.S. qt.]	-	-

22 mm [0.87 in.] hole for immersion type oil heater and M18 hole for drain plug located on fuel pump side of engine.

Oil pan capacity level:

High level: 18.9 litre [20 U.S. qt.]

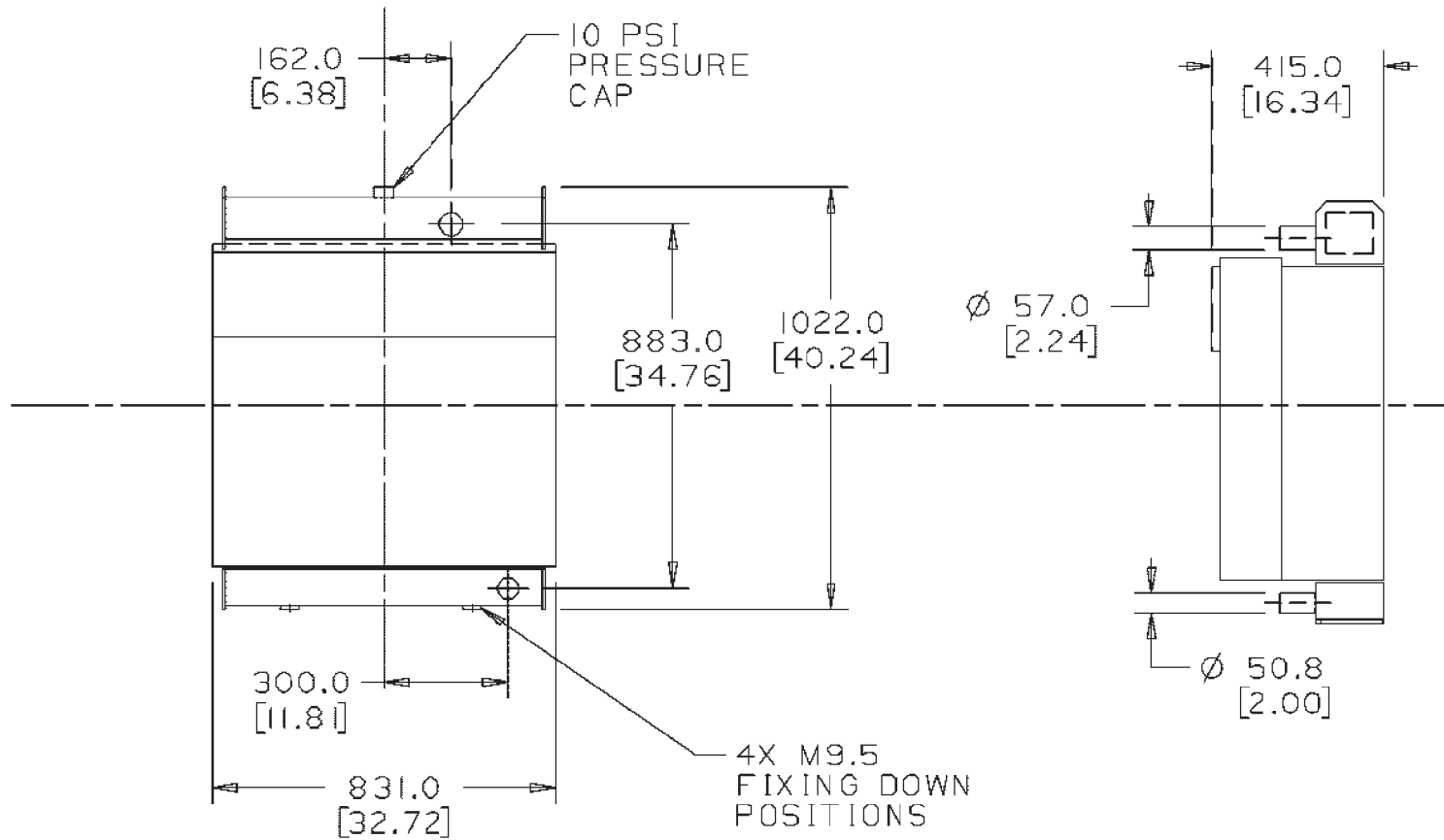
Low level: 15.1 litre [16 U.S. qt.]

Angularity limits:
35 deg. front up
35 deg rear down
45 deg. side to side

C SERIES GENERATOR DRIVE

RA - Radiator

RA9036



RA9036 [G]

Option #	Description	Mounting Type	Use With/Engine Model			Notes
RA 9036	Radiator	Pedestal	-			-

Radiator designed for use on 6CTA Starpac G-Drive engines with EM 9079, RE 9022 and FN 9102 only.

Note:
This hardware is available only on engines built at Darlington Engine Plant.

RA - Radiator

RA9037

ra9037_mcs

RA9037 [G]

Option #	Description	Mounting Type	Use With/Engine Model			Notes
RA 9037	Radiator	Pedestal	-			-

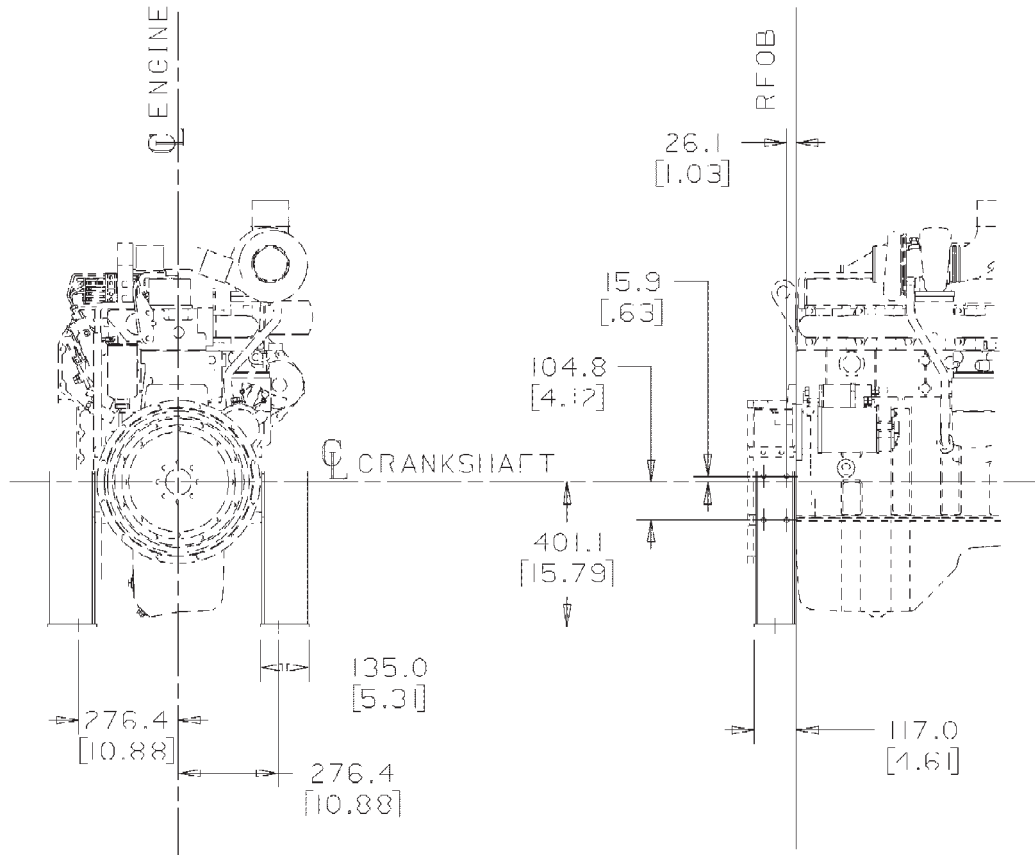
Radiator designed for use on 6CTA Starpac G-Drive engines with EM 9079, RE 9022 and FN 9102 only.

Note:
This hardware is available only on engines built at Darlington Engine Plant.

C SERIES GENERATOR DRIVE

RE - Rear Engine Support

RE9022



RE9022 [G]

Option #	Type	Attachment Hole			Weight	Notes
RE 9022	Twin pedestal mounts for SAE #2 flywheel housings	-			-	-

Rear engine support consisting of twin pedestal mounts for SAE #2 flywheel housings.

SD - Monitoring Switches

SD9021

(No Graphics Required)

SD9021 [G]

Option #	Type	Description	Voltage			Notes
SD 9021	Fungus and corrosion resistant	High coolant temp. switch set @ 106° C [223° F]	-			Includes adaptive harness

Fungus and corrosion resistant.
 Cannot be used with Cummins supplied engine wiring harness.
 Includes NPT reducer to mount 12.7 mm [0.50 in.] switch in 19.0 mm [3/4 in.] hole.
Includes adaptive harness to suit (Packard p/n 12047911).

C SERIES GENERATOR DRIVE

SD - Engine Monitoring System

SD9022

(No Graphics Required)

SD9022 [G]

Option #	Type	Description	Voltage			Notes
SD 9022	Oil pressure sending sensor	241.3 +/- 20.7 kpa [35 +/- 3 psi] activation 142.4 +/- 20.7 kpa [25 +/- 3 psi] deactivation	-			Includes adaptive harness

Mounting: 1/4 NPT

Includes adaptive harness to suit Packard Connector (P/N 12047911).

SD - Monitoring Switches

SD9025

(No Graphics Required)

SD9025 [G]

Option #	Type	Description	Voltage			Notes
SD 9025	14 psi activation 6 +/- 2 psi deactivation	Water pressure switch	12V or 24V			Includes adaptive harness

Mounting: 1/4 NPT

Electrical water pressure device: 12V or 24V

Includes adaptive harness to suit (Packard p/n 12047911).

Fit switch exhaust side of block lower center 1/2" NPTF hole.

Note:

This hardware is available only on engines built at Darlington Engine Plant.

C SERIES GENERATOR DRIVE

SG - Guard Package

SG9000

(No Graphics Required)

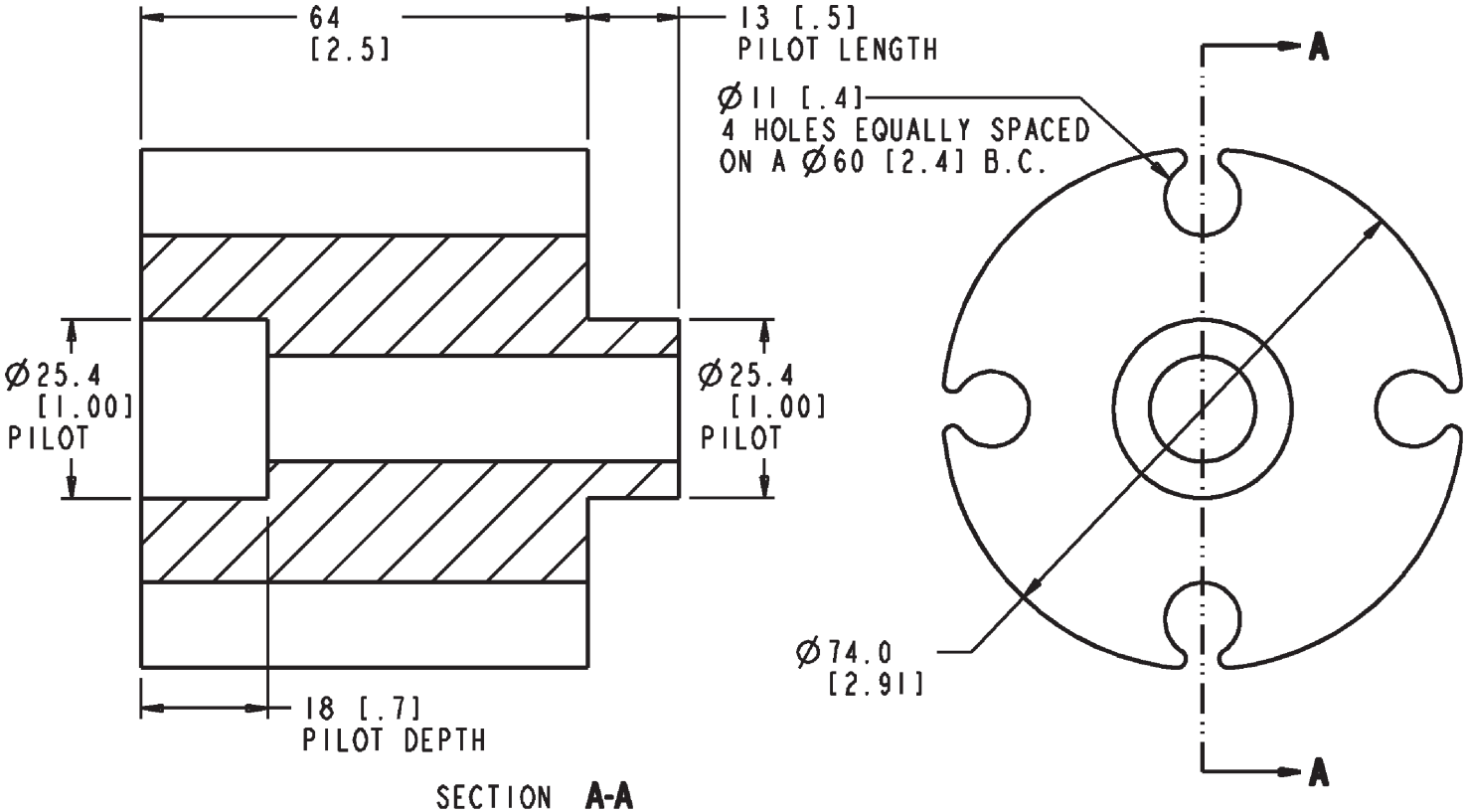
SG9000 [G]

Option #	Description	Location	Material			Notes
SG 9000	No content option	-	-			-

No content option.
For use when customer supplies own belt guard.

SP - Fan Spacer

SP9022



SP9022_MCS

SP9022 [G]

Option #	Description/Qty.	Thickness	Bolt Circle Dia.			Notes
SP 9022	Spacer	63.5 mm [2 1/2 in.]	60 mm [2.36 in.]			-

25.4 mm [1.00 in.] fan pilot O.D.
 Fan spacer: 63.5 mm [2 1/2 in.]
 Maximum recommended fan spacing is 76.2 mm [3 in.].

C SERIES GENERATOR DRIVE

SS - Paint

SS9001

(No Graphics Required)

SS9001 [M]

Option #	Description					Notes
SS 9001	Cummins beige					Cummins logo

Cummins beige paint. Contains Cummins logo

SS - Shipping Skid

SS9074

(No Graphics Required)

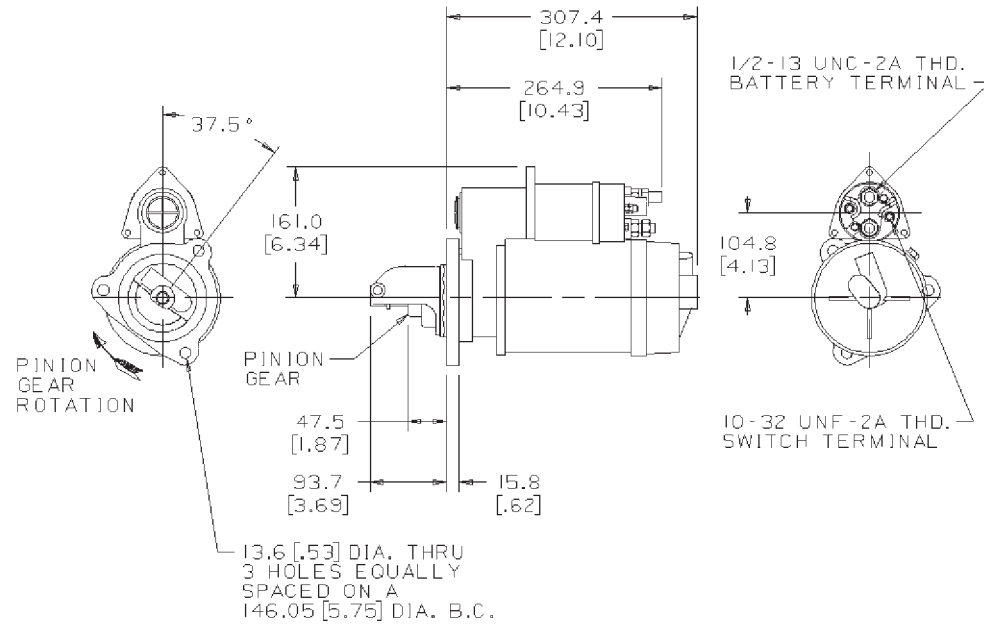
SS9074 [M]

Option #	Description					Notes
SS 9074	Returnable, metal shipping skid					-

C SERIES GENERATOR DRIVE

ST - Starting Motor

ST9063



ST 9063 ST 9064

ST9063 [G]

Option #	Mfg/Model	Voltage/kW	Pinion Gear Pitch	Mounting Quadrant	Weight	Notes
ST 9063	Delco Remy / 41 MT	12V	8/10	-	-	-

Mt SAE: SAE 3 - 3 Bolt 120 degree
 Wet/Dry: Wet
 Pilot Bore Diameter: 92.05 mm [3.624 in.]
 With Heat Shield: No
 Mtg Flg Thickness: 17.80 mm [0.701 in.]

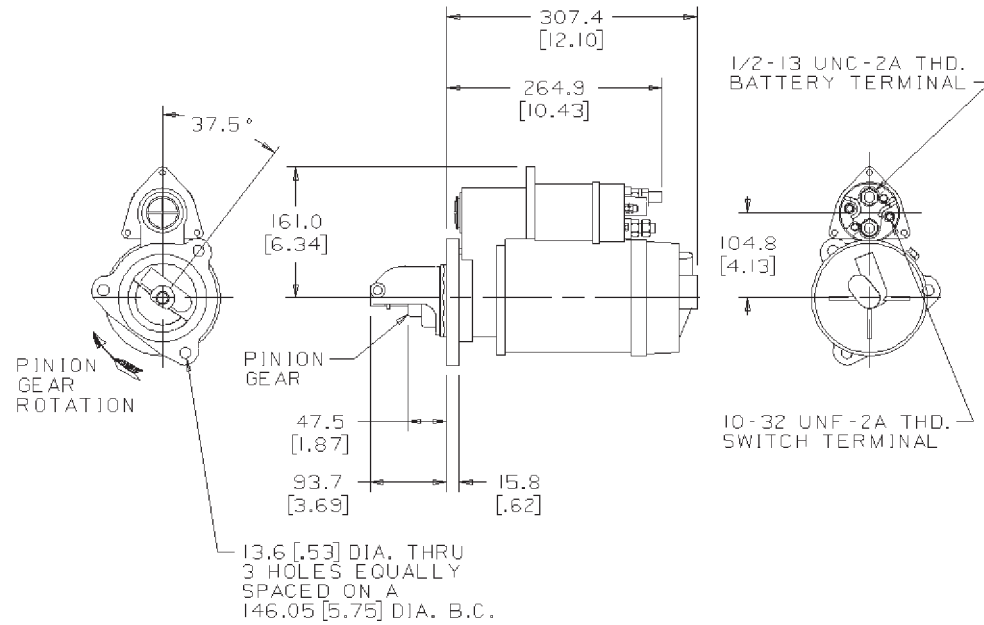
Angle Limitation High: 127.5 degree
Angle Limitation Low: 307.5 degree
Supply Method: Mounted
Starter Pinion Tooth Blank: 13
Starter Pinion Offset: 0 mm [0 in.]
Starter Solenoid Angle: 323 degree
Starter Body Diameter: 130.05 mm [5.120 in.]

Use only with flywheel housings with #1 quadrant starter locations.

C SERIES GENERATOR DRIVE

ST - Starting Motor

ST9064



ST 9063 ST 9064

ST9064 [G]

Option #	Mfg/Model	Voltage/kW	Pinion Gear Pitch	Mounting Quadrant	Weight	Notes
ST 9064	Delco Remy/ 41 MT	24V	8/10	-	-	-

Mtg. SAE: SAE 3 - 3 Bolt 120 degree
 Wet/Dry: Wet
 Pilot Bore Diameter: 92.05 mm [3.624 in.]
 With Heat Shield: No
 Mtg. Flg Thickness: 17.80 mm [0.701 in.]

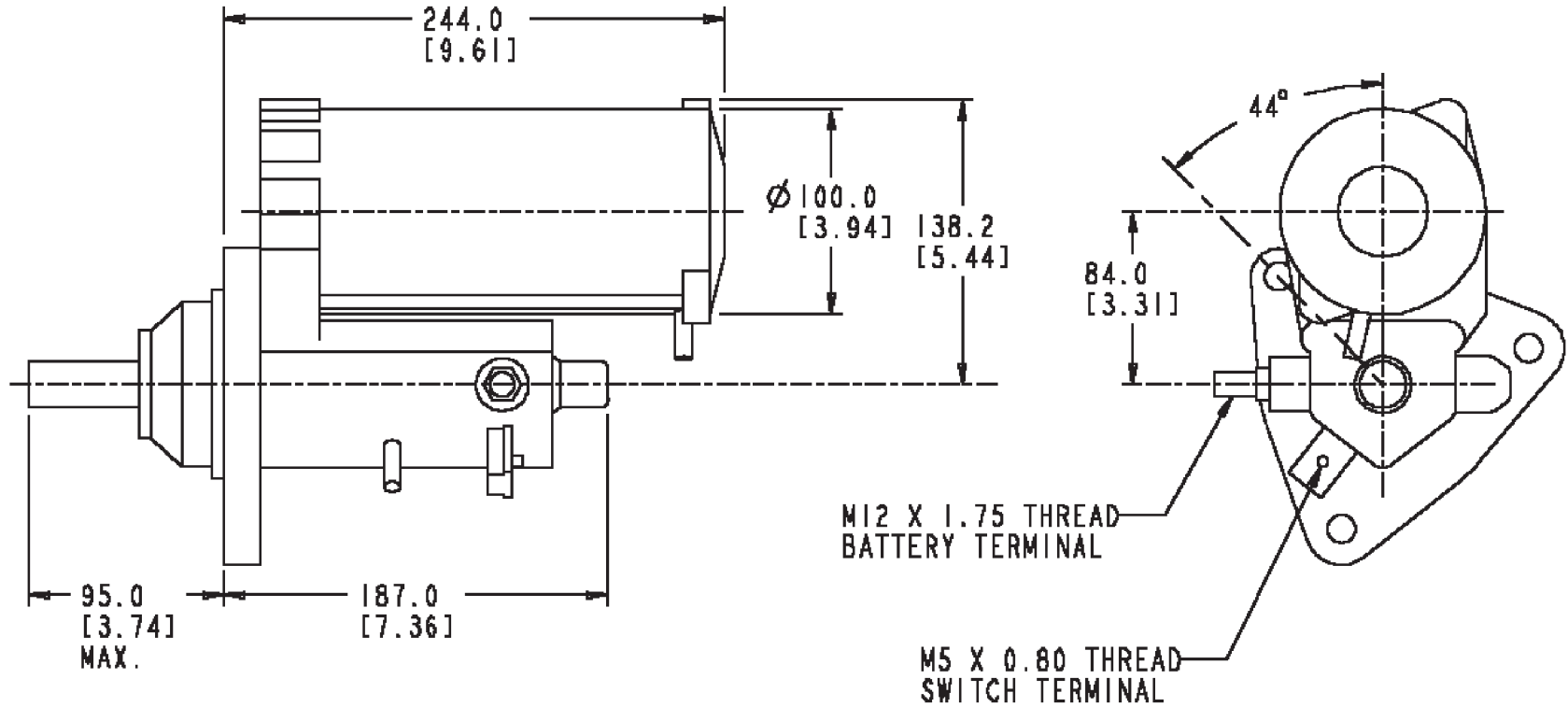
Angle Limitation High: 127.5 degree
Angle Limitation Low: 307.5 degree
Supply Method: Mounted
Starter Pinion Tooth Blank: 13
Starter Pinion Offset: 0 mm [0 in.]
Starter Solenoid Angle: 323 degree
Starter Body Diameter: 130.05 mm [5.120 in.]

Use only with flywheel housings with #1 quadrant starter locations.

C SERIES GENERATOR DRIVE

ST - Starting Motor

ST9135



ST9135 [G]

Option #	Mfg/Model	Voltage/kW	Pinion Gear Pitch	Mounting Quadrant	Weight	Notes
ST 9135	Nippondenso/ 228000-5620 R4.0	12V/4.8 kW	8/10	-	-	-

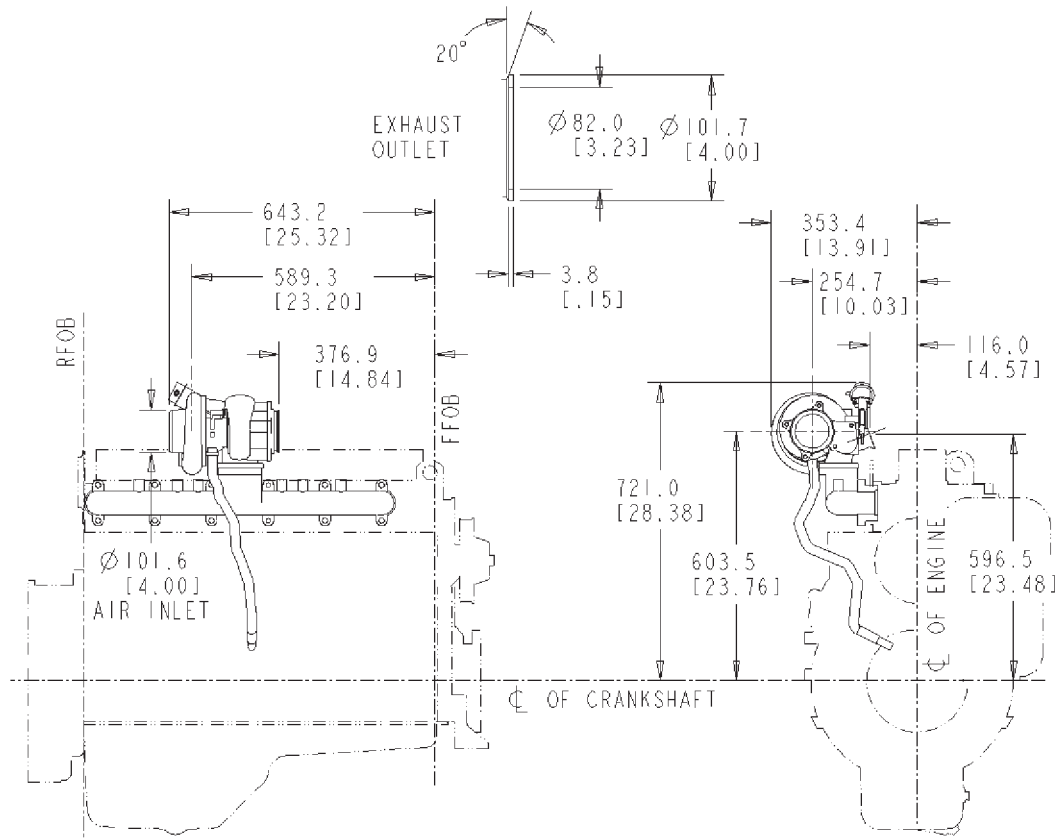
Mt SAE: SAE 3 - 3 Bolt 120 degree
 Wet/Dry: Wet
 Starter Style: Reduction
 Pilot Bore Diameter: 92.05 mm [3.62 in.]
 With Heat Shield: No
 Mtg Flg Thickness: 16.5 mm [0.64 in.]
 kW Rating: 4.8
 Angle Limitation High: 127.5 degree

Angle Limitation Low: 307.5 degree
Supply Method: Mounted
Starter Pinion Tooth Blank: 10
Starter Pinion Offset: 3.1 mm [0.12 in.]
Starter Solenoid Angle: 316 degree
Starter Body Diameter: 100 mm [3.93 in.]

C SERIES GENERATOR DRIVE

TB - Turbocharger Arrangement

TB9337



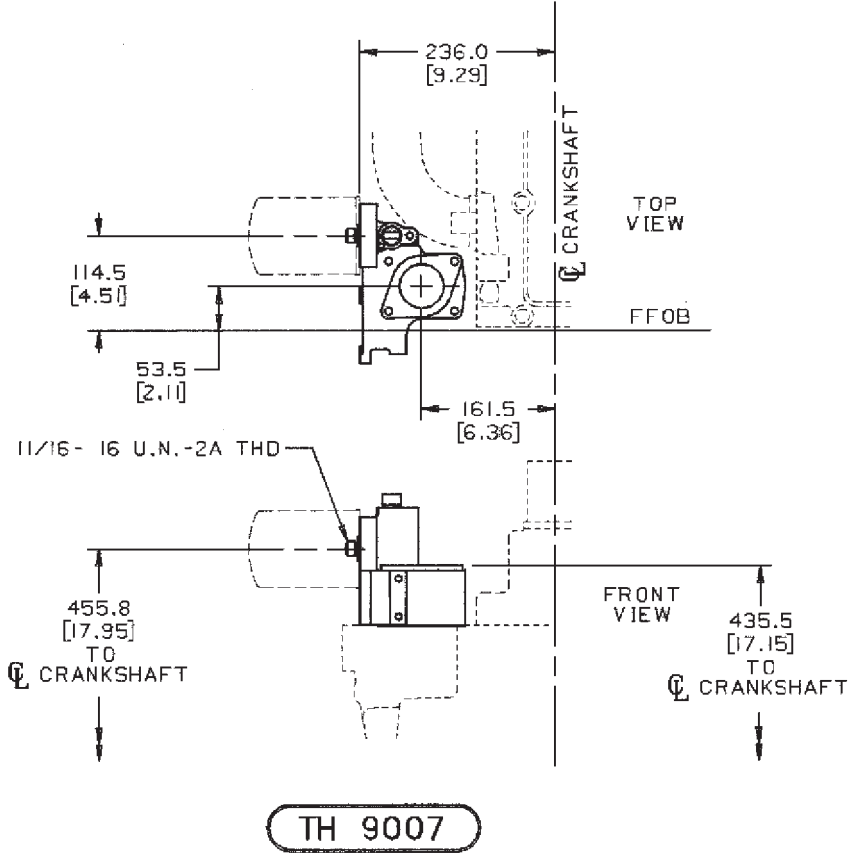
TB9337 [M]

Option #	Mount/Exhaust Outlet Location	Water-Cooled	Exhaust Outlet Type	Compressor Outlet Angle	Weight	Notes
TB 9337	High mount /to front	-	-	-	-	-

High mount turbocharger with exhaust outlet to the front.
 Exhaust outlet flange: Half marmon
For use with 6CTAA8.3-G3 engine only.

TH - Thermostat Housing

TH9007



TH9007 [M]

Option #	Description	Outlet Dia.	Orientation			Notes
TH 9007	Thermostat housing	-	-			Flanged

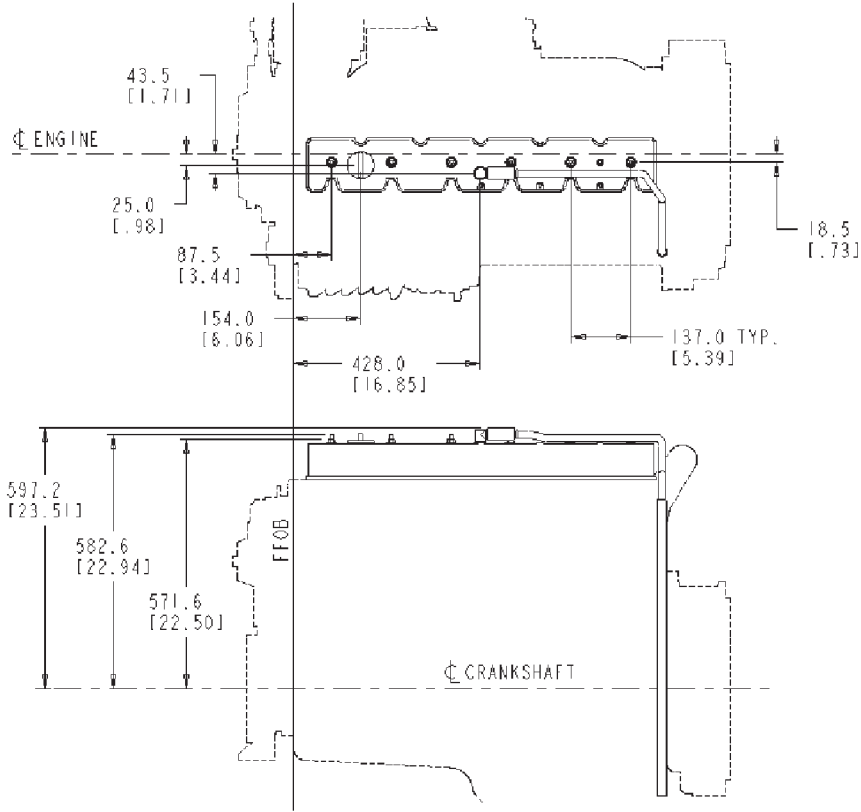
Thermostat bore: 43.50 mm [1.713 in.]
 Outlet Type/OD: Flanged
 Outlet Direction: Vertical
 Bracket Direction: Vertical/Rearward
 Aeration Method: Non-vented

C SERIES GENERATOR DRIVE

Integral Corrosion Resistor Head: Yes
Tappings for Belt tensioner: No
Water Outlet Bolt Spread: 100.0 mm [3.93 in.]

VC - Valve Covers

VC9014



VC9014 [M]

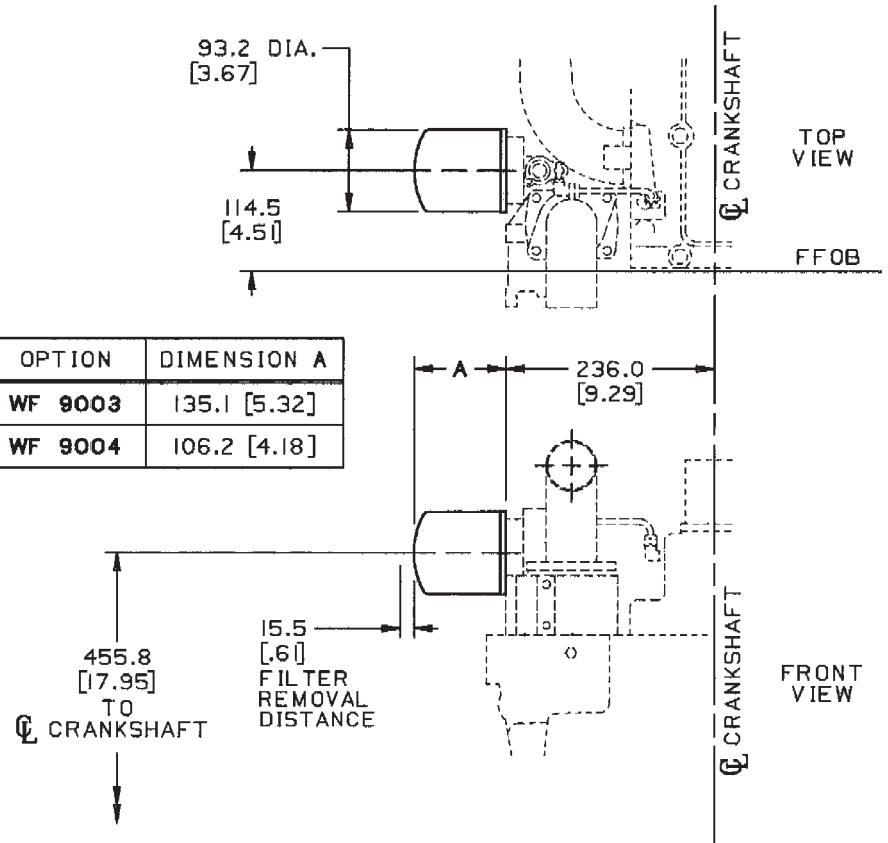
Option #	Description	Oil Fill Location	BreatherType			Notes
VC 9014	Valve cover with oil fill	Between 1 & 2	-			-

C series, 6 cylinders
 Oil Fill Cylinder: Between 1 & 2
 Noise Suppression Provision: No
 Breather Location: Between 3 & 4 cyl.
 Breather Mounting: 22.26 mm [0.876 in.]

C SERIES GENERATOR DRIVE

WF - Corrosion Resistor

WF9003



OPTION	DIMENSION A
WF 9003	135.1 [5.32]
WF 9004	106.2 [4.18]

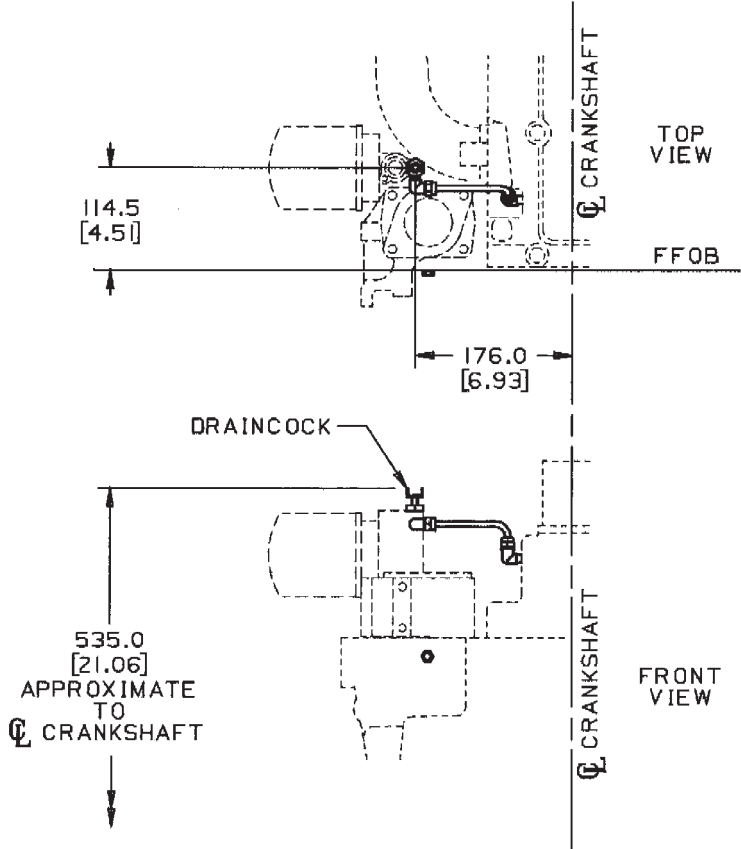
WF9003 [M]

Option #	Element Type/Qty.	Hose Length	Location	Precharge Units	Coolant Sytem Capacity	Notes
WF 9003	Fleetguard/Spin-on	135.1 mm [5.32 in.] long	Thermostat housing	8 units DCA4 +	15-30 litre [16-32 U.S. qt.]	-

Can: 93.2 mm [3.67 in.] O.D. by 135.1 mm [5.32 in.] long.

WH - Oil Cooler Water Plumbing

WH9004



WH9004 [M]

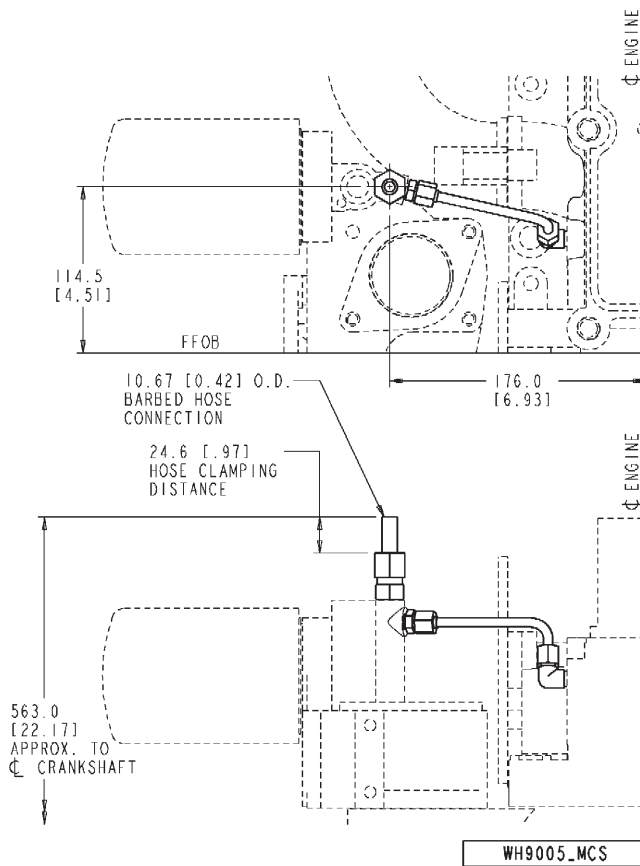
Option #	Description	Holes/Location				Notes
WH 9004	For use with thermostat housing mounted corrosion resistor	-				A petcock for manually venting cooling system during fill is included

Cooling system vent arrangement for use with thermostat housing mounted corrosion resistor.

C SERIES GENERATOR DRIVE

WH - Oil Cooler Water Plumbing

WH9005



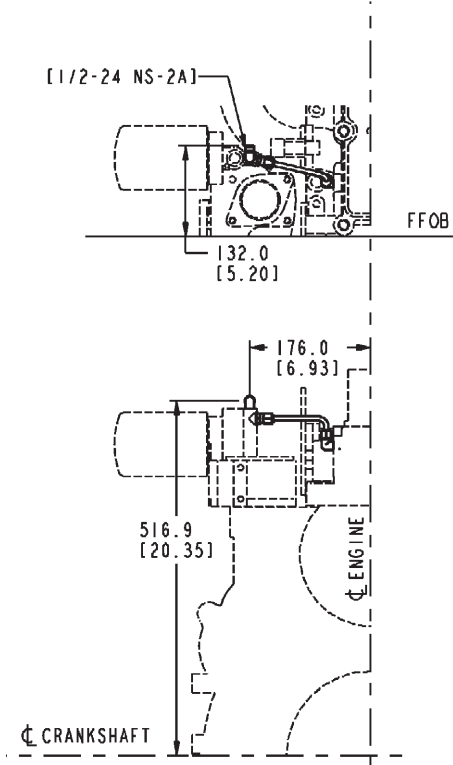
WH9005 [M]

Option #	Description	Holes/Location				Notes
WH 9005	Cooling system vent arrangement with check valve for plumbing	-				Use with thermostat housing mounted corrosion resistor

Cooling system vent arrangement with check valve for plumbing to radiator top tank.
 For use with thermostat housing mounted corrosion resistor.
 DEP may use 3283438 coupling, plain hose instead of 3911925.

WH - Oil Cooler Water Plumbing

WH9056



WH9056_MCS

WH9056 [M]

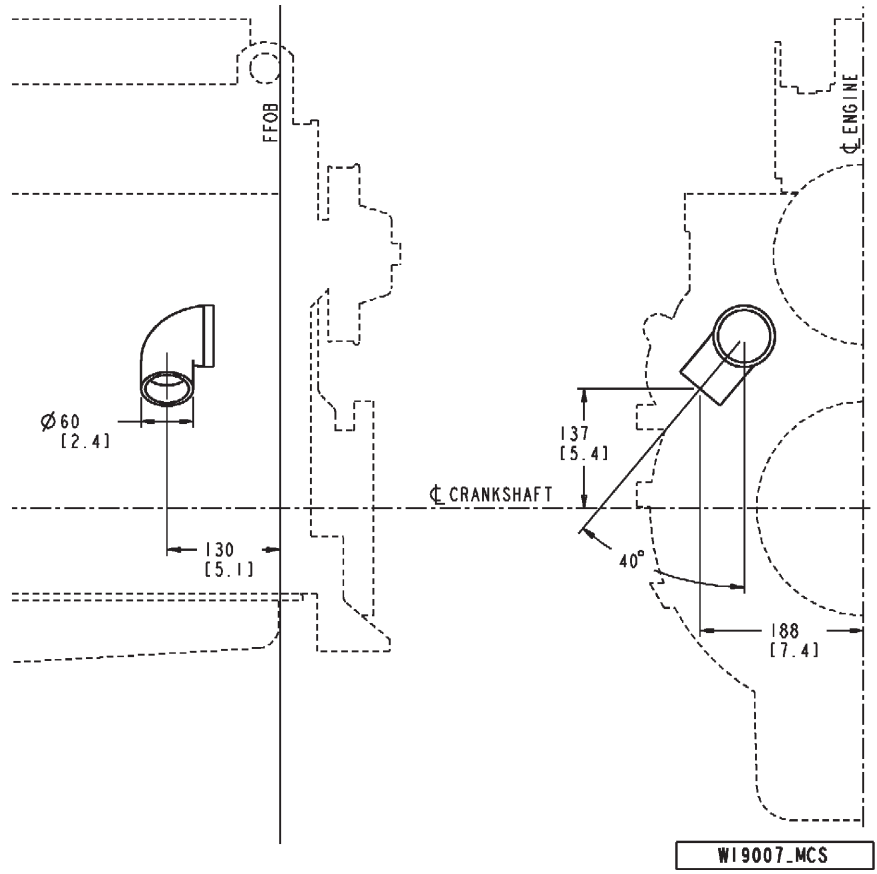
Option #	Description	Holes/Location				Notes
WH 9056	Use with thermostat housing mounted corrosion resistor	-				Allows customer to use own fittings for radiator plumbing.

Cooling system vent arrangement.
 For use with thermostat housing mounted corrosion resistor, on C series engines. Allows customer to use own fitting to plumb to their radiator.
 For use with DEP options RA 9036, RA 9037 and RA 9038 on G-drive.

C SERIES GENERATOR DRIVE

WI - Water Inlet Connection

WI9007



WI9007 [G]

Option #	Inlet O.D.	Orientation				Notes
WI 9007	58.0 mm [2.28 in.] 90 deg. elbow	50 deg. down				For Butec alternators and crank mounted fans

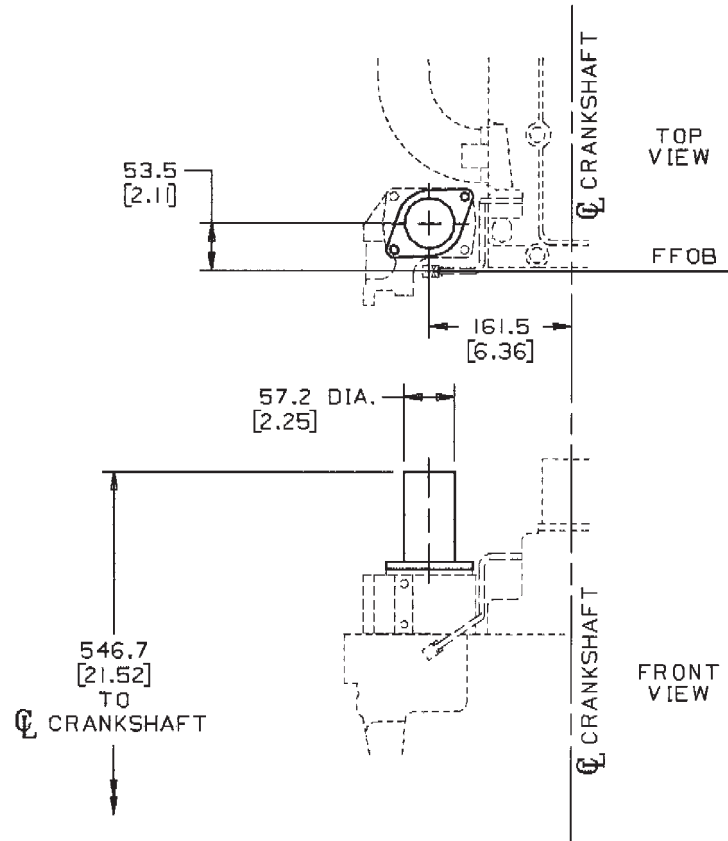
Inlet connection O.D.: 58.0 mm [2.28 in.]
 Connection type: Beaded
 Connection orientation: 50 degree down
 Contains mtg. pad for refrigerant compressor: No

Tensioner mtg. provision: None
Alternator mtg. provision: None
Attachment for alternator brace: No
Compatible with front-side engine mounts: Yes
Unique characteristics: For Butec alt. and crank mtd. fans

C SERIES GENERATOR DRIVE

WO - Water Outlet Connection

WO9004



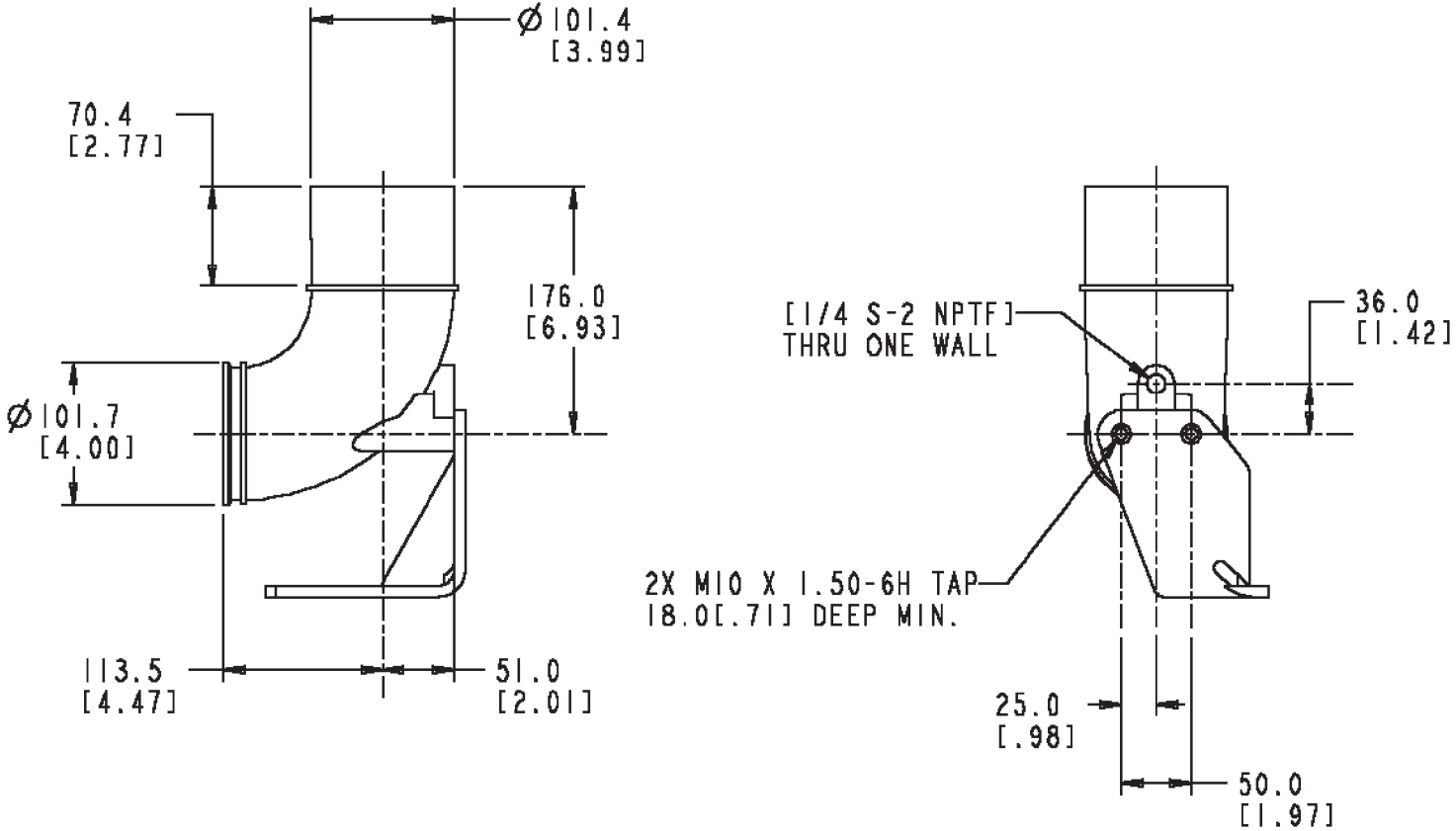
WO9004 [G]

Option #	Outlet O.D.	Orientation				Notes
WO 9004	57.2 mm [2.25 in.]	Vertical				Straight connection

Connection O.D.: 57.2 mm [2.25 in.]
 Vent fitting included: No
 Water outlet bolt spread: 100.0 mm [3.94 in.]

XS - Exhaust Outlet Connection

XS9021



XS9021 [M]

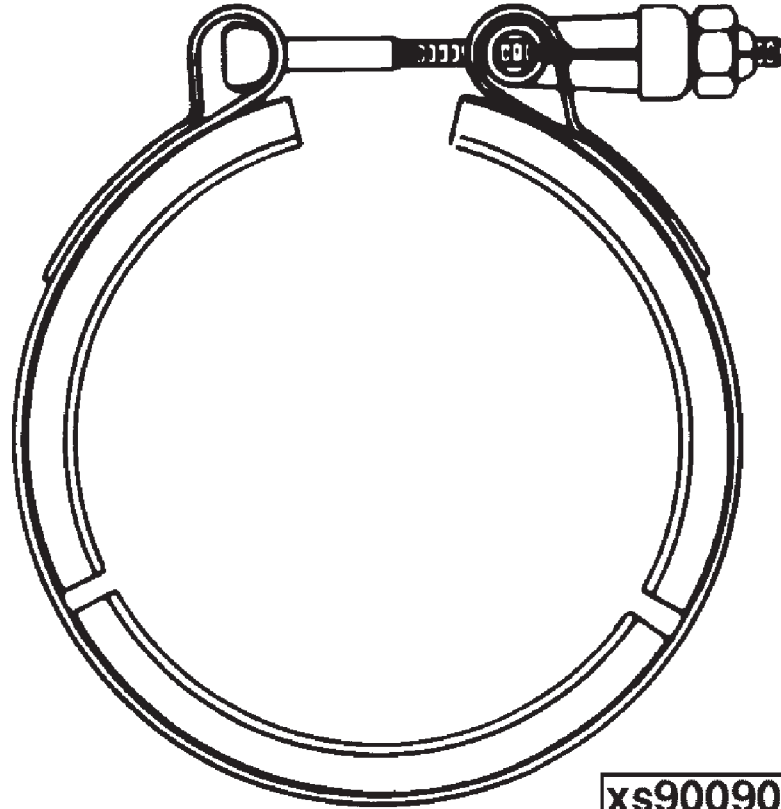
Option #	Description	Outlet O.D.	Connection Type	Wet/Dry	Notes
XS 9021	-	101.6 mm [4 in.]	1/2 Marmon	Dry	Non wastegated turbo

Support flange bolt pattern: 2-M14 38.76 mm [1.52 in.] apart
 Connection orientation: 90 deg. vertical

C SERIES GENERATOR DRIVE

XS - Exhaust Outlet Connection

XS9024



xs900900b

XS9024 [M]

Option #	Description	Outlet O.D.	Connection Type	Wet/Dry		Notes
XS 9024	Dry	101.6 mm [4 in.]	Half Marmon	Dry		Clamp only

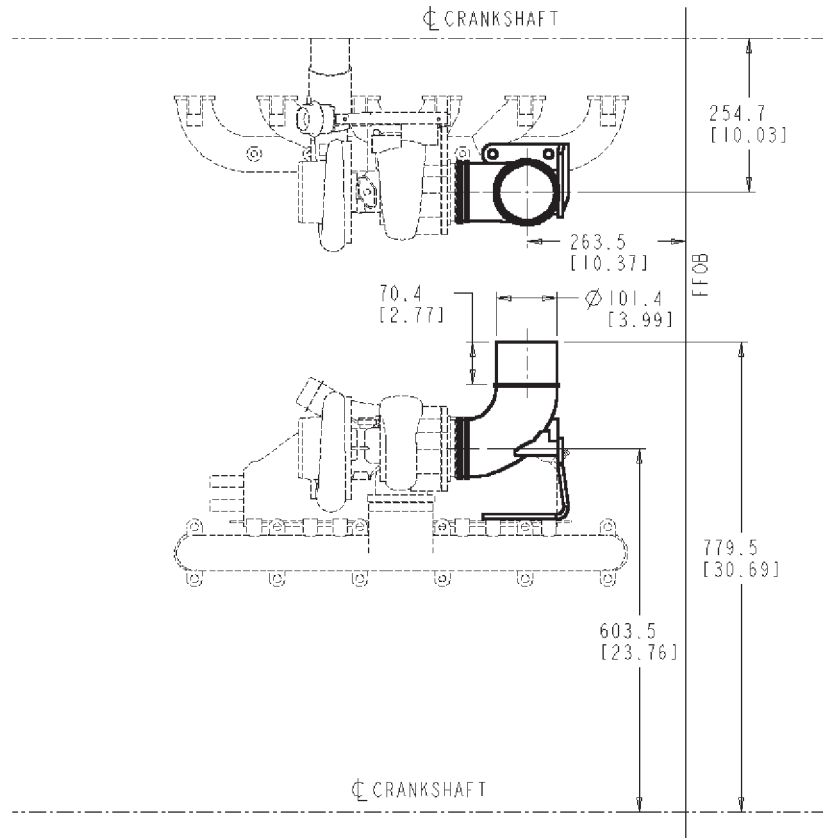
Structure code: 02 EBM
 Engine family: C series
 Exhaust manifold type: Dry
 Exhaust pipe diameter: 101.6 mm [4 in.]
 Connection orientation: Clamp only

Mounting flange to turbo: Half Marmon
Turbocharger type: Non-wastegate
Unique characteristics: Half Marmon clamp
Restricted cylinders: 6
Restricted aspiration: Jacket water aftercooled, Turbocharged

C SERIES GENERATOR DRIVE

XS - Exhaust Outlet Connection

XS9080



XS9080 [M]

Option #	Description	Outlet O.D.	Connection Type	Wet/Dry	Notes
XS 9080	Dry	101.6 mm [4 in.]	Half Marmon	Dry	-

Structure code: 02 EBM

Engine design phase: Current product

Engine family: C series

Support flange bolt pattern: 2 x M14 92.5 mm [3.64 in.] apart

Exhaust manifold type: Dry

Exhaust pipe diameter: 101.6 mm [4 in.]
Connection orientation: TBD
Mounting flange to turbo: 4 bolt
Restricted cylinders: 6
Maximum moment load (in-lbs): 0
Turbo connection: 101.72 mm [4.005 in.]
Restricted turbocharger location: HMFO
Restricted turbo model: HX40, HX40W, WH1E

