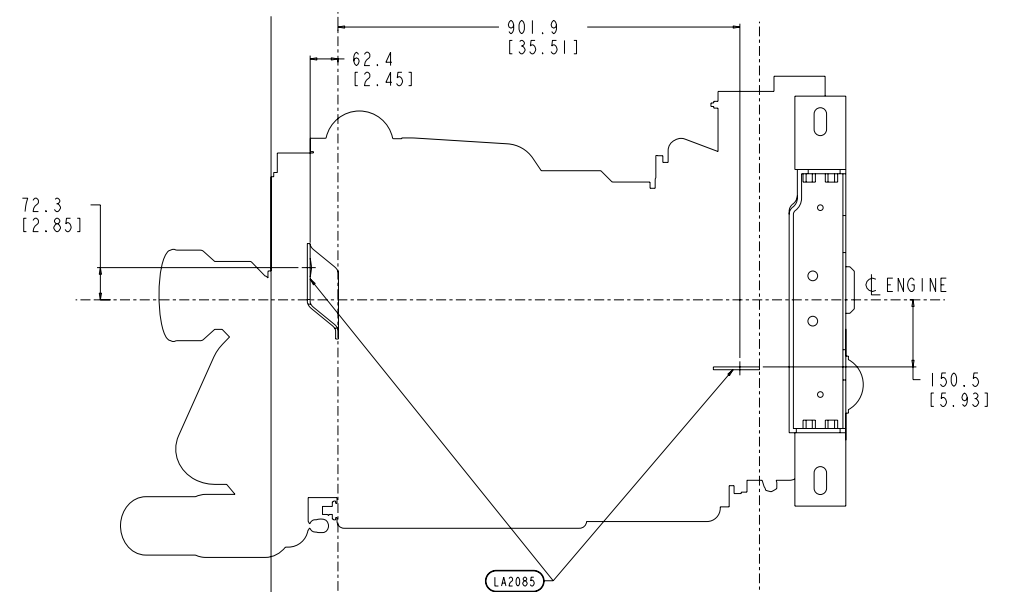
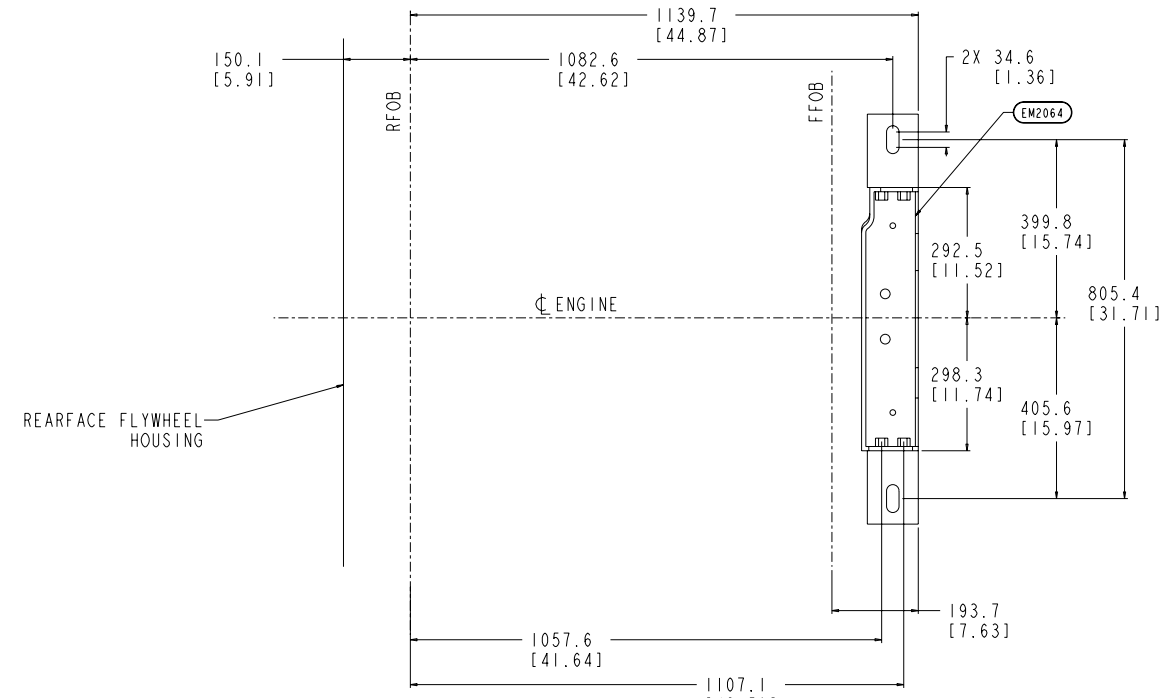


ITEM NUMBER  
3170353

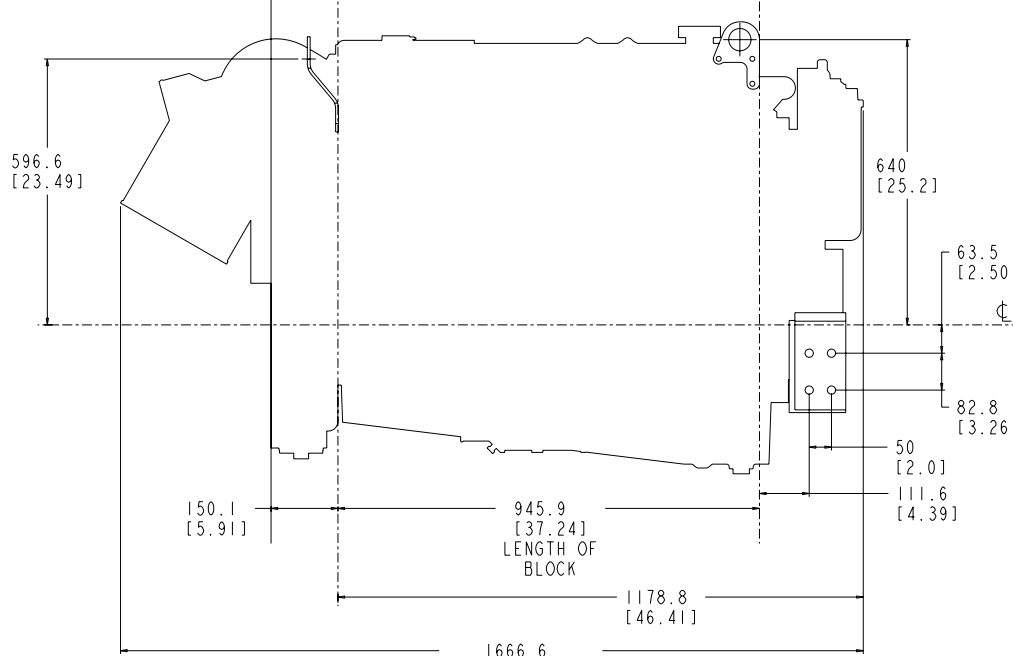
REVISIONS			
ZONE	REV	DESCRIPTION	APP'D
06	QSM11-M (610,645,670,715)		



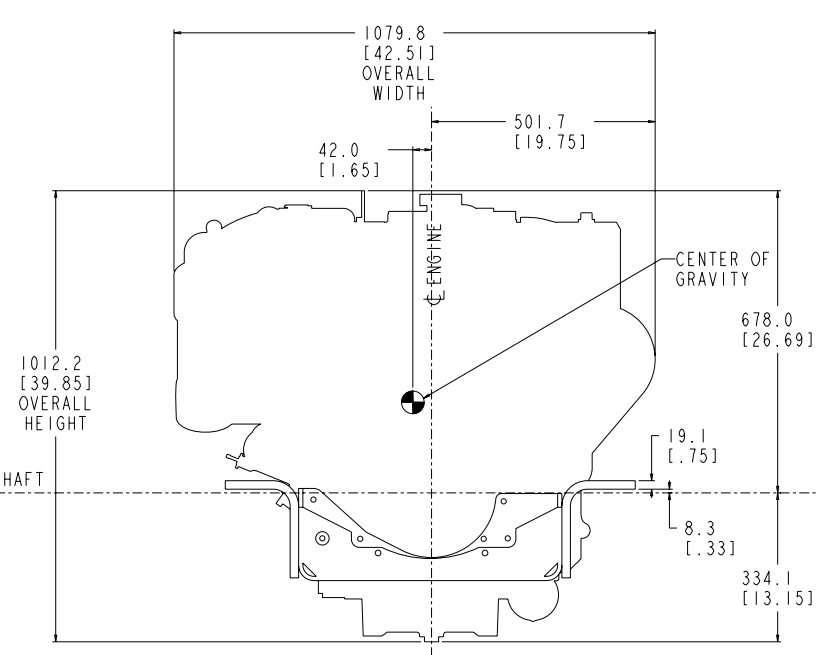
TOP VIEW



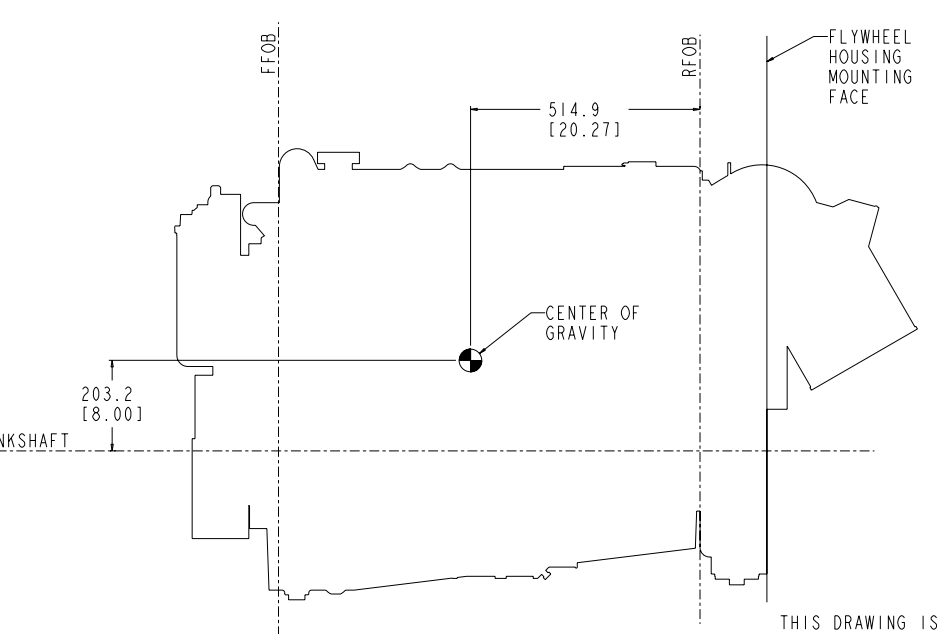
FOUNDATION LAYOUT  
M11 MARINE HEAT EXCHANGER



STARBOARD VIEW



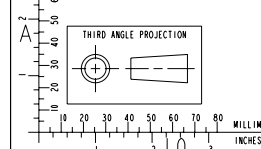
FRONT VIEW



PORT VIEW

THIS DRAWING IS BASED ON  
CONFIG NO. D353013MX03  
AND PRICE SPEC. 4110

PRODUCT GRAPHICS FILE  
NO ORIGINAL DRAWING EXISTS FOR THIS  
ITEM. THE ENGINEERING GRAPHICS DATA  
FOR THIS ITEM RESIDES IN THE PRODUCT  
GRAPHICS FILE AND IS CONTROLLED BY  
THE AGENCY DESIGNATED AS HAVING  
ITEM CONTROL.



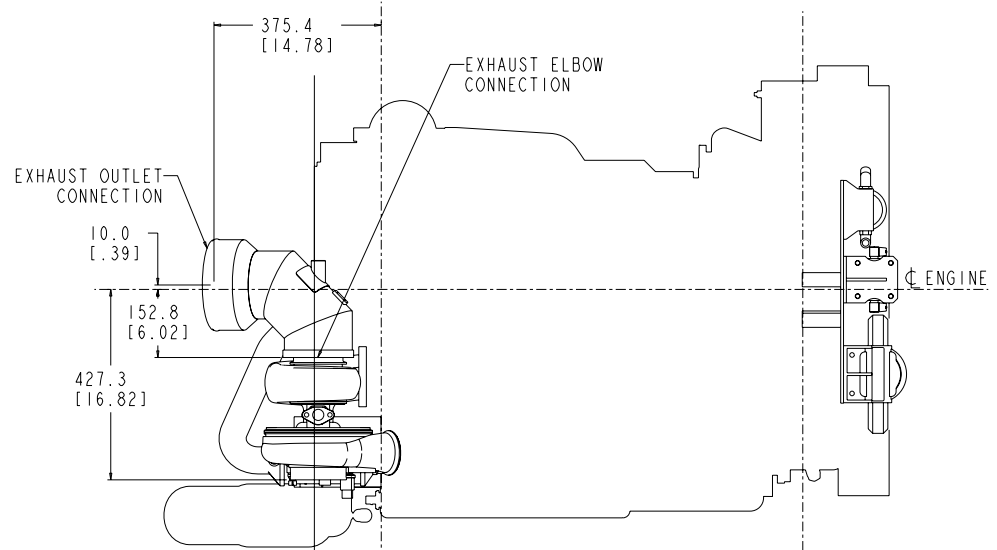
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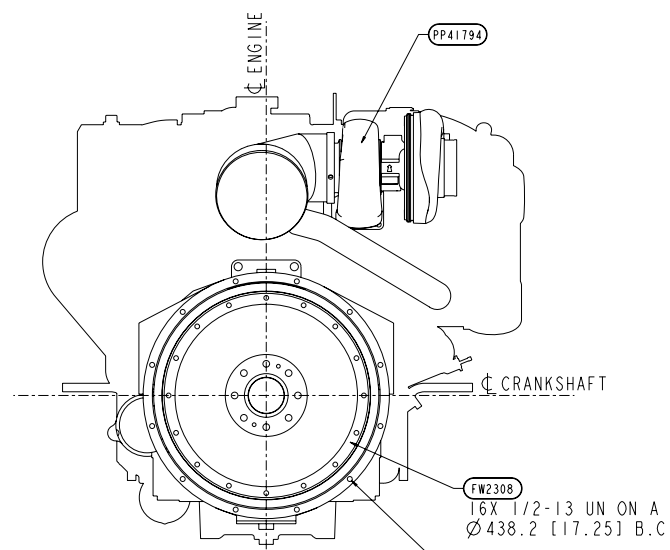
LAST SECTION LETTER USED: <b>A</b>	REF. DRAWING STANDARDS: ANSI Y14.5M ISO 81101	ITEM NAME <b>CUMMINS INC.</b>
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN: MILLIMETERS ( ) ARE IN: INCHES	IDENTIFIER <b>QSM11-M (610,645,670,715)</b>	ITEM NUMBER <b>3170353</b>
DWN: TMO/TGANG #01-03	SIZE CODE IDENT. NO. ITEM NUMBER <b>J</b>	SCALE: 2x
CHD: UNCHECKED	HEAT EXCHANGER	ITEM CONTROL: MCS
APPD:		SHEET 1 OF 3

ITEM NUMBER  
3170353

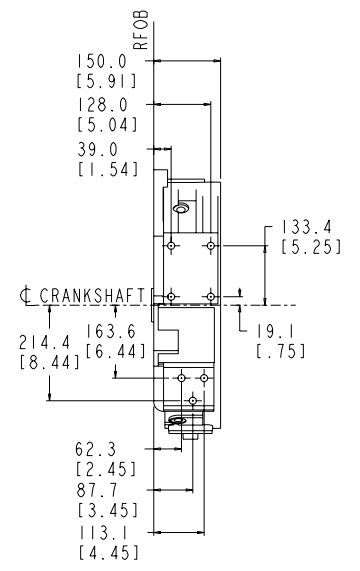
REVISIONS		OWN	APP'D
06	QSM11-M (610,645,670,715)	915	12/28/08



TOP VIEW

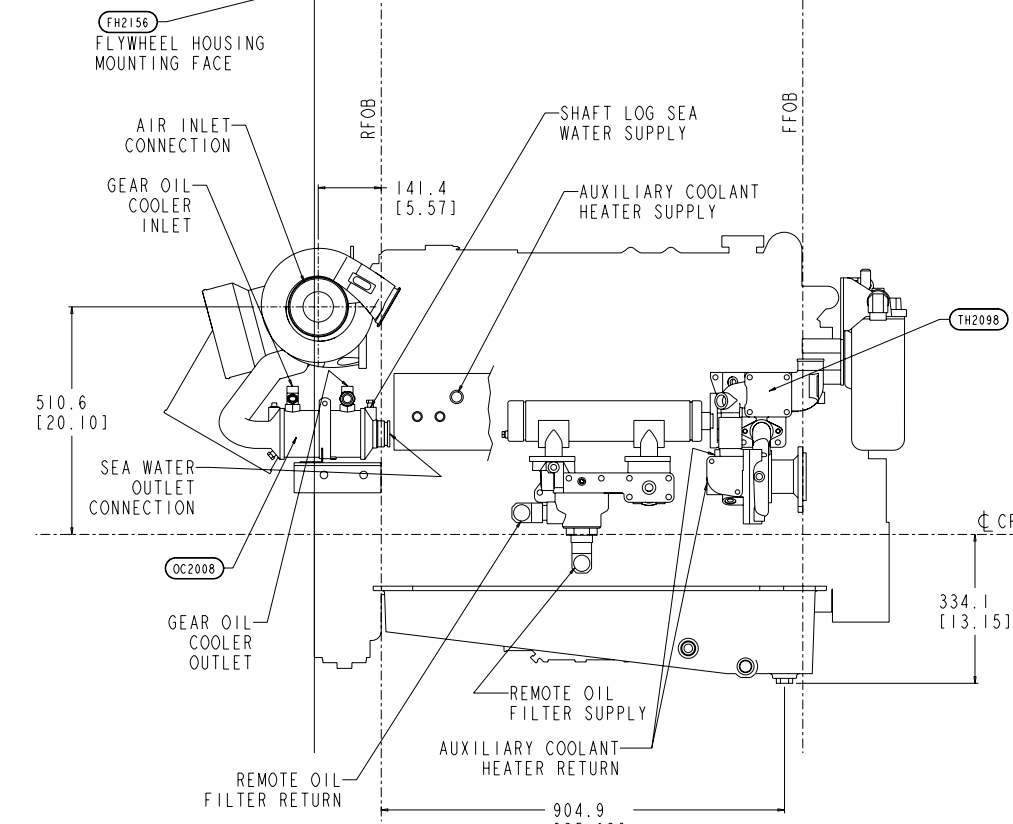


BACK VIEW

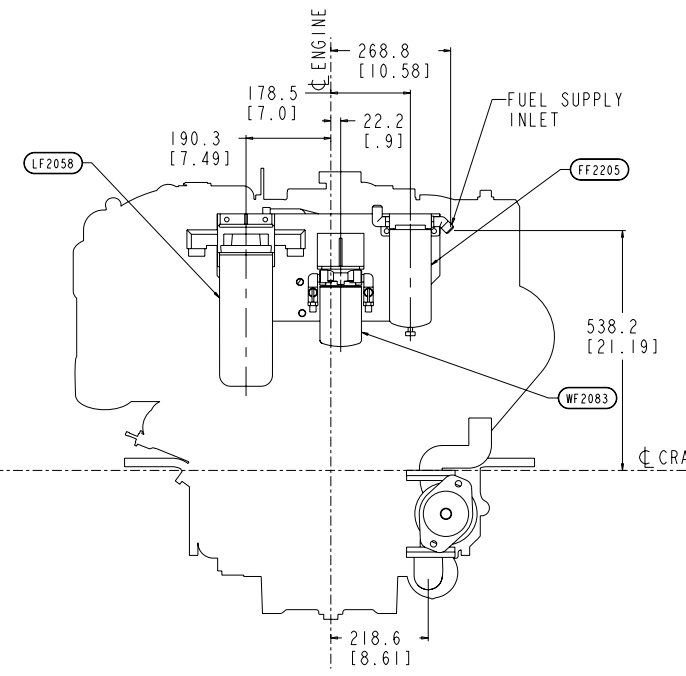


LEFT BANK VIEW

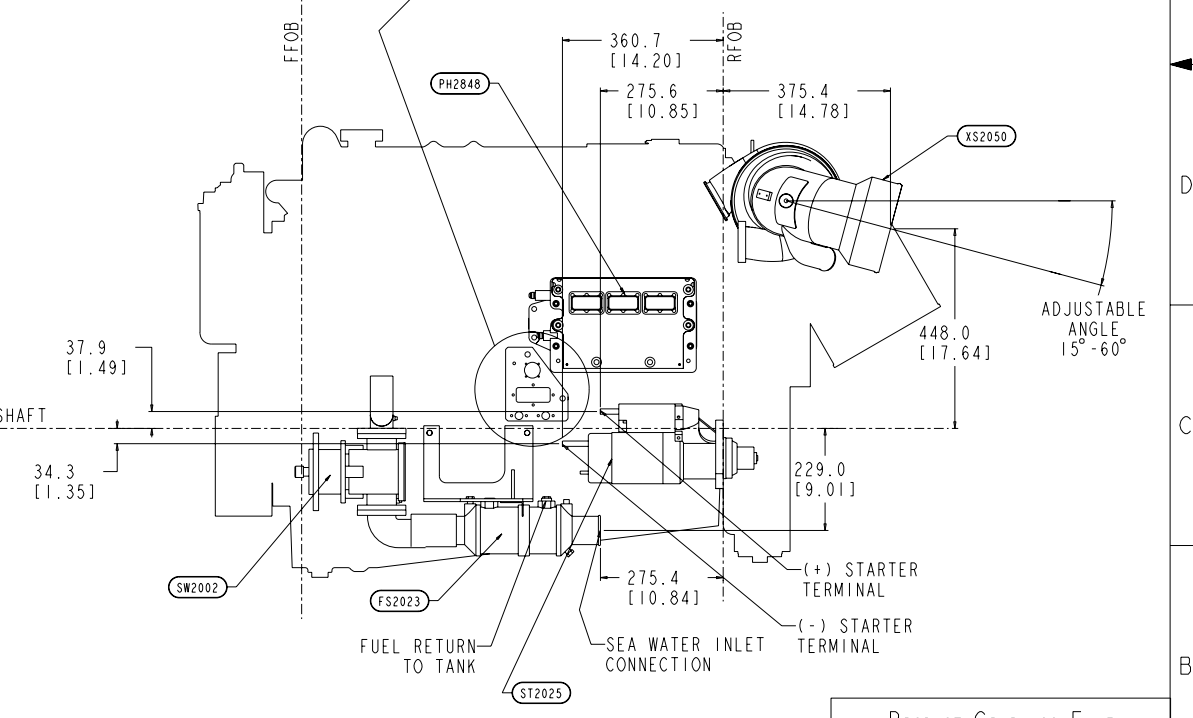
- WIRING CONNECTIONS
- ELECTRONIC THROTTLE CONTROL
  - THROTTLE EXTENSION HARNESS
  - PRIMARY OEM CONNECTION POINT
  - NEUTRAL SAFETY JUMPER PLUG
  - J1939 TERMINAL RESISTOR
  - UNSWITCHED POWER HARNESS



STARBOARD VIEW



FRONT VIEW



PORT VIEW

ADJUSTABLE ANGLE 15°-60°

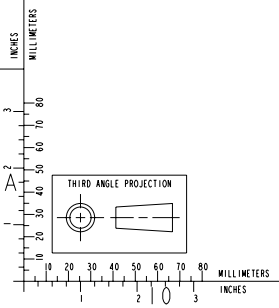
SHIPYARD CONNECTIONS

1 AIR INLET CONNECTION	Ø127 [5.00] O.D.	9 FUEL RETURN TO TANK	1/2 NPT
2 AUX. COOLANT HEATER RETURN	1X 3/4 NPT, 1X 1/2 NPT	10 GEAR OIL COOLER FITTINGS	2X 1/2 NPT
3 AUX. COOLANT HEATER SUPPLY	6X 1/2 NPT	11 REMOTE OIL FILTER RETURN	1 7/16-12 (#16 HOSE)
4 EXHAUST ELBOW CONNECTION	Ø127 [5.00] MARMON FLANGE	12 REMOTE OIL FILTER SUPPLY	1 7/16-12 (#16 HOSE)
5 EXHAUST OUTLET CONNECTION	Ø203.2 [8.00] O.D.	13 SEA WATER INLET CONNECTION	Ø63.5 [2.5]
6 FLYWHEEL BOLT HOLES	8X 3/8-16 UN	14 SEA WATER OUTLET CONNECTION	Ø50.5 [2]
7 FLYWHEEL HOUSING BOLT HOLES	12X M10 X 1.5	15 SHAFT LOG SEA WATER SUPPLY	3/8 NPT
8 FUEL SUPPLY INLET	7/8-14 UN (#8 HOSE)	16 STARTER TERMINALS	(+) M12 X 1.75, (-) M12 X 1.75

PRODUCT GRAPHICS FILE  
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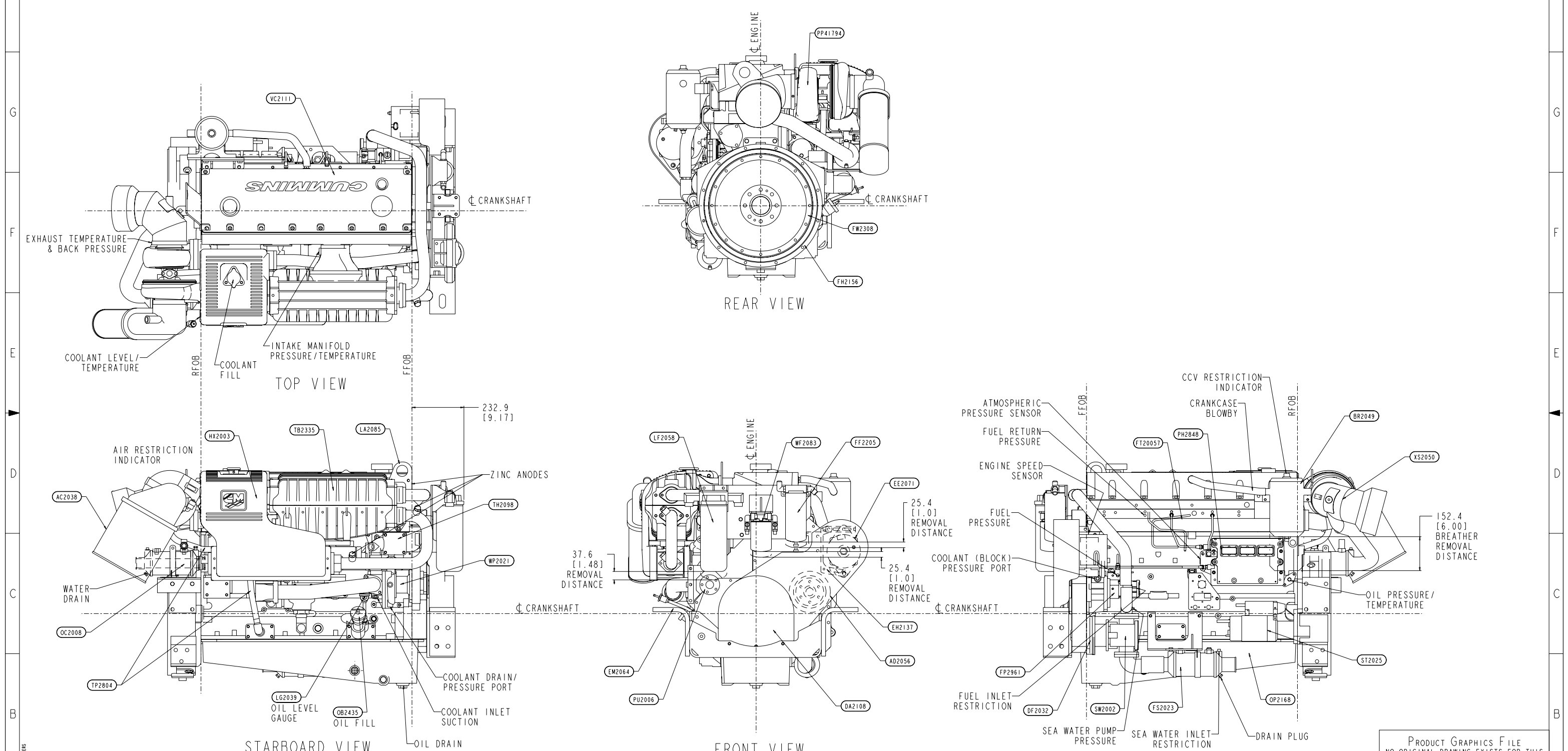
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LAST SECTION LETTER USED: <b>A</b>	REF. DRAWING STANDARDS: ANSI Y14.5M ISO 81101	ITEM NAME QSM11-M (610,645,670,715)
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN: MILLIMETERS ( ) ARE IN: INCHES	IDENTIFIER <b>J</b>	SIZE CODE (IDENT. NO.) 3170353
DWN UNCHECKED	APPD UNCHECKED	SCALE: 2x
ITEM CONTROL: MCS	SHEET 2 OF 3	



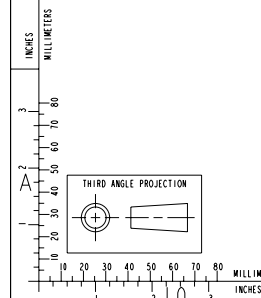
ITEM NUMBER  
3170353

REVISIONS			
ZONE	REV	DESCRIPTION	APP'D
06		QSM11-M (610,645,670,715)	315 1-24-08



SERVICE CONNECTIONS/TEST PORTS			
① AIR INLET RESTRICTION (AIR CLEANER)	1/8-27 NPT	⑧ ENGINE SPEED SENSOR	REAR OF GEAR COVER
② ATMOSPHERIC PRESSURE	9/16-18 UN	⑨ EXHAUST TEMP/BACK PRESSURE	1/8-27 NPT
③ COOLANT (BLOCK) PRESSURE PORT	1 NPT	⑩ FUEL INLET RESTRICTION	3/4-16 UN
④ COOLANT INLET SUCTION	9/16-18 UN	⑪ FUEL PRESSURE	9/16-18 UN
⑤ COOLANT DRAIN/PRESSURE	9/16-18 UN O'RING SEAL	⑫ FUEL RETURN PRESSURE	1/8 NPT
⑥ COOLANT LEVEL/TEMPERATURE	1/4-18 NPT	⑬ INTAKE MANIFOLD PRESSURE	9/16-18 UN
⑦ CRANKCASE BLOWBY	3/4 HOSE	⑭ INTAKE MANIFOLD TEMPERATURE	9/16-18 UN
		⑮ OIL DRAIN	1-18 UN
		⑯ OIL FILL	Ø2 I.D.
		⑰ OIL LEVEL GAUGE	C8
		⑱ OIL PRESSURE/TEMPERATURE	9/16-18 UN
		⑳ SEA WATER INLET RESTRICTION	3/8 NPT
		㉑ SEA WATER PUMP PRESSURE	1/4 NPT

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN: MILLIMETERS ( ) ARE IN: INCHES	ITEM NAME QSM11-M (610,645,670,715)	IDENTIFIER <b>J</b>	ITEM NUMBER 3170353
DWN: TMO/TGANG CHD: UNCHECKED APPD:	SIZE CODE (IDENT. NO.) <b>J</b>	ITEM CONTROL: MCS	SHEET 3 OF 3