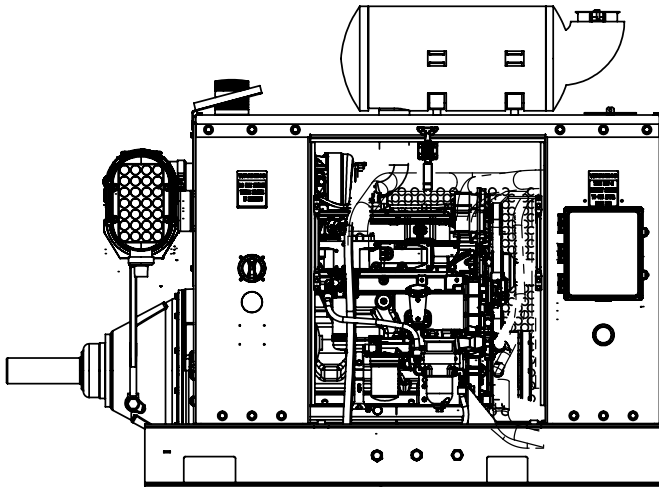
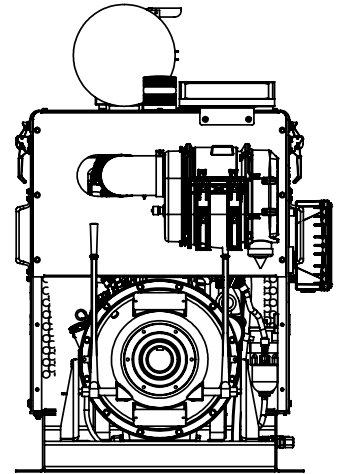


Model - J3M0681C7-SDB 250hp Auxiliary Power



Overall Dimensions

89.0" L
43.8"W
64.9"H



Standard Spec Configuration

Engine

- John Deere 6068H485 250hp @2200rpm, variable speed
- EPA Marine Tier III Compliant, Auxiliary
- SAE 1 / 14" OCC flywheel
- Full Enclosure with Locking Doors
- Deere Full Feature controls with DG-14 and speed control
- Over-speed Shutdown
- Radiator Cooled
- Suction Fan
- Oil Pan Drain Valve
- 12v DC Engine electrical System

Optional Spec Configuration

- 24v DC Engine Electrics
- Various Control Panel Options and Harness Lengths
- SAE 2 or 3 / 11.5" OCC flywheel
- Various Driven accessories; PTO (shown), Pump Drives, FUNK
- Salt Water Environment Pkg
 - Stainless Enclosure
 - Galvanized base and Rad/CAC
 - Stainless Exhaust System
- Battery Disconnect
- Solar Battery Charger
- Strobe Light
- Sub-chapter M



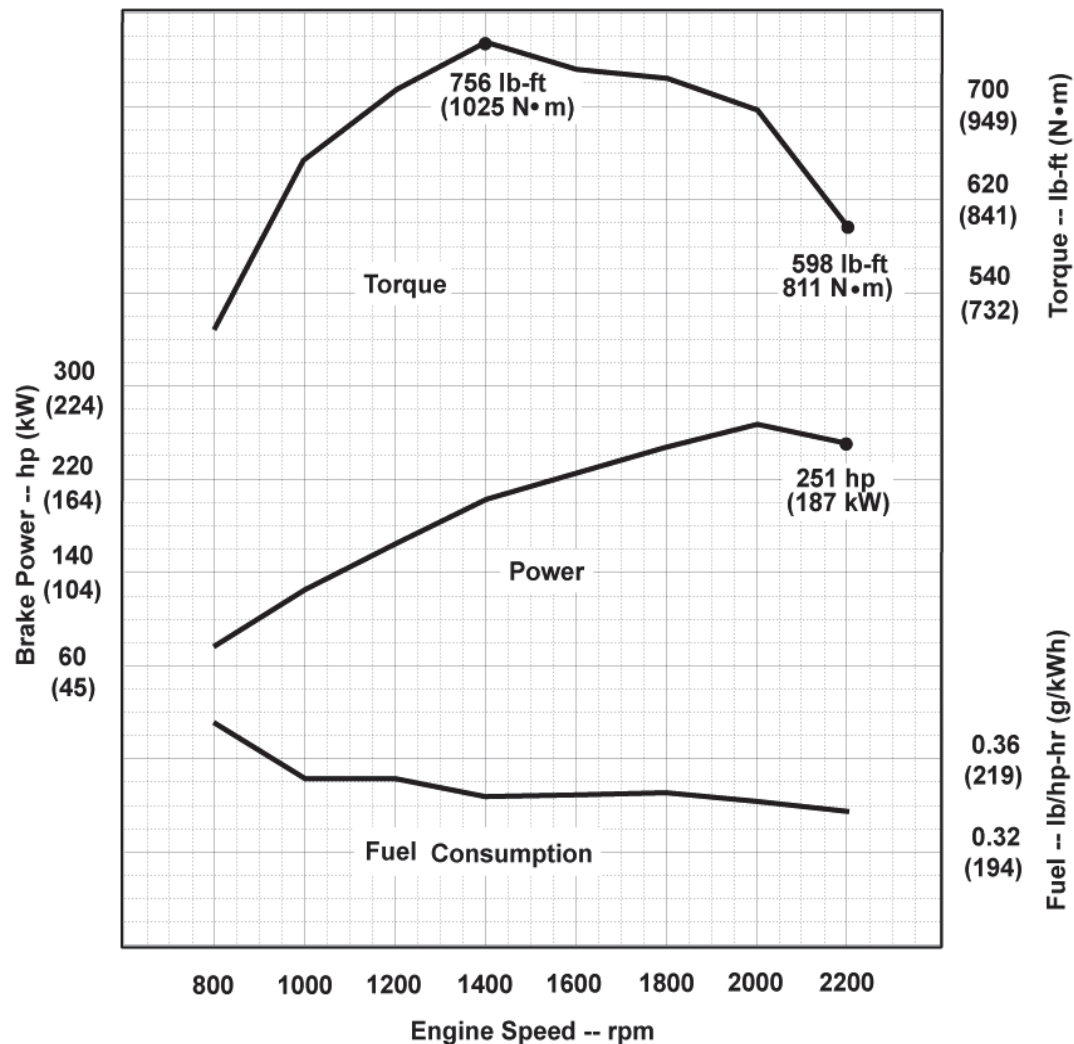
JOHN DEERE

ENGINE PERFORMANCE CURVE

Rating: Gross Power
Application: Intermittent
EPA Marine Tier 3
Power Bulge - 6%
Torque Rise - 26%

PowerTech™ Plus 6.8L Engine
Model: 6068HF485

JD Electronic Control
251 hp @ 2200 rpm
187 kW @ 2200 rpm



STANDARD CONDITIONS

Air Intake Restriction.....12 in.H₂O (3 kPa)
Exhaust Back Pressure.....30 in.H₂O (7.5 kPa)

Gross power guaranteed within + or - 5% at SAE

J1995 and ISO 3046 conditions:

77 °F (25 °C) air inlet temperature

29.31 in.Hg (99 kPa) barometer

104 °F (40 °C) fuel inlet temperature

0.853 fuel specific gravity @ 60 °F (15.5 °C)

Conversion factors:

Power: kW = hp x 0.746

Fuel: 1 L = 0.85kg , 1 gal = 7.1 lb

Torque: N·m = lb-ft x 1.356

All values are from currently available data and are subject to change without notice.

Notes: Industrial Based Auxiliary - The Marine Emissions Labeled Industrial Engine ratings are for applications that require variable speed and load operation and do not run on a propeller curve. Additionally, these engines are for applications that do not require marinized components (such as wet manifold/turbocharger, blue hose, etc.) or marine classification society approval. See John Deere Industrial Diesel Engine Documentation and Application Guidelines for further information. Possible applications: Barge pumps, deck winches, hydraulic power units.

Designed/Calibrated to meet:

Certified by:

- US EPA Marine Tier 3 Compliant

Ref: Engine Emission Label

[Signature]
02/10/14

Performance Curve: 6068HF485_V

Engine Installation Criteria

General Data

Model	6068HF485	
Number of Cylinders	6	
Bore	106 mm	4.2 in.
Stroke	127 mm	5.0 in.
Displacement	6.8 L	415 in. ³
Compression Ratio	17.0 : 1	
Valves per Cylinder, Intake/Exhaust	2/2	
Firing Order	1-5-3-6-2-4	
Engine Type	In-line, 4-Cycle	
Aspiration	Turbocharged and air-to-air aftercooled	
Charge Air Cooling System	Air-to-Air	
Engine Crankcase Vent System	Open	

Physical Data

Length	1161 mm	45.7 in.
Width	616 mm	24.3 in.
Height	1128 mm	44.4 in.
Weight, with oil & no coolant (Includes engine, flywheel housing, flywheel & electrics)	678 kg	1495 lb
Center of Gravity Location, X-axis From Rear Face of Block	395 mm	15.6 in.
Center of Gravity Location, Y-axis Right of Crankshaft	-2.24 mm	-0.1 in.
Center of Gravity Location, Z-axis Above Crankshaft	189 mm	7.4 in.
Max. Allowable Static Bending Moment At Rear Face of Flywheel Housing with 5-G Load	814 N·m	600 lb-ft
Thrust Bearing Load Limit Forward, Intermittent	4000 N	899 lb
Thrust Bearing Load Limit Forward, Continuous	2200 N	495 lb
Thrust Bearing Load Limit Rearward, Intermittent	2000 N	450 lb
Thrust Bearing Load Limit Rearward, Continuous	1000 N	225 lb
Max. Continuous Damper Temp	82 °C	180 °F
Max. Torsional Vibration, Front of Crank	0.25 DDA	

Electrical System

Recommended Battery Capacity, 12V @32 °F (0 °C)	800 amps	
Recommended Battery Capacity, 24V @32 °F (0 °C)	570 amps	
Starter Rolling Current, 12V @32 °F (0 °C)	920 amps	
Starter Rolling Current, 24V @32 °F (0 °C)	600 amps	
Starter Rolling Current, 12V @-22 °F (-30 °C)	1300 amps	
Starter Rolling Current, 24V @-22 °F (-30 °C)	700 amps	
Min. Voltage at ECU during Cranking, 12V	6 volts	
Min. Voltage at ECU during Cranking, 24V	10 volts	
Max. Allowable Start Circuit Resistance, 24V	0.002 Ohm	
Max. Allowable Start Circuit Resistance, 12V	0.0012 Ohm	
Max. ECU Temperature	105 °C	221 °F
Max. VTG Actuator Surface Temp	180 °C	356 °F
Max. Harness Temperature	120 °C	248 °F

Charge Air Cooling System

Air-to-Air Heat Rejection	43 kW	2448 BTU/min
Intake Manifold Pressure	177 kPa	25.7 psi
Compressor Discharge Temperature @77°F(25°C) Ambient Air	194 °C	381 °F
Compressor Discharge Temperature @117°F(47°C) 80 kPa Barametric pressure	221 °C	430 °F
Max. Temperature Out of Charge Air Cooler @All Ambient Conditions	88 °C	190 °F
Intake Manifold Temperature at which Power De-rate Occurs	88 °C	190 °F
Max. Pressure Drop through CAC	16 kPa	64.0 in. H ₂ O
Min. Pressure Drop through CAC	8 kPa	32.0 in. H ₂ O
Max. Temperature Out of Charge Air Cooler @77°F (25°C) Ambient Air	52 °C	126 °F
Min. Temperature Out of Charge Air Cooler @77°F (25°C) Ambient Air	43 °C	109 °F

Performance Curve: 6068HF485_V

Engine Installation Criteria

Cooling System

Engine Heat Rejection	84 kW	4781 BTU/min
Coolant Flow	321 L/min	85 gal/min
Thermostat Start to Open	82 °C	180 °F
Thermostat Fully Open	95 °C	203 °F
Engine Coolant Capacity	11.9 Liter	12.6 quart
Min. Pressure Cap	100 kPa	15 psi
Max. Water Pump Inlet Pressure	235 kPaa	34 psia
Min. Pump Inlet Pressure	30 kPa	4.4 psi
Max. Top Tank Temperature	110 °C	230 °F
Min. Coolant Fill Rate	11 L/min	2.9 gal/min

Exhaust System

Exhaust Flow	33 m³/min	1165 ft.³/min
Exhaust Temperature	396 °C	745 °F
Max. Allowable Exhaust Restriction	10 kPa	40 in. H ₂ O
Min. Allowable Exhaust Restriction	4 kPa	16 in. H ₂ O
Max. Bending Moment on Turbo Outlet	7 N·m	5.2 lb-ft
Max. Shear on Turbine Outlet	11 kg	24 lb

Fuel System

ECU Description	L14 Controller	
Fuel Injection Pump	Denso HP3	
Governor Type	Electronic	
Total Fuel Flow	80.4 kg/hr	177 lb/hr
Fuel Consumption	38 kg/hr	83.8 lb/hr
Fuel Temperature Rise, Inlet to Return	50 Δ°C	90 Δ°F
Max. Fuel Inlet Restriction	20 kPa	80 in. H ₂ O
Max. Fuel Inlet Pressure	NA	
Max. Fuel Return Pressure	20 kPa	80 in. H ₂ O
Max. Fuel Inlet Temperature	80 °C	176 °F

Lubrication System

Oil Pressure at Rated Speed	392 kPa	57 psi
Oil Pressure at Low Idle	105 kPa	15 psi
Max. Oil Carryover in Blow-By	1.0 g/hr	0.002 lb/hr
Max. Airflow in Blow-By	85 L/min	22.5 gal/min
Max. Crankcase Pressure	0.5 kPa	2 in. H ₂ O

Air Intake System

Engine Air Flow	15.3 m³/min	540 ft.³/min
Maximum Allowable Temperature Rise, Ambient Air to Engine Inlet	8 Δ°C	15 Δ°F
Max. Air Intake Restriction, Clean Air Cleaner	3.75 kPa	15.0 in. H ₂ O
Max. Air Intake Restriction, Dirty Air Cleaner	6.25 kPa	25.0 in. H ₂ O
Air Cleaner Efficiency	99.9 %	

Performance Data

Rated Power	187 kW	251 HP
Rated Speed	2200 rpm	
Max. Fast Idle Speed	2400 rpm	
Breakaway Speed	2270 rpm	
Power Bulge Speed	2000 rpm	
Peak Torque Speed	1400 rpm	
Low Idle Speed	800 rpm	
Rated Torque	812 N·m	599 lb-ft
Peak Torque	1025 N·m	756 lb-ft
Torque Rise	26 %	
BMEP, Rated	1498 kPa	217 psi
Altitude Capability	2286 m	7500 ft
Friction Power @Rated Speed	27 kW	36 HP
Air:Fuel Ratio	26.5:1	
Smoke @Rated Speed	0.23 Bosch No.	
Noise @1 m	NA	
Power Bulge	6 %	

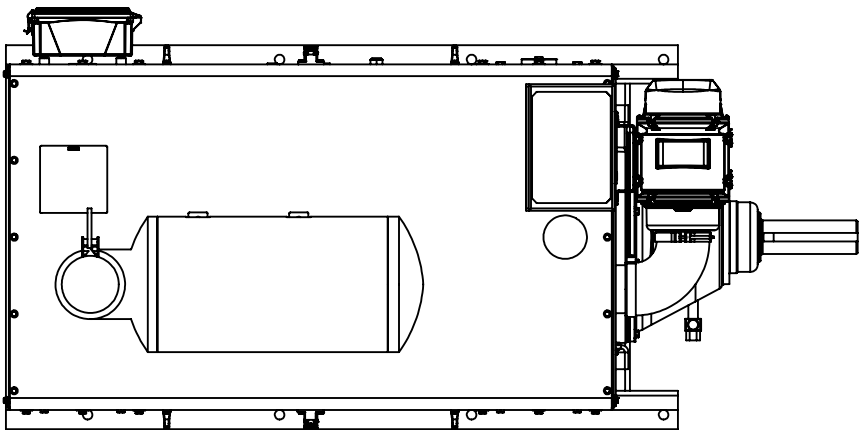
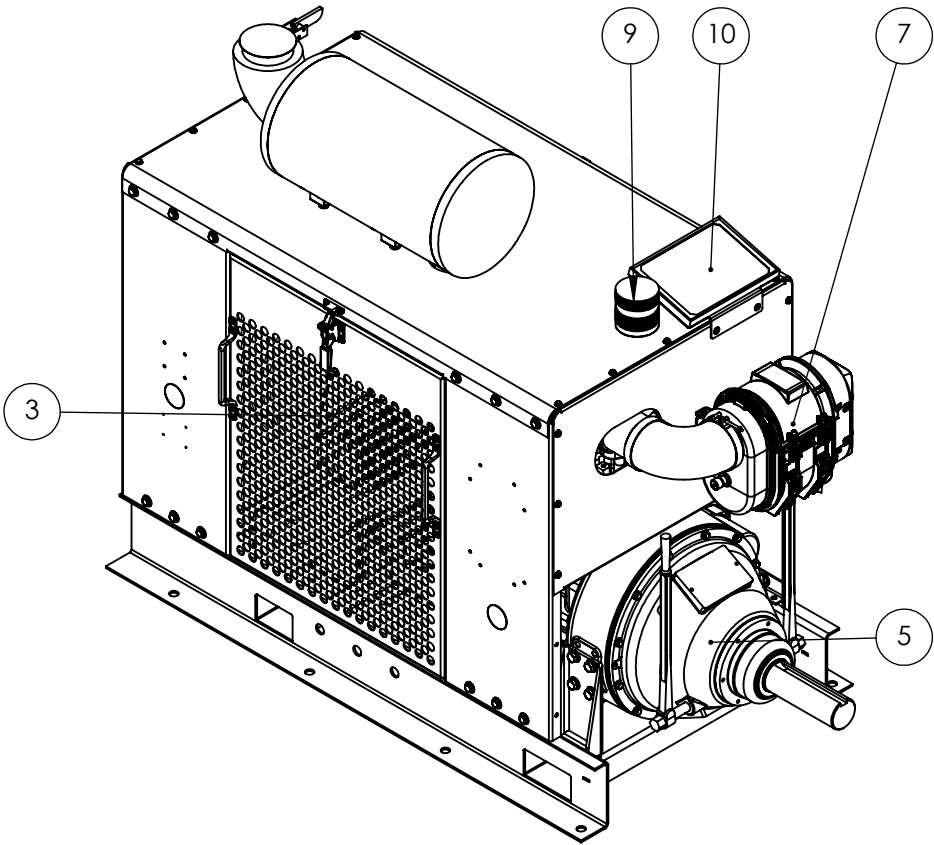
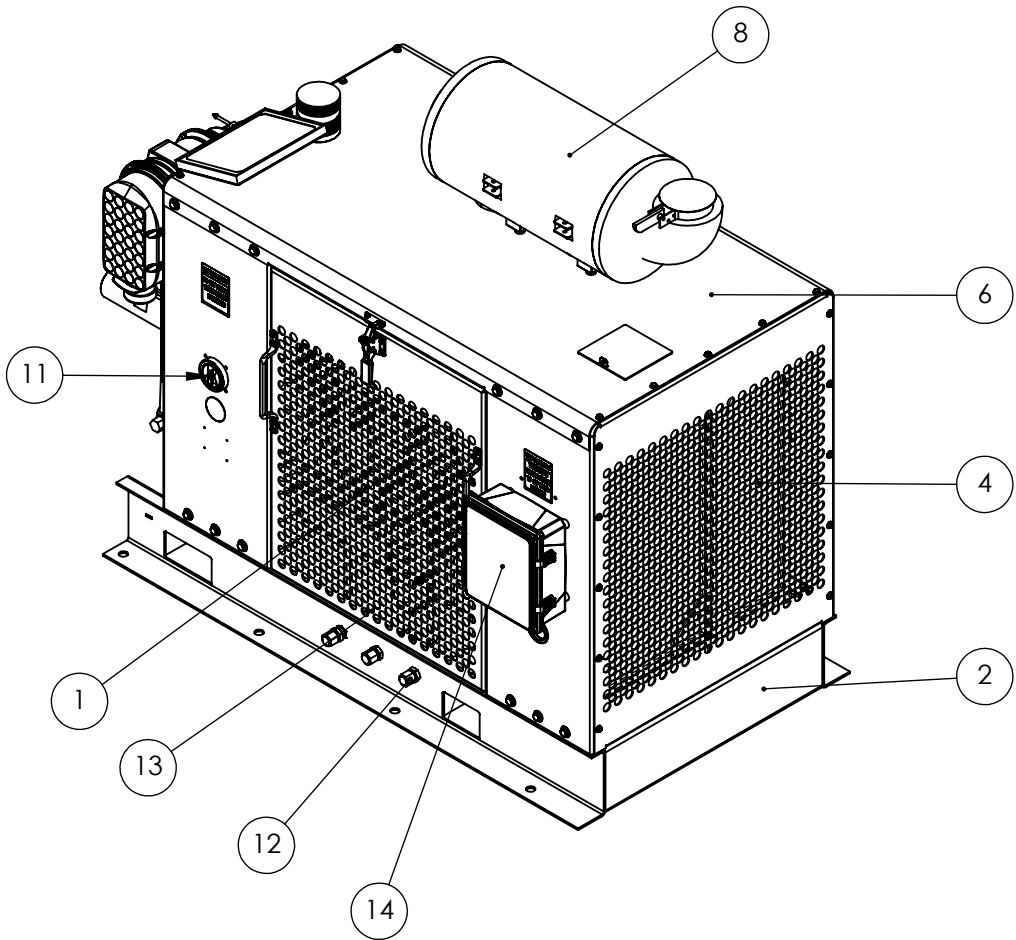
Performance Curve: 6068HF485_V

Engine Installation Criteria

Engine Speed	Power		Torque		BSFC	
rpm	kW	hp	N·M	lb-ft	g/kWh	lb/hp-hr
2200	187	251	811	598	206	0.338
2000	198	266	946	698	208	0.341
1800	185	248	979	722	211	0.346
1600	167	224	995	734	210	0.344
1400	150	201	1025	756	209	0.343
1200	122	164	970	715	214	0.351
1000	93	125	890	656	214	0.351
800	58	78	690	509	230	0.377

Performance Curve: 6068HF485_V

ECR #	REV	DESCRIPTION OF CHANGE	DATE	REV BY
	-	INITIAL RELEASE		



ITEM NO.	NUMBER	DESCRIPTION	QTY.
1	68HM32-250-AR00	250HP, SAE#1, 12V, RC	1
2	250-A3719	SKID ASSY, EPU, 6068	1
3	300-A3750	26"DIA/SUKR/5.75"	1
4	300-A3716	COOLING PKG, DRC	1
5	SP214P114	TWO PLATE, SAE #1	1
6	600-A3718	ENCLOSURE, S.S.	1
7	500-A3722	PSD INTAKE ASSY	1
8	400-A3746	6068H485 SS EXH ASSY	1
9	MS115M-F00-RYG	STROBE, 12VDC, MARINE, RYG	1
10	ECO-10	10W SOLAR CHARGER	1
11	70-402-M9	BATTERY CABLE ASSY	1
12	150-A3721	500MAM30 ASSY	1
13	350-06248	OIL DRAIN HOSE, XX" LONG	1
14	700-07613	FULL-FEATURE W/TT-100	1

PLEASE REVIEW, VERIFY, SIGN AND DATE THIS DESIGN TO ENSURE THAT OUR DESIGN MEETS YOUR APPLICATION REQUIREMENTS. PLEASE RETURN TO YOUR SDI/BPS REPRESENTATIVE.

BY: _____ DATE: _____

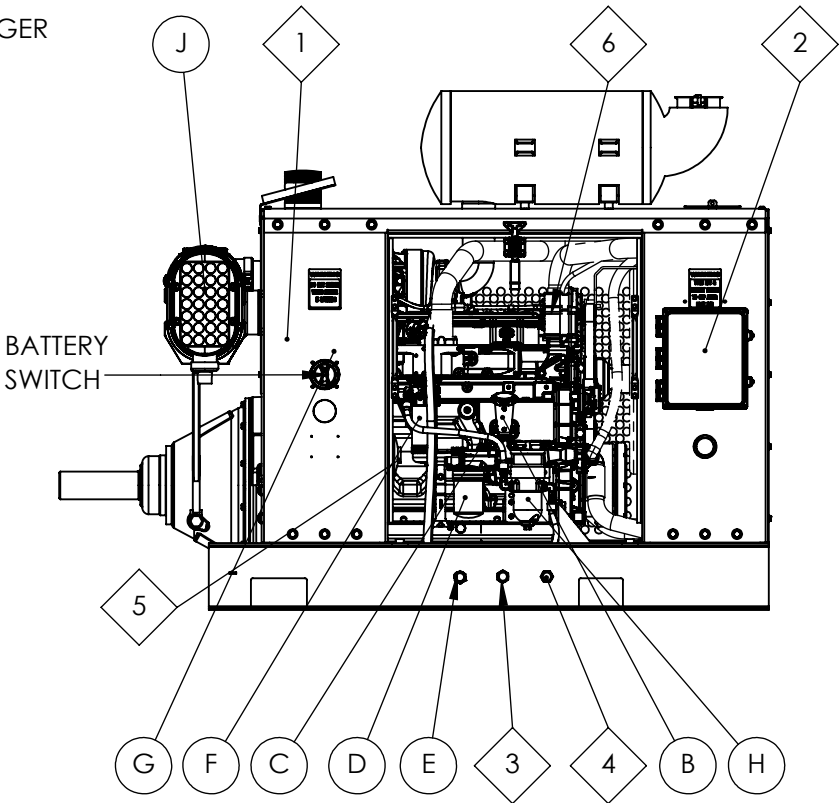
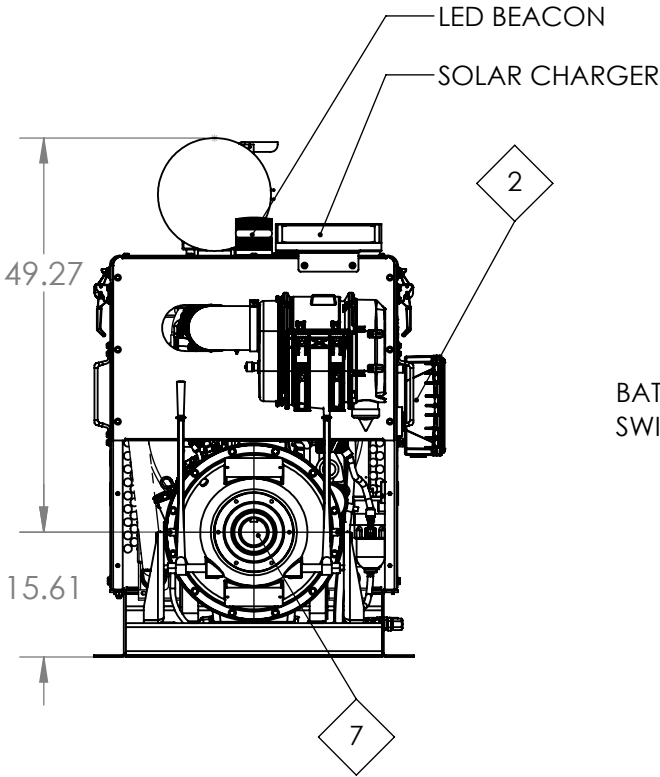
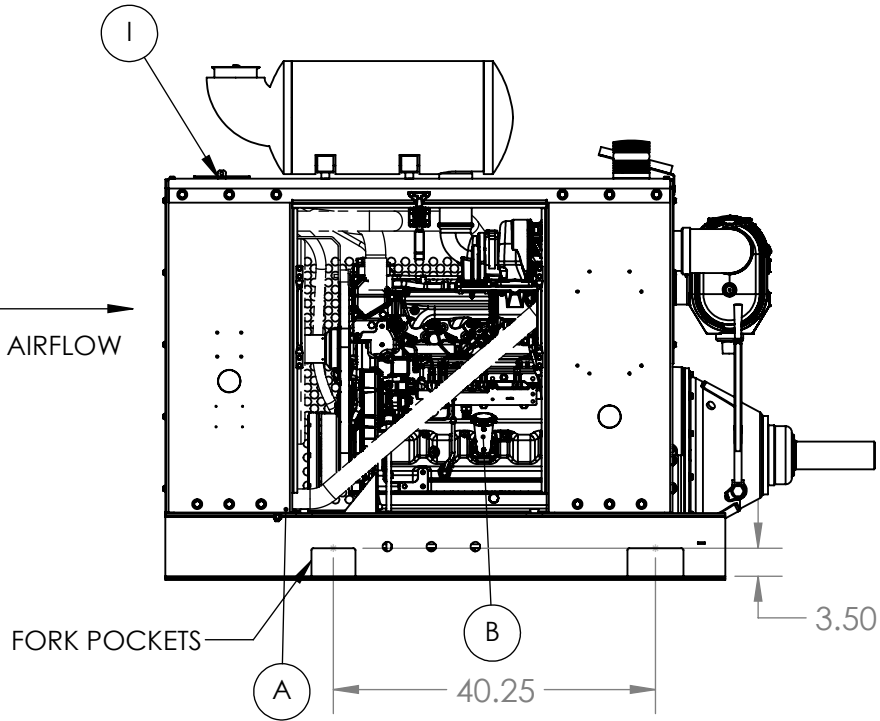
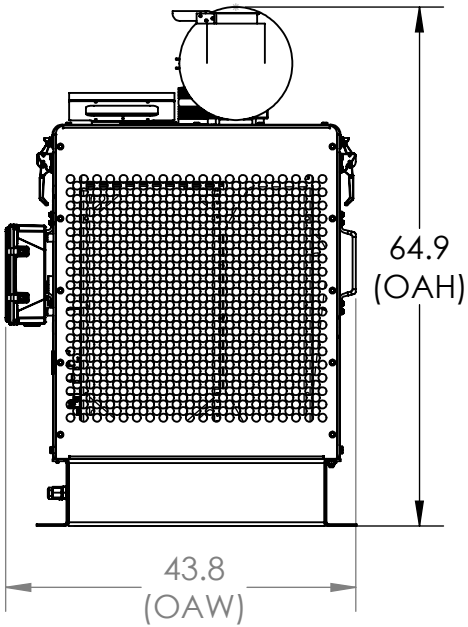
- NOTES:**
1. INSTALLATION DRAWING ONLY.
 2. DO NOT SCALE FROM DRAWING.
 3. CONTACT SUPERIOR DIESEL FOR ALL ENGINE CODES AND PART NUMBERS.

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		RHINELANDER, WI (715) 365-0500 SEVILLE, OH (330) 769-1850 ESSEX, CT (860) 767-7502			
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE NOTED		DRAWN KDP	DATE	TITLE 250HP, 12V, S.S. GALV. SKID, PTO	
ANGLES: ±.5°		CHECKED	DATE	DRAWING NO J3M0681C7-SDB	
FRACTIONS: ±1/32		-	-		
DECIMALS: .0 = ±.060 .00 = ±.030 .000 = ±.010		MODELS HF485		SHEET 1 OF 2	
MATERIAL		WEIGHT TBD		REV. -	

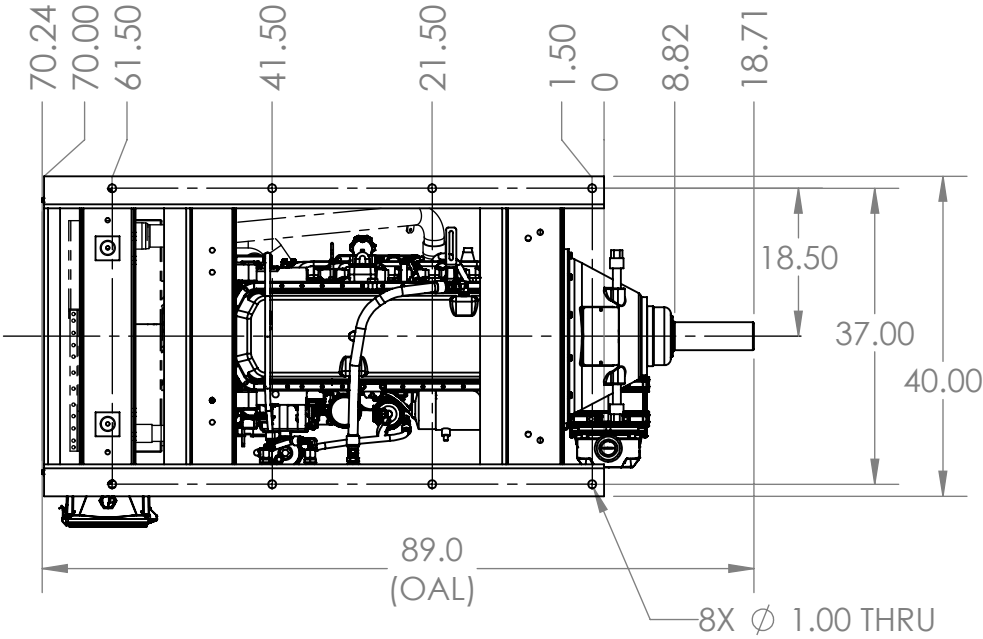
ECR #	REV	DESCRIPTION OF CHANGE	DATE	REV BY
	-	INITIAL RELEASE		



CUSTOMER SERVICE POINTS ●	
ITEM	NAME
A	COOLANT DRAIN(S)
B	OIL FILL(S)
C	OIL DIPSTICK
D	OIL FILTER
E	OIL DRAIN
F	PRIMARY FUEL FILTER
G	SECONDARY FUEL FILTER
H	FUEL WATER SEPARATOR
I	COOLANT FILL & PRESSURE CAP
J	REPLACEABLE AIR FILTER

CUSTOMER INSTALLATION POINTS ◆		
ITEM	NAME	REMARKS
1	ECU HARNESS CONNECTION	SEE OPTION DRAWING
2	CONTROL PANEL	SEE PANEL DRAWING
3	FUEL INLET	#12 (3/4") JIC
4	FUEL RETURN	#12 (3/4") JIC
5	STARTER	SEE OPTION DRAWING
6	ALTERNATOR	SEE OPTION DRAWING
7	PTO	SEE MFG'S MANUAL

- NOTES:**
- SEE APPLICABLE ENGINE INSTALLATION & OPTION CODE DRAWINGS FOR FURTHER INFORMATION.
 - ORIGIN - CENTERLINE OF CRANKSHAFT AT REAR FACE OF BLOCK.



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ANGLES: ±.5°		CHECKED -	DATE		
FRACTIONS: ±1/32					
DECIMALS: .0 = ±.060 .00 = ±.030 .000 = ±.010		MODELS HF485		DRAWING NO J3M0681C7-SDB	
MATERIAL		WEIGHT TBD		SHEET 2 OF 2	REV. -