

John Deere Marine Gen Drive Engine Application Review Form-August 2017

General Information

Customer Name _____
Customer Location _____
Dealer/OEM _____
Dealer/OEM Rep _____
Dealer/OEM Location _____
Distributor _____
Distributor Rep _____
Distributor Location _____
JDPS Rep _____
JDPS Rep Location _____

Vessel Information

Vessel Name _____	
Registration No. _____	
Home Port _____	
New Build <input type="checkbox"/>	Repower <input type="checkbox"/>
Hull Build Date _____	

Application Information

Vessel Use Description _____			
Hull Type			
<input type="checkbox"/> Planing	<input type="checkbox"/> Barge	<input type="checkbox"/> Fishing	<input type="checkbox"/> Sport Fish
<input type="checkbox"/> Semi-Disp	<input type="checkbox"/> Cat	<input type="checkbox"/> Tug/Tow	<input type="checkbox"/> Recreational
<input type="checkbox"/> Displacement		<input type="checkbox"/> Workboat	<input type="checkbox"/> Passenger
<input type="checkbox"/> Other		<input type="checkbox"/> Sailboat	<input type="checkbox"/> Other

Previous Engine/Generator

Model _____ S/N _____	
kWe _____	<input type="checkbox"/> 50 hz
<input type="checkbox"/> Keel Cooled	<input type="checkbox"/> 60 hz
<input type="checkbox"/> Heat Exchanged	
Generator Make/Model _____	Amps _____

New Engine Information

Model _____ S/N _____	
kWe _____	<input type="checkbox"/> 50 hz
<input type="checkbox"/> Keel Cooled	<input type="checkbox"/> 60 hz
<input type="checkbox"/> Heat Exchanged	

New Generator Information

Generator Make/Model _____		
kWe Rating _____	Frequency _____ Hz	
Amp Rating _____	Efficiency _____ %	
Parallel <input type="checkbox"/> Yes	Parallel Method _____	
<input type="checkbox"/> No		
Controller Type _____		
Throttle Inputs _____		
Mass Elastic Data attached	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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Powered Components

Auxillary Component Description	Engaged at	Max Power	Drive Type	Drive Location
Make and Model	Cranking (Y/N)	Required	Direct/Belt/Clutched	Aux/Pulley/Gear/etc
_____	_____	_____ hp	_____	_____
_____	_____	_____ hp	_____	_____
_____	_____	_____ hp	_____	_____
_____	_____	_____ hp	_____	_____
_____	_____	_____ hp	_____	_____
Engine Alternator	<input type="checkbox"/> Yes			
	<input type="checkbox"/> No	If no, TVP installed?	<input type="checkbox"/> Yes	

Engine Mounting

Engine Static Installation Angle _____ deg	
Flex Connections <input type="checkbox"/> Yes <input type="checkbox"/> No	
Type of Mounting (eng to skid) <input type="checkbox"/> Solid <input type="checkbox"/> Isolated	
Type of Mounting (skid to vessel) <input type="checkbox"/> Solid <input type="checkbox"/> Isolated	
Dipstick Remarked <input type="checkbox"/> Yes <input type="checkbox"/> No	
Front Mount Description _____	
Rear Mount Description _____	
Comments _____	

Air Intake

Engine Room Open/Closed <input type="checkbox"/> Open <input type="checkbox"/> Closed
Engine Room Exhaust Fan <input type="checkbox"/> Yes <input type="checkbox"/> No
Filter <input type="checkbox"/> std <input type="checkbox"/> other _____
Engine Room Vent Area _____ in ² _____ cm ²
Intake pipe length _____ Diam _____
Elbows <input type="checkbox"/> 45° No. _____ <input type="checkbox"/> 90° No. _____
Intake pipe material _____
Comments _____

Exhaust System

Dry	
Adequate Flex <input type="checkbox"/> Yes <input type="checkbox"/> No	
Exhaust Wrapped <input type="checkbox"/> Yes <input type="checkbox"/> No	
Wet	
Positive Exhaust Slope <input type="checkbox"/> Yes <input type="checkbox"/> No	
Exhaust Outlet Above Waterline <input type="checkbox"/> Yes <input type="checkbox"/> No	
Exhaust Muffler Make/Model _____	
Exhaust Pipe Length _____ Diam _____	
Exhaust Piping Material _____	
Elbows <input type="checkbox"/> 45° No. _____ <input type="checkbox"/> 90° No. _____	
Water Exclusion Method _____	
Comments _____	

Fuel System

Pre-engine filter/water separator <input type="checkbox"/> Yes <input type="checkbox"/> No	
- w/ water-in-fuel alarm <input type="checkbox"/> Yes <input type="checkbox"/> No	
Fuel tank material _____	
Vert dist of tank bottom to transfer pump* _____ in/cm	
Vert dist of tank top to transfer pump* _____ in/cm	
Horizt dist between tank outlet and return lines* _____	
Fuel Inlet Line Dimensions/Material	
Diameter _____ in/cm Length _____ in/cm	
Material _____	
Fuel Return Line Dimensions/Material	
Diameter _____ in/cm Length _____ in/cm	
Material _____	
Comments _____	

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Lube Oil System

CCV	<input type="checkbox"/> std	<input type="checkbox"/> other	
By-pass filter Make/Model _____			
-> Orifice size _____			
Comments _____			

Electric System

Engine Grounded to Bonding Strip	<input type="checkbox"/> Yes	<input type="checkbox"/> No
SAE Cold Cranking Amps @ 0°F (-18°C)* _____		
Number of Batteries and Type	_____	Volt _____
Positive Cable Length/Size*	_____	ft/m size _____
Negative Cable Length/Size*	_____	ft/m size _____
Instrument Panel	<input type="checkbox"/> std	<input type="checkbox"/> other _____

Cooling System (Keel Cooled)

Keel Cooler	<input type="checkbox"/> Channel	<input type="checkbox"/> Pipe	<input type="checkbox"/> Grid	Diameter _____	in/cm	Length _____	in/cm
Make/Model if Applicable _____				No. of Paths or Tubes _____			
Material _____	Painted	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Keel Cooler Line Size	In _____	in/cm	Out _____
Comments _____							

Cooling System (Heat Exchanged)

Engine Coolant Type	<input type="checkbox"/> Antifreeze	<input type="checkbox"/> Water	SW Pump In Tube Diameter _____	in/cm
Radiator Cap in Use	<input type="checkbox"/> Yes	<input type="checkbox"/> No	SW Out Tube Diameter _____	in/cm
SW Discharge Above Waterline	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
SW Strainer Installed	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Seacock Installed	<input type="checkbox"/> Yes	<input type="checkbox"/> No		

Cooling System (General)

Coolant Recovery Bottle volume _____	qt/L	Remote Top Tank Volume _____	qt/L
Height relative to top tank _____	in/cm	Height Relative to Top Tank _____	in/cm
Heater Connection Line Diameter _____	in/cm	Outlet Line Diameter _____	in/cm
Location: Out of Engine _____		Outlet Line Slope _____	°
Return to Engine _____		Vent Line Diameter _____	in/cm
Comments _____			

Type Approval Applied

American Bureau of Shipping (ABS)	<input type="checkbox"/>	China Classification Society	<input type="checkbox"/>
Bureau Veritas (BV)	<input type="checkbox"/>	Other _____	
Det Norske Veritas (DNV)	<input type="checkbox"/>		
Lloyd's Register (LR)	<input type="checkbox"/>		

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RPM	Units	10%	25%	50%	75%	100%	110%	Max Load
Ambient Air Temperature	°F °C							
Engine Room Temperature	°F °C							
Fuel Rate*+	gph Lph							
Load*+	%							
Exhaust Back Pressure	psi kPa							
Exhaust Temperature	°F °C							
Air Intake Restriction	psi kPa							
Temperature at Air Cleaner	°F °C							
Intake Manifold Temperature*	°F °C							
Intake Manifold Pressure/Boost Pressure*	psi kPa							
Coolant Temperature*	°F °C							
Oil Pressure*	psi kPa							
Coolant Pump Inlet Pressure	psi kPa							
Coolant Pump Inlet Temperature	°F °C							
Fuel Inlet Pressure	psi kPa							
Fuel Return Pressure	psi kPa							
Fuel Return Temperature	°F °C							
Sea Water Temperature	°F °C							
HE: SW Pump Inlet Restriction	psi kPa							
HE: SW Pump Inlet Temperature	°F °C							
HE: SW Return Temperature	°F °C							

Key

- Measured on all cooling system types
- Measured on heat exchanged engines only
- * - Denotes a parameter that can be monitored via Service Advisor
- + - Denotes a parameter that is not monitored on mechanical engines

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Servicability Checklist

Inspect all items below and determine if servicability/access of the components is acceptable in the currently installed condition. If not, attempt to remedy to aid in ease of service at a later date

<u>N/A</u>	<u>Yes</u>	<u>No</u>	<u>Daily Maintenance</u>	<u>N/A</u>	<u>Yes</u>	<u>No</u>	<u>Daily Maintenance</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check oil level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Replace zinc anodes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Add oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Replace raw water pump impeller
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check coolant level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clean heat exchanger
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Add coolant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Change engine oil
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check & drain water separator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Replace oil filters
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Close seacock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Replace air cleaners
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clean sea water strainer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Replace fuel filters
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Access to hand primer
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adjust all belt tension
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adjust valve lash
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adjust hose clamp tension
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Change engine coolant
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clean crankcase vent tube
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check air intake joints for leaks
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Replace vibration damper

Sea Trial and Servacibility Comments and Recommendations

Signatures

	<u>Signature</u>	<u>Printed</u>	<u>Company/title</u>
<u>Person completing form</u>	_____	_____	_____
<u>Distributor/Dealer representative</u>	_____	_____	_____
<u>Vessel representative</u>	_____	_____	_____

*Remember to upload this document and other applicable information to the "JDPS- Application Review Depot on the Power Systems Portal