

John Deere Marine Engine Application Review Form

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 Make/Model _____
Hull Build Date _____
Hull Material _____
Measurements LOA _____ LWL _____ ft m
Beam _____ Draft _____ ft m
Loaded Weight _____ lbs <input type="checkbox"/> Measured
_____ kg <input type="checkbox"/> Estimated
Freeboard Fore C/L _____ Aft C/L _____ ft m

Application Information

Vessel Use Description _____	% Time @ Full Throttle _____ %
_____	% Time @ Cruising Speed _____ % _____ RPM
_____	% Time @ Towing Speed* _____ % _____ RPM
Annual Hours _____ hours	Operating Range _____ miles
Multi-engine installation <input type="checkbox"/> yes <input type="checkbox"/> no	Engine placement <input type="checkbox"/> port <input type="checkbox"/> center <input type="checkbox"/> stbd

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

New Engine Information

Model _____ S/N _____
HP _____ RPM _____ M Rating _____
<input type="checkbox"/> Keel Cooled
<input type="checkbox"/> Heat Exchanged

Previous Engine/Gear/Propeller

Engine Make/Model _____
HP _____ RPM _____ Gear Ratio _____ : 1
Gear Make/Model _____
Prop Size _____ in # Blades _____

New Gear/Driveshaft/Propeller

Propulsion Type <input type="checkbox"/> Fixed Pitch <input type="checkbox"/> Waterjet <input type="checkbox"/> POD	Shaft Material _____
<input type="checkbox"/> Other _____	Shaft Diameter _____ in Shaft Angle _____ deg
Gear Make/Model _____	Waterjet Make/Model _____
Gear Ratio _____ : 1 Serial Number _____	Impeller Size _____ in _____ kW
Prop Make & Model _____	POD Make/Model _____
Diameter _____ in	Comments _____
Pitch _____ in # Blades _____ Cup <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	_____	_____

Gen-Set Gen-Set Rating _____ kWe Frequency _____ Hz Generator Eff. _____
 Generator Make/Model _____ Mass Elastic Data Attached Yes No

Engine Mounting

Engine Static Installation Angle _____ deg
 Flex Connections Yes No
 Type of Mounting Solid Isolated
 Dipstick Remarked Yes No
 Front Mount Description _____
 Rear Mount Description _____
 Comments _____

Air Intake

Engine Room Open/Closed Open Closed
 Engine Room Exhaust Fan Yes No
 Filter std other _____
 Engine Room Vent Area _____ in² cm²
 Intake pipe length _____ Diam _____
 Elbows 45° No. _____ 90° No. _____
 Intake pipe material _____
 Comments _____

Exhaust System

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

Fuel System

Pre-engine filter/water separator Yes No
 - w/ water-in-fuel alarm Yes 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 _____	in/cm
Comments _____													

Cooling System (Heat Exchanged)

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

Cooling System (General)

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

Type Approval Applied

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

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RPM	Units	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
Ambient Air Temperature	°F °C										
Engine Room Temperature	°F °C										
Fuel Rate*+	gph Lph										
Speed	Knots										
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 Return Temperature	°F °C										

Continued on next page

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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RPM	2000	2100	2200	2300	2400	2500	2600	2700	2800	Max RPM _____
Ambient Air Temperature										
Engine Room Temperature										
Fuel Rate*+										
Speed										
Load*+										
Exhaust Back Pressure										
Exhaust Temperature										
Air Intake Restriction										
Temperature at Air Cleaner										
Intake Manifold Temperature*										
Intake Manifold Pressure/Boost Pressure*										
Coolant Temperature*										
Oil Pressure*										
Coolant Pump Inlet Pressure										
Coolant Pump Inlet Temperature										
Fuel Inlet Pressure										
Fuel Return Pressure										
Fuel Return Temperature										
Sea Water Temperature										
HE: SW Pump Inlet Restriction (in. H ₂ O/kPa)										
HE: SW Return Temperature										

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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>Yes</u>	<u>No</u>	<u>Daily Maintenance</u>
<input type="checkbox"/>	<input type="checkbox"/>	Check oil level
<input type="checkbox"/>	<input type="checkbox"/>	Add oil
<input type="checkbox"/>	<input type="checkbox"/>	Check coolant level
<input type="checkbox"/>	<input type="checkbox"/>	Add coolant
<input type="checkbox"/>	<input type="checkbox"/>	Check & drain water separator
<input type="checkbox"/>	<input type="checkbox"/>	Close seacock
<input type="checkbox"/>	<input type="checkbox"/>	Clean sea water strainer

<u>Yes</u>	<u>No</u>	<u>General</u>
<input type="checkbox"/>	<input type="checkbox"/>	Operator manual reviewed with customer

<u>Yes</u>	<u>No</u>	<u>Daily Maintenance</u>
<input type="checkbox"/>	<input type="checkbox"/>	Replace zinc anodes
<input type="checkbox"/>	<input type="checkbox"/>	Replace raw water pump impeller
<input type="checkbox"/>	<input type="checkbox"/>	Clean heat exchanger
<input type="checkbox"/>	<input type="checkbox"/>	Change engine oil
<input type="checkbox"/>	<input type="checkbox"/>	Replace oil filters
<input type="checkbox"/>	<input type="checkbox"/>	Replace air cleaners
<input type="checkbox"/>	<input type="checkbox"/>	Replace fuel filters
<input type="checkbox"/>	<input type="checkbox"/>	Access to hand primer
<input type="checkbox"/>	<input type="checkbox"/>	Adjust all belt tension
<input type="checkbox"/>	<input type="checkbox"/>	Adjust valve lash
<input type="checkbox"/>	<input type="checkbox"/>	Adjust hose clamp tension
<input type="checkbox"/>	<input type="checkbox"/>	Change engine coolant
<input type="checkbox"/>	<input type="checkbox"/>	Clean crankcase vent tube
<input type="checkbox"/>	<input type="checkbox"/>	Check air intake joints for leaks
<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>
Person completing form	_____	_____	_____
Distributor/Dealer representative	_____	_____	_____
Vessel representative	_____	_____	_____

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