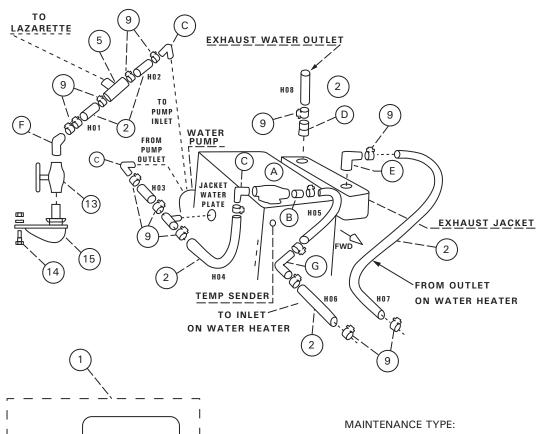


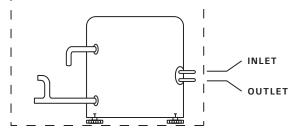
## Major Maintenance and Repair Action

Hull 269 – Jade

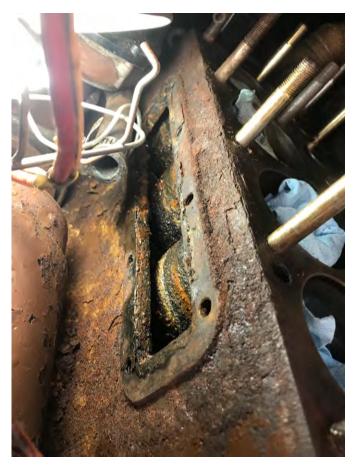
Maintenance	e or Repair Action: Overhaul Cooling	g System	Number: 005		
		System	Engine		
Reason for	Overheating Creaked Culinder Lload	Start	7/4/2018		
Action	Overheating, Cracked Cylinder Head	Complete	11/25/2018		
		Cost	\$80.00		
		ON OF ACTION			
Commissioning circulation, and	gine Cooling System due to overheating iss g. The possible reasons for overheating incl d inadequate flow from cooling water pump ad:	ude thermostat malfunction, fo			
Items Completed: <ul> <li>Opened Jacket Water Side Plate, inspected and cleaned</li> <li>Removed Exhaust Jacket/Manifold, flushed and cleaned</li> <li>Repaired lower drain plug threads, install 1/8" NPT Pipe Nipple (6") and pet cocks</li> <li>Replaced 5/8" Cooling Water Hoses (see Circulating System (As Built) Diagram: <ul> <li>Pump to Jacket Water Side Plate</li> <li>Side Plate to Thermostat</li> </ul> </li> <li>Reinstall Exhaust Jacket/Manifold (25 ft/lbs torque) and Gaskets <ul> <li>Replaced fuel line, reinstall Fuel Pump and Gasket</li> <li>Reconnected Hoses and Carburetor, Gasket, Throttle Cable Bracket</li> <li>Reattached Carburetor and Gasket (20 ft/lbs torque)</li> <li>Reattached Alternator Support Bracket</li> <li>Reinstall Alternator <ul> <li>Installed Driver Pulley</li> <li>Replace Alternator Belt and Adjust</li> </ul> </li> <li>Replaced overhauled Water Pump</li> <li>Install flush lines and flush system</li> </ul></li></ul>					
See attached diagrams and pictures.					
NOTES					
<ul> <li>Various tools (wrenches, screwdrivers) used, including 1/8" NPT Tap for drain holes. Developed Engine Water</li> <li>Circulating System Diagram (As Built) due to differences noted from original builder's drawing. Gaskets procured</li> <li>from Moyer Marine International (MMI), plus spares (see Spare Part Inventory). Repairs performed as per MMI Service</li> <li>and Overhaul Manual where applicable. The forward lower Jacket Water Side Plate bolt threads seemed to not</li> <li>engage; JB Weld Epoxy was applied. Also, the forward drain plug threads felt weak; extra Teflon tape was used on</li> <li>drain valve threads. Low material cost of repair – gaskets, fittings, and cooling hose relatively inexpensive.</li> <li>See other related Major Maintenance and Repair Actions completed at the same time period:</li> <li>003 - Cooling Water Pump Overhaul (Obendorfer Model #M202N)</li> <li>004 - Cylinder Head Replacement (Moyer Marine International Casting)</li> <li>006 - Repaint Engine</li> </ul>					
	iterials, Manuals, and Diagrams Used		Used		
5/8" Cooling H	lose (Automotive)	Name Gasket, Exhaust Flange	Part Number GASK 07 146		
	ss, 3/8" MNPT X 5/8", Straight x 2	Gasket, Manifold	GASK 08 147		
	ss, 3/8" MNPT X 5/8", 90° x 2	Gasket, Carburetor Flange	GASK 10 149		
	les, Elbows, and Valves for Drains	Gasket, Water Jacket Plate	GASK 04 143		
	hic 4 Service and Overhaul Manual	Gasket, Water Pump	GASK 17 156		
	Engine Water Circulating System Diagram (As Built)				



ITEM	PART NO.	DESCRIPTION	QTY.
1		ASS'Y, HEATER, HOT WATER	1
2	18071	HOSE, HEATER, 5/8″ I.D.	8
5		TEE, COPPER PIPE	1
9	18122	CLAMP, HOSE, S.S., 3/8"	16
13	21162	VALVE, GATE, 3/8"	1
14	3426	SCREW, MACH, F.H. BRASS 6-32 x 1 1/2	1
	7001	WASHER, 3/8"	1
	6002	NUT, H.H. FLANGE 6-32	1
15	21061	STRAINER, 3/8" SCOOP	1
А		THERMOSTAT HOUSING	1
В		HOSE BARB, BRASS, 3/8" MNPT x 5/8", STRAIGHT	1
С		HOSE BARB, BRASS, 3/8" MNPT x 5/8", 90 DEG ELBOW	3
D		HOSE BARB, BRASS, 1/2" MNPT x 5/8", STRAIGHT	1
Е		HOSE BARB, BRASS, 1/2" MNPT x 5/8", 90 DEG ELBOW	1
F		TEE, 3/8", 90 DEGREE, WITH 1-1/2" 3/8" PIPE NIPPLE	1
G		90 DEG ELBOW, COPPER PIPE	1



DATE:





Jacketwater Side Plate Removed

View of Cooling Water side of the Cylinder Block



At center, note the corroded 6 inch drain pipe with cap - it easily broke off at the threads when a small force was applied and replaced later



Inspection close up of water side of Cylinder Liner - appears to be in good condition



Manifold and Gasket Removed



Manifold (and spark arrestor and pulley) before sandblasting



Manifold after sandblasting - internal passages were clear and cleaned



Jacket Water Plate (upper left corner) before sandblasting and cleaning



Jacket Water Plate (upper left corner) after sandblasting



Manifold (painted only with high temperature spray paint) and Jacket Water Plate (primed and high temp paint applied)



Jacket Water Plate primed and painted with high temperature spray paint - water side of plate was primed only



Manifold painted with high temperature spray paint - 1/2" MNPT to 5/8" hose barb fittings were not removed



Jacket Water Plate access cleaned and engine painted, new 6" drain pipe and valve installed

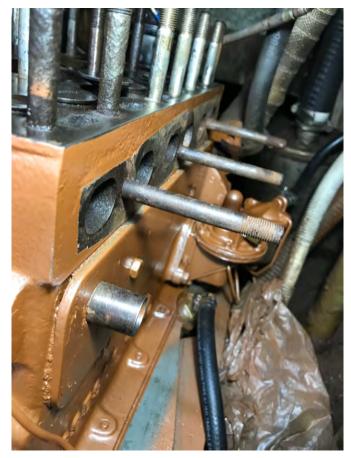


Forward 1/8" drain plug replaced with stainless steel 1/8" drain valve





Jacket Water Plate reinstalled - note location of alternator bracket



Manifold face cleaned and engine painted with high temperature spray paint



Manifold reinstalled and tightened to 25 ft-lbs of torque



Overhauled water pump installed and new 5/8" hoses reattached



Cooling system reassembled with new 5/8" cooling hoses