



POLARIS
The Way Out.

TECHNICAL SERVICE BULLETIN

Snowmobile

Date: February 9, 2007

Bulletin Number: S-07-03A
S-07-03B
S-07-03C
Model Year(s): 2007

Safety Bulletin **Service Bulletin** Service Alert Fax Production Update Kit

Distribution: Owner / Principle Service Manager Sales Manager Parts Manager Technicians

This Service Bulletin is located at www.polarisdealers.com

-Confidential and Proprietary-

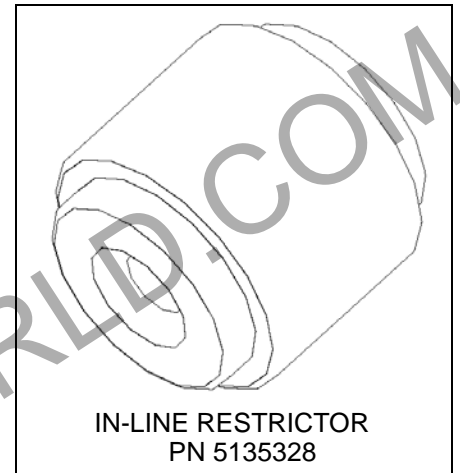
SUBJECT: 2007 FS / FST In-line Coolant Restrictor Inspection

PURPOSE:

Polaris has determined that the in-line coolant restrictor designed to limit coolant flow into the oil cooler was installed in the incorrect hose at the time of manufacture. The in-line coolant restrictor should be installed in the oil cooler supply hose, marked with: "To Oil Cooler Left Side", but was installed in the oil cooler-to-water pump 4-way manifold return hose, marked with "To Oil Cooler Right Side".

Because the restrictor is smaller than the inside diameter of the return hose, the restrictor may migrate with the flow of coolant into the 4-way manifold, then into the water pump housing. Once inside the water pump housing, the restrictor may cause impeller and impeller shaft damage which may lead to severe engine damage.

Please follow the inspection and repair procedures outlined within this Service Bulletin and inspect all 2007 FS and FST snowmobiles to verify the in-line coolant restrictor is installed in the oil cooler coolant supply hose.



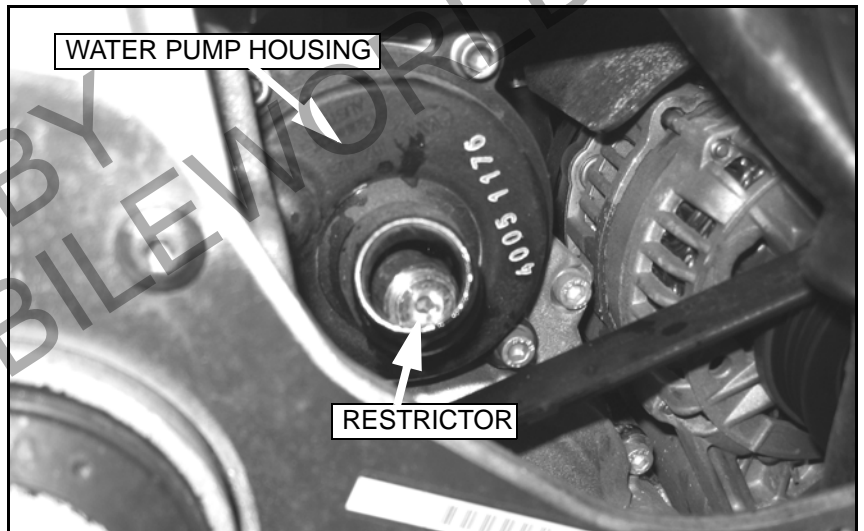
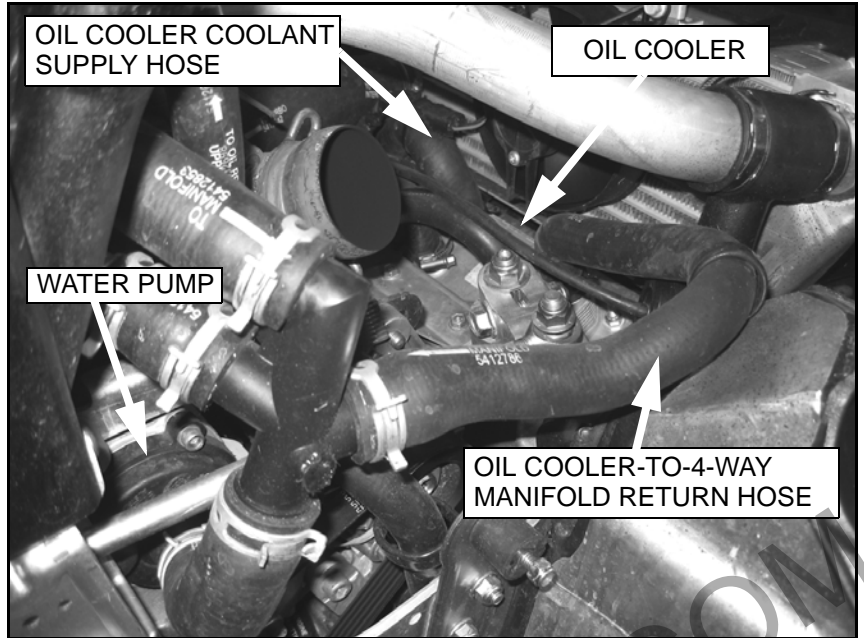
AFFECTED MODELS:

Model(s) Affected	Model Numbers	Serial Number Range
2007 FST IQ	S07PP7FS / S07PP7FSA / S07PP7FE	ALL Reference Unit Inquiry on the dealer website to lookup affected snowmobile VINs.
2007 FST IQ LX	S07PD7FS	
2007 FS IQ Touring	S07PT7ES / S07PT7EE	
2007 FST IQ Touring	S07PT7FS / S07PT7FE	
2007 FST IQ Cruiser	S07PY7FS / S07PY7FE	
2007 FST IQ Switchback	S07PS7FS / S07PS7FE	

REPAIR PROCEDURE:

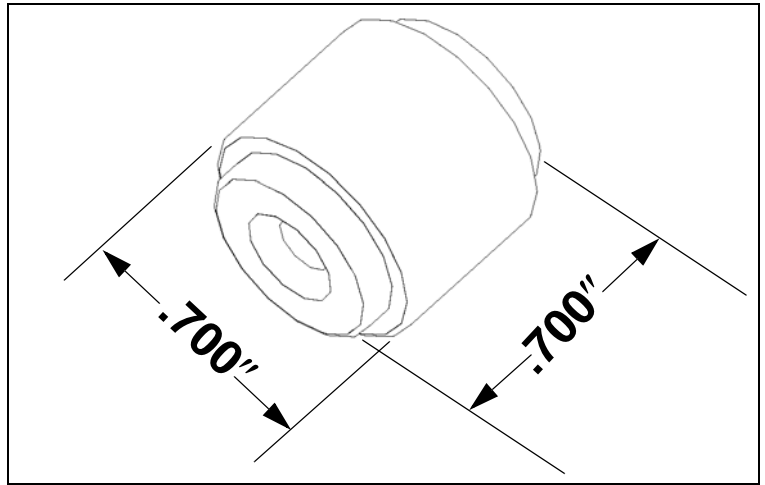
NOTE: Some procedures are outlined in the 2006 - 2007 FS / FST Service Manual, PN 9920472.

1. If the engine has been running, verify the exhaust system has been given time to sufficiently cool.
2. Remove the exhaust silencer and head pipe. Do not remove the FS exhaust manifold or FST turbocharger.
3. Referencing the Service Manual (pages 3.11 - 3.12), remove enough coolant to lower the coolant level below the water pump housing.
4. With the oil cooler-to-4-way manifold return and 4-way manifold-to-water pump housing hoses disconnected, locate the in-line restrictor. The restrictor may be found in the following locations:
 - Oil cooler-to-4-way manifold coolant return hose
 - Inside the 4-way manifold
 - Inside the water pump housing
5. If the restrictor was found anywhere inside the oil cooler-to-4-manifold return hose, remove it, then re-connect the hose and the 4-way manifold-to-water pump manifold hose to the 4-way manifold and water pump housing. Proceed with installing the restrictor as outlined in the **INSTALLING THE RESTRICTOR** section. After inspecting the hoses and installing the ORIGINAL restrictor, you will only file a warranty claim for S-07-03A.
6. If the restrictor was found inside the water pump housing, the restrictor and the water pump impeller must be inspected.



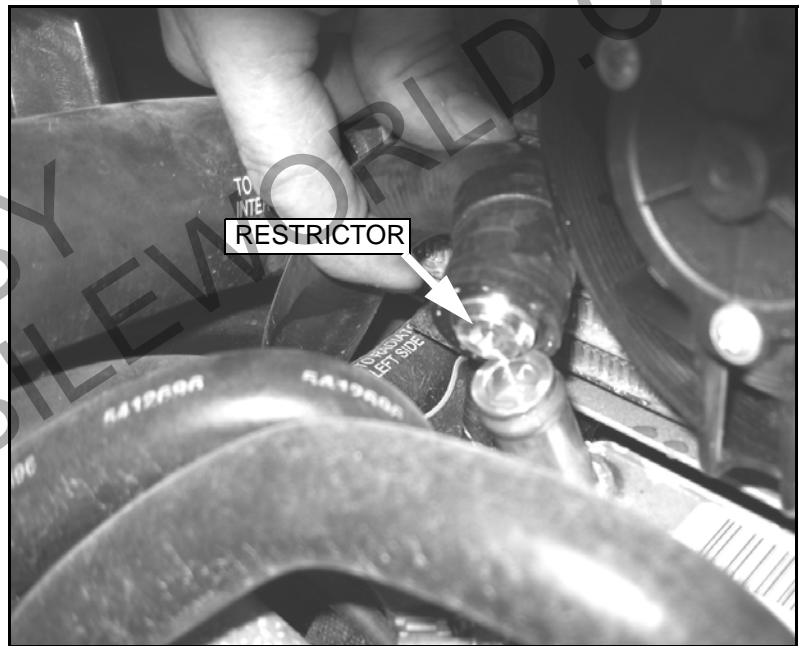
Restrictor / Impeller Inspection:

1. Measure the restrictor. The restrictor MINIMUM specifications are:
 - Length =.700"
 - Diameter =.700"
2. If the restrictor does not meet the minimum specifications, it must be replaced. The part number for a new restrictor is 5135328. Proceed with installing the new restrictor as outlined in the **INSTALLING THE RESTRICTOR** section. If installing a new restrictor, you will file a warranty claim for S-07-03B.
3. Inspect the water pump impeller. If any vanes are missing, replace the water pump impeller. The part number for a new water pump impeller can be found in the appropriate parts manual.
4. Install the new impeller and hand-tighten. **DO NOT** use tools to install the impeller as the impeller rotates counter-clockwise during operation.
5. Secure the water pump housing fasteners to 7 ft.lbs. (10 Nm).
6. Proceed with installing a new restrictor as outlined in the **INSTALLING THE RESTRICTOR** section.
7. If you are replacing the water pump impeller and installing a new restrictor, you will only file a warranty claim for S-07-03C.



INSTALLING THE RESTRICTOR:

1. Locate the coolant supply hose, marked "To Oil Cooler Left Side". The coolant supply hose is connected to the left-front oil cooler nipple as viewed from sitting on the snowmobile.
2. Remove the hose from the oil cooler.
3. Install the restrictor inside the end of the hose so the flat-edge will sit flush against the oil cooler nipple when the hose is re-installed.
4. Re-install the hose and secure the clamp, verifying the hose is seated flush to the top of the oil cooler.
5. Inspect the cooling hoses removed from the 4-way manifold and water pump housing. Verify they are re-connected and secured with clamps.
6. Re-install the exhaust system components. Reference the Service Manual for fastener torque and spring locations (pages 4.41 - 4.42).
7. Follow the *Adding Engine Coolant / Air Bleed* procedure as outlined in the Service Manual (page 3.12).



CAUTION: Severe engine damage will occur if the cooling system is not properly filled and bled as outlined in the Service Manual.

WARRANTY CLAIM INFORMATION:

A single group claim may be submitted listing the complete 17-digit VIN for machines WITH THE SAME MODEL NUMBER. File claim type SB (Service Bulletin). DO NOT ENTER MORE THAN ONE MODEL NUMBER ON A WARRANTY CLAIM. All warranty claims must be submitted within 10 days of the repair. Never submit a warranty claim before completing the work. It is in violation of your dealer agreement to submit a warranty claim prior to the work being completed. Removed components are to be retained according to the Polaris Warranty Policy for possible return to the Warranty Department.

S-07-03A - Inspection and Original Restrictor Installation

Service Bulletin #	S-07-03A
Claim Type	SB (Service Bulletin)
Labor Allowance	48 Minutes
Claim Part Numbers	N/A - Auto Process Bulletin

S-07-03B - Inspection and New Restrictor Installation

Service Bulletin #	S-07-03B
Claim Type	SB (Service Bulletin)
Labor Allowance	48 Minutes
Claim Part Numbers	N/A - Auto Process Bulletin

S-07-03C - Inspection / New Restrictor Installation / New Water Pump Impeller Installation

Service Bulletin #	S-07-03C
Claim Type	SB (Service Bulletin)
Labor Allowance	54 Minutes
Claim Part Numbers	N/A - Auto Process Bulletin

SERVICE BULLETIN COMPLETION DECAL:

Upon completion of this bulletin, fill out and attach a Service Bulletin Completion Decal, PN 7170107. Adhere the decal to the airbox assembly. If you require more decals, order them through normal Polaris parts ordering channels.

CUSTOMER NOTIFICATION:

Dealers are required to notify owners of affected models and make arrangements to perform this repair.

Sincerely,



Laurie J. Rengel
Manager, Service Dealer Development and Warranty