SERVICE PROCEDURE

G-06508
November 2006

SUBJECT: SAFETY RECALL (U.S., EXPORT)
INJECTION PRESSURE REGULATOR (IPR) VALVE on CF500 and CF600 Models built 1/1/2005 thru 3/31/2006

DEFECT DESCRIPTION

The electrical connector of the injection pressure regulator (IPR) valve on the engine can fill with rain water and road debris, possibly causing terminal corrosion that may lead to electrical voltage drops. If this occurs, erratic behavior of the IPR valve can cause the engine to shut down, without warning while the vehicle is in operation. If an engine shutdown occurs, the vehicle may become stranded on a roadway. This may lead to **property damage, personal injury** or **death**.

MODELS INVOLVED

This Safety Recall involves CF500 and CF600 models built 1/1/2005 thru 3/31/2006.

PARTS INFORMATION

The parts required for this recall are:

Part Number	Part Description	Quantity
1874985C92	KIT, IPR HEAT SHIELD	**1**
1875204C91	KIT, IPR CONNECTOR PIGTAIL	**1 (if req'd by SERVICE PROCEDURE)**

All vehicles require 1874985C92.

NOT ALL vehicles will require 1875204C91. See SERVICE PROCEDURE for details.

SERVICE PROCEDURE

WARNING:

TO PREVENT SERIOUS EYE INJURY, ALWAYS WEAR SAFE EYE PROTECTION WHEN YOU PERFORM VEHICLE MAINTENANCE OR SERVICE.

WARNING:

TO PREVENT UNEXPECTED MOVEMENT OF THE VEHICLE AND POSSIBLE SERIOUS PERSONAL INJURY OR DEATH, BLOCK THE WHEELS TO PREVENT THE VEHICLE FROM MOVING IN BOTH DIRECTIONS.

1. Instructions on installing the *IPR Heat Shield Kit* are included in the kit. Please follow those instructions.

The IPR Heat Shield Kit instruction sheet is included at the end of this pdf.

2. If the inspection in Step 6 of the I*PR Heat Shield Kit Instruction Sheet* requires the pigtail to be replaced, use 1875204C91.

3. Instructions on installing the *IPR Connector Pigtail Kit* are included in that kit. Please follow those instructions.

The IPR Pigtail Kit instruction sheet is included at the end of this pdf.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation No.	Description	Time
A40-06508-1	***Install Heat Wrap***	0.6 hr
A40-06508-2	***ADD ON, for Pigtail Installation***	1.0 hr

CAMPAIGN IDENTIFICATION LABEL

*Each vehicle corrected in accordance with this campaign **must be** marked with a CTS-1075 Campaign Identification Label.*

Complete the label and attach on a clean surface next to the vehicle identification number (VIN) plate.

ADMINISTRATIVE/DEALER RESPONSIBILITIES (U.S. & POSSESSIONS)

Proceed immediately to make necessary correction to units in inventory. **All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery.** If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified **IMMEDIATELY** from your dealer location.

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle that is subject to a vehicle recall campaign must be adequately **repaired** within a reasonable time after the owner has tendered it for repair. A failure to adequately repair within **60 days** after a tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within 60 days, the owner may be entitled to **replacement** with an identical or reasonable equivalent vehicle at no charge, or to a **refund** of the purchase price less a reasonable allowance for depreciation.

However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

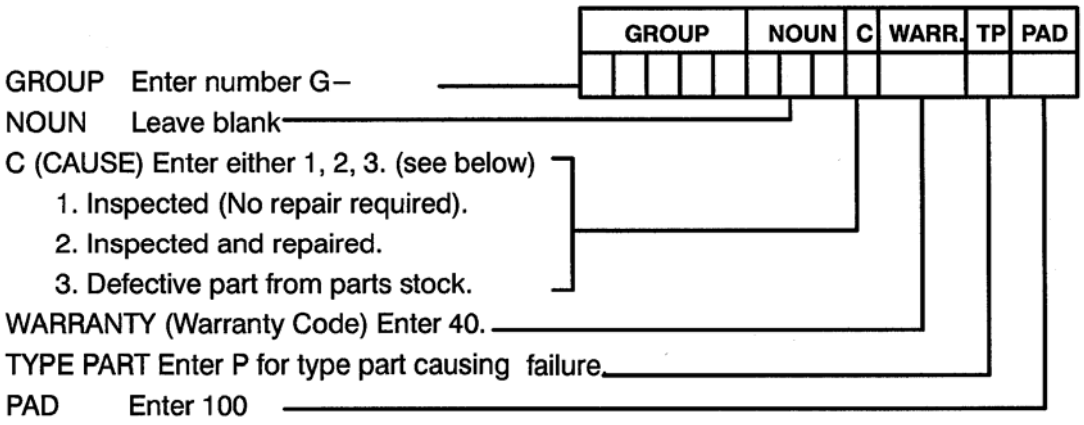
To avoid having to replace an owner vehicle or refund the purchase price, every effort must be made to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible.

During the recall process, a listing of owner names and addresses will be furnished to the involved dealers to enable dealers to follow up with owners and have the vehicles corrected. You must limit the use of this listing to this campaign because the list may contain information obtained from state motor vehicle registration records and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

WARRANTY CLAIMS

Refer to Dealer Warranty Manual for procedures to conduct Recall Campaigns.

It is important that the Recall Coding be completed properly to assist in processing the warranty claim. Complete instructions will be found in the Warranty Manual, Section 7-1. Special attention should be given to Items 39 through 44:



ADMINISTRATIVE/DISTRIBUTOR RESPONSIBILITY (EXPORT)

Proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified from your distributor location.

Export locations are to submit warranty claims in the usual manner making reference to this recall number.

We ask for your full cooperation and follow-up to this important subject matter. If you have any questions or need further assistance, please contact the Regional Service Manager at your regional office.

INTERNATIONAL TRUCK AND ENGINE CORPORATION

Instruction Sheet
IPR Heat Shield Service Kit

1171886R2

Kit Contents

Description	Quantity
Heat Reflective Shield	1
Dielectric Grease	1
Cable Lock Strap	1
Instruction Sheet	1

Procedure

WARNING: To prevent personal injury or death, read all safety instructions in the "Safety Information" section of this manual.

WARNING: To prevent personal injury or death, shift transmission to park or neutral, set parking brake, and block wheels before doing diagnostic or service procedures.

CAUTION: To prevent engine damage, turn ignition switch to OFF before unplugging connectors. Failure to turn ignition switch to OFF will cause a voltage spike and damage to electrical components.

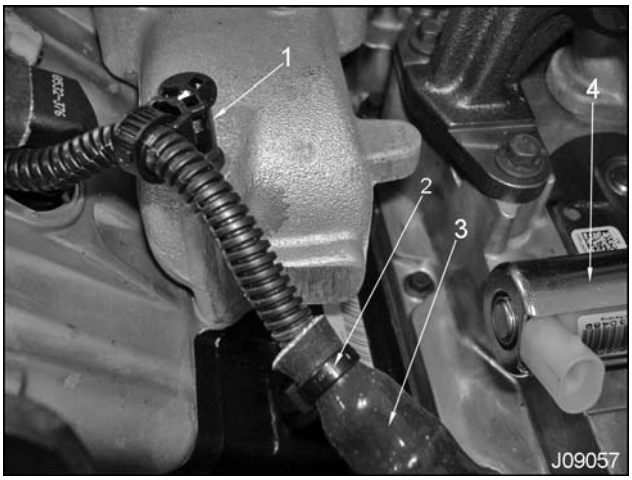


Figure 1 IPR wiring harness

1. Cable lock strap
2. Plastic tie strip
3. Heat reflective shield (rubber coated)
4. IPR valve

1. Pull the heat reflective shield away from the Injection Pressure Regulator (IPR) valve connector.
2. Unlock and disconnect the IPR valve connector.
3. Remove the plastic tie strip(s) holding the heat reflective shield on the IPR wiring harness.

NOTE: Before removing the cable lock strap, measure or mark the distance from the connector end to the cable lock strap.

4. Remove and discard the cable lock strap, mounted on the intake manifold, from the IPR wiring harness.
5. Remove and discard the rubber coated heat reflective shield.

6. Inspect the wiring harness connector and the IPR valve terminal connector for rust or oxidation.
   - If any corrosion is found, stop and obtain the IPR Connector Pigtail Kit, and follow those instructions.
   - If no corrosion is found, proceed to Step 7.

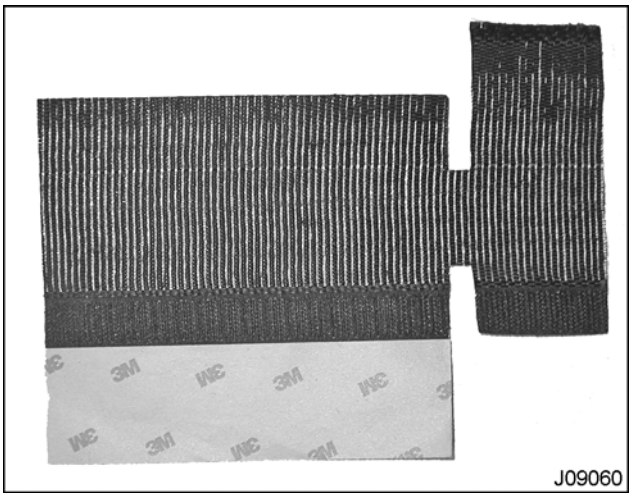


Figure 2 New heat reflective shield

7. Hold the new heat reflective shield as shown in (Figure 3).

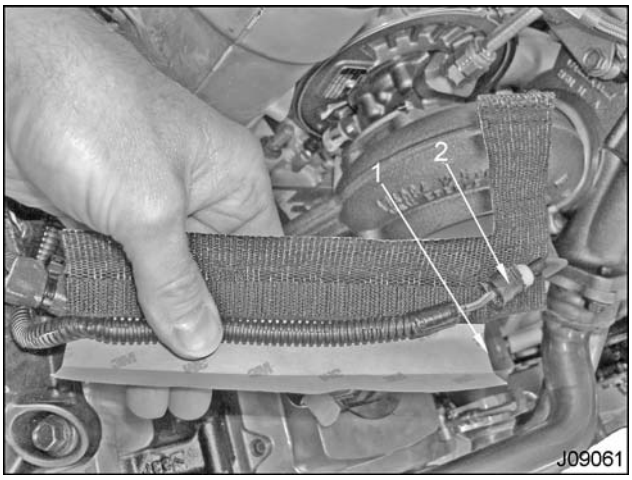


Figure 3 Wiring harness on heat reflective shield

1. Right edge of adhesive tab
2. IPR connector

8. Lay the IPR wiring harness on the new heat reflective shield with the IPR connector even with the right edge of the adhesive tab.

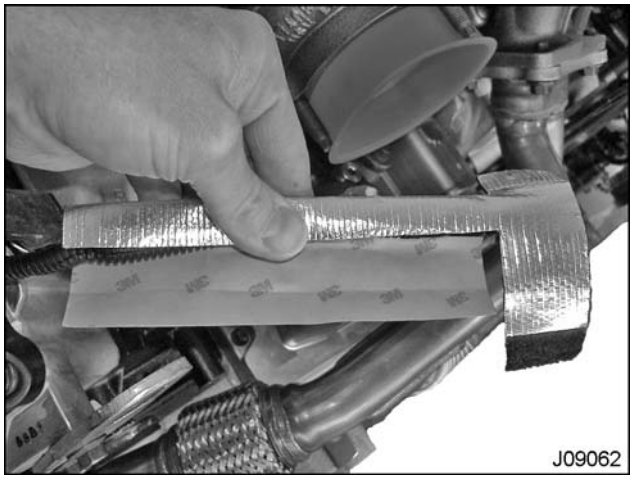


Figure 4 Heat reflective shield over wiring harness

9. Fold the heat reflective shield over the IPR wiring harness.

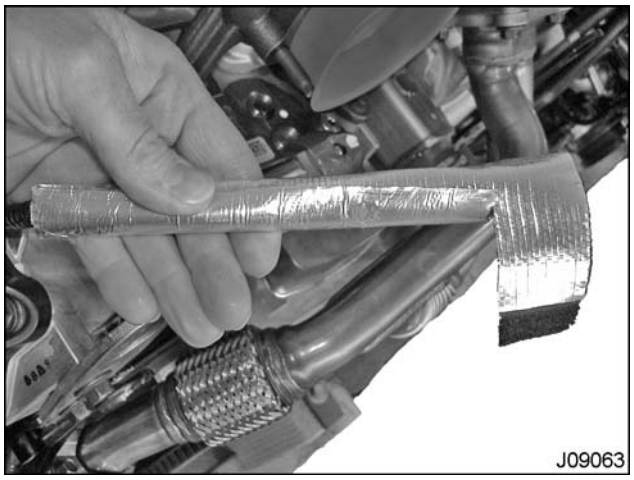


Figure 5 Adhesive backing over heat reflective shield

10. Remove the adhesive backing. Wrap the adhesive backed part of the heat reflective shield over the previously folded heat reflective shield.

Figure 6 Cable lock strap (shown out of position)

11. Wrap plastic electrical tape around the end of the heat reflective shield and the convoluted tubing. The electrical tape should be on the end of the heat reflective shield away from the connector.
12. Fasten the new cable lock strap on the wiring harness, locate the cable lock strap in the same spot it was removed from, see note about measuring before step 4. Refasten the cable lock strap to the locating stud on the intake manifold.

WARNING: To prevent personal injury or possible death, read and adhere to all the guidelines in the Material Safety Data Sheet (MSDS) for dielectric grease located at the end of this document.

13. Apply a small amount of dielectric grease on the IPR wiring harness connector terminals.

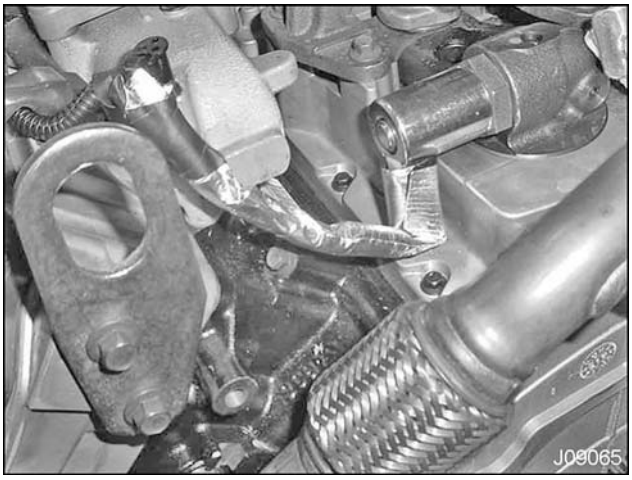


Figure 7 IPR valve connector

CAUTION: To prevent engine damage, the harness connector must be properly seated and the connector latched to avoid poor performance or no-start conditions. Installing connectors at an angle may cause an improper connection and damaged components.

14. Connect the IPR wiring harness connector to the IPR valve and latch the connector.
15. Insure the IPR valve is oriented with the connector at the 6 o'clock position, see (Figure 7).
16. Finish wrapping the "L" part of the heat reflective shield around the IPR connection point.

Material Safety Data Sheet

164 Chandler Street

Buffalo, NY 14207

www.niagaralubricant.com

This MSDS is being provided to your company for the purpose of providing current health and safety information to your management and for your employees who work with this product. Please read the information on these sheets and then provide this information to those people in your company whose responsibility it is to comply with FEDERAL, STATE, AND COMMUNITY RIGHT TO KNOW regulations. Also, make this information available to any employee who requests it.

If Niagara Lubricant Co., Inc. considers the formula of this product to be a trade secret, the exact chemical names of the ingredient(s) and the percentages in which they are combined will not appear in the body of this sheet. The exact composition is available upon request to physicians, industrial hygienists, and other health professionals. For chemical emergencies, spills, leaks, fire, or exposure call CHEMTREK (800) 424-9300.

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

ACUTE HEALTH	1	FIRE	1	REACTIVITY	0	HAZARD RATING Least - 0 Slight - 1 Moderate - 2 High - 3 Extreme - 4

Section 1: CHEMICAL PRODUCT IDENTIFICATION

PRODUCT:	TRUCK-LITE NYK LUBRICANT
CHEMICAL NAME:	PETROLEUM HYDROCARBON
SYNONYMS:	GREASE
NIAGARA CODE:	55126NYK
TRUCK-LITE CODES:	8506; 97903; 97940; 97943; 97944; 97944-1; 98012

Section II: COMPOSITION/INFORMATION ON INGREDIENTS

NO.	COMPOSITION	CAS NO.	%
P	TRUCK-LITE NYK LUBRICANT		100
1	HYDROTREATED RESIDUAL OIL	64742-57-0	>50
2	HIGHLY REFINED PETROLEUM OIL	64742-54-7	>30
3	INORGANIC THICKENER	1302-78-9	>5
4	RHEOLOGICAL ADDITIVE[1]	PROPRIETARY	<3

[1] Additive manufacturer considers this additive package to be CONFIDENTIAL BUSINESS INFORMATION and is being withheld as permitted by 29 CFR 1910.1200.

Section IIB: ACUTE TOXICITY DATA

NO.	ACUTE ORAL	ACUTE DERMAL	ACUTE INHALATION
	N.D.	N.D.	N.D.

Section III: HEALTH INFORMATION

EFFECTS OF EXPOSURE

OSHA PEL/TWA	N.E.	OSHA PEL/CEILING	N.E.		ACGIH TLV/TWA	N.E.	ACGIH TLV/STEL	N.E.	OTHER
IRRITATION		SKIN	X	SEVERE		MODERATE		MILD	X
		EYE	X	SEVERE		MODERATE		MILD	X
CORROSIVITY		SKIN	X						
		EYE	X			MAY CAUSE BLINDNESS			
						NOT CORROSIVE	X		

Section IV: EMERGENCY FIRST AID								
INGESTION								
INDUCE VOMITING		DO NOT INDUCE VOMITING	X	GIVE PLENTY OF WATER		GET MEDICAL ATTENTION	X	OTHER
DERMAL								
FLUSH WITH SOAP AND WATER	X	GET MEDICAL ATTENTION	X	CONTAMINATED CLOTHING - REMOVE AND LAUNDER	X	CONTAMINATED SHOES DESTROY		OTHER
EYE CONTACT								
FLUSH WITH PLENTY OF WATER AT LEAST 15 MINUTES	X	GET MEDICAL ATTENTION	X					OTHER
INHALATION								
REMOVE TO FRESH AIR	X	IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION		GIVE OXYGEN		GET MEDICAL ATTENTION	X	OTHER

N.D. - NOT DETERMINED N.A. - NOT APPLICABLE < - LESS THAN > - GREATER THAN N.E. - NOT ESTABLISHED N.R. - NOT REVIEWED

Section V: PHYSICAL DATA									
BOILING POINT (°F)	>700	MELTING POINT (°F)	N.A.	POUR POINT (°F)	-60	DROPPING POINT °F	N.A.	VAPOR DENSITY (AIR = 1)	<.01
SPECIFIC GRAVITY (H20 = 1)	.90	SOLUBILITY IN WATER		NEGLIGIBLE	OTHER			VAPOR PRESSURE (mm hg)	N.A.
EVAPORATION RATE (N - BUTYL ACETATE = 1)	<.001	APPEARANCE & ODOR		PALE LIQUID, SLIGHT HYDROCARBON ODOR					

Section VI: FIRE AND EXPLOSION HAZARDS

FLASH POINT (°F)	>400	FLAMMABLE LIMITS LOWER	N.D.	UPPER	N.D.	AUTO-IGNITION TEMPERATURE/FIRE POINT (°F)	N.A.

EXTINGUISHING MEDIA

WATER SPRAY		WATER FOG		CO_2	X	DRY CHEMICAL	X	ALCOHOL FOAM		FOAM	X
EARTH AND SAND											

SPECIAL FIRE FIGHTING PROCEDURES

DO NOT ENTER BUILDING		ALLOW FIRE TO BURN		WATER MAY CAUSE FROTHING		DO NOT USE WATER	

Section VII: REACTIVITY DATA

STABILITY				**HAZARDOUS POLYMERIZATION**				
STABLE	X	UNSTABLE		WILL OCCUR		WILL NOT OCCUR	X	

INCOMPATIBILITY - AVOID CONTACT WITH

STRONG ACIDS		STRONG ALKALIS		STRONG OXIDIZERS	X	OTHER		

CONDITIONS TO AVOID

HEAT	X	OPEN FLAMES	X	SPARKS		IGNITION SOURCES		

Section VIII: EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE, IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING: WEAR CHEMICAL RESISTANT GLOVES AND OTHER PROTECTIVE CLOTHING AS REQUIRED MINIMIZING SKIN CONTACT, WEAR SAFETY GOGGLES TO AVOID EYE CONTACT.

Section X: ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES: USE JUDGEMENT WHEN CLEANING LARGE SPILLS, SHUT OFF SOURCE OF LEAK, DIKE AND CONTAIN. SOAK UP WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIALS, DISPOSE OF PROPERLY.

Section XI: SPECIAL PRECAUTIONS

MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION, KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURE.

Section XII: TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION

NOT REGULATED

Niagara Lubricant Co., Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgement in determining its appropriateness for a particular purpose. Niagara Lubricant Co., Inc. makes no representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Niagara Lubricant Co., Inc. will not be responsible for damages resulting from use of or reliance upon this information.

DATE PREPARED: 24 March 2004

Instruction Sheet
IPR Connector Pigtail Kit

1171887R1

Kit Contents

Description	Quantity
IPR Pigtail Connector Assembly (Kit)	1
Instruction Sheet	1

Procedure

WARNING: Read and understand all safety instructions in the "Safety Information" section of the service manual for this engine.

WARNING: To prevent personal injury or possible death, make sure the transmission is in neutral or park, parking brake is set, and wheels are blocked before doing diagnostic or service procedures on engine or vehicle.

CAUTION: To prevent engine damage, turn ignition switch to OFF before unplugging connectors. Failure to turn ignition switch to OFF will cause a voltage spike and damage to electrical components.

1. If corrosion is found on the IPR valve terminal, replace the IPR valve.

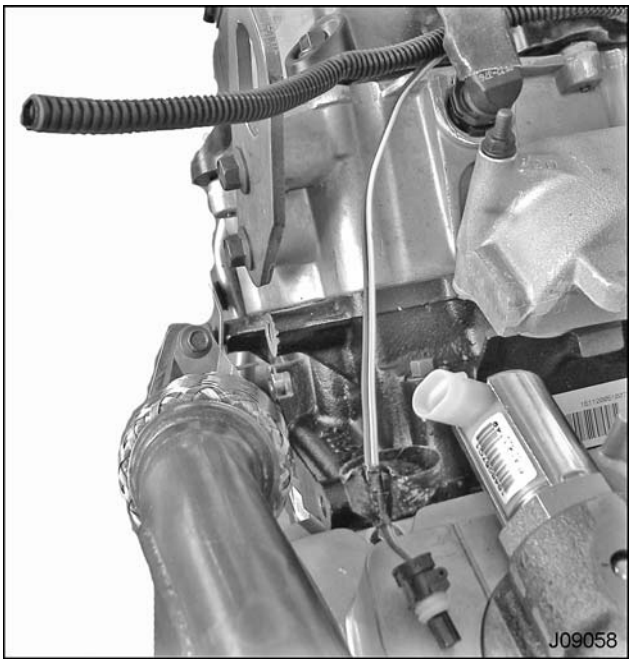


Figure 1 Plastic convoluted tubing

2. Pull the plastic convoluted tubing wrapped around the IPR valve wiring harness back as far as possible.

NOTE: The individual pigtail wire lengths are different to offset the splice locations.

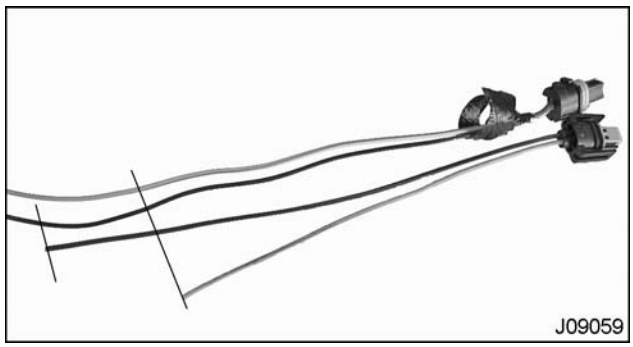


Figure 2 IPR wire harness cut location

NOTE: This is a two-wire connector, wire colors should be matched if applicable, matching the two final cut lengths will be satisfactory.

3. Lay the new pigtail next to the IPR wire harness. Cut the IPR wires where the new pigtail wire insulation ends.
4. Remove approximately 1/4 inch of wire insulation from each of the four wire ends (2 wire ends and 2 pigtail ends).

NOTE: The heat shrink tubing must be far enough away from the solder point so the heat of soldering will not affect the heat shrink tubing.

5. Slip heat shrink tubing down each of the pigtail wires.
6. Match the harness wire lengths. Slide wire harness wire and pigtail wire in splice clip.
7. Crimp splice clip to each wire.
8. Add solder to each end of each splice clip to ensure a solid connection. Allow sufficient time for splice clips to cool.
9. After splice clips are cool to the touch, slide each heat shrink tube down over each splice clip.
10. Heat the heat shrink tubes until the tubes have reduced in size forming a snug fit over each splice clip and wire.
11. Replace the plastic convoluted tubing over the wire harness.
12. Replace the wire harness heat reflective shield using IPR Heat Shield Service Kit.