



# Recall Service Bulletin



**DATE:** 10-25-16

**APPLIES TO:** This Recall service bulletin applies to certain model year 2010, 2012, 2014, 2015, and 2016-2017 model Gladiator and MetroStar emergency response chassis cabs built between April 12, 2010 and August 31, 2016.

Additionally, the recall service bulletin applies to 2017 model year K3 model motorhome chassis built between March 22, 2016 and July 28, 2016.

**NHTSA/TC Id:** 16V-676/TC2016-453

**CONDITION:** Inadequate bore size in power steering pump spool

**CORRECTION:** Inspect date codes for 16/02 or 16/03 and replace as needed

**LABOR ALLOCATION:** 1 hr. for inspection for all models  
2 hrs. for emergency response chassis cabs  
3 hrs. for motorhome chassis

**CLASSIFICATION:** V3

**PARTS NEEDED:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2559-001B	KIT, MH STRG Pump

**Kit # S-2559-001B for motorhome chassis Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	1769-KK1-001	Pump, Steering TRW PS
1	1795-KK1-001	Gasket-PWR STRG Pump
1	0722-MM5-SS08	Fit ADJ Elbow 8
1	0716-MM5-TTT08	FTG-12ORB X -16BARB -90
1	0182-BB1-004	Clamp, Liner 1.06-2.00
1	S-2560-001	INST, Pump MH
1	RSB16-260-004	Instruction Document
1	RSB16-260-005	Instruction Document

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# Recall Service Bulletin



<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2559-002B	KIT, FT STRG Pump ISL

## Kit # S-2559-002B for emergency response chassis cabs with ISL Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	1453-KK1-001	Pump, PWR STRG, TRW
1	1795-KK1-001	Gasket-PWR STRG Pump
1	0722-MM5-RRR09	FTG-C50X-V0894 90-DEG CON
1	0716-MM5-TTT08	FTG-12ORB X -16BARB -90
1	0182-BB1-004	Clamp, Liner 1.06-2.00
1	S-2560-002	INST, Pump FT ISL
1	RSB16-260-004	Instruction Document
1	RSB16-260-005	Instruction Document

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2559-003B	KIT, FT STRG Pump ISX

## Kit # S-2559-003B for emergency response chassis cabs with ISX Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	1453-KK1-001	Pump, PWR STRG, TRW
1	1795-KK1-001	Gasket-PWR STRG Pump
1	0722-MM5-RRR09	FTG-C50X-V0894 90-DEG CON
1	0716-MM5-RRR01	FIT 45D Barb HSE STM16-12
1	0182-BB1-004	Clamp, Liner 1.06-2.00
1	S-2560-003	INST, Pump FT ISX
1	RSB16-260-004	Instruction Document
1	RSB16-260-005	Instruction Document

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2559-004B	KIT, FT STRG Pump IFS

## Kit # S-2559-004B for emergency response chassis cabs with IFS Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	1794-KK1-001	Pump, PWR STRG, TRW
1	1795-KK1-001	Gasket-PWR STRG Pump
1	0722-MM5-RRR09	FTG-C50X-V0894 90-DEG CON
1	0716-MM5-RRR01	FIT 45D Barb HSE STM16-12
1	0182-BB1-004	Clamp, Liner 1.06-2.00
1	S-2560-004	INST, Pump FT IFS
1	RSB16-260-004	Instruction Document
1	RSB16-260-005	Instruction Document

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## Recall Service Bulletin



### **GENERAL INSTRUCTIONS:**

Thoroughly review entire service bulletin before starting work. If there are questions or concerns with steps defined in this service bulletin, contact Spartan Motors USA, Inc. Customer & Product Support Group.

All applicable industry safety standards must be followed when performing work identified in this procedure.

### **STEP-BY-STEP INSTRUCTIONS FOR MOTORHOME CHASSIS:**

1. Suspect date code 16/02 or 16/03 is required for pump replacement. Inspect pump to verify suspect date code. If 16/02 or 16/03 is found follow steps below for pump replacement. Pumps that are replaced will need to be sent back to Spartan using the return material authorization process. If code is not 16/02 or 16/03 take a photo of date code, photo must be sent to Spartan in order to be paid for inspection, no further action required. Refer to FIG. 3-1.



**FIG. 3-1**

2. Open engine access hatch towards rear of coach. Hatch location and mounting can vary from coach to coach. Refer to FIG. 4-1.

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## Recall Service Bulletin

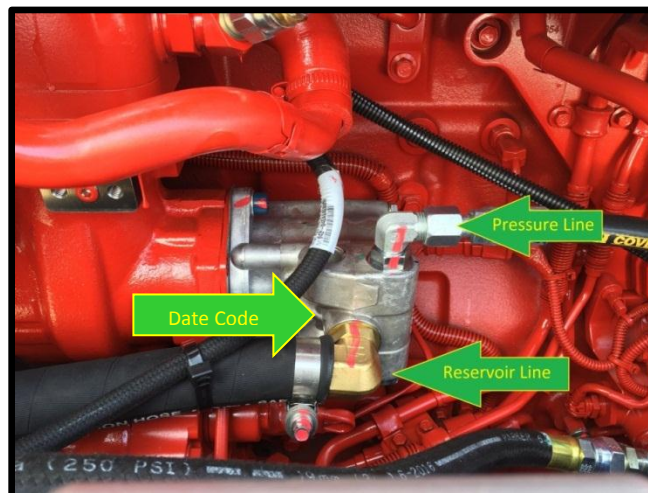


**FIG. 4-1**

3. Drain hydraulic system fluid using suitable container and dispose of power steering fluid in accordance with local regulations.

**Note: A drain pan or catch basin of some type should be used to capture fluid.**

4. Remove the following for power steering pump removal. Retain for reuse. Refer to FIG. 4-2.
  - Hydraulic pressure line
  - Reservoir hose
  - Pump bolts (2x BOLT M10 1.50 x 30mm SOCK)



**FIG. 4-2**

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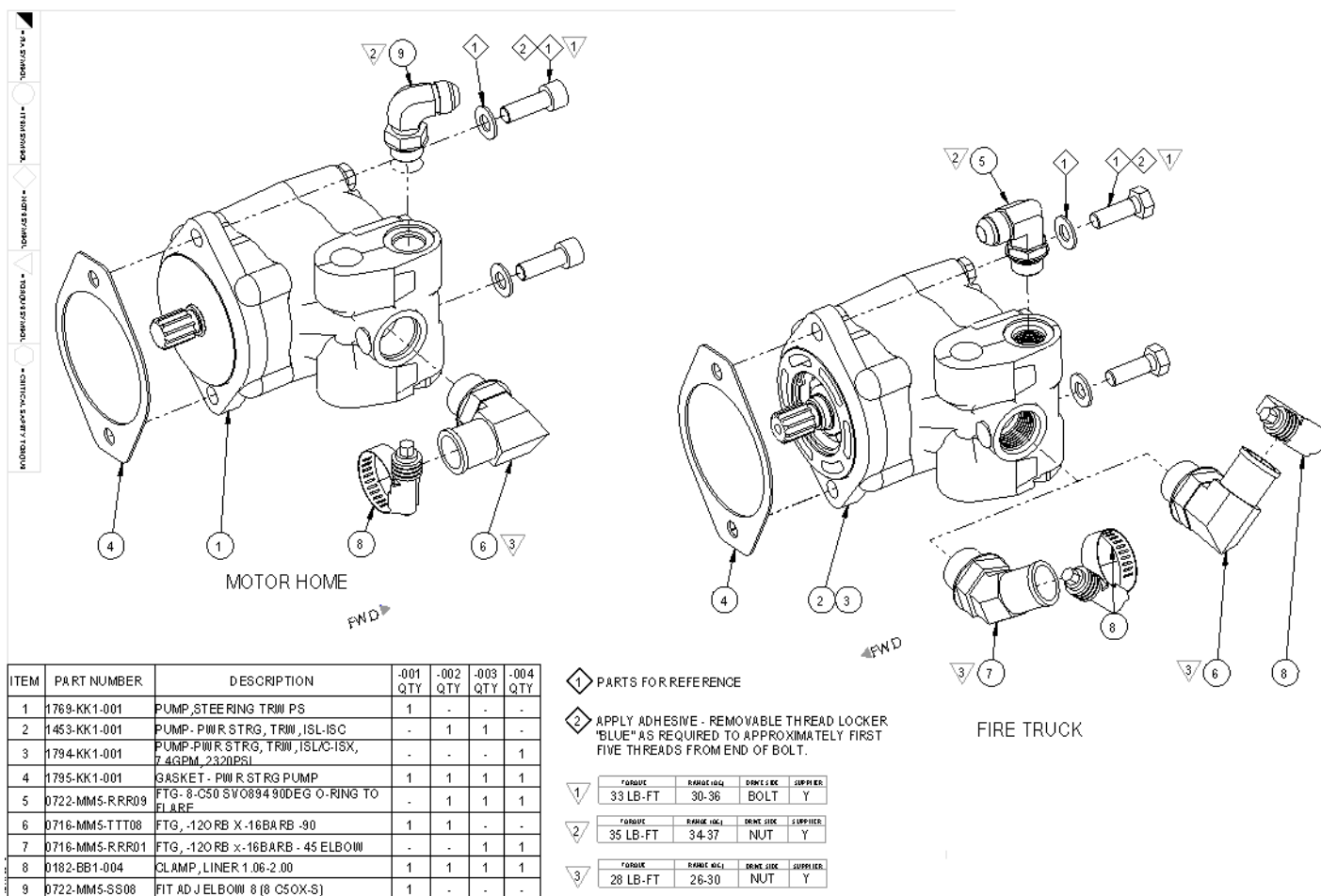
# Recall Service Bulletin



- Remove power steering pump and gasket. Properly dispose of gasket.

***Power Steering Pumps removed from the unit must be returned to Spartan Motors USA, Inc. using the return material authorization process. Parts must be returned to be paid for claim.***

- Install provided fittings on new pump. Take note of fitting orientations off old pump. Refer to FIG. 5-1.



**FIG. 5-1**

**NOTE: For the following instruction apply Loctite® 242® Threadlocker to the bolt on the first five threads from end of bolt.**

- Clean pump bolt threads with clean cloth and apply Loctite. Install new pump and gasket, torque to 33 ft.-lbs.
- Reinstall previously removed lines and fill hydraulic system using the following procedure:

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# Recall Service Bulletin



## Filling and Air Bleeding the System

Tools Required	Materials Required
1/8" Socket Lbf-in. Torque wrench	Hydraulic fluid

**CAUTION** Make sure poppets are set correctly before beginning this procedure.

**Run engine for 10 seconds, turn off and fill reservoir**

Hydraulic fluid

1. Fill the reservoir nearly full. Do not steer. Start and run the engine for 10 seconds, then shut it off. Check and refill the reservoir. Repeat at least three times, checking the reservoir each time.

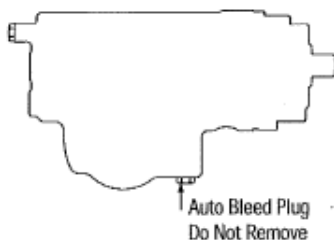
**CAUTION** Do not allow the fluid level to drop significantly or run out of the reservoir. This may induce air into the system.

**Run engine for 2 minutes, turn off and fill reservoir**

Hydraulic fluid

2. Start the engine and let it idle for 2 minutes. Do not steer. Shut off the engine and check the fluid level in the reservoir. Refill as required.

**Steer vehicle**



3. Start the engine again. Steer the vehicle from full left to full right several times. Add fluid, as necessary, to the full line on the dip stick.

Automatic bleed systems should now be free from trapped air. **Manual bleed systems continue with step 4.**

9. Run truck and verify power assist is present when turning steering wheel and check for leaks.

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## Recall Service Bulletin



### STEP-BY-STEP INSTRUCTIONS FOR EMERGENCY RESPONSE CHASSIS CABS:

1. Suspect date code 16/02 or 16/03 is required for pump replacement. Inspect pump to verify suspect date code. If 16/02 or 16/03 is found follow steps below for pump replacement. Pumps that are replaced will need to be sent back to Spartan using the return material authorization process. If code is not 16/02 or 16/03 take a photo of date code, photo must be sent to Spartan in order to be paid for inspection, no further action required. Refer to FIG. 7-1.



FIG. 7-1

2. Drain hydraulic system fluid using suitable container and dispose of power steering fluid in accordance with local regulations.

**Note: A drain pan or catch basin of some type should be used to capture fluid.**

3. Remove the following for power steering pump removal. Retain for reuse. Refer to FIG. 7-2.
  - Un-loader line (removal only needed for pump access)
  - Hydraulic pressure line
  - Reservoir hose
  - Pump bolts (2x BOLT M10 1.50 x 40mm SOCK)

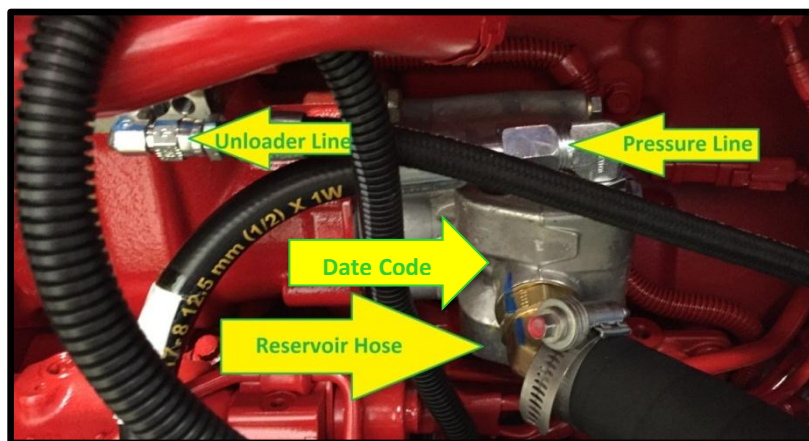


FIG. 7-2

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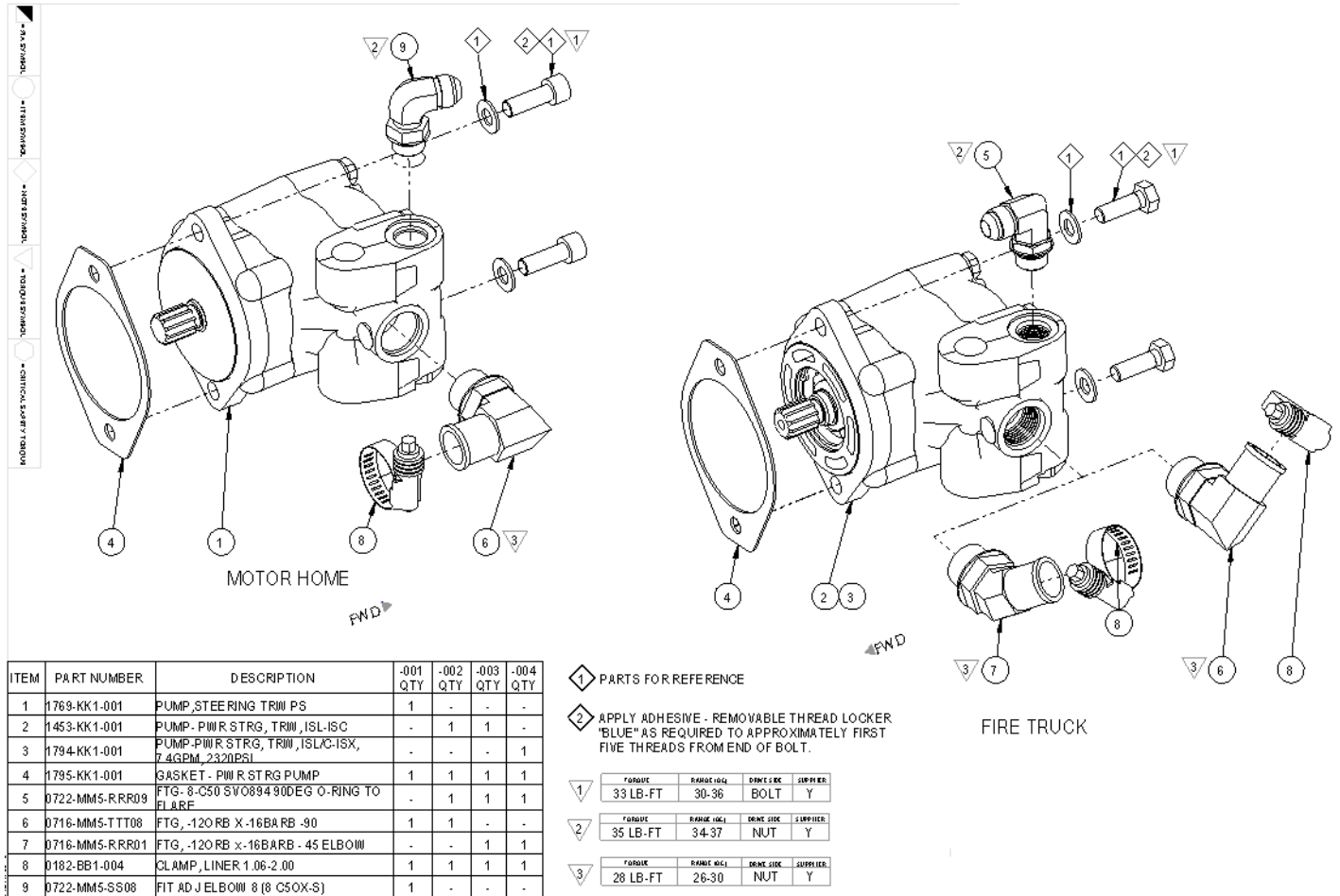
# Recall Service Bulletin



- Remove power steering pump and gasket. Discard old gasket.

**Power Steering Pumps removed from the unit must be returned to Spartan Motors USA, Inc. using the return material authorization process. Parts must be returned to be paid for claim.**

- Install provided fittings on new pump. Take note of fitting orientations off old pump. Refer to FIG. 8-1.



**FIG. 8-1**

**NOTE: For the following instruction apply Loctite® 242® Threadlocker to the bolt on the first five threads from end of bolt.**

- Clean pump bolt threads with clean cloth and apply Loctite. Install new pump and gasket, torque to 33 lbs.-ft.
- Reinstall previously removed lines and fill hydraulic system using the following procedure:

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1/8" Socket Lbf-in. Torque wrench	Hydraulic fluid

**CAUTION** Make sure poppets are set correctly before beginning this procedure.

**Run engine for 10 seconds, turn off and fill reservoir**

1. Fill the reservoir nearly full. Do not steer. Start and run the engine for 10 seconds, then shut it off. Check and refill the reservoir. Repeat at least three times, checking the reservoir each time.

Hydraulic fluid

**CAUTION** Do not allow the fluid level to drop significantly or run out of the reservoir. This may induce air into the system.

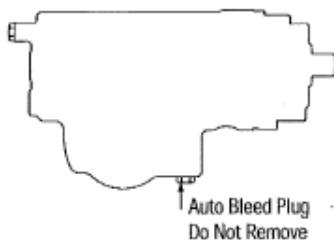
**Run engine for 2 minutes, turn off and fill reservoir**

2. Start the engine and let it idle for 2 minutes. Do not steer. Shut off the engine and check the fluid level in the reservoir. Refill as required.

Hydraulic fluid

**Steer vehicle**

3. Start the engine again. Steer the vehicle from full left to full right several times. Add fluid, as necessary, to the full line on the dip stick.



Automatic bleed systems should now be free from trapped air. **Manual bleed systems continue with step 4.**

8. Run truck and verify power assist is present when turning steering wheel and check for leaks.

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