



# Recall Service Bulletin



**DATE:** 11-30-16

**APPLIES TO:** This Recall service bulletin applies to certain emergency response chassis/cabs, model year 2017, Metro Star and Gladiator models built by Spartan Motors USA, Inc. between September 4, 2012 and December 17, 2014.

**NHTSA/TC Id:** 15V-540

**CONDITION:** Front splay rails may crack in the parent material.

**CORRECTION:** Replace splay rails.

**LABOR ALLOCATION:** 30 hrs.

**CLASSIFICATION:** V3

**PARTS NEEDED:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-001	Kit-Base, Splay Rail

**Kit # S-2568-001 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	06160150FH8Y	BOLT - 3/8-16 X 1.50LG FLG GR8 YEL
4	06160250FH8Y	BOLT - 3/8-16 X 2.50LG FLG GR8 YEL
2	06160300FH8Y	BOLT - 3/8-16 X 3.00LG FLG GR8 YEL
10	0616FLN8Y	NUT - 3/8-16 FLG LK GR8 YEL
6	0624HSNZ	NUT - 3/8-24 HEX ZINC
1	07140200H8Z	BOLT-7/16-14X2.00LG HEX GR8 ZINC
1	0714LNZ	NUT - 7/16-14 LOCK ZINC
12	08130150FH8Y	BOLT - 1/2-13 X 1.50LG FLG GR8 YEL
10	08130175FH8Y	BOLT - 1/2-13 X 1.75LG FLG GR8 YEL
14	08130200FH8Y	BOLT - 1/2-13 X 2.00LG FLG GR8 YEL
31	0813FLN8Y	NUT - 1/2-13 FLG LK GR8 YEL
14	10110200FH8Y	BOLT - 5/8-11 X 2.00LG FLG GR8 YEL
14	1011FLN8Y	NUT - 5/8-11 FLG LK GR8 YEL
1	125X350CP	COTTER PIN-1/8 X 3.50
1	S-2569-001	INSTL-SPLAY RAIL, BASE
1	2494-FF1	INSTL-FAN DRIVE, 2010 ISX 11.9
1	2630-FF1	INSTL-FAN DRIVE, 2013 ISX15
1	2553-FF1	INSTL-FAN CLUTCH, 2010 ISC/L, AOA
1	RSB16-210-003	Instruction Document

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-002	Kit-STG,METRO STAR 18K (TAS85) Splay Rail

### Kit # S-2568-002 Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
2	08130150FH8Y	BOLT - 1/2-13 X 1.50LG FLG GR8 YEL
2	0813FLN8Y	NUT - 1/2-13 FLG LK GR8 YEL
2	14140400H8Y	BOLT - 7/8-14 X 4.00LG HEX GR8 YEL
1	14140450H8Y	BOLT - 7/8-14 X 4.50LG HEX GR8 YEL
3	1414LN8Y	NUT - 7/8-14 LOCK GR8 YEL
1	S-2569-002	INSTL-SPLAY RAIL, LWR POS, TAS 85

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-003	KIT-STRG, METRO STAR 14.6K & 20-21.5K (TAS65), SPLAY RAIL

### Kit # S-2568-003 Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
2	08130150FH8Y	BOLT - 1/2-13 X 1.50LG FLG GR8 YEL
2	0813FLN8Y	NUT - 1/2-13 FLG LK GR8 YEL
3	14140400H8Y	BOLT - 7/8-14 X 4.00LG HEX GR8 YEL
3	1414LN8Y	NUT - 7/8-14 LOCK GR8 YEL
1	S-2569-003	INSTL-SPLAY RAIL, LWR POS, TAS 85

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-004	KIT-STRG, MET / GLAD (TAS85) IN UPPER LOC, SPLAY RAIL

### Kit # S-2568-004 Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
2	14140250H8Y	BOLT - 7/8-14 X 2.50LG HEX GR8 YEL
1	14140400H8Y	BOLT - 7/8-14 X 4.00LG HEX GR8 YEL
1	14140550H8Y	BOLT - 7/8-14 X 5.50LG HEX GR8 YEL
1	14140600H8Y	BOLT - 7/8-14 X 6.00LG HEX GR8 YEL
5	1414LN8Y	NUT - 7/8-14 LOCK GR8 YEL
1	S-2569-004	INSTL-SPLAY RAIL, LWR POS, TAS 85

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-005	KIT-MF13 ENG, SPLAY RAIL

**Kit # S-2568-005 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
8	08130150FH8Y	BOLT - 1/2-13 X 1.50LG FLG GR8 YEL
8	0813FLN8Y	NUT - 1/2-13 FLG LK GR8 YEL
4	10110200BSCSY	BOLT - 5/8-11 X 2.00LG BTN SOC YEL
8	M16200055H7Y	BOLT-M16-2.00X55 HEX 10.9 YEL
4	M16200SN7Y	NUT - M16-2.0 STD YEL ZN
1	S-2569-005	IN STL-SPLAY RAIL, MF13
1	1482-AA1	IN STL-ENG SEC, MF13, W/O LINER

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-006	KIT-LINER, SPLAY RAIL

**Kit # S-2568-006 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
4	08130250FH8Y	BOLT - 1/2-13 X 2.50LG FLG GR8 YEL
4	0813FLN8Y	NUT - 1/2-13 FLG LK GR8 YEL
1	S-2569-006	IN STL-SPLAY RAIL, LINE

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-007	KIT-NO LINER, SPLAY RAIL

**Kit # S-2568-007 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
4	08130225FH8Y	BOLT - 1/2-13 X 2.25LG FLG GR8 YEL
4	0813FLN8Y	NUT - 1/2-13 FLG LK GR8 YEL
1	S-2569-007	IN STL-SPLAY RAIL, NO LINER

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-008	KIT-DUAL PIN CASTING, CAB PIV, SPLAY RAIL

**Kit # S-2568-008 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
4	2012JNZ	NUT - 1 1/4-12 JAM ZINC
4	2012SNZ	NUT - 1 1/4-12 STD ZINC
1	1230-EE1	IN STL - CAB PIVOT, 2010, MET/GLAD

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



1            1243-EE1            INSTL - CAB PIVOT, 2010, MET/GLAD,  
W/ SHIMS

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-009	KIT-VERTICAL SOCKET ASM, CAB PIV, SPLAY RAIL

**Kit # S-2568-009 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
6	2012JNZ	NUT - 1 1/4-12 JAM ZINC
2	2012SNZ	NUT - 1 1/4-12 STD ZINC
1	1154-EE1	INSTL-CAB PIVOT W/ SHIMS/2010 METRO-GLAD
1	1124-EE1	INSTL-CAB PIVOT/2010 METRO-GLAD

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-010	KIT-TOW EYE, SPLAY RAIL

**Kit # S-2568-010 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
2	3978-CC4-001	TOW EYE-FORK AFFIXED
2	4662-CC4-001	PLT-TOW FORK REINF
1	4663-CC4	INSTL-TOW EYE/FORK AFFIXED

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-011	KIT-TOW FORK, SPLAY RAIL

**Kit # S-2568-011 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
2	2652-CC4-001	RECEPTICAL-TOW FORK
1	4494-CC4	INSTL TOW FORK/2010 CHASSIS

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-012	KIT-GRILL MOUNTING (1/4-20), SPLAY RAIL

**Kit # S-2568-012 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
12	0202-BB1-014	1/4-20 X 0.75 TRUSS HD MACH SCREW 18-8 SS (0420075TMSS)

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-013	KIT-GRILL MOUNTING (10-32), SPLAY RAIL

**Kit # S-2568-013 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
24	0202-BB1-018	10-32 X 0.75 PAN HD MACH SCREW 18-8 STAINLESS (1032075PMSS)
24	0202-BB1-032	10-32 X 0.75 PAN HD MACH SCREW 18-8 STAINLESS BLACK (1032075PMSN)

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-014	KIT-SPLAY RAIL, 2010 CHASSIS

**Kit # S-2568-014 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0122-CC5-001	SPLAY RAIL - 2010 CHASSIS
1	0122-CC5-002	SPLAY RAIL - 2010 CHASSIS

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-015	KIT-SPLAY RAIL, 2010 CHASSIS

**Kit # S-2568-015 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0131-CC5-001	SPLAY RAIL - 2010 CHASSIS
1	0131-CC5-002	SPLAY RAIL - 2010 CHASSIS

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-016	KIT-SPLAY RAIL, MF13 CHASSIS

**Kit # S-2568-016 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0127-CC5-001	SPLAY RAIL-MF13 CHASSIS
1	0127-CC5-002	SPLAY RAIL-MF13 CHASSIS

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-017	KIT-SPLAY RAIL, 2010 CHASSIS HI

**Kit # S-2568-017 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0128-CC5-001	SPLAY RAIL - 2010 CHASSIS HI APPROACH
1	0128-CC5-002	SPLAY RAIL - 2010 CHASSIS HI APPROACH

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-018	KIT-SPLAY RAIL, 2010 CHASSIS

**Kit # S-2568-018 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0135-CC5-001	SPLAY RAIL - 2010 CHASSIS
1	0135-CC5-002	SPLAY RAIL - 2010 CHASSIS

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-019	KIT-SPLAY RAIL, MF13/APS

**Kit # S-2568-019 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0133-CC5-001	SPLAY RAIL-MF13/APS
1	0133-CC5-002	SPLAY RAIL-MF13/APS

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-020	KIT-SPLAY RAIL, 2010 CHASSIS, HI

**Kit # S-2568-020 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0134-CC5-001	SPLAY RAIL - 2010 CHASSIS, HI APPROACH/AP
1	0134-CC5-002	SPLAY RAIL - 2010 CHASSIS, HI APPROACH/AP

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-021	KIT-SPLAY RAIL, 2010 CHASSIS, W/TF

**Kit # S-2568-021 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0122-CC5-001TF	SPLAY RAIL - 2010 CHASSIS, W/ TOW FORK
1	0122-CC5-002TF	SPLAY RAIL - 2010 CHASSIS, W/ TOW FORK

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-022	KIT-SPLAY RAIL, 2010 CHASSIS, W/TF

**Kit # S-2568-022 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0131-CC5-001TF	SPLAY RAIL - 2010 CHASSIS W/ TOW FORK
1	0131-CC5-002TF	SPLAY RAIL - 2010 CHASSIS W/ TOW FORK

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-023	KIT-SPLAY RAIL, 2010 CHASSIS, W/TF

**Kit # S-2568-023 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0135-CC5-001TF	SPLAY RAIL - 2010 CHASSIS W/ TOW FORK
1	0135-CC5-002TF	SPLAY RAIL - 2010 CHASSIS W/ TOW FORK

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-024	KIT-SPLAY RAIL, 2010 CHASSIS, W/TE

**Kit # S-2568-024 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0122-CC5-001TE	SPLAY RAIL - 2010 CHASSIS W/ TOW EYE
1	0122-CC5-002TE	SPLAY RAIL - 2010 CHASSIS W/ TOW EYE

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



## Recall Service Bulletin



<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-025	KIT-SPLAY RAIL, 2010 CHASSIS, W/TE

### Kit # S-2568-025 Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0131-CC5-001TE	SPLAY RAIL - 2010 CHASSIS W/ TOW EYE
1	0131-CC5-002TE	SPLAY RAIL - 2010 CHASSIS W/ TOW EYE

---

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-2568-026	KIT-SPLAY RAIL, 2010 CHASSIS, W/TE

### Kit # S-2568-026 Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	0135-CC5-001TE	SPLAY RAIL - 2010 CHASSIS W/ TOW EYE
1	0135-CC5-002TE	SPLAY RAIL - 2010 CHASSIS W/ TOW EYE

### **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.

Remove/retain and reinstall all "Ancillary Brackets/Components" that may have been installed by the OEM.

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.

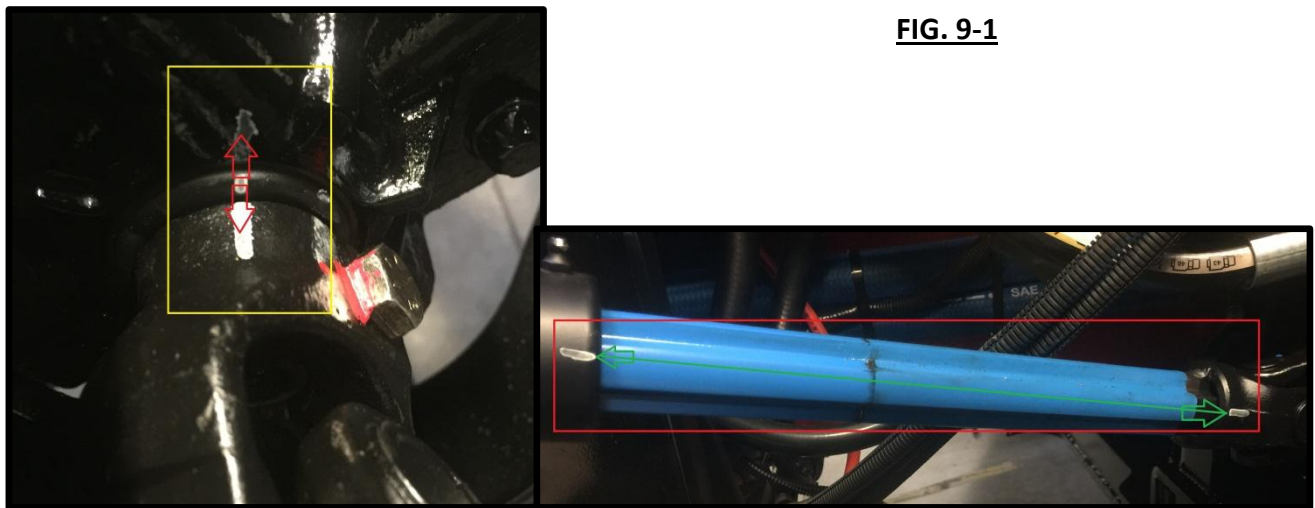


## Recall Service Bulletin



### STEP-BY-STEP INSTRUCTIONS:

1. Remove skid plate from bottom of splay rails. Retain skid plate for reuse and properly dispose of hardware.
2. Remove front bumper extensions and any towing accessories attached to splay rails. Retain front bumper, any towing accessories, and stainless steel bolts. Properly dispose of nuts.
3. Remove front grill in order to allow access to radiator mounting hardware. Retain front grill for reuse and properly dispose of screws.
4. Tilt cab using the vehicle's tilt control.
5. Remove engine cooling fan. Retain fan for reuse and properly dispose of nuts.
6. For trucks equipped with electronic stability control, maintain steering wheel angle to steering gear relation by marking yokes and shafts prior to disassembly. Ensure steering wheel does not rotate once shafts are disconnected. Refer to FIG. 9-1.
  - a. **I beam axle;** Disconnect steering column slip shaft from input shaft on steering gear, remove steering gear and assist cylinder end attached on fish plate. Retain assist cylinder castle nut and properly dispose of other hardware.
  - b. **IFS;** Disconnect steering column slip shaft from input shaft on steering gear. Properly dispose of hardware.



**FIG. 9-1**

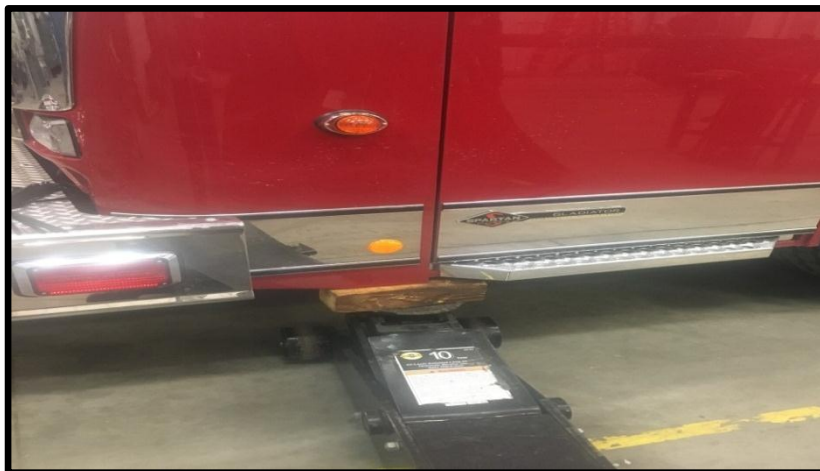
Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



## Recall Service Bulletin



7. Remove air cleaner and support brackets. Retain air cleaner and support brackets for reuse and properly dispose of hardware.
8. Remove hardware securing radiator and stay rods. Retain stay rods for reuse and properly dispose of hardware.
9. Lower cab using vehicle's tilt control.
10. The cab pivot design will either be a dual pin casting or vertical socket assembly. For vertical socket assembly, the cab pivots have vertical adjustment. Measure and record tilt knuckle height from top of splay rail prior to disassembling. Remove nuts securing cab pivots to frame. Retain cab pivots and any spacers for reuse and properly dispose of the nuts. For dual pin casting cab pivot, contact Spartan if threaded rod breaks free and can rotate in casting, during disassembly.
11. Measure and record lateral distance of tilt cylinder bracket in splay rail slots. Remove bolts from bottom of cab tilt cylinder. Retain bolts for reuse and properly dispose of nuts.
12. Place a jack under A-pillar of each side of cab and lift cab evenly until pivots are clear of frame. Refer to Fig. 10-1.



**FIG. 10-1**

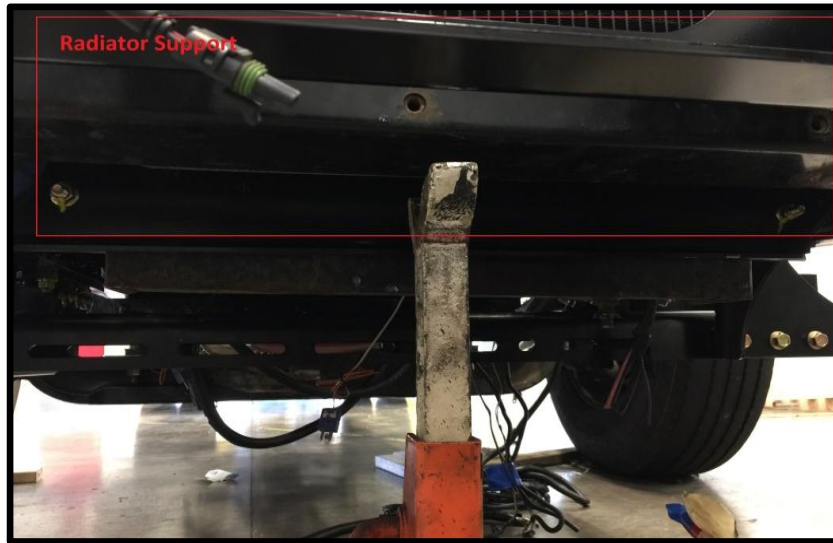
Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



## Recall Service Bulletin



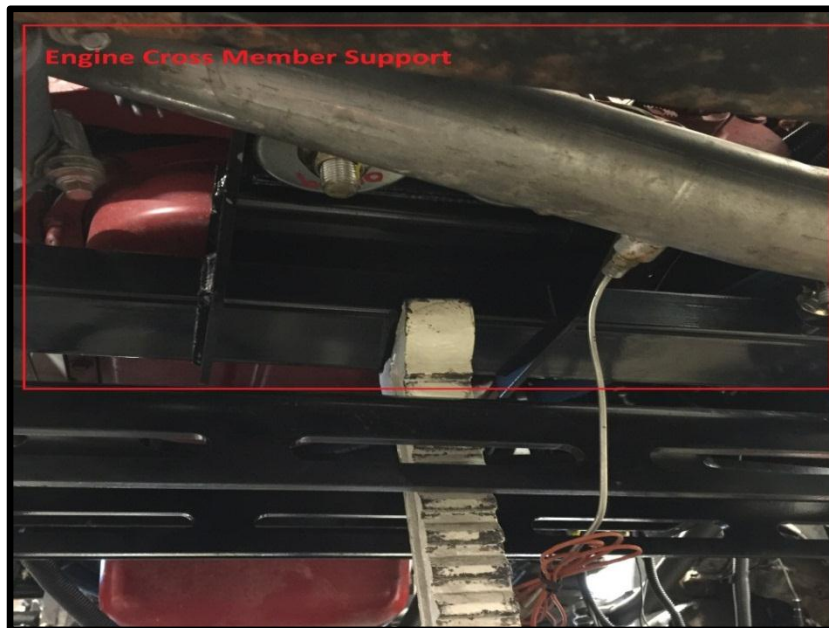
13. Place a jack below radiator to prevent it from falling/moving. Refer to Fig. 11-1.



**FIG. 11-1**

14. Working on one splay rail at a time, remove bolts going through fish plate and splay rail.

15. Place a jack under engine support cross member and remove hardware from same splay rail as before. Refer to Fig. 11-2.



**FIG. 11-2**

16. Remove and replace one side splay rail from chassis at a time.

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



## Recall Service Bulletin



**ONCE BOTH SPLAY RAILS ARE INSTALLED AND SECURED, PROCEED TO NEXT STEPS.**

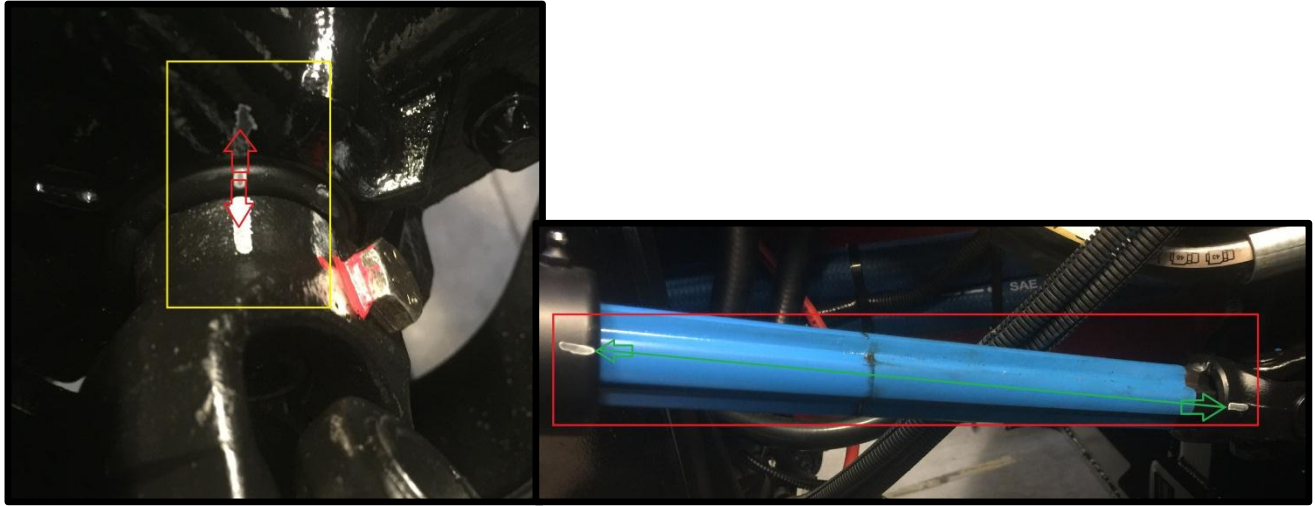
**NOTE:** for Cummins engines, the engine cross member requires Loctite threadlocker to the bolt on the first five threads from end, on (4) bolts / side per install drawing. All torques can be found on pages 14 - 16.

17. Lower jacks supporting cab slowly and line up cab pivots.
18. Install hardware for cab pivots. Ensure that cross member is loose / free to draw up, flush, to bottom of spay rail flange as nuts are tightened. For vertical socket assembly cab pivot, use measurement from step 10 to locate tilt knuckles vertically in splay rail.
19. Install hardware for lower cab tilt cylinder brackets. Match bracket lateral position in splay rail slots measured from Step 11, and ensure a 90° orientation per installation drawing.
20. Tilt cab using vehicle's tilt control.
21. Install mounting hardware for radiator.
22. Reinstall retained engine cooling fan. Torque nuts to 26 lbs.-ft..
23. Adjust cooling package stay rods so the cooling package is installed at 2.5° from vertical to match engine power angle (except 4x4's which have a power angle of 0°). Check fan tip clearance to shroud and adjust cooling package and/or shroud for even clearance measured at top, bottom, and both sides (3/4" – 1" is typical).
24. Reinstall air cleaner and support brackets.
25. Reinstall steering components, refer to Fig. 13-1:
  - a. **I beam axle;** Install steering column slip shaft to input shaft on steering gear, install steering gear and assist cylinder end attach on fish plate. Torque assist cylinder castle nut to 145 lbs.-ft.
  - b. **IFS;** Install steering column slip shaft to input shaft on steering gear.

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



## Recall Service Bulletin



**FIG. 13-1**

26. Reinstall retained front bumper extension. Refer to pages 14 and 16 for torque values.
27. Reinstall retained front grill.
28. Reinstall retained skid plate. Skid plate is attached with ½" hardware torqued to 74 lbs-ft.
29. Reinstall all hoses, air lines, electrical wiring, and retaining clips. Hoses, air lines, and electrical line should be secured every 18".
30. Upon completion of repair, operate vehicle to ensure all effected systems are working as intended. Check for hose and electrical line chaffing points and kinks by tilting the cab and steering full left and right.

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



**THIS BOLT AND NUT MAY NOT BE USED DEPENDING ON THE SKID PLATE**

**VIEW A**

**VIEW A/B**

2013 AIR CLEANER  
2010 AIR CLEANER

MF13-005  
MF13-006  
MF13

ISX  
ISL

GRADE 8 YELLOW FINISH TORQUE CHART

FASTENER	DRIVE SIDE	TORQUE (FT-LBS)	RANGE (FT-LBS)	SUPPLIER
3/8-16	NUT	31	27 - 34	N
7/16-14	BOLT	38	34 - 42	N
12-13	NUT	49	44-54	N
5/8-11	BOLT	74	67 - 82	N
	NUT	93	84 - 102	N
	BOLT	148	133 - 163	N
	NUT	185	167 - 204	N

**NOTES:**  
 1. CERTAIN VEHICLE CONFIGURATIONS WILL VARY FROM SHOWN.  
 2. ALL FASTENERS TO BE SELECTED TO HAVE 2-3 THREADS EXTENDING PAST THE NUT.  
 3. ALL FASTENERS ARE TO BE TORQUED ACCORDING TO THE TORQUE TABLE.  
 4. NUT SIDE TO BE TORQUED WHEN POSSIBLE.  
 5. CONTACT SPARTAN MOTORS CUSTOMER SERVICE WITH QUESTIONS.  
 6. ISL COOLING BRKTS ARE SHOWN, ISX BRKTS ARE FURTHER FWD.  
 7. APPLY #87190 ADHESIVE REMOVABLE THREAD LOCKER BLUE AS REQUIRED AROUND FIRST FIVE THREADS FROM END OF BOLT.

ITEM	PART NUMBER	DESCRIPTION	-001 QTY	-005 QTY
1	06160150FH8Y	BOLT - 3/8-16 X 1.50LG FLG GR8 YEL	1	-
2	06160250FH8Y	BOLT - 3/8-16 X 2.50LG FLG GR8 YEL	4	-
3	06160300FH8Y	BOLT - 3/8-16 X 3.00LG FLG GR8 YEL	2	-
4	0616FLN8Y	NUT - 3/8-16 FLG LK GR8 YEL	10	-
5	07140200H8Z	BOLT - 7/16-14 X 2.00LG HEX GR8 ZINC	1	-
6	0714LNZ	NUT - 7/16-14 LOCK ZINC	1	-
7	08130150FH8Y	BOLT - 1/2-13 X 1.50LG FLG GR8 YEL	12	8
8	08130175FH8Y	BOLT - 1/2-13 X 1.75LG FLG GR8 YEL	10	-
9	08130200FH8Y	BOLT - 1/2-13 X 2.00LG FLG GR8 YEL	14	-
10	0813FLN8Y	NUT - 1/2-13 FLG LK GR8 YEL	31	8
11	10110200BSCSY	BOLT - 5/8-11 X 2.00LG BTNSOCC YEL	-	4
12	10110200FH8Y	BOLT - 5/8-11 X 2.00LG FLG GR8 YEL	14	-
13	1011FLN8Y	NUT - 5/8-11 FLG LK GR8 YEL	14	-
14	125X350CP	COTTER PIN-1/8 X 3.50	1	-

**FASTENER TORQUE SYMBOLS:**  
 ▽ TORQUE SYMBOL  
 ◊ NOTS SYMBOL  
 ○ ITEM SYMBOL  
 ◻ CRITICAL SAFETY TORQUE

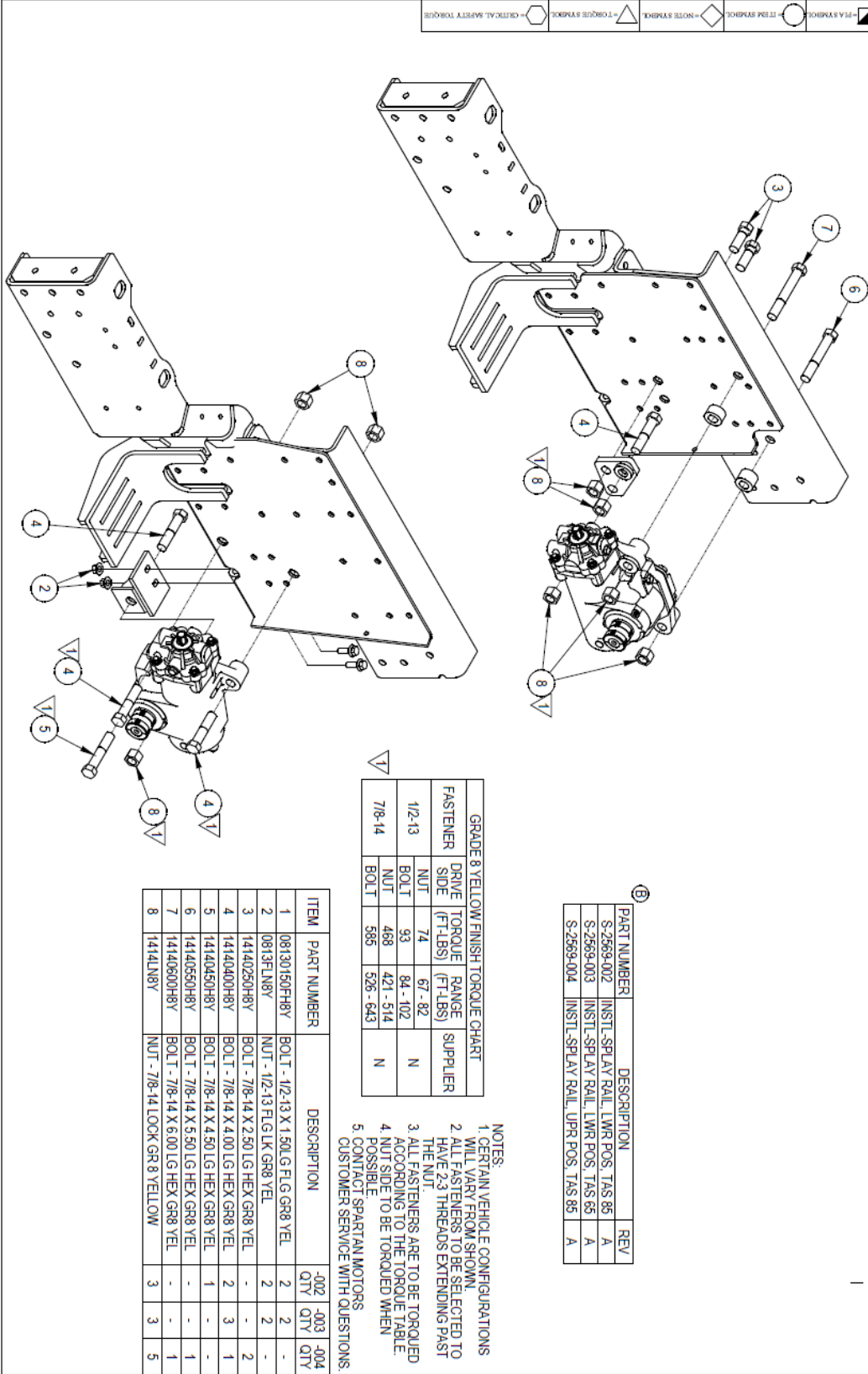
Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



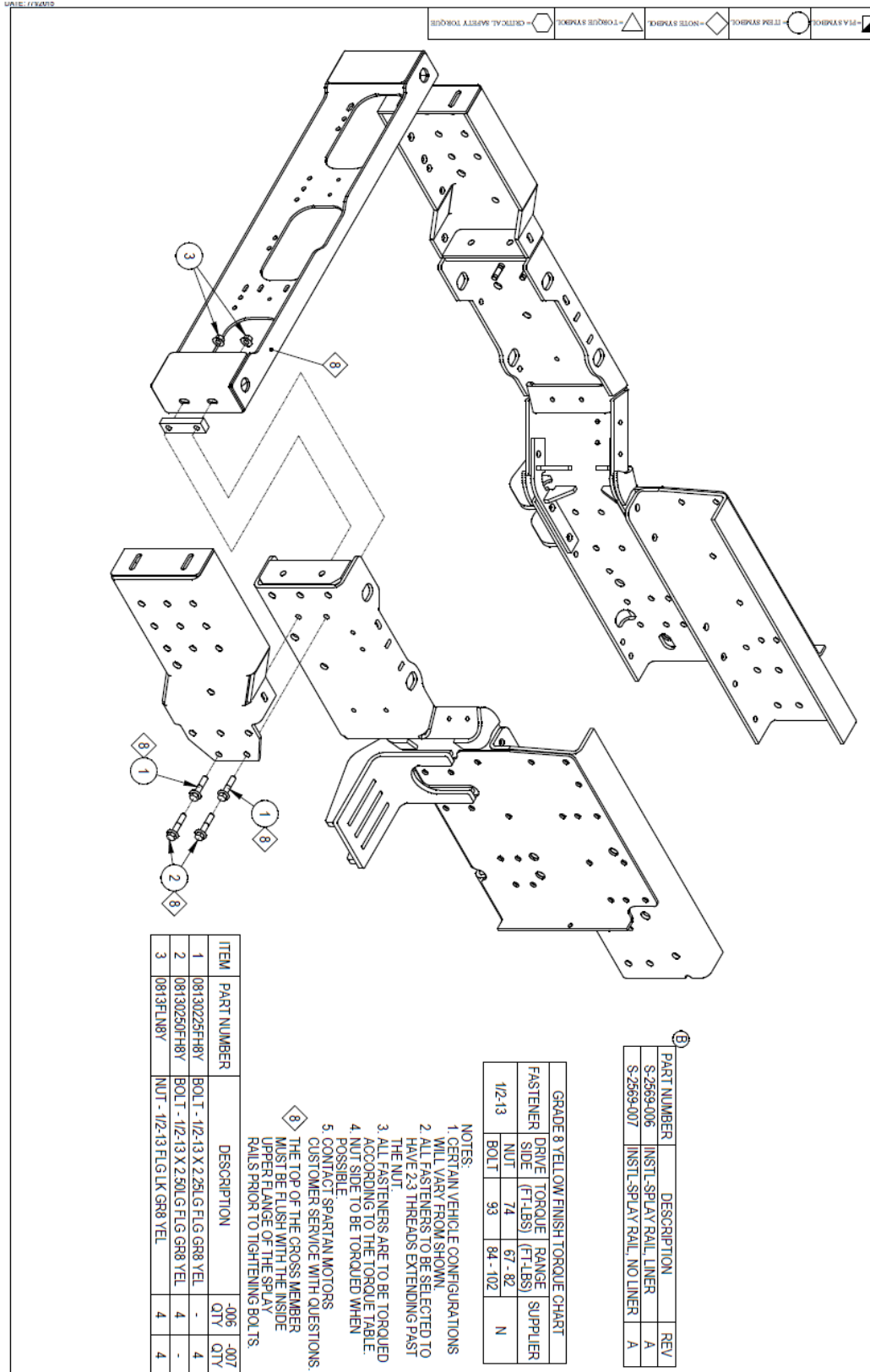
DATE: 7/2/2015



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



# Recall Service Bulletin



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.