



# Recall Service Bulletin



**DATE:** 11-17-16

**APPLIES TO:** This recall service bulletin applies to certain Spartan Emergency Response Tractor Drawn Aerial Fire Apparatus built by Spartan Motors, USA, Inc. between November 18, 2004 and July 26, 2010.

**NHTSA/TC Id:** 16V-688

**CONDITION:** Primary member of trailer frame may fracture during highway driving.

**CORRECTION:** Addition of reinforcements.

**LABOR ALLOCATION:** 80 hours

**CLASSIFICATION:** E3

**PARTS NEEDED:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	5-04796	Tiller Trailer Frame Rail

**Kit # 5-04796 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
2	4-12422	Filler Plate, Frame Rail
2	4-12423	Reinforcement Plate, Frame Rail
1	RSB16-ERB-002	Instruction Document

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	5-04797	Cross Member Reinforcement

**Kit # 5-04797 Contains:**

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	4-12420	Filler Plate, Cross Member
1	4-12594	Reinforcement Plate, Cross Member
1	RSB16-ERB-002	Instruction Document

**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.

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.



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**ALL WELDING TO BE PERFORMED BY AN AWS D1.1 CERTIFIED WELDER.**

**PRIOR TO FINAL PAINT, ALL FINISHED WELDS TO BE MAGNETIC PARTICLE INSPECTED IN ACCORDANCE TO AWS D1.1 STANDARDS.**

**ALL WELDING TO BE PERFORMED USING WELD WIRE (OR EQUIVALENT SPECIFICATION) SHOWN BELOW.**

METAL-CORED (GMAW-C) WIRE

## **Metalshield® MC-6®**

Mild Steel • AWS E70C-6M H4

### Key Features

- ▶ Excellent performance in fast follow, high travel speed applications
- ▶ Optimal wetting action, even at low voltages
- ▶ H4 diffusible hydrogen level
- ▶ Use with Rapid-Arc® Waveform Control Technology®
- ▶ Deoxidizing arc action minimizes pre-weld work

### Conformances

AWS A5.18/A5.18M: 2005 E70C-6M H4  
 ASME SFA-A5.18: E70C-6M H4  
 CWB/CSA W48-06: E491C-6MJ-H4

### Welding Positions

All

### Typical Applications

- ▶ Robotics/Hard automation
- ▶ Automotive
- ▶ Structural fabrication
- ▶ Process piping and pressure vessels
- ▶ General fabrication

### Shielding Gas

75-95% Argon / Balance CO<sub>2</sub>  
 Flow Rate: 40-60 CFH

### DIAMETERS / PACKAGING

Diameter in (mm)	33 lb (15 kg) Steel Spool	50 lb (22.7 kg) Fiber Spool	60 lb (27.2 kg) Coil	500 lb (227 kg) Accu-Trak® Drum
0.045 (1.1)	ED030392	ED030554	ED030549	ED031011
0.052 (1.3)	ED030393	ED030556	ED030550	ED030946
1/16 (1.6)	ED030394	ED030555	ED030577	ED030947

### MECHANICAL PROPERTIES<sup>(1)</sup> – As Required per AWS A5.18/A5.18M: 2005

	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch J (ft•lb)	
				@ -29°C (-20°F)	@ -40°C (-40°F)
Requirements - AWS E70C-6M H4	400 (58) min.	480 (70) min.	22 min.	27 (20) min.	Not Specified
Typical Performance <sup>(3)</sup>					
As-Welded with 75% Argon / 25% CO <sub>2</sub> <sup>(4)</sup>	450-510 (65-75)	510-590 (75-85)	24-28	81-122 (60-90)	47-75 (35-55)
As-Welded with 90% Argon / 10% CO <sub>2</sub>	480-550 (70-80)	550-620 (80-90)	24-28	75-102 (55-75)	61-81 (45-60)

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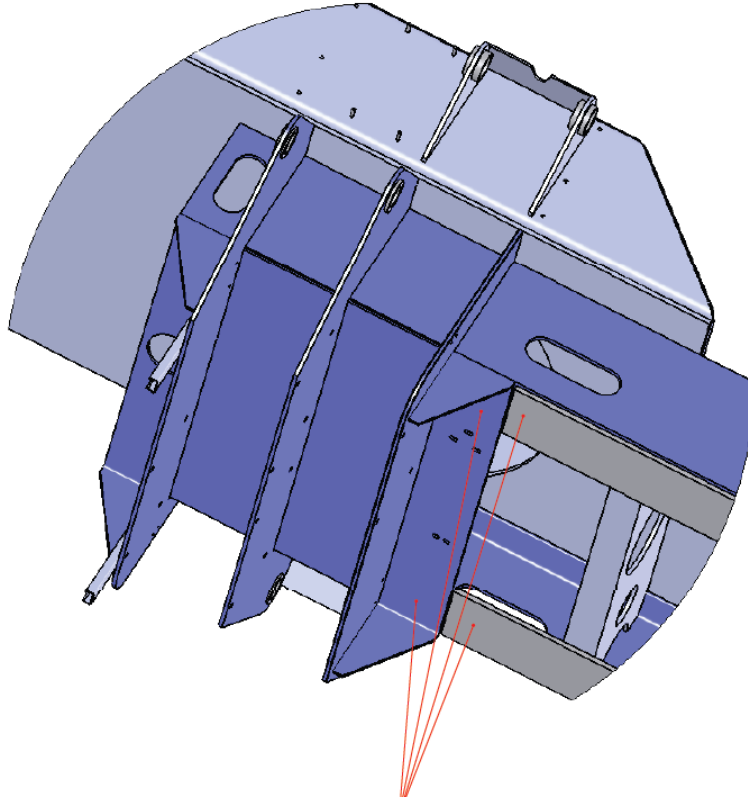
## Recall Service Bulletin



### **STEP-BY-STEP INSTRUCTIONS FOR KIT 5-04796:**

1. Remove all paint and contaminants from both welding areas prior to installing parts. Refer to FIG. 3-1.

**NOTE: If crack exist in cross member, grind out crack, and re-weld before step 2.**



**FIG. 3-1**

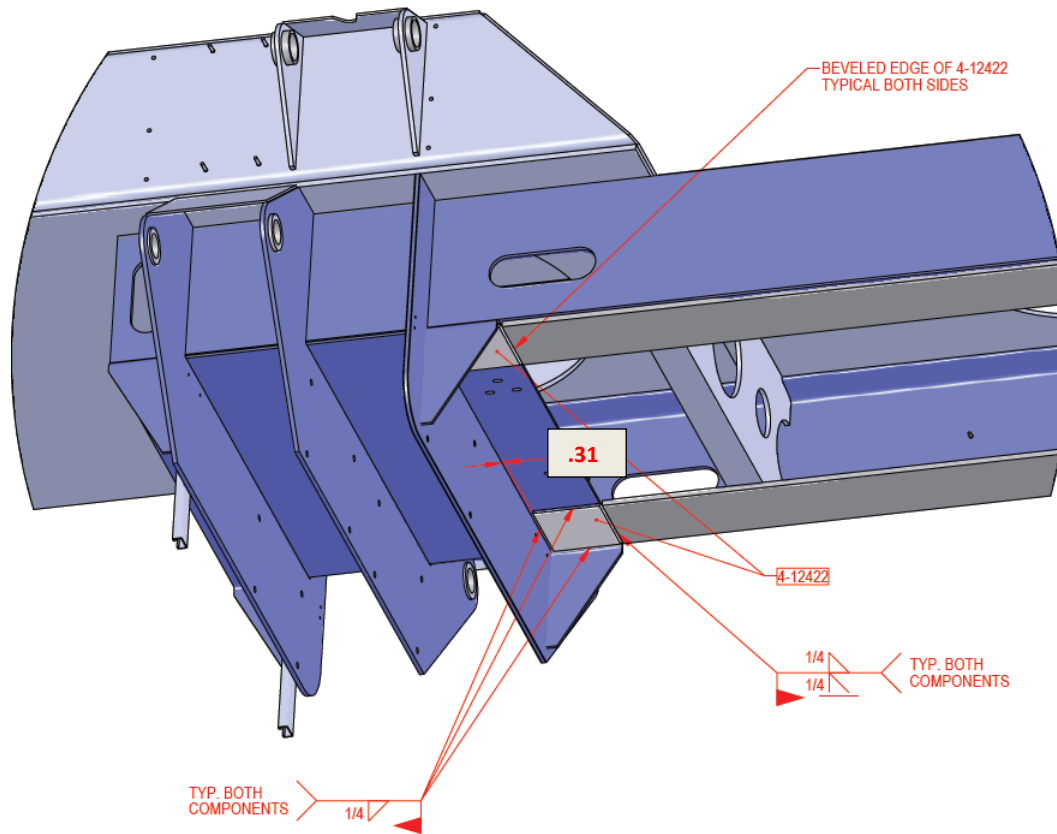
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2. Install 4-12422. Refer to FIG. 4-1.



**FIG. 4-1**

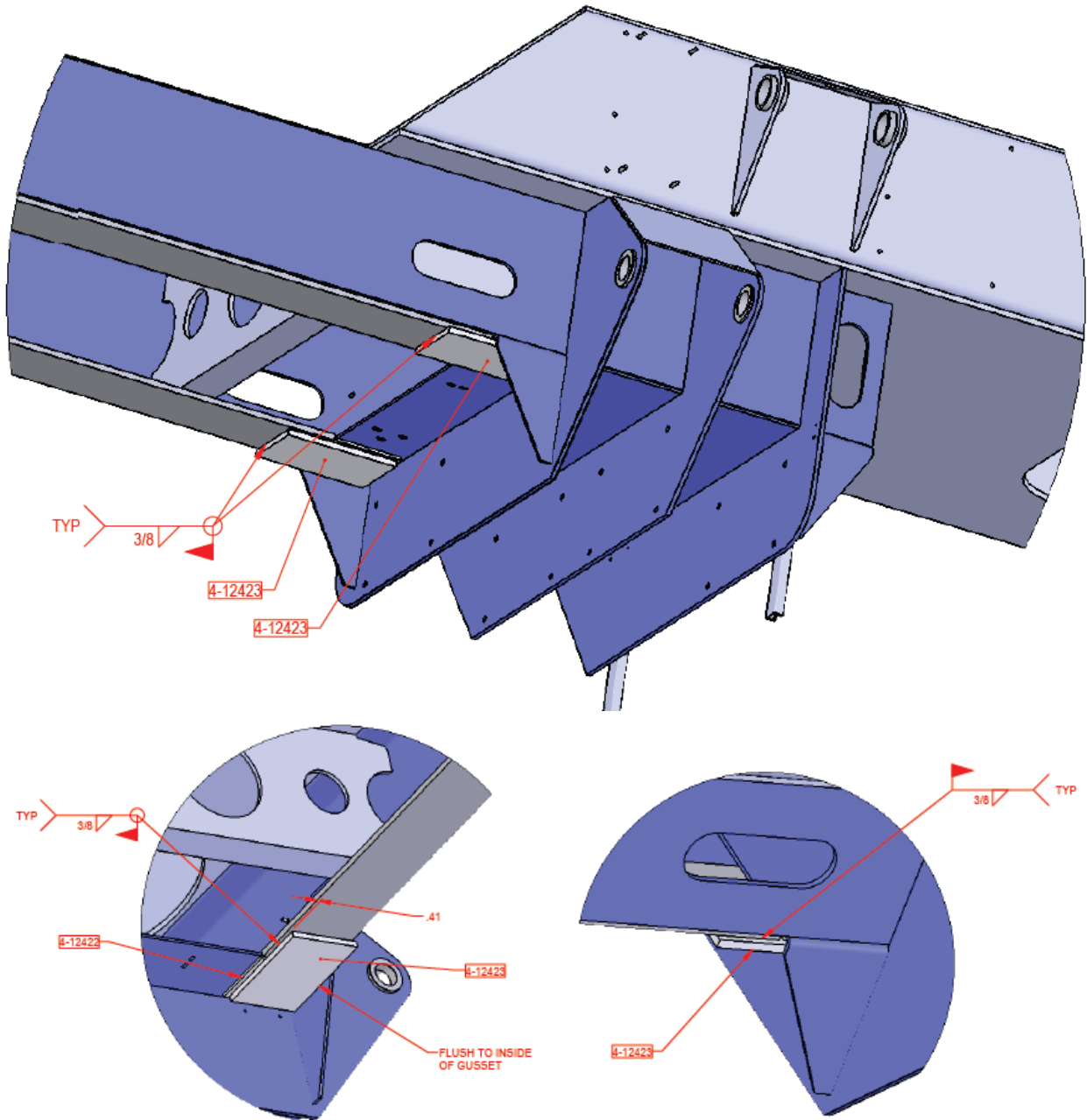
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3. Install 4-12423 Refer to FIG. 5-1.



**FIG. 5-1**

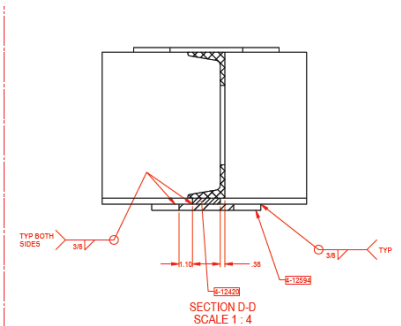
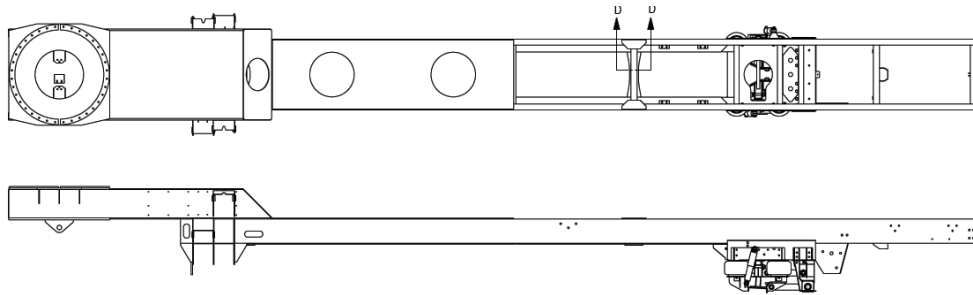
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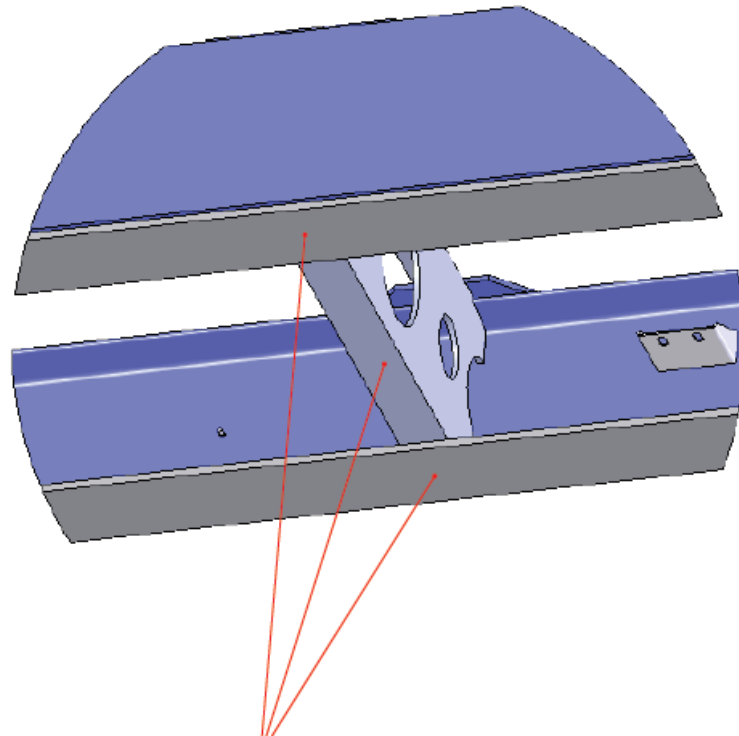


## STEP-BY-STEP INSTRUCTIONS FOR KIT 5-04797:



1. Remove all paint and contaminants from both welding areas prior to installing parts. Refer to FIG. 6-1.

**NOTE: If crack exist in cross member, grind out crack, and re-weld before step 2.**



**FIG. 6-1**

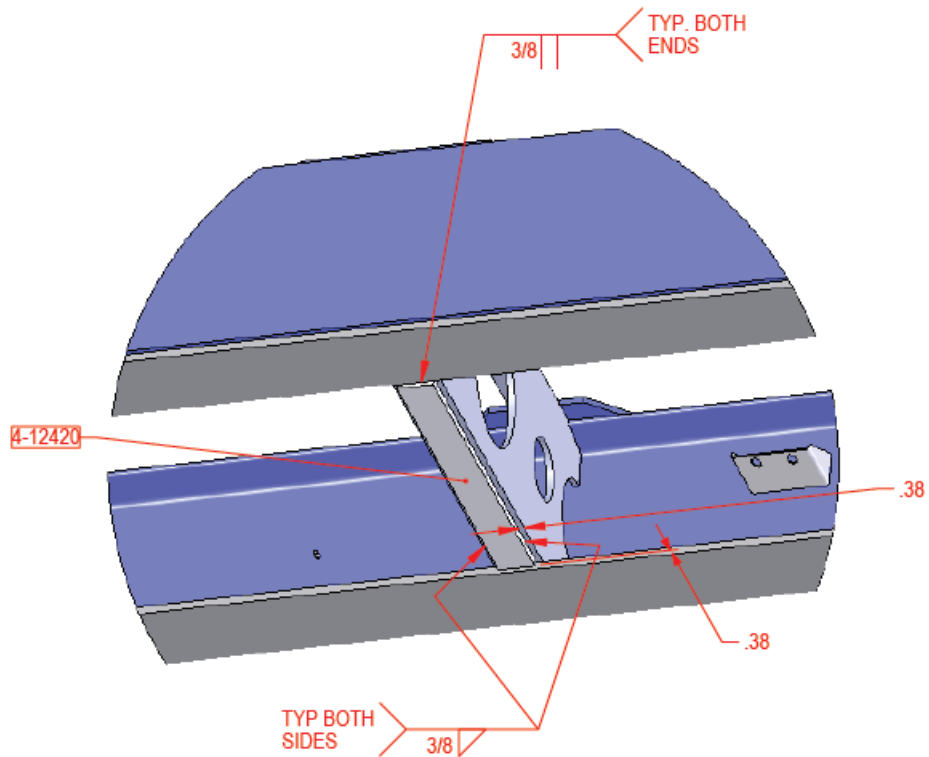
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2. Install 4-12420. Refer to FIG. 7-1.



**FIG. 7-1**

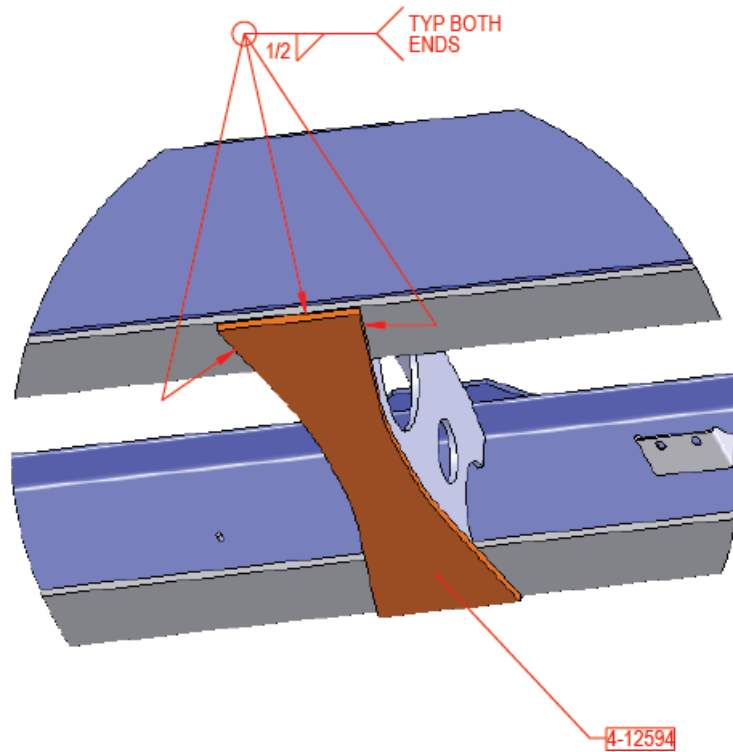
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3. Install 4-12594. Refer to FIG. 8-1.



**FIG. 8-1**

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