



**DATE:** 12-17-18

**APPLIES TO:** This service bulletin applies to certain 2002 through 2018 model year Emergency Response Gladiator model chassis cabs equipped with a large bore, heavy duty engine built between November 12 2002 and December 18, 2017.

**CONDITION:** Potential for crack at the engine cutout areas of the frame rail flanges.

**CORRECTION:** Weld repair and frame rail reinforcement.

**LABOR ALLOCATION:** 15 Hours per side

**CLASSIFICATION:** T3

**PARTS NEEDED:** If a frame rail crack is discovered, take pictures, and contact Spartan Motors USA, Inc. for instructions on how to proceed.

**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 should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



**STEP-BY-STEP INSTRUCTIONS:**

1. Tilt cab to inspect frame rail flanges for cracks. Refer to FIG. 2-1 for one example of an engine-cutout crack. Refer to FIG. 2-2 which illustrates typical engine-cutout inspection locations.



FIG. 2-1

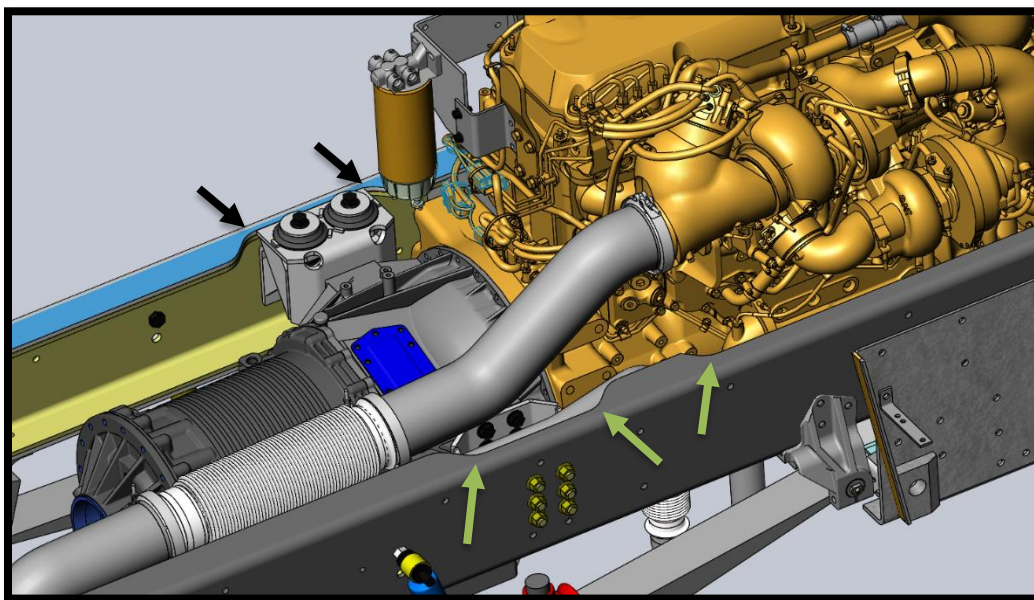


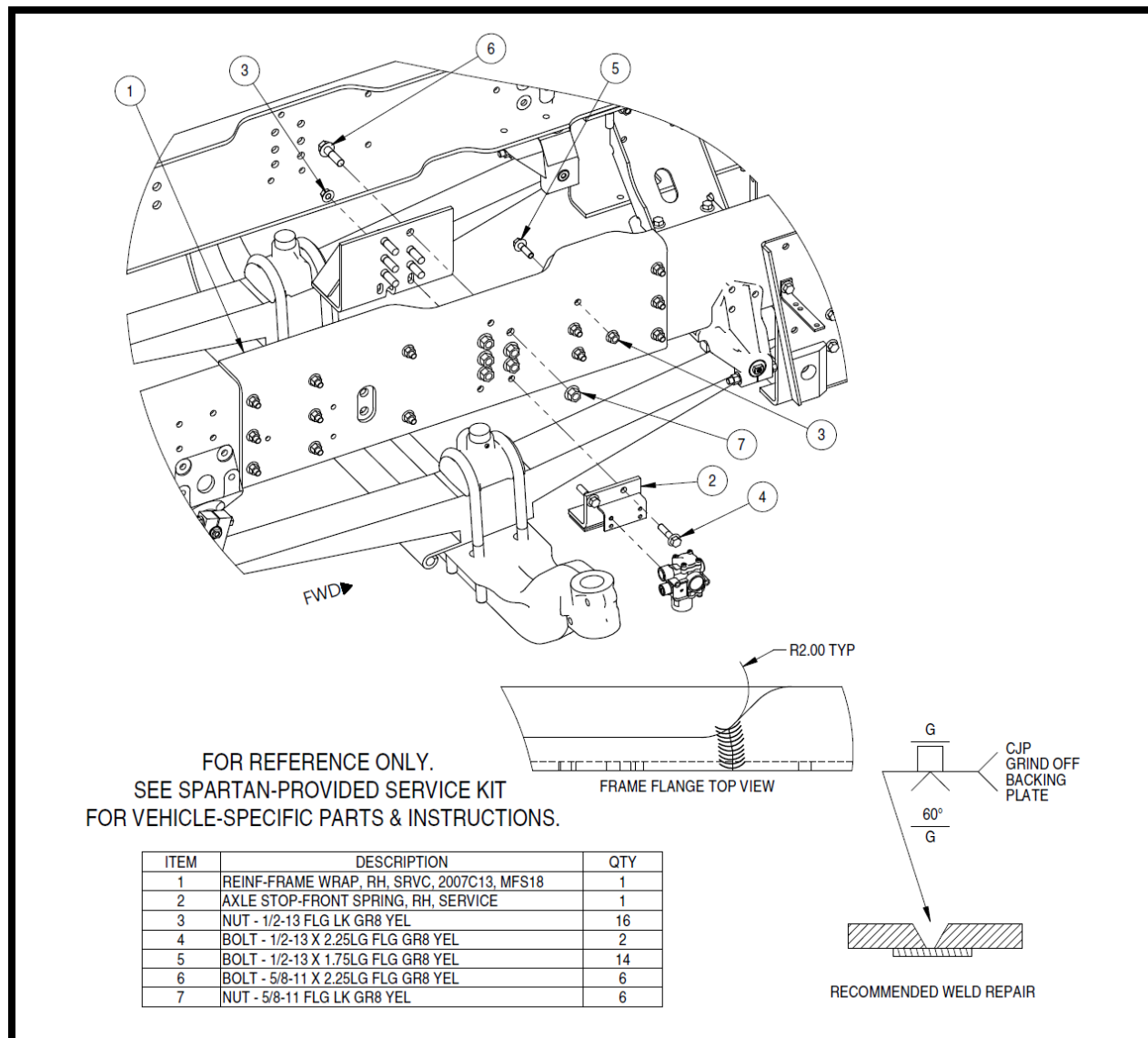
FIG. 2-2

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2. If a frame rail crack is discovered, take pictures, and contact Spartan Motors Customer Product & Support at 800-543-5008 for instructions on how to proceed.
3. Steps 4 onward detail a typical repair and reinforcing frame wrap installation. Actual combination of parts used will differ based on crack location and vehicle's sales options.
4. Clean all parts of oil and debris.
5. Grind out entire frame crack .25" past end of crack.
6. Use a welding backup strip. It may need to be bent / contoured to frame inside radius (.5"). Grind off after welding.
7. Support engine when replacing engine bracket bolts.
8. Remove all battery connections prior to welding. Move all wires and air lines away from weld and protect w/ weld blanket
9. Weld per spartan specification 0102-ZZ4 with e70 or equivalent wire.
10. All weld grinding to be 90° to crack direction and ground flush.
11. After welding, modify frame cutout using wrap as template and smooth out flange edge.
12. Paint exposed metal.
13. Attach frame wrap with aligning holes. Match drill all reinforcement piece holes to frame that do not already line up
14. Typical grade 8 yellow flange head torque (shown for reference only; provided service kit's torques are master):
  - 5/8-11 = 148 LBF-FT torqued on nut side
  - ½-13 = 74 LBF-FT torqued on nut side

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