

# AR880 2018-2019 SOI-F Drawn-Over-Mandrel (DOM) Tube Frame Reinforcement

"DOCUMENT UNCONTROLLED IF PRINTED"

DOC #	PROCESS NAME	PAGE	REVISION	STATION	BY	DATE
AR880	2018-2019 SOI-F Drawn-over-mandrel (DOM) Tube Frame Reinforcement	1	-	SERVICE-E	Brad Fisher	11/18/20

Read process before beginning. If you do not understand any part please contact: Brad Fisher, Service Manager at 1-866-953-5555 or by e-mail at [bfisher@ARBOCsv.com](mailto:bfisher@ARBOCsv.com)

Good Mechanics safety practice must be followed on any repairs.

Safety practices should include but not be limited to properly supporting the chassis, axles, blocking tires, and a work area free of clutter.

**Complaint:** Drawn-over-mandrel (DOM) tube cracks in frame at rear spring, front frame brackets

**Cause :** DOM tube to frame tolerance variations

**Correction:** Weld cracks in DOM tube to frame connection

**Vehicles Affected:** 2018/2019 Spirit of Independence - Ford (SOI-F)

**Labor Op code :** 0128001

**Labor Time Allowance :** 4 hrs. per unit

**Parts Return :** No

**Pre Auth Required:** Yes

**Tools Required:**

Hoist (ability to raise and support the unit)

Welder

Flame/Spark Resistant Tarp (use to protect interior harness, fuel lines, brake lines, etc.)

**Parts Required :**

**Repair Instruction**

Step 1) Pull unit onto hoist, chock tires to prevent bus from moving

Step 2) Disconnect negative battery cable from both batteries

Step 3) Inspect rear spring, front frame DOM tubes for cracks (see picture below- green arrows )

Step 4) If NO cracks are found proceed to Step 7

Step 5) If cracks are found, remove rear spring, front frame bracket. Grind cracked area of frame and DOM tubes

Step 6) Weld cracks and grind repaired cracks smooth. Reinstall rear spring, front frame bracket. Torque bracket to frame bolts to 66 ft-lbs and spring to bracket bolts 166 ft-lbs

Step 7) Weld frame bracket to frame ( see red line in picture below ). Using high quality undercoating or rust protective paint, coat repaired area

Step 8) Repeat Step 3 thru Step 7 on other side of frame

Step 9) Reconnect negative battery cables on both batteries

Step 10) Remove unit from hoist

