



STAR ONLINE PUBLICATION

Case Number: S1813000001

Release Date: 08/18/2018

Symptom/Vehicle Issue: Frame Weld Inspection

Discussion: This STAR Online will show some FAQ frequently asked questions on frame welds. If you have questions regarding integrity of a weld or items not covered in this document follow standard technical support process. Enter a STAR ticket with pictures. Pictures should include a close up of the area and then an image that will help in identifying what area of the frame. Include a description in the narrative of the ticket.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found

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1. Customer complaint of a rusty weld. Fig 1 shows a "silicon inclusion/island" – L the brownish material pictured- which is generally inherent to the MIG welding process of the steel frame with weld wire of this and similar compositions. This occurs when Si deoxidizes (floats to the surface) of the weld pool and is trapped prior to escape by solidification. This is not a weld defect. These deposits are also very slick in nature. Coatings do not stick to the Silicon deposits. No repairs required.



Fig 1 Silicon deposits

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2. Porosity or pinholes in weld beads. FCA welding standard does allow some porosity as it does not affect structural integrity of the joint/welded assembly. Individual pinholes separated by at least their own diameter and other scatter surface porosity is allowable. The total length of porosity (sum of diameters) cannot exceed 6.4 mm in any 25 mm of weld. Fig 2 shows examples of acceptable (OK) and not acceptable (NG) porosity.

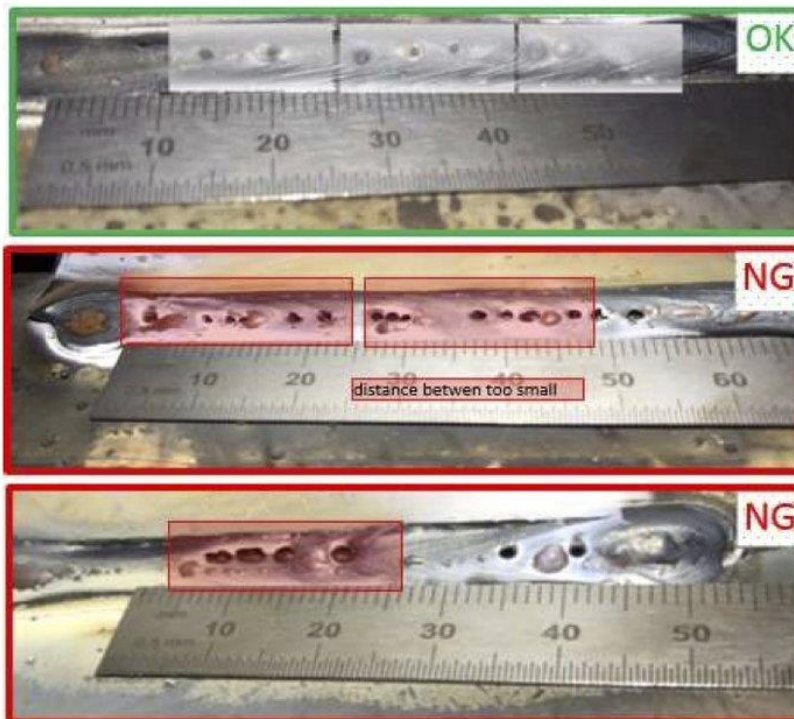


Fig 2 Porosity

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3. Reprocessed weld repair (performed at frame production plant). Applied usually adjacent to an original weld (fig 3) . This is acceptable and inherent to high – volume MIG welding processes. For FCA approved refinishing and corrosion protection following a repair refer to TechCONNECT Collision Tab group 31 - Collision Information/Standard Procedure CORROSION PROTECTION.

Weld repair

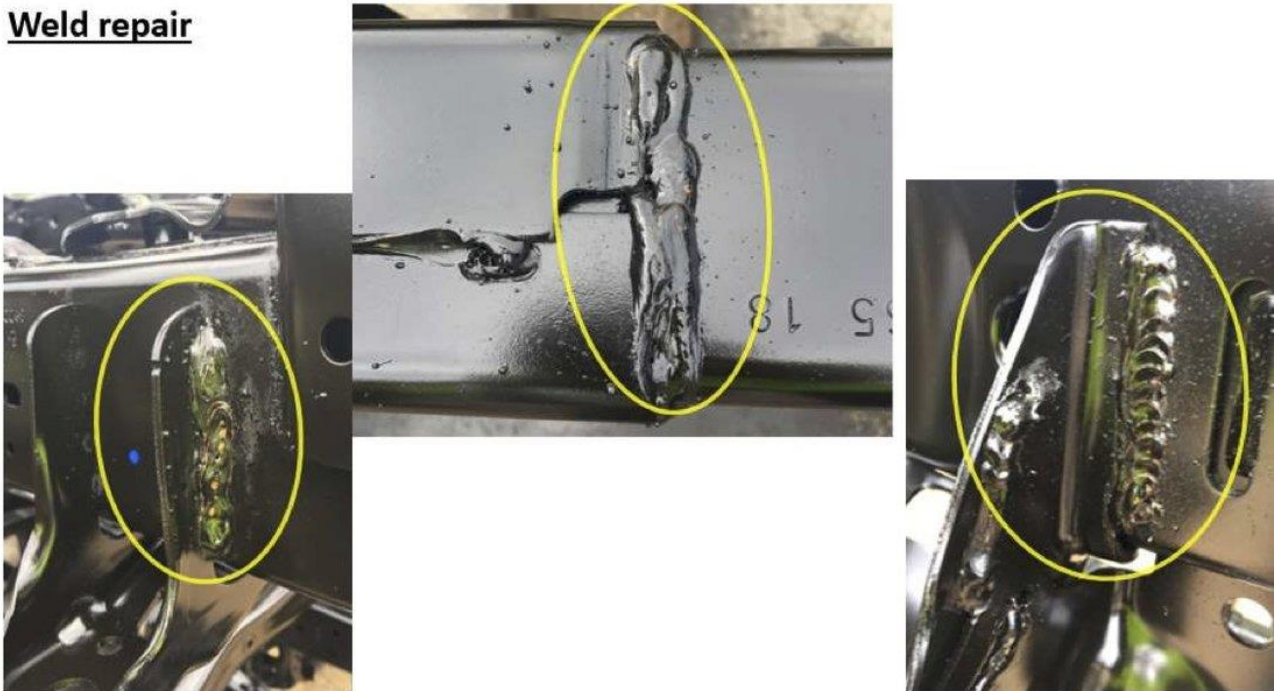


Fig 3 Reprocessed weld.

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4. Weld joint suspected to be off location or weld joint does not equally overlap both materials. This would require a subject matter expert's diagnostic and potential weld repair. Contact STAR Center with images prior to any repair attempts. See Fig 4 and 5



Fig 4

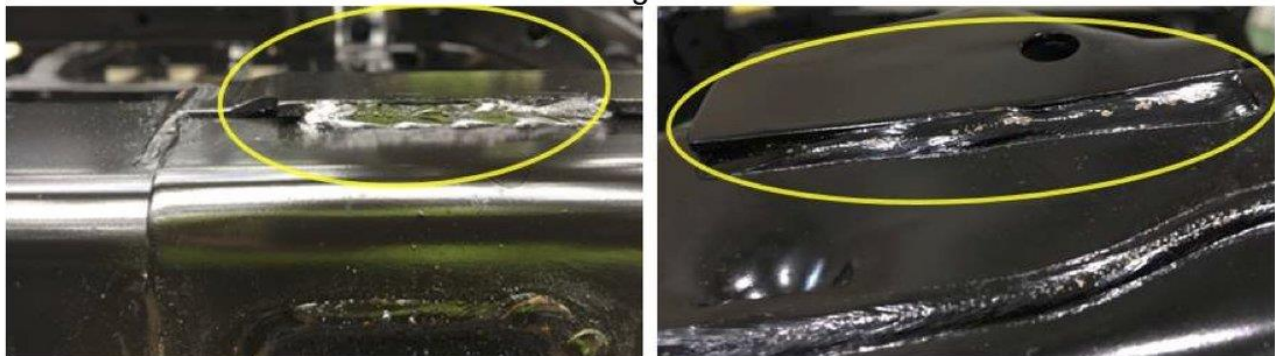


Fig 5.

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