20'/40' Combo Chassis Modification Modification Manual



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A. GENERAL.

The following modification procedure is to provide guidelines for chassis inspection and modification for combo 20'/40 chassis with missing welding's over diagonal braces located on slider.

B. MATERIAL REQUIRED.

1)	X520-DD018-H01 REINFORCEMENT BRACKET	As required

PRIMER & PAINT

1)	10073084 PRIMER 65% ZINC SPECTRACRON #SEP79745	0.050 GL
2)	10073086 CURE AGENT FOR PRIMER PPG #GXM77957A	0.017 GL
3)	10087949 PPG BLACK URETHAN DELFLEET, HSI993519	0.048 GL

4) 10059329 CURE AGENT FOR PAINT PPG #GXH1080 0.012 GL

C. TOOL REQUIRED.

- 1) Telescoping inspection mirror
- 2) Hand light
- 3) Spatula or scraper
- 4) Carbon Steel Wire Cup Brush
- 5) Arc Welding M/C
- 6) Welding wire AWS E71T-1 FLUX or WELDING ROD_Ø4.0 S7016.
- 7) Painting brush
- 8) Spray gun
- 9) Safety equipment (gloves, safety glasses, etc..)

D. MODIFICATION.

- 1. Prior to repair, the chassis is required to be placed in a safe workplace & review the procedure. Place chassis on a flat leveled surface & apply parking brakes; Instructions described under this procedure must be performed by trained personnel & must take all necessary safety precautions
- 2. Every chassis combo 20'/40' Spread 109" or TRI-Axle has to be inspected looking for missing welding between diagonal braces and X-member and/or gussets.
- 3. For the inspection use a telescoping inspection mirror and a hand light to verify missing welding application at each end of diagonal braces as show in following sketch indicated by arrows.



4. During inspection it's important to verify the quantity of weld applied on each hole, less than 50% or missing will need, need to follow step 16,17 & 18.



5. Locate the ABS valve and using a sharpie pen, mark the valve on top for ABS sensor location, do the same thing for each sensor as follow:



- 6. Disconnect ABS power cables too.
- 7. After welding inspection of all diagonal braces, sealant has to be removed on top of brace using a scraper or spatula.



8. For above operation, chassis need to be extended.



9. Using a carbon steel wire cup brush, remove the paint for welding application.

10. Apply welding on top between gusset or X-member and diagonal brace as follow:



11. Using a chisel, remove weld spatters from weld, then use a carbon steel wire cup brush or a wire brush to clean better the welded area.



- 12. Repeat steps 6, 8, 9 & 10 for remaining areas, still with chassis w/ slider extended.
- 13. Keep the brakes on the axles and slide back the main frame just enough to have access to repair remaining diagonal braces located at front.



14. After all welding application is done, apply primer over all area welded to avoid corrosion top surface and under diagonal brace.





15. After primer is dry, apply paint over all areas repaired, on top and under diagonal brace.



- 16. For those diagonal braces that have a missing/partial (less than 50%) welding , it's not necessary to apply welding underneath, bracket X520-DD018-H01 has to be installed (over the area already repaired) ONLY for those diagonals with missing/partial weld on bottom hole as shown on picture of step 3 & 4.
- 17. Locate the area or diagonal brace where welding was missing, then extend chassis or slide to have clear access to top area.



18. Locate bracket X520-DD018-H01 over the diagonal brace with missing welding on bottom hole to have enough area to apply welding , then weld as below photo (reference only).



- 19. Repeat above for any missing weld in diagonal brace holes.
- 20. Using a chisel, remove weld spatters from weld, then use a carbon steel wire cup brush or a wire brush to clean the welded area.
- 21. Apply primer and paint as required
- 22. Following step 4, re-connect sensors and power cable.

