NOVA BUS **INFORMATION LETTER** **LI1636AR2**

REFERENCE:	Nova Bus Manuals
SECTION:	01 Stainless steel chassis
RS Nº:	MQR 7621-091
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE:
–

SUBJECT:	Repair structure in the rear wheelhouse area
JUSTIFICATION:	The stainless steel structure of certain vehicles, with an offset engine, might have been subject to certain constraints which may cause cracking

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Procedure to install reinforcement plate in the area affected by such constraints	Client	Client	35h
2	–	–	–	–

MATERIAL

QTY	PART Nº	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
2	N60849		Plate	–
2	N60850		Reinforcement plate	–
2	N60851		Plate	–
2	N60855		Plate	–
1	N60856-1		Plate	–
1	N60856-2		Plate	–
2	N60857		Plate	–
2	N60858		Plate	–
2	N60859		Plate	–
1	N20610		Threaded stud M6 X 16	–
1 L	N49247		Tectyl 3335	–
LEVEL 2				
–	–	–	–	–

Materials will be available within 21 days. To order, please contact Prevost Parts by phone at 1-800-771-6682, by fax at 1-888-668-2555 or by email at prevostparts.commandes@volvo.com. Specify document number, quantity of parts required and shipping address.

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED	RETAINED	
	–	–	–

APPROVED BY:

Daniel Theriault

Digitally signed by Daniel Theriault
DN: cn=Daniel Theriault, o=Nova Bus, ou=Publication, email=daniel.theriault@volvo.com, c=CA
Date: 2014.01.13 08:52:44 -05'00'

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2012MR28	Initial release	Luc Carignan
R1	2012DE18	Modification of the French client list Reserved parts added in Step 1.4, 1.7 and 1.8. Step 1.27. point a. modified	Luc Carignan
R2	2013DE18	Part list modified to add parts N60856-1 and 60856-2 to replace N60856. Step 1.15 and Figure 8 modified to include the new parts.	Luc Carignan

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Belleville Transit - Ontario	L179	179-1	179-1	L82UX53000033	L82UX53000033	1
Belleville Transit - Ontario (L168)	L129	—	—	L82S633000199	L82S933000200	2
Brantford - Ontario	L150	—	—	L82U643000173	L82U843000174	2
Chicago Transit Authority - CTA - Illinois	L093	6709	6788	L82S523000001	L82S523000080	80
Chicago Transit Authority - CTA - Illinois	L093	6789	6883	L82S723000131	L82S523000225	95
Durham Region Transit - Ontario	L114	153	160	L82P923000367	L82P623000374	8
Durham Region Transit - Ontario	L143	—	—	L82S243000010	L82S843000013	4
Durham Region Transit - Ontario	L142	424	429	L82U643000108	L82UX43000113	6
Durham Region Transit - Ontario	L149	161	168	L82U443000155	L82UX43000161	7
Elliot Lake - Ontario	L148	04-Jan	04-Feb	L82U143000162	L82U343000163	2
First Transit Inc. (ref. L173)	L144	—	—	L82U543000049	L82U543000049	1
Fredericton - New Brunswick	L146	8031	8032	L82U543000164	L82U743000165	2
Grand River Transit - GRT - Ontario	L145	2400	2417	L82U143000114	L82U143000131	18
Grand River Transit - GRT - Ontario	L161	2418	2433	L82U643000254	L82U843000269	16
Guelph - Ontario	L115	169	176	L82P933000080	L82P133000087	8
Guelph - Ontario	L132	177	179	L82P443000019	L82P243000021	3
Guelph - Ontario	L167	180	182	L82U943000250	L82U243000252	3
MATA - Memphis, Tennessee	L116	909	923	L82S723000226	L82S123000240	15
MATA - Memphis, Tennessee	L117	924	928	L82S323000241	L82S023000245	5
Moncton (Codiac) - New Brunswick	L147	504	505	L82U943000166	L82U043000167	2
Ottawa - Ontario	L162	162-1	162-1	L82V343000270	L82V343000270	1
Peterborough - Ontario	L130	60017	60021	L82S143000001	L82S943000005	5
Peterborough - Ontario	L159	60022	60024	L82S443000168	L82S243000170	3
Regina - Saskatchewan	L166	598	603	L82U453000027	L82U853000032	6
Regina - Saskatchewan	L183	604	608	L82U853000046	L82UX53000050	5
Strathcona County Transit - Alberta	L177	921	923	L82U953000024	L82U253000026	3
Thunder Bay - Ontario	L131	137	141	L82SX43000014	L82S743000018	5
Timmins - Ontario (ref. L189)	L144	—	—	L82U343000048	L82U343000048	1
Walt Disney World - Florida	L113	4862	4884	L82P623000343	L82P523000365	23
Walt Disney World - Florida	L118	4885	4885	L82P723000366	L82P723000366	1
Walt Disney World - Florida	L174	174-1	174-1	L82U553000005	L82U553000005	1

WARNING

Follow your internal safety procedures.

NOTE

This information letter applies only to vehicles with a crack located near the radius rod attachment plate. See Figure 1 for the area at risk for a crack.

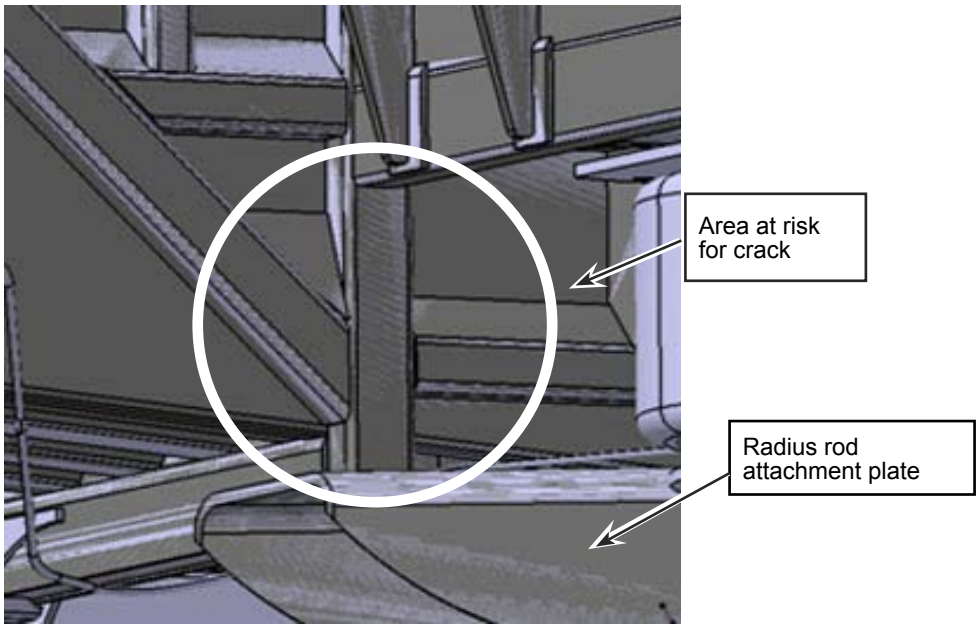

Figure 1 - Area at Risk for a Crack

PROCEDURE

1.1. Raise the vehicle.

WARNING

For more information on the raising and lowering of the vehicle, refer to section 18: HOISTING AND TOWING of the Nova LFS maintenance manual. Respect your current internal safety procedures. Use the proper hoisting equipment for your safety.

1.2. Install the jacking supports under the vehicle to secure the working area.

1.3. Remove the rear axle according to the **REMOVAL** procedure described in section **05: REAR AXLE** of the Nova LFS maintenance manual.

1.4. Remove the drive shaft from the transmission according to the **REMOVAL** procedure described in section **10: DRIVE SHAFT** of the Nova LFS maintenance manual. Retain the hardware and the drive shaft.

1.5. Disconnect and remove the brake system's pneumatic valve pack located under the center aisle in front of the rear axle. Retain the pneumatic valve pack and the hardware. See Figure 2.

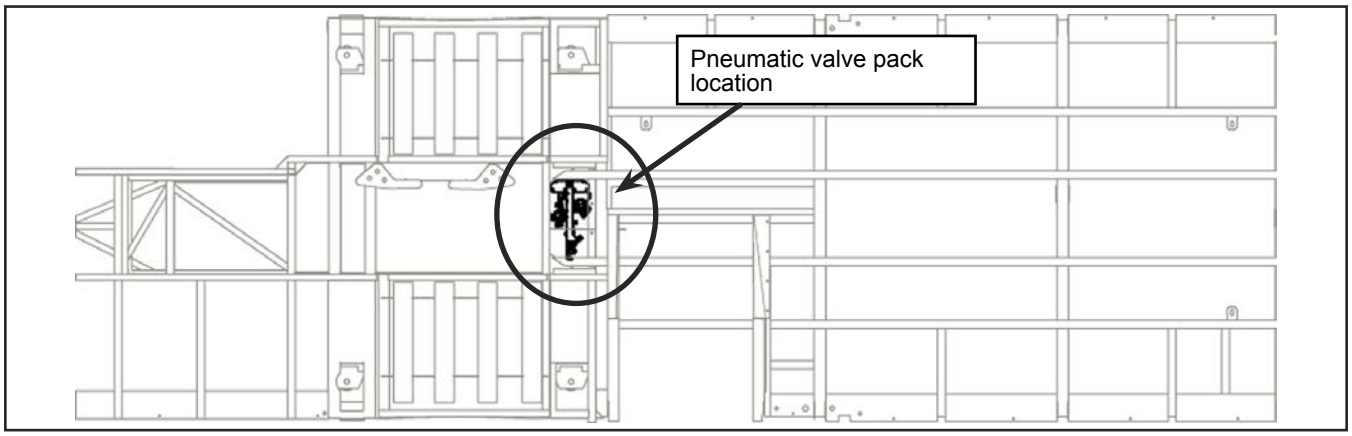

Figure 2 - Brake System Pneumatic Valve Pack Location

NOTE

Before disconnecting the ABS cable from the pneumatic valve pack, it is important to tag the ABS cable with adhesive tape identified L (left) and R (right). This action will facilitate reconnection and avoid problems with the operation of the ABS system.

1.6. Remove all the mud flaps located in front of the rear axle. Retain the mud flaps and hardware.

1.7. Remove the air spring located in front of the rear axle according to the removal procedure described in section 05: **REAR AXLE** of the Nova LFS maintenance manual. Retain the hardware and the air spring.

1.8. Remove the p-clamp holding the pneumatic hoses and electrical cable, located in the zone to be reinforced. Retain the hardware and the p-clamp. See Figure 1.

1.9. Remove the threaded stud installed to maintain the pneumatic hoses located in zone 2 to be repaired (left and right side). See Figure 3.

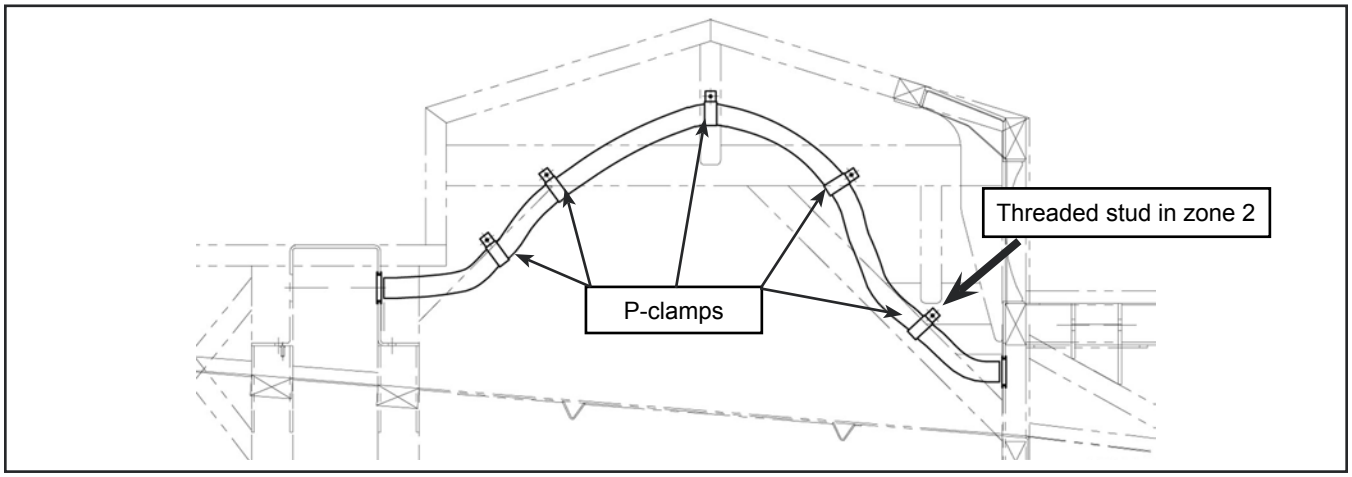

Figure 3 - Location of the P-Clamp to Remove and Threaded Stud in Zone 2

WARNING

In order to maintain the corrosion resistance of stainless steel, it is essential to protect it from contamination. Any particles of mild steel or other metal will leave a pitting that will corrode. Avoid projection of metal near stainless steel and make sure tools being used for stainless steel have not been used for any other metal.

WARNING

When sanding stainless steel, it is PROHIBITED to use the same type of material to sand different types of stainless material. This causes contamination of the stainless steel and promotes corrosion.

1.10. Clean the surface of zones 1, 2 and 3 to be reinforced. See Figure 4 for the location of the zones. The zones are identical inside both rear wheelhouses.

NOTE

Before the installation of the reinforcement plate and the repair of the crack, refer to and follow the entire WELDING PROCEDURE described in section 01: STAINLESS STEEL CHASSIS of the Nova LFS maintenance manual.

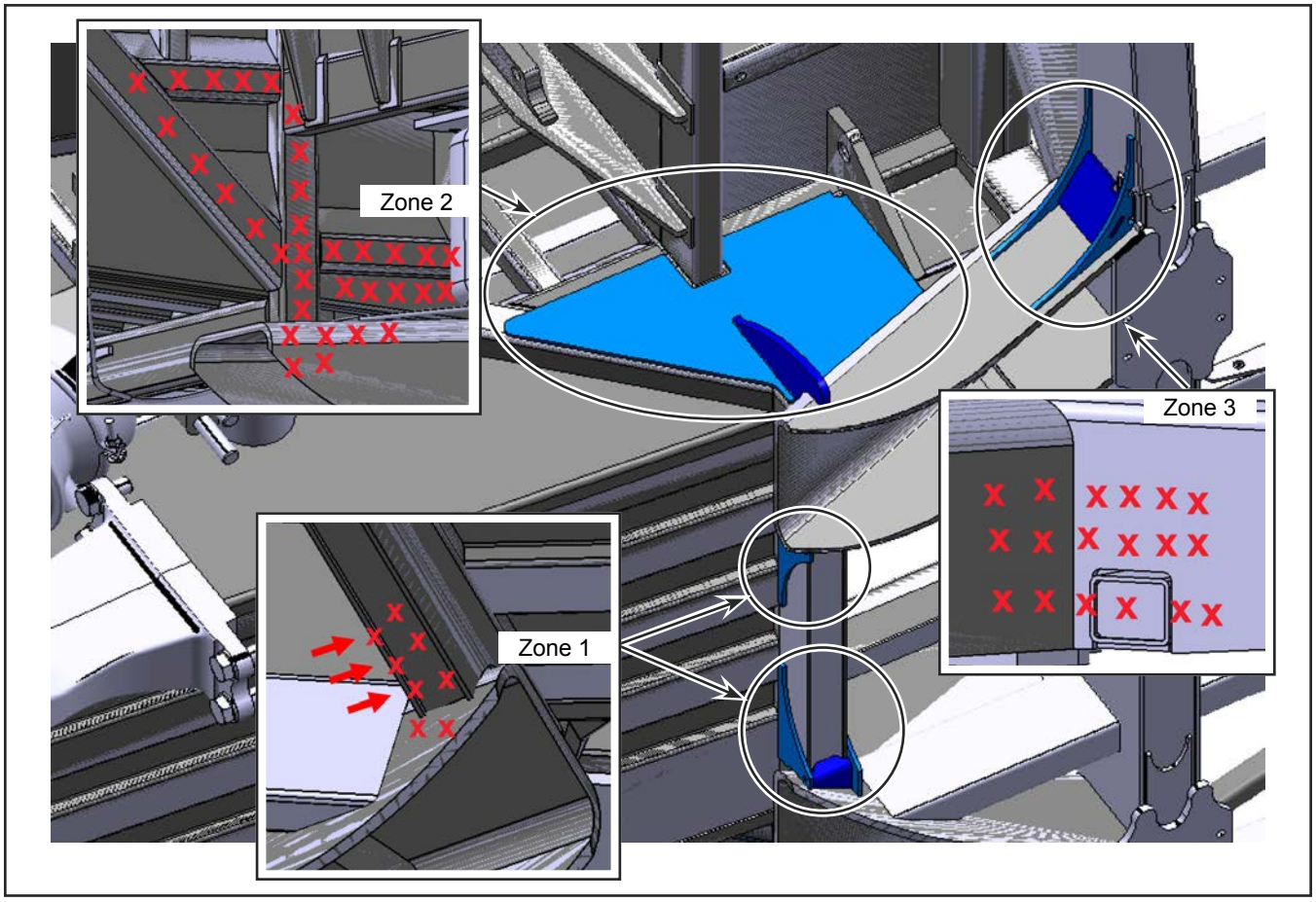

Figure 4 - View of the Zones to Reinforce with the Plates Installed

1.11. Clean the surface of the crack.

1.12. Drill a stop-hole 1/8 in. (3 mm) in diameter at both ends of the crack. If the crack ends at an extremity of a structural part, do not drill this end. See Figure 5.

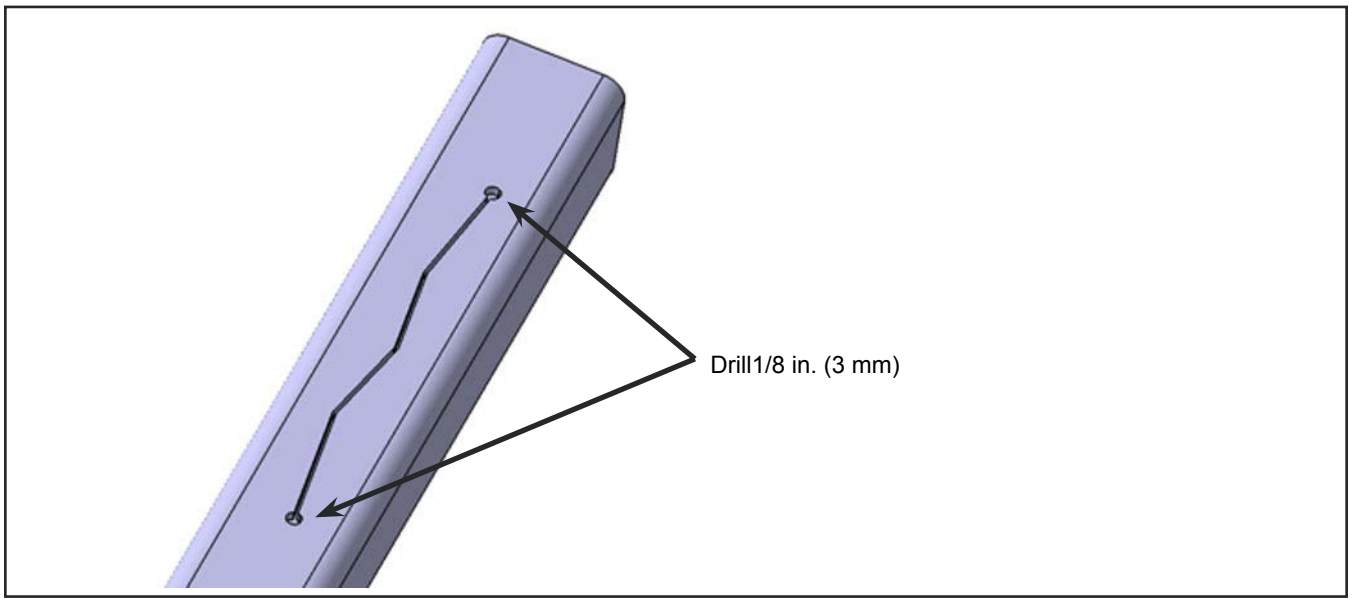

Figure 5 - Typical Crack Drilled at Both Extremities

1.13. Weld the crack starting at one of the stop-holes up to the center of the crack. Start a new weld from the other stop-hole or the edge of the part up to the end of the other welding beads.

1.14. If the crack is in one of the zones being reinforced, grind the welding beads until a flat plane surface is achieved.

1.15. Remove the plate located in zone 2 to be reinforced. See Figure 6.

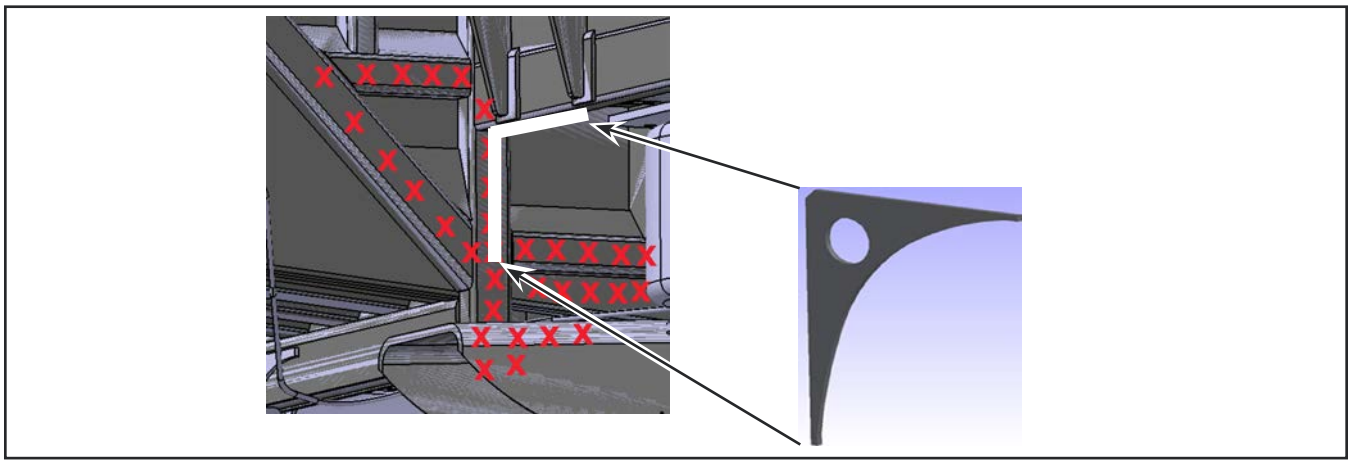

Figure 6 - Location of the Plate to Remove in Zone 2

1.16. Weld the plates N60857, N60858 and N60859 in zone 3. See Figure 7 for the position of the plates.

NOTE

All welding must be continuous. Grind the extremity of the gusset to ensure a better transition with the welding beads.

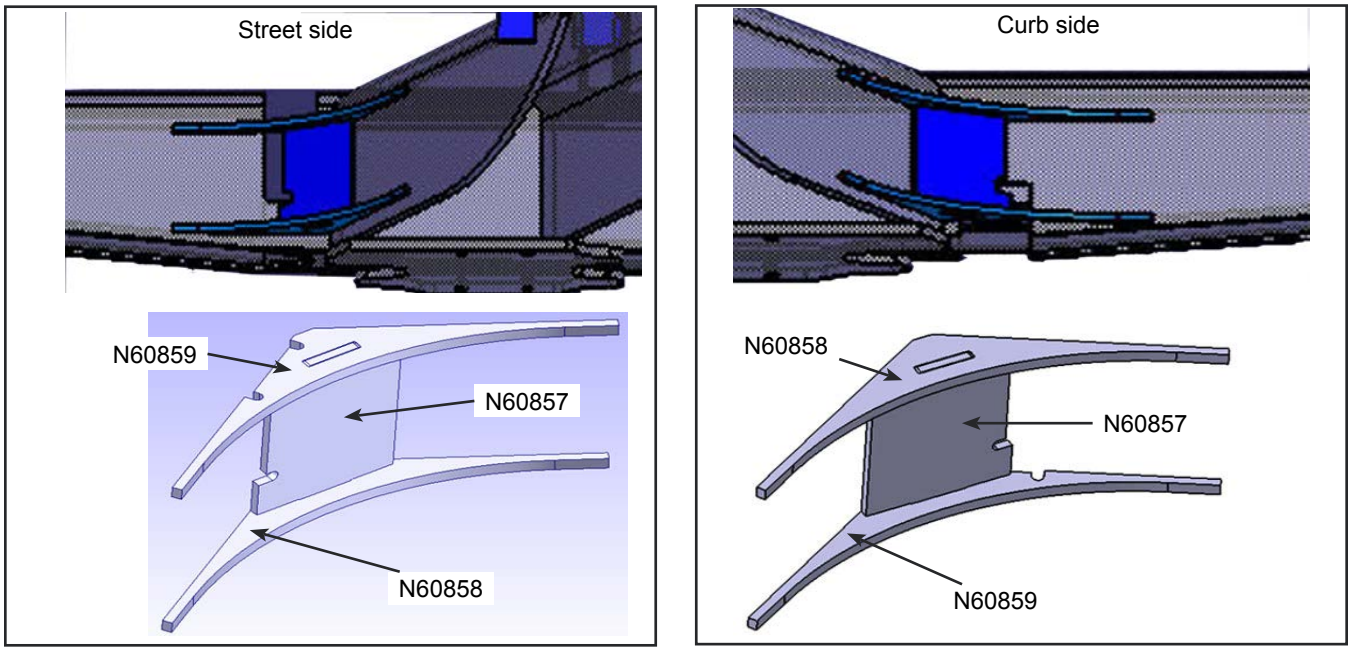

Figure 7 - Position of Plates in Zone 3

17. Weld the plates N60851, N60855 and N60856-1 in street side of zone 1 and plates N60851, N60855 and N60856-2 in curb side of zone 1. See Figure 8 for the position of the plates.

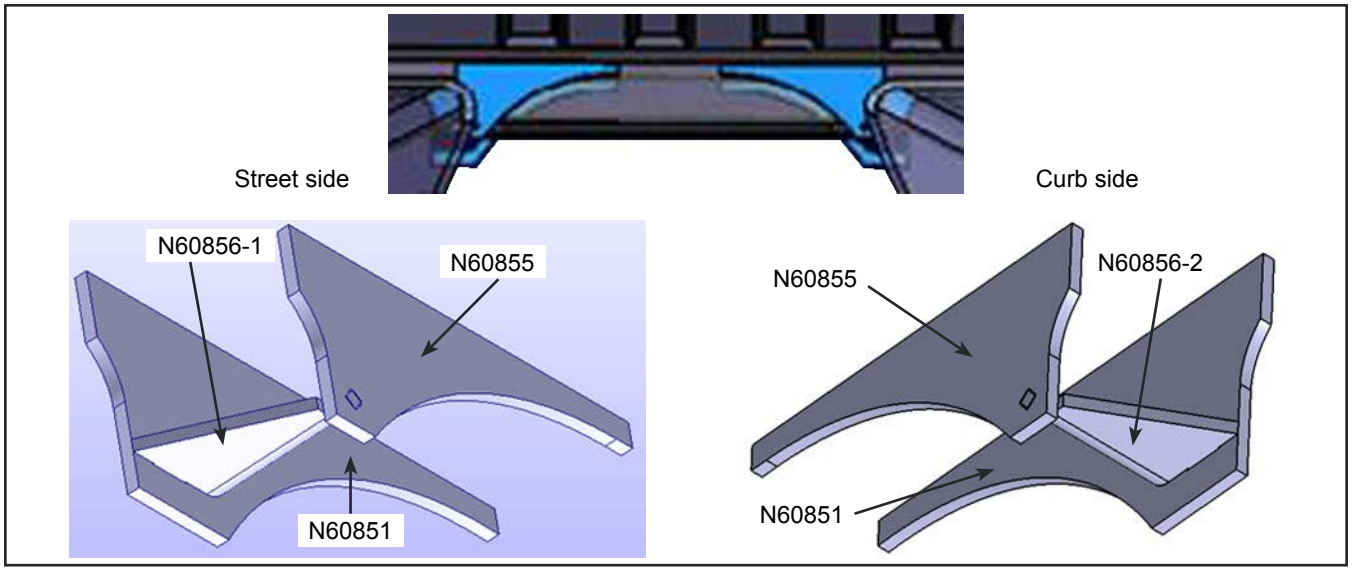

Figure 8 - Position of Plates in Zone 1

1.18. Weld the reinforcement plate N60850 and plate N60849 in zone 2. See Figure 9 for the position of the plates.

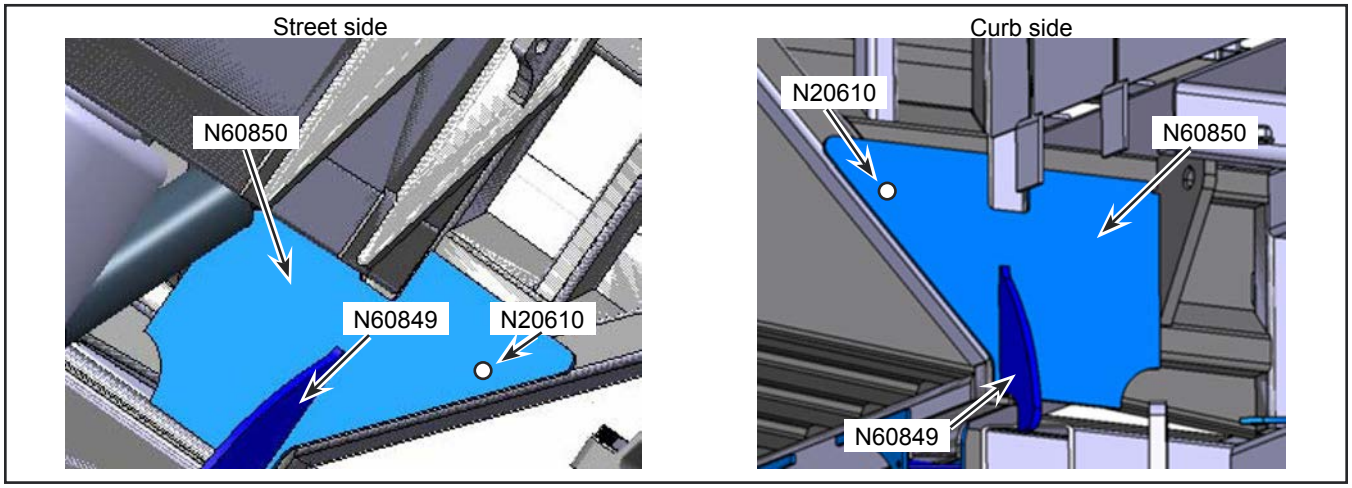

Figure 9 - Position of Plates in Zone 2

1.19. Weld the threaded stud N20610 on the new reinforcement plate N60850. See Figure 3.

1.20. Apply an 8 to 12 mil (203 to 305 microns) (wet thickness) coat of anticorrosive N49247 (Tectyl 3335) on the cleaned surface and the new plate, with an airless spray gun designed for the atomisation of fluids.

1.21. Take a reading of the freshly applied anticorrosive.

NOTE

Reading of the anticorrosive thickness must be performed using a wet film thickness gage at different locations of the treated area. If in a portion of the treated area the reading is below 8 mils (203 microns), reapply a thin coat of anticorrosive until minimal thickness is reached.

1.22. Wait until a thin film is formed on the surface of the applied anticorrosive. The anticorrosive must not stick to the tips of the fingers using a light touch.

1.23. Apply a second coat 8 to 12 mils (203 to 305 microns) (wet thickness) of anticorrosive N49247 (Tectyl 3335).

1.24. Wait until a thin film is formed on the second coat of anticorrosive.

1.25. Apply a third coat 8 to 12 mils (203 to 305 microns) (wet thickness) of anticorrosive N49247 (Tectyl 3335).

1.26. Anticorrosive must be allowed to dry for 2 1/2 hours.

1.27. Take a reading of the anticorrosive thickness with a wet film thickness gage:

a. If the readings indicate a thickness of 12 to 30 mils (305 à 762 micron), proceed directly to step 1.28. for the installation of the pneumatic hoses.

b. If one of the readings indicates a thickness of 30 mils (762 microns)or more, remove the excess thickness of anticorrosive with a scraper. Do not use any cleaning fluid.

c. If one of the readings indicates a thickness lower than 12 mils (305 microns), apply one or more thin coats of anticorrosive until the desired thickness is achieved.

1.28. Install the pneumatic hoses and electrical cable in the wheelhouse with the retained p-clamp and hardware. See Figure 3.

1.29. Install the air spring according to the **INSTALLATION** procedure describe in section **05: REAR AXLE** of the Nova LFS maintenance manual. Use the retained hardware.

1.30. Install the retained mud flaps with the retained hardware.

1.31. Install the brake system's pneumatic valve pack with the retained hardware.

1.32. Install the drive shaft on the transmission according to the **INSTALLATION** procedure described in section **10: DRIVE SHAFT** of the Nova LFS maintenance manual. Use the retained hardware.

1.33. Install the rear axle according to the **INSTALLATION** procedure described in section **05: REAR AXLE** of the Nova LFS maintenance manual.

1.34. Remove the jacking supports from beneath the vehicle.

1.35. Lower the vehicle.❖