NOVA BUS SERVICE BULLETIN BS5119E

REFERENCE:	Nova Bus Manuals
SECTION:	08: Braking system
RS Nº:	MQR 7621-1987
EFFECTIVE IN PROD.:	LD08 (2021AU)

APPLICATION DEADLINE: 2022DE31
CLAIM REFERENCE NUMBER: WB-5119

SUBJECT:	Braking system
JUSTIFICATION:	Brake chambers may fail and cause the drive axle brakes to overheat.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Replace the brake chambers.	Nova Bus	Nova Bus	3h
2	Replace damaged parts.	Nova Bus	Client*	see table on page 8

* The cost of the material will be reimbursed when claiming for this service document.

MATERIAL

QTY	PART Nº	REV.	DESCRIPTION
LEVEL 1			
1	N104241	–	MGM brake chamber, left
1	N104243	–	MGM brake chamber, right
LEVEL 2 (only if required*)			
4	N38045	–	ELBOW 90 ° MALE M22X1.5 FL45-8
2	N95702-06	B	Hose assembly (QR1-C to chambers) Parking brake for L958, L959, LA23, LB29, LB59, LB99
2	N95702-13	–	Hose assembly (QR1-C to chambers) Parking brake for LA73, LA76, LB78, LC32
2	N95702-10	B	Hose assembly (R14 to chambers), Service brake
1	N8902138	–	Brake lining kit (1 per axle)
1	N8895746	–	R14 Relay Valve
2	N8907581	–	ABS modulator
1	N8908326	–	Caliper LS
1	N8908325	–	Caliper RS
1	N8900426	–	Caliper LS
1	N8900425	–	Caliper RS
2	N8911106	–	Brake disc

Materials will be available within 73 days once your order has been placed. To order, please contact Prevost Parts :
For CANADA 1-800-463-8876 or prevostparts.commandes@volvo.com
For USA 1-800-621-5519 or function.prevostparts.orders@volvo.com.
Specify document number, quantity of parts required and shipping address.

* The material identified in Level 2 is to be ordered only for vehicles that meet the criteria defined in Level 1.

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED *	RETAINED	* Dispose of the unused parts and the defective parts in accordance with local environmental standards in effect.
	Yes	–	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2021JL20	Initial release	André Pelletier

APPROVED BY: Daniel Theriault

Digitally signed by Daniel Theriault
Date: 2021.07.22 12:20:40 -04'00'

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
New York City Transit - New York	L958	5439	5442	S92J9G9775533	S92J9G9775631	4
New York City Transit - New York	L959	5443	5443	S92J0H9776118	S92J0H9776118	1
New York City Transit - New York	LB59	5444	5484	S92J7H9776195	S92J6H9776379	41
New York City Transit - New York	LA23	5485	5530	S92J5J9776380	S92J6J9776517	46
New York City Transit - New York	LA73	8504	8507	L82J8J9776445	L82J8J9776476	4
New York City Transit - New York	LB29	5531	5566	S92J9J9776687	S92J6J9776873	36
New York City Transit - New York	LA76	8508	8633	L82J9J9776924	L82J8K9777144	125
New York City Transit - New York	LB99	5567	5602	S92J2J9776935	S92J5K9777000	36
New York City Transit - New York	LB78	8526	8526	L82J3K9776984	L82J3K9776984	1
New York City Transit - New York	LC32	8634	8754	L82JXK9777145	L82J5K9777277	121

WARNING

Follow your internal safety procedures.

PROCEDURE

1.1. Park the vehicle on an even surface with the transmission on neutral.

1.2. Set the master control switch to the ***stop*** position.

1.3. Disconnect the starting circuit on the control box at the rear of the vehicle and set the battery disconnect switch in the battery compartment to the ***off*** position.

1.4. Block the vehicle's wheels and release the parking brake

CAUTION

For information on hoisting and towing of the vehicle, see section *18: HOISTING AND TOWING* in the Nova Bus maintenance manual. Use appropriate hoisting equipment for your protection and to prevent damage to the vehicle.

1.5. Lift and secure the vehicle so that the wheels can be removed.

1.6. Remove the vehicle drive axle wheels.

1.7. Unscrew the release bolt until it comes out completely to "cage" the brake chambers.

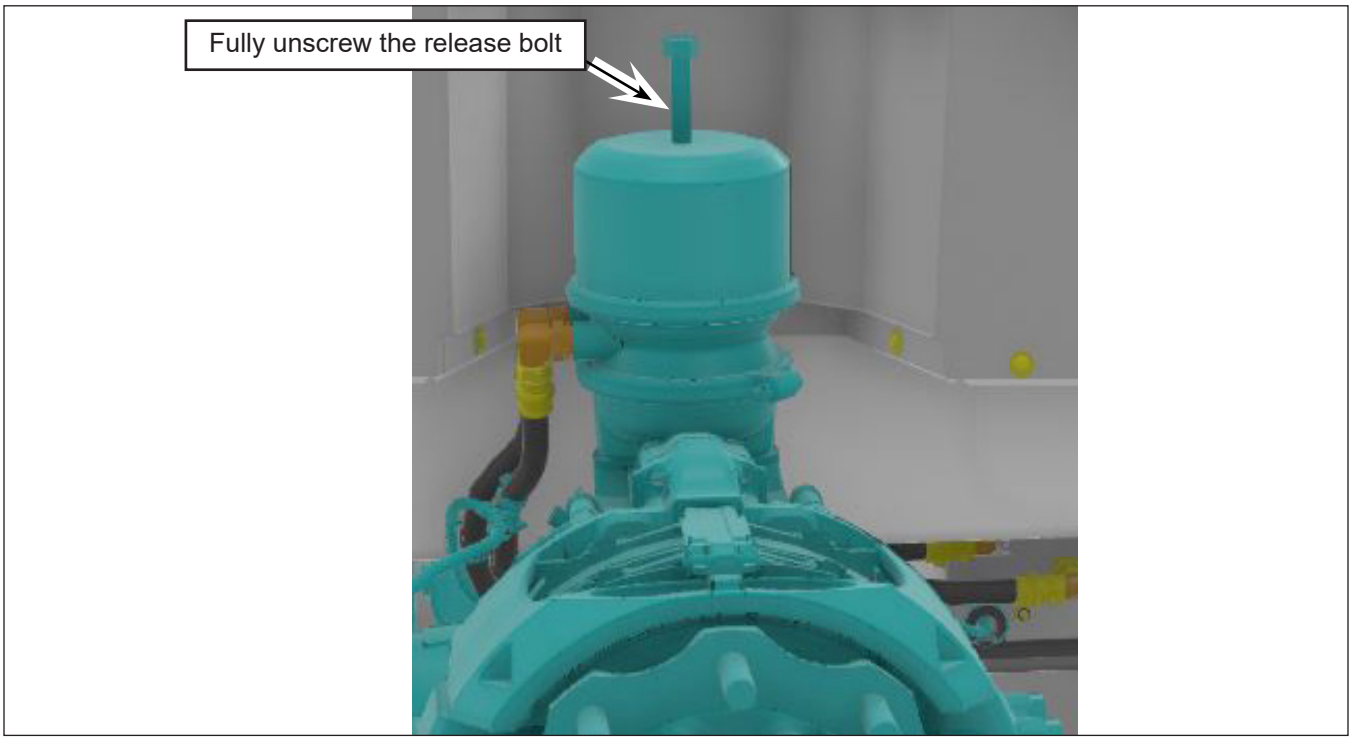

Figure 1 - Fully Unscrew the Release Bolt

CAUTION

Before attempting any work on pneumatic system components, and to prevent injury, release air pressure from the system by opening the discharge valves from all air reservoirs.

1.8. Completely drain air from all supply reservoirs. All hoses must be cleared of air.

1.9. Disconnect the service and parking brake hoses from the brake chambers. Make sure to mark the hoses positions for the reinstallation.

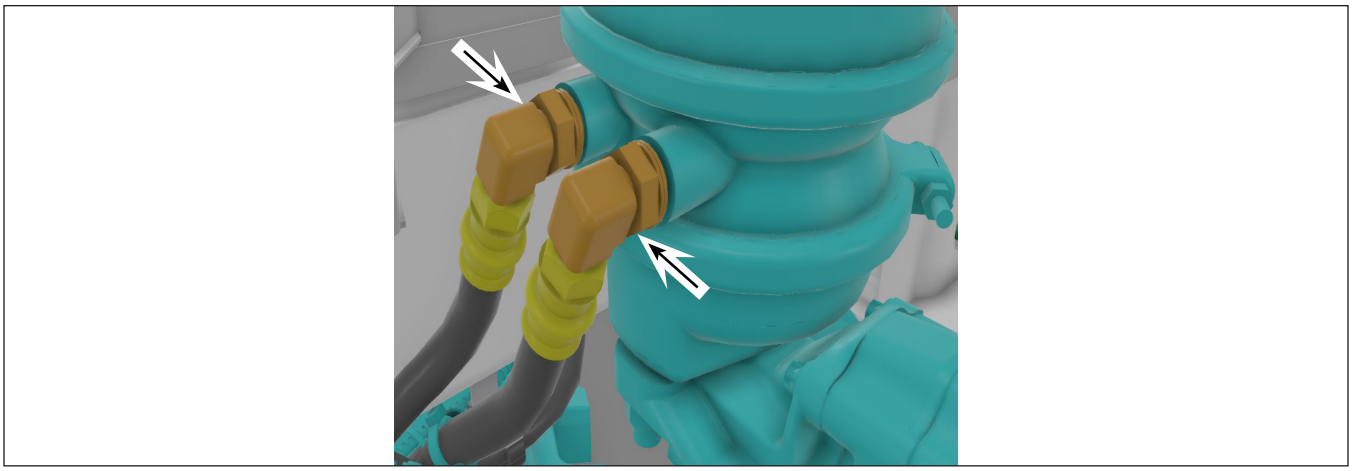

Figure 2 - Disconnect the Hoses

1.10. Remove both retaining nuts from the brake chamber.

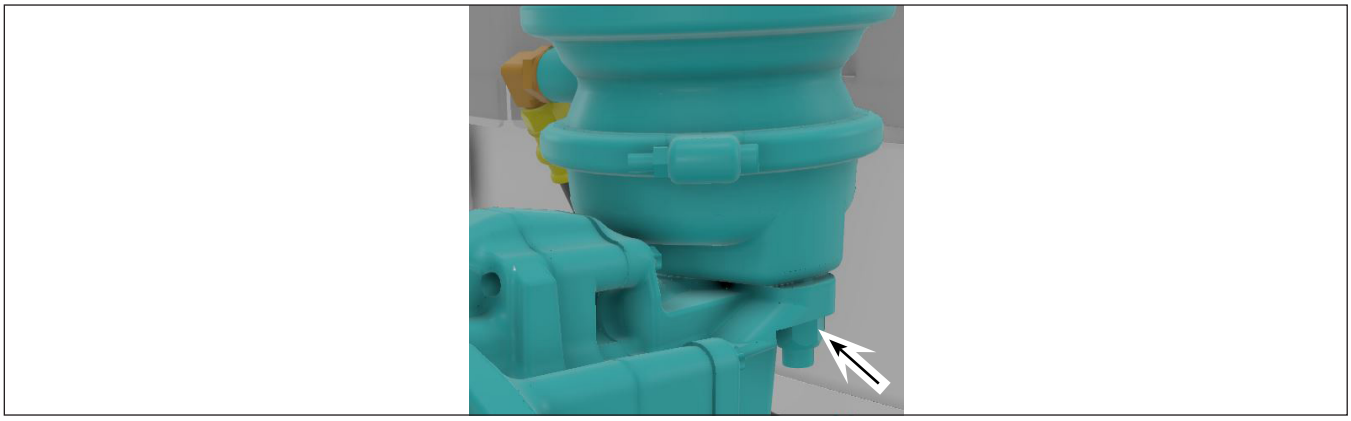

Figure 3 - Remove the Two Mounting Nuts

WARNING

Do not open a brake chamber. Disassembling the brake chamber can cause injuries because of the tension on its powerful spring. In order to prevent injuries, all discarded brake springs should be released safely.

1.11. Remove the brake chamber and dispose of the defective parts in accordance with local environmental standards in effect.

1.12. Before installing the new unit, the sealing surfaces must be cleaned. Apply white grease, such as Renolit HLT2, to the spherical cup in the lever before mounting the replacement unit. See the figure below.

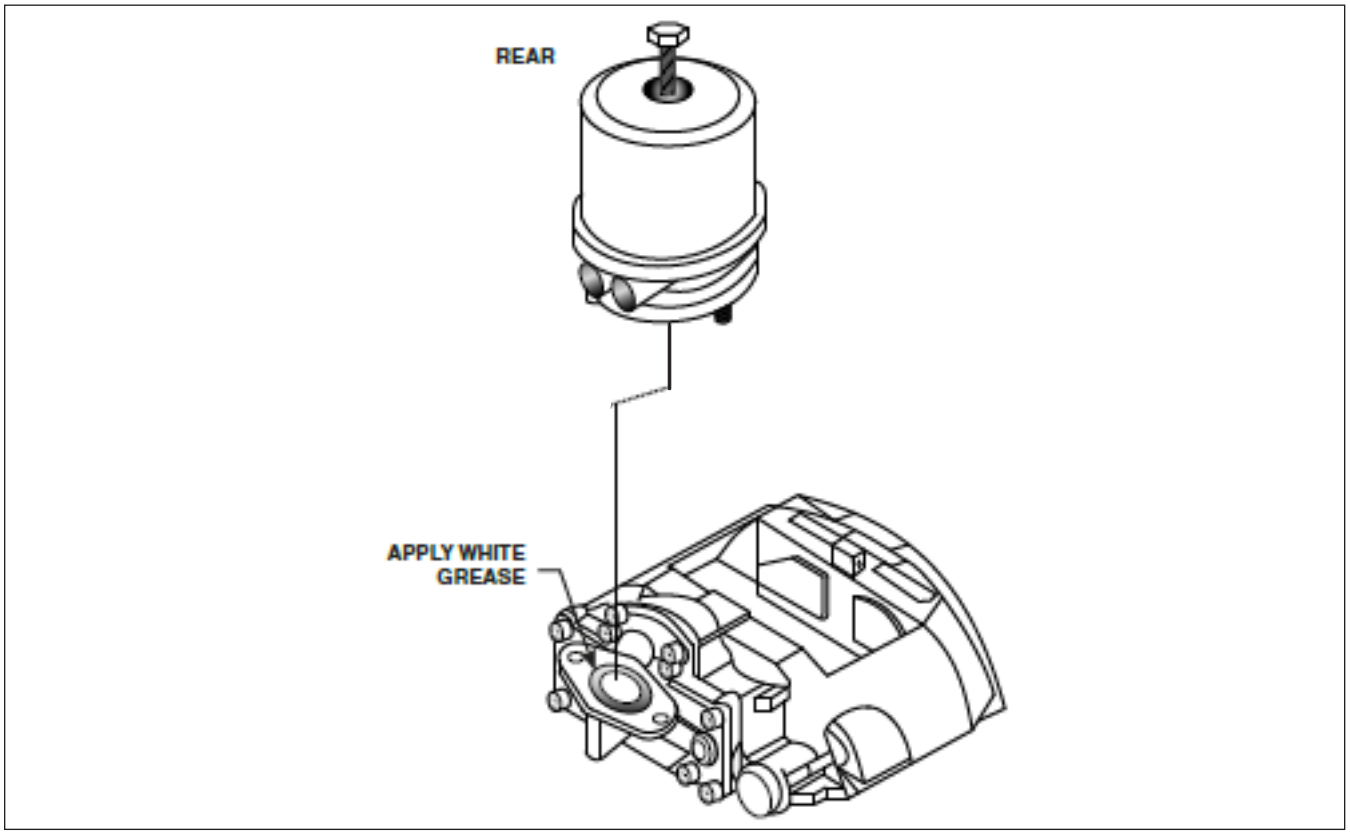

Figure 4 - Apply White Grease

CAUTION

Do not use grease containing molybdenum disulphate.

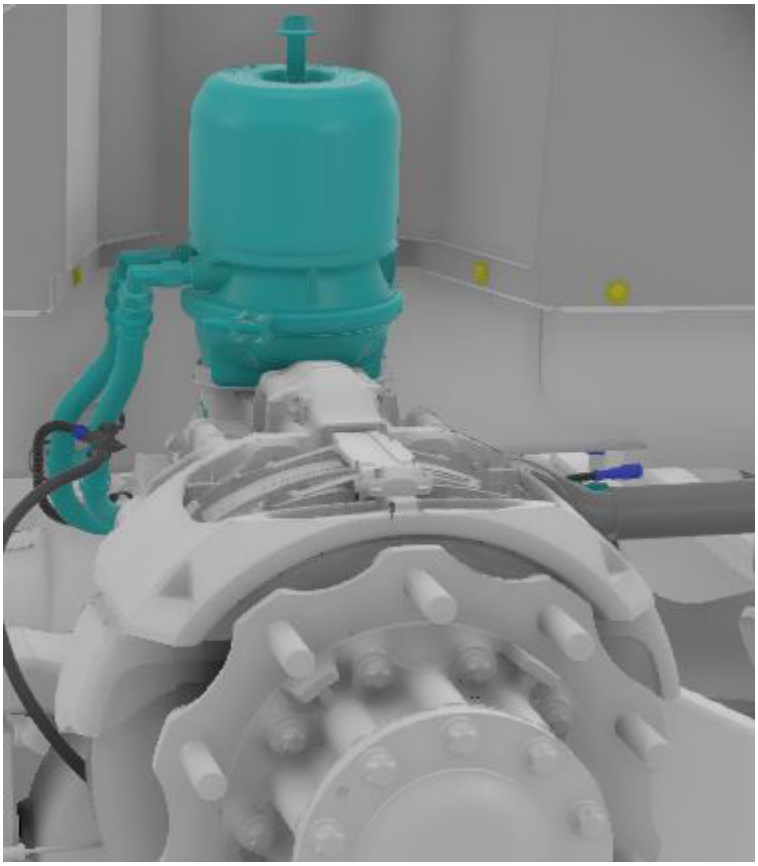

Figure 5 - New Chamber

1.13. Install the brake chamber with new nuts and torque to 139 ±6 lb-ft. Use hand tools only, do not use an impact wrench. Apply torque seal. See figure 3.

1.14. Tightened the new chamber release bolt using a 3/4" in. wrench. Use hand tools only, do not use an impact wrench. Torque to 55 ±5 lb-ft.

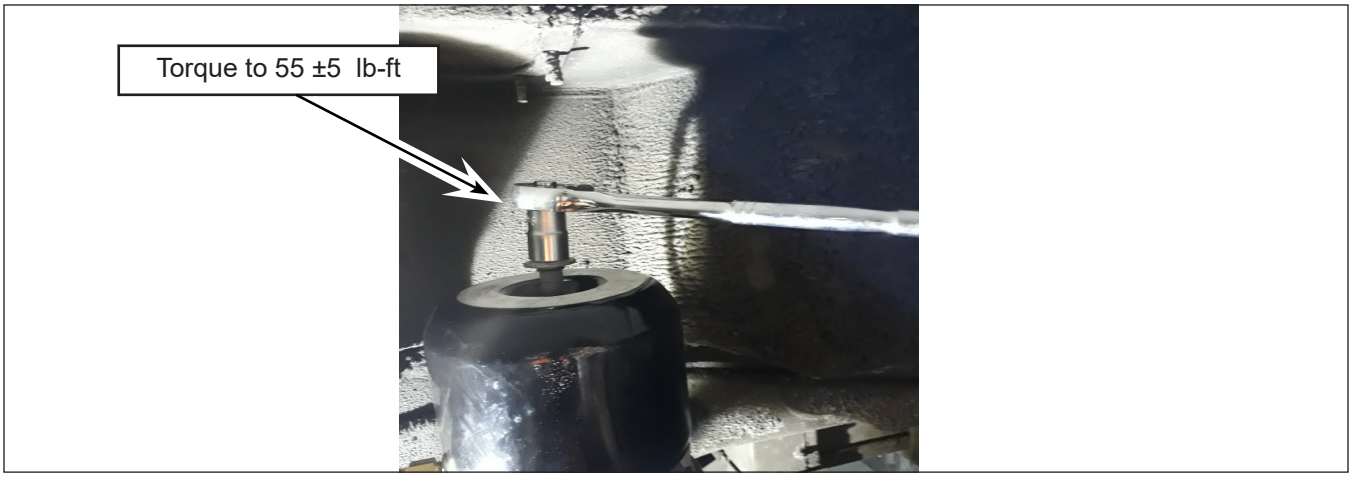

Figure 6 - Tightened the New Chamber Release Bolt

1.15. Apply Teflon to the new elbow fittings and adapters.
1.16. Screw the adaptor in the fitting or the elbow while firmly holding the hose-fitting nut with a wrench.
1.17. Install the hose to the brake chamber.
1.18. Make sure that there are no bends or kinks in the line.
1.19. The air hose fittings should be torqued to 25 to 30 lb-ft.
1.20. Ensure that the installation position for the fittings is correct.

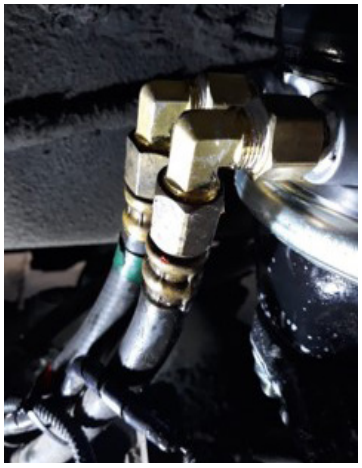

Figure 7 - Install and Position Adapters and Fittings

1.21. Repeat the steps for the chamber installation on the other side.
1.22. Start the vehicle and recharge the pneumatic system up to a minimum pressure of 100 psi (690 kPa).
1.23. Verify the pneumatic system's circuit with the parking brake released.
1.24. Apply soapy water and check for leaks, if a leak is found tightened the fittings or replace the affected parts as per the level 2 material list.

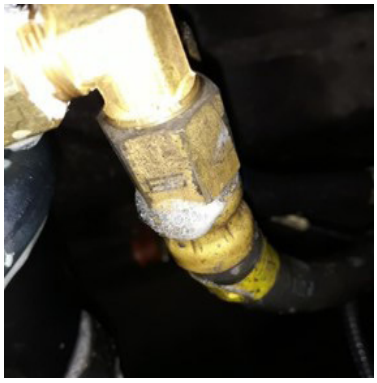

Figure 8 - Inspect for Leaks

NOTE

It is required to test the brakes after each brake change, or as required by local regulations.

1.25. If no leak is found, install the wheels as per your manual section 06: WHEELS AND TIRES and notify the shop to perform brake deceleration tests.
1.26. After the brake deceleration tests, the vehicle can return in service.

LEVEL 2: PARTS THAT MAY NEED TO BE REPLACED

PN	Description	Max Qty	Additional Labor in hour (each part)	Justification
N95702-06	Hose assembly (QR1-C to chambers)	2	0.4	Replace if leak detected. For L958, L959, LA23, LB29, LB59, LB99.
N95702-13	Hose assembly (QR1-C to chambers)	2	0.4	Replace if leak detected. For LA73, LA76, LB78, LC32.
N95702-10	Hose assembly (R14 to chambers)	2	0.4	Replace if leak detected
N8902138	Brake lining kit (1 per axle)	1	0.75	Replace if overheat occured
N8895746	R14 Relay Valve	1	1.5	Replace if leak detected
N8907581	ABS modulator	2	1.5	Replace if leak detected
N8908326	Caliper LS	1	2.0	Replace if overheat occured
N8908325	Caliper RS	1	2.0	Replace if overheat occured
N8900426	Caliper LS	1	2.0	Replace if overheat occured
N8900425	Caliper RS	1	2.0	Replace if overheat occured
N8911106	Brake disc	2	3.0	Replace if overheat occured

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