

REFERENCE:	Nova Bus Manuals
SECTION:	05: Rear Axle 08: Pneumatic System
RS N°:	MQR 7621-2870
EFFECTIVE IN PROD.:	N/A
TC RECALL N°:	2024-425
NHTSA RECALL N°:	24V-558

APPLICATION DEADLINES: N/A
CLAIM REFERENCE NUMBER: SR5619

SUBJECT:	Brake System - Brake Chamber - Rear Axle			
JUSTIFICATION:	Certain Knorr-Bremse brake chambers manufactured on certain dates may have a defect that can cause the drive axle brakes to overheat.			
LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Inspect the rear axle brake chamber.	Nova Bus	Nova Bus	30 min
2	Replace any brake chambers that may be defective.	Nova Bus	Nova Bus	2 h

MATERIAL REQUIRED PER VEHICLE

QTY	PART N°	REV.	DESCRIPTION
LEVEL 1			
-	-	-	-
LEVEL 2 (only if required**)			
1 or 2	19517948	-	57 mm Brake Chamber Knorr-Bremse and Nuts, Kit
2 or 4	N8950851	-	O-ring (2 per brake chamber)

Materials will be available within 27 days once your order has been placed.

To order, please contact novabus.parts@volvo.com

Or by phone for CANADA 1-800-771-6682, for USA 1-877-999-8808

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	2024NO01	Initial release	Annie St-Jacques

APPROVED BY:

NQF705003 VERSION 5

Danna Dupuis

Signature numérique de

Danna

Dupuis

Date : 2024.11.01 15:13:41 -04'00'

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CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Academy Busline - New Jersey	LA13	—	—			10
Airdrie Transit - Alberta	LB10	3718				1
Austin Texas - CMTA	LA17	5101	5107			7
Austin Texas - CMTA	LA18	5151	5158			8
Barrie Ontario - Metrolinx	LA31	1701	1705			5
Barrie Ontario - Metrolinx	LA49	1706	1713			8
British Columbia Transit - BCT	LA16	6000	6029			30
Bow Valley Transit Alberta	LA26	—				1
Bow Valley Transit Alberta	LA28	—	—			3
Bow Valley Transit Alberta	LB86	N/A	N/A			3
Brampton Ontario	LA20	1707	1713			7
Brampton Ontario	LA21	1701	1706			6
Brampton Ontario	LB01	1801	1817			17
Brampton Ontario	LB02	1818	1823			6
Brantford Ontario	LA03	10161	10612			2
Brantford Ontario	LB64	101808	101810			3
Buffalo New York - NFTA	LA24	1701	1716			16
Buffalo New York - NFTA	LA30	1717	1724			8
Buffalo New York - NFTA	LB21	1817	1824			8
Buffalo New York - NFTA	LB22	1801	1816			16
Burlington Ontario - Metrolinx	LB35	7033-18	7036-18			2
Calgary Transit Alberta	LB85	8355	8362			8
Calgary Transit Alberta	LB91	8363	8394			32
Cape Breton Nova Scotia	LA12	7092	7093			2
Cape Breton Nova Scotia	LB92	7112	7113			2
Capital Area Rural Transportation System (CARTS)	L980	—	—			3
Chicago Transit Authority - CTA	LB58	8325	8349			25
Cold Lake Alberta	LA99	5013	5014			2
Cornwall Transit - Metrolinx	LA53	—	—			3
Cornwall Transit - Metrolinx	LB55	—				1
Duke University - North Carolina	LA38	—				1
Duke University - North Carolina	LA39	—				1
Duke University - North Carolina	LB08	—	—			3
Durham Region Transit Ontario Metrolinx	L996	8560	8563			4
Durham Region Transit Ontario Metrolinx	LA19	8564	8565			2
Durham Region Transit Ontario Metrolinx	LA50	8566	8578			13
Durham Region Transit Ontario Metrolinx	LB11	8579	8589			11
Durham Region Transit Ontario Metrolinx	LB36	6100	6112			13
Durham Region Transit Ontario Metrolinx	LB60	7100	7103			4
Fredericton New Brunswick	LA15	8171	8174			4
Fredericton New Brunswick	LA33	8181	8184			4
Guelph Ontario	LA54	252	275			24
Halifax Nova Scotia	LA11	1208	1236			29

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Halifax Nova Scotia	LA14	1237				1
Halifax Nova Scotia	LA27	1238	1276			39
Hamilton Ontario - Metrolinx	LA05	1633	1643			11
Hamilton Ontario - Metrolinx	LA63	1701	1719			30
Houston Texas - Metro	L982	1591	1599			9
Houston Texas - Metro	LB63	2050				1
Houston Texas - Metro	LB72	2051	2069			19
Kingston Ontario - Metrolinx	LA59	1803	1818			11
Kingston Ontario - Metrolinx	LA60	1825	1837			6
Kingston Ontario - Metrolinx	LB34	1821	1841			5
Lethbridge Alberta	L997	181	186			6
Lethbridge Alberta	LA91	189	192			4
Milton Ontario - Metrolinx	LA51	1801	1803			3
Milton Ontario - Metrolinx	LB33	1804				1
Mississauga Ontario	LA64	1730	1766			37
Mississauga Ontario	LA65	1770	1799			30
Mississauga Ontario	LB12	1801	1812			12
Moncton New Brunswick (Codiac)	LA06	—	—			9
Moncton New Brunswick (Codiac)	LA42	—	—			11
Moncton New Brunswick (Codiac)	LA58	—				1
Moncton New Brunswick (Codiac)	LB84	—				1
Niagara Transit Commission - Metrolinx	L987	1601	1604			4
Niagara Transit Commission - Metrolinx	LA52	—	—			2
Niagara Transit Commission - Metrolinx	LA62	1801	1813			13
Niagara Transit Commission - Metrolinx	LA93	—				1
Niagara Transit Commission - Metrolinx	LA97	1805	1808			4
Niagara Transit Commission - Metrolinx	LA98	1809	1810			2
Niagara Transit Commission - Metrolinx	LB06	1860	1862			3
Niagara Transit Commission - Metrolinx	LB09	1740				1
Niagara Transit Commission - Metrolinx	LB13	1811				1
North Bay Ontario - Metrolinx	LB48	788	790			3
Oakville Ontario - Metrolinx	LA55	—	—			6
Oakville Ontario	LB93	—	—			5
Orillia Ontario - Metrolinx	LA61	1825	1826			2
Peterborough Ontario	LA41	7217	7617			5
Red Deer Alberta	L924	10112	10147			4
Red Deer Alberta	LB25	10074	10084			10
Regina Saskatchewan	LA44	814	829			16
Regina Saskatchewan	LA66	833	836			4
Regina Saskatchewan	LB16	830				1
Regina Saskatchewan	LB17	831				1
Regina Saskatchewan	LB18	832				1
Rochester New York - RTS	LB76	1901				1
San Antonio Texas - VIA	LA10	422	446			25

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
San Antonio Texas - VIA	LA22	447	555			109
San Antonio Texas - VIA	LA34	556	580			25
San Antonio Texas - VIA	LA35	581	691			111
San Antonio Texas - VIA	LB26	692	735			44
San Antonio Texas - VIA	LB43	970	987			18
Sarnia Ontario - Metrolinx	LA36	171	172			2
Saskatoon Saskatchewan	LA29	1701	1711			11
Saskatoon Saskatchewan	LA92	1718	1732			15
Saskatoon Saskatchewan	LB73	1901	1907			7
St. John New Brunswick	LB05	38888	38899			12
Stratford Ontario	LB19	—	—			2
Sudbury Ontario	L994	861	865			5
Sudbury Ontario	LA46	871	873			3
Sudbury Ontario	LB27	881	883			3
Thunder Bay Ontario - Metrolinx	LA01	—	—			2
Thunder Bay Ontario - Metrolinx	LA57	—	—			12
Timmins Ontario	L995	—				1
Timmins Ontario	LB07	—	—			2
Toronto Transit Commission Ontario - TTC	L937	8608	8617			10
Toronto Transit Commission Ontario - TTC	L998	8620	8716			97
Toronto Transit Commission Ontario - TTC	LA67	8720	8919			200
Toronto Transit Commission Ontario - TTC	LA68	8920	8964			45
Toronto Transit Commission Ontario - TTC	LA69	9200	9239			40
Toronto Transit Commission Ontario - TTC	LB28	3180	3329			150
Toronto Transit Commission Ontario - TTC	LB45	3100	3179			80
Toronto Transit Commission Ontario - TTC	LB57	3455	3569			103
Toronto Transit Commission Ontario - TTC	LB62	3400				1
Toronto Transit Commission Ontario - TTC	LB75	3330	3369			40
Toronto Transit Commission Ontario - TTC	LB79	3401	3454			54
University of Alabama	LA02	7034	7037			4
Vancouver Airport Authority - YVR	L856	705	706			2
Whitehorse Yukon	LA04	—	—			2
Whitehorse Yukon	LB03	—	—			2
Windsor Ontario - Metrolinx	LA56	578	601			24
Windsor Ontario - Metrolinx	LB24	8025	8026			2
Woodstock Ontario	LA08	17-08				1
Woodstock Ontario	LB04	18-04	18-14			2
York Regional Transit Ontario - Metrolinx	L964	1770	1774			5
York Regional Transit Ontario - Metrolinx	L967	1615	1621			7
York Regional Transit Ontario - Metrolinx	LA07	1701	1715			15

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

PROCEDURE

LEVEL 1: INSPECT INSTALLED BRAKE CHAMBERS

- 1.1. Park the vehicle on an even surface with the transmission on neutral.
- 1.2. Apply the parking brake and set the master control switch to the **stop** position.
- 1.3. Set the battery disconnect switch in the battery compartment to the **off** position.
- 1.4. Lift the vehicle.

**NOTE**

For information on lifting and towing the vehicle, see *Section 18: Lifting and Towing of your Nova LFS Maintenance Manual*.

- 1.5. Remove the wheels from the drive axle.
- 1.6. Locate the 2 brake chambers installed on the drive axle (street side and curb side). Identify the stamped model number (Figure 1) and follow the action to take as indicated in Table 1.

Model Number	Model	Action to Take
K038830N00	57 mm	Continue with the Level 1 inspection procedure.
K038830N08	57 mm	Continue with the Level 1 inspection procedure.
K234368N00	64 mm	The brake chamber does not need to be replaced. If both chambers do not need to be replaced, continue with step 1.8 of Level 1 procedure.

Table 1 - Brake Chamber Model Identification



Figure 1 - Stamped Informations on the Brake Chamber

1.7. On both brake chambers, identify the stamped manufacturing date code and follow the action indicated in Table 2.

Date Code	Action to Take
From 16361 to 18455	The brake chamber needs to be replaced. Continue with the Level 2 replacement procedure.
From 20461 to 20525	The brake chamber needs to be replaced. Continue with the Level 2 replacement procedure.
All Other Date Code	The brake chamber does not need to be replaced. If both chambers do not need to be replaced, continue with the Level 1 procedure.

Table 2 - Brake Chamber Manufacturing Date Code Information

1.8. Install the wheels.



For information on wheels and tires, see Section 06: Wheels and Tires of your Nova LFS Maintenance Manual.

1.9. Lower the vehicle.

1.10. The vehicle can be returned to service.

LEVEL 2: REPLACE THE BRAKE CHAMBERS



CAUTION

Both brake chambers on the same axle **MUST** be of the same model (57 mm or 64 mm).



NOTE

Replace only the brake chamber found to be defective.

Depending on the situation, one or both brake chambers may need replacing.

BRAKE CHAMBER REMOVAL

- 2.1. Release the parking brake.
- 2.2. Completely remove the bolt on the top of the brake chamber (Figure 2).
- 2.3. Bleed the air from the air system.



CAUTION

Completely remove air pressure from the system before disconnecting any components. Pressurized air can cause serious personal injury.

For information of bleeding the air system, see *Section 08: Pneumatic System* of your Nova LFS Maintenance Manual.

- 2.4. Locate the 2 air hoses on the brake chamber and note their position and orientation. Disconnect the hoses to this end only.
- 2.5. Unscrew and remove the two 90° fittings installed on the brake chamber. Retain the fittings.
- 2.6. Unscrew the nuts under the brake chamber and remove the chamber from the vehicle. Discard the brake chamber and its nuts.
- 2.7. On the brake caliper lever, clean any dirt or dust from the brake chamber mounting surface (Figure 3).

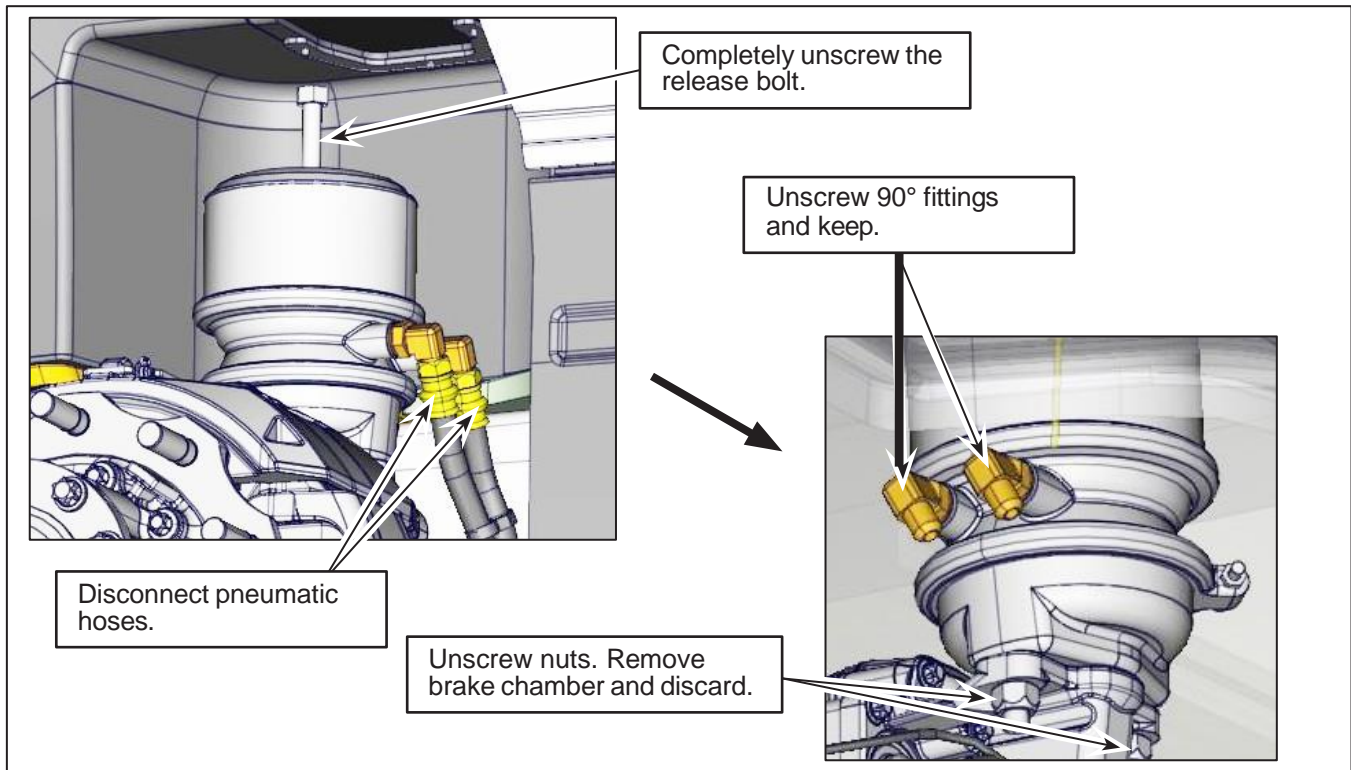


Figure 2 - Brake Chamber Street Side

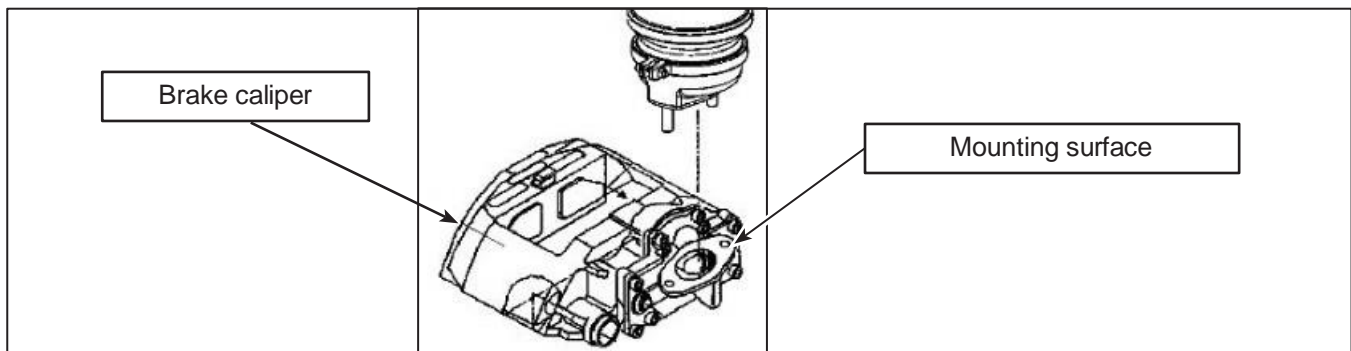


Figure 3 - Surface Mount on the Brake Caliper

NEW BRAKE CHAMBER INSTALLATION

- 2.8. Take a new 57 mm brake chamber p/n: 19517948. Check its date code against Table 2 to determine if it is compliant. If it is not, discard the brake chamber and take a new one.
- 2.9. On the concave part of the mounting surface for the brake chamber, apply Renolit HLT2 white grease or an equivalent (Figure 3). **Note: do not use grease containing molybdenum disulfide.**

- 2.10. Install the new brake chamber in place with the new nuts provided in the kit and tighten to 144 ± 11 lb-ft (195 ± 15 N•m) (Figure 5). Apply torque seal. **Note: do not use impact tools, only hand tools.**
- 2.11. Tighten the release bolt of the new brake chamber using a **hand wrench** to a torque of 44 ± 4 lb-ft (60 ± 5 N•m) (Figure 4). Apply torque seal.
- 2.12. For the two 90° fittings previously removed, remove their O-ring and discard them. Install a new O-ring N8950851 on the fittings.
- 2.13. Install the two 90° fittings on the new brake chamber, respecting the angle of the original installation and tighten to 30 ± 4 lb-ft (40 ± 5 N•m) (Figure 5). Apply torque seal.

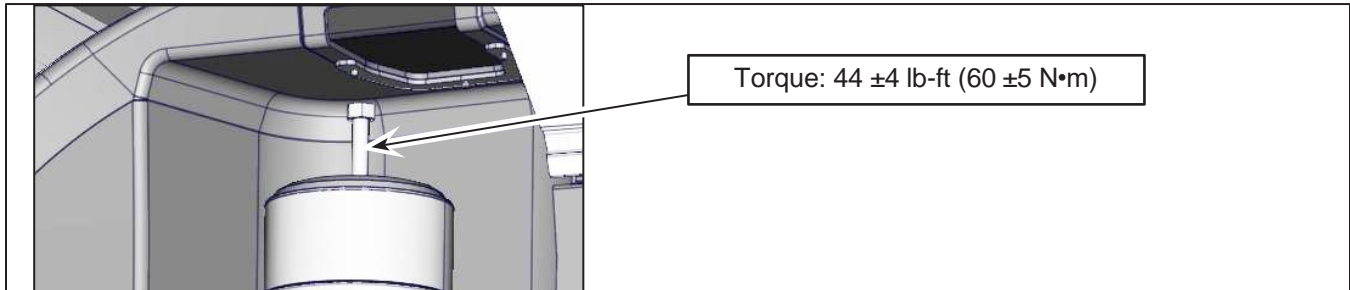


Figure 4 - Screw the Release Bolt

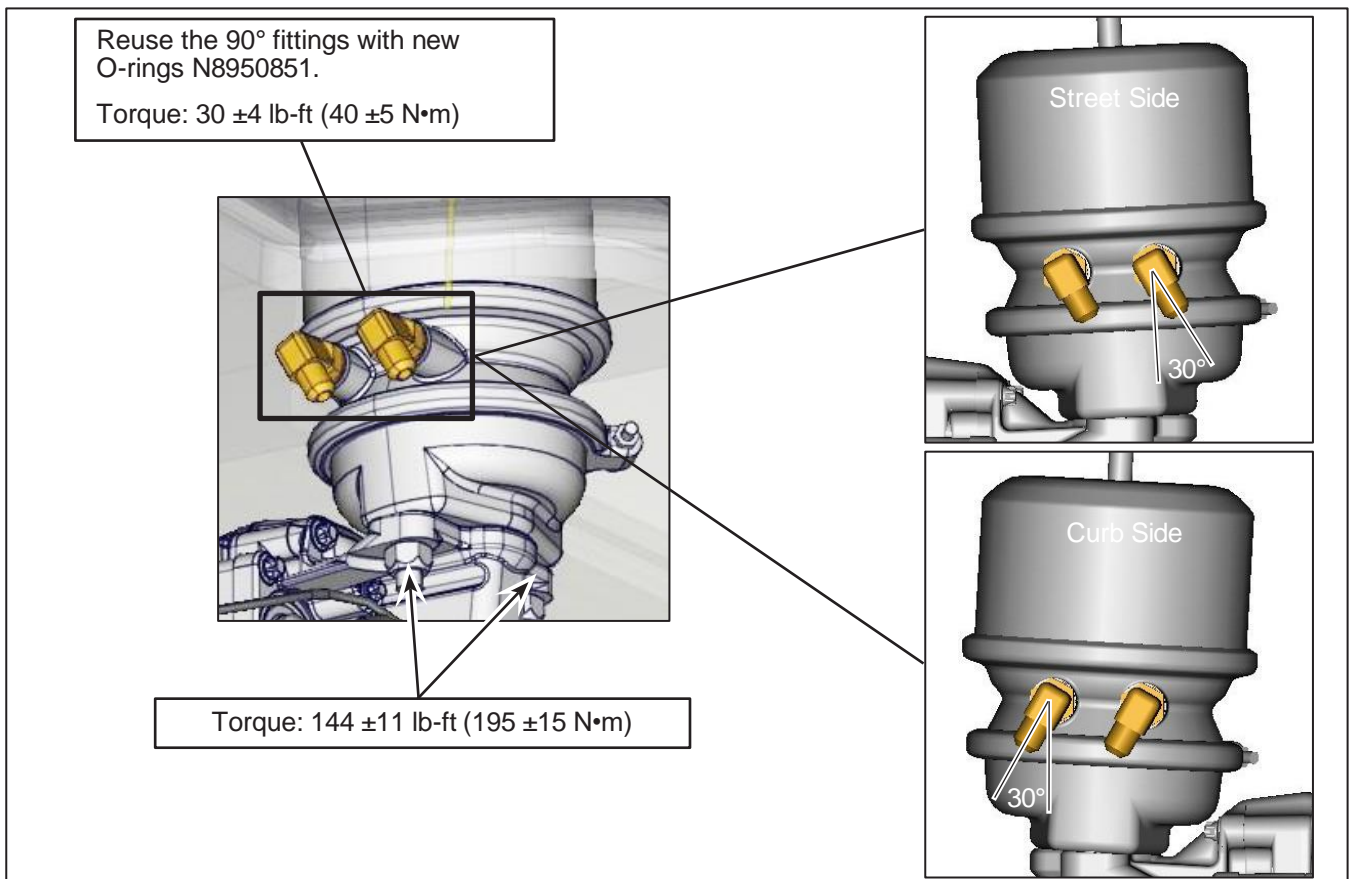


Figure 5 - Brake Chambers and 90° Fittings Installation

- 2.14. Connect the air hoses to the brake chamber fittings. Check for kinks or misbends and tighten to 26.5 ± 1.5 lb-ft (36 ± 2 N•m) (Figure 6).
- 2.15. Repeat the installation steps for the second brake chamber to be replaced if applicable.

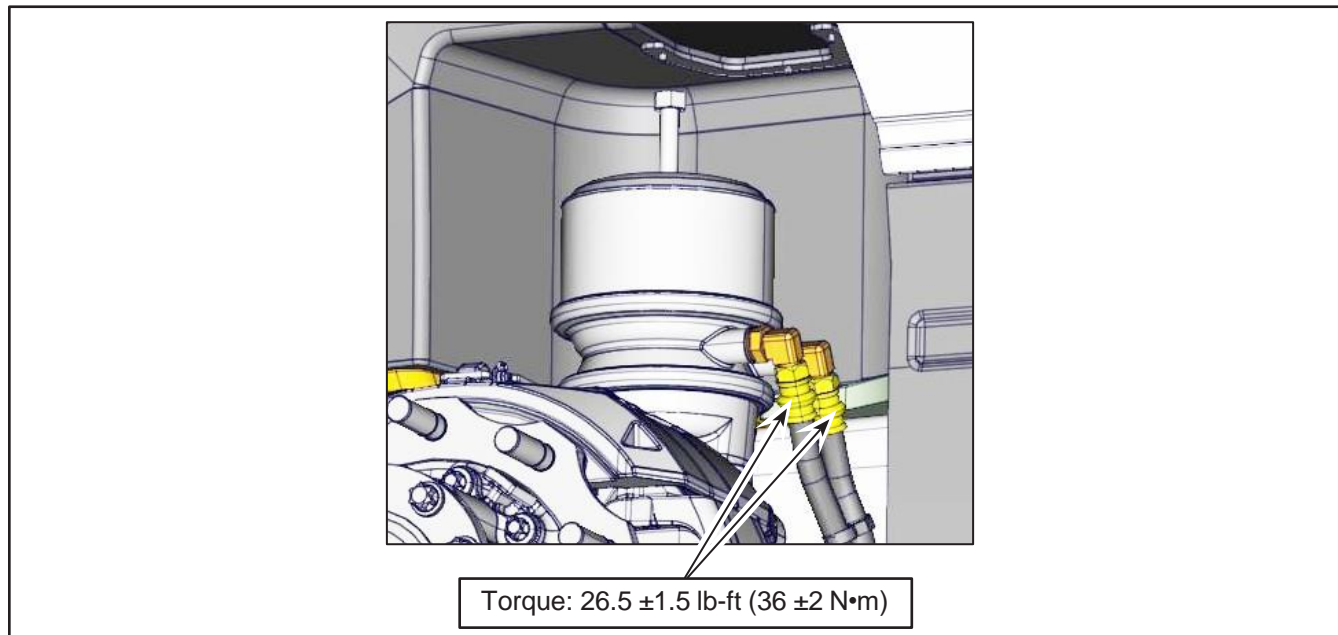


Figure 6 - Pneumatic Hoses Connections

CHECK AND DECELERATION TESTS

- 2.16. Start the vehicle and allow the air system pressure to build up.
- 2.17. Check the air connections made for any air leaks. **Note: do the checks with the parking brake released.**
- 2.18. Reinstall the wheels.



For information on wheels and tire, see Section 06: Wheels and Tires of your Nova LFS Maintenance Manual.

- 2.19. Perform the required deceleration tests.



For information on the brake deceleration test, see Section 08: Braking System of your Nova LFS Maintenance Manual.

- 2.20. The vehicle can be returned to service.