

REFERENCE:	Nova Bus Manuals
SECTION:	09: Engine Cooling
RS N°:	MQR 7621-1421
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE:N/A

SUBJECT:	Hydraulic filter assembly
JUSTIFICATION:	N64662 PAL hydraulic filter head discontinued and replaced by hydraulic filter head N8905938 and filter N8905939

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Install adapter kit to allow installation of the new hydraulic filter head N8905938	Client	Client	1h
2	–	–	–	–

MATERIAL

QTY	PART N°	REV.	DESCRIPTION–	REPLACES PART N°
LEVEL 1				
1	N8905966	–	Hydraulic filter head replacement kit	N64662
1	N8905945	–	Braided hydraulic hose 15"	–
1	N79775	C	Dual bracket	–
1	0443990	–	Reducer fitting	–
1	T0647	–	Bulkhead fitting	–
2	0657592	–	Connector fitting NTA-6, NPT-4	–
1	9409943	–	T-fitting	–
1	0657590	–	Connector fitting NTA-6, NPT-5	–
2 ft	N17208	–	3/8" Nylon tube	–
1	N60839	–	Gasket	–
1	N8885935	–	Viton ORS O'ring	–
3	N507303	–	Viton ORFS O'ring	–
3	N66029	–	M8 X 25 Allen Bolt	–
1	N64552	–	Remote Breather	–
5 ft	8860102	–	1/4" Nylon tube	–
1	N64549	–	Bulkhead quick connect fitting	–
1	N64587	–	Remote breather support bracket	–
1	N64545	–	Quick connect fitting	–
LEVEL 2				
–	–	–	–	–

Materials will be available within 70 days once your order has been placed. 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	* 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	2017NO14	Initial release	Luc Carignan

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Belleville Transit - Ontario	L598	—	—	L82U5A3000581	L82U7A3000582	2
Calgary Transit - Alberta	L601	8101	8114	L82U5A4000099	L82U4A4000112	14
Calgary Transit - Alberta	L607	8115	8130	L82UXA3000477	L82U6A3000492	16
Calgary Transit - Alberta	L615	8131	8158	L82U1B4000019	L82U4B4000046	28
Calgary Transit - Alberta	L624	—	—	L82U4B4000077	L82U6B4000078	2
Calgary Transit - Alberta	L624	—	—	L82U4B4000077	L82U6B4000078	2
CT Transit - Connecticut	L554	1041	1065	S92U1A4000139	S92U0A4000164	25
Guelph - Ontario	L579	221	224	L82UXA3000401	L82U5A3000404	4
Halifax - Nova Scotia	L558	717	731	S92UXA3000293	S92U6A3000307	15
Halifax - Nova Scotia	L613	732	741	S92UXB3000019	S92UXB3000028	10
Kings Transit - Nova Scotia	L581	—	—	L82U2B3000054	L82U2B3000054	1
Kings Transit - Nova Scotia	L581	—	—	L82U2B3000054	L82U2B3000054	1
Moncton (Codiac) - New Brunswick	L569	—	—	L82U4B4000001	L82U4B4000001	1
Moncton (Codiac) - New Brunswick	L570	—	—	L82U6B4000002	L82U6B4000002	1
New York City Transit - New York	L608	8000	8014	L82U6B4000047	L82U0B4000061	15
New York City Transit - New York	L620	8015	8074	L82U2B4000062	L82U7B4000123	60
Saskatoon - Saskatchewan	L568	—	—	S92U9B3000013	S92U9B3000013	1
Strathcona County Transit - Alberta	L580	2011	2023	L82U1A3000464	L82U8A3000476	13
Thunder Bay - Ontario	L614	—	—	L82UXB3000061	L82U3B3000063	3
York Regional Transit - Ontario	L562	1080	1082	S92U2A3000420	S92U6A3000422	3
York Regional Transit - Ontario	L572	1083	1094	S92U3A3000569	S92U2A3000580	12

**WARNING**

Follow your internal safety procedures.

PROCEDURE

**NOTE**

Dirty hydraulic systems can quickly clog a new filter element, making cleanliness vital. It is important to remove any dust from the external surfaces of the filter assembly, and to plug all piping to prevent any dust or dirt from entering the system. Hydraulic fluid should always be filtered through at least an ISO 16/13/04 rated filter before the system is topped up with fluid. When the pump, motor, steering gear housing, hydraulic tank, filter or hydraulic lines have been removed or dismantled for replacement or complete maintenance, the hydraulic system should be drained before it goes back into operation. It is then recommended to perform a dialysis.

- 1.1. Remove the right rear lower corner panel from the vehicle. Retain the panel and hardware. See Figure 1.
- 1.2. Place a container under the hydraulic tank.
- 1.3. Remove the drain plug at the bottom of the hydraulic tank. Clean and retain the drain plug. See Figure 1.
- 1.4. Drain the hydraulic oil.
- 1.5. Install the clean drain plug at the bottom of the hydraulic tank. See Figure 1.
- 1.6. Clean the top of the hydraulic tank with a dry, clean, lint-free cloth.

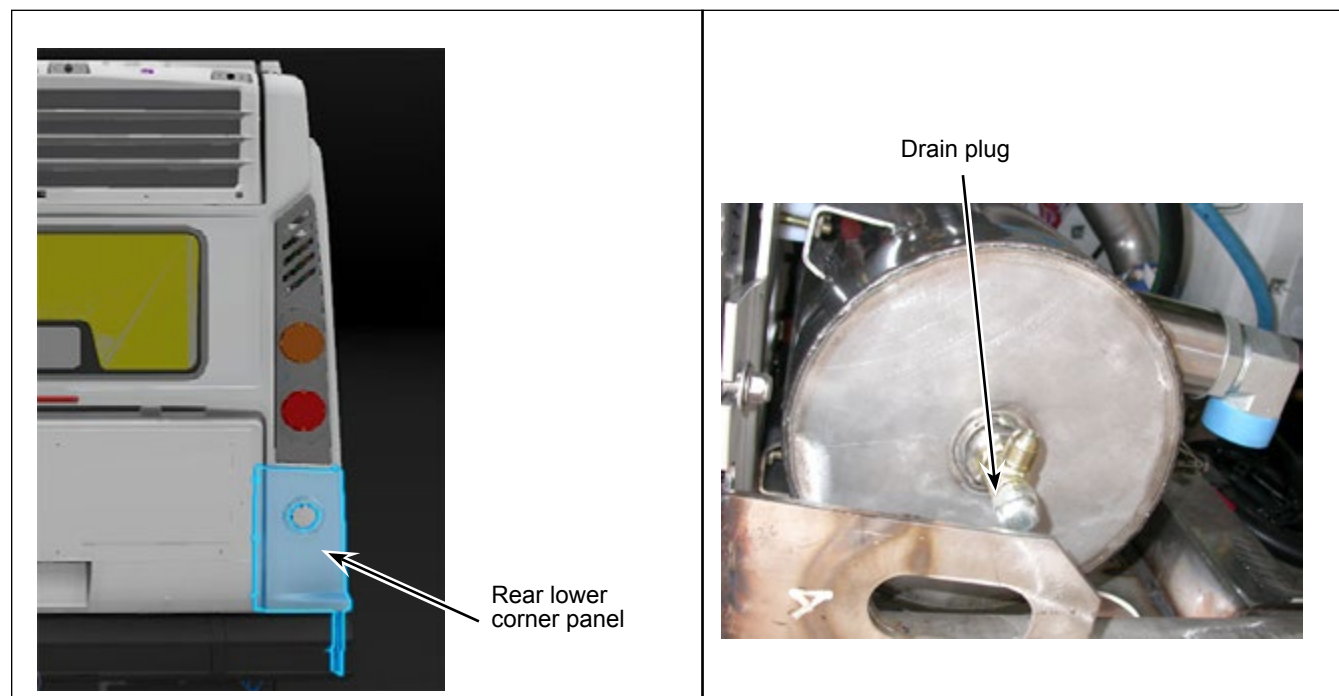


Figure 1 - Rear Right Corner Panel and Hydraulic Tank Drain Plug

- 1.7. Install the bulkhead quick connect fitting N64549 on the remote breather N64552. See Figure 2.
- 1.8. Affix the bulkhead quick connect fitting N64549 on the remote breather support bracket N64587. See Figure 2.
- 1.9. Connect the 1/4" nylon tube 8860102 on the bulkhead quick connect fitting N64549. See Figure 2.
- 1.10. Affix the remote breather support bracket on the rear engine control box left anchor bolt. See Figure 2.

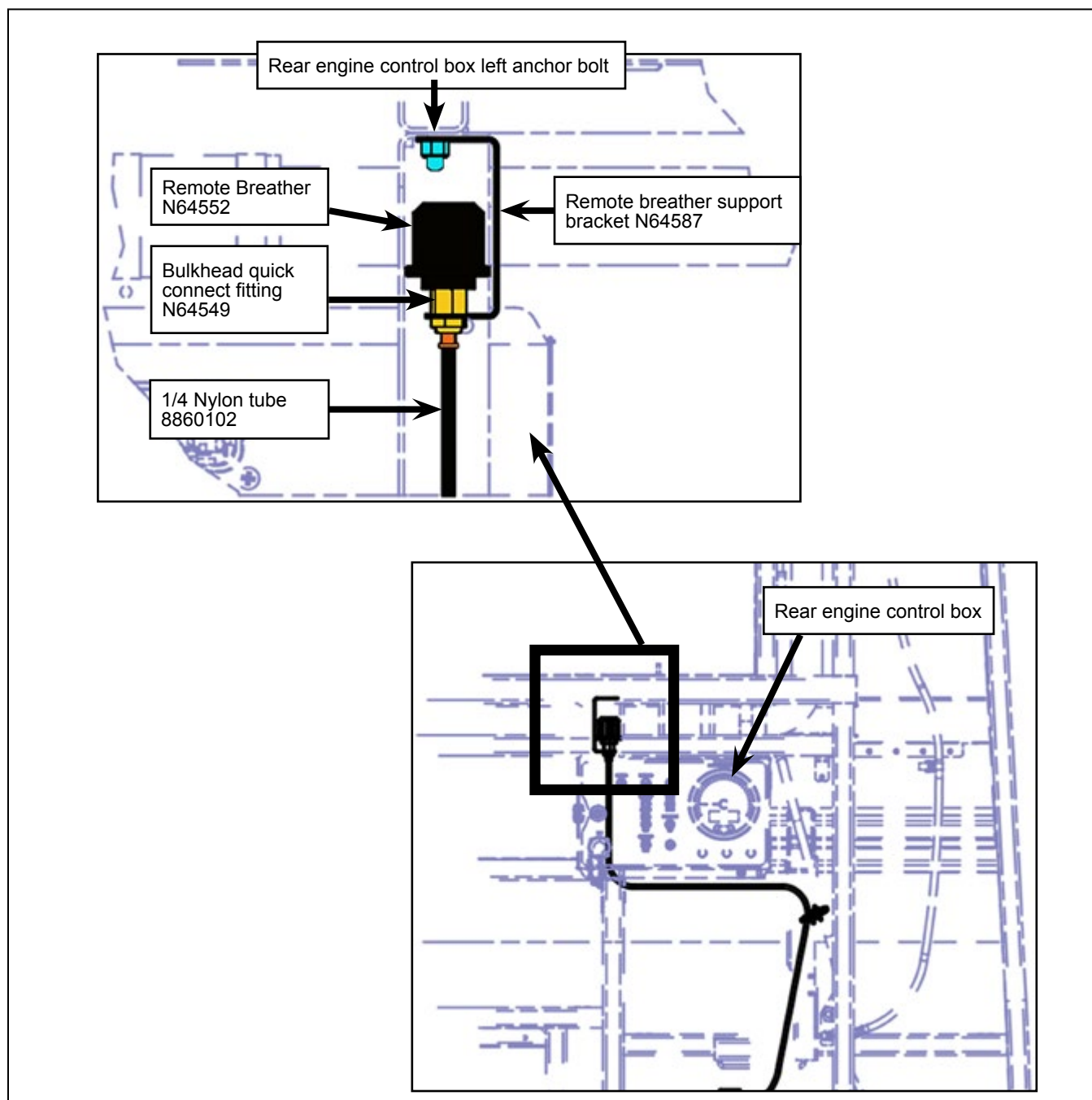


Figure 2 - Remote Breather Installation

- 1.11. Disconnect the hydraulic hoses from the filter head. Install a clean rag or clean plastic bag at the end of the disconnected hydraulic hoses. See Figure 3.
- 1.12. Disconnect and remove the hydraulic pressure sensor. Retain the pressure sensor. See Figure 3.
- 1.13. Loosen the hydraulic T-Fitting from the filter head.
- 1.14. Remove the filter head from the hydraulic tank. Retain the hardware and harness support bracket. See Figure 3.
- 1.15. Remove the hydraulic T-fitting from the head filter. Clean and retain the hydraulic T-fitting. See Figure 3.
- 1.16. Remove the hydraulic pressure switch from the filter head. Clean and retain the hydraulic pressure switch. See Figure 3.
- 1.17. Remove the quick disconnect fitting and dust cap from the filter head. Retain the quick disconnect fitting and dust cap. See Figure 3.
- 1.18. Remove the hydraulic hose connected to the hydraulic piping. See Figure 3.
- 1.19. Replace the ORFS O ring on the piping with a new ORFS O ring 507303 and install the new hydraulic hose N8905945 to the Hydraulic piping. See Figure 3 for torque value.

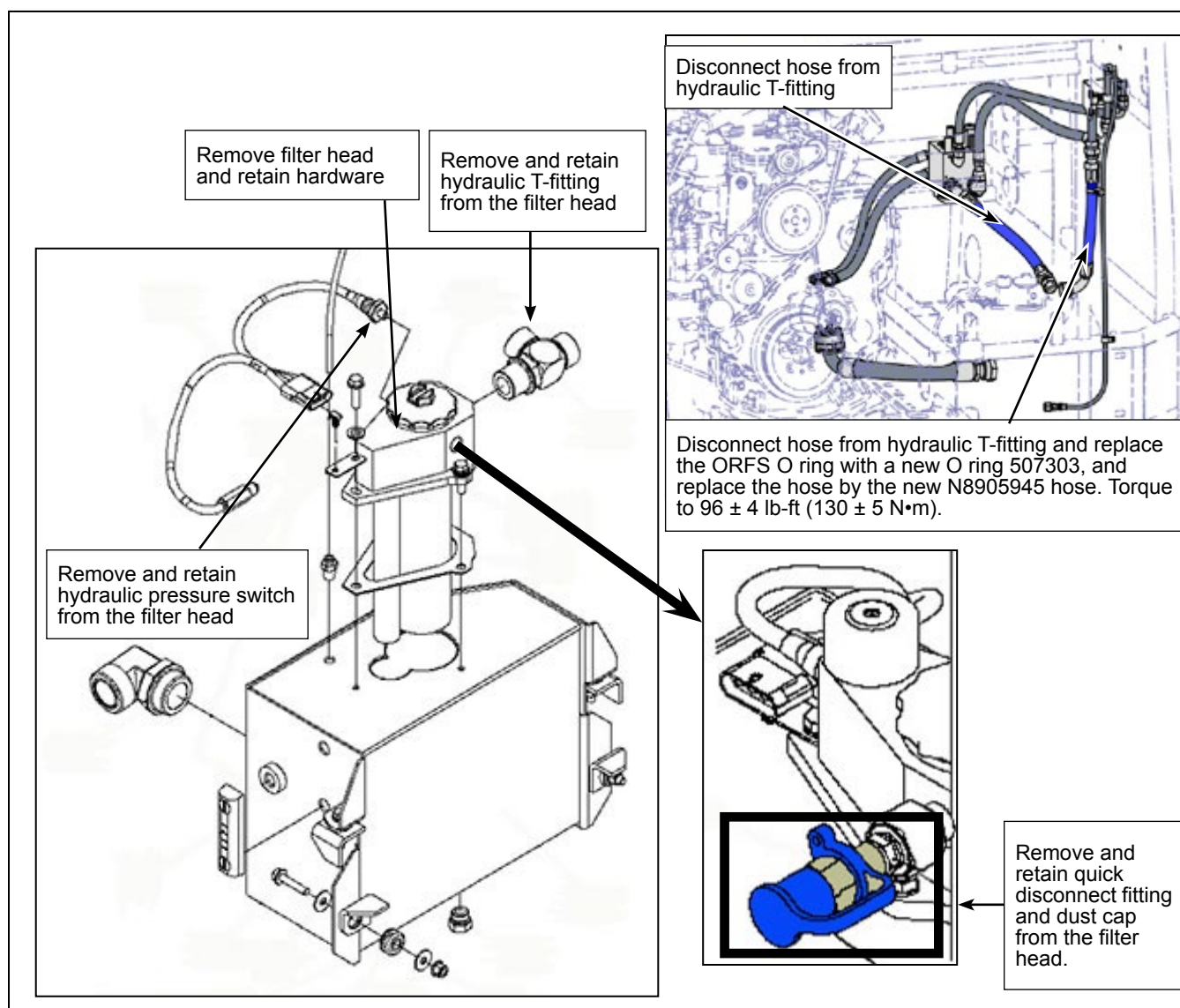


Figure 3 - Hydraulic Parts to Retain for Filter Head and Installation of New Hose

- 1.20. Install the supplied O-ring on the bottom adapter plate N8905940 (include in the N8905966 kit). See Figure 4.
- 1.21. Install the gasket N60839 on the hydraulic tank. See Figure 4.
- 1.22. Apply a thin coat of thread sealant on the first thread of the Allen bolts N66029. See Figure 4.
- 1.23. Install the bottom adapter plate N8905940 on the hydraulic tank using the the Allen bolts N66029. See Figure 4.
- 1.24. Install the quick connect fitting N64545 on the bottom adaptor plate. See Figure 4.

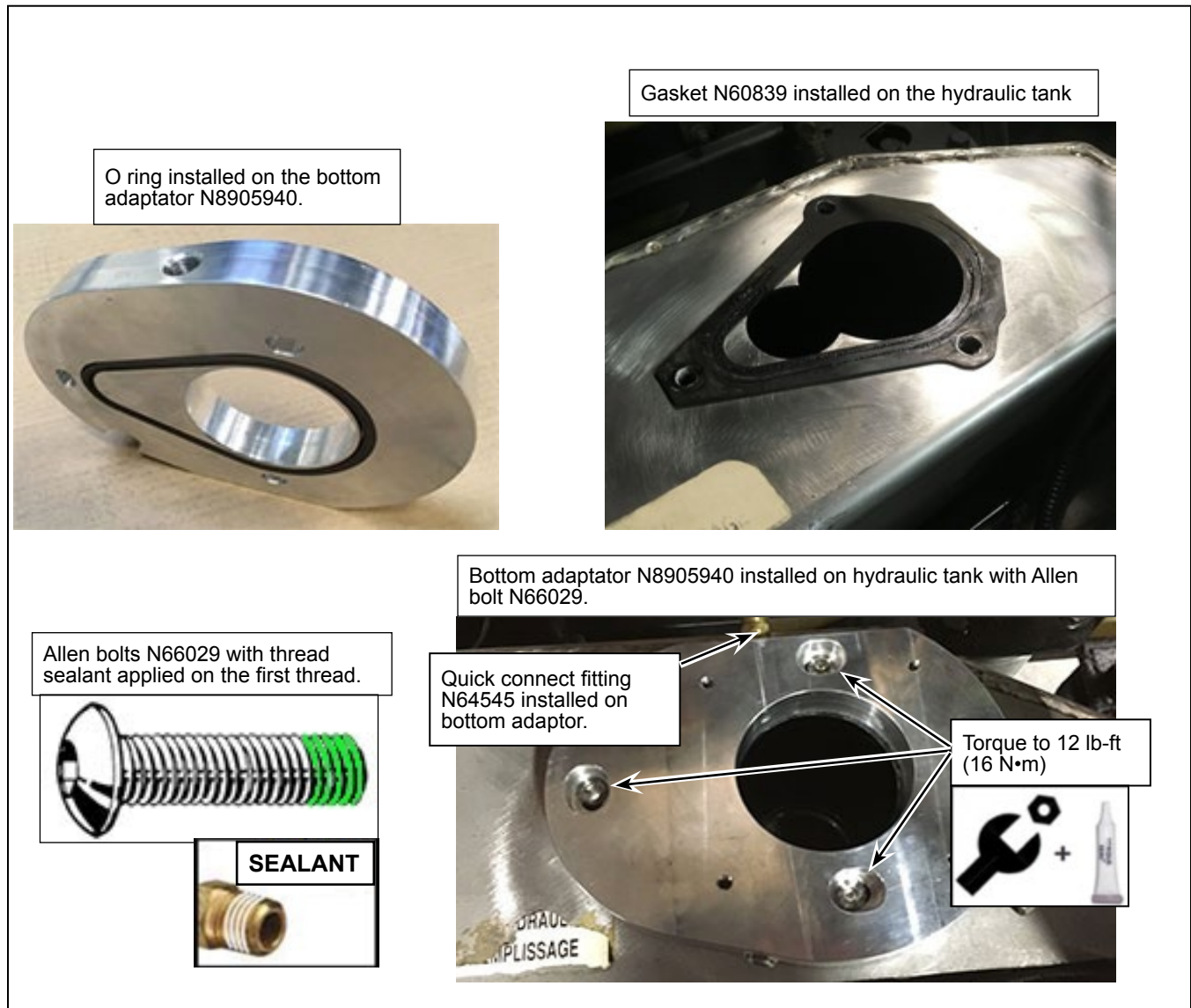


Figure 4 - Bottom Adaptor and Remote Breather Quick Connect Fitting on Hydraulic Tank

- 1.25. Remove the plastic cap at the end of the new filter head N8905938. See Figure 5.

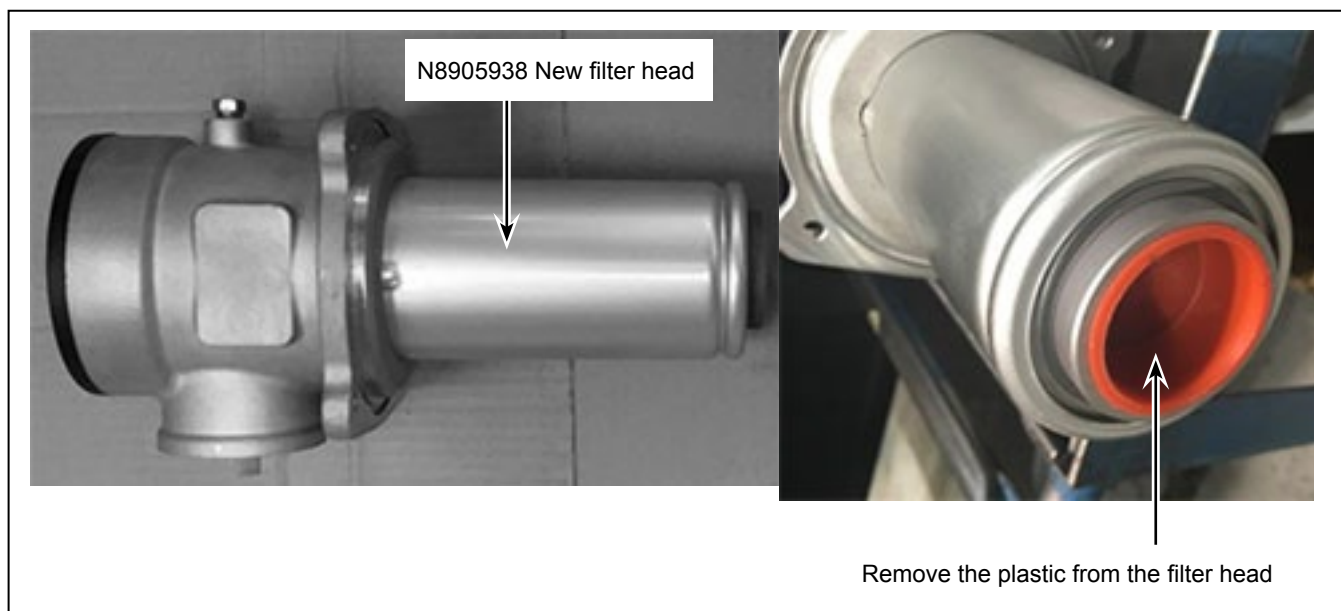


Figure 5 - Preparation of the Filter Head

- 1.26. Install the supplied O-ring on the top adapter plate N8905940 (included in the N8905966 kit). See Figure 6.
- 1.27. Install the top adapter plate N8905940 and the new filter head N8905938 (included in the N8905966 kit) on top of the bottom adapter using the bolt supplied in kit N8905966. See Figure 6.



Figure 6 - Filter Head N8905938 Installed

- 1.28. Apply a thin coat of O ring lubricant on the ORS O-ring N8885935 and the ORFS O-rings 507303.
- 1.29. Install the ORS O ring N8885935 and the ORFS O-ring 507303. See Figure 7.
- 1.30. Connect the new N8905945 hose and the hydraulic hose disconnected at step 1.7, to the hydraulic T-fitting on the filter head. See Figure 7 for torque value.

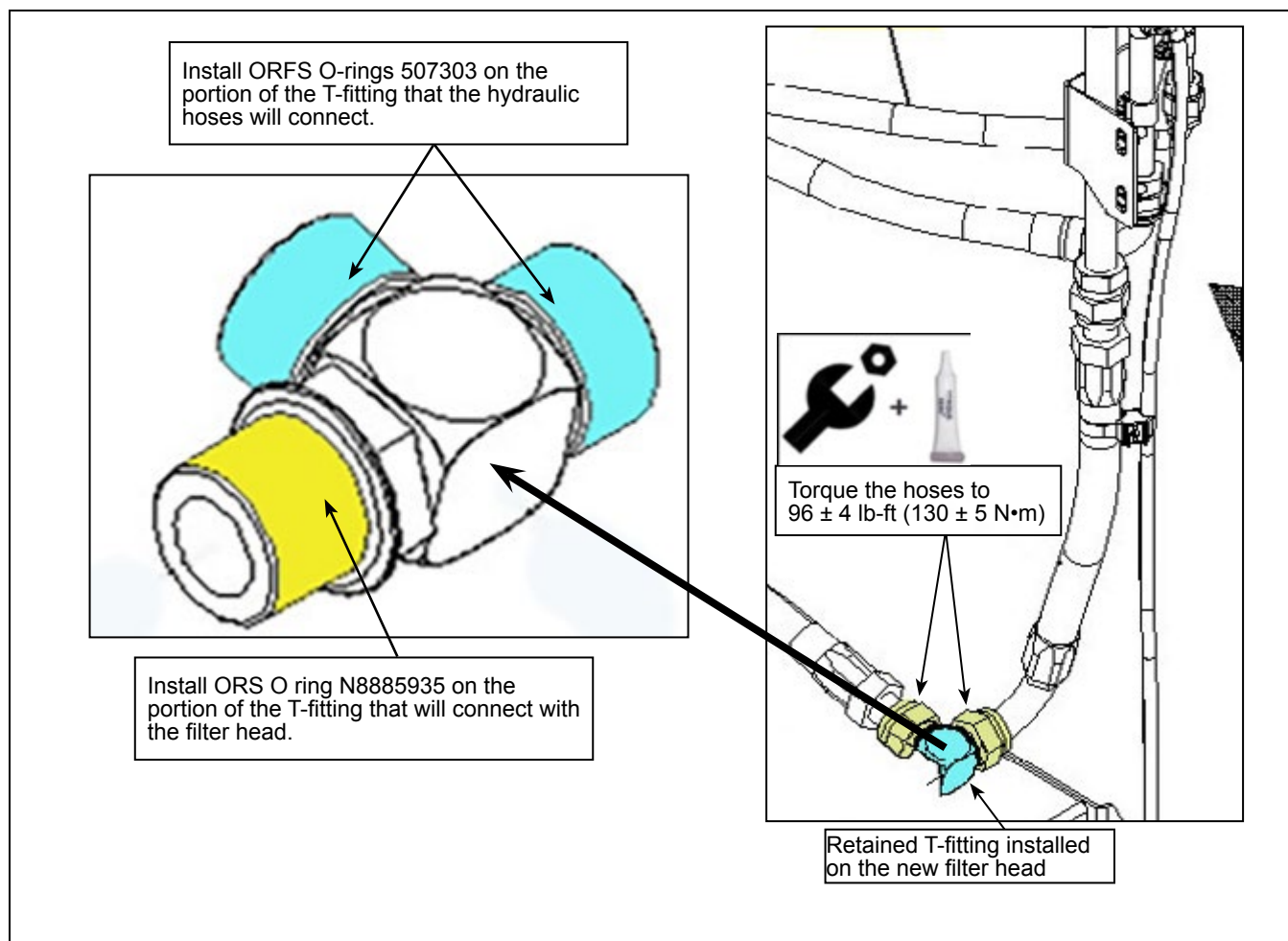


Figure 7 - O ring and Torque Value of the T-fitting

- 1.31. Apply a thin coat of thread sealant on the new fitting 0657590 and install the fitting on the new 9409943 T-Fitting. See Figure 8.
- 1.32. Apply a thin coat of thread sealant on the retained hydraulic pressure switch and install the switch at the end of the 9409943 T-fitting. See Figure 8.
- 1.33. Apply a thin coat of thread sealant on the new 9409943 T-fitting and install the T-fitting on the filter head. See Figure 8.
- 1.34. Connect the new 3/8" nylon tube N17208 on the 0657590 fitting. See Figure 8.
- 1.35. Install the new filter N8905939 inside the new filter head N8905938 (both parts are included in the N8905966 kit). See Figure 8.

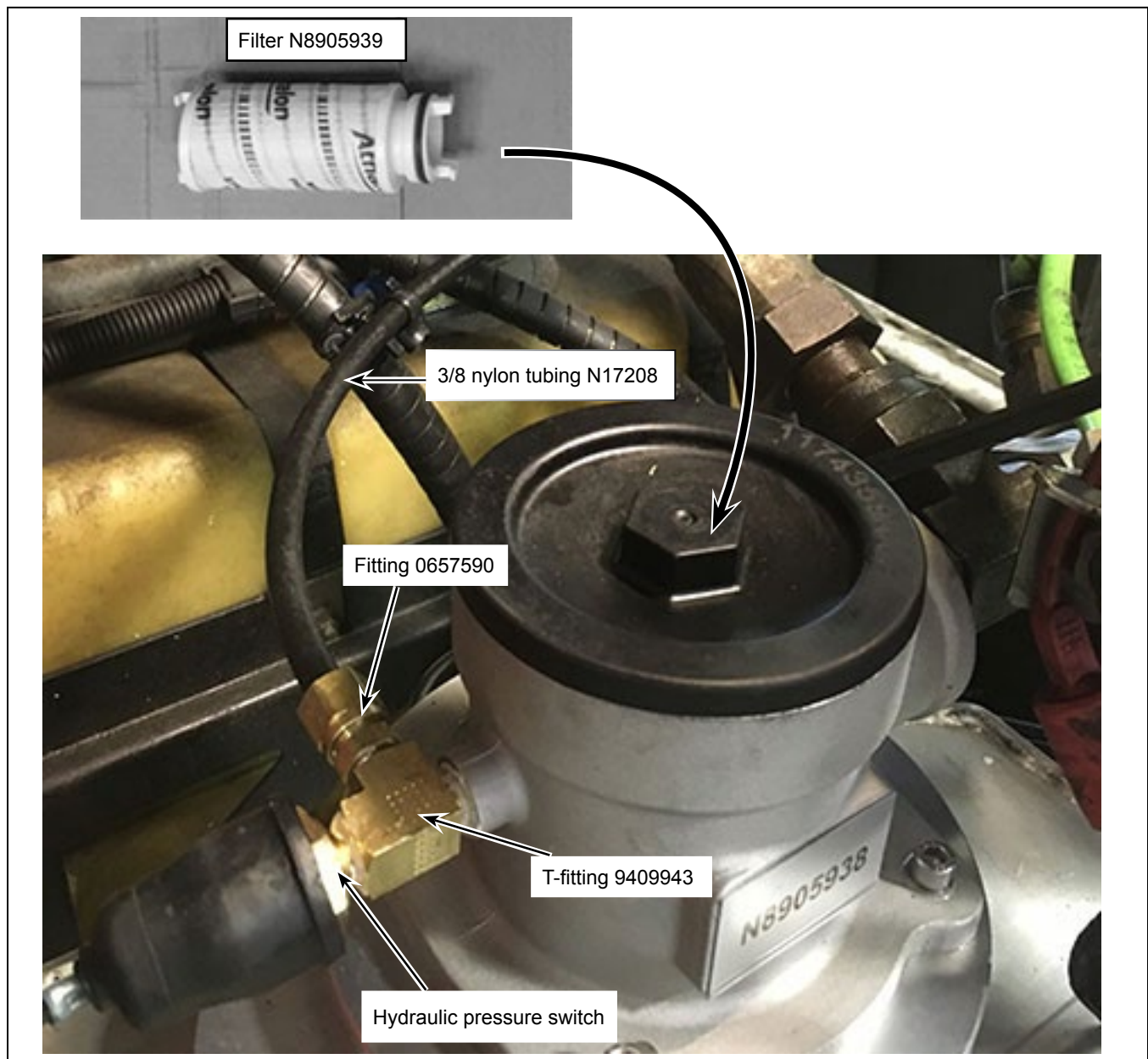


Figure 8 - T-fitting 9409943 Installed on Filter Head N8905938

- 1.36. Install the harness support bracket on one of the filter head bolt. See Figure 9.
- 1.37. Connect the harness to the hydraulic pressure switch. See Figure 9.
- 1.38. Affix the connector to the harness support bracket and secure the harness using a tie wrap. See Figure 9.
- 1.39. Cut the excess length of the 1/4" nylon tube 8860102 and connect to the quick connect fitting N64545 installed on the bottom adaptor. See Figure 9.

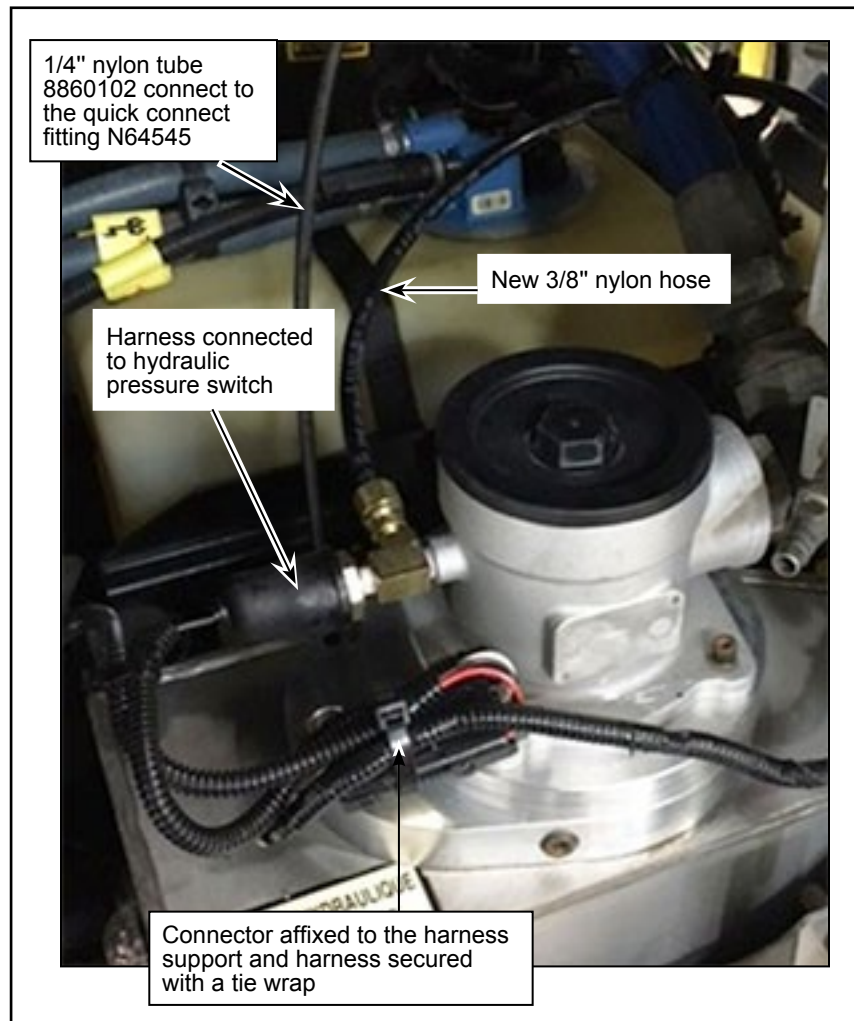


Figure 9 - Harness Installed on Filter Head

- 1.40. Remove the push button (N30612) from the discharge valve and remove the discharge valve from the support bracket. Retain the parts. See Figure 10.
- 1.41. Install a hose clamp on the coolant filling hose.
- 1.42. Remove the coolant quick connect fitting from support bracket. See Figure 10.
- 1.43. Remove the support bracket from the frame. Retain the hardware. See Figure 10.
- 1.44. Install the new N79775 dual bracket on the frame using the retained hardware. See Figure 10.
- 1.45. Affix the removed quick connect fitting and discharge valve in the top holes of the new plate N79775. See Figure 10.
- 1.46. Install the push button (N30612) on the discharge valve.
- 1.47. Install the new T0647 bulkhead fitting in the bottom left hole of the new plate N79775. See Figure 10.
- 1.48. Install the new 0443990 reducer fitting on the T0647 bulkhead fitting. See Figure 10.
- 1.49. Install the retained quick disconnect fitting and dustcap on the 0443990 reducer fitting. See Figure 10.
- 1.50. Install a new 0657592 connector fitting on the back of the bulkhead fitting T0647. See Figure 10.
- 1.51. Connect the 3/8" nylon hose N17208 to the 0657592 connector fitting installed on the new plate N79775. See Figure 8 and 10.

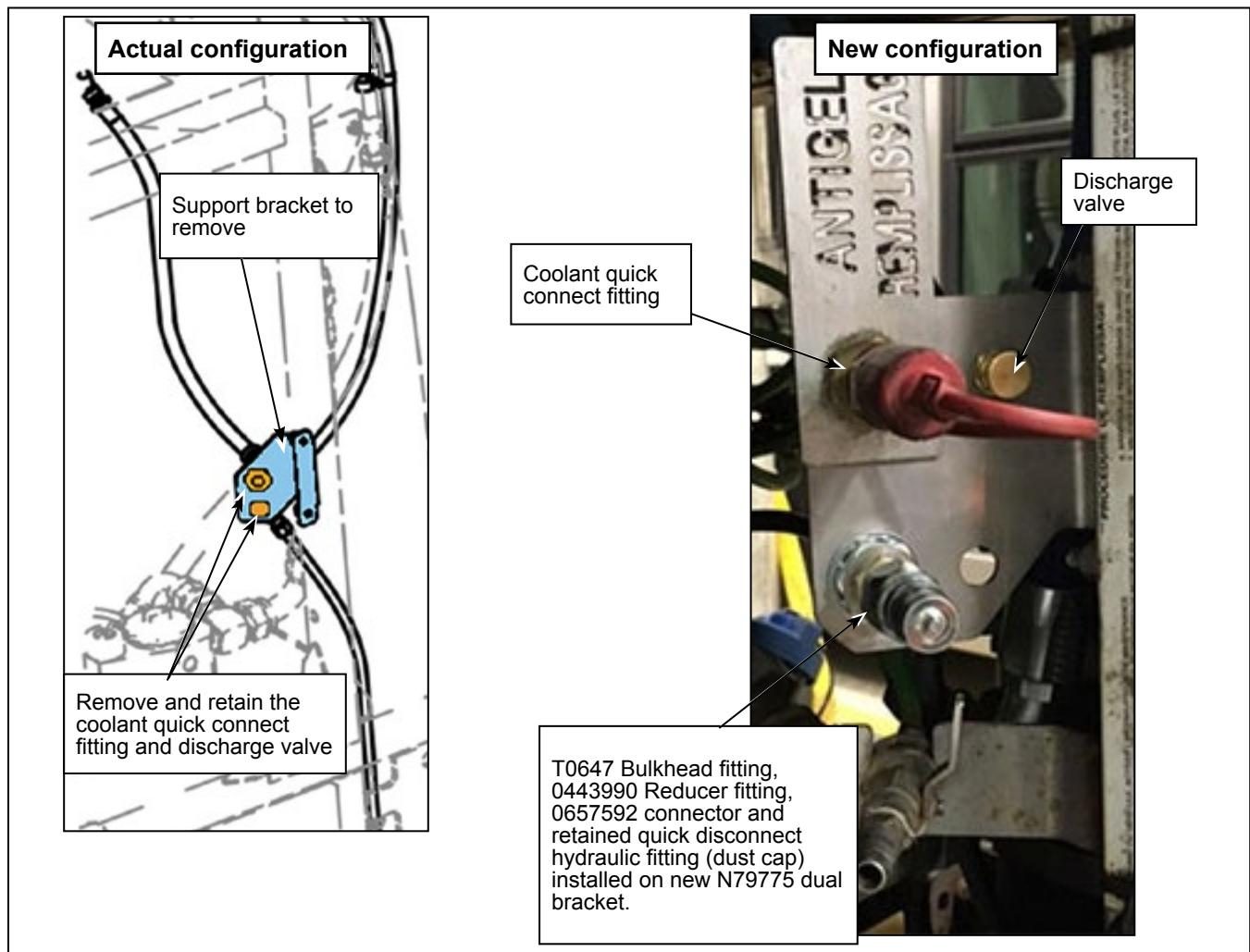


Figure 10 - Original Bracket to Remove and New N79775 Dual Bracket Installed

- 1.52. Remove the hose clamp installed on the coolant filling hose.
- 1.53. Connect a drum of new hydraulic oil to the quick disconnect fitting located on the new dual bracket.
- 1.54. Fill the tank until the level in the sight glass indicates the correct level.
- 1.55. Do not disconnect the drum of new hydraulic oil. Start the engine and let it run for 2 minutes in fast idle mode.
- 1.56. The fluid will drop significantly; fill the tank until the fluid level indicator show the correct oil level while the engine is still running in fast idle mode. See Figure 8.
- 1.57. Turn off the engine and disconnect the drum of hydraulic oil from the quick disconnect fitting. ❖