

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	–
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	2017OC25	Initial release	Luc Carignan
R1	2017NO08	Justification change in french section and release of english version	Luc Carignan

APPROVED BY:

PAGE 1 OF 12

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Airdrie Transit - Alberta	L664	—	—	L82U2B3000507	L82U2B3000507	1
Airdrie Transit - Alberta	L759	—	—	L82U0D3000928	L82U0D3000928	1
Ames Transportation Agency - Iowa	L707	660	661	S92U5C4500159	S92U1C4500160	2
Austin - CMTA - Texas	L635	5001	5001	S92U7C4500163	S92U7C4500163	1
Austin - CMTA - Texas	L636	5002	5022	S92U1D4500306	S92U0D4500328	21
BC Transit - BCT - British Columbia	L604	9434	9434	L82U5C3000597	L82U5C3000597	1
BC Transit - BCT - British Columbia	L735	9435	9440	L82U4C3000848	L82U8C3000853	6
BC Transit - BCT - British Columbia	L736	9441	9446	L82U8D3000854	L82U7D3000859	6
Belleville Transit - Ontario	L655	—	—	L82U3B3000385	L82U3B3000385	1
Belleville Transit - Ontario	L702	—	—	L82U4D3000706	L82U4D3000706	1
Belleville Transit - Ontario (ref. L754)	L809	—	—	L82U2D4500404	L82U2D4500404	1
Bow Valley Transit - Alberta	L712	5	6	L82U6C3000804	L82U8C3000805	2
Brantford - Ontario	L663	10121	10121	L82U1B3000532	L82U1B3000532	1
Brantford - Ontario	L718	10123	10125	L82U5C3000826	L82U9C3000828	3
Calgary Transit - Alberta	L637	8161	8180	L82U7B3000356	L82U2B3000376	20
Calgary Transit - Alberta	L709	8181	8200	L82UXC3000806	L82U3C3000825	20
Central Oklahoma Transportation Authority	L619	—	—	L82X7C3000367	L82X7C3000367	1
Clemson Area Transit - South Carolina	L617	—	—	S92U5C4500002	S92U5C4500002	1
Clemson Area Transit - South Carolina (ref. L641)	L722	—	—	L82U1C4500005	L82U5C4500010	5
CT Transit - Connecticut	L571	1101	1110	S92YXB4000144	S92Y4B4000169	10
Duke University - North Carolina	L651	—	—	S92Y1B4000145	S92Y3B4000146	2
Duke University - North Carolina (ref. L703)	L641	—	—	L82U9C4500012	L82U1C4500022	8
Fredericton - New Brunswick	L672	8111	8112	L82U0B3000540	L82U2B3000541	2
Fredericton - New Brunswick	L688	8113	8113	L82U8C3000643	L82U8C3000643	1
Grand River Transit - GRT - Ontario	L599	21116	21118	L82X9B3000465	L82X2B3000467	3
Grand River Transit - GRT - Ontario	L631	21119	21121	L82X4B3000468	L82X2B3000470	3
Grand River Transit - GRT - Ontario	L633	21101	21115	L82U7B3000289	L82U8B3000303	15
Grand River Transit - GRT - Ontario	L668	21201	21220	L82U6C3000737	L82UXC3000756	20
Greater Toronto Airports Authority - GTAA - Ontario	L616	—	—	L82U4C4500001	L82U4C4500001	1
Guelph - Ontario	L669	225	228	L82U9B3000536	L82U4B3000539	4
Guelph - Ontario	L715	234	235	L82U3C3000792	L82U5C3000793	2
Halifax - Nova Scotia	L693	526	534	L82U8C3000657	L82U7C3000665	9
Halifax - Nova Scotia	L708	742	761	S92UXC3000782	S92U3C3000803	20
Halifax - Nova Scotia	L710	1160	1161	L82U7C3000780	L82U9C3000781	2
Hampton Roads - Virginia (L754)	L802	—	—	L82U1D4500278	L82UXD4500408	7
Houston - Texas	L737	1510	1510	S92U4D4500297	S92U4D4500297	1
Houston - Texas	L755	1511	1579	S92U4D4500333	S92U8D4500402	69
Krapf's Coaches - Pennsylvania (ref. L833)	L754	—	—	L82U4D4500405	L82U4D4500405	1
Marketing Sales Demo - MSD 6 Houston	L628	—	—	L82U8C4500003	L82UXC4500004	2
Minnesota Valley Transit Authority - MVTA	L706	4252	4258	L82U4C4500127	L82UXC4500133	7

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
New York City Transit - New York	L621	8075	8089	L82U9B4000124	L82U9B4000138	15
New York City Transit - New York	L643	5895	5895	S92U1B4000143	S92U1B4000143	1
New York City Transit - New York	L670	5770	5894	S92U9B4000147	S92UXC4500061	125
New York City Transit - New York	L681	5896	5283	S92U2C4500023	S92U9C4500195	122
New York City Transit - New York	L692	5284	5363	S92U3C4500158	S92U3D4500274	80
Niagara Falls - Ontario	L652	—	—	S92U3C3000607	S92U6C3000617	11
Niagara Falls - Ontario	L653	—	—	L82U9C3000618	L82U9C3000621	5
Niagara Parks Commission - Ontario	L656	—	—	L82U0C3000653	L82U2C3000654	2
Niagara Parks Commission - Ontario	L685	—	—	S92U9C3000644	S92U8C3000652	9
Puerto Rico (ref. L754)	L788	—	—	L82UXD4500277	L82U0D4500305	16
Red Deer - Alberta	L726	—	—	L82UXC3000840	L82U1C3000841	2
Regina - Saskatchewan	L639	645	654	L82U1B3000336	L82U2B3000345	10
Regina - Saskatchewan	L748	655	662	L82U3D3000874	L82U0D3000881	8
Saskatoon - Saskatchewan	L618	—	—	S92U1C3000377	S92U1C3000377	1
Saskatoon - Saskatchewan	L690	1201	1204	L82U6C3000690	L82U1C3000693	4
Sault Ste-Marie Transit Services - Ontario (ref. L686)	L641	135	139	L82U7C4500008	L82U6C4500016	5
Sault Ste-Marie Transit Services - Ontario (ref. L751)	L754	—	—	L82U7D4500284	L82U7D4500284	1
St. John's - Newfoundland	L687	1201	1209	L82U7C3000598	L82U2C3000606	9
St. John's - Newfoundland	L731	1310	1314	L82U3C3000842	L82U2C3000847	5
Stratford - Ontario	L634	—	—	L82UXB3000352	L82UXB3000352	1
Stratford - Ontario	L752	—	—	L82U9D3000863	L82U9D3000863	1
Strathcona County Transit - Alberta	L659	2024	2028	L82U7B3000440	L82U4B3000444	5
Sudbury - Ontario	L632	811	817	L82U9B3000326	L82U4B3000332	7
Sudbury - Ontario	L740	831	833	L82U1D3000887	L82U5D3000889	3
Thunder Bay - Ontario	L662	20168	20168	L82U3B3000533	L82U7B3000535	3
Thunder Bay - Ontario	L739	—	—	L82U3D3000860	L82U7D3000862	3
Timmins - Ontario	L661	—	—	L82U9B3000486	L82U9B3000486	1
Timmins - Ontario	L720	12-98	12-98	L82U0C3000829	L82U0C3000829	1
Toronto Transit Commission - TTC - Ontario	L729	9000	9000	S92U9D3000905	S92U9D3000905	1
Toronto Transit Commission - TTC - Ontario	L738	9001	9026	S92J6D3001094	S92J7D3001119	26
University of Alabama - Alabama	L640	—	—	L82U9B4000141	L82U0B4000142	2
University of Alabama - Alabama	L671	7024	7025	L82U5C4500119	L82U1C4500120	2
University of Alabama - Alabama	L727	7026	7027	L82U4D4500310	L82U6D4500311	2
University of Colorado - Colorado	L627	—	—	S92UXB4000139	S92U6B4000140	2
York Regional Transit - Ontario	L654	1370	1390	S92U1D3000946	S92U2D3000986	21
York Regional Transit - Ontario	L761	1391	1396	S92U6D3001008	S92UXD3001013	6

**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 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. Install 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.

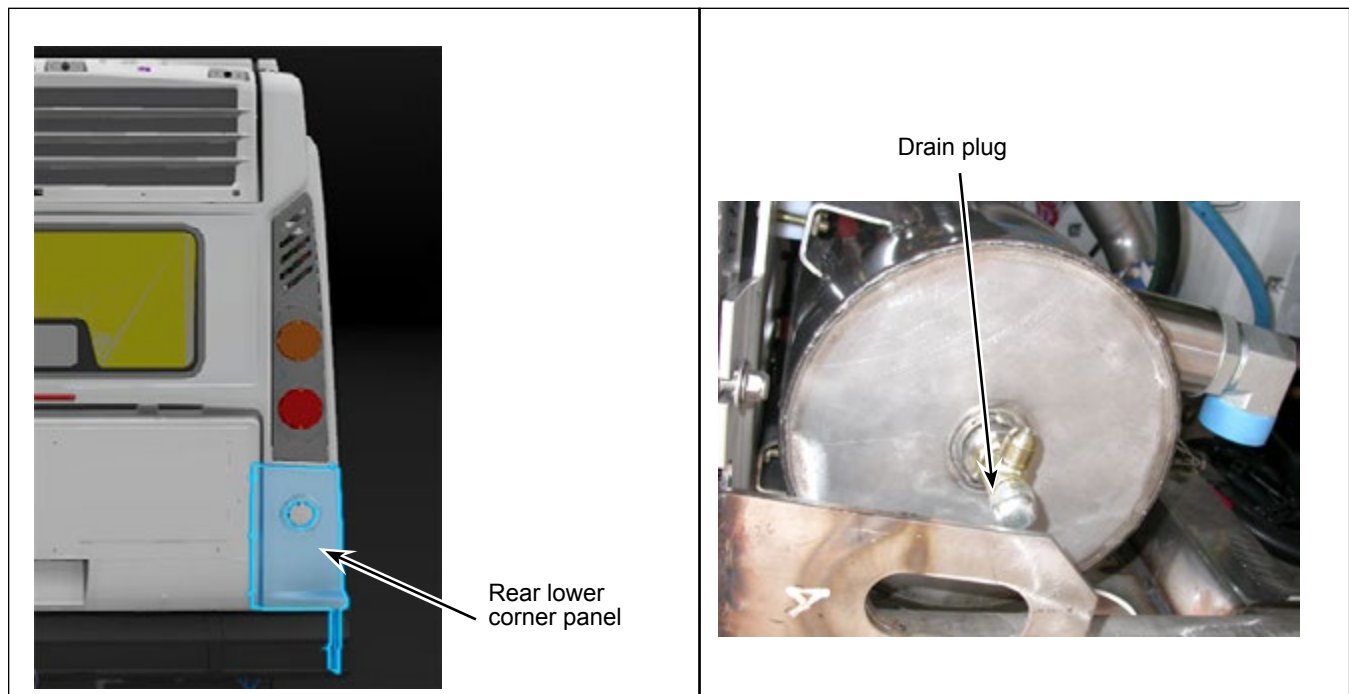


Figure 1 - Rear Right Corner Panel and Hydraulic Tank Drain Plug

- 1.7. 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 2.
- 1.8. If necessary, disconnect the remote breather connected to the filter head. Retain the quick connect fitting.
- 1.9. Disconnect and remove the hydraulic pressure sensor. Retain the pressure sensor. See Figure 2.
- 1.10. Loosen the hydraulic T-Fitting from the filter head.
- 1.11. Remove the filter head from the hydraulic tank. Retain the hardware and harness support bracket. See Figure 2.
- 1.12. Remove the hydraulic T-fitting from the head filter. Clean and retain the hydraulic T-fitting. See Figure 2.
- 1.13. Remove the hydraulic pressure switch from the filter head. Clean and retain the hydraulic pressure switch. See Figure 2.
- 1.14. Remove the quick disconnect fitting and dust cap from the filter head. Retain the quick disconnect fitting and dust cap. See Figure 2.
- 1.15. Remove the hydraulic hose connected to the hydraulic piping. See Figure 2.
- 1.16. 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 2 for torque value.

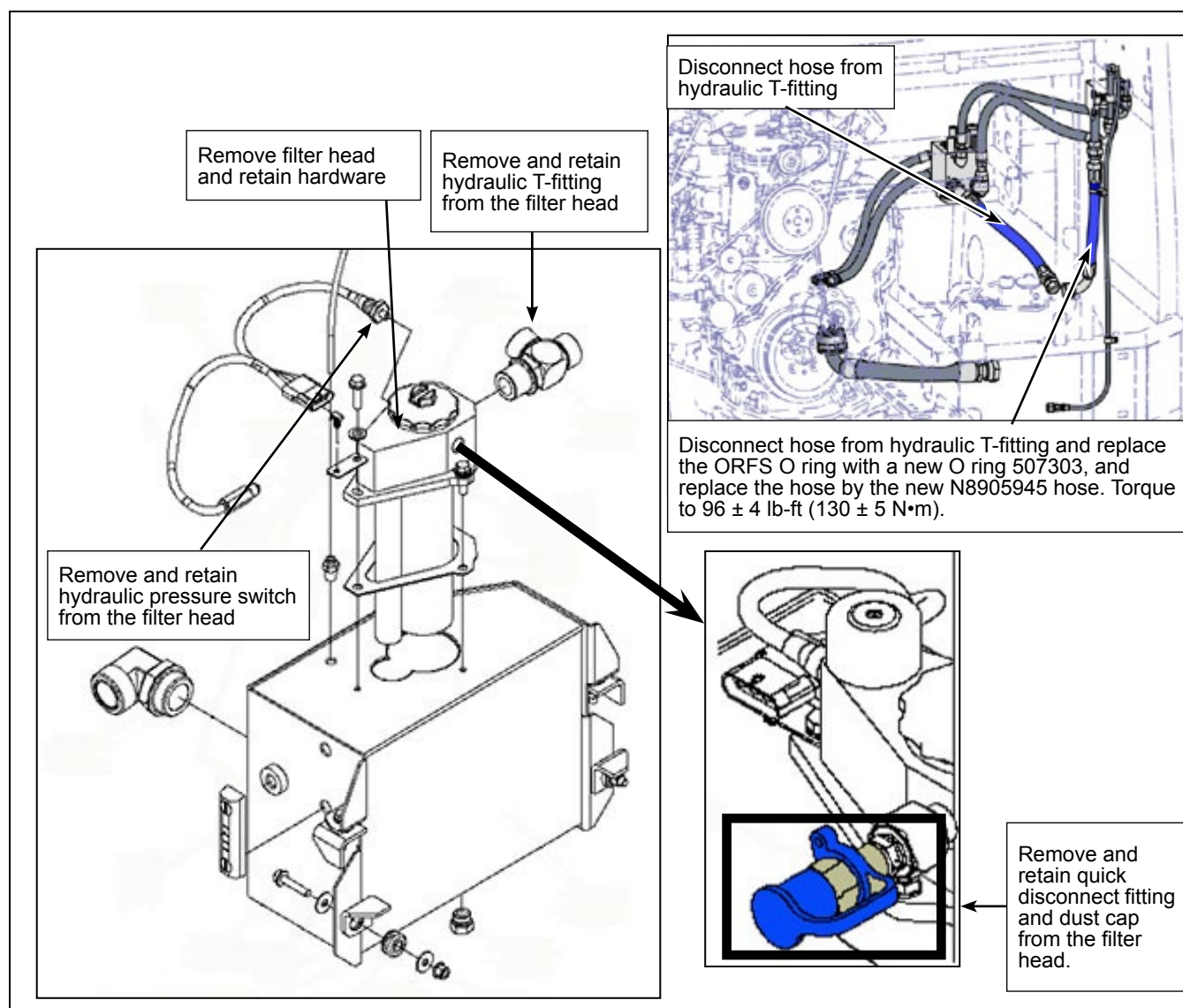


Figure 2 - Hydraulic Parts to Retain for Filter Head and Installation of new Hose

- 1.17. Install the supplied O-ring on the bottom adapter plate N8905940 (include in the N8905966 kit). See Figure 3.
- 1.18. Install the gasket N60839 on the hydraulic tank. See Figure 3.
- 1.19. Apply a thin coat of thread sealant on the first thread of the Allen bolts N66029. See Figure 3.
- 1.20. Install the bottom adapter plate N8905940 on the hydraulic tank using the the Allen bolts N66029. See Figure 4.
- 1.21. Install the retained remote breather quick connect fitting on the bottom adaptor plate. See Figure 3.

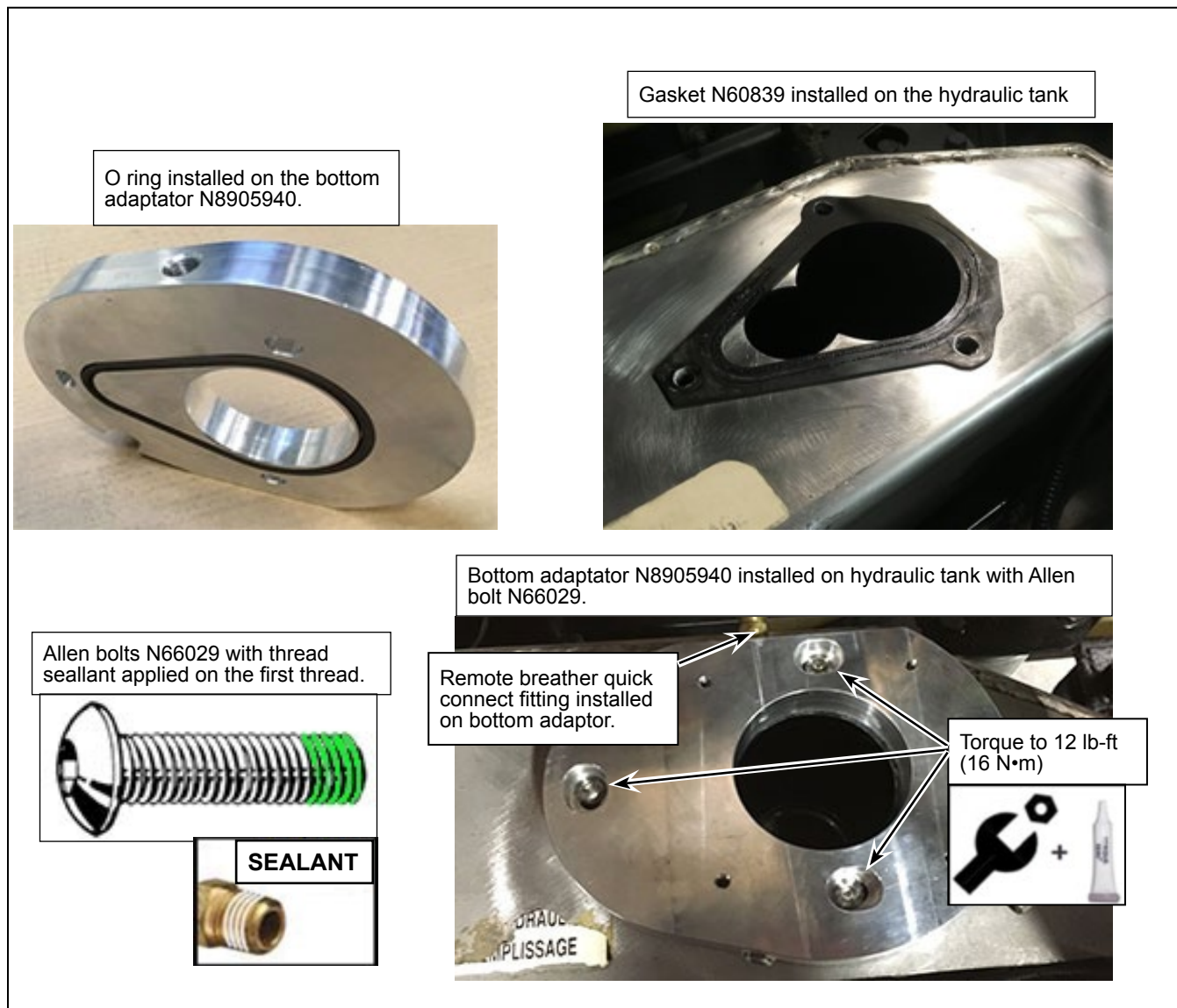


Figure 3 - Bottom Adaptor and Remote Breather Quick Connect Fitting on Hydraulic Tank

- 1.22. Remove the plastic cap at the end of the new filter head N8905938. See Figure 4.

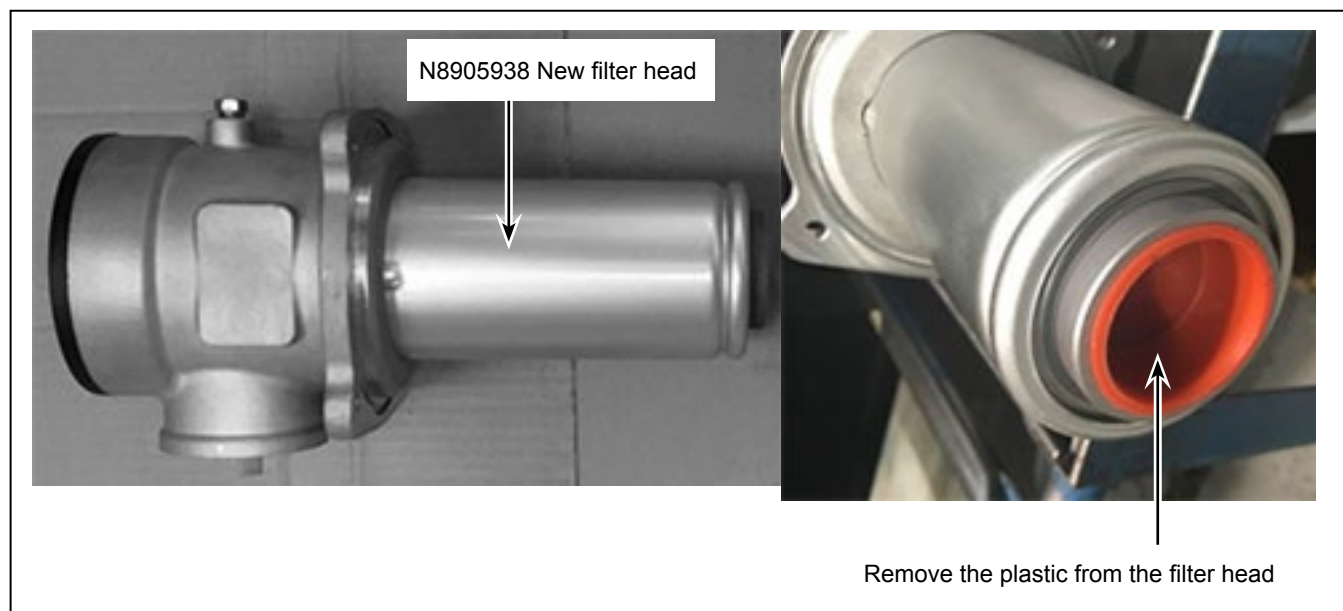


Figure 4 - Preparation of the Filter Head

- 1.23. Install the supplied O-ring on the top adapter plate N8905940 (included in the N8905966 kit). See Figure 5.
- 1.24. 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 5.



Figure 5 - Filter Head N8905938 Installed

- 1.25. Apply a thin coat of O ring lubricant on the ORS O ring N8885935 and the ORFS O rings 507303.
- 1.26. Install the ORS O ring N8885935 and the ORFS O ring 507303. See Figure 6.
- 1.27. 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 6 for torque value.

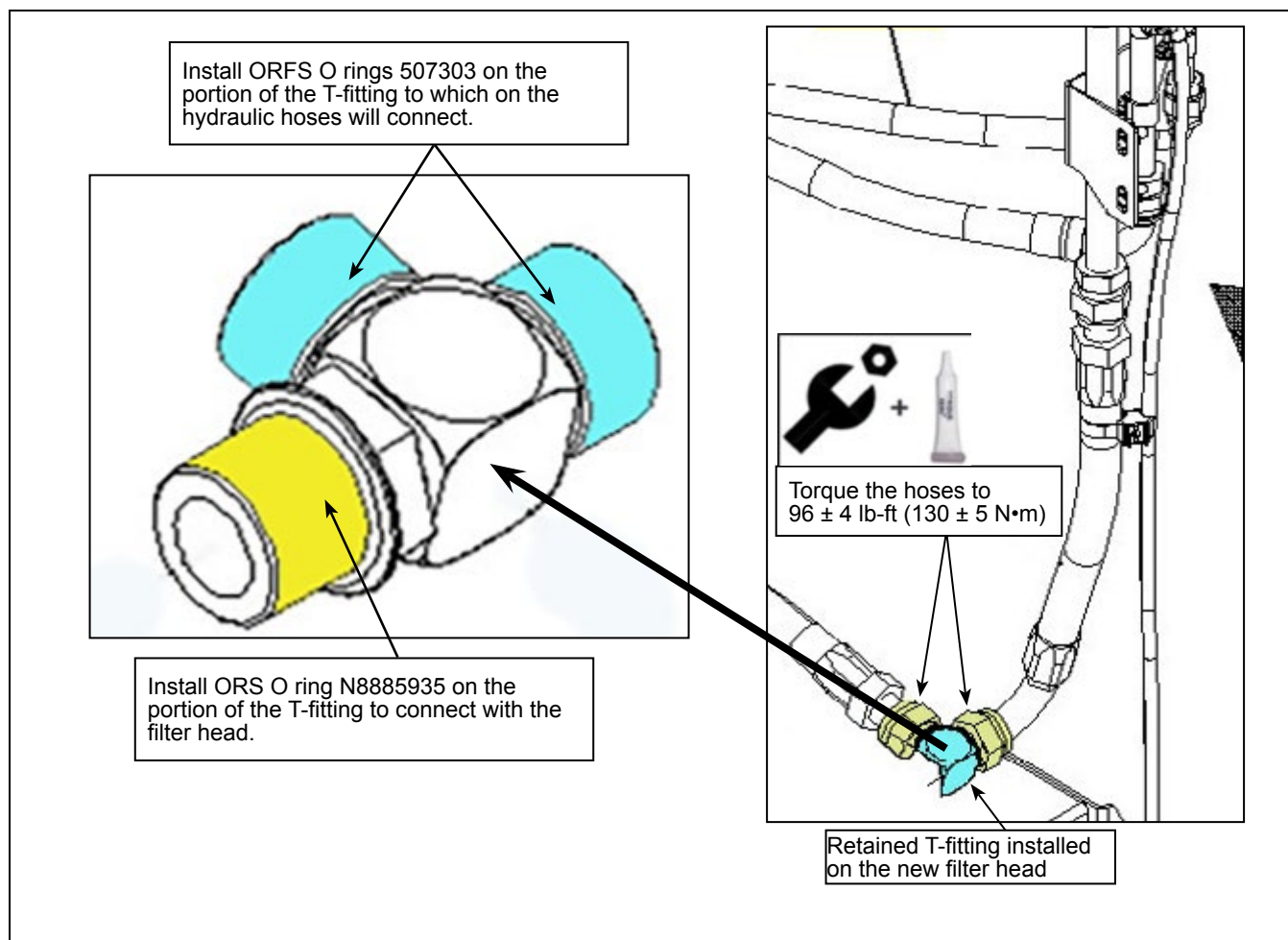


Figure 6 - O ring and Torque Value of the T-fitting

- 1.28. Apply a thin coat of thread sealant on the new fitting 0657590 and install the fitting on the new 9409943 T-Fitting. See Figure 7.
- 1.29. 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 7.
- 1.30. Apply a thin coat of thread sealant on the new 9409943 T-fitting and install the T-fitting on the filter head. See Figure 7.
- 1.31. Connect the new 3/8 nylon tube N17209 on the 0657590 fitting. See Figure 7.
- 1.32. Install the new filter N8905939 inside the new filter head N8905938 (both parts are included in the N8905966 kit). See Figure 7.

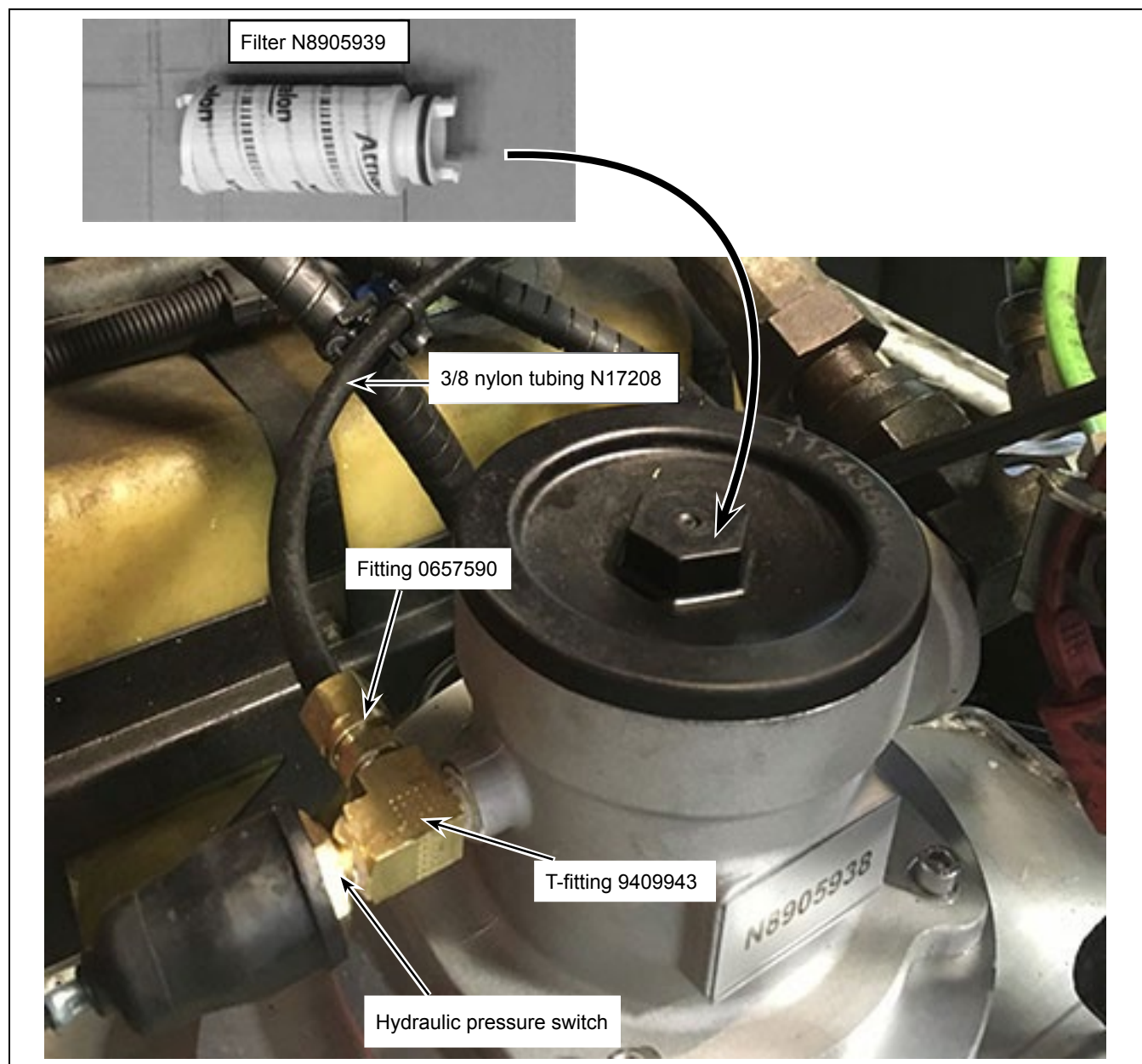


Figure 7 - T-fitting 9409943 Installed on Filter Head N8905938

- 1.33. Install the harness support bracket on one of the filter head bolt. See Figure 8.
- 1.34. Connect the harness to the hydraulic pressure switch. See Figure 8.
- 1.35. Affix the connector to the harness support bracket and secure the harness using a tie wrap. See Figure 8.
- 1.36. Connect the remote breather tube to the quick connect fitting installed on the bottom adaptor.

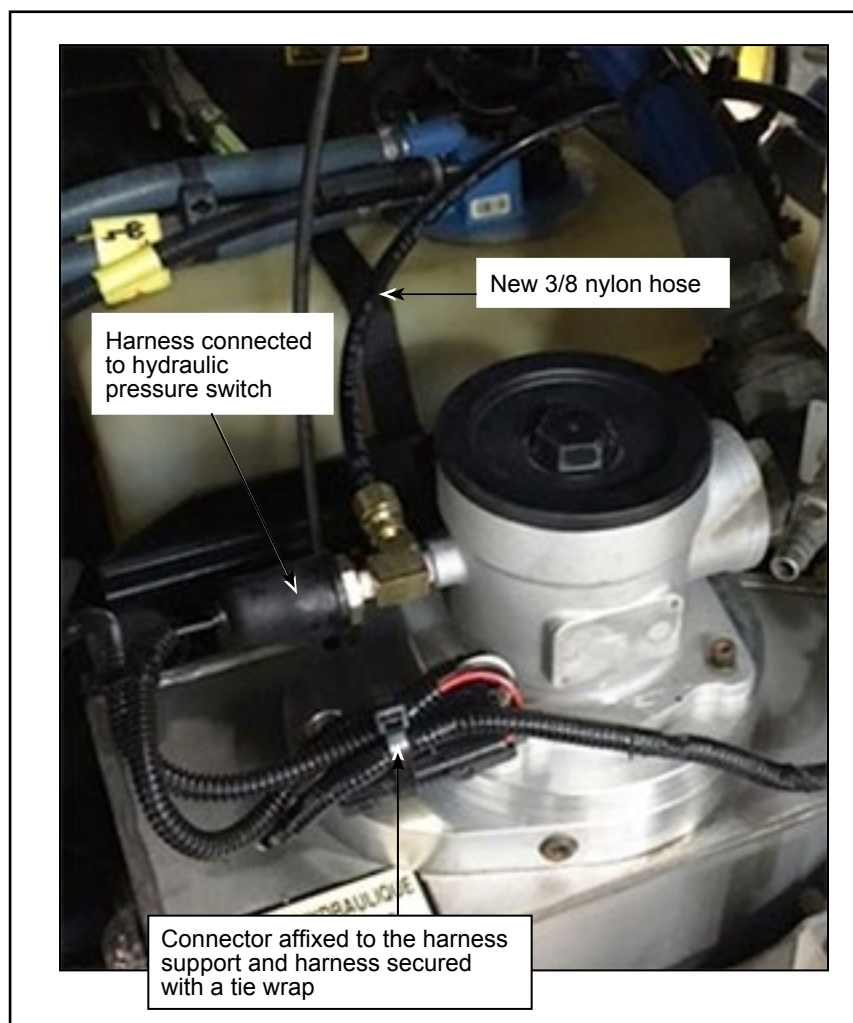


Figure 8 - Harness Installed on Filter Head

- 1.37. Remove the push button (N30612) from the discharge valve and remove the discharge valve from the support bracket. Retain the parts. See Figure 9.
- 1.38. Install a hose clamp on the coolant filling hose.
- 1.39. Remove the coolant quick connect fitting from support bracket. See Figure 9.
- 1.40. Remove the support bracket from the frame. Retain the hardware. See Figure 9.
- 1.41. Install the new N79775 dual bracket on the frame using the retained hardware. See Figure 9.
- 1.42. Affix the removed quick connect fitting and discharge valve in the top holes of the new plate N79775. See Figure 9.
- 1.43. Install the push button (N30612) on the discharge valve.
- 1.44. Install the new T0647 bulkhead fitting in the bottom left hole of the new plate N79775. See Figure 9.
- 1.45. Install the new 0443990 reducer fitting on the T0647 bulkhead fitting. See Figure 9.
- 1.46. Install the retained quick disconnect fitting and dustcap on the 0443990 reducer fitting. See Figure 7.
- 1.47. Install a new 0657592 connector fitting on the back of the bulkhead fitting T0647. See Figure 7.
- 1.48. Connect the 3/8 nylon hose N17208 to the 0657592 connector fitting installed on the new plate N79775. See Figure 7 and 9.
- 1.49. Remove the hose clamp installed on the coolant filling hose.

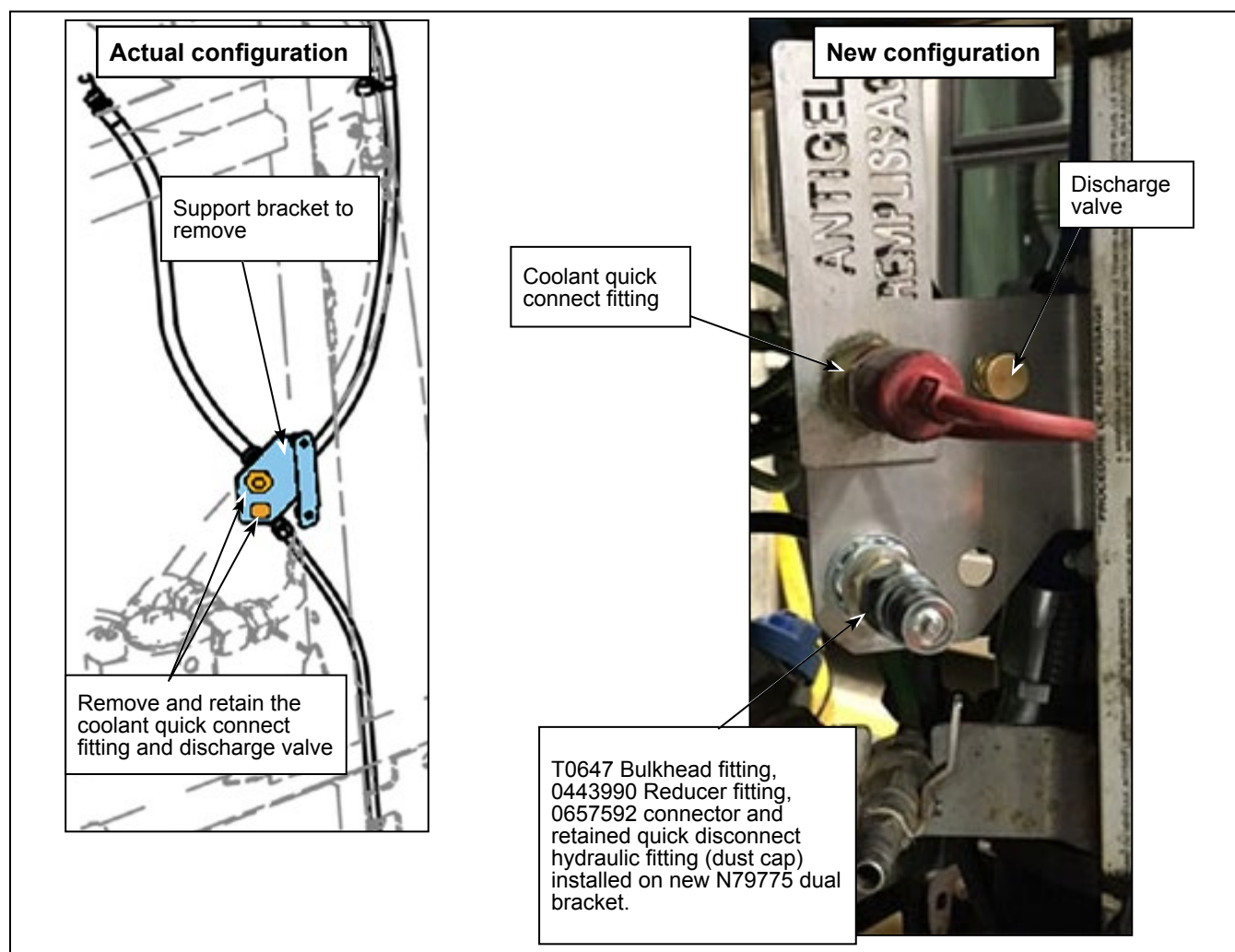


Figure 9 - Original Bracket to Remove and New N79775 Dual Bracket Installed

- 1.50. Connect a drum of new hydraulic oil to the quick disconnect fitting located on the new dual bracket.
- 1.51. Fill the tank until the level in the sight glass indicates the correct level. See Figure 8.
- 1.52. Do not disconnect the drum of new hydraulic oil. Start the engine and let it run for 2 minutes in fast idle mode.
- 1.53. 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.
- 1.54. Turn off the engine and disconnect the drum of hydraulic oil from the quick disconnect fitting. ❖