

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:	N41269 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	N41269
1	N79775	C	Dual bracket	-
1	0443990	-	Reducer fitting	-
1	T0647	-	Bulkhead fitting	-
1	0657592	-	Connector fitting NTA-6, NPT-4	-
1	9409939	-	T-fitting	-
1	0657590	-	Connector fitting NTA-6, NPT-5	-
4 ft	N17208	-	3/8" Nylon tube	-
1	N60839	-	Gasket	-
1	N8885935	-	Viton ORS O'ring	-
3	507303	-	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	-
1	9409927	-	45° Elbow fitting	-
LEVEL 2				
-	-	-	-	-

Materials will be available within 70 days once your order has been placed. To order, please contact Prevest 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	2018JN01	Initial release	Luc Carignan
R1	2018JN18	Part list error in french version only. Correction of french document only	Luc Carignan

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Arrow Coach Line - Arkansas	L494	—	—	L82U793000397	L82U793000397	1
BC Transit - BCT - British Columbia	L463	9319	9333	L82U093000273	L82U093000287	15
BC Transit - BCT - British Columbia	L481	9334	9353	L82U794000004	L82U094000023	20
BC Transit - BCT - British Columbia	L484	9370	9403	L82U494000090	L82U494000123	34
BC Transit - BCT - British Columbia	L486	9354	9369	L82U294000024	L82U494000039	16
BC Transit - BCT - British Columbia	L487	9404	9433	L82U094000149	L82U794000178	30
Belleville Transit - Ontario	L542	—	—	L82UXA3000088	L82U8A3000090	3
Brampton - Ontario	L501	0917	0926	L82U893000506	L82U893000523	10
Brantford - Ontario	L547	10101	10105	L82X6A3000082	L82X3A3000086	5
Centre de Formation du Transport Routier - CFTR Québec	L356	356-2	356-2	L82U883000231	L82U883000231	1
CMBC (TransLink) - British Columbia	L412	9401	9401	L82X993000136	L82X993000136	1
CMBC (TransLink) - British Columbia	L454	9402	9470	L82X793000359	L82XX93000453	69
CMBC (TransLink) - British Columbia	L455	9471	9491	L82X093000459	L82X993000489	21
CMBC (TransLink) - British Columbia	L482	9492	9517	L82X894000040	L82X094000064	25
CMBC (TransLink) - British Columbia	L483	9518	9542	L82X294000065	L82X594000089	25
CMBC (TransLink) - British Columbia	L532	9543	9551	L82U093000497	L82U693000505	9
CMBC (TransLink) - British Columbia	L533	9552	9573	L82U193000511	L82U093000537	22
CMBC (TransLink) - British Columbia	L534	9574	9590	L82U694000124	L82U894000139	16
CMBC (West Vancouver) - British Columbia	L539	901	909	L82U494000140	L82U994000148	9
Demo - Articulated Bus	L433	—	—	S92UX93000029	S92UX93000029	1
Demo - Engineering Platform 2010 (Altoona)	L373	373-1	373-1	L82UX83000151	L82UX83000151	1
Demo - Plateforme 2010 (ATQ)	L456	—	—	L82U893000019	L82U893000019	1
Demo - Proto Platform 2010	L271	—	—	L82U283000001	L82U283000002	2
Grand River Transit - GRT - Ontario	L464	20901	20913	L82U193000296	L82U493000308	13
Grand River Transit - GRT - Ontario	L560	21001	21009	L82U2A3000246	L82U1A3000254	9
Greater Toronto Airports Authority - GTAA - Ontario	L432	432-1	432-1	L82U793000061	L82U793000061	1
Greater Toronto Airports Authority - GTAA - Ontario	L477	L477-1	L477-1	L82U194000001	L82U194000001	1

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Honolulu - Hawaii	L559	201	224	L82U6A4000113	L82U7A4000136	24
Lethbridge - Alberta	L489	165	169	L82U493000454	L82U193000458	5
Marketing Sales Demo - MSD 1 ISB Hybrid	L548	—	—	L82X5A3000087	L82X5A3000087	1
Moncton (Codiac) - New Brunswick	L358	358-1	358-1	L82U093000001	L82U093000001	1
Moncton (Codiac) - New Brunswick	L361	361-1	361-1	L82U293000002	L82U293000002	1
New York City Transit - New York	L536	1200	1201	S92U793000490	S92U993000491	2
New York City Transit - New York	L545	1202	1289	S92U5A4000001	S92U0A4000098	88
Niagara Falls - Ontario	L499	2986	2989	L82U093000564	L82U693000567	4
Peterborough - Ontario	L490	—	—	L82UX93000345	L82U593000348	4
Regina - Saskatchewan	L356	356-1	356-1	L82U883000150	L82U883000150	1
Regina - Saskatchewan	L360	—	—	L82U283000290	L82U283000290	1
Regina - Saskatchewan	L476	625	628	L82U893000313	L82U393000316	4
Regina - Saskatchewan	L561	631	644	L82U8B4000003	L82UXB4000018	14
Saskatoon - Saskatchewan	L359	—	—	S92U583000289	S92U583000289	1
Saskatoon - Saskatchewan	L551	1005	1007	S92UXA3000178	S92U8A3000180	3
St. John - New Brunswick	L272	—	—	S92U483000011	S92U483000011	1
St. John - New Brunswick	L273	—	—	S92U383000050	S92U383000050	1
St. John's - Newfoundland	L503	1066	1066	L82U4A3000071	L82U4A3000071	1
Stratford - Ontario	L493	—	—	L82U2A3000019	L82U2A3000019	1
Strathcona County Transit - Alberta	L523	2010	2010	L82U693000603	L82U693000603	1
Strathcona County Transit - Alberta	L524	3005	3010	L82X593000604	L82X493000609	6
Sudbury - Ontario	L465	791	795	L82U593000317	L82U793000321	5
Sudbury - Ontario	L552	801	808	L82U3A3000238	L82U0A3000245	8
Thunder Bay - Ontario	L488	—	—	L82U193000332	L82U593000334	3
Timmins - Ontario	L475	—	—	L82U493000311	L82U693000312	2
Timmins - Ontario	L550	—	—	L82U8A3000171	L82UXA3000172	2
University of Alabama - Alabama	L479	479-1	479-1	L82U394000002	L82U394000002	1
University of Alabama - Alabama	L480	480-1	480-1	L82U594000003	L82U594000003	1
University of Alabama - Alabama	L573	—	—	L82U9A4000137	L82U0A4000138	2
University of Colorado - Colorado	L427	—	—	S92U693000027	S92U693000027	1
University of Colorado - Colorado	L428	—	—	S92U893000028	S92U893000028	1
Walt Disney World - Florida	L535	1204	1213	L82UXA4000003	L82U0A4000012	10
Whitehorse - Yukon	L563	38	41	L82U3A3000255	L82U9A3000258	4
Woodstock - Ontario	L460	—	—	L82U693000309	L82U693000309	1
Woodstock - Ontario	L492	—	—	L82U4A3000040	L82U6A3000041	2

**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.

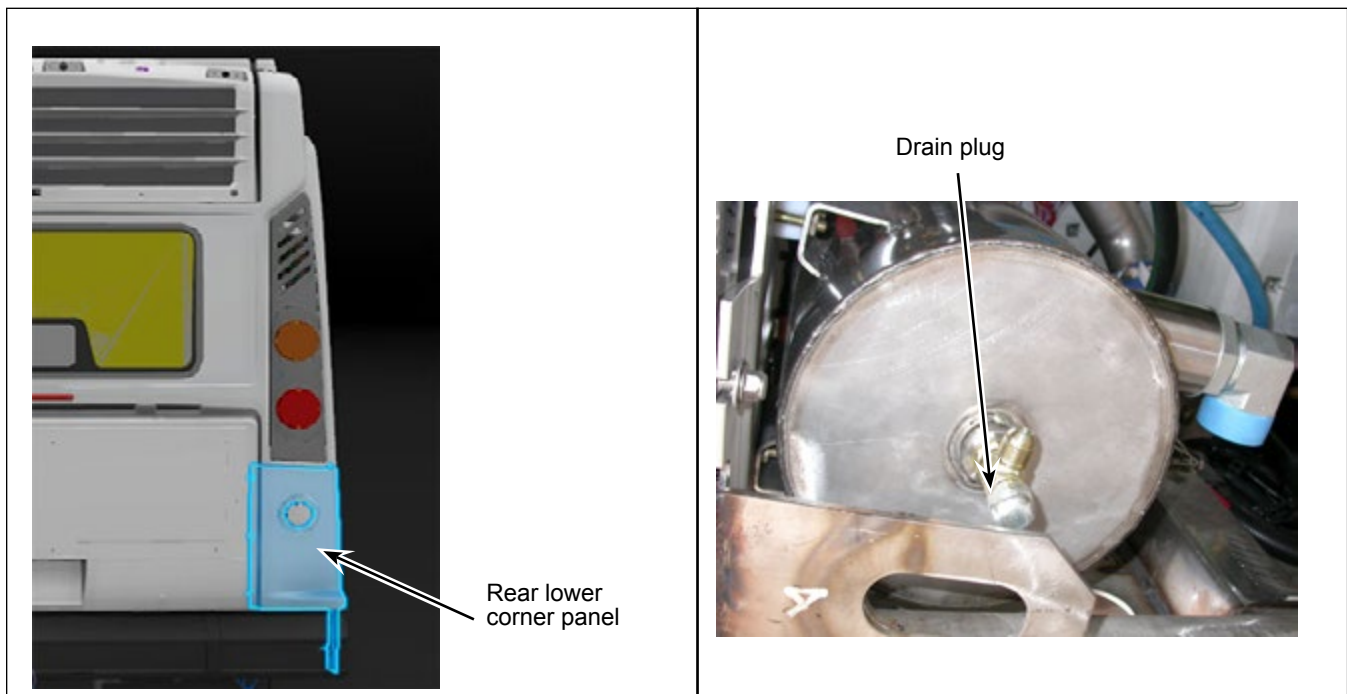
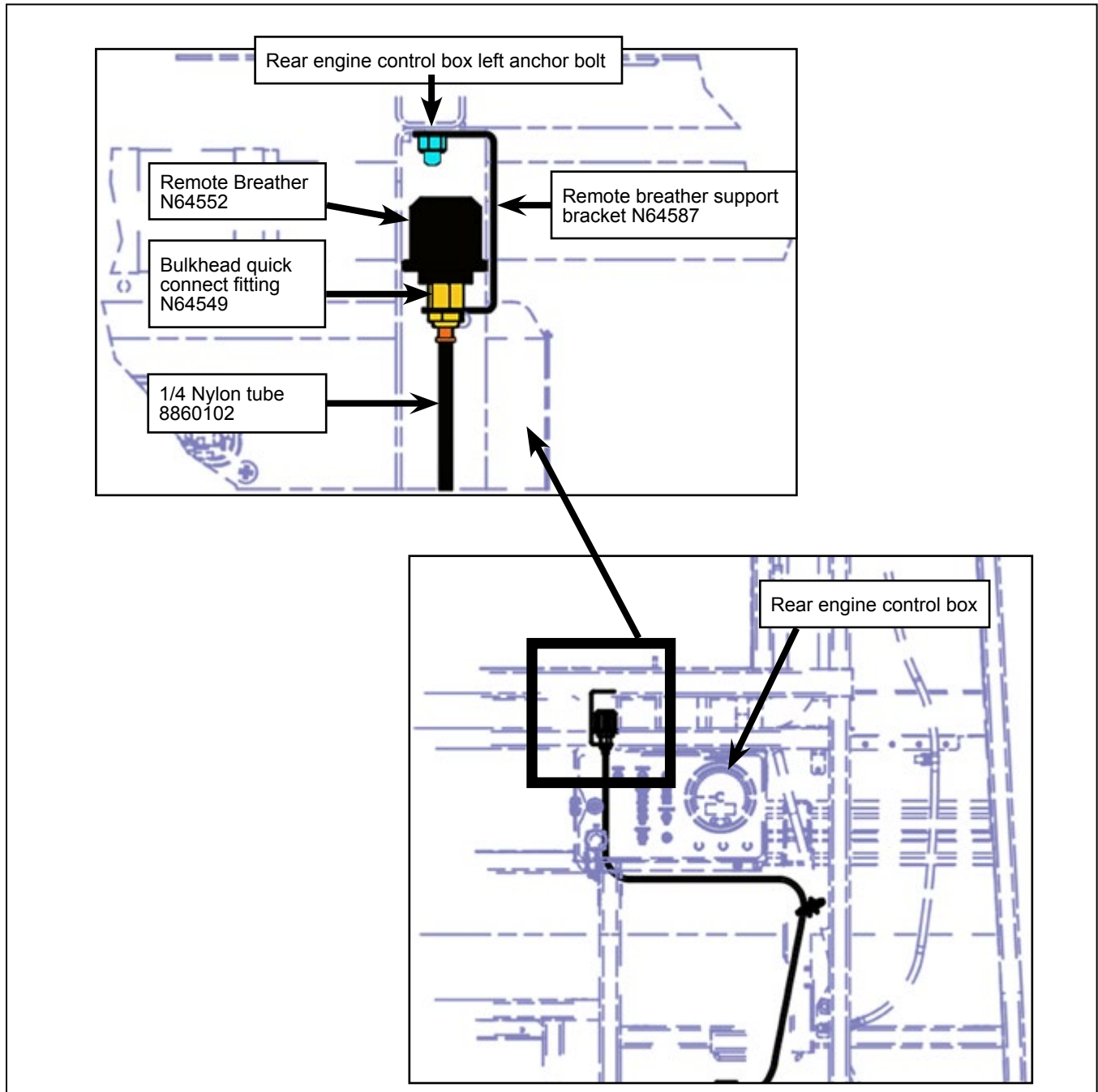


Figure 1 - Rear Right Corner Panel and Hydraulic Tank Drain Plug

- 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.



- 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, harness 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.

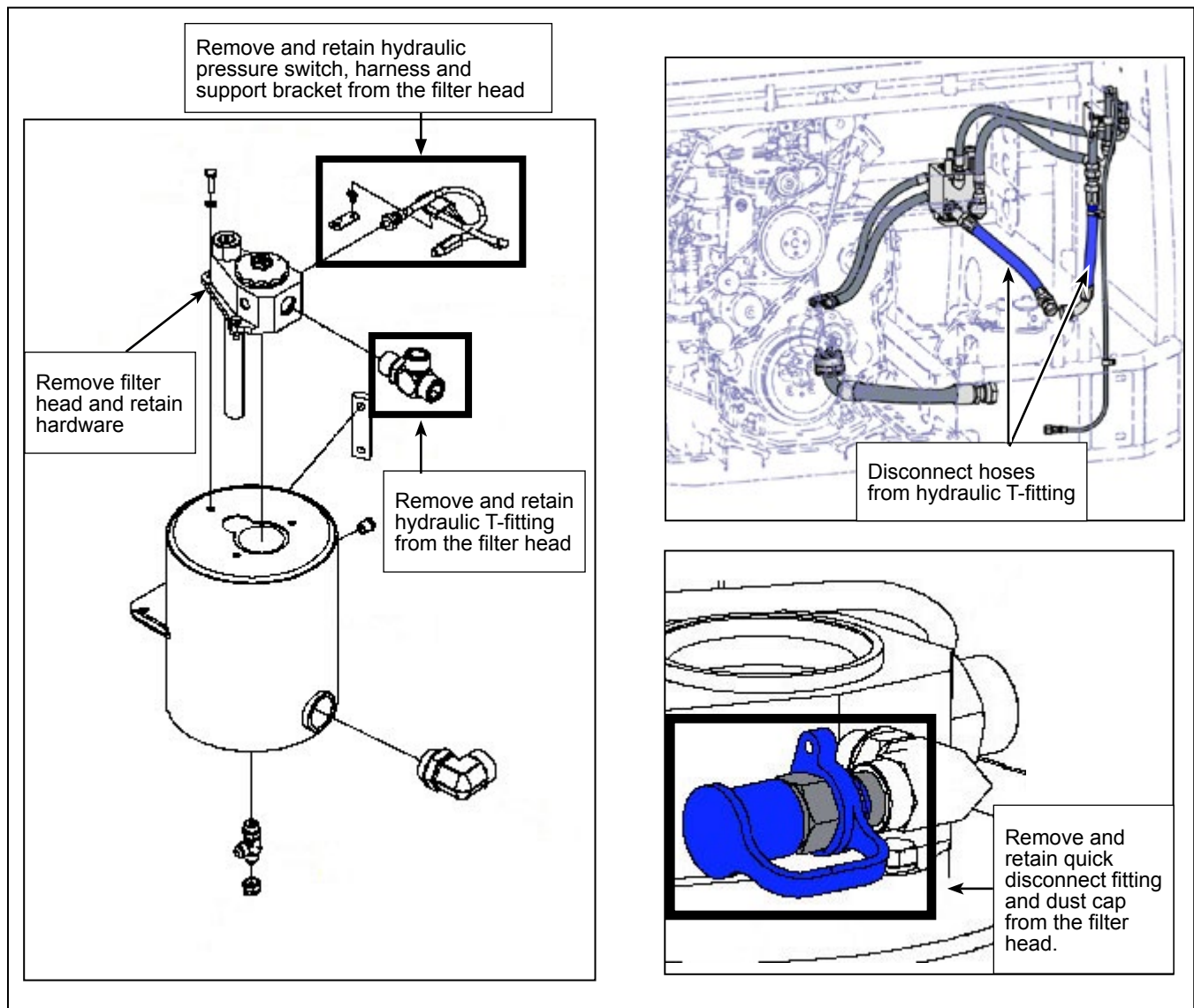


Figure 3 - Hydraulic Parts to Retain for Filter Head and Installation of New Hose

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

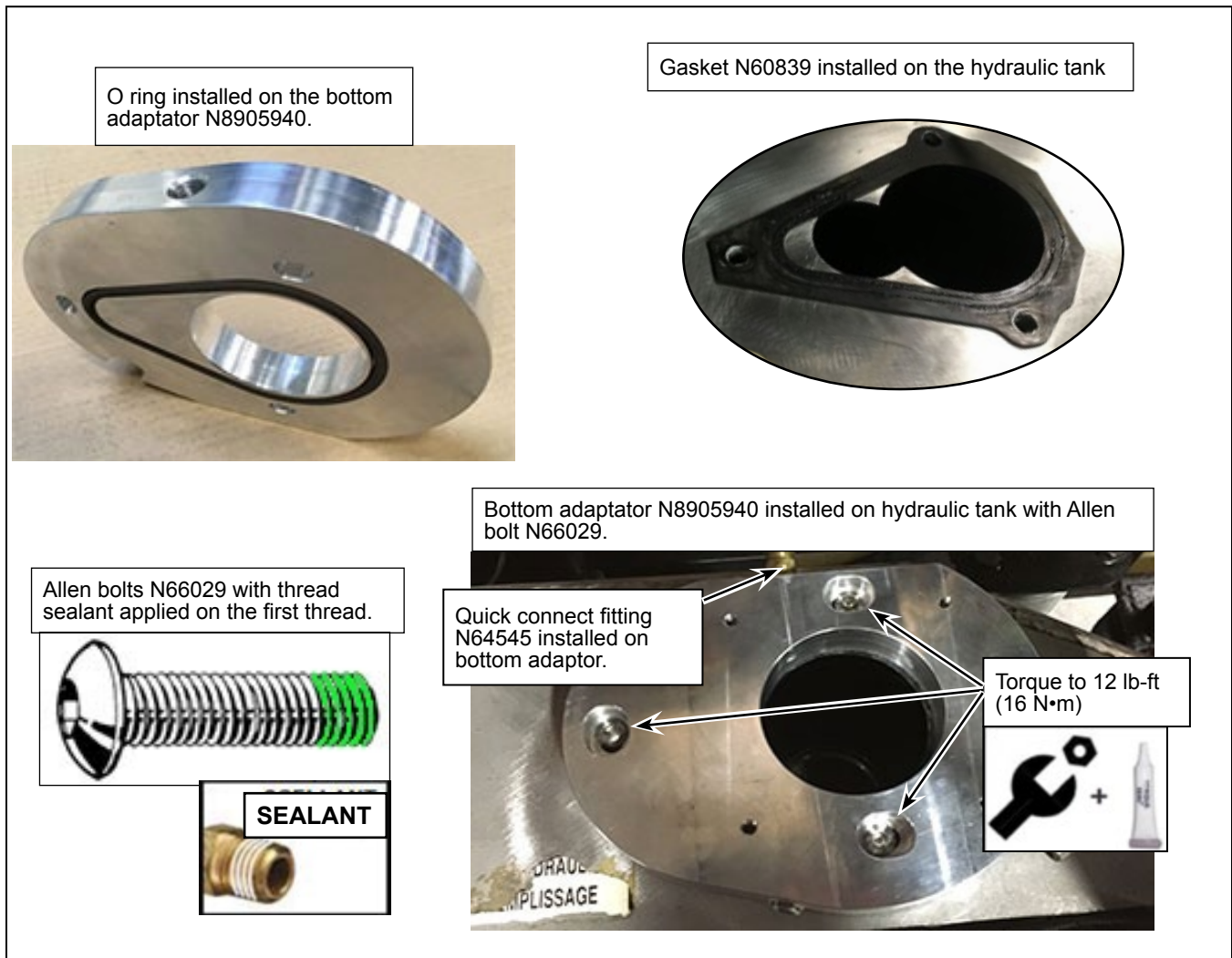


Figure 4 - Bottom Adaptor and Remote Breather Quick Connect Fitting on Hydraulic Tank

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

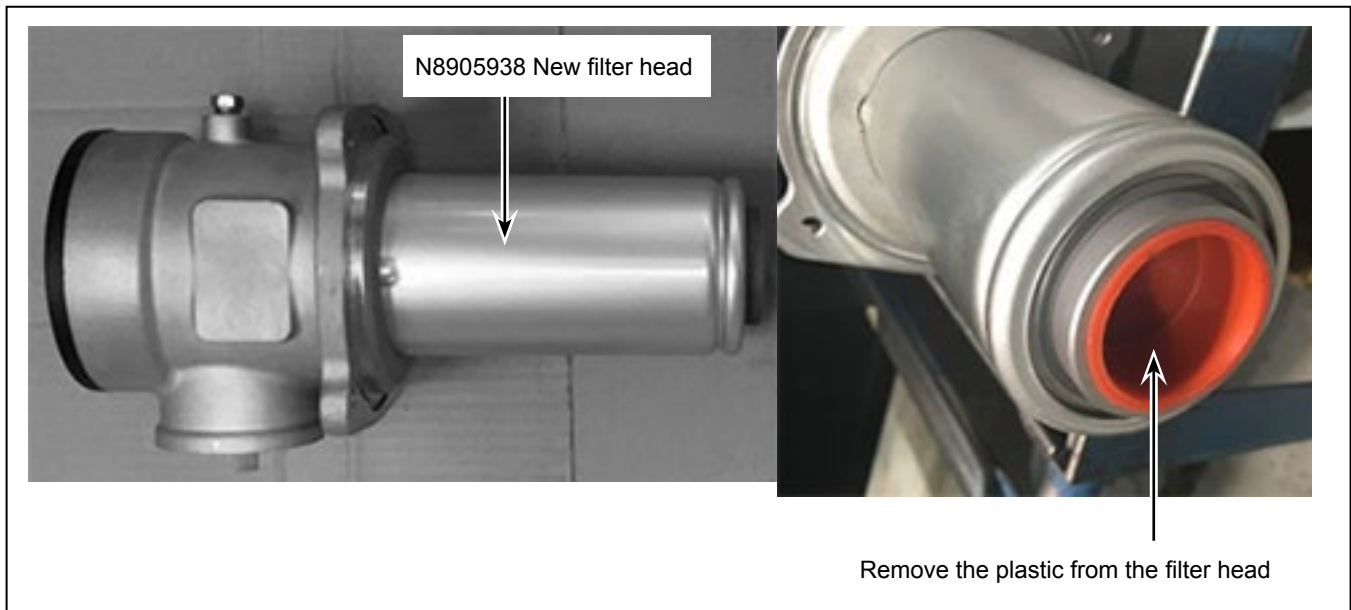


Figure 5 - Preparation of the Filter Head

- 1.24. Install the supplied O-ring on the top adapter plate N8905940 (included in the N8905966 kit). See Figure 6.
- 1.25. 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.
- 1.26. Install the harness support bracket on one of the filter head bolt. See Figure 6.
- 1.27. Apply a thin coat of thread sealant on the new 9409927 elbow fitting and install the fitting on the new 9409939 T-Fitting. See Figure 6.
- 1.28. Apply a thin coat of thread sealant on the new 0657590 fitting and install the fitting on the new 9409927 elbow fitting. See Figure 6.
- 1.29. Apply a thin coat of thread sealant on the retained hydraulic pressure switch and install the switch at the end of the 9409939 T-fitting. See Figure 6.
- 1.30. Apply a thin coat of thread sealant on the new 9409939 T-fitting and install the T-fitting on the filter head. See Figure 8.
- 1.31. Connect the new 3/8" nylon tube N17208 on the 0657590 fitting. See Figure 6.
- 1.32. Install the new filter N8905939 inside the new filter head N8905938 (both parts are included in the N8905966 kit). See Figure 6.
- 1.33. Connect the harness to the hydraulic pressure switch. See Figure 6.
- 1.34. Affix the connector to the harness support bracket and secure the harness using a tie wrap. See Figure 6.
- 1.35. 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 6.

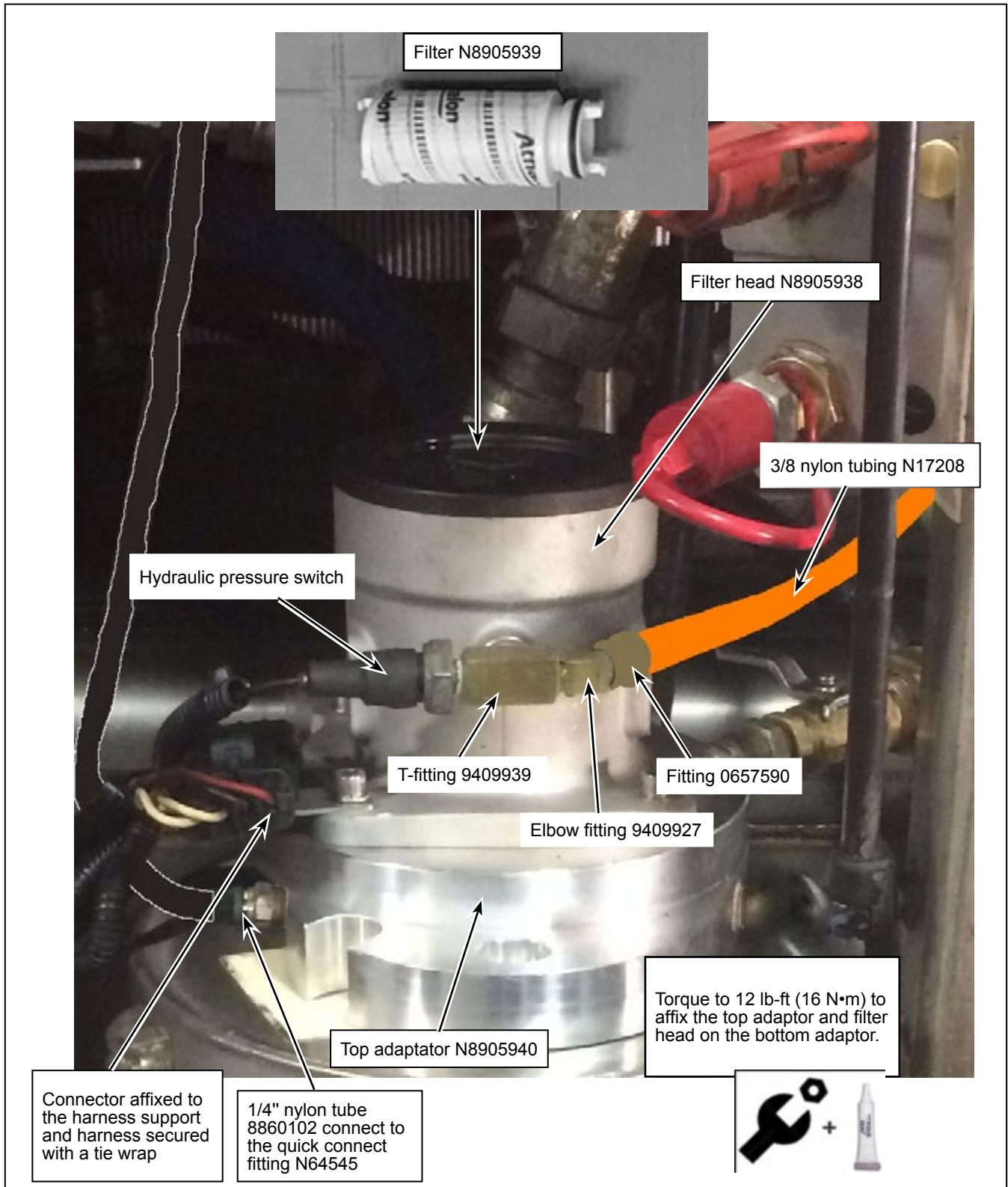


Figure 6 - Filter Head N8905938 and fittings Installed

- 1.36. Apply a thin coat of O ring lubricant on the ORS O-ring N8885935 and the ORFS O-rings 507303.
- 1.37. Install the ORS O ring N8885935 and the ORFS O-ring 507303. See Figure 7.
- 1.38. Install the retained hydraulic T-Fitting on the new filter head. See Figure 7.
- 1.39. Connect the hydraulic hose disconnected at step 1.11, to the hydraulic T-fitting on the filter head. See Figure 7 for torque value.

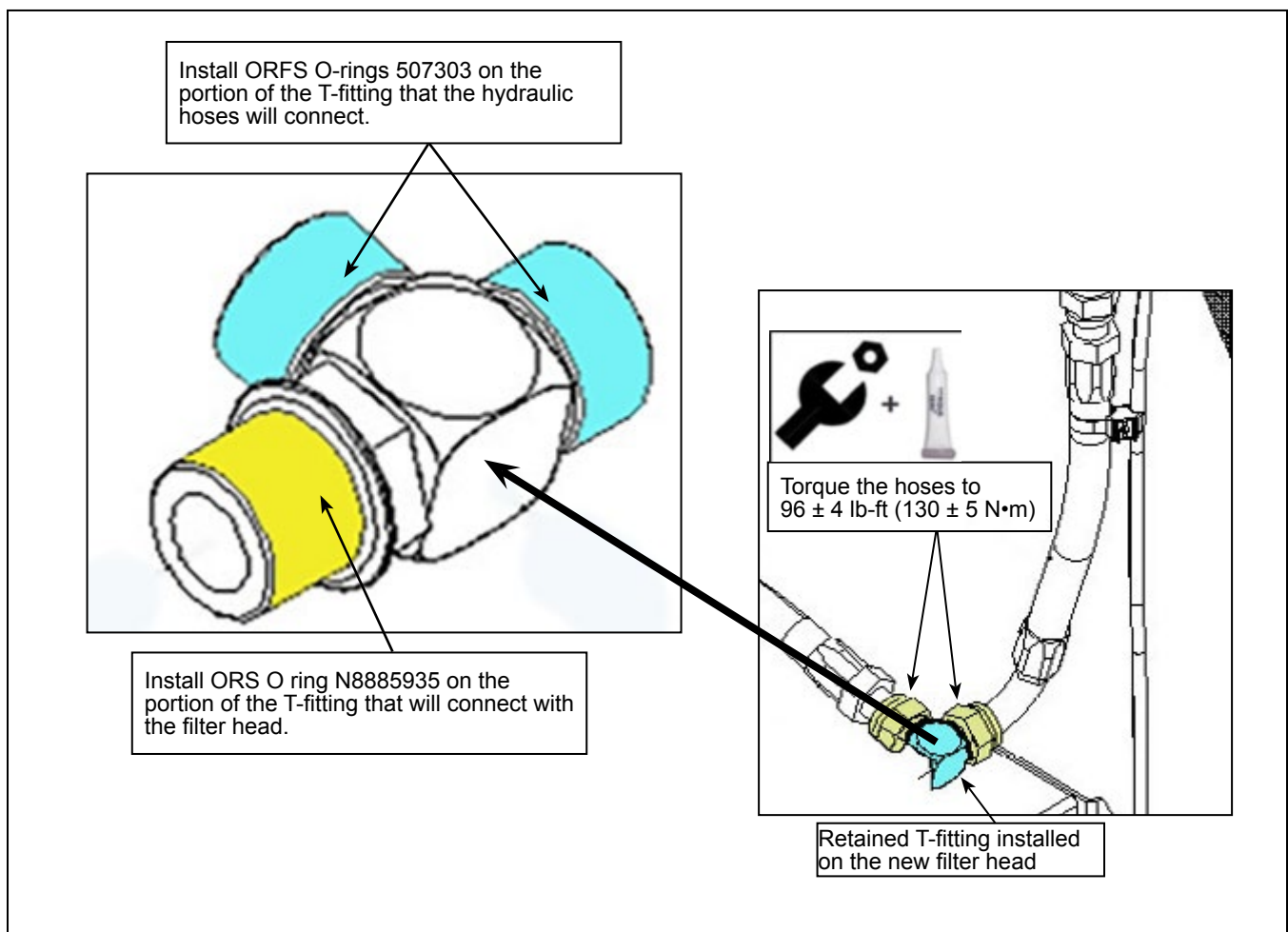


Figure 7 - O ring and Torque Value of the T-fitting

- 1.40. Remove the push button (N30612) from the discharge valve and remove the discharge valve from the support bracket. Retain the parts. See Figure 8.
- 1.41. Install a hose clamp on the coolant filling hose.
- 1.42. Remove the coolant quick connect fitting from support bracket. See Figure 8.
- 1.43. Remove the support bracket from the frame. Retain the hardware. See Figure 8.
- 1.44. Install the new N79775 dual bracket on the frame using the retained hardware. See Figure 8.
- 1.45. Affix the removed quick connect fitting and discharge valve in the top holes of the new plate N79775. See Figure 8.
- 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 8.
- 1.48. Install the new 0443990 reducer fitting on the T0647 bulkhead fitting. See Figure 8.
- 1.49. Install the retained quick disconnect fitting and dustcap on the 0443990 reducer fitting. See Figure 8.
- 1.50. Install a new 0657592 connector fitting on the back of the bulkhead fitting T0647. See Figure 8.
- 1.51. Connect the 3/8" nylon hose N17208 to the 0657592 connector fitting installed on the new plate N79775. See Figure 6 and 8.

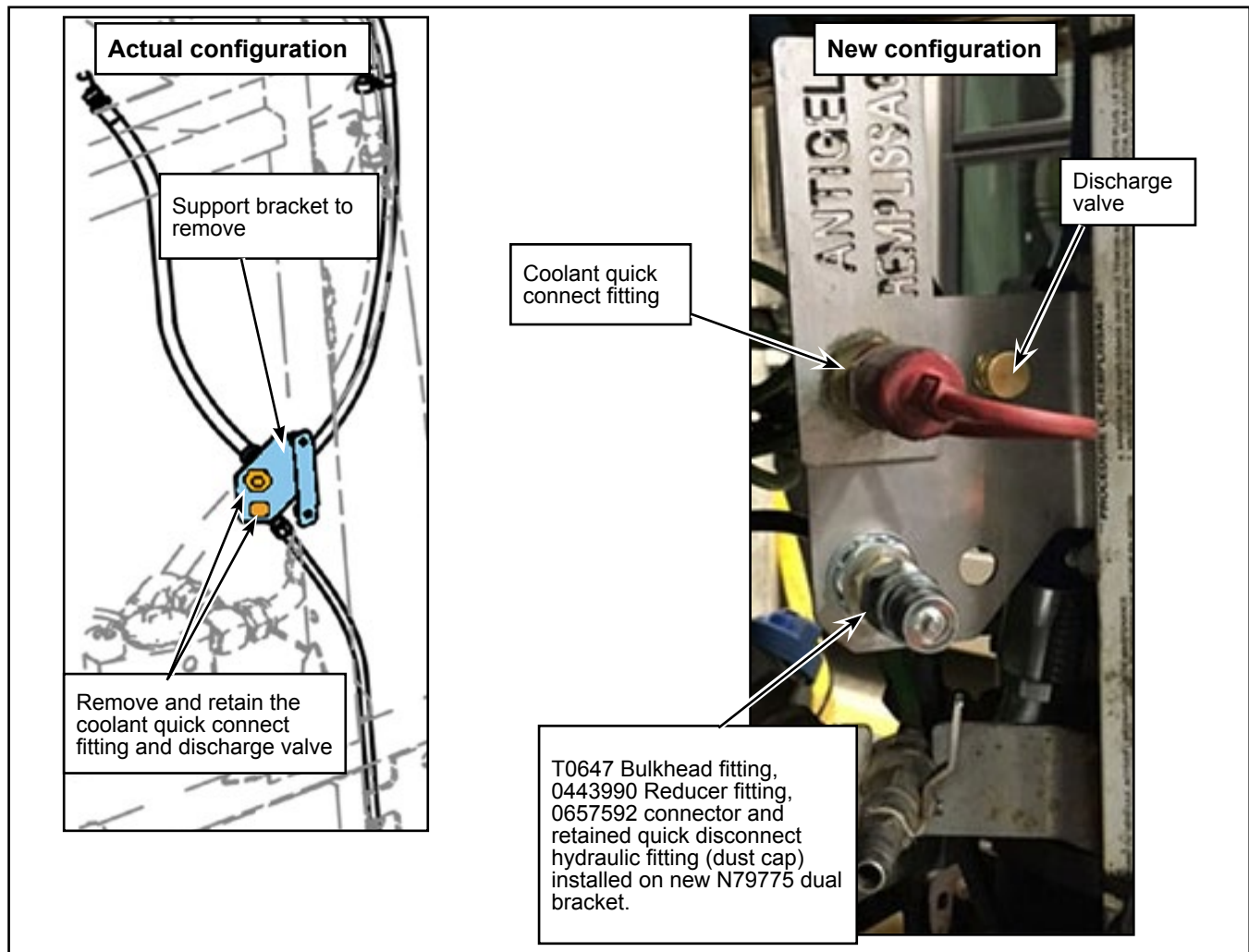


Figure 8 - Original Bracket to Remove and New N79775 Dual Bracket Installed

- 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.
- 1.57. Turn off the engine and disconnect the drum of hydraulic oil from the quick disconnect fitting. ❖