

Dual Filter Element Replacement Procedure

DATE: 12/20/2019

PRODUCTS AFFECTED

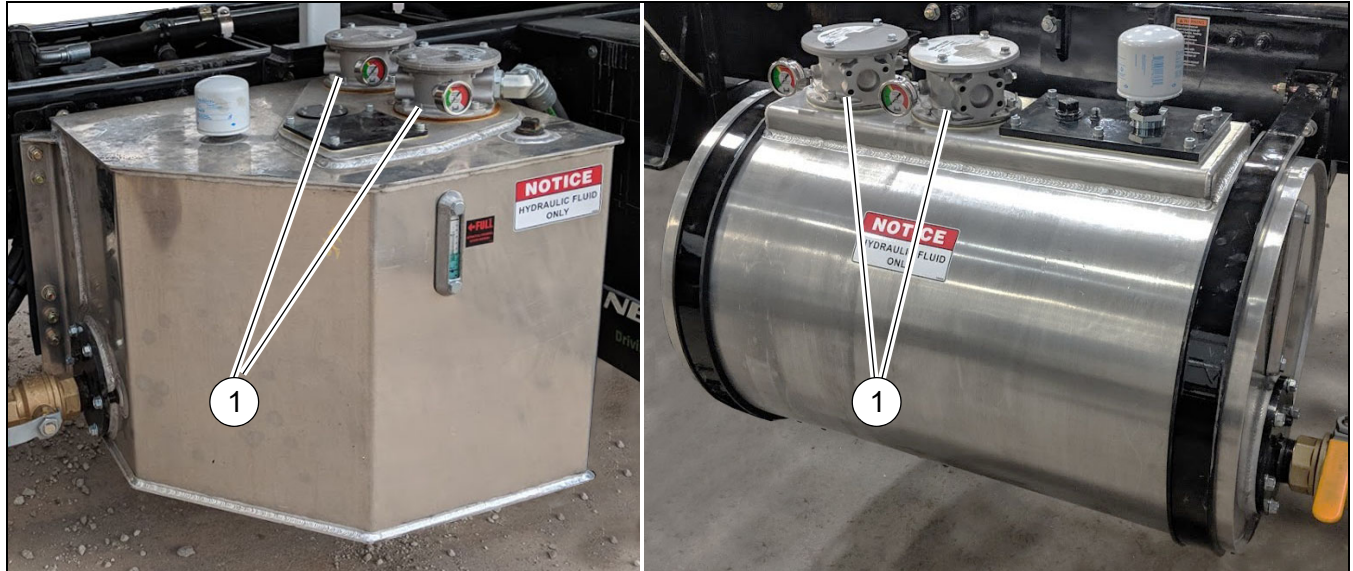


Figure 1

This Service Bulletin affects all Mammoth front loaders and Sidewinder automated side loaders with two Schroeder in-tank return filters mounted in the hydraulic reservoir.

OVERVIEW

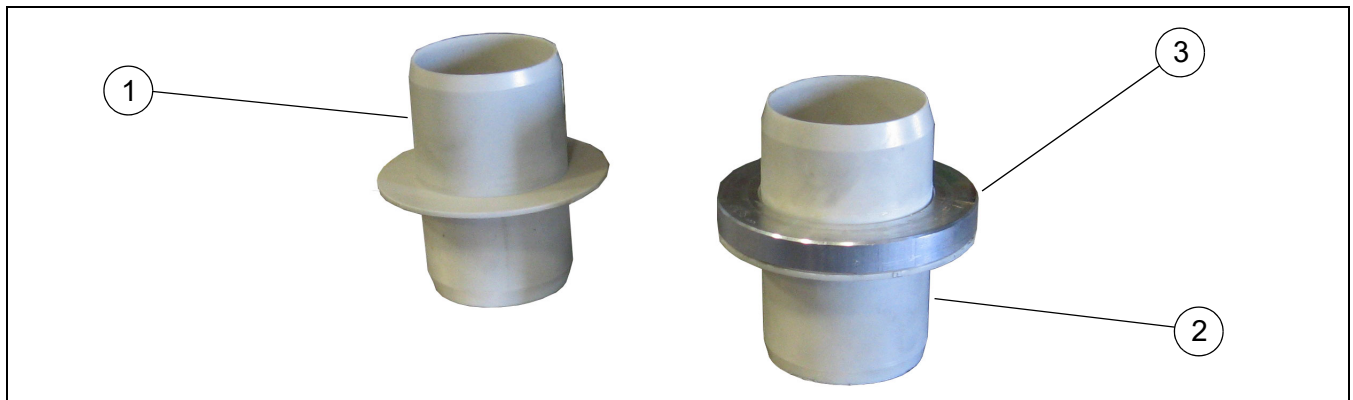


Figure 2

- Each in-tank filter assembly (**Figure 1, 1**) contains two filter elements. The filter vendor has changed the original element connector (**Figure 2, 1**) located between the filter elements. The new element connector (**Figure 2, 2**), part no. 137720, can be identified by the thicker collar (**Figure 2, 3**).

NOTICE

When replacing filter elements, the element connector must be inspected to verify the new connector is in the filter assembly.

If the new element connector is not in the filter assembly, order the new connector, part no. 137720, and replace with the filter elements.

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HYDRAULIC MAINTENANCE SCHEDULE

Performing preventive hydraulic maintenance on your Packer will prolong its life and help prevent expensive downtime, and minimize the potential for problems arising on the route.

Hydraulic maintenance must be a planned program that includes periodic inspection and maintenance procedures to ensure that the Packer is safe to operate. Many failures are due to when ordinary adjustments and lubrication are neglected.

The following chart summarizes the requirements for hydraulic maintenance of your refuse Packer. The chart specifies the recommended intervals when maintenance is required.

SYSTEM	DESCRIPTION	50 Hours Initial Start-up	10 Hours Daily	50 Hours Weekly	200 Hours Monthly	1250 Hours Semi-Annually	2500 Hours Annually
HYDRAULIC RESERVOIR	Check/add hydraulic fluid level		X				
	Inspect pressure indicator for status of return filters				X		
	Inspect/replace breather filter (106207)				X		
	Replace body return filter element (119789 Qty 2)	X				X	
	Replace arm return filter element (119789 Qty 2)	X				X	
	Test hydraulic fluid sample					X	
	Change hydraulic fluid						X
	Replace suction strainer (119237)						X

Intervals are listed in calendar and hours-of-use increments. Maintenance should be performed at the increment that occurs first. The maintenance intervals listed are the maximum days or hours allowed for each maintenance procedure. Continue to repeat the maintenance procedures at the listed intervals.

NOTICE

If the Packer is operated more than 10 hours per day, follow the “Hour” schedule. If the Packer is operated less than 10 hours per day, follow the “Period” schedules, where they apply.

If the Packer is operated more hours per day or double-shifted, the maintenance interval must be adjusted accordingly.

The maintenance program should be done based on the machine “Operating Hours” recorded on the hour meter or by following the Periodic Schedule shown below.

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CHANGE HYDRAULIC FLUID

- **Annually (2500 Hours)** - Replace hydraulic fluid at least at the recommended interval. The hydraulic fluid may require replacement at an earlier interval if the hydraulic system has been hot and damaged the fluid.

There are several instances in which you absolutely need to change your hydraulic fluid. Here are (3) instances that require replacement of the hydraulic fluid: contamination, heat, or degradation over time.

CONTAMINATION

Contamination, in the context of having to change your hydraulic fluid, means you have more bad stuff in the fluid than your system's filtration can reasonably remove. This is usually the result of a component failure creating a particulate contamination event that overruns the system's filtration. Contaminating situations can also occur when the fluid is contaminated with another non-compatible fluid. For example getting water mixed with the hydraulic fluid will cause the hydraulic fluid to appear cloudy.

HEAT

If the hydraulic fluid gets too hot, it breaks down. Most of the time you know if the hydraulic fluid has been too hot because it becomes darker in color and it doesn't smell right. It usually doesn't take a fluid sample analysis to figure this one out. Heat accelerates the condition called oxidative degradation.

OXIDATIVE DEGRADATION AND ADDITIVE DEPLETION

Over time, oxygen will combine with the hydrocarbon molecules of the fluid and a chain reaction occurs. This action results in some obvious conditions like darkened fluid, varnishing, and sludge. Some conditions that are not so obvious are increased viscosity, increased foaming, and retained air.

A hydraulic fluid's oxidative degradation is determined by its TAN number. This is the absolute measure of the Total Acid Number in the fluid.

A hydraulic fluid's additive depletion is determined by comparing a current fluid analysis to the "RECOMMENDED HYDRAULIC FLUID SPECIFICATIONS" on page 5. For example, zinc is an antioxidant and anti-wear additive. Over time, it becomes depleted. So you have to check the concentration of zinc in your current fluid sample to the recommended hydraulic fluid specifications for new fluid.

This one is a little more complex and will require a fluid analysis to determine. Fluid analysis must be performed routinely so a degradation or depletion trend can be spotted before it becomes a mechanical maintenance event.

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REPLACE SUCTION STRAINER (119237)

- **Annually (2500 Hours)** - Replace suction strainer.

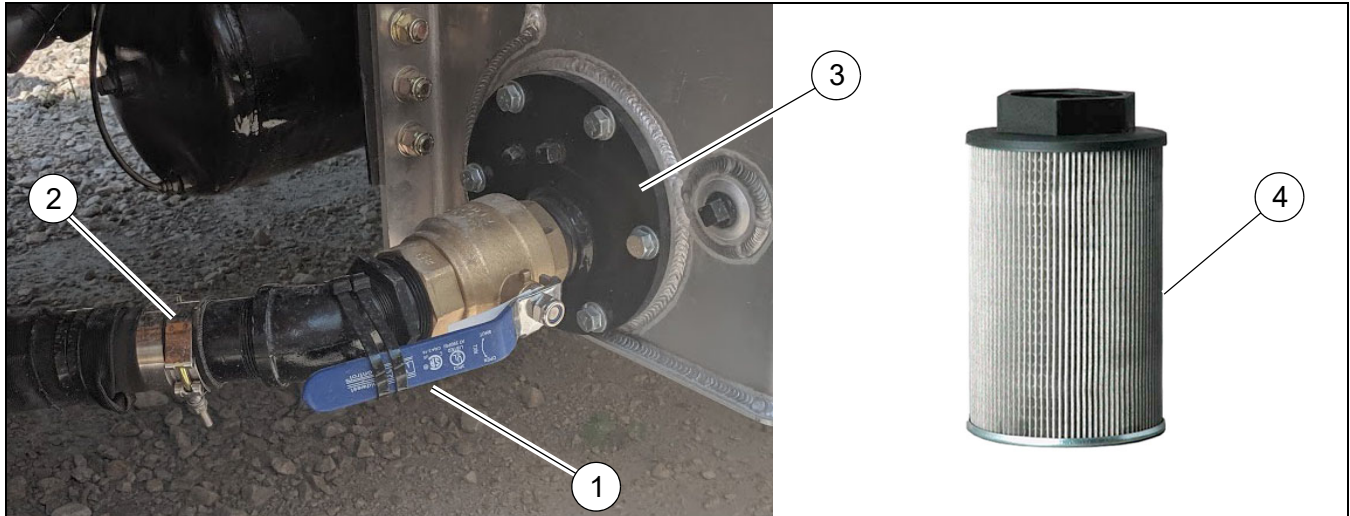


Figure 3

- Start by applying the **LOCKOUT/TAGOUT PROCEDURE** on page 28.
- Remove the drain plug from bottom of hydraulic reservoir to empty the reservoir of hydraulic fluid.
- Cut wire ties and move lever (**Figure 3, 1**) down to close off valve.
- Loosen clamp (**Figure 3, 2**) and remove suction hose.
- Remove cap screws and pull to remove cover (**Figure 3, 3**) and access suction strainer.
- After cover is removed, inspect and clean the inside of the hydraulic reservoir.
- Replace suction strainer (**Figure 3, 4**), part no. 119237, on cover.
- Place cover in hydraulic reservoir and reinstall the mounting cap screws.
- Reattach the suction house and tighten clamp.
- Move lever up to open valve. Reinstall wire ties to ensure the valve stays open.
- Reinstall the drain plug in the bottom of the hydraulic reservoir.

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RECOMMENDED HYDRAULIC FLUID SPECIFICATIONS

Northland Tamar Extreme[®] and Tamar[®] All Season premium hydraulic fluids are used for all New Way[®] Packers to meet the stringent performance requirements. An ISO Viscosity grade of 32 or 46 can be used depending on the ambient-temperature the Packer is operating in.

The following table provides the properties for each ISO Viscosity. Hydraulic fluid can be used from a alternative vendor, but the hydraulic fluid must meet the properties identified in the table. Also, any alternative hydraulic fluid must meet the performance specifications identified at the bottom of the table.

NORTHLAND TALAMAR [®] SPECIFICATIONS			
PROPERTIES	STANDARD	EXTREME	ALL SEASON
ISO Viscosity Grade	ASTM D2422	32	46
Gravity Deg. API	ASTM D287	32.0	31.0
Specific Gravity	ASTM D1298	0.865	0.870
Pour Point °F	ASTM D97	-50	-40
Flash Point °F, min.	ASTM D92	390	405
Viscosity: cST @ 40°C	ASTM D445	33	47
cST @ 100°C		6.6	7.9
Viscosity: SUS @ 100°F	ASTM D2161	168	240
SUS @ 210°F		48	53
Viscosity Index, min	ASTM S2270	162	138
Brookfield Viscosity, cP, max. @ -20°C	ASTM D2983	1050	2100
Rust Test	ASTM D665	pass	pass
Foam Test, max.	ASTM D892	10/0	10/0
		20/0	20/0
		10/0	10/0
Dielectric Strength, KV min.		35	35
PERFORMANCE SPECIFICATIONS			
Denison HF-0, HF-2	ASTM D2882		
Vickers / Eaton M-2950-S 35VQ25			

NOTICE

When purchasing hydraulic fluid, give the above information to your supplier to provide a similar product. The hydraulic fluid provided with the Packer is a premium hydraulic fluid that is formulated to meet the stringent performance requirements of refuse collection equipment exposed to broad ambient operating temperatures.

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FILTER ELEMENT REPLACEMENT PROCEDURE (119789 - QTY 2)

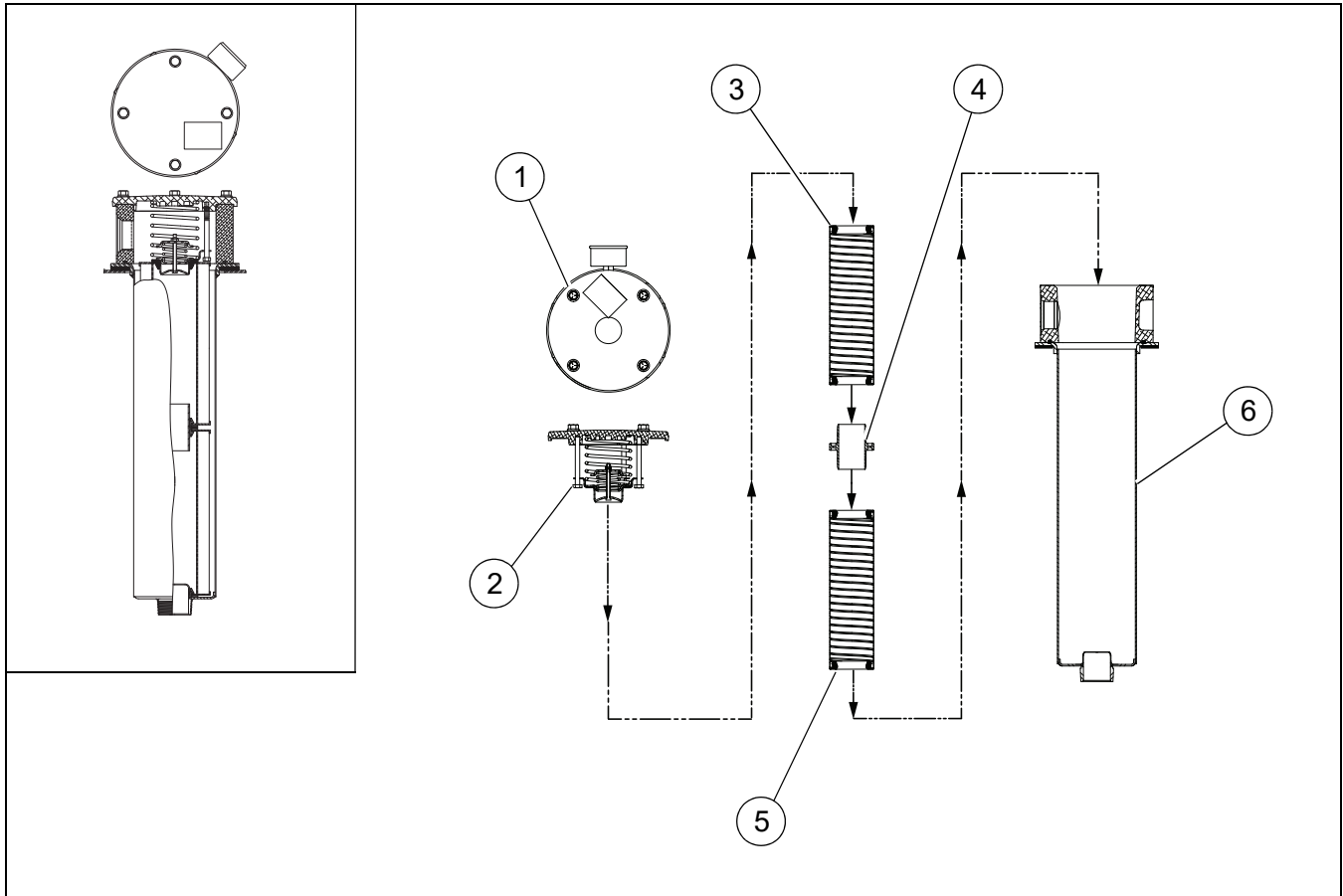


Figure 4

- Start by applying **LOCKOUT/TAGOUT PROCEDURE**.
- Thoroughly clean around the filter head to prevent infiltration of contamination when opening the filter head.
- Remove the cap screws (**Figure 4, 1**) on top of the filter head.
- Pull up and remove the cover assembly (**Figure 4, 2**).
- Pull both filter elements (**Figure 4, 3 and 5**) and the element connector (**Figure 4, 4**) out.
- Inspect and clean the inside of filter housing (**Figure 4, 6**) before installing new elements.

Dual Filter Element Replacement Procedure

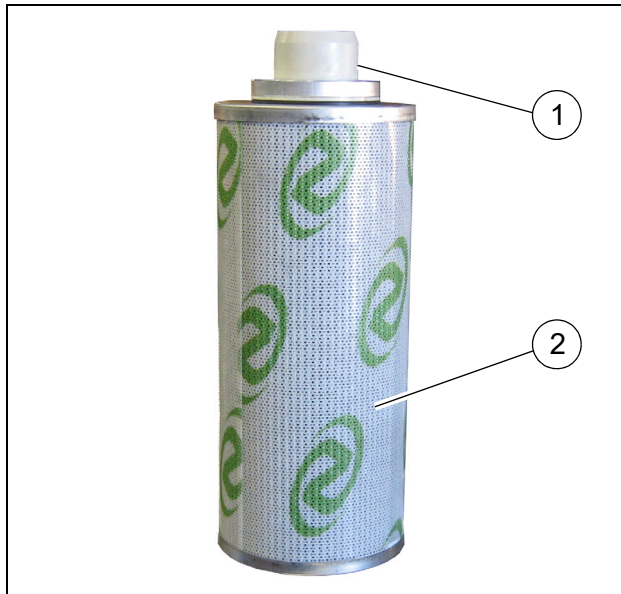


Figure 5

- Insert element connector (**Figure 5, 1**), part no. 137720, into the top of the first filter element (**Figure 5, 2**) until the connector is flush with the top of the element.



Figure 6

- Insert the first filter element (**Figure 6, 1**) into the filter housing with the connector up.
- Press down on the filter element until it is firmly seated on the guide tube at the bottom of filter housing.

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Figure 7

- Insert the second filter element (**Figure 7, 1**) into the filter housing.
- Slide filter element over the element connector until the element is firmly seated on connector.

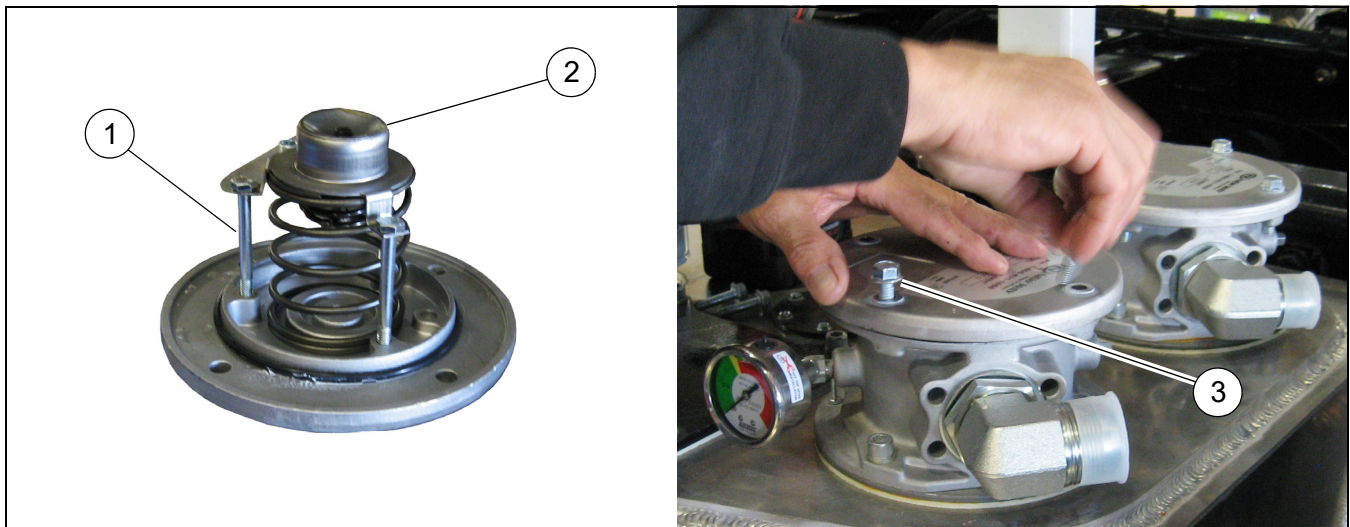


Figure 8

- Install the cover assembly (**Figure 8, 1**) on top of the filter housing.
- When installing align the plunger (**Figure 8, 2**) of the cover into the top of filter element.
- Press the cover down against the housing.
- Install and tighten the cap screws (**Figure 8, 3**) to hold cover in place.

Dual Filter Element Replacement Procedure

PARTS REQUIRED

- (2) Hydraulic Filter Elements (Part No. 119789) - Per Filter Assembly
- (1) Element Connector (Part No. 137720) - Per Filter Assembly

CONTACT INFORMATION

New Way® Parts
217 N Griffith Road
Carroll, IA 51401
Toll Free: 844-652-3395
Phone: 712-652-3395