

Model R90

Split Body Rear Loader

Maintenance Manual



SECTION 3: MAINTENANCE

(Minimum Recommendations)

Inspections and Schedules

G & H Manufacturing has developed two inspection forms which indicate the items to be inspected and the frequency of the inspections. It is important for the life of the unit and for warranty purposes that both forms be used as indicated. The forms are as follows:

- Q1021 – Daily Driver Vehicle Inspection Report – R90
- Q1024 – Preventative Maintenance Inspection Form – 150 HR, 1200 HR, and 2400 HR

A copy of both inspections is included with this manual.

Torque Specifications for Fittings (Ft.-Lbs.)(Min. – Max.)

SIZE	37° JIC	FLAT FACE “O” RING
1/4”	10-11	10-12
3/8”	17-19	18-20
1/2”	34-38	32-40
3/4”	70-78	65-80
1”	94-104	92-105
1 1/4”	124-138	125-140
1 1/2”	156-173	150-180

Packing – Hydraulic and Electrical Description

In order to help perform maintenance and troubleshooting, it is important to understand the hydraulic and electrical sequence of events of the Packing process. The following is a basic description of the events. Additional details can be found in the Drawings and Bill of Materials.

1. Pull and release both levers for the Right (Curb Side) Tailgate. This will cause the Sequencing Valve with attached Limit switches, located on top of the Tailgate to do the following:
 - a. The spools in the first two (2) sections of the valve will shift in one direction.
 - b. The spools are mechanically attached to electrical Limit switches. When the spools shift, the Limit switches shift and send an electrical signal to the Throttle Advance to increase the engine’s RPM.

- c. Since this is a Sequencing Valve, section one (1) will receive hydraulic oil flow first. This will cause the Packer to move OUT until the cylinders reach end of stroke. At end of stroke, pressure will cause section one (1) to “kick-out” and the spool will return to the center position.
 - d. Section two (2) will now get hydraulic oil flow. This will cause the Carriage to move DOWN until the cylinders reach end of stroke. At end of stroke, pressure will cause section two (2) to “kick-out” and the spool will return to the center position.
 - e. When the spools return to the center positions, the Limit switches will also return back to neutral which will stop the electrical signal to the engine’s Throttle Advance.
2. Push and release both levers for the same Tailgate to complete the Packing cycle. This will cause the same Sequencing Valve with attached Limit switches and Pressure switches to do the following:
 - a. The spools in the first two (2) sections of the valve will shift in the opposite direction as was done in step 1a.
 - b. The spools are mechanically attached to electrical Limit switches. When the spools shift, the Limit switches shift and send an electrical signal to the Throttle Advance to increase the engine’s RPM.
 - c. As above, since this is a Sequencing Valve, section one (1) will receive hydraulic oil flow first. This will cause the Packer to move IN until the cylinders reach end of stroke. At end of stroke, pressure will cause section one (1) to “kick-out” and the spool will return to the center position.
 - d. Section two (2) will now get hydraulic oil flow. This will cause the Carriage to move UP. As the Carriage moves up, the trash compaction process between the Packer and Ejector will cause the hydraulic pressure to increase. When the hydraulic pressure exceeds 400 psi, the Pressure switch, which is installed in section (2), will send an electrical signal to a Dump Valve, which is located at the front of the Body.
 - e. The Dump Valve is connected to the Rod End of the Ejector Cylinder. When the hydraulic pressure exceeds 200 psi, the Dump Valve will OPEN to allow hydraulic fluid from the Ejector Cylinder to flow back to the Hydraulic Reservoir. At this point, the forces from the trash compaction process will make the Ejector Cylinder retract which in turn makes the Ejector move towards the front of the Body. The Ejector will continue to move until either the hydraulic pressure at the Dump Valve drops below 200 psi, or, the hydraulic pressure at the Pressure switch drops below 400 psi. This hydraulic/electrical cycle will continue back and forth until the Carriage Cylinders reach end of stroke.
 - f. When the Carriage Cylinders reach end of stroke, pressure will cause section two (2) to “kick-out” and the spool will return to the center position.
 - g. When the spools return to the center positions, the Limit switches will also return back to neutral which will stop the electrical signal to the engine’s Throttle Advance.

This process is also the same for the Left (Street Side) Tailgate except sections three (3) and four (4) of the Sequencing Valve are used.

Pressure Settings

Component	Location	Pressure Setting
Main Control Valve	Front of Body, Left Side	2000 PSI
Pressure Switches	Sequencing Valve	400 PSI
Dump Valve	Front of Body	200 PSI

Grease Points

Apply Grease at the points shown in Figure 12 at the frequencies recommended in the Inspection Schedules. Recommended Grease: Heavy Duty EP Grease NLGI2.

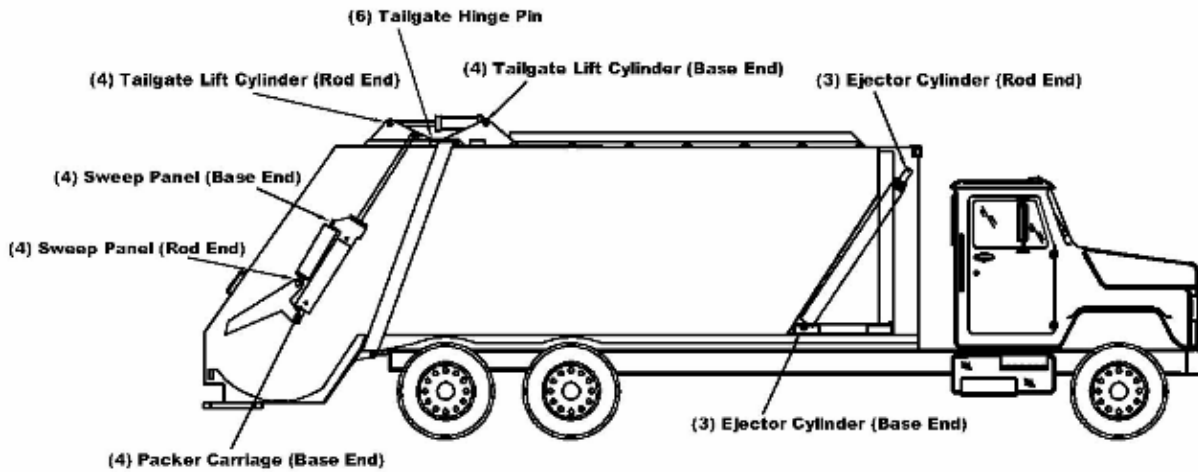


Figure 4

Hydraulic Oil

- Recommend ISO Grade 46
- Maintain Hydraulic Oil Cleanliness Level of ISO 18/15/13

Hydraulic Oil Reservoir and Suction Strainer Cleaning

1. Remove drain plug in bottom of Hydraulic Reservoir and drain oil.
2. Remove the Suction Line from the hose barb.
3. Remove Suction Strainer from the Reservoir by rotating the 3" hex counter clockwise.
4. Clean and check the Strainer for damage and make sure the bypass valve operates correctly.
5. Swab out the Reservoir to remove any sediment.
6. Wrap Strainer threads with Teflon tape
7. Reinstall the Strainer
8. Reconnect the Suction Line to the hose barb
9. Refill the Reservoir with hydraulic oil.

Changing External Filters

Note: Be sure that the hydraulic oil in the Reservoir is below the bottom of the filters before removing the filters.

1. Slide the Strap Wrench around the base of the filter and turn counter clockwise to remove.
2. Install new filter turning clockwise to tighten.
3. Repeat steps for second filter.