

Vulcan Carrier Maintenance

General

The continued operation of your CAR CARRIER is largely dependent upon adherence to a properly scheduled maintenance program. For this reason, we have provided the following information regarding lubrication, preventive maintenance and hydraulic system care.

Hydraulic System

The importance of absolute cleanliness of the hydraulic system cannot be over stressed. The smallest amount of grit, metal flake, or other foreign material in the system can cause extensive damages to pumps, motors and valves. We have taken every precaution to assure that each component and fitting was thoroughly cleaned before your CAR CARRIER was put into operation. Therefore, servicing of the system should be done with extreme care.

- (a) Before checking oil in the reservoir, wipe away all dirt and grime around filler cap before removing cap. When adding oil, make sure containers, funnels and pouring spouts are absolutely clean.
 - (b) When replacing hoses, fittings or other components, clean thoroughly, dismantle and reassemble carefully.
 - (c) Failure to observe these precautions, and failure to change the filter elements at regular intervals, could result in loss of your warranty in the event of failure to certain components.
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Lubrication & Preventive Maintenance

The following general lubrication and preventive maintenance should be performed at least once per month for moderate usage:

(a) Inspect, repair or replace any worn, cracked, leaking, or otherwise damaged components including, but not limited to, the following:

1. **Hydraulic oil filter.**
2. **Oil reservoir.**
3. **Controls.**
4. **Cables and fittings.**
5. **Hydraulic hoses and fittings.**
6. **Lights and wiring.**
7. **Winch.**
8. **Pivot bearing surfaces and pins.**

(b) Check the hydraulic oil level in the reservoir and fill to 1/2" above baffle. Use a high quality SAE 10W non-foaming hydraulic oil.

(c) Replace the hydraulic filter after the first week of operation, then every three (3) months thereafter.

(d) Tighten all bolts. Vibration and stress may loosen even properly torqued bolts.

(e) Lubricate all grease fittings on the CAR CARRIER including:

1. **Control Rods and Control Handle Shafts.**
2. **Cable.**
3. **Winch.**
4. **Cylinder Pivot Bearings.**
5. **Cross Bar Pivot.**
6. **Wheel Lift Slide Pads and Pivots.**
7. **Frame Slide Pads.**

(f) Oil all bearing surfaces which are not equipped with grease fittings. Use pump can with SAE 30 oil.

(g) Check oil level in winch and fill to level of oil plug located on the side-plate of the gear housing. Use SAE 140 general purpose gear oil. Lubricate grease fitting on clutch (may be reached through plastic cap opening with winch engaged). Lubricate cable with oily rag while re-spooling the cable onto the drum. Special cable lubricants are also available which have better penetrating qualities. Consult your local oil company for a list of them.

Summary of Required Lubricants

Worm Gear Oil - SAE 140 general purpose gear oil. Manufacturer will provide a good quality SAE 10W non-foaming hydraulic oil.

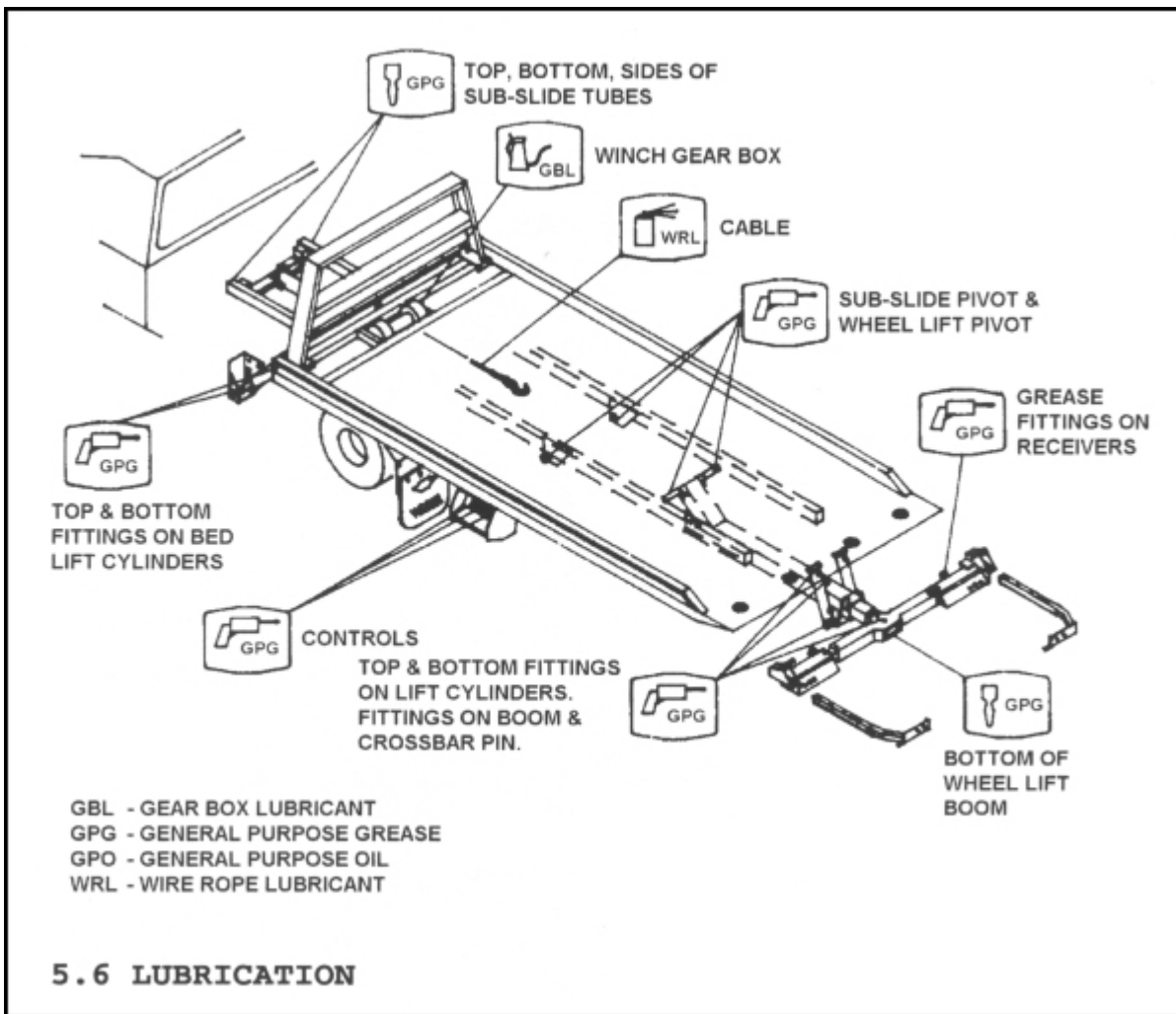
NOTE:
THERE IS NO PRACTICAL WAY TO DETERMINE THE LIFE
EXPECTANCY OF HYDRAULIC HOSES AND OTHER RUBBER COMPONENTS. WHILE
APPEARING TO BE IN EXCELLENT CONDITION, THESE COMPONENTS MAY BE
ADVERSELY AFFECTED BY USAGE, WEATHER OR THE PASSING OF TIME.
THEREFORE, IT IS RECOMMENDED THAT ALL RUBBER COMPONENTS, ESPECIALLY
HOSES, BE REPLACED EVERY FIVE (5) YEARS REGARDLESS OF APPEARANCE.

Care of Hydraulics in Cold Climate

When the CAR CARRIER is used in seasonal cold climate regions (+20° F. and below), the viscosity of the normally recommended SAE 10W non-foaming oil may increase to the point where it adversely affects the hydraulic functions during starting and warm-up.

If this is the case, it will be necessary to change fluids seasonally to maintain maximum system efficiency and life. Regions subject to continuous sub-zero or arctic climates require special fluids. Contact your local oil supplier for information regarding specific temperature requirements.

Lubrication



1. Control Rod and Control Handle Pivot Points - Drydene SFG or equivalent.
2. Cable - Oily rag or approved Cable Lubricant.
3. Winch Oil Level - Fill to oil plug level inside of housing with SAE 140 general purpose gear oil.
4. Cylinder Pivot Bearings - Drydene SFG or equivalent.
5. Winch Clutch Control - Drydene SFG or equivalent.
6. Hydraulic Reservoir - Fill to 1/2" above baffle with recommended hydraulic fluid.
7. Hydraulic Filter - replace after first week of operation, and then every three months.
8. Wheel Lift Pivot - Drydene SFG or equivalent.
9. Hinge Pin - General Purpose Grease.
10. Frame Slide Pads - Megaplex 2 or equivalent.
11. Internal Clutch - White Lithium Grease.

NOTE:
THE ABOVE SERVICE REQUIREMENTS SHOULD BE SERVICED MONTHLY. SERVICE MORE OFTEN IF THE EQUIPMENT IS USED FREQUENTLY.

Use the following information for proper lubrication requirements of the CAR CARRIER WHEEL LIFT SYSTEM.

1. LUBRICANTS

It is recommended that a synthetic fortified grease such as Drydene SFG or equivalent be used on all lubrication points as described below for the optimum in performance and life of CAR CARRIER WHEEL LIFT SYSTEM.

1. Lift Cylinder Pivot Bearings - Monthly.

2. Wheel Lift Boom - Monthly.

3. Wheel Lift Pivot Pin - Daily.