Service & Adjustment Manual



SM 549
OP 7

CLARK

Service Publications
Department
Battle Creek,
Michigan 49016

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SERVICE MANUAL
SM549

OP7

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PM - PLANNED MAINTENANCE PROGRAM

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A planned maintenance program of regular, routine inspections and lubrication is important for long life and trouble-free operation of your lift truck. Make and keep records of your inspections. Use these records to help establish the correct PM intervals for your application and to indicate maintenance required to prevent major problems from occurring during operation.

PM Report Form

As an aid in performing and documenting your PM inspections, Clark has prepared an "ELECTRIC TRUCK PLANNED MAINTENANCE REPORT" form. Copies of this form may be obtained from your authorized CLARK dealer. We recommend that you use this form as a checklist and to make a record of your inspection and truck condition.

The periodic maintenance procedures outlined in this manual are intended to be used with the PM report form. They are arranged in groupings of maintenance work that are done in a logical and efficient sequence.

A check mark or entry is made on the PM Report Form when the PM is performed. Please note the special coding system for indicating the importance of needed repairs and/or adjustments. When you have finished the PM inspections, be sure to give a copy of the report to the designated authority or the person responsible for lift truck maintenance.

Do not make repairs or adjustments unless authorized to do so.

For safety, it is good practice to:

Remove all jewelry (watch, rings, bracelets, etc.) before working on the truck.

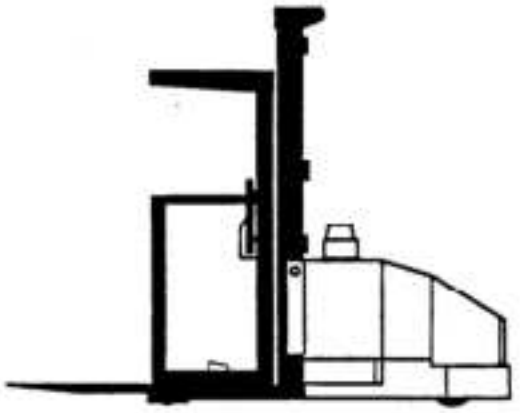
Disconnect battery from truck receptacle before working on electrical components.

Always wear safety glasses. Wear a safety (hard) hat in industrial plants and in special work areas where protection is necessary or required.

HOW TO PERFORM THE PM PERIODIC INSPECTIONS AND MAINTENANCE

Visual Inspection

First, perform a visual inspection of the lift truck and its components. Walk around the truck and take note of any obvious damage and maintenance problems such as cracks in frame or bent parts.. Check for loose fasteners and fittings.



Check to be sure all capacity, safety, and warning plates or decals are attached and legible.

NOTICE

NAMEPLATES & DECALS

Do not operate a lift truck with damaged or missing decals and nameplates. Replace them immediately. They contain important information.

Inspect the truck for any signs of external leakage: transmission fluid, etc. Check for hydraulic oil leaks and loose fittings. DO NOT USE BARE HANDS TO CHECK. Oil may be hot or under pressure.

SAFETY NOTE

HYDRAULIC FLUID PRESSURE

Do not use your hands to check for hydraulic leakage. Fluid under pressure can penetrate your skin and cause serious injury.

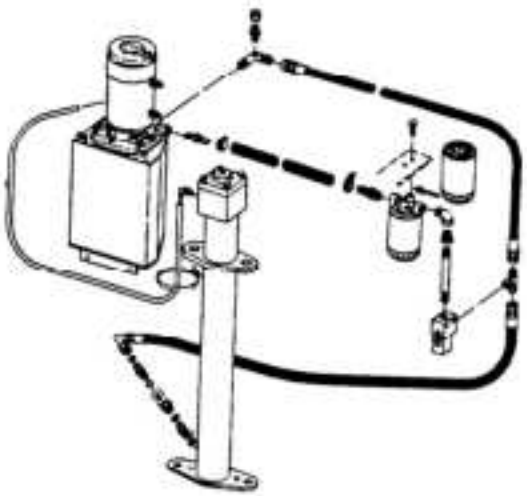
Be sure that the driver's overhead guard, finger guards, and any other safety devices are in place, undamaged, and attached securely. Check the belt and lanyard for secure mounting and damage that could affect safety.

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GROUP 29 SECTION 01
HYDRAULIC SYSTEM

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29-01-01 GENERAL DESCRIPTION

The parts of the main hydraulic system are the hydraulic reservoir tank, hydraulic pump and motor, solenoid control valve, and associated hydraulic lines and hoses.

Pressure in hydraulic system is developed by a gear pump which is turned by a motor to create flow. Flow is supplied to the pump from the hydraulic reservoir. From the pump, the fluid flow is sent to the T fitting on the lowering solenoid valve. In the raised position, the solenoid valve is closed. The flow is sent to the cylinder.

To control the lowering of the lift cylinder, the lowering solenoid valve is opened by an electrical current from the lowering switch. When the lowering valve is open, the pressure of the platform from gravity forces the flow of hydraulic fluid to flow through the filter and back to the reservoir.

29-01-02 HYDRAULIC FLUID AND FILTER CHANGE

To drain the reservoir tank, with the upright in the fully lowered position. Disconnect the hose that runs from the pump to the T on the solenoid lowering valve. Place this hose in a container and run the pump until the reservoir is empty. Then remove one of the pipe plugs under the reservoir and remove the rest of the oil.

Hydraulic Reservoir Outlet Screens

The screen filter is located in the suction line to the pump. If a screen becomes plugged it will result in a fluid supply problem. To locate screen, remove the pressure hose form the pump and pump motor from the reservoir. The suction line can be removed and the tube and screen cleaned with solvent.

Hydraulic Oil Filter

Remove and replace the hydraulic system fluid filter recommended PM schedule, or as may be required by truck operating conditions and usage. Install a new oil filter. Be sure to follow the installation instructions printed on the filter. Check for leaks after installation of the filter. Also, check that the hydraulic line connections at the filter adapter are tightened correctly.

Always use genuine **CLARK** parts.

29-01-03 HYDRAULIC PUMP

The hydraulic pump is not a servicable item. If a malfunction of the pump develops, it must be replaced.

29-01-04 PUMP TROUBLE SHOOTING

Before the hydraulic pump is removed or replaced, check the following list of problems and solutions. It could save time and effort.

. Noisy Pump.

a). Low supply of oil.
Fill the reservoir.

b). Oil too heavy.
Change to correct viscosity.

c). inlet line has restriction.
Check for foreign material.
Clean filter or strainer.

d). Air leak in inlet line.
Check plumbing tightness.

2. Foaming Oil.

a). Cavitating pump.
See 1.a,1.b,1.c, and 1.d

b). Wrong fluid.
Drain and fill with correct oil.

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GROUP 40 SECTION 01 TRUCK DATA AND SPECIFICATIONS

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40-01-01 BASIC DIMENSIONS

Upright	
Maximum lift capacity	138.0 in
Lift height	138.0 in
Standard fork size (TxWxL)	42x4x1.25 In
Overall Dimensions	
Length to fork face	63.5 in
Width	42. in
Height, upright lowered	90.0 in
Height, upright extended	218 in
Turning Radius	61 in
Right Angle Stack Aisle (Basic)	64 in + load length

40-01-02 PERFORMANCE

Travel Speeds, Maximum	
Below 24 in lift, empty	3.2 mph
Below 24in lift, loaded	2.8 mph
Optional, empty*	4.8 mph
Lift Speeds, Loaded	
Standard upright	20.0 (12 volt) 30.0 (24 volt) fpm
Lift Speeds, Empty	
Standard upright	35.0 (12 volt) 45.0 (24 volt) fpm
Lower Speeds	
All uprights, 2-speed, high/low*	60.0 fpm

40-01-03 WEIGHTS

Service Weight	
With minimum battery weight (500 lbs)	2750 lbs
Axle Loading	
With load,front	3450 lbs
With load, rear	600 lbs
Without load, front	1300 lbs
Without load, rear	1450 lbs

40-01-04 CHASSIS

Tires	
Size, front	4.00x3.00 in
Size, rear	10.50x5.00 in
Wheelbase	51.0 in
Track	
front	37.0 in
Ground Clearance	

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