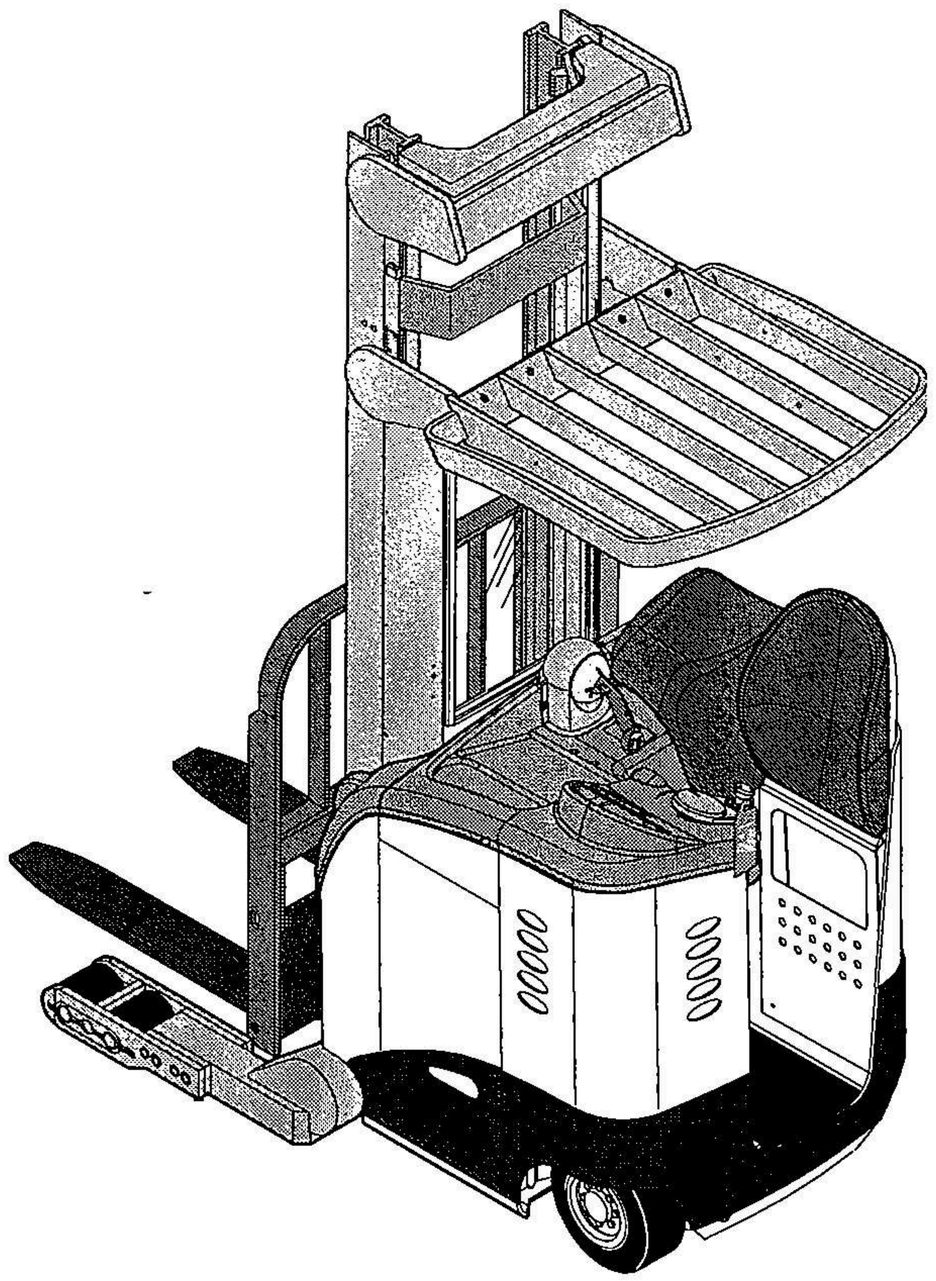
RR 5000S

Service & Parts Manual



Crown PF11320-00

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RR/RD 5000/5000S SERIES

The feature menu is shown on the following pages. The first level of the menu shows the different areas of setup for this truck.

- F1 Voltage — select truck battery voltage.
- F2 Pedals — select "2 pedal" for 5000 truck and "5 pedal" for 5000S truck.
- F3 Hgt Encoder — select "yes" if truck is equipped with height encoder.
- F4 Trk Wt — enter truck weight with battery and without load from data plate.
- F5 Max Load — enter maximum capacity load from data plate.
- F6 Reach — select "single" for RR and "double" for RD or none.
- F7 Sideshift — select "yes" if truck is equipped with sideshifter.
- F8 Tilt — select "yes" if truck is equipped with tilt.
- F9 Capacity — information from the capacity data plate required if truck is equipped with a capacity data monitor.
- F10 Productive — select "no" if truck not equipped with productivity package. Select "switch" if truck is equipped with productivity package with pressure switch and select "capacity" on trucks equipped with CDM and pressure transducer.
- F11 Hi Lift — enables high speed option when equipped.
- F12 Hi Travel — enables high speed option when equipped.
- F13 Brush/Temp — select "yes" if truck is equipped with brush wear and temperature sensors in the traction and lift motors.
- F14 Alarm — select travel alarm configuration required if truck is equipped with alarm 2.
- F15 Bat Retain — select "yes" if truck is equipped with battery retainer switches.
- F16 Speed Cut — traction speed cutback. Requires switch input at CA403-16.
- F17 Dashboard — makes selected items available on operator menu.
- F18 User Perf — select "yes" if user performance option is desired. If yes is selected, any user can select any performance level regardless of F19 settings.
- F19 User Codes — enter up to 25 user codes which can be applied to various performance levels. If F18 is yes, any user can select any performance level.
- F20 Lockout — disables truck operation.
- F21 Save? — select "Y" if setups entered should be saved.

The performance menu follows the feature menu on the following pages. The first level of the menu shows the different areas of performance for this truck. The features must be set prior to setting the performance since the features turns on and off certain performance levels.

- P1, P2, P3 Setup P1, P2, P3 — performance settings for the user performance level of the feature menu (F18 and F19).
- P4 BDI — adjusts the individual cell voltage that the BDI uses as the definition of 0% state of charge.
- P5 Plug — adjusts the plugging force.
- P6 Drv Brake — adjusts the drive wheel braking force.
- P7 Cas Brake — adjusts the caster wheel braking force.
- P8 Accy>FLS — adjusts hydraulic accessory speed with lift height above free lift.
- P9 Accy<FLS — adjusts hydraulic accessory speed below free lift.
- P10 Trav>FLS — adjusts traction speed with lift height above free lift.
- P11 Trav>270 — adjusts traction speed above 270 in. (6.9 m) of lift height.
- P12 Coast — adjusts distance truck will coast when multi-task handle is returned to neutral.
- P13 Save? — select "Y" if setups entered should be saved.

Feature and Performance Access

When powering up the truck, press and maintain the arrow up key on the display. This enters service level two of Access 1 operation. Navigate to the F - Features or P - Performance menu and press the enter key. The message display now displays the message shown in the menu on the following page.

Setup Complete

When setup procedures are complete, scroll down to the Save? (F21) (P13) menu and press the enter key. If the setup completed is necessary to save into memory for future truck operation, select the Save? Y (F21.2) (P13.2) menu and press the enter key. This process will require less than a minute to complete. Do not operate any truck controls or display keys during this process.

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ACCESS 3 Inner module short circuit. STATUS CODE 381

Note: *If truck operates, then this could be a random nuisance code. Monitor code frequency. If it gradually increases for no apparent reason, replace Access 3.*

ACCESS 3 Inner module short circuit. STATUS CODE 382

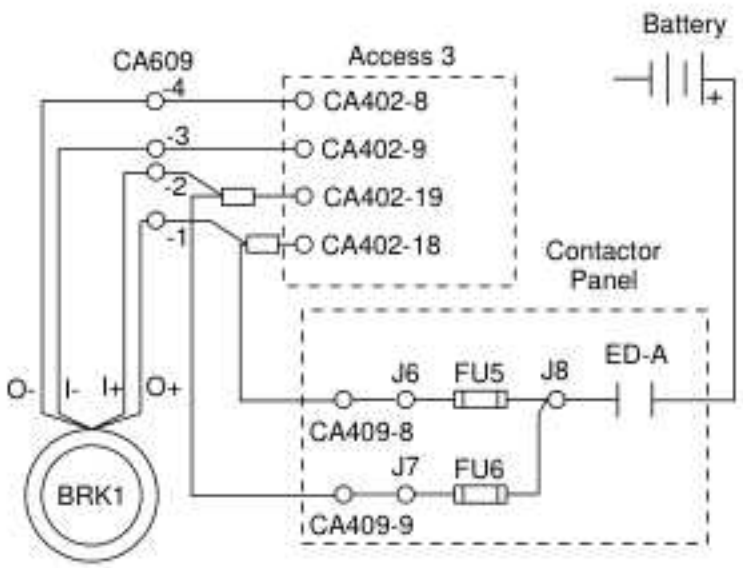
Note: *If truck operates, then this could be a random nuisance code. Monitor code frequency. If it gradually increases for no apparent reason, replace Access 3.*

INNER BRAKE DRIVER Inner module short circuit. STATUS CODE 383

Step 1: Measure voltage between CA402-9 and battery negative.

If: **Less than 5 volts**, check for short circuit between CA402-9 and battery negative. See note.

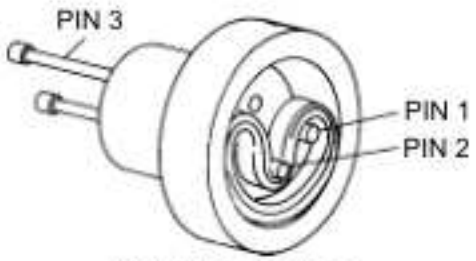
Note: *If truck operates, then this could be a random nuisance code. Monitor code frequency. If it gradually increases for no apparent reason, replace Access 3.*



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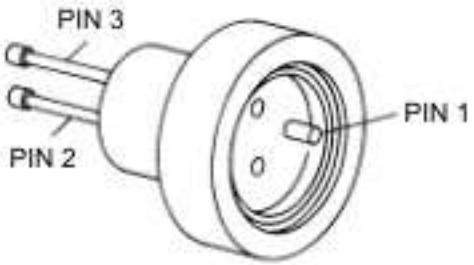
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d. Withdraw PIN 3 so that U-cup loop snaps into installation groove (Illustration 16).



19045 ILLUSTRATION 16

e. Withdraw PIN 2 and U-cup will completely snap into installation groove (Illustration 17).

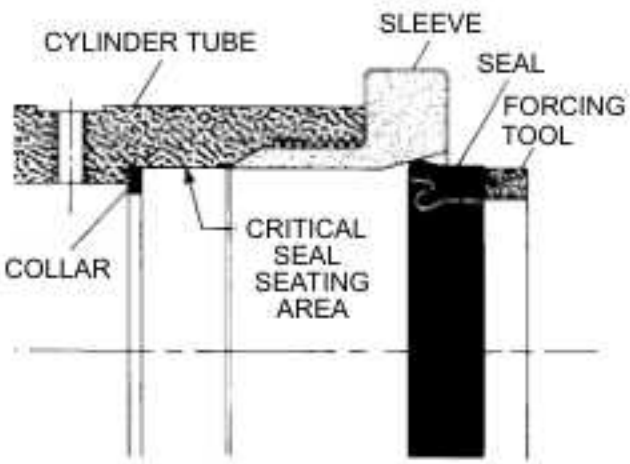


19065 ILLUSTRATION 17

f. Withdraw installation tool.

Cylinder U-cup Installation

For "lip first" installation, a sleeve similar to that shown in Illustration 18 should be used to protect the seal from damage on the threads and shoulders.



19085 ILLUSTRATION 18

Cylinder Assembly

After packings and seals are in place and the ram assembly has been installed, reattach the cap.

CAUTION

Care should be taken when inserting the cylinder cap, to prevent threads and sharp edges from damaging new seals and packings.

Cylinder - Summary

Occasionally, a slight creep of the fork assembly may occur. This may be due to internal leakage in the piston pak but it can also be caused by leakage in the solenoid or check valve. To seat these valves properly when this occurs, raise and lower the forks to flush out any foreign material from the valve seat. A thorough check of the system for leaks should be conducted if abnormal oil losses occur. The hydraulic system is designed to eliminate mechanical damage even if fittings become loose.

Cylinder Bleeding and Flushing

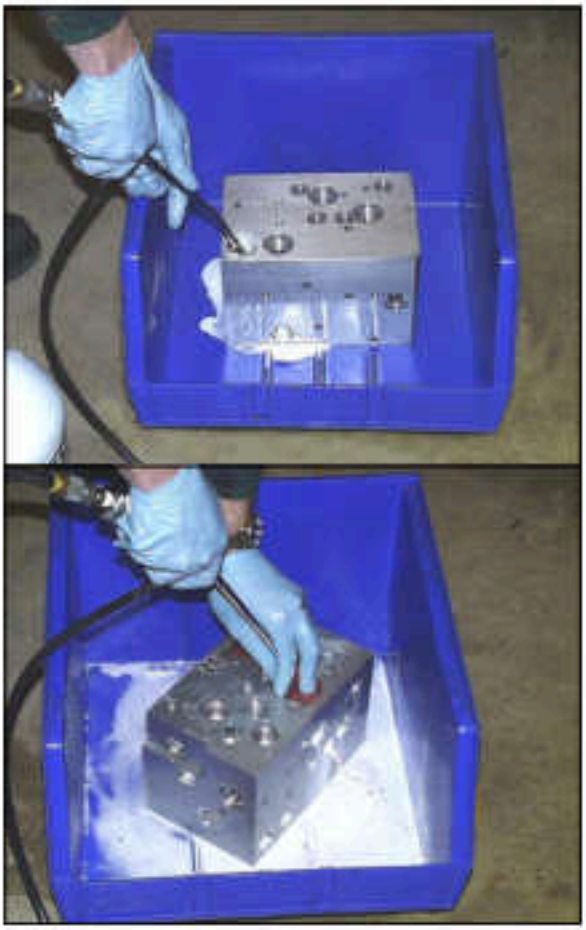
Mast hydraulic circuits need to be flushed after repair of lift cylinders and bled of all air. Before flushing and bleeding of system inspect all hydraulic connections and verify that all filters are installed and hydraulic fluid levels are adequate for test. Hydraulic system must be pressurized during the flushing and bleeding procedures.

WARNING

AVOID HIGH PRESSURE FLUIDS—Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure. Keep hands and body away from pin holes which eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Any fluid injected into the skin under high pressure should be considered as a serious medical emergency despite an initial normal appearance of the skin. There is a delayed onset of pain, and serious tissue damage may occur. Medical attention should be sought immediately by a specialist who has had experience with this type of injury.

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7937P

ILLUSTRATION 10

22. Remove manifold block from container and place into clean container on top of clean block. Use compressed air nozzle to blow air over and through manifold block to completely remove any moisture, air pressure not to exceed 40 PSI. It is very important that the inside and outside of the block be totally dry and clean. See Illustration 11.



7938P

ILLUSTRATION 11

23. Refer to Illustration 12 and look into each port with a flashlight and check for contamination that may not have been completely flushed out. If any is found flush block a second time as described in steps 21 and 22.



7939P

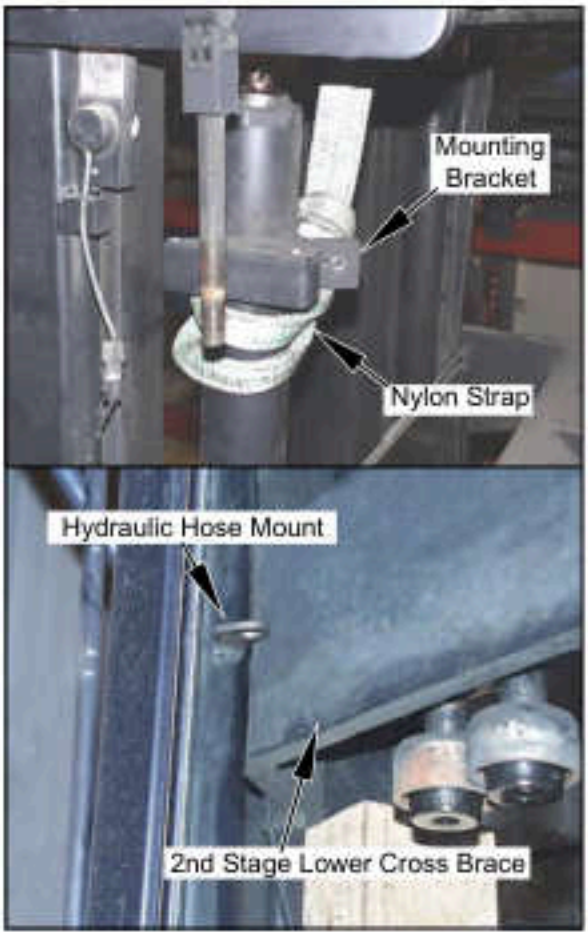
ILLUSTRATION 12

24. Remove top o-ring seal from each valve, cover threads on valve with sleeve or tape to prevent damage to new seal, and carefully replace top o-ring seal supplied in kit. The top o-ring seal will be the one closest to the outside surface of the manifold block after the valve is installed in the manifold block. Visually inspect all other o-ring seals and back up rings, replace as required. These o-rings are not supplied in kit, but are listed on page 02.4-1450-001 of this manual, and are available through Crown.

25. Apply a light film of hydraulic oil to the o-ring and threads of all the valves and plugs before installing back into manifold block. When installing ORF4 and SVP in cavity, spread a clean light grease on FLAT side of ORF4 and stick on nose of SVP, then carefully insert into cavity. This will properly orient ORF4 and prevent it from changing position during installation.

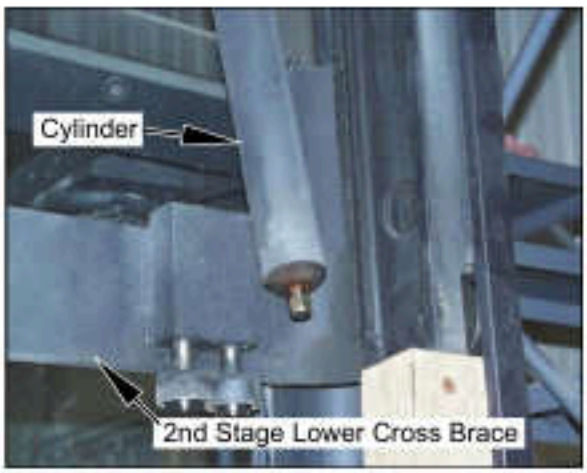
26. Screw each valve and plug into manifold block by hand until snug.

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81677P ILLUSTRATION 8

17. Once cylinder base is above 2nd stage cross brace bring cylinder out front, fork side, of mast.



81688P ILLUSTRATION 9

CYLINDER REPLACEMENT

18. Put cap on fitting at bottom of lift cylinder, if one is not already present.

19. Put nylon strap around top of cylinder just below mounting bracket and connect to hoist.

WARNING

Wear appropriate safety items, such as safety glasses and shoes, whenever performing maintenance work. To avoid injury, do not place fingers, hands, arms or feet through mast or position them at pinch points.

Make sure lifting device is sufficiently rated to lift various parts of the mast sections either individually or as a group. Make sure that the blocking material is strong enough to withstand the weight. Never work under or around a truck that is not properly blocked.

20. Raise until bottom of cylinder is over top of 2nd stage lower cross brace and lower cylinder into position.

WARNING

Make sure the platform the maintenance person rides on is secure and the individual is using an operator harness.

21. Put pin back through main frame and cylinder mounting bracket. Install cotter pin through bottom of pin to secure in place. See Illustration 7 in Cylinder Removal. Then remove strap from cylinder.

22. Using two screws removed at disassembly remount height sensor back in position.

23. Remove cap and reattach hydraulic line to bottom of cylinder.

24. Put hose guide, at top of cylinder, and hoses back in position and secure using screw previously removed.

25. Connect hydraulic hoses, lines and spring (if left lift cylinder was removed) to bracket on cylinder. See Illustration 6 in Cylinder Removal.

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