



Diversified Metal Fabricators Service Bulletin SB 2052

Title	Locking Valve Leakage on Rear Railgear.
Document No.	SB-2052
Issue Date	10/08/2008 (SEW)
Units Affected	All rear railgear manufactured 1/2008 to 9/2008 with locking valves integral to the endcap of the rear hydraulic cylinders. (RW-1019, 1212, 1420, 1630, 1650)
Purpose	To address hydraulic fluid leakage from locking valves on rear cylinders.

Summary:

Manufacturing inconsistencies in the hydraulic cylinder end caps of DMF rear railgear has led to leakage of hydraulic oil from the locking valves on several units after little use. Sets of rear railgear (models RW-1019, RW-1212, RW-1420, RW-1630 and RW-1650) manufactured between January 2008 and September 2008 are affected. If leakage or other problems occur the locking valve cartridges must be replaced with an alternate model.

Process:

Identifying affected equipment:

The cylinders covered under this service bulletin will have a HYDRA FORCE brand locking valve cartridge that is installed in a cavity integral to the cylinder bottom as shown in FIG A.

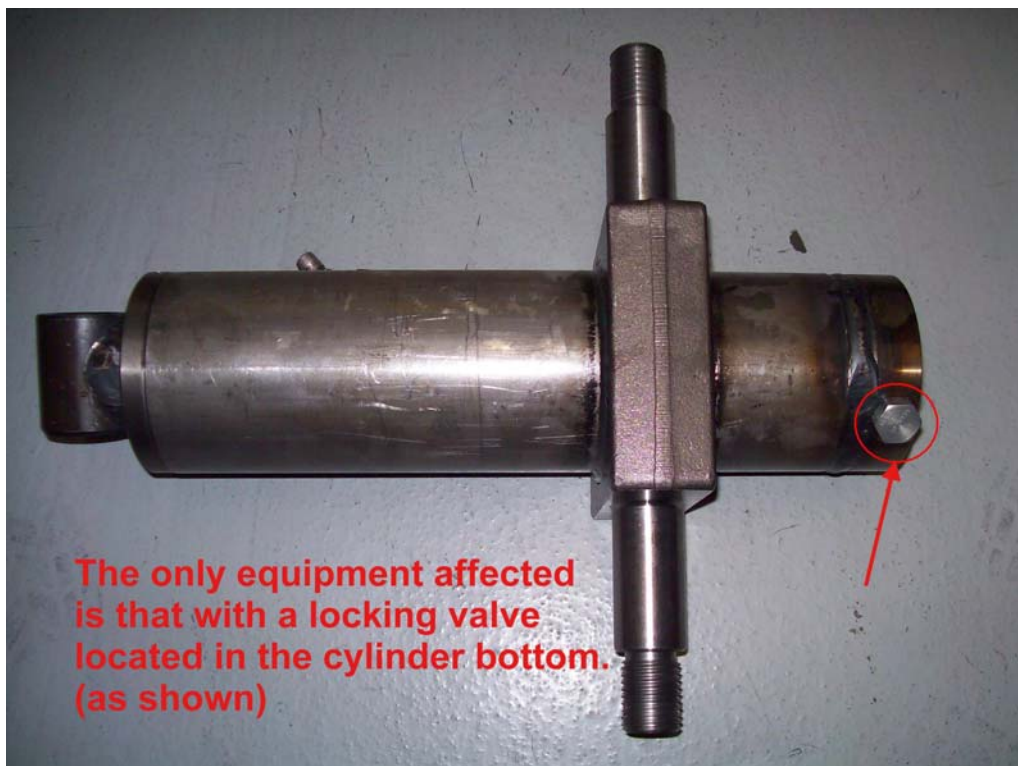


FIG A



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This type of locking valve arrangement can be found on RW-1019, RW-1212, RW-1420, RW-1630 and RW-1650 manufactured after January 1, 2008 and before September 1, 2008.



FIG B

DMF has used two brands of locking valve cartridges in its hydraulic cylinders, PARKER and HYDRA FORCE. The brand of locking valve cartridge can be determined using the above photograph. A PARKER cartridge will have a ½" diameter, 1/8" thick raised section in the middle of the head with a hexagonal shaped hole in the center. The HYDRA FORCE valve will be level across the whole head of the cartridge. NOTE: DMF paints all cylinders before they are shipped, so do not use color as a means of cartridge identification.

Discussion:

Manufacturing inconsistencies of the cylinder end cap with integral locking valve cavity MAY prevent the HYDRA FORCE brand cartridge from fully seating. The resulting effect is that the cylinder could either:

- A) Leak hydraulic fluid from around the cartridge or
- B) Allow the railgear to drift from rail or stowed position if mechanical locking pins are not used.

Corrective Action:

1) Identify whether your gear is covered under this service bulletin by answering the following questions:

- Was my rear railgear manufactured between January 2008 and September 2008? The date can be found on the DMF serial number tag located on the



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rear axle of all affected models of gear. You can also approximate the manufacture date by finding the serial number which is located on the same tag. The serial number range is from 25750 through 26981.

- On my rear rail gear, do my cylinders have a HYDRA FORCE locking valve integral to the cylinder end cap, as pictured in FIG A above?
- 2) If the answer to both questions is "yes" please inspect the area around the locking valve for leakage of hydraulic fluid. If you find fluid leaking from the locking valve you should call DMF at 404-875-1512 and press "1" for the parts department. Once connected with parts please tell them you are calling regarding Service Bulletin 2052. You will need to have two PARKER locking valves (DMF PART # 241015) shipped to your location. Please have the following information ready when you call in:

Railgear Serial #:
Shipping Address:
Unit Number and mileage (if applicable):

- 3) To replace the valves:
- Remove existing HYDRA FORCE locking valves
 - Inspect the cavity for any debris or other contamination.
 - Coat the new PARKER valves with hydraulic fluid paying particular attention to lubricate the seals well. (This is IMPORTANT!)
 - Start the new PARKER cartridges by hand, making as many turns as possible.
 - Tighten the cartridge to no greater than 15 FOOT POUNDS. Over torquing the valve can damage its internals and actually INCREASE likelihood of a leak.
 - Test railgear function and check for leaks.
- 4) If your railgear is covered under this service bulletin but is not currently experiencing any leakage or other problems, then please call DMF to determine if replacement is necessary.

Additional Notes:

Please note that the HYDRA FORCE cartridges in this equipment are not defective. They are simply slightly longer than the PARKER cartridges and may not work properly with the cavities as drilled during the subject time frame.

All cylinders manufactured after September 1, 2008 should work equally well with either the HYDRA FORCE or PARKER valve.

Please call DMF at the number below if you have any questions regarding any part of this service bulletin.

DMF will replace defective parts under DMF's warranty terms. DMF will not cover parts that have been subjected to gross overloading or blatant abuse. DMF may require the return of affected parts to determine coverage.

Diversified Metal Fabricators

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