



DATE: December 23, 1993

SUBJECT: Top Drive Hydraulic Torque Boost

SERIAL NUMBERS: 003,006,007,008,009,010,011

REFERENCE: ECN #101

DISCUSSION: Under certain operating conditions it is possible to overstress the bottom torque boost bearing and cause premature failure.

- RECOMMENDATION:**
1. All top drive units with a dual pilot-to-open check valve on the Torque Boost clutch hydraulic valve bank should be changed to a single pilot-to-open check valve on the disengage port of the Torque Boost valve bank. For field modifications, Canrig will supply a plug (part # H13-1026-010) to replace the existing check valve cartridge. Upon receipt of the plug do the following action:
 - a) Confirm that the top drive is plumbed according to Fig.1 attached. The lower port of the valve bank should be connected to the lower port of the torque boost bell housing.
 - b) Remove the check valve cartridge identified as cartridge "B" on Fig. 1.
 - c) Replace with the new plug supplied (part # H13-1026-010).

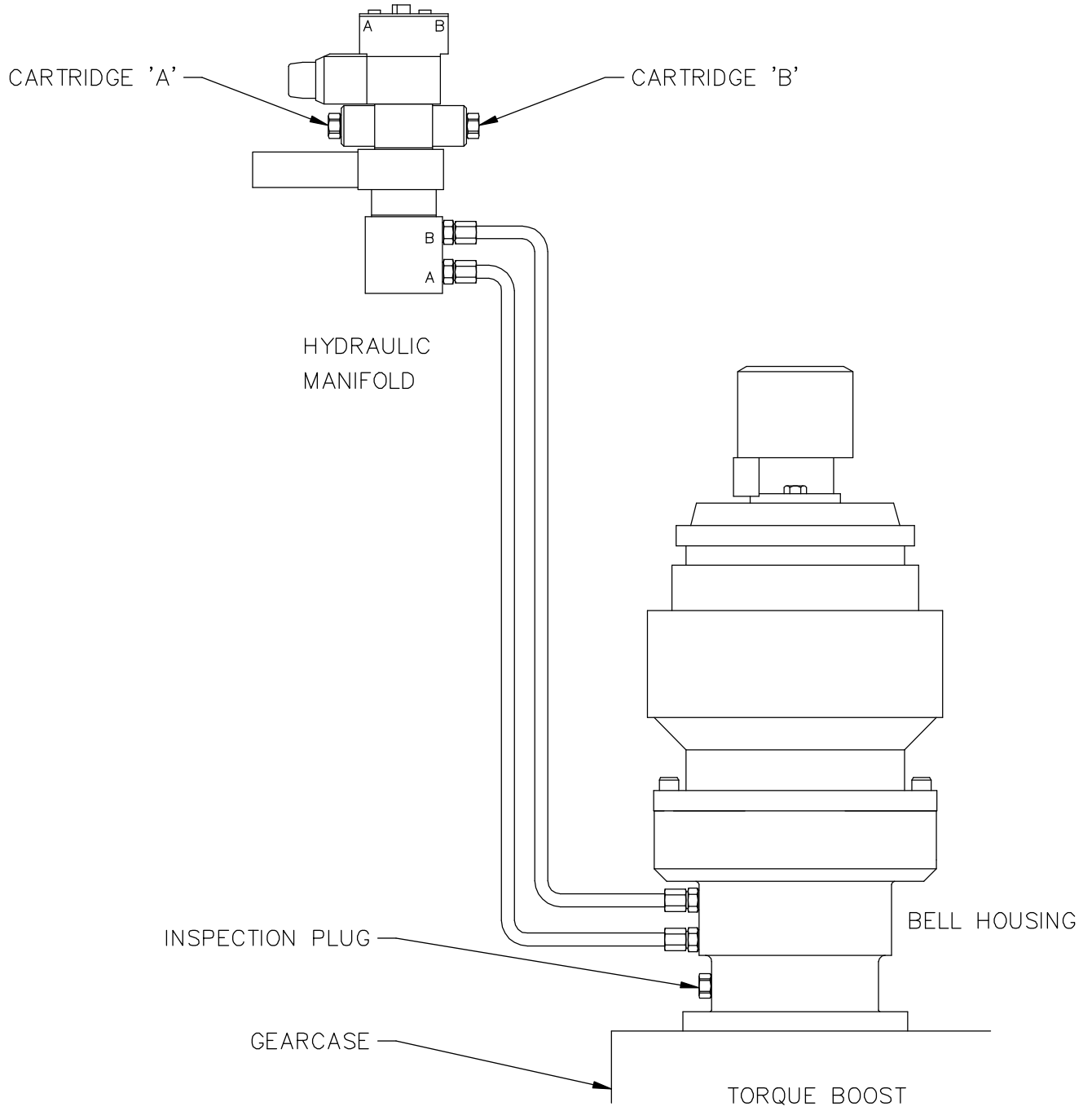
 2. Until the pilot-to-open check valve has been modified avoid using the Torque Boost unless absolutely necessary. If it is absolutely necessary for a connection, and before the modification is completed, use the following procedure:
 - a) Engage the clutch.
 - b) Cycle rapidly between make-up and break-out several times before applying full torque. This will help to ensure full clutch engagement when torquing.

Note: No damage can occur to the torque boost if the clutch is fully engaged. It is only with partial engagement that a chance for damage can occur.
 - c) Engagement can be verified by removing the inspection plug (see Fig. 1) on the torque boost bell housing and visually ensuring proper engagement of the jaw clutch.

INFORMATION:

For further information contact:

Field Operations Manager
Canrig Drilling Technology Ltd.
14703 FM 1488
Magnolia, Texas 77354
Phone: 281.259.8887
Fax: 281.259.8158



PRODUCT BULLETIN 24
FIG. 1