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TECHNOLOGIES
CARRIER**

Commercial Division
Carrier Corporation

BULLETIN: CA-SB-19-D-73-70
DATE: 11/23/73
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SERVICE BULLETIN

SUBJECT:

19DG HERMETIC CENTRIFUGAL INTERNAL AGITATOR ASSEMBLY

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PURPOSE: To relate information concerning a possible sticking problem with the internal agitator assembly.

**MACHINES
AFFECTED:** All 19DG machines with 31 through 39 size unishells shipped before September 7, 1973 may be affected.

**MATERIAL
REQUIRED:** A new agitator piston and cylinder assembly may be needed depending on results of inspection outlined below.

BACKGROUND: Experience has shown that the internal agitator piston may stick in the open position. During high load operation, this condition can go unnoticed. At intermediate loads (when the agitator is normally de-energised) a wide open float valve will cause unnecessary gas by-pass and lower efficiency. It is possible to observe the operation of the float valve and therefore the agitator piston through the sight glasses on the side of the float box. If improper



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operation is observed or the float chamber is opened for service, the agitator device should be inspected. It is recommended that the minimum head device be also checked at this time.

PROCEDURE:

Remove the agitator assembly. Remove snap ring from end of assembly and remove piston. At the bottom of the housing, there may be a slight step or ridge, (see fig. 1) located approximately 0.10 inch from the bottom of the housing. This ridge exists because the reamer does not bottom completely. Also, tightening the agitator assembly in the float chamber causes the thin-walled housing to contract slightly. As a result, a negative clearance is encountered between the piston and the ridge in the housing, and the piston may remain stuck. Excessive tightening may cause the piston to bind even before it reaches the ridge.

Loosening the assembly from the float chamber will sometimes be enough to free the piston and render the unit operational. Using this method requires use of additional thread sealant during reassembly to insure against leakage.

Another method available is to cut or file a slight chamfer on the piston. (See fig. 2.) This chamfer should be approximately 1/8 inch wide, and deep enough to clear the ridge.

If these methods do not work because a permanent set has been achieved, install a new assembly and check the operation for the sticking condition.



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FIG 1

AGITATOR PISTON / CYLINDER ASSEMBLY

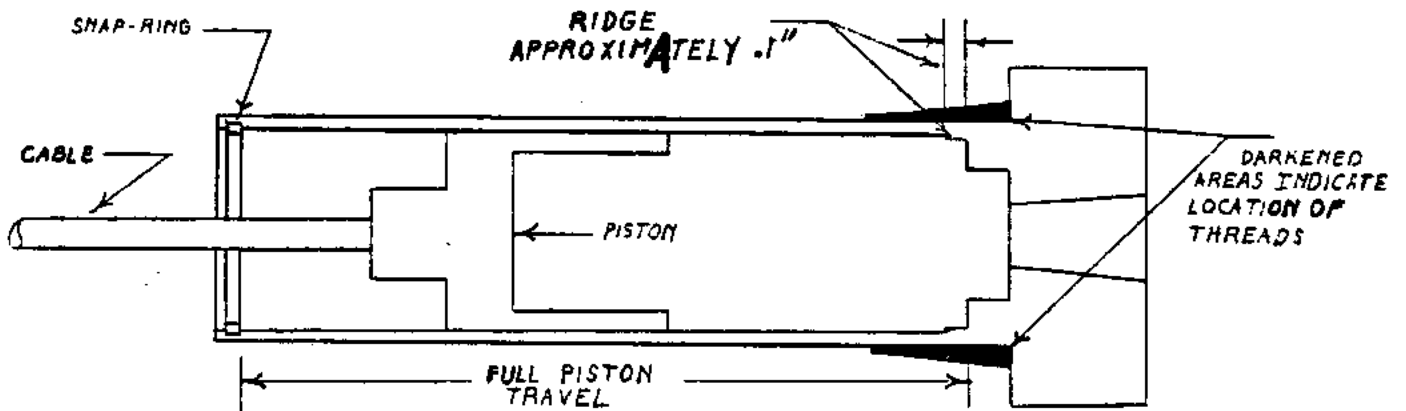


FIG 2

AGITATOR PISTON - CHAMFER LOCATION

