

Title: **CUTLER HAMMER STARTER CONTACT FAILURES**Number: **C8812**Date: **5/3/88**Supersedes: **new**

Date:

Models Affected: **ALL MOTOR DRIVEN CENTRIFUGALS****PURPOSE**

The purpose of this bulletin is to describe a particular mode of failure of Cutler Hammer starter contacts and recommend appropriate repair procedures.

BACKGROUND

Based on a few reports of contact welding and excessive contact wear, we have been working with Cutler Hammer to understand the failure mechanism and determine appropriate corrective action. About 8 failures have been reported worldwide, five welded contacts and three excessive wear, all on the 2M contactor of wye-delta starters, all with size 4, 4DP, 5 and 5DP contactors.

Cutler Hammer conducted tests which demonstrated that when critical manufacturing tolerances on the auxiliary contact on the S contactor stack up the wrong way, the contact can bounce once when it closes on deenergization of the S contactor. Since the S auxiliary contact energizes the 2M contactor coil, this bounce of the S aux contact will cause the 2M contactor main contacts to close, open and immediately reclose. This happens so fast that the second closure can not be detected by ear.

The result of rapid reclosing is possible contact wear or contact welding.

RECOMMENDATIONS

If a Cutler Hammer wye-delta starter with size 4, 4DP, 5 or 5DP contactors exhibits rapid 2M contact wear within the first year of operation or if the 2M contacts weld, the 2M contacts and the S auxiliary contacts should both be replaced. Please be sure to refer to Service Bulletin C8801 as an aid in determining if the contact wear is excessive. These parts can be ordered from the manufacturer by calling the appropriate number as listed in Service Bulletin C8809. Be sure to have the contactor size for S and 2M and the starter serial number available when you call.

FILE KEY: controls/wiring

MAIL KEYS: 2.45 2.40B 2.53 2.33B 2.33D

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