NEMA SIZE 2 SINGLE POLE S CONTACTOR
FOLIO 7
FOR DC OPERATION

INSTRUCTIONS

TYPE S CONTACTORS are general purpose, direct current magnetic contactors.

RATING: 50 amp. continuous, 500 amp. rupturing capacity, 115-550 Volts.

ELECTRICAL INTERLOCKS: These consist of stationary contacts mounted on the base and a moving contact attached to the magnet arm. The moving contact should provide 1/8" follow-up when the magnet arm reaches its limit of travel, either completely closed or completely opened. The rating of these electrical interlocks is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Max. Inrush</th>
<th>Cont. Amps.</th>
<th>Rupturing Capacity Amps. Inductive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>115 V. 250 V. 440 V. 550 V.</td>
</tr>
<tr>
<td>A.C.</td>
<td>30</td>
<td>15</td>
<td>10 10 5 5</td>
</tr>
<tr>
<td>D.C.</td>
<td>30</td>
<td>15</td>
<td>2.5 1.0 .4 .4</td>
</tr>
</tbody>
</table>

MECHANICAL INTERLOCKS: Horizontal mechanical interlocks are bakelite bars pivoted at their centers. These are carefully ground on the ends to suit so that they do not interfere with the complete closure and seal of either contactor but prevent the simultaneous touching of both sets of contacts and prevent one contactor from closing if the other is closed.

OPERATING COILS: Continuous duty operating coils are furnished for 115 volts and 230 volts. For 550 volts, the 230 volt coil is used and connected in series with a suitable resistor.

To remove the coil, loosen and rotate the stop plate out of the way and loosen the screws securing the spring retaining plate to the frame. Compress the arm spring and unhook the spring pin from the spring plate. The magnet arm may then be worked out of its bearing, exposing the coil. Remove core cap and coil terminal screws.

The contactor will pick up and seal on 80% normal voltage with the coil hot, will stand 110% voltage continuously, and will hold in at approximately 15% of normal voltage.

MAGNET AIR GAP: The air gap is provided by means of a non-magnetic spacer between the core and the frame which are held together by a brass screw. The armature seats directly against the core cap. See that this point of contact is free of any sticky, foreign material.

BEARINGS: Knife edge bearings are used and require no oiling. After assembly or adjustment, merely see that the knife edge bearing is properly located in its seat so that the arm moves freely. The arm spring has no adjustment but is sufficient to maintain the magnet arm properly in its bearing.

CONTACTS AND CONTACT SPRINGS: The follow-up with new contacts is 1/8" which is equivalent to 1/8" when measured on the contact finger opposite the contact spring pin. When this measurement, because of contact wear, decreases to 1/16", the contacts should be replaced. The contact spring pressure is not adjustable. The initial pressure should be approx. one pound, and the final sealed pressure approx. 1 1/2 pounds. There is sufficient tolerance in the assembly of arms to permit alignment of the contacts. When replacing contact tips, see that they are properly aligned and that the contact springs do not bind. Always have the arc shields fully down when operating the contactor under load.

(Continued on Page 4)
SEE PAGE 4 FOR ADDITIONAL PARTS
### Service Bulletin

**NEMA SIZE No. 2 SINGLE POLE S CONTACTOR, FOLIO 7**

*July, 1967*

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**NOTE:** Indented items are component parts of item immediately preceding.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>List No.</th>
<th>Description</th>
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<th>List No.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SS-0746-A</td>
<td>Assembled Arc Shield, Complete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1619-1408</td>
<td>Binding Screw, 4 req'd.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1619-1409</td>
<td>Binding Post, 3 req'd.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>SS-0771</td>
<td>Spacer, 2 req'd.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td># 6 x 3/4&quot; Wafer Hd. U-Drive Screw</td>
<td>2 req'd.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>SS-0770</td>
<td>Arc Shield, 2 req'd.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1618-1408</td>
<td>Binding Post.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SS-0753</td>
<td>Blowout Ear, 2 req'd.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>SS-0747-A</td>
<td>Blowout Coil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>SS-0752</td>
<td>Arc Horn</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Item 11-12

*5005-040 of 11-

11 # 6 x 3/4" R.H. U-Drive Screw, 2 req'd.  
12 Contact Tip

#### Item 13-18

13 1/4"-20x1/2" H.L. Cap Screw & Lk. Washer  
14 SS-0805 Stop Plate  
15 1/4"-20x3/4" H.L. Cap Screw & Lk. Washer  
16 S-0107-A Core  
17 SS-0803 Non-magnetic Spacer (at rear of core, not shown)  
18 LT-1067 Core Cap.  
19 1/4"-20x3/4" H.L. Cap Screw & Lk. Washer  

#### Item 20-22

20 SS-0755-A Assembled Contact Finger  
21 AH505-040-01 Contact Tip  
22 SS-0754 Contact Finger  
23 SS-0786 Contact Spring Guard  
24 SS-0896 Contact Spring  
25 ZS-0349 Spring Guide  
26 SS-0795 Spring Plate  
27 SS-0926-A Armature  
28 SS-0922-A Armature  
29 10-24x1 1/4" R.I. Mch. Screw & 3/4" Lk. Washer, 2 req'd.  

#### Item 30-31

30 SS-0709 Spring Plate  
31 SS-0828-A Connector  

#### Item 32-35

32 EL-53-G Control Circuit, Complete for Normally Closed  
33 EL-54-G Control Circuit, Complete for Normally Open  
34 EL-55-G Control Circuit, Complete for Open and Closed  
35 10-24x1 1/4" R.I. Mch. Screw & Lk. Washer  
36 EL-63 Mounting Block  
37 EL-62 Control Circuit Support  

#### Item 39-41

39 EL-1-A Control Circuit Arm, Complete for Open or Closed Control Circuit  
40 EL-2-A Control Circuit Arm, Complete for Open and Closed Control Circuit  
41 EL-67 Control Circuit Arm, only  

#### Item 42-43

42 EL-07 5075-040-50 Spring Retainer, 2 req'd.  
43 EL-84-A 5075-013-50 Contact Bridge, 1 req'd. for Item 39, 2 for Item 40  

#### Item 44-45

44 EL-40 Spring 50502-602-38  
45 EL-6-A Contact  
46 10-24x1 1/4" R.I. Mch. Screw & 3/4" Lk. Washer  
47 EL-19 obsolete Stud, for 3/8"-1.0"-1 1/4" Base  
48 EL-20 obsolete Stud, for 1 1/2"-2 Base  
49 EL-9 obsolete Stud, for 3/4"-1.0"-1 1/4" Base  
50 EL-10 obsolete Stud, for 1 1/2"-2 Base  
51 SS-0759-A Spring Pin  
52 SS-0802 Arm Spring  
53 BS-3002-004-01 Spring Washer  
54 SS-0756 Main Terminal Stud, for 1/4" Base  
55 SS-0757 Main Terminal Stud, for 1"-1/4" Base  
56 SS-0758 Main Terminal Stud, for 1 1/2"-2 Base  
57 SS-0798 Spring Retaining Plate  
59 SS-0827-A Frame  
60 SS-0785-AE Operating Coil, 230 Volt  
61 SS-0782-AE Operating Coil, 115 Volt  
62 S-0110 Coil Terminal Stud, for 1/4" Base, 2 req'd.  
63 LTZ-1809 Coil Terminal Stud, for 1" Base, 2 req'd.  
64 LTZ-1810 Coil Terminal Stud, for 1 1/4"-1 1/4" Base, 2 req'd.  
65 LTZ-1811 Coil Terminal Stud, for 2" Base, 2 req'd.  
66 SS-0806 Stop Bar  
67 SS-0750 Contact Bracket  
68 ZO-1150 Cup Washer  
70 SS-0781 Blowout Core  
72 Base, specify thickness  
73 1/4"-20x1/2" H.L. Cap Screw  

† Essential Parts for General Maintenance  
● Minor revisions since previous issue.
This contact assembly has been designed to provide extra contact wipe. Where greater wipe is needed on existing contactors, the necessary parts can be purchased separately or the new complete assembled contact arm 55-0955-A (as illustrated below) can be installed quickly and easily.

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<tr>
<th>Item</th>
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<tbody>
<tr>
<td>80</td>
<td>55-0957-A</td>
<td>Assembled Contact Bracket... <strong>Obsolete</strong></td>
</tr>
<tr>
<td>81</td>
<td>55-0958</td>
<td>Armature Centering Plate... <strong>Obsolete</strong></td>
</tr>
<tr>
<td>82</td>
<td>55-0960</td>
<td>Spring Plate... <strong>Obsolete</strong></td>
</tr>
<tr>
<td>83</td>
<td>55-0959</td>
<td>Retaining Plate... <strong>Obsolete</strong></td>
</tr>
<tr>
<td>84</td>
<td>10-24 x 3/4&quot; R.I. Machine Screw and Lk. Washer</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Parts not numbered are the same as parts on Page 2.

ADVISE NAMEPLATE MARKING WHEN ORDERING SPARE PARTS