



ELECTRO-MOTIVE DIVISION • GENERAL MOTORS CORPORATION

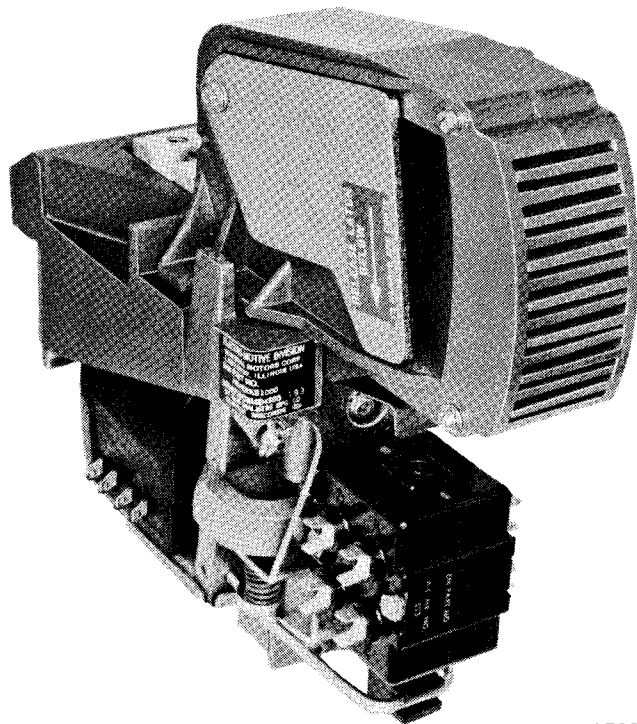
MAINTENANCE INSTRUCTION

POWER CONTACTORS

DESCRIPTION

The data contained in this Maintenance Instruction will apply to contactors 8461331, 8461332, and 8461333 unless specifically identified.

The power contactor, Fig. 1, is a single-pole, normally open device, which connects and interrupts DC current up to 1000 amperes at 1200 volts. It is designed for application in power circuits of diesel electric equipment.



17890

Fig. 1 - Power Contactor

A four circuit interlock switch is enclosed in a dustproof housing. Circuit connections for the interlocks are provided by external terminal tabs. Terminal identification letters are molded into the interlock housing. Power contactors 8461331, 8461332, and 8461333 are the same basic contactor with each having a different interlock assembly.

*This bulletin is revised and supersedes previous issues of this number.

Arc interruption takes place wholly within the arc chute. The arc is elongated and cooled through arc splitters. The magnetic field required to speed interruption is provided by an intermittent duty shunt blowout coil. The arc chute is designed to operate under normal conditions of rating and environment with the vent located no closer than three inches from an interfering surface.

The contactor has a "Line Current Dropout" feature to prevent the contacts from opening when the current exceeds 1600 ± 400 amperes even though the control coil is de-energized.

The contactor is capable of closing on 1200 amperes at rated voltage. Much higher fault currents may be handled through closed main contacts for short intervals without contact damage.

SAFETY PRECAUTIONS

WARNING: This power contactor was designed for specific application to circuits of diesel-electric equipment where the circuits and devices are enclosed in suitably protective cabinets. Care has been taken in the design of the equipment to provide for safety of operating and service personnel, provided reasonable care is exercised in the performance of operating and service functions.

The following safety considerations should always be carefully observed in the application, operation, or servicing of the equipment.

1. ELECTRICAL RATINGS of the equipment are values that should be considered to be **EXTREMELY DANGEROUS** to personnel.
2. EQUIPMENT SHOULD ALWAYS BE COMPLETELY DE-ENERGIZED BEFORE HANDLING OR PERFORMING ANY SERVICE

OPERATIONS. De-energizing the operating coil is not sufficient to render the equipment safe; the power lines must also be disconnected or otherwise de-energized. If power lines are not de-energized, all parts of the device should be considered to be at the maximum system voltage.

3. IF INSPECTION OF ENERGIZED EQUIPMENT IS NECESSARY, DO NOT TOUCH OR HANDLE ANY PARTS. DO NOT STAND IN FRONT OF THE EQUIPMENT OR AT CLOSE RANGE TO PERFORM VISUAL INSPECTIONS. The discharge of hot gases and particles is always likely when the contactor is operated in an energized circuit.
4. NEVER ATTEMPT TO OPERATE THE POWER CONTACTOR WITHOUT HAVING THE ARC CHUTE PROPERLY IN PLACE.
5. NEVER ATTEMPT TO REMOVE THE ARC CHUTE WHILE THE POWER CONTACTOR IS IN AN ENERGIZED OR CLOSED POSITION. Such action would be extremely dangerous and would likely result in extensive damage.
6. Operating temperatures for the power contactor are high. Some parts of these devices may normally reach temperatures in excess of 93° C (200° F). SERIOUS BURNS CAN RESULT FROM HANDLING THE EQUIPMENT AFTER IT HAS BEEN IN SERVICE AND BEFORE IT HAS BEEN ALLOWED TO COOL.

MAINTENANCE

Only skilled personnel familiar with electrical equipment and the hazards involved should be permitted to service a power contactor. All safety precautions must be observed.

Minimum maintenance is required to keep the power contactor in serviceable condition. Moving mechanical parts should be free from excess friction. Parts should also be checked for excessive wear. The bearing surfaces of the contactor are designed to operate without lubrication. Do NOT oil or grease at any time.

Contacts and arc chutes are normally oxidized and smoked from regular service. Other contactor parts should not show effects of high temperature operation.

The contactor must be kept clean, connections must be tight, and should be inspected and serviced at intervals as specified in the applicable Scheduled Maintenance Program.

NOTE: For complete disassembly and assembly procedures for contactor, refer to "Rebuilding Contactor".

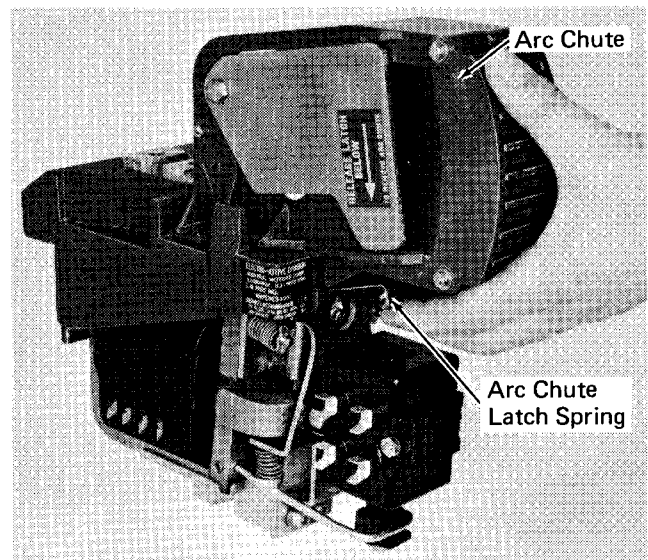
MAIN AND ARC CONTACT TIPS

The contact tips should be free of foreign matter, but need not be smooth. Contact tips should not be cleaned, dressed, or filed. The contacts will operate satisfactorily even though blackened, pitted, or eroded. Overtravel is provided at the contact support to compensate for 3.18 mm (0.125") total contact wear.

INSPECTION OF MAIN CONTACT TIPS

WARNING: De-energize the system before servicing the contactor.

1. Pull arc chute latch spring forward and remove arc chute by lifting front end away from main body of contactor, Fig. 2.



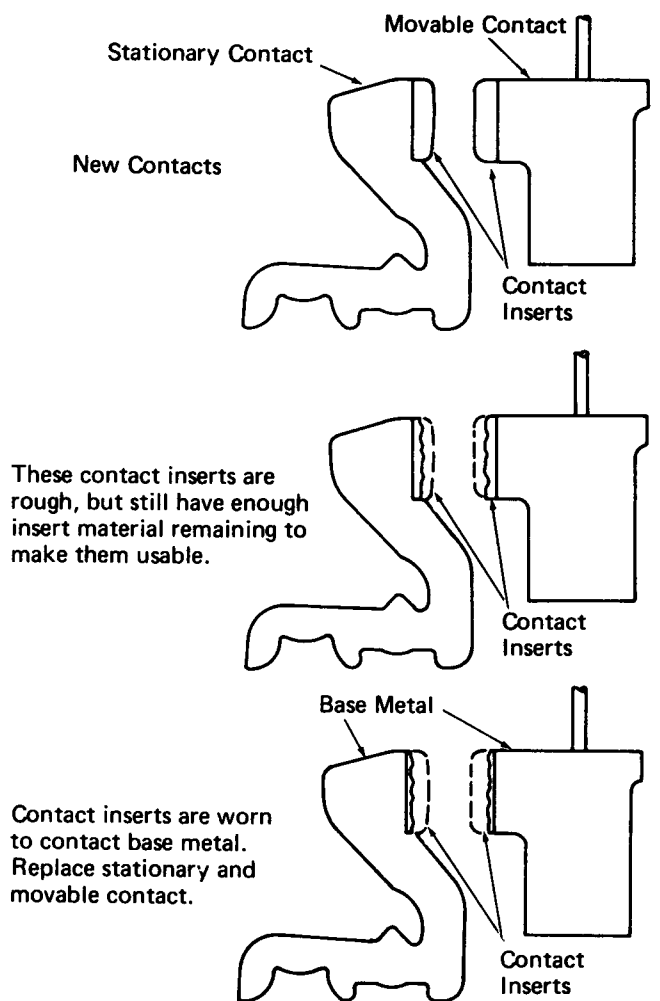
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Fig. 2 - Removing Arc Chute

2. Inspect the two stationary contact tips and the movable contact tip. Refer to Fig. 3 to determine if contacts are usable or require replacement. If one is eroded beyond wear limits in Fig. 3, replace stationary contact tips and movable contact tip.

INSPECTION OF ARC CONTACT TIPS

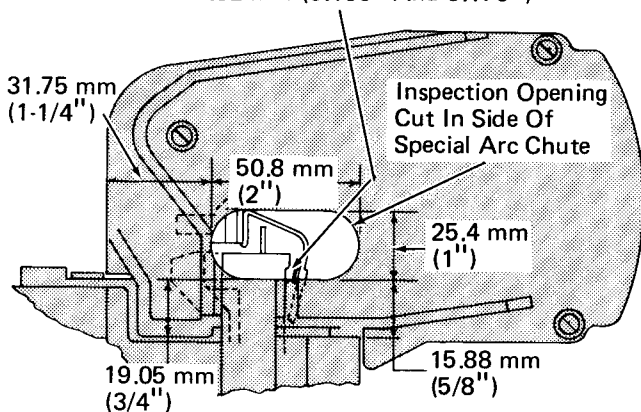
1. Modify a new arc chute as shown in Fig. 4 for use during inspection. The opening in the side of the arc chute allows visual inspection



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Fig. 3 - Main Contact Wear Limits

With Main Contact In Closed Position, Gap At This Point To Be Between 2.54 mm And 4.32 mm (0.100" And 0.170")



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Fig. 4 - Modified Arc Chute For Inspection Purposes

of arc contact tips, and permits measurement of the gap between the main movable contact assembly and the flexible leaf of the movable arc tip assembly.

NOTE: The tolerance given for gap measurement is adjusted to the fact that there has been no wear on the stationary arc tip of the modified arc chute used for the inspection.

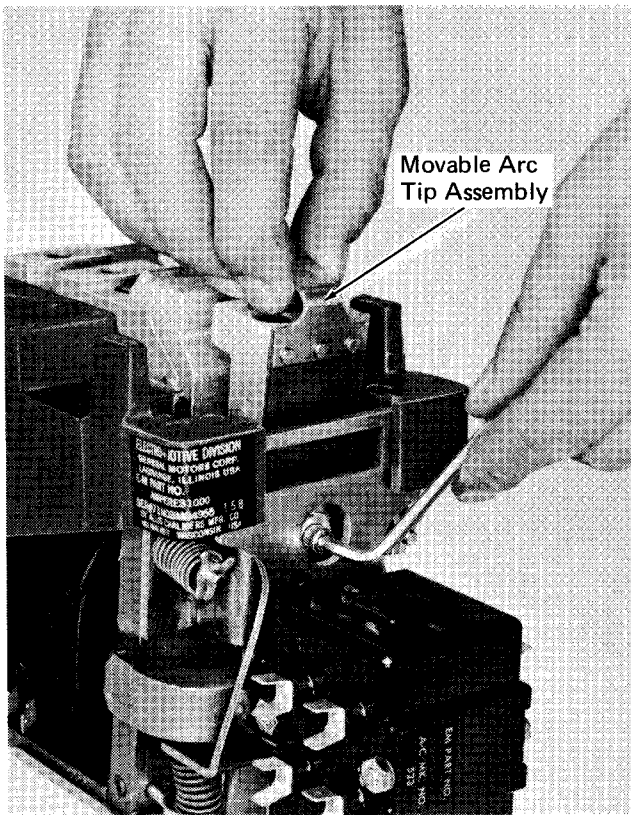
2. Remove original arc chute from contactor to be inspected and install modified chute.
3. Energize power contactor coil with 74 DC to clamp main and arc contact tips closed.
4. Check that arc contact tips make good contact, then measure gap between main movable contact and the flexible leaf of the movable arc contact assembly at the point indicated in Fig. 4.
5. Gap should be between 2.54 mm (0.100") and 4.32 mm (0.170"). A gap less than 2.54 mm (0.100") indicates excessive arc contact tip wear. The movable arc contact assembly as well as the stationary arc contact assembly in the original chute, should be renewed.

A gap greater than 4.32 mm (0.170") indicates excessive main contact tip wear or mechanical damage at the movable arc contact assembly.

REMOVAL OF MOVABLE ARC TIP ASSEMBLY

NOTE: If arc chute has not been removed for inspection, remove per Step 1 of "Inspection".

1. Remove screw and lockwasher, Fig. 5, holding the movable arc tip assembly to the movable contact assembly.
2. Remove arc tip assembly from slot between movable contact support and the hold-on magnet bracket by pulling up on the movable arc tip, while moving the arc tip slightly from side to side.



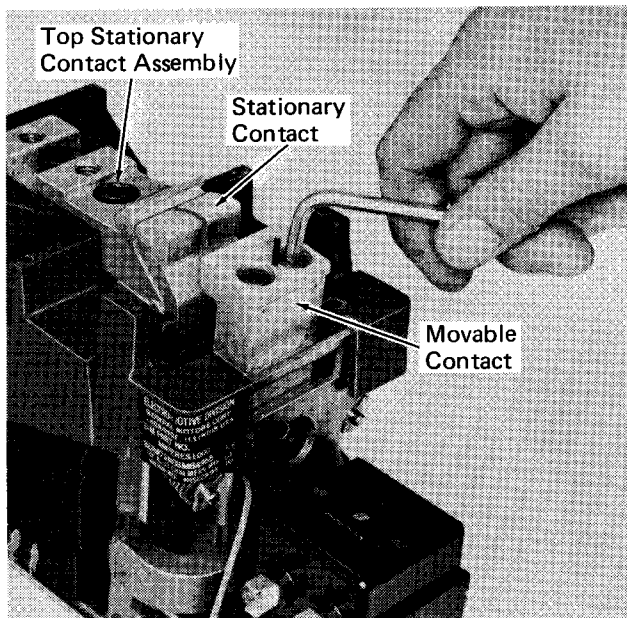
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Fig. 5 - Removal Of Movable Arc Tip Assembly

REPLACEMENT OF MOVABLE CONTACT ASSEMBLY

1. Remove two screws and lockwashers, Fig. 6, holding movable contact assembly in place.

Remove assembly and replace with a new contact assembly. Apply screws and lockwashers, but do not tighten screws at this time.



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Fig. 6 - Removing Movable Contact

2. Check that movable contact assembly is properly seated, (centered in the support molding within ± 0.76 mm [± 0.030 "]) then torque screws between 6.21 and 7.34 N·m (55 and 65 in.-lbs).

REPLACEMENT OF MOVABLE ARC TIP ASSEMBLY

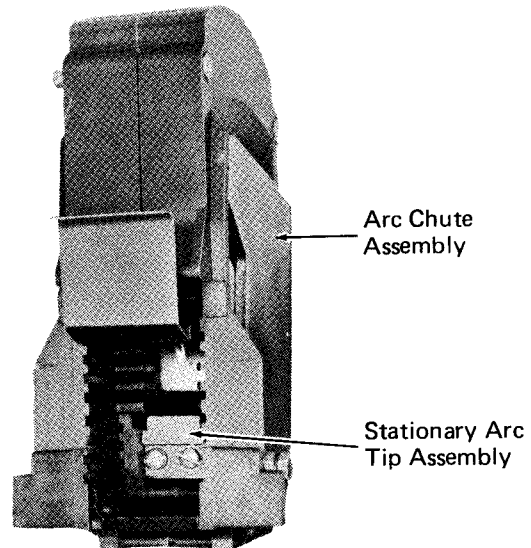
1. Insert new movable arc tip assembly into slot between movable main contact support and the hold-on magnet bracket.

CAUTION: Arc tip assembly must be inserted **BETWEEN** the hold-on magnet bracket and the movable contact support, **NOT** in front of the bracket.

2. Align the hole in the movable arc tip assembly and the hole in the movable main contact support with the hole in the hold-on magnet bracket. Insert screw and lockwasher. Torque screw between 1.70 and 2.26 N·m (15 and 20 in.-lbs).

REPLACEMENT OF STATIONARY ARC TIP ASSEMBLY

1. Remove two screws and lockwashers holding the stationary arc tip assembly to the arc chute, Fig. 7.



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Fig. 7 - Stationary Arc Tip Assembly

2. Lift out stationary arc tip assembly.
3. Place new stationary arc tip in proper position and secure with screws and lockwashers. Torque screws between 1.70 and 2.26 N·m (15 and 20 in.-lbs).

REPLACEMENT OF STATIONARY CONTACT ASSEMBLY

1. Remove top stationary contact assembly, stationary contacts, and spacer by removing two screws and lockwashers, Fig. 6.
2. Position spacer on the top terminal molding, with the short leg of the "L" down between the pivot springs and the long leg extending back between the wipe springs, Fig. 8.

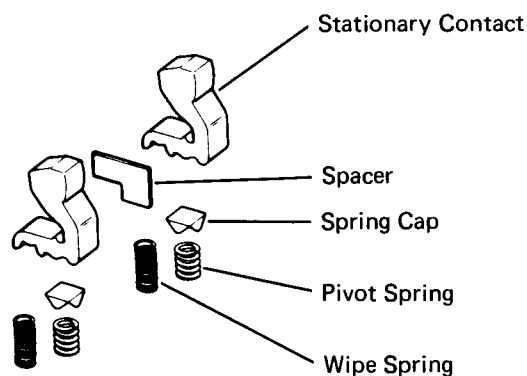


Fig. 8 - Stationary Contact Assembly

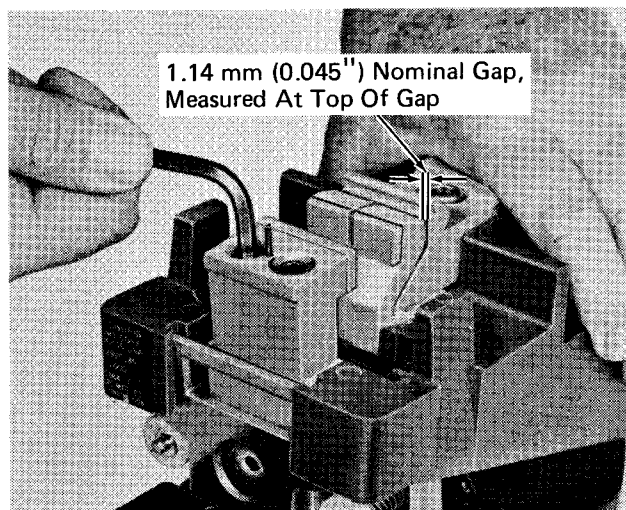
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3. Place new stationary contacts over wipe springs and pivot springs. Spring caps must be firmly seated on pivot springs.
4. Insert pointed nose of the top stationary contact assembly into the cavity in back of the stationary contact, engaging the mating pivots.
5. With pivots engaged and the top stationary contact assembly held back against the stop in the top terminal molding, secure with two screws and lockwashers. Torque screws between 9.60 and 11.30 N·m (85 and 100 in.-lbs).
6. Check for freedom of movement of both stationary contacts. Gap behind contact should be 1.14 mm (0.045") nominal. See Fig. 9.

INTERLOCK CONTACTS

INSPECTION

1. Remove screw (3, Fig. 10), lockwasher, and plain washer from bottom of interlock assembly (1), and remove interlock operator (2).
2. Remove two screws (9) from interlock assembly and carefully remove the left-hand cover



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Fig. 9 - Stationary Contact Gap

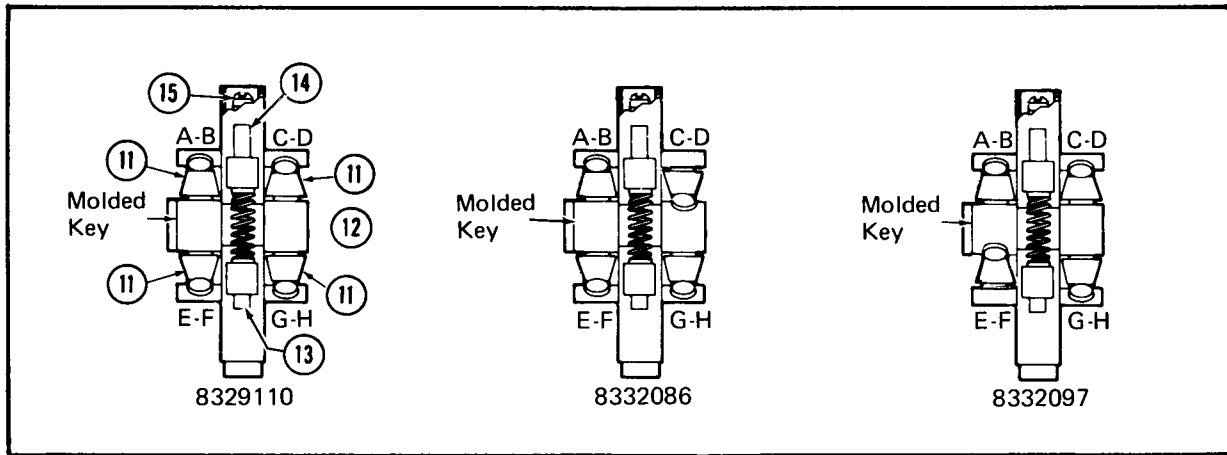
exposing interlock contacts. Interlock contacts do not require replacement until either mating contact is worn 0.79 mm (1/32"), when compared to new contact dimensions. Refer to Fig. 11 to determine if contacts are usable or require replacement.

NOTE: If the contacts in the movable contact carrier are worn beyond the limits in Fig. 11, the contact bridges should be replaced. If the stationary contacts are worn or loose, the interlock assembly should be replaced.

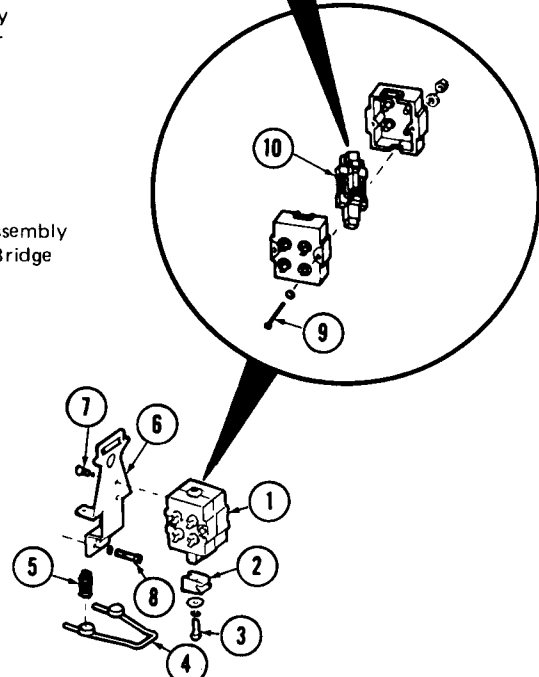
REPLACEMENT OF ASSEMBLY

If inspection determined that interlock assembly should be replaced, proceed as follows:

1. Remove return springs (5, Fig. 10) with a screwdriver.
2. Remove two screws (8) from bottom terminal assembly and swing interlock support bracket (6), with interlock assembly attached, forward until disengaged from top terminal molding.
3. Remove two screws (7) and remove interlock assembly from support bracket.
4. Attach new interlock assembly to support bracket with screws (7). Apply Locktite Grade A-A retaining compound to screw threads before assembly. Torque screws between 1.70 and 2.26 N·m (15 and 20 in.-lbs).
5. Position top end of interlock support bracket under front end of top terminal molding.



- 1. Interlock Assembly
- 2. Interlock Operator
- 3. Screw
- 4. Operator Lever
- 5. Return Spring
- 6. Support Bracket
- 7. Screw
- 8. Screw
- 9. Screw
- 10. Contact Carrier Assembly
- 11. Movable Contact Bridge
- 12. Compression Ring
- 13. Short Pin
- 14. Long Pin
- 15. Screw



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Fig. 10 - Interlock Assembly Partial Exploded View

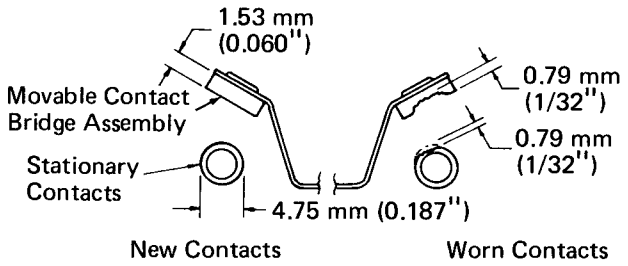


Fig. 11 - Interlock Contact Wear Limits 22191

8. Attach interlock operator (2) to bottom of contact carrier (10) with screw (3), Belleville washer, and lockwasher. Torque screw between 6.21 and 7.34 N·m (55 and 65 in.-lbs).

REPLACEMENT OF CONTACTS

If inspection determined that interlock contacts should be replaced, proceed as follows:

- 1. Remove contact carrier (10, Fig. 10) from interlock assembly cover half.

NOTE: Work on contact carrier in an area where small parts will not be lost if dropped.

- 2. Hold contact carrier in palm of hand and loosen screw (15) so that the top, center, and

bottom elements of the carrier can be separated sufficiently to remove an upper and lower set of contact bridges (11). Insert a new set of contact bridges.

CAUTION: Each contact bridge must be positioned properly and NOT inverted since this could cause malfunction of the contactor. See Fig. 10 for correct position of contact bridges.

3. Turn over contact carrier in palm of hand and repeat Step 2 for remaining two contact bridges, and tighten screw (15). Brass sleeves on all four contact bridge assemblies must be free after screw is tightened.
4. Place contact carrier (10) into the interlock cover remaining on the contactor. Ensure that screw (15) in the carrier is at the end of the interlock cover stamped C-D, and that molded key is outside the cover. Move contact carrier from end to end to ascertain that the contact bridge assemblies are correctly related to the stationary contacts within the covers.
5. Apply the other cover half to the interlock assembly.

ARC CHUTE

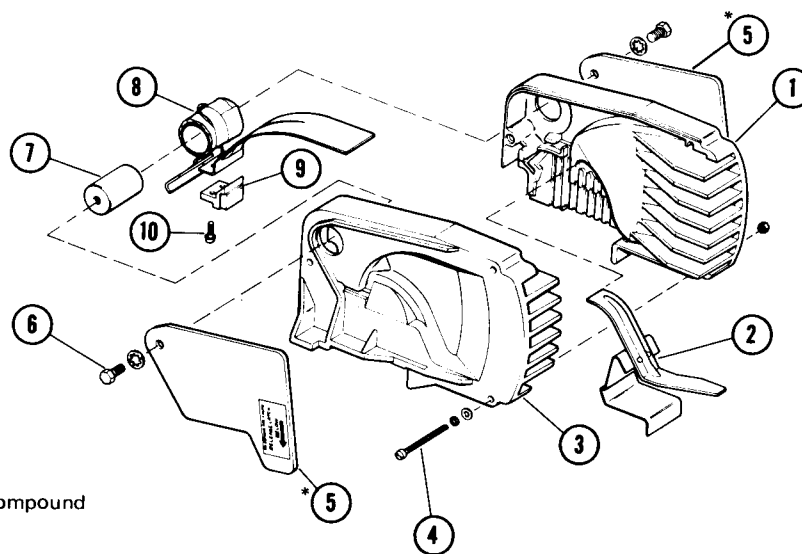
If maintenance of the arc chute is required, proceed as follows:

DISASSEMBLY

1. Remove two screws (10, Fig. 12) and stationary arcing contact (9).
2. Lay arc chute assembly on right side with heads of screws (4) up.
3. Remove screw (6) from left side.
4. Remove three screws (4).
5. Lift out latch spring and arc runner assembly (2).
6. Lift out blowout coil and arc runner assembly (8).
7. Remove screw (6) and magnet core (7) from right-hand arc chute molding (1).
8. Normally the pole plates (5) and arc chute moldings do not have to be separated. If required, pry pole plates loose from arc chute moldings (1 & 3) with a screwdriver.

ASSEMBLY

1. Apply silicone rubber compound between one pole plate (5, Fig. 12) and right-hand arc chute molding (1). Position pole plate on molding.



*Apply silicone rubber compound between mating parts.

- | | |
|---------------------------------------|---------------------------------------|
| 1. Arc Chute Right-Hand Molding | 6. Screw |
| 2. Latch Spring & Arc Runner Assembly | 7. Magnet Core |
| 3. Arc Chute Left-Hand Molding | 8. Blowout Coil & Arc Runner Assembly |
| 4. Screw | 9. Arcing Contact Assembly |
| 5. Pole Plate | 10. Screw |

Fig. 12 - Arc Chute Assembly

2. Position magnet core (7) into hole in right-hand arc chute molding (1) and secure with screw (6) and lockwasher. Torque screw between 6.21 and 7.34 N·m (55 and 65 in.-lbs).
3. Mount coil of blowout coil and arc runner assembly (8) on magnet core (7). Insert arc runner and hook into slots of right-hand arc chute molding (1).
4. Insert latch springs and arc runner assembly (2) into slots in right-hand arc chute molding (1).
5. Place left-hand arc chute molding (1) over the above assembly and move about slightly until all runners are nested in slots.
6. Secure the assembly with three screws (4), plain washers, lockwashers, and nuts. The washers are assembled under heads of screws.
7. Apply silicone rubber compound between pole plate (5) and left-hand arc chute molding (3). Position pole plate on molding.
8. Secure left-hand pole plate (5) to magnet core (7) with screw (6) and lockwasher. Torque screws between 6.21 and 7.34 N·m (55 and 65 in.-lbs).
9. Position stationary arcing contact (9) on blowout coil and arc runner assembly (8) and secure with screws (10). Torque screws between 1.70 and 2.26 N·m (15 and 20 in.-lbs).

REBUILDING CONTACTOR

Under ordinary circumstances, replacement of main contacts and interlock contacts is the extent of periodic maintenance needed to ensure reliable operation. However, if the contactor is to be serviced or rebuilt for other reasons, use the following procedure.

DISASSEMBLY

WARNING: Do not disassemble contactor in the cabinet. Disconnect contactor power cables and leads to interlock assembly, and then remove contactor from control cabinet.

Sub-Assemblies (A,B,C, Fig. 13)

1. Pull arc chute latch spring forward and remove arc chute by lifting front end of arc chute away from main body of contactor.

2. Remove return springs (40). Loosen two set screws (23) and remove operating lever (39). Remove two screws (41) and interlock assembly (D).
3. Remove two screws (33) releasing stationary contact assembly (C), movable contact assembly (B), and magnet assembly (A). Remove shim (24) from movable contact assembly (B).

Magnet Assembly (A, Fig. 13)

1. Remove two screws (9), bottom terminal (8), and armature guide (7).
2. Remove screw (6), pole plate (4), magnet coil (2), and spring washer (11).
3. Normally the magnet core (3) and magnet yoke (1) do not have to be separated. If required, pry insulator (10) loose from magnet yoke (1). Remove screw (5) and magnet core (3).

Movable Contact Assembly (B, Fig. 13)

1. Lay the movable contact assembly (B) on a workbench with the face of the armature assembly (20) down.
2. Pinch "X" washers (17) with pliers to free contact springs (18).
3. Lift armature assembly (20) and remove shoulder pins (16).
4. Slide movable contact assembly (12, 13, 15, & 19) out of armature assembly (20). Let open-stop (14) fall free.
5. Remove screw (21), hold-on iron assembly (15), and movable arcing tip (19) from movable contact assembly (12 & 13).
6. Remove two screws (22) and movable contact (12) from movable contact support assembly (13).

Stationary Contact Support Assembly (C, Fig. 13)

1. Remove two screws (30) and top stationary contact assembly (26).
2. Lift out stationary contact (27) and spacer (32).
3. Remove pivot springs (29) with pivot spring caps (31).
4. Remove wipe springs (28).

A Magnet Assembly **C** Stationary Contact Assembly

- 1. Magnet Yoke
- 2. Magnet Coil
- 3. Magnet Core
- 4. Pole Plate
- 5. Screw
- 6. Screw
- 7. Armature Guide
- 8. Bottom Terminal
- 9. Screw
- 10. Insulator
- 11. Spring Washer

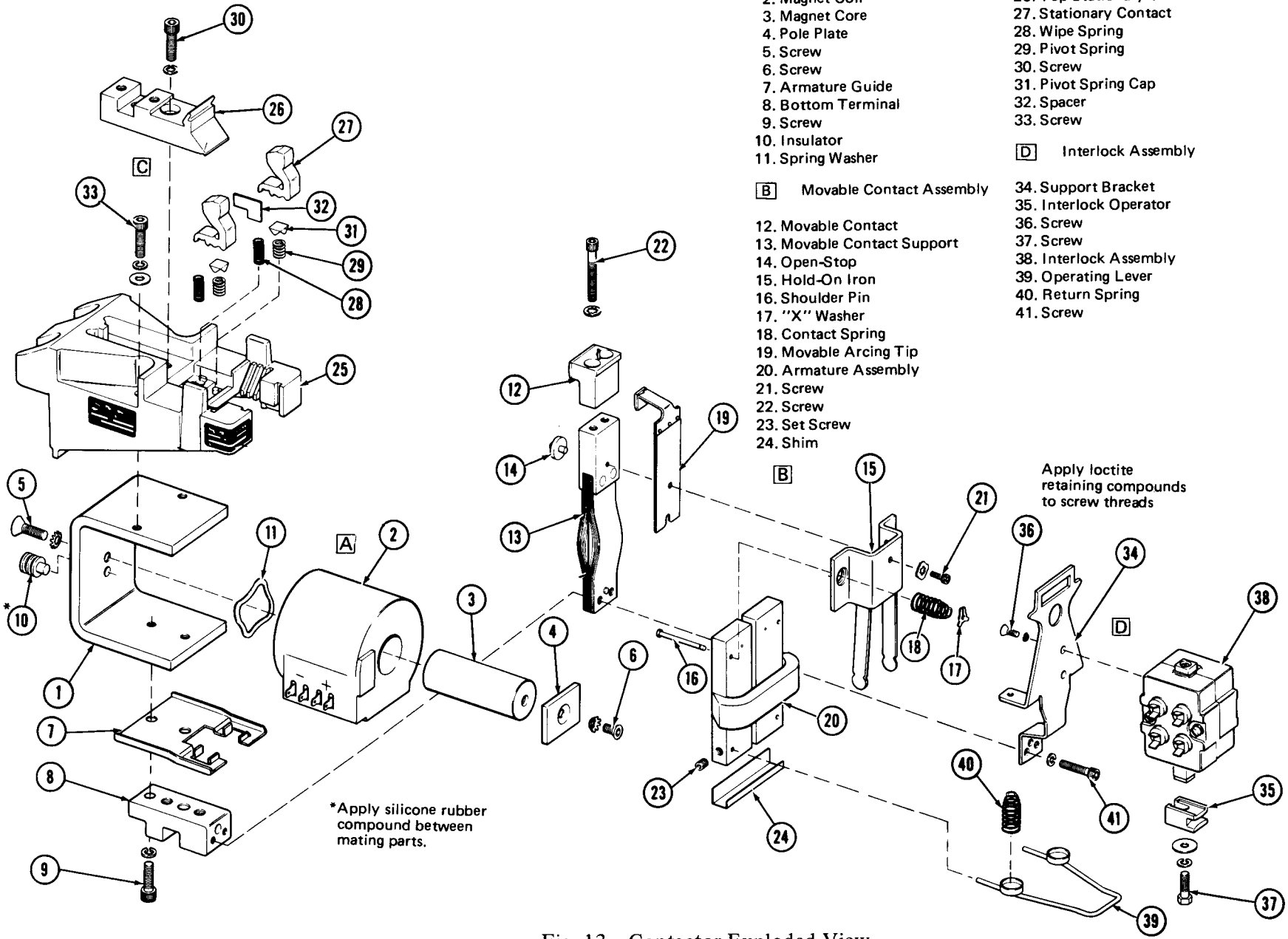
- 25. Top Terminal Molding
- 26. Top Stationary Contact
- 27. Stationary Contact
- 28. Wipe Spring
- 29. Pivot Spring
- 30. Screw
- 31. Pivot Spring Cap
- 32. Spacer
- 33. Screw

B Movable Contact Assembly

- 12. Movable Contact
- 13. Movable Contact Support
- 14. Open-Stop
- 15. Hold-On Iron
- 16. Shoulder Pin
- 17. "X" Washer
- 18. Contact Spring
- 19. Movable Arcing Tip
- 20. Armature Assembly
- 21. Screw
- 22. Screw
- 23. Set Screw
- 24. Shim

D Interlock Assembly

- 34. Support Bracket
- 35. Interlock Operator
- 36. Screw
- 37. Screw
- 38. Interlock Assembly
- 39. Operating Lever
- 40. Return Spring
- 41. Screw



*Apply silicone rubber compound between mating parts.

Apply loctite retaining compounds to screw threads

Fig. 13 - Contactor Exploded View

BUILDING SUB-ASSEMBLIES

To rebuild the contactor, start by building the major sub-assemblies. Perform the procedures and adjustments as follows:

Magnet Assembly (A, Fig. 13)

1. Attach magnet core (3) to magnet yoke (1) with screw (5) and lockwasher. Torque screw between 9.60 and 11.30 N·m (85 and 100 in.-lbs).
2. Position spring washer (11) and magnet coil (2) on magnet core (3) with flat section of coil toward bottom of yoke.
3. Position pole plate (4) on end of magnet coil (2) with short side against boss on coil end. Secure with screw (6) and lockwasher. Torque screw between 7.34 and 7.91 N·m (65 and 70 in.-lbs).
4. Position armature guide (7) and bottom terminal (8) over matching holes in magnet yoke (1) and fasten with two screws (9) and lockwashers. Both parts should be placed as far forward as mounting screws (9) will allow, but later may require repositioning. Torque screws between 9.60 and 11.30 N·m (85 and 100 in.-lbs).
5. If insulator (10) was removed during disassembly, apply silicone rubber compound to the insulator and press it into the magnet yoke (1).

Movable Contact Assembly (B, Fig. 13)

1. Position movable contact (12) over movable contact support assembly (13) and secure with two screws (22) and lockwashers. Torque screws between 6.21 and 7.34 N·m (55 and 65 in.-lbs).
2. Position movable arcing tip (19) and hold-on iron assembly (15) over movable contact assembly (12 & 13) with the holes in line and the boss on pivot assembly in the slot of movable arcing tip. Secure with screw (21) and lockwasher. Torque screw between 1.70 and 2.26 N·m (15 and 20 in.-lbs).
3. Place one end of open-stop (14) into hole in contact support assembly (13) opposite screw (21).
4. Slide movable contact assembly (12, 13, 15, & 19) between yoke and flat part of armature

assembly (20). Free end of open-stop (14) is to be positioned in slot in the armature (20).

5. Push two shoulder pins (16) through hole in armature assembly (20) and large holes in hold-on iron assembly (15).
6. Place armature on bench, face down, and position contact springs (18) over shoulder pins (16).
7. Compress contact springs (18) until "X" washers (17) can be slipped into recess in shoulder pins (16). Pinch "X" washers (17) with pliers to lock into recess on each shoulder pin (16).
8. Center each contact spring (18) in the recess on the spring support surface of hold-on iron assembly (15).

Stationary Contact Support Assembly (D, Fig. 13)

1. Ensure that support areas for springs (28 & 29) are free of foreign particles. Place top terminal molding (25) in a horizontal position.
2. Place a wipe spring (28) into both of the tapered (rear) holes in the top terminal molding (25).
3. Place a pivot spring cap (31) on one end of both pivot springs (29). Place the other end of the pivot spring (29) over both of the conical (front) pins in the top terminal molding (25).
4. Position the spacer (32) on the top terminal molding (25) with the short leg of the "L" down between the pivot springs (29) and the long leg extending back between the wipe springs (28).
5. Position both stationary contact assemblies (27) over wipe springs (28) and pivot springs (29). Be certain that the spring caps (31) are firmly seated on the pivot springs (29).
6. Insert the pointed nose of the top stationary contact assembly (26) into the cavity in back of the stationary contact assembly (27) engaging the mating pivots.
7. With the pivots engaged and the stationary contacts held back against the stop in the top terminal molding (25), secure with two screws

(30) and lockwashers. Torque screws between 9.60 and 11.30 N·m (85 and 100 in.-lbs).

8. Check for freedom of movement of each stationary contact. Gap behind contact shall be 1.14 mm (0.045") nominal measured at top of gap.

FINAL ASSEMBLY

The following sequence should be observed to complete contactor assembly.

1. Place shim (24, Fig. 13) on bottom of armature (20) on movable contact assembly (B) with the long leg of the shim on the flat face of the armature.
2. Place contact assembly (B) into position in front of magnet assembly (A), so that the armature (20) with shim (24) rests behind two fingers of armature guide (7) with the hold-on iron (15) between four fingers on armature guide (7).
3. Place stationary contact assembly (C) over magnet assembly (A) and contact assembly (B) and secure with two screws (33), plain washers, and lockwashers. Magnet assembly (A) must touch back wall of cavity in top terminal molding (25). Torque screws between 9.60 and 11.30 N·m (85 and 100 in.-lbs).

4. Position top end of interlock support bracket (34) under front end of top terminal molding (25).

5. Attach interlock support bracket (34) and movable contact support (13) to bottom terminal (8) with two screws (41) and lockwashers. Do not tighten screws at this time. Center contact assembly (B) in the opening of top terminal molding (25) and torque screws (41) between 6.21 and 7.34 N·m (55 and 65 in.-lbs).

6. Insert both ends of operating lever assembly (39) into holes at bottom of armature (20) until ends are just flush with back face of armature. Torque set screws (23) between 7.34 and 7.91 N·m (65 and 70 in.-lbs).

7. Insert two return springs (40) between cups on operating lever (39) and spring location buttons on interlock support bracket (34). Springs must be fully seated in cups.

8. Position hook on arc chute assembly in notch of top stationary contact assembly (26). Pull arc chute latch spring forward and swing front of arc chute assembly down to seat on top terminal molding (25). Release latch spring to hold arc chute assembly in position.

SERVICE DATA

SPECIFICATIONS

MAIN CONTACTS

| | |
|--|------------------------------|
| Contact Rating (based on 80° C [176° F] ambient temperature) | 1000 amps |
| Contact Pressure - New | 40.03 to 44.48 N (9-10 lbs.) |
| Contact Wear Allowance (each contact) | 1.59 mm (1/16") |
| Contact Minimum Opening - New | 11.91 mm (15/32") |

INTERLOCK CONTACTS

| | |
|--|---------------------|
| Contact Lift, Short Wipe (at 2.38 mm [3/32"] deflection) | 0.11 kg (0.25 lbs.) |
| Movable Contact Travel | 9.53 mm (0.375") |
| Contact Wear Allowance (Maximum) | 0.79 mm (1/32") |
| Contact Gap | 4.78 mm (0.188") |

Contact Arrangement - Interlock 8329110

| | |
|----------|-----------------|
| A-B, C-D | Normally Closed |
| E-F, G-H | Normally Open |

Contact Arrangement - Interlock 8332086

| | |
|---------------|-----------------|
| A-B | Normally Closed |
| C-D, E-F, G-H | Normally Open |

SERVICE DATA (CONT'D)

Contact Arrangement – Interlock 8332097

| | |
|---------------|-----------------|
| A-B, C-D, E-F | Normally Closed |
| G-H | Normally Open |

MAGNET COIL

Resistance (at 20° C) 120 ohms (± 10%)

OPERATION

| | |
|------------------------------|-----------|
| Working Voltage (continuous) | 74 V DC |
| Pickup (at 20° C) | 48 V DC |
| Dropout (at 20° C) | 5-28 V DC |

HI-POT

| | | |
|-------------------------------------|---|------------------------|
| Magnet Coil To Mounting | | <u>60 Hz, 1 Minute</u> |
| Magnet Coil To Main Contacts | | 600 V RMS |
| Main Contacts To Mounting | } | 2400 V RMS |
| Main Contacts To Interlock Contacts | | |
| Between Open Main Contacts | | |
| Interlock Contacts To Mounting | | |

MATERIALS

| | |
|-----------------------------|---------|
| Silicone Rubber Compound | 8453256 |
| Locktite Retaining Compound | 8471182 |