TYPE L-39 ELECTRICAL INTERLOCK

INSTRUCTIONS

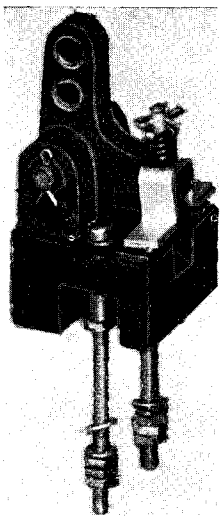


FIG. 1—TYPE L-39 ELECTRICAL INTERLOCK MAKE OR BREAK

DESCRIPTION

The type L-39 electrical interlock is an auxiliary contact device composed of a moulded bearing block having two stationary contacts bridged by a solid contact carried on a pivotally mounted insulation lever. An operating rod is connected therefrom to the contactor. Combinations are available for single make, single break, double make, double break and transfer interlocks.

RATING

The rating of the L-39 electrical interlock is 10 amperes current carrying capacity A-C. or D-C. on control circuits up to 600 volts maximum.

The arc rupturing capacity of this interlock is 500 watts D-C. inductive load, or 1200 volt amperes A-C.

OPERATION

The operation of the interlock is dependent upon the motion of some other moving member of the control panel, usually a contactor.

MAINTENANCE

Bearings

Do not use oil or other lubricants on the bearings. Oil collects dust and unless the parts are frequently cleaned will cause the interlock to be sluggish in opening or create excessive friction. The bearing pin is of nitrided steel, is not subject to rusting and will give extremely long life.

Contacts and Spring Pressures

Use no oil or other lubricant on the contacts. The contacts will give satisfactory results without much attention.

The contacts should be replaced when maximum usefulness has been reached in order that the spring pressure does not reach too low a value, which may result in excessive arcing or low contact pressure. In some cases the adjustment of the interlock may allow further wearing of the contacts.

Contact Gap and Adjustment

The open contact gap on the interlock should be a minimum of $\frac{1}{4}$ inch. The interlock is provided with two holes into which the operating lever can be assembled so that the amount of motion obtained on the interlock for a given movement of the operating lever may be changed by assembling in either position. The operating lever should be assembled in the hole which produces the proper open contact gap plus contact arm overtravel. The overtravel of the micarta moving arm which carries the moving contact should be $\frac{3}{32}$ inch at the point of attachment of the moving arm to the moving contact. This is the initial adjustment that the interlock should have and as the contacts wear this amount will decrease. The old type operating levers (750,000 and 808,000 series styles) have an operating rod bent in an L shape as shown in Figure 4. Adjustment can be made by removing the operating lever from the contactor and turning the T shaped rod end either clockwise or counter-clockwise depending upon whether the interlock is make or break and whether the overtravel is to be increased or decreased. This changes the length of the operating lever and consequently changes the relative position of the moving interlock parts with respect to the switch to which it is attached. The rod end should be turned in preference to the rod itself for this allows the change of adjustment by a half turn.

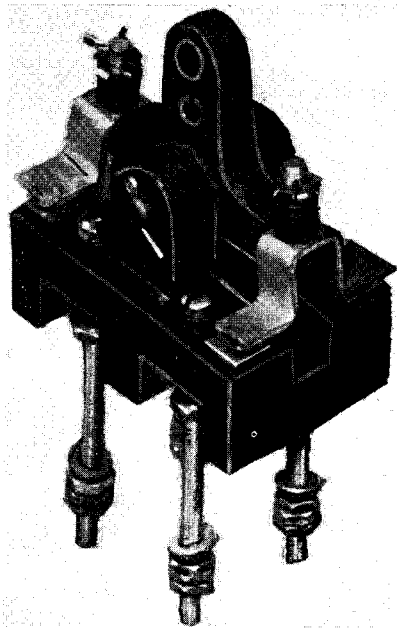


FIG. 2—TYPE L-39 ELECTRICAL INTERLOCK MAKE AND BREAK

The new levers (1,033,000 series styles) have a straight threaded rod with two nuts to hold the interlock actuating pin (Figure 3). Adjustment should be made by moving the actuating pin holding nuts up or down. This makes possible an easy and accurate adjustment.

The rod end which attaches to the contactor operates on a nitrided bushing. This bushing is clamped between the projections on the armature lever with a bolt. This bolt should be kept tight at all times so that all bearing movement will be between the rod end and the bushing.

After adjustment has been made on the interlock, the switch should be checked to make sure that the interlock lever is properly aligned to be free from friction. If any excess friction exists this can be eliminated by turning the operating rod slightly one way or the other so that it properly aligns with the hole in the interlock.

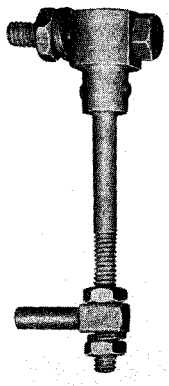


FIG. 3

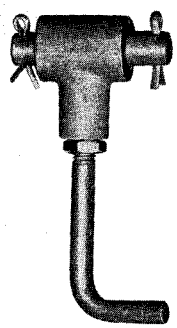
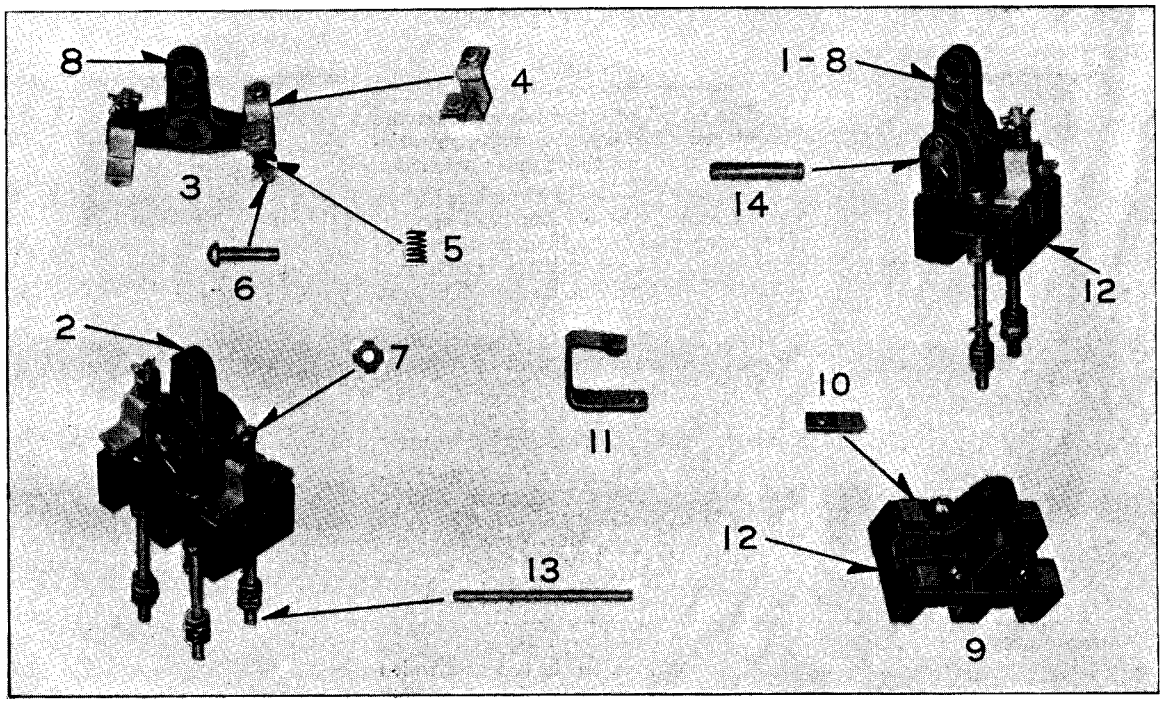


FIG. 4

TYPE L-39 ELECTRICAL INTERLOCK

RENEWAL PARTS DATA



RENEWAL PARTS FOR TYPE L-39 ELECTRICAL INTERLOCK

Style Number of Interlock	*752485 841360-A-B	*774380 841361-A-B	*808231 841362-A-B	No. Per Interlock	Interlock 5 In Use	
Contact Arrangement	Make or Break	Make and Break	Double Make or Double Break		1	5
Ref. No. / Description of Part	Style Number of Part				Recommended for Stock	
1 Moving Contact Complete	831965	.....	.....	1	0	0
2 Moving Contact Complete	.....	816517	.....	1	0	0
3 Moving Contact Complete	.....	.....	845639	1	0	0
4 Moving Contact	1014669(1)	1014669	1014669	2	1	2
5 Spring	808654(1)	808654	808654	2	1	1
6 Spring Pin	1032188(1)	1032188	1032188	2	0	1
7 Crimped Washer	178430(1)	178430	178430	2	0	0
8 Molded Lever	831963	816518	816518	1	0	1
9 Stationary Contact Complete	869171	855730	869174	1	0	0
10 Stationary Contact—Straight	841358	841358(4)	841358	2	1	2
11 Stationary Contact—Bent	.....	.....	1014670	2	1	2
12 Molded Base	831964	816520	816520	1	0	0
13 Stud	361706(2)	361706	361706	4	0	1
14 Hinge Pin	859983	859983	859983	1	0	0

* When it is necessary to renew the moving contacts on this interlock, silver contacts S# 1014669 will be supplied. When changing from copper to silver contacts for the first time, Pin S# 1032188 and Spring S# 808654 should also be ordered for best results.

( )Figures in Parentheses indicate the Number per Interlock.

Parts indented are included in the part under which they are indented.

This is a list of the Renewal Parts and the quantities of each that we recommend should be stocked by the user of this apparatus to minimize interrupted operation caused by breakdowns. The parts recommended are those most subject to wear in normal operation or those subject to damage or breakage due to possible abnormal conditions.

This list of Renewal Parts is given only as a guide. When continuous operation is a primary consideration, additional insurance against shutdowns is desirable. Under such conditions more renewal parts should be carried, the amount depending upon the severity of the service and the time required to secure renewals.

Operating Levers for Type L-39 Interlocks

Type of Contactors	Make or Break or Make and Break		Double Make or Double Break	
	Operating One Interlock	Operating Two Interlocks	Operating One Interlock	Operating Two Interlocks
	Style Number of Operating Lever Used with Magnet Closed Contactor			
101-102-SM	1033650	1033655	1033652	1033657
104-SM	△1033651	△1033656	△1033653	△1033658
104-SM	† 752488	† 808710	† 752489	† 808711
108-SM	1033654	.....	.....	.....
	Style Number of Operating Lever Used with Spring Closed Contactor			
141-142-SM	1033659	1033662	.....	1033663
144-SM	1033660	1039989	.....	1039988
148-SM	1033661	1033664	.....	.....

△ These operating levers are the improved design for the new Type 104-SM contactors S# 1033700 and S# 1033702.
† These are the only old type operating levers listed and they should be used on the old Type 104-SM contactors S# 761623 and S# 761624.

Ordering Instructions

Name the part and give the complete name plate reading. State whether shipment is desired by express, freight or by parcel post. Send all orders or correspondence to nearest Sales Office of the Company. Small orders should be combined so as to amount to a value of at least $1.00 net; where the total of the sale is less than this, the material will be invoiced at $1.00.