



DESCRIPTION • INSTALLATION • MAINTENANCE INSTRUCTIONS

HATCHWAY LIMIT SWITCH

Type HS-1, 2, 3

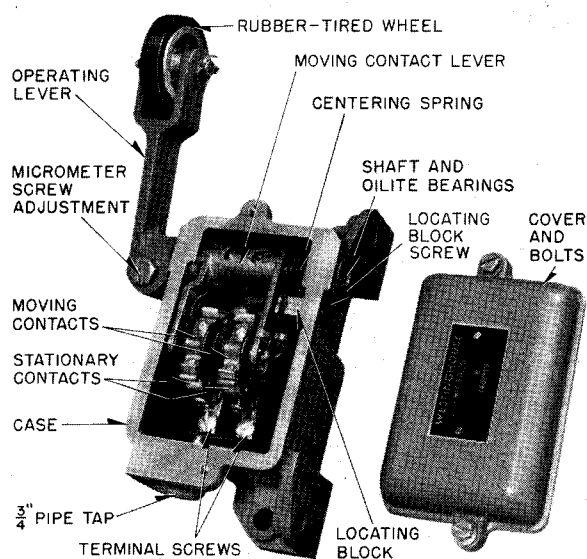


FIG. 1. Type HS Hatchway Limit Switch with Cover Removed.

TYPE HS HATCHWAY LIMIT SWITCH is a slow-make or break switch, completely enclosed. It is equipped with light duty contacts which may be adjusted for normally-closed or normally-open circuits.

The switch was designed primarily for elevator hatchway service, however, it is not limited to this use. It is furnished either as a single-pole or double-pole unit.

Rating	10 Amperes, Continuous Duty 15 Amperes, Intermittent Duty
D-C Arc Rupturing Capacity*	5 Amperes at 250 Volts .75 Amperes at 550 Volts
A-C Arc Rupturing Capacity*	15 Amperes at 550 Volts, 60 Cycles

* All rupturing capacities are considered inductive.

DESCRIPTION

Case. The case is made of die-cast aluminum with a weather-tight aluminum die-cast cover which prevents moisture and dust from getting to the contacts. The cover is held in place by two slotted hex-head bolts which thread into two drilled and tapped holes in the base. (See Fig. 1).

The case is fitted with two Oilite shaft bearings, eliminating the necessity for shaft lubrication. One end of the case is provided with a $\frac{3}{4}$ -inch pipe tap for conduit connection.

Operating Lever. The operating lever is provided with a rubber-tired wheel which eliminates the metallic sound when in service. It has a micrometer screw adjustment which serves as an adjusting screw and clamping bolt, and can be set in any position in a 360-degree circle.

To set the operating lever, loosen the lock nut and turn the screw until the desired position is obtained; then tighten the clamping screw firmly. The operating lever is self centering, returning to normal position by means of a spring.

Contacts. The stationary contacts are made from hard-drawn copper strap, formed to shape. They are mounted on a base of moulded insulating material. The contacts are removed by sliding out of a slot in the support. This permits quick and easy replacement. A steel centering spring gives positive and sufficient contact pressure up to the maximum life of the contacts.

The moving contacts are made from hard-drawn copper strap attached to insulated spools mounted on a die-cast lever.

The contacts receive a slight wiping action on opening or closing, which insures a clean low-resistance contact area.

INSTALLATION

Location. Use care in selecting the mounting for the switch in order to avoid foreign matter

HATCHWAY LIMIT SWITCH

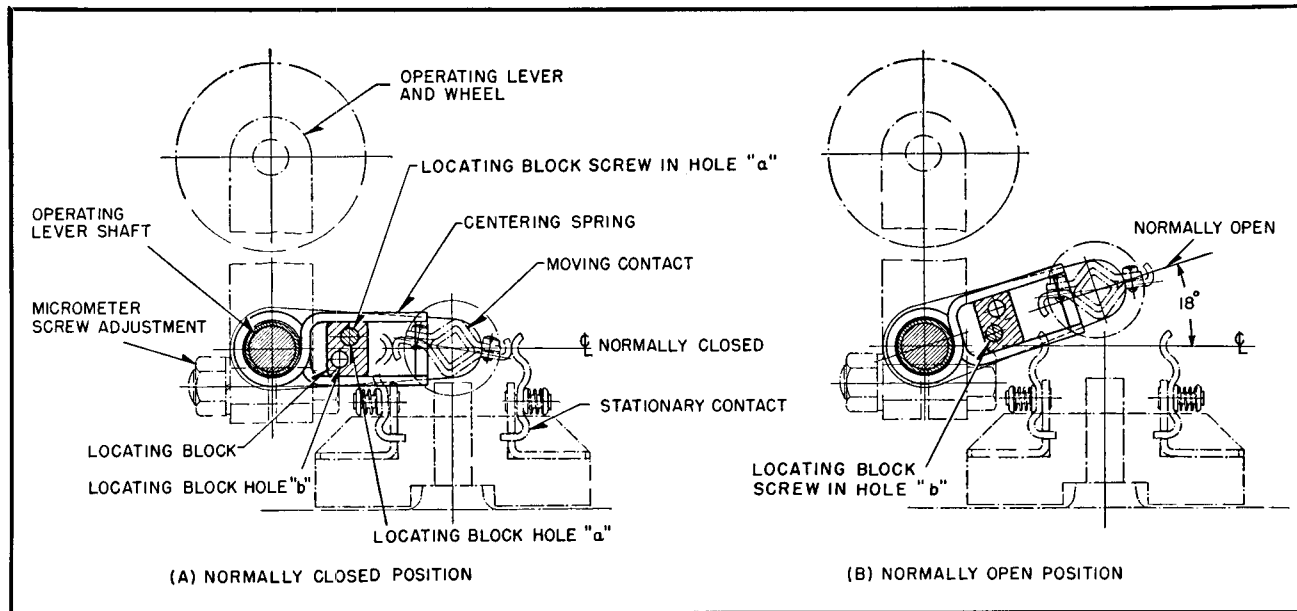


FIG. 2. Adjustment of Contacts for Normally-Closed and Normally-Open Positions.

collecting on the switch and interfering with its operation.

Wiring. To make wiring connections:

1. Remove the countersunk screws which hold the moving contact lever to the shaft.
2. Slide the shaft out of the case and remove the contact lever. All terminal screws are now easily accessible.
3. Bring the wires through the conduit opening and attach them securely to the terminal screws.
4. Align the contact lever with the spring ends and slide the shaft back into position in the case.
5. Install and tighten the countersunk screws which hold the lever and shaft together. The switch is now ready for operation.

CONTACT POSITION AND ADJUSTMENT

To examine the contacts, remove the two hex-head cover bolts and lift the cover from the switch.

The moving contact member may be set to either one of the two positions shown in Fig. 2 by changing the position of the locating screw in the locating block.

1. To change the position from "normally closed" as shown in (A), Fig. 2, remove the locating screw from hole "a" of the locating block, depress the operating lever to the left-hand side, and insert the locating screw into hole "b" of the locating block.

2. To change the position from "normally open" as shown in (B), Fig. 2, remove the locating screw from hole "b" of the locating block, depress the operating lever to the right-hand side, and insert the locating screw into hole "a" of the locating block.

MAINTENANCE

Examine the switch to see that all screws are tightened securely.

Examine the contacts periodically to see that they are clean and making good contact. Replace any defective or worn parts which may cause trouble.

Check the position of the operating lever to see that it has not changed its position and that contacts have the desired amount of movement. This is most important in order to prevent damage to the switch.



WESTINGHOUSE ELECTRIC CORPORATION
BUFFALO PLANT • MOTOR AND CONTROL DIVISION • BUFFALO 5, N. Y.

Printed in U.S.A.