



Hubbell Industrial Controls, Inc.

INSTALLATION & MAINTENANCE INSTRUCTIONS

POWER LIMIT SWITCHES

EUCLID™ SIZE 2, 3, 4, 5, 6, & 6A

General

The EULCID™ Power Limit Switch is a device well suited for crane hoist overtravel protection in repetitively worked applications and under severe environmental conditions. Maintenance requirements obviously will vary with service conditions. Even though the device has been carefully designed to minimize maintenance due to wear and adverse environmental conditions, a periodic inspection and maintenance program is mandatory in the interests of insuring maximum protection.

The following sections treat various components of the limit switch with suggested installation and maintenance practice.

Installation

EUCLID™ Power Limit Switches must always be mounted with shaft in horizontal position with mounting feet down. Under no circumstances attempt to mount up side down. Provide adequate support under each of the three mounting feet.

Install the split-sleeve reset weight guide around the dead-ended cable, see Fig. 1. A bracket or striker plate may be attached to the hook block, if necessary, to lift the suspended weight when hoisting. Be sure that the reset weight is positively engaged by the hook block during hoisting under all conditions of hook swing. Add additional guiding means to reset weight if necessary to insure engagement by hook block.

Provide clearance or opening in Trolley platform so that tripping weight cannot be prevented from dropping slightly below level of mounting feet. This clearance, or opening for the trip weight insures positive switch action by preventing dirt buildup. Avoid the use of sheave wheels or lever systems which can introduce friction in reset weight cable assembly and retard free action of tripping weight.

Right hand operation as shown, is furnished unless otherwise specified. Field changing from right hand to left hand operation is accomplished by turning trip arm around and making proper electrical connections. Terminal markings only are involved by this change. Refer to wiring diagram for proper connections.

Maintenance

Periodic inspection for contact wear should be performed. The size 3 and 6A contacts have a silver inlay. When the silver inlay is worn, both sets of contacts should be renewed, see Fig. 5 for allowable wear. Size 2, 4, 5 & 6 switches have solid copper

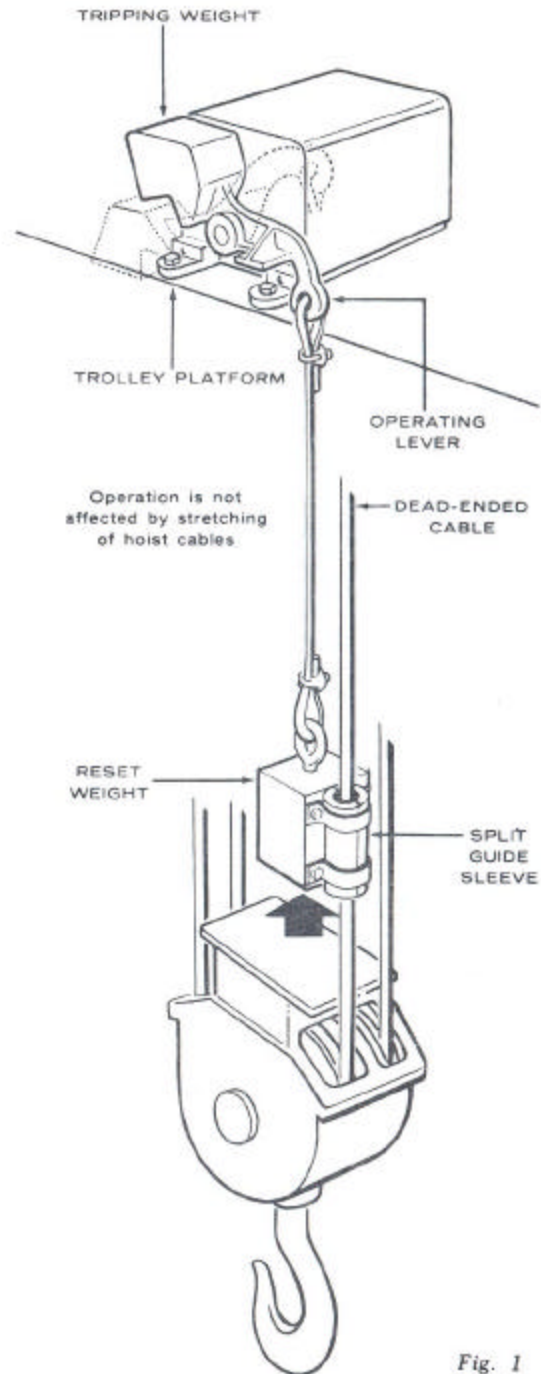


Fig. 1

contacts as standard. Both sets of contacts should be renewed when the contacts are worn, see Fig. 5 for allowable wear. It is recommended that both the movable and stationary contacts be renewed at the same time.

Contact renewal steps are outlined in the following procedure.

STATIONARY CONTACTS

If stationary contacts are to be changed, remove them before attempting to change the moving contacts. When replacing do so after moving contact assembly has been replaced. This observance will make the change of moving contacts easier but is not mandatory.

MOVING CONTACTS

1. Raise operating lever to mid-trip position and place block under lever to support in this position against hook weight.
2. Remove moving contact spring pressure by lifting lock lever. This frees moving contact assembly for easy removal.
3. Disconnect shunt lead from stationary terminal.
4. Remove two slotted head screws from finger holder – figure (2). Force contacts apart and at the same time lift up – figure (3). Remove assembly – figure (4).
5. Change contacts making sure all contact surfaces are thoroughly clean and connections are tightened securely.
6. Replace assembly including contact holder and spring, making sure shunt leads are properly positioned to prevent chafing on adjacent parts.

LUBRICATION

1. **Shaft bearings** are of the permanently lubricated, sealed type and should not require attention.
2. **Torsion operation spring** – Occasional application of a Molybdenum-Disulfide grease should suffice to minimize wear and friction between turns.

LOCK LEVERS

These parts must work freely and should be tested occasionally by lifting with finger. A non-gumming type oil only should be applied to the pivot bearing once every few months – The Nylatron roller bearing needs no oil. A whip of lubriplate occasionally on the polished end of the lever will reduce friction and give better action.

FRAME AND COVER

Ample electrical clearance has been provided for possible conductive dirt build-up in bottom of frame. This should be cleaned out on an annual basis or oftener if conditions warrant. Always replace cover after inspection to minimize entrance of dirt and foreign objects.

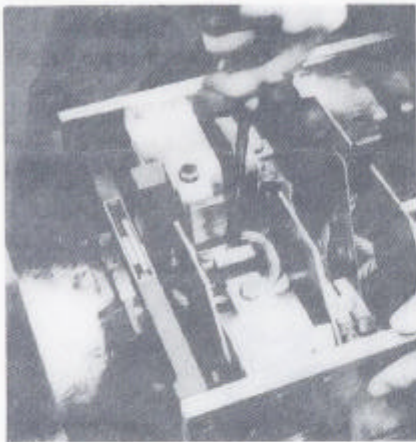


FIG. 2



FIG. 3



FIG. 4

FIG. 5

LIMIT SWITCH SIZE	MATED DIMENSION	"A"	
		NEW	REPLACE
2	Cu.	3/8"	3/16"
3	Ag.	7/16"	11/32"
4	Cu.	15/32"	7/32"
5	Cu.	3/4"	3/8"
6	Cu.	15/16"	15/32"
6A	Ag.	15/16"	25/32"



Hubbell Industrial Controls, Inc.

A subsidiary of Hubbell Inc.

4301 Cheyenne Dr., Archdale, NC 27263

Telephone (336) 434-2800 • FAX (336) 434-2803

<http://www.hubbell-icd.com>

sales@hubbell-icd.com