Instructions for Load Break Air Switch, Type LBF, for Power Centers

I.L. 47-066-18A

The Westinghouse Type LBF Switch is an air insulated, gang operated, three pole, two position link type load interrupter switch. The switch is mounted in a separate free standing compartment which can be bolted to air cooled or liquid filled power center transformers. See Fig. 1. LBF Switches, 5 KV or 15 KV, will interrupt load currents of 600 amperes. In addition, the LBF Switch will close on fault currents of 61,000 amperes at 5 KV and 40,000 amperes at 15 KV.

At times a feeder selector switch and an LBF switch are combined within a single enclosure. In these cases the feeder selector switch is located in a separate compartment immediately to the rear of the LBF Switch in the same housing.

OPERATION

LBF Switch. The small operating mechanism door must be unlocked and the operating handle withdrawn from the receptacle at the right hand of the opening. Insert the handle into the socket provided in the operating cam and move the handle to the desired position. The operating mechanism is powered by torsion bars, and will not move the blades until the handle is advanced beyond a certain point. At this time, the blades will move at a predetermined speed which is independent of the operator.

Feeder Selector Switch. In specific cases, a no load feeder selector switch is coupled to an LBF Switch. To operate the feeder switch, first place the LBF Switch in the open position, using the procedure outlined above. A mechanical interlock is thus released so that the main LBF Switch door can be opened, revealing the feeder switch operating handle. Pivot the feeder handle hand grip to disengage the locking pin, and rotate the handle 180° in the direction indicated to select the proper feeder.

Since the feeder switch is a no load switch, speed of operation is not essential to operator safety. However, to insure good contact when changing feeders, first disengage the contacts, then rapidly and forcefully rotate the operating handle to the desired feeder position.

Fuses. To gain access to the fuses, first place the LBF Switch in the open position. This action releases the mechanical interlock so that the main LBF Switch door can be opened, revealing the fuses in the bottom portion of the compartment. Use caution at this point to be certain the transformer is not energized by an additional source of power, either high voltage or low voltage. The switch cannot be reclosed until the main door has been closed.

INSTALLATION

During the installation of the switch, a general inspection should be made for shipping or handling damage. The switch should be operated several times to check the blade alignment and operating mechanism. Check the key interlock if supplied to be certain the switch and breaker interlocks are keyed alike.

MAINTENANCE

The LBF Switch and feeder selector switch, if supplied should be inspected a minimum of once a year. The following points should receive special care during the inspection:

1. Main Switch blade contacts.
2. Quick-break blade contacts.
3. Arc chutes.

All blades with burned or pitted contacts should be replaced to insure trouble free operation. Arc chute erosion, and/or burned quick-break blade contacts would indicate burned arc chute contacts, requiring replacement of the arc chutes.

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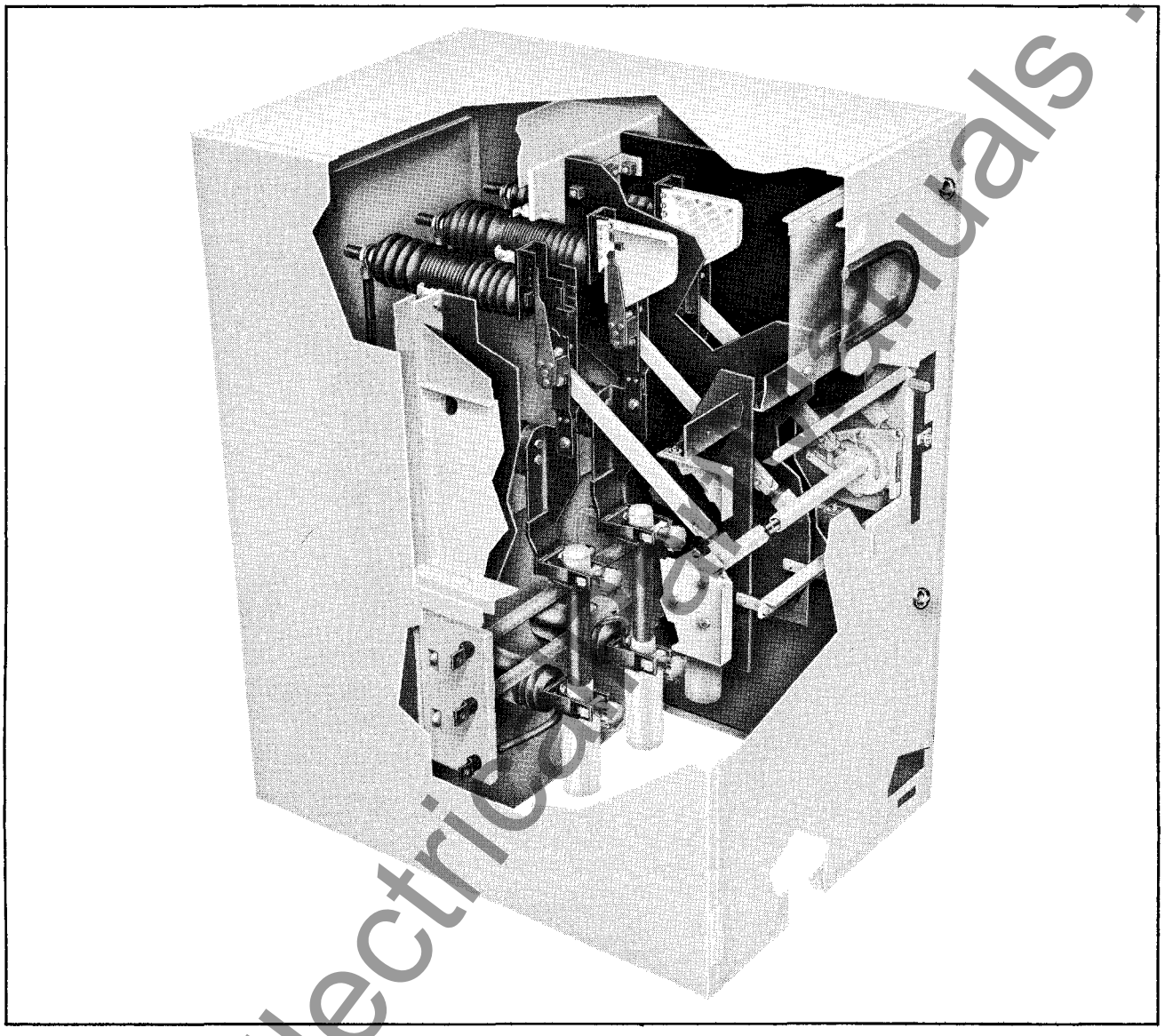

Fig. 1 Load Break Air Switch, Type LBF

RENEWAL PARTS

If renewal parts are required, order from the nearest Westinghouse Sales Office, giving description of parts wanted, with transformer serial number and rating as stamped on transformer instruction plate.

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