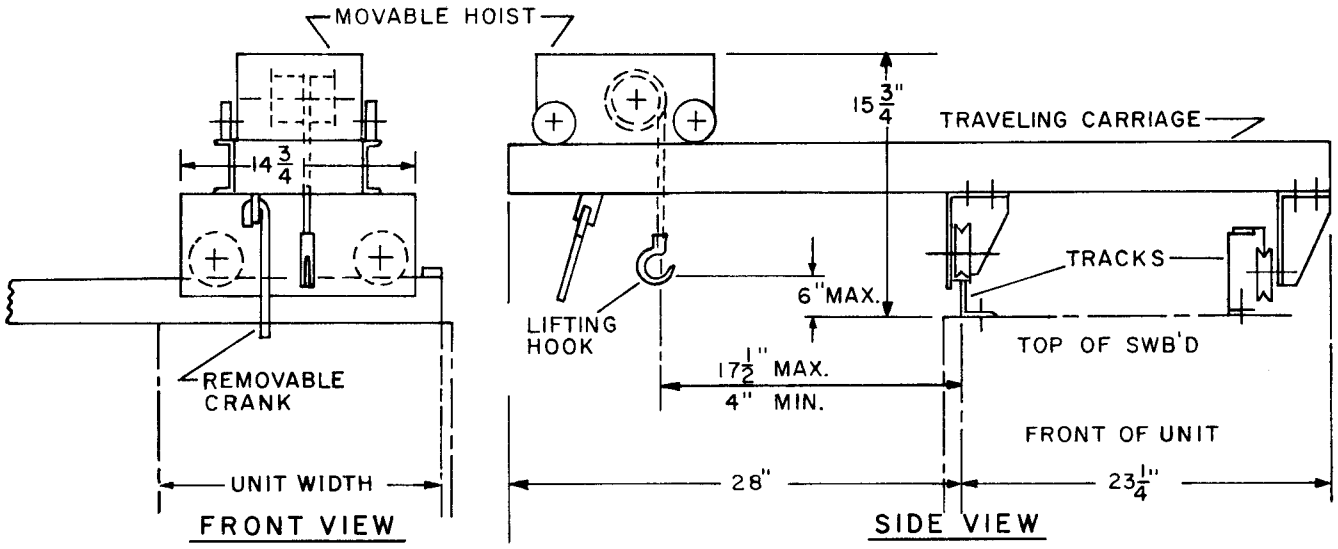
OVERHEAD LIFTING DEVICE

Dwg. 812386, Sheet 8, Rev. 1

TRAVELING LIFTING DEVICE FOR K-LINE BREAKERS SWITCHBOARD MOUNTED

A. Outline of Assembly



B. Application

The traveling lifting device for use with indoor L.V. switchboards, equipped with drawout mounted power circuit breakers, is capable of handling the complete range of K-Line breakers. The device supported on the top front section of the standard indoor units, does not affect the area assigned for top entrance of power and control cables in the rear section of the units. It can readily be applied to any combination of unit widths, overall lengths or shipping limitations. The circuit breakers can be handled to or from any switchboard compt. equipped to accept the breaker and the room floor directly in front of the unit involved.

C. Construction

The Traveling Lifting Device consists of two rails, a traveling carriage and a movable hoist.

(a) The rails, fabricated from steel shapes, are bolted along the top front section of the switchboard units and extend over a portion or the entire length of the assembly, as required. A formed steel strap bolted to the rails at each end of the assembly acts as a stop for the traveling carriage.

(b) The traveling carriage consists of a framework made from steel shapes welded together to form a rigid unit. It is equipped with ball bearing wheels, grooved to engage the rails which support and guide the carriage as it is moved along the length of the switchboard assembly. The rigid side members of the carriage form the tracks which support and guide the movement of the hoisting unit to and from the front of the switchboard. A built in stop confines this movement within safe limits.

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OVERHEAD LIFTING DEVICE (CONT.)

(c) The moving hoist unit consist of a cable winding drum manually driven by a worm gear mechanism mounted on a framework of bolted steel plates equipped with ball bearing wheels. Provision is made on worm gear drive shaft to attach a removable crank that is used to actuate the mechanism. A cable of adequate strength and flexibility is wound on the drum, one end is fastened to the drum and the other end is equipped with a hook. The hook provides a quick safe means of coupling the hoist to the breaker lifting yoke.

D. Operation

The traveling lifting device can be moved, unloaded, along the front of the switchboard assembly to any location within the limits of the track stops by pulling on the hoist cable in the direction of the position desired. The breaker, when supported on the hoist cannot be moved laterally along the gear. However, it can be moved to or from the front of the assembly within the limits of the carriage track stops.

A removable crank is provided which allows the operator to actuate the hoisting mechanism while standing on the floor of the switchboard room in front of the gear. The crank controls the action of the hoisting mechanism and must be turned, clockwise to raise or counter clockwise to lower the load. The weight of the load will not initiate action in the mechanism and allow the load to drop if the crank is left unattended or removed.

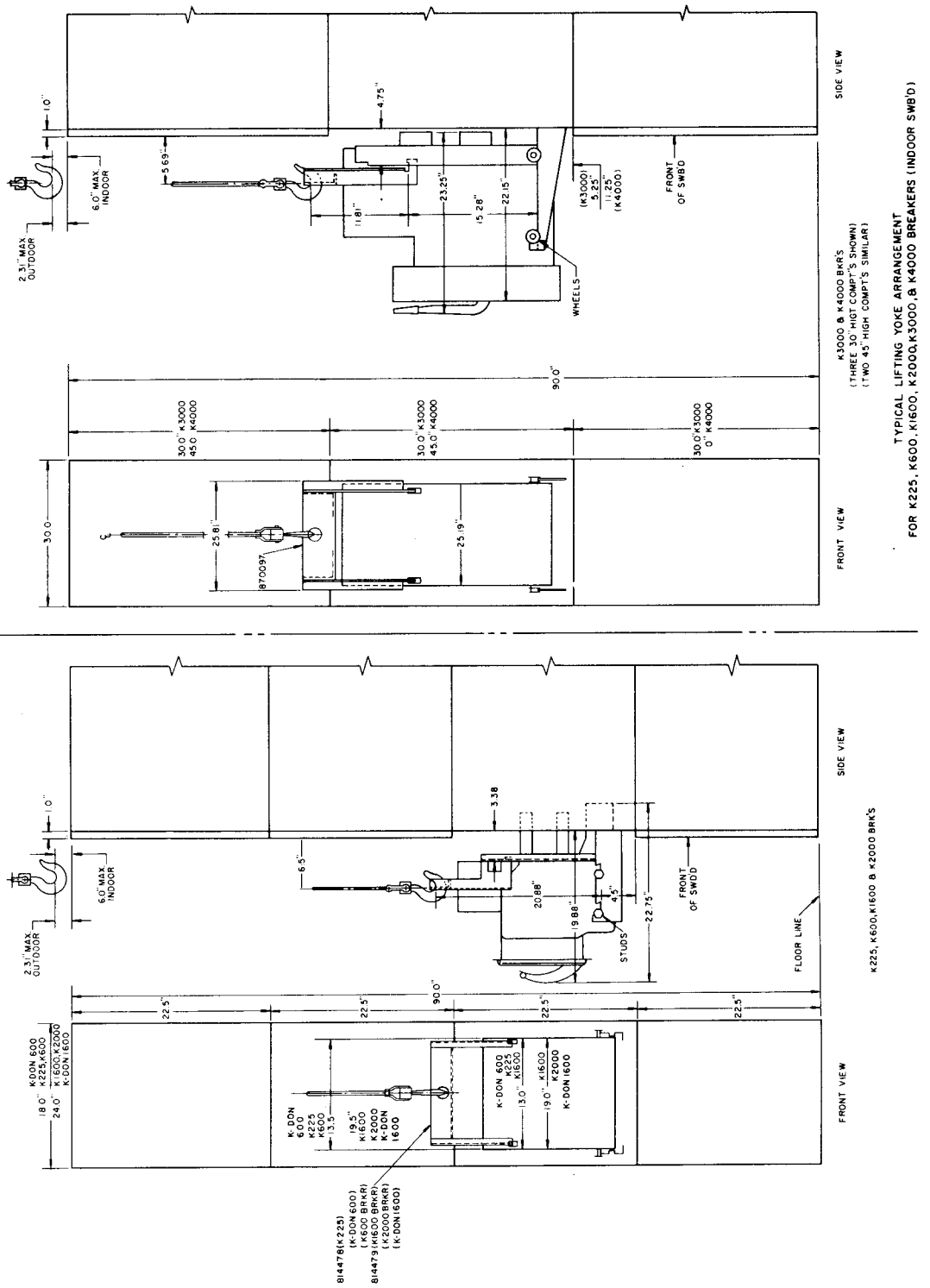
E. Handling of Breaker

(a) Removal of Breaker from Switchboard Compt.
  (1) Move Lifting device over unit containing breaker involved.
  (2) Withdraw breaker to full extension of drawout mechanism.
  (3) Place breaker lifting yoke on hoisting hook.
  (4) Lower yoke and engage with breaker base.
  (5) Raise breaker clear of compt. tracks.
  (6) Move breaker away from gear; Max. position.
  (7) Move extended tracks back into the compt.
  (8) Lower breaker to dolly or floor and close compt. door.
  (9) Detach yoke and move dolly (if used) to location desired.

(b) Insertion of Breaker Reverse the above procedure.

Dwg. 836018, Rev. 2

LIFTING YOKE ARRANGEMENTS



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AISLE SPACE FOR L.V. SWITCHBOARDS

A. Indoor Switchboards

MINIMUM SPACE FOR REMOVING BREAKERS			REAR AISLE	
Type ACB	Yoke for Drawout Bkrs.	Transfer Truck **872262	Min.	Rec.
K-225 K-600 K-DON-600	*36	54	20	
K-1600 K-2000 K-DON-1600	*42		26	
K-3000 K-4000	*48		32	

* - Dimension is also applicable when traveling lift device per drawing and/or transfer truck 870156-A is used. See DB-7.2.5 Page 1.
** - Powercon manually oper. breaker lifting & transfer truck. See DB-7.2.5 Page 3.

B. Outdoor Switchboards

(a) Min. Front & Rear Aisle Space - 42''