file Tab 119

I.B. 36-250-8

DESCRIPTION • INSTALLATION • ADJUSTMENT

INSTRUCTIONS

TYPE V-2
DISCONNECT SWITCH

7.2 through 69KV.
600 and 1,200 Amperes

WESTINGHOUSE ELECTRIC CORPORATION
SWITCHGEAR APPARATUS DEPARTMENTS
EAST PITTSBURGH PLANT • EAST PITTSBURGH, PA.

SUPERSEDES I.B. 36-250-1
Printed in U.S.A.

SEPTEMBER, 1960

INTRODUCTION

It is the purpose of this book to assist in the proper installation, alignment, and adjustment of Type V-2 switches of ratings 7.2 thru 69KV, 600 and 1200 amperes.

By closely following the instructions in this book, the purchaser will, in a minimum amount of time, be able to install these three inch bolt circle switches correctly and insure proper performance and long term low operating effort.

DESCRIPTION

The type V-2 is an end rotating insulator, vertical break, high pressure wiping contact, remote gang operated switch for disconnecting or air break applications.

Refer to Figs. 1, 1A, and 1B for pictures of a V-2 pole unit. These pictures give the location and proper nomenclature of the pole unit components.

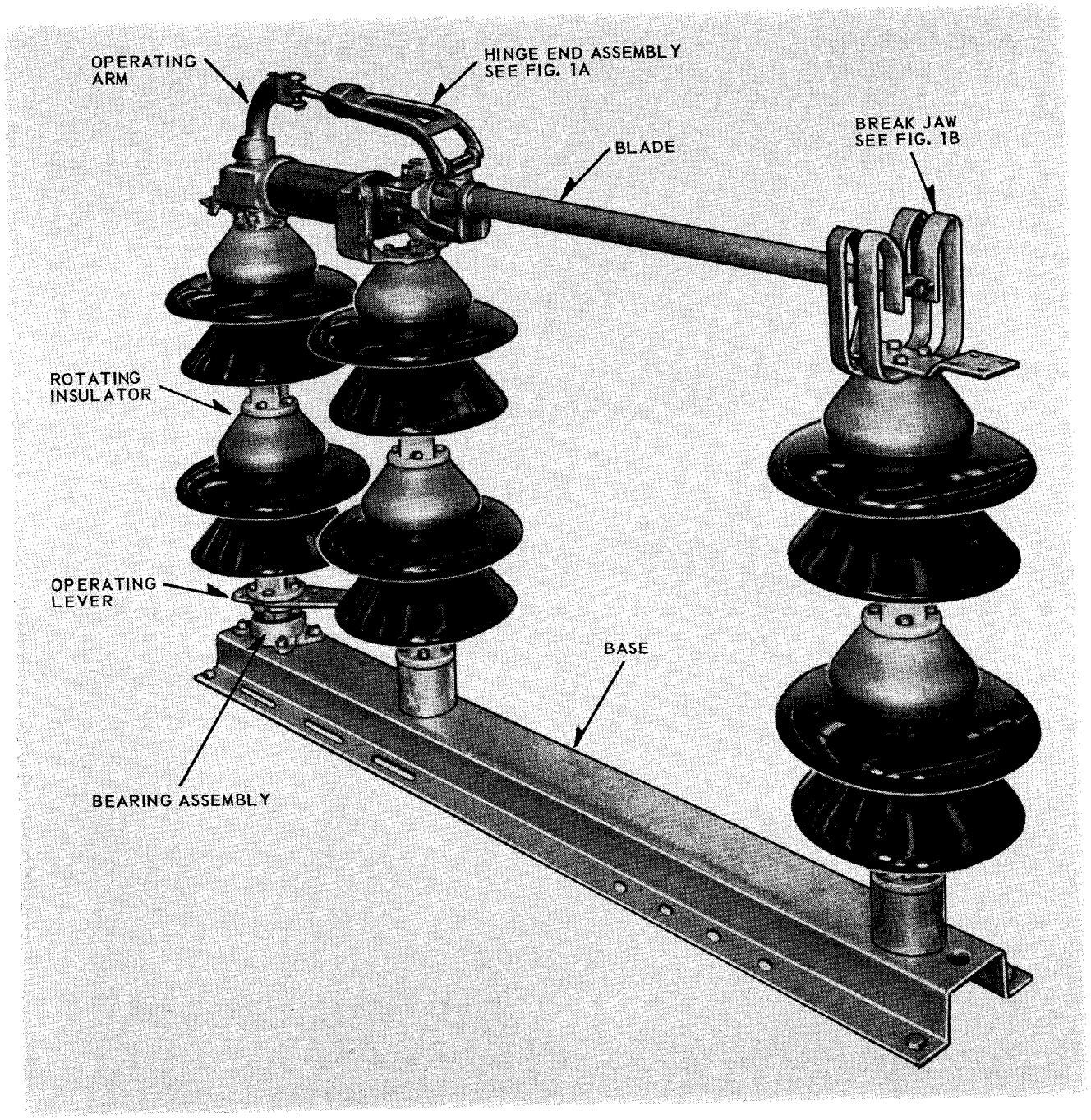


Fig. 1.

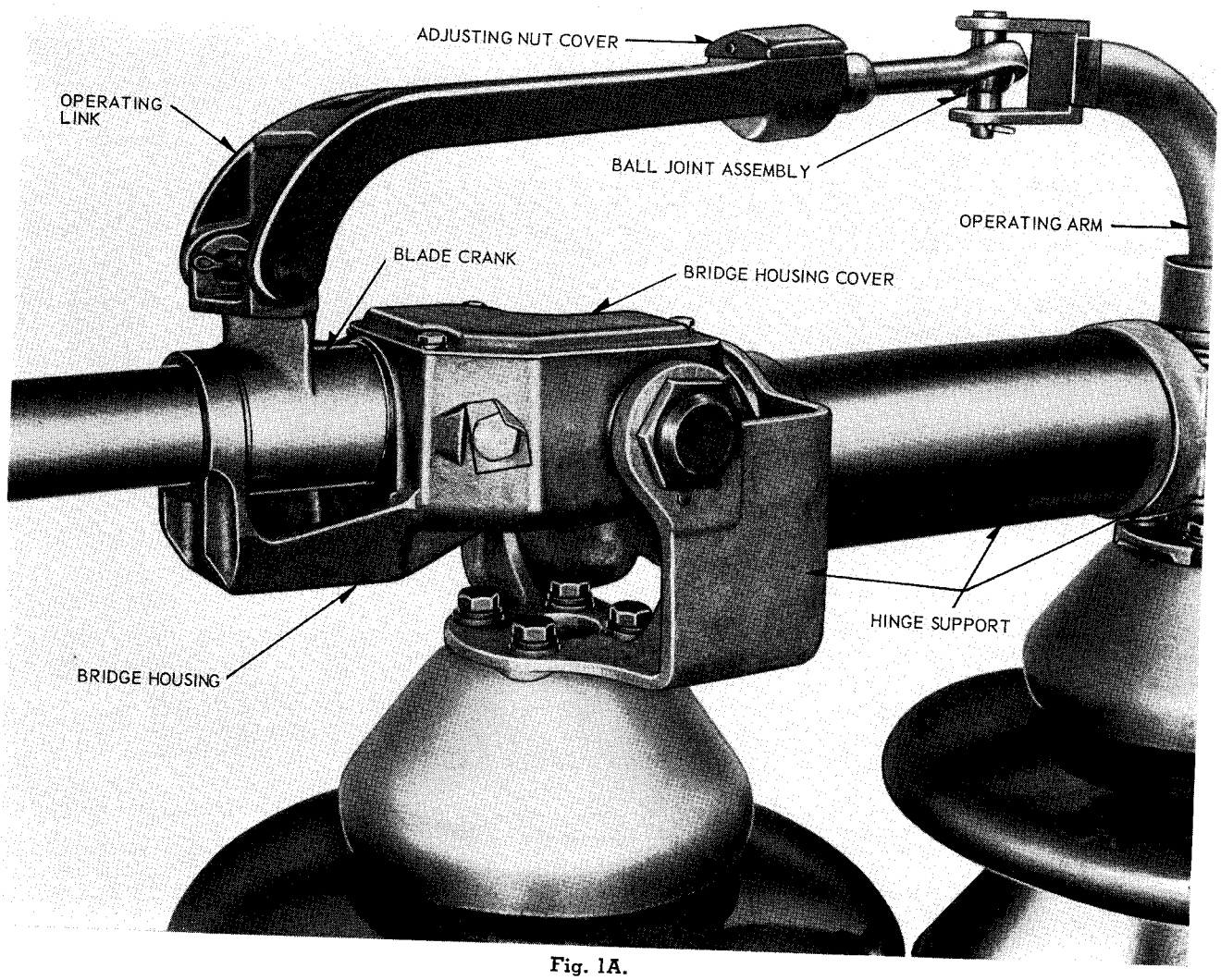


Fig. 1A.

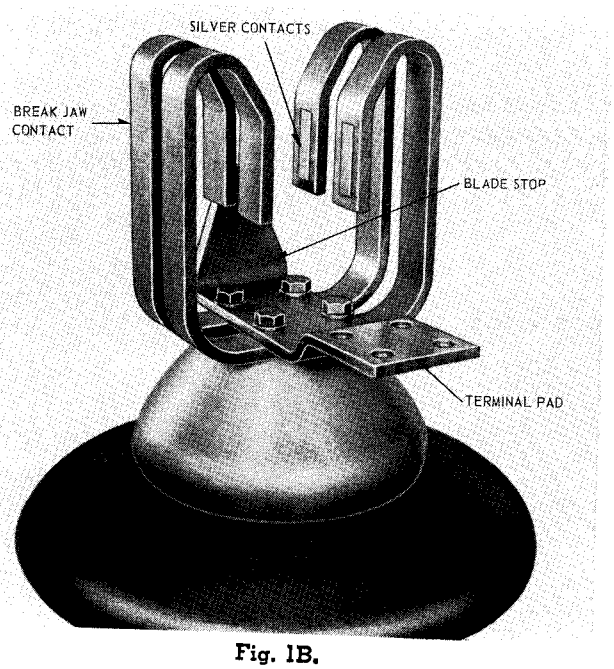


Fig. 1B.

INSTALLATION AND ADJUSTMENTS

1. Handling and Storage. When the equipment is received it should be carefully examined to determine any loss of parts or damages incurred in shipment. The carrier should be notified immediately of any claims.

Since these are outdoor switches, they may be stored either indoors or outdoors. When storing outdoors all components of the switch should be removed from their packing. The cap and pin insulators should **not** be stored upside down, so that water can collect inside the skirts, when the possibility of freezing weather exists.

2. Adjustment of Pole Units. Pole units rated 7.2 thru 46KV are completely assembled and adjusted at the factory. No further field adjustment should be necessary.

Pole units rated 69KV are adjusted at the factory, but are shipped minus the insulators. The insulators are shipped separately and must be assembled onto

the pole units in the field. Instructions for assembling these insulators are given in Instruction Leaflet I.L. 36-250-1 which is supplied in the drawing and instructions envelope tied to the switch blade.

The complete procedure for adjusting the pole units will be explained so that the user may obtain a thorough understanding of the Type V-2 switch. However, it should only be necessary for the user to check the pole units for proper operation. These checks should be made after the pole units are mounted on the structure if possible. They can be made on the ground if desired. The pole unit adjustment procedure is as follows:

(A) Rotate the rear insulator stack to operate the blade to the closed position and observe the action of the blade tip as it enters the break jaw. The blade tip should enter the break jaw freely with no binding and should rotate to establish contact pressure. All contact surfaces should engage in parallel alignment. To obtain this proper alignment, loosen the break jaw mounting bolts. Close the switch blade and align the break jaw so that both sides of the blade tip engage properly with the break jaw contact surfaces. If proper alignment cannot be obtained by shifting the break jaws, it may be necessary to loosen the bolts holding the hinge support to the two rear insulator stacks and shift the blade in the required direction.

After the blade tip is properly aligned with the break jaw, the blade should be closed and rotated into full contact engagement, and all bolts holding the live parts to the insulators should be tightened securely.

(B) The next step is to close the switch blade slowly by rotating the rear insulator stack and again observe the blade tip as it enters the break jaw. The blade tip should enter into the break jaw until it touches the blade stop, and then rotate to establish contact pressure. **The blade should not be forced against the stop.** If it is forced too tightly against the stop the effort required to rotate the blade becomes very high. This positioning of the blade tip in the break jaw is controlled by the adjusting nut in the blade operating linkage. If the action of the blade tip in the break jaw is not correct it will be necessary to readjust this nut. Refer to Fig. 2 for this adjustment. First remove the adjusting nut cover. To cause the blade tip to go farther down into the break jaw, rotate this nut clockwise when viewed from the hinge end of the pole units. To raise the blade tip higher in the break jaw, the nut should be rotated counter-clockwise when viewed from the hinge end of the pole unit. When the correct setting of this nut is obtained, replace the cover and the cover holding bolt.

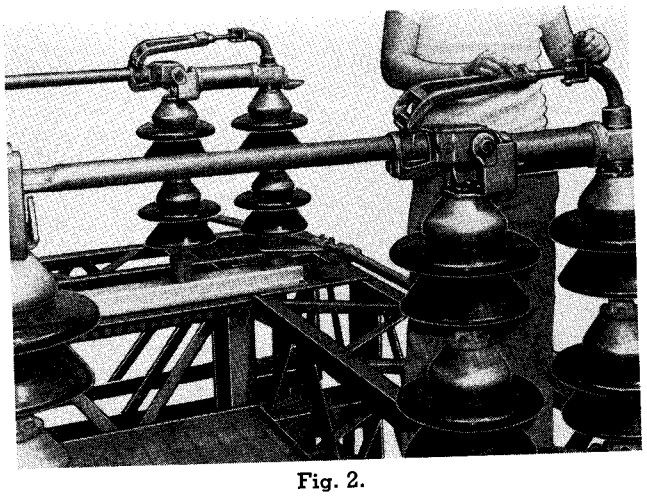


Fig. 2.

This cover holding bolt also locks the adjusting nut in place.

(C) If, after the adjusting nut is properly set, the blade tip does not pass freely between the contact surfaces of the break jaw, the following adjustment can be made. Loosen the two bolts at the pivot end of the blade. Refer to Fig. 3 for the location of these bolts. With these bolts loose, the blade may be rotated about its axis a small amount in either direction. This will change the angle of the blade tip as it enters the break jaw. Do not change this angle any more than absolutely necessary.

(D) The next step is to set the open position blade stop. If these checks and adjustments are being made on the ground, the three pole units should be set side by side on a plane surface to check the

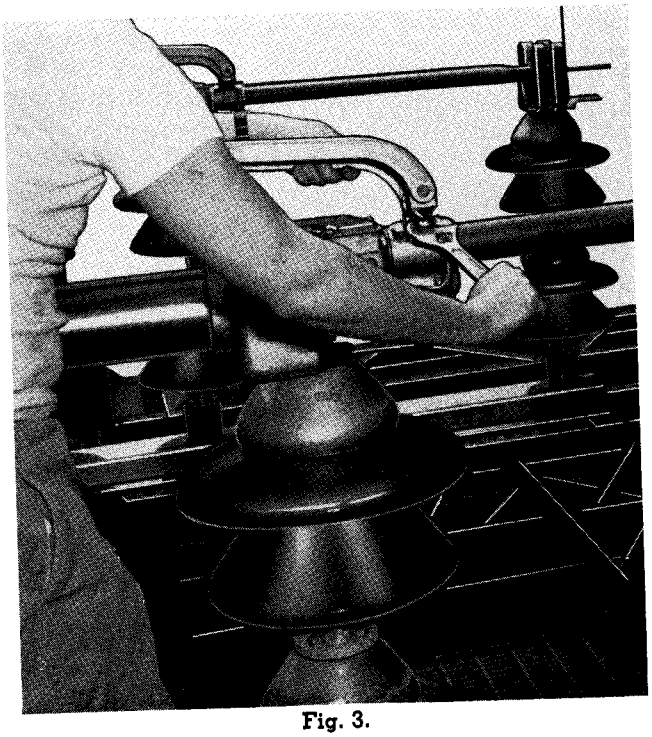


Fig. 3.

setting of the open position blade stops. Open all three pole units and stand back and sight along the three blades. The blade stops should be set so that the blades are lined up uniformly when in the vertical position. If the blades do not line up uniformly it will be necessary to readjust the vertical stops accordingly. Refer to Fig. 4 for location of this stop adjustment. The open position stop is the stud on the left when viewed from the side of the pole unit. Turning this stud in will cause the blade to move toward the break jaw. Screwing the stud out will allow the blade to be opened farther. When the proper setting of this stop is obtained, tighten the lock nut securely.

(E) Apply a small amount of Silicone base grease to the break jaw contacts. Rotate the blade about its axis several times to wipe the grease into the pores of the metal. Then wipe off the excess grease with a clean rag.

(F) Arcing horns for the type V-2 switch are shipped with the operating mechanism and must be assembled in the field. The moving arc horn is a short stud shipped with a lock nut assembled on it. This stud threads into the tapped hole in the end of the switch blade. The upright stationary arc horn is mounted on top of the break jaw using the long bolt supplied with the arc horn. This assembly is shown on Instruction Leaflet I.L. 36-250-8 which is furnished with the switch.

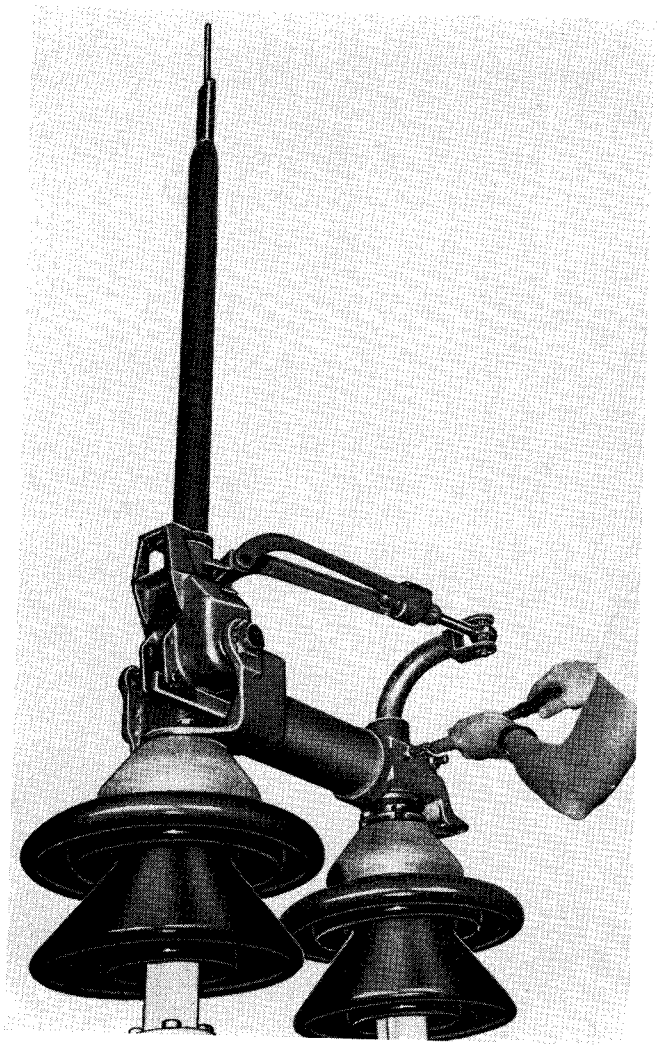


Fig. 4.

(G) This completes the pole unit adjustments. The pole units should now be mounted in place on the structure if this has not already been done. When the pole units are being mounted on the structure care should be exercised to see that the bases are not warped due to uneven mounting surfaces on the structure. Use shims if necessary when bolting the bases to the structure. When making bus or line connections to the pole units avoid placing stress on the terminal pads. Use bus supports or strain insulators dead ended to the supporting structure to avoid undue stresses on the pole units.

3. Description of the Type "TP" Operating Mechanism.

(A) The type "TP" universal operating mechanism is designed for use with Westinghouse Type V-2 switches mounted in either the horizontal, vertical or underhung position. This mechanism may be used either direct connected or offset connected.

(B) When the mechanism is direct connected, the vertical pipe may be attached to any one of the three pole unit bearings and extended down to the operating handle at ground level.

(C) An offset connected mechanism is one in which an outboard bearing is used. The vertical pipe links the handle at ground level to the outboard bearing shaft, and the outboard bearing lever is coupled to the driven pole unit with an adjustable length pipe. As a result of a toggle formed by the connecting pipe and the outboard lever when the switch is closed, a very high mechanical advantage is available when it is needed most. Care should be taken to adjust the pipe length so that the mechanism is in toggle when the switch is closed. This adjustment is explained fully in section 4.

4. Adjustment of the Operating Mechanism.

(A) The mechanism components should be mounted in place as shown on the three pole erection drawing furnished with the order.

(B) When using an offset mechanism, and when the outboard pipe and the interphase pipes are in a straight line when the switch is closed, (Figs. 5-A or 5-B), the universal lever is not used. If the outboard pipe is not in line with the interphase pipes,

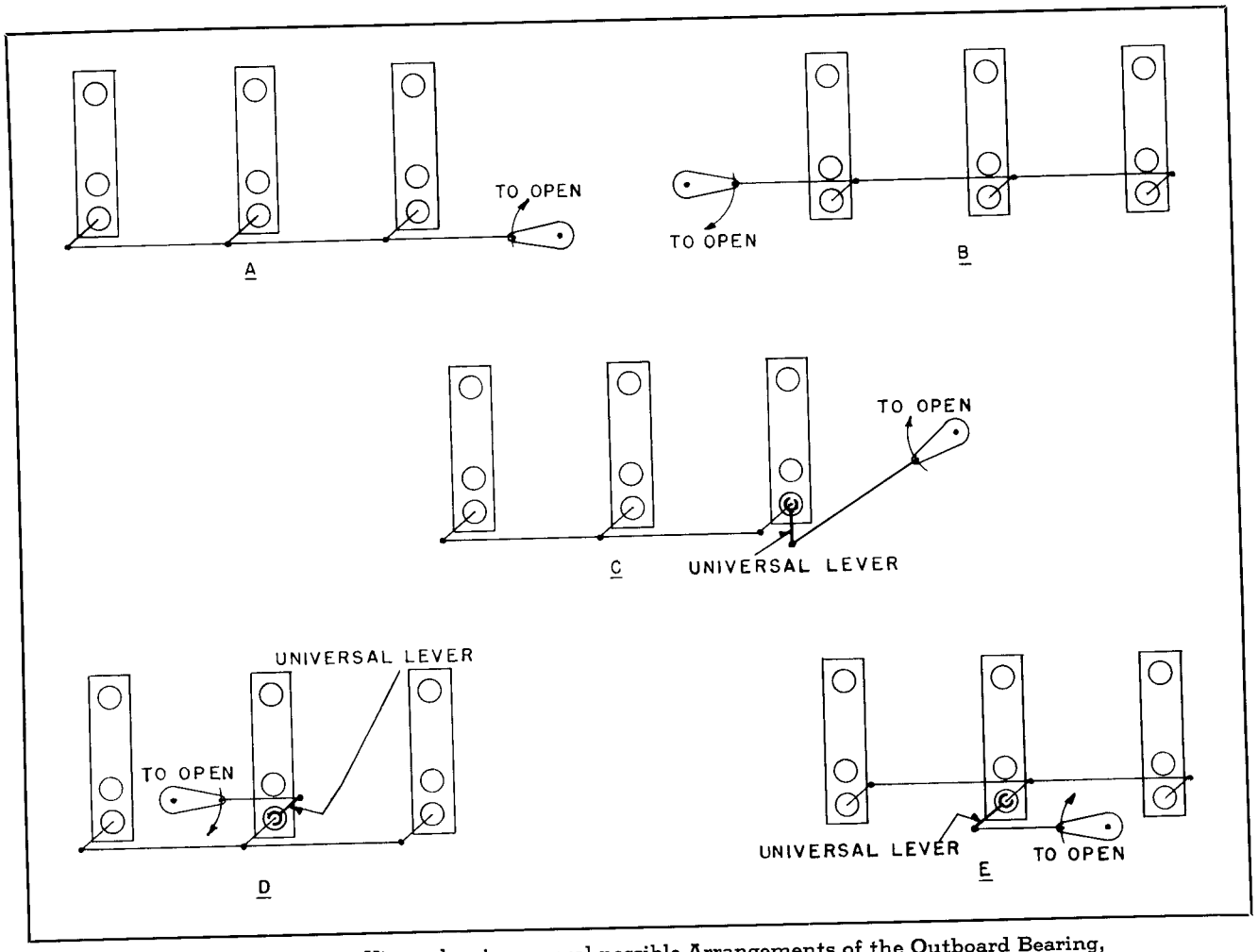


Fig. 5. Schematic Views showing several possible Arrangements of the Outboard Bearing, Connecting Pipe and Universal Lever

see Figs. 5-C, 5-D, 5-E, the universal lever should be used.

(C) When mounting the universal lever it should be set at an angle of approximately 40° to 45° to the outboard pipe when it is in toggle position

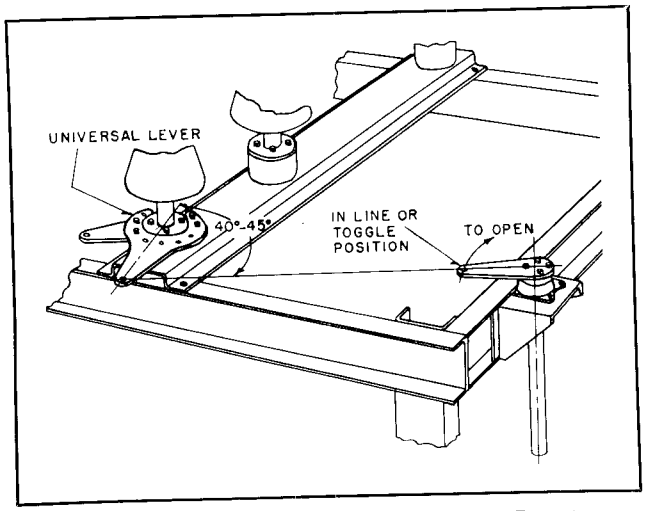


Fig. 6. Outboard Bearing Lever in Toggle Position

as shown in Fig. 6. The holes in the universal lever are displaced angularly from the centerline of the lever, see Fig. 7. This feature permits fine adjustment of the angular setting of the universal lever. To obtain the most desirable setting, try a set of holes, and if these are not suitable move the lever until the adjacent set of holes match the operating lever. If this still does not provide the desired position, turn the universal lever over to get an intermediate setting.

(D) If it is desired to operate the switch from the left as shown in Figs. 5-B and 5-E. It will be necessary to change the factory setting of the pole unit operating levers at the base of the rotating insulators by 180°. To make this change, remove the four bolts which hold the operating arm to the top of the rotating insulator. Turn the insulator 180° and reinsert and tighten the bolts.

(E) Close the driven pole unit until the blade tip is turned over approximately flat in the break jaw. Set the lever on the outboard bearing so that it

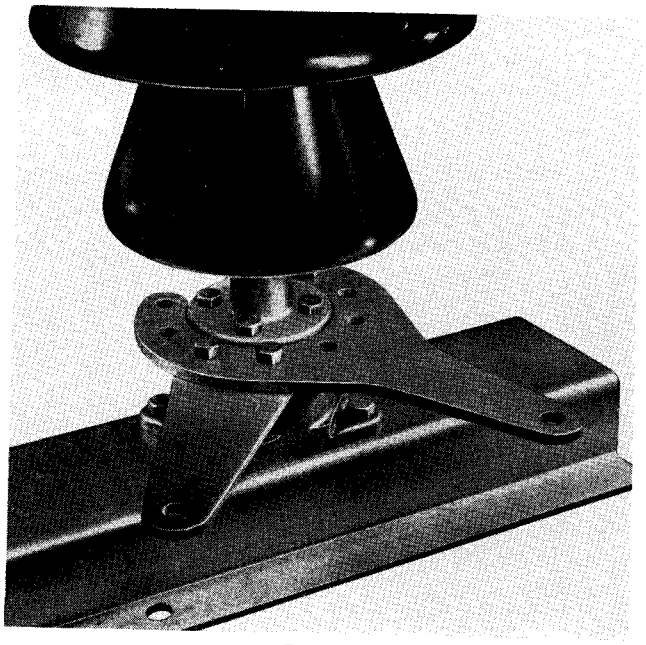


Fig. 7.

points directly at the hole in the driven pole unit lever. With both levers in this position, install the rod ends and the connecting pipe. Refer to Fig. 8 for the correct installation of this pipe. Tighten the clamping bolts securely but **do not tighten the set screws at this time.**

(F) The vertical pipe is supplied with a hole drilled through the pipe at one end. Connect this end to the shaft extension underneath the outboard bearing, if using an offset mechanism, or to the shaft extension beneath the driven pole unit if the mechanism is direct connected. Install the pipe couplings and guide bearings if they are specified on the field erection drawings furnished with the job. Install the operating handle as shown in Fig. 9. Set the handle to the correct position as shown on the erection drawing, and mark the pipe through the hole in the handle block. Be sure the handle block is high enough to clear the bolt heads on the stop lugs. Drill a 11/16 diameter hole through the pipe and connect the handle as shown.

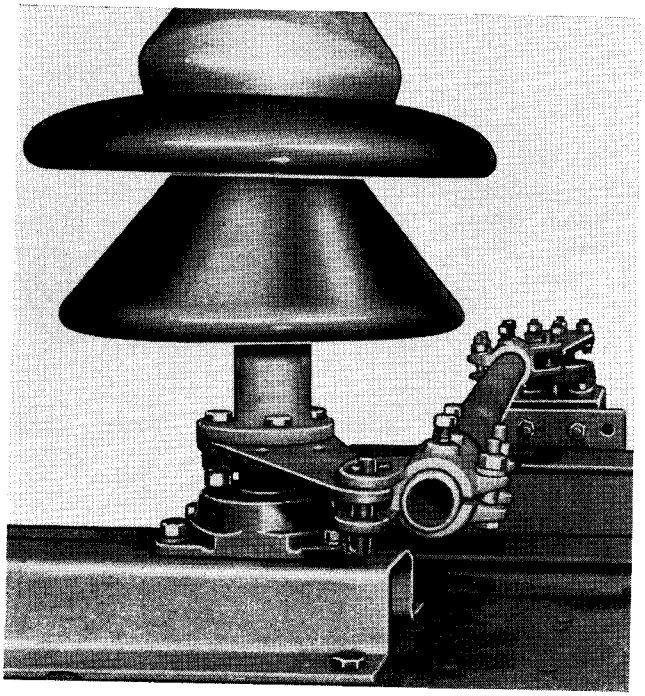


Fig. 8.

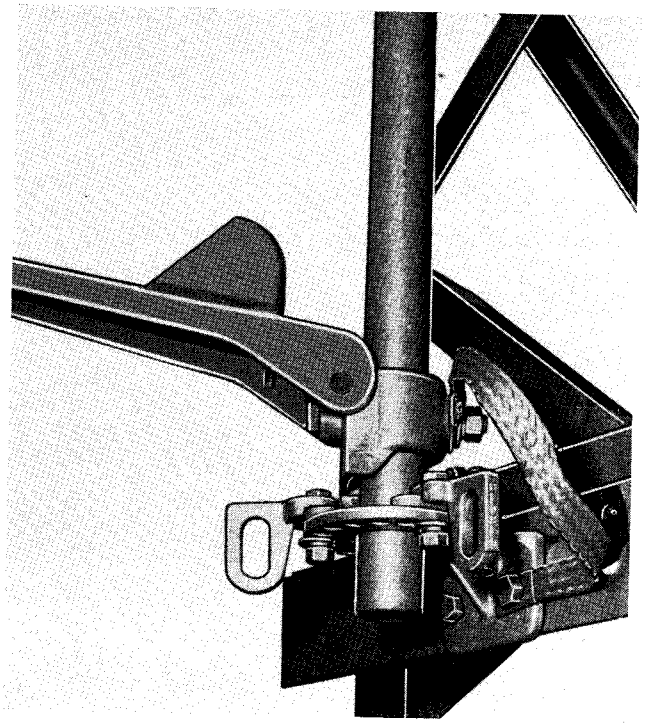


Fig. 9

(G) The driven pole unit can now be operated with the handle at ground level. Set the "Stop" bolts on the handle for the open and closed positions. See Fig. 10 for proper setting of the "Stop" on the handle. The closed position "Stop" should be set with the outboard bearing lever in a "Toggle', position as shown in Fig. 8. Set the open position "Stop" when the switch blade is fully open against the blade stop.

(H) Position all three pole units in the full open position. With all pole units open, connect the interphase pipes as shown in Fig. 11. Tighten the clamping bolts on the rod ends but **do not tighten the set screws at this time.**

(I) The complete switch should now be operated by means of the handle at ground level. The three blades should open to a vertical position against the stops. When the switch closes, the blades should enter the jaws and rotate to a final position within plus or minus five degrees from horizontal. If

necessary make small changes in the effective pipe lengths to achieve proper operation.

(J) With the pole units in the closed position, screw in the closed position pole unit stop studs until they are firmly seated. See Fig. 12 for location of these stops.

(K) Tighten down the set screws in all rod ends.

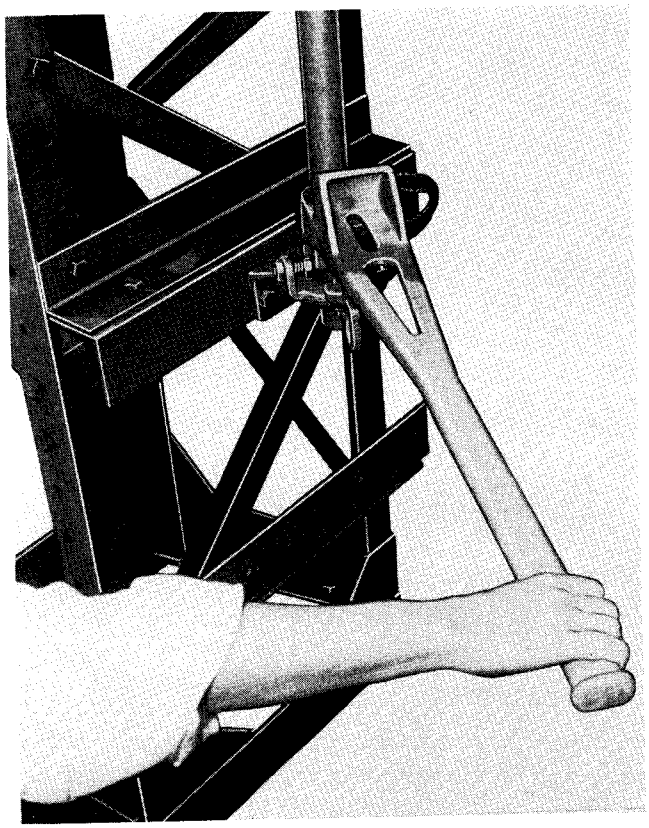


Fig. 10.

5. Auxiliary Equipment. The following auxiliary equipment is available and will be supplied if specified on the order. Installation instructions for these accessories are contained in an individual instruction leaflet for each accessory. These instruction leaflets, along with the field erection drawing and instruction book are shipped in a large waterproof envelope tied to the blade of one pole unit.

(A) Grounding Blades (Parallel to Base)	I.L. 36-250-2
(B) Mechanical Interlock	I.L. 36-250-3
(C) Key Interlock	I.L. 36-250-4
(D) Auxiliary Switches	I.L. 36-250-5
(E) Electrical Interlock	I.L. 36-250-6
(F) Quick break Arc Horns	I.L. 36-250-7
(G) Standard Arcing Horns	I.L. 36-250-8
(H) Grounding Blades (Perpendicular to Base)	I.L. 36-250-11
(J) Type "TP" Geared Hand Crank	I.L. 36-250-12

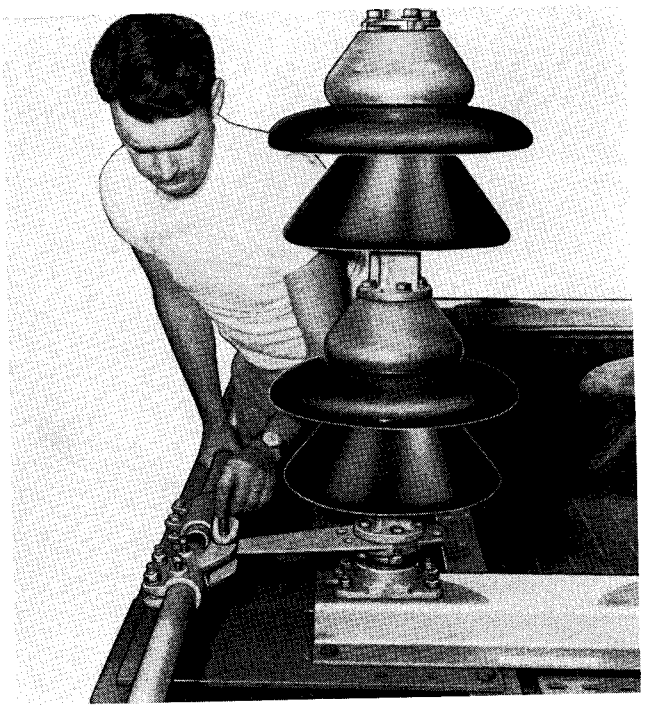


Fig. 11.

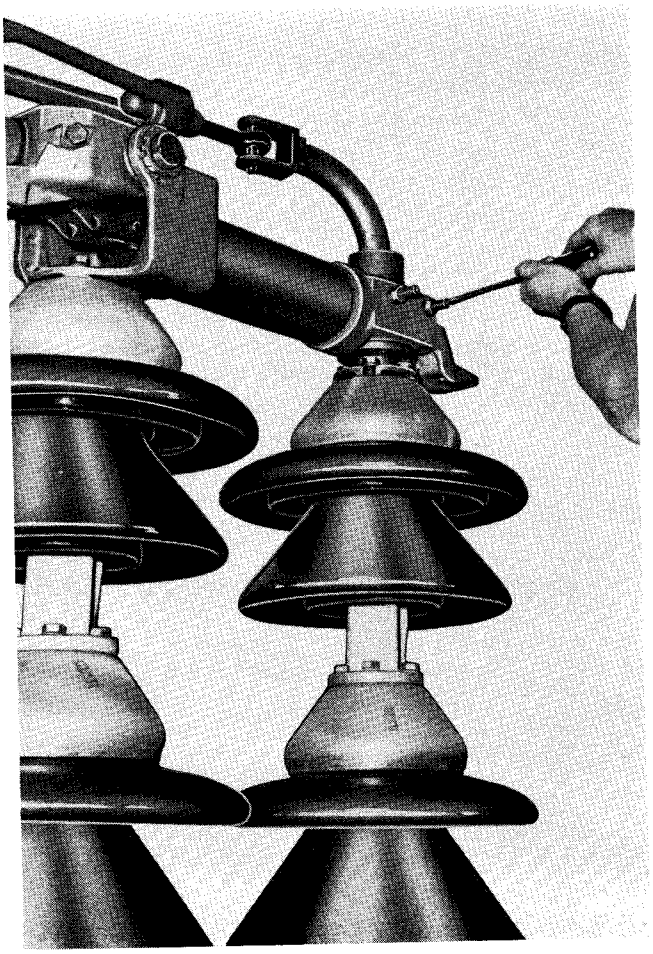


Fig. 12.

RECOMMENDED SPARE PARTS

KV	AMPERES	BLADE	BREAK JAW CONTACT	INSULATOR	ARCING HORNS
7.2	600	S# 308C602G01 (1)	S# 308C480G01 (1)	S# 968771 (3)	S# 204B070G01 (1)
7.2	1200	S# 308C602G05 (1)	S# 308C480G01 (2)	S# 968771 (3)	S# 204B070G01 (1)
14.4	600	S# 308C602G01 (1)	S# 308C480G01 (1)	S# 968768 (3)	S# 204B070G01 (1)
14.4	1200	S# 308C602G05 (1)	S# 308C480G01 (2)	S# 968768 (3)	S# 204B070G01 (1)
23	600	S# 308C602G02 (1)	S# 308C480G01 (1)	S# 968769 (3)	S# 204B070G01 (1)
23	1200	S# 308C602G06 (1)	S# 308C480G01 (2)	S# 968769 (3)	S# 204B070G01 (1)
34.5	600	S# 308C602G02 (1)	S# 308C480G01 (1)	S# 968770 (3)	S# 204B070G01 (1)
34.5	1200	S# 308C602G06 (1)	S# 308C480G01 (2)	S# 968770 (3)	S# 204B070G01 (1)
46	600	S# 308C602G03 (1)	S# 308C480G01 (1)	S# 1176230 (3)	S# 204B070G01 (1)
46	1200	S# 308C602G07 (1)	S# 308C480G01 (2)	S# 1176230 (3)	S# 204B070G01 (1)
69	600	S# 308C602G04 (1)	S# 308C480G01 (1)	S# 1176190 (6)	S# 204B070G01 (1)
69	1200	S# 308C602G08 (1)	S# 308C480G01 (2)	S# 1176190 (6)	S# 204B070G01 (1)

Quantity shown after each style number is required for one pole unit.

Recommended ordering quantity is 3 complete sets of parts from this table for up to 10 complete 3 pole switches.

MEMORANDUM

MEMORANDUM


WESTINGHOUSE
W

I.B. 36-250-8-A

DESCRIPTION • INSTALLATION • ADJUSTMENT

INSTRUCTIONS

TYPE V-2 DISCONNECT SWITCH

7.2 through 69KV.
600 and 1,200 Amperes

WESTINGHOUSE ELECTRIC CORPORATION
Assembled Switchgear & Devices Division
EAST PITTSBURGH PLANT • EAST PITTSBURGH, PA.

SUPERSEDES I.B. 36-250-8
Printed in U.S.A. (Rep. 1-68)

AUGUST, 1963

INTRODUCTION

It is the purpose of this book to assist in the proper installation, alignment, and adjustment of Type V-2 switches of ratings 7.2 thru 69KV, 600 and 1200 amperes.

By closely following the instructions in this book, the purchaser will, in a minimum amount of time, be able to install these three inch bolt circle switches correctly and insure proper performance and long term low operating effort.

DESCRIPTION

The type V-2 is an end rotating insulator, vertical break, high pressure wiping contact, remote gang operated switch for disconnecting or air break applications.

Refer to Figs. 1, 1A, and 1B for pictures of a V-2 pole unit. These pictures give the location and proper nomenclature of the pole unit components.

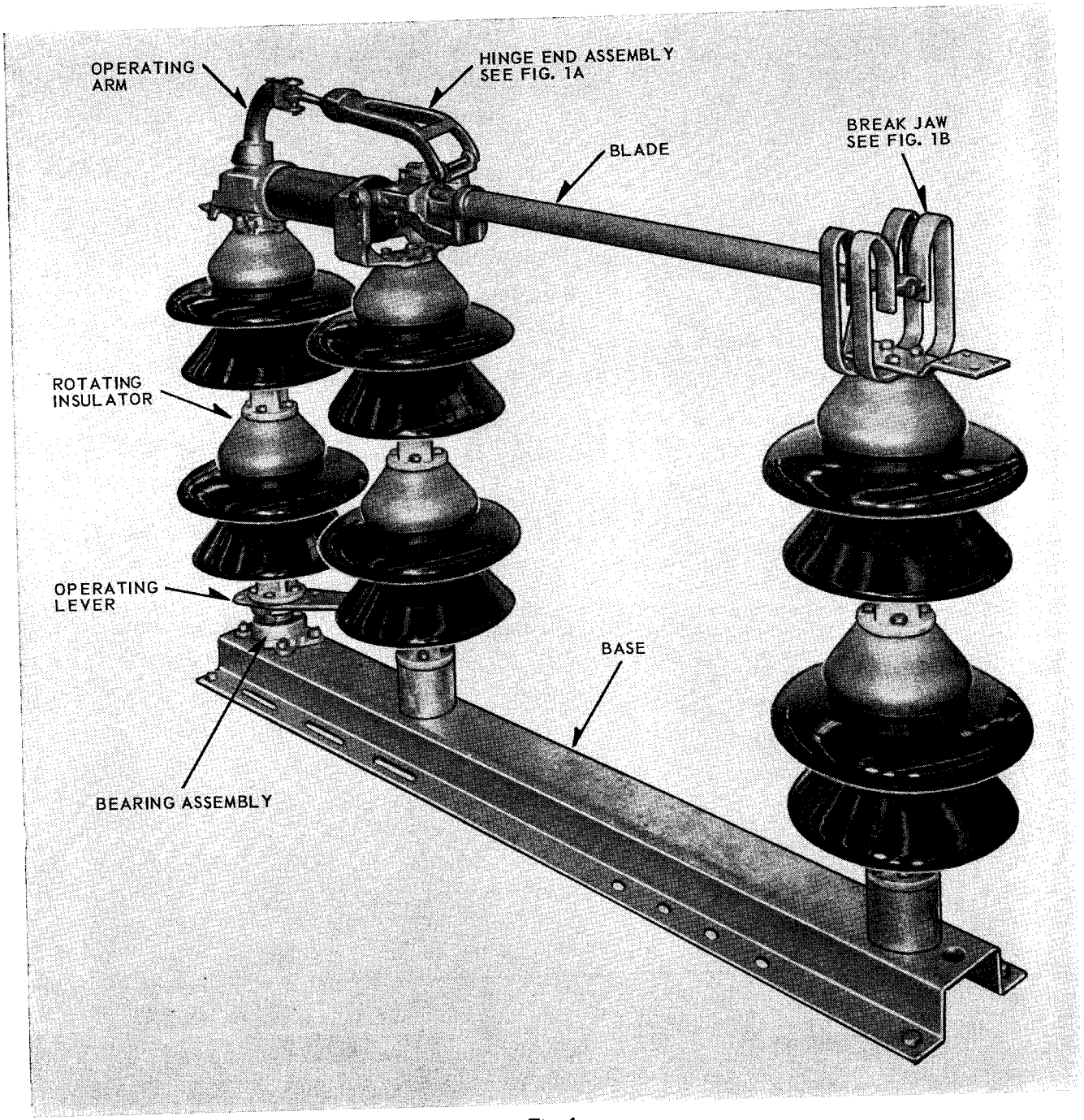


Fig. 1.

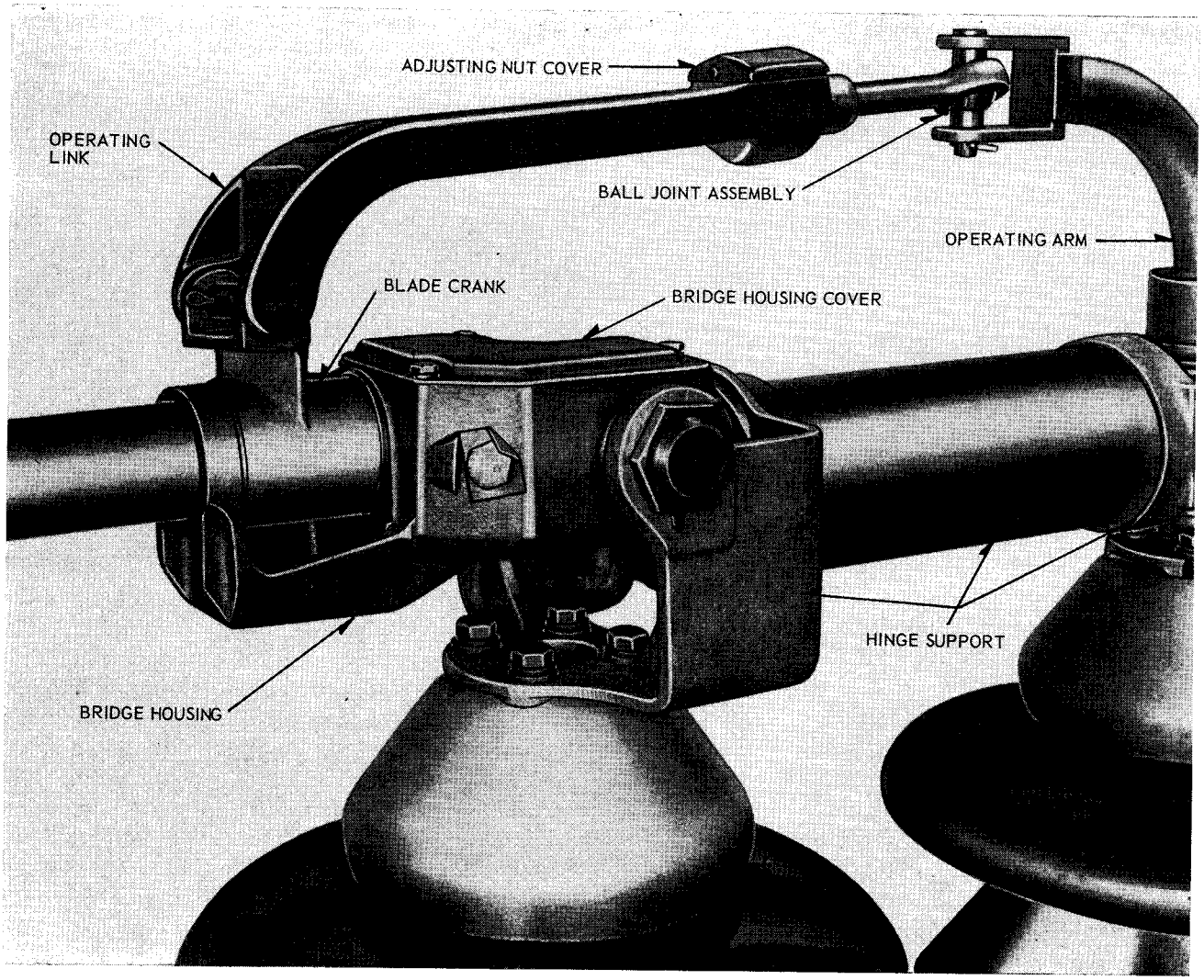


Fig. 1A.

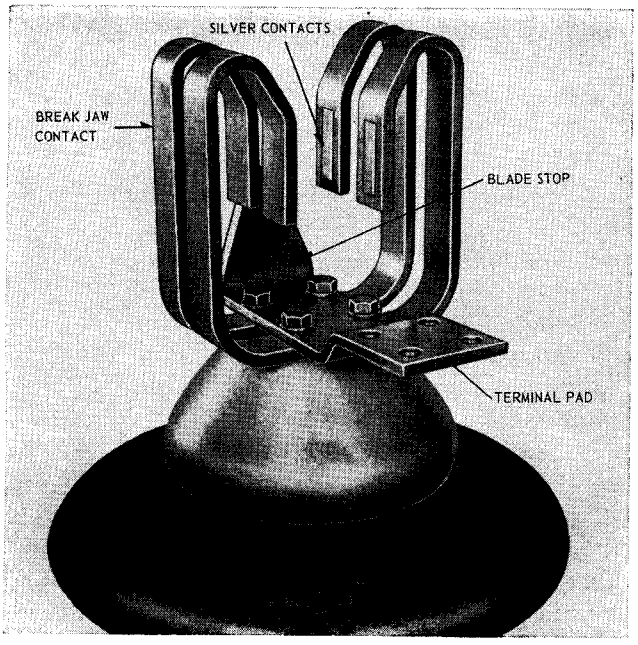


Fig. 1B.

HANDLING AND STORAGE

When the equipment is received it should be carefully examined to determine any loss of parts or damages incurred in shipment. The carrier should be notified immediately of any claims.

Since these are outdoor switches, they may be stored either indoors or outdoors. When storing outdoors all components of the switch should be removed from their packing. The cap and pin insulators should **not** be stored upside down, so that water can collect inside the skirts, when the possibility of freezing weather exists.

ADJUSTMENT PROCEDURE

IN ORDER TO MINIMIZE INSTALLATION TIME AND ASSURE PROPER ALIGNMENT AND LONG TERM DEPENDABLE OPERATION, IT IS VERY IMPORTANT THAT THESE SWITCHES BE ADJUSTED IN THE SEQUENCE WHICH FOLLOWS AND IN

ACCORDANCE WITH THE DETAILED INSTRUCTIONS ON THE FOLLOWING PAGES:

(1) Individually adjust all three pole units.

(2) Set pole unit blades in full open position against the stops BEFORE connecting any pipe linkages.

(3) Install the pipe link between the outboard bearing and the driven pole unit so that the driven pole unit can be operated properly from the handle at ground level.

(4) With all three pole unit blades in the full open position, install the two interphase pipes.

ADJUSTMENT OF POLE UNITS

Pole units rated 7.2 thru 46KV are completely assembled at the factory.

Pole units rated 69KV are shipped minus the insulators. The insulators are shipped separately and must be assembled onto the pole units in the field. Instructions for assembling these insulators are given on the pole unit field assembly outline drawing which is supplied in the drawing and instructions envelope tied to the switch blade.

Important—The individual pole units must each be properly adjusted before connecting any pipe linkages. These adjustments should be made after the pole units are mounted on the structure if possible. They can be made on the ground if desired. The pole unit adjustment procedure is as follows:

(A) Rotate the rear insulator stack to operate the blade to the closed position and observe the action of the blade tip as it enters the break jaw. The blade tip should enter the break jaw freely with no binding and should rotate to establish contact pressure. All contact surfaces should engage in parallel alignment. To obtain this proper alignment, loosen the break jaw mounting bolts. Close the switch blade and align the break jaw so that both sides of the blade tip engage with the break jaw contact surfaces. If proper alignment cannot be obtained by shifting the break jaws, it may be necessary to loosen the bolts holding the hinge support to the two rear insulator stacks and shift the blade in the required direction.

After the blade tip is aligned with the break jaw, the blade should be closed and rotated into full contact engagement, and all bolts holding the live parts to the insulators should be tightened securely.

(B) The next step is to close the switch blade slowly by rotating the rear insulator stack and again observe the blade tip as it enters the break jaw. The blade tip should enter into the break jaw until it touches the blade stop, and then rotate to establish contact pressure. **The blade should not be forced against the stop.** If it is forced too tightly against the stop the effort required to rotate the blade becomes very high. This positioning of the blade tip in the break jaw is controlled by the adjusting nut in the blade operating linkage. If the action of the blade tip in the break jaw is not correct it will be necessary to readjust this nut. Refer to Fig. 2 for this adjustment. First remove the adjusting nut cover. To cause the blade tip to go farther down into the break jaw, rotate this nut clockwise when viewed from the hinge end of the pole units. To raise the blade tip higher in the break jaw, the nut should be rotated counter-clockwise when viewed from the hinge end of the pole unit. As a final check on this adjustment, close the blade rapidly by rotating the rear insulator stack. When the nut is properly adjusted the blade tip will come to rest on or within 1/4 inch of the blade stop at any reasonable closing speed. When the correct setting of this nut is obtained, replace the cover and the cover holding bolt.

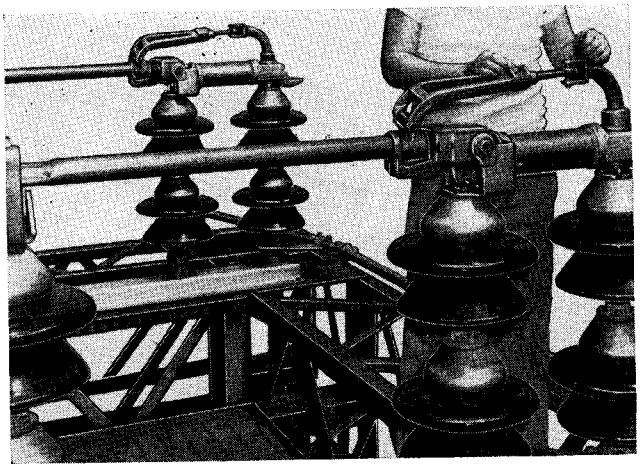


Fig. 2.

This cover holding bolt also locks the adjusting nut in place.

(C) The next step is to set the open position blade stop. (If these checks and adjustments are being made on the ground, the three pole units should be set side by side on a plane surface). Open all three pole units and stand back and sight along the three blades. The blade stops should be set so that the blades are lined up uniformly when in the vertical position. If the blades do not line up uniformly it will be necessary to readjust the vertical stops accordingly. Refer to Fig. 3 for location of this stop adjustment. The open position stop is the stud on the left when viewed from the side of the pole unit. Turning this stud in will cause the blade to move toward the break jaw. Screwing the stud out will allow the blade to be opened farther. When the

proper setting of this stop is obtained, tighten the lock nut securely.

(D) The closed position stop, on the right hand side, see Fig. 3, should be set so that the blade tip can be turned over flat in the break jaw.

(E) Apply a small amount of Silicone base grease to the break jaw contacts. Rotate the blade about its axis several times to wipe the grease into the pores of the metal. Then wipe off the excess grease with a clean rag.

(F) Arcing horns for the type V-2 switch are shipped with the operating mechanism and must be assembled in the field. The moving arc horn is a short stud shipped with a lock nut assembled on it. This stud threads into the tapped hole in the end of the switch blade. The upright stationary arc horn is mounted on top of the break jaw using the long bolt supplied with the arc horn. This assembly is shown in Fig. 10.

(G) This completes the pole unit adjustments. The pole units should now be mounted in place on the structure if this has not already been done. When the pole units are being mounted on the structure care should be exercised to see that the bases are not warped due to uneven mounting surfaces on the structure. Use shims if necessary when bolting the bases to the structure. When making bus or line connections to the pole units avoid placing stress on the terminal pads. Use bus supports or strain insulators dead ended to the supporting structure to avoid undue stresses on the pole units.

Fig. 3.

DESCRIPTION OF THE TYPE "TP" OPERATING MECHANISM

(A) The type "TP" universal operating mechanism is designed for use with Westinghouse Type V-2 switches mounted in either the horizontal, vertical or underhung position. This mechanism may be used either direct connected or offset connected.

(B) When the mechanism is direct connected, the vertical pipe may be attached to any one of the three pole unit bearings and extended down to the operating handle at ground level.

(C) An offset connected mechanism is one in which an outboard bearing is used. The vertical pipe links the handle at ground level to the outboard bearing shaft, and the outboard bearing lever is coupled to the driven pole unit with an adjustable length pipe. As a result of a toggle formed by the connecting pipe and the outboard lever when the switch is closed, a very high mechanical advantage is available when it is needed most. Care should be taken to adjust the pipe length so that the mechanism is in toggle when the switch is closed. This adjustment is explained fully immediately following.

ADJUSTMENT OF THE OPERATING MECHANISM

Important—Do not connect any pipe linkages to the pole unit levers until the individual pole units have been properly adjusted.

(A) The mechanism components should be mounted in place as shown on the three pole erection drawing furnished with the order.

(B) When using an offset mechanism, and when the outboard pipe and the interphase pipes are in a straight line when the switch is closed, (Figs. 4-A or 4-B), the universal lever is not used. If the outboard pipe is not in line with the interphase pipes, see Figs. 4-C, 4-D, 4-E, the universal lever should be used.

(C) When mounting the universal lever it should be set at an angle of approximately 40° to 45° to the outboard pipe when it is in toggle position as shown in Fig. 5. The holes in the universal lever

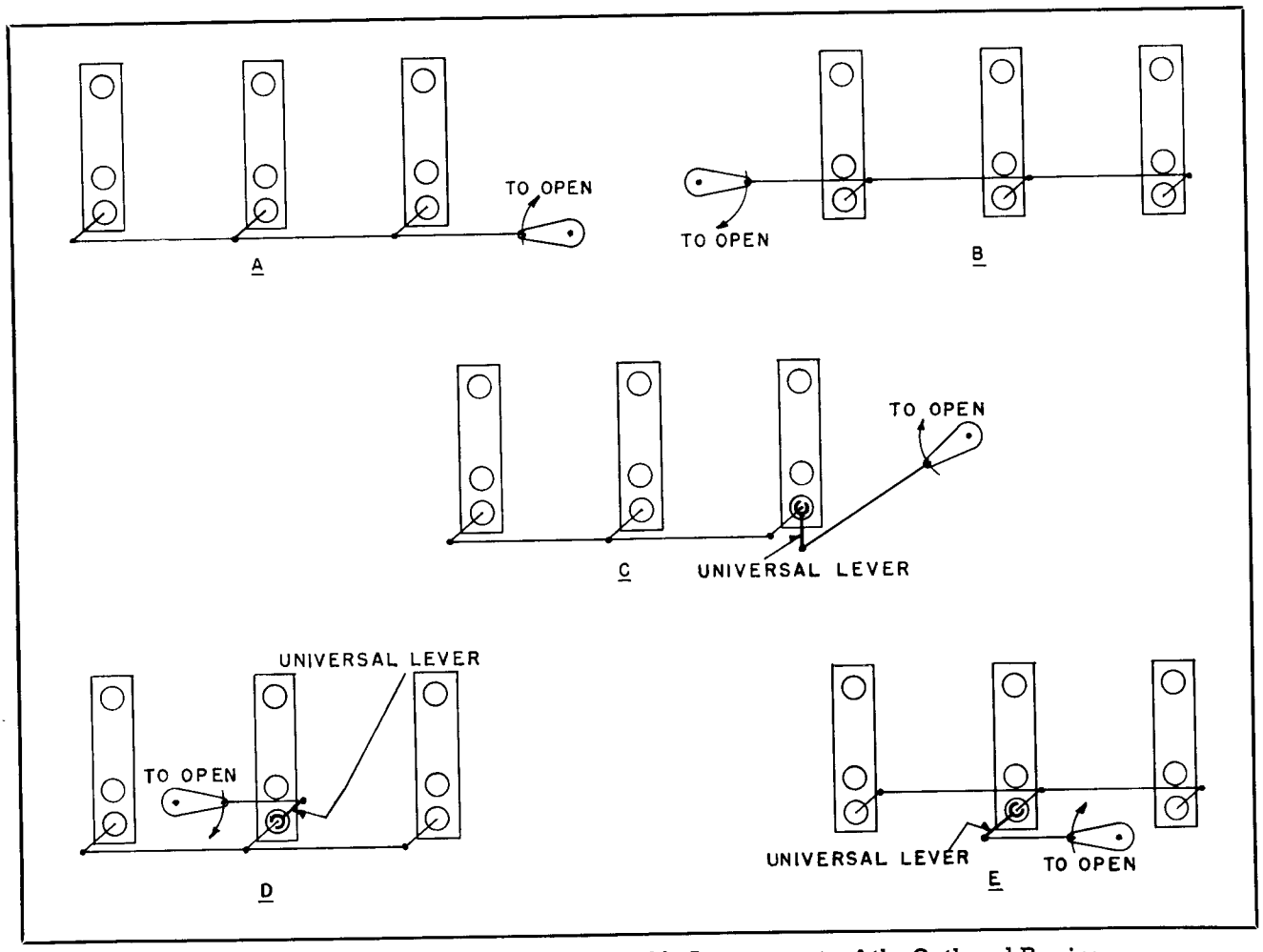


Fig. 4. Schematic Views showing several possible Arrangements of the Outboard Bearing, Connecting Pipe and Universal Lever

are displaced angularly from the centerline of the lever, see Fig. 6. This feature permits fine adjustment of the angular setting of the universal lever. To obtain the most desirable setting, try a set of holes, and if these are not suitable move the lever until the adjacent set of holes match the operating lever. If this still does not provide the desired position, turn the universal lever over to get an intermediate setting.

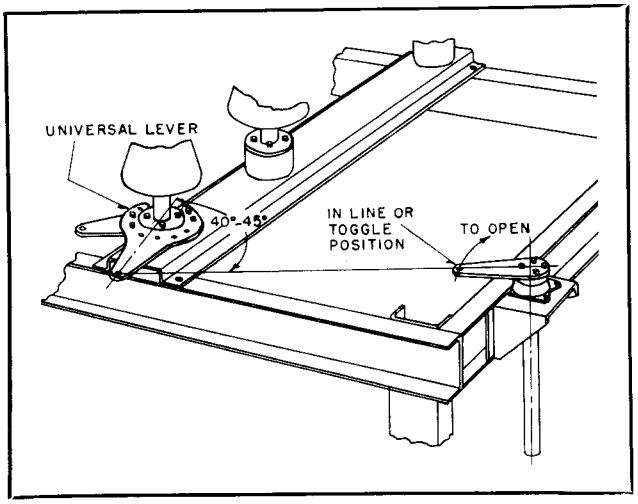


Fig. 5. Outboard Bearing Lever in Toggle Position

(D) If it is desired to operate the switch from the left as shown in Figs. 4-B and 4-E. It will be necessary to change the factory setting of the pole unit operating levers at the base of the rotating insulators by 180°. To make this change, remove the four bolts which hold the operating arm to the top of the rotating insulator. Turn the insulator 180° and reinsert and tighten the bolts.

(E) Close the driven pole unit until the blade tip is turned over approximately flat in the break jaw. Set the lever on the outboard bearing so that it points directly at the hole in the driven pole unit lever. With both levers in this position, install the rod ends and the connecting pipe. Refer to Fig. 5 for the correct installation of this pipe. Tighten the clamping bolts securely but **do not tighten the set screws at this time.**

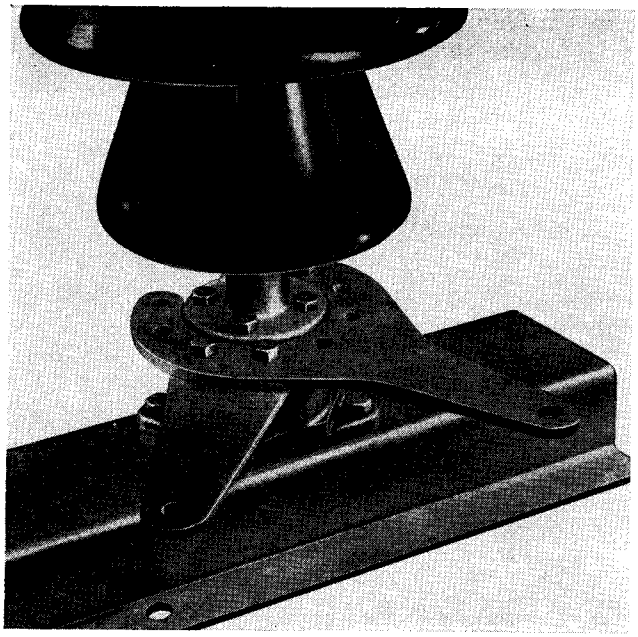


Fig. 6.

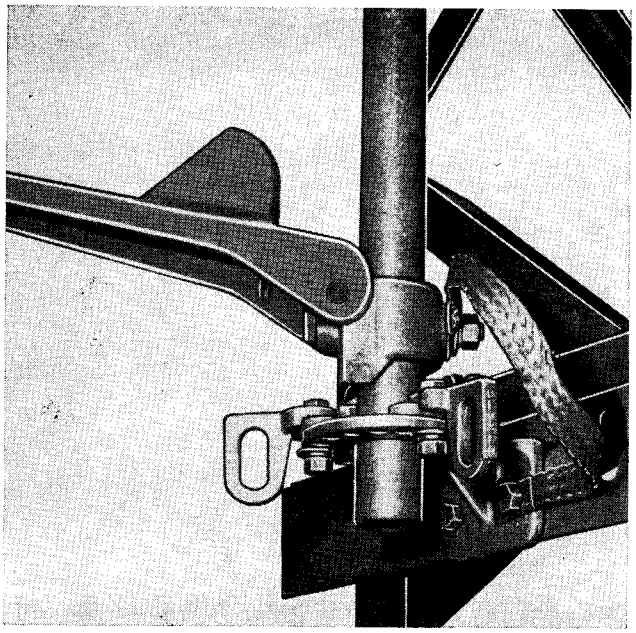


Fig. 7

(F) Connect the vertical pipe to the shaft coupling underneath the outboard bearing, if using an offset mechanism, or to the shaft coupling beneath the driven pole unit if the mechanism is direct connected. Install the pipe couplings and guide bearings if they are specified on the field erection drawings furnished with the job. Install the operating handle as shown in Fig. 7. Set the handle to the correct position as shown on the erection drawing, and clamp it to the pipe.

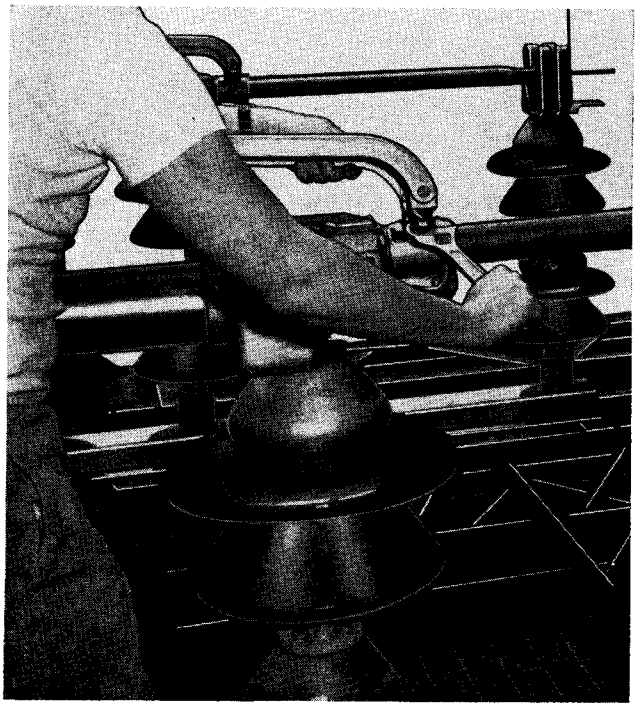


Fig. 8.

(G) The driven pole unit can now be operated with the handle at ground level. Set the "Stop" bolts on the handle for the open and closed positions. The closed position "Stop" should be set with the outboard bearing lever in a "Toggle", position as shown in Fig. 5. Set the open position "Stop" when the switch blade is fully open against the blade stop.

(H) Position all three pole units in the full open position. With all pole units open, connect the interphase pipes. Tighten the clamping bolts on the rod ends but **do not tighten the set screws at this time.**

(I) The complete switch should now be operated by means of the handle at ground level. The three blades should open to a vertical poisition against the stops. When the switch closes, the blades should enter the jaws and rotate to a final position within plus or minus five degrees from horizontal. If one or two of the blade tips do not turn over far enough to come within the ± 5 degrees tolerances, the following adjustment can be made. Refer to Fig. 8. Loosen the two bolts at the pivot end of the blade. The blade can then be rotated about its axis a few degrees in either direction. After making this adjustment, tighten these two bolts securely.

(J) With the pole units in the closed position, recheck the closed position pole unit stop studs to

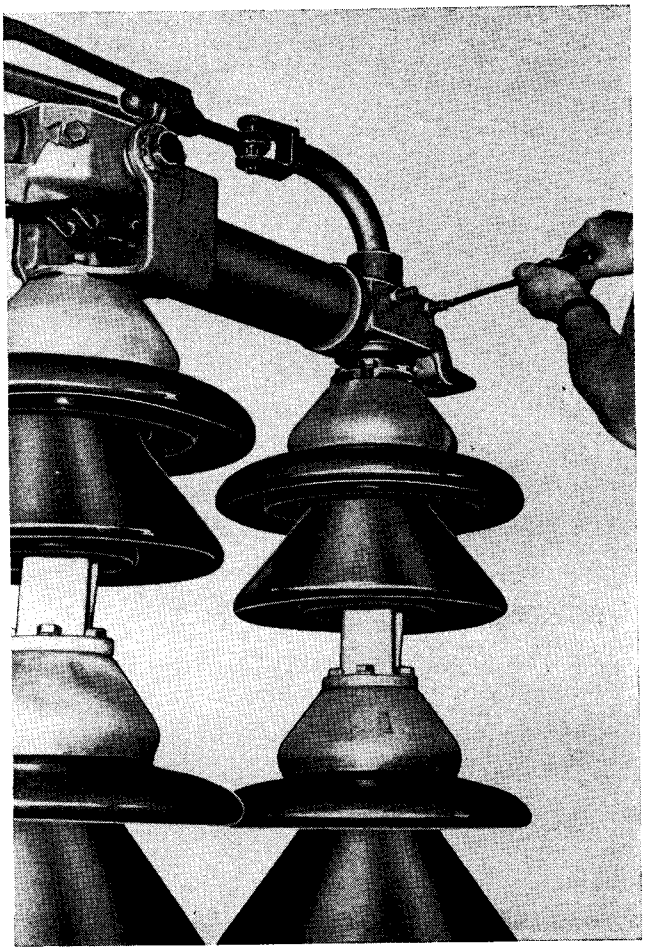


Fig. 9.

be sure thay are seated. See Fig. 9 for location of these stops.

(K) Tighten down the set screws in all rod ends, and the TP operating handle.

AUXILIARY EQUIPMENT

Various auxiliary and accessory equipment is supplied for the switches as required by specific order. The most common items are arcing horns, key interlocks or mechanical interlocks.

The installation of arcing horns has been mentioned previously and are shown in Figure 10.

Key interlocks are applied in a manner which permit operating the switches only in a pre-arranged sequence. This will depend on the particular requirements of a specific installation, the details which will be shown on special order drawing or will be well known to the user. Figure 12 shows the mounting details which will accommodate the key interlock.

A mechanical sliding bar lock is often supplied to insure the correct sequence of operation by a main switch and a grounding switch. Figure 11 shows this assembly and includes information on setting and adjusting theis intrlock.

Other less common auxiliary equipment if required by the order will have detail drawings of the auxiliary equipment supplied as part of the drawing package for that order.

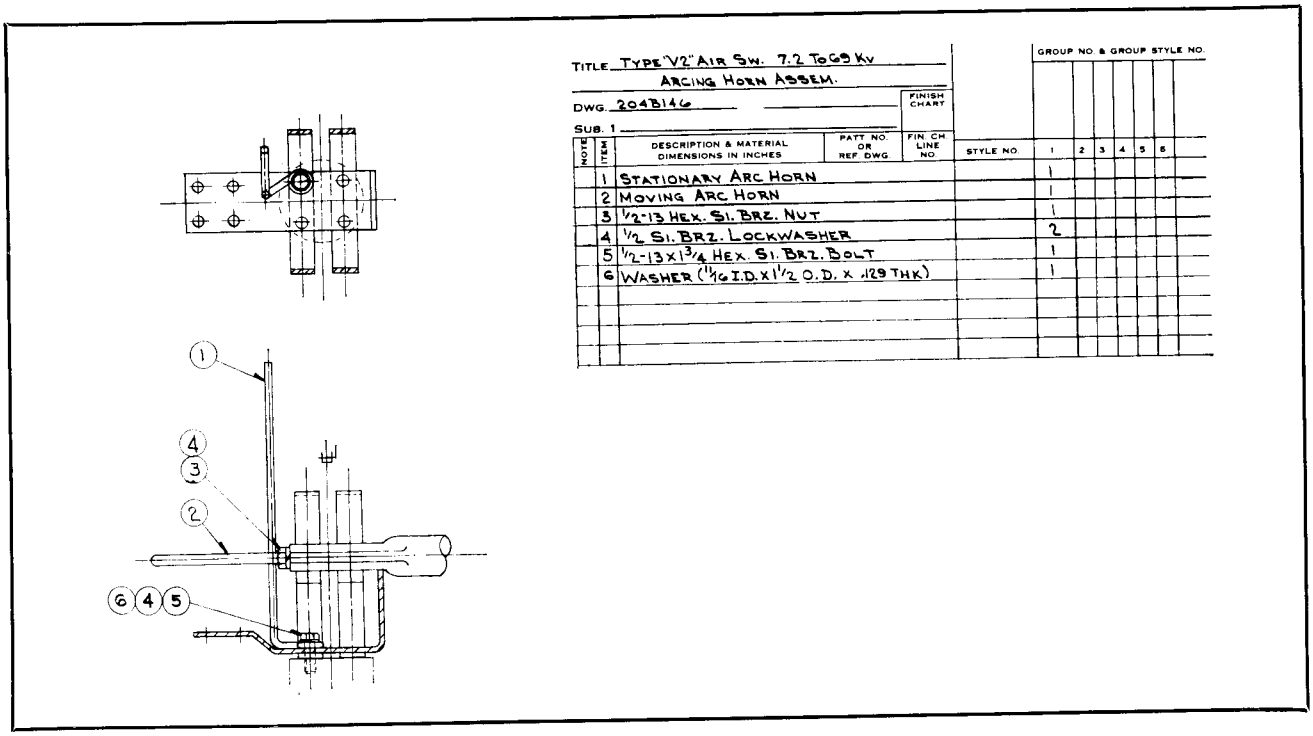
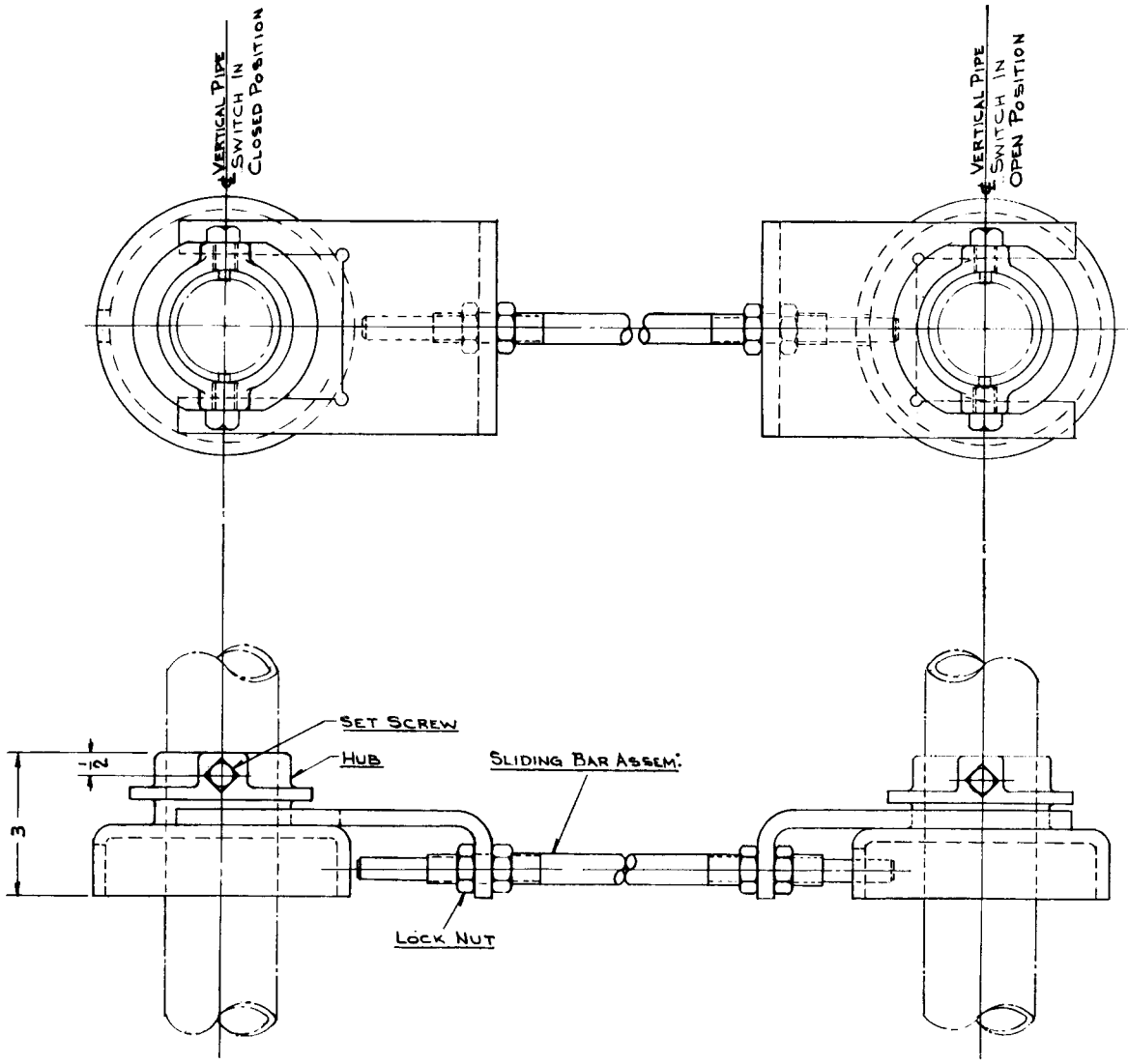


Fig. 10.



METHOD OF SETTING INTERLOCK

(1) MAIN SWITCH AND GROUNDING SWITCH MUST BOTH BE COMPLETELY ADJUSTED FOR PROPER OPERATION BEFORE TIGHTENING SET SCREWS ON MECHANICAL INTERLOCK HUBS.

(2) SET MAIN SWITCH MECHANISM IN THE "OPEN" POSITION AND SET THE GROUNDING SWITCH MECHANISM IN THE "OPEN" POSITION.

(3) ASSEMBLE THE "SLIDING BAR ASSEMBLY" SO THAT IT FITS BETWEEN THE TWO HUBS AS SHOWN.

(4) POSITION BOTH HUBS SO THAT THE "SLIDING BAR ASSEMBLY" FREELY ENTERS THE SLOT ON EACH HUB AND THEN TIGHTEN THE SET SCREWS UNTIL THEY PIERCE THE PIPE.

(5) MOVE THE "SLIDING BAR ASSEMBLY" UNTILL IT IS FULLY ENGAGED WITH THE HUB ON THE GROUNDING SWITCH MECHANISM.

(6) CLOSE THE MAIN SWITCH.

(7) THE FINAL LENGTH OF THE "SLIDING BAR ASSEMBLY" SHOULD BE ADJUSTED SO THAT THE GROUNDING SWITCH MECHANISM CAN NOT BE UNLOCKED WITH THE MAIN SWITCH IN THE CLOSED POSITION.

(8) SECURELY TIGHTEN THE LOCK NUTS ON THE "SLIDING BAR ASSEMBLY".

Fig. 11

RECOMMENDED SPARE PARTS

KV	AMPERES	BLADE	BREAK JAW CONTACT	INSULATOR	ARCING HORNS
7.2	600	S#308C602G01 (1)	S#308C480G01 (1)	S#968771 (3)	S#204B070G01 (1)
7.2	1200	S#308C602G05 (1)	S#308C480G01 (2)	S#968771 (3)	S#204B070G01 (1)
14.4	600	S#308C602G01 (1)	S#308C480G01 (1)	S#968768 (3)	S#204B070G01 (1)
14.4	1200	S#308C602G05 (1)	S#308C480G01 (2)	S#968768 (3)	S#204B070G01 (1)
23	600	S#308C602G02 (1)	S#308C480G01 (1)	S#968769 (3)	S#204B070G01 (1)
23	1200	S#308C602G06 (1)	S#308C480G01 (2)	S#968769 (3)	S#204B070G01 (1)
34.5	600	S#308C602G02 (1)	S#308C480G01 (1)	S#968770 (3)	S#204B070G01 (1)
34.5	1200	S#308C602G06 (1)	S#308C480G01 (2)	S#968770 (3)	S#204B070G01 (1)
46	600	S#308C602G03 (1)	S#308C480G01 (1)	S#1176230 (3)	S#204B070G01 (1)
46	1200	S#308C602G07 (1)	S#308C480G01 (2)	S#1176230 (3)	S#204B070G01 (1)
69	600	S#308C602G04 (1)	S#308C480G01 (1)	S#1176190 (6)	S#204B070G01 (1)
69	1200	S#308C602G08 (1)	S#308C480G01 (2)	S#1176190 (6)	S#204B070G01 (1)

Quantity shown after each style number is required for one pole unit.

Recommended ordering quantity is 3 complete sets of parts from this table for up to 10 complete 3 pole switches.

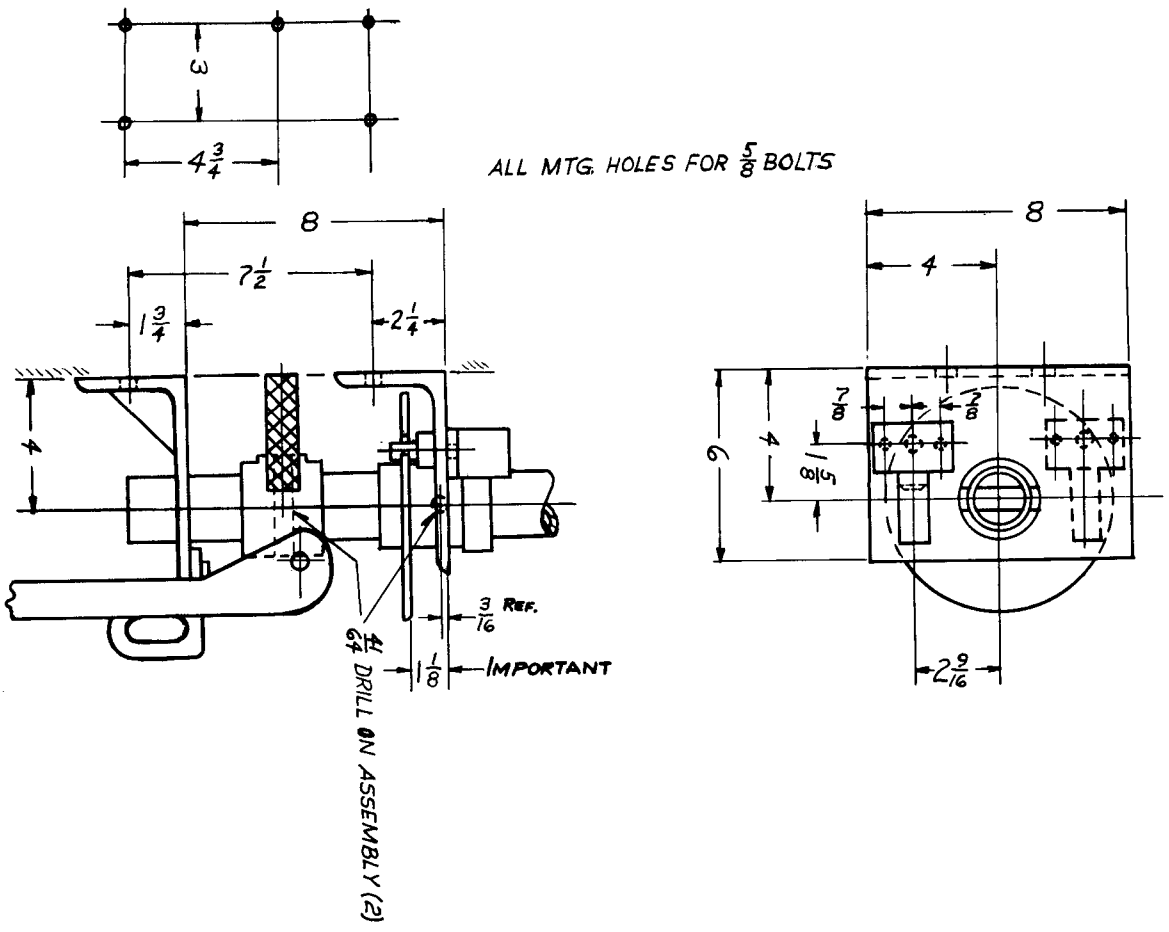


FIG. 12

MEMORANDUM


WESTINGHOUSE
W