

RDA-1 DOUBLE END BREAK DISCONNECT SWITCH INSTALLATION REFERENCE GUIDE



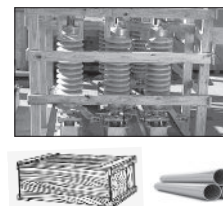
This guide is intended to be used as a **recommended** sequence of work steps but **does not** supersede the instruction manual (IB-111-RDA RDA-1) or assembly drawings. For assistance, contact the Southern States Service Division (available 24/7) at 770-946-4565.

← Scan for full instruction manual

Publication No. QSG111-RDA-1 R4 09142023

1 REVIEW BILL OF LADING (BOL)

- Check the materials received against the packing list
- Report any shortages or damaged equipment to Southern States
- A typical shipment will include:
 - 3 phase switch (base, insulators, & live parts)
 - Operating mechanism box
 - Operating pipe



Southern States LLC - Bill of Lading / Packing List

ITEM	DESCRIPTION	QTY	PART NO.
1	SWITCH ASSEMBLY	1	08181416
2	OPERATING MECHANISM	1	01450147
3	OPERATING PIPE	1	08127880
4	ADAPTER	1	01760834
5	CORONA RING BRACKET- RIGHT	1	14055527
6	ARCING HORN ASSEMBLY	1	08181415
7	HINGE MECHANISM ASSY	1	08131684
8	CORONA SHIELD ASSEMBLY	1	08128191
9	CORONA RING BRACKET- LEFT	1	14055526
10	STUD 3/4 X 7 (A252)	24	01581142
11	5/16 ST. STL. HEX NUT	36	01721000
12	BEARING ARM	3	01761073
13	5/16 X 1 1/2 ST. STL. HEX BOLT	36	01042024
14	3/8 X 1/2 ST. STL. HEX BOLT	36	01043008
15	3/8 ST. STL. BEARING BRACKET	36	01043007

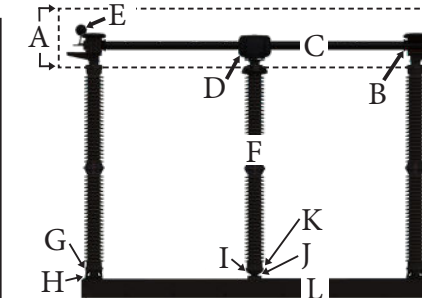
Note: All material is marked with JO number

2 REVIEW BILL OF MATERIAL (BOM)

- Inventory all parts against the BOM found on the op-mech sheet inside the drawing package
- Report any missing or damaged parts to Southern States

D-20120020 BILL OF MATERIAL

ITEM	DESCRIPTION	QTY	PART NO.
1	SWITCH ASSEMBLY	1	08181416
2	OPERATING MECHANISM	1	01450147
3	OPERATING PIPE	1	08127880
4	ADAPTER	1	01760834
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TERMINOLOGY OVERVIEW

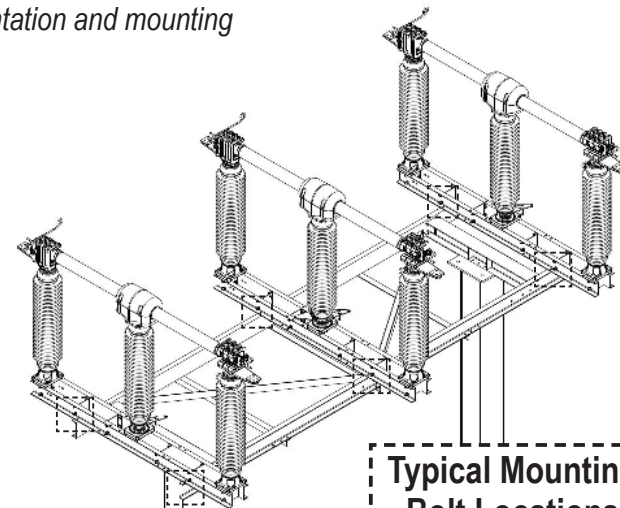
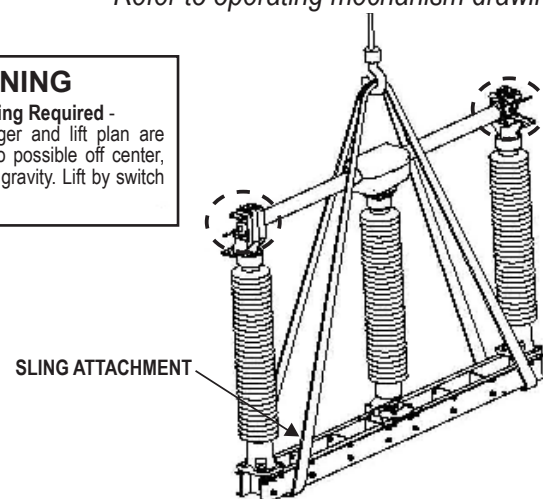
- A: Live Parts
- B: Switch Jaw[s]
- C: Switch Blade
- D: Hinge Mechanism
- E: Arcing Horns
- F: Rotating Insulator
- G: Mounting Adapter[s]
- H: Jack Screw[s]
- I: Switch Arm
- J: Bearing Stop[s]
- K: Auxiliary Arm Mounting
- L: Switch Base

3 MOUNT PHASES PER ENGINEERING DRAWINGS

Refer to operating mechanism drawing for pole orientation and mounting

WARNING
Special Handling Required - A qualified rigger and lift plan are required due to possible off center, high, center of gravity. Lift by switch base only.

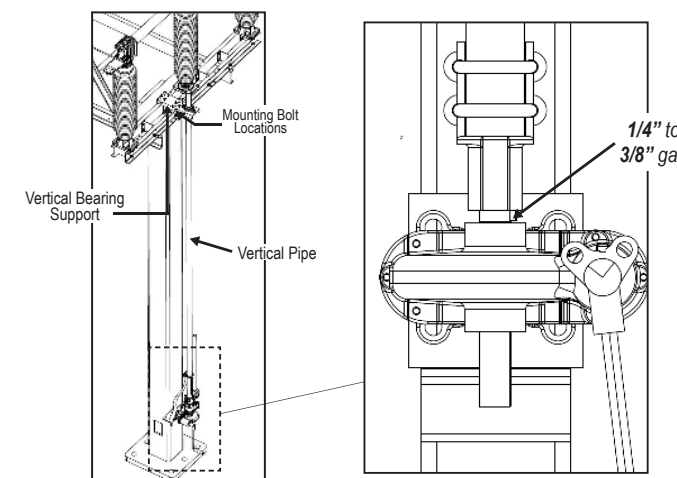
SECURE
BLADE WITH
TIES DURING
LIFTING



Typical Mounting
Bolt Locations

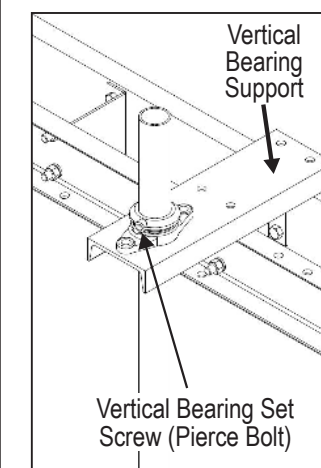
Refer To Instruction Book Section: **Installation & Adjustment Procedures**

4 MOUNT VERTICAL BEARING, PIPE, & OPERATOR



Refer To Instruction Book Section: **Installation & Adjustment Procedures**

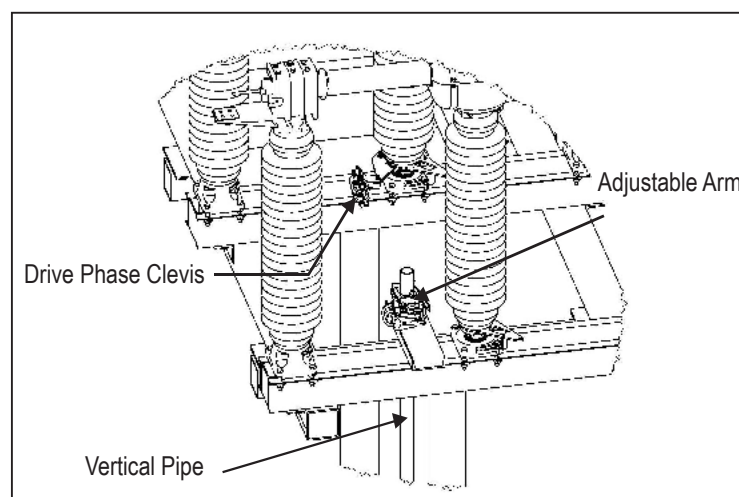
5 PIERCE VERTICAL BEARING SET-SCREW COMPLETELY



NOTE: Ensure the full weight of the vertical pipe is supported by the vertical bearing and maintain the gap required between the coupling and gear operator. Then pierce collar. Also, confirm auxiliary arm assembly is correctly mounted per the operating mechanism drawing.

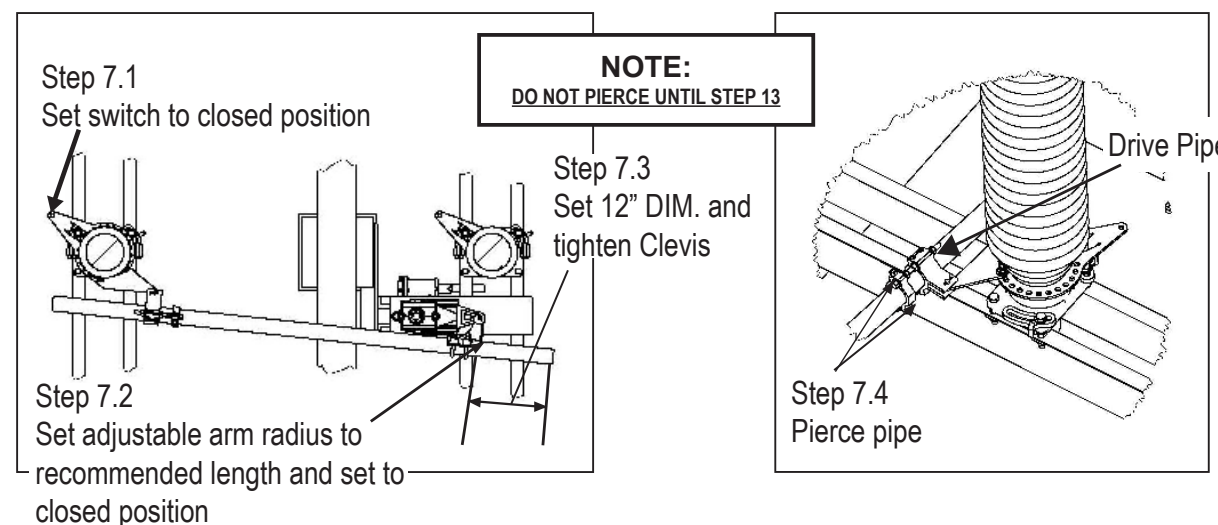
Refer To Instruction Book Section: **Installation & Adjustment Procedures**

6 INSTALL ADJUSTABLE ARM & DRIVE PHASE CLEVIS



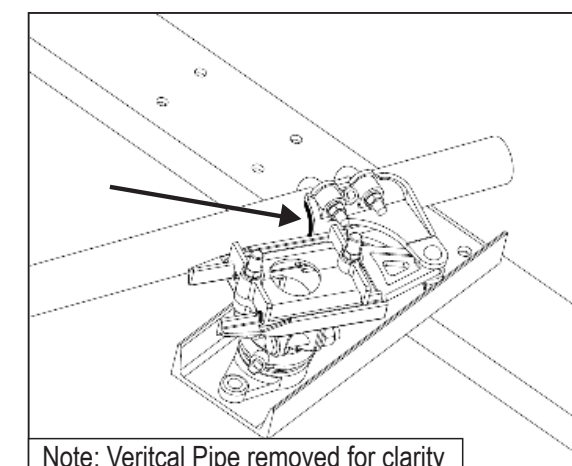
Refer To Instruction Book Section: **Installation & Adjustment Procedures**

7 CONNECT & TIGHTEN DRIVE PIPE BETWEEN ADJUSTABLE ARM & AUXILIARY ARM OF DRIVE PHASE WITH APPROPRIATE CLEVISES



Refer To Instruction Book Section: **Installation & Adjustment Procedures**

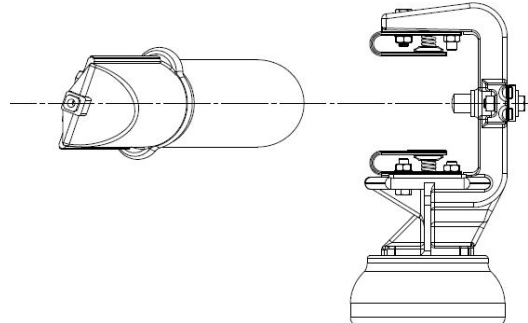
8 MATCH-MARK CLEVIS CONNECTIONS, ADJUSTABLE ARM, & OPERATOR COUPLING TO MONITOR SLIPPAGE



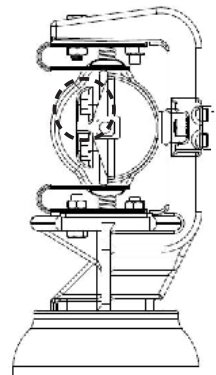
Note: Vertical Pipe removed for clarity

Refer To Instruction Book Section: **Installation & Adjustment Procedures**

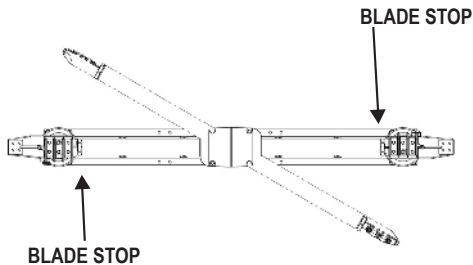
9 TEST-OPERATE THE DRIVE PHASE TO VERIFY ALL CRITERIA BELOW ARE MET.



A.
The blade tips should enter the jaw centrally, without dragging on either contact surface. To correct alignment, adjust stationary insulators as necessary.

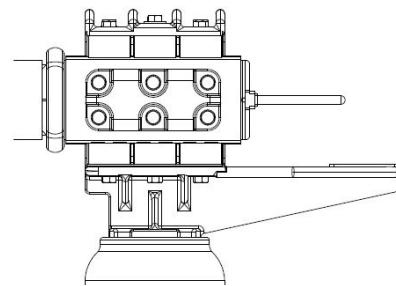


B.
This switch blade should hit both stops simultaneously and fully rest on both stops in the full closed position.

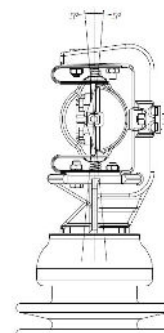


NOTES:

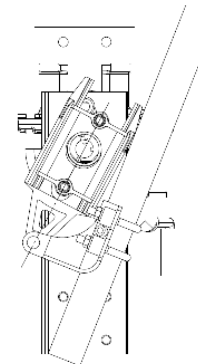
- THERE MAY BE VARIATIONS ON CONTACT PLACEMENT AT DIFFERENT AMPERAGE CLASSES.
- FOR ARCING HORN ADJUSTMENTS, REFER TO INSTRUCTION MANUAL.



C.
Contact fingers must be centered on the blade tip in the full closed position.



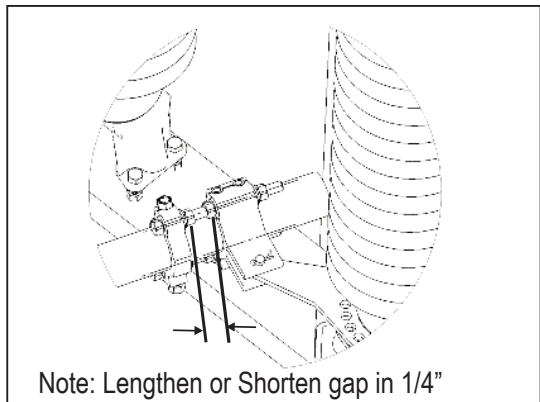
D.
Contact bar must be within "+" or "-" 5 degrees from flat in the full closed position.



E.
Drive pipe on op-mech should be toggled (snapped in) when it reaches the full closed position (*toggle in full open position also preferred if possible*).

Refer To Instruction Book Section: **Installation & Adjustment Procedures**

10 IF CONTACT BAR IS NOT FLAT AT FULL CLOSED POSITION, EXTEND THE RAPID-SET CLEVIS TO ADVANCE IT.



Note: Lengthen or Shorten gap in 1/4" increments as needed.

IF Operator Reaches Full Open Position & Switch Is Not Fully Opened:

- Check the match-marks of the adjustable arm and pipe clevis for signs of slippage.
- Return switch to almost closed but not toggled
- Lengthen both the adjustable arm radius by 1/4" increments and at the same time shorten the Rapid-Set clevis length by the same amount. Do this until full switch opening and operator rotation is achieved.

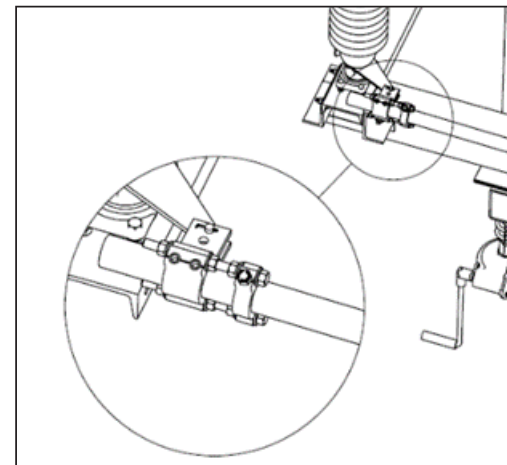
IF Switch Is Fully Opened Before Operator Reaches Full Open Position:

- Check for slippage
- Return switch to almost closed but not toggled
- Shorten the adjustable arm radius by 1/4" increments and at the same time lengthen the Rapid-Set clevis by the same amount. Do this until full switch opening and operator rotation is achieved.

Refer To Instruction Book Section: **Installation & Adjustment Procedures**

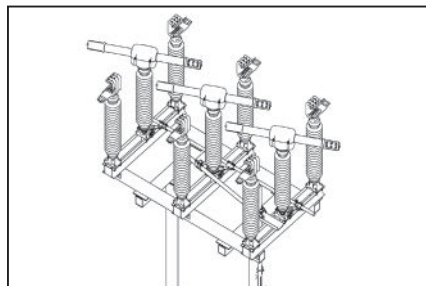
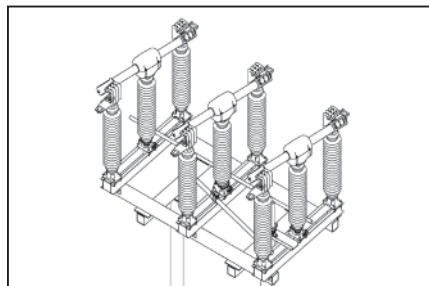
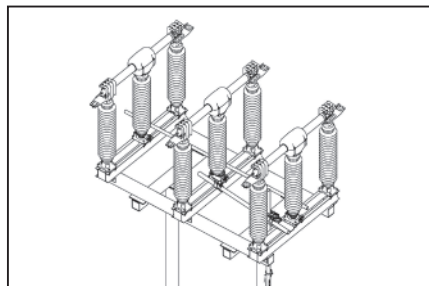
11 INSTALL INTERPHASE PIPE, CONNECTING DRIVE PHASE WITH OTHER TWO PHASES

1. Set all phases to full closed position and install the Rapid-Set clevises and interphase pipe.
2. Pierce the pipe at all locations, and test operate.
3. If the other two phases are out of time, adjust the Rapid-Set clevises.



Refer To Instruction Book Section: **Installation & Adjustment Procedures**

12 TEST OPERATE TO ENSURE ALL PHASES FULLY OPEN / CLOSE & MEET STEP 9 GUIDELINES



Refer To Instruction Book Section: **Installation & Adjustment Procedures**

13 FINAL CHECK & ASSEMBLY

- A. Install any and all switch accessories (*whips, MACI®, arcing horns, etc.*) per their assembly drawings.
- B. Test operate to ensure specification is met.
- C. Land conductors to terminal pads and retest switch. Readjust switch *if necessary*.
- D. Pierce all set-screws.
- E. If motor operator is being used, ensure limit switches are set.
- F. Ensure all accessories from the op-mech package are installed (*ground shunt, VM-1 swing handle, etc.*).

Refer To Instruction Book Section: **Installation & Adjustment Procedures**