

# SINGLE-PHASE STANDARD

## INTRODUCTION

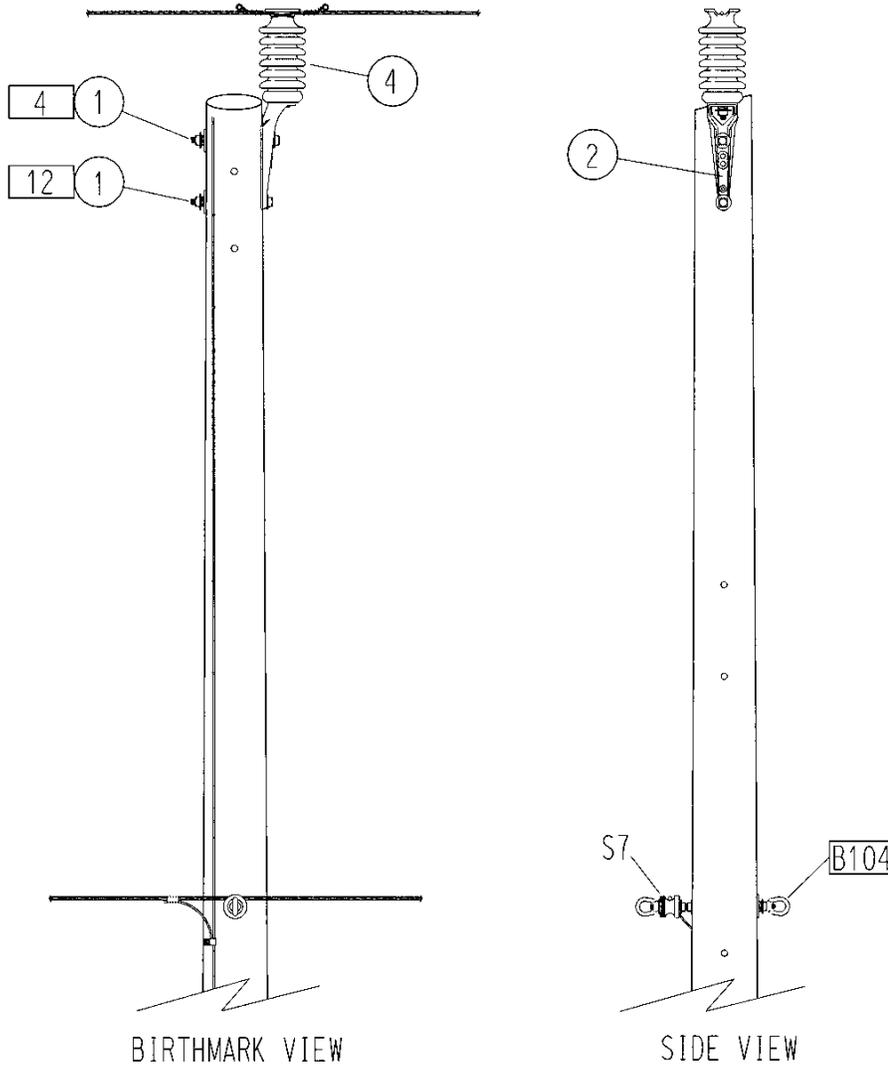
1. The Single-Phase Standard was developed to lower JEA's costs by allowing primary construction on a 40-foot wood pole. However, there are limitations to the use of this standard when installed on a 40-foot wood pole. If there is any question that the pole cannot accommodate every limitation, a taller wood pole should be used. The only exception to this is when a 40-foot wood pole is used underneath a transmission line. The limitations are as follows
  - I.1.1. The 40-foot wood pole shall be used for single-phase construction only.
  - I.1.2. The pole shall be built on private property only.
  - I.1.3. The pole is rated for transformers 50kVA and smaller only.
  - I.1.4. Installations shall be for areas where no joint use attachments are foreseen.
  - I.1.5. The pole is rated for conductors 1/0 or smaller.
  - I.1.6. The pole shall never be used alongside a main road.
  - I.1.7. Its use shall be limited to four spans.
  - I.1.8. Installations shall be for areas where it is anticipated there will not be an increase in system load requiring future additional phases or equipment.
2. The drawings for transformer installations are for illustration only. Use the standard transformer plates (DGA, RGA, etc.) to receive the proper material depending on the system voltage. However, remember the transformer size limitation if installed on the 40-foot wood pole.
3. Because of similar material used, standards are shown in this Section that can be found elsewhere in the OH Standards Book. However, they are shown installed on the 40-foot wood pole
4. The pole-top bracket used for this standard requires 8-inch bolt spacing for attachment to the pole. The 40-foot wood pole is pre-drilled to accommodate this spacing, but if installed on any other pole, drilling will be required.
5. The pole-top bracket and insulator assembly can also be found in the Sub-Structure Section for custom plating applications.
6. Bolt locations are shown on the drawings within a box. The value is the distance from the bottom of the pole roof. A "B" before the number means the material is installed on the birthmark face of the pole. Numbers within a circle correspond to the material listed in the tables.

## SP1

TANGENT - 0 TO 10 DEGREE ANGLE

OPTIONS: 2, 1/0

BOLT PLATE: NONE



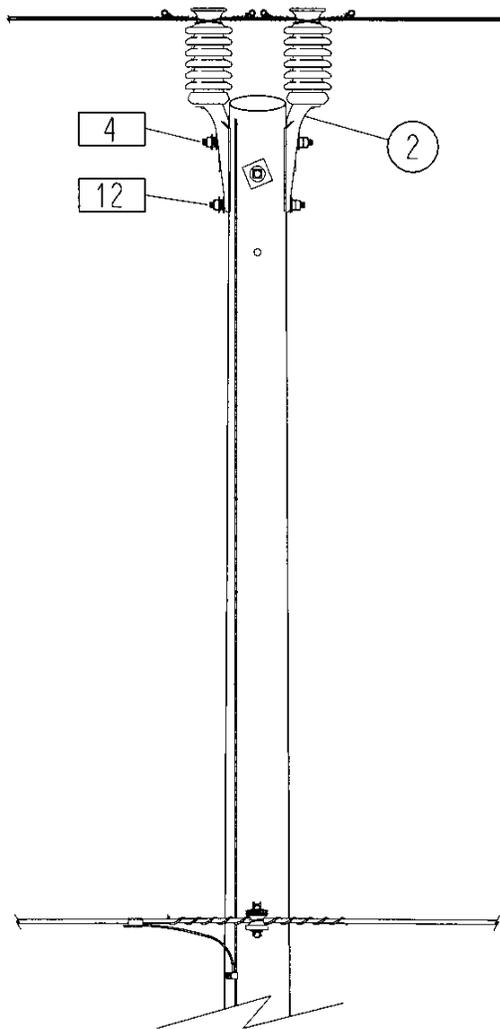
NO.	ITEM ID	QTY	DESCRIPTION
1	BOL MS 035	2	BOLT, MACHINE, SQUARE HEAD 3/4X12
2	BKT IN 005	1	BRACKET, INSULATOR, POLETOP
3	COB TW 005	6	CONDUCTOR, #4 SD AL. TIE WIRE
4	INS VP 001	1	INSULATOR, POST 34.5KV
5	STU LI 001	1	STUD, LINE POST 3/4 HEAD - 3/4 DIA. X 1-3/4 IN. SHANK
6	WAS RD 005	5	WASHER, ROUND, 2 INCH, FOR 3/4 IN. DIA. BOLT
7	WAS SF 003	2	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. DIA. BOLT
8	WAS SP 002	2	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. DIA. BOLT

## SP2

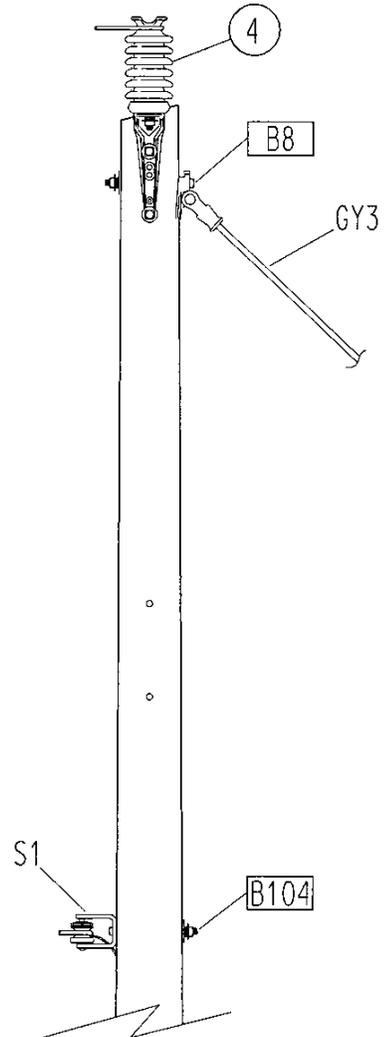
10 TO 30 DEGREE ANGLE

OPTIONS: 2, 1/0

BOLT PLATE: NONE



BIRTHMARK VIEW



SIDE VIEW

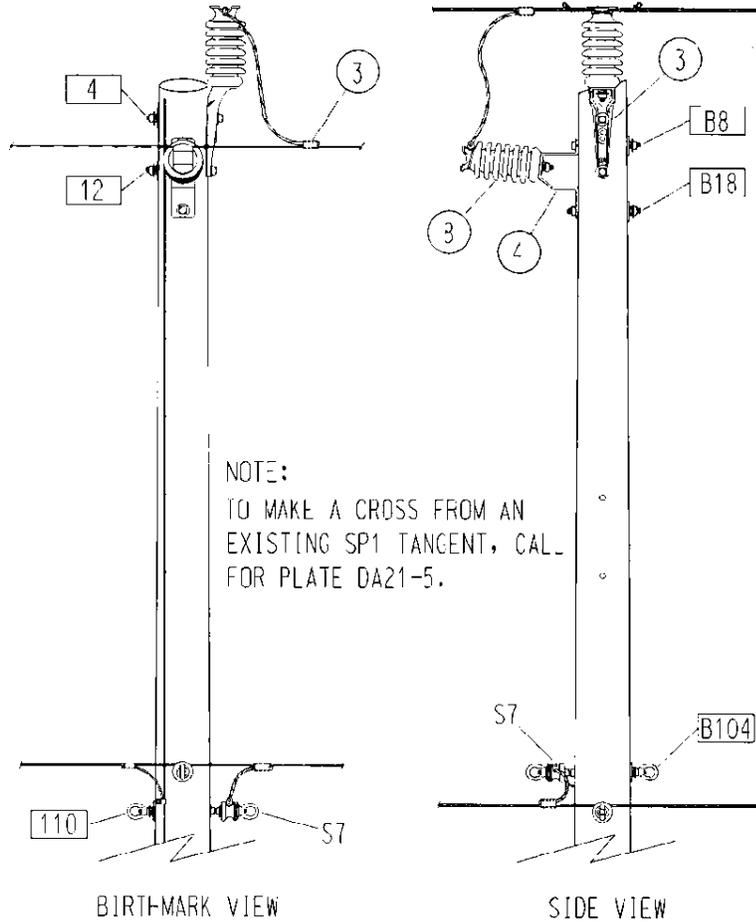
NO.	ITEM ID	QTY	DESCRIPTION
1	BOL DA 015	2	BOLT, DOUBLE ARMING, 3/4X14
2	BKT IN 005	2	BRACKET, INSULATOR, POLETOP
3	COB TW 005	12	CONDUCTOR, #4 SD AL. TIE WIRE
4	INS VP 001	2	INSULATOR, POST 34.5KV
5	STU LI 001	2	STUD, LINE POST 3/4 HEAD - 3/4 DIA. X 1-3/4 IN. SHANK
6	WAS RD 005	8	WASHER, ROUND, 2 INCH, FOR 3/4 IN. DIA. BOLT
7	WAS SP 002	2	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. DIA. BOLT

## SP3

### CROSS

OPTIONS: 2, 1/0

BOLT PLATE: NONE



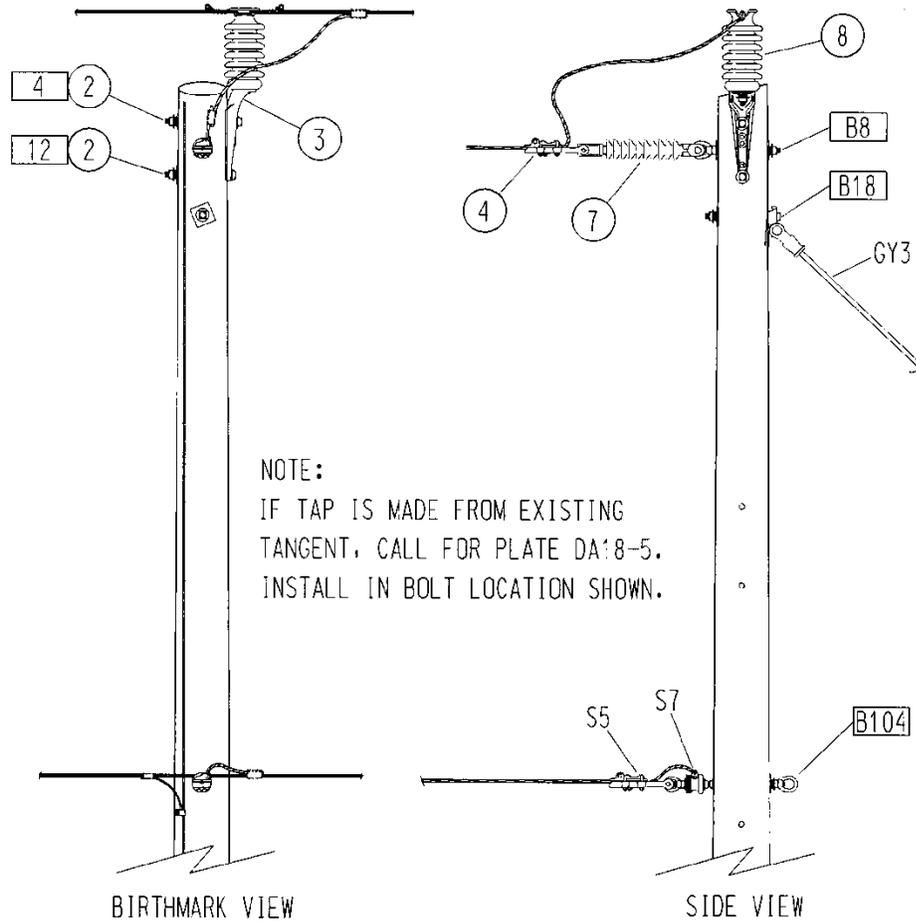
NO.	ITEM ID	QTY	DESCRIPTION
1	BOL MS 035	3	BOLT, MACHINE, SQUARE HEAD 3/4X12
2	BOL DA 015	1	BOLT, DOUBLE ARMING, 3/4X14
3	BKT IN 005	1	BRACKET, INSULATOR, POLE-TOP
4	BKT IN 007	1	BRACKET, INSULATOR STANDOFF 6IN.
5	CNN CP ***	2	GENERAL CODE FOR AL. COMPRESSION CONNECTOR
6	COB AA ***	6	GENERAL CODE FOR AL. CONDUCTOR
7	COB TW 005	6	CONDUCTOR, #4 SD AL. TIE WIRE
8	INS VP 001	2	INSULATOR, POST 34.5KV
9	STU LI 001	2	STUD, LINE POST 3/4 HEAD- 3/4 DIA.X 1-3/4 IN. SHANK
10	TIE PR ***	1	GENERAL CODE FOR PREFORMED TIE
11	WAS RD 005	10	WASHER, ROUND, 2 INCH, FOR 3/4 IN. DIA. BOLT
12	WAS SP 002	4	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. DIA. BOLT
13	WAS SF 003	4	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. DIA. BOLT

## SP4

### TANGENT WITH SINGLE-PHASE TAP

OPTIONS: 2, 1/0

BOLT PLATE: NONE



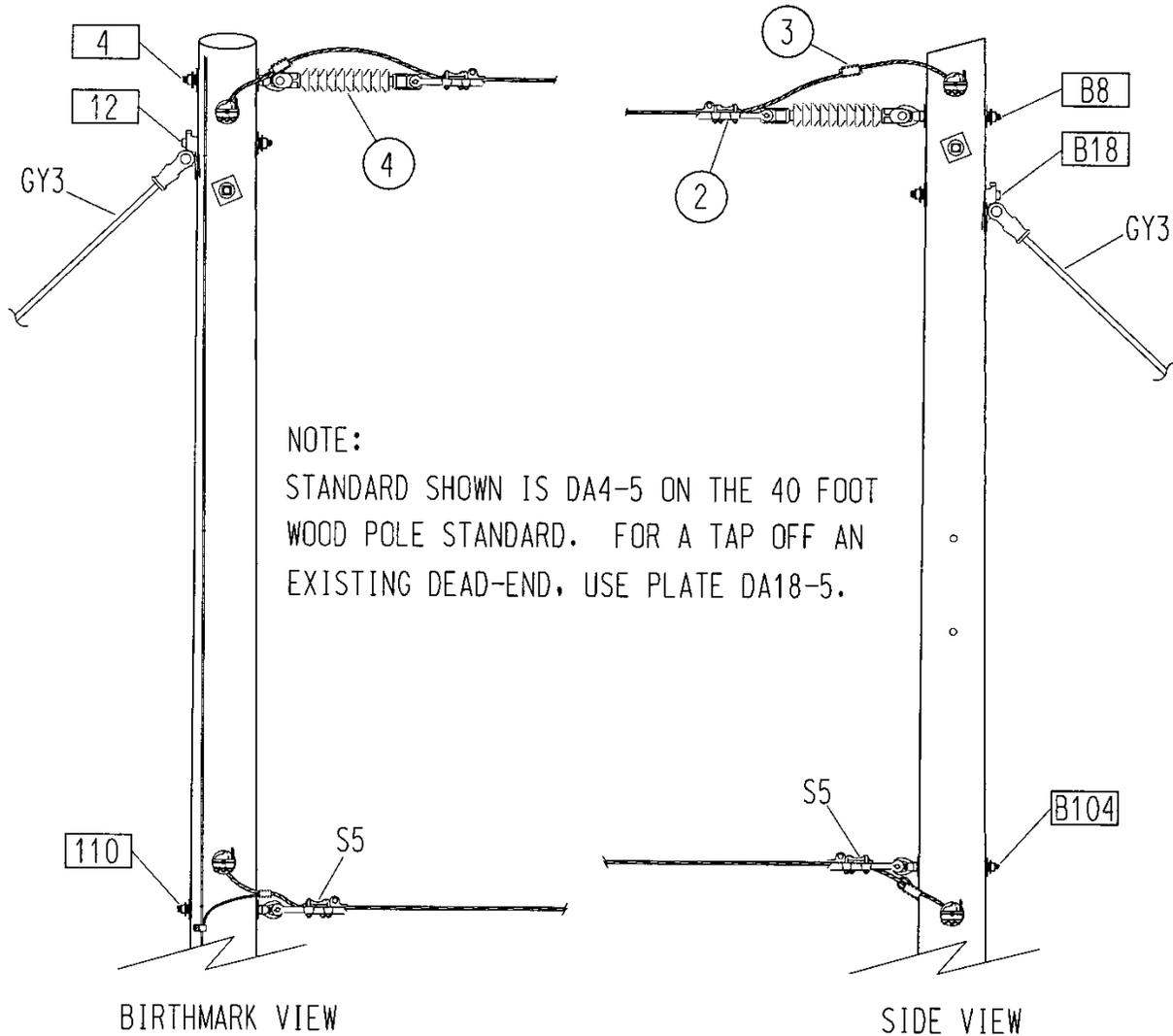
NO.	ITEM ID	QTY	DESCRIPTION
1	BOL DA 015	1	BOLT, DOUBLE ARMING, 3/4X14
2	BOL MS 035	2	BOLT, MACHINE, SQUARE HEAD 3/4X12
3	BKT IN 005	1	BRACKET, INSULATOR, POLETOP
4	CLA SS ***	1	GENERAL CODE FOR STRAIGHT STRAIN CLAMP
5	CNN CP ***	1	GENERAL CODE FOR AL. COMPRESSION CONNECTOR
6	COB TW 005	6	CONDUCTOR, #4 SD AL. TIE WIRE
7	INS CO 001	1	INSULATOR, DEAD-END, POLYMER 27KV
8	INS VP 001	1	INSULATOR, POST 34.5KV
9	NUT EY 003	1	NUT, EYE 3/4
10	STU LI 001	1	STUD, LINE POST 3/4 HEAD - 3/4 DIA. X 1-3/4 IN. SHANK
11	WAS RD 005	6	WASHER, ROUND, 2 IN., FOR 3/4 IN. DIA. BOLT
12	WAS SP 002	3	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. DIA. BOLT
13	WAS SF 003	4	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. DIA. BOLT

## DA4-5

60 TO 90 DEGREE CORNER – SHOWN ON 40 FOOT POLE STANDARD

OPTIONS: 2, 1/0

BOLT PLATE: NONE



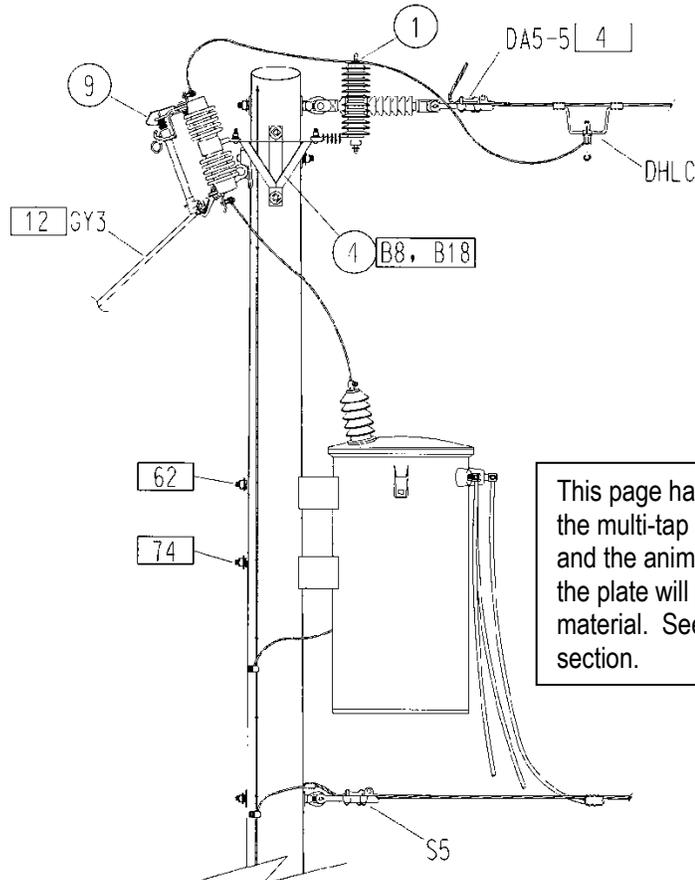
NO.	ITEM ID	QTY	DESCRIPTION
1	BOL DA 015	2	BOLT, DOUBLE ARMING, 3/4X14
2	CLA SS ***	2	GENERAL CODE FOR STRAIGHT STRAIN CLAMP
3	CNN CP ***	1	GENERAL CODE FOR AL. COMPRESSION CONNECTOR
4	INS CO 001	2	INSULATOR, DEAD-END, POLYMER 27KV
5	NUT EY 003	2	NUT, EYE 3/4
12	WAS RD 005	2	WASHER, ROUND, 2 IN., FOR 3/4 IN. DIA. BOLT
13	WAS SP 002	2	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. DIA. BOLT
14	WAS SF 003	4	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. DIA. BOLT

## RG, DGA, OR WGA

### SINGLE-PHASE TRANSFORMER – DEAD-END – 40 FOOT WOOD POLE

OPTIONS: 15, 25, 50

BOLT PLATE: NONE



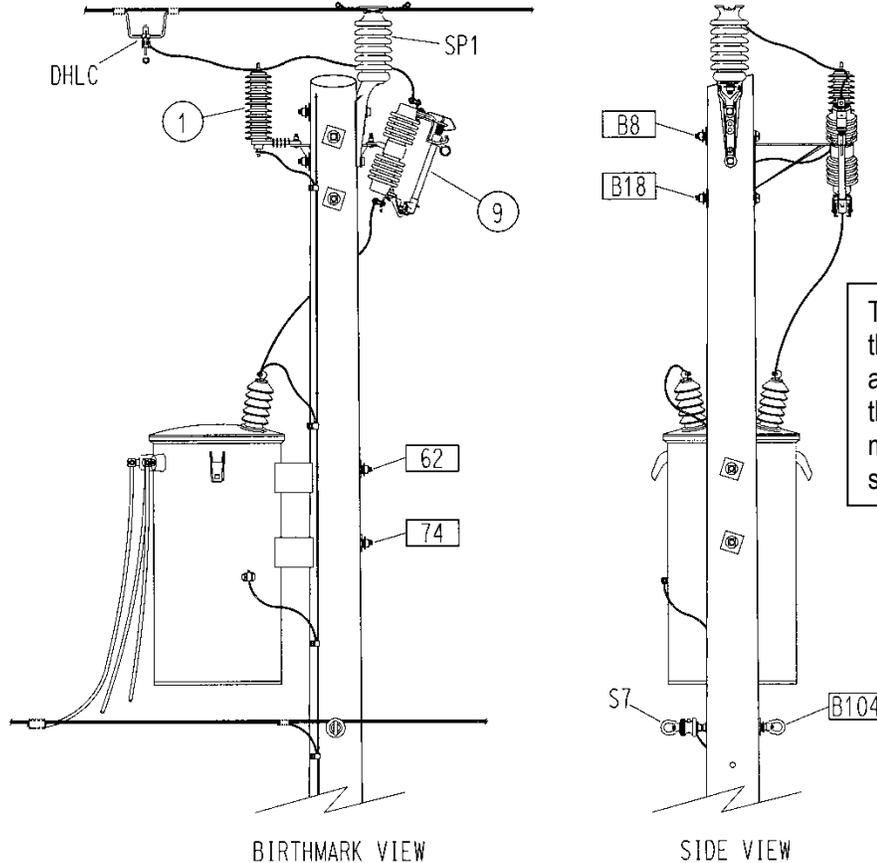
NO.	ITEM ID	QTY	DESCRIPTION
1	ARR LI ***	1	ARRESTER, LIGHTNING, POLYMER MOV (DIST.)
2	BOL MS 020	2	BOLT, MACHINE, SQUARE HEAD, 5/8X14
3	BOL MS 035	2	BOLT, MACHINE, SQUARE HEAD, 3/4X12
4	BKT AC 001	1	BRACKET, ARRESTER AND CUTOUT, POLE MOUNTED
5	CAI RH ***	22	GENERAL CODE FOR COPPER RHW CABLE
6	CLA TG 001	1	CLAMP, TRANSFORMER TANK GROUND, #6 SOL. - #1 STR.
7	COB CO 028	20	CONDUCTOR, BARE COPPER, #4 SOFT DRAWN
8	CNN VG 003	2	CONNECTOR, VISE TYPE, 6-2 SOL. - 10-2 SOL.
9	CUT OT 004	1	CUTOUT, FUSED, 150KV BIL, 100 AMP, 27KV
10	FUS OH ***	1	GENERAL CODE FOR FUSE-LINK
11	TRA CG ***	1	GENERAL CODE FOR TRANSFORMER
12	WAS RD 004	2	WASHER, ROUND, 1-3/4 IN. DIA., FOR 5/8 IN. BOLT
13	WAS RD 005	4	WASHER, ROUND, 2 IN. DIA., FOR 3/4 IN. BOLT
14	WAS SF 003	4	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. BOLT
15	WAS SP 002	4	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. BOLT

## RG, DGA, OR WGA

### SINGLE-PHASE TRANSFORMER – TANGENT – 40 FOOT WOOD POLE

OPTIONS: 15, 25, 50

BOLT PLATE: NONE



This page has not been updated with the multi-tap secondary connectors and the animal guarding system, but the plate will provide the proper material. See the Transformers section.

NO.	ITEM ID	QTY	DESCRIPTION
1	ARR LI ***	1	ARRESTER, LIGHTNING, POLYMER MOV (DIST.)
2	BOL MS 020	2	BOLT, MACHINE, SQUARE HEAD, 5/8X14
3	BOL MS 035	2	BOLT, MACHINE, SQUARE HEAD, 3/4X12
4	BKT AC 001	1	BRACKET, ARRESTER AND CUTOUT, POLE MOUNTED
5	CAI RH ***	22	GENERAL CODE FOR COPPER RHW CABLE
6	CLA TG 001	1	CLAMP, TRANSFORMER TANK GROUND, #6 SOL. - #1 STR.
7	COB CO 028	20	CONDUCTOR, BARE COPPER, #4 SOFT DRAWN
8	CNN VG 003	2	CONNECTOR, VISE TYPE, 6-2 SOL. - 10-2 SOL.
9	CUT OT 004	1	CUTOUT, FUSED, 150KV BIL, 100 AMP, 27KV
10	FUS OH ***	1	GENERAL CODE FOR FUSE-LINK
11	TRA CG ***	1	GENERAL CODE FOR TRANSFORMER
12	WAS RD 004	2	WASHER, ROUND, 1-3/4 IN. DIA., FOR 5/8 IN. BOLT
13	WAS RD 005	4	WASHER, ROUND, 2 IN. DIA., FOR 3/4 IN. BOLT
14	WAS SF 003	4	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. BOLT
15	WAS SP 002	4	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. BOLT