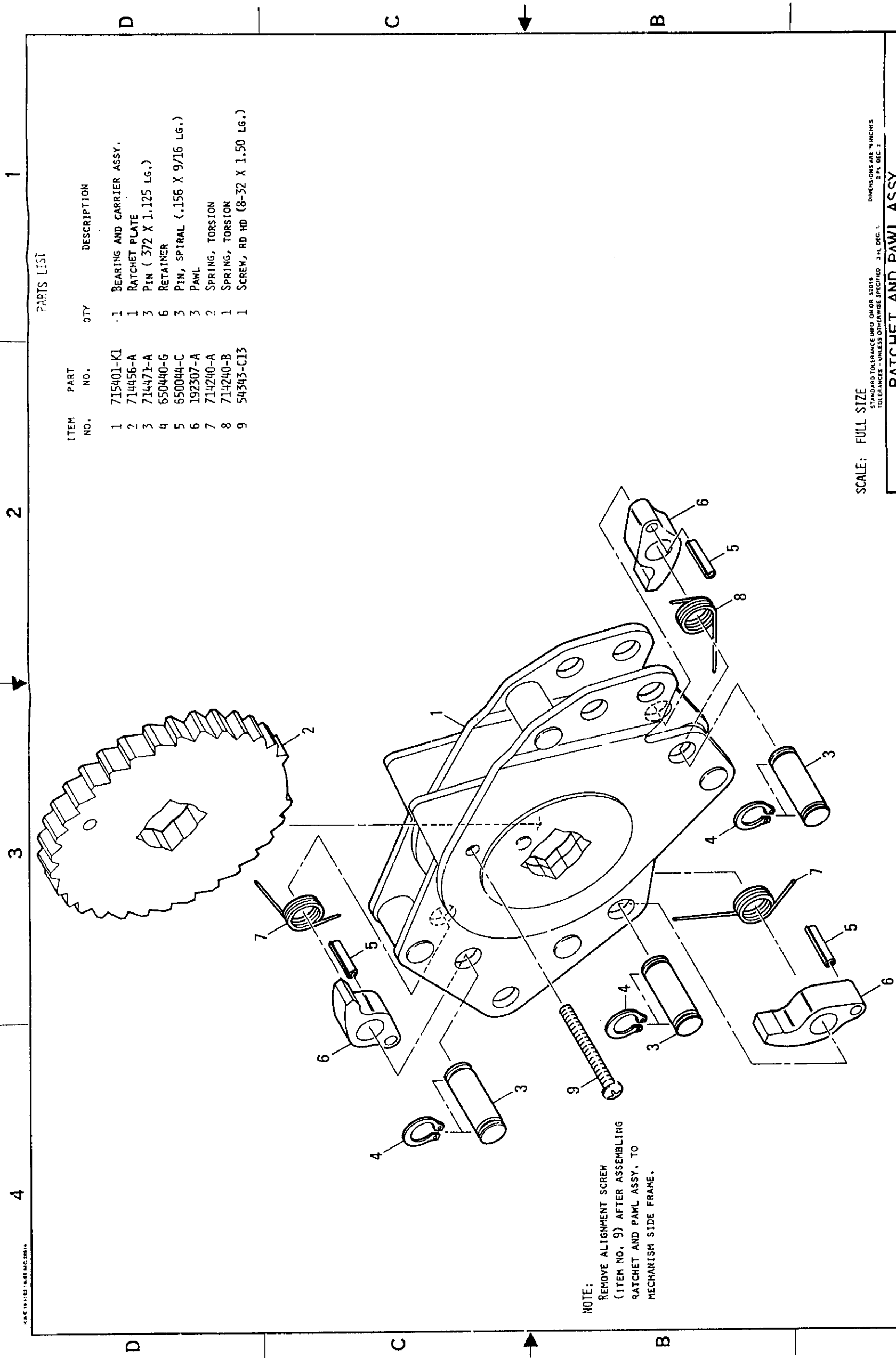




NOTE:
REMOVE ALIGNMENT SCREW
(ITEM NO. 9) AFTER ASSEMBLING
RATCHET AND PAWL ASSY. TO
MECHANISM SIDE FRAME.

PARTS LIST

ITEM NO.	PART NO.	QTY	DESCRIPTION
1	715401-K1	1	BEARING AND CARRIER ASSY.
2	714456-A	1	RATCHET PLATE
3	714471-A	3	PIN (.372 X 1.125 LG.)
4	650440-G	6	RETAINER
5	650044-C	3	PIN, SPIRAL (.156 X 9/16 LG.)
6	192307-A	3	PAWL
7	714240-A	2	SPRING, TORSION
8	714240-B	1	SPRING, TORSION
9	54343-C13	1	SCREW, RD HD (8-32 X 1.50 LG.)

SCALE: FULL SIZE
STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED 3 PL. DEC. 1
DIMENSIONS ARE IN INCHES
TOLERANCES - UNLESS OTHERWISE SPECIFIED 3 PL. DEC. 1

(T12)		RATCHET AND PAWL ASSY.		LK		A	
BBC		Brown Boveri Electric, Inc.		L-11509		2	
Brown Boveri		Manufacturer of I.T.E. Electrical Power Equipment		SHEET NO. 1 of 1		REV	
NEW L-11819		BY <i>L. Ayer</i>		DATE <i>7-8-82</i>		APPROVED <i>APR 1982</i>	
S.O.		DATE <i>7-19-82</i>		DATE <i>7-19-82</i>		MICRO	
EPL 713913-112		DATE <i>7-19-82</i>		DATE <i>7-19-82</i>		DATE <i>7-19-82</i>	
REVISED & REDRAWN (NEW CONFIG.)		BY & DATE		REVISIONS		BY & DATE	
2		BY & DATE		REVISIONS		BY & DATE	
NO.		NO.		NO.		NO.	

4

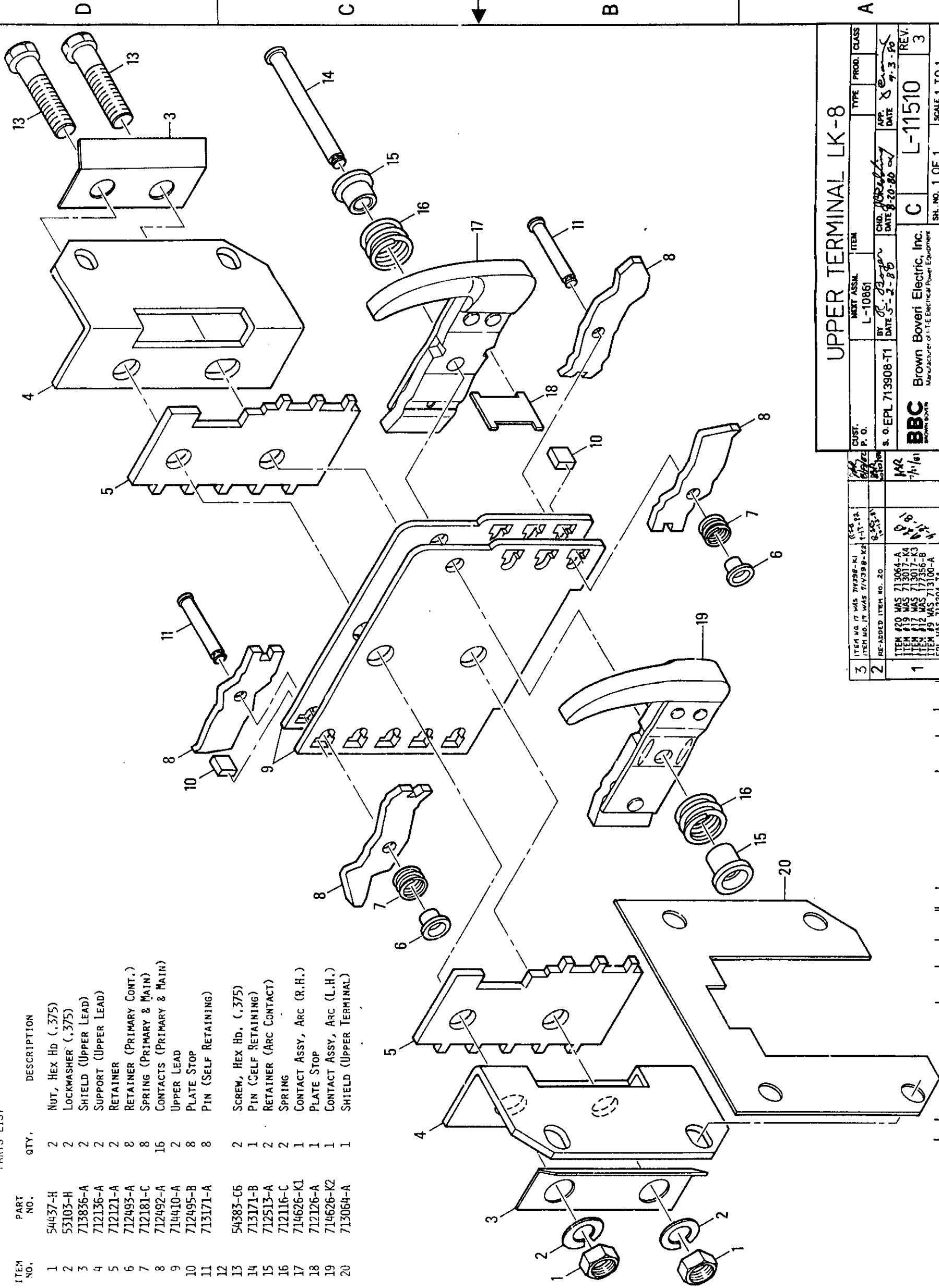
3

2

1

PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	54437-H	2	NUT, Hex Hd (.375)
2	53103-H	2	LOCKWASHER (.375)
3	713836-A	2	SHIELD (UPPER LEAD)
4	712136-A	2	SUPPORT (UPPER LEAD)
5	712121-A	2	RETAINER
6	712493-A	8	RETAINER (PRIMARY CONT.)
7	712181-C	8	SPRING (PRIMARY & MAIN)
8	712492-A	16	CONTACTS (PRIMARY & MAIN)
9	714410-A	2	UPPER LEAD
10	712495-B	8	PLATE STOP
11	713171-A	8	PIN (SELF RETAINING)
12			
13	54383-C6	2	SCREW, Hex Hd. (.375)
14	713171-B	1	PIN (SELF RETAINING)
15	712513-A	2	RETAINER (ARC CONTACT)
16	712116-C	2	SPRING
17	714626-K1	1	CONTACT ASSY, ARC (R.H.)
18	712126-A	1	PLATE STOP
19	714626-K2	1	CONTACT ASSY, ARC (L.H.)
20	713064-A	1	SHIELD (UPPER TERMINAL)



UPPER TERMINAL LK-8

ITEM	NO.	REV.	DATE	BY	CHKD.	APP.	REVISIONS	NO.	DATE	BY	CHKD.	APP.
3	1	1	8-20-80	W. J. B. / J. B. / J. B.								
2	1	1	8-20-80	W. J. B. / J. B. / J. B.								
1	1	1	8-20-80	W. J. B. / J. B. / J. B.								

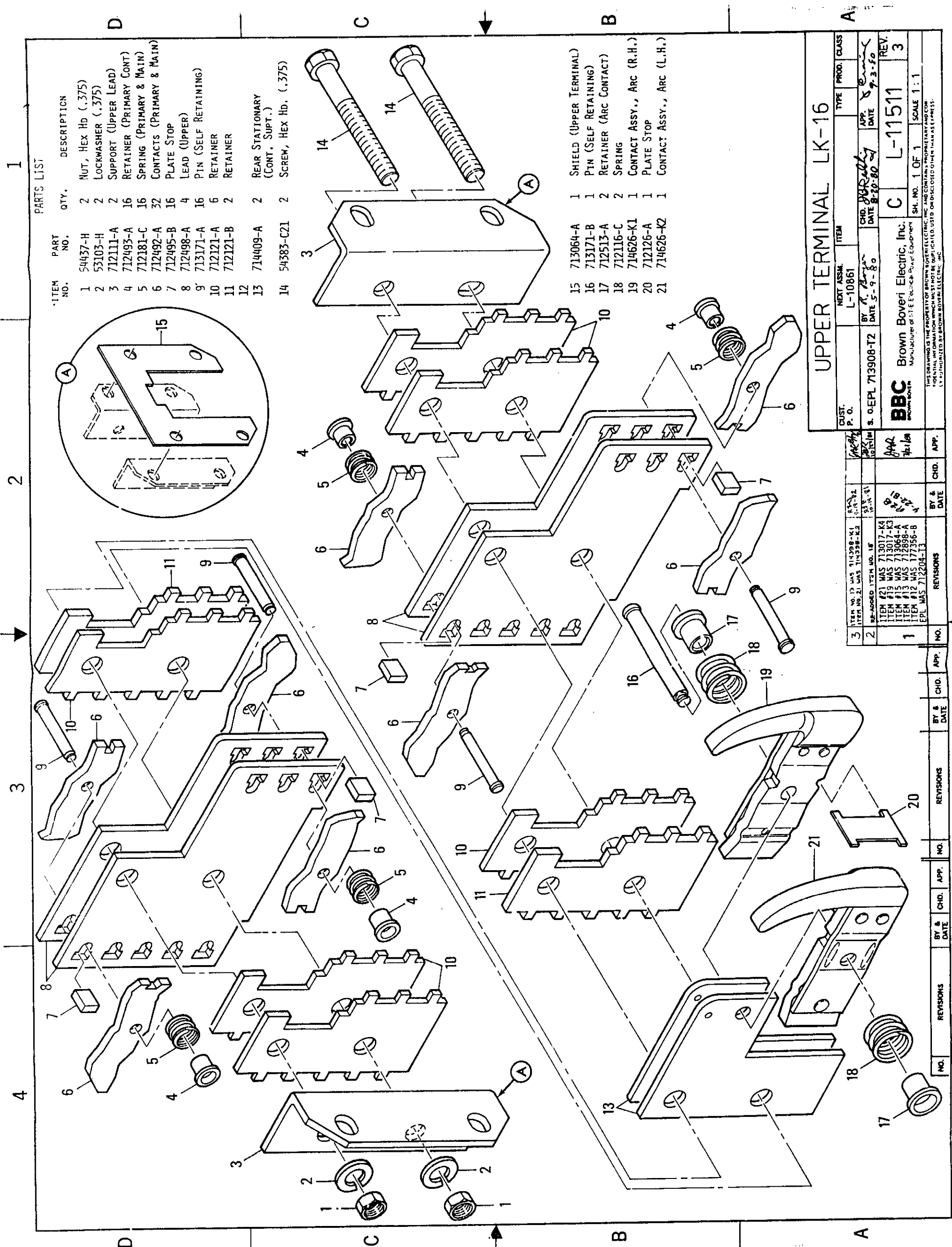
CUST.	ITEM	TYPE	CLASS
3	0 EPL 713908-T1	BY J. B. / J. B. / J. B.	DATE 8-20-80
3	0 EPL 713908-T1	BY J. B. / J. B. / J. B.	DATE 8-20-80
3	0 EPL 713908-T1	BY J. B. / J. B. / J. B.	DATE 8-20-80

NO.	REV.	DATE	BY	CHKD.	APP.
3	1	8-20-80	W. J. B. / J. B. / J. B.		
2	1	8-20-80	W. J. B. / J. B. / J. B.		
1	1	8-20-80	W. J. B. / J. B. / J. B.		

NO.	REV.	DATE	BY	CHKD.	APP.
3	1	8-20-80	W. J. B. / J. B. / J. B.		
2	1	8-20-80	W. J. B. / J. B. / J. B.		
1	1	8-20-80	W. J. B. / J. B. / J. B.		

NO.	REV.	DATE	BY	CHKD.	APP.
3	1	8-20-80	W. J. B. / J. B. / J. B.		
2	1	8-20-80	W. J. B. / J. B. / J. B.		
1	1	8-20-80	W. J. B. / J. B. / J. B.		

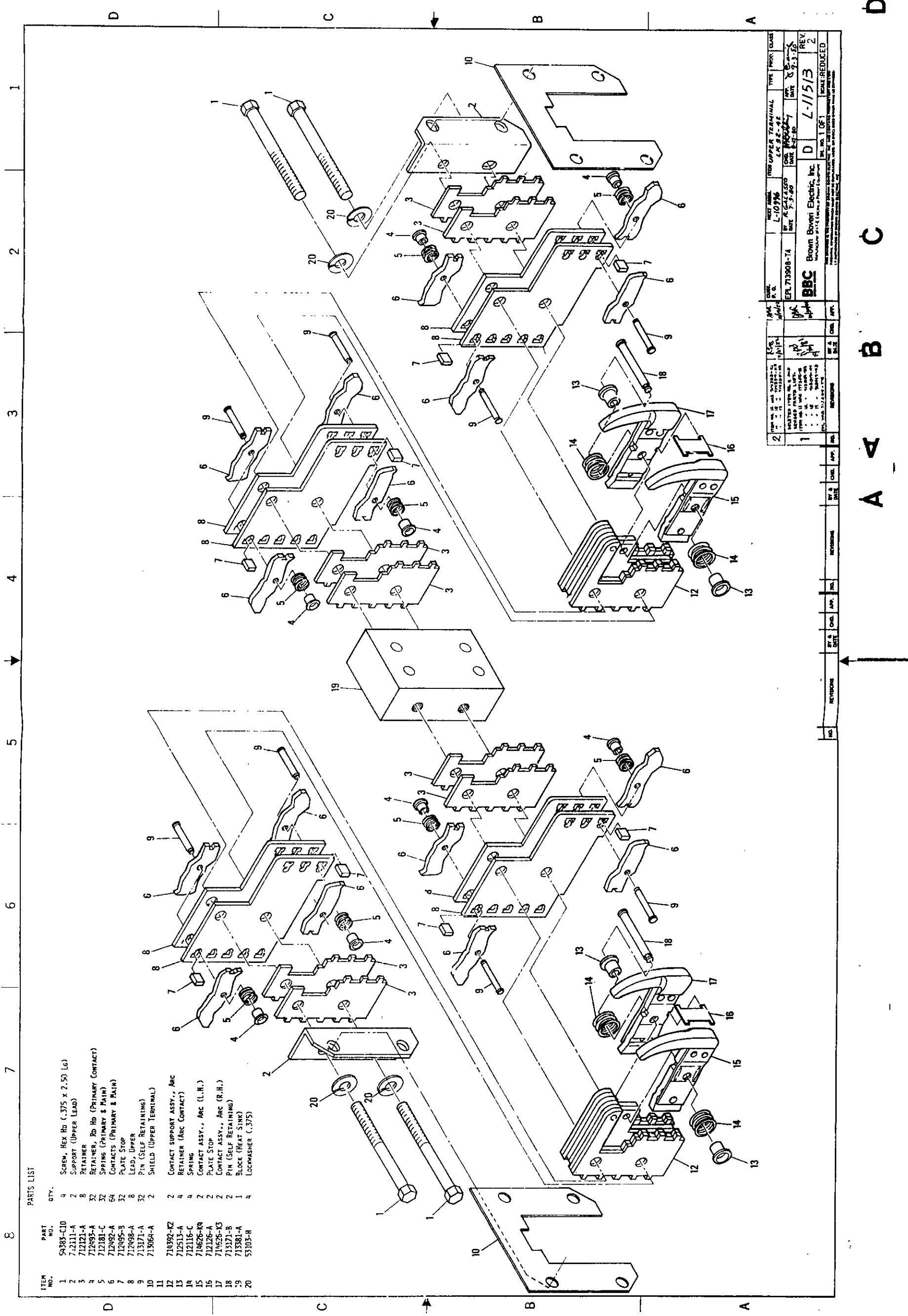
NO.	REV.	DATE	BY	CHKD.	APP.
3	1	8-20-80	W. J. B. / J. B. / J. B.		
2	1	8-20-80	W. J. B. / J. B. / J. B.		
1	1	8-20-80	W. J. B. / J. B. / J. B.		



PARTS LIST		
ITEM NO.	PART NO.	DESCRIPTION
1	54437-H	NUT, HEX Hd (.375)
2	53103-H	LOCKWASHER (.375)
3	712111-A	SUPPORT (UPPER LEAD)
4	712493-A	RETAINER (PRIMARY CONT)
5	712181-C	SPRING (PRIMARY & MAIN)
6	712492-A	CONTACTS (PRIMARY & MAIN)
7	712495-B	PLATE STOP
8	712498-A	LEAD (UPPER)
9	713171-A	PIN (SELF RETAINING)
10	712121-A	RETAINER
11	712121-B	RETAINER
12		
13	714409-A	REAR STATIONARY (CONT. SUPT.)
14	54383-C21	SCREW, HEX Hd. (.375)

15	713064-A	SHIELD (UPPER TERMINAL)
16	713171-B	PIN (SELF RETAINING)
17	712513-A	RETAINER (ARC CONTACT)
18	712116-C	SPRING
19	714626-K1	CONTACT ASSY., ARC (R.H.)
20	712126-A	PLATE STOP
21	714626-K2	CONTACT ASSY., ARC (L.H.)

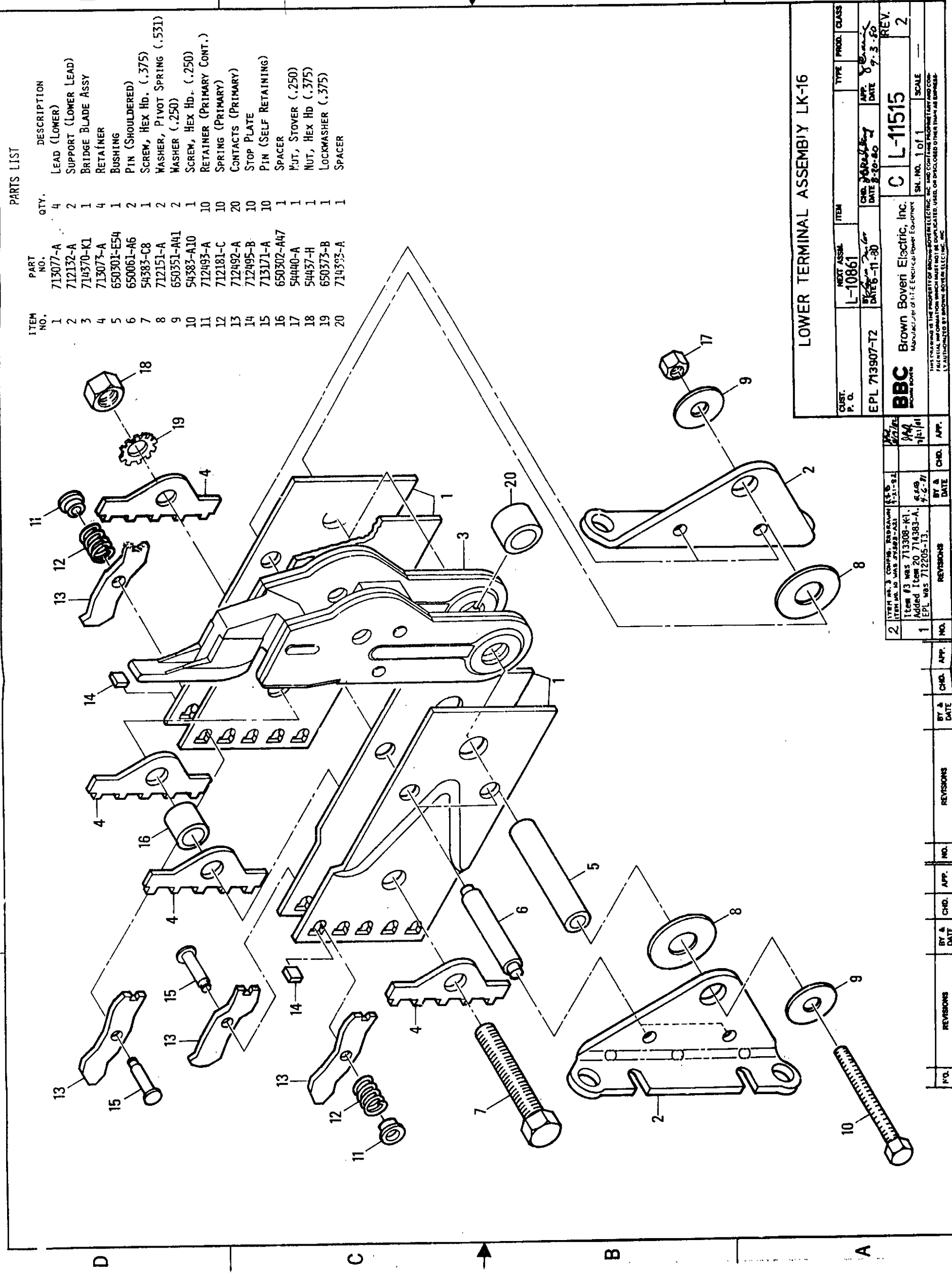
UPPER TERMINAL LK-16			
CUST. P. O.	ITEM	TYPE	CLASS
8-EPL 713908-T2	L-10861		
BY: <i>R. Berger</i>	CHD. <i>8/20/80</i>	APP. <i>8/20/80</i>	REV. <i>3</i>
DATE: 5-9-80	DATE: 8-20-80	DATE: 8-20-80	REV. <i>3</i>
BROWN BOVERI		C L-11511	
Brown Boveri Electric, Inc.		SH. NO. 1 OF 1	
Manufacturer of L.T.E. Electric Power Equipment		SCALE 1:1	
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NO.	REV.	BY & DATE	CHD. APP.
3	1	8/20/80	
2	1	8/20/80	
1	1	8/20/80	

[illegible]

NO.	REVISED		BY & DATE		CHG.	APP.
	NO.	CHG.	BY & DATE	CHG.		

1 2 3 4

D C B A



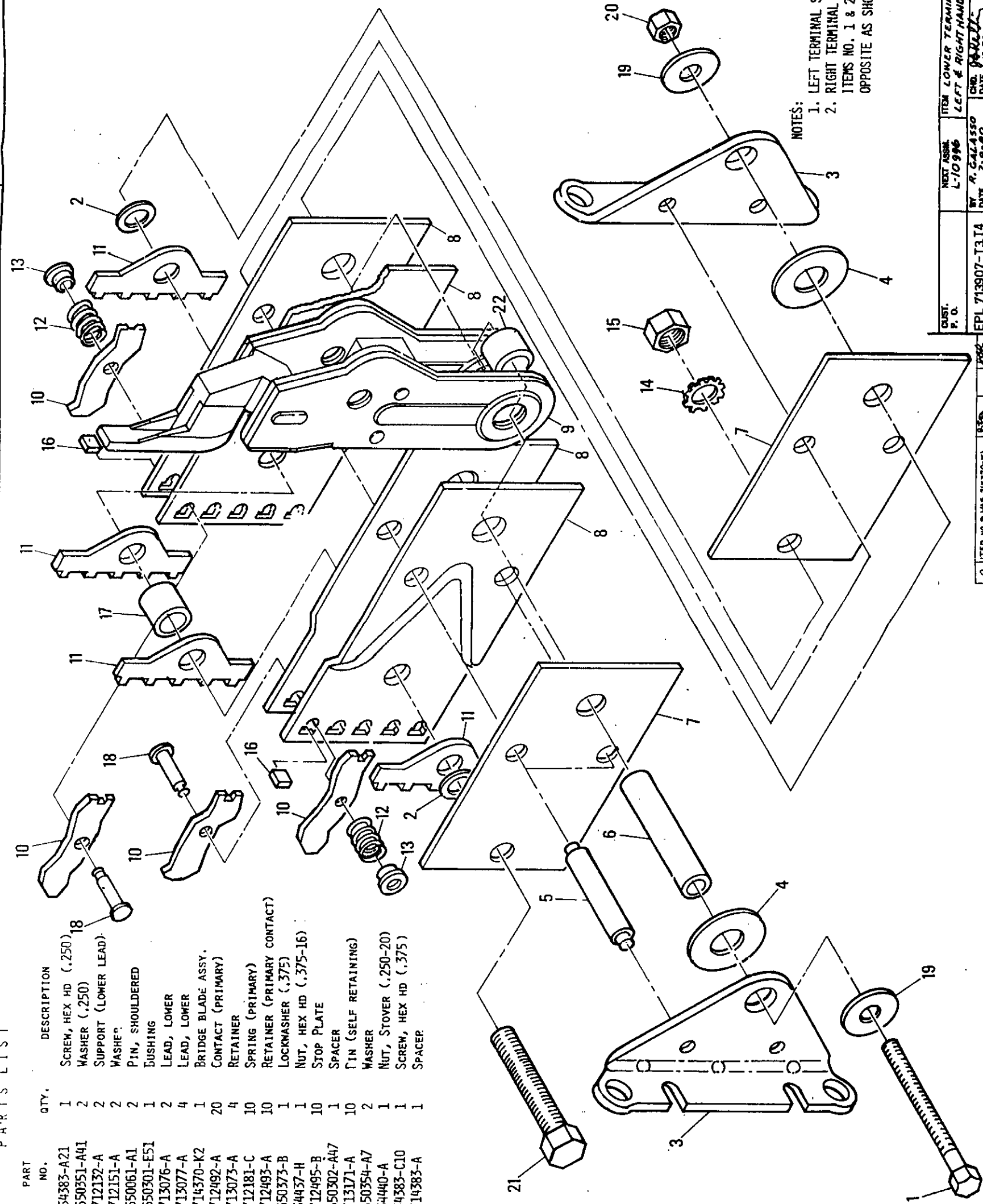
PARTS LIST		
ITEM NO.	PART NO.	DESCRIPTION
1	713077-A	LEAD (LOWER)
2	712132-A	SUPPORT (LOWER LEAD)
3	714370-K1	BRIDGE BLADE ASSY
4	713073-A	RETAINER
5	650301-E54	BUSHING
6	650061-A6	PIN (SHOULDERED)
7	54383-C8	SCREW, HEX HD. (.375)
8	712151-A	WASHER, PIVOT SPRING (.531)
9	650351-A41	WASHER (.250)
10	54383-A10	SCREW, HEX HD. (.250)
11	712493-A	RETAINER (PRIMARY CONT.)
12	712181-C	SPRING (PRIMARY)
13	712492-A	CONTACTS (PRIMARY)
14	712495-B	STOP PLATE
15	713171-A	PIN (SELF RETAINING)
16	650302-A47	SPACER
17	54440-A	NUT, STOVER (.250)
18	54437-H	NUT, HEX HD (.375)
19	650373-B	LOCKWASHER (.375)
20	714393-A	SPACER

LOWER TERMINAL ASSEMBLY LK-16			
CLUST. P. O.	ITEM	TYPE	PROD. CLASS
EPL 713907-T2	L-10861		
DATE 6-11-80	DATE 8-20-80	APP. 8-20-80	REV. 2
C L-11515		SCALE 1 of 1	
BBC Brown Boveri Electric, Inc.			
Manufacturer of 11-E Electrical Power Equipment			
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NO.	REVISIONS	BY & DATE	APP.	NO.	REVISIONS	BY & DATE	APP.
1	Added Item 20 714383-A.	8-2-80	7/11/81	2	Item #3 CONFIRM. REVISION	8-2-80	7/11/81
2	Item #3 was 713308-K1.	8-2-80	7/11/81				

PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	54383-A21	1	SCREW, HEX HD (.250)
2	550351-A41	2	WASHER (.250)
3	712132-A	2	SUPPORT (LOWER LEAD)
4	712151-A	2	WASHER
5	550061-A1	2	PIN, SHOULDERED
6	550301-E51	1	BUSHING
7	713076-A	2	LEAD, LOWER
8	713077-A	4	LEAD, LOWER
9	714370-K2	1	BRIDGE BLADE ASSY.
10	712492-A	20	CONTACT (PRIMARY)
11	713073-A	4	RETAINER
12	712181-C	10	SPRING (PRIMARY)
13	712493-A	10	RETAINER (PRIMARY CONTACT)
14	550373-B	1	LOCKWASHER (.375)
15	54437-H	1	NUT, HEX HD (.375-16)
16	712495-B	10	STOP PLATE
17	550302-A47	1	SPACER
18	713171-A	10	PIN (SELF RETAINING)
19	550354-A7	2	WASHER
20	54440-A	1	NUT, STOVER (.250-20)
21	54383-C10	1	SCREW, HEX HD (.375)
22	714383-A	1	SPACER



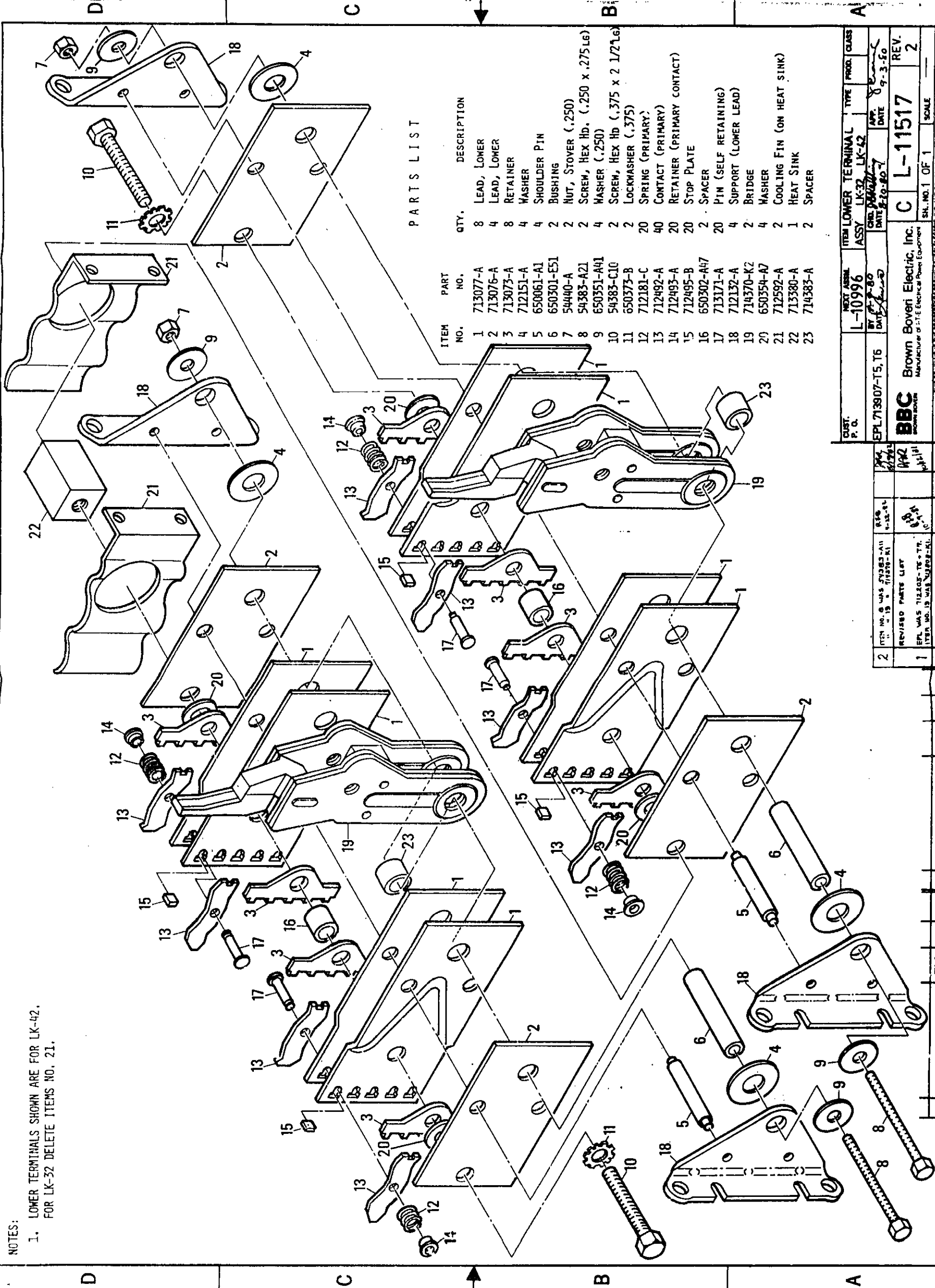
NOTES:
1. LEFT TERMINAL SHOWN.
2. RIGHT TERMINAL SAME AS LEFT EXCEPT
ITEMS NO. 1 & 21 ARE INSERTED
OPPOSITE AS SHOWN.

CLUST. P. O.	NEXT ASSM. L-10996	ITEM LOWER TERMINAL LEFT & RIGHT HAND LINES	TYPE	PROD. CLASS
EPL 713907-T314	BY R. GALASSO	DATE 7-9-80	DATE 8-1-80	DATE 9-3-80
REV. C				REV. 2
BBC Brown Boveri Electric, Inc.				SCALE 1 OF 1
Manufacture of L.T.E. Electrical Equipment				
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NO.	REVISIONS	BY & DATE	CHD.	APP.	NO.	REVISIONS	BY & DATE	CHD.	APP.
1	EPL WAS 712205				1	EPL WAS 712205			
2	ITEM NO. 3 WAS 712205-K1				2	ITEM NO. 3 WAS 712205-K1			
3	ITEM NO. 1 WAS 712205-A11				3	ITEM NO. 1 WAS 712205-A11			

NOTES:

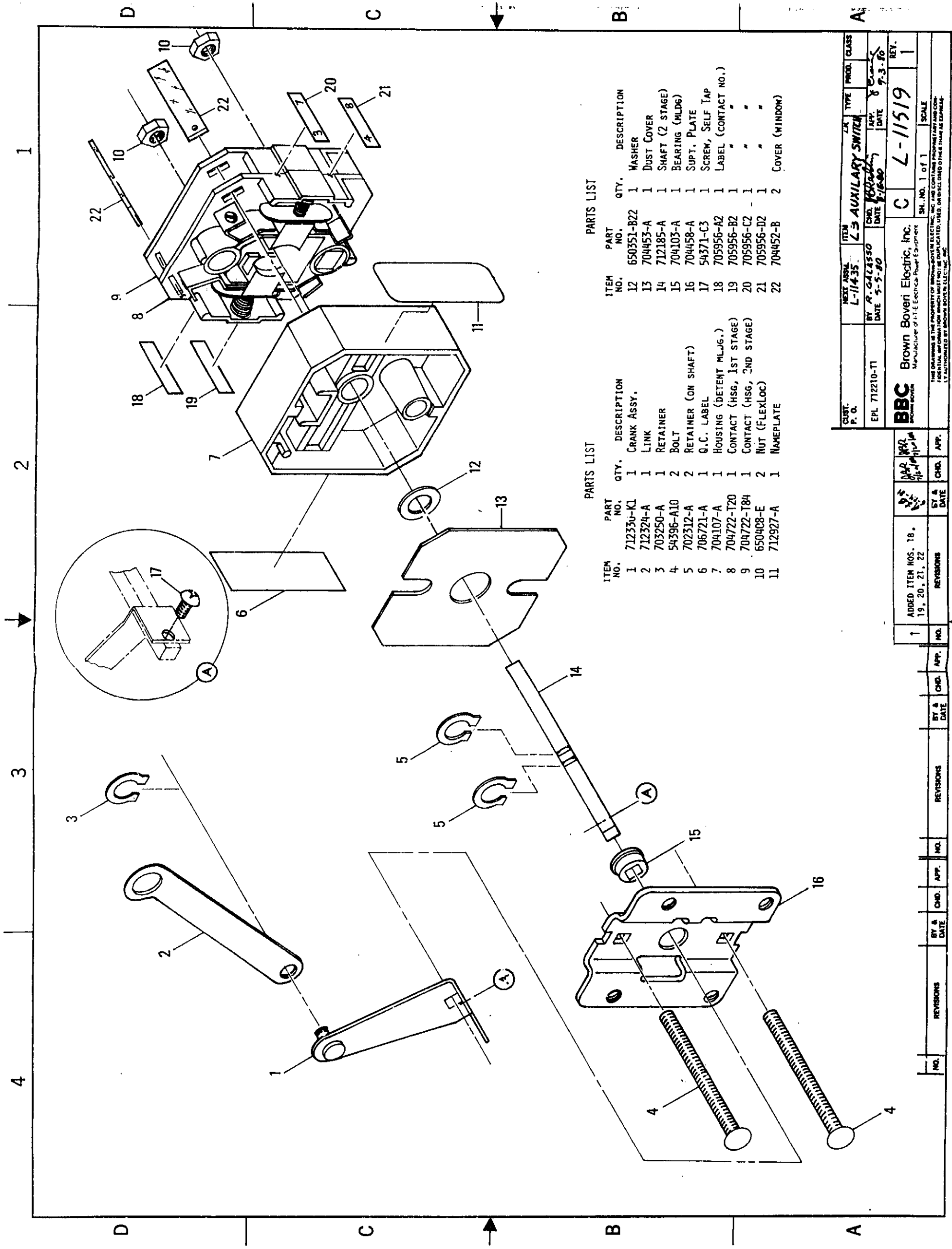
1. LOWER TERMINALS SHOWN ARE FOR LK-42,
FOR LK-32 DELETE ITEMS NO. 21.



PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	713077-A	LEAD, LOWER	8
2	713076-A	LEAD, LOWER	4
3	713073-A	RETAINER	8
4	712151-A	WASHER	4
5	650061-A1	SHOULDER PIN	4
6	650301-E51	BUSHING	2
7	54440-A	NUT, STOVER (.250)	2
8	54383-A21	SCREW, HEX HD. (.250 x .275 LG)	2
9	650351-A41	WASHER (.250)	4
10	54383-C10	SCREW, HEX HD (.375 x 2 1/2 LG)	2
11	650373-B	LOCKWASHER (.375)	2
12	712181-C	SPRING (PRIMARY)	20
13	712492-A	CONTACT (PRIMARY)	40
14	712493-A	RETAINER (PRIMARY CONTACT)	20
15	712495-B	STOP PLATE	20
16	650302-A47	SPACER	2
17	713171-A	PIN (SELF RETAINING)	20
18	712132-A	SUPPORT (LOWER LEAD)	4
19	714370-K2	BRIDGE	2
20	650354-A7	WASHER	4
21	712592-A	COOLING FIN (ON HEAT SINK)	2
22	713380-A	HEAT SINK	1
23	714383-A	SPACER	2

QTY.	ITEM	LOWER	TERMINAL	TYPE	PROD.	CLASS
L-10996	ASSY	LK-32	LK-42			
EPL 71307-T5, T6	BY DATE	7-10-60	DATE	7-10-60	DATE	7-10-60
2	REVISED PARTS LIST	BY DATE	7-10-60	DATE	7-10-60	DATE
1	EPL WAS 712492-T5, T6	BY DATE	7-10-60	DATE	7-10-60	DATE
BBC Brown Boveri Electric, Inc. Manufacturer of L-1-E Electrical Power Equipment						
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PARTS LIST			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	71233U-K1	1	CRANK ASSY.
2	712324-A	1	LINK
3	703250-A	1	RETAINER
4	54396-A10	2	BOLT
5	702312-A	2	RETAINER (ON SHAFT)
6	706721-A	1	O.C. LABEL
7	704107-A	1	HOUSING (DETENT MLDG.)
8	704722-T20	1	CONTACT (HSG, 1ST STAGE)
9	704722-T84	1	CONTACT (HSG, 2ND STAGE)
10	650408-E	2	NUT (FLEXLOC)
11	712927-A	1	NAMEPLATE
12	650351-B22	1	WASHER
13	704453-A	1	DUST COVER
14	712185-A	1	SHAFT (2 STAGE)
15	704103-A	1	BEARING (MLD6)
16	704458-A	1	SUPT. PLATE
17	54371-C3	1	SCREW, SELF TAP
18	705956-A2	1	LABEL (CONTACT NO.)
19	705956-B2	1	"
20	705956-C2	1	"
21	705956-D2	1	"
22	704452-B	2	COVER (WINDOW)

CURT. P. O.	ITEM L-3 AUXILIARY SWITCH	CLASS	SCALE
EPL 712210-T1	BY R. GALASSO	DATE 5-5-80	APPROVED 7-3-80
BROWN BOVENI ELECTRIC, INC.		REV. C	L-11519
MANUFACTURER OF I.T.E. ELECTRICAL POWER EQUIPMENT		SH. NO. 1 of 1	SCALE
THIS DRAWING IS THE PROPERTY OF BROWN BOVENI ELECTRIC, INC. AND CONTAINS PROPRIETARY INFORMATION. IT IS TO BE KEPT IN CONFIDENTIALITY AND NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT THE WRITTEN AUTHORIZATION OF BROWN BOVENI ELECTRIC, INC.			
NO.	REVISIONS	BY & DATE	CHD. APP.
1	ADDED ITEM NOS. 18, 19, 20, 21, 22		

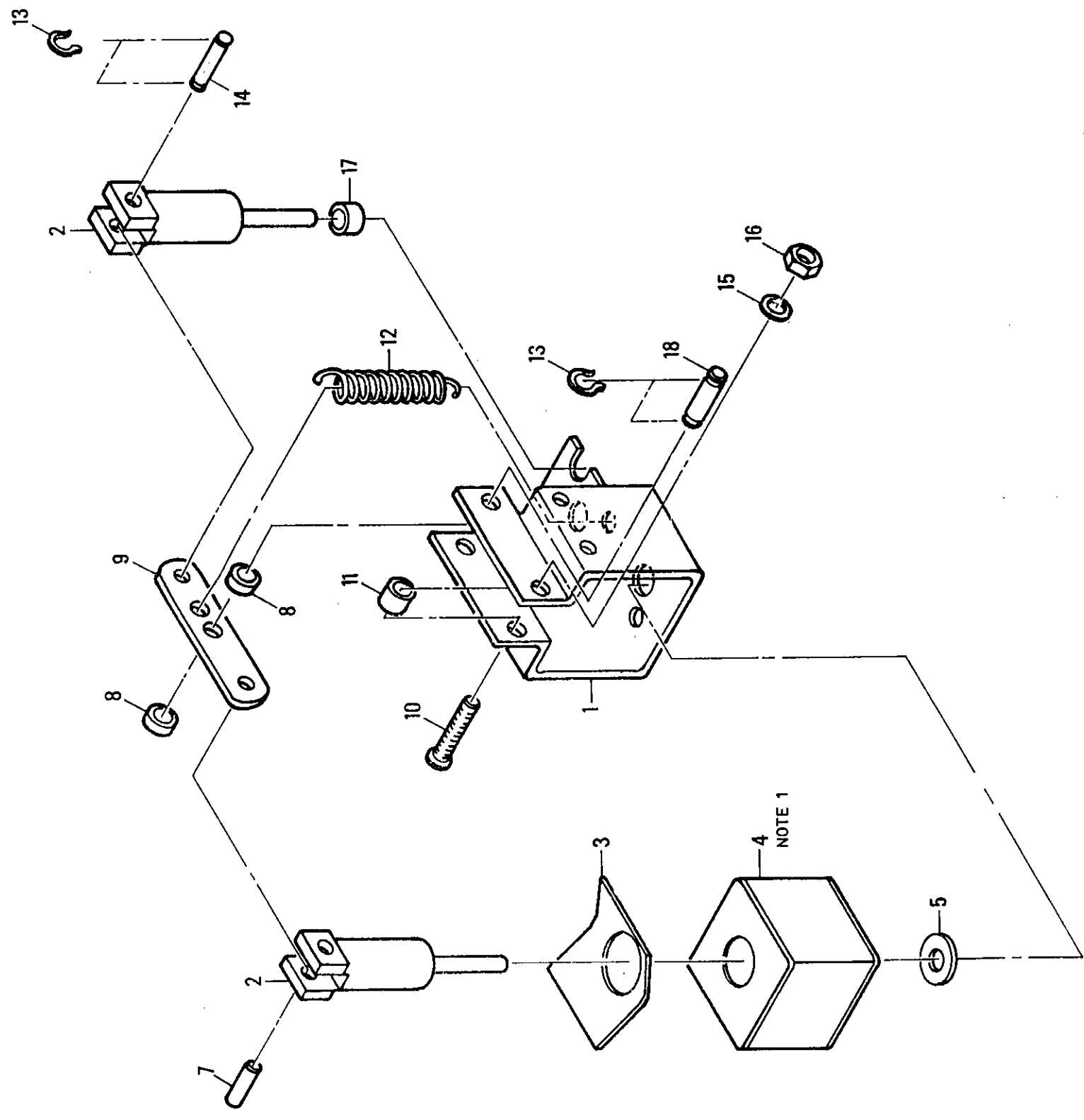
4 3 2 1

PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION.
1	713837-K1	1	FRAME ASSY
2	712432-K1	2	PLUNGER ASSY.
3	712427-A	1	RETAINER, COIL
4	712438-XX	1	COIL
5	650352-AH2	1	WASHER
6			
7	640030-B	1	PIN
8	650301-E46	2	BUSHING
9	712429-A	1	LINK
10	54343-D10	1	SCREW, Rd. Hd. (#10-32)
11	650301-E47	1	BUSHING
12	50402-B40	1	SPRING, EXT.
13	703156-A	2	RETAINER
14	650051	1	PIN
15	53103-E	1	LOCKWASHER (#10)
16	54400-D	1	NUT, HEX (#10-32)
17	713109-A	1	BUSHING
18	650051-A24	1	PIN

NOTES:

1. ITEM No. 4 (COILS). USE PER
EPL 712214 (T1, T3, T6, T7, T8, T9, & T12)

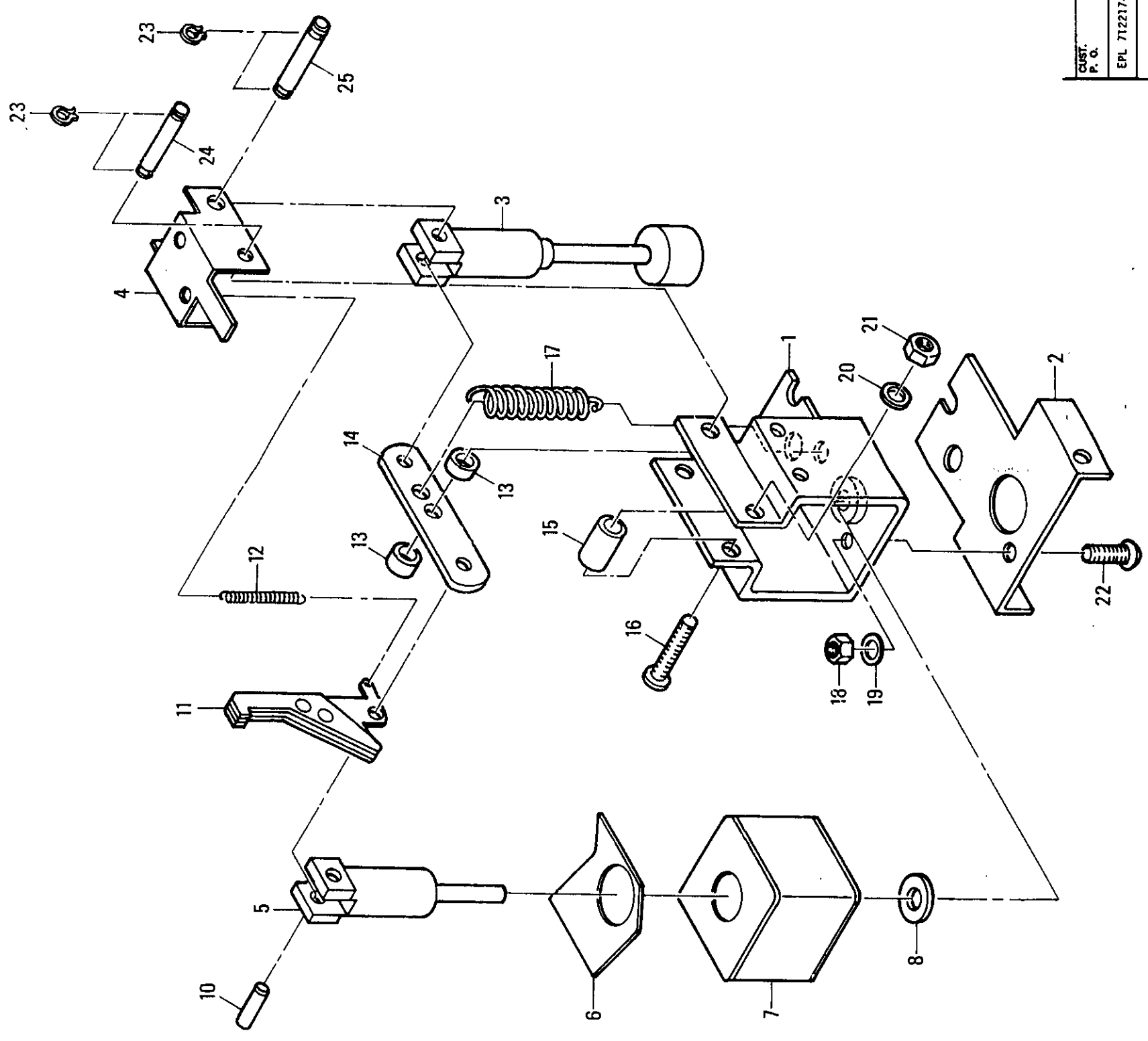


CUST. P. O.	ITEM	SHUNT	TRIP	TYPE	PRD.	CLASS
EPL 712214-T10	L-11303			LK		
DATE 3-16-80	DATE 8-28-80	DATE 9-3-80	DATE 9-3-80	DATE 9-3-80	DATE 9-3-80	DATE 9-3-80
BBC Brown Boveri Electric, Inc.			REV. 1			
ITEM 10 WAS 54373-D10			SCALE 1/1			
ITEM 17 WAS 712432-K1						
ADDED NOTE 1						
ITEM NO. 6 DELETED						
NO.	REV.	BY & DATE	CHD.	NO.	REV.	BY & DATE
1						

1 2 3 4

PARTS LIST

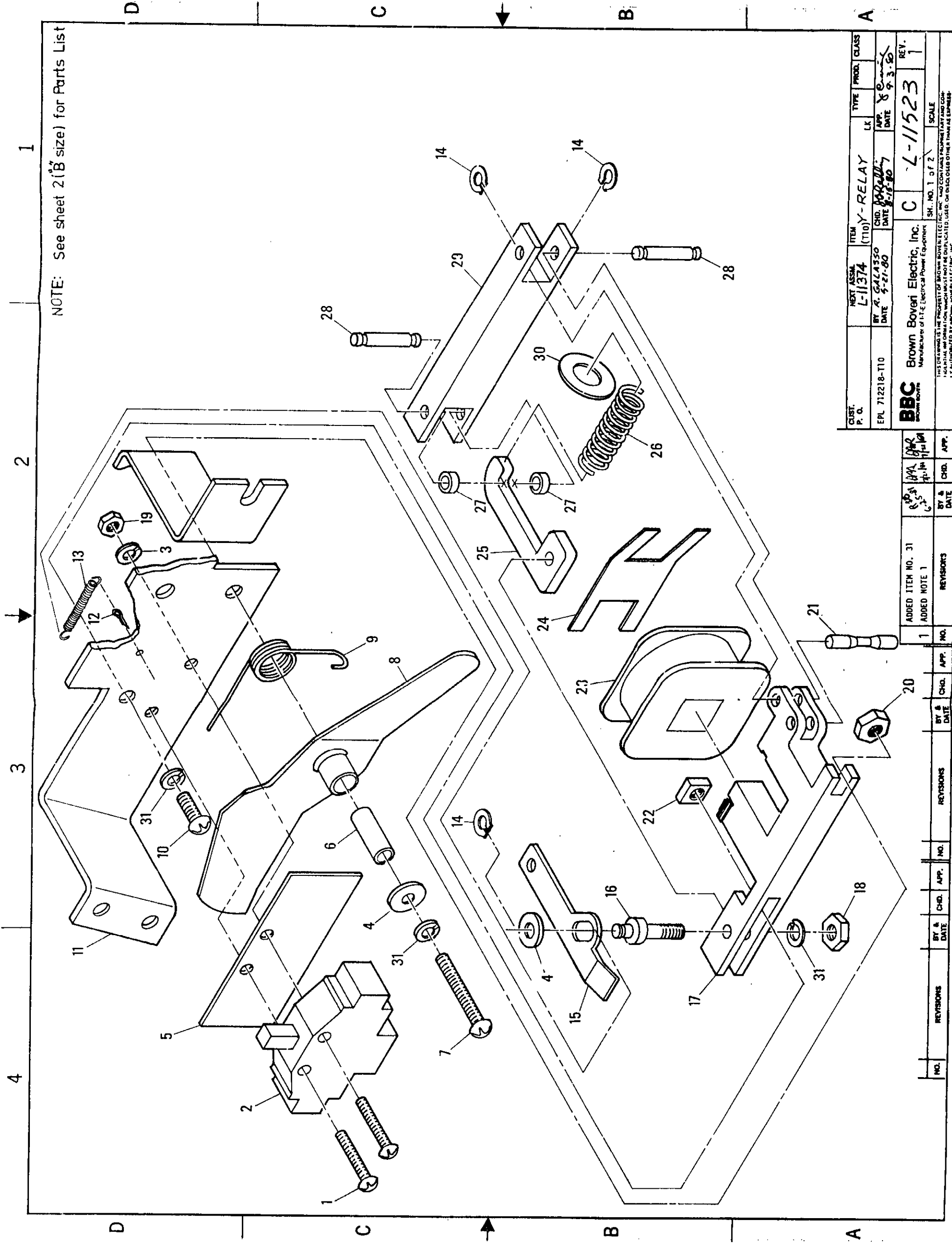
ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	713837-K1	1	FRAME ASSY.
2	713093-A	1	SUPPORT
3	712432-K3	1	PLUNGER ASSY.
4	713106-A	1	SUPPORT, SPRING
5	712432-K1	1	PLUNGER ASSY.
6	712427-A	1	RETAINER, COIL
7	712438-XX	1	COIL
8	650352-A42	1	WASHER
9			
10	650030-B	1	PIN
11	713838-K1	1	HOOK ASSY.
12	713320-A	1	SPRING, EXT.
13	650301-E46	2	BUSHING
14	712429-A	1	LINK
15	550301-E47	1	BUSHING
16	54343-D10	1	SCREW, Rd. Hd. (#10-32 x 1")
17	50402-B40	1	SPRING, EXT.
18	54400-F	1	NUT, Hex (.250)
19	53103-F	1	LOCKWASHER (.250)
20	53103-E	1	LOCKWASHER (#10)
21	54400-D	1	NUT, Hex (#10-32)
22	54343-F6	1	SCREW, Rd. Hd. (.250 x .50 LG.)
23	703156-A	4	RETAINER
24	550051-A24	1	PIN
25	650051-A23	1	PIN



NOTES:
1. Use Items No. 6 & 7 AS PER
EPL 712217-11, 13, 16, 17, 18, 19 & 112.

CUST. P. O.	ITEM	CLOSE	COIL	TYPE	PROD. CLASS	REV	1
EPL 712217-110	L-1135						
DATE 5-27-80	DATE 8-20-80	DATE 8-20-80	DATE 8-20-80	DATE 8-20-80	DATE 8-20-80	DATE 8-20-80	DATE 8-20-80
Brown Boveri Electric, Inc.						C L-11522	
MANUFACTURER OF L.E. ELECTRICAL POWER EQUIPMENT						SCALE	
1. Use drawings of the product of Brown Boveri Electric, Inc. and contains proprietary data and information which must not be divulged to any other person without the express written authorization of Brown Boveri Electric, Inc.						1	

NO.	REVISIONS	BY & DATE	CHD.	APP.	NO.	REVISIONS	BY & DATE	CHD.	APP.
1	Item No. 9 deleted (was 713834-A)	8/23/81	8/23/81	8/23/81	1				



NOTE: See sheet 2 (B size) for Parts List

CUST. P. O.	ITEM	TYPE	PROD. CLASS
EPL 71218-T10	L-11374	Y-RELAY	LK
BY G. GALASSO	DATE 9-21-80	CHD. DATE 8-18-80	APP. DATE 8-3-80
REV. 1		REV. 1	
C		L-11523	
Brown Boveri Electric, Inc.		SH. NO. 1 OF 2	
Manufacturers of Electrical Power Equipment		SCALE	
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NO.	REV. NO.	BY & DATE	APP.	NO.	REV. NO.	BY & DATE	APP.	NO.	REV. NO.	BY & DATE	APP.
1	1	CHD. DATE 8-18-80	APP. DATE 8-3-80	1	1	CHD. DATE 8-18-80	APP. DATE 8-3-80	1	1	CHD. DATE 8-18-80	APP. DATE 8-3-80
ADDED ITEM NO. 31											
ADDED NOTE 1											

(T10)

"Y" RELAY

LK

BBC

Brown Boveri Electric, Inc.

Manufacturer of I-T-E Electrical Power Equipment

NEAT L-11374

S.O.

EPL 712218-T10

BY *R. Boyer*

DATE 6-25-81

CHD. *H. Kelly*

DATE 6-25-81

SHEET NO. 2 OF 2

CONT. ON

REV. 1

APPROVED

DATE 6-25-81

DATE 6-25-81

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STANDARD TOLERANCE INFO. ON DR. 52018
TOLERANCES - UNLESS OTHERWISE SPECIFIED - 3 PL. DEC. ±
DIMENSIONS ARE IN INCHES
2 PL. DEC. ±

PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	54343-C10	2	SCREW, RD. HD. (#8-32 X 1")
2	706378-T1	1	SWITCH (N.O.)
3	53103-D	2	LOCKWASHER
4	54500-D	2	FLAT WASHER
5	707678-A	1	SHEET, INSUL.
6	640301-E59	1	BUSHING
7	54343-D13	1	SCREW, RD. HD. (#10-32 X 1.50 LG)
8	713391-K1	1	CRANK ASSY.
9	712161-B	1	SPRING, TORSION
10	54343-D7	1	SCREW, RD. HD. (#10-32 X .62 LG)
11	713388-A	1	PLATE, MOUNTING
12	53113-B1	1	COTTER PIN
13	712170-C	1	SPRING, EXT.
14	703156-A	5	RETAINER
15	713390-A	1	LINK, TRIP
16	712377-A	1	PIN (SHOULDERED)
17	713385-K1	1	MAGNET ASSY.
18	54400-D	1	NUT
19	54400-C	2	NUT
20	50369-F	1	NUT, FLEXLOC (#10-32)
21	650056-B	1	PIN
22	50374-E	1	NUT, SQUARE (#10-32)
23	713393-XX	1	COIL
24	713389-A	1	RETAINER, COIL

PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION
25	713439-A	1	LINK
26	712181-B	1	SPRING, COMP.
27	650301-B80	2	BUSHING
28	650051-A25	2	PIN
29	713387-K1	1	ARMATURE ASSY.
30	650351-A62	1	FLAT WASHER
31	53103-E	3	LOCKWASHER

NOTES:

1. USE ITEM NO. 23 (COILS) PER EPL 712218-T1, T3, T6, T7 & T8.

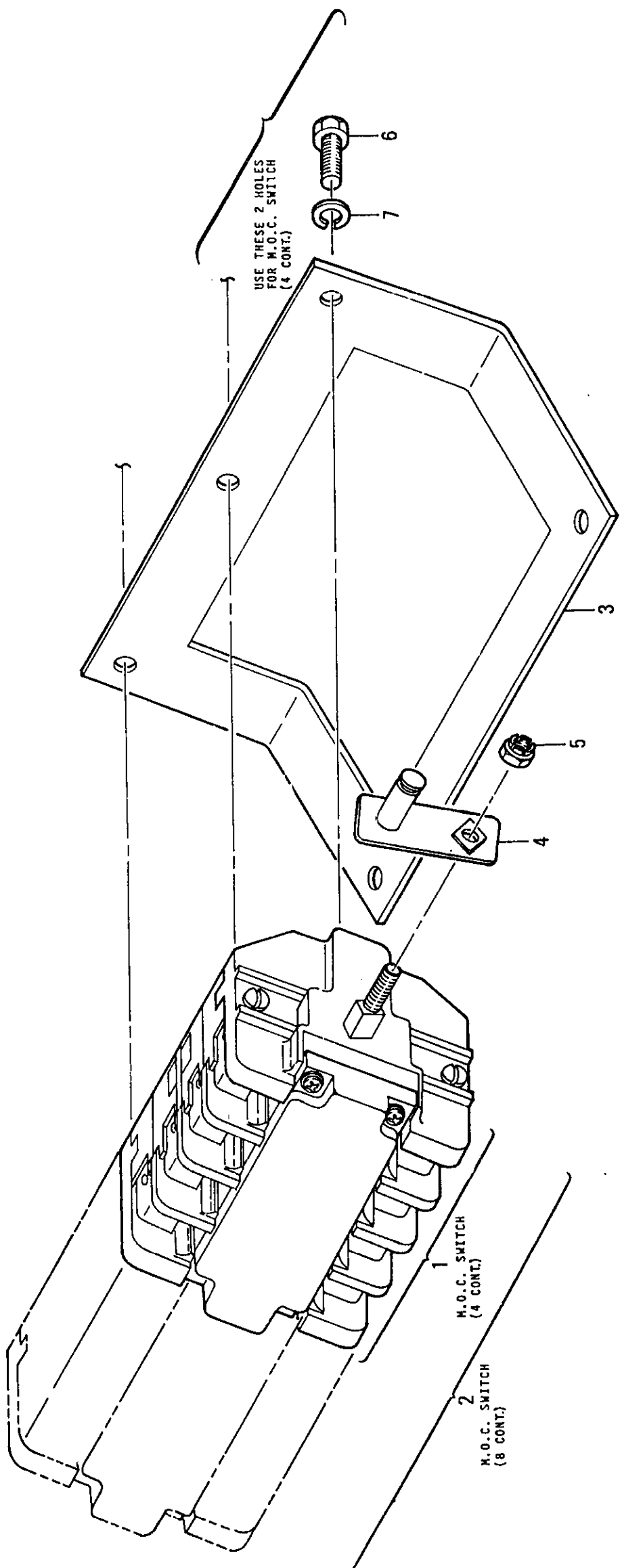
SHEET 1 OF 2 (C size)

WC3778

4 3 2 1

PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1.	700034-K1	1	AUX. SWITCH (4 CONT.)
2.	700038-K1	1	AUX. SWITCH (8 CONT.)
3.	713165-A	1	SWITCH SUPPORT
4.	713306-K1	1	CRANK
5.	650408-A	1	LOCKNUT (#10-32)
6.	54390-A1	2	SCREW (.250)
7.	53103-F	2	LOCKWASHER (.250)



M.O.C. SWITCH

(T1 & T2)

CLUST. P. O. L-10982

S. O. EPL 712224-T2 BY K. S. S. DATE 6-11-81

CHD. S. S. S. DATE 6-11-81

APPROVAL DATE 6-11-81

REV. 2

C L-11525

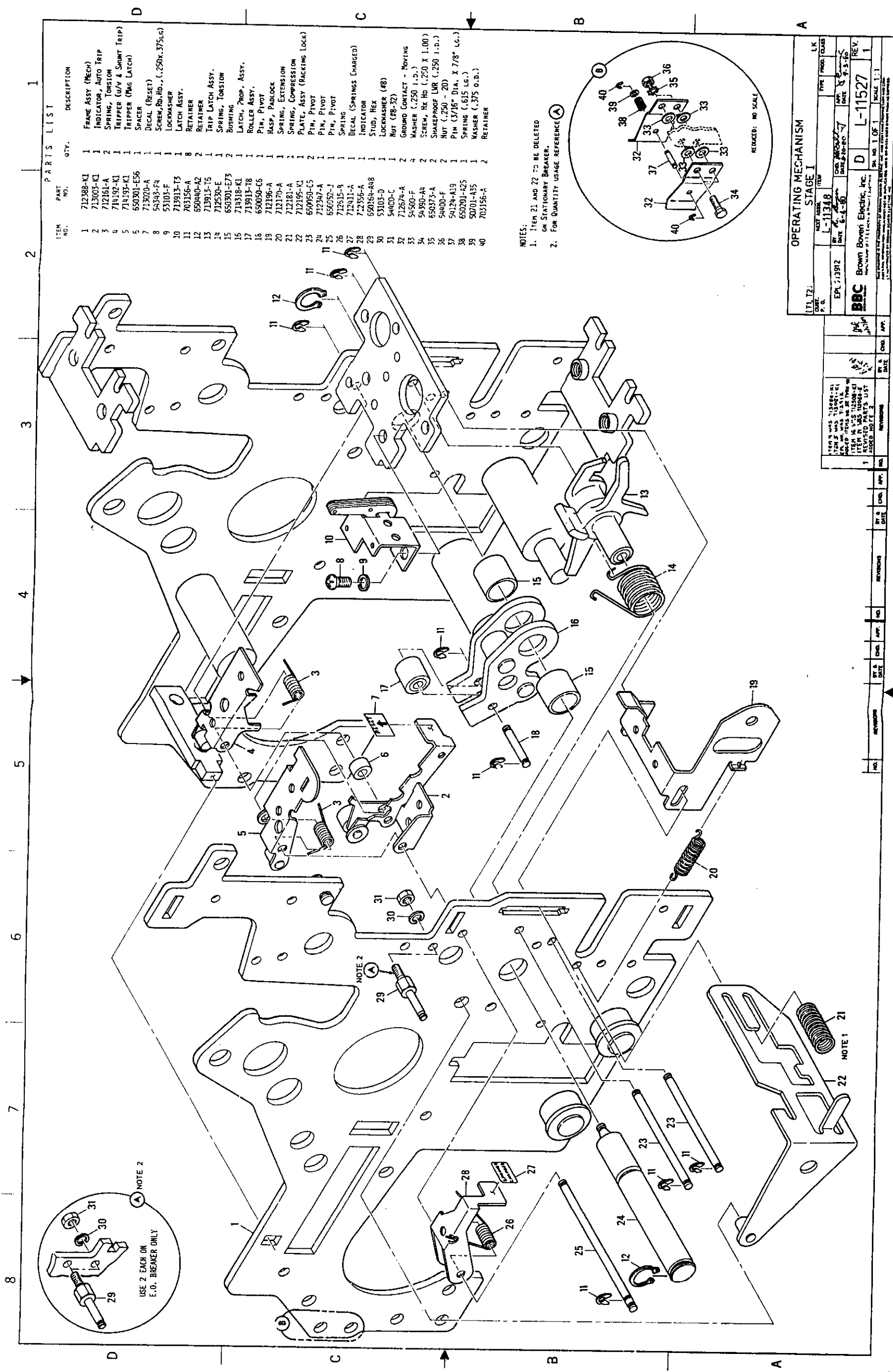
SH. NO. 1 of 1 SCALE 1:1

BBC Brown Boveri Electric, Inc.

Manufacture of L.T.E. Equip. for Power Equipment

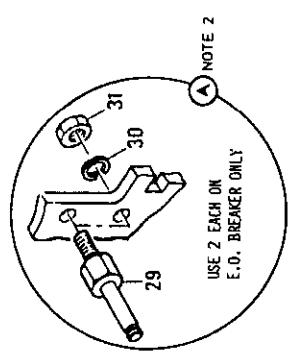
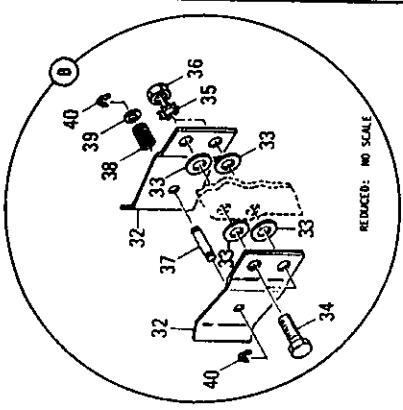
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NO.	REVISIONS	BY & DATE	APP.	NO.	REVISIONS	BY & DATE	APP.	NO.	REVISIONS	BY & DATE	APP.
2	REDRAWN & ITEM #4	6-22-81	APR	2	REDRAWN & ITEM #4	6-22-81	APR	2	REDRAWN & ITEM #4	6-22-81	APR
	713306-K1 was 713306-A1	6-11-81	APR		713306-K1 was 713306-A1	6-11-81	APR		713306-K1 was 713306-A1	6-11-81	APR



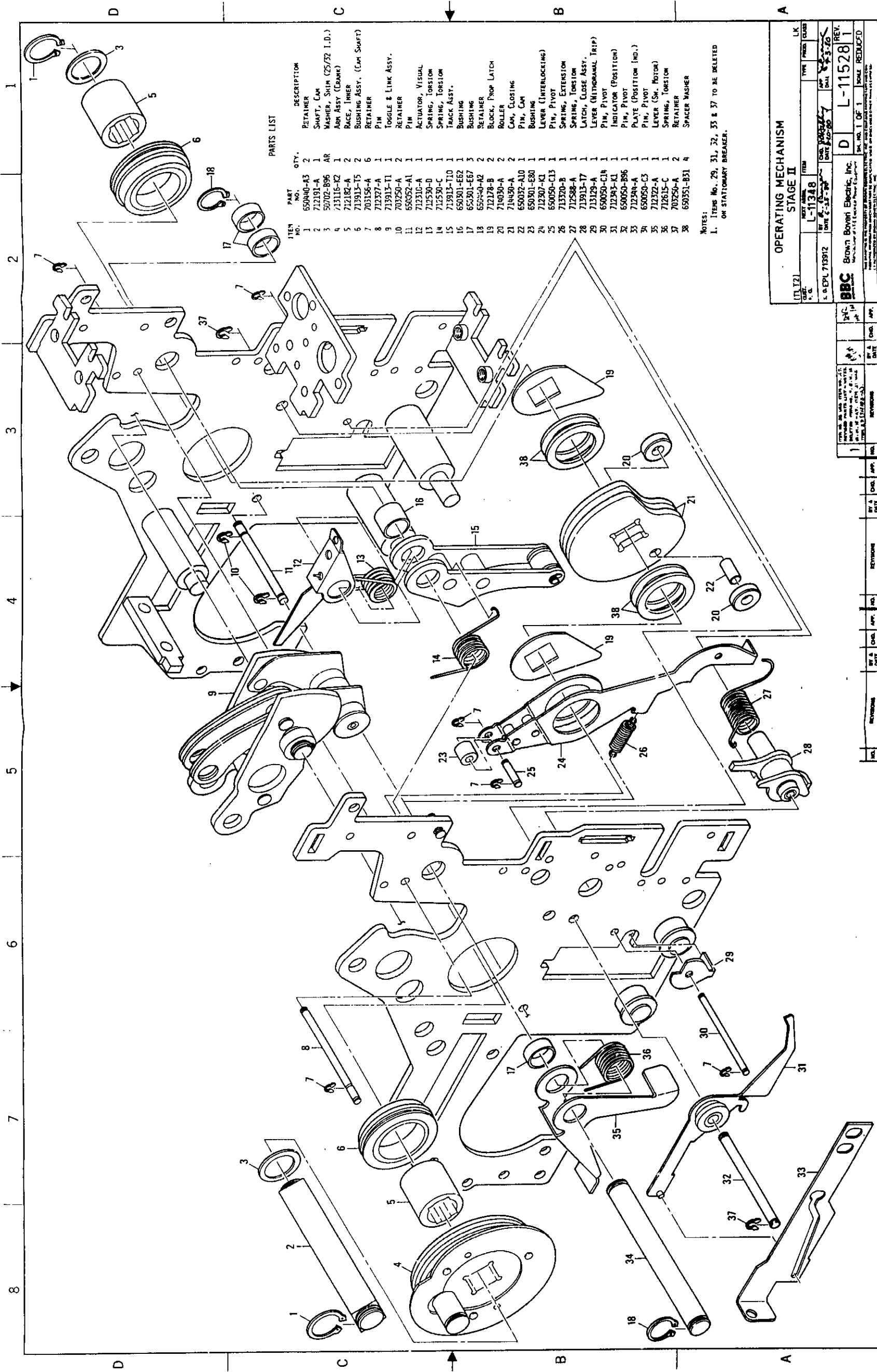
PARTS LIST			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	712388-K1	1	FRAME ASSY (MECH)
2	713003-K1	1	INDICATOR, AUTO TRIP
3	712161-A	2	SPRING, TENSION
4	714197-K1	1	TRIPPER (U/V & SHORT TRIP)
5	714198-K1	1	TRIPPER (MG LATCH)
6	650811-E56	1	SPACER
7	713020-A	1	DECAL (RESET)
8	54343-F4	1	SCREW, Po. Hd., (.250x.375 LG.)
9	53103-F	1	LOCKWASHER
10	713913-T3	1	LATCH ASSY.
11	703156-A	8	RETAINER
12	65040-A2	2	RETAINER
13	713913-T5	1	TRIP LATCH ASSY.
14	712530-E	1	SPRING, TENSION
15	650301-E73	2	BUSHING
16	714318-K1	1	LATCH, PROP. ASSY.
17	713913-T8	1	ROLLER ASSY.
18	65050-C6	1	PLATE, COMPRESSOR
19	712196-A	1	PLATE, ASSY (RACKING LOCK)
20	712170-A	1	PLATE, ASSY (RACKING LOCK)
21	712181-A	1	PLATE, ASSY (RACKING LOCK)
22	712195-K1	1	PLATE, ASSY (RACKING LOCK)
23	650950-C5	2	PLATE, ASSY (RACKING LOCK)
24	712347-A	1	PIN, PIVOT
25	650502-J	1	PIN, PIVOT
26	712615-B	1	PIN, PIVOT
27	712611-A	1	PIN, PIVOT
28	722556-A	1	DECAL (SPRINGS CHARGED)
29	650164-A48	1	INDICATOR
30	53103-D	1	STUD, HEX
31	54000-C	1	LOCKWASHER (#8)
32	712674-A	2	NUT (#8-32)
33	54500-F	2	GROUND CONTACT - MOVING
34	54500-A4	4	WASHER (.250 I.D.)
35	650373-A	2	SCREW, Hx Hd (.250 X 1.00)
36	54000-F	2	SHAKEPROOF LWR (.250 I.D.)
37	54129-A19	2	NUT (.250 - 20)
38	650201-A25	1	PIN (3/16" DIA. X 7/8" LG.)
39	50101-A35	1	SPRING (.615 LG.)
40	703156-A	2	WASHER (.375 O.D.)
			RETAINER

NOTES:
 1. ITEM 21 AND 22 TO BE DELETED ON STATIONARY BREAKER.
 2. FOR QUANTITY USAGE REFERENCE (A)



OPERATING MECHANISM STAGE I			
ITEM	TYPE	PROD. CLASS	REV.
1-11348	MECH	MECH	1
DATE	DATE	DATE	DATE
8-8-60	8-8-60	8-8-60	8-8-60
APP.	APP.	APP.	APP.
JAC	JAC	JAC	JAC
BBC	BBC	BBC	BBC
Brown-Boveri Electric, Inc.	Brown-Boveri Electric, Inc.	Brown-Boveri Electric, Inc.	Brown-Boveri Electric, Inc.
REV.	REV.	REV.	REV.
1	1	1	1
SCALE	SCALE	SCALE	SCALE
1:1	1:1	1:1	1:1

h
C
B
A



PARTS LIST

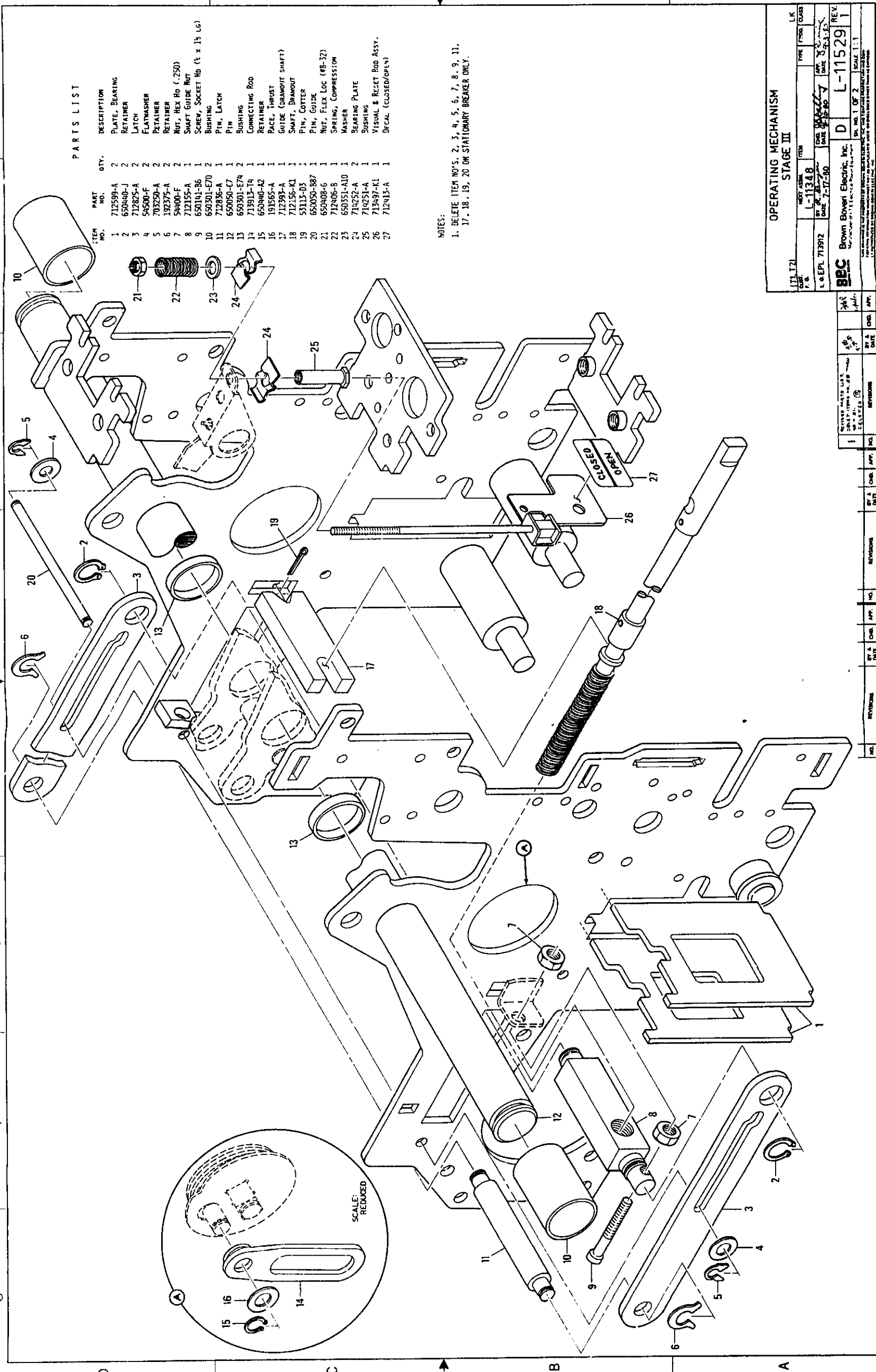
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	65040-A3	RETAINER	2
2	712191-A	SHAFT, CAM	1
3	50702-896	WASHER, SHIM (25/32 I.D.)	1
4	713116-K2	ARM ASSY (CLEAN)	1
5	712182-A	RACE, INNER	2
6	713913-T5	BUSHING ASSY. (LW SHAFT)	2
7	703156-A	RETAINER	6
8	712277-A	PIN	1
9	713913-T1	TOGGLE & LINK ASSY.	1
10	703250-A	RETAINER	2
11	650352-A1	PIN	1
12	712210-A	ACTUATOR, VISUAL	1
13	712530-D	SPRING, TORSION	1
14	712530-C	SPRING, TORSION	1
15	713913-T10	TRACK ASSY.	1
16	650301-EE2	BUSHING	1
17	650301-EE7	BUSHING	3
18	65040-A2	RETAINER	2
19	712178-B	BLOCK, PROP LATCH	2
20	714030-A	ROLLER	2
21	714030-A	CAM, CLOSING	2
22	650372-A10	PIN, CAM	1
23	650301-E80	BUSHING	1
24	712307-K1	LEVER (INTERLOCKING)	1
25	650500-C13	PIN, PIVOT	1
26	713320-B	SPRING, EXTENSION	1
27	712588-A	SPRING, TORSION	1
28	713913-17	LATCH, CLOSE ASSY.	1
29	713129-A	LEVER (MITORAMAL TRIP)	1
30	650500-C14	PIN, PIVOT	1
31	712343-K1	INDICATOR (POSITION)	1
32	650500-B96	PIN, PIVOT	1
33	712344-A	PLATE (POSITION IND.)	1
34	650500-C3	PIN, PIVOT	1
35	712372-A	LEVER (SW. MOTOR)	1
36	712615-C	SPRING, TORSION	1
37	703250-A	RETAINER	2
38	650351-B31	SPACER WASHER	4

NOTES:
1. ITEMS No. 29, 31, 32, 35 & 37 TO BE DELETED ON STATIONARY BREAKER.

OPERATING MECHANISM STAGE II			
DATE	REV.	TYPE	CHK
11/12/21	L-11348	7	7
BY: [Signature] DATE: 11/12/21			
L-11348			
REV. 1 OF 1			
L-11528			
REV. 1			
BROWN BOVEN ELECTRIC, INC.			
MANUFACTURER OF ALL ELECTRIC POWER EQUIPMENT			
1000 WEST 10TH AVENUE, DENVER, CO. 80202			

A B C D

1 2 3 4 5 6 7 8



PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	712599-A	PLATE, BEARING	2
2	650440-J	RETAINER	2
3	712825-A	LATCH	2
4	54500-F	FLATWASHER	2
5	703250-A	RETAINER	2
6	192575-A	RETAINER	2
7	54400-F	NUT, HEX HD (.250)	2
8	712155-A	SHAFT GUIDE NUT	1
9	650141-B6	SCREW, SOCKET Hd (1/8 x 1 1/2 LG)	1
10	650301-E70	BUSHING	2
11	712836-A	PIN, LATCH	1
12	712836-A	PIN	1
13	650301-E74	BUSHING	2
14	713913-T4	CONNECTING ROD	1
15	650440-A2	RETAINER	1
16	191555-A	PAGE, THRUST	1
17	712995-A	GUIDE (GRANDIT SHAFT)	1
18	712156-K1	SHAFT, BRANOUT	1
19	53113-03	PIN, COTTER	1
20	650050-387	PIN, GUIDE	1
21	650408-6	NUT, FLEX LOC (#8-32)	1
22	712406-B	SPRING, COMPRESSION	1
23	650351-A10	WASHER	1
24	714252-A	BEARING PLATE	2
25	714251-A	BUSHING	2
26	713497-K1	VISUAL & RESET ROD ASSY.	1
27	712413-A	DECAL (CLOSED/OPEN)	1

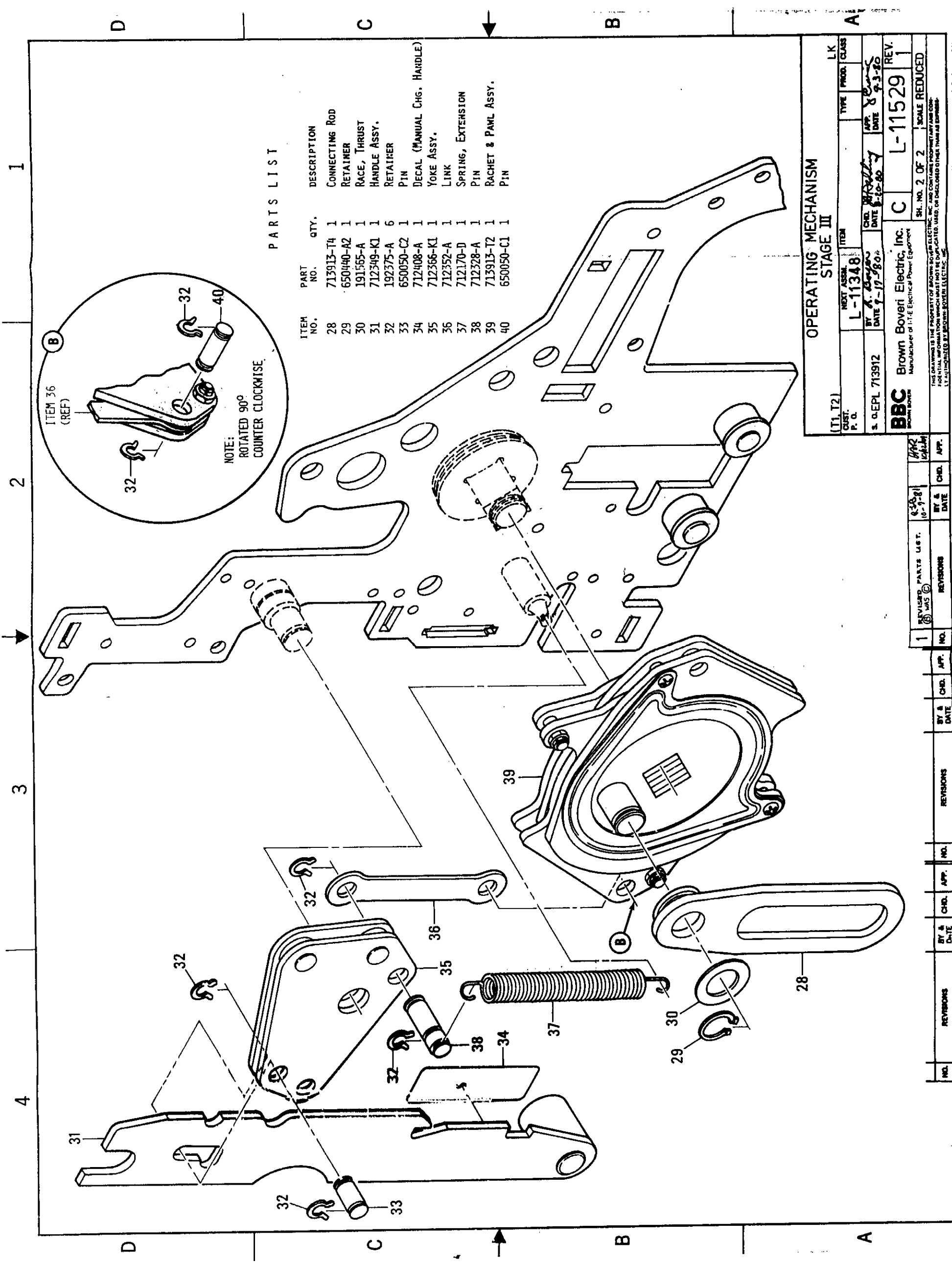
NOTES:
1. DELETE ITEM NO'S. 2, 3, 4, 5, 6, 7, 8, 9, 11, 17, 18, 19, 20 ON STATIONARY BREAKER ONLY.

OPERATING MECHANISM
STAGE III

DATE	BY	CHKD	APPD	REV
7-17-50	L-11348			L-11529
BEC Brown Boveri Electric, Inc.				
REVISIONS				
NO.	REV.	DATE	BY	CHKD
1				

SHEET 2 IS C-SIZE DRAWING

A B C D

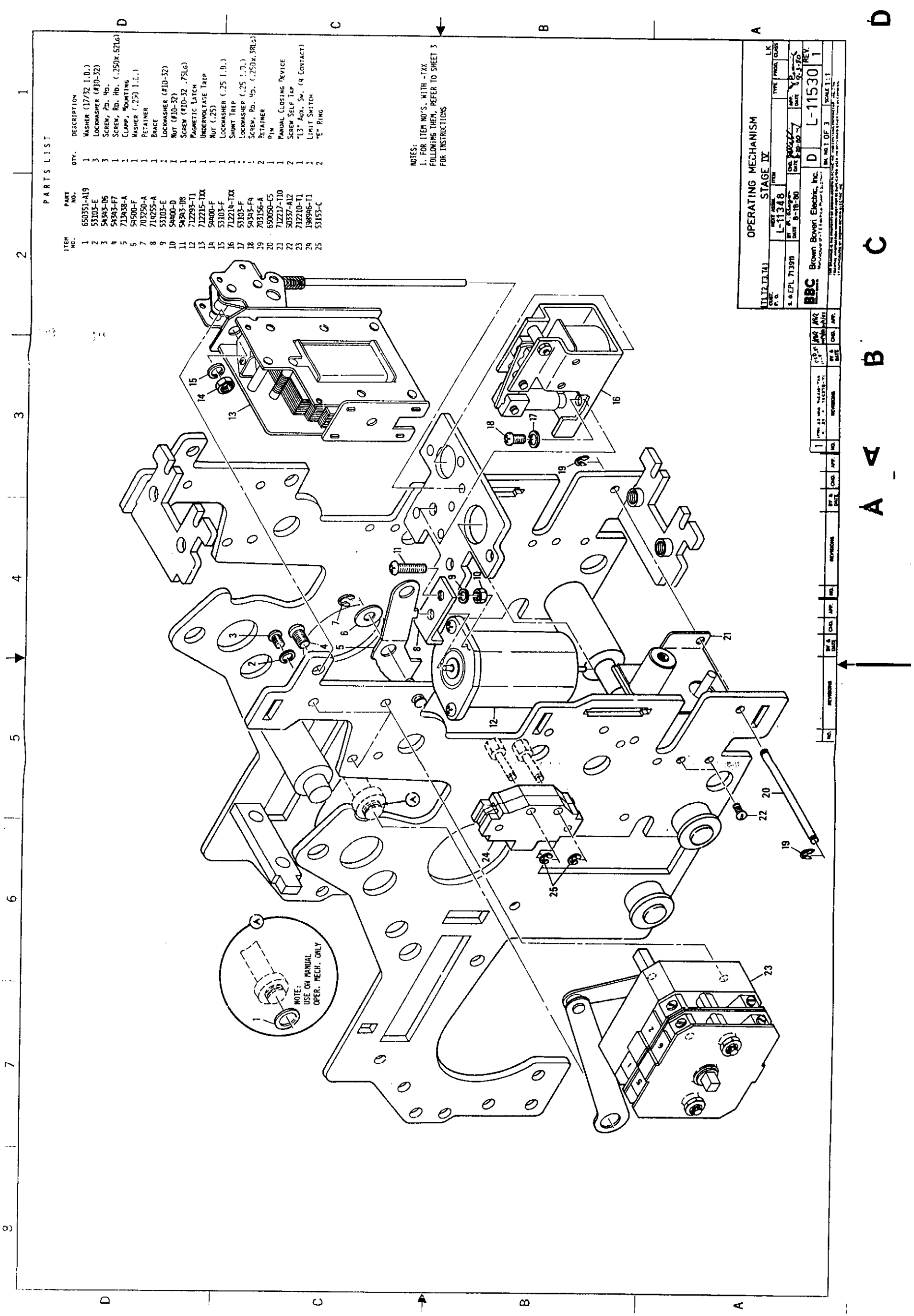


PARTS LIST

ITEM NO.	PART NO.	QTY.	DESCRIPTION
28	713913-T4	1	CONNECTING ROD
29	650440-A2	1	RETAINER
30	191565-A	1	RACE, THRUST
31	712349-K1	1	HANDLE ASSY.
32	192375-A	6	RETAINER
33	650050-C2	1	PIN
34	712408-A	1	DECAL (MANUAL CHG. HANDLE)
35	712366-K1	1	YOKE ASSY.
36	712352-A	1	LINK
37	712170-D	1	SPRING, EXTENSION
38	712328-A	1	PIN
39	713913-T2	1	RATCHET & PAWL ASSY.
40	650050-C1	1	PIN

OPERATING MECHANISM STAGE III			
(T1, T2)	NEXT ASSN.	ITEM	LK
Q. 1	L-11348		
S. Q. EPL 713912	BY A. Brown	DATE 8-10-80	APP. [Signature]
Brown Boveri		REV. C	L-11529
Brown Boveri Electric, Inc.		SH. NO. 2 OF 2	SCALE REDUCED
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NO.	REVISIONS	BY & DATE	CHD.	APP.	NO.	REVISIONS	BY & DATE	CHD.	APP.	NO.	REVISIONS	BY & DATE	CHD.	APP.
1	REVISED PARTS LIST	8-30-81				2	WAS				3	WAS		



PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	650351-A19	WASHER (17/32 I.D.)	1
2	53103-E	LOCKWASHER (#10-32)	1
3	54943-B6	SCREW, Hd. Hd.	3
4	54943-F7	SCREW, Hd. Hd. (.250x.62Lg)	1
5	713438-A	CLAMP, MOUNTING	1
6	54500-F	WASHER (.253 I.D.)	1
7	703250-A	DETAINER	1
8	714255-A	BRACE	1
9	53103-E	LOCKWASHER (#10-32)	1
10	54900-D	NUT (#10-32)	1
11	54943-B8	SCREW (#10-32 .75Lg)	1
12	712293-T1	MAGNETIC LATCH	1
13	712215-TXX	UNDERVOLTAGE TRIP	1
14	54900-F	NUT (.25)	1
15	53103-F	LOCKWASHER (.25 I.D.)	1
16	712218-TXX	SHUNT TRIP	1
17	53103-F	LOCKWASHER (.25 I.D.)	1
18	54943-F4	SCREW, Hd. Hd. (.250x.38Lg)	1
19	703156-A	DETAINER	2
20	650050-C5	PIN	1
21	712217-T10	MANUAL CLOSING DEVICE	1
22	50357-A12	SCREW SELF TAP	2
23	712210-T1	"13" AUX. SW. (4 CONTACT)	1
24	138946-T1	LIMIT SWITCH	1
25	53155-C	"E" RING	2

NOTES:
1. FOR ITEM NO'S. WITH -TXX
FOLLOWING THEM, REFER TO SHEET 3
FOR INSTRUCTIONS

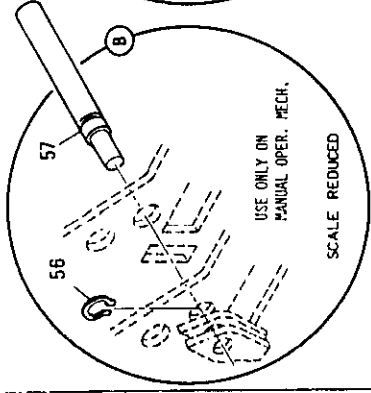
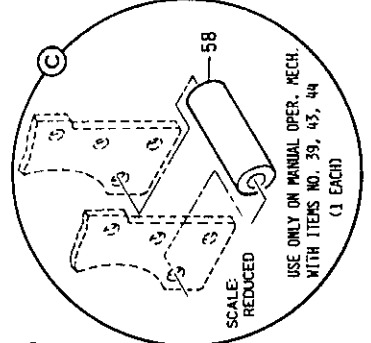
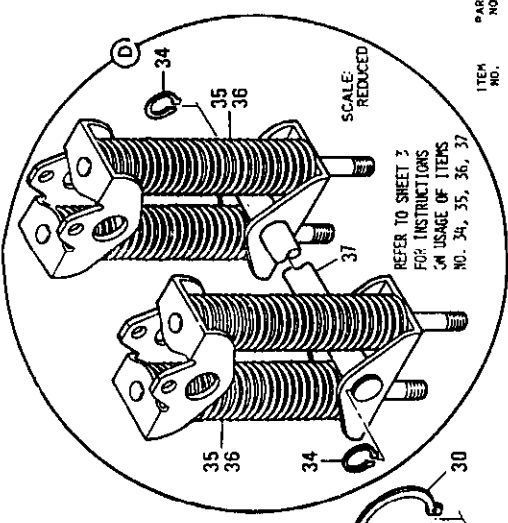
OPERATING MECHANISM			
STAGE IV			
ITEM NO.	REV.	DATE	BY
L-11348	1	8-18-80	W. J. B.
Brown Boveri Electric, Inc.			
L-11530			
REV. 1			

NO.	REVISIONS	BY	DATE	CHK.	APP.	NO.	REVISIONS	BY	DATE	CHK.	APP.
1						1					

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1 2 3 4 5 6 7 8

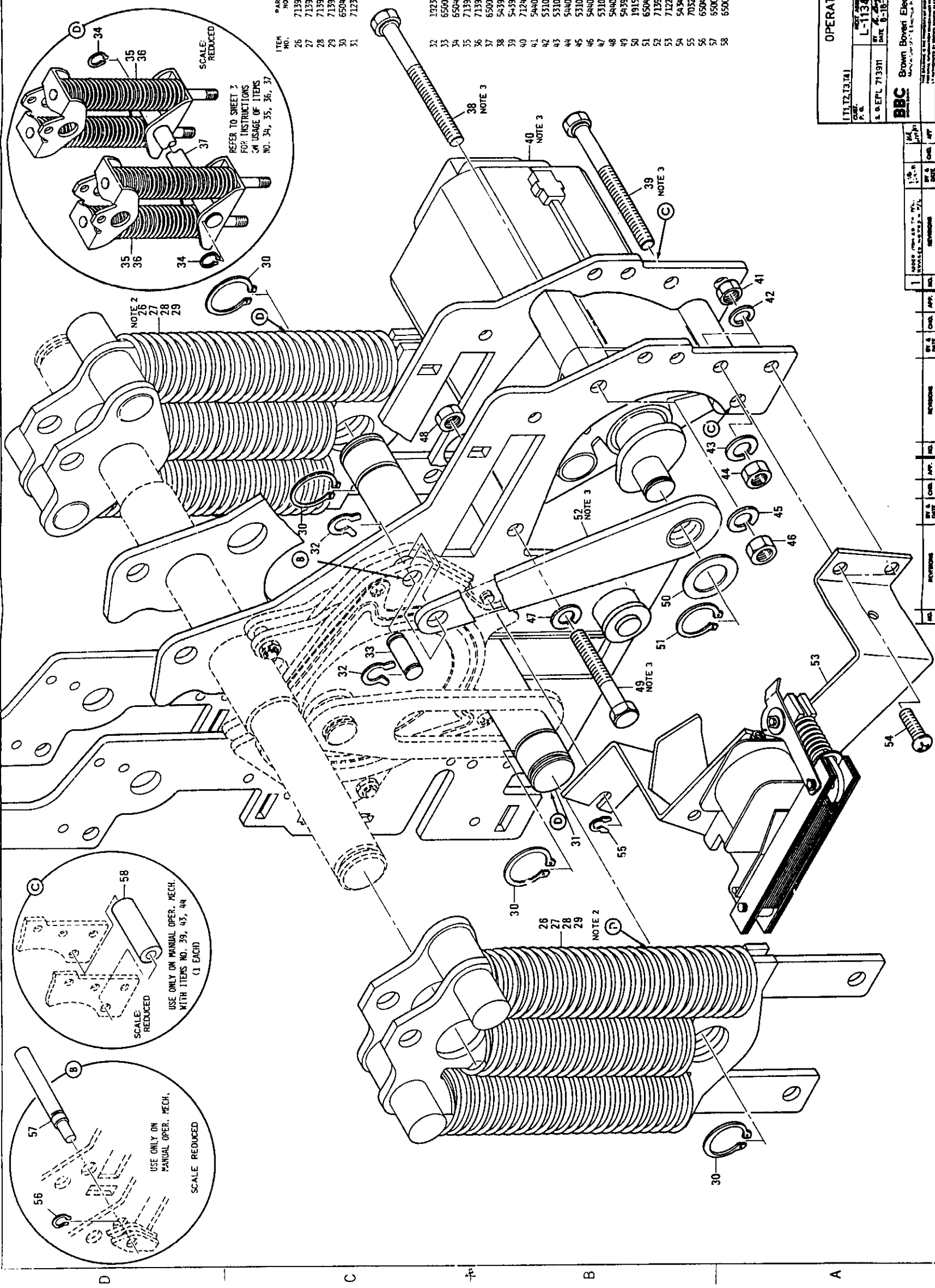
NOTES:
1. FOR ITEM NO.'S. WITH - TXX FOLLOWING THEM, REFER TO SHEET 3 FOR INSTRUCTIONS
2. REFER TO SHEET 3 FOR INSTRUCTIONS ON USAGE OF ITEMS NO. 26, 27, 28, 29, 30, 31.
3. SEE SHEET 3 FOR USAGE OF ITEM NO. 38, 39, 40, 49, 52.



PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
26	713910-11	CLOSING SPRING ASSY.	2
27	713910-12	CLOSING SPRING ASSY.	2
28	713910-16	CLOSING SPRING ASSY.	2
29	713910-17	CLOSING SPRING ASSY.	2
30	650400-A4	RETAINER	4
31	712319-A	PIN (CLOSING SPRING)	1

32	122375-A	RETAINER	2
33	650400-C1	PIN	1
34	650400-A4	RETAINER	2
35	713910-13	CLOSING SPRING ASSY.	2
36	713910-18	CLOSING SPRING ASSY.	2
37	650400-C12	PIN	1
38	54390-911	SCREW, HEX HD. (.312x.375) LG.	1
39	54390-911	SCREW, HEX HD. (.312x.375) LG.	1
40	712417	GEAR HEAD MOTOR	1
41	54400-F	NUT (.250)	2
42	53103-F	LOCKWASHER (.250)	2
43	53103-F	LOCKWASHER (.312)	1
44	54400-G	NUT (.312)	1
45	53103-G	LOCKWASHER (.312)	1
46	54400-G	NUT (.312)	1
47	53103-G	LOCKWASHER (.312)	1
48	54400-G	NUT (.312)	1
49	54390-98	SCREW, HEX HD. (.312x.27) LG.	1
50	19195-A	RACE, THRUST	1
51	650400-A2	RETAINER	1
52	713913-19	MOTOR LINK ASSY.	1
53	712118-TXX	"Y" RELAY	1
54	54393-F8	SCREW, RD HD. (.250x.75) LG.	2
55	703250-A	RETAINER	1
56	650400-J	RETAINER	1
57	650060-A5	PIN	1
58	650031-E69	BUSHING	1



OPERATING MECHANISM
STAGE IV

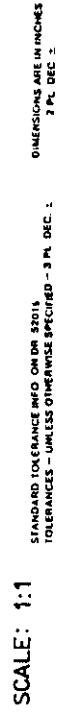
DATE	11.12.13.14	TYPE	LK
REV.	L-11348	DATE	8.3.75
DATE	8.18.80	DATE	8.3.75
DATE	8.18.80	DATE	8.3.75

BBC Brown Boveri Electric, Inc. D L-11530 REV

REV.	DATE	DESCRIPTION	BY	CHK.	APP.	REV.	DATE	DESCRIPTION	BY	CHK.	APP.
1											

A B C D

QTY.	DESCRIPTION
2	SCREW, RD HD (#6-32)
2	LOCKWASHER (#6)
1	PLATE, TOP KEEPER
1	PLUG, CORE
1	ROD, KICKOFF
1	RING, RETAINING
1	MAGNET
1	SPRING, COMPRESSION
1	BUSHING
1	TOP CAP
1	COIL ASSEMBLY
2	WIRE DISCONNECTS
2	COVER, DISCONNECT (
1	ARMATURE
1	PIN (.280 LG)
1	LINK, TRIP
1	GUIDE, ARM
1	HOUSING
1	BOTTOM CAP
1	SPRING, COMPRESSION
1	SPRING, COMPRESSION
1	RETAINER, SPRING
1	PIN (.422 LG)

LK
A

L-11531

SHEET NO. 1 of 1 CONT ON REV.

BY <i>R. Boyer</i>	CHD. <i>W. Kelly</i>	APR. <i>W. Kelly</i>	MICRO.
DATE 7-28-82	DATE 8-13-82	DATE 8-13-82	

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2	REDRAWN & PARTS LISTED TO NEW CONFIGURATION. (JOINED REV. 1)
---	--

BY & DATE	NO.	REVISIONS

REVISIONS

BY & DATE	NO.
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REVISIONS

NO.

WCC3776

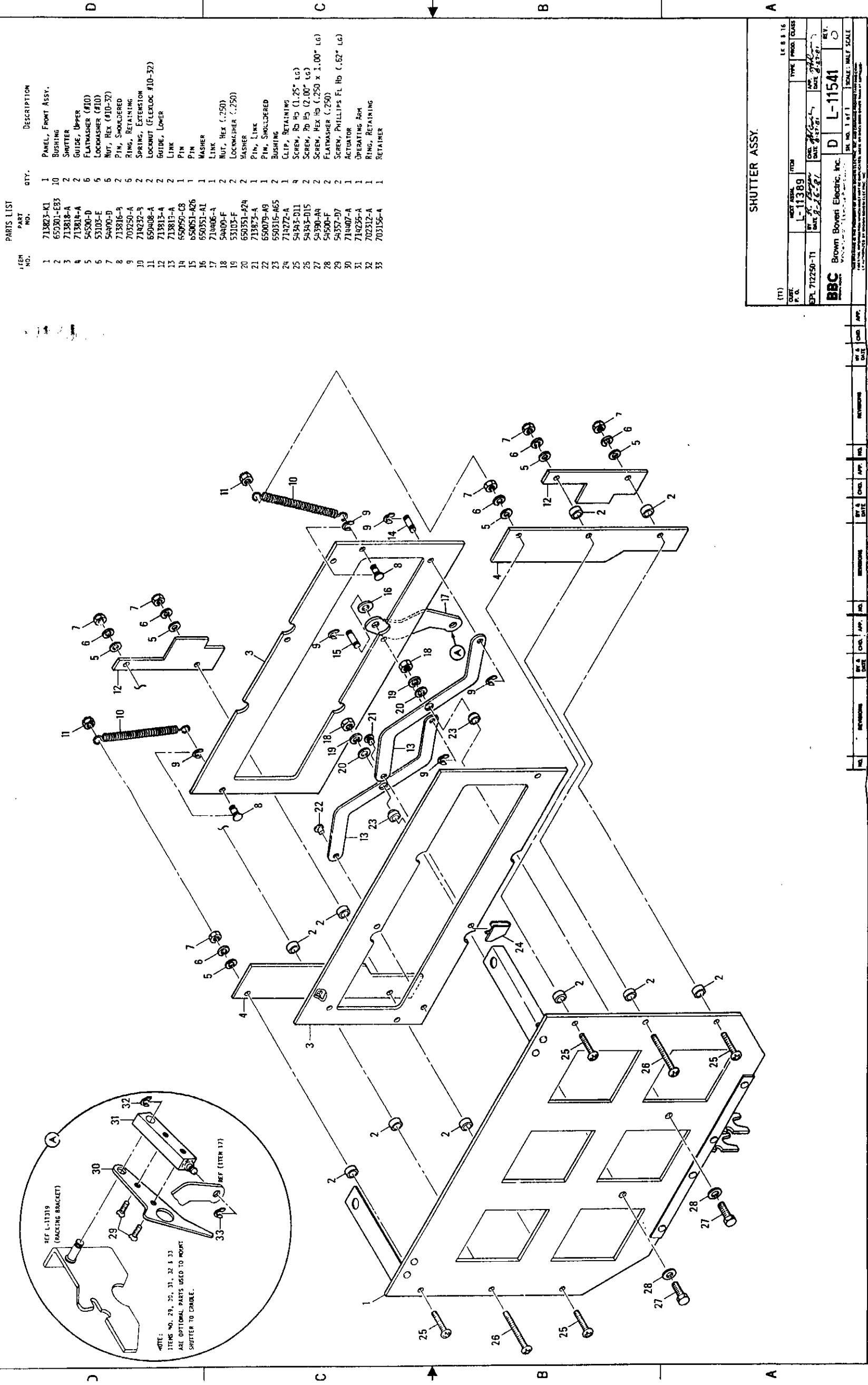
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3

15

1

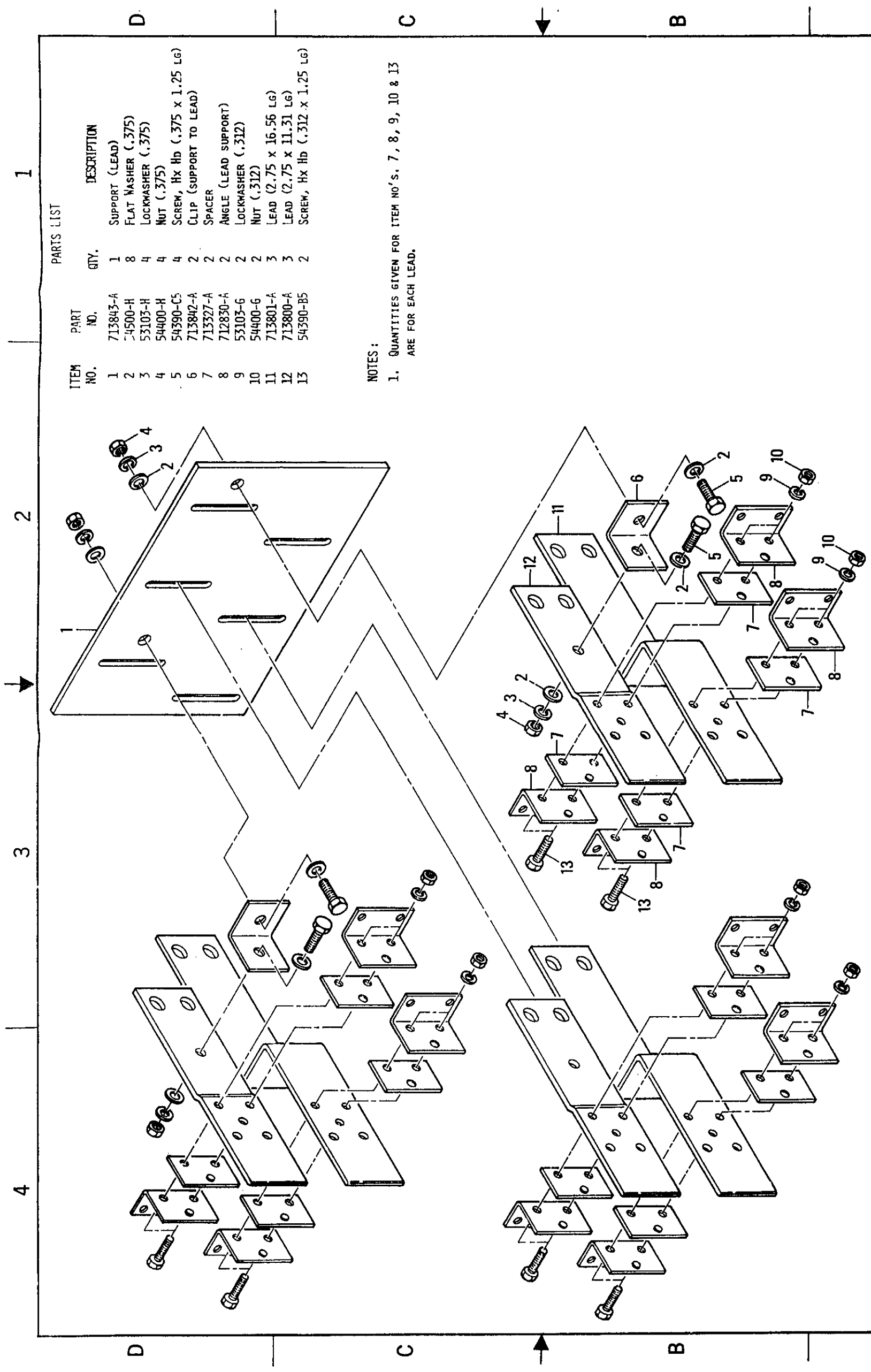
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PARTS LIST		
ITEM NO.	PART NO.	DESCRIPTION
1	713823-K1	PANEL, FRONT ASSY.
2	65001-E33	BUSHING
3	713818-A	SHUTTER
4	713818-A	GUIDE, UPPER
5	54500-D	FLATWASHER (#10)
6	53103-E	LOCKWASHER (#10)
7	54490-D	NUT, HEX (#10-32)
8	713816-A	PIN, SHOULDERED
9	703250-A	RING, RETAINING
10	714232-9	SPRING, EXTENSION
11	650408-A	LOCKNUT (FLEXLOC #10-32)
12	713813-A	GUIDE, LOWER
13	713813-A	LINK
14	650050-C8	PIN
15	650051-A26	WASHER
16	650351-A1	NUT, HEX (.250)
17	714006-A	LOCKWASHER (.250)
18	54409-F	PIN, LINK
19	53103-F	PIN, SHOULDERED
20	650351-A29	BUSHING
21	713873-A	CLIP, RETAINING
22	650079-A9	SCREW, RD HS (1.25" LG)
23	650316-A65	SCREW, RD HS (2.00" LG)
24	714272-A	FLATWASHER (.250)
25	54503-D11	SCREW, PHILLIPS FL HS (.62" LG)
26	54390-A4	ACTUATOR
27	54500-F	OPERATING ARM
28	54557-D7	RING, RETAINING
29	714407-A	RETAINER
30	714256-A	
31	702312-A	
32	702312-A	
33	703156-A	

SHUTTER ASSY.			
DATE	REV. NO.	TYPE	CLASS
11/1/61	L-11389	1	1
DATE	DATE	DATE	DATE
11/1/61	11/1/61	11/1/61	11/1/61
BBC Brown Boveri Electric, Inc.			
L-11541			
SCALE: HALF SCALE			

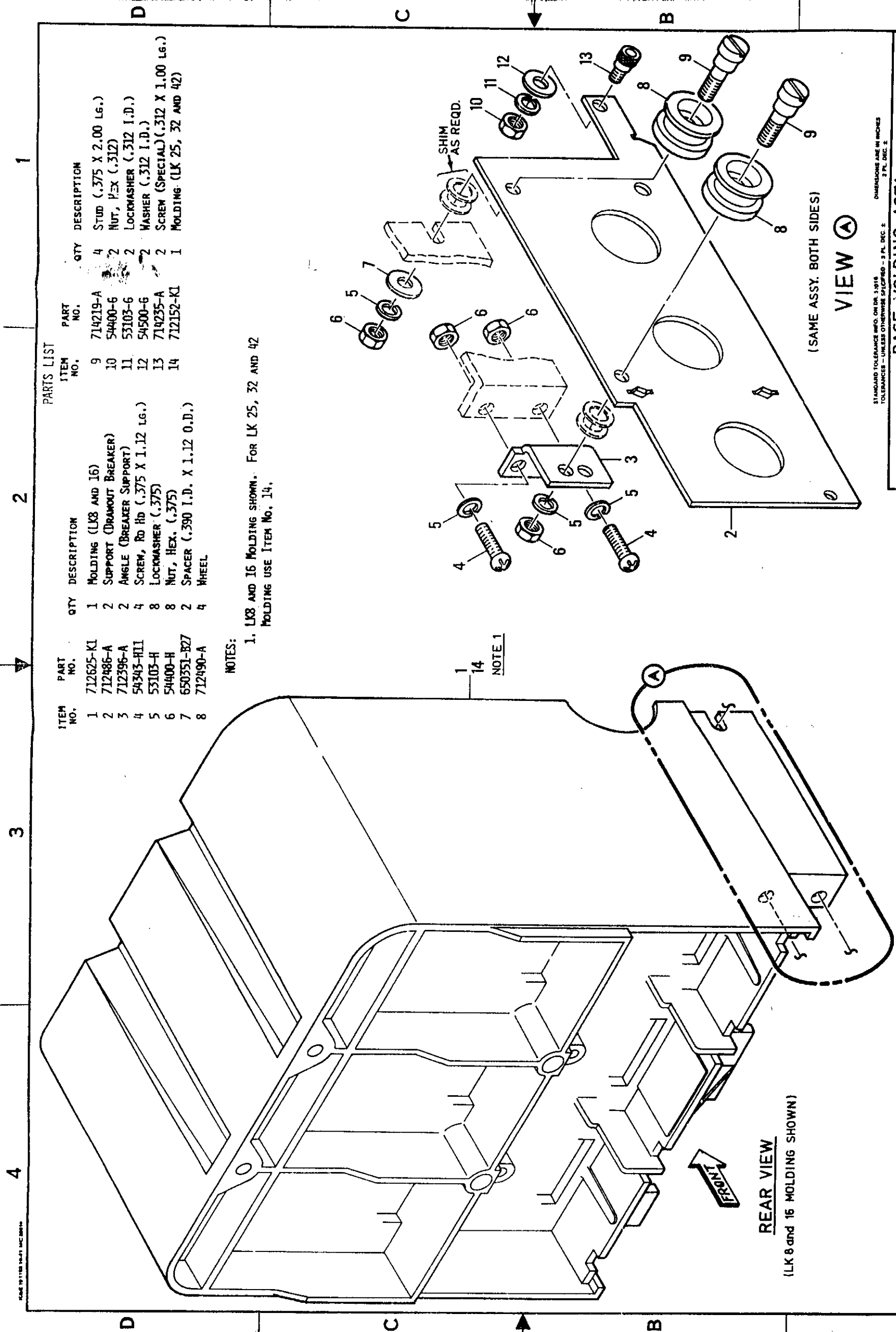
1 2 3 4 5 6 7 8



PARTS LIST			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	713843-A	1	SUPPORT (LEAD)
2	54500-H	8	FLAT WASHER (.375)
3	53103-H	4	LOCKWASHER (.375)
4	54400-H	4	NUT (.375)
5	54390-C5	4	SCREW, Hx Hd (.375 x 1.25 Lg)
6	713842-A	2	CLIP (SUPPORT TO LEAD)
7	713327-A	2	SPACER
8	712830-A	2	ANGLE (LEAD SUPPORT)
9	53103-G	2	LOCKWASHER (.312)
10	54400-G	2	NUT (.312)
11	713801-A	3	LEAD (2.75 x 16.56 Lg)
12	713800-A	3	LEAD (2.75 x 11.31 Lg)
13	54390-B5	2	SCREW, Hx Hd (.312 x 1.25 Lg)

NOTES:
1. QUANTITIES GIVEN FOR ITEM NO'S. 7, 8, 9, 10 & 13 ARE FOR EACH LEAD.

PRIMARY LEADS (800 AMP FEEDER)										LX 8	
(T1)	CUST. P. O.	NEXT ASS'N. L-11600	ITEM	TYPE	PROD. CLASS						
EPL 712239-T1	BY K. 165-90- DATE 9-3-81	CHD. 11-12-81	DATE	APP. 11-12-81	REV.						
BBC Brown Boveri Electric, Inc. Manufacturer of I.T.E. Electrical Power Equipment						C		L-11569		REV. O	
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NO.	REVISIONS	BY & DATE	CHD.	APP.	NO.	REVISIONS	BY & DATE	CHD.	APP.		



PARTS LIST

ITEM NO.	PART NO.	QTY	DESCRIPTION
1	712625-K1	1	MOLDING (LK8 AND 16)
2	712486-A	2	SUPPORT (DRAWOUT BREAKER)
3	712396-A	2	ANGLE (BREAKER SUPPORT)
4	54343-H11	4	SCREW, Rd Hd (.375 X 1.12 LG.)
5	53103-H	8	LOCKWASHER (.375)
6	54400-H	8	NUT, HEX. (.375)
7	650351-B27	2	SPACER (.390 I.D. X 1.12 O.D.)
8	712490-A	4	WHEEL
9	714219-A	4	STUD (.375 X 2.00 LG.)
10	54400-6	2	NUT, HEX (.312)
11	53103-6	2	LOCKWASHER (.312 I.D.)
12	54500-6	2	WASHER (.312 I.D.)
13	714235-A	2	SCREW (SPECIAL) (.312 X 1.00 LG.)
14	712152-K1	1	MOLDING (LK 25, 32 AND 42)

NOTES:

- 1. LK8 AND 16 MOLDING SHOWN. For LK 25, 32 AND 42 MOLDING USE ITEM NO. 14.

NOTE 1

STANDARD TOLERANCE INFO. ON DR. 1.015
DIMENSIONS ARE IN INCHES
TOLERANCES - UNLESS OTHERWISE SPECIFIED - 3 PL. DEC. 2

BASE MOLDING ASSY. STAGE 1		LK8,16, 25,32,42	
[11,12,13,14,15]		L-11575	
BBC Brown Boveri Electric, Inc. Manufacture of I-T-E Electrical Power Equipment		SHEET NO. 1 OF 1	
BY R. BOYER DATE 12-2-81		AP. HALL DATE 12-2-81	
EPL 713909		MICRO.	
Scale: HALF SIZE		THIS DRAWING IS THE PROP. OF BROWN-BOVERI ELECTRIC, INC. AND CONTAINS PROPRIETARY DATA AND CONFIDENTIAL INFORMATION WHICH MUST NOT BE DUPLICATED, USED, OR DISCLOSED OTHER THAN AS EXPRESSLY AUTHORIZED BY BROWN-BOVERI ELECTRIC, INC.	

NO.	REVISIONS	BY & DATE	NO.	REVISIONS	BY & DATE