

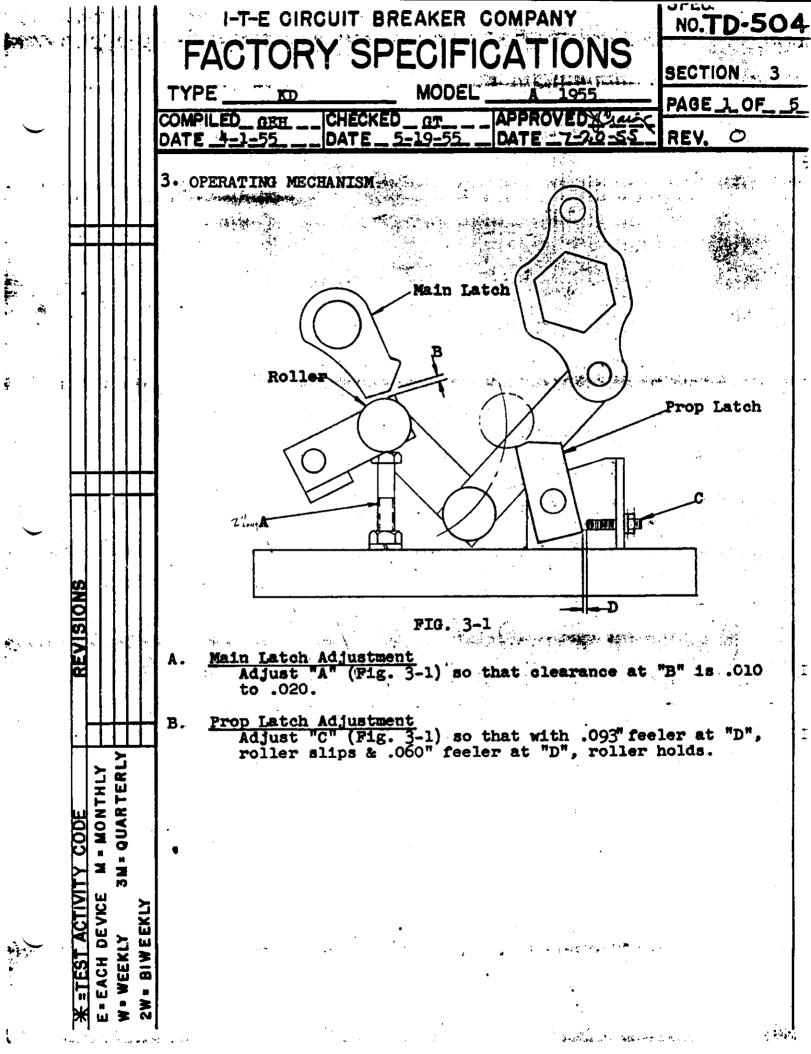
SPEC. I-T-E CIRCUIT BREAKER COMPANY NO. TD-5048 FACTORY SPECIFICATIONS SECTION TYPE MODEL PAGE 2_OF___ CH'D. APP. COMPILED GEH GT DATE 7-20-85 DATE _4-1-55 REV. DATE -TABLE OF CONTENTS SECTION 1. TITLE PAGE AND TABLE OF CONTENTS 2. CONTACTS Adjustments Α. Millivolt Drop Test OPERATING MECHANISM 3. Main Latch Adjustment A. Prop Latch Adjustment В. Bearing and Secondary Latch C. Secondary Latch Bite D. E. Tripper Bar Adjustment Impact Latch Adjustment F. G. Tripper Bar Loads Latch Reset H. Tripper Bar Creep J. Cut Out Switch Adjustment Κ. Buffer Adjustment L. OVERCURRENT TRIP DEVICES (OD-1 AND OD-2) General Adjustments В. 6. SHUNT TRIP DEVICE Adjustments 7. SOLENOID Adjustments 8. UNDERVOLTAGE (INSTANT. AND TIME DELAY) Adjustments Α. 9. CLOSING RELAY Adjustments QUARTERLY * MONTHLY ELECTRICAL CLEARANCES AND TESTS 10. DRAWOUT INTERLOCK 11. Adjustments Clearances В. GENERAL INFORMATION 12. Σ Standard Physical Arrangement of Equipment 19. LUBRICATION EACH DEVICE WEEKLY 20. FINAL INSPECTION 21. MAILING LIST 22. APPRINDIX **M330**

A Adjustments

- 1) As a starting point only turn adjusting screen LA" on left hand pole until 3-1/16 inch is obtained as shown
 - 2 Close breaker until the first pole arcing ponta be flust touch then adjust the other pole arcing contacts by screw a juntil all three arcing a fontacts by screw a juntil all three arcing a

I-T-E CIRCUIT BREAKER COMPANY NO. TD- 5048 FACTORY SPECIFICATIONS 2 SECTION MODEL A (1955) TYPE KD PAGE _2_OF_ APP. COMPILED DATE 4-2-62 REV. DATE DATE CONTACTS (continued) 2. (3) Complete closing breaker and turn connecting link "B" for each pole to obtain a minimum of .060 inch at point "C" between the moving main contact and its stop pin for the left and right hand contacts for each pole. Deflect the lower stationary main contacts to insure the main contact springs are not potting. (4) When the arcing contacts just touch, there should be a minimum of 3/32 inch air gap between the shunt contacts. (5) When the breaker is completely open, there must be at least 1 13/16 inch between the arcing contacts as shown. Millivolt Drop Test The circuit breaker shall be fully adjusted and all contacts cleaned. The millivolt values given below are maximum values and shall not be exceeded: CURRENT Overall, measured on back of breaker = 50 MV Main bridges, (with arcing and shunt contacts EQUALS 1600 AMPS insulated with varnished cambric) measured at front of breaker = 45 MV. D.C. Shunt contacts (mains and arcing contacts in-CURRENT 3. EQUALS sulated) measured at front of breaker = 38 MV. 250 AMPS. Arcing contacts (mains and shunt contacts insulated) measured at front of breaker =45 MV. D.C. -QUARTERLY * MONTHLY ACTIVITY CODE ¥ EACH DEVICE BIWEEKLY =TEST # E

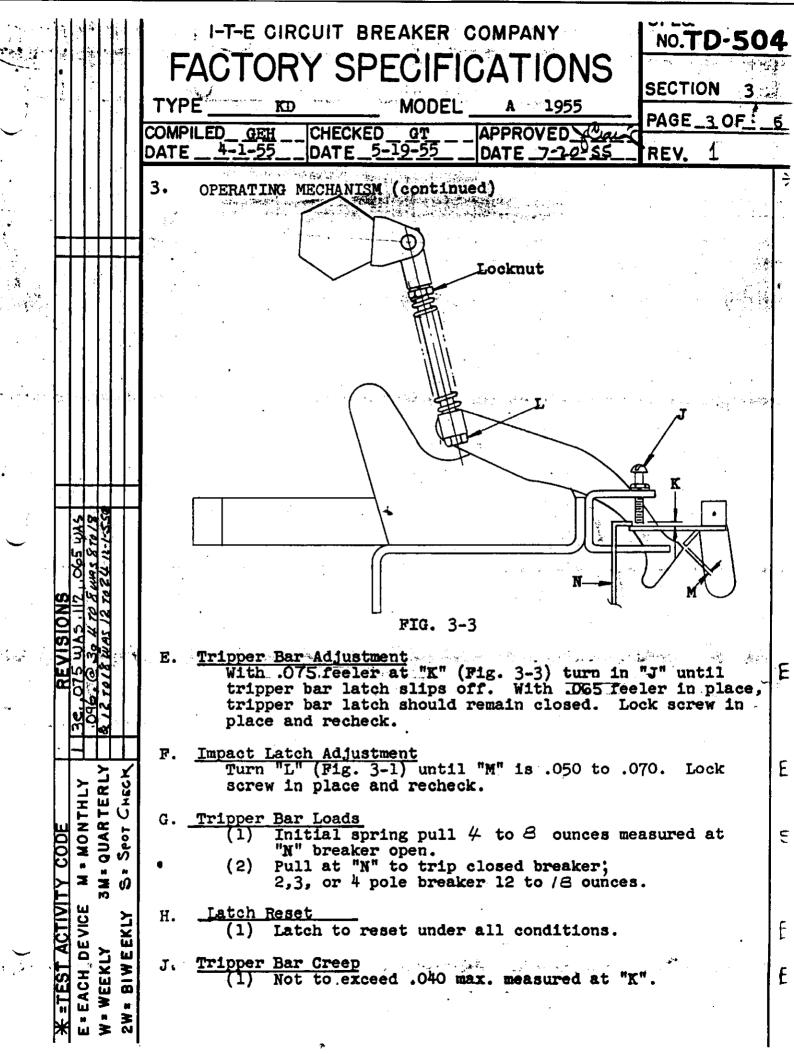
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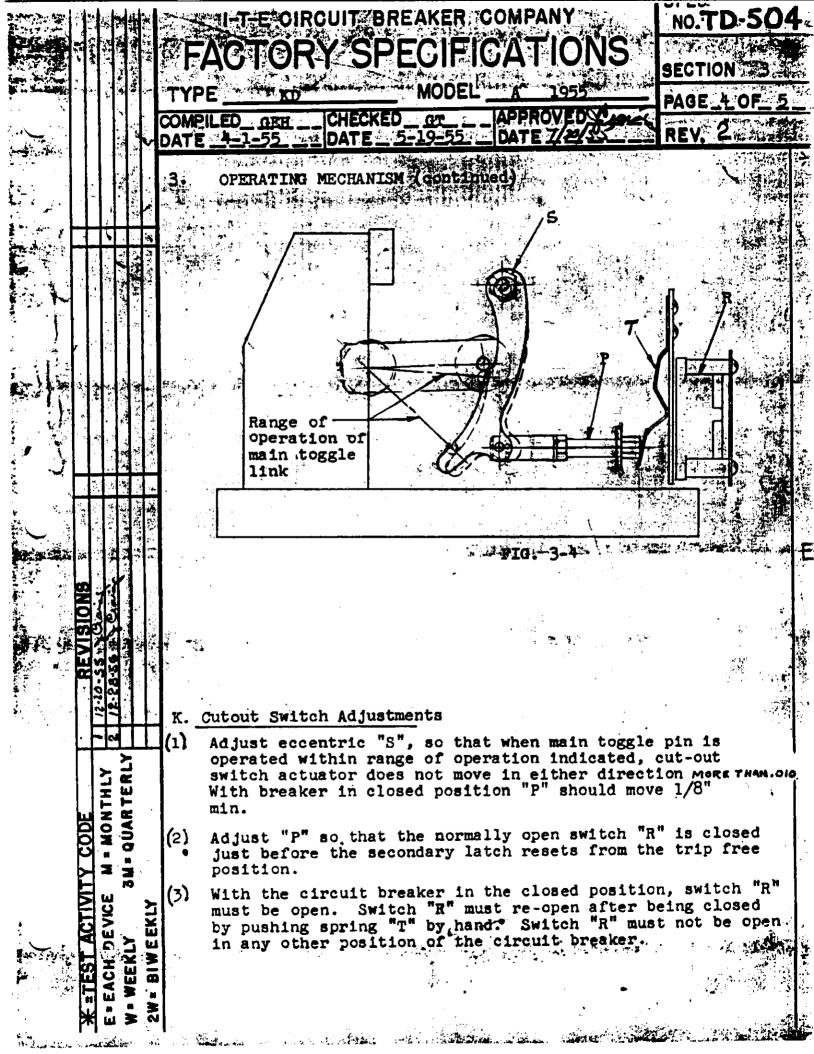


NO.TD-504 I-T-E CIRCUIT BREAKER COMPANY FACTORY SPECIFICATIONS SECTION MODEL_ **TYPE** A 1955 PAGE_2 OF_ 5_ APPROVED CHECKED GT COMPILED REY. DATE 3. OPERATING MECHANISM (continued) REVISIONS FIG. 3-2 Bearing and Secondary Latch
Adjust eccentric stud "E" (Fig. 3-2) so that clearance "F" between latch and roller is .005 to .020, with breaker open. M. QUARTERLY Secondary Latch Bite

Adjust "G" (Fig. 3-2) so breaker may be closed with

.047 but not with .055 feeler at "H". Tighten locknut M = MONTHLY D. and recheck. **TEST ACTIVITY CODE** E=EACH DEVICE W=WEEKLY BIWEEKLY (10



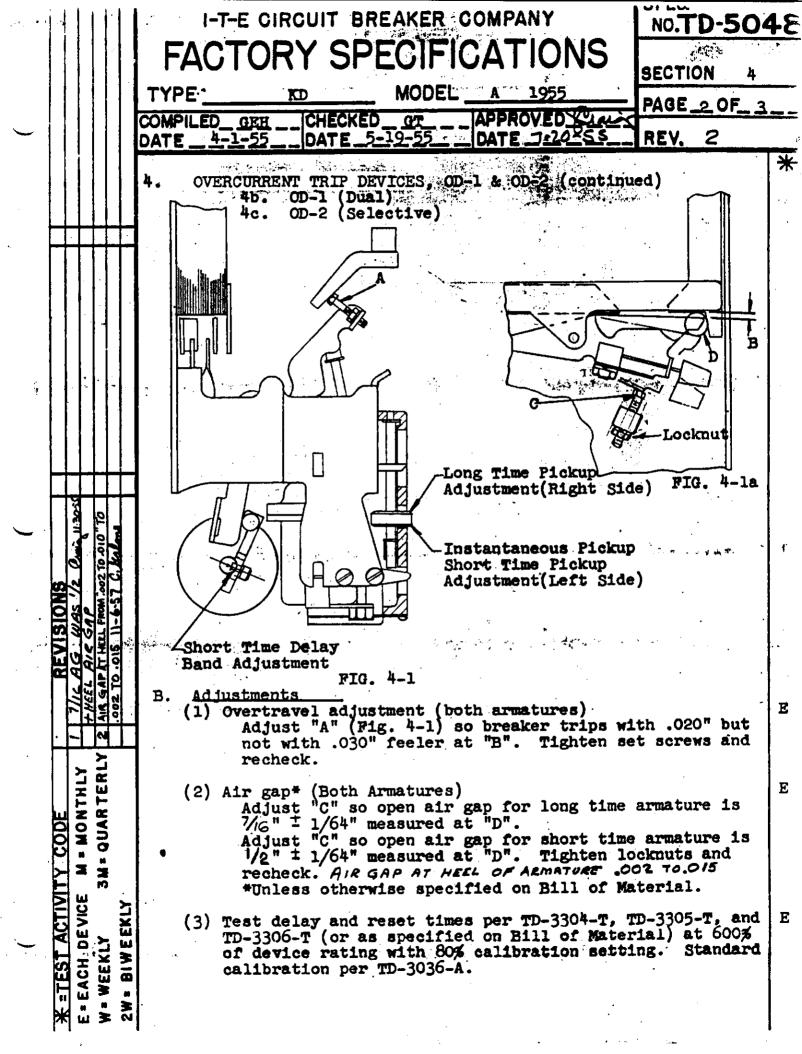


I-T-E CIRCUIT BREAKER COMPANY NO.TD-504 FACTORY SPECIFICATIONS SECTION 5.3 TYPE " KD MODEL A PAGE_5 OF_ 5 COMPILED GEN DATE 4-1-55 APPROVED DATE 7-20 55 CHECKED DATE 5-19-55 0 REV. OPERATING MECHANISM (continued) FIG. 3-5 L. Buffer Adjustment Adjust screw "S" (Fig. 3-5) until contact arm bounce is 10% or less of total stroke. Lock screw "S" in place and recheck. 3M - QUARTERLY M = MONTHLY E. EACH DEVICE BIWEEKLY

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) <u> </u>	CHE	CKED_ E_5-1	<u> </u>		7-20 55	REV.	.0	
		4.	ov	ERCURR	ENT TRI	P DEVÍ	Ces; o	D-1 & OD	-2			
		A.	Gene	eral	· ·	•	•	, ,	•			
			(1) (2) (3) (4)	behin Dev tion ratin Cur value Con	d break ice pic toleran g, ± 10 rent "d . sider s	er pan kup va ce ± 5 % for rag of tray f	el 12 lues p % for higher f" no	inches wer bill settings setting more that fect fro	n minimum m neighbor	il. Cal times o	libra soil stion	•
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* = TEST ACTIVITY CODE E = EACH DEVICE M = MONTHLY	W= WEEKLY 3M=QUARTERLY 2W= BIWEEKLY											

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*	I-T-E CIRCUIT BREAKER COMPANY NO.TD-504	4
	FACTORY SPECIFICATIONS SECTION 4	
	TYPE MODEL A 1955 PAGE 3 OF 3	
	COMPILED GEH CHECKED GT APPROVED CALL REV. O	<u>-</u>
	4. OVERCURRENT TRIP DEVICES, OD-1 & OD-2 (continued) (4) Test short time reset and delay times per TD-3307, TD-3308, and TD-3309 at 250% of short time pickup. (Selective OD-2)	E
	(5) Restrained travel (long time armature) no more than 1/2 total armature stroke.	Æ
	(6) Resonant silencer to insure silence of long stime arma == ture on currents up to pickup value. Vibrator wire to be free of nicks.	E
	(7) Oil Leakage Inspection Final assembly and test of oil cylinder assembly per L-6035.	E
	(8) Time-delay stroke of short-time armature shall not ex- tend beyond a point 3/16" from the final stroke of the armature.	E
	(9) Short Time Armature Position (Fig. 4-2) The lower extension of the short time armature shall have full-width bearing engagement with the timer crank roller under all operating conditions. The armature shall not be so assembled as to permit its extension to slide off the side of the roller.	E
REVISIONS		
* TEST ACTIVITY CODE E EACH DEVICE M = MONTHLY W = WEEKLY 3M = QUARTERLY 2W = BIWEEKLY	Fig. 4-2 Timer Crank Roller Armature Lower Extension	

				I-T-E CIRCUIT BREAKER COMPANY	NO.TD-504		
				FACTORY SPECIFICATIONS	SECTION 6		
<u>, </u> ,				TYPE KD MODEL A 1955 COMPILED GEH CHECKED GT APPROVED DATE 4-1-55 DATE 5-19-55 DATE 7-25	PAGE_1 OF_1_		
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					e de la companya del companya de la companya del companya de la co		
	SNS		ar.				
	EVISIC			A FIG. 6-1			
				A. Adjustments (1) Overtravel Adjustment			
•			Ш ;	Adjust "C" (Fig. 6-1) with armature "A" sexcess trip travel measured at "K" Fig. 6.132". Tighten locknut and recheck.	ealed so that		
	DE	MONTHLY	•	(2) Control voltage range per TD-1175-G unless specified on Bill of Material.	otherwise		
•	NTY CO	N = N =		•			
	ST ACTIVIT	ACH DEVICE	EENLI BIWEEKLY		·		
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SPEC. I-T-E CIRCUIT BREAKER COMPANY NO. TD-504 FACTORY SPECIFICATIONS SECTION TO 7- SECTION TYPE KD MODEL_ PAGE __OF_____ COMPILED GEH CH'D. DATE 1.2.58 REV. 2 DATE. 7. SOLENOID ROLLER IN OVER-TRAVEL POSITION REVISIONS - MONTHLY Fig. 7-1 Adjustments ٤ (1) Adjust solenoid by adding or omitting shim washers "A" so that overtravel measured at "B" shall be .050 to .090. Space at "C" shall be .010 minimum with breaker open. (2) Control voltage range per TD-117SG unless otherwise specified on Bill of Material. - BIWEEKLY

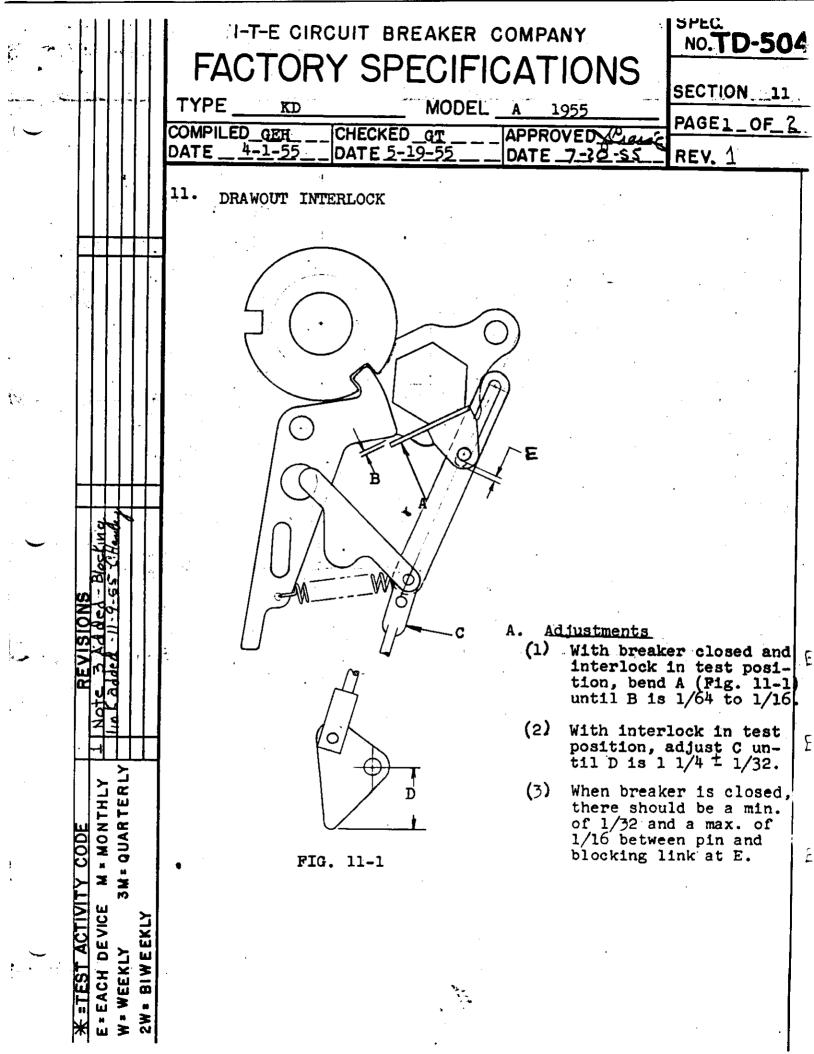
I-T-E CIRCUIT BREAKER COMPANY NO.TD-504 FACTORY SPECIFICATIONS SECTION MODEL 1955 TYPE KD PAGE_1_OF_2 APPROVEDY CHECKED COMPILED GEH GT REV. DATE 5-19-55 DATE UNDERVOLTAGE TRIP, INSTANT. & TIME DELAY 8. Locknut В Reset Spring Spud for DC only FIG. 8-1 Adjustments Anti-noise adjustments Breaker open, no voltage on coil. Adjust "A" (Fig. 8-1) E so "B" is .020" to .040". Tighten locknut and recheck. (2) Gap at "C" (armature sealed) .002" to .007". "D" to jackshaft should be adjusted (3) Operating link **QUARTERLY** so that when the circuit breaker is closed manually the MONTHLY de-energized undervoltage shall trip the breaker before or at the same time that the arcing contacts touch. Care should be taken to see that the spring arm "E" the undervoltage does not jam against the undervoltage frame when the breaker is closed and over-travel is taken up on the solenoid. E=EACH DEVICE W=WEEKLY BIWEEKLY **ps**

SPEC I-T-E CIRCUIT BREAKER COMPANY NO.TD-5048 FACTORY SPECIFICATIONS SECTION 8" **TYPE** MODEL 1955 PAGE_2_OF_2 COMPILED GEH CHECKED APPROVEDS GT DATE DATE 5-19-55 DATE REV. 8. UNDERVOLTAGE TRIP, INSTANT. & TIME DELAY (continued) Spud for DC. Only Q REVISION FIG. 8-3 3 FIG. 8-2 (4) Overtravel Adjust "F" (Fig. 8-2) with "G" forced against magnet (after latch bite set per par. 3-e) so gap at "K" (Fig. 3-3) is .112 to .132". Tighten locknut and recheck. E ERLY (5) Operating springs to insure "dragoff" with breaker closed E MONTHLY handle held up, and dropout voltage impressed. (6) Pickup voltage no more than 80% rated voltage, bkr. open. E (7) Adjust screws "H" on bell crank of time delay (if used) so pin "J" floats in slot of dashpot link when adhesive discs are together (Fig. 8-3). Tighten locknuts. (8) Time delay (if used) to meet requirements to TD-1175-C. EEKL (9) Drop out and control voltages per TD-1175-C unless otherwise specified on Bill of Material. <u>a</u> (10) Resistance check on coil to insure furnishing correct E coil as per Bill of Material.

I-T-E CIRCUIT BREAKER COMPANY NO.TD-504 FACTORY SPECIFICATIONS SECTION **TYPE** MODEL PAGE 1 OF CHECKED APPROVED' COMPILED CEH GT REV. DATE 4-1-55 DATE DATE 7-20-55 9. CLOSING RELAY FIG. 9-1 Adjustments (1) Air Gap Adjustment E Set air gap "B", using "A" to meet low voltage minimums of TD-1175-F. Gap "B" 1/4" minimum, "C" always attracted to "D" when voltage initially impressed. Tighten Socknuts and recheck. (2) Contacts All contacts (except "E") make when air gap "B" is 1/16" to 3/32" and at one time within 1/64"... Contact "B" closed in normally de-energized position and when "C" is sealed to "D". Contact "E" open when "C" is sealed to "F". ٤ E (3) Control voltage range per TD-1175-F unless otherwise specified on bill of material.

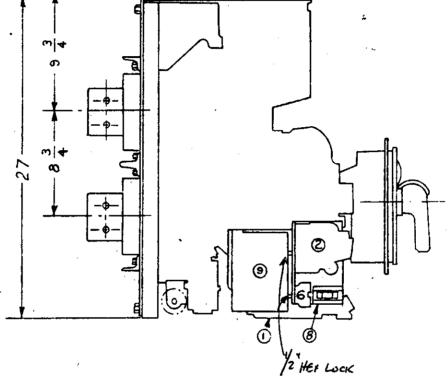
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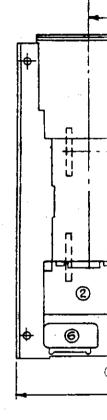
NO.TD-5048 I-T-E CIRCUIT BREAKER COMPANY FACTORY SPECIFICATIONS SECTION 10. MODEL A 1955 KD PAGE_1_OF_ APPROVED V COMPILED_GENDATE _3-25-55 CHECKED_GT_ DATE_5-19-55 GEH 0 REV. DATE_ * ELECTRICAL CLEARANCES AND TESTS 10. E Electrical clearances per TD-1253 (1) Ε Dielectric test voltages per TD-1175-D (2) M . QUARTERLY M . MONTHLY 2W = BIWEEKLY



SPEC I-T-E CIRCUIT BREAKER COMPANY D-5048 FACTORY SPECIFICATIONS SECTION TYPE MODEL PAGE 2 OF 2 COMPILED CH DATE 11-9-55 REV. O DATE * DRAWOUT INTERLOCK (continued) ± 32 11. BETWEEN SIDE PIECE
SECONDARY IS A SPACE CONTROL CONTACT CHANNEL SUPPORT BOLT, LOCK FRONT OF PANEL Y'SLEE MT & LOCK REVISIONS 2 FLATS JOP VIEW OF BREAKER 184-LOCKINUT 1/6" COPPER WASHER 12 SLEEVE E 3M * QUARTERLY M = MONTHLY Fig. 11-2 Clearance B. Add shims 212547-J at A as required to maintain (Measure at both dimension between wheels. front and rear wheels.) EACH DEVICE * BIWEEKLY W-WEEKLY

SPEC. I-T-E CIRCUIT BREAKER COMPANY NO. TD-504 FACTORY SPECIFICATIONS 12 SECTION **TYPE** MODEL -1955 PAGE ! OF ! COMPILED CH'D. G. TOOTELIAN 0 6-14-55 DATE 12-10 6-14-55 REV. DATE DATE 12. GENERAL INFORMATION





STANDARD PHYSICAL ARRANGEMENT OF EQUIPMENT

PART NO. CLOSING SOLENOID

REVISIONS

3M = QUARTERLY

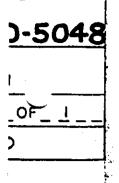
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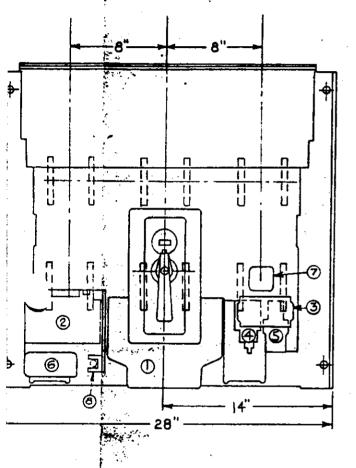
EF EACH DEVICE

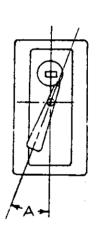
W WEEKLY

- BIWEEKLY

- CONTROL RELAY 2.
- AUXILIARY SWITCH
- SHUNT TRIP
- UNDERVOLTAGE TRIP
- 6 PT. TERMINAL BLOCK
- 2 PT. TERMINAL BLOCK (REQUIRED WITH UNDERVOLTAGE ONLY)
- FUSE BLOCK (REQUIRED ON A.C. SOLENOID) RECTIFIER (REQUIRED ON A.C. SOLENOID)







NOTES:

- 1. TOLERANCES ON DIMENSIONS SHOWN # 1/16".
- Z. ANGLE "A" NOT MORE THAN 2 DEGREES EITHER SIDE OF VERTICAL.
- 3. EACH BASE-PANEL SHALL BE INSPECTED TO DETECT THE PRESENCE OR ABSENCE OF MAGNETIC MATERIAL IN THE MOUNTING PANEL. THE PANEL FOR THE KD CIRCUIT BREAKER SHALL BE NON-MAGNETIC. VERTICAL END STIFFERERSMAY BE MAGNETIC.

SPEC. 1-T-E CIRCUIT BREAKER COMPANY NO. TD-5048 FACTORY SPECIFICATIONS SECTION 19 MODEL ___ A 1955 PAGE _1_OF__1. APP. COMPILED 5 CH'D. DATE_T DATE. DATE REV. 19. LUBRICATION (1) Pins, shafts, bearings, etc. Apply thin coating of Anderol L-798 Synthetic grease. Latch surfaces (except tripper bar latch) (2) exposed roller and cam surfaces: Apply thin coating of Anderol L-798 (3) Tripper bar latch. Apply thin coating of following mixture: 1 part Molykote Type "Z" powder 4 parts Anderol L-798 (by volume) (4) Solenoid Apply thin coat of Molykote Type "Z" powder to piston rings (5) Buffer Apply thin coating of Molykote Type "Z" powder to piston rings. Apply thin coating of Molykote grease mixture as in Item 3 to buffer plunger. (6) Contact joints Coat with "No-Oxid", "A Special" grease. REVISIONS Wipe off excess after assembly. See Fig. 2-1. All pins of overcurrent device to be (7) lubricated with Molykote grease mixture as in Item 3. ERLY MONTHLY BIWEEKLY

₩330

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NO.TD-5048 I-T-E CIRCUIT BREAKER COMPANY FACTORY SPECIFICATIONS SECTION MODEL A 1955 **TYPE** PAGE_1_OF_ APPROVED COMPILED GEH CHECKED GT. REV. DATE. DATE_ 20. FINAL INSPECTION The circuit breaker should be inspected before shipment to insure that: The circuit breaker is manufactured according to E (1)the Bill of Material with regards to: a. The type and description of the circuit breaker. b. Electrical ratings of circuit breaker. c. Type and number of auxiliary devices. d. Number, type and calibration settings of the overcurrent devices. e. Required nameplate information. f. Control specifications. The following items are supplied with the circuit E breaker according to the Bill of Material: a. One (1) instruction book. b. One (1) wiring diagram for each type control scheme. c. Photograph (if specified) The circuit breaker has been assembled with the E (3) following considerations: a. All adjustment locking devices are in place and tightened. b. Pin retainers are used in their proper application with regard to type and size. c. All screws and nuts must be tight. d. All flexible connectors are to be free of sharp bends and distortion. (4) The circuit breaker operation is such that: a. Overtravel adjustments are adequate to trip the circuit breaker. b. Circuit breaker trips under conditions of QUARTERLY trip free operation. c. Circuit breaker must re-latch under all con-MONTHLY ditions. 3 **-TEST ACTIVIT** * EACH DEVICE BIWEEKLY WEEKLY

I-T-E CIRCUIT BREAKER COMPANY

FACTORY SPECIFICATIONS

MODEL A 1955

COMPILED G. F. CH'D. DATE DATE APP. DATE SPEC. NO. TD5048

21 SECTION

PAGE _1_ OF___1_

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REV.

MAILING LIST 21.

Department	Location	No. of Copies		
Service	A4-8	1		
Engineering	M2-8	1		
C.B. Quality Control	M5-23	1		

3M * QUARTERLY - MONTHLY 2W - BIWEEKLY

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