g		GE Industrial	Systems	Functional <sup>-</sup>	Testing Spe	ecification
	Renewal Ser Louisville, K			LOU	-GED-0827D8	354
		Test Procedure for a	progressive	draw assembly		
DOCUM	MENT REVISION STATUS	: Determined by the last entry	in the "REV" an	d "DATE" column		
REV.		DESCRIPTION		S	SIGNATURE	REV. DATE
Α	Initial release				R. Duvall	07/25/02
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<b>DATE</b> 07/25/	/02	DATE	DATE		DATE 07/25/02	

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#### Functional test procedure for a progressive draw assembly.

#### 1. SCOPE

**1.1** This is a functional testing procedure for a progressive draw assembly.

# 2. STANDARDS OF QUALITY

**2.1** Refer to the current revision of the IPC-A-610 standard for workmanship standards.

# 3. APPLICABLE DOCUMENTS

- **3.1** The following document(s) shall form part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue shall apply.
  - 3.1.1 148B9809 ( Elem. And Conn. Diagram)
  - 3.1.2 193A9373 (Original factory TI)

## 4. **ENGINEERING REQUIREMENTS**

- 4.1 Equipment Cleaning
  - **4.1.1** Equipment should be clean and free of debris prior to applying power unless performing an initial check. Refer to the local documented procedures for cleaning guidelines.
- 4.2 Equipment Inspection
  - **4.2.1** Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:
    - 4.2.1.1 Wires broken or cracked
    - 4.2.1.2 Terminal strips / connectors broken or cracked
    - **4.2.1.3** Loose wires
    - 4.2.1.4 Components visually damaged
    - 4.2.1.5 Capacitors leaking
    - 4.2.1.6 Solder joints damaged or cold
    - 4.2.1.7 Circuit board burned or de-laminated
    - 4.2.1.8 Printed wire runs burned or damaged

## 5. EQUIPMENT REQUIRED

**5.1** The following equipment is required to perform the process requirements. Equipment may be substituted provided that all accuracy's and test ratios are equivalent or better.

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Qty	Reference #	Description
1		Fluke 85 DMM (or Equivalent)
1		115 VAC Line Cord

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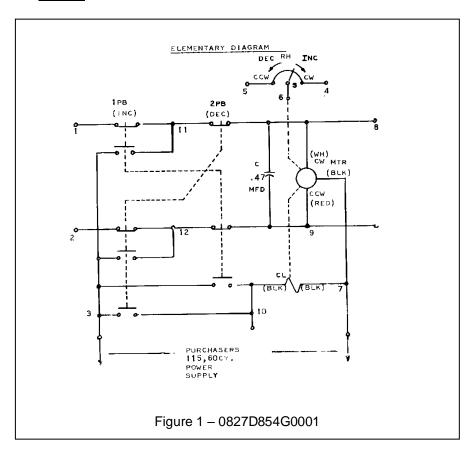
# 6. TESTING PROCESS

- 6.1 Setup
  - 6.1.1
- 6.2 Testing Procedure
  - **6.2.1** Check to see that knob, couplings, and Helipot turn free without binding.
  - **6.2.2** Using the DMM, check the continuity and overall resistance of the Helipot ( refer to the BOM for proper resistance value).
  - **6.2.3** Verify wiring against elementary diagram. (see section 7)
  - **6.2.4** Verify counter dial ZERO setting against Helipot ZERO resistance by adjusting the dial to zero and measuring the resistance at TB points 5 and 6.
  - **6.2.5** Connect 115VAC to TB points 3 and 7.
  - **6.2.6** With DMM connected to TB points 5 and 6, press the INCREASE pushbutton (1PB).
    - **6.2.6.1** Verify that the motor rotates clockwise at about 2 RPM.
    - **6.2.6.2** Verify that the Helipot resistance increases linearly until maximum resistance is reached.
    - **6.2.6.3** Verify that the clutch dis-engages the motor from the shaft when maximum resistance is reached.
  - **6.2.7** Press the DECREASE pushbutton and verify that the motor and counter dial rotate counter clockwise.
  - **6.2.8** Manually adjust the counter dial back to zero verifying that all numbers are present and legible while turning.
- 6.3 \*\*\*TEST COMPLETE \*\*\*

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## 7. NOTES



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