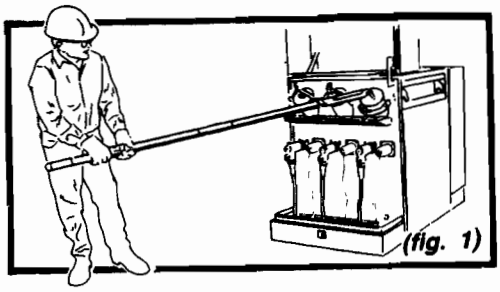
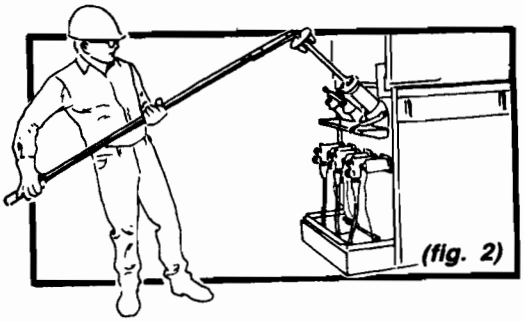
Fusing Equipment

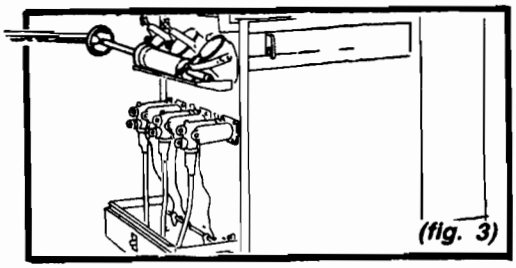
Cooper Power Systems

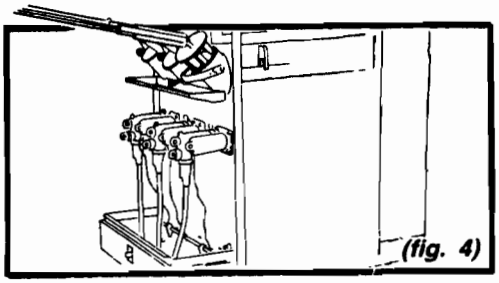
RTE® ELST Tandem Fuse Installation Instructions

Service Information
S240-75-1


(fig. 1)


(fig. 2)


(fig. 3)

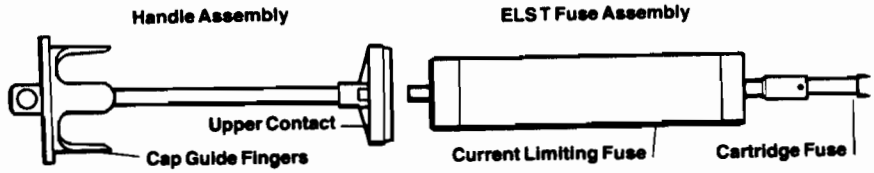

(fig. 4)

CAUTION: Remove and park all load side separable connectors and install insulated protective caps on tap bushing before installing or removing fuse. Fuse IS NOT a loadbreak device.

REMOVING FUSE ASSEMBLY

1. Provide protection for rubber terminations from dripping oil. Install drip pan or cover rubber terminations.
2. Operate pressure relief valve with shotgun stick (if applicable).
3. Attach shotgun stick to eyebolt, loosen eyebolt and lower bail.
4. Place shotgun stick loosely on fuseholder eye.
5. Rotate cap clockwise one half turn with shotgun stick to break seal (Figure 1).
6. With shotgun stick still loosely attached, slowly lift fuse assembly from well (Figure 2). Remove fuse slowly enough to allow excess oil to drain back into the well.
7. Place fuse assembly in clean drip pan or drip cloth. Wipe off excess oil (Figure 3).

REPLACING ELST TANDEM FUSE ASSEMBLY



8. Remove the ELST fuse assembly from the operating handle assembly. *CAUTION: Do not lift or carry the ELST fuse assembly by the cartridge fuse.*
9. Attach a new ELST fuse assembly to the operating handle. Tighten to 15 ft lbs torque using 7/8" cartridge wrench flats only. *CAUTION: Components of Cooper Power Systems' ELST Tandem Fuse cannot be intermixed with components of any other manufacturer. Be sure that only components of identical manufacture, voltage, and ampere rating are assembled together.*
10. Attach shotgun stick loosely to fuseholder eye.
11. Lift fuse assembly with shotgun stick and slowly insert assembly into wetwell.
12. Center guide fingers of cap into wetwell until contact resistance is felt (Figure 4). *CAUTION: Do not ram or force fuse closed. A firm push with a slight twist is all that is required. Push fuse assembly into wetwell until cap seats.*
13. Replace bail assembly. Tighten eyebolt to seat cap gasket.

These instructions do not claim to cover all details or variations in the equipment, procedure, or process described, nor to provide directions for meeting every contingency during installation, operation, or maintenance. When additional information is desired to satisfy a problem not covered sufficiently for the user's purpose, please contact your Cooper Power Systems sales engineer.

January 1992 • Supercedes 9/87 • © 1992 Cooper Power Systems, Inc.
Printed in U.S.A.

TESTING ELST FUSE ASSEMBLY COMPONENTS

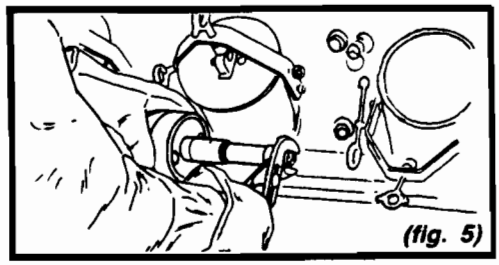
The ELST Tandem Fuse consists of two independent sections: 1) a current limiting fuse section and 2) an expulsion fuse section.

Both fuses will operate on high current faults while only the expulsion fuse will operate on low fault currents (eg., below 1,000 A).

A continuity test can determine if the expulsion fuse section or current limiting fuse section are open. This can be done with the fuse intact using an ohmmeter or self-powered continuity tester.

To confirm the integrity of the current limiting fuse section, after a positive continuity test, additional shop testing of the fuse assembly is required.

1. Loosen setscrew on the expulsion cartridge fuse section.
2. Using adjustable wrenches or pliers, unscrew the two fuse sections and discard the expulsion fuse (Figure 5).
3. Test the current limiting fuse section using a micro-ohmmeter to verify the nominal resistance.
4. Discard the current limiting fuse if the resistance is not within the minimum and maximum ratings specified.
5. If the resistance of the current limiting fuse meets the minimum and maximum ratings specified it can be re-used by assemblying with a new expulsion fuse using adjustable wrenches or pliers.


(fig. 5)

CAUTION: Components of Cooper Power Systems' ELST Tandem Fuse cannot be intermixed with components of any other manufacturer. Be sure that only components of identical manufacture, voltage, and ampere ratings are assembled together.

6. The fuse assembly can be used as a replacement in the field as described on Page 1, Step 9.

Cooper Power Systems
15kV ELST Tandem Fuse
(Maximum Design Voltage 8.3kV)

Fuse Rating	Complete ELST Fuse Assembly	Cartridge Fuse Section	Current Limiting Fuse	Current Limiting Fuse Resistance (Ohms)		
				Nominal	Minimum	Maximum
200E	83ELST200	83TEX200	83TEL200	.0036	.0032	.0040
150E	83ELST150	83TEX150	83TEL150	.0051	.0046	.0056
100E	83ELST100	83TEX100	83TEL100	.0081	.0073	.0089
75E	83ELST75	83TEX75	83TEL75	.0114	.0103	.0125
50E	83ELST50	83TEX50	83TEL50	.0136	.0122	.0150
30E	83ELST30	83TEX30	83TEL30	.0181	.0168	.0206
20E	83ELST20	83TEX20	83TEL20	.0181	.0168	.0200

COOPER
Cooper Power Systems
P.O. Box 2850, Pittsburgh, PA 15230

RTE® is a registered trademark of Cooper Industries, Inc.

Quality from Cooper Industries