DOUBLE INSULATED PORTABLE ELECTRIC DRILLS
DESCRIPTION AND USE

Contents

1. GENERAL

1.01 This section covers description, precautions, use and maintenance of double insulated drills. It also provides information regarding cordage used with electric drills and maximum allowable distances from power sources.

2. DESCRIPTION

2.01 The 3/8-inch Millers Falls Model SP-6039 electric drill is the only double insulated electric drill standard for use in the Pacific Company. This drill has both functional and protective insulation and affords as much protection as a tool properly grounded with a grounding conductor.

2.02 This drill has a non-conductive "Lexan" housing, designed to withstand the same heavy duty usage as conventional metal housings.

2.03 The trigger switch assembly should be the non-locking type. If it is not, the drill must be returned and the locking mechanism removed.

2.04 The Model SP-6039 3/8-inch drill has a variable no-load speed of from 0 to 1000 RPM.

2.05 This drill is equipped with a reversing feature.

2.06 A pistol grip handle is incorporated in the 3/8-inch Millers Falls Model SP-6039 design.

2.07 The double-insulated drill is equipped with a 2-conductor cord and a 2-prong plug.

2.08 Table A provides specifications for the 3/8-inch Millers Falls Model SP-6039 electric drill.

TABLE A
SPECIFICATIONS

Drill Type	Millers Falls 3/8-inch
Model No.	SP-6039
Volts	115 (AC only)
Amperage at 115 V	2.3
Chuck Size	3/8-inch
Speed (no load)	0-1000 (Variable)
Reversible	Yes
Case Materials	"Lexan"
Handle	Pistol Grip
Cord	10 ft. (2 Conductor)
Drill Length	8-3/4 inches
Weight	3 lbs.

3. SAFETY PRECAUTIONS

3.01 Always wear eye protection when drilling. (Refer to Section 081-020-011, Part 2, Eye Protection.)

3.02 Position the drill so that hands will not be pinched should the bit bind or hit a knot or a nail.

3.03 When an auger-type bit is used, do not force the bit into the wood; allow the lead screw to pull it.

3.04 Use caution around turning bits. Clothing may become entangled, causing injuries.

3.05 Make sure that footing is firm and dry when using portable electric tools.

3.06 Before making adjustments or changing bits, disconnect the drill from the power source.

3.07 Do not remove parts or modify drills in any way to accommodate attachments or fixtures. Such action may destroy the double insulation creating a safety hazard.

3.08 Do not attach the chuck key to the power cord in a manner that might damage the cord insulation.

3.09 Never use an electric drill in a manhole.

4. CARE AND USE

4.01 Always insert drill bit to the bottom of the chuck. This allows the chuck jaws to grip all of the shank and prevents cocking of the jaws.

4.02 Only the chuck key shall be used to tighten or loosen a chuck. First, hand-tighten the drill chuck, then complete the tightening operation with the chuck key.

4.03 Use all three holes of the chuck body to tighten it. Only one hole is required to release the drill bit.

4.04 Make certain that material to be drilled is anchored or clamped securely. When drilling light gauge material, use a back up block.

4.05 Always use sharp drill bits.

4.06 When using masonry or metal bits, apply pressure in a straight line with the bit. Use sufficient pressure to keep drill biting into material. Do not apply excess pressure, which can stall the motor or deflect the bit, causing it to snap.

4.07 Reduce pressure on drill and ease bit through the last part of the material being drilled to minimize stalling.

4.08 Keep drill housing and ventilating slots free of oil, grease, and dirt.

4.09 When not in use, store drill in carrying case or other safe location.

4.10 Always carry a drill by the handle, never by the cord.

4.11 Check the drill housing screws for tightness at regular intervals.

5. INSPECTION AND MAINTENANCE

5.01 Before each use, the drill housing and cord should be inspected for damage. The case should be clean and free of cracks, and the ventilating slots should be clear to afford maximum cooling.

5.02 Never use tape to repair cord defects or to secure cracked or loose drill housings. Return drills with defective cords or housings to Western Electric for repair.

5.03 A supervisor, or a person designated by him, shall test each drill monthly, using either a KS-16990 or a KS-8455 test set and the following procedure:

TEST PROCEDURE

Place one clip of the test set to one blade of the drill cord plug. Holding the trigger switch in the "on" position, touch the other clip progressively to each visible metal part of the drill. Repeat this procedure for the other plug blade.

A needle deflection of the KS-8455 Test Set or the illumination of the neon lamp in the KS-16990 Test Set will determine if there is a path for current leakage between the power input to the drill motor and any external metal part, such as the chuck, nameplate, or case screws.

5.04 A drill which has continuity between either of the plug blades and any exposed metal part shall be tagged as defective and returned to Western Electric for repairs.

6. EXTENSION CORDS

6.01 A third wire, grounding conductor, is not required when an approved double insulated tool is used. However, since extension cords are used with a wide assortment of electrical tools, it is mandatory that only 3-conductor extension cords be used; 2-conductor cords are not approved and shall not be used.

6.02 Only 3-conductor standard extension cords having a "U" grounding type plug cap at one end and a "U" grounding type connector body at the other shall be used.

6.03 The standard "C" Extension Cord is adequate to provide power to one 3/8-inch drill for a maximum distance of 200 feet.

6.04 Where possible, use a short extension cord. The "D" Extension Cord should be used with heavy duty electrical equipment such as the 1/2-inch drill.

6.05 When there is a need for a long extension cord, use the 3-conductor, 18 gauge KS-19167 cordage in 100-foot increments with 3/8-inch drills.

6.06 For heavy duty drills, use KS-19167 cordage of the following gauges and lengths when long extension cords are required:

Length Maximum	Number of Heavy Duty Drills	Gauge
200 feet	1 or 2	14
400 feet	1 or 2	12

7. USE OF TEMPORARY COMMERCIAL AC POWER SUPPLY

7.01 Before connecting to a temporary commercial power supply, use the B-Voltage Tester to test the meter box or conduit for any stray current (see Section 620-105-010).

7.02 After determining that commercial power facilities are safe, plug the standard Fused "Y" Connector directly into a 115 to 125 volt, 20 ampere outlet at the temporary service pole. Do not connect the "Y" Connector to adapters, extension cords, or "Y" Connectors owned by others.