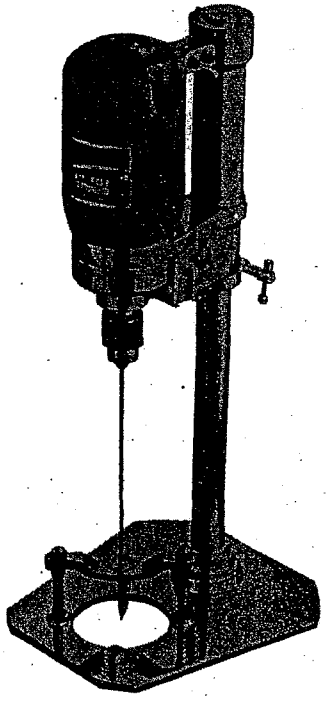
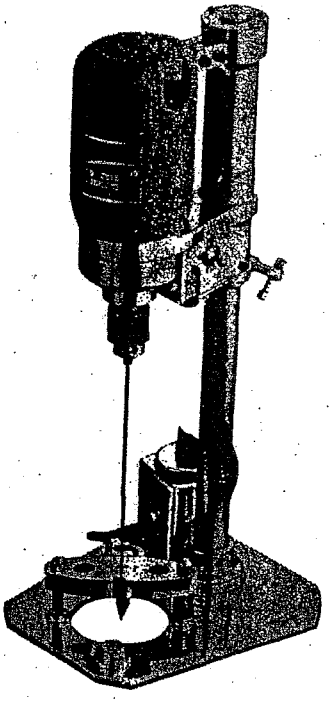
BOOK NO. 22103

MAIMIN®

CLOTH DRILL



POWRTEMP DRILL



EDITION 4

INSTRUCTIONS AND PARTS LIST

1. SAFETY INSTRUCTIONS:

a. Be sure machine is properly grounded
b. Use correct electrical wiring:

U.S.A. only:
1 phase: Use AWG 16/3 SJ, SJT
3 phase: Use AWG 16/4 SJ, SJT

International:
1P+N+⏚ Use 3 x 1.0 mm² CEE(2) 61
3P+⏚ Use 4 x 1.0 mm² CEE(2) 61

c. Keep cutting area clean and well lit.
d. Keep visitors away from cutting area.
e. Do not use drill in damp or wet location.
f. Store drill in dry location.
g. Keep drill clean and needles sharp for best and safest performance.
h. Always disconnect drill when not in use, before servicing, and when changing needles.
i. Remove wrench from chuck before starting motor.
j. Avoid accidental starting by disconnecting electrical cord before carrying drill and making sure switch is off before connecting cord.
k. Keep hands away from rotating needles.
l. Do not touch Powrtemp needle guide when hot.

2. TO OPERATE:

Attach the connector (458B) to the terminal pins (309C). The motor is operated by turning on the motor switch (540).

Place the machine on top of the lay of material to be drilled. To lower the drill needle into the material, loosen and drop the height clamp (626), and then slide the motor bracket (654F) down the post (652A). The drill needle enters and leaves the material by moving the motor bracket.

3. TO SET HEIGHT CLAMP:

Before drilling the cloth, adjust the height clamp (626) to limit the depth of drilling. Without the motor running, place the machine on the edge of the lay. Lower the motor bracket so that the lower tip of the needle enters the table (maximum 1/32″-0,8 mm). Then lock the height clamp at that point so that the needle will not go lower when in use.

NOTE: When drilling, heavy cardboard or plywood should be slipped under the bottom ply of the lay to prevent the needle from entering the table. This will preserve the surface of the table.

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4. TO OPERATE HEATING OF POWRTEMP DRILL:

The needle is heated by turning the control knob (686D) for the heat control switch from "off" to "high." Wait about ten minutes for needle to heat fully, and then drill a sample block of material. If the heated needle scorches the fabric, turn the control knob to a lower position. When the control knob is in the "off" position, the drill can be used as a regular Cloth Drill.

5. TO CHANGE NEEDLE:

Chuck (618B) holds the needle. The needle is locked or released by using the chuck wrench (639B) to open or close the jaws of the chuck.

The needle guide (629, 684) has four holes for different needle diameters. *Important* — the needle must pass through the hole at the *front* of the needle guide to be in proper alignment. When changing to a needle of a different diameter, rotate the needle guide so that the matching hole is in the front.

The needle guide screw (629S) on the Cloth Drill is a wing screw which can be turned by hand. However, the needle guide screw (684S) for the Powrtemp Drill is a slotted head screw which should only be turned with a screw driver in order to prevent burning of the fingers when the needle guide is hot.

When the needle is changed in the drill, the drill can be tilted back and held by hand or it can be laid on its back, the top of the post resting on the table, to prevent any damage to the brush caps (10752).

6. NEEDLES AVAILABLE:

a. Description

There are three types of needles commonly available for drilling holes in cloth. They are the round point needle, the half cup needle, and the hollow needle. These needles are available in various diameters (listed below) for drilling different size holes. It is advisable to drill the smallest hole possible so as not to affect the finished garment. Try different needles to select the best one for your materials.

The *round point needle* is used in the Cloth Drill for closely woven materials as it spreads the threads but does not cut them. In the Powrtemp Drill the round point needle is always used with heat for drilling loosely woven materials as the needle opens the hole while the heat "sets" the threads so that the hole does not close up again.

The *half cup needle* cuts away material and is used on coarser woven fabrics which would not show the marking of the round point needle.

The *hollow needle* is generally used on loosely woven fabrics to cut out a hole in the material.

Synthetic materials, such as nylon, often fuse when being drilled with an ordinary needle. It is recommended that the needle be reversed and a flat be ground at a 45° angle on the blunt end of the needle. This *"chisel" edge* will drill the synthetic material without fusing.

b. Diameter Sizes:

#5 = .055" (1,40 mm)
#1 = .076" (1,93 mm)
#2 = .096" (2,44 mm)
#4 = .125" (3,18 mm)
5/32" = .156" (3,96 mm)
3/16" = .188" (4,76 mm)

c. Needle Lengths:

Nominal Length	*Overall Length*
6"	7-5/16" (18,6 cm)
8"	9-5/16" (23,6 cm)
9"	10-5/16" (26,2 cm)
11"	12-5/16" (31,3 cm)

d. Part Numbers of Needles Available:

Type	*Dia. Size*	*Lengths* 6"	8"	9"	11"
Round Point	#5	645	645A	—	—
	#1	640B	640A	640C	—
	#2	642B	642A	642C	—
	#4	647B	647A	647C	647D
	5/32"	649M	649N	649P	649V
Half Cup	#1	641B	641A	641C	—
	#2	643B	643A	643C	—
	#4	648B	648A	648C	—
Hollow	#2	646B	646A	646C	—
	#4	644B	644A	644C	644D
	3/16"	649B	649A	649F	649D

7. CARE AND MAINTENANCE:

Wipe post (652A) clean occasionally with a dry rag. This will insure that the motor bracket (654F) will slide up and down the post easily. Do not oil as it will collect dirt.

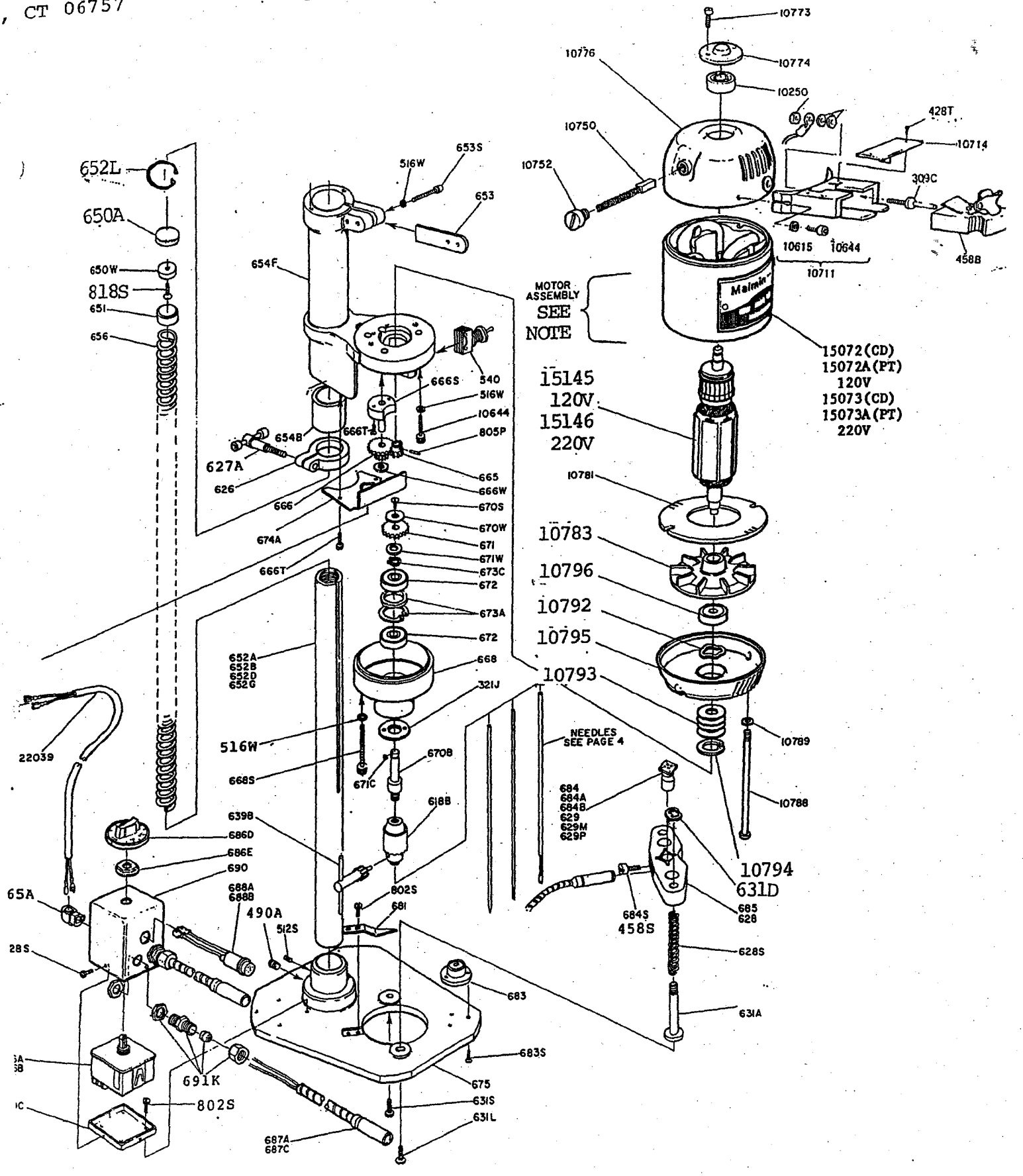
The copper commutator on the armature (15140, 15143) should be cleaned of carbon once a year. Merely insert a fine piece of emery cloth in the slot of the top housing (10790) and lightly touch the copper commutator as the armature is turning.

To change the carbon brush and spring (10750), unscrew the brush cap (10752) and remove the brush.

AUTION: ALWAYS DISCONNECT MACHINE FROM ELECTRICAL OUTLET BEFORE MAKING ADJUSTMENTS.

O. Box 549
nt, CT 06757

CLOTH DRILL/POWRTEMP DRILL



ALWAYS GIVE MACHINE SERIAL NUMBER WHEN ORDERING PARTS

3/26/92

P.O. Box 549
Kent, CT. 06757

Parts List

Part No.	Description
309C	Terminal Pin
309E	Nut
309G	Washer
428T	Screw
443B	Strain Relief
458S	Knurled Thumbscrew
465A	Strain Relief
490A	Screw 5/16 - 18 X 3/8 Soc. Set Cone Pt.
627A	Screw, Height Clamp
631D	Retaining Ring
650A	Post Disk
652L	Retaining Ring
691K	Strain Relief
818S	Screw, 6-32 X 1/4 Flat Hd.
10615	Washer
10711	Terminal Block Assembly (w/10714, 10644, 309C)
10714	Terminal Block Cover
10776	Top Housing Only
10783	Fan
10792	Undulated Washer
10793	Washer
10794	Retaining Ring
10795	Bottom Housing Only
10796	Bearing, Bottom
15072	Top Housing & Field Assembly 120V (Cloth Drill
15072A	Top Housing & Field Assembly 120V (Powrtemp)
15073	Top Housing & Field Assembly 220V (Cloth Drill)
15073A	Top Housing & Field Assembly 220V (Powrtemp)
15145	Armature DC1-5 or DP1-5 120V
15146	Armature DC2-5 or DP2-5 220V

NOTE:

CLOTH DRILL

15101D	Motor Only DC1-5 120V
15100D	Motor Only DC2-5 220V

POWRTEMP DRILL

15101E	Motor Only DP1-5 120V
15100E	Motor Only DP2-5 220V

PARTS NOT ILLUSTRATED

516B	Screw 8-32 X 3/16 Fillister Head
658X	Motor Bracket Washer
675F	Baseplate Plug