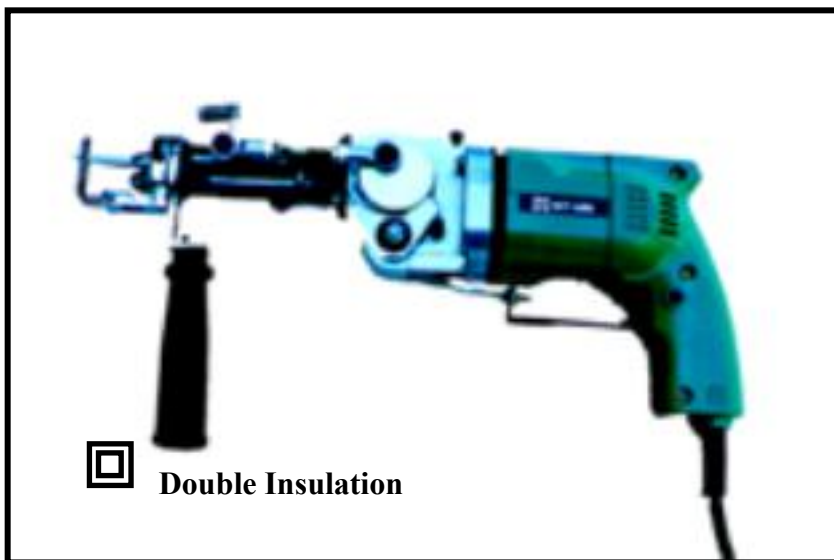


# ZQ-II HAND TUFTING GUN

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## MANUAL



**Jining Better Origin Machinery Co., Ltd.**

# **I. BRIEF INTRODUCTION**

ZQ-II Hand Tufting Gun is a portable electric needling implement that features high-speed needling and easy moving. It can tuft various patterns in either moving or fixed working conditions. With a productive efficiency 80-100 times higher than that of handwork production, it is proved to be a creative special multifunctional implement.

This machine model is now the only one of its kind in China. Characterized by simple manipulation, easy handling, excellent durability, few malfunction and convenient adjustment and maintenance, the machine has become a kind of advanced equipment indispensable to the modernization of carpet production and has led to a technical breakthrough for the traditional hand-knitted craftwork in domestic carpet industry.

# **II. SCOPE OF APPLICATION**

This tufting gun can be fit for tufting various kinds of carpets with different specifications. It can be adapt to wool carpet, acrylic carpet and art tapestry of latex backing and weave tufting pattern.

### **III.MAIN TECHNICAL DATA**

<b>MODEL</b>	<b>DZ-II</b>	<b>TUFTING FREQUENCY</b>	<b>1100/min</b>
<b>POWER SUPPLY</b>	<b>220V/50-60Hz</b>	<b>PILE HEIGHT</b>	<b>8-20mm</b>
<b>INPUT POWER</b>	<b>240W</b>	<b>TOTAL WEIGHT</b>	<b>2800g</b>
<b>IDLE SPEED OF MOTOR</b>	<b>2400r/min</b>		

### **IV. CONSTRUCTION OF THE MACHINE**

ZQ-II HAND TUFTING GUN consists of four major parts which are the motor, the component of gearing down,the tufting component of gun head and the cover.

Please see the second half of this manual for the construction of the machine, the detailed drawing and the parts' name.

### **V.USAGE AND DEBUGGING ROUTINE**

#### **1、 Running Check of the Hand Tufting Gun**

Firstly,twist the eccentric mechanism to make sure it can work and not be stuck. Secondly,plug in and turn on the switch to make the hand tufting gun operate without yarn. In normal state, the operation must be reposeful, smooth, without abnormal sound and not be at a standstill and plug up.

#### **2、 Functional Mode Debugging of the Hand Tufting Gun**

In order to make the tufting gun in the best working order and tuft high quality pile surface,please adjust the state in

advance as follows:

(1) Adjust the line of symmetry of the right cam wheel (Part No.19) to make the included angle of it and the tilting block become  $45^{\circ}$ . (refer to picture 1, picture 1-1)

(2) Twist the left cam wheel to make the axes of the end arm bearing(Part No.8) and the axes of the gun body in parallel .(refer to picture 2)

(3) Tweak the end arm bearing to make flex adjustment and make the distance between the guide eyelit of the steel needle(Part No.2) and the front-end canvas holder(Part No.1) shorter than 5mm.

(4) Inspection of Open-and-close State of the Scissors :

Twist the right cam wheel with left hand . While the scissors is pushed to the foremost end , it must be in close state in the needle slide. At the same time, the canvas spring (Part No.5) must be at the position of about 5mm before the canvas holder. Then,twist the cam wheel to pullback the scissors to the rearmost end. The scissors must be in full open state in the needle slide at the moment. If the cutting edge of the scissors can not reach the extreme close state in the foremost end or the extreme open state in the rearmost end,please make it through an overall system adjustment .

### 3、 Threading Yarn and Testing Stitch

Thread the yarn as per picture 3 and test the tufting. If the yarn can not cling to the fabric or the surface yarn pile is out-of-flatness,please make a flex adjustment of

the left end arm bearing to reach your requirement.

#### 4、 Adjustment of the Carpet Pile Height

As for changing the pile height, firstly, please loosen the trip bolt of the canvas spring (refer to picture 4); secondly, tap the canvas spring to protract the relative position of the scissors so as to make the pile height longer ; thirdly, tighten the trip bolt; lastly, adjust again as the means of the above procedures of 2 (1) -2 (3) .

#### 5、 The Requirement of the Edges of the Scissors and the Steel Needle

When the best functional mode of the hand tufting gun has been adjusted, but the needle and the scissor don't reach the requirement, it still will happen that the yarns break, fuzz and are out-of-flatness. Therefore, the requirements of the needle and the scissors are strict.

(1) Be sure to sharpen the edges of the scissors in advance and keep them sharp-edged constantly . Control the crossing angle of the cutting edges of the scissors to be  $25^{\circ}$ - $30^{\circ}$ . It is the best that the scissors edge clearance angle is about  $45^{\circ}$ ( refer to picture 5).

(2) Close the scissor . When 2 blades of the scissors are superimposed, the cusps should be appressed, the light leakage can be seen in the middle parts of the scissor blades to make sure the cusp is powerful. If possible, polish the outside surface of the scissor, besides the edges of it, with feltless polishing bob in favor of tufting level pile surface.

(3) Please inspect the steel needle before working and polish it with fine oil stone. At the same time, grind the hole of the steel needle for the suitable pore diameter according to the thickness of yarn which is subject to feed yarn glidingly.

## VI. PREPARATION AND ATTENTION BEFORE USING

1. Keep evermore the work place clean to make sure the carpet is clean and not blemished after being tufted.
2. Ensure the tufting gun not to be flinged or smashed and sharpen the needle and scissors in time to keep them sharp.
3. Pay attention to the inosculation and tautness of the moving parts and adjust them in time to ensure good running.
4. Be sure to put a little of lubrication oil to the positions of friction of motion of the tufting gun and rub-up the oil stain of the gun body before every work shift.
5. It is noted that the cable can not be damaged and leaky . Pay more attention to electrical safety while string out the socket .

★ ATTENTION: WE KEEP THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE.

# ATTACHED DRAWING

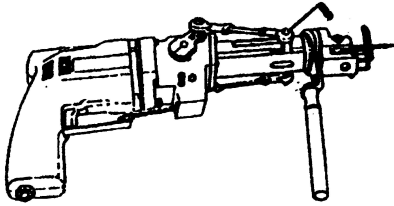


图 1

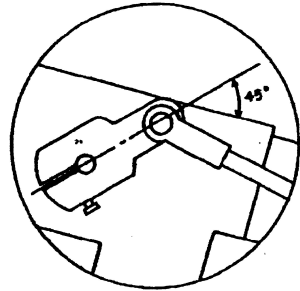


图 1-1

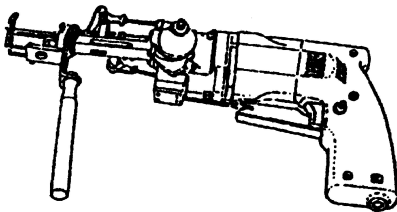


图 2

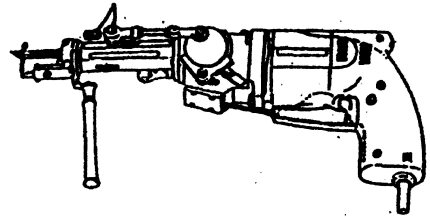


图 3

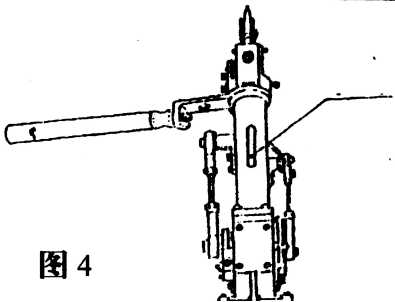


图 4

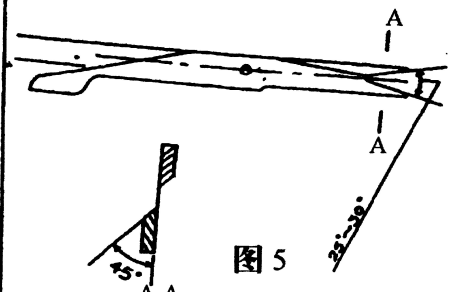
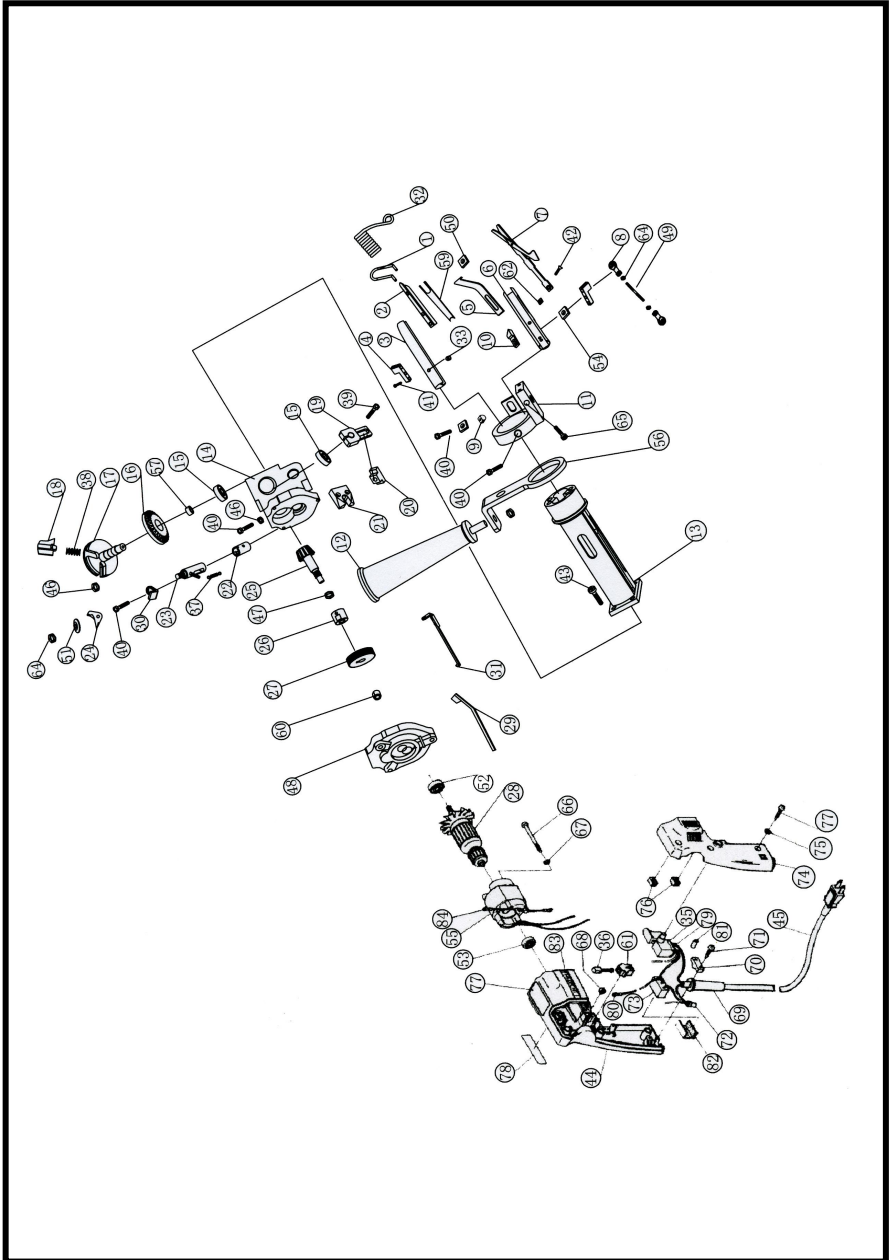


图 5

# PARTS DRAWING





# PARTS NAME

N O .	P A R T S N A M E	N O .	P A R T S N A M E
1	CANVAS HOLDER	43	SCREW (5/32)
2	STEEL NEEDLE	44	NUT (1/8)
3	NEEDLE SLIDE	45	NUT (1/4)
4	ADJUST	46	NUT (3/16)
5	CANVAS SPRING	47	GEAR SHAFT NUT
6	SEISSOR SLIDE	48	ARMATURE END PLATE
7	SEISSOR	49	END ARM BEARINGLINK
8	END ARM BEARING	50	CANVAS SPRING NUT
9	SCISSOR SHOTTER	51	CLUTCH WASHER RETAINING NUT
10	SCISSOR OPENER	52	ARMATURE FROMT BEARING
11	CANVAS NOZZLE RING	53	ARMATURE BACK BEARING
12	HANDLE	54	NUT (6mm)
13	HOUSING	55	STATOR
14	GEAR BOX	56	HANDLE RING
15	GEAR BOX BEARING	57	CLUTCH GEAR WHEEL BUSH
16	CLUTCH GEAR WHEEL	58	STEEL NEEDLE PINCHCOCK
17	CAM WHEEL SHAFT	59	ARMATURE END PLATE BUSH
18	STEEL CLUTCH	60	MATAL
19	CAM WHEEL	61	BRUSH HOLDER
20	CAM NUT	62	SEISSOR WASHER
21	RIGGER PLATE	63	MOTOR
22	CLUTCH WASHER SHAFT BUSH	64	NUT (5mm)
23	CLUTCH WASHER SHAFT	65	SCREW (5/32X1/4)
24	STEEL CLUTCH WASHER	66	HD.MACHINE SCREW
25	GEAR SHAFT	67	SPRING LOCK WASHER
26	GEAR BOX BUSH	68	NUT
27	GEAR WHEEL	69	ORD ARMOR
28	ARMATURE	70	CORD CLIP
29	TRIGGER ROD	71	TAPPING SCREW
30	STEEL CLUTCH WASHER	72	CONNECTOR
31	TRIGGER BAR	73	NOISE SUPPRESSOR
32	YARN HOLE	74	HANDLE COVER
33	BOLT	75	WASHER
34	CLUTCH WASHER SHAFT BOLT	76	PACKING
35	SWITCH	77	NAME PLATE
36	CARBON BRUSH	78	CAUTION PLATE
37	CLUTCH WASHER SHAFT SPRING	79	TERMINAL (A)
38	STEEL CLUTCH SPRING	80	TERMINAL
39	SCREW (1/4X1)	81	TUBE (D)
40	SCREW (3/16X3/8X3/4)	82	SUPPORT
41	SCREW (5/32X1/2X3/4)	83	DAYANG LABE
42	SCREW (1/8)	84	TERMINAL



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