

HIKER ENTERPRISES LTD.

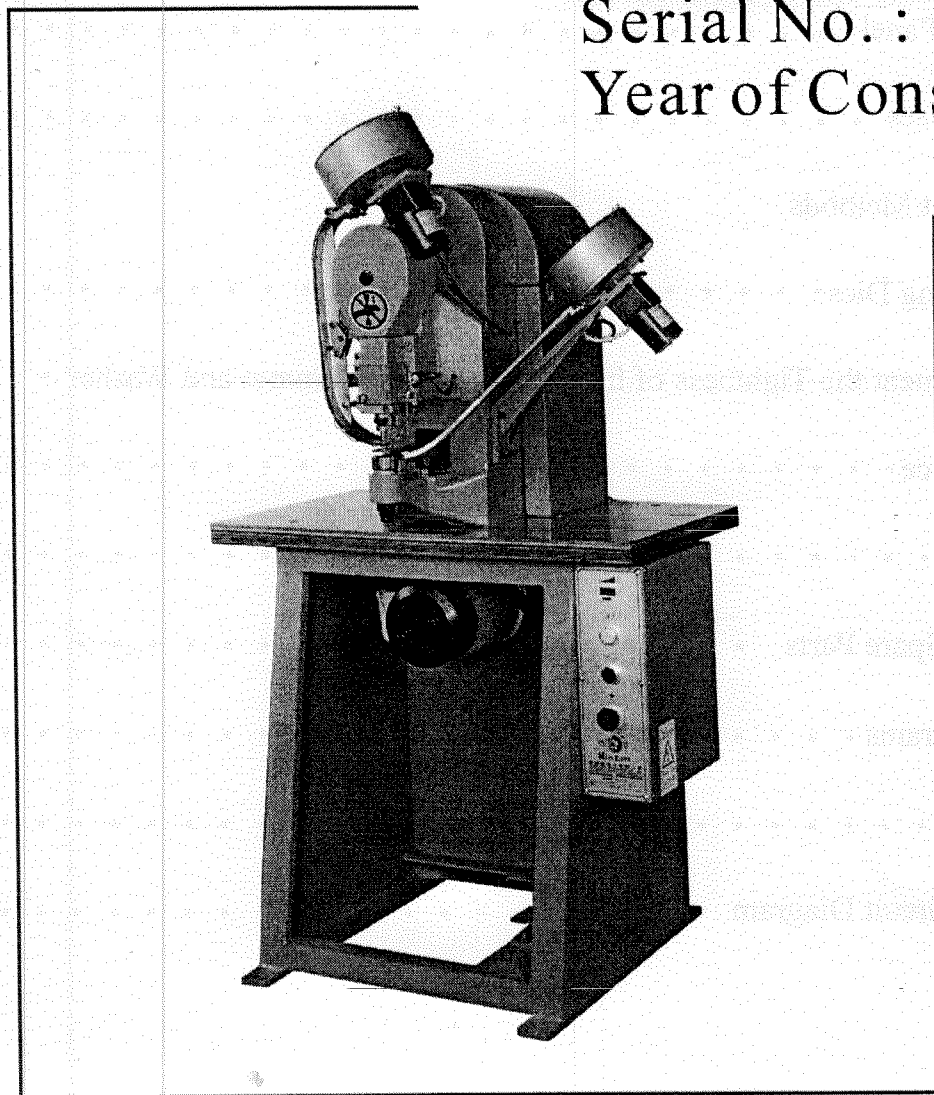
Operation Manual

Automatic Electronic Dual Feed Grommets Machine

Model : H-908

Serial No. :

Year of Constr. : 2003



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SAFETY RULES FOR THIS MACHINE

WARNING:

As with all machines, there is a certain amount of hazard involved with the operator and his use of the machine. Using the machine with the respect and caution demanded as far as safety precautions are concerned will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or completely ignored, personal injury to the operator can occur.

There are also certain applications for which this machine was developed. We strongly recommend that this machine **NOT** be modified and/or used for any application other than that for which it was designed. If you have any questions related to its application, **DO NOT** use the machine until you have been advised.

1. **KNOW YOUR MACHINE.** Read the Operation Manual carefully. Learn the machine applications and limitations, and the specific hazards peculiar to it.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **GROUND** all machines.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **AVOID DANGEROUS ENVIRONMENTS.** Don't use the machine in damp or wet locations, or expose it to rain. Keep work area well lit.
6. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from the work area.
7. **DON'T FORCE THE MACHINE.** It will do the job better and be safer at the rate for which it was designed.
8. **USE THE RIGHT TOOL.** Don't force the machine to do a job for which it was not designed.
9. **WEAR PROPER APPAREL.** No loose clothing gloves, neckties, or jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
10. **SECURE WORK.** Use clamps or a vise to hold work, when practical. It is safer than using your hand, and frees both hands to operate the machine.
11. **DON'T OVERREACH.** Keep your proper footing and balance at all times.
12. **MAINTAIN THE MACHINE IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
13. **DISCONNECT** the machine before servicing and when changing accessories such as belts or other parts
14. **USE RECOMMENDED ACCESSORIES.** Consult the Owner's manual for recommended accessories. The use of improper accessories may cause hazards.
15. **AVOID ACCIDENTAL STARTING.** Make sure switch is in "OFF" position before plugging in cord.
16. **CHECK DAMAGED PARTS.** Before further use of the machine, guards or other parts that appear damaged should be carefully checked to ensure that they operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect operation. Damaged parts should be properly repaired or replaced.
17. **NEVER LEAVE TOOL RUNNING UNATTENDED.** When the power is turned off, do not leave the machine until it comes to a complete stop.
18. **DRUGS, ALCOHOL, MEDICATION.** Do not operate the machine while under the influence of drugs, alcohol, or any medication.

Before using the machine, please read the operation manual. In addition, place this manual where you may access it easily.

1-1 INTRODUCTION

■ Automatic Electronic Dual Feed Grommeting Machine:

The function of this machine is the placement of the grommet with a washer in tents, curtains or any other industrial material that needs these applications. It also can place grommets without washers or simply punch holes in the material.

1-2 SYMBOL DESCRIPTION:



Warning: In this danger zone, inattentive or improper use may result in damage, personal injury or even death.



Attention: Inattentive or improper use may cause damage to the machine or even personal injury.



Attention: When operating, take note of the needed action.



Ground earth wire connected to the grounding terminal.

{ A1 } Within the brackets is the part's code.

1-3 CHARACTERISTICS

■ Description of the machine and its operation.

- Machine model HC-030 Automatic Electronic with two hopper boxes for placing grommet and washer.

The machine consists of a metallic stand with a wood base on which the machine is mounted. The pedal and the electronic equipment that control the machine are located in the stand.

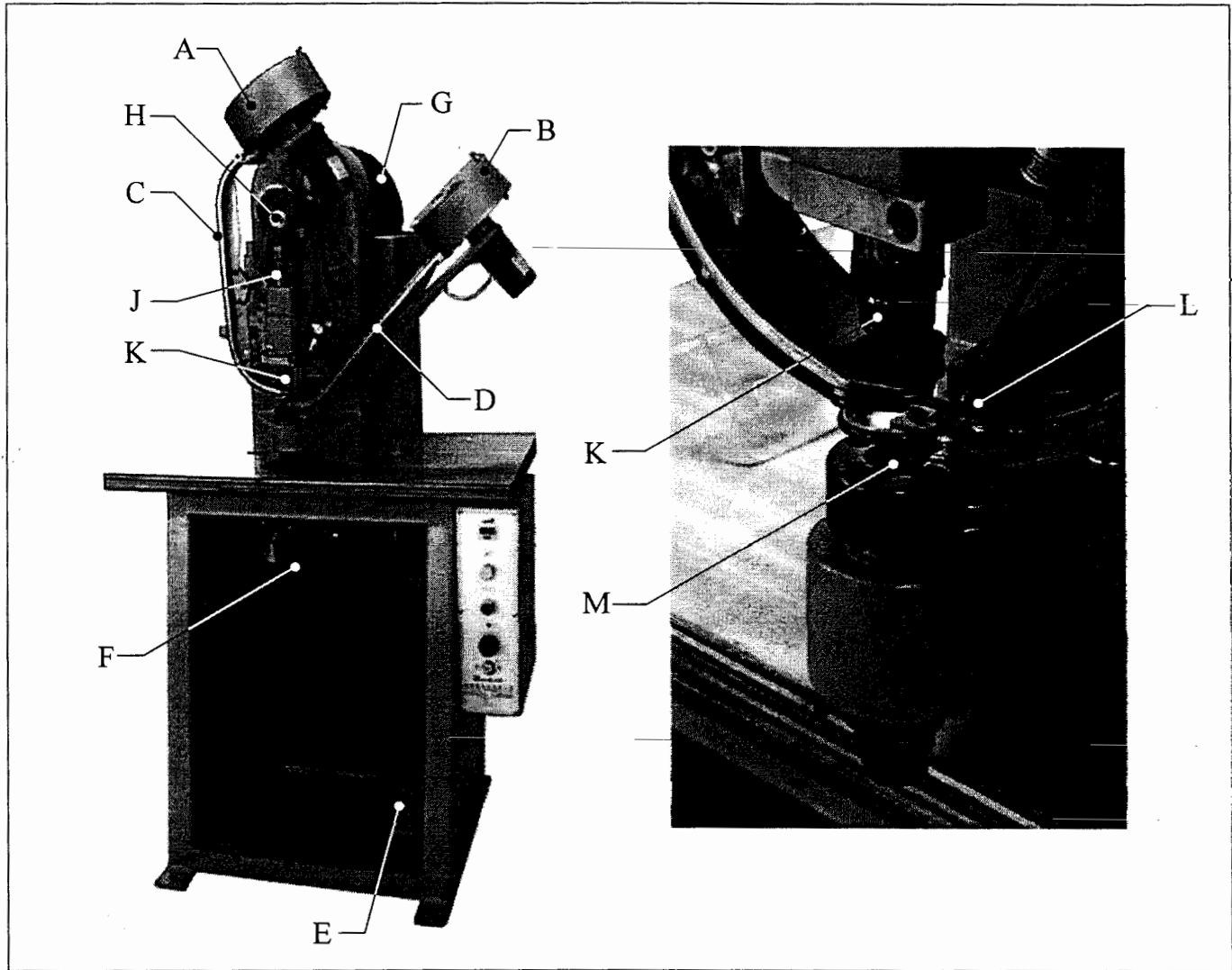
The head of the machine is comprised of a machine housing and two raceways (one on each side). The moving parts in the machine are located inside the housing, such as: the main motor, axles, eccentrics, bearings, etc.; The grommets and the washers use the two raceways to descend.

- The HC-030 model is designed to automatically place the grommets with washers, the grommet without the washer, or to punch holes in the material.

Facing the machine, the grommets are placed in the left hopper box { A } and the washers in hopper box { B }. Both hopper boxes are rotated by individual 15W motors.


The grommets that descend along the left raceway { C } are held by a small finger, which stops them from falling. Lower horizontal guides hold the washers descending along the right raceway { D } .

- The machine is controlled by an electronic unit designated, located inside the mounting stand. The electric signal through pedal [E] that allows the main motor [F] located behind the head, to quickly rotate and haul the flywheel [G] with a belt making a 360° rotation causing the motor to stop sharply.
- The flywheel [G] has a mainshaft [H] that joins the plunger with the other moving parts. By rotating 360°, it exerts pressure on the driving stem and therefore the grommeting action is completed.
- The top set spindle [J] inside the top set [K] inserts itself inside the grommet and pulls it down from raceway [C]. At the same time the slide [L] pushes the washer from the slide track and places it exactly on top of the bottom set [M] .



1-4 ELECTRICAL GROUND


⚠ WARNING:

- **DO NOT** use voltage that exceeds the machine's specifications. To prevent sparks and/or an electrical shock, avoid plugging into terminals with extra inlets.
- The plug must be inserted into the terminal. To prevent sparks, keep all metal objects away.
-  Always check to see that the machine's ground is properly fastened. This will prevent electrical short-circuiting, as well as sparks and/or electrical shock.

2-1 MACHINE HANDLING

Transporting the machine to its place of destination requires a series of operations. Some of these operations are dangerous. Please avoid accidents by following our advice:

- Do not position yourself under the cargo.
- Lift the cargo slowly.
- Avoid balancing the cargo.
- Do not make any sharp movements.
- Do not position yourself in the path of the movement.
- Use lifting equipment appropriate for the cargo.
- Check the cargo periodically.

 **ATTENTION:** ● Remember the machine should not be turned over.

2-2 UNLOADING AND LEVELING

- The machine must be unloaded using either a crane or a forklift.
- When the machine is totally unpacked on the ground, it should be transported using a pallet jack to its permanent location.
- The machine comes out of the factory completely leveled and does not need to be fastened to the ground.
- The legs have rubber feet so that it does not slip if some light movement takes place at the time of its use.
- The ground on which it is located must be strong and solid.

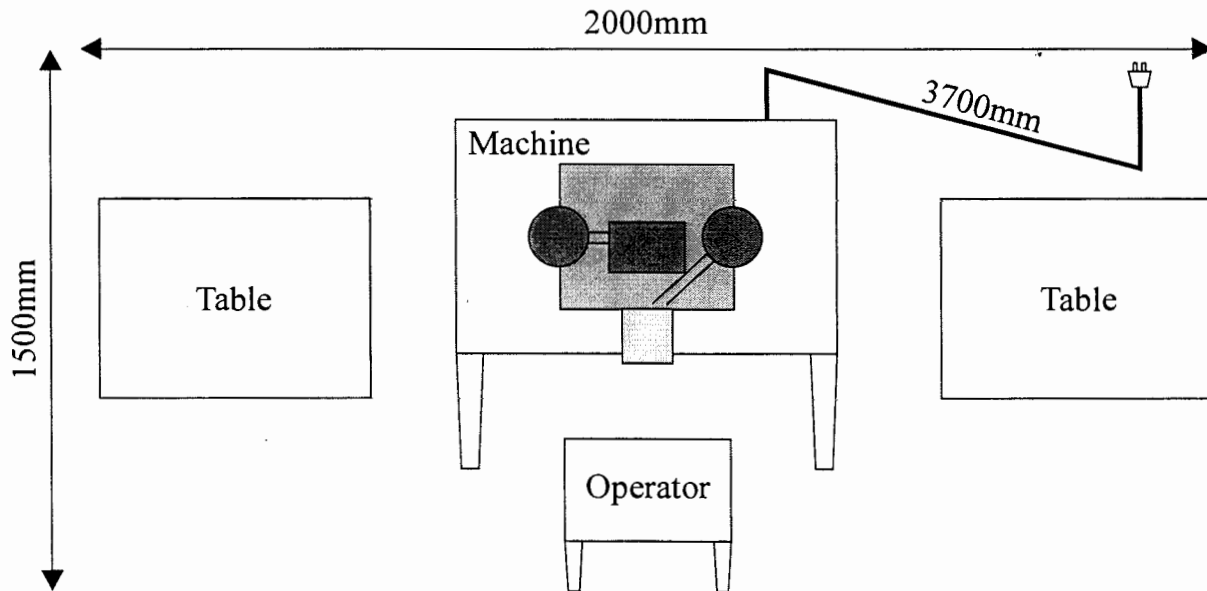
2-3 LEARNING INSTRUCTIONS

 **WARNING:**

- Before plugging in the machine, it should be placed in its permanent location.
- The machine must always be unplugged when cleaning, manipulating or exchanging parts.
- Do not remove the acrylic shield from the machine that protects the worker from possible accidents, nor remove labels that indicate electrical and dangerous areas.

2-4 POSITIONING THE MACHINE

As we indicate in the lower figure, the operator can work in a seated position.
The minimum space recommended is 2000mm in width by 1500mm in depth.

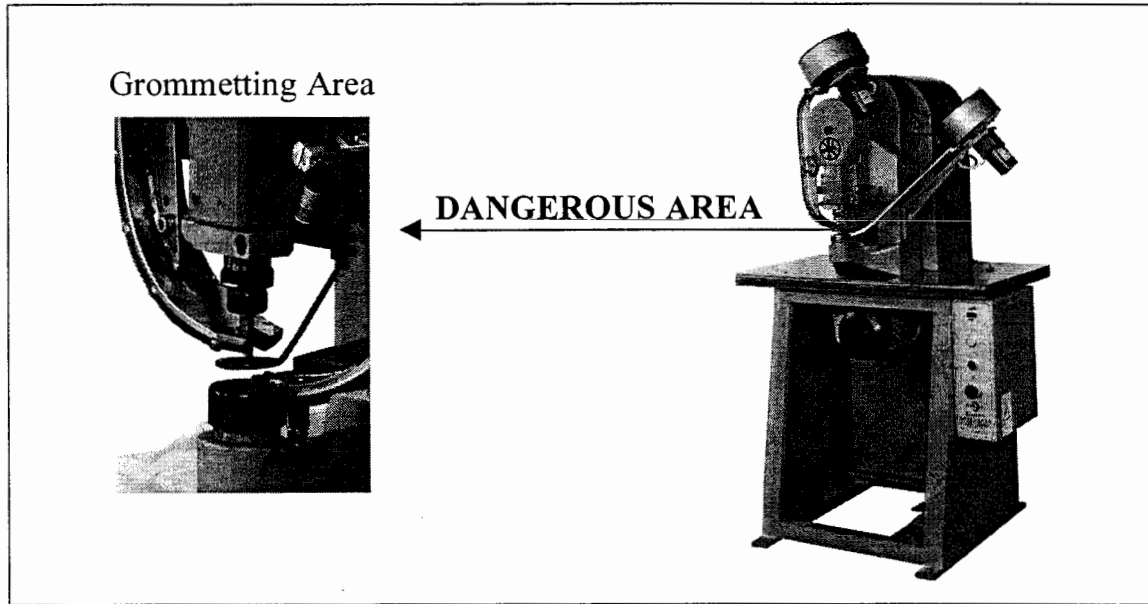


The machine comes with a 3700mm long cable.

⚠ WARNING: • For better operation this electric cable should not be completely stretched.

- The foot pedal is movable for operator's comfort.

⚠ BEFORE STARTING THE MACHINE CAREFULLY READ THESE WARNINGS.



- The most dangerous area in the HC-030 is the "Grommeting Area"(Photo-1).

This area is protected by a transparent acrylic shield and a ring guard. These prevent the fingers from getting caught.

The machine must always be unplugged before making any adjustments.

⚠ ATTENTION: • Do not tamper with or remove these protection devices.

- All areas considered dangerous are marked, and securely enclosed.

Please do not remove the stickers showing these area, and if you have to remove either the acrylic shield or the ring guard, always remember to reinstall and fasten them securely in place.

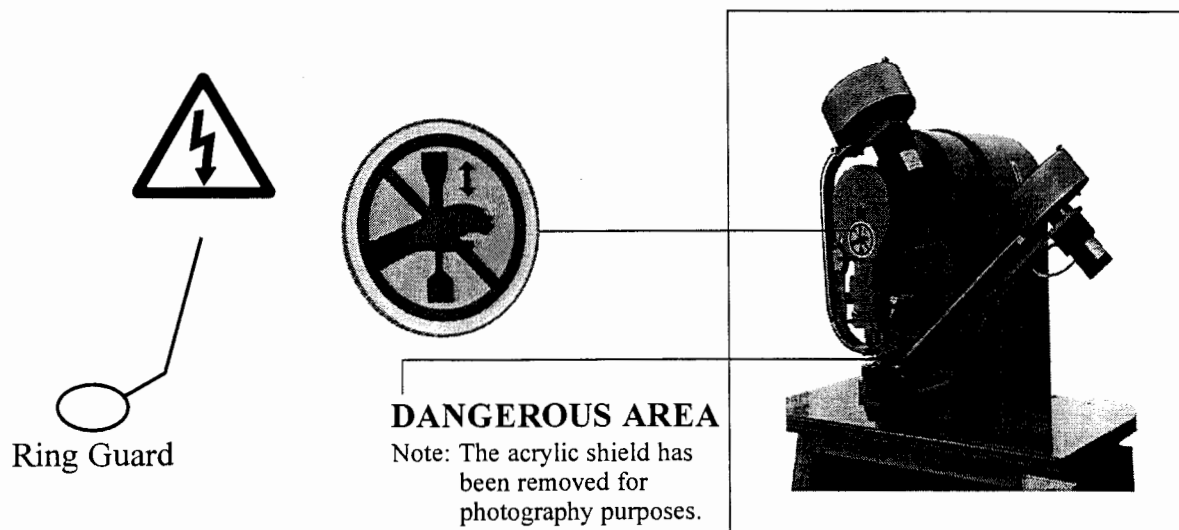
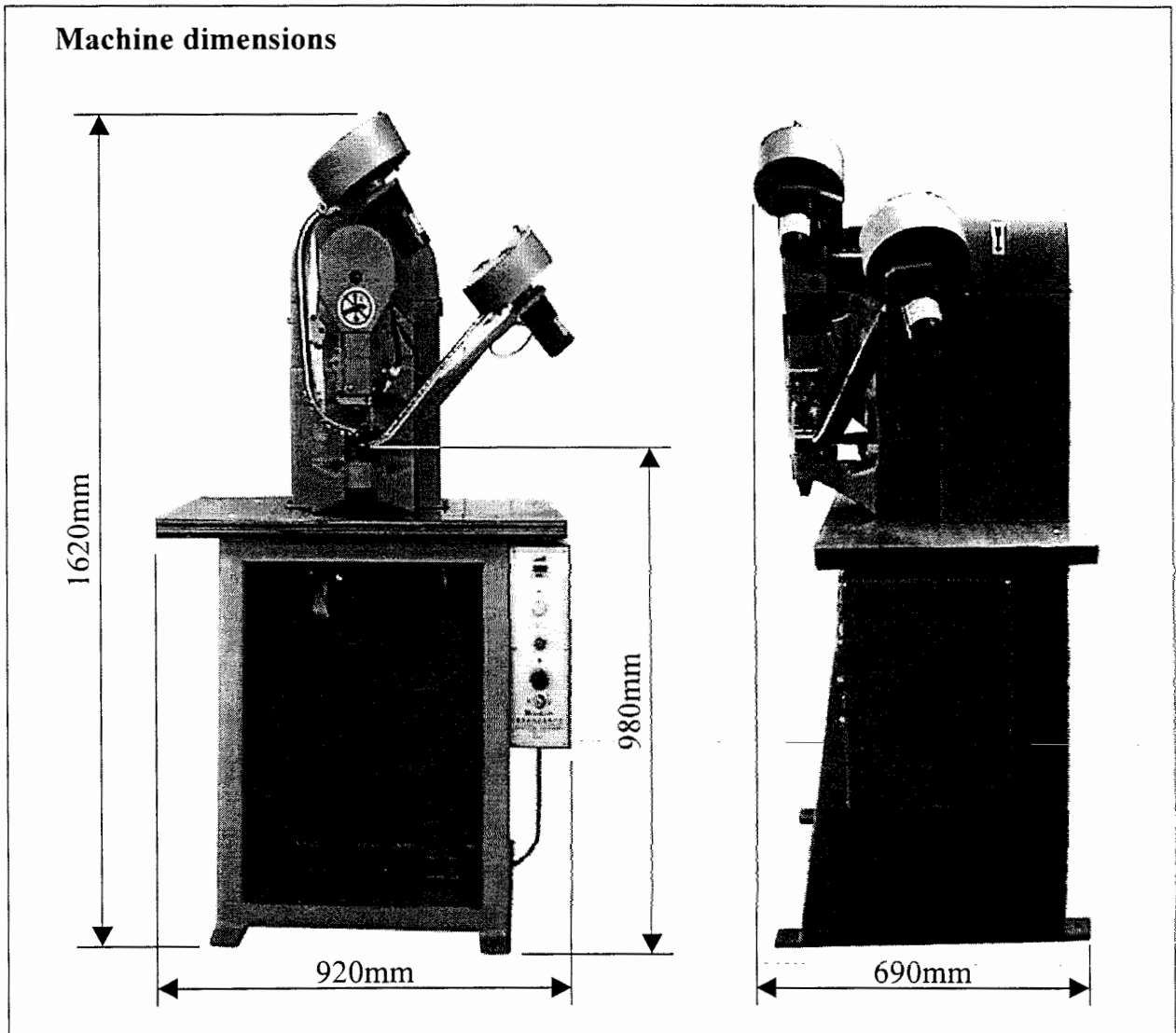
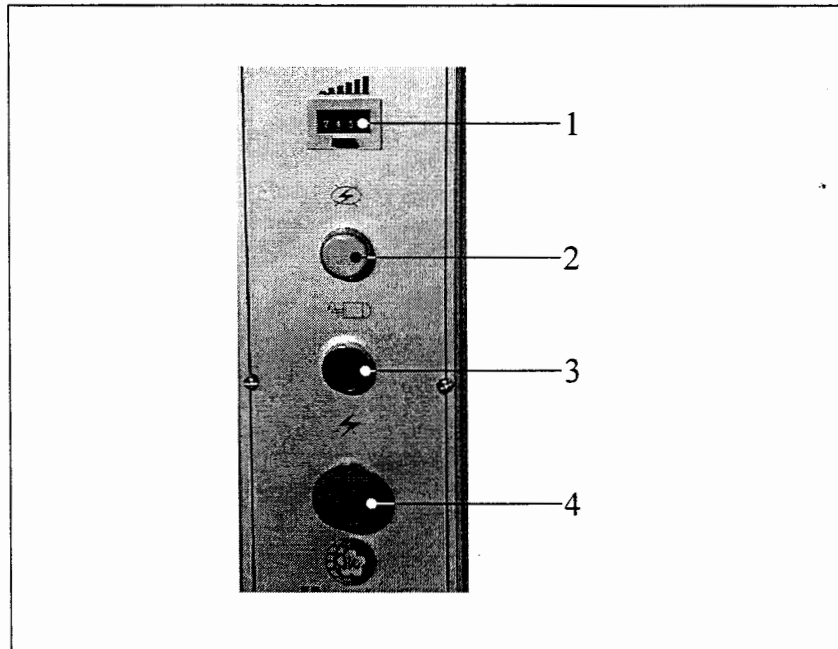


Photo-1

Motor	1HP*4P
Hopper Motor	2-15W
Height From Floor to Bottom Mold	980mm
Machine Dimensions (L*W*H)	690*920*1620mm
Net Weight -----	320kgs
Gross Weight	346kgs



Electronic Unit Designated Box Operating Panel

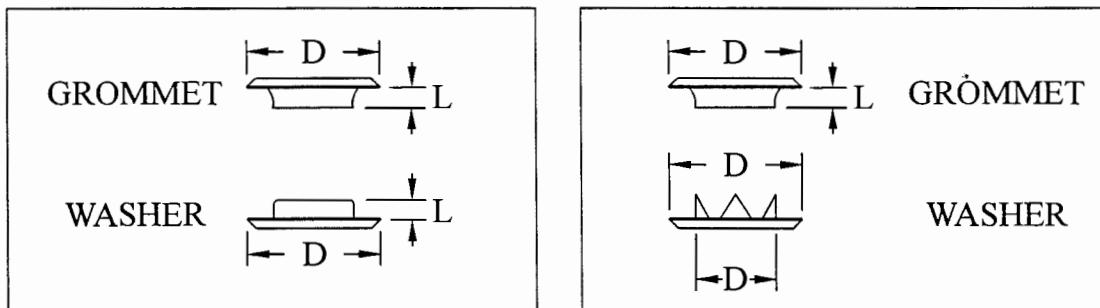


Number	Indicates	Capability
1	Counter	<ul style="list-style-type: none"> • Counts one for each piercing operation function. • Press the reset button to erase the previous count.
2	Power Indicator Lamp	<ul style="list-style-type: none"> • Turn on the main power switch. The indicator lamp will light to show there is power to the machine.
3	Motor switch	<ul style="list-style-type: none"> • Push the button to start the motor.
4	Main Power Switch	<ul style="list-style-type: none"> • To turn the machine on, turn the main power switch as the arrows indicate. • To turn off the machine, and bring all actions to a halt, press the main power switch.

6-1 MACHINE DESCRIPTION

The HC-030 model is an automatic electronic machine designed to set grommets with washers, grommets without washers or to make holes in the material.

- Each machine is manufactured for a specific size of grommet and washer, or one hole size. "D".

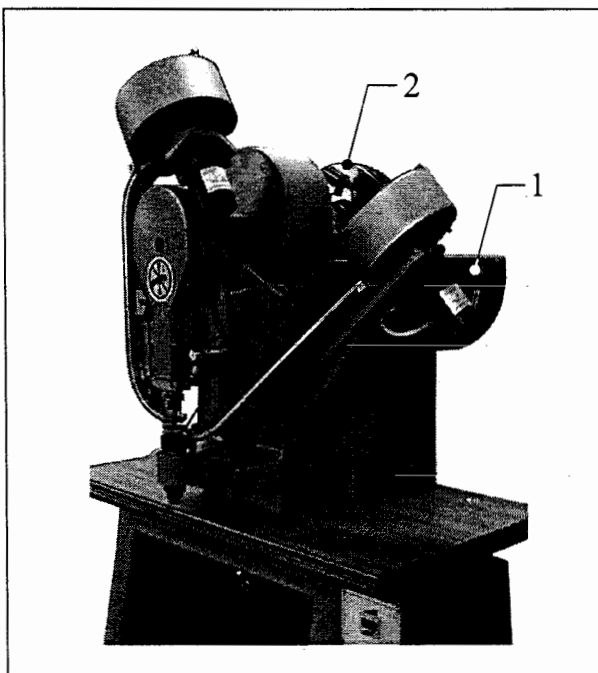


- ! ATTENTION:** • HUEN CHEN ENTERPRISE CO.,LTD. is not accountable for a different size than that which the machine was manufactured for.

6-2 SETTING UP THE MACHINE FOR ITS OPERATION

Please verify these adjustments before connecting the machine.

- Before starting the machine for the first time, and each time the location of the machine is changed, or any changes are made in parts or any adjustments are done to it, we recommend the following steps:
 - After placing and making the machine level in its permanent location "STILL WITHOUT PLUGGING IT IN".
 - Lubricate it with SAE 40[#] type oil in the grease cups and red marks. Let the oil have enough time to cover the parts and then clean the excess oil that might remain or drip.
- To verify the machine is not blocked or might have suffered a blow or breakage, please follow the following steps:
 - Open up the Flywheel Cover [1] .
 - Rotate the Flywheel [2] manually in one cycle of 360° clockwise (follow arrow).
 - Verify the machine is not blocked and is rotating without any obstacle.
 - Replace the Flywheel Cover [1] and tighten.



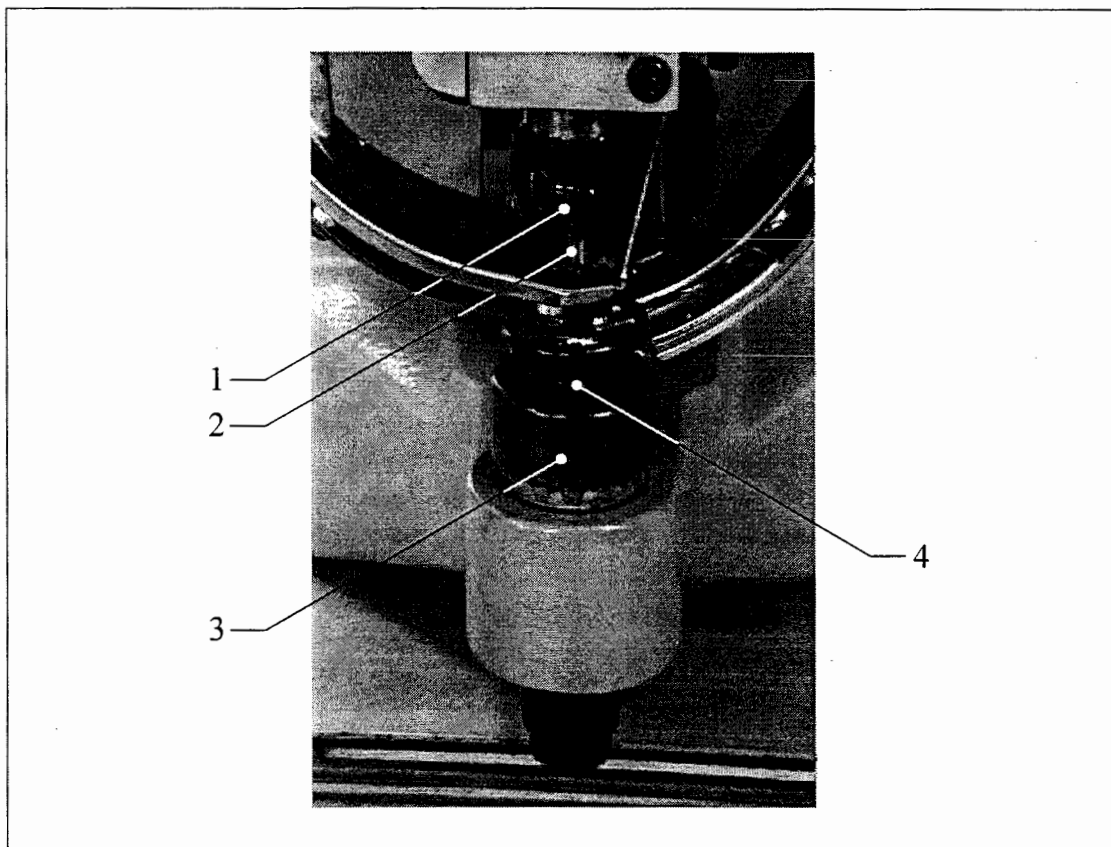
7-1 CHANGING DIES

⚠ ATTENTION:

- Before making any of the following adjustments, the machine **MUST BE DISCONNECTED** from the power source.
- Each time the dies are changed, or a different material is used, it may be necessary to adjust the machine so that a proper setting is achieved.
- Dies should be inspected for wear on a regular basis. Signs of wear are when the machine does not cut cleanly or proper setting is not achieved. The more worn out these parts are, the more effort is required of the machine, and consequently it can become jammed. We recommend you always have spare dies.

REPLACING:

- With the machine unplugged.
- Unscrew the Top Set [1] and remove it together with spindle [2] and main spring.
- Remove the Ring compensator [3] and unscrew the bottom set [4] .
- Replace the new parts in the same order in which the old parts were removed.

**⚠ IMPORTANT:**

- If in order to do these adjustment you need to remove parts identified as for the safety of the worker, such as the transparent acrylic shield or the safety ring. **Remember** when finished to reinstall them back in their place and fasten them firmly with screws.

7. ADJUSTMENT METHODS

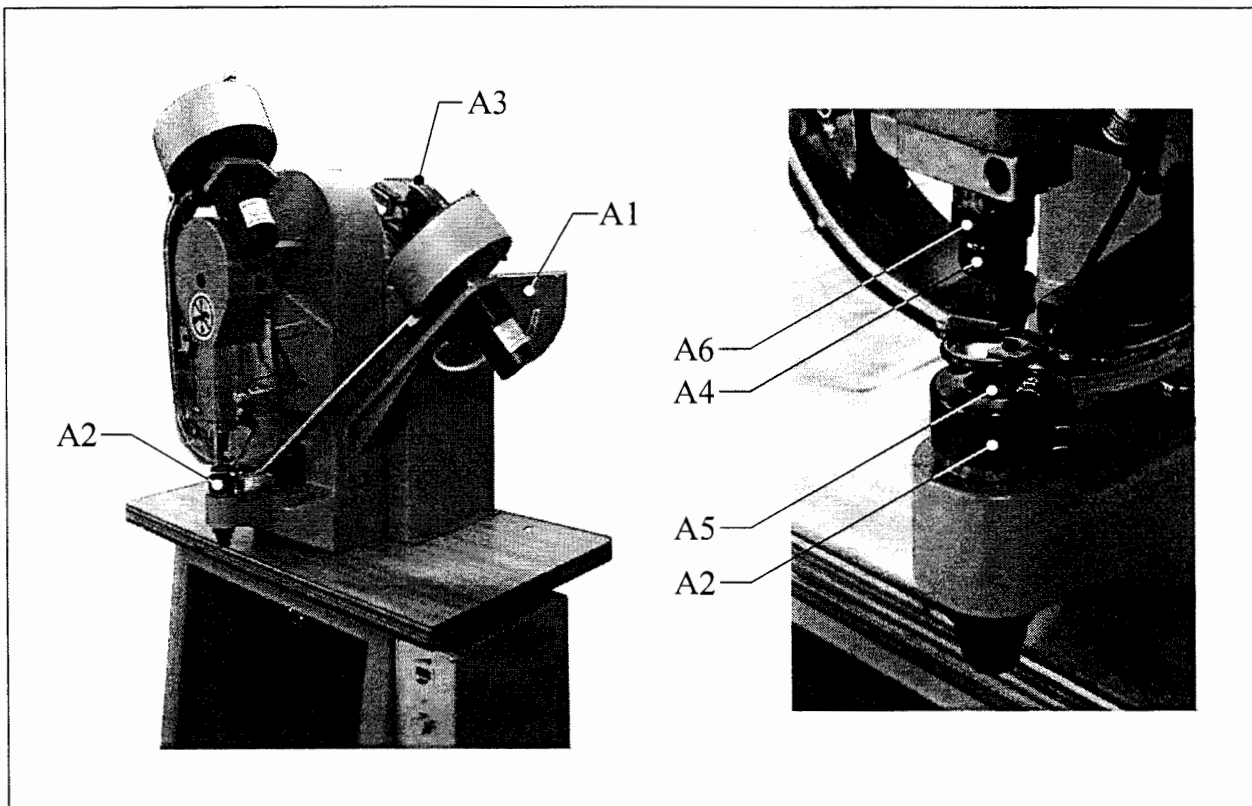
7-2 ADJUSTING THE TIGHTNESS OF THE SETTING OF THE GROMMET AND WASHER

When changing the dies or using a different thickness of material, it may be necessary to adjust the tightness of your setting.

■ **The adjustment of the top set regulates the grommeting action:**

⚠ ATTENTION: With the machine unplugged.

- Open the flywheel cover [A1] .
- Remove the ring compensator [A2] .
- Manually rotate flywheel [A3] until the top set [A4] is in its lowest part.
- The space between top set [A4] and the bottom set [A5] should be the thickness of the material you are using. By unscrewing nut [A6] ,you will be able to turn the top set [A4] to the right or left to achieve the desired tightness of setting between the grommet and washer.
- As soon as the desired tightness of setting is achieved, secure nut [A6] .
- Replace the flywheel cover [A1] and tighten.

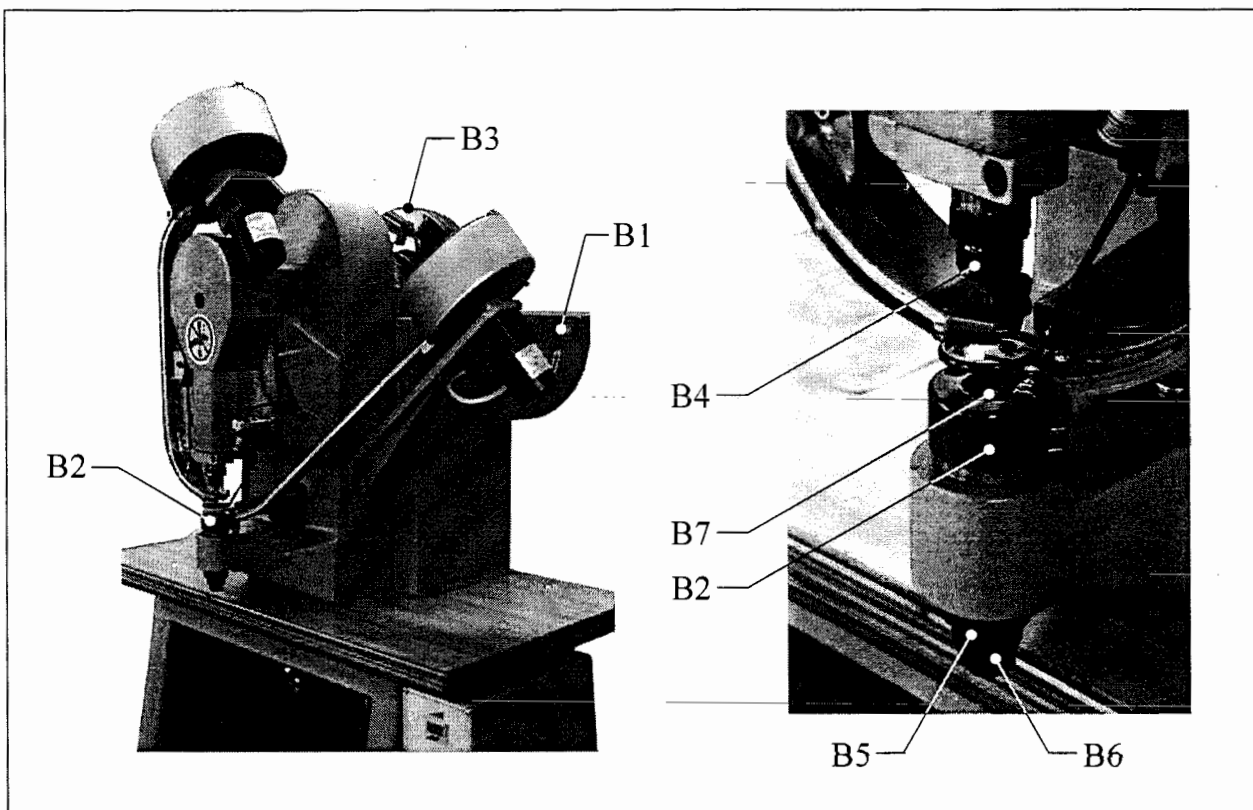


7. ADJUSTMENT METHODS

■ The adjustment of the bottom set regulates the tightness of the setting:

⚠ ATTENTION: With the machine unplugged.

- Open the flywheel cover [B1] .
- Remove the ring compensator [B2] .
- Manually rotate flywheel [B3] until the top set [B4] is in its lowest part.
- Unscrew nut [B5] rotate the bottom set holder [B6] until the bottom set [B7] barely touches the top set spindle [B4] .
- Secure the bottom set holder [B6] through nut [B5] .
- Replace the flywheel cover [B1] and tighten.



■ Placing grommets only, without washers:

The HC-030 model is also capable of setting grommets without washers.

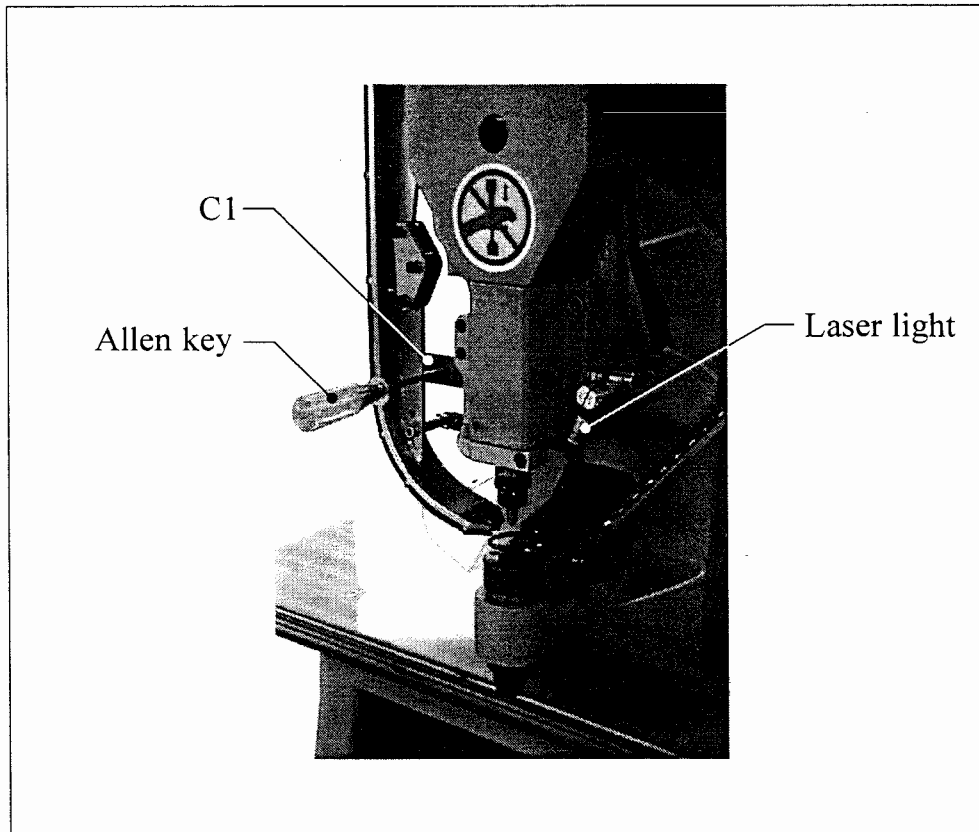
- With machine unplugged, empty the hopper box and the raceway of washers.

■ Perforating only:

If you only want to punch holes in the material, we recommend you install a specific set of dies for that work (cutting dies) and make the following adjustments:

⚠ ATTENTION: With the machine unplugged.

- Empty the hopper box and the raceway of washer.
- Pull the raceway toward the left away from the grommets and fasten it, by placing an Allen key inside the hole of the front raceway bracket [C1] .

**■ Placement laser light:**

Your machine has an optical laser light that emits a red laser beam that can help with the placement of the grommet and washer.

⚠ NOTE: Although the light power of this laser is very small, DO NOT SHINE THIS LIGHT DIRECTLY IN ANYONE'S EYES SINCE IT COULD BE HARMFUL.

8. MAINTENANCE

The advantage of good maintenance is that it helps maintain the machine's fine quality and helps ensure the longevity its parts.

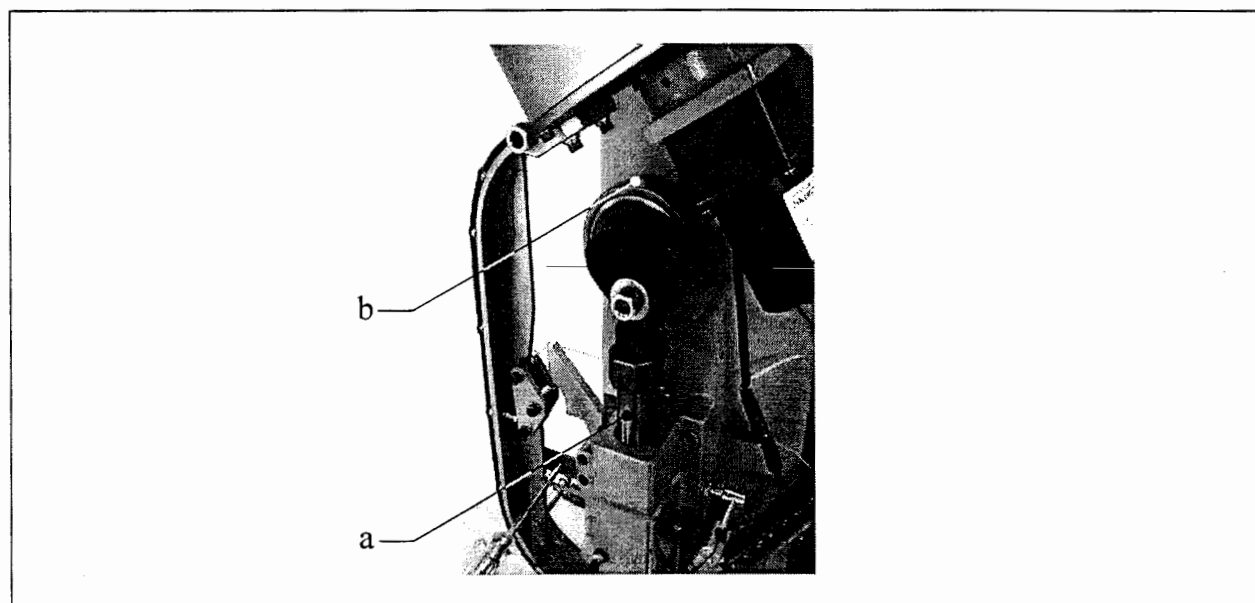
8-1 Points of Attention for Good Maintenance:

! Attention:

- For the optimal operation of the machine, it is recommended that you keep selected parts clean and always lubricated. The cleaning of the machine must always be done with the machine unplugged.
- The foot pedal, must always be clean and have nothing that prevents or jams its normal operation.
- The exterior of the machine will be cleaned with material that does not have threads falling off.
- The raceways, must always be clean and without any scratches that prevent their flow. **DO NOT OIL.**
- If the machine is going to go for a long period of time without use, it will be necessary to do a general cleaning, and greasing in the indicated spots. Then, unplug it and cover it so that it is protected from the dust and/or humidity.

8-2 Maintenance and Inspection Table:

Frequency of Maintenance	Points of Inspection & Maintenance Tips	Materials of Function
Before each day's operation	Inspect each operational control switch on the machine to see that they run properly.	
Every 8 hours	Lubricate the upper die central shaft. [a]	Machinery oil (SAE 40 [#])
Every 48 hours	Lubricate the main drive shaft eccentric wheel. [b]	Machinery oil (SAE 40 [#])

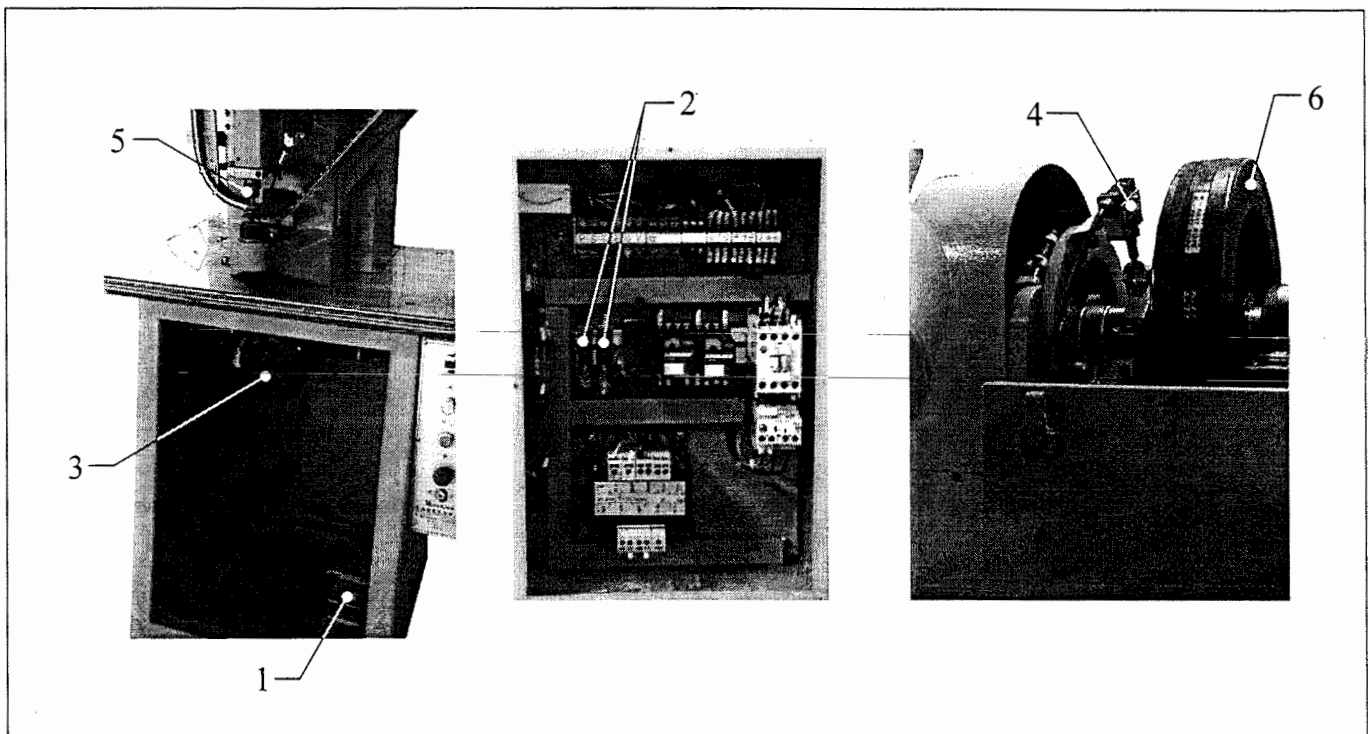


! Attention:

Only a qualified technician and an electrician must fix and repair any mechanical malfunction to this Automatic Electronic Dual Feed Grommeting Machine.

9-1 CLEARING MALFUNCTION

PROBLEM	CAUSE	SOLUTION
The machine doesn't start up	The pedal switch (1) isn't making proper contact or is worn.	Reconnect the pedal's wire splices or replace the pedal.
	Check that the machine is correctly connected to 110V current and the main switch is in the "ON" position.	Connect and turn switch to "ON" until red light is on.
While operating, the machine shuts down	The fuse (2) is blown.	Open the control panel and replace the blown fuse (2) .
	The motor (3) is burned out.	Replace the motor. (To lengthen the life of your motor, let it rest 1 hour after every 4 hours of use.)
The machine can't perform intermittent actions	The main shaft control switch (4) has a bad connection or is worn, it is unable to sense.	Retighten or remove and replace with a new main shaft control switch (4) .
After the upper die rivets, it is unable to rise	When the upper die (5) rivets with the eyelet, jamming the material and cannot move.	Manual rotate the flywheel (6) ; and in this way, the upper die (5) can rise and be released.



Only use **Huen Chen** name brand parts.

Original Factory Supplied Spare Parts:

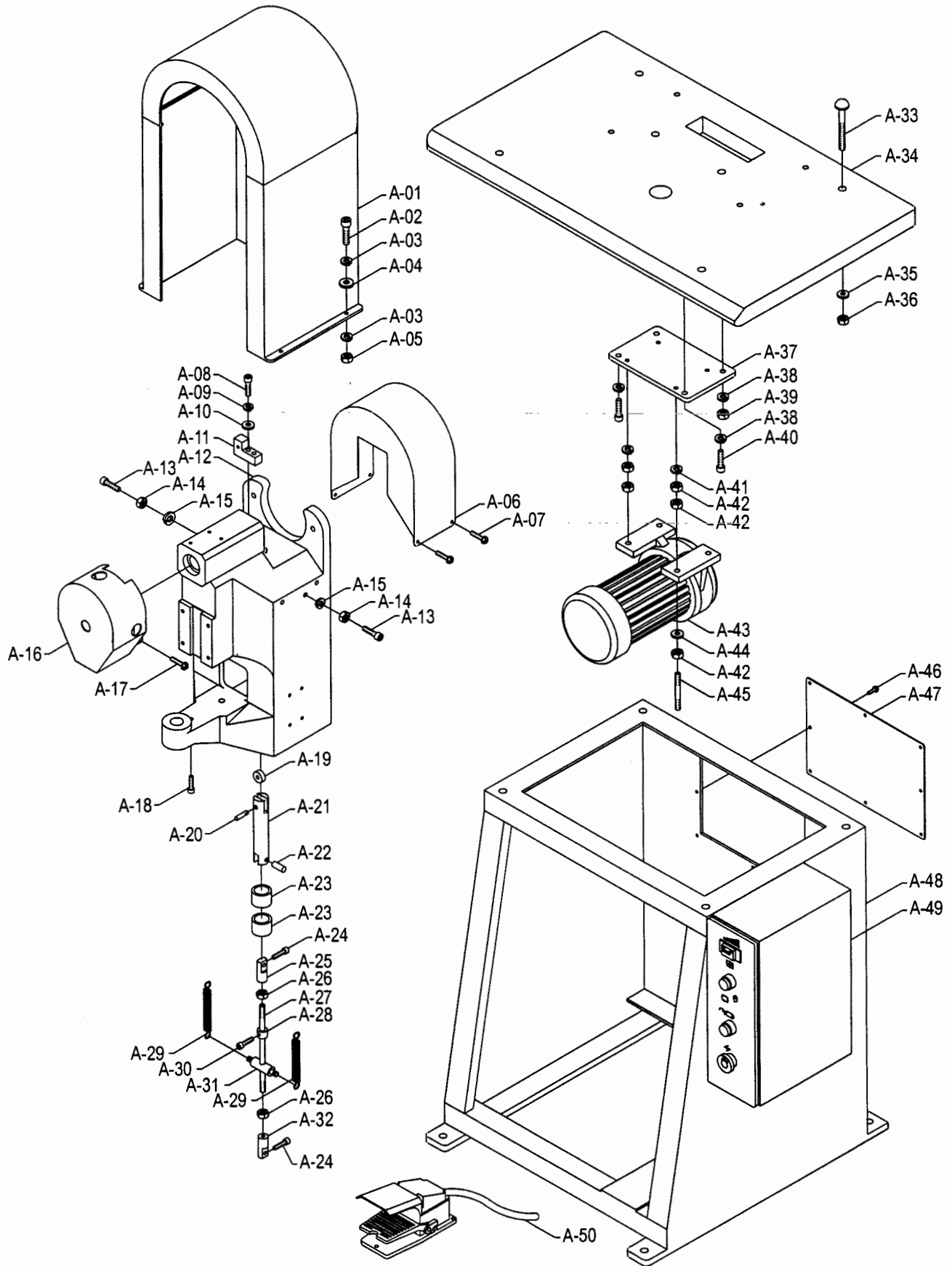
- Under go stringent inspection before being approved.
- Won't cause undue wear for your machine's safety and operations.
- Meets the latest skills for manufacturing.
- Includes a contractual warranty.

To purchase spare parts, please reference to the "Spare Parts List" that is included. Please follow the directions below to fill out the order form, then mail it to our office and we will send you the needed supplies immediately.

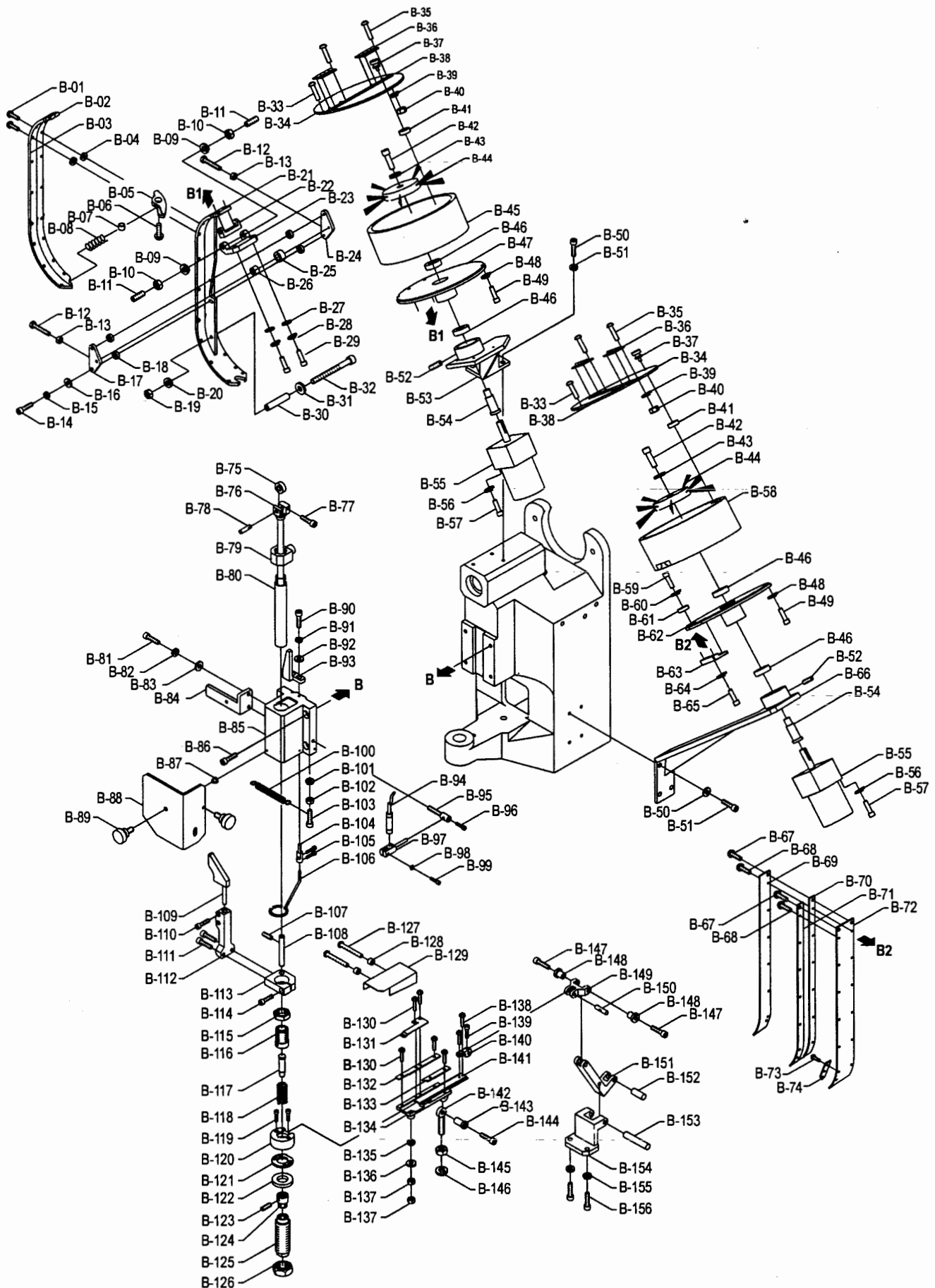
- Include your company name and address.
- Machine type.
- Write the part number of the worn parts and any other part that needs to be replaced. (E.g.A-10, B-05....)
- Write the quantity of each part that you are ordering.

Please address it to the following address:

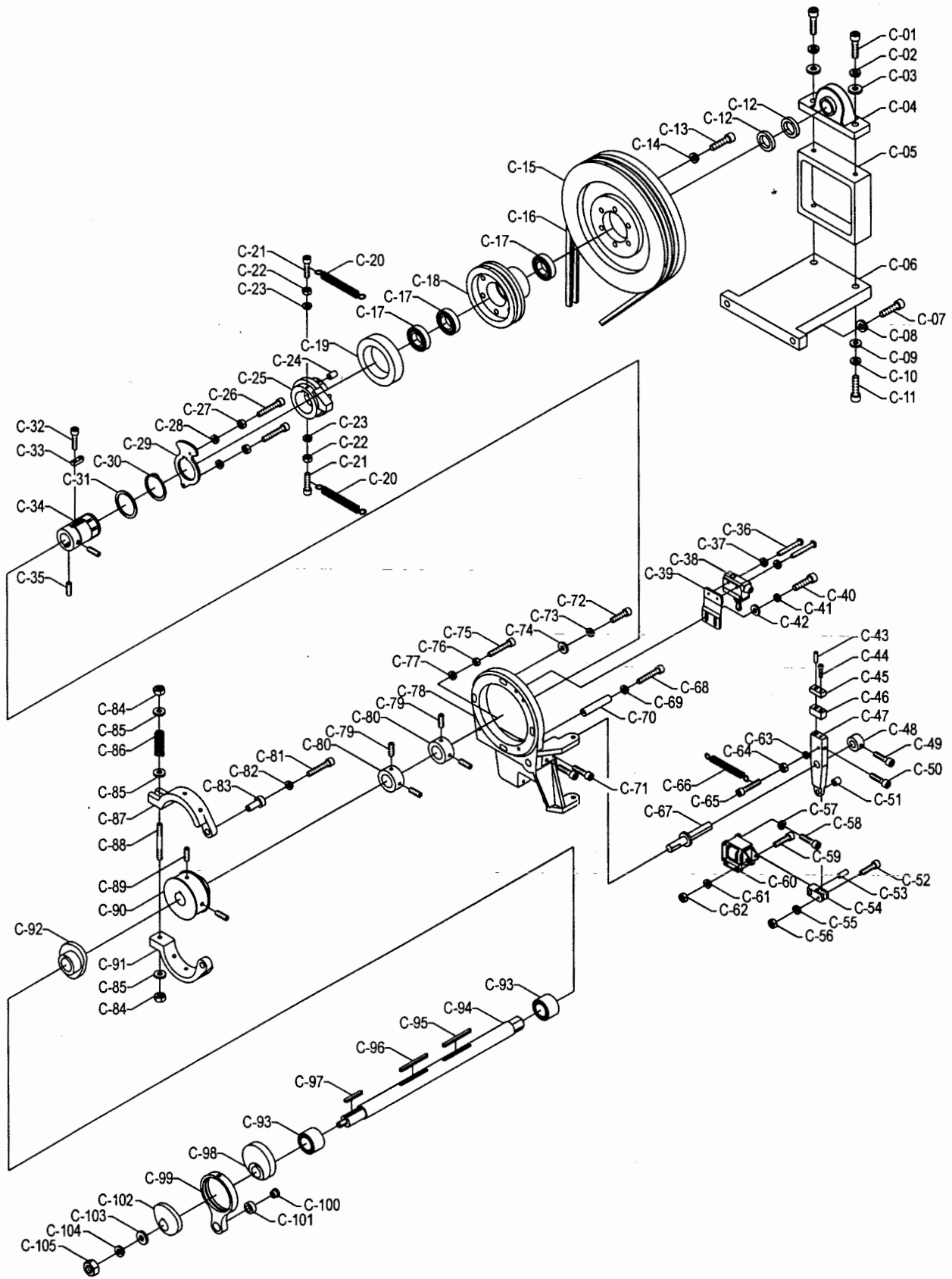
[HUEN CHEN ENTERPRISE CO.,LTD.]
NO.161, LANE 1550, FENG CHOU RD., HSI CHOU VILLAGE,
SHEN GANG SHIANG, TAICHUNG, TAIWAN.
TEL:886-4-25616338
FAX:886-4-25615366



11. PARTS DIAGRAM



11. PARTS DIAGRAM



Item No	Part No	Part Name	Quantity	Remarks
A-01	Z-R030-108	Flywheel safety cap	1	
A-02		Allen screw	4	M6×60L
A-03		Spring washer	8	M6
A-04		Flat washer	4	M6
A-05		Allen nut	4	M6
A-06	Z-R030-107	Clutch safety cap	1	
A-07		Cross half round head screw	4	M5×20L
A-08		Allen screw	2	M8×35L
A-09		Spring washer	2	M8
A-10		Flat washer	2	M8
A-11	Z-R030-69	Packing-up block	1	
A-12	Z-R030-01	Bench	1	
A-13		Allen screw	2	M10×30L
A-14		Allen nut	2	M10
A-15		Spring washer	2	M10
A-16	Z-R030-106	Forward safety cap	1	
A-17		Cross half round head screw	4	M5×20L
A-18		Allen screw	1	M8×60L
A-19	Z-R030-41	Door roller	1	
A-20	Z-R030-40	Fixed pin	1	
A-21	Z-R030-39	Drive rod	1	
A-22	Z-R030-103	Fixed shaft	1	
A-23	S-SPB-304030	Automatic lubricating liner	2	SPB 304030
A-24		Allen screw	2	M5×15L
A-25	Z-R030-62	Swing block	1	
A-26		Allen nut	2	M10
A-27	Z-R030-65	Screw post	1	
A-28	Z-R030-70	Fixed bushing	1	
A-29	G-RPTC06	Expansion spring	2	
A-30		Allen screw	1	M8×15L
A-31	Z-R030-64	Spring shaft	1	
A-32	Z-R030-63	Swing block	1	
A-33		Circular headed screw	6	M10×75L
A-34	Z-R030-82	Frame plate	1	
A-35		Flat washer	6	M10
A-36		Allen nut	6	M10
A-37	Z-R030-84	Motor plate	1	
A-38		Spring washer	4	M10
A-39		Allen nut	2	M10
A-40		Allen screw	2	M10×25L

Item No	Part No	Part Name	Quantity	Remarks
B-01		Cross half round head screw	18	M5×10L
B-02	Z-R030-99	Delivery track sheet	1	
B-03	Z-R030-100	Delivery track sheet	1	
B-04	Z-R030-98	Delivery track packing bush	18	
B-05	Z-R030-79	Block button plate	1	
B-06		Cross half round head screw	1	M6×12L
B-07	Z-R030-71	Packing-up bush	1	
B-08	Z-R030-80	Block button plate spring	1	
B-09		Spring washer	2	M10
B-10		Allen nut	2	M10
B-11		Headless screw	2	M10×30L
B-12		Allen screw	2	M4×10L
B-13		Allen nut	2	M4
B-14		Allen screw	2	M6×30L
B-15		Spring washer	2	M6
B-16		Flat washer	2	M6
B-17	Z-R030-44	Clamping plate	1	
B-18	Z-R030-59	Packing-up bushing	4	
B-19		Allen nut	1	M6
B-20		Spring washer	1	M6
B-21	Z-R030-92	Delivery track	1	
B-22	Z-R030-48	Fixed piece	1	
B-23	Z-R030-47	Fixed piece	1	
B-24	Z-R030-45	Clamping plate	1	
B-25	Z-R030-58	Live wheel	1	
B-26	Z-R030-46	Joint bush	1	
B-27		Washer	2	M6
B-28		Spring washer	2	M6
B-29		Allen screw	2	M6×20L
B-30	Z-R030-57	Packing-up bushing	1	
B-31		Flat washer	1	
B-32		Allen screw	1	M6×65L
B-33		Cross half round head screw	6	M4×15L
B-34	Z-R030-50	Transparent cover	2	
B-35		Cross half round head screw	16	M4×10L
B-36		Rear revolution button	4	
B-37	Z-R030-51	Hand screw	2	
B-38	Z-R030-49	Transparent cover	2	
B-39		Spring washer	16	M4
B-40		Allen nut	16	M4

Item No	Part No	Part Name	Quantity	Remarks
B-41	Z-R030-52	Packing-up bushing	2	
B-42		Allen screw	2	M8×15L
B-43		Flat washer	2	M8
B-44	Z-R030-87	Rotary tray bush	2	
B-45	Z-R030-75	Hopper bowl	1	
B-46	S-ZT1-6003	Trough ball bearing	4	6003 ZZ
B-47	Z-R030-77	Hopper bowl cover	1	
B-48		Spring washer	8	M5
B-49		Allen screw	8	M5×20L
B-50		Allen screw	7	M8
B-51		Spring washer	7	M8
B-52		Headless screw	2	M6×6L
B-53	Z-R030-72	Delivery track frame	1	
B-54	Z-R030-66	Connector shaft	2	
B-55	S-MD3-15W	Motor	2	3IK15GN-C
B-56		Spring washer	8	M5
B-57		Allen screw	8	M5×70L
B-58	Z-R030-74	Hopper bowl	1	
B-59		Allen screw	2	M4×12L
B-60		Spring washer	2	M4
B-61	Z-R030-78	Block button plate	1	
B-62	Z-R030-76	Hopper bowl cover	1	
B-63	Z-R030-60	Guide rail block	1	
B-64		Spring washer	2	M5
B-65		Allen screw	2	M5×10L
B-66	Z-R030-73	Delivery track frame	1	
B-67		Cross half round head screw	2	M6×16L
B-68		Cross half round head screw	13	M4×12L
B-69	Z-R030-96	Delivery track sheet	1	
B-70	Z-R030-95	Delivery track sheet	1	
B-71	Z-R030-94	Delivery track sheet	1	
B-72	Z-R030-93	Delivery track sheet	1	
B-73		Cross half round head screw	3	M4×6L
B-74	Z-R030-97	Delivery track tail sheet	1	
B-75	Z-R030-14	Live wheel	1	
B-76	Z-R030-13	Pierce central shaft	1	
B-77		Allen screw	1	M4×25L
B-78	Z-R030-15	Fixed latch	1	
B-79	Z-R030-09	Eccentric connector block	1	
B-80	Z-R030-12	Upper die shaft	1	

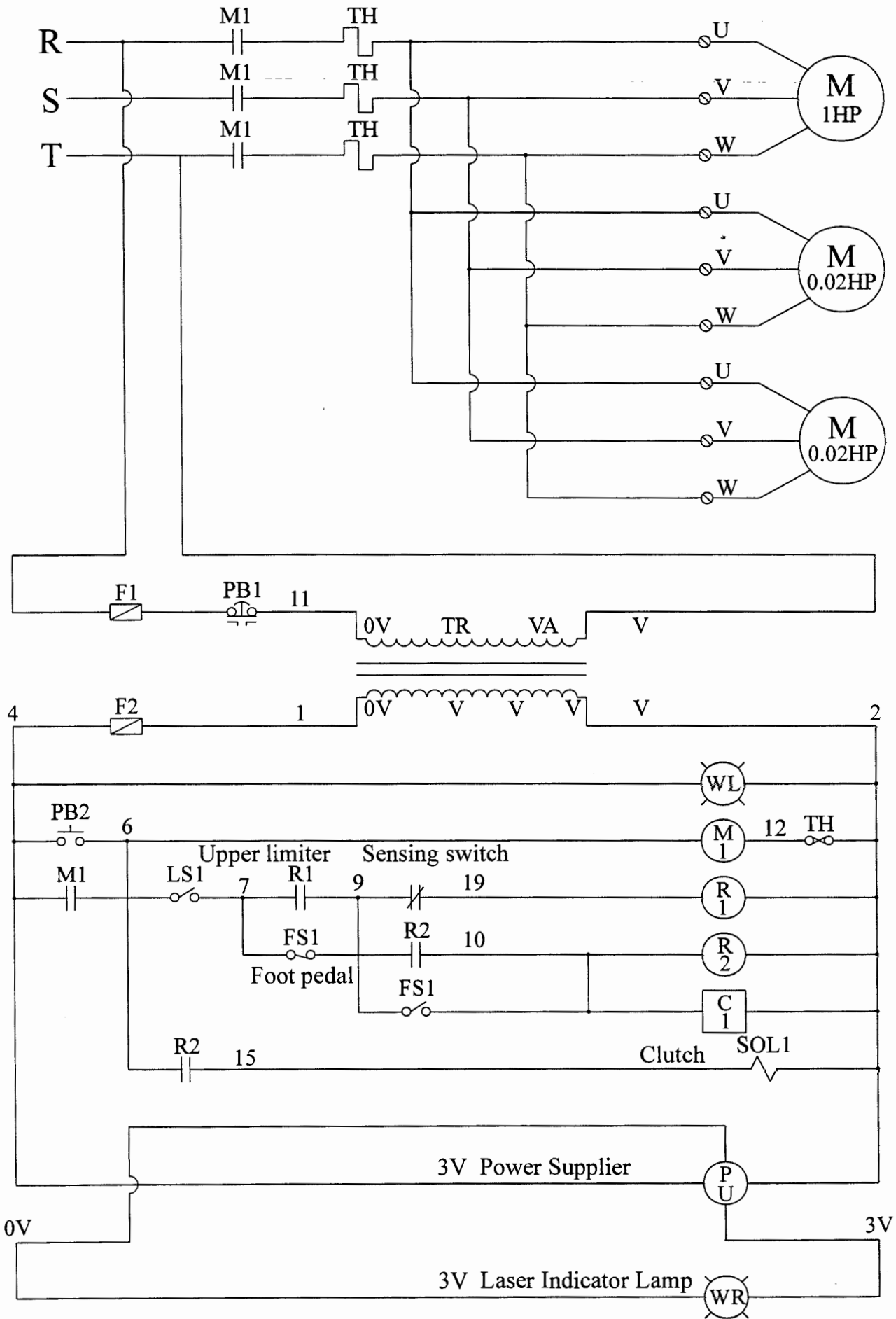
Item No	Part No	Part Name	Quantity	Remarks
B-81		Allen screw	2	M6×25L
B-82		Spring washer	2	M6
B-83		Flat washer	2	M6
B-84	Z-R030-67	Support brace	1	
B-85	Z-R030-05	Forward bucket	1	
B-86		Allen screw	4	M10×25L
B-87	Z-R030-90	Packing-up bushing	1	
B-88	Z-R030-89	Protection cover	1	
B-89	Z-R030-55	Hand screw	2	
B-90		Allen screw	1	M6×20L
B-91		Spring washer	1	M6
B-92		Flat washer	1	M6
B-93	Z-R030-56	Fixed plate	1	
B-94		Indicating lamp	1	
B-95	Z-R030-104	Photoelectric fixed lever	1	
B-96		Allen screw	1	M5×10L
B-97	Z-R030-105	Light spot adjustment lever	1	
B-98		Spring washer	1	M5
B-99		Flat washer	1	M5×20L
B-100		Delivery track expansion spring	1	
B-101		Spring washer	1	M6
B-102		Allen nut	1	M6
B-103		Allen screw	1	M6×20L
B-104	Z-R030-53	Fixed lever	1	
B-105		Allen screw	2	M4×10L
B-106	Z-R030-91	Locating ring	1	
B-107		Headless screw	1	M6×10L
B-108	Z-R030-17	Slide pin	1	
B-109	Z-R030-43	Concavo-convex block	1	
B-110		Allen screw	2	M5×15L
B-111		Allen screw	2	M5×20L
B-112	Z-R030-42	Up and down slide block	1	
B-113	Z-R030-16	Pin block	1	
B-114		Allen screw	1	M6×25L
B-115	Z-R030-20	Adjustment nut	1	
B-116	Z-R030-18	Upper die	1	
B-117	Z-R030-19	Upper die shaft	1	
B-118	Z-R030-21	Compression spring	1	
B-119	Z-R030-54	Screw	2	
B-120	Z-R030-25	Clamping bush	1	

Item No	Part No	Part Name	Quantity	Remarks
B-121	Z-R030-26	Bushing sheet	1	
B-122	Z-R030-27	Packing-up bushing	1	
B-123		Headless screw	1	M4×10L
B-124	Z-R030-22	Lower die	1	
B-125	Z-R030-23	Lower die fixed threaded bushing	1	
B-126	Z-R030-24	Adjustment nut	1	
B-127		Cross head screw	2	M3×10L
B-128	Z-R030-86	Safety cap packing bush	2	
B-129	Z-R030-85	Delivery track safety cap	1	
B-130		Cross half round head screw	6	M4×6L
B-131	Z-R030-32	Spring leaf	1	
B-132	Z-R030-30	Support stand sheet	1	
B-133	Z-R030-31	Support stand sheet	1	
B-134	Z-R030-28	Bracket trough support stand	1	
B-135		Spring washer	1	M8
B-136		Flat washer	1	M8
B-137		Allen nut	2	M8
B-138		Cross half round head screw	2	M4×10L
B-139		Allen screw	1	M4×5L
B-140	Z-R030-36	Pin block	1	
B-141	Z-R030-29	Push block	2	
B-142	Z-R030-33	Adjustment screw	1	
B-143	Z-R030-34	Fixed joint bush	1	
B-144		Allen screw	1	M5×20L
B-145		Allen nut	1	M12
B-146		Spring washer	1	M12
B-147		Allen screw	2	
B-148	Z-R030-38	Live bush	2	
B-149	Z-R030-35	Live block	1	
B-150	Z-R030-37	Fixed pin	1	
B-151	Z-R030-61	Oscillating rod	1	
B-152	S-TS3-8-25	Fixed pin	1	Ø8×25L
B-153	S-TS3-8-55	Fixed pin	1	Ø8×55L
B-154	Z-R030-88	Shaking plank	1	
B-155		Spring washer	2	M8
B-156		Allen screw	2	M8×25L

Item No	Part No	Part Name	Quantity	Remarks
C-01		Allen screw	2	M12×35L
C-02		Spring washer	2	M12
C-03		Flat washer	2	M12
C-04	S-ZT2-206	Connector block shaft bearing	1	UCP 206
C-05	Z-R030-03	Support brace	1	
C-06	Z-R030-04	Support brace stand	1	
C-07		Allen screw	2	M12×45L
C-08		Spring washer	2	M12
C-09		Flat washer	2	M12
C-10		Spring washer	2	M12
C-11		Allen screw	2	M12×35L
C-12	G-RPTB15	Packing-up bushing	2	
C-13		Allen screw	6	M10×50L
C-14		Spring washer	6	M10
C-15	Z-R030-02	Flywheel	1	
C-16	S-PD2-A77	Triangle belt	2	A-77
C-17	S-ZT1-6006	Trough ball bearing	3	6006 ZZ
C-18	G-RPBE10	Shaft bearing stand	1	
C-19	Z-R616-T24	Fixed bush ring	1	
C-20		Clutch bush spring	2	
C-21		Allen screw	2	M5×45L
C-22		Allen nut	2	M5
C-23		Spring washer	2	M5
C-24	Z-R616-T22	Clutch round pin	8	
C-25	Z-R616-T23	Clutch bush	1	
C-26		Allen screw	2	M5×45L
C-27		Allen nut	2	M5
C-28		Spring washer	2	M5
C-29	Z-R616-T18	Contact plate	1	
C-30	S-KHG-50	C shape buckle ring	1	Ø50
C-31	Z-R616-T19	Stop plate	1	
C-32		Allen screw	2	M4×10L
C-33	Z-R616-T20	Key	1	
C-34	Z-R616-T21	Clutch	1	
C-35		Headless screw	2	M8×10L
C-36		Cross screw	2	M4×65L
C-37		Spring washer	2	M4
C-38	S-DC-AZ7311	Micro switch	1	AZ 7311
C-39	Z-R616-T17	Switch support stand	1	
C-40		Allen screw	2	M6×25L

Item No	Part No	Part Name	Quantity	Remarks
C-41		Spring washer	2	M6
C-42		Flat washer	2	M6
C-43	Z-R616-T13	Cotter pin	1	
C-44		Allen screw	1	M6×40L
C-45	Z-R616-T14	Stopper	1	
C-46	Z-R616-T15	Packing-up block	1	
C-47	Z-R616-T12	Clutch plate	1	
C-48	G-RPTB05	Fixed bushing	1	
C-49		Allen screw	1	M8×25L
C-50		Allen screw	1	M5×40L
C-51	Z-R616-T25	Slide bush	1	
C-52		Allen screw	1	M5×50L
C-53	Z-R616-T26	Packing-up bushing	1	
C-54	Z-R616-T27	U trough connector block	1	
C-55		Spring washer	1	M5
C-56		Allen nut	1	M5
C-57		Spring washer	4	M5
C-58		Allen screw	4	M5×25L
C-59		Allen screw	1	M5×55L
C-60		Electromagnetic clutch	1	
C-61		Spring washer	1	M5
C-62		Allen nut	1	M5
C-63		Spring washer	1	M6
C-64		Allen nut	1	M6
C-65		Allen screw	1	M6×45L
C-66	G-RPTC08	Clutch plate spring	1	
C-67	Z-R616-T11	Clutch plate axle	1	
C-68		Allen screw	1	M6×90L
C-69		Spring washer	1	M6
C-70	Z-R616-T16	Eccentric bush	1	
C-71		Allen screw	2	M5×25L
C-72		Allen screw	3	M10×40L
C-73		Spring washer	3	M10
C-74		Flat washer	3	M10
C-75		Allen screw	1	M6×45L
C-76		Allen nut	1	M6
C-77		Spring washer	1	M6
C-78	Z-R616-B08	Clutch stand	1	
C-79		Headless screw	4	M8×10L
C-80	G-RPTB01	Fixed bushing	2	

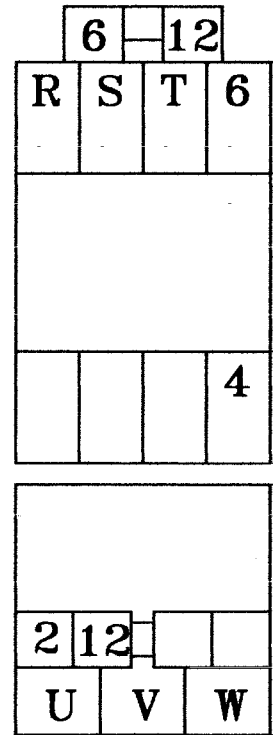
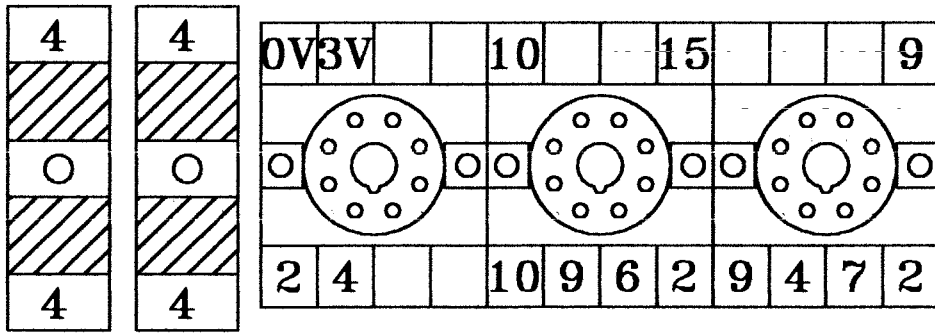
13. CONTROL CIRCUIT DIAGRAM



R	S	T	E	U	V	W			6	7	9	10	2	15	0V	3V			

25*25

3V電源供應器



A B C D E F G H

15
14
13
12
11
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09
08
07
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05
04
03
02
01
00

MCF-4X

ZB2-BV07

ZB2-BA3

ZB2-BS54

