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Operation Manual

WARNING

Danger can occur when working with this machine due to improper handling and/or poor maintenance, which may lead to the destruction of the device and to severe physical injuries.

Observe all safety instructions of this operating manual and contact our Service Team if you have any questions.

THANKS TO THE BUYER

Dear customer, Thank you for purchasing product. Be sure to read these operation instructions closely before using your device for the first time and keep them for later reference.

ABOUT THIS MANUAL

The machine model of the description in this manual:

KCY: 35QE **Full Auto Magnetic Drill** 50/2QE 80/3QE

Confirm the machine model according to the nameplate.







DESCRIPTIONS OF PRODUCTS

1. This machine is a full automatic magnetic drill machine (auto cutting and auto return after cutting), destined to cut material with magnetisable surface with core cutters and twist drills in sheltered environment for commercial use in industry and craft. The device is suitable for drilling vertical, horizontal.

CAUTIONS

- 1. Activate the magnet on metallic, ferromagnetic materials
- 2. Use the whole magnetic surface for working
- 3. Work on plane surfaces
- 4. Clean the magnetic surface and keep it clear of dirt, swarf and welding sputter
- 5. Set the core drilling machine down gently to prevent damage to the magnetic surface
- 6. Secure the drill with a safety belt when drilling on walls or ceilings
- 7. Check connection cables for damage
- 8. Make sure the mains voltage matches the machine
- 9. Follow the instructions in these operation instructions
- 10. Familiarise new users with the safe use of the machine
- 11. Wear safety goggles and ear protection during work
- 12.Use safety guard if supplied
- 13. Observe local, country-specific guidelines
- 14. Store in a dry place

Do not;

- 1. Work on round or curved objects
- 2. Drill several work pieces on top of one another
- 3. Modify the core drilling machine or remove signs
- 4. Use the core drilling machine when damaged or when parts are missing
- 5. Strain or damage the underside of the magnet through heavy impact or blows
- 6. Use the core drilling machine without having been properly instructed
- 7. Operate the machine without having read and understood the complete operating manual
- 8. Use the core drilling machine to support, lift or transport persons or loads
- 9. Carry out electric welding work on the work piece at the same time as using the core drilling machine
- 10. Store or operate the core drilling machine at temperatures above 50°C
- 11.Leave the machine hanging unsupervised
- 12. Allow the machine to come into contact with corrosive materials

People with cardiac pacemakers or other medical appliances may only use this machine following approval by their physician.

Never touch rotating parts! Keep hands and fingers away from the work area while the motor is running! Failure to do so can result in severe injuries!

ELECTRICAL SAFETY

Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the ground prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as whether the outlet is properly grounded. If the tool should electrically malfunction or breakdown, grounding provides a low resistance path to carry electrically away from the user.

SAFETY INSTRUCTIONS

Warning labels and/or other labels on the machine must be replaced when they were removed.



Do not operate the machine at insufficient lighting conditions. Do not operate the machine outdoors.

Do not operate the machine when you are tired, when your concentration is impaired, and/or under the influence of drugs, medication or alcohol.



Climbing onto the machine is forbidden! Heavy injuries by falling down or by tilting of the machine are possible.



The machine shall be used only by trained persons. Non authorized persons, especially children, shall be kept away from the work area.





Do not wear loose clothing, long hair openly or loose jewellery like neck-laces etc. when operating the machine They might be catched by rotating parts and cause serious injuries.





Use proper safety clothing and devices when operating the machine (, safety goggles, ear protectors, safety shoes ...)! Do not wear safety gloves for oper-ating because they decrease the working accuracy and they might be pulled into the saw blade.



Before any maintenance you have to disconnect the panel saw from the power source. Never use the plugged cable for transporting or manipulating the machine.

OPERATION INSTRUCTIONS

You receive a completely assembled Magnetic Core Drilling Machine and detailed operating manual. Please check the condition of the goods on receipt for any transport damage, and make sure the delivery is complete. Otherwise contact the manufacturer or distributor immediately.

Always read the operating manual before using the device for the first time!

- 1. First check cable and connector for damages, then plug in the power plug.
- 2. Insert the annular cutter into the tool holder on the working spindle of the motor and check the rigid and precise clamping of the tool (>10mm thickness steel sheet).
- 3. Press the switch MAGNET ON to activate the magnet and ensure holding of the drill stand.
- 4. Secure the drilling machine by means of a safety chain when machine is working. During this work we recommend using a coolant spray.
- 5. Switch the motor on by operating the switch MOTOR ON. Pull over the handle, machine goes into full automatic mode. Machine will auto cutting and auto return after complete cutting. Take special care of sufficient cooling during the drilling process.
- 6. If not use full automatic drilling mode, don't pull over the handle. Slowly guide the motor and the rotating cutter to the tool by turning the handle. Take special care of sufficient cooling during the drilling process.
- 7. Switch the motor off by pressing the button MOTOR OFF on the control panel.
- 8. Remove swarf and the remain drill cuttings after the motor has come to a complete standstill.
- 9. Operate the switch Magnet OFF to deactivate the magnet.
- 10. Clean the magnetic surface and remove swarf or any other adhering residues.

INTRODUCTION



- Motor: air inlet adopt protect motor from liquid and debris
- Two-way guide: Be freely adjusted as requirement to maximum230mm,to stop the motor at any position to prevent cutter damage
- Internal self-lubricating function: To ensure longer life of gear
- Automatic internal cooling system:
 Extraposition cooling ring design to prevent
 water overflow into the gear box, integral
 design with beautiful apprearance
- Hand shank: Ergonomically designed handle and best usage of torque
- Handle: Opering design is beautiful and more comfortable to grip

- Safety rope holes: integrat aerial lifting design supply double protection for workers and equipment
- Body: Overall tilt body ensure the rigidity of whole machine,improve the drilling accuracy
- Magnetic base: protection of magnetic suction ensure that the motor doesn't start on non-metallic flat or low suction
- Magnetic bottom: Adopts wear resistance design to extend magnetic base life with maximum suction up to 10000N ensure the safety and reliablility during drilling
- Automatic system: Automatic feeding and Automatic return back



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- Body: Overall tilt body ensure the rigidity of whole machine,improve the drilling accuracy
- Magnetic base: protection of magnetic suction ensure that the motor doesn't start on non-metallic flat or low suction
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- Automatic system: Automatic feeding and Automatic return back
- Speed adjustable: High and low speed control

GROUNDING DEVICE

- 1. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.
- 2. Don't expose power tools to rain or wet conditions. Water entering a power tool with increase the risk of electric shock.

WARRANTY

CAYKEN® warrants this machine for a period of 6 months from the date of purchase against defects due to faulty materials or workmanship and will repair without charge any items returned. This warranty is void if the item has been damaged by accident or unreasonable use, neglect, improper service, or other causes not arising out of defects in materials or workmanship.

FAULT HANDING

FAULTS	CAUSES	ELIMINATION METHODS
	Switch contact undesirable	Repair the switch
	Power supply is broken,Loose plug	Repair the power supply
Magnetic base	The fuse burn out	Replace the Fuses
without suction	Electromagnet short circuit or burn out	Repair or replace the magnetic bridge
	Adsorption not on the steel frame	Change the adsorption surface
	Circuit board burn out	Change the circuit board
	Switch contact undesirable	Repair and change switch
Machine did not	Joint loose	Check the electric drill part connector
run after the jump	Brush and commutator poor contact	Repair or replace the electric brush
	Drill the armature or stator coil burn out	Changing the armature or stator
	Adsorption artifacts thin	Replace the adsorption surface or thickening adsorption surface
Magnetic little	The adsorption surface is smaller than the disk surface	Replace the adsorption surface or temporary welding thick surface adsorption
suction	Support bar between the adsorption surface	Support bar top tight
	The diode circuit board may damage the original weld.	Re Welding
Turn the handle gu	Shaft key cut	Replace the shaft key
ide does not work	Wheel and rack misplace	Unscrew the rack bottom screw, remove guide to repair
	For a drill and a fastener is loose	Correction of verticality tighten the fasteners
Drill out the	Bit unilateral cutting	Grind anew
elliptical hole	Adsorption surface have sundry	Eliminate clutter
	Drill bit not concentric	Change bit
Spindle sway	The frame adjusting screw is loose	Tighten adjusting screw
	The spark color turns orange red	Feedrate slow down
Motor strike	Sparks fly out	Please change the brush
	Spark into a ring fire	Please check if the motor is burnt out

Warning: magnetic drill equipped with a safety rope, when operating, make sure the magnetic drill and the object is fastened by the rope. In case of power failure suddenly, causing the machine fall off or thrown objects and cause accidents.



MACHINE MODEL PARAMETER LIST

Specification	s KCY-35QE	KCY-35QE KCY-50/2QE	
Core drill dia mm	35	50	80
Rate voltage V	110/220~	110/220~	110/220~
Max attraction N	16000	16500	17600
Rate input power W	1600	1700	2690
No-load speed rpm	810	280/510	130/300/620
Net weight Kg	14	15.3	16.6
Net weight Kg	20.5	22.8	27
Package size cm	35*25*43	35*25*43	35*26*45

Attention:To improve product constantly, our reservation does not need the power of informing in advance for technical data change.

State: Cause by fixing not firm or not proper security measures for accident, our company does not undertake any responsibility.

ADVANTAGES OF AUTOMATIC MAGNETIC DRILL

Automatic magnetic can be operated both manual and automatic

- 1.In automatic mode ,install the appropriate annular cutter, and start the machine, it will automatic feeding and automatic return back .
- 2.one operator can operate several machines , this greatly improves work efficiency.
- 3.In automatic mode, the feeding speed is constant, which will protect the annular cutter and extend the service life of the annular cutter.



4.All the automatic models are with oil bath motor, the gear oil in oil-bath motor has good extreme pressure, when gear-occlude, the temperature of the friction surface is high enough, a chemical reaction occurs on the surface of the gear. And the surface of the gear will formed metal film. That will prevent the gear from wearing out and extend the service life of the gear.

Position Descript



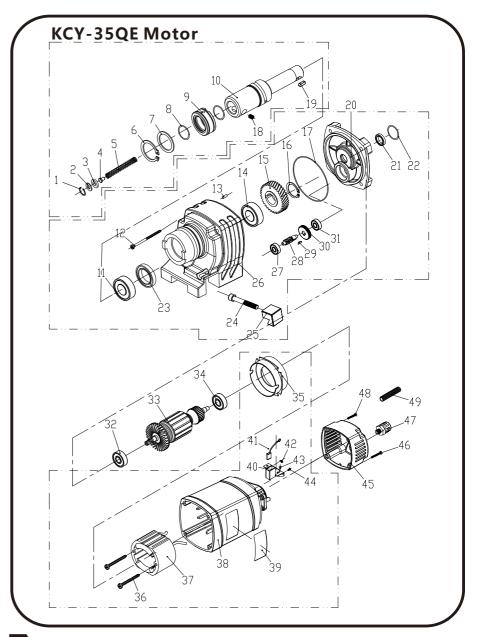


IMAGE 2

- Shift when the machine stops or will stop.
- Shift in place. If the spindle doesn't rotate or there is some noise after starting up, the gear may not shift in place. Turn off the machine im mediately, and then shift the gear to proper place, rotate the spindle back and forth (easy to shift) at the same time till shift in place
- Do not shift when the machine is full-speed operated, over load or stuck.
- IMAGE 1 1, ▼ VLow-speed, ▲ High-speed, Graphic representation is low speed, Turn the knob clockwise if turn form low speed to high speed.

 otherwise counter-clockwise.
 - ▼ ▼--Low-speed May replace tapping for more hard material or big bit to use.
 - ▲ --High-speed The bit for more soft material or little support (cutting tool)
- IMAGE 2 1, L-Low-speed, H-High-speed, M-middling speed (3 files types), graphic representation is the files of low speed,
 Turn the knob clockwise if turn form low speed to high speed.
 otherwise counter-clockwise.
 - L --Low speed May replace tapping for more hard material or big bit(cutting tool) to use M--middling speed. The fried dough twist for suitable size gets into , hollow get into
 - **H--High speed** The bit for more soft material or little support (cutting tool)

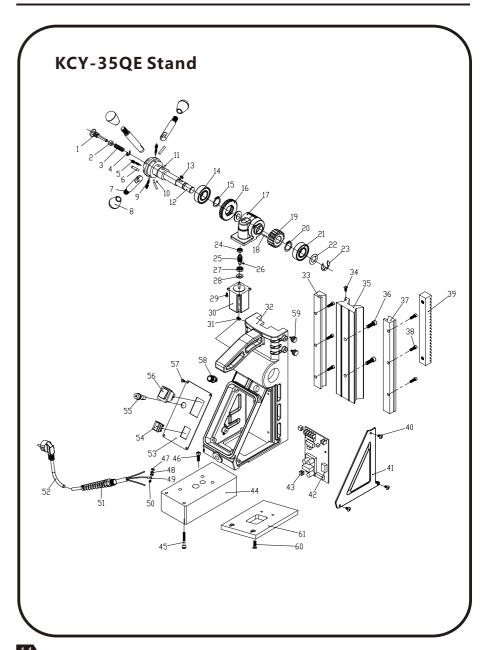
NO.	Parts name	QTY
1	Neka 19	1
2	Pad 2 #	1
3	PU gasket B	1
4	Bullet Top 35WO	1
5	Spring 35WO	1
6	Wild card 33	1
7	Padding φ 33 * 48 * 1	1
8	O-ring φ 40 * 3.1	2
9	Water Circle 35WO	1
10	Spindle 35WO	1
11	Bearing 6904	1
12	Round head cross self-propelled screw M5 * 70(half tooth)	4
13	Cylinder pin 4 * 12	1
14	Bearing 6904	1
15	Spindle gear 35WO-3	1
16	Card 20	1
17	O-ring φ 73 * 2	1
18	Inner hexagonal top wire M10 * 10	1
19	Marketing 6 * 10	1
20	Middle cover 35WO	1
21	Oil seal 10 * 16 * 4	1
22	O-ring φ 25.8 * 1.8	1
23	Oil seal 20 * 32 * 7	1
24	Hegonal screw M8 * 50(half tooth) in stainless steel	1
25	Swallowtail slot iron block 40	1
26	Gear box, 35WO.	1
27	Bearing 608	1
28	Class I tooth axis 13-2	1
29	Crescent pin 9 * 3	1 1
30	Class I gear 13-1(8)	1
31 32	Bearing 608 Bearing 6000	1
33	Rotor 35QE	1
33 34	Bearing 608	1
35	Windscreen, 35WO.	1
36	Round head cross self-propelled screw M4 * 65	2
37	Stator 35 QE	1
38	Stator shell 35WO	1
39	Post 35WO	1
40	Brush frame 40	2
41	Carbon Brush 40	2
42	Bypass 40	2
43	Round Head Cross Screw M4 * 8 Copper	2
44	Round Head Cross Screw M4 * 10 Copper	4
45	Top 40	1
46	Round head cross self-propelled screw M5 * 45	2
47	Hose connector M12 * 1.5	1
48	Round head cross self-propelled screw M5 * 40	2
49	PE tube AD10 * 460	1



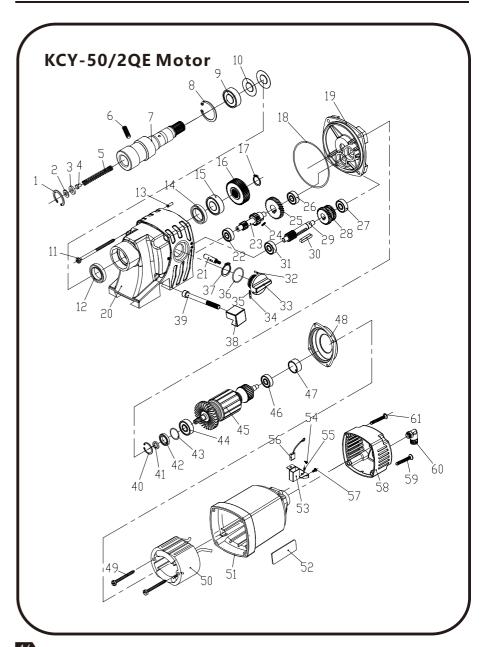
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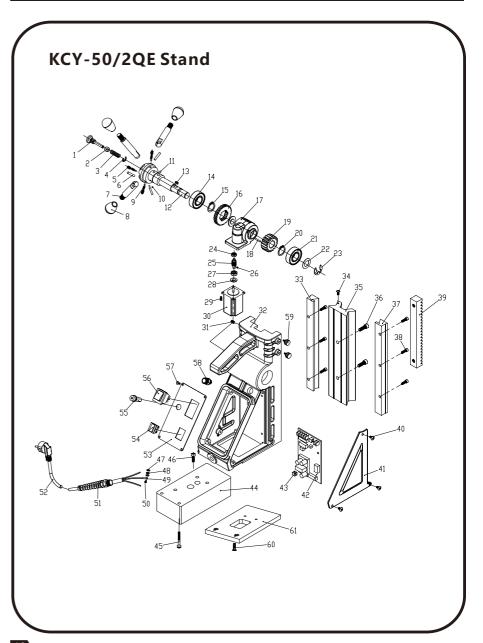
NO.	Parts name	QTY	NO.	Parts name	QTY
1	Top rod 35-80QE	1	51	Fold proof connector M12 * 1.5	1
2	Top Pearl φ 6.5 * 12	1	52	Power cord 3 * 1.0 * 2.5 M	1
3	Spring 35 QE	1	53	Button Panel 11QE	1
4	E-card 6	1	54	Switch KCD5	1
5	Hegonal top silk in flat head M5 * 5	3	55	Fuse MF-527	1
6	Cylinder pin 6 * 26	3	56	Switch HY12-15	1
7	Blade handle QE	3	57	Stainless steel large flat head scr	rew 4
8	Spherical handle M12(No. 3)	3	58	Hose connector M12 * 1.5	1
9	Spring 4 * 10	3	59	Bottle screw M5 * 12	2
10	Steel Ball φ 5	3	60	Hegonal screw M6 * 20	2
11	Steel Ball φ 8	3	61	Aluminum Block QE	1
12	Lift shaft 35-80QE	1			
13	Marketing 5 * 14	1			
14	Bearing 6006	1			
15	Inner card 30	1			
16	Flat QE	1			
17	Head QE	1			
18	Cylinder pin 4 * 12	1			
19	Lift gear 11-13	1			
20	Card 18	1			
21	Bearing 6903	1			
22	Roller pads 17 * 30 * 0.5	1			
23	E-card 15	1			
24	Bearing 607	1			
25	Worm gear QE	1			
26	Inner hexagonal top wire M5 * 6	1			
27	Bearing 6001	1			
28	Iron Circle 35-80QE	2			
29	Hegonal screw M4 * 8	4			
30	Servo motor 35-80QE	1			
31	Hegonal top wire M5 * 12	5			
32	Frame 11-ZC	1 1			
33	Left bar 11-13				
34	Stainless steel large flat head screw	2 1			
35 36	Guide plate 11-13ZC	2			
37	Hegonal screw M6 * 16	1			
38	Right bar 11-13 Hegonal screw M4 * 20	6			
39	Teeth 10 * 16 * 180(M1)	1			
40	Round Cross Screw M4 * 6	4			
41	Cover QE	1			
42	Circuit board CX5080AUTO-220V	1			
43	Plastic card 35-80QE	2			
44	Disk QE-186 * 92 * 50	1			
45	Hegonal screw M6 * 55(half tooth)				
46	Hegonal screw M6 * 30	2			
47	Pad M4	2			
48	Waveform gasket M4	1			
49	Copper nose OT 1.25 -4	i			
50	Round Cross Screw M4 * 8	1			
		-			



NO.	Parts name	QTY	NO.	Parts name	QTY
1	Neka 19	1	51	Stator shell 40	1
2	Stainless steel gasket 2 #	i 1	52	Trademark Post 40-80	2
3	PU gasket B	1	53	Brush frame 40	2
4	Bullet top 32 HD	1	54	Bypass 40	2
5	Spring 32HD	1	55	Round Head Cross Screw M4	*8 2
6	Hegonal top wire M10 * 12	2	56	Carbon Brush 40	2
7	Spindle 13	1	57	Round Head Cross Screw M4	* 10 4
8	Inner card 42	1	58	Top 40	1
9	Bearing 6905	1	59	Round head cross screw M5 *	
10	Roller pads 17 * 30 * 1	2	60	Right-angle hose connector	1
11	Round head cross screw	4	61	Round head cross screw M5 *	45 2
12	Oil seal φ 22 * 35 * 5	1			
13	Cylinder pin 4 * 12	1			
14	Oil seal φ 22 * 32 * 7	1			
15	Bearing 6904	1			
16	Spindle gear 40-5	1			
17	Card 16	1			
18	O-ring φ 88 * 2	1			
19	Center cover 40	1			
20 21	Gear box 40-1	1 1			
22	Paddle 40	1			
23	Bearing 608 Class I tooth axis 40-2	1			
24	Marketing 4 * 6	1			
25	Class I gear 40-1(5)	1			
26	Bearing 608	1			
27	Bearing 608	i			
28	Class II gear 40-3	1			
29	Class II gear axis 40-4	1			
30	Marketing 5 * 30	1			
31	Bearing 608	1			
32	Cylinder pin 3 * 9	1			
33	Dialing knob 40	1			
34	Rivet spring sleeve 4 * 15	1			
35	Spring 40	1			
36	O-ring φ 22.4 * 2.65	1			
37	Wild card 26	1			
38	Swallowtail slot iron block 40	1			
39	Hegonal screw M8 * 50(half tooth)				
40	Wild card 27	1			
41	Iron Circle 40	1			
42	Oil seal φ 15 * 21 * 3	1			
43 44	O-ring φ 28 * 1.8	1 1			
44 45	Bearing 6001	1			
45 46	Rotor KCY-50 / 2QE Bearing 608	1			
47	Bearing sleeve WS-28	1			
48	Windscreen 50/2 OE	1			
49	Round head cross screw M4 * 70	2			
50	Stator KCY-50 / 2QE	1			
	5	•			



NO.	Parts name	QTY	NO.	Parts name	QTY
1	Top rod 35-80QE	1	51	Fold proof connector M12 * 1.5	1
2	Top Pearl φ 6.5 * 12	1	52	Power cord 3 * 1.0 * 2.5 M	1
3	Spring 35 QE	1	53	Button Panel 11QE	1
4	E-card 6	1	54	Switch KCD5	1
5	Hegonal top silk in flat head M5 * 5	3	55	Fuse MF-527	1
6	Cylinder pin 6 * 26	3	56	Switch HY12-15	1
7	Blade handle QE	3	57	Stainless steel large flat head scre	
8	Spherical handle M12(No. 3)	3	58	Hose connector M12 * 1.5	1
9	Spring 4 * 10	3	59	Bottle screw M5 * 12	2
10	Steel Ball φ 5	3	60	Hegonal screw M6 * 20	2
11	Steel Ball φ 8	3	61	Aluminum Block QE	1
12	Lift shaft 35-80QE	1 1			
13 14	Marketing 5 * 14	1			
15	Bearing 6006 Inner card 30	1			
16	Flat QE	1			
17	Head QE	1			
18	Cylinder pin 4 * 12	1			
19	Lift gear 11-13	1			
20	Card 18	1			
21	Bearing 6903	1			
22	Roller pads 17 * 30 * 0.5	1			
23	E-card 15	1			
24	Bearing 607	1			
25	Worm gear QE	1			
26	Inner hexagonal top wire M5 * 6	1			
27	Bearing 6001	1			
28 29	Iron Circle 35-80QE	2 4			
30	Hegonal screw M4 * 8 Servo motor 35-80QE	1			
31	Hegonal top wire M5 * 12	5			
32	Frame 11-ZC	1			
33	Left bar 11-13	1			
34	Stainless steel large flat head screw	2			
35	Guide plate 11-13ZC	1			
36	Hegonal screw M6 * 16	2			
37	Right bar 11-13	1			
38	Hegonal screw M4 * 20	6			
39	Teeth 10 * 16 * 180(M1)	1			
40	Round Cross Screw M4 * 6	4			
41	Cover QE	1			
42	Circuit board CX5080AUTO-220V	1 2			
43 44	Plastic card 35-80QE Disk QE-186 * 92 * 50	1			
45	Hegonal screw M6 * 55(half tooth)				
46	Hegonal screw M6 * 30	2			
47	Pad M4	2			
48	Waveform gasket M4	1			
49	Copper nose OT 1.25 -4	1			
50	Round Cross Screw M4 * 8	1			



NO.	Parts name	QTY	NO.	Parts name	QTY
1	Right-angle hose M16 * 1.5	1	51	Dial-in card 1780/3	1
2	Hegonal screw M5 * 16	4	52	Dialing knob 1780	1
3	Cover 100/3	1	53	O-ring φ 20 * 3	1
4	Horizontal 10 * 10 * 29	1	54	Deck 1780	1
5	Stator shell 1780	1	55	Hegonal screw M5 * 10	1
6	Brush frame 1780	2	56	Inner card 52	1
7	Carbon Brush 1780	1 1	57 58	Bearing 60/28	1
8 9	Round Head Cross Screw M3 * 6	2	50 59	Card 28	1 1
10	Bypass 1780 O-ring φ 25.8 * 1.8	1	60	Ball head plunger M8 * 15 Hegonal screw M5 * 120	2
11	Top cover 1780	1	61	Hegonal top silk M6 * 20	1
12	Hegonal screw M5 * 40	4	62	Swallowtail iron bar 10 * 8 * 98	1
13	Horizontal instrument φ 14.8 * 6	1	63	Adjustable wrench M8 * 63 * 25	2
14	Loose nut M4	2	64	Spindle 100/3	1
15	Pad M4	2		Sp.:.a.c . 55, 5	•
16	Breeze 1780	1			
17	O-ring φ 28 * 1.8	1			
18	Bearing 6001	1			
19	Rotor KCY-80 / 3QE	1			
20	Bearing 6000	1			
21	Hegonal screw M4 * 100	2			
22	Interior 1780	1			
23	Insulation sleeve φ 8 * 14.5	2			
24	Stator KCY-80 / 3QE	1			
25	Bearing 629	1			
26 27	Class II tooth axis 100-4	1 1			
28	Marketing 3 * 6 Class II gear 100-3	1			
29	Bearing 608	1			
30	Hegonal screw M5 * 45	2			
31	Gear box 25.	1			
32	Oil seal φ 22 * 35 * 7	1			
33	Bearing 6904	1			
34	Host Low Speed Gear 178-5	1			
35	Stop Ring 18	1			
36	Main engine sliding gear 178-4	1			
37	Main high-speed Pinion 178-3	1			
38	Card 13	1			
39	Roller pin bearing HK1010	1			
40	O-ring φ 85 * 1.8	1			
41	Middle cover 25	1			
42	Oil seal φ 12 * 24 * 7	1			
43 44	Bearing 608	1 1			
44 45	Class I gear 100-1 Marketing 3 * 6	1			
46	Class I tooth axis 100-2	1			
47	Bearing 608	1			
48	Cylinder pin 4 * 12	1			
49	Cylinder pin 5 * 15	i			
50	Cylinder pin 3 * 9	1			
	->				

