KA- 800

Tungsten Carbide Blade Sharpener

Part List

Part No.	Part Name	Part No.	Part No.
A1	Base	D40	Cover -Grinding wheel
A09	Cabinet Door	D41	Grinding Wheel
A10	Main Post	D42	Shaft - Grinding
A11	Base plate	D43	Bushing -grinding shaft
A12	Castor	D44	Base - Grinding Module
A13	Cover - Front	D45	Ruler
A14	Latch	D46	divider
A15	Cover - Back	D47	calibrating fix screw
A16	Cover - Right	D48	Bracket - grinding shaft
A17	Cover - Left	D49	Blanket
A18	Flush Rib	D50	Cover - Motor
A19	Flush Rib - Right	D51	Pulley - Grinding wheel
		D52	Bearing
		D53	Belt
B20	Stop Button	D54	Pulley - Grinding Motor
B21	Ampere Meter	D55	Cover - Pulley
B22	Main Power Switch	D56	Motor - Grinding
B23	Start Switch		
B24	Pump Switch		
B25	Power	E60	Shaft cap screw
B26	Control Box	E61	Holding cap - blade
B27	Wire Duck	E62	Cutting blade
B28	Security Switch	E63	Base - feeding
		E64	Cover
		E65	Speed reducer
C30	Coolant Pump	E66	Motor - feeding
C31	Motor Bracket	E67	Base - feeding adjustment
C32	Water Tank	E68	Clearance control screw
C33	Hose - recycling	E69	Feeding Block
C34	Valve - recycling	E70	Base - Screws
C35	Coolant Hose	E71	Handle wheel
C36	Coolant return Hose	E72	Feeding Acme screw
C37	Control Valve	E73	Shaft - feeding
C38	Coolant Outlet	E74	Bearing - grinding support
		E75	Cover -
		E76	Cover -
		E77	handle
		E78	Flume

Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com

I ◦ KA-080 Introduction

A ﹨ Five Main portions

a. Main frame of the machine
b. Electric control system
c. Coolant system
d. Grinding device
e. Feeding device

B ﹨ Function of the machine :

a. For reshaping the Tungsten Carbide cutting blade that used in the PCB lead cutter. Tip : The blade need to be re-grinned as it is worn out in a efficient machine.

C ﹨ Range of Re-grinding :

a. Tungsten carbide blade Inside diameter at Ø70mm. Outside Diameter Ø125mm~Ø250mm.

D ﹨ **Features :** The machine is available for grinding operation with or without coolant. In which the coolant is recycled.

II ◦ Operation Steps

A ﹨ Connect the machine to the proper power that specified in the machine.

B ﹨ Back the feeding base by turning the E71 Hand wheel.

C ﹨ Open the E76 cover, Release the E60 Cap screw and remove the E61 blade holding cap.

D ﹨ Cleaning the E73 main shaft, Loading the worn-out blade to the E73 main shaft and check /insure no any foreign matters in between. Then Tightening the E60 cap screw.

E ﹨ Turn the power on , Test run the grinding wheel and the cutting blade , check also the eccentric of the cutting blade. Make sure it is in proper condition. Otherwise, the blade have to re-load and check again.
Turn the power off. Feeding the blade until it is reached the grinding wheel(Don't touch the wheel). Close the E76 Cover.

F ﹨ Activating the machine :

a. Turn on the B22 Power Switch, The B25 will be lighted.
b. Push down the B23 start button, the E62 cutting blade and D41 grinding wheel will be activated.
c. Start the B 24 Coolant switch, the coolant will be pumped to the cutting blade.

Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com

G、Feeding for grinding

a. Feeding the blade slowly by turning the E71 hand wheel until it touches the grinding wheel then feeding in a little bit carefully and grinding for around 5 minutes. Monitoring the Ampere meter in between 7~9A during the grinding process.
b. 2nd feeding and grinding around 5 minutes.
c. Turn off the power and check the evenness of the cutting blade and start the 3rd grinding.
d. Make sure the blade have been grinned evenly, then feeding a little bit for fine grinding around 3 minutes that will make the blade more sharp.
e. It is unnecessary to grind over all the crevasses to lengthen the life of the blade.
f. The motor will not be started except the cover is closed well and the security switch E76 is activated.
g. Returning the cutting blade by turning the E71 hand wheel after finishing the sharpening process and turn off the power. Unload the blade. Congratulation ! you have finished the sharpening process.

III。Adjustment - Cutting angles

A、18° ~22° is the most adequent cutting angles for tungsten carbide blade.
B、The requirement of the cutting angles are determined based on the size of the wire lead diameter in the PCB.
a. Bigger Angle is recommend for big wire lead cutting.
b. Smaller angle is for cutting the small diameter size wire lead..
c. 18° is the most popular selection for most of the cutting.
C、It need more time to sharpen the blade if cutting angle is changed and different from previous grinned angle.
D、It's more efficiency to re-sharpen the blade with original cutting angle.
E、Adjustment of the cutting angles.
a. Releasing the D47screw, then adjust the angle of the cutting
b. A calibration D45is shown on the divider range from 15° ~25°
c. Fixed the D47screws after the correct angle is selected.

IV。Tips for Diamond Grinding wheel

A、Specification of the diamond grinding wheel :
a. Outside diameter Ø125mm。
b. Inside diameter Ø31.75mm。
c. Width 6mm。
d. Thickness of diamond grinding compound: 2mm or 4mm.

Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com

B、One of the wheel 125D-6W-2X-35T-14B-31.75H is equipped on the machine,

C、It is absolutely necessary to clean first the residues on the cutting blade(flux or other foreign matter). Otherwise, it will block up the wheel and interfere the grinding process.

D、Solution for the capillary of grinding wheel is tucked by foreign maters and grinding no more(sliding).

a. Clean the surface of the diamond wheel by the dressing stone attached during the running of the diamond wheel.
b. Using steel wire as alternation for cleaning the wheel.

E、Steps for replacing the diamond wheel.

a. Un-tightening and dismantle the D47 two screws then unload the grinding cover D40, diamond wheel from the shaft.
b. Cleaning all the residues that attached on the shaft.

F、Steps for assembling the diamond wheel.

a. Cleaning up the E73 shaft and coating with oil for anti-rusting.
b. Assembling the wheel to the shaft E73, then assemble the cover D40.
c. Manual test run the wheel and make sure no wobble of the wheel. Tightening the cover D40.
d. Adjusting the cutting angle (Original angle recommended), then fixing the two D47screws.

V。Tips for sharpening, Loading/unloading the blade

A、The steel stick(Ø6mm, 125mm length) attached is for fixing the grinding wheel during loading/unloading the blade.

B、Inserting the mentioned steel stick to the hole on the shaft through the cover E64 to block the shaft.

C、The support bearing E74 is to eliminate the spring back of the blade during the grinding especially big size blade . Since the spring back will slow-down the grinding efficiency.

D、The support bearing E74 must be adjusted according to the size of the cutting blade.

E、Make sure to cool the heat that created during the grinding process by the coolant.

F、The outlet of the coolant should be aimed at the contact point between grinding wheel and the blade.

VI。Tips for the coolant

A、One bottle of coolant concentrated oil is attached on the shipment for the coolant system.

B、Diluting the coolant oil with water in the rate of 1:100.

C、Pouring the diluted coolant to the tank C32.

Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com

D、Starting the coolant pump B2, the coolant will be pumped through C35 to the outlet. The volume can be controlled by the valve C37.

E、The coolant will be returned to the Tank C32 after flowing through the grinding wheel.

F、So as to prevent inconstant pressure of the coolant during the pumping . Please open the C34 bypass valves. The excess coolant will go back to the tank C32 to maintain constant output of the coolant.

G、Please replacing the coolant and cleaning the tank periodically since the coolant will be contaminated after long usage.

VII。Tips for maintenance

A、It is more easily to replace the grinding wheel easily by dismantling whole set of the grinding device.

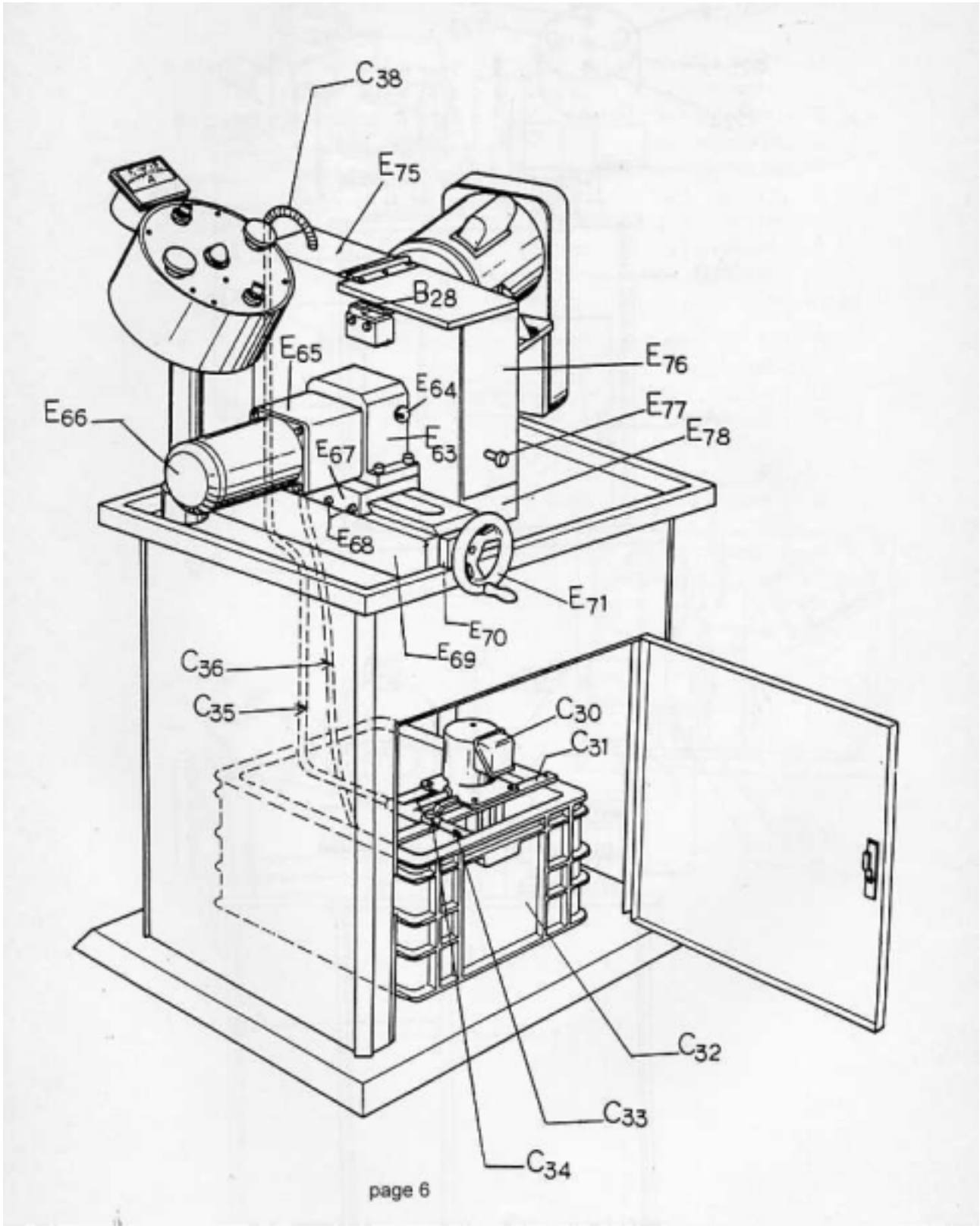
B、Please lubricating and clean the E69 feeding block in daily basis.

C、Pay attention to the clearance of the E67 feeding adjustment base which is important for the grinding. Please adjusting it by the screw E68 to proper condition.

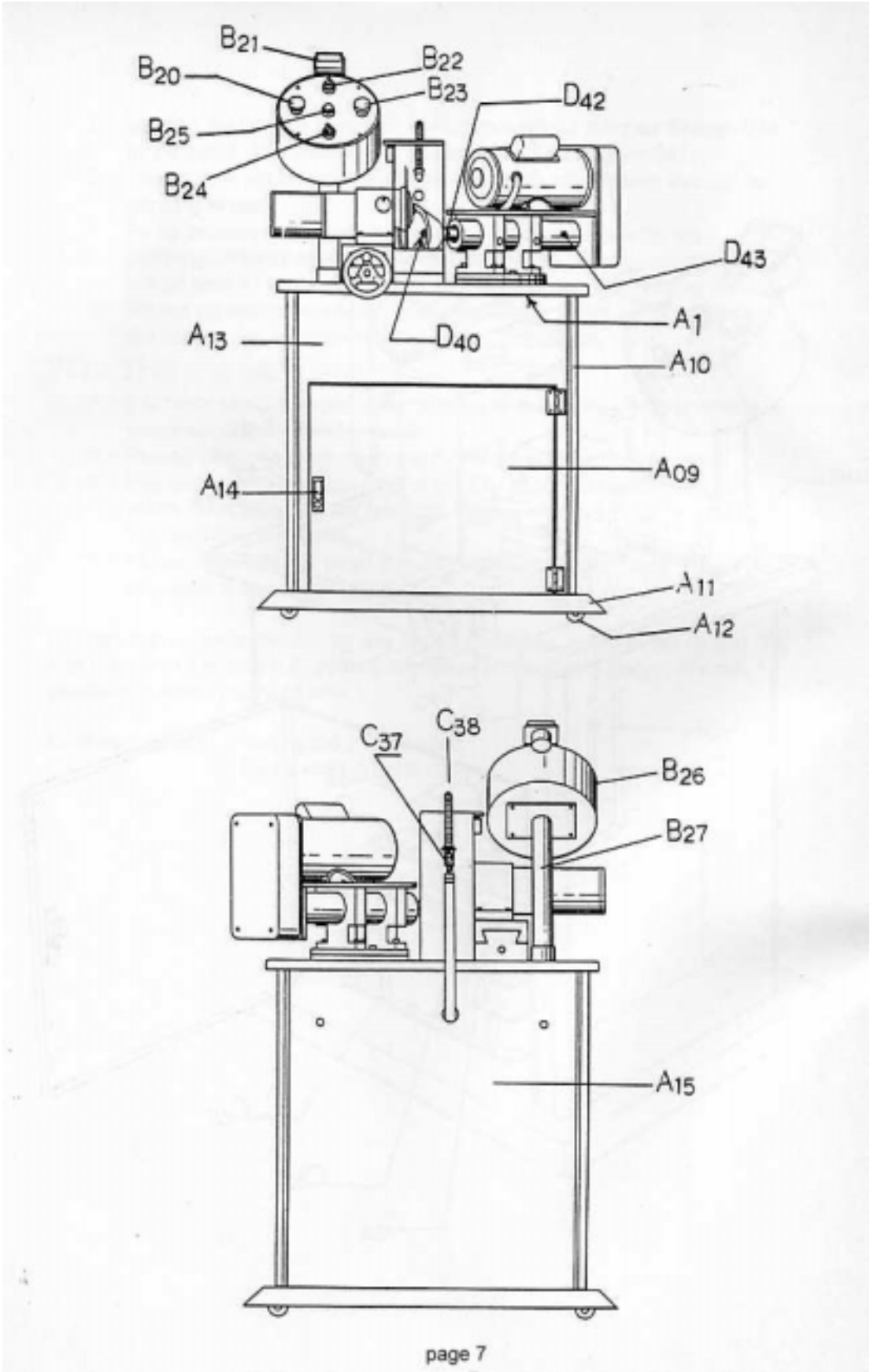
D、Please replacing the small size E61 blade cover if grinding the OD of the blade is less than Ø125mm.

Contact our customer service for any further questions, please tell us part No. that shown on the sketch if ordering the spare parts is necessary. It's our pleasure to serve you at all time.

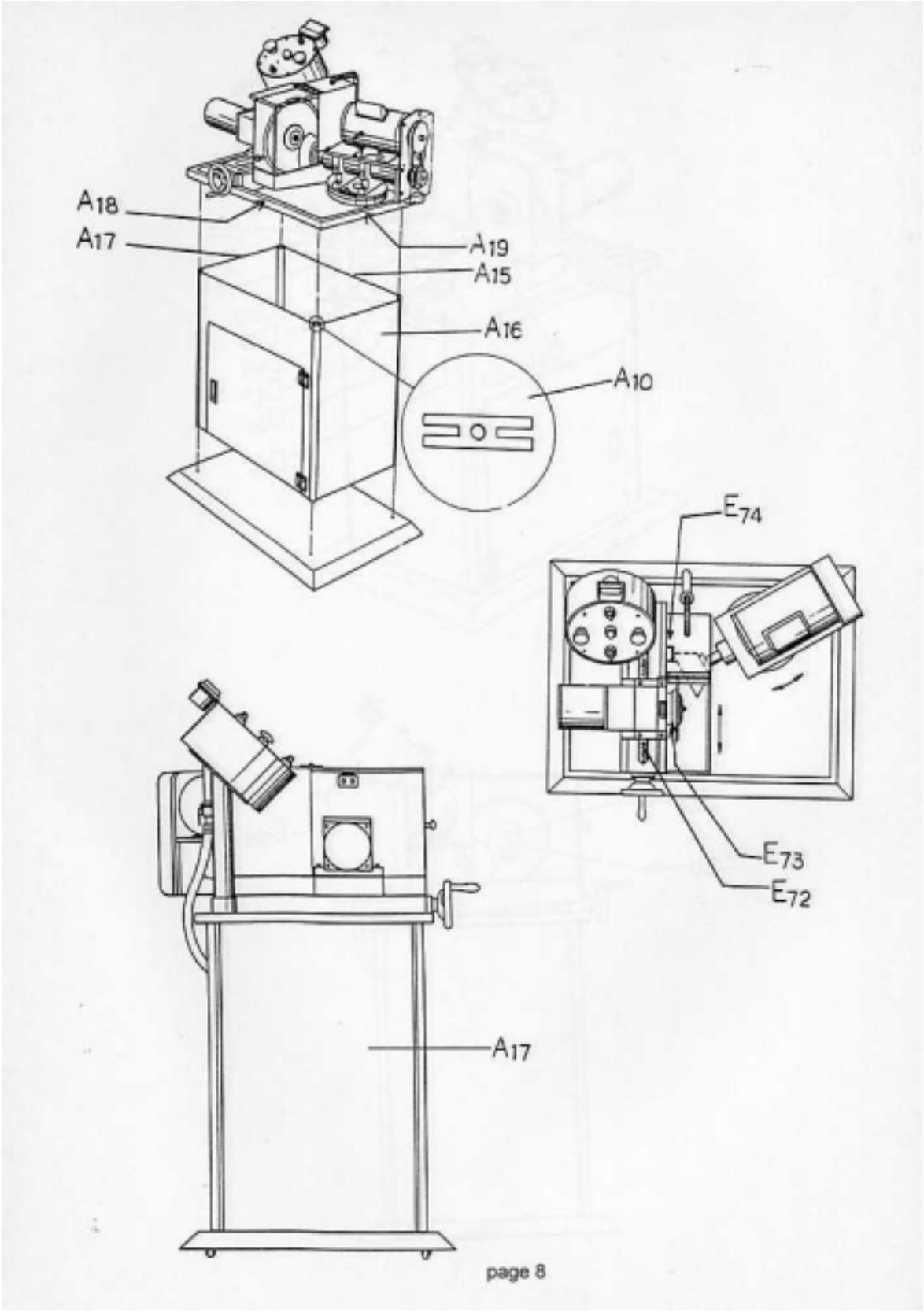
Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com



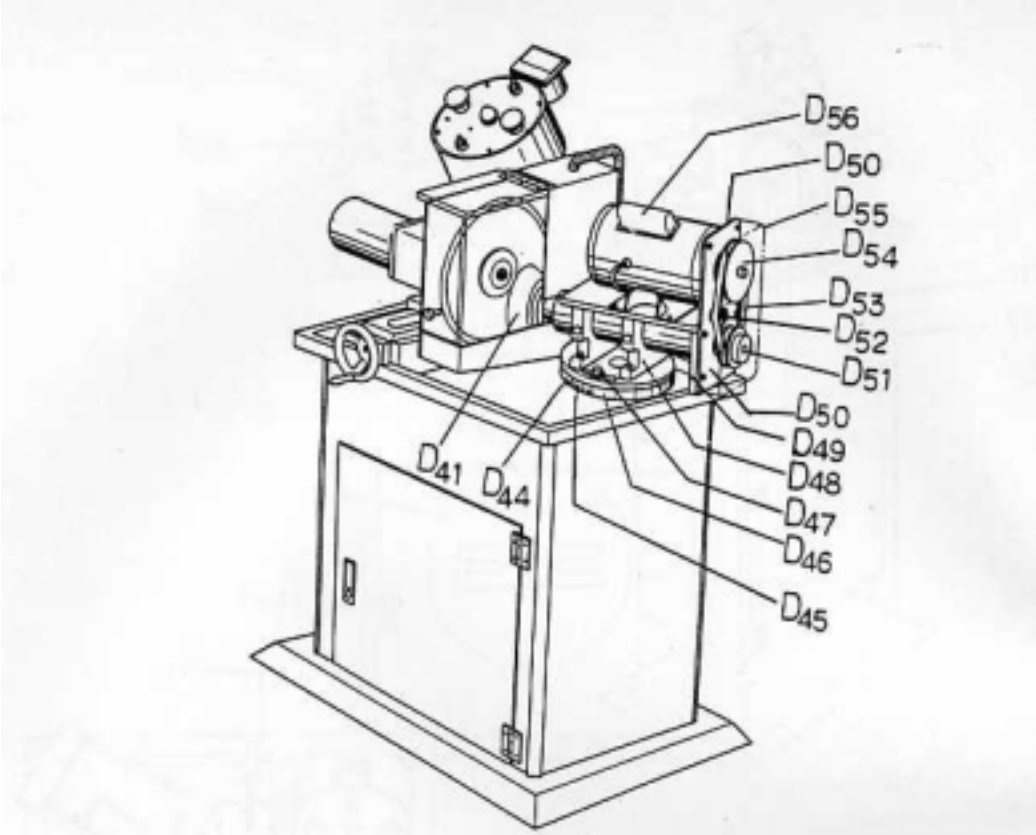
Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com

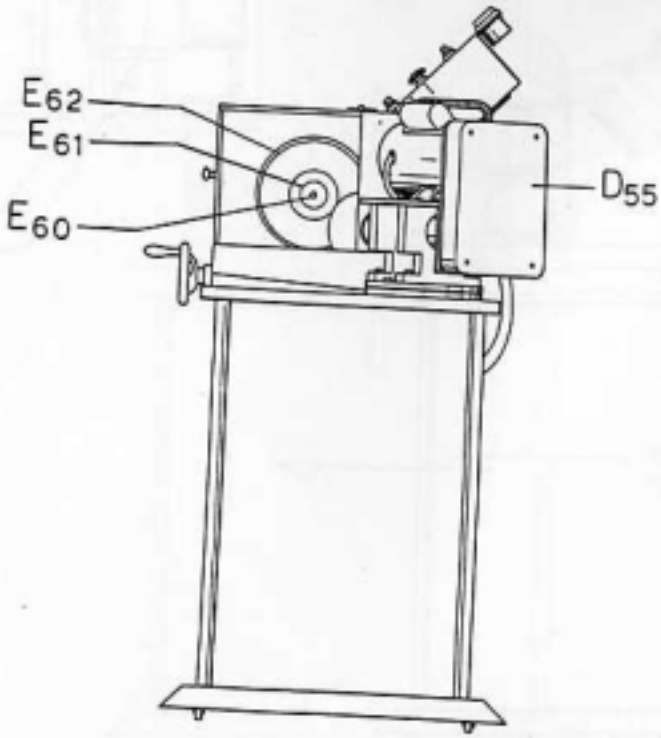


Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com



Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com





Ren Thang Co., Ltd.
TEL: +886-2-82011187、22021205
FAX: +886-2-22039391、22021204
www.renthang.com
E-mail: renthang@renthang.com