



# GMC Heavy Duty Hydraulic Shears Operation Manual

Model: HS-0425E      HS-0625E  
                                 HS-06316E      HS-0808E  
                                 HS-1025E



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 **WARNING!**

**This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.**

**Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.**

**The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.**

**The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.**

 **WARNING!**

**Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:**

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

**Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.**

## WARNING

**WEARING PROPER APPAREL.** Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of workpiece control.

**HAZARDOUS DUST.** Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

**HEARING PROTECTION.** Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

**REMOVE ADJUSTING TOOLS.** Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

**USE CORRECT TOOL FOR THE JOB.** Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

**AWKWARD POSITIONS.** Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

**CHILDREN & BYSTANDERS.** Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

**GUARDS & COVERS.** Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly.

**FORCING MACHINERY.** Do not force machine. It will do the job safer and better at the rate for which it was designed.

**NEVER STAND ON MACHINE.** Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

**STABLE MACHINE.** Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

**USE RECOMMENDED ACCESSORIES.** Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

**UNATTENDED OPERATION.** To reduce the risk of accidental injury, turn machine **OFF** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

**MAINTAIN WITH CARE.** Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

**CHECK DAMAGED PARTS.** Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating machine.

**MAINTAIN POWER CORDS.** When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

**EXPERIENCING DIFFICULTIES.** If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at 909-947-7787

# SECTION 1: SAFETY

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## For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE**

This symbol is used to alert the user to useful information about proper operation of the machine.

## Safety Instructions for Machinery

### **WARNING**

**OWNER'S MANUAL.** Read and understand this owner's manual **BEFORE** using machine.

**TRAINED OPERATORS ONLY.** Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

**DANGEROUS ENVIRONMENTS.** Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

**MENTAL ALERTNESS REQUIRED.** Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

**ELECTRICAL EQUIPMENT INJURY RISKS.** You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

**DISCONNECT POWER FIRST.** Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

**EYE PROTECTION.** Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are **NOT** approved safety glasses.

## **A. Structure and Use**

The GMC 1025E series are a Hydraulic Plate Shear with full length Hydraulic Hold Down 1 solid piece with Neoprene insets for non-marring of your cut pieces.

The major components such as machine frame, upper knife frame, work table, are all welded-steel plate construction, making it high strength and strong in structure.

GMC MACHNE TOOLS strives to deliver a safe, compact, reliable shear equipped with a NC go to back gauge system for fast and accurate cutting

This machine is best suitable for metal plate processing, in the fabrication, sheet metal and manufacturing facilities that need to **cut up to .250" mild steel A36 grade Hot Rolled.**

## Safety Warnings

### **This is very dangerous machine ! WARNING to reduce the risk of electric shock or injury to persons**

1. All Operators must read manual the entire owner's manual before attempting assembly or operation.
2. This machine is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a shear, do not use until proper training and knowledge have been obtained. All operators agree that by operating the shear GMC is not liable for any misuse and all operators agree to hold GMC Machine tools and its authorized distributor harmless of any liability while using this machine.
3. Do not use this machine for other than its intended use.
4. Always wear safety glasses/face shields while using this shear.
5. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Wear OSHA approved protective hair covering to contain long hair.  
Non-slip footwear or anti-skid floor strips are recommended.
6. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
7. Do not exceed the rated capacity of this shear; use hand tools for small or narrow parts. Do not attempt to shear hardened materials.
8. Sheet metal stock has sharp edges. To prevent cuts, use leather work gloves.
9. Keep hands and fingers clear of the area in front and rear of the shear.
10. Do not place your hands between material being sheared and the shear table.
11. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after maintenance is complete.
12. Check damaged parts as part of our regular maintenance program. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts,

breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

13. Provide adequate space surrounding work area and non-glare, overhead lighting.

14. Keep the floor around the machine clean and free of scrap material, oil and grease.

15. Keep visitors a safe distance from the work area. **KEEP CHILDREN AWAY.**

16. Make your workshop child proof with padlocks, master switches or by removing starter keys.

17. Give your work undivided attention. Looking around, carrying on a conversation, CELL PHONES, tablets, laptops are distractions that can cause serious injury

18. Maintain a balanced stance at all times so that you do not fall or lean against moving parts. Do not overreach or use excessive force to perform any machine operation.

19. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do job better and safely

20. Use recommended accessories; improper accessories may be hazardous.

21. Maintain tools with care. Keep tools sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.

22. Do not stand on the machine. Serious injury could occur if the machine tips over.

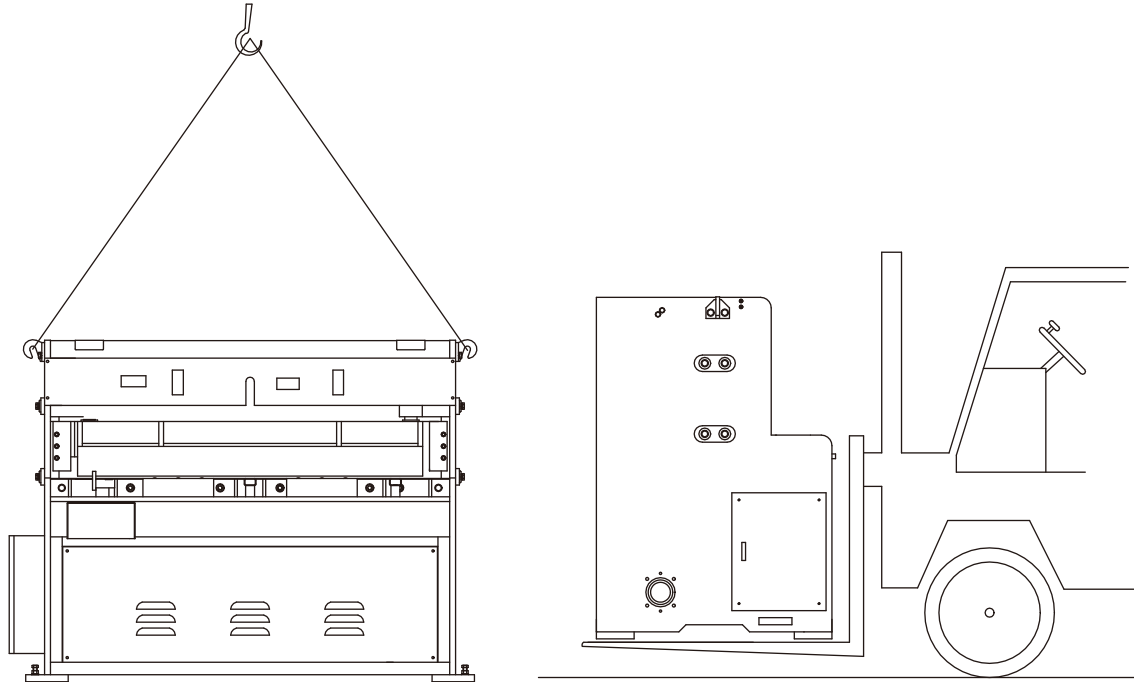
23. Unplug or lock out power to the machine when not in use.



## **B.Lifting and Installation**

Lifting: : When moving or lifting this machine, Please pay attention to the following illustrations: Moving should only be done by a professional and licensed machinery mover, rigger or equivalent.

A crane or suitable capacity forklift should be used. GMC Machine Tools is not responsible for damage caused by improper machine rigging.



## **2、 Installation:**

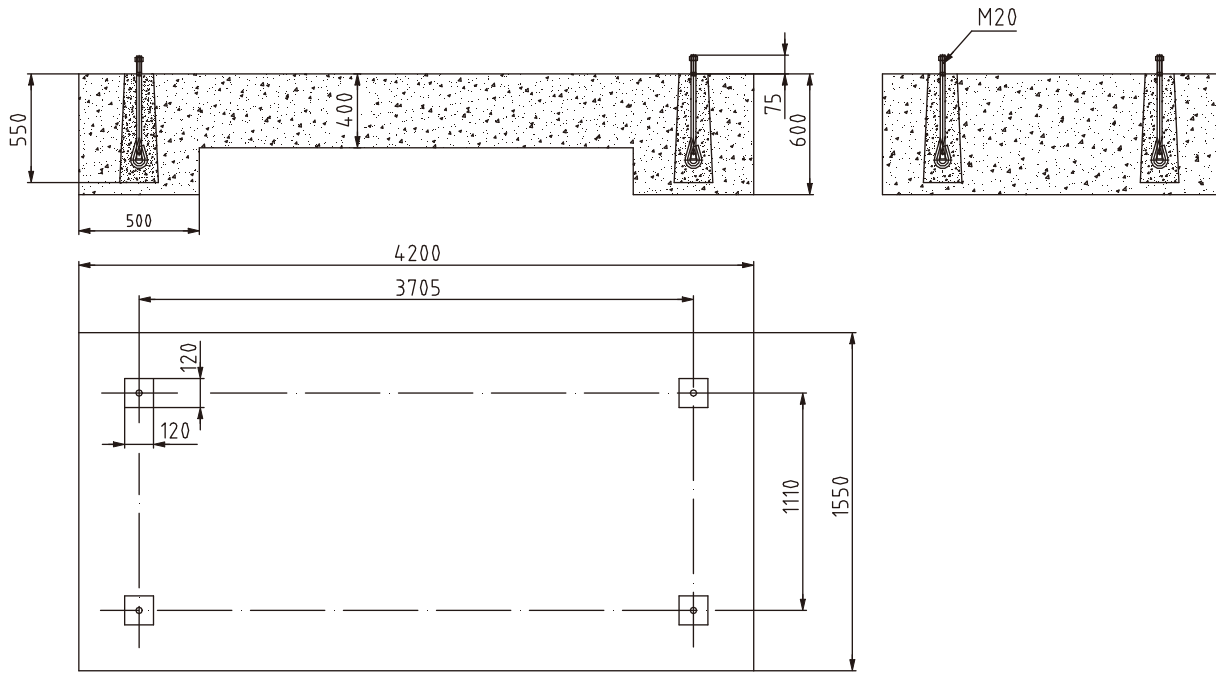
It is critical that the shear be precision leveled for cutting accuracy

Failure to precision level the shear may result in damage to the cutting blades as the blade gap will be affected and may result in excessive left to right twist causing the blades to collide when cutting

The machine should be installed on level bottom foundation, preferably set each foot pad on a 12" x 12" x 3/4" Steel plates. Use the leveling Jacks provided and a precision machinist level to adjust. Place level only on precision machine parts of the shear to ensure accuracy.

Adjust the work table to the horizontal and vertical positions within 0.3mm/1000mm. ( .001" ) Once Level the Shear should anchored to the floor with proper anchors 8" x 3/4"

# LEVELING ILLUSTRATIONS



### **C.Test run and Preparation**

1. After installation, please clean the anti-rust oil and the dust off the working surfaces.

2. Check all the screws, and nuts, on every part of the machine to make sure they have not come loose in the shipping process

3. Fill Oil tank (located in front of shear- remove long front sheet metal cover)  
Oil must be NEW and clean hydraulic oil

When its summer (when ambient temperature is high) use with 46 # hydraulic oil,

When its winter (when ambient temperature is low) with 32 # hydraulic oil.

Generally oil level position should be 90% of sight gauge

Change OIL completely after 1<sup>st</sup> 100 hours of cutting time. After that change 1 X per year. This will ensure a longer life of the hydraulic system and components

4. Use Vactra 2 or Equivalent for the 1 Shot Lubricating guideways system

5. Check ALL the electrical components in the electrical box and back gauge limit switches to make sure they did not become loose in shipping.

**Machine should only be wired to your power by certified licensed industrial electrician who has skills and knowledge of 3 phase power.**

After machine has been properly wired, start the motor (pay attention to direction of rotation. Quickly Start and Stop the shear motor and inspect motor fan rotation is clockwise. If not, then reverse 2 wire leads ( be careful NOT to put **HOT** Lead or **Delta High Leg** on the Control transformer Circuit or you will cause transformer to burn out on start up.

If Power is correct shear blades will go up and down when you step on the foot pedal: Check the system pressure (12mpa, have been adjusted when machine left factory), if not please adjust.

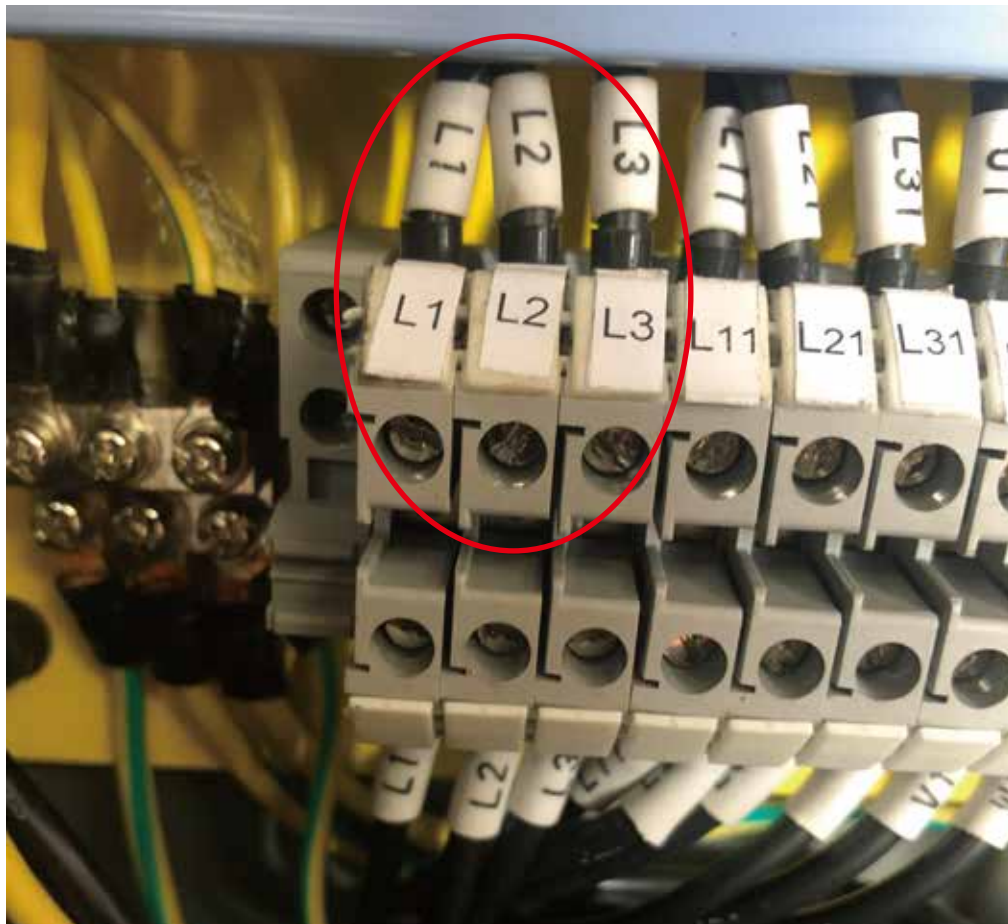
6. Check whether the gap value between upper blade and lower blade is properly set ( see gapping chart in back of manual )

7. Cut according to the operation manual.

Where to fill oil tank and watch the oil level gauge, to make sure it is  $\frac{3}{4}$  full.



Where to hook input power, 3 phase, using L1/L2/L3, which the picktail is wired at.



## **D.Repair and Maintenance**

1、 The machine must be operated by **TRAINED OPERATORS ONLY**

All operators must read instruction manual carefully before operation.

2、 The machine must be kept clean, the parts without paint and sliding parts should be coated with grease, and should be coated with anti-rust oil

Failure to protect machined and precision surfaces will result in poor performance of the machine, cause expensive repairs and shorten usable machine life.

3、 Cutting blade should be kept sharp, if damaged and the blade wears down Please have blades professionally sharpened: Blades can be rotated and sharpen

Each Blade has 2 useable edges. When sharpening is no longer an option NEW blades must be purchased

Avoid cutting material that exceeds .250” thickness mild Steel A36 or .125” Stainless Steel 304 Grade, or with hard scars, slag, welding lines, and other defects such as edges or exorbitant hardness material.

4、 Use clean and non-corrosive grease.

5、 Operate according to rules, do not overload the machine in order to avoid damage of machine parts.

6、 While working, should anything happen that feels or sounds abnormal stop operation immediately, power off machine , and inform proper department to inspect machine .

7、 Power off when finished work, and clean up the machine. **DO NOT LEAVE** Plugged in or trip the breaker disconnect. Power Surges can damage to Servo Drives and other electrical components

8、 Check circuit regularly, pay attention to motor’s rotation direction, examine and repair motor or re-connected circuit after and repairs.

Note: **NEVER RUN SHEAR WITHOUT OIL: THIS WLL CAUSE IRREVRISIBLE HYDRAULIC DAMAGE**

Replace new oil after 100 hours run time.

Replace new oil each year (about 1500 working hours).

## E. Specifications:

<b>Model</b>	<b>HS-0425E</b>	<b>HS-06316E</b>	<b>HS-0808E</b>
Max.shearing thickness	1/4"	3/16"	8 GA
Max.shearing width	52"	80"	8'2"
Blade angle	2.5°	2°	1.7°
No.of stroke(per minute)	20	18	16
Main motor	7-1/2HP	10HP	15HP
Powered Back gauge	24"	24"	36"

<b>Model</b>	<b>HS-0625E</b>	<b>HS-1025E</b>
Max.shearing thickness	1/4"	1/4"
Max.shearing width	80"	10'
Shearing angle	2.5°	1.7°
No.of stroke(per minute)	20	15
Main motor	10HP	20HP
Powered Back gauge	24"	NC Back Gauge

## F.Blade Clearance Chart

SUGGESTED KNIFE CLEARANCE	
METAL THICKNESS	KNIFE CLEARANCE
16 Gage	.002" - .005"
14 Gage	.003 - .006
12 Gage	.004 - .008
10 Gage	.006 - .009
3/16 inch	.009 - .013
1/4 inch	.010 - .018
3/8 inch	.020 - .028
1/2 inch	.030 - .040
5/8 inch	.040 - .050
3/4 inch	.050 - .065
1 inch	.070 - .090
1-1/4 inch	.090 - .120
1-1/2 inch	.110 - .150

STANDARD SHEET GAGES			
GAGE NO.	THICKNESS INCHES	GAGE NO.	THICKNESS INCHES
30	.0120	16	.0598
29	.0135	15	.0673
28	.0149	14	.0747
27	.0164	13	.0897
26	.0179	12	.1046
25	.0209	11	.1196
24	.0239	10	.1345
23	.0269	9	.1495
22	.0299	8	.1644
21	.0329	7	.1793
20	.0359	6	.1943
19	.0418	5	.2092
18	.0478	4	.2242
17	.0538	3	.2391

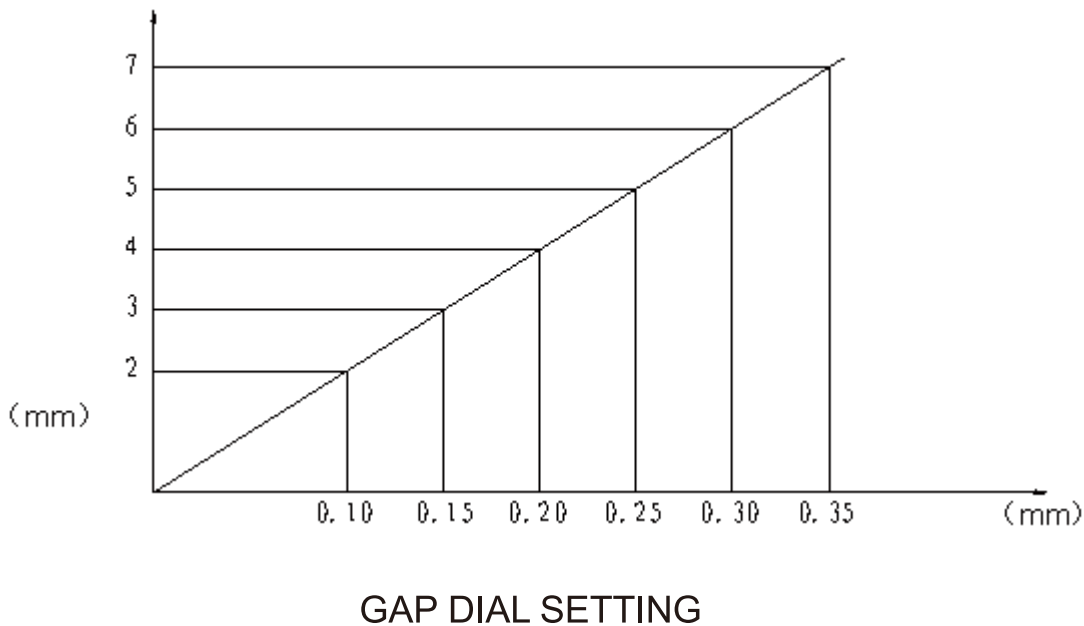
SHEARING STRENGTH OF MATERIALS		
MATERIAL	TONS/SQ.IN.	FACTOR
Mild Steel (.25 Carbon)	25	1:00
Mild Steel (.50 Carbon)	30	.83
Stainless Steel	28	.65
Broiler Plate	30	.83
Spring Steel (1.99 Carbon)	42	.60
Tool Steel. Not tempered (1.20 carbon)	45	.56
Tool Steel. tempered (1.20 carbon)	95	.26
Nickel Steel (0.5% Nickel)	41	.61
Aluminum Sheet	10	2.5
Brass	13	1.92
Copper	12.5	2.00
Lead	1.5	16.67
Tin-Coated Sheet Steel	25	1.00
Zinc	8.5	2.94

**How to use this table:** If the shear is rated 10 Gauge in mild steel, What thickness of stainless steel sheet will it cut?  
 $.1345 \times .65 = .075(14Ga)$

## G.Adjust of blade clearance ( Blade Gap )

The correspondence between the plate thickness and the shear blade clearance is as follows: See Drawing Below:

### Material Thickness



### **FOLLOW THESE STEPS :**

Locknut #2 loosen slightly: (Both Sides of Shear)

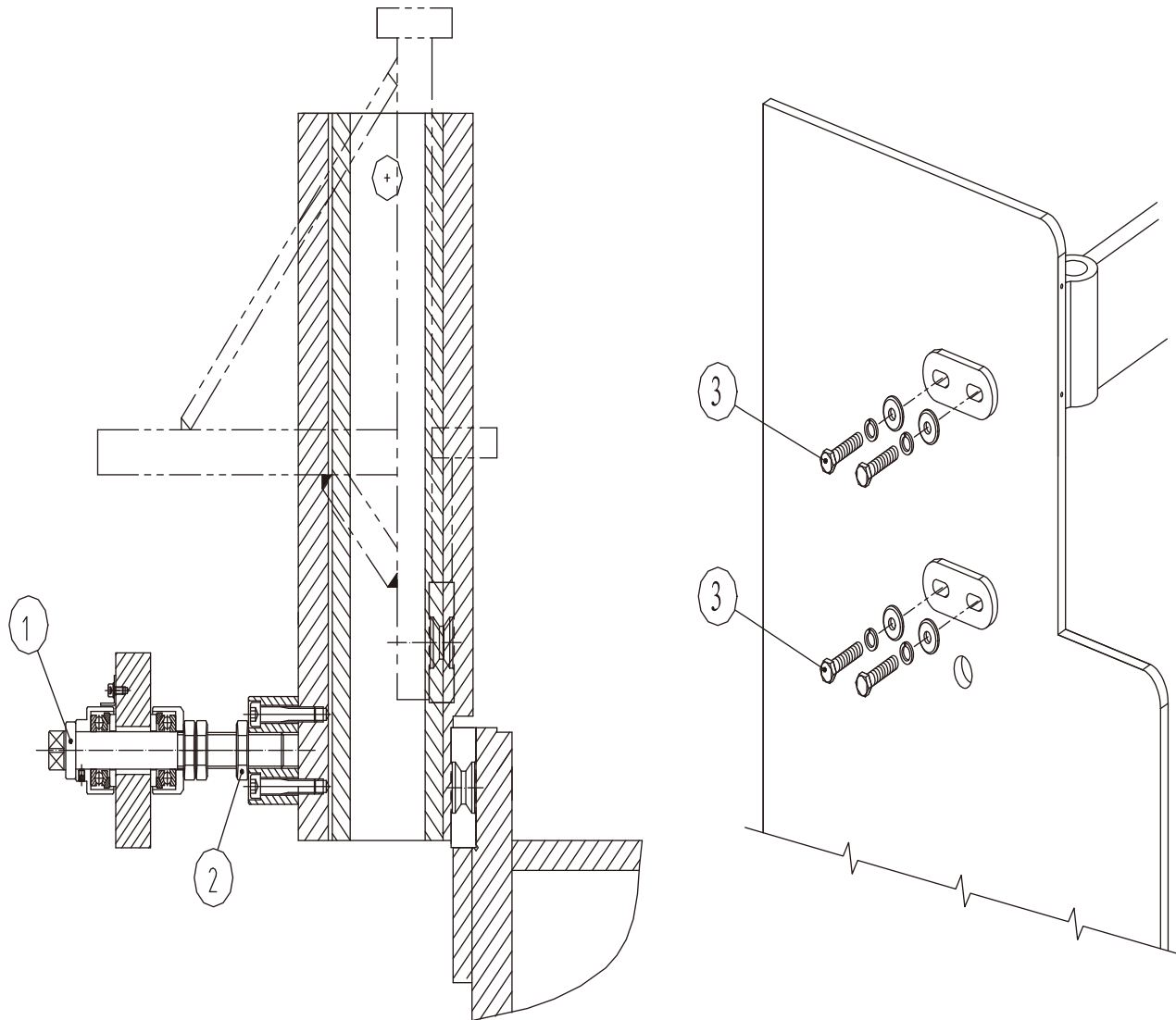
Locknut #3, loosen clockwise (Both Sides of Shear)

Adjust shaft #1 (Both sides of Shear) Clockwise Shear Blade gap will be increase,

Adjust shaft #1 (Both sides of Shear) Counter - Clockwise Shear Blade gap will be decrease,

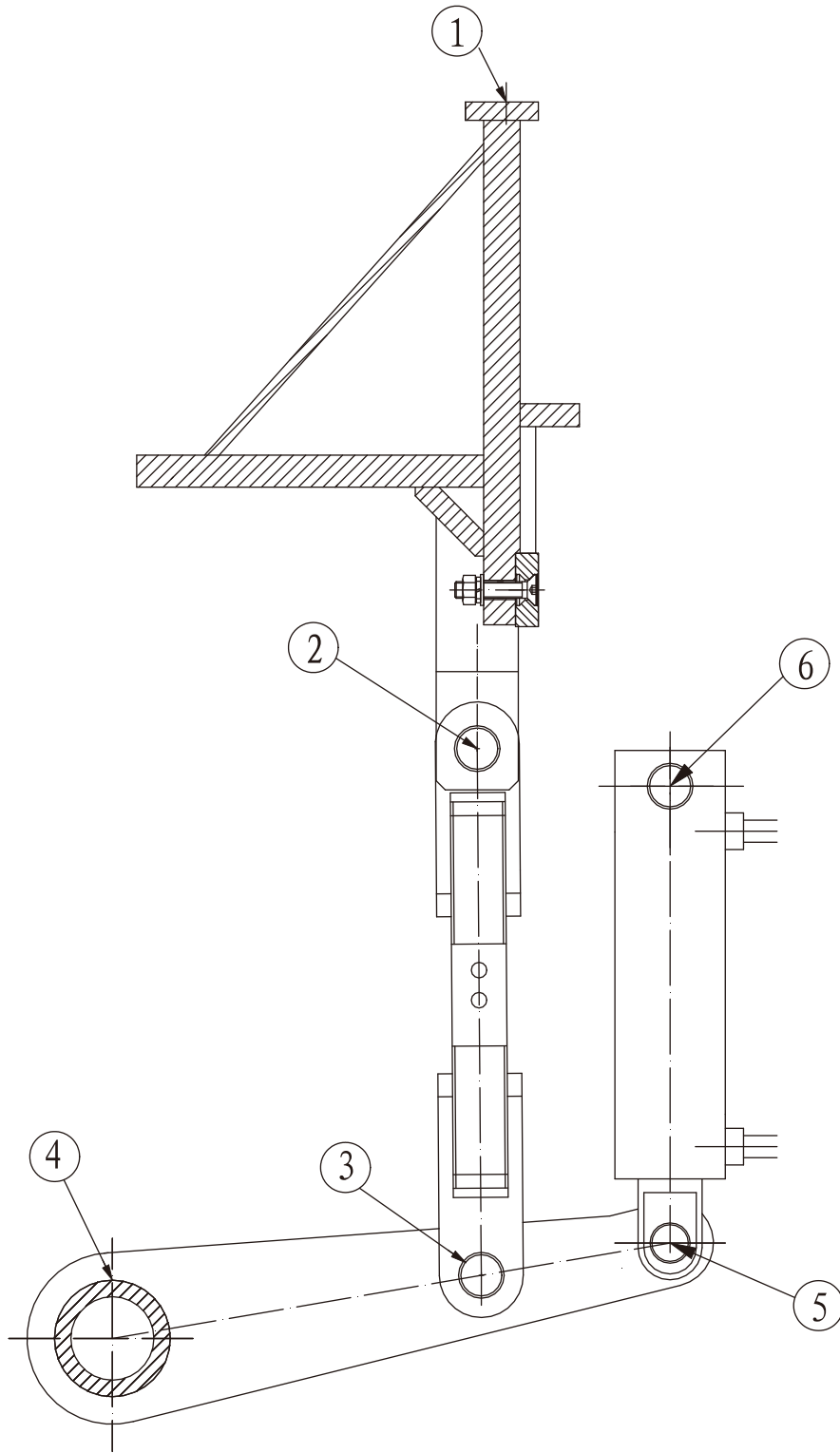


When the value of clearance coincides with the thickness of the sheared plate, then tighten nut #2 and the bolt# 3 (Both sides of Shear)



## H.Lubrication

Serial No.	Lubrication position	Number of lubrication	Time of lubrication	Type of lubricants
1	Upper parts of Top rest	2	1/ per shift	Machine oil
2	Axis pin of top rest	2	1/per shift	Machine oil
3	Copper sleeve of principal axis	2	1/per shift	Machine oil
4		2	1/per shift	Machine oil
5	Axis pin of connecting rod	2	1/per shift	Machine oil
6	Hydraulic cylinder support hole	2	1/per shift	Machine oil



## I. Start up instruction for HS - 0425E/0625E/0808E

### a. How to operate the SIKO power back gauge on E models

Turn the power switch from OFF to ON

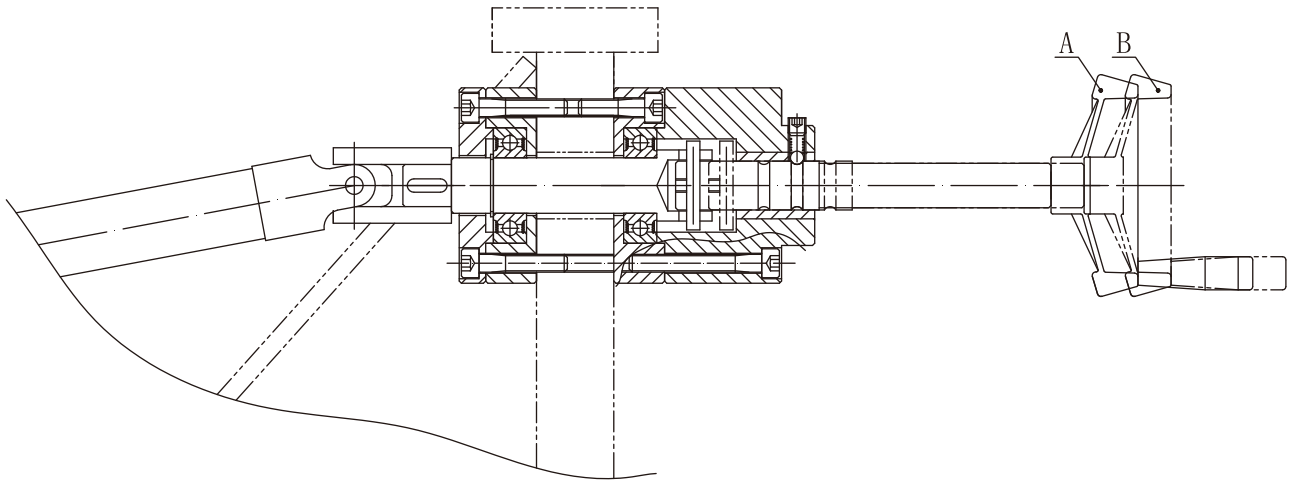


Press the white power on button, at this time, the light for shadow line is on.



Press two buttons for the back gauge, located on the front cover of the top beam. Press the forward button to move the back gauge forward, and press reverse button to move the back gauge reverse. The SIKO digital readout shows the back gauge distance, and that is the width you want to cut the sheet metal.

To micro adjust the back gauge, push the handwheel in to A position, and turn it to move the back gauge manually to make the micro adjustment. When the back gauge is set up, please pull the handwheel out to B position to avoid the handwheel rotating and hurt the people. This is safety design.



b. Press pump start button, the hydraulic pump works, meanwhile, the control on indicator light is on. Let the pump work for about 5 minutes, then operate the machine.



This machine has two operation modes, one mode is Auto, and the other is inch( jog ).

**Use AUTO mode, please turn the switch to Auto**

Press and hold the foot pedal, the upper blade comes down, and make cut, then return back to the top position and stop, to perform one auto cutting cycle. Repeat this step to make another cutting cycle. Once the foot remove away from the foot pedal, the upper blade turn to the top position right away, this is safety design to meet OSHA requirement.

**Use INCH ( JOG ) mode, please turn the switch to INCH**

Press foot pedal and release, the upper blade stops & stay, and press the foot pedal again, the upper blade continues to come down, and release the foot pedal, the upper blade stops and stay, at this time, can do the blade clearance check or clearance set up. After the checking or adjustment is done, turn the switch back to AUTO, the upper blade returns back to the top position.

## 9. How to operate the M model shears with manual back gauge

Turn the power switch from OFF to ON

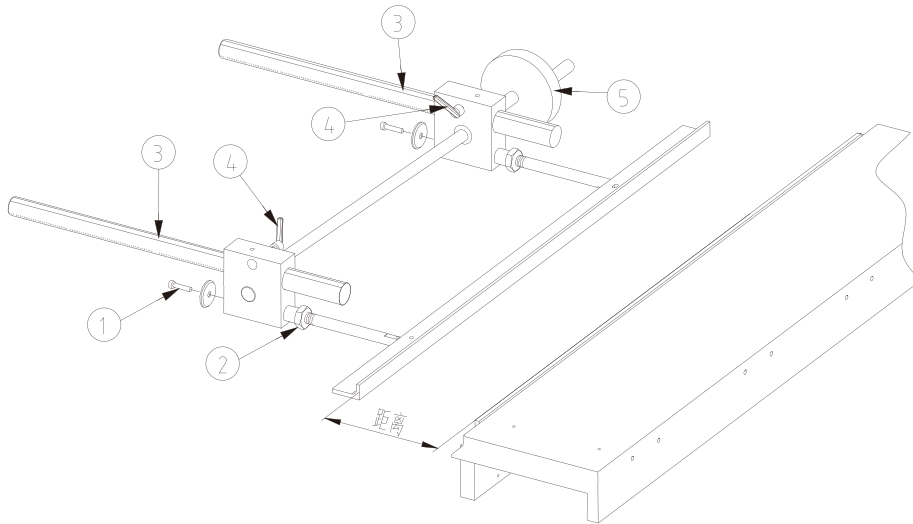


Press the white power on button, at this time, the light for shadow line is on.



For M model shears, they come with the manual back gauge, please proceed it at “0” for the initial use. Please check to see if the scale “0” is on alignment. If not, please loosen the bolt #1, and rotate the bolt # 2 to adjust. Please tighten the bolt# 1 when finishing the zero setting.

Adjusting back gauge distance: loosen handle # 4, turn the handwheel # 5 to change the back gauge distance, once the distance is set up, lock the handle # 4. See back gauge drawing on next page.



Back Gauge distance is from the stopper to the bottom blade.

Press pump start button, the hydraulic pump works, meanwhile, the control on indicator light is on. Let the pump work for about 5 minutes, then operate the machine.



This machine has two operation modes, one mode is Auto, and the other is inch( jog ).

**Use AUTO mode, please turn the switch to Auto**

Press and hold the foot pedal, the upper blade comes down, and make cut, then return back to the top position and stop, to perform one auto cutting cycle. Repeat this step to make another cutting cycle. Once the foot remove away from the foot pedal, the upper blade turn to the top position right away, this is safety design to meet OSHA requirement.

**Use INCH ( JOG ) mode, please turn the switch to INCH**

Press foot pedal and release, the upper blade stops & stay, and press the foot pedal again, the upper blade continues to come down, and release the foot pedal, the upper blade stops and stay, at this time, can do the blade clearance check or clearance set up. After the checking or adjustment is done, turn the switch back to AUTO, the upper blade returns back to the top position.

# J. Start - up Instruction on HS-1025E NC Go-to Power Back Gauge

## a. Indicators on touch screen



1

2

3

4

5

### 1. Normal Run Mode



E-stop is on



### 2. Operation modes: Auto



Jog/Inch



3. Back gauge limit switch: normal



back limit switch is tripped



4. Back gauge limit switch: normal



front limit switch is tripped



5. Blade gap: Blade gap is Correct




Blade gap not correct



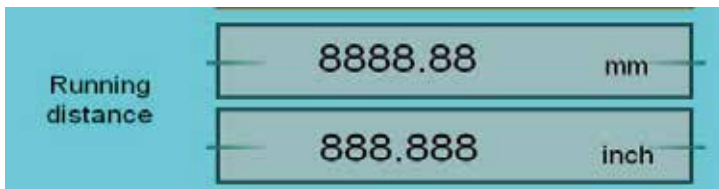
b. Enter Backgauge distance here

Shearing length	999.999	inch
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In Auto mode, first enter the length you want to shear off your piece of material ( Example : 2" ) Then press this key  The back gauge will automatically move to the selected length you entered and stop.

You may switch from inch display to metric mm display



c. Counter for # of pieces cut reset to zero



Press this key  to

d. Parameters set up



e.



Adjust Stroke Length for longer or shorter cut pieces

( NOTE : only works on Auto mode )

Enter 9.9 seconds for full length cut . Adjust shorter time as needed to

reduce the stroke length

And increase number of possible strokes per minute

**f. Back Gauge distance compensation/correction**

Before you can recalibrate the Back Gauge, you will need to enter the **USER NAME** and **PASSWORD**



user name: GMC

Password: 2001



g. When the Back gauge's actual distance is different from the displayed distance on the screen, you will need to recalibrate the Back Gauge.

First, measure the actual distance of a piece you cut. (USE A PRECISION CALIPER)

Then enter the actual distance number into the keypad display

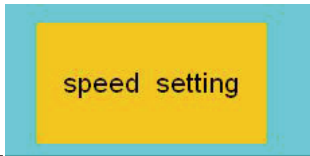
Then press the key "teach"



Now the new distance is saved. Go back to main screen, enter a new distance

**Make a cut and measure the cut to make sure the distance is now accurate.**

**Factory initial set up, do not change any of the following:**



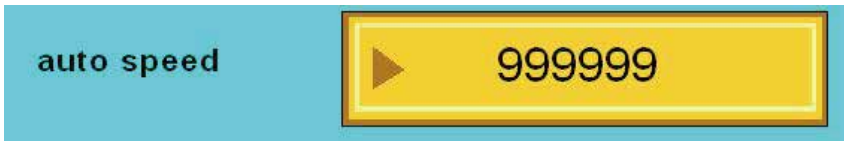
**h. Back Gauge speed setting**



**Jog mode, speed for BG moving forward**



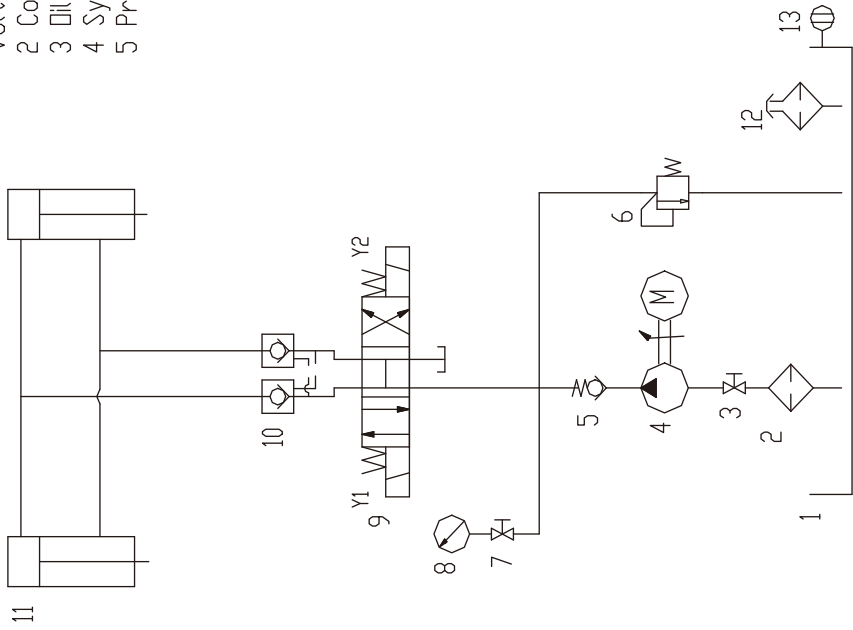
**Jog mode, speed for BG moving backward**



**Auto mode, speed for auto moving**

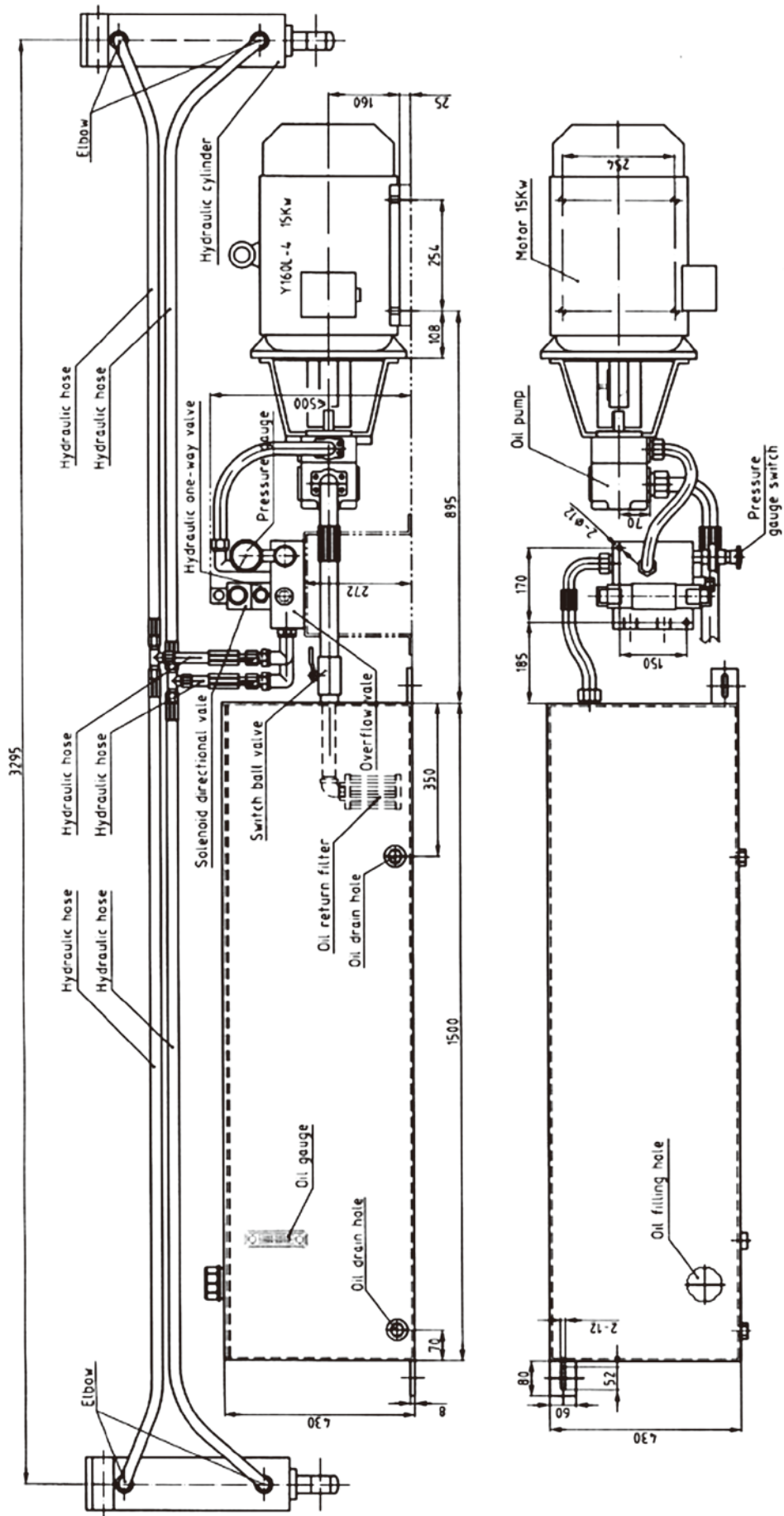
# K. Hydraulic Diagrams

Specification Request  
 1 Hydraulic Station Specification:  
 Voltage frequency requested by customer  
 2 Control Voltage for Reversing Valve: DC24V  
 3 Oil: Antiwear hydraulic Oil  
 4 System Temperature: 5-55°  
 5 Pressure: 15Mpa



13	Content Gage	1	
12	Air Filter	1	
11	Oil Cylinder	2	
10	Hydraulic one-way Valve	1	
9	Reversing Valve	1	
8	Pressure Gage	1	
7	Pressure Meter Switch	1	
6	Overflow Valve	1	
5	One-Way Valve	1	
4	Pump	1	
3	Ball Valve	1	
2	Filter	1	
1	Hydraulic Station	1	
No.	Name	Qty	Remark

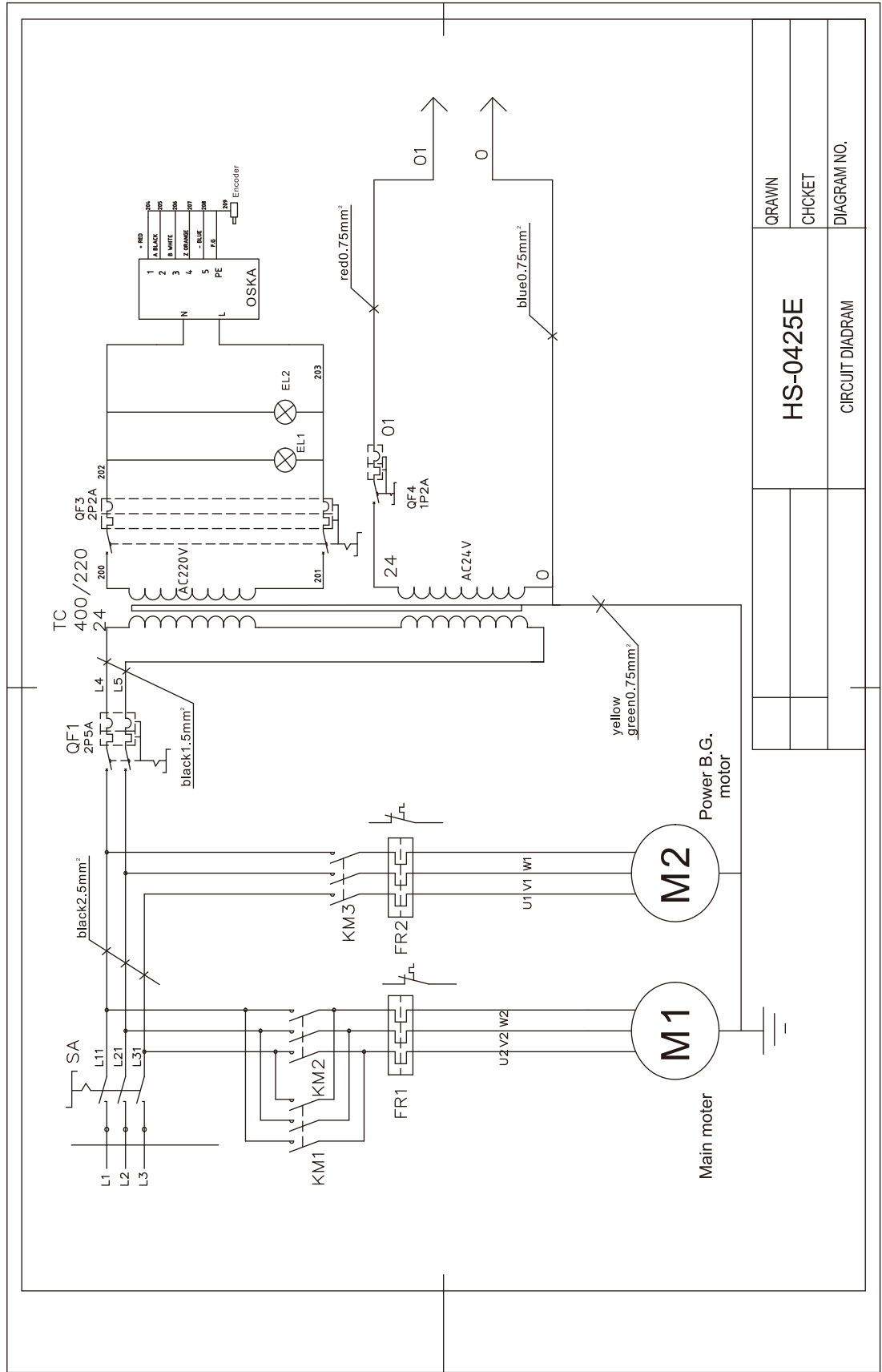
Hydraulic Shearing Machine

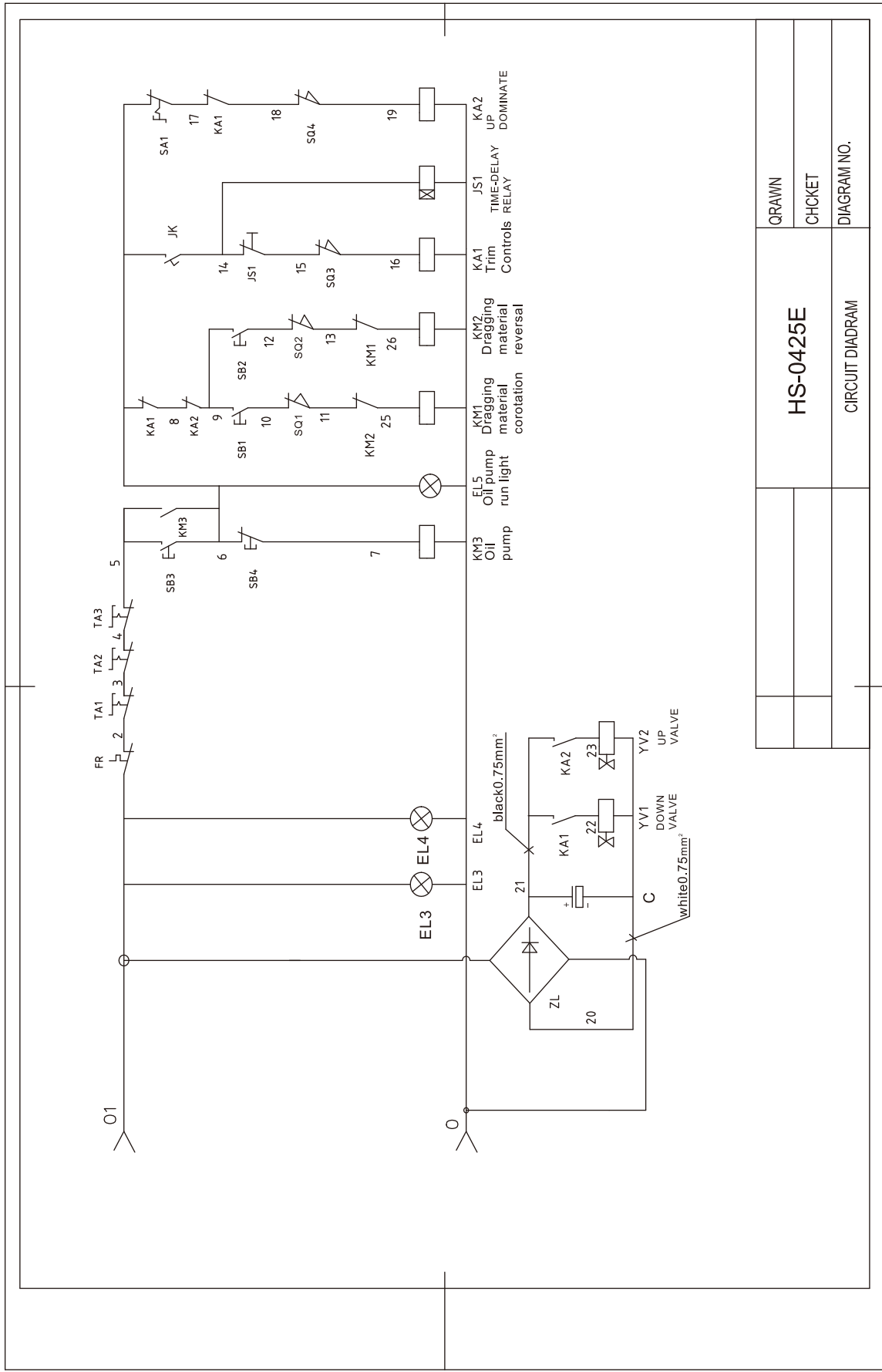


Overflow valve: Control pressure of system  
 Solenoid directional valve: Control blade and hydraulic cylinder up and down

# L.Electrical Diagrams for HS - 0425E / 0625E / 0808E

## a. Electrical diagram for the E models with SIKO power back gauge



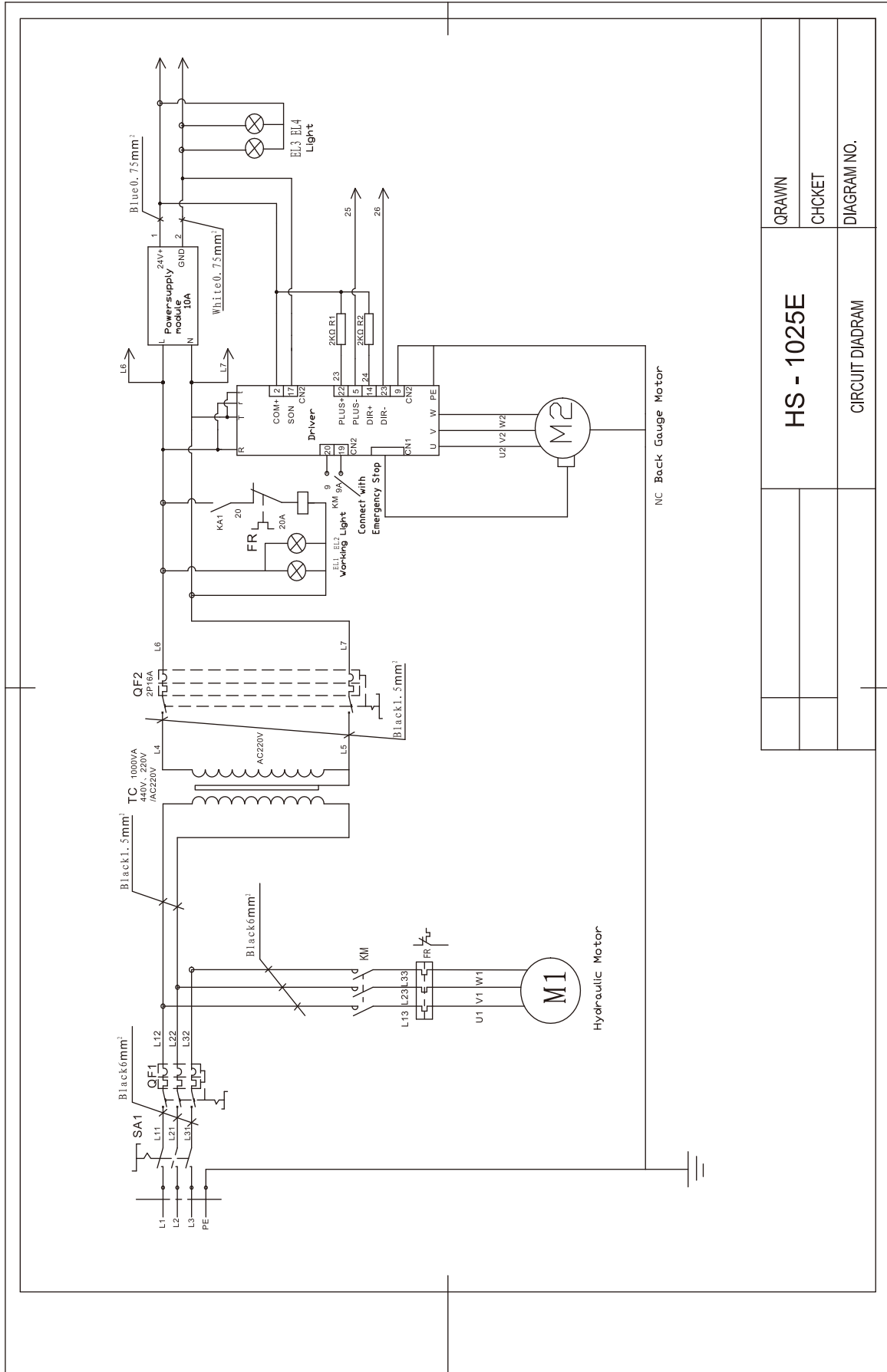


		HS-0425E	QRAWN
		CIRCUIT DIADRAM	CHCKET
			DIAGRAM NO.



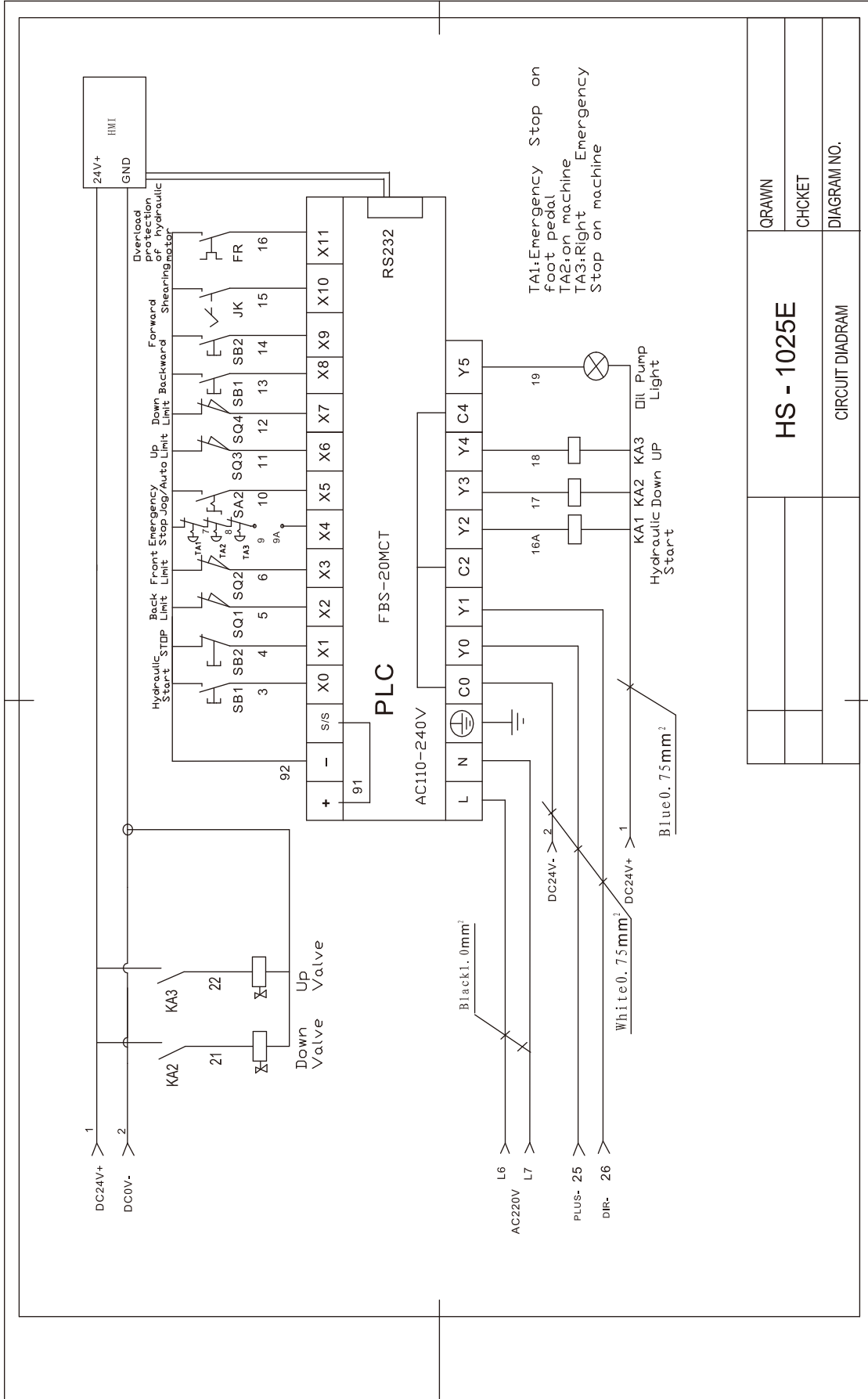


# M. Electrical diagram for HS-1025E



QRAWN	HS - 1025E
CHKET	
DIAGRAM NO.	CIRCUIT DIAGRAM

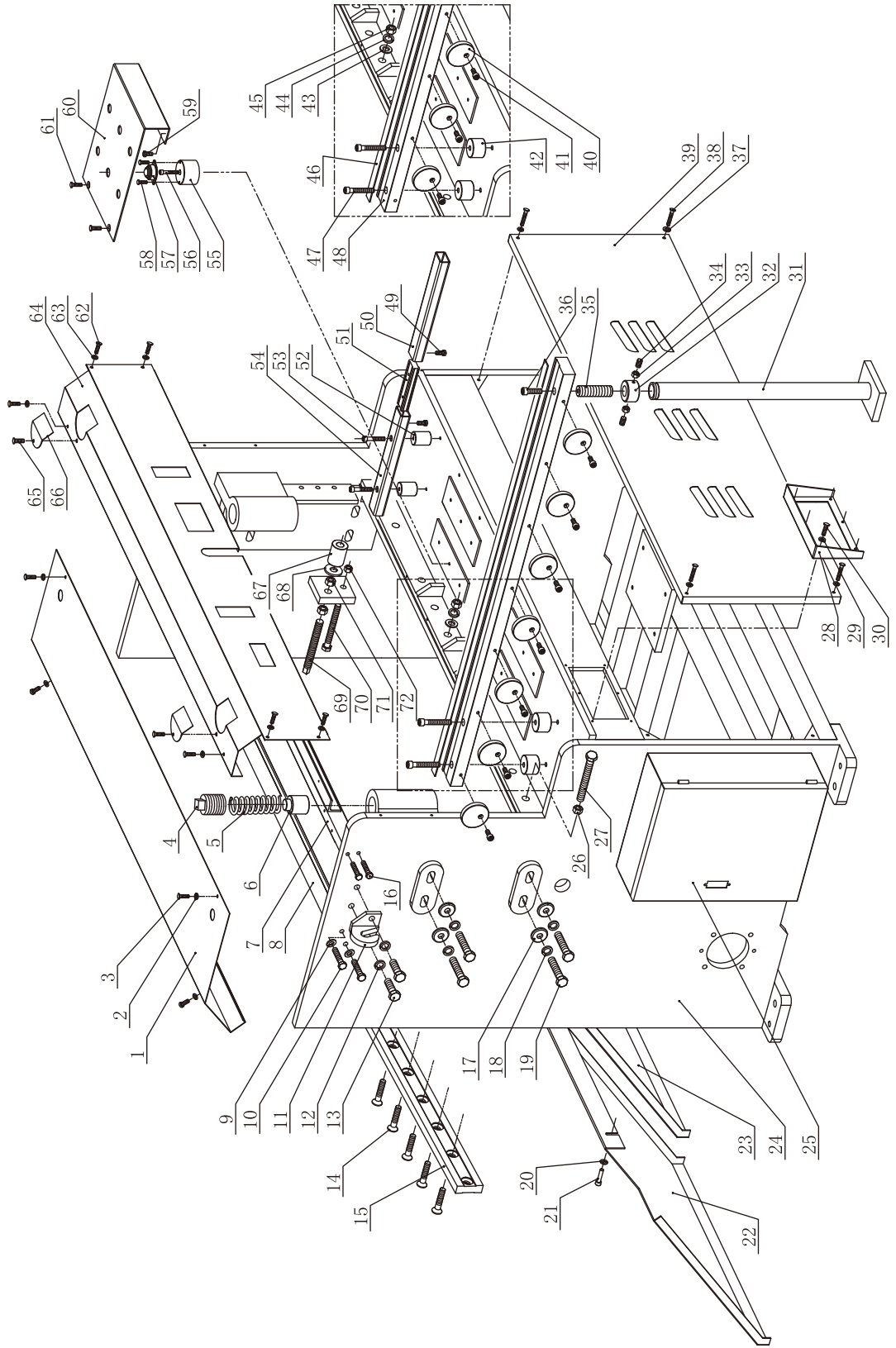
# Electrical diagram for HS-1025E

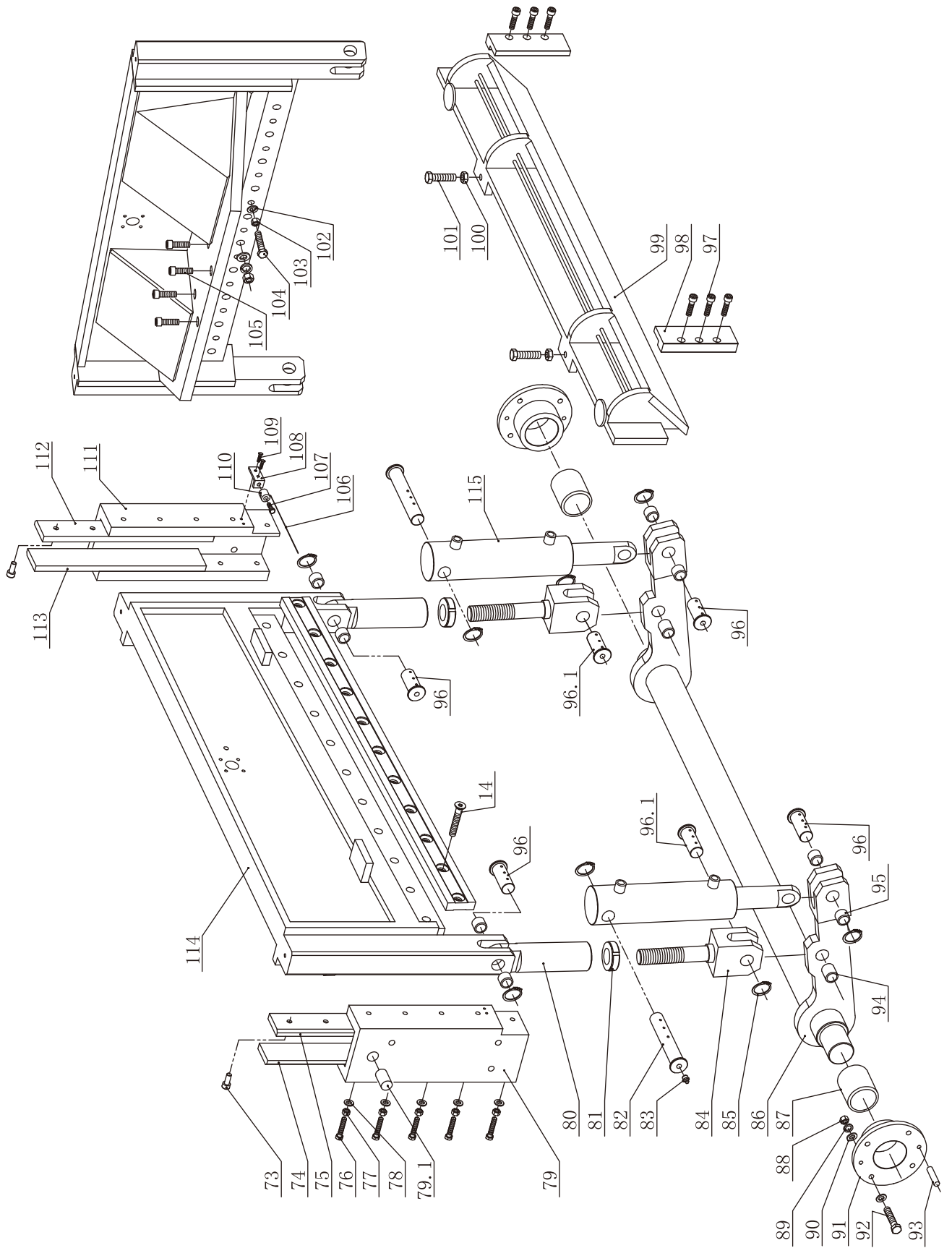


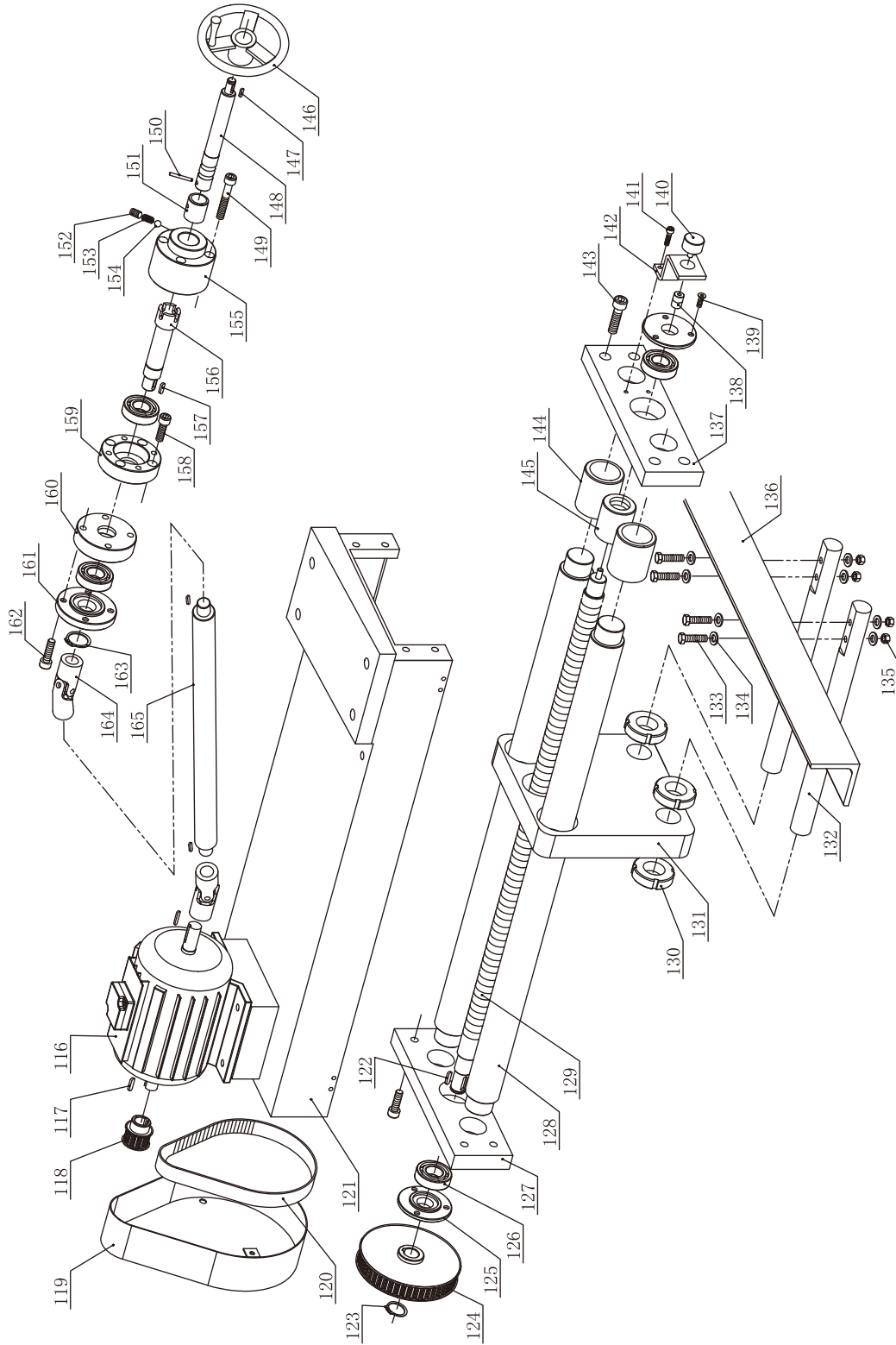
QRWIN	<b>HS - 1025E</b>
CHCKET	
DIAGRAM NO.	

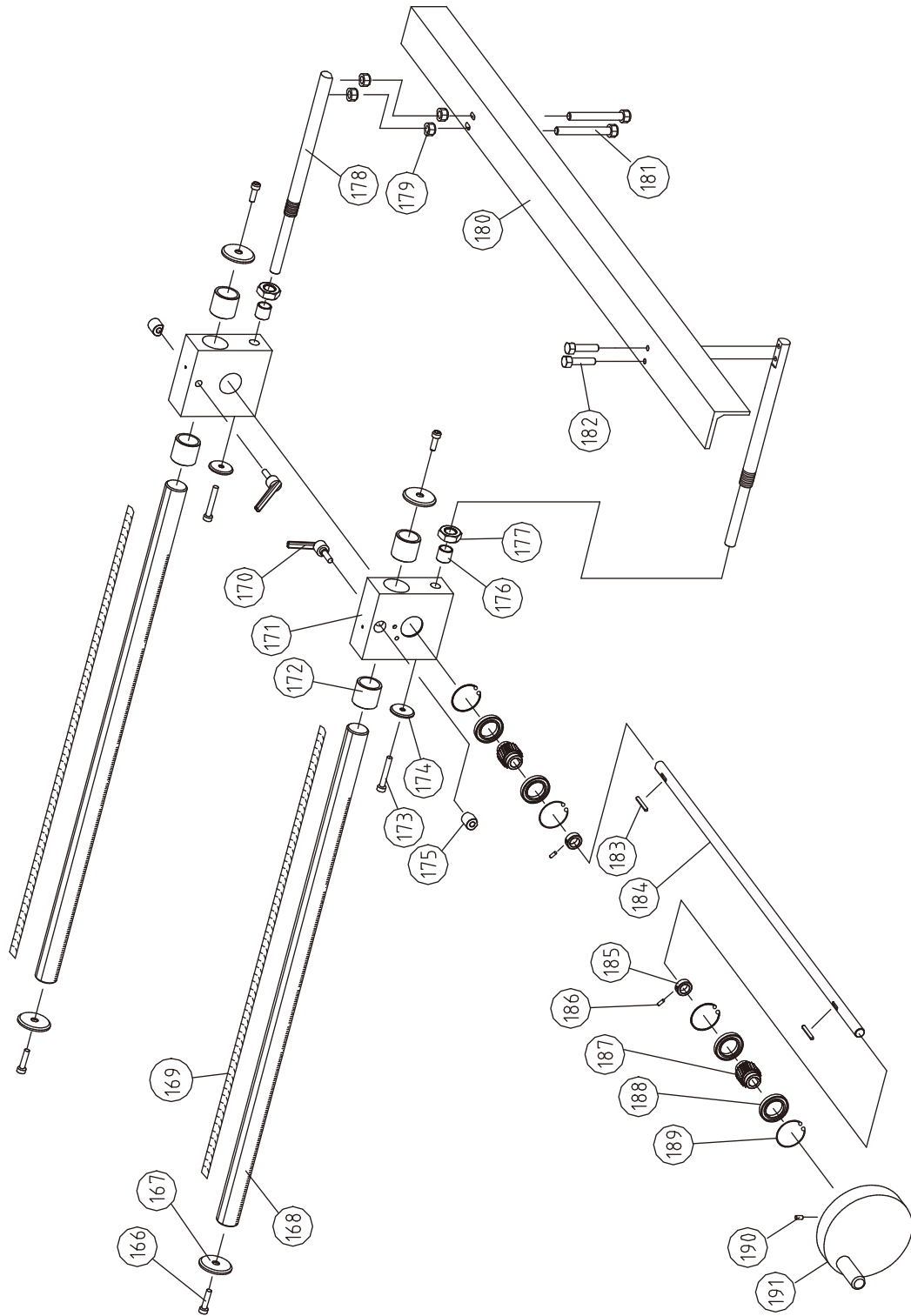
CIRCUIT DIADRAM

**N. Parts breakdown for HS - 0425E / HS - 0625E / HS - 0808E**









Index No.	Description	Q'ty	NOTE
1	Top cover	1	
2	Washer 6	4	
3	Screw M6X12	4	
4	stud	2	
5	Spring	2	
6	shaft	2	
7	support	1	
8	support	1	
9	Washer 12	4	
10	Screw M12X45	4	
11	Lifting plate	2	
12	Washer 16	4	
13	Screw M16X40	4	
14	Screw M18X1.5X90	22	
15	blade	2	
16	Screw M8X45	4	
17	washer	8	
18	Washer 16	8	
19	screwM16X110	8	
20	washer8	4	
21	Screw M8X20	4	
22	Sliding plate	1	
23	Sliding plate	1	
24	frame	1	
25	Electrical box	1	
26	Nut M16	2	
27	Nut M16X110	2	
28	Safety guard	1	
29	Washer 5	6	
30	Screw M5X16	6	
31	strut	1	
32	Adjustment nut	1	
33	Nut M8	2	
34	Screw M8X16	2	
35	Adjustment screw	1	
36	Screw M12X45	1	
37	Washer 6	4	
38	Screw M6X35	4	
39	Safety guard	1	

40	Limit set	7	
41	Screw M8X20	7	
42	Side rules pad	2	
43	Washer 18	22	
44	Washer 18	22	
45	Nut M18X1.5	22	
46	ruler	1	
47	Screw M12X85	2	
48	Side rule	1	
49	Nut M6X12	4	
50	Connecting pipe	2	
51	connection plate	2	
52	Support mat	4	
53	Screw M8X65	4	
54	Pipe of front sport	2	
55	Rolling ball seat	12	
56	Nut M8X55	12	
57	Rolling ball	12	
58	Nut M5X12	24	
59	Bolt M8X16	4	
60	Cover plate	2	
61	Nut M6X16	4	
62	Nut M6X12	6	
63	Washer 6	6	
64	Upper cover	1	
65	Nut M6X12	2	
66	Cover plate	2	
67	Rubber column	2	
68	mat	2	
69	screw	2	
70	Bolt M16X150	2	
71	Nut M20	4	
72	Nut M16	2	
73	Nut M12X35	10	
74	Left top plate	1	
75	Left backup plate	1	
76	Bolt M12X65	10	
77	Nut M12	10	
78	Washer 12	10	
79	Left slide slot	1	

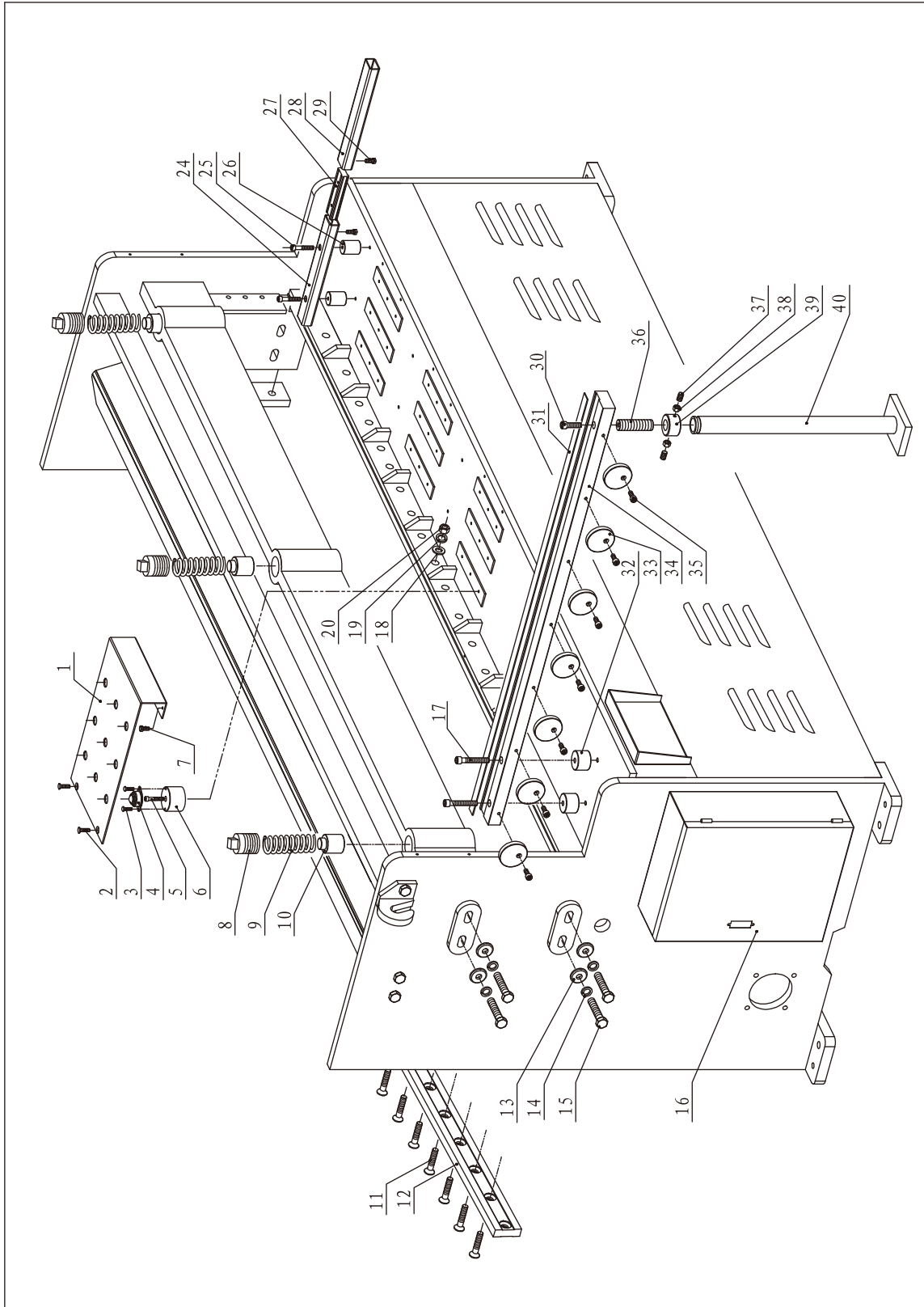


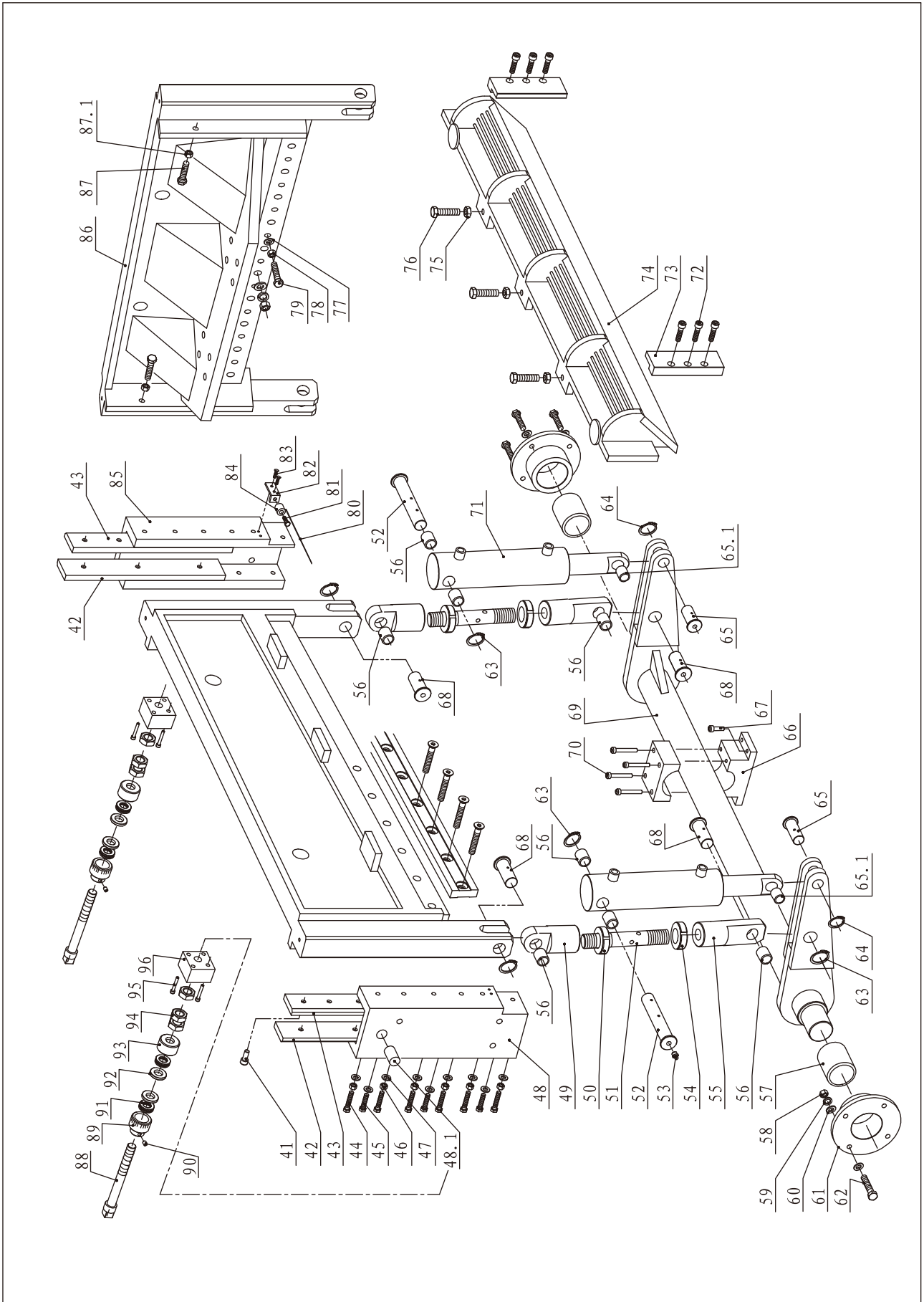
79.1	Axis pin	2	
80	Upper connecting rod	2	
81	nut	2	
82	Long axis	2	
83	Oil cup M10X1	2	
84	Lower connecting rod	2	
85	Checking ring 35	8	
86	Main axis frame	1	
87	cover	2	
88	Nut M12	8	
89	Spring washer12	8	
90	washer12	16	
91	Fixed cover	2	
92	Bolt M12X60	8	
93	Round pin 10X40	4	
94	cover	2	
95	cover	8	
96	Axis pin	4	
96.1	Axis pin	2	
97	Bolt M12X30	6	
98	Pressing plate	2	
99	Pressing bridge	1	
100	Nut M16	2	
101	Bolt M16X80	2	
102	Washer 16	10	
103	Nut M16	10	
104	Bolt M16X65	10	
105	Bolt M16X35	4	
106	Wire $\phi$ 0.5	1	
107	Bolt M6X12	2	
108	Bending plate	2	
109	Bolt M6X16	4	
110	Small shaft	2	
111	Right guideway	1	
112	Right backup plate	1	
113	Right support plate	1	
114	Upper head frame	1	
115	Hydraulic cylinder	2	
116	Motor of backstop	1	For E models
117	Key6X30	2	

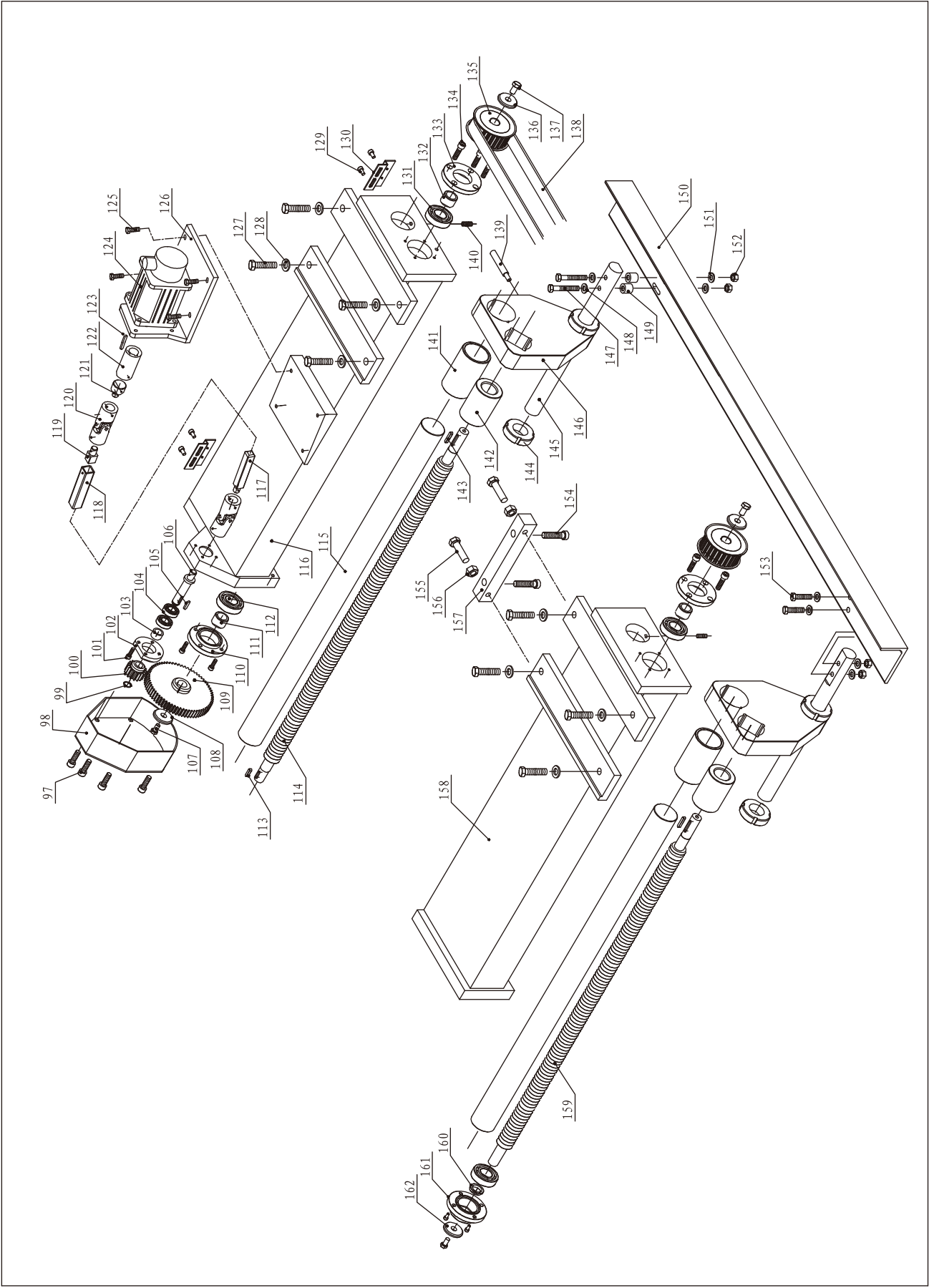
118	Small belt wheel	1	For E models	
119	Belt cover	1		
120	Belt 255L	1		
121	Fixed mount	1		
122	Key 6X25	1		
123	Check ring 22	1		
124	Big belt wheel	1		
125	Bearing cover	2		
126	Bearing 6205 - 2RS	4		
127	End plate	1		
128	Guiding axis	2		
129	screw	1		
130	Round nut M30X1.5	4		
131	Connecting plate	1		
132	regulating stem	2		
133	Bolt M8X45	4		
134	Washer 8	8		
135	Nut M8	4		
136	Block angle	1		
137	End plate	1		
138	Spring elastic coupling	1		
139	Nut M6X16	6		
140	coder	1		
141	Nut M5X16	2		
142	Stand for coder	1		
143	Nut M10X30	8		
144	cover	2		
145	screw	1		
146	Handle wheel	1		
147	Key 4X16	1		
148	axis	1		
149	Nut M8X65	4		
150	Round pin 6X40	1		
151	cover	1		
152	Screw M8X8	1		
153	Spring	1		
154	Ball 6	1		
155	Bearing bush	1		for E models
156	Shaft	1		
157	Key 6X18	3		

158	Screw M8X30	4	
159	Bearing	1	
160	Bearing	1	
161	Bearing gland	1	
162	Screw M8X40	4	
163	Shaft Collar 25	1	
164	Universal coupling	2	
165	shaft	1	

## O. Parts breakdown and Parts List for HS-1025E







Part #		Desc.	Q'ty
1	HQ3050X6.5-1021	Rolling ball cover plate	4
2	GB/T819	Bolt M6X16	8
3	GB/T818	Bolt M5X12	72
4	BT254-0110	Rolling Ball	36
5	GB/T70.1	Bolt M8X55	36
6	HS1300X6.5-1030	Rolling Ball Seat	36
7	GB/T5783	Bolt M8X16	8
8	HQ3050X6.5-1007	Stud	3
9	HQ3050X6.5-1008	Spring	3
10	HQ3050X6.5-1009	Press shaft	3
11	GB/T70.3	BoltM18X1.5X90	50
12	HQ3050X6.5-1032	blade	2
13	HQ3050X6.5-1030	washer	4
14	GB/T93	Spring washer 20	8
15	GB/T5783	Bolt M20X130	8
16		Electric Box	1
17	GB/T70.1	Bolt M12X85	2
18	GB/T95	Washer 18	50
19	GB/T93	Spring Washer 18	50
20	GB/T6171	Nut M18X1.5	50
24	HQ3050X6.5-1010	Front Support Tube	4
25	GB/T70.1	Bolt M8X65	8
26	HS1300X6.5-1035	Washer	8
27	HS1300X6.5-1036	Connecting plate	4
28	HS1300X6.5-1048	Front Support Tube	4
29	GB/T5783	Bolt M6X12	8
30	GB/T70.1	Bolt M12X45	1
31	HS1300X6.5-1018	Scale	1
32	HS1300X6.5-1019	Washer	2
33	HS1300X6.5-1021	Limited plate	7
34	HS1300X6.5-1017	Side Gauge	1
35	GB/T70.1	Bolt M8X20	7
36	HS1300X6.5-1026	Adjusting screw	1
37	GB/T77	Bolt M8X16	2
38	GB/T6170	Nut M8	2
39	HS1300X6.5-1027	Adjust Nut	1
40	HQ3050X6.5-1011	Support Rod	1
41	GB/T70.1	Bolt M12X35	12
42	HQ3050X6.5-1028	Back Plate	2
43	HQ3050X6.5-1029	Front Plate	2
44	GB/T5783	Bolt M16X90	12
45	GB/T5783	Bolt M16X80	6
46	GB/T6170	Nut M16	12
47	GB/T95	Washer16	18
48	HQ3050X6.5-1027	Left guide groove	1
48.1	HQ3050X6.5-1022	Pin	2
49	HQ3050X6.5-2003	Connecting body	2
50	HQ3050X6.5-2004	Nut	2
51	HQ3050X6.5-2007	Screw	2

52	HQ3050X6.5-2012	Long Pin Shaft	2
53	JB/T7940.1	Oil Cup M10X1	2
54	HQ3050X6.5-2005	Nut	2
55	HQ3050X6.5-2006	Lower connecting body	2
56		Bush $\phi 45 \times \phi 50 \times 40$	8
57	HQ3050X6.5-2011	Bush	2
58	GB/T6170	Nut M16	8
59	GB/T93	Flat Washer 16	8
60	GB/T95	Flat Washer 16	16
61	HQ3050X6.5-2008	Fixed Sleeve	2
62	GB/T5783	Bolt M16X90	8
63	GB/T894.1	Ring 45	6
64	GB/T894.1	Ring 40	2
65	HQ3050X6.5-2013	Pin Shaft	2
65.1		Bush $\phi 40 \times \phi 45 \times 40$	2
66	HQ3050X6.5-2009	Support Seat	1
67	GB/T70.1	Bolt M12X35	4
68	HQ3050X6.5-2002	Pin Shaft	4
69	HQ3050X6.5-2010	Main Shaft	1
70	GB/T70.1	Bolt M12X80	4
71		Hydraulic station	2
72	GB/T70.1	螺钉 M16X45	6
73	HQ3050X6.5-1031	Press Plate	2
74	HQ3050X6.5-1020	Press Beam	1
75	GB/T6170	Nut M20	3
76	GB/T5783	Bolt M16X90	3
77	GB/T95	Washer 16	24
78	GB/T6170	Nut M16	24
79	GB/T5783	Bolt M16X65	24
80		Brush $\phi 0.5$	
81	GB/T5783	Bolt M6X12	2
82	HS1300X6.5-1044	Bending plate	2
83	GB/T819	Bolt M6X16	4
84	HS1300X6.5-1045	Shaft	2
85	HQ3050X6.5-1026	Right guide groove	1
86	HQ3050X6.5-2001	Up Blade frame	1
87		Copper Bolt M20X80	2
87.1		Copper Nut M20	2
88	HQ3050X6.5A-1004	Adjust Shaft	2
89	GB/T77	Bolt M6X8	2
90	HQ3050X6.5A-1005	Bearing sheath	2
91	GB/T301	Bearing 53205U	4
92	HQ3050X6.5A-1003	Washer	4
93	HQ3050X6.5A-1002	Bearing sheath	2
94	GB/T6173	Nut M24X1.5	6
95	GB/T70.1	Bolt M10X55	8
96	HQ3050X6.5A-1001	Nut Seat	2
97	GB/T70.1	Bolt M8X70	4
98	HGM-6X3200-3009	Gear Cover	1
99	GB/T894.1	Ring 15	2



100	HGM-6X3200-3007	Small Gear	1
101	GB/T70.1	Bolt M6X12	24
102	HGM-6X3200-3005	Gland	1
103	HGM-6X3200-3006	Spacer	2
104	GB/T276	Bearing 6202-2Z	2
105	GB/T1096	Key 5X20	1
106	HGM-6X3200-3004	Shaft	1
107	GB/T5783	Bolt M8X16	2
108	WA67Y-100X3200-3018	Washer	1
109	HGM-6X3200-3008	Big Gear	1
110	HGM-6X3200-3010	Bearing Cover	1
111	WA67Y-100X3200-3020	Spacer	1
112	GB/T276	Bearing 6304-2Z	2
113	GB/T1096	Key6X20	1
114	HQ3050X6.5A-3002	Lead Screw	1
115	HQ3050X6.5A-3010	Guide Shaft	2
116	HQ3050X6.5A-3001	Support Frame	1
117	HGM-6X3200-3020	Square shaft	1
118	HQ3050X6.5A-3011	Square Tube	1
119	HGM-6X3200-3023	Connect	1
120		universal coupling	2
121	HGM-6X3200-3016	Connecting Shaft	2
122	HGM-6X3200-3015	Connecting sleeve	2
123	GB/T1096	Key 6X30	1
124		Motor for Back Gauge	1
125	GB/T5783	Bolt M8X25	4
126	HQ3050X6.5-3004	Motor support stand	1
127	GB/T5783	Bolt M16X70	8
128	GB/T95	Washer16	8
129	GB/T70.1	Bolt M6X12	4
130	HGM-6X3200-3026	Limited Switch support stand	2
131	GB/T276	Bearing 6205-2RS	2
132	HQ3050X6.5A-3008	Spacer	2
133	WA67Y-100X3200-3029	Bearing Cover	2
134	GB/T70.1	Bolt M6X12	4
135	HQ3050X6.5-3006	synchronous belt wheel	2
136	HQ3050X6.5A-3009	Cover	2
137	GB/T5783	Bolt M8X16	2
138		synchronous belt 1270H	1
139	HQ11E-3050X3.5-3013	Stroke switch shaft	1
140	GB/T78	Bolt M10X20	4
141	HS1300X6.5-3014	Sleeve	2
142	HS1300X6.5-3013	Nut	2
143	GB/T1096	Key 6X25	2
144	GB/T812	Round Nut M30X1.5	4
145	HQ3050X6.5A-3004	Adjust Rod	2
146	HQ3050X6.5A-3003	Connecting Plate	2
147	GB/T5783	Bolt M8X70	2
148	GB/T95	Washer 8	4

149	HQ3050X6.5A-3007	Sleeve	2
150	HQ3050X6.5-3010	Angle steel	1
151	GB/T95	Washer 8	4
152	GB/T6170	Nut M8	4
153	GB/T5783	Bolt M8X45	4
154	GB/T70.1	Bolt M16X40	2
155	GB/T5783	Bolt M12X80	2
156	GB/T6170	Nut M12	2
157	HQ3050X6.5A-3012	Fixed Plate	1
158	HQ3050X6.5A-3005	Support Frame	1
159	HQ3050X6.5A-3006	Lead screw	1
160	WA67Y-100X3200-3024	Spacer	1
161	HGM-6X3200-3010	Bearing Cover	1
162	WA67Y-100X3200-3018	Wahser	1