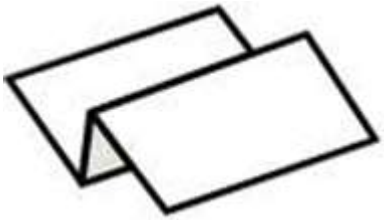
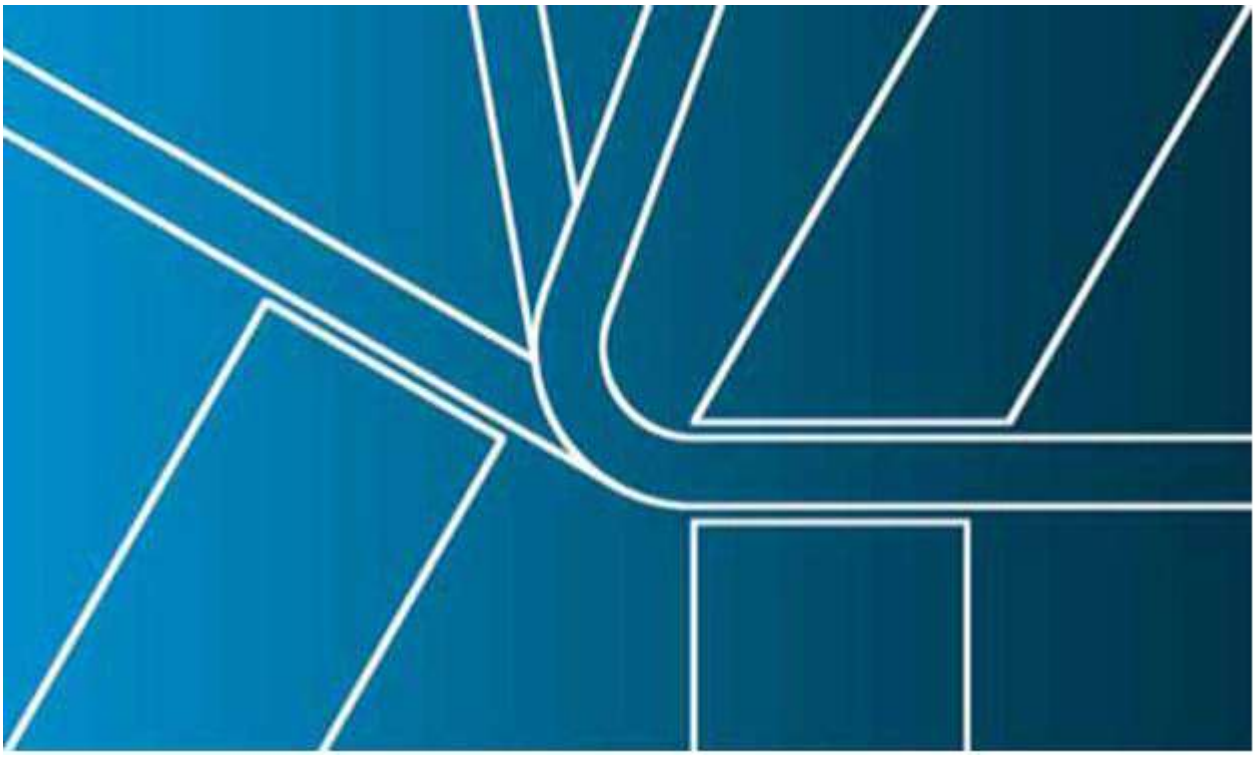
HYDRAULIC FOLDING MACHINE

OPERATING INSTRUCTION MANUAL





Model: VH-1010-6

Serial Number: 72682

Main Motor: 5HP

Voltage: 415V

Pump: 2GG1P08R

Capacity: 3.5mm*3100mm

Lengthen of knife: 3100mm

UPPER BLADE:	**Straight** ☐ **Segmented** ☑			
FINGER BLADE SIZES **INCH** **(mm)**	**3”** **(76)**	**4”** **(102)**	**5”** **(127)**	**6”** **(152)**
QTY. OF FINGERS	**6**	**4**	**10**	**6**

NOTES:

“CAUTION”-HYDRAULIC OIL SPECIFICATION

1. USE HYDRAULIC OIL AW46 SHELL BRAND or EQUIVALENT SPECIFICATION OF OTHER BRANDS.

2. FILL HYDRAULIC OIL INTO HYDRAULIC TANK UP TO 90% FULL.
   (BEFORE RUNNING THIS MACHINE, PLEASE DO NOT FORGET TO FILL HYDRAULIC OIL AW46 SHELL BRAND 60 LITERS INTO OIL TANK.)

DO NOT RELY ON OIL GAUGE WHICH SOMETIMES GIVE INCORRECT OIL-LEVEL INDICATION.
DOUBLE-CHECK TO OIL TANK AND MAKE SURE OIL TANK IS, AT LEAST, 90% FULL.

SHORTAGE OF HYDRAULIC OIL WILL CAUSE HYDRAULIC SYSTEM/PUMP BREAK-DOWN AND DAMAGE TO MAJOR MECHANICAL PARTS BECAUSE OF OVERHEAT.

3. CHANGE HYDRAULIC OIL EVERY 6 MONTHS.

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FOREWORD

For the satisfactory performance of VH series and the high level of their product, it is essential that all personnel concerned with their operation, maintenance and production management be fully familiarized with the specifications and capabilities, constructions and functions of the machines, their components and related equipment as well as the correct methods for their operation, maintenance, etc.

This Manual has been prepared as a guide not only for shop workers but for shop managers to meet the above mentioned requirements. The Manual covers the specifications, constructions, operations and lubrication, etc.

As the policy of MANUFACTURER, is one of progressive in prove in design and construction, the machines referred to in this Manual may be subject to change in keeping with this policy. The manufacturers therefore, reserve the right to make these changes without giving prior notice.

CAUTION: THIS MACHINE MIGHT BE DANGEROUS, IF NOT USED PROPERLY.

SAFETY PRECAUTIONS

WARNING

BEFORE OPERATING, PLEASE READ CAREFULLY THIS MANUAL, AND FULLY UNDERSTAND THE PROCESS AND MAINTAINCE PROGRAM.

THIS MANUAL WITH MACHINE, CAN PROVIDE OPERATOR BASIC OPERATING REFERENCE.

SAFETY RULE

Prohibition

Untrained operators are prohibited to use this machine.

Modifications that change the function or specification of this machine should be prohibited.

Lighting

Appropriate lighting must be provided, according to local regulation.

Environment

Ambient air temperature:	+5˚c ~ +45˚c in free air, and the average ambient air temperature over a period of 24 hours shall not exceed +50˚c
Humidity:	30%~95%.
Altitude:	up to 1000m above mean see level.
Transportation & Storage condition:	－25˚C ~ +45˚C, and for short periods not exceeding 24 hours up to +70˚c.

1. In order to maintain the initial machining accuracy and performance, the machine must correctly used under the favorable environmental conditions.
2. Inadequate operation may cause damages to the machine itself and extreme cause serious accident to operator.
3. To prevent such troubles, please read this instruction manual carefully until you reach complete understanding and then operate the machine.
4. The following cautions are particularly important to be observed for safe operation.
5. Use proper lifting device to lift the heavier components (weigh more than 25 kg).
6. The machine is prohibited to be used in potentially explosive atmosphere.
7. Other purpose of working is prohibited. It is not applicable to process flammable materials such as magnesium and, wood, glass and poisonous materials, etc.
8. Unqualified operators are not allowed to operate the machine before they received a training course (including suitable and sufficient instruction in press mechanisms, the maintenance of fluid quality and filter changes, protective devices, accident causation and prevention, the work of the tool-setter, tool design and the use of closed tools and fixed enclosing guards). Unauthorized and un-qualified personnel are not allow to access to areas such as electrical cabinet, motor, transformers, and work area.
9. Keep area around machine well light (>500 lux) and dry.

10. During handling, installation or cleaning, anyone should wear helmet for protection.
11. Wear safety shoes during operating, handling, installation or cleaning.
12. The key switch of mode selection should be kept by authorized person.
13. Don't remove any safety guards or devices during operation and maintenance.
14. Don't put any part of the body on the machine during the slide is downing stroke.
15. The disposal of wastes, such as oil, coolant, and chips, must comply with the local regulations.
16. Wear leather gloves or similar protection device during handling, installation or cleaning.
17. if user want to repair, fix or change the component or broken things, need to use the safety measure form the Manufacturer and wear PPE(Personal Protection Equipment).
18. The disposal of wastes, such as oil, coolant, and chips, must comply with the local regulations.
19. Other purpose of working is prohibited. It is not applicable to process flammable materials such as magnesium and, wood, glass and poisonous materials, etcIf the personal is trapped by axes movement, then the release procedure is
    shown as below:
    Power ON:
    a. Press the EMG STOP button to stop all movements.
    b. The power of motion movement will be removed.
    c. Then the interlocking doors (front door, magazine door) can be opened and light curtain would be activated.
    Power OFF:
    a. Make sure the EMG STOP is pressed.
    b. Turn on the main breaker switch
    c. Then the interlocking doors (front door, magazine door) can be opened and light curtain would be activated.

SAFETY RULES DURING AND BEFORE OPERATION

Tools and any unnecessary items are not allowed on the machine, moving parts, or similar locations.

Before pressing/switching any button/switch always confirm that the button/switch is the correct one and never touch a switch accidentally. Malfunction and potential danger might result.

Do not operate when wearing gloves or loose clothing. Malfunction and potential danger might result.

Do not touch switches with wet hands, an electric shock could occur.

If a work requires two or more operators, the cooperation among each operator must be well organized; every step of each operator should be clarified to avoid potential danger.

Tools should be consisting with the machine's specifications, such as dimensions, weight and types.

Grip work pieces carefully to minimize movement and vibration between work pieces. Too much movement/vibration might result in injuries of personnel, or damage the machine or work piece.

Stop the machine before replacing work piece, and reserve sufficient distance between work piece and machine.

SAFETY FOR THE ELECTRICAL

Electrical Connection

A cable with four wires is supplied to connect your machine into the 3 phase power supply.

The exact power source voltage, frequency, and number of phase shall be checked according to the installation diagram and circuit diagram.

The correct direction of spindle should be checked after connecting.

Electrical disconnection:

Be sure to disconnect this machine from power source, when you want to stop the job for maintenance or adjustment.

Grounding

The grounding of this model is carried out by connecting the yellow/green terminal of supply cable to the grounding terminal of power source. Be sure to ground your machine before connecting machine to power source in any situation.

Warning!
Do not disconnect grounding terminal before disconnecting power source!

The Emergency Stop Device

The machine is designed to be immediately stopped under emergency situation. As soon as this device is actuated, any movement will be stopped in a short time after the actuation of emergency button.

Be sure to check that machine action will stop immediately after this button is pressed and will not cause any action when this button is disengaged.

Safety Inspection

To ensure safety, it is necessary to do the following inspections for this machine after installation.

- Check if the transportation procedure has influenced the accuracy and functions of the machine.
- Check if the foundation of the machine is appropriate.
- Check if the factory has the correct thunder - preventing system under 25. The machine's main power switch should also have earth wiring connected.
- Use the multi tester to check the stability of the three-phase voltage
- Check if the control panel functions and push button are functioning
- Check emergency stop function.
- Check if safety protection accessories are functioning well
- Check if other accessories, including hydraulic and pneumatic ones, are connected well (including transformer etc.)
- Check if the oil amount indicator and air pressure indicator are normal.
- Make sure no obstacle is around machine and control system.
- Make sure no personnel are in dangerous area.

MACHINE DELIVERY AND INSTALLATION

NOTE: Working capacity is based on mild steel approximately 55,000 PSI tensile.

We reserve the right to modify specifications of change design without notice.

For security reason, please read weight list first.

Table 1 WEIGHT LIST

MODEL	WEIGHT(KG)	MODEL	WEIGHT(KG)
VH-0410-6	1850	VH-0410	1700
VH-0610-6	2400	VH-0610	2200
VH-0810-6	3000	VH-0810	2800
VH-1010-6	2480	VH-1010	3150
VH-1210-6	4000	VH-1210	3700

FORKLIFT MOVEMENT POSITION& CRANK WAY

When using forklift move machine, please refer to arrow on the drawing, careful on center of gravity

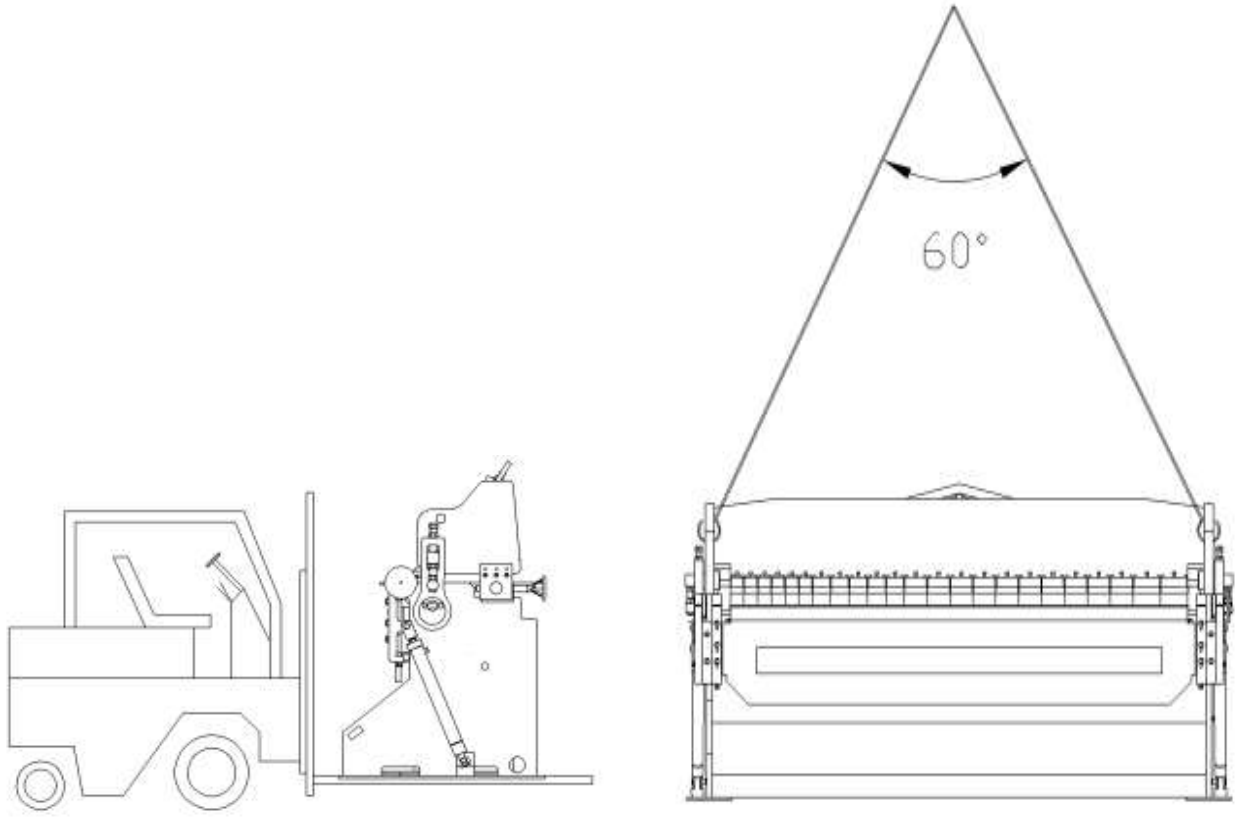


Figure 1

INSTALLATION

SLINGING

Make sure of the followings before slinging:

Make sure that the sling is of adequate load-carrying capacity.

Adjust the position of carriage for balancing.

LEVELING

The machine should be sited on a level, concrete floor foundation. Provision is made for securing the machine with foundation bolts which should be in position prior to machine installation. The production accuracy of all precision machinery depends on the accuracy with the machine is installed.

Install the machine according to the followings:

1. Lower the machine on the prepared foundation.
2. Place the machine on the leveling plates.
3. Adjust the level using Jack Bolts.
4. Put Anchor Bolt and mortar into pits, and fasten the nuts only when the mortar is thoroughly hard.
5. When you adjust the machine level, you should use a level gauge so that the machine has the accuracy with 0.1 mm / 1000 mm.

Adjust the level in the front-rear direction; you check it at the both sides of the table, and in the right-left direction, check at the center.

LUBRICATION

The machine tools in service will as long and will work smoothly, when its lubricants are of those types specified by the manufacturer and if lubricating attentions are given at regular intervals are prescribed.

Lubricant specifications and prescribed lubricating procedures for the present Press are as follows:

LUBRICANT SPECIFICATIONS

Lubricants must be mineral oils: this is a fundamental requirement. Never use any vegetable or animal oil as a lubricant. Such a lubricant used on bearings, for example, will soon result in seized bearings due to overheating. Guide points for selection of a lubricant are:

- A good lubricant does not change its properties when left in storage.
- A good lubricant does not present a cloudy appearance.
- A good lubricant is neutral in chemical reaction.
- A good lubricant does not mix with water, that is, is hard to emulsify.
- Carbon forming tendency is low with a good lubricant.
- Viscosity does not very widely with temperature in a good lubricant.

Lubricant color is no yardstick for judging the quality. Each brand of lubricant has its own color.

HYDRAULIC OIL

The hydraulic oil is primarily the medium of transmitting pressure, but has to function as a lubricant for the various parts of the press. It has to satisfy a number of conflicting requirements: it must be viscous enough to minimize internal leakage within the pump and valves; it must be thin enough to flow in the pipe with minimize hydraulic friction; and it must lubricate the running parts of the pump.

The type of hydraulic oil to be used in the present press brake equipment is specified in the table below. In selecting the oil from a host of oils commercially available, in order to meet the itemized requirements included in the manufacturer's type specifications, the following quality tractors must be referred to:

- Viscosity number (The oil must be of the specified viscosity number.)
- Viscosity index (A high viscosity index oil is a better oil)
- Low pour point.
- Importing the oil film building up and anti-wear protective properties
- Resistant to emulsification
- High oxidation stability
- Low foaming tendency
- Non-corrosive property

GREASE

Select a heat-resistant, water-resistant, non-corrosive and stable grease having a high film strength and capable of being applied with the grease gun.

STANDARD LUBRICATING PROCEDURES

How often the hydraulic oil and grease should be inspected, and examined for quality, is indicated in **Table 2** & **Table 3**

1. Have a complete understanding of the lubricated parts as to their locations, methods of giving lubricating attention and type of lubricant used. This understanding must be had before placing the equipment in initial operation.
2. Cleanliness must be utmost in the mind of one giving lubricating attentions. The filler, level inspection point, grease nipple and lubricating tools must be clean when adding oil, pour through a 60 mesh strainer screen.
3. When refilling and oil tank, take care not to overfill. Too much oil in the tank can result in leakage. Be sure to refer to the level gauge. Leakage of oil can lead to trouble.
4. When refilling the hydraulic oil tank, be sure that the ram is up at upper limit. Filling this tank to the level with the ram down might cause the oil to overflow from the tank.
5. Overcharging the grease is just as bad as undercharging.
6. Do not allow different brands of oil to be mixed in the oil tank. If a different brand has to be used, remove the existing lubricant completely and add the new oil. This applies to the grease, of course.
7. Where the ambient temperature varies widely from one season to another, the lubricant must be changed to suit the current condition. The factor for this change is "viscosity" for oil or "consistency" for grease.
8. To replace the oil by a new supply, effect the replacement in the following sequence:
   a. Drain out the existing oil when the equipment has just been shut down after the day's work.
   b. Contaminated oil drains out more quickly and thoroughly.
   c. If possible, flush the oil circuits with a flushing oil. Do not allow the flushing oil to enter the pump and hydraulic cylinders. Remove the flushing oil completely after flushing.
   d. Whether the flushing oil has been used or not, clean the interior of the oil tank and other accessible parts.
   e. Fill the tank up to level with the fresh supply of oil.

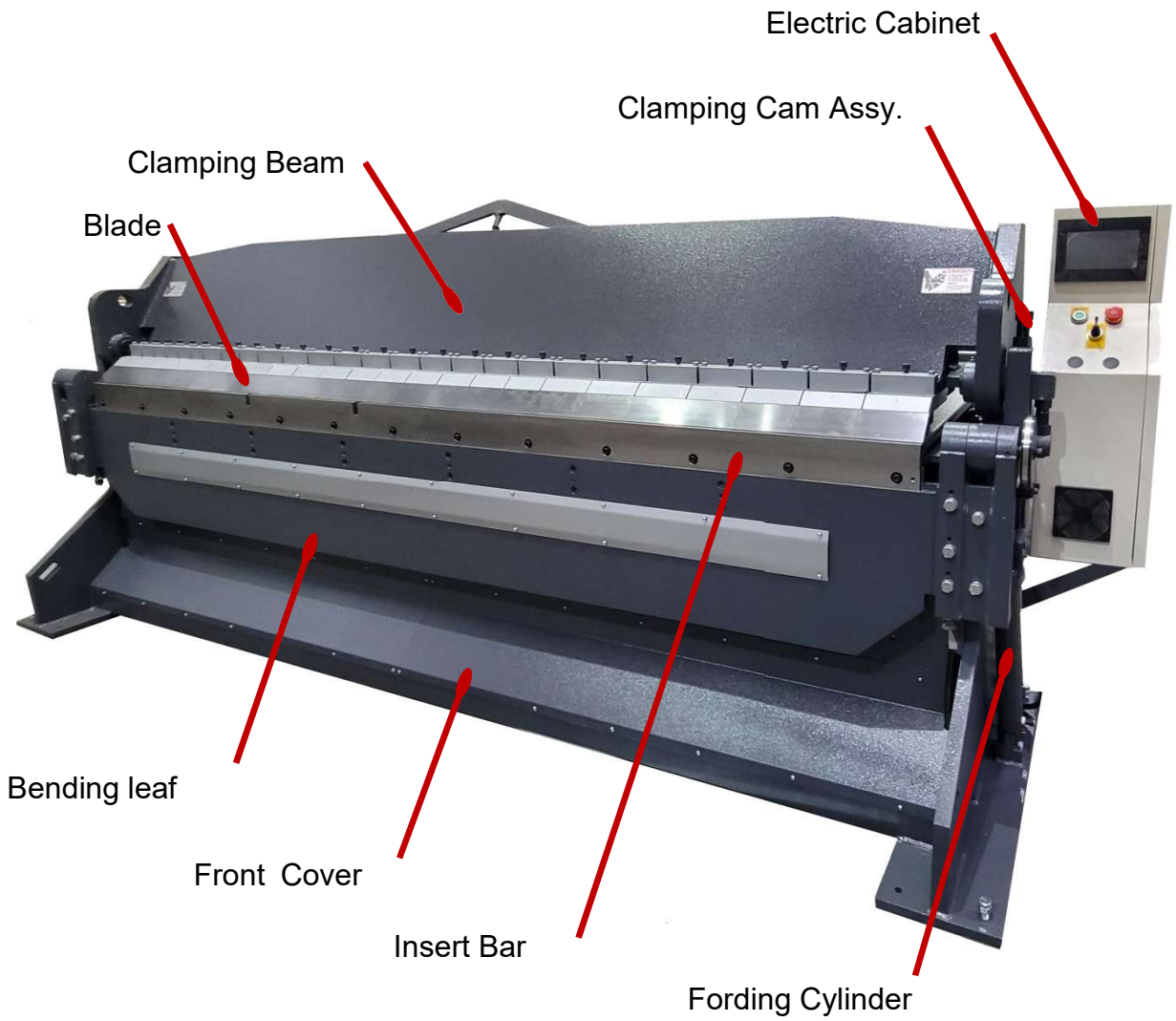
Table 2 Lubrication Standard (Oil)

Lubricate point	Level check	Adding	Oil quality check
Main oil tank	Daily	Every six months	Every year

Table 3 Lubrication Standard (Grease)

Lubricate point	Check	Adding	Application
Main motor	Every 4000 / hours	Every 4000 / hours	Grease gun

INSTRUCTION



OPERATION

OPERATION PANEL DISCRIPTION

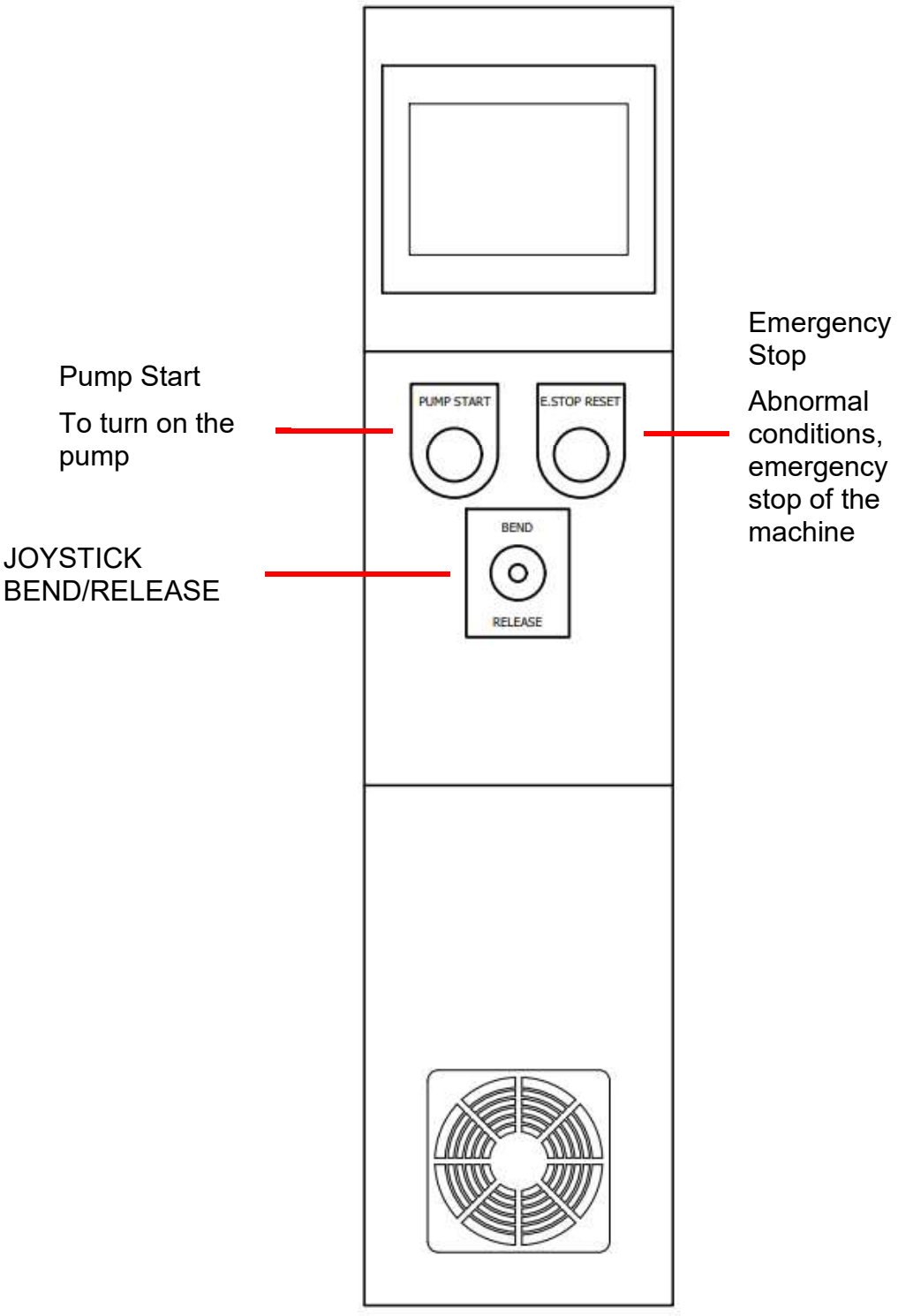
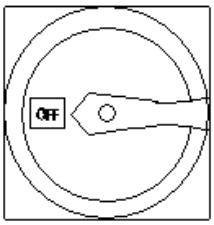
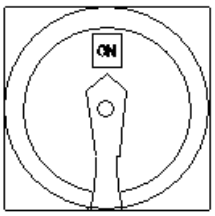


Figure 2

START MACHINE POWER

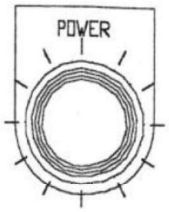


➔



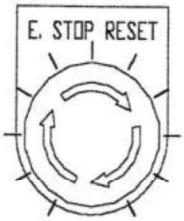
Turn clockwise direction to “ON” position

➔



Power lamp is “ON”

START HYDRAULIC PUMP MOTOR



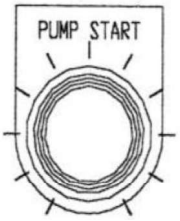
E.STOP Reset button is “ON””

➔



Reset E.STOP Reset button to “OFF”

➔



Press Pump Start button

BEND MODE SWITCH

Bending leaf movement priority condition, top blade must be closed very well.

Bend Switch in Inch

M15S angle located invalid.

- Foot Switch

BEND no move

CLAMP hold down workpiece

UNCLAMP release workpiece

- Joystick:

Push the Joystick up and keep it. The folding leaf starts to bend. When reach the target angle. Push the Joystick down to make the folding leaf back its origin position (0°)

Bend Switch in Auto

M15S angle located effective.M15S

- Foot Switch

BEND Step on Bend Pedal once to complete the folding for about a second to reverse it back to origin.

CLAMP hold down workpiece

UNCLAMP release workpiece

- Joystick:

Push the Joystick up once to complete the folding for about a second to reverse it back to origin.

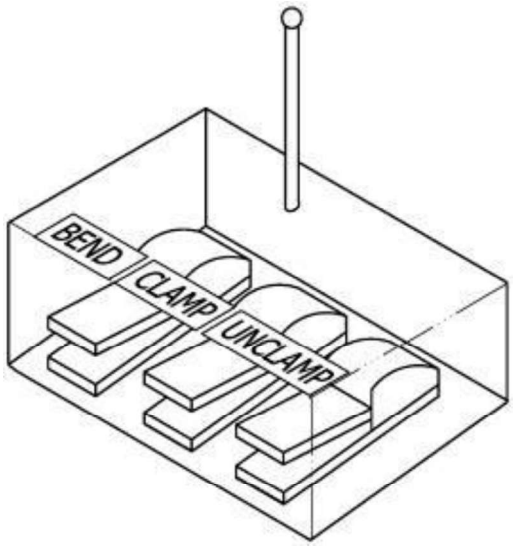
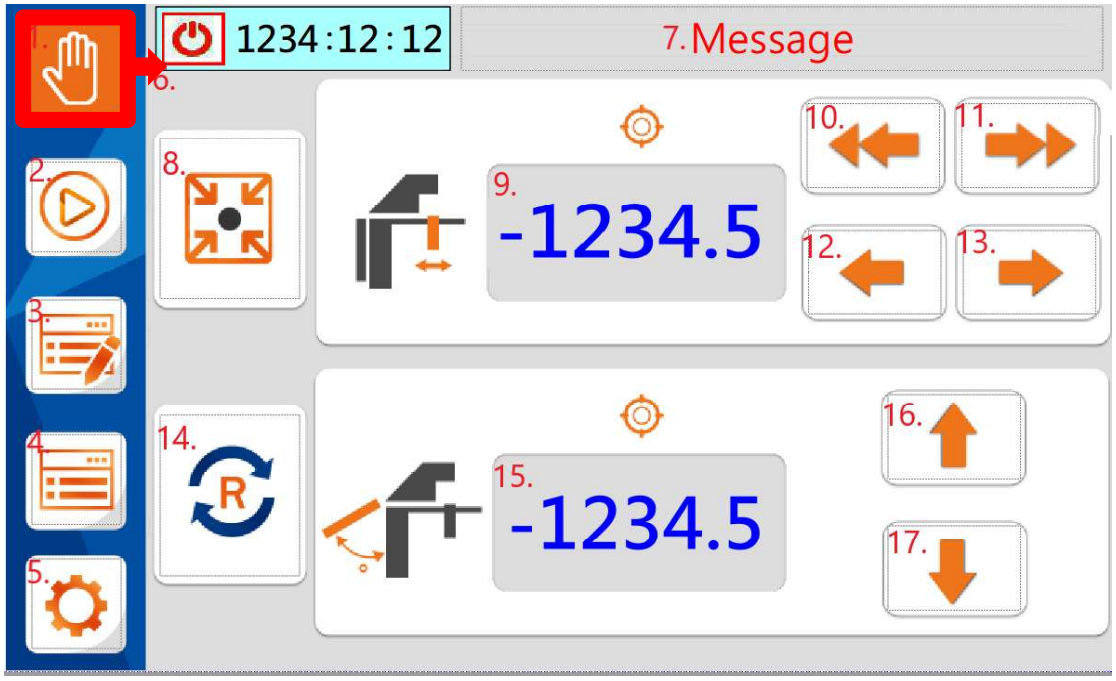


Figure 3

INITIAL DISPLAY NC START

Manual Mode Page



Index no	Description
1	Manual mode page
2	Single mode page
3	Program editing page
4	Program run page
5	Setting page
6	Motor running time
7	Malfunction messages
8	When the machine is ON.It must go back to zero point.
9	Current value for the backgauge
10	Backgauge rapid traverse (Forward)

11	Backgauge rapid traverse (Backward)
12	Backgauge slow traverse (Forward)
13	Backgauge slow traverse (Backward)
14	Backgauge malfunction back to normal (Return to the main page)
15	Current value for the apron
16	Apron moving upward
17	Apron moving downward

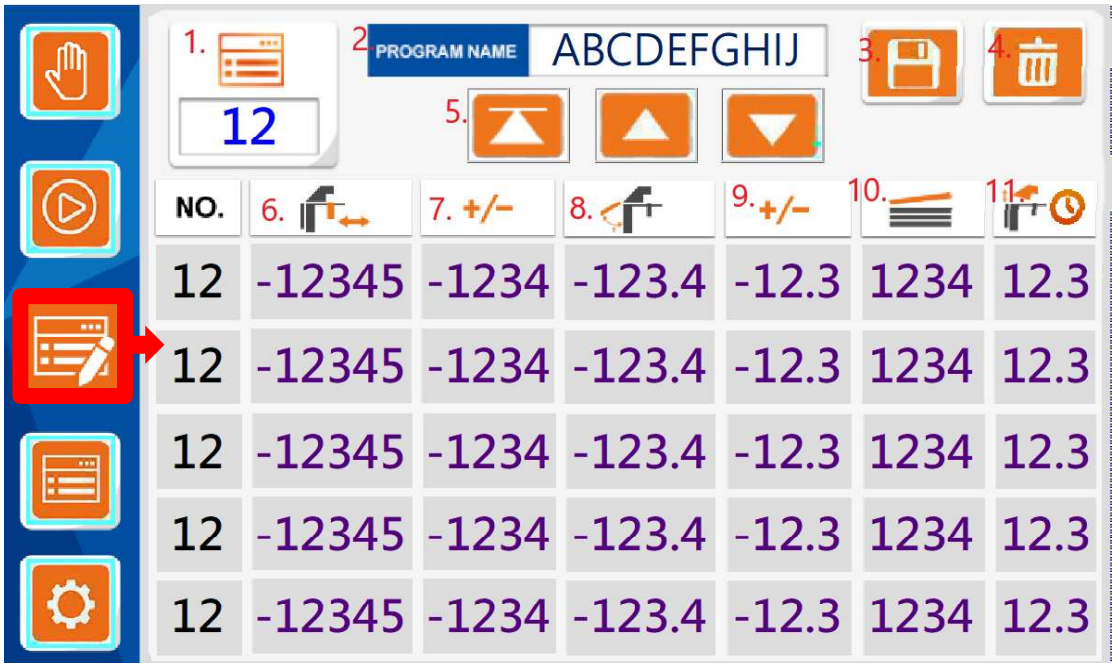


Single Mode Page



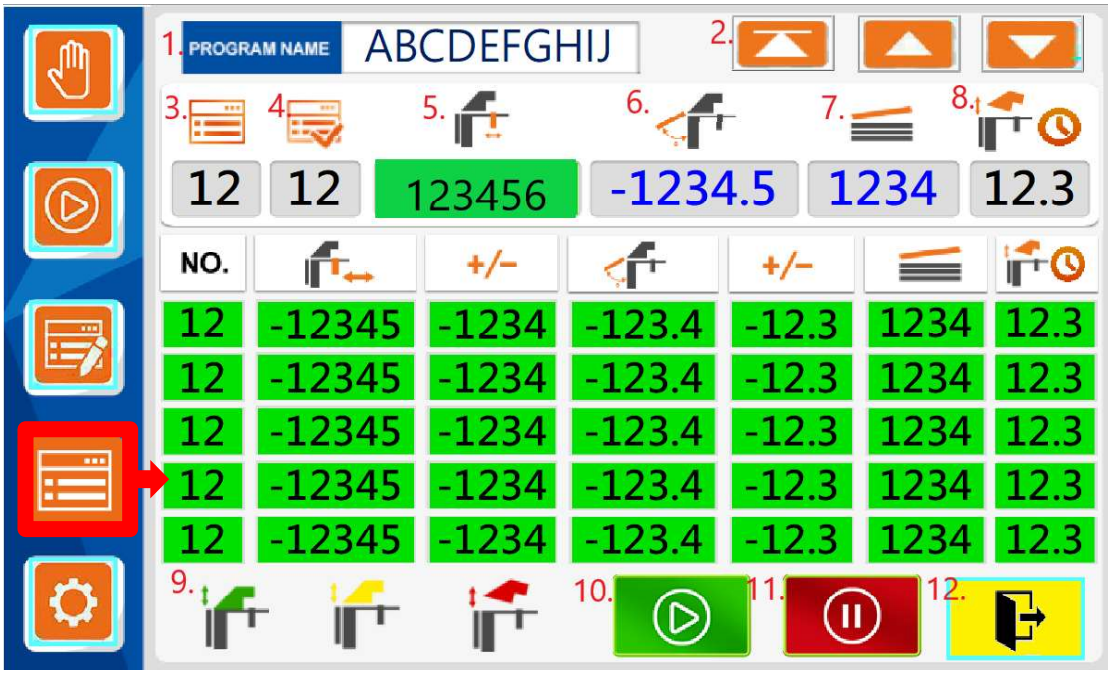
Index no	Description
1	Current value for the backgauge
2	Set value for the backgauge
3	Compensated value for the backgauge
4	Malfunction messages for the backgauge
5	backgauge runs
6	backgauge stops
7	Exit
8	Current position for clamping beam
9	Current value for the apron
10	Targeted value for the apron
11	Compensated value for the apron
12	Malfunction messages for the apron
13	Apron runs
14	Apron stops
15	Exit

Program Editing Page



Index no	Description
1	Program selection (1-50 Programs)
2	Program name
3	Save the program
4	Delete the program
5	Switch program editing page
6	Set value for the backgauge
7	Compensated value for the backgauge
8	Set value for the apron
9	Compensated value for the apron
10	Number of settings
11	Opening time for the clamping beam(Holddown beam)

Program Run Page

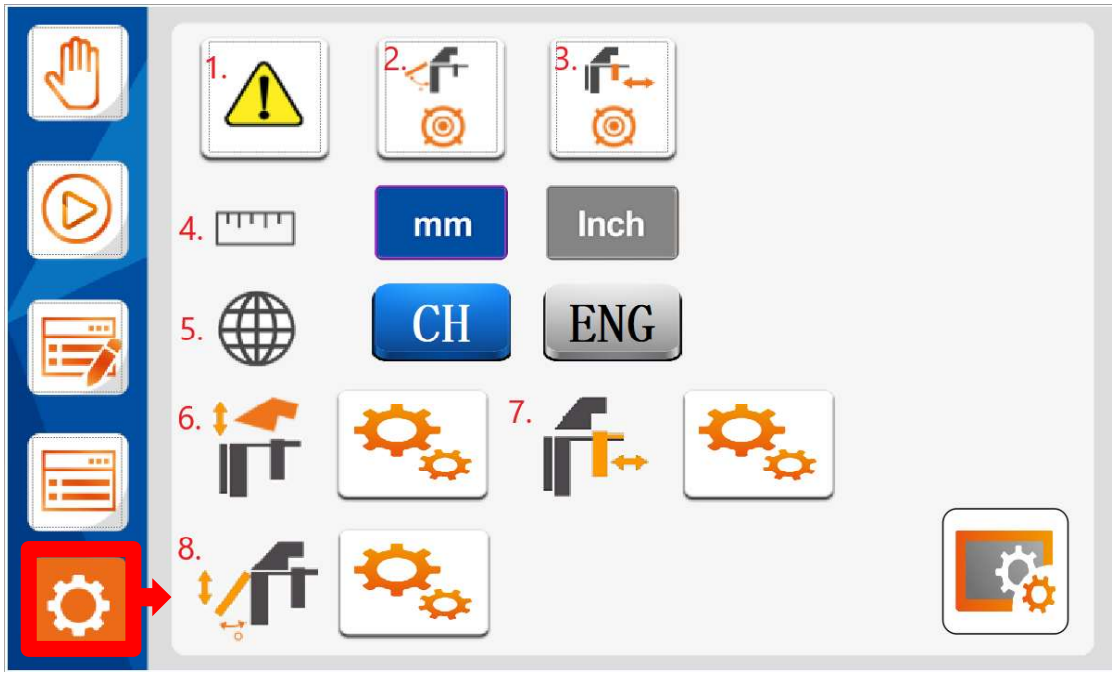


Index no	Description
1	Program name
2	Switch program editing page
3	Program number
4	Current operation
5	Current value for the backgauge
6	Current value for the apron
7	Number of current program step execution
8	The clamping beam moving upward antomatically (Turn off this feature by setting 0 second)
9	The current position of the clamping beam
10	Program runs
11	Program stops

12	Program withdraws



Setting Page



Index no	Description
1	Overview of the Messages
2	Calibration of apron position
3	Calibration of backgauge position
4	Unit
5	Language
6	Parameter setting for the clamping beam
7	Parameter setting for the backgauge
8	Parameter setting for the apron

X axis – Parameter Setting Page

Codes	Factory values	Descriptions	Metric	Inch
X-00	810.0	Software top limit	D730	D830
X-01	11.0	Software lower limit	D740	D840
X-02	800.0	Max. targeted value	D650	D660
X-03	12.0	Min. targeted value	D652	D662
X-04	5.0	Max. compensated value	D654	D664
X-05	-5.0	Min. compensated value	D656	D666
X-06	5.0	Numerator of proportional value	D1000	
X-07	1.0	Denominator of proportional value	D1002	
X-08	1.0	Positioning stop point	D920	
X-09	16.666	Setting for Max. speed	D1024	
X-10	13.333	Positioning speed setting	D1022	
X-11	10.0	Manual speed setting	D1030	
X-12	3.333	Manual slow speed setting	D1020	
X-13	5.0	Setting for back + Zero point speed	D1032	
X-14	1.0	Creeping speed	D1034	
X-15	5.0	Automatic back gauge retraction setting	D728	
X-16	14.0	Position of the zero point	D756	
X-17	0.1	Acceleration time	D1028	
X-18	0.1	Deceleration time	D1029	
X-19	0.5	Creeping time	D1036	
X-20	1.0	Time for backing to zero point	D1037	
X-21	0.1	Time for Acceleration to zero point	D1038	
X-22	0.1	Time for Deceleration to zero point	D1039	

Y axis – Parameter Setting Page

Codes	Factory values	Descriptions	Position
Y-00	131.0	Software top limit	D732
Y-01	-5.0	Software lower limit	D742
Y-02	130.0	Max. targeted value	D670
Y-03	0.0	Min. targeted value	D672
Y-04	10.0	Max. compensated value	D674
Y-05	-10.0	Min. compensated value	D676
Y-06	78603.0	Numerator of proportional value	D1004
Y-07	1000.0	Denominator of proportional value	D1006
Y-08	1.5	Slow speed prior to upward positioning	D794
Y-09	0.1	Slow downward run	D796
Y-10	0.1	Upward positioning stop point	D724
Y-11	0.1	Downward reset stop point	D726
Y-12	0.0	Angle at lowest position	D758
Y-13	10.0	Slow speed setting prior to reset	D748
Y-14	125.0	Slow speed setting prior to max value	D738
Y-15	18.0	Low angle slow speed run setting	D746
Y-16	0.2	Apron positioning time	D1050
Y-17	0.2	Delaying the OFF time for slow speed	D1056
Y-18	0.6	Slow speed ON time setting (manual)	D1058
Y-19	0.1	Slow speed ON time setting (auto)	D1059
Y-20			



Z axis– Parameter Setting Page

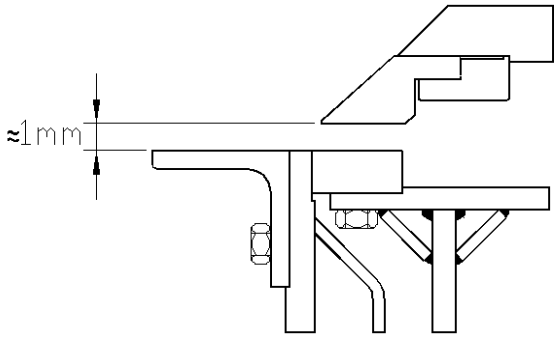
Codes	Factory values	Descriptions	Position
Z-00	1.5	Clamping beam opening time	D1061
Z-01	0.1	Delaying OFF time for clamping beam lower limit	D1060
Z-02	1.5	Opening time for clamping(program mode)	D1063
Z-03	0.1	Waiting time for clamping beam opening	D1064
Z-04			
Z-05			
Z-06			
Z-07			
Z-08			
Z-09			
Z-10			
Z-11			
Z-12			
Z-13			
Z-14			
Z-15			
Z-16			
Z-17			
Z-18			
Z-19			
Z-20			

CLEARANCE CHART

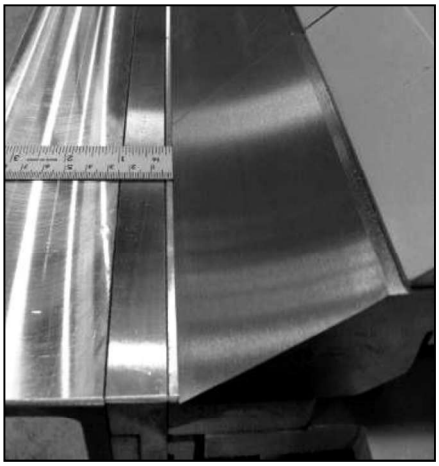
Before operation, please use the following formula to calculate & adjust the gap between the BLADE & BOTTOM DIE according to the thickness of the work piece

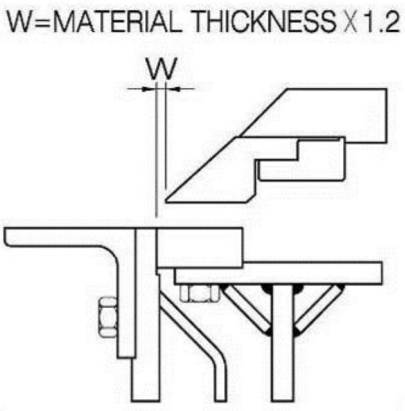
1. Lifting clamping beam from worktable around 1.0mm.



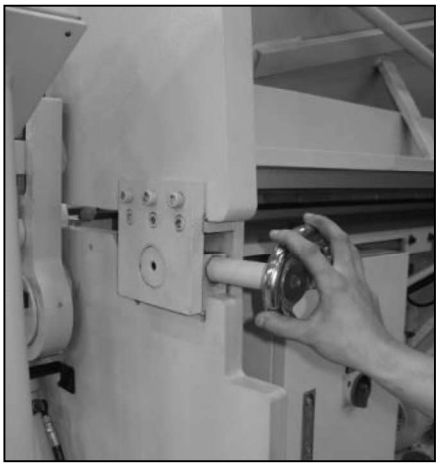


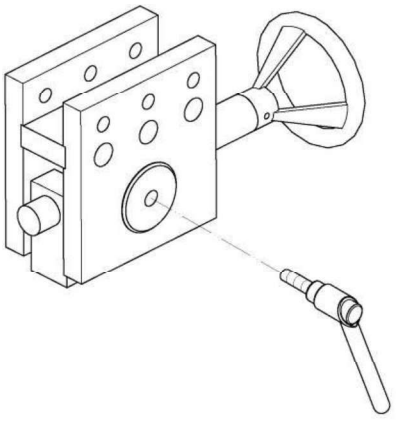
2. Follow the material thickness to adjust bending gap, and double check with distance by scale.





3. Release the Adjustable Handle (left &right) and adjust the bending gap via hand-wheel.





HOLDDOWN PRESSURE

Adjust the clamping pressure In accordance with the thickness of the work piece

While adjusting the pressure with the adjusting screw (NO.1&NO.2), please refer to the scale shown In (NO.3)

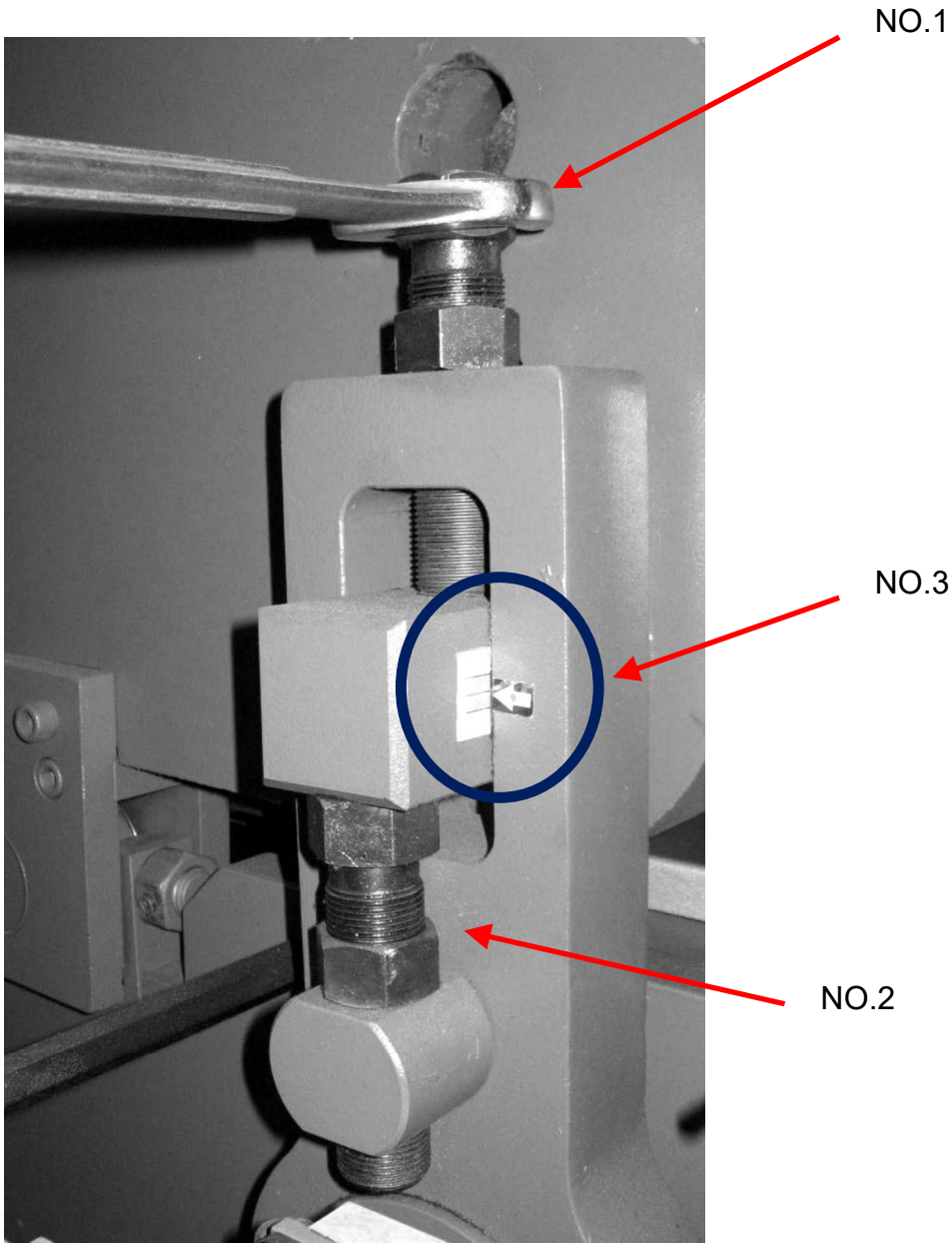


TABLE CROWNING COMPENSATION

If the angles of work-piece two sides are both on 90 degree, but middle side only 89 degree. Micro-adjusting screws at bending left and bottom beam for compensate the middle has the same angle.



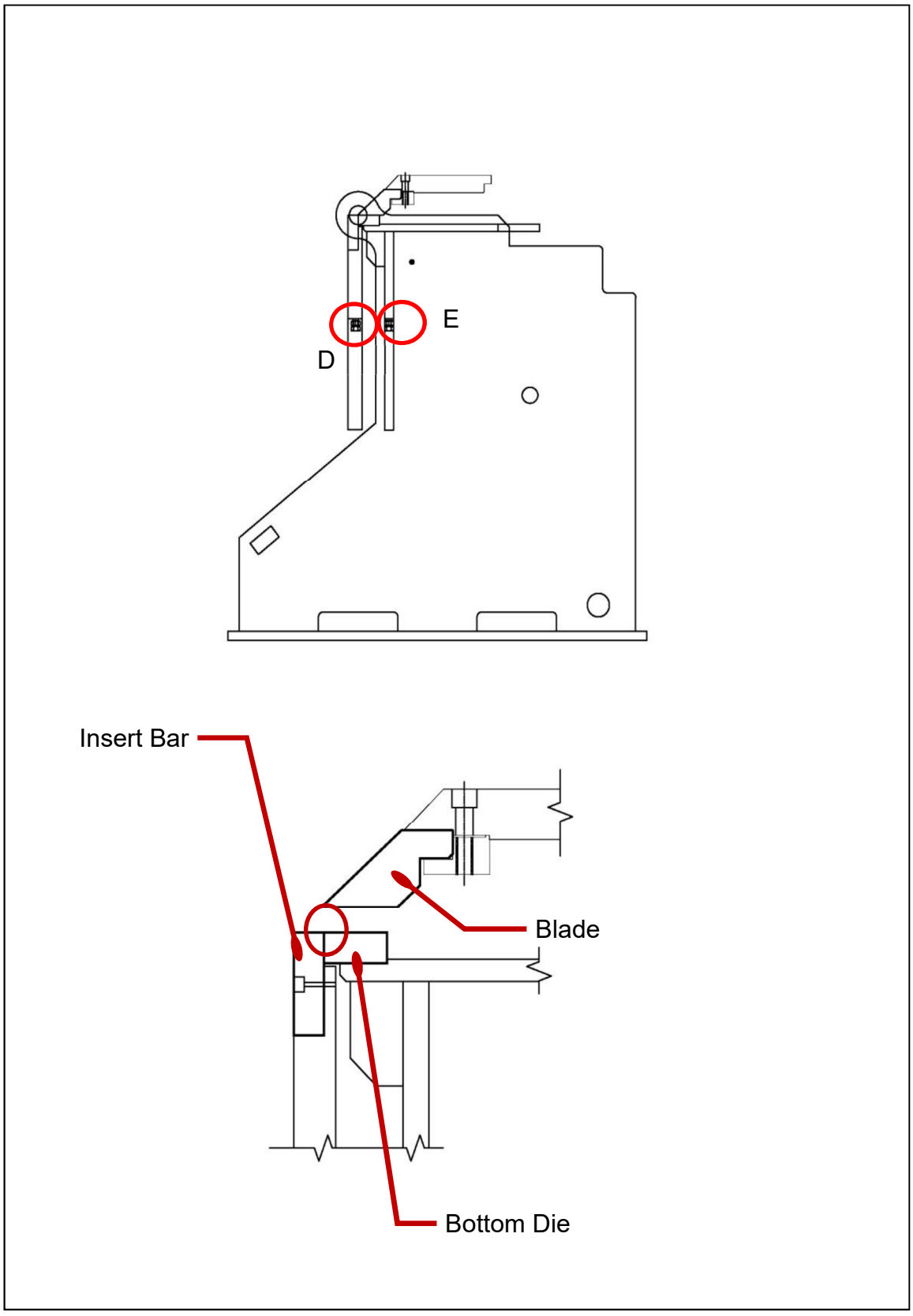
Step 1:
Open the clamping beam, and then turn off the machine power.

Step 2:
Tighten screws A ~ D at upper beam and folding leaf, and made screws tight follow different work-piece crowing situation.



STEP 3:

Adjust micro-adjusting screws (E) at bottom rear beam, adjust orders of screws as middle to both sides made bottom die and insert bar in the same line no gap.



THE CABLE AND SENSOR INSTALLATION

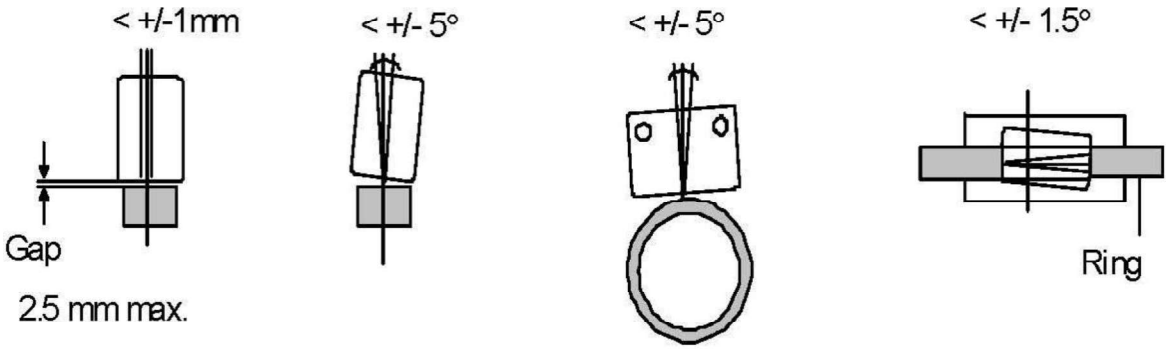
Angle encoder is using for calculate the bending angle, the distance of encoder with magnetic coil is 1mm (0.39”). Don’t make it too higher or lower it will result the problem make the bending angle loosing the accuracy. So confirm it is fixed and tight for accept the accuracy position.

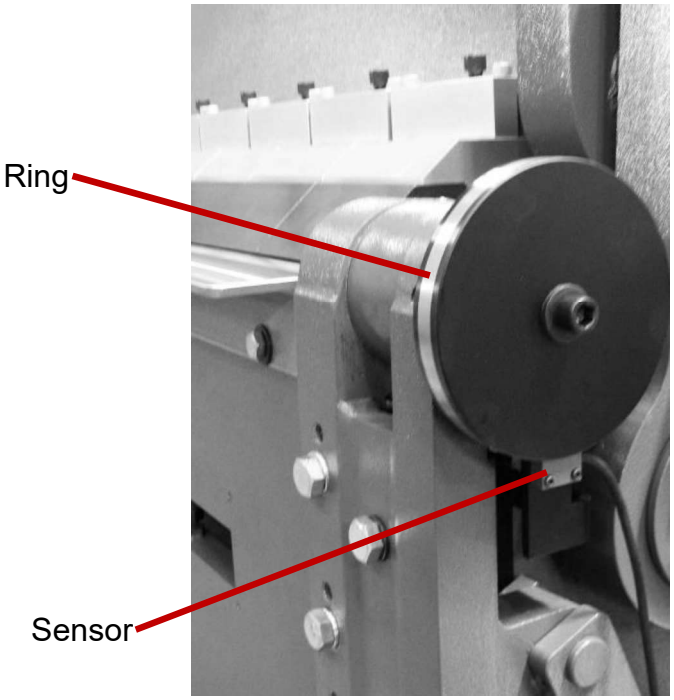
Cable:

- Distance more than diameter 50mm.
- Must be away from inductive and capacitive interference source as conductor, relays, motors, switch power pack clocked controllers, etc
- Must be kept a distance to interference sources

Sensor:

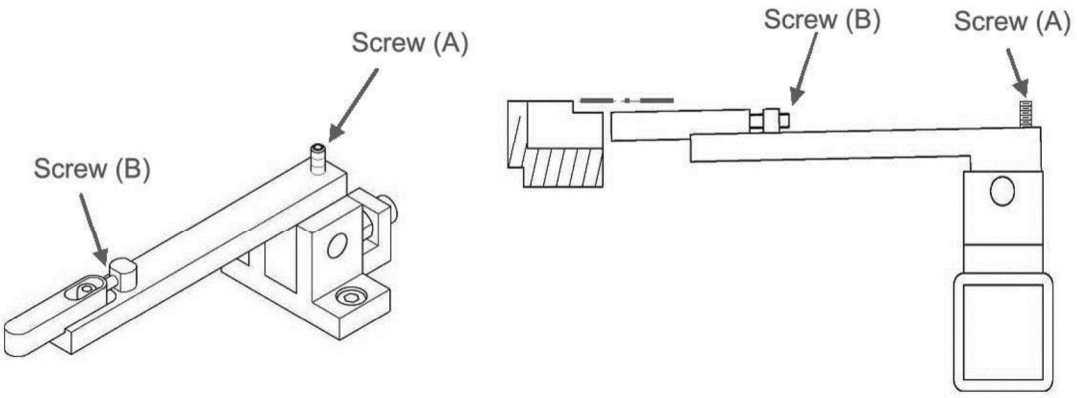
- Allow some fault when install the sensor.
- Attend the position when install the sensor



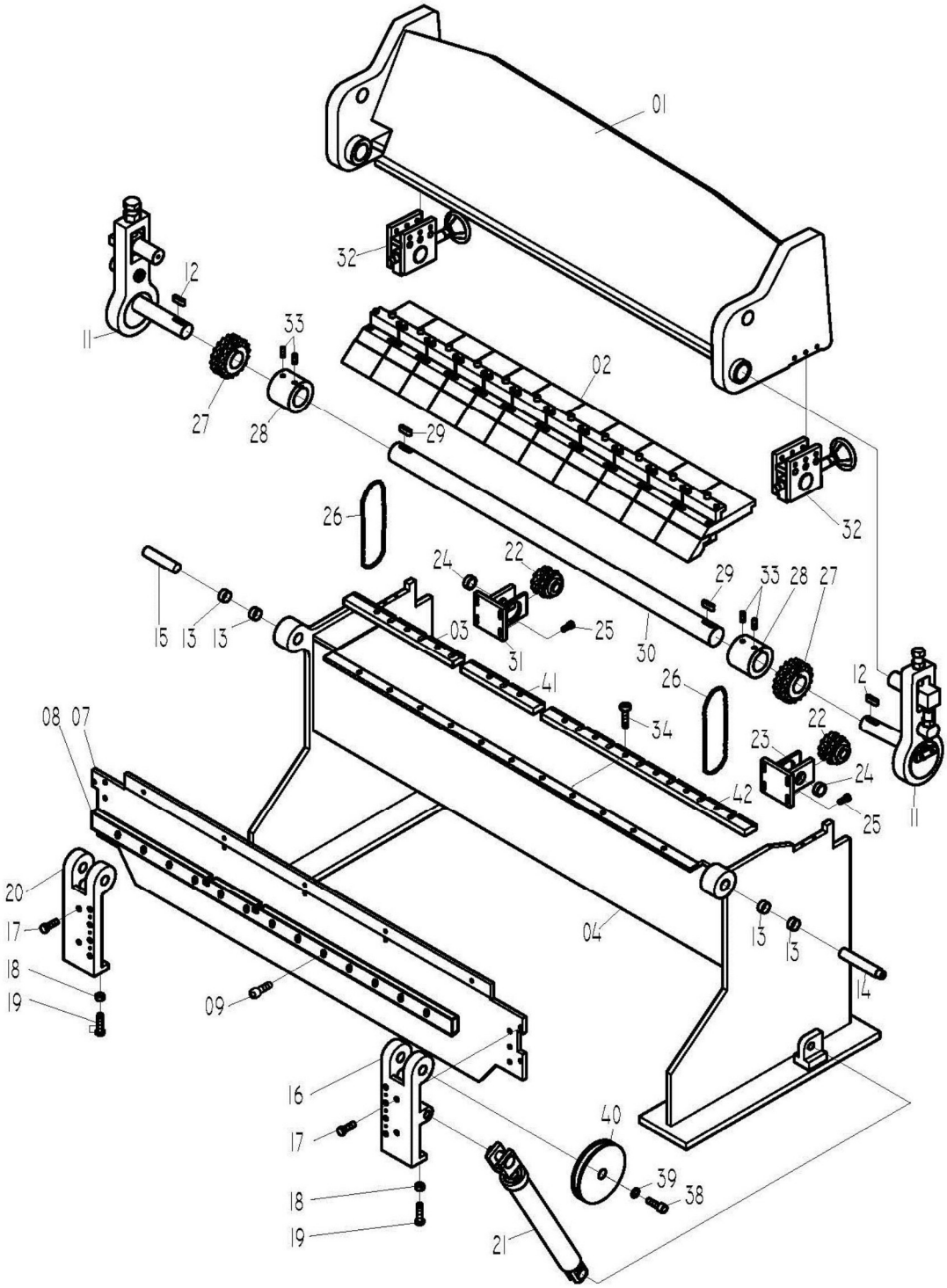


POWER BACK GAUGE OPERATION

1. Select two sets of stopper in accordance with the material's length
2. Tighten screw (A) on all the other stoppers, make sure that the stoppers are lower than the surface of bottom die
3. Adjust the screw (B) on the two selected stopper, set size



REPAIR PARTS IILLUSTRATIONS

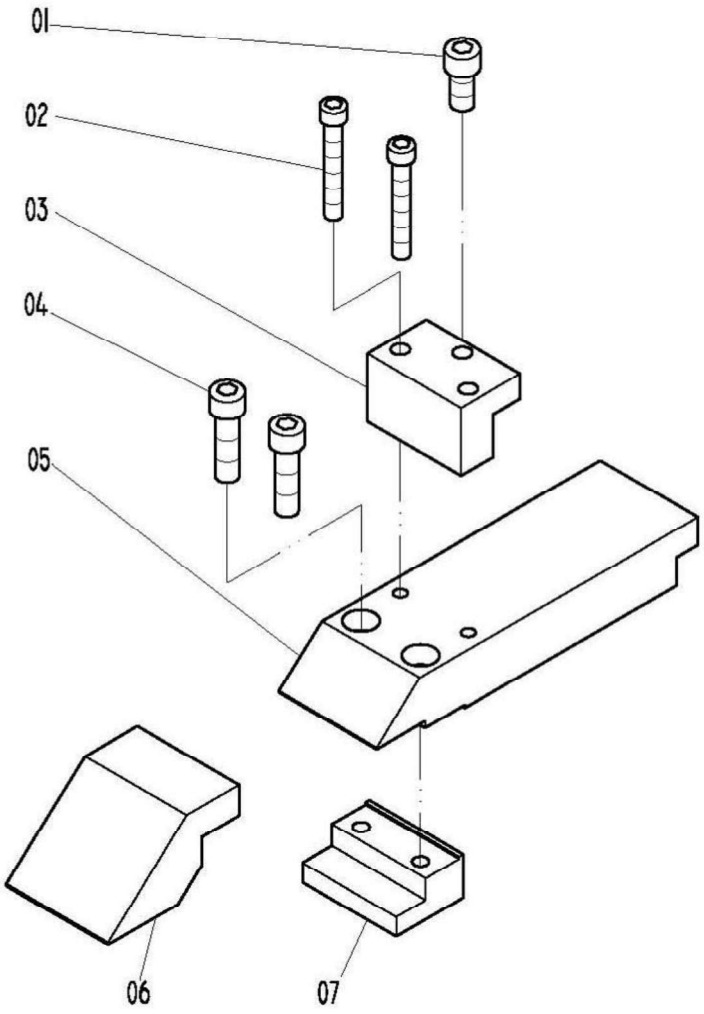


.BASIC UNIT

INDEX NO.	DESCRIPTION
01	Clamping Beam Assy.
02	Upper Blade Assy.
03	Segmented Bottom Die – Left Side
04	Bottom Base Assy.
07	Bending Leaf
08	Insert Bar
09	Screw
11	Clamping Cam Assy.
12	Key
13	Bearing
14	Hinge Pin – Right Side
15	Hinge Pin – Left Side
16	Hinge – Right Side
17	Screw
18	Nut
19	Screw
20	Hinge – Left Side
21	Fording Hydraulic Cylinder
22	Chain Wheel
23	Hydraulic Motor Base - Right Side
24	Bearing
25	Screw
26	Chain
27	Chain Wheel
28	Shaft Coupling
29	Key
30	Link Rod
31	Hydraulic Motor Base – Left Side
32	Clamping Beam Adjusting Assy.
33	Set Screw
34	Screw
38	Screw
39	Washer
40	Angle gauge disc
41	Segmented Bottom Die – middle
42	Segmented Bottom Die – Right Side

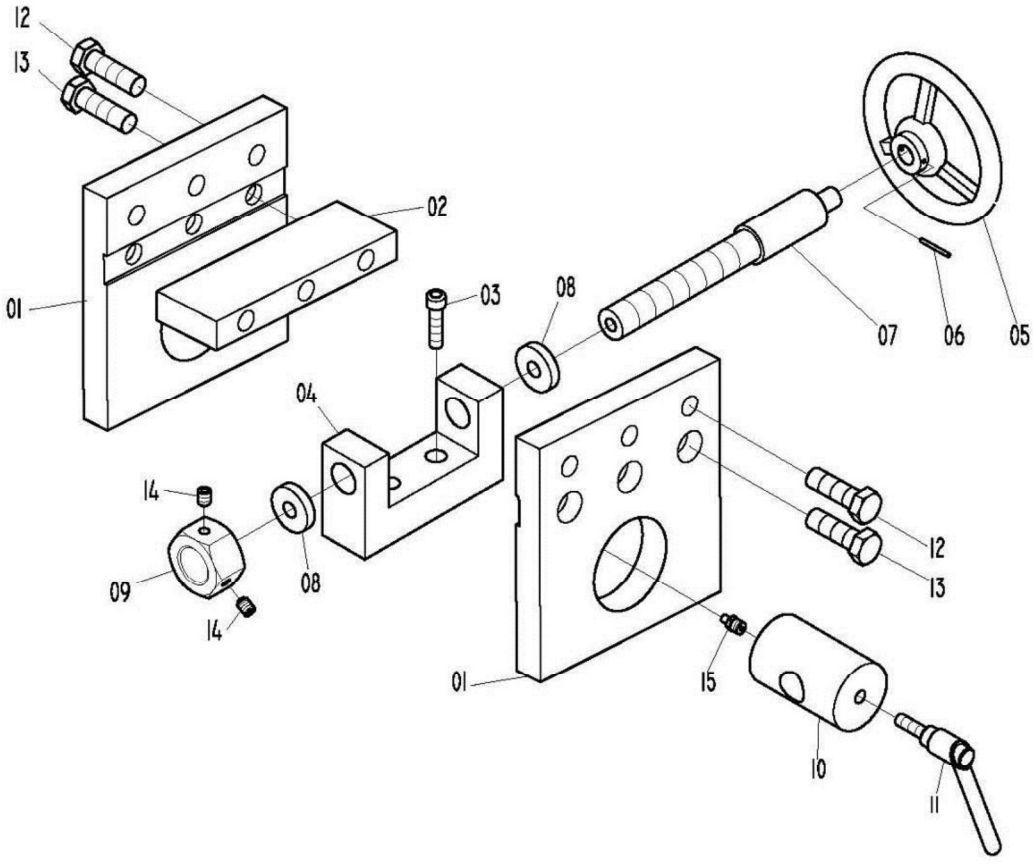
FINGER BLADE ASSEMBLY

INDEX NO.	DESCRIPTION
1	Screw
2	Screw
3	Clamping Holder-Up
4	Screw
5	Upper Blade Base
6	Finger Blade
7	Clamping Holder-Bottom



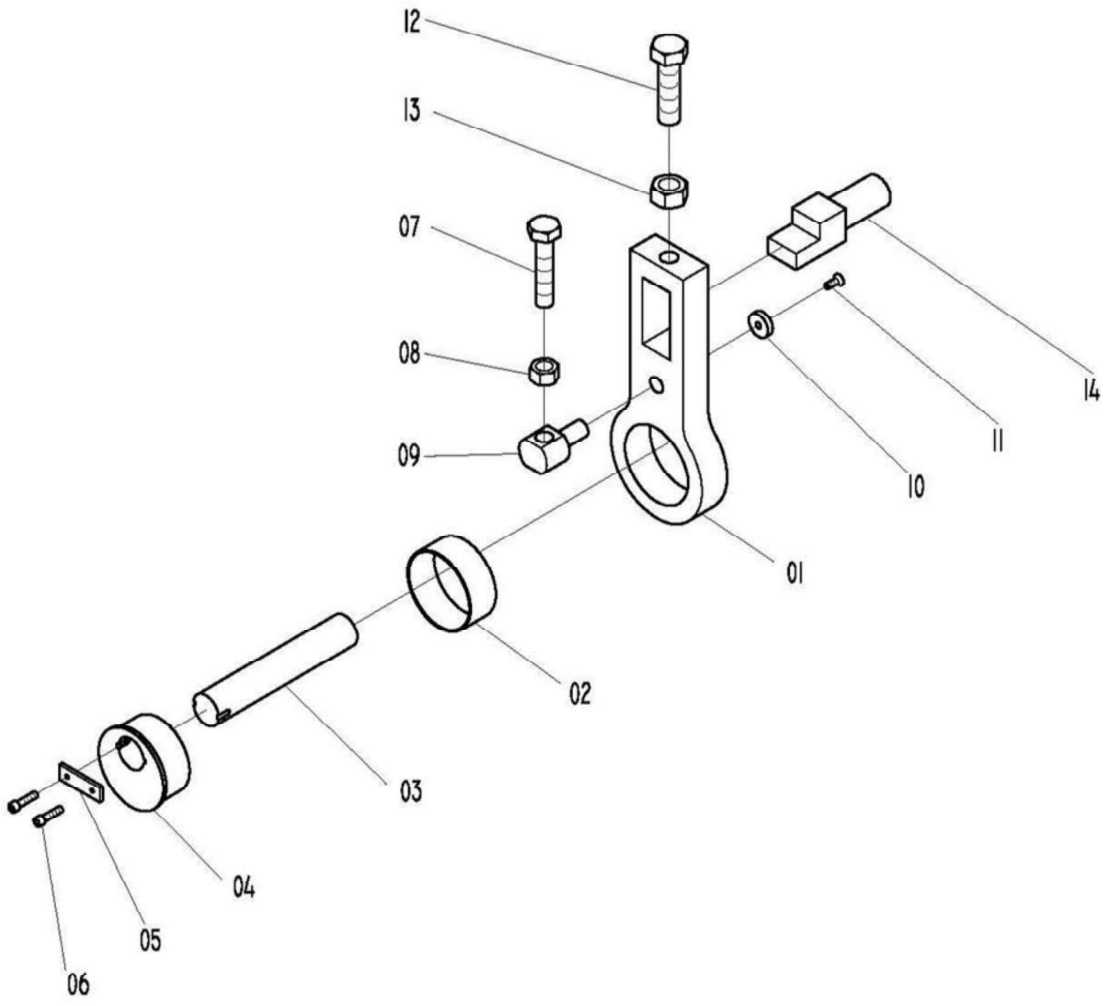
CLAMPING BEAM ADJUSTING ASSYEMBLY

INDEX NO.	DESCRIPTION
1	Center Fixing Plate
2	Center Fixing Plat'S Connector
3	Screw
4	U Style Base
5	Handel Wheel
6	Roll Pin
7	Adjusting Screw
8	Brass Washer
9	Nut
10	Adjusting Nut
11	Adjustable Clamping Lever
12	Screw
13	Screw
14	Set Screw
15	Grease Fitting



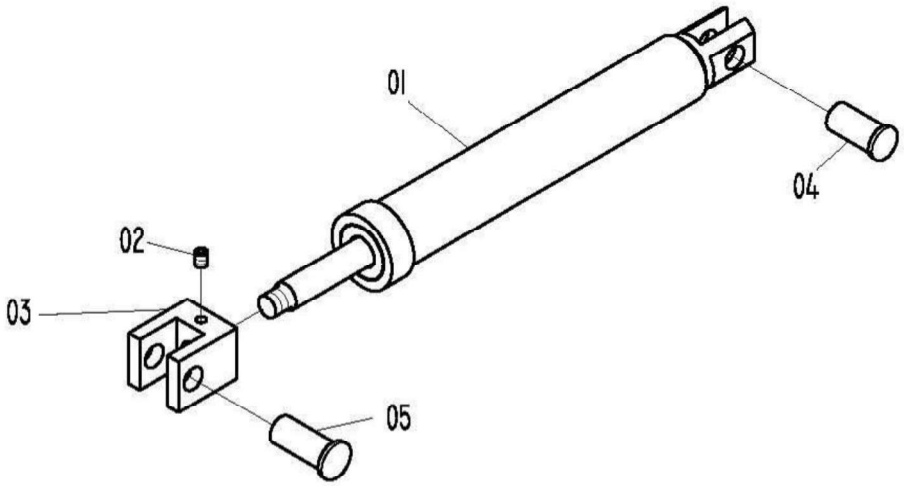
CLAMPING CAM ASSEMBLY

INDEX NO.	DESCRIPTION
1	Toggle
2	Bearing
3	Cam Shaft
4	Eccentric Cam
5	Cam Shaft lock plate
6	Screw
7	Adjusting Screw
8	Nut
9	Square Axis
10	Shaft Filler Washer
11	Screw
12	Screw
13	Nut
14	Clamping Beam Center Fixing Rod

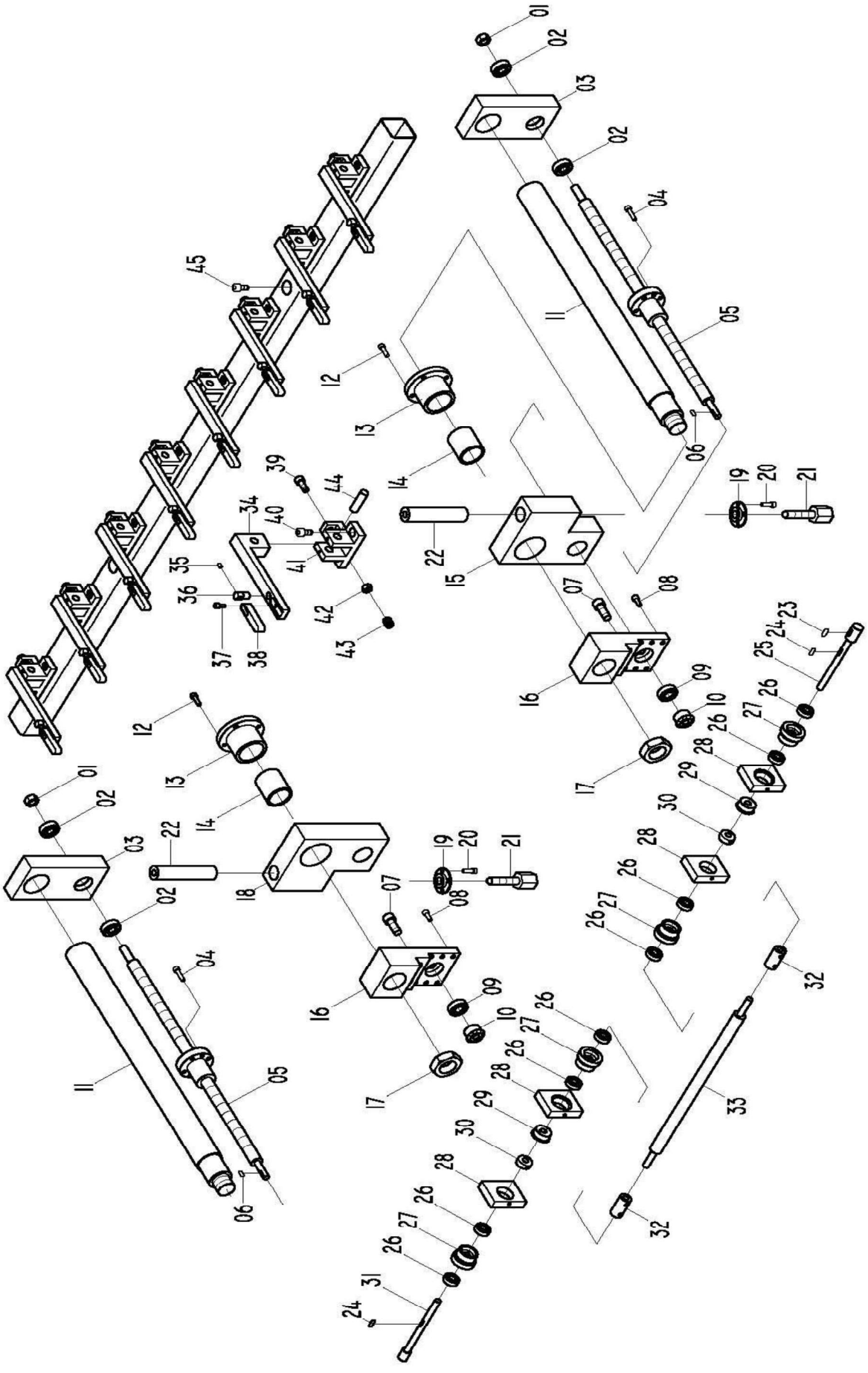


FOLDING HYDRAULIC CYLINDER ASSYEMBLY

INDEX NO.	DESCRIPTION
1	Cylinder
2	Set Screw
3	Clevis
4	Cylinder Pin
5	Clevis Pin



BACK GAUGE ASSEMBLY



PARTS LIST OF BACK GAUGE ASSEMBLY

INDEX NO.	DESCRIPTION
1	Nut
2	Bearing
3	Rear Bearing Block
4	Screw
5	Ball Screw
6	Key
7	Screw
8	Screw
9	Bearing
10	Bevel Gear
11	Guide Shaft
12	Screw
13	Guide Shaft Coupling
14	Bearing
15	Ball Screw Bearing Block-On Side
16	Front Bearing Block
17	Nut
18	Ball Screw Bearing Block-Off Side
19	Supporting Rod Bushing
20	Screw
21	Adjusting Screw
22	Supporting Rod
23	Key
24	Key
25	Axis Of Motor
26	Bearing
27	Bearing Nut
28	Bearing Plate
29	Bevel Gear
30	Collar
31	Axis Of Encoder
32	Sleeve Of Encoder
33	Coupling Shaft
34	Stop Finger
35	Screw
36	Adjusting Pin
37	Stop Finger
38	Stop Block
39	Screw
40	Screw
41	Stopper Unit Base
42	Nut
43	Spring
44	Hinge Pin
45	Screw