

# USER MANUAL

## HYDRAULIC PANBRAKE



**Machine Types:** PB-440/T  
PB-825A  
PB-830A/T  
PB-1030T  
PB-860T

## QUALITY CERTIFICATE

This Metalmaster machine is in conformity with the norms, machine directive (89/392/CE,91/368 EEC)

MACHINE

HYDRAULIC PANBRAKE

MODEL NO.

SERIAL NO.

DATE OF MANF.

Distributed by



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Date 2016-04-22

**Note:** This manual is only for your reference. Owing to the continuous improvement of the machine, changes may be made at any time without obligation or notice. Please note the local voltage while operating this electric machine.

**MACHINE TYPE DESCRIPTION**

	Standard	Supply Voltage	Controller	Backside Safety	Backgauge Adjustment	Hydraulic Block	Accessories
PB	CE	415V	1-NC89 2-NC Easy Touch	NA	Manual	Jinhai	

**NOTE:**

In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

<b>METALMASTER</b>	
PRODUCT SPECIFICATION	
<b>MODEL:</b>	<input type="text"/>
<b>CAPACITY:</b>	<input type="text"/>
<b>SER. NO:</b>	<input type="text"/>
<b>MFG DATE:</b>	<input type="text"/>
<b>WEIGHT:</b>	<input type="text"/>
<b>VOLTS:</b>	<input type="text"/>
<b>MOTOR Kw:</b>	<input type="text"/>
<a href="http://www.machineryhouse.com.au">www.machineryhouse.com.au</a>	
Made in China	

Fig.1

## **C O N T E N T S:**

### **1. GENERAL MACHINE INFORMATION**

1.1. Specifications.....	4
1.2. Standard Equipment.....	4
1.3. Overall Drawings.....	5

### **2. IMPORTANT INFORMATION**

2.1 Safety Requirements.....	6
2.2 Lifting Instructions.....	8

### **3. INSTALLATION**

3.1 Base Foundation and Securing Points.....	9
3.2 Machine Leveling.....	10
3.3 Checking the Power Supply.....	10

### **4. MACHINE SETUP**

4.1 Setting The Clamp Gap.....	11
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### **5. MAINTENANCE AND INSPECTION**

5.1 Type and frequency of Inspections.....	12
5.2 Lubrication Points.....	13
5.3 Changing Oil.....	14
5.4 Changing The Filter.....	15
5.5 Troubleshooting.....	16
5.6 Storage.....	17

### **6. MACHINE OPERATION**

6.1 Start Up.....	17
6.2 Bending.....	17

### **APPENDIX**

A. Spare Parts List.....	18
B. Hydraulic Circuit Diagram.....	20
C. NC89 Electric Circuit Diagram.....	21
D. Ezy Touch Controller Electric Circuit Diagram.....	21
E. Electrical Parts.....	23
G. Modification For Loss Of Clamping Pressure.....	24
H. NC89 Controller.....	25
Risk Assessment Sheets.....	30



This METALMASTER Panbrake machine has been designed to operate safely and correctly. The machine must NOT be operated before reading this User's Manual. Operate the machine only if it is in a perfect condition and in accordance with the work regulations of your factory and operating instructions of this manual.

## **1. GENERAL MACHINE INFORMATION**

### **1.1 Specifications**

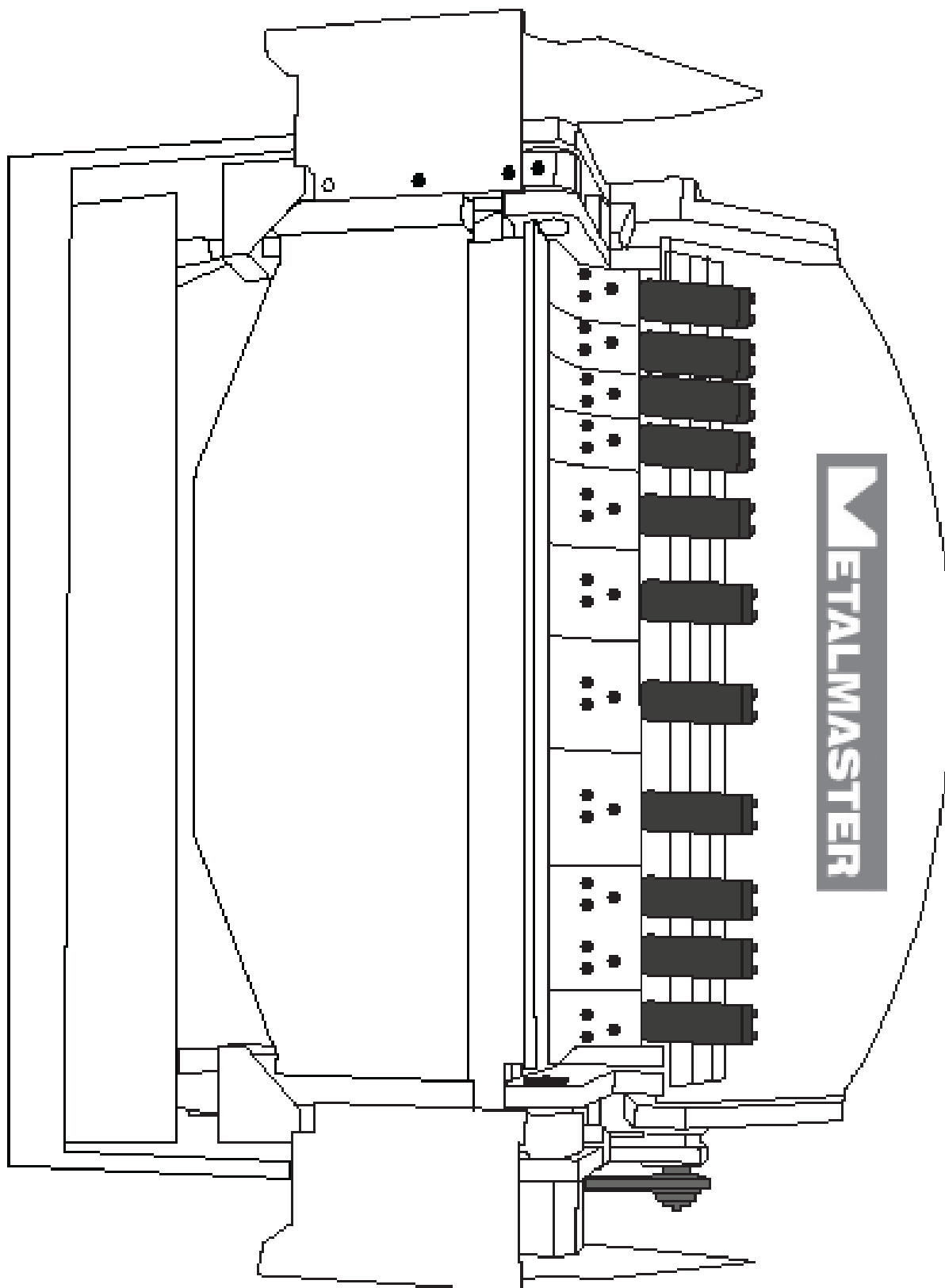
<b>Machine Type</b>	<b>PB-440A/T</b>	<b>PB-825A/T</b>	<b>PB-830A/T</b>	<b>PB-1030T</b>
Bending Length (mm)	1300	2500	2500	3050
Material Capacity Mild Steel (mm)	4	2.5	4	3.2
Stainless Steel (mm)	2	1.2	2	1.6
Bending Angle Indicator (deg)	0-120	0-120	0-120	0-120
Box Depth Of Fingers (mm)	230	215	205	205
Opening Height (mm)	140	140	140	140
Weight (kgs)	1250	1740	2900	3730
System Pressure (Mpa)	5	5	5	5
Pan Movement (mm/sec)	5	5	5	5
Clamp Movement (mm.sec)	10	10	10	10
Oil Tank Volume (ltr)	80	80	100	100
Back Gauge Range (mm)	1000	1000	1000	1000
Main Motor 3Ph 415v 50Hz	<b>3.75</b>	<b>3.75</b>	<b>5.5</b>	<b>5.5</b>

### **1.2. Standard Equipment**

- ☐ Electric motor: 415V 3phase
- ☐ Top finger segments
- ☐ Back-gauge assembly
- ☐ Side guarding
- ☐ Oil tank level indicator
- ☐ Foot switch and control panel

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Metalmaster reserves the right to change specifications at any time and without prior notice, without incurring obligations.

### 1.3 Overall Drawings



## 2. IMPORTANT INFORMATION

### 2.1 SAFETY REQUIREMENTS

The purpose of the safety section of this manual is to inform operators and maintenance personnel of the precautions to be taken while operating or servicing the machine.

The following are a few basic guidelines to follow, but as with any type of machinery good judgment and a safe attitude should be applied at all times.



Safety glasses must be worn at all times in work areas. Earmuffs should be worn if the work area is noisy.



Sturdy footwear must be worn at all times in work areas.



Gloves must be worn when handling the material.



Long and loose hair must be contained with a net or under a hat

### SAFETY CHECKS BEFORE OPERATING

- ☐ Locate and ensure you are familiar with all machine operations and controls.
- ☐ Take notice of any warning labels on the machine and do not remove them.
- ☐ Ensure all guards are fitted, secure and functional.
- ☐ Ensure working parts are well lubricated and the jaws and fingers free of rust and dirt.
- ☐ Check workspaces and walkways to ensure no slip/trip hazards are present
- ☐ Be aware of other people in the area. Ensure the area is clear before using equipment.

### SAFETY CHECKS WHEN OPERATING

- ☐ Operate the machine only if all protective devices and guarding are mounted and effective.
- ☐ Remove the pan brake fingers that are in the way. Use only the pan brake fingers required to make the bend.
- ☐ Check that the material to be bent is the correct thickness.
- ☐ Ensure the pan brake fingers that are not removed for an operation are securely seated and firmly tightened before the machine is used.
- ☐ Ensure your fingers and limbs are clear before operating the pan brake.
- ☐ Lower finger clamps to work. Do not drop.
- ☐ Check workpiece is secure.
- ☐ Keep clear of moving counterweight (where fitted).

### POTENTIAL HAZARDS AND INJURIES

- ☐ Sharp edges and burrs.
- ☐ Squash/crush and pinch points.
- ☐ Impact from counterweight.

## 2.1 SAFETY REQUIREMENTS

### DO NOT

- ☐ Do not use faulty equipment. Immediately report suspect machinery.
- ☐ Do not use a panbrake for bending metal that is beyond its capacity for thickness, or type.
- ☐ Do not attempt to bend rod, wire, strap or spring steel sheets.
- ☐ Do not remove the guards in front of the machine under any circumstances while the machine is in an operational mode.
- ☐ Do not operate the machine without proper material adjustment according to sheet thickness.
- ☐ Do not bend material which has been welded or deformed.
- ☐ Do not use clamp fingers which are excessively damaged.

### WHEN MAINTAINING THE MACHINE

- ☐ Shut off the machine completely before any repair work is carried out.
- ☐ Disconnect and tag the power supply if not required while doing maintenance
- ☐ The machine is to be serviced and/or be repaired only by the authorized personnel

### PINCH POINT SAFETY WARNING

Machinery can pose a hazard with moving parts, conveyors, rollers and rotating shafts. Never reach into a moving machine. The machine must always be properly maintained. Always use the machine tool guards provided with your equipment. They act as a barrier between the moving parts and your body.

In order to prevent accidents involving pinch points, the points listed below must be followed when using machinery

- ☐ Use the right tool for the job
- ☐ Identify possible pinch point hazards in your work area
- ☐ Concentrate on objects that move or are capable of moving.
- ☐ Ask yourself, "What will happen if this moves? Will I be in the path of that movement?"
- ☐ Be aware of pinch points created by objects that move and come into direct or close contact with fixed objects
- ☐ Be on guard whenever you put your hands, fingers, toes, or feet "between" anything.
- ☐ Discuss and point out pinch point hazards as part of your risk assessment.
- ☐ Make sure your hands are placed where you can see them



## 2.2 LIFTING INSTRUCTIONS

On the day that the machine arrives, make sure that a crane with sufficient capacity is available to unload the Panbrake from the vehicle. Make sure access to the chosen site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

To handle the Panbrake, use only the four sling holes located on the top of the end plates. (Fig. 2.3)  
The slings should be positioned so the machine is level when lifted.

When using slings please take note of the sling angle and the loads that apply

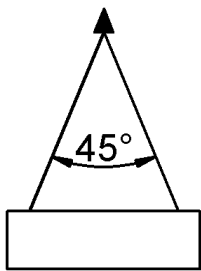


Fig 2.1.

When the slings are at a 45° angle then each sling will carry the equivalent of 50% of load weight. (Fig.2.1).

When the slings are at a 90° angle then each sling will carry the equivalent of 75% of the load weight on each sling. (Fig 2.2)

**Note!** Metalmaster recommend not to exceed 90° angle

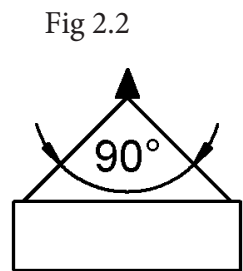


Fig 2.2

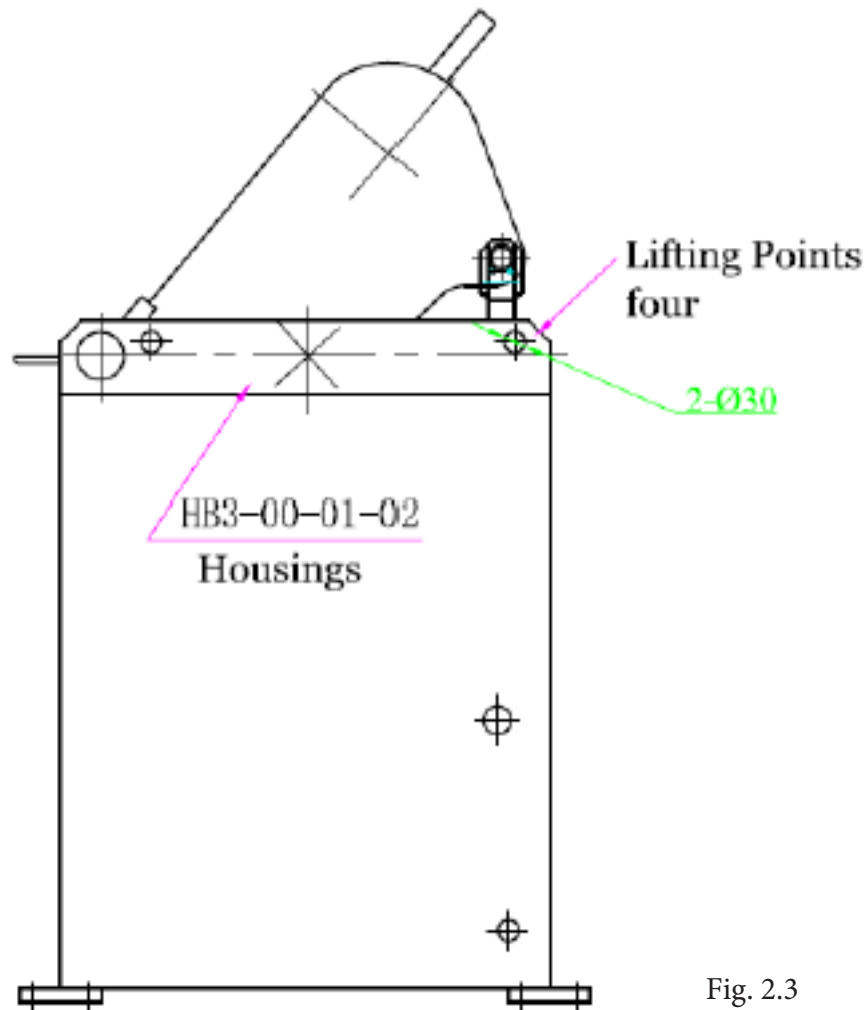


Fig. 2.3

### 3. INSTALLATION

The machine is delivered in complete assembled execution. It must be leveled and firmly stationed on the floor where it is to be used, according to the Installation Diagram attached. Indoor installation and a dry working environment without danger of fire and explosion is necessary.

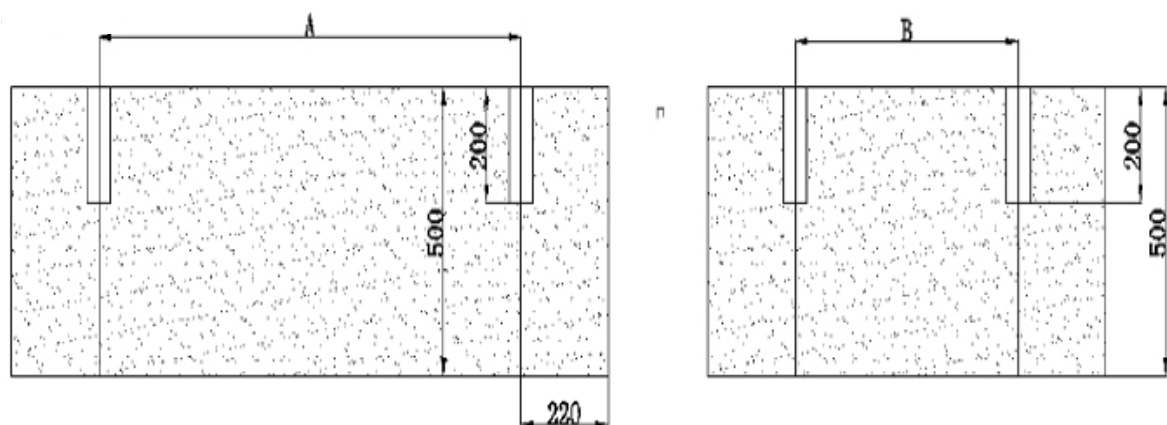
The floor load, where the machine is to be installed, must be suitable for the weight of the machine.

#### 3.1 Base Foundation and Securing Points

Before securing the machine a solid concrete base must be prepared to the specification of the machine.

The sizes for the bolt holes position are listed as A-B.

**Fig. 2.5**



### 3.2 Machine Leveling

To set your machine up so that it operates to optimum performance, apply the following procedure. After your panbrake has been anchored to a concrete slab floor, it then needs to be leveled. The leveling is performed using each of the screws on each pad. (Fig. 3.1). Loosen the hold down bolts and place a level on the surface of the working table. Tolerances: 1000:0.30mm, for both axis. Metal plates need to be placed under each jacking screw to distribute the load. Once level then tighten the hold down bolts.

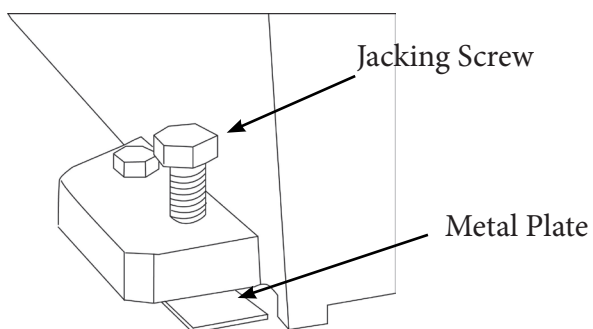


Fig. 3.1



The machine must not rest on supports other than those defined in Fig. 3.1

### 3.3 Checking The Power Supply

METALMASTER machines are supplied wired ready to run. Check the specification plate on the machine to confirm the correct voltage of the power supply.

The machine must be connected to the power by a qualified and licensed electrician. Warranty could be voided if it is found that the connection was not carried out by a qualified electrician.

Start the pump by turning the key selector to the right.

Compare the direction of rotation of the motor. The blades need to rotate clockwise

If the direction does not match, stop the pump rotation by turning the key and make changes to the wiring





## 4. MACHINE SETUP

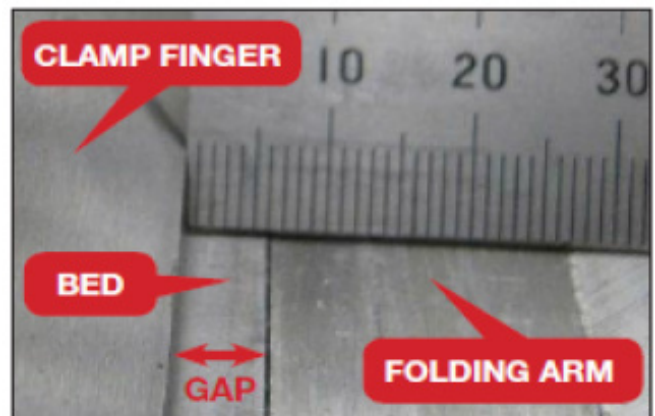
### 4.1 Setting The Clamp Gap

Before operating the machine the clamp gap needs to be set to match the material thickness

The Clamp gap must be set to a minimum of 1.5 x material thickness.

Example: If the material that is to be bent is 4mm then the clamp gap must be set to a minimum of 6mm.

Each panbrake may have different mechanisms for adjusting the clamp gap but the formula of 1.5 x Material Thickness must be maintained to prevent overload and possible damage



Some machines have a quick adjusting arm with pin positions marked 0-6. This should represent your material thickness.

Example: If the material to bend is 6mm then place the pin in position 6.

**Note !** This must be done on both sides.



You may have to use a combination of top clamp adjustment and apron adjustment.

Example: If bending 6mm aluminium with the clamping position 4, the apron must be dropped down 3mm to make the total gap of 9mm (1.5 x 6mm = 9mm)

Note ! The locking bolts on the apron must be released before adjusting, then tightened when the correct height is reached.



### RETURN LENGTH - LIMITATION

**Caution** - There is a minimum "Return Length" of 15 x Thickness of Material when bending thicker material over 1mm. Damage could occur to the machine if the return is too short.

Example: If bending 4mm the minimum return length must be 60mm



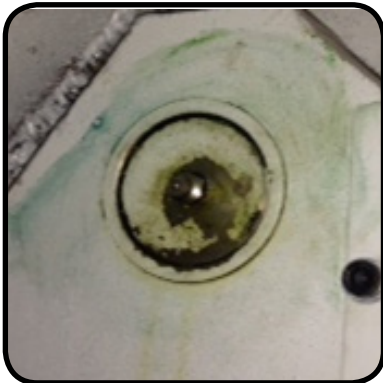


## 5. MAINTENANCE AND INSPECTION

### 5.1 Type and frequency of Inspections

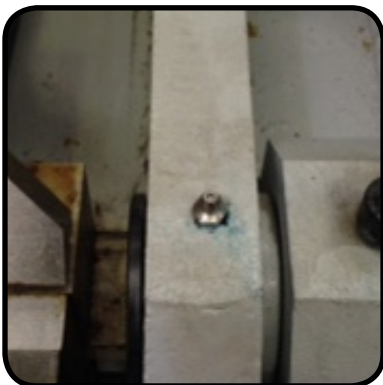
Inspection	Frequency	Responsible
Lubrication of all grease points	See Lubrication points (Section 5.2)	Operator
Lubrication of clamp fingers and machine surfaces	Daily	Operator
Guards for physical damage	Daily	Operator
Machine fixing bolts against loosening	Weekly	Operator
Oil Leakage in cylinders	Weekly	Operator
Oil leakages in hoses, pipes and hydraulic parts	Weekly	Operator
Hydraulic fluid levels	Weekly	Operator
Cylinder connecting bolts against loosening	Weekly	Operator
Safety and limit switches against loosening	Weekly	Operator
Electrical terminal connections	Annually	Electrician

## 5.2 Lubrication Points



GREASE POINTS X 2 EVERY 8HRS

GREASE POINTS X 2 EVERY 8HRS



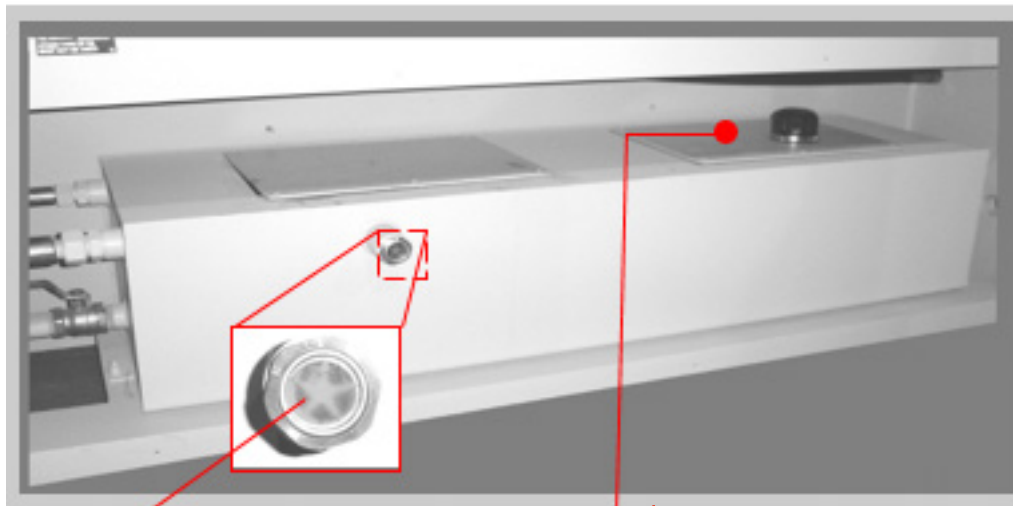
GREASE POINTS X 2 EVERY 8HRS

GREASE POINTS X 2 EVERY 8HRS



### 5.3 Changing Oil

The efficiency of the Metalmaster machine relies on the hydraulic system being well maintained. All precautions must be taken to keep the hydraulic system clean at all times.



**Oil Level Indicator**

**Cover**

1. Remove the oil tank cover after pulling out the screws
2. Using an appropriate pump, drain out the old oil completely. Be sure nothing is left
3. Using a pump or proper equipment, fill with new oil. Oil level must be seen in the middle of the oil indicator. Observe the oil level from this indicator. Always keep the oil at the same level.
4. When changing oil, keep the oil tank clean.
5. Oil must be changed after first 200 working hours of use, and then every 1000 working hours.  
(See: Lubrication Diagram)

#### 5.4 Changing the Filter



1. Remove the cover on the oil tank after loosening and removing the screws.
2. Remove the old filter from its place inside the oil tank by turning in a clock wise direction.
3. Fix the new filter into its place by turning it in counter clock wise direction.

**Note !** The suction filter element must be cleaned after first 200 hours of use, and then every 1000 working hours. Replace if damaged.

### 5.5 Troubleshooting

PROBLEM	POSSIBLE CAUSES	CORRECTION
Material bend is uneven	1. Clamp setting wrong for the material thickness. 2. Finger edges are uneven	Re-adjust cam settings Adjust pan clearance Adjust fingers
Panbrake Clamp does not work	Pressure relief valve is blocked Failure in the pressure relief valve Directional valve is blocked Failure of directional valve Suction filter is blocked Pump failure Leakage in the pipes or cylinder	* Clean valve * Change valve * Clean valve * Change valve * Clean filter * Check pump and change if necessary * Find the leaks and repair
Pan does not ascend	Low pressure in lifting cylinders Leakage in lifting cylinders	* Check system pressure * Replace piston seal
Oil leaking from cylinder	Gland seal is damaged	* Change seal
Oil leaking from fittings	Loose fittings	* Tighten fittings

## **5.6 Storage**

In cases where the machine is not to be used for a long period of time, the following precautions must be taken:

Disconnect electrical supply to the machine, and place a disconnect tag on the electric panel as a reminder for future use.

The storage place of the machine must be indoor with protection against humidity, dust, and danger of fire.

Lubricate top and bottom working surfaces with anti-rust lubricant.

Empty the oil from the tank.

Lubricate pistons and all metal surfaces with anti-rust lubricant

Lubricate plastic hoses against cracking.

Cover the machine with a nylon cover to protect against dust.

## **Re-utilization after storage**

Take the following steps if the machine is to be re-utilized after a long period of storage:

To use the old machine oil, make sure that the physical and chemical properties of the liquid is intact. This should be verified by an expert body. Otherwise, fill the tank with new oil.

All electrical components must be checked by a qualified electrician to make sure that all of them are properly functional. Replace the faulty components.

The machine body and mechanical parts must be checked through by authorized and qualified personnel, and the machine must be prepared for operation according to the operating instructions.

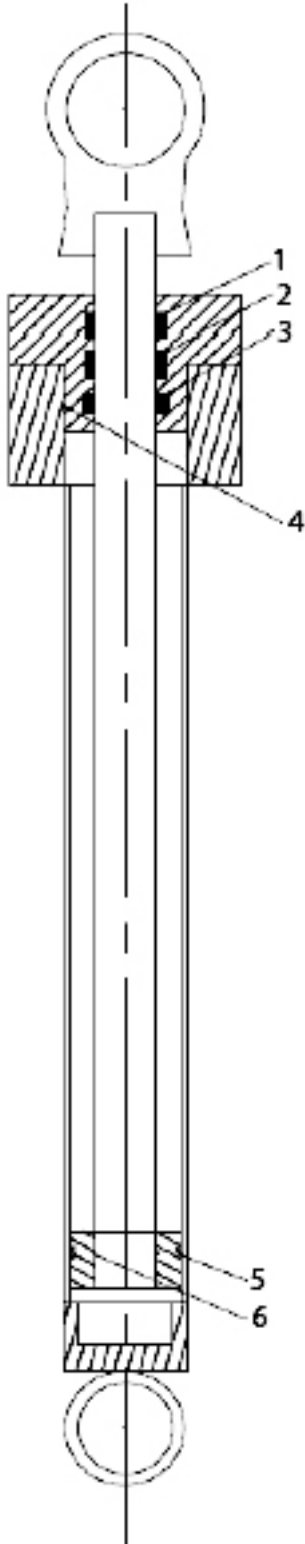
## **6. Machine Operation.**

### **6.2 Start Up**

- a. Check that the electrical supply has been connected.
- b. Check that the hydraulic reservoir has been filled with hydraulic oil.
- c. Ensure that the emergency stop button is in the released position.
- d. Press the start button and check that all the indicator lights are ON.
- e. Press the hydraulic pump button to start the electric motor.
- e. Adjust the bend angle adjuster according to your requirements.
- f. Once the steel plate is in position for bending then the choice of inching or automatic can be selected.

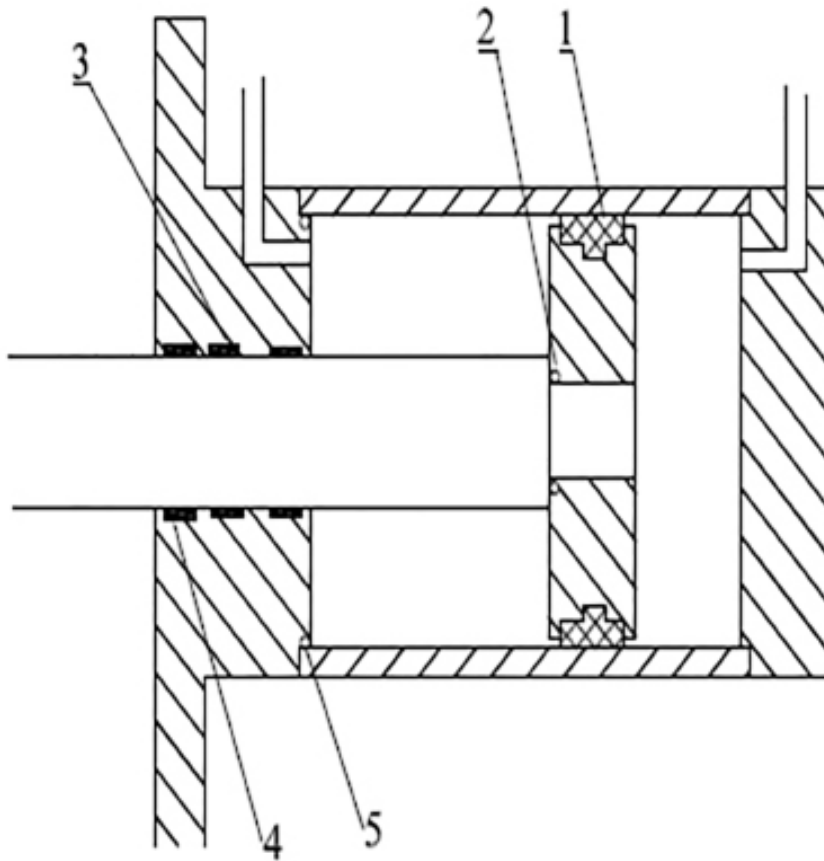
### **6.2 Bending**

- a. Before operating the machine check that the blade settings are correct.
- b. Check that the material to be bent is the correct thickness.
- c. Do not bend material which has been welded or deformed.
- d. Adjust the bend angle adjuster according to your requirements.
- e. Once the steel plate is in position for bending then the choice of inching or automatic bending can be chosen.

**APPENDIX****A. Spare Parts List****HYDRAULIC RAM CYLINDER ARM**

No.	Name	Specification
1	Dust Seal	ADA 17-0450-N90
2	Seal	U321 45.53.8
3	Seal	WRI45
4	O Ring	G70 O-RING 69.4x3.1
5	Seal	KDAS 070-058
6	O Ring	G35 O-RING 34.4x3.1

### Top Hydraulic Cylinder and Seal

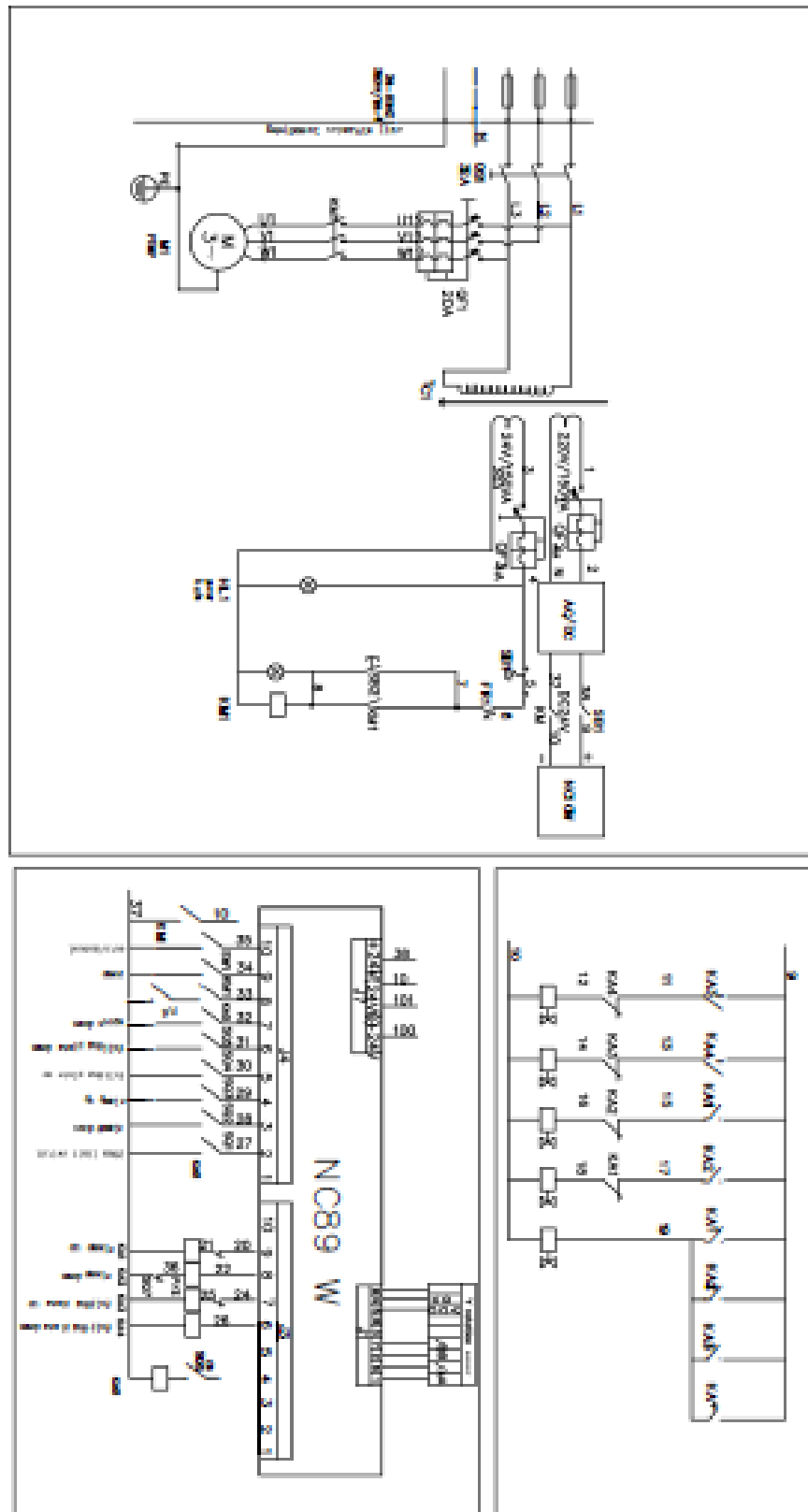


No.	Name	Specification
1	Seal	KDAS 140-115
2	O Ring	G35 O-RING 35.4x3.1
3	Seal	U321 70 78.8
4	Seal	WRI 70
5	O Ring	G135 O-RING 134.4x3.1



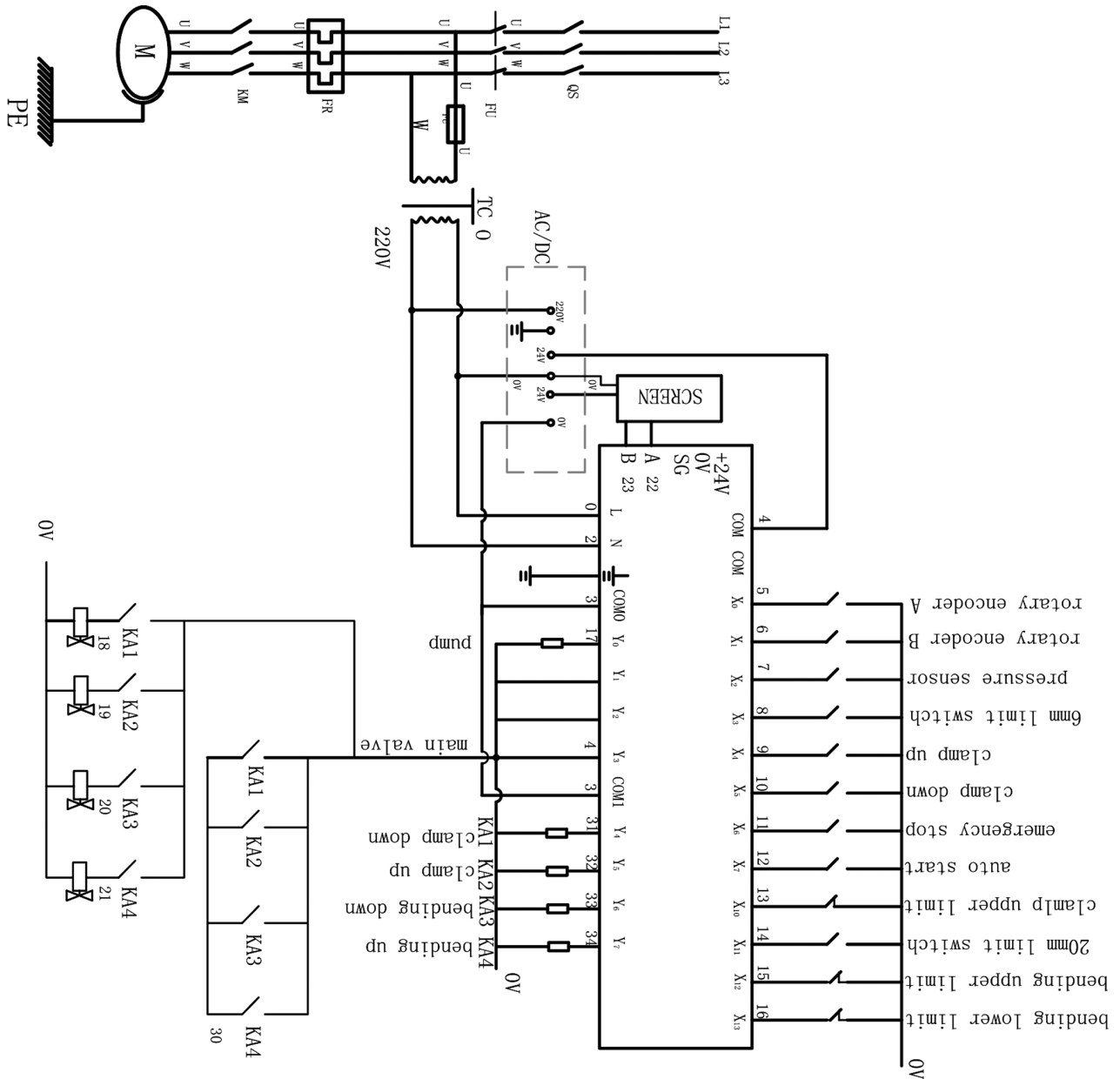


**C. NC89 Electric Circuit Diagram**



Hydraulic folding machine with NC89W system  
Electrical-Principal Drawing

### D. Ezy Touch Controller Electric Circuit Diagram



**E. Electrical Parts**

Item No.	Name	Model	Specification	Function
QF	Protector	3VE1015 2NU00	14-20A	Motor overload
M	Main Motor	Y132S-4	4/5.5/7.5Kw	Pump start
FU1-FU5	Fuses	RT18-32	8A	Short circuit protecting
SB1	Button	KH-2022ER	250VA; 6A	Emergency stop
SB2	Stop Button	KH-2022		Pump start
SB3	Switch	KH-3022-2		Auto-inch
SB4	Stop Switch	KH-3022		Auto-stop
SB5	Foot Panel	WLCA2-2	5A	Upper beam down
SB6	Foot Panel	WLCA2-2		Upper beam up
SB7	Switch	KH2022	250VAC; 6A	Auto start
SB8	Switch	KH2022		Table flap up
SB9	Switch	KH2022		Table flap down
KM	Contactor	3TB-43	25A	Circuit contactor
KA1-KA4	Relay	3TB-82	10A	Pressure control
KT	Relay	AH3-3	5	Folding plate down relay
SQ1	Switch	LX19-001	5	Upper beam up control
SQ2	Switch	LX19-001	5	Table flap up control relay
SQ3	Switch	LX19-001	5	Table flap down control relay
HL	Indicator	AD17KA-22		Indicator light
KB	Switch	KBK5-160	160VA	Control pressure valve
FA	Switch	FAGOR	25A	Circuit switching
YV1-YV5	Pressure Valve	LIXIN		Hydraulic oil control

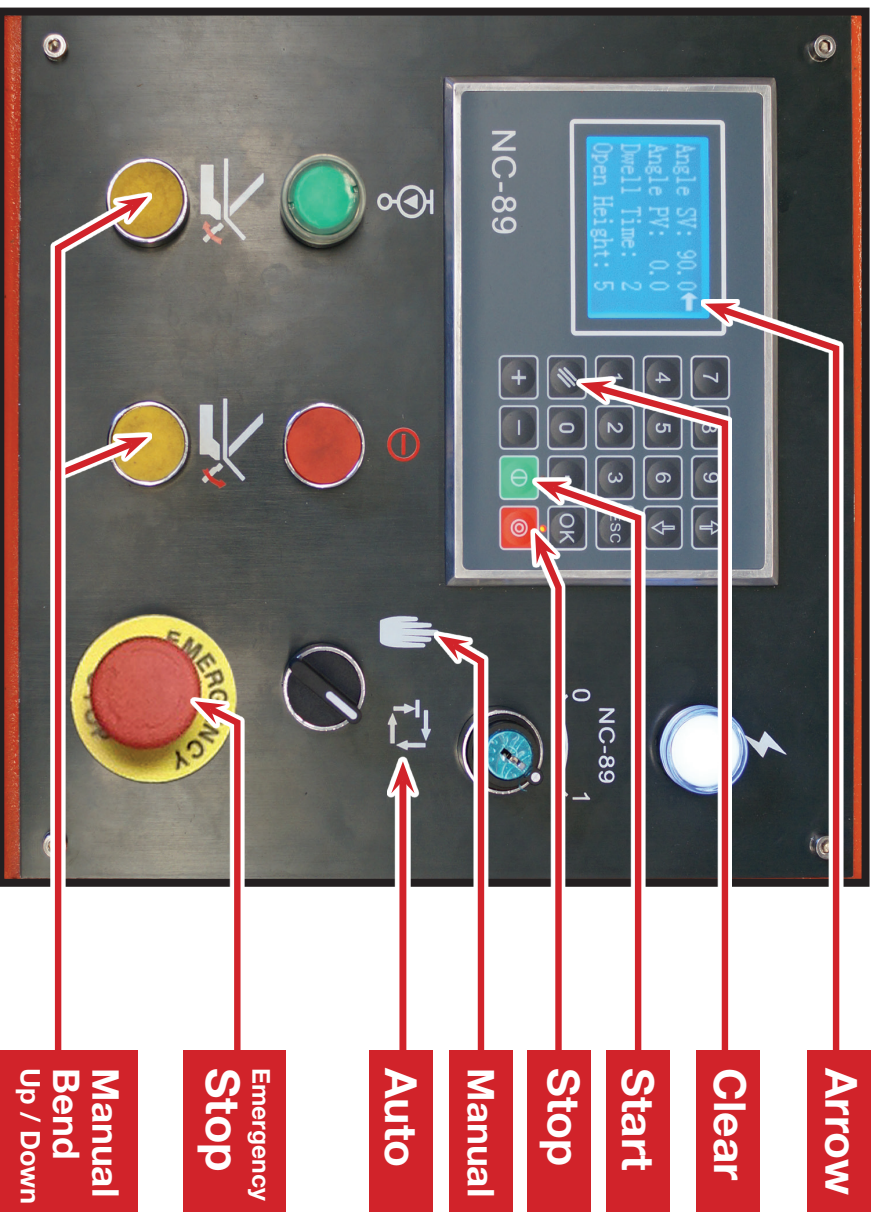
**G. Modification For Loss Of Clamping Pressure.**

When clamping pressure is reduced or lost during operation causing the machine to become inactive use Re Clamp button on the side of the main control board.(Fig. G1)

**Fig. G1**



# NC-89 Controller Operation



**WARNING:** Please read the “Panbrake Hydraulic Clamp Manual” before clamping.

**Angle SV: Desired programmed angle.**

Operation: Move Arrow to Angle SV, clear value , enter desired angle value. Example: 5 = 5°, and press .

**Angle PV: Actual position of apron.**

Operation: Angle PV is a digital readout for the apron angle as the apron moves. This is visual only and can not be modified.

**Dwell Time: Desired time apron will dwell after it has reached Angle SV. Auto function only**

Operation: Move Arrow to Dwell Time, clear value , enter desired value. Example: 2 = 2 seconds, and press .

**Open Height: Desired height the clamp opens after apron returns to zero. Auto function only**

Operation: Move Arrow to Open Height, clear value , enter desired value. Example: 3 = 3 seconds, and press .

**Clamp Operation:** See “Man-06 (Panbrake-Hyd-Clamp-Setup-Operation).pdf” manual before clamping material.

**Manual Bend:** Switch mode to manual. Example: Enter 90° in **Angle SV**. Clamp material and use the Up Manual Button to bend material. Button can be released at any time and apron will stop. NC-89 with stop apron at 90°. Release button and bend more/less or return back to 0° and unclamp with foot pedal.

**WARNING:** The apron will automatically bend up once the  start button is pressed.

**Auto Bend:** Switch mode to Auto. Example: Enter 90° in **Angle SV**, Enter 2 sec in **Dwell Time**, Enter 3 sec in **Open Height**. Clamp material and press green start button on NC-89. Apron will automatically bend up to 90°, dwell for 2 seconds, return to 0° and then clamp will open for 3 seconds. Job complete.

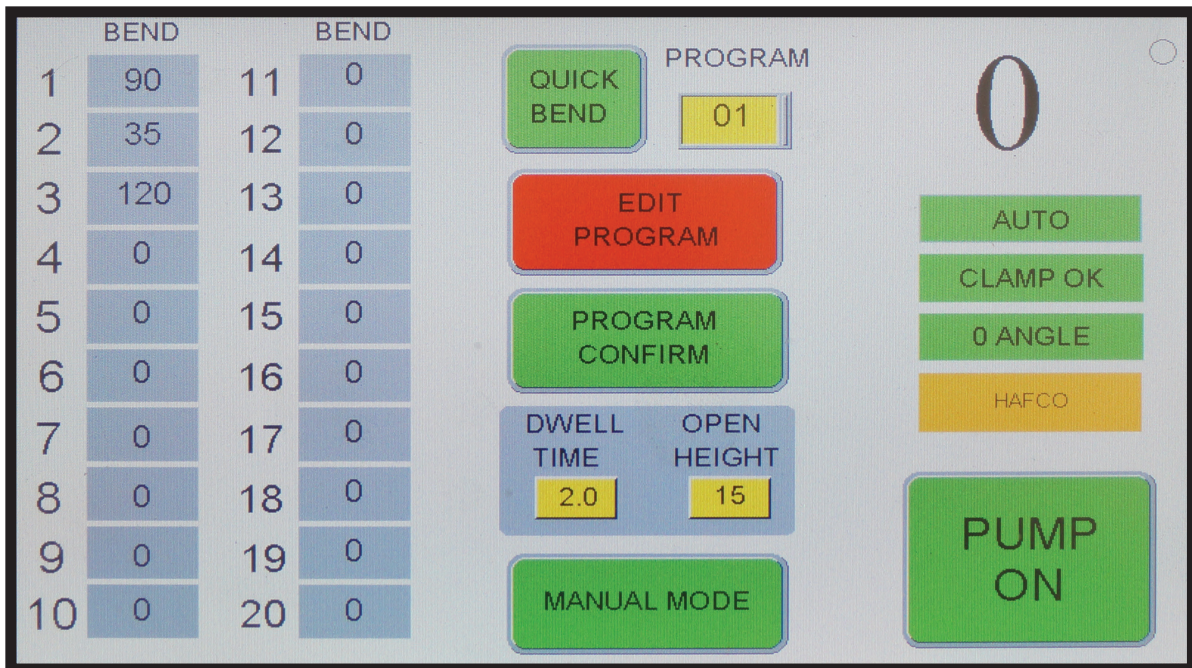
**Emergency Stop:** Press this button to stop operation at any time in case of emergency in manual or auto mode.



# Panbrake

## BANNER - Touch Screen Operation

**HOME page:** *This is the main page to access all the bending screens.*

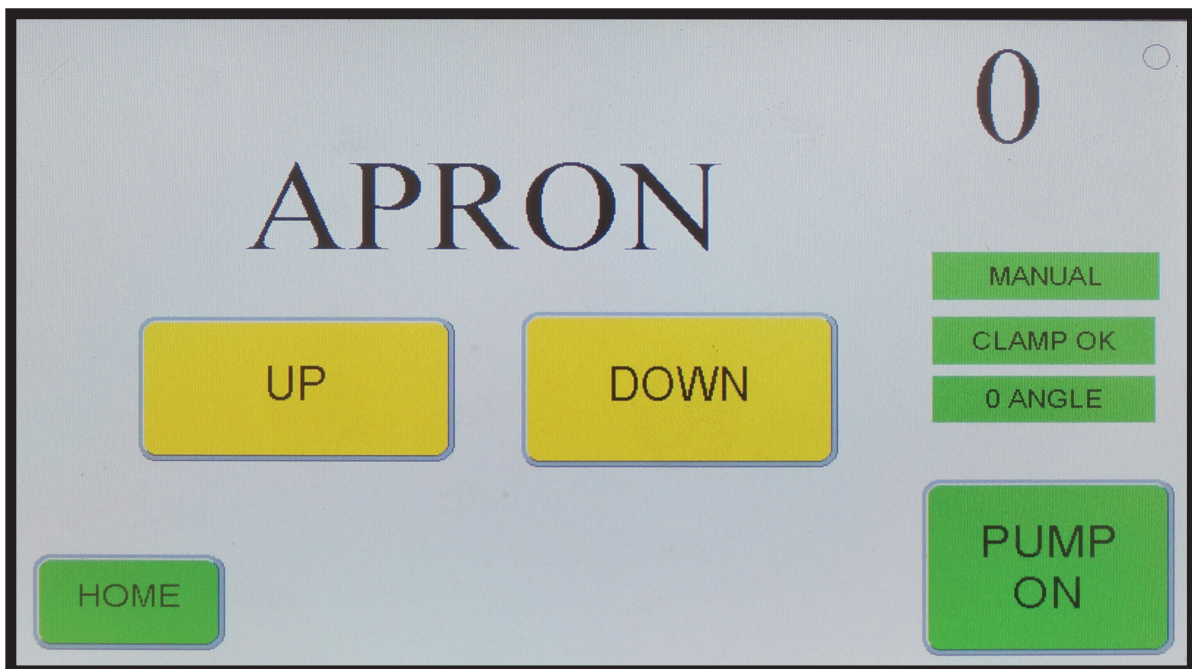


**WARNING:** Please read the “Panbrake Hydraulic Clamp Manual” before clamping.

**Touch Screen:** Touch any icon to navigate the controller or operate apron.

**PUMP ON:** Press the PUMP ON icon to turn the pump on for any bending operations.

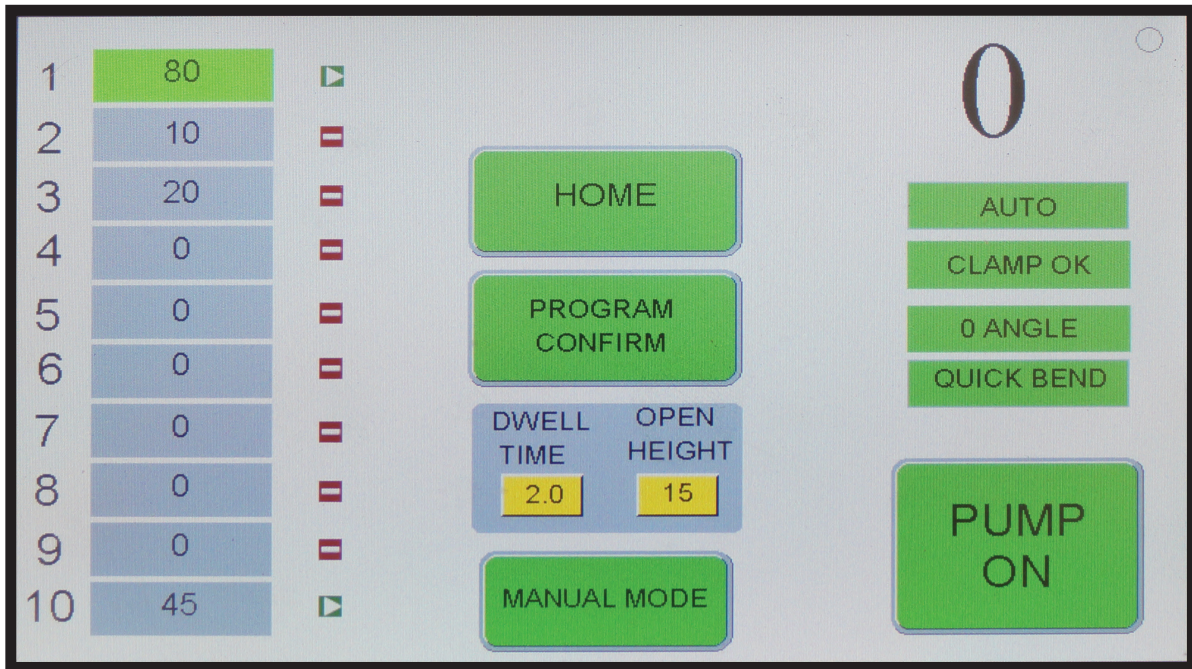
**MANUAL MODE:** *Press MANUAL MODE icon to access this screen.*







**Operation:** Clamp job with foot pedal. When CLAMP OK is green, means the clamp is in position to allow bending to start. Pressing UP / DOWN will operate apron. Apron angle will count as the apron moves up or down.



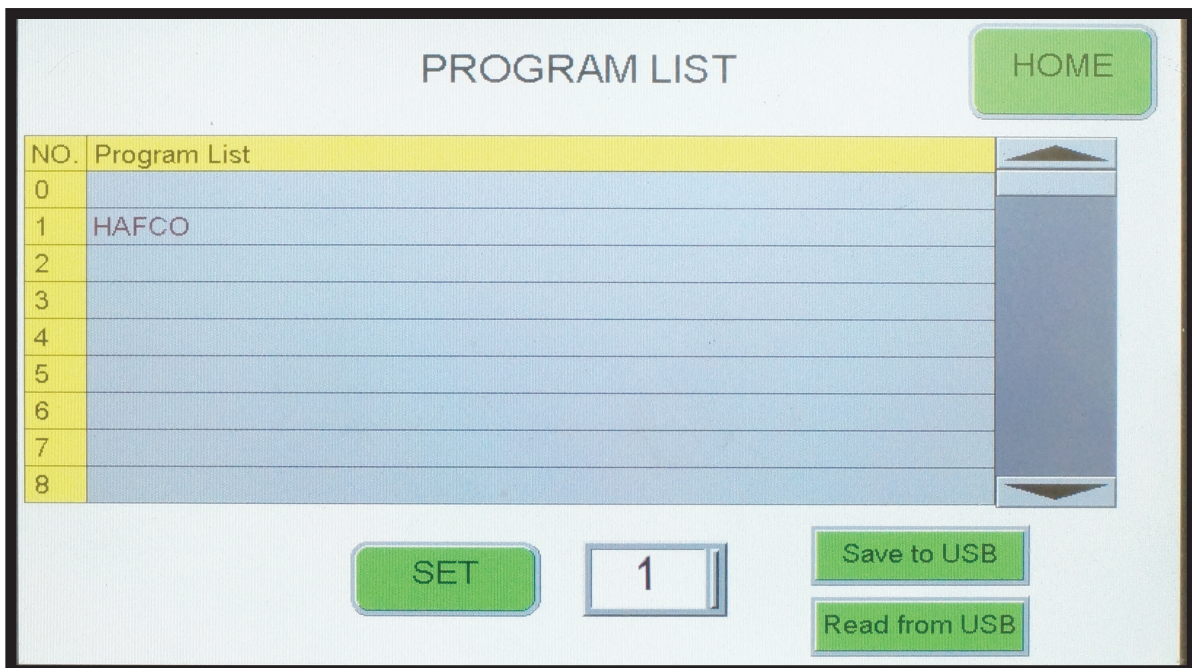
## QUICK BEND: Press QUICK BEND icon to access this screen.




**WARNING:** The apron will automatically bend up once the  start button is pressed.

**Operation:** Touching icon  will change to  which indicates bend is ON. Touching  will bring up a screen for you to change the value. If desired you may change the DWELL TIME and OPEN HEIGHT. Once all values are correct press PROGRAM CONFIRM to load program (This will turn RED which means the program has been loaded). Clamp job with foot pedal and Press the start button  to start bending. The apron will automatically bend up to the programed angle, dwell for set value, return back down to 0 position, then the clamp will open automatically to the set open height. Repeat process for next bend.

## PROGRAM LIST: Press EDIT PROGRAM icon to access this screen.



**Operation:** Press  to select a PROGRAM number. Press SET to change bend data or press HOME to load the program onto the home page.



## PROGRAM MODIFICATION:

Press the **SET** icon in **PROGRAM LIST** to access this screen.

BEND	ANGLE	OFFSET		BEND	ANGLE	OFFSET	
01	090	0	Del	11	000	0	Del
02	035	3	Del	12	000	0	Del
03	050	0	Del	13	000	0	Del
04	000	0	Del	14	000	0	Del
05	000	0	Del	15	000	0	Del
06	000	0	Del	16	000	0	Del
07	000	0	Del	17	000	0	Del
08	000	0	Del	18	000	0	Del
09	000	0	Del	19	000	0	Del
10	000	0	Del	20	000	0	Del


**PROGRAM MODIFICATION**

NAME  
HAFCO

PROGRAM  
1

**EXIT**

**WARNING:** The apron will automatically bend up once the  start button is pressed.

**Operation:** Press NAME to enter a name. To make BEND 01 bend to 90° Press **090** ANGLE and enter 90. OFFSET is for bending thicker material, Entering 5 in OFFSET will make apron bend to 95°. Pressing delete **Del** will skip the bend. Press EXIT to return to HOME page. Once on HOME page press PROGRAM CONFIRM to load program then press the start button  to start bending. The apron will automatically bend up to the programed angle, dwell for set value, return back down to 0 position, then the clamp will open automatically to the set open height. Repeat process for next bend.

**USB Device:** Press the **Save to USB** icon to access this screen  
This screen is for saving or loading programs to or from a USB device.

**PROGRAM LIST**

NO.	Program List
0	
1	HAFCO
2	
3	
4	
5	
6	
7	
8	

Select File

Write recipe data to PRD file

EA

<C>

<E>

[BANNER]

HAFCO.prd

test1.csv

OK

Cancel

ASCII Character Keypad

test1.csv

1	2	3	4	5	6	7	8	9	0	-	Esc
Q	W	E	R	T	Y	U	I	O	P	\	Clr
A	S	D	F	G	H	J	K	L	:	;	Del
Z	X	C	V	B	N	M	,	.	/	?	Ent
@	#	\$	%	&	*	(	)	_	+		

**Operation:** To **SAVE** a program: Press and hold **Save to USB** on the PROGRAM LIST screen for 3 seconds to activate the Save to USB function. Press on the test1.csv to rename your program, press "ent" to save your program then press OK. To **LOAD** of program: Press and hold **Read from USB** on the PROGRAM LIST screen for 3 seconds to activate the Read from USB function. Press on the eg: HAFCO.prd file and press OK.

# **WARNING**

## **General Machinery Safety Instructions**

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Machinery House  
requires you to read this entire Manual before using this machine.

- 1. Read the entire Manual before starting machinery.** Machinery may cause serious injury if not correctly used.
- 2. Always use correct hearing protection when operating machinery.** Machinery noise may cause permanent hearing damage.
- 3. Machinery must never be used when tired, or under the influence of drugs or alcohol.** When running machinery you must be alert at all times.
- 4. Wear correct Clothing.** At all times remove all loose clothing, necklaces, rings, jewelry, etc. Long hair must be contained in a hair net. Non-slip protective footwear must be worn.
- 5. Always wear correct respirators around fumes or dust when operating machinery.** Machinery fumes & dust can cause serious respiratory illness. Dust extractors must be used where applicable.
- 6. Always wear correct safety glasses.** When machining you must use the correct eye protection to prevent injuring your eyes.
- 7. Keep work clean and make sure you have good lighting.** Cluttered and dark shadows may cause accidents.
- 8. Personnel must be properly trained or well supervised when operating machinery.** Make sure you have clear and safe understanding of the machine you are operating.
- 9. Keep children and visitors away.** Make sure children and visitors are at a safe distance for you work area.
- 10. Keep your workshop childproof.** Use padlocks, Turn off master power switches and remove start switch keys.
- 11. Never leave machine unattended.** Turn power off and wait till machine has come to a complete stop before leaving the machine unattended.
- 12. Make a safe working environment.** Do not use machine in a damp, wet area, or where flammable or noxious fumes may exist.
- 13. Disconnect main power before service machine.** Make sure power switch is in the off position before re-connecting.
- 14. Use correct amperage extension cords.** Undersized extension cords overheat and lose power. Replace extension cords if they become damaged.
- 15. Keep machine well maintained.** Keep blades sharp and clean for best and safest performance. Follow instructions when lubricating and changing accessories.
- 16. Keep machine well guarded.** Make sure guards on machine are in place and are all working correctly.
- 17. Do not overreach.** Keep proper footing and balance at all times.
- 18. Secure workpiece.** Use clamps or a vice to hold the workpiece where practical. Keeping the workpiece secure will free up your hand to operate the machine and will protect hand from injury.
- 19. Check machine over before operating.** Check machine for damaged parts, loose bolts, Keys and wrenches left on machine and any other conditions that may effect the machines operation. Repair and replace damaged parts.
- 20. Use recommended accessories.** Refer to instruction manual or ask correct service officer when using accessories. The use of improper accessories may cause the risk of injury.
- 21. Do not force machinery.** Work at the speed and capacity at which the machine or accessory was designed.
- 22. Use correct lifting practice.** Always use the correct lifting methods when using machinery. Incorrect lifting methods can cause serious injury.
- 23. Lock mobile bases.** Make sure any mobile bases are locked before using machine.
- 24. Allergic reactions.** Certain metal shavings and cutting fluids may cause an allergic reaction in people and animals, especially when cutting as the fumes can be inhaled. Make sure you know what type of metal and cutting fluid you will be exposed to and how to avoid contamination.
- 25. Call for help.** If at any time you experience difficulties, stop the machine and call you nearest branch service department for help.

# WARNING

## Hydraulic Panbrake Safety Instructions

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Machinery House  
requires you to read this entire Manual before using this machine.

- 1. Maintenance.** Make sure the Panbrake is turned off and disconnect from the main power supply and make sure all moving parts have come to a complete stop before any inspection, adjustment or maintenance is carried out.
- 2. Panbrake Condition.** Panbrake must be maintained for a proper working condition. Never operate a Panbrake that has low oil levels, damaged or worn parts. Scheduled routine maintenance should be performed on a scheduled basis.
- 3. Tooling Condition.** Never operate a Panbrake with damaged or badly worn tooling. Replace if required.
- 4. Pump Direction.** Pump rotation must be in arrow direction otherwise the pump will be damaged.
- 5. Hand Hazard.** Do not insert or extend your hands in between bending tools, under any circumstances, while the machine is in operation mode. Serious injury can occur.
- 6. Gloves & Glasses.** Always wear leather gloves and approved safety glasses when using this machine.
- 7. Authorized and trained personnel.** The machine must be operated by authorized and trained personnel. The machine is designed to be operated by a single user. Using the machine with more than one operator is forbidden, except for certain maintenance situations.
- 8. Power outage.** In the event of a power failure during use of the machine, turn off all switches to avoid possible sudden start up once power is restored.
- 9. Work area hazards.** Keep the area around the Panbrake clean from oil, tools, objects & chips. Pay attention to other persons in the area and know what is going on around the area to ensure unintended accidents. Do not access the rear of machine, while the machine is working.
- 10. Guards.** Operate machine only with all protective devices and guarding.
- 11. Overloading Panbrake.** Do not exceed the rated capacity of the machine. Refer to the manual for correct capacities.
- 12. Warning Labels.** Take note of any warning labels on the machine and do not remove them.
- 13. Operation.** During the bending process, the workpiece may leap up. Therefore, the material must be handled carefully.
- 14. Emergency stop.** Use the emergency stop button in case of any emergency.
- 15. Level machine.** Level the machine on a flat concrete surface by using a spirit level.
- 16. Floor load for Installation.** The permissible floor load, where the machine is to be installed, must be accounted for.
- 17. Hearing protection and hazards.** Always wear hearing protection as noise generated from machine and workpiece can cause permanent hearing loss over time.
- 18. Heating Material.** Heating metal with a torch while the metal is in the bending brake will weaken the fingers.
- 19. Pinching.** Prevent pinching by lowering the panbrake fingers when not in use.
- 20. Call for help.** If at any time you experience difficulties, stop the machine and call your nearest branch service department for help.



# PLANT SAFETY PROGRAM

## **NEW** MACHINERY HAZARD IDENTIFICATION, ASSESSMENT & CONTROL

### **Hydraulic Panbrake**

Developed in Co-operation Between A.W.I.S.A and Australia Chamber of Manufactures

This program is based upon the Safe Work Australia, Code of Practice - Managing Risks of Plant in the Workplace ( WHSA 2011 No10 )

Item No.	Hazard Identification	Hazard Assessment	Risk Control Strategies (Recommended for Purchase / Buyer / User)
B	CRUSHING	MEDIUM	Secure & support work material. Keep hands clear of folder blades when clamping.
C	CUTTING, STABBING, PUNCTURING	MEDIUM	Wear gloves to prevent cuts from sharp material offcuts. Care must be taken when handling folder blades.
D	SHEARING	MEDIUM	Body parts should be kept clear of moving parts. Isolate power to machine prior to any checks or maintenance. Do not adjust or clean until machine has fully stopped.
F	STRIKING	MEDIUM	Ensure guards are secured properly. Wear safety glasses. Ensure blade fingers are secured to clamp beam. Keep clear of bending material.
H	ELECTRICAL	MEDIUM	Ensure clamp beam is correctly adjusted. Machine should be installed & checked by a Licensed Electrician. All electrical enclosures should only be opened with a tool that is not to be kept with the machine.
O	OTHER HAZARDS, NOISE.	LOW	Wear hearing protection as required.
Plant Safety Program to be read in conjunction with manufactures instructions			



[www.machineryhouse.com.au](http://www.machineryhouse.com.au)



[www.machineryhouse.co.nz](http://www.machineryhouse.co.nz)

Authorised and signed by:

Safety officer:

Manager:

Revised Date: 12th March 2012