



## 1 Intro

### 1.1 Safety first, second, and third

#### 1.1.1 Pinch safety

#### 1.1.2 Completely unforgiving

#### 1.1.3 Use Guards

Limits unpredictable workpiece behavior – if the machine wants to do something you will not prevent it.

#### 1.1.4 Not toys, no joking around

Unexpected operation can have dire consequences

### 1.2 Mild steel and softer –

**NO HARDENED METAL      NO BAR STOCK**

### 1.3 Report issues on Talk “Issues and requests category”

#### 1.3.1 Tagging “@Team\_Metal\_Shop”

### 1.4 Manuals

On committee drive under “N:\metalworking\Manuals”



## 2 GEKA Usage

### 2.1 Review controls

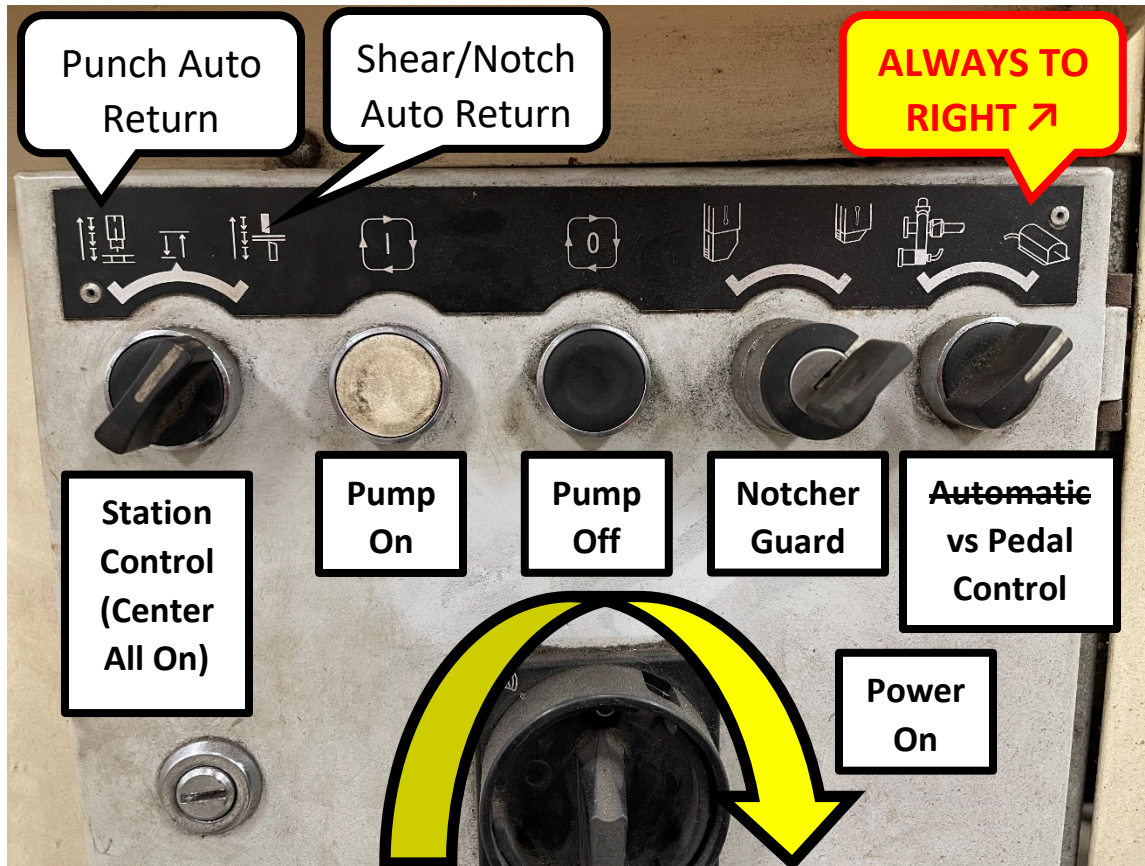


Figure 1 Geka Ironworker Controls

### 2.2 Incremental “Inch” mode/ full stroke mode

Manual calls this “return mode”

### 2.3 Pump on/off

White (I) is ‘machine start’ (Hydraulic pump start)

*No pressure is generated until a foot pedal is operated.*

Black (0) is ‘stop’ (Hydraulic pump off)

### 2.4 Notcher Guards Enabled

### 2.5 Emergency Stops

Large red mushroom head button – mash for stop. Twist (?) and pull to restart.



## 2.6 Foot Pedal Mode (only!)

Make sure machine is in foot pedal mode.

Machine has unfortunately named “electric stop” mode that **starts** a machine cycle. This is a production feature that **we should not use**.

### 2.6.1 Foot Pedals

Have three positions

- Up is “Stop”
- Middle is “Inching” Low speed and reduced pressure
- Bottom is “Full Speed and pressure”

## 2.7 Safety

### 2.7.1 Guards

**Always use them.** Limits unpredictable workpiece behavior – if the machine wants to do something **you** will not prevent it.

Hard metal tools can shatter.

## 2.8 Material Limits

Max Thickness 5/8”

The manual section 3.2.1 on Source provides formulae for calculating maximum thickness for other materials and conditions.

<https://source.dallasmakerspace.org/display/METAL/GEKA+Hydracrop+55+Ironworker>

## 2.9 Mild steel and softer –

### 2.9.1 **NO HARDENED METAL**

### 2.10 Turn on

#### 2.10.1 Badge in

#### 2.10.2 Make Sure Big Rotary Power Switch is on

#### 2.10.3 Press White Pump Start [1] button

### 2.11 Turn off

#### 2.11.1 Badge out to turn off

#### 2.11.2 Don't rely on timer

### 2.12 Two semi-independent sides, one user at a time

### 2.13 Incremental or “inch” mode

### 2.14 Hole punch set and parameters

#### 2.14.1 Diameter no smaller than metal thickness

So NO 1/4” holes punched in 3/8” plate.

Material limits calculations in manual section 3.2.1



## 2.14.2 Punch full Holes

No 'nibbling'

## 2.14.3 Punch lube

First and every few holes

## 2.15 Shearing and angles

## 2.16 Notching

Must use both blades – **NEVER** use notcher for shearing

## 2.17 Cleanup and store punches

## 2.18 Safety

Blades and punches are hardened steel – misuse can cause them to shatter generating hardened steel projectiles

You get to pay for your medical bills and repair of the machine

## 3 Pexto Usage

### 3.1 Safety

Pinch points:

- hold down bar
- shear bar

### 3.2 Material Limits

### 3.3 Mild steel and softer –

#### 3.3.1 **NO HARDENED METAL**

#### 3.3.2 Max thickness

- Mild Steel - 10 gauge – 0.1345" (3.416 mm) thick
- Stainless Steel – 14 gauge - 0.0751" (1.9075 mm) thick

#### 3.3.3 **NO BAR STOCK!**

Even if it fits it will damage the blade and **you** will get to buy the replacement (and they are not cheap!)

#### 3.3.4 Power On/Off

The blue light is always very dimly illuminated even when off. When on it is quite bright.

##### 3.3.4.1 Turn On

Swipe badge and verify success with blue light.

If machine doesn't start check e-stop (rotate to release.)

##### 3.3.4.2 Turn Off

- Badge out (there is no timeout, you must badge out.)
- Verify Blue light is off.



# Geka/Pexto Notes

Metal Shop

3.4 Cleanup and power down

3.5 Safety