MKT V-5ESC MANIFOLD CALIBRATION

These steps will need to be followed to recalibrate the manifold should any of the cartridges need to be adjusted or replaced.

Please read through the instructions thoroughly before performing any of the steps.

ELECTRICAL AND HYDRAULIC CONNECTIONS

If the unit is not currently installed on an excavator with all the proper connections to allow full function of the MKT V-5Esc please refer to the MKT V-5Esc Installation Guide to make the necessary connections.

SAFETY INSTRUCTIONS

The following signal words will be found in this guide and may also be found in the MKT V-5Esc Operation, Maintenance and Service Manual. These words are intended to alert the operator(s) to a hazard and the degree of severity of the hazard.

DANGER Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING Indicates a hazardous situation which, if not avoided, could result in serious injury.

CAUTION Indicates a hazardous situation which, if not avoided, could result in minor injury or moderate injury.

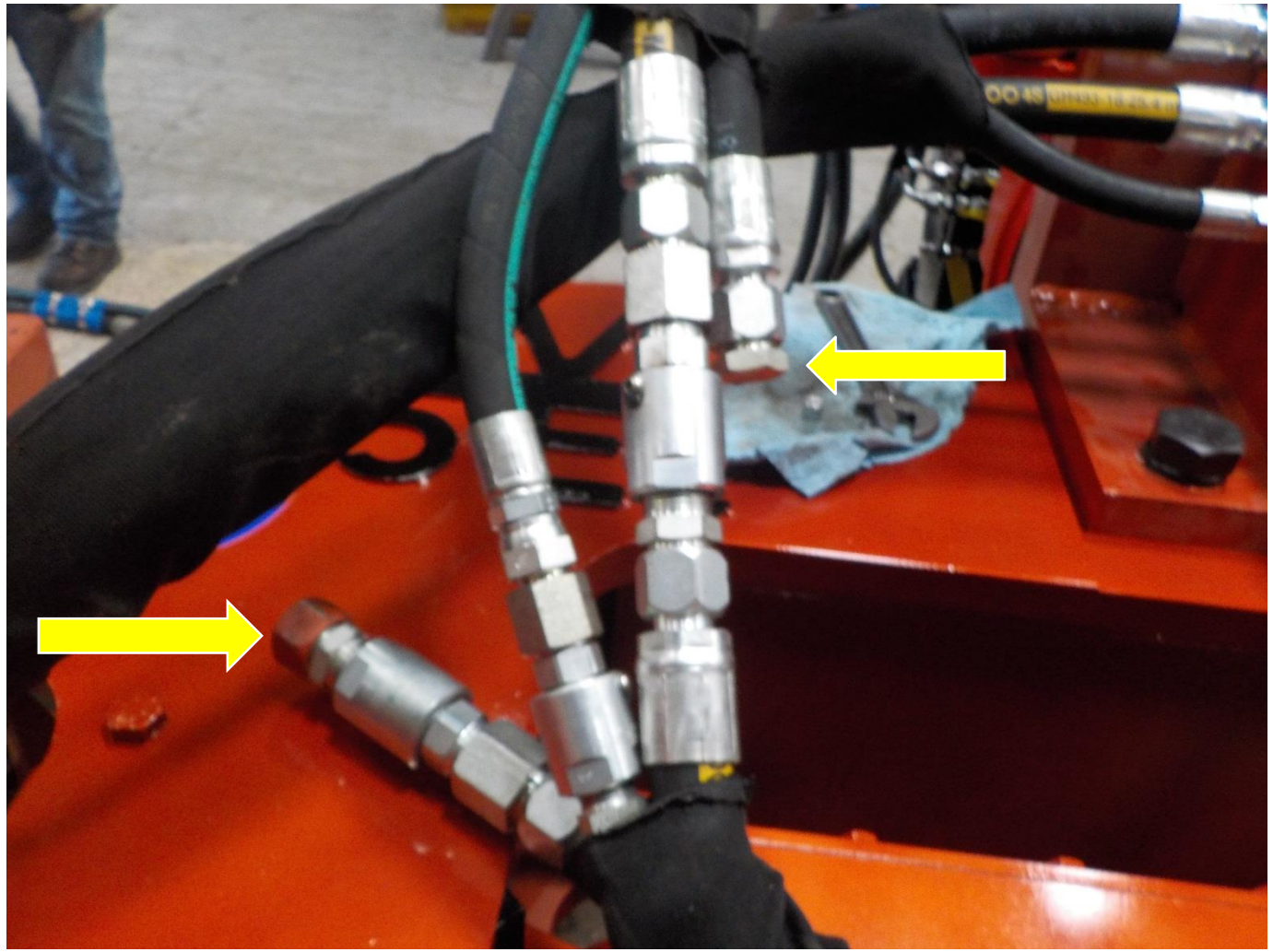
NOTICE Indicates a property damage message.

WITH THE VIBRO IN THE SHIPPING STAND AND ON LEVEL GROUND

This allows easy access to the manifold for calibration

SETTING MAIN RELIEF #2

- Locate the 1 inch hose labeled MP on the manifold. This hose connects to the vibratory motor.
- Disconnect hose at the swivel to cap and plug with a 1 inch JIC fitting.
- **⚠ WARNING** Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.



LOCATE CLAMP CLOSE CROSS OVER

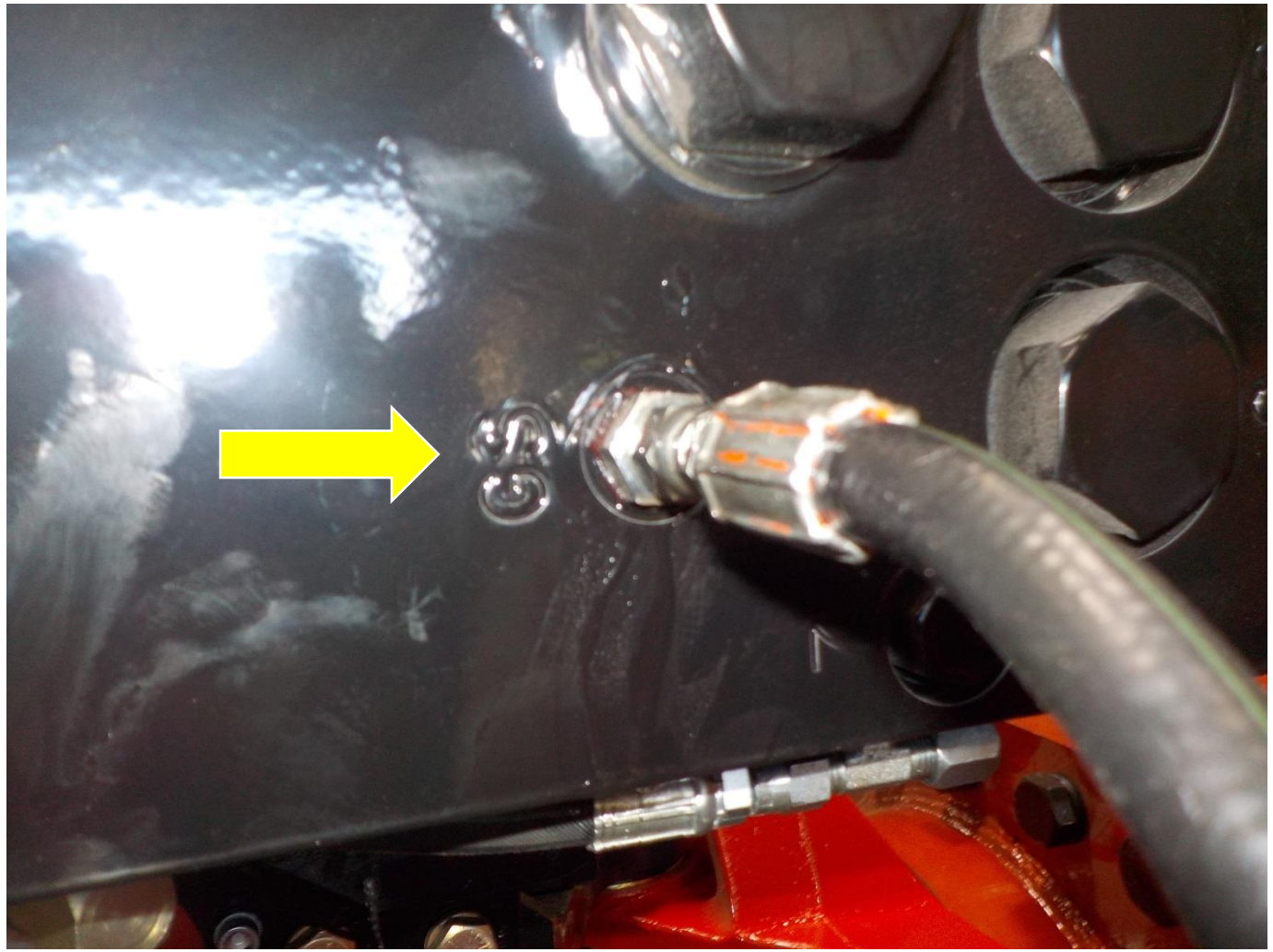
- Locate the ¼ inch hose connected to the clamp close port on the manifold.
- Disconnect and cap the hose and plug the fitting on the manifold.

⚠ WARNING Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.

GAUGE PORT

Connect a 10,000 psi gauge in the port labeled GS on the MKT V-5Esc Manifold.

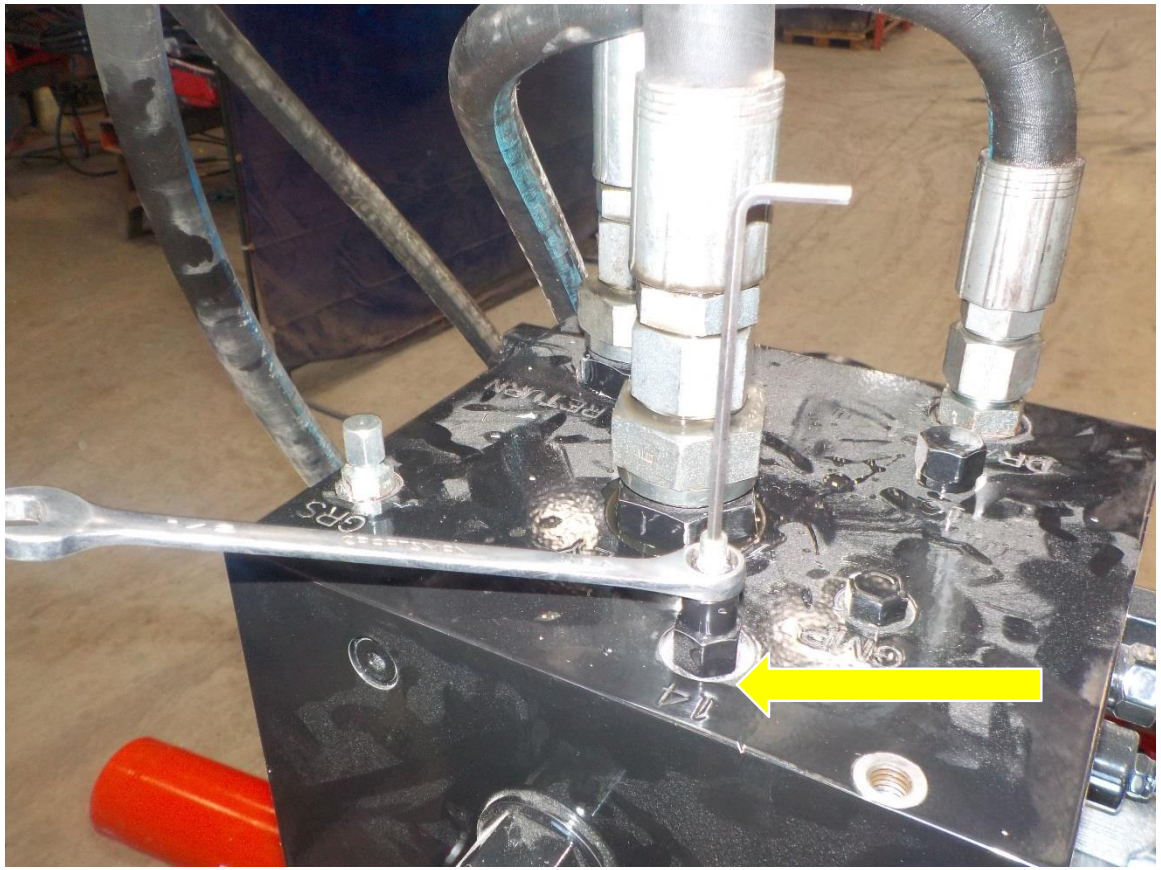
⚠ WARNING Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.



#14 CARTRIDGE

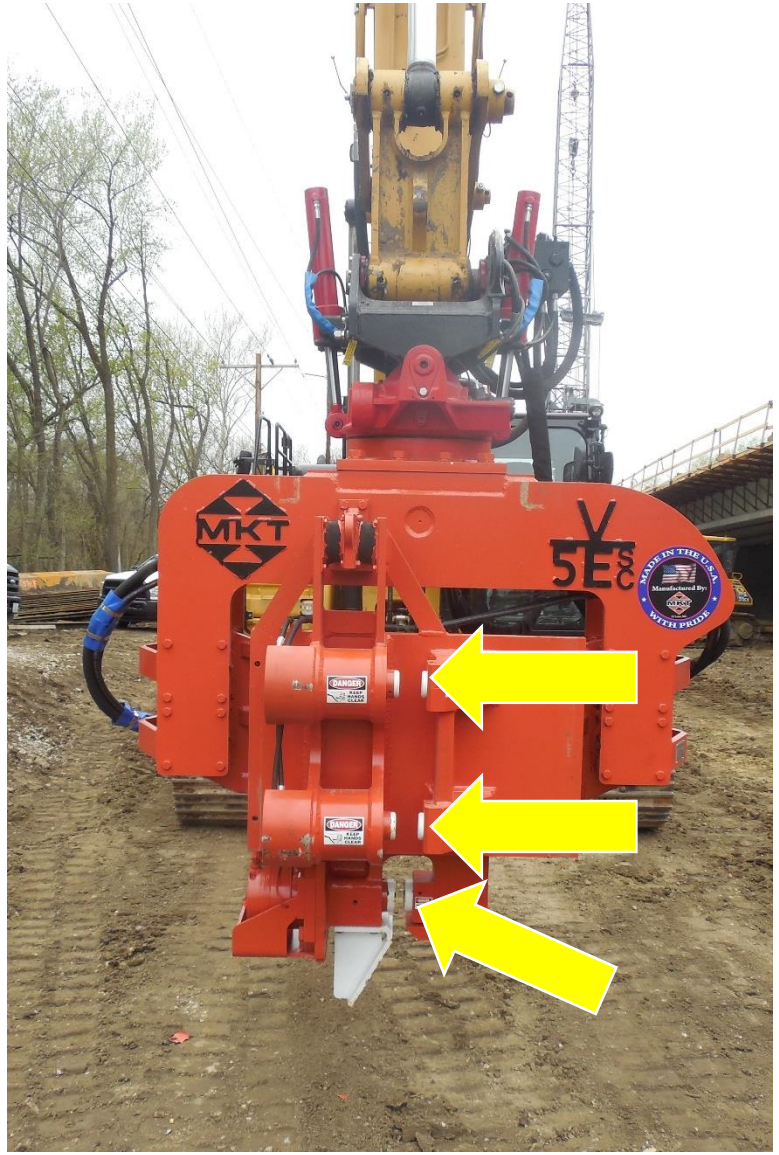
Locate the #14 cartridge and turn it in all the way.

Be careful no to force it in to far and damage the cartridge.



DANGER CLEAR THE AREA

Verify all personnel are clear of the vibratory hammer and the jaws before proceeding to the next step.



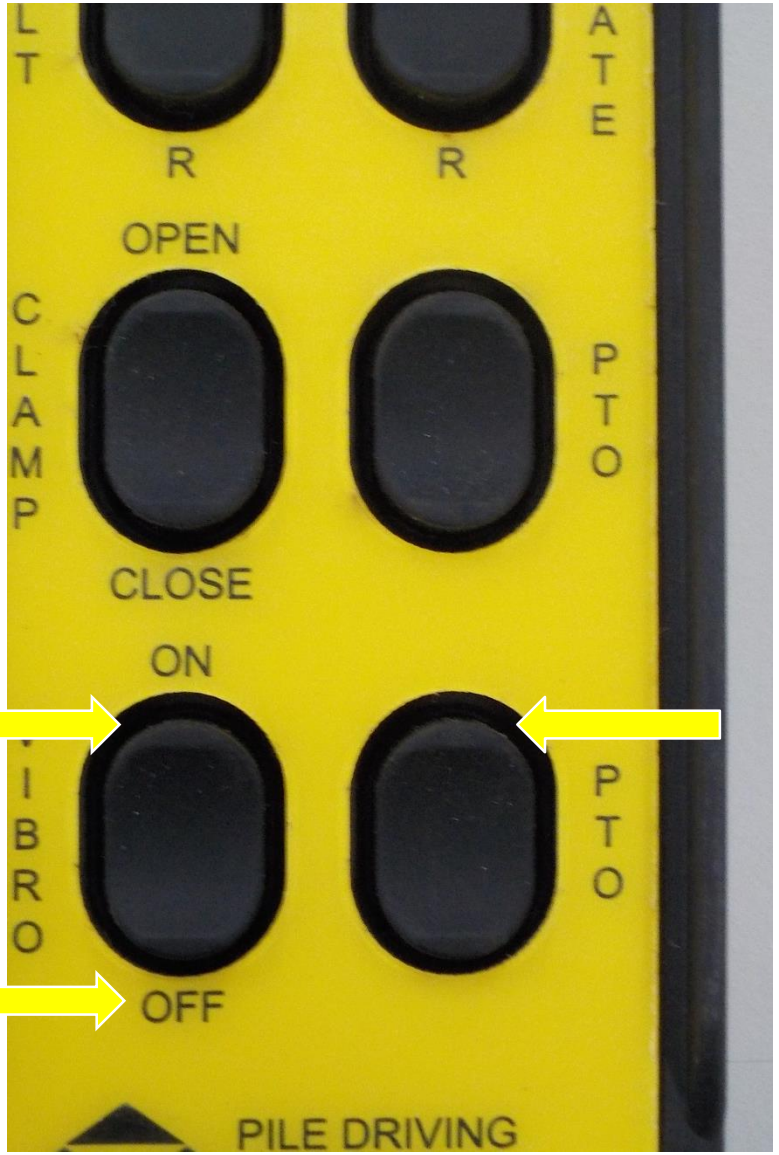
OPERATION OF UNIT

The excavator engine will need to be running for the next step.

The vibratory function is controlled by first holding the button up or down on the PTO switch that is located directly to the right of the vibro function switch.

While you have the PTO held down you will need to push the Vibro switch up to the on position. The vibratory will continue to vibrate with out holding the buttons until you push the vibro function button down to the off position.

While turning the vibratory hammer off you will NOT need to push the PTO button



ADJUST THE MAIN RELIEF CARTRIDGE #2

Adjust the #2 cartridge on the MKT V-5Esc until you obtain a pressure between 3200-3300 PSI on the gauge in the GS port.

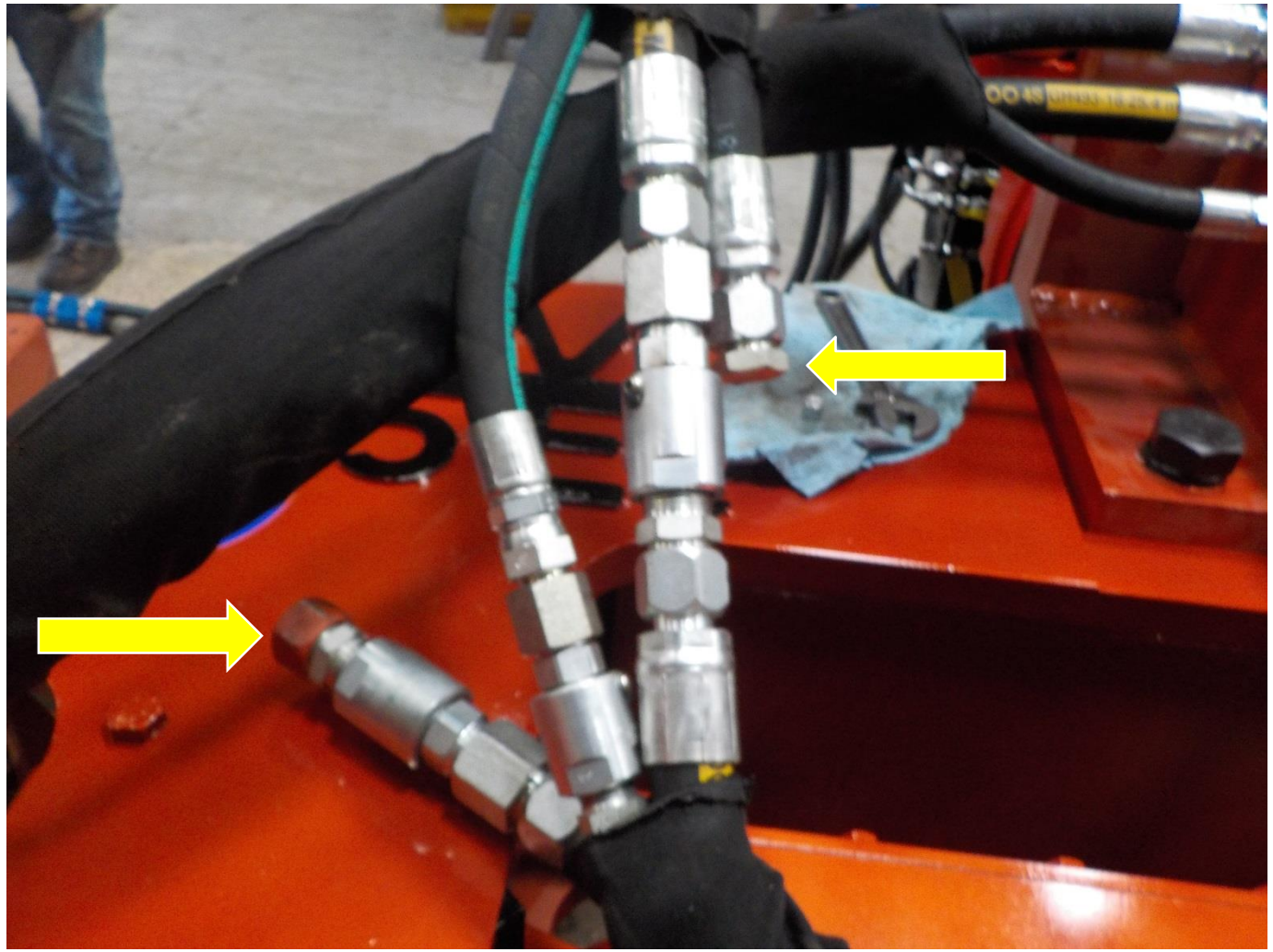
- Turning the set screw in will increase pressure.
- Turning the set screw out will decrease pressure.
- Stop the vibro function as described in the previous slide.

RECONNECTING THE MOTOR LINES

⚠ WARNING Before proceeding to the next step turn the excavator engine off.

Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.

- Locate the 1 inch hose labeled MP on the manifold. This hose connects to the vibratory motor.
- Remove the 1 inch cap and plug and reconnect the hoses together.



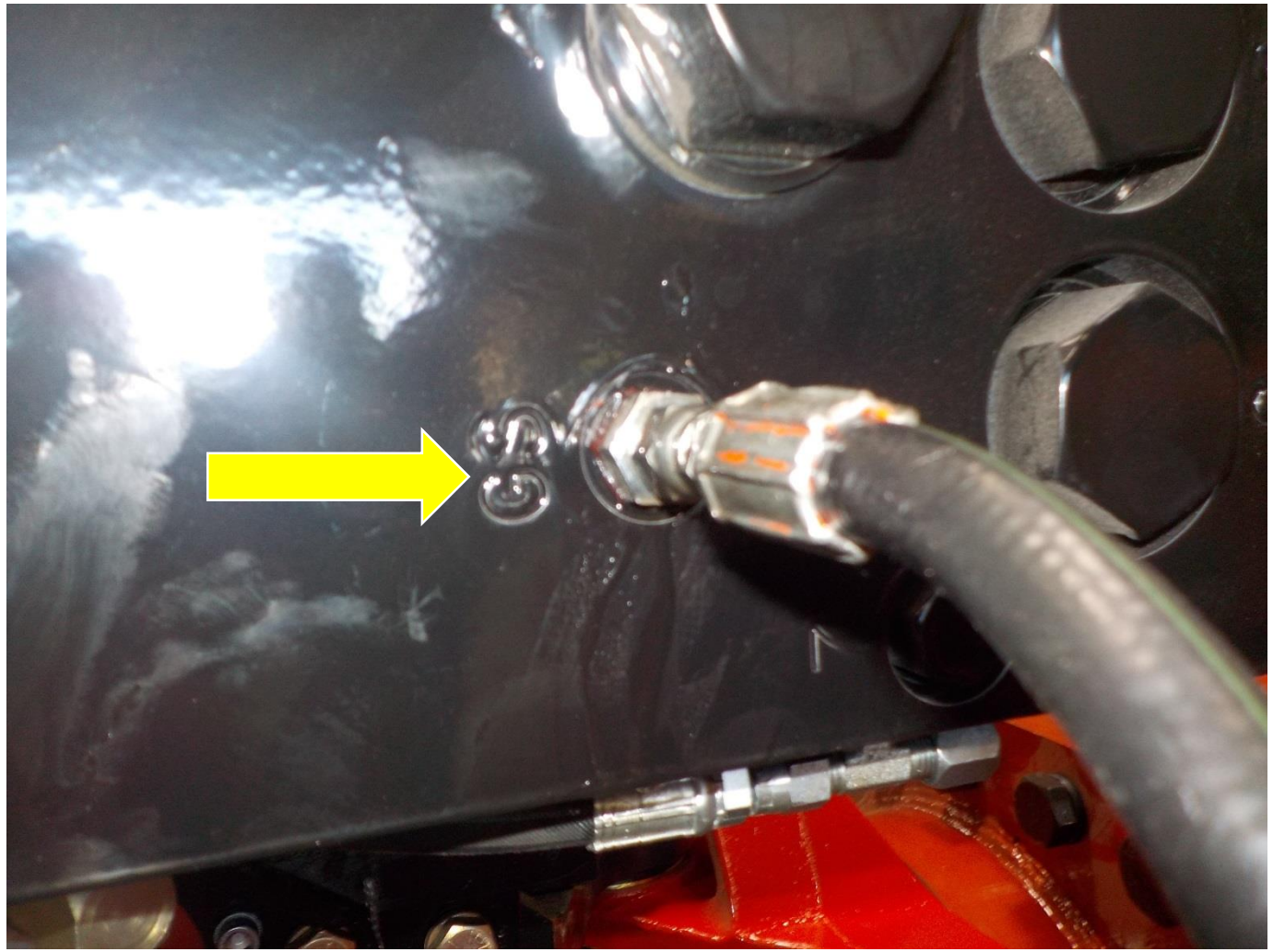
LOCATE CLAMP CLOSE CROSS OVER

- **⚠ WARNING** Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.
- Locate the ¼ inch hose and the fitting that was capped and plugged in the 5th slide.
- Reconnect the hose to the fitting located in the clamp close port in the V-5Esc Manifold.

GAUGE PORT

⚠ WARNING Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.

Disconnect the 10,000 psi gauge in the port labeled GS on the MKT V-5Esc Manifold and replace the cap.



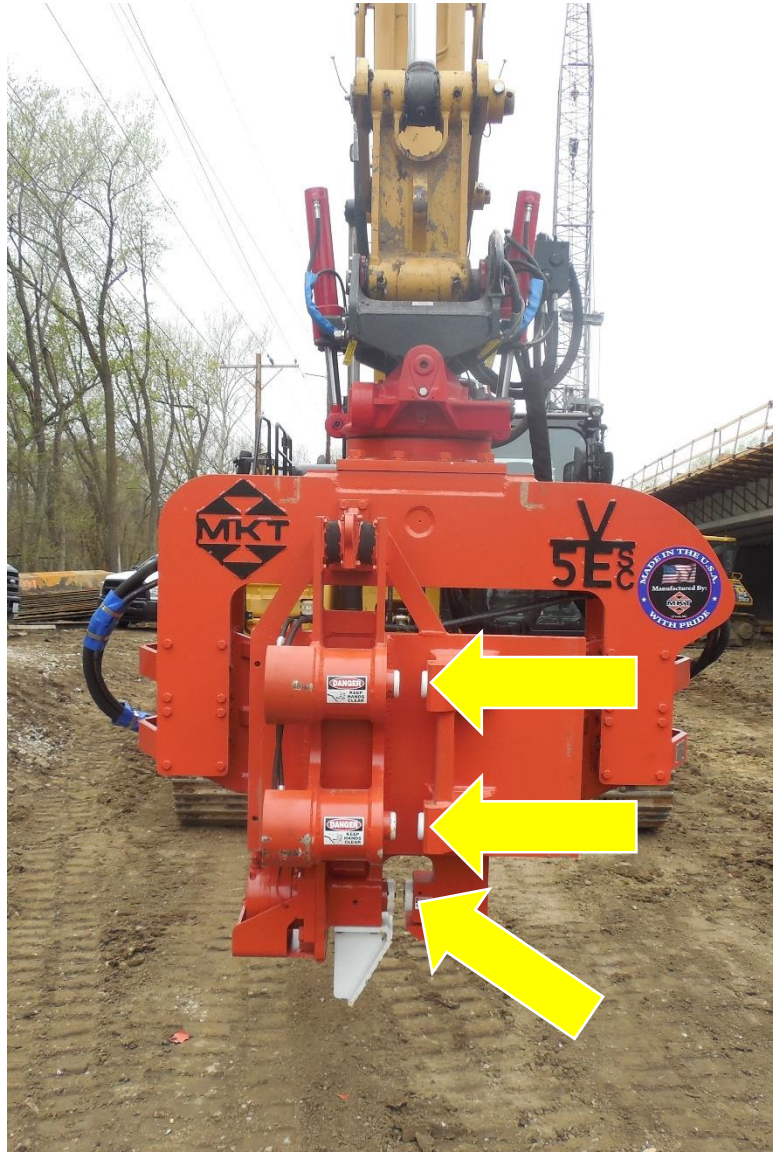
GAUGE PORT

⚠ WARNING Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.

Connect a 5,000 PSI gauge in the port labeled GRS on the MKT V-5Esc Manifold.

DANGER CLEAR THE AREA

Verify all personnel are clear of the vibratory hammer and the jaws before proceeding to the next step.



ACTIVATE THE CLAMP OPEN FUNCTION

The excavator engine will need to be running for the next step.

Clamp function is controlled by first holding the button up or down on the PTO switch that is located directly to the right of the clamp function switch.

Once you have the PTO switch held you can now operate the clamp open by pushing up on the clamp function button.

ADJUSTING CLAMP OPEN

While you have the clamp open function activated you can adjust the #3 Cartridge on the MKT V-5Esc Manifold.

- Turning the set screw in will increase the pressure.
- Turning the set screw out will decrease the pressure.
- Adjust cartridge #3 until you obtain 3,000 PSI on the gauge in the GRS port on the MKT V-5 Esc Manifold.

⚠ WARNING

Before proceeding to the next step turn the excavator engine off.

GAUGE PORT

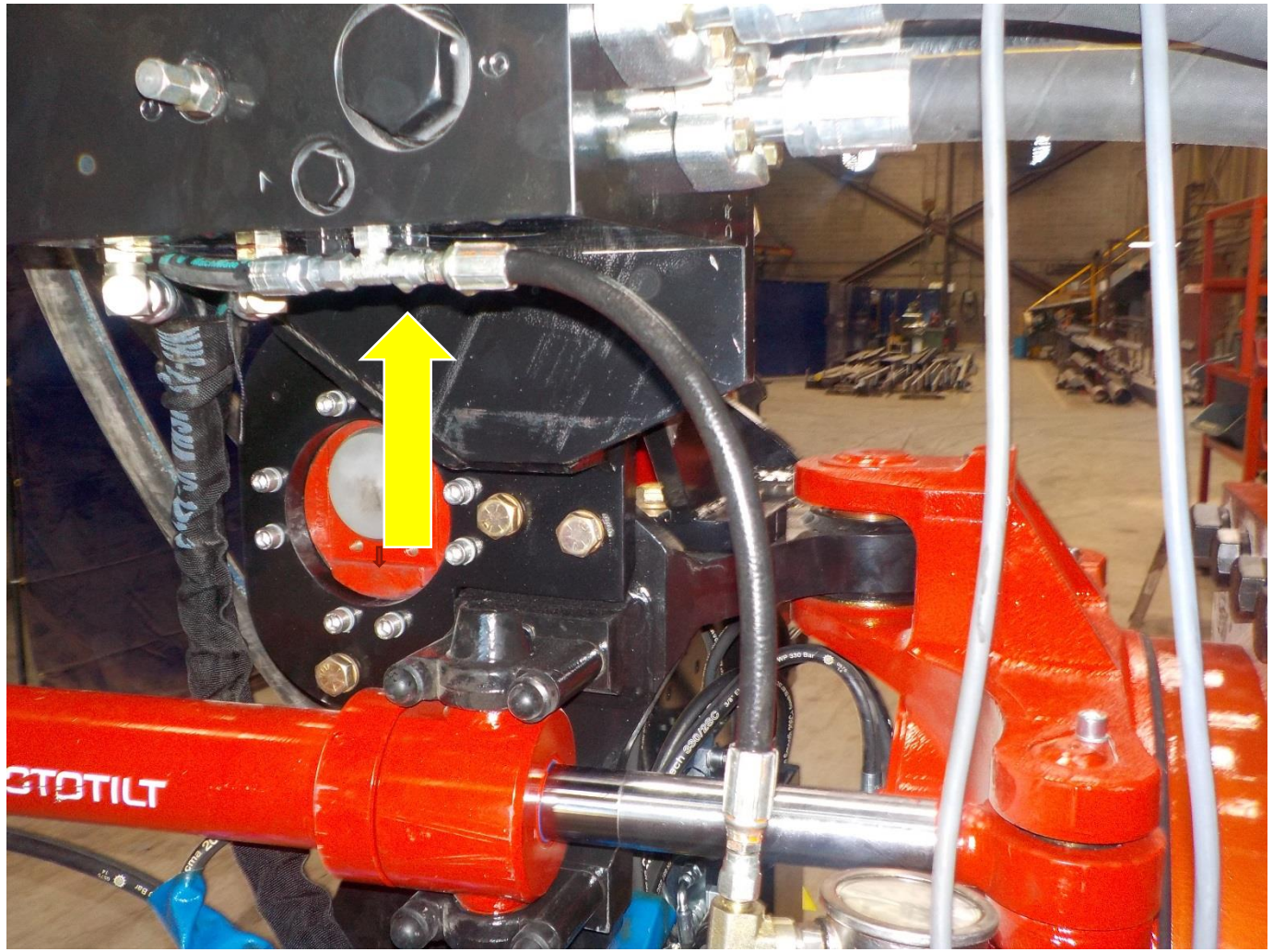
⚠ WARNING Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.

Disconnect the gauge from the GRS port in the MKT V-5Esc Manifold.

CLAMP CLOSE GAUGE PORT

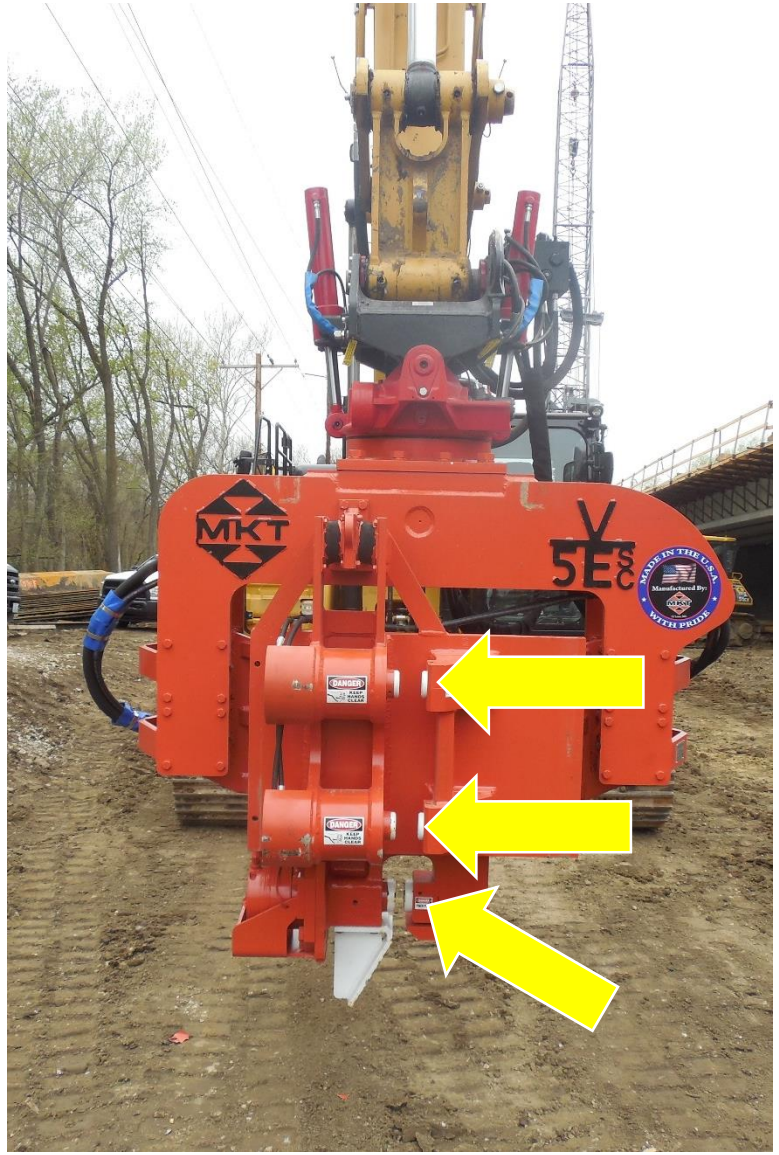
⚠ WARNING Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.

Connect a 5,000 PSI gauge to the T-fitting that is in the clamp close port



DANGER CLEAR THE AREA

Verify all personnel are clear of the vibratory hammer and the jaws before proceeding to the next step.

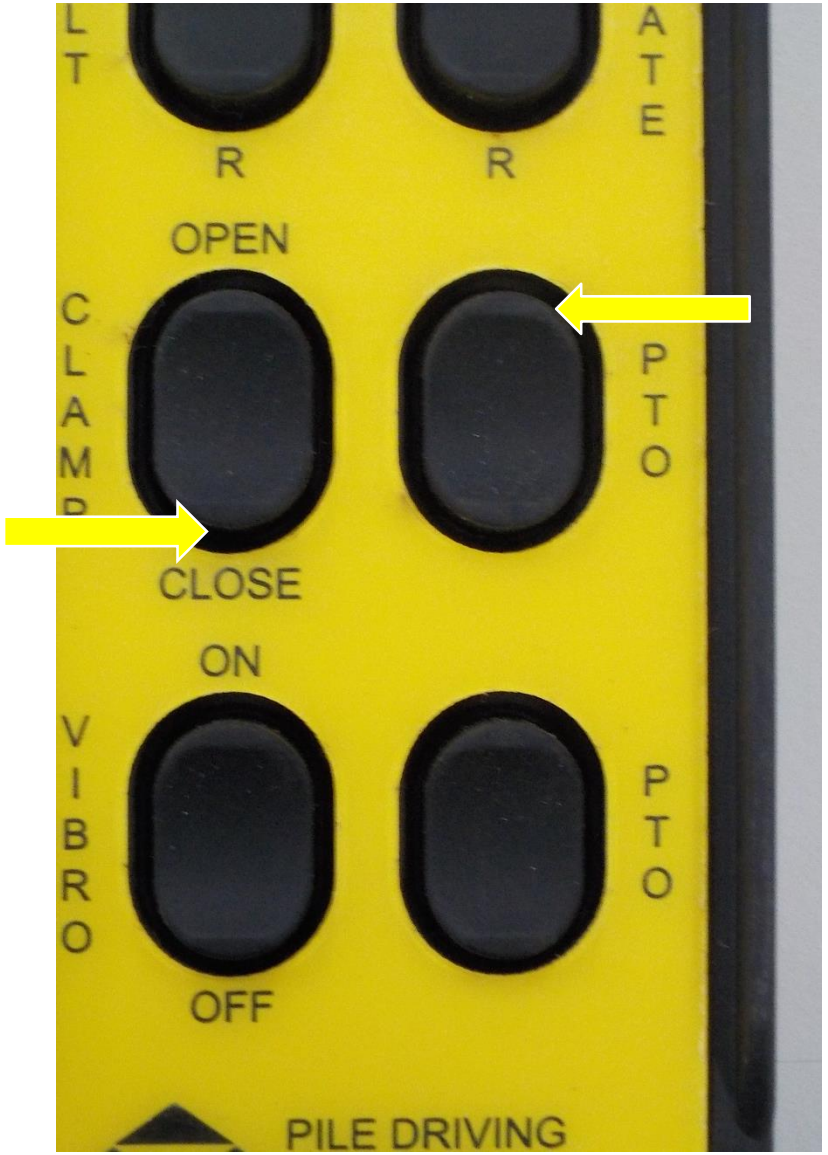


ACTIVATE THE CLAMP CLOSE FUNCTION

The excavator engine will need to be running for the next step.

Clamp function is controlled by first holding the button up or down on the PTO switch that is located directly to the right of the clamp function switch.

Once you have the PTO switch held you can now operate the clamp close by pushing down on the clamp function button.

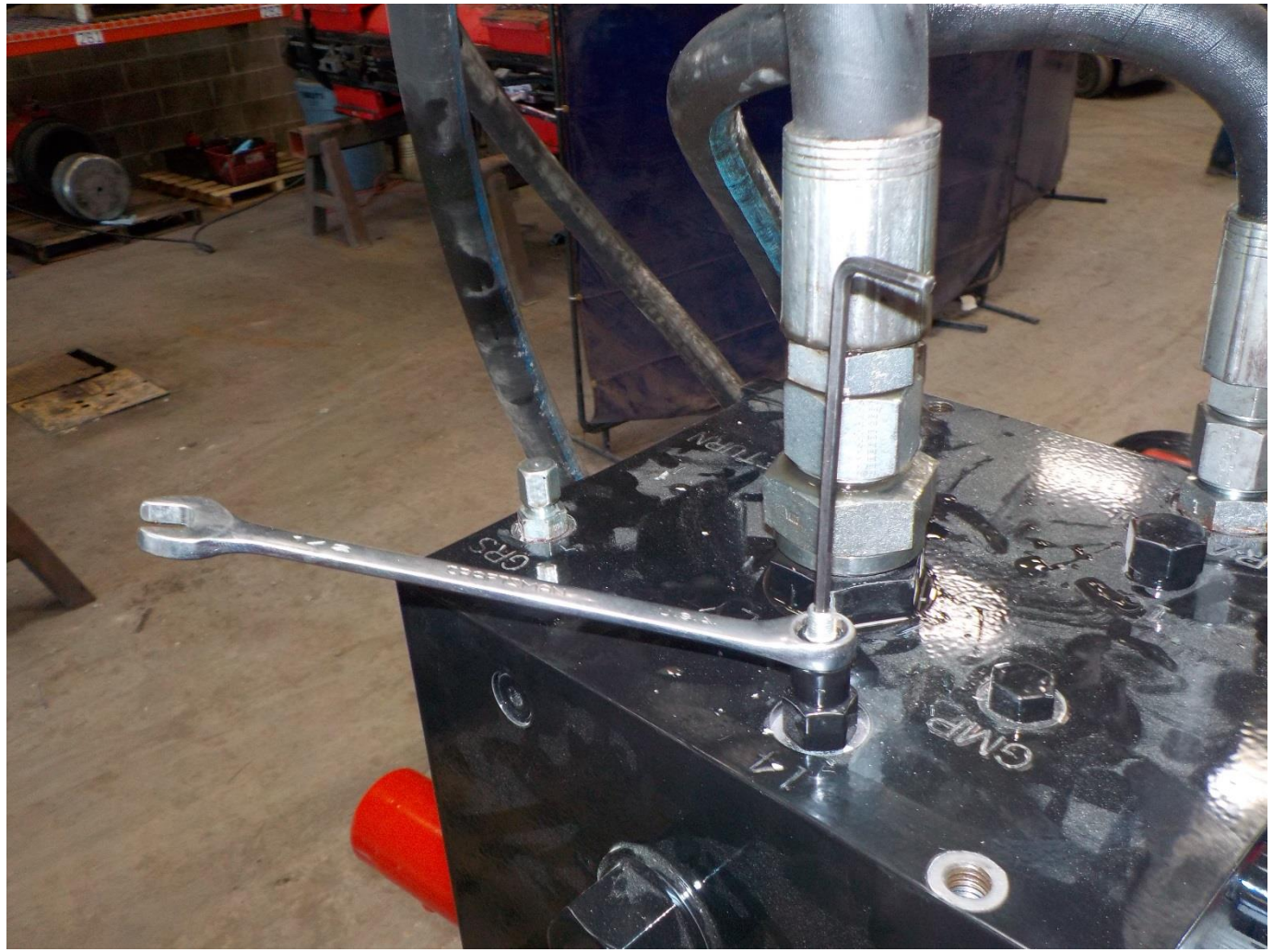


ACTIVATE THE CLAMP CLOSE FUNCTION

While you have the clamp close function activated you can adjust the #14 Cartridge on the MKT V-5Esc Manifold.

- Turning the set screw in will increase the pressure.
- Turning the set screw out will decrease the pressure.
- Adjust cartridge #14 until you obtain 2,500 PSI on the gauge in the clamp close port on the MKT V-5 Esc Manifold.

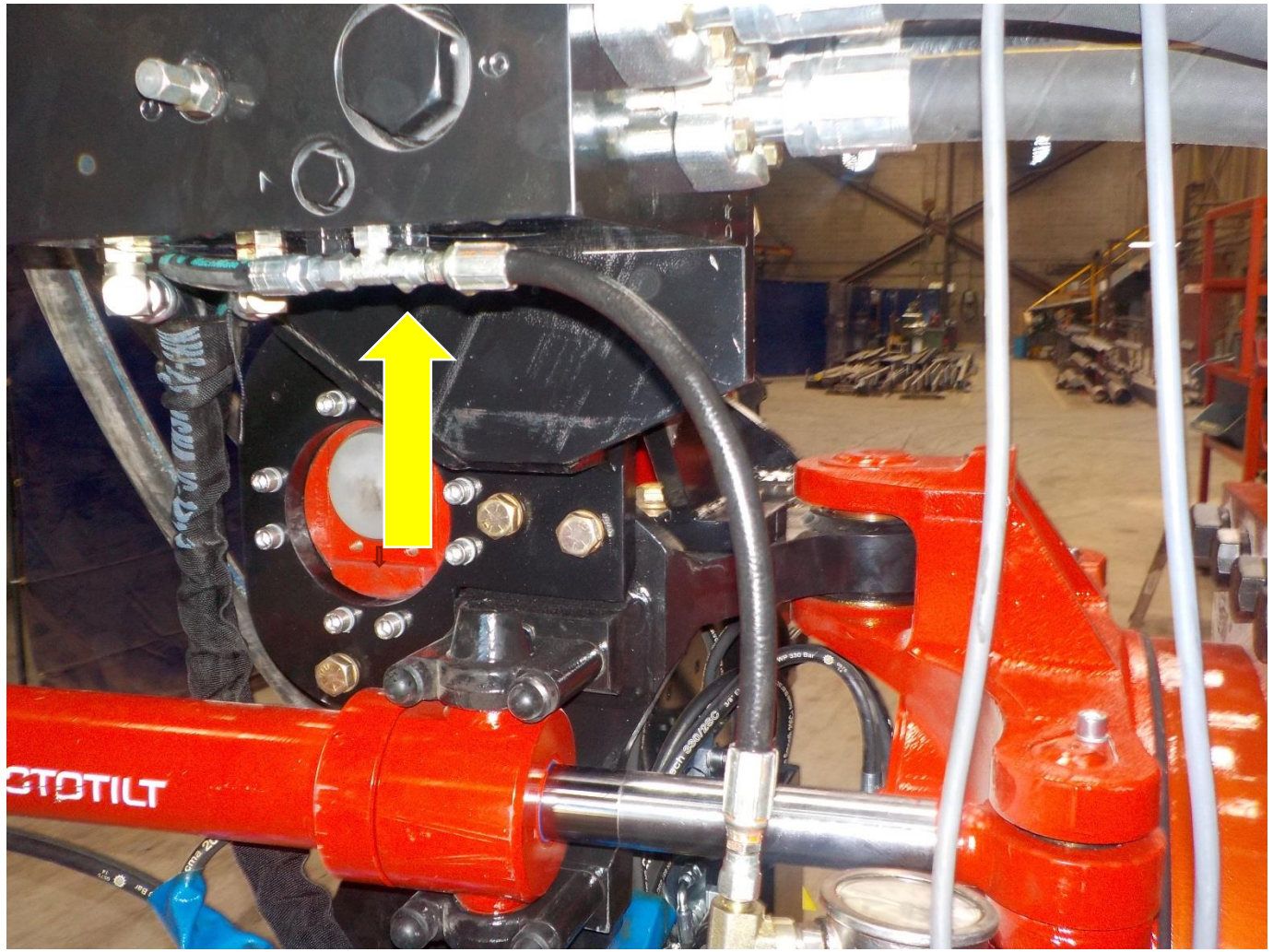
⚠ WARNING Before proceeding to the next step turn the excavator engine off.



CLAMP CLOSE GAUGE PORT

⚠ WARNING Contents of hydraulic components may be under pressure extreme care should be taken when opening any components.

Disconnect the 5,000 PSI gauge on the T-fitting that is in the clamp close port and cap the T-fitting.



SETTING THE CYCLES OF THE MKT V-5ESCVIBRATORY HAMMER

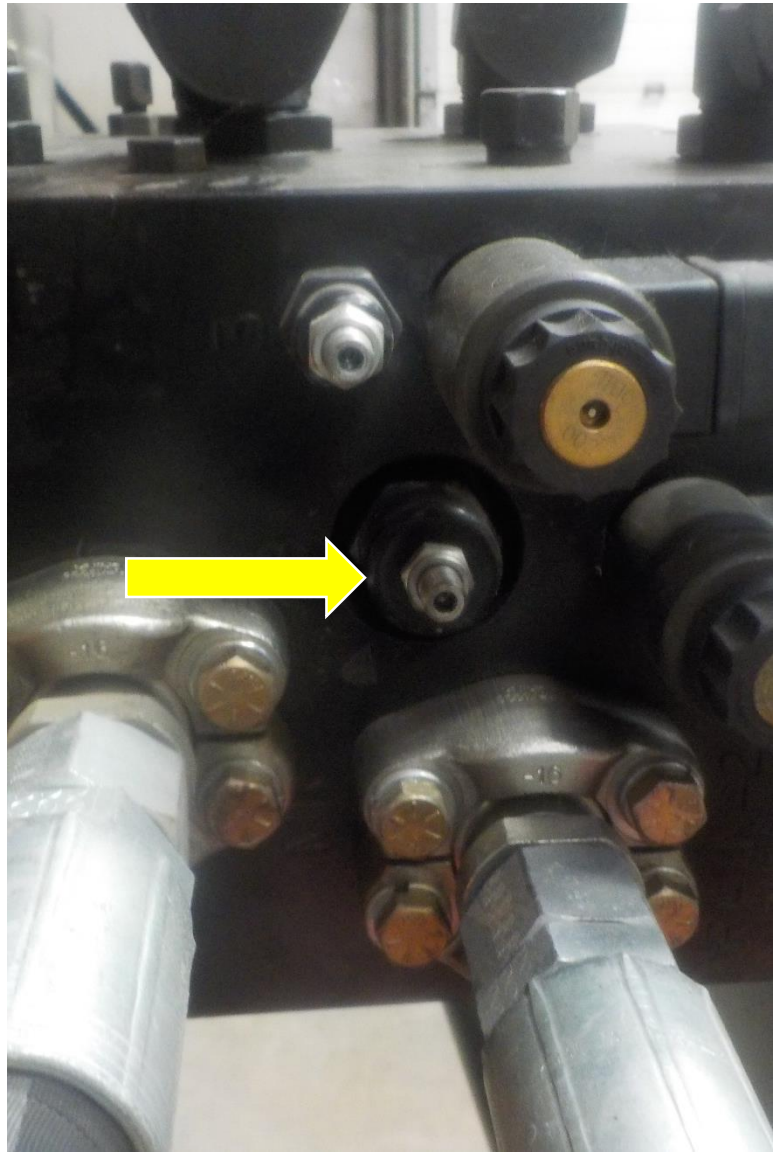
You will need a photo-tachometer like the one in the photo below

Hold the laser or light beam from the photo-Tachometer on the bottom edge of the exciter case while the vibratory hammer is vibrating

ADJUSTING CYCLES

⚠ WARNING To make following adjustments safely you will need to adjust the flow control cartridge on the manifold labeled #8 with the MKT V-5Esc not vibrating.

- Turning the set screw in will slow down the vibratory hammer.
- Turning the set screw out will speed up the vibratory hammer.
- When you have made the necessary adjustments, start the vibratory hammer and check the cycles as explained in the previous slide.
- Repeat the above steps until you obtain a speed between 1625 to 1675 cycles.



CALIBRATION IS COMPLETE

If you have any questions please click on www.mktpileman.com for you nearest MKT representative