



MKT V-22 / HP-365A STANDARD CLAMP INSTALLATION .

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

MKT V-22/HP-365A OPERATING, MAINTENANCE AND PART MANUAL



Prior to the use of this equipment everyone that will be or will assist in the operation of this equipment must read and understand the MKT V-22/HP-365A Operating, Maintenance and Parts Manual. Failure to read and understand the MKT V-22/HP-365A Operating, Maintenance and Parts Manual will result in property damage, severe injury or death.

SAFETY INSTRUCTIONS

The following signal words will be found in this guide and may also be found in the MKT V-22/HP-365A Operation, Maintenance and Parts Manual. These words are intended to alert the operator(s) to a hazard and the degree of severity of the hazard.



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



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



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



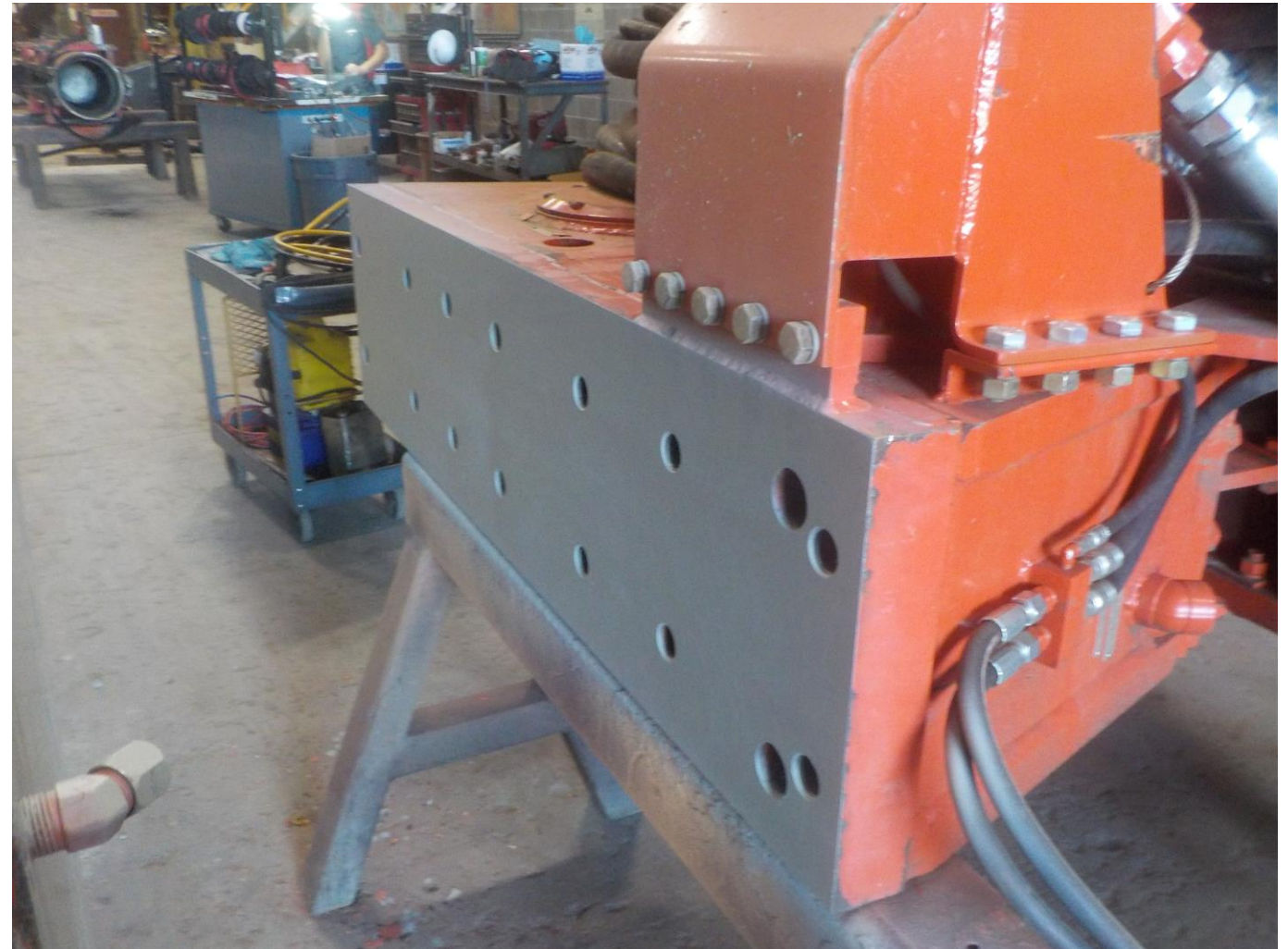
Indicates a property damage message.

STAGE VIBRATORY HAMMER

- Elevate the MKT V-22 Vibratory Hammer to give Adequate room to install all the bolts across the bottom of the Clamp. Elevate the MKT V-22 Vibratory Hammer on flat level ground.
- When elevating the MKT V-22 make sure that what ever is being used to elevate the hammer for assembly is rated for the fully assembled weight (11,500 LBS.) including the hose bundle.



Ensure that what ever is being used to elevate the MKT V-22 Vibratory Hammer is securely positioned to prevent accidental movement or shifting of the MKT V-22 Vibratory Hammer and the Clamp.



INSTALL CLAMP TO MKT V-22 VIBRATORY HAMMER

Install line up pins in proper threaded holes to align the clamp in the center of the MKT V-22 Vibratory hammer.

NOTICE

Make sure that the bottom of the MKT V-22 Vibratory hammer is clean before installing the standard clamp



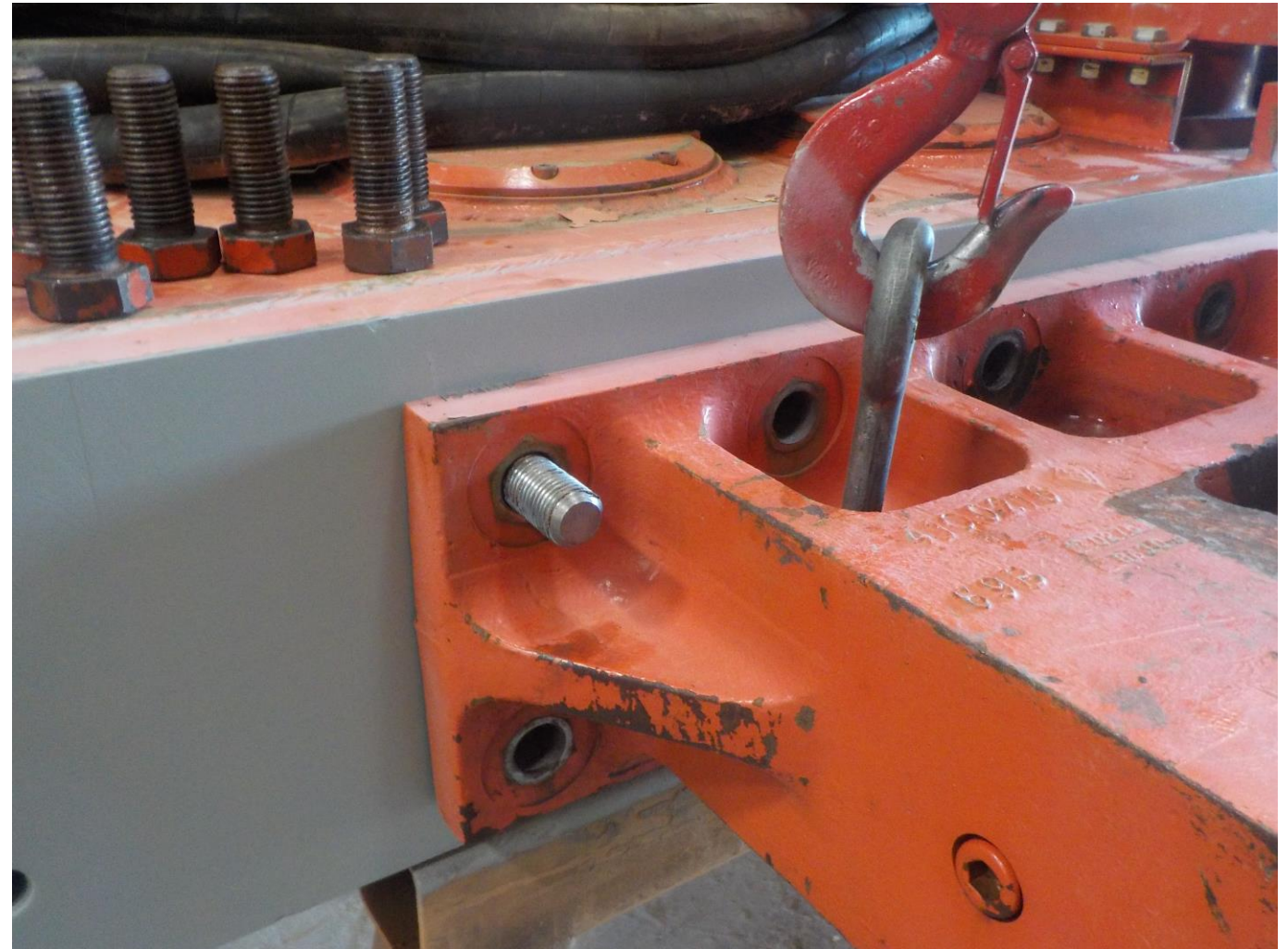
INSTALL CLAMP TO MKT V-22 VIBRATORY HAMMER

- Lay the Clamp down flat, take note of the bolt pattern in the Clamp and the bottom of the MKT V-22. The Clamp will only mount one way.
- The hydraulic fittings should be on the same side as the hydraulic motor
- Suspend the Clamp level with rigging capable of holding the weight of the Clamp assembly (1,550 LBS.)



INSTALL CLAMP TO MKT V-22 VIBRATORY HAMMER

With Line up pins in place and the Clamp suspended, slowly swing the Clamp onto the line up pins. Make sure that you center the Clamp on the MKT V-22 Vibratory Hammer.



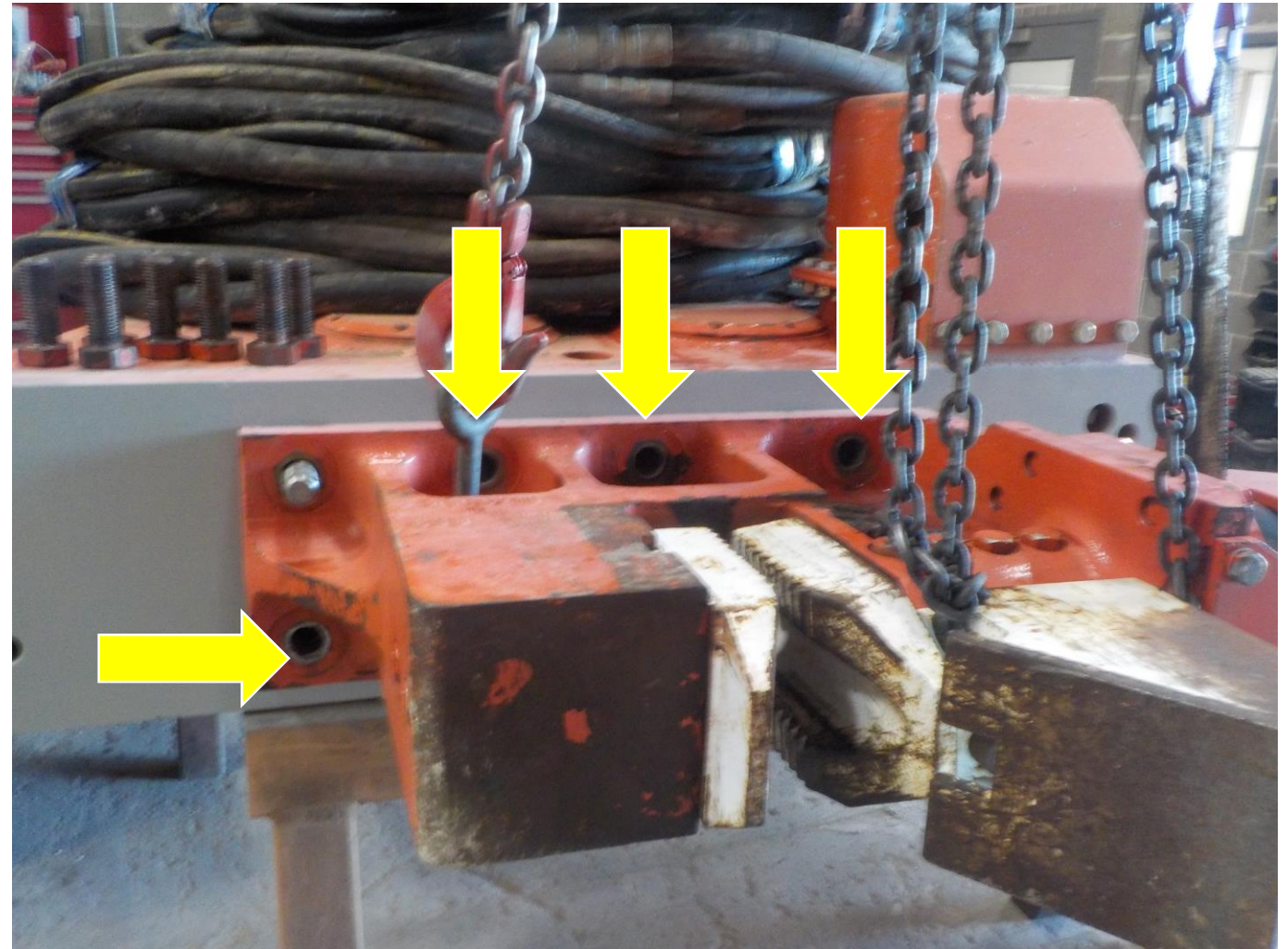
INSTALL CLAMP TO MKT V-22 VIBRATORY HAMMER

Apply a liberal coating of Anti-Seize Lubricant to the 1 ½ x 6 x 4 bolts. You will only need to apply it to the first 2 inches of threads.



INSTALL CLAMP TO MKT V-22 VIBRATORY HAMMER

- After applying Anti-Seize to the bolts thread all bolts into open holes by hand before removing Line-up pins.
- All bolts should thread in by hand if they do not check the thread or check the alignment of the Clamp to the MKT V-22 Vibratory Hammer.
- Once you have all bolts installed by hand you will need to torque the 1 ½ x 6 x 4 bolts to a torque specification of 1950 ft. lbs.



INSTALL CLAMP TO MKT V-22 VIBRATORY HAMMER

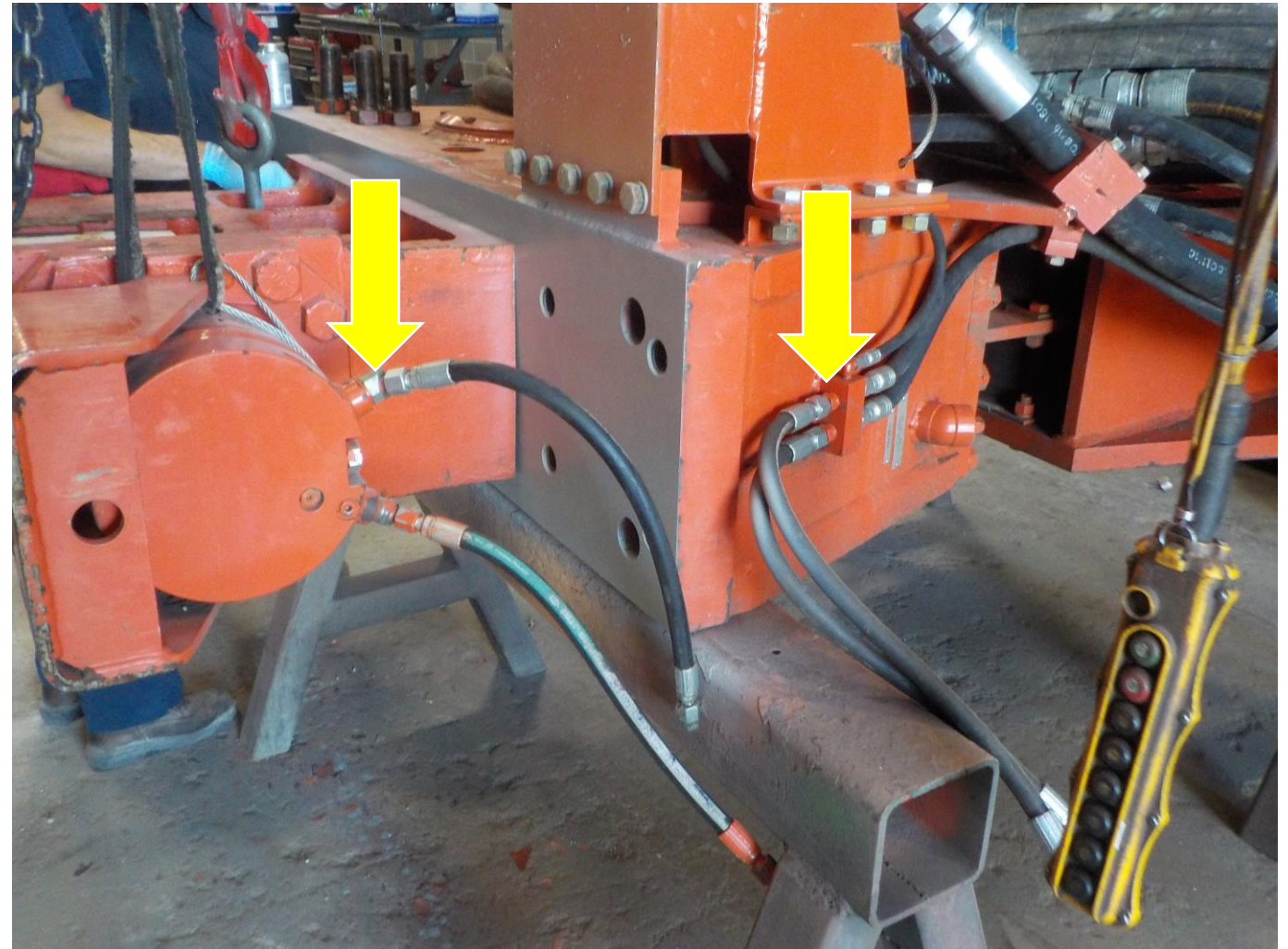
- Once you have all of the bolts torqued to the proper specification 1950 ft. lbs.



WARNING

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

- Attach the clamp close side and clamp open side of the Clamp to the proper port on the MKT V-22 clamp manifold using the ½ inch hoses 22 inches long.



INSTALLATION OF THE CLAMP TO THE MKT V-22 VIBRATORY HAMMER IS COMPLETE

Please continue to the next section to complete the start up procedures.

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HP-365A HYDRAULIC POWER UNIT

Place the Hydraulic power unit on flat level ground. Make sure that the MKT V-22 Vibratory Hammer will reach where the pile is being driven with a 150 foot hose bundle.



DOOR KEYS

All power units are locked before transport. Keys to unlock the doors can be found wired to the Quick Disconnect.



LEAVE THE DOORS OPEN OR CLOSED

- During warm weather open all doors
- Maximum hydraulic oil temp is 180 degrees Fahrenheit. A temperature Gauge will flash if the temperature gets above 167 degrees Fahrenheit.
- During cold weather close all doors
- Hydraulic oil temperature needs to be at or above 50 degrees Fahrenheit before operating the vibratory hammer.



START UP PROCEDURES

Check all fluid levels in
the engine

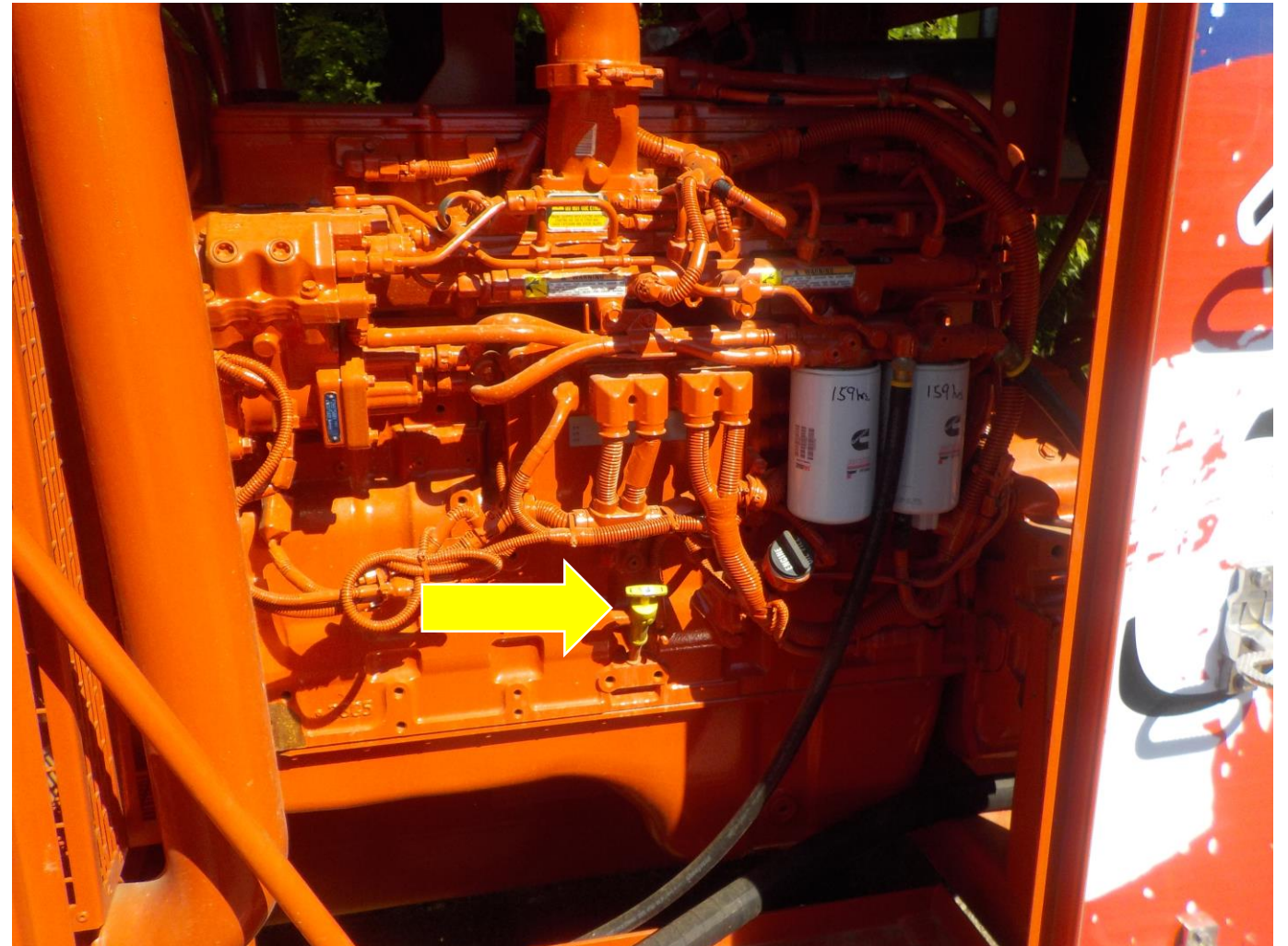
If the radiator coolant
is low, fill with Shell
Rotella ELC mixed
50/50



START UP PROCEDURES

Check all fluid levels in
the engine

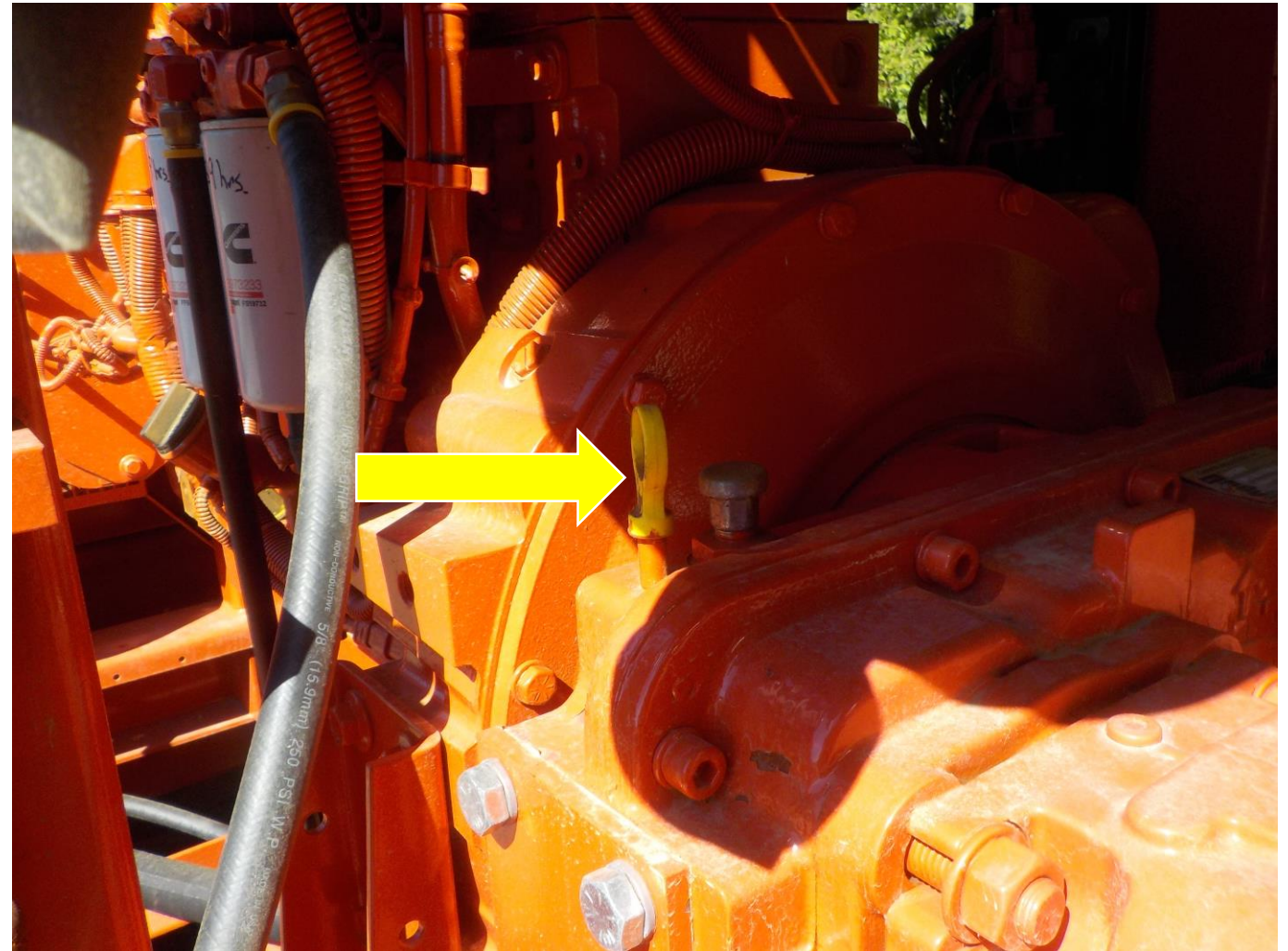
If engine oil is low, fill
with Shell Rotella T
Triple Protection
15w-40



STARTUP PROCEDURES

Check all fluid levels in
the engine

If pump drive oil is low,
fill with Shell Omalla
220 or equivalent

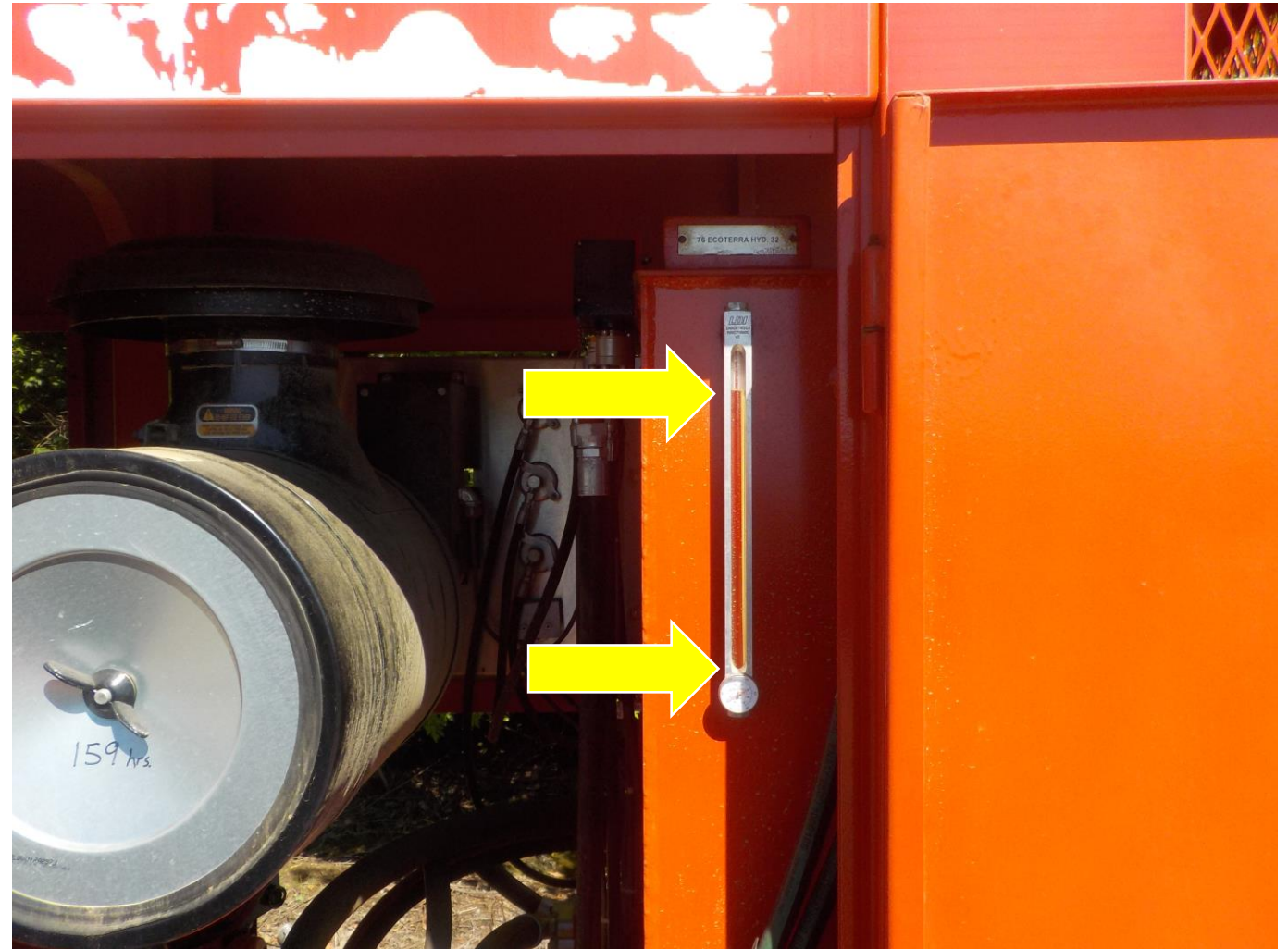


STARTUP PROCEDURES

- Check the level of the Hydraulic fluid on the gauge on the side of the tank.
- If the hydraulic fluid is low, fill the tank with Phillips 66 Ecoterra ISO 32.

NOTICE

If the hydraulic oil is below the site glass do not start the diesel engine. Fill hydraulic tank with recommended hydraulic fluid before start up of diesel engine. Severe damage to the main hydraulic pump could occur.



STARTUP PROCEDURES

- With the MKT V-22 laying flat on the ground you can now unroll the hose bundle using a strap rating for the hose bundle's rated capacity full of oil (1,800 LBS.).
- Unroll the bundle and lay out across the ground taking care not to kink the hoses or allow loops to form in the bundle. The large 1 ½ inch high pressure and return line have a bend radius of 16 ½ inches.

NOTICE

- Do not use chains to handle the hose bundle. Chains can and will damage the hoses.



STARTUP PROCEDURES

- Once you have the hose bundle laid out on the ground you can begin to make the connection to the power unit.
- Clean all Quick Disconnects with diesel fuel and wipe clean before making each connection.

NOTICE

Do not use any type of harsh chemical to clean Quick Disconnect. An example is brake cleaner or paint thinner, these types of cleaner will damage the o'ring in the Quick Disconnect that creates the seal and prevents it from leaking.



STARTUP PROCEDURES

The MKT V-22 hammer is factory fitted with its suspension assembly and is shipped on its side. It is designed to receive a 7/8 inch multiple loop wire rope sling properly sized and clamped to provide a factor of safety of five times the 45 ton maximum line pull capacity of the hammer, which in turn can be slipped over a lifting crane hook. The MKT V-22 hammer can be lifted from the horizontal to the vertical without danger of excessive stresses upon its connecting parts or structure.



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DANGER

WHEN STARTING THE
DIESEL ENGINE DO NOT USE
ETHER.

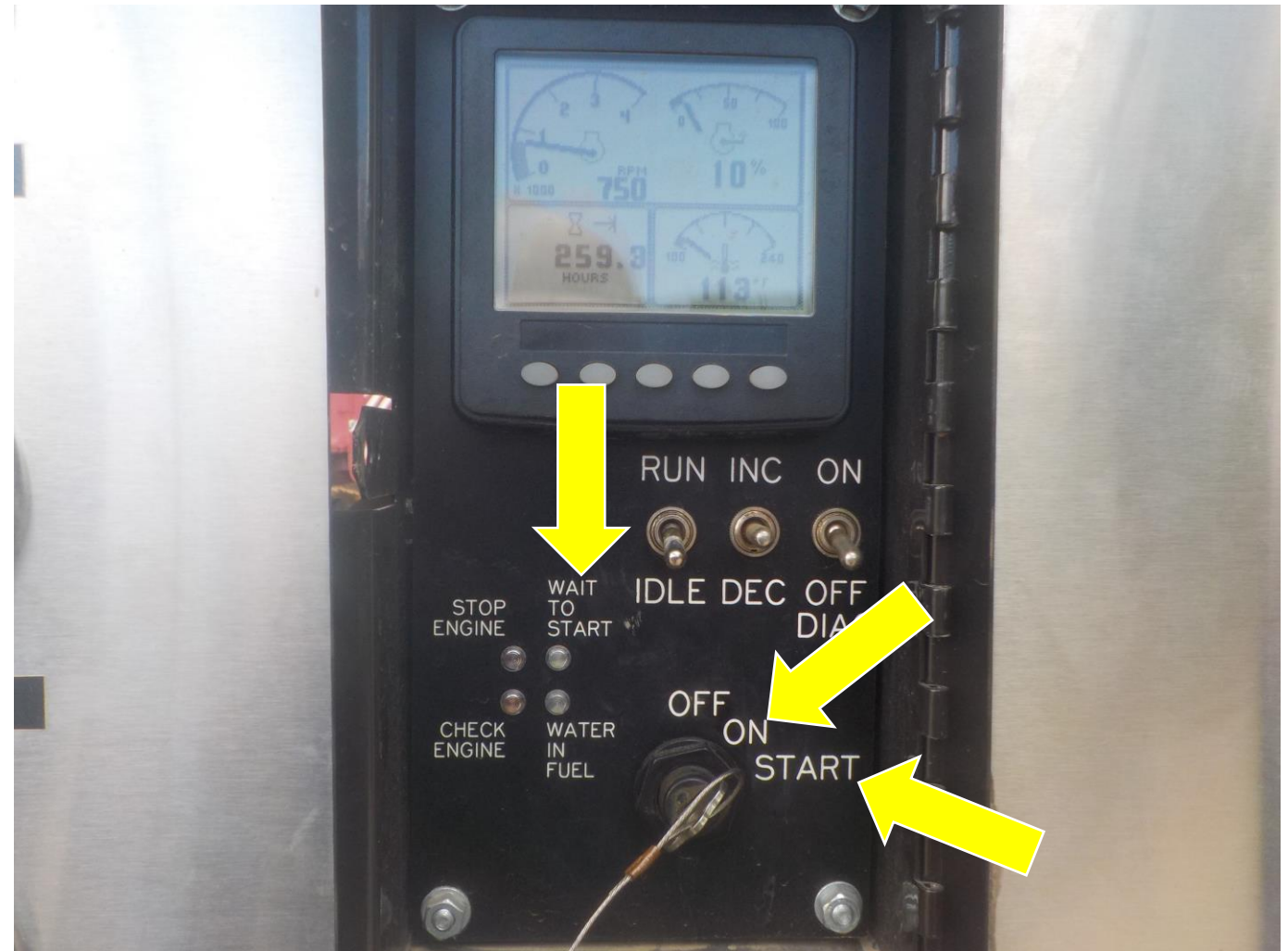
The engine is equipped with an electric heater starting aid and the use of ether may cause severe injury.

STARTUP PROCEDURES

- To start the diesel engine turn the key to the on position.
- Wait until the light goes out on the Wait to Start Light.
- When the light goes out turn the key to the start position and hold until the engine starts.

NOTICE

If engine fails to start in 10 seconds turn the Key to the off position and repeat the above steps.

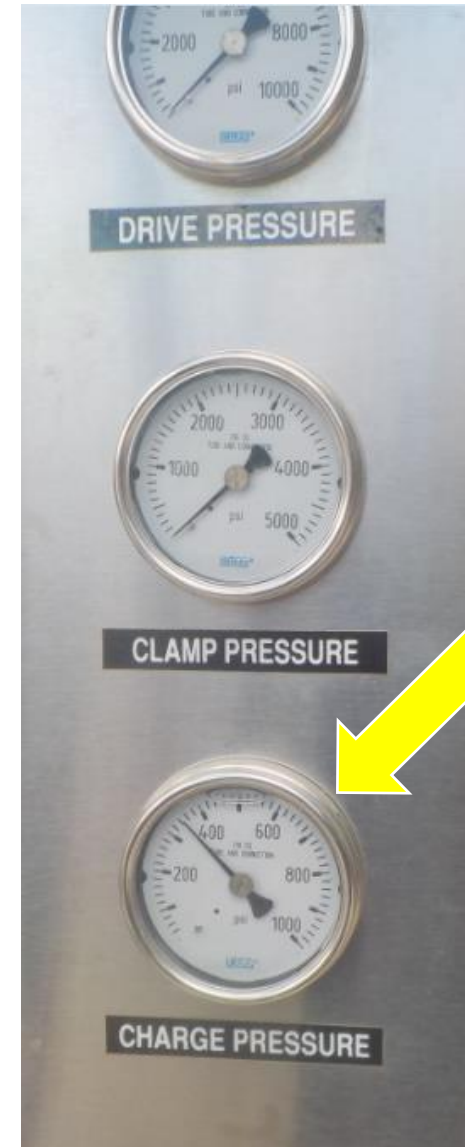


STARTUP PROCEDURES

Once you have the diesel engine running verify that you have charge pressure on the Charge Pressure Gauge.

NOTICE

A minimum charge pressure of 150 psi should be visible with the Diesel engine at an idle.





DANGER

CLEAR THE AREA

Make sure all personnel are clear of the MKT V-22 before proceeding to the next step.

Stay clear of jaws at all times.



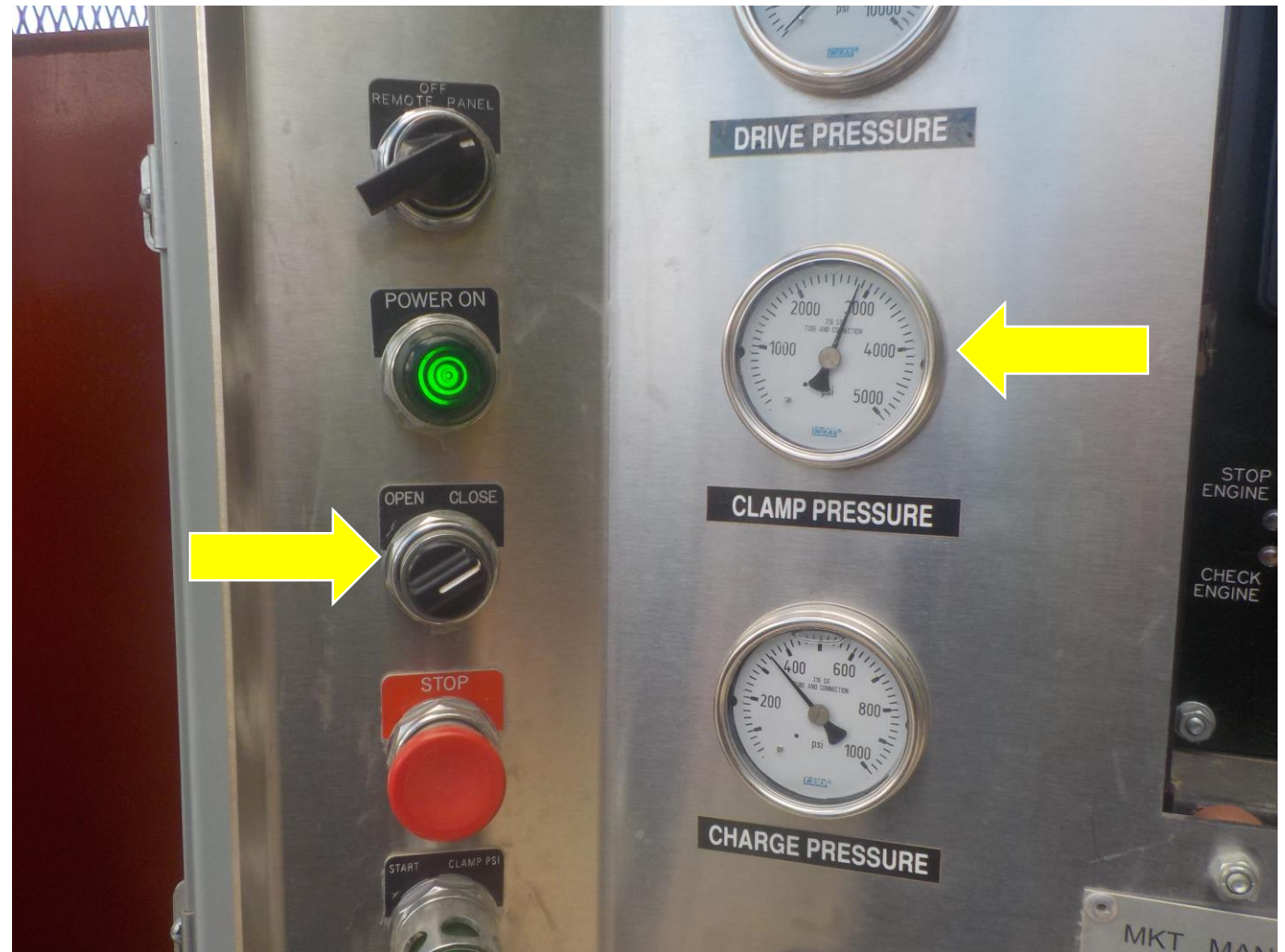
STARTUP PROCEDURES

- Turn the panel selector knob to panel to operate the MKT V-22 with the panel.
- Turn the panel selector knob to remote to operate the MKT V-22 with the remote pendant.



STARTUP PROCEDURES

- Turn the clamp selector switch to close. The switch will latch to close.
- Verify that you have clamp pressure.
- This may take a few seconds for the clamps to close and build pressure.



STARTUP PROCEDURES

- With the clamp selector switch in the closed position.
- Verify that the flushing orifice is functioning properly.
- You should hear a hissing noise coming from the 1/4 inch hose.
- If you do not hear a hissing noise please refer to the Instructional Guide on cleaning the flushing orifice.



STARTUP PROCEDURES

NOTICE

When ever the hydraulic lines of the MKT V-22 system have been reconnected and or when hydraulic repairs have been made, the clamp cylinders must be bled of entrained air.

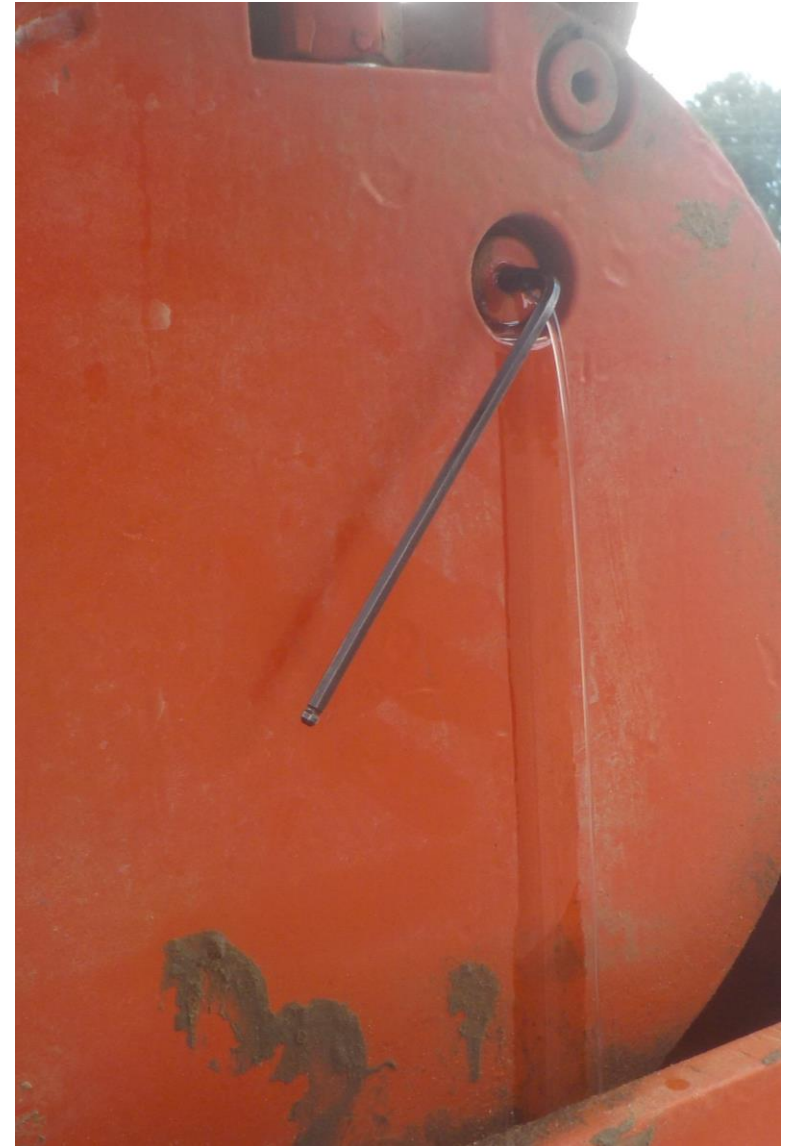
This procedure must be done with the hammer hanging vertical.



WARNING

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

- With the clamp selector switch in the close position, using the proper tools (1/8 inch Allen) unscrew the vent valve located on the back face of the clamp cylinder. **Do not back vent screw all the way out!**
- Allow oil to vent approximately 30 seconds or until an air free stream of oil comes from each vent screw.



STARTUP PROCEDURES

NOTICE

When ever the hydraulic lines of the MKT V-22 system have been reconnected and or when hydraulic repairs have been made, the clamp cylinders must be bled of entrained air.

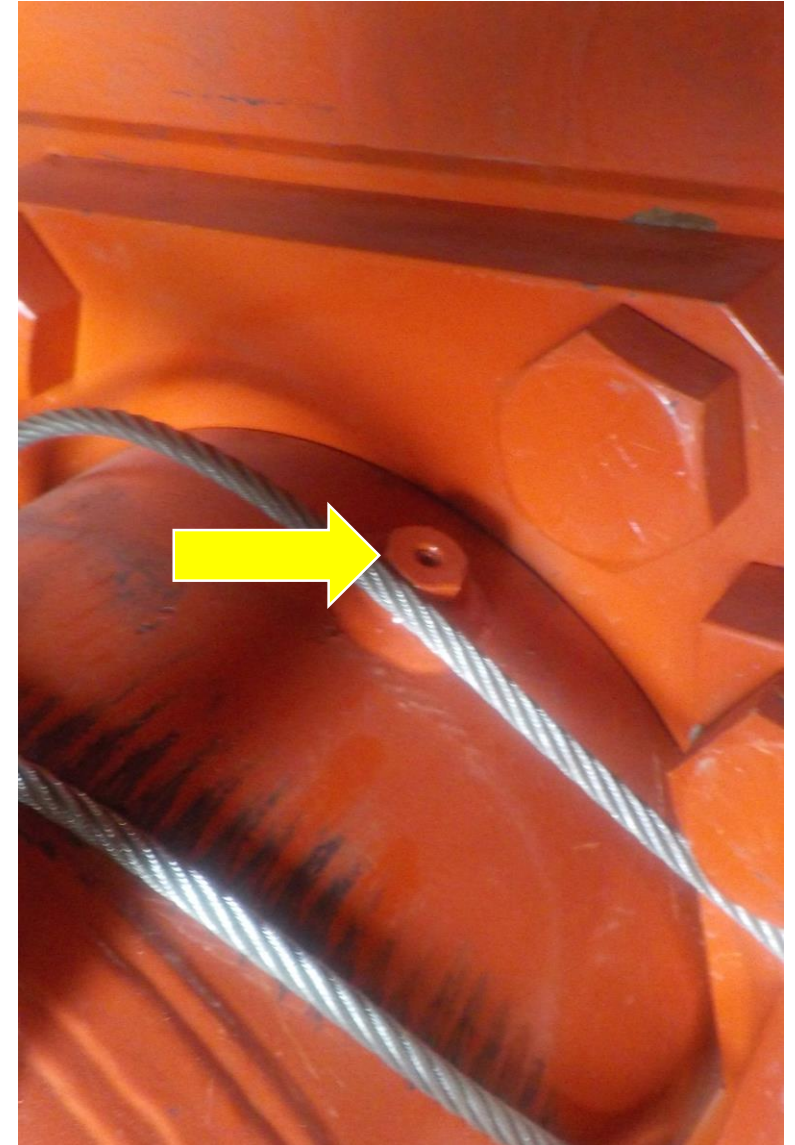
This procedure must be done with the hammer hanging vertical.



WARNING

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

- With the clamp selector switch held in the open position, using the proper tools (1/8 inch Allen) unscrew the vent valve located on the front end of the clamp cylinder. **Do not back vent screw all the way out!**
- Allow oil to vent approximately 30 seconds or until an air free stream of oil comes from each vent screw.

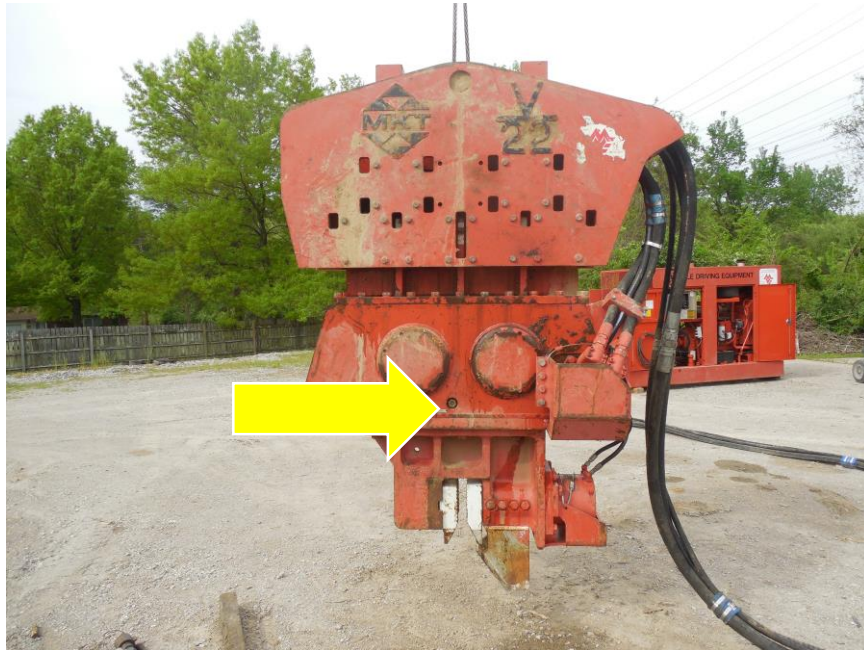




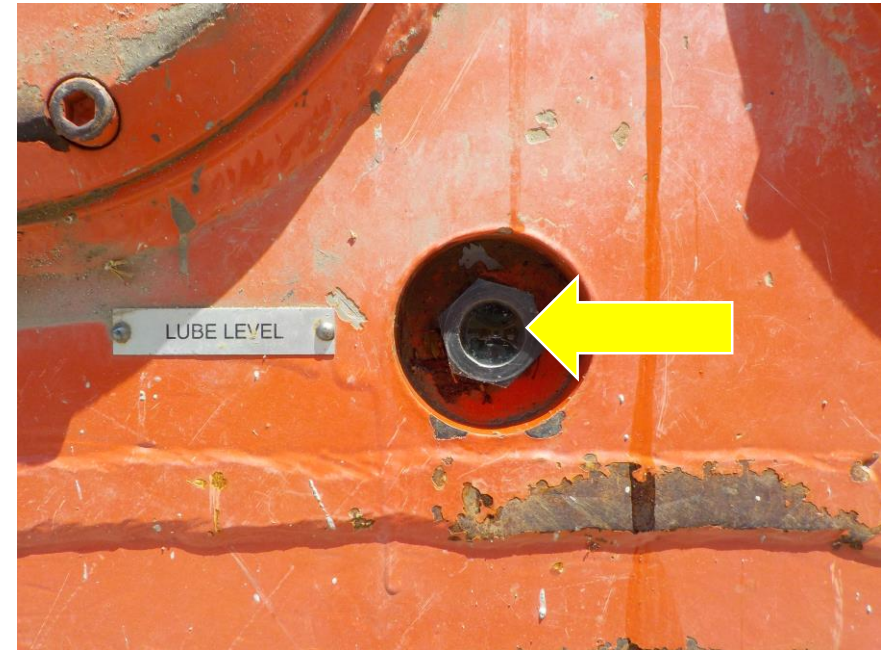
- Failure to completely bleed the clamp circuit of air may impair clamping force and damage jaws.

STARTUP PROCEDURES

With the MKT V-22 hanging vertical check the fluid level in the gear box.



Lube oil level should be $\frac{1}{2}$ to $\frac{3}{4}$ full. Check oil level twice per day.



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STARTUP PROCEDURES COMPLETE

Once you have completed the start up procedures you are ready to put the MKT V-22 Vibratory Hammer to work. If you have any questions please click on www.mktpileman.com for your nearest MKT representative