

Horizontal / Vertical Test Stand
Eddy Current - Manual Supplement
Revision A

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1 TILT FUNCTION OPERATION

Follow these steps to operate the tilt function of the horizontal/vertical dynamometer:

1. Make sure that there is power applied to the actuator.
2. Locate the yellow handle locking pins and turn them in a counterclockwise rotation until the pins are retracted far enough so that the nose of the pin is clear of the dynamometer housing.
3. Locate the power switch and turn it to the "ON" position.
4. Locate the toggle switch labeled "UP / DOWN."
5. Raise or lower the dynamometer into either the horizontal or vertical shaft position by activating the actuator. Move the toggle switch in the desired position to activate the actuator.
6. The dynamometer actuator will stop when the dynamometer reaches either position.



Caution: Do not continue to operate the actuator after it has reached a stop. Continuing to operate the actuator will damage the actuator.

7. Turn the yellow handle lock pins clockwise until the pins are engaged with the bushings in the dynamometer housing. Continue to turn the lock pins until they are snug.
8. The dynamometer is now in position and ready for operation.

TILT FUNCTION OPERATION (CON'T)



Fig. 1

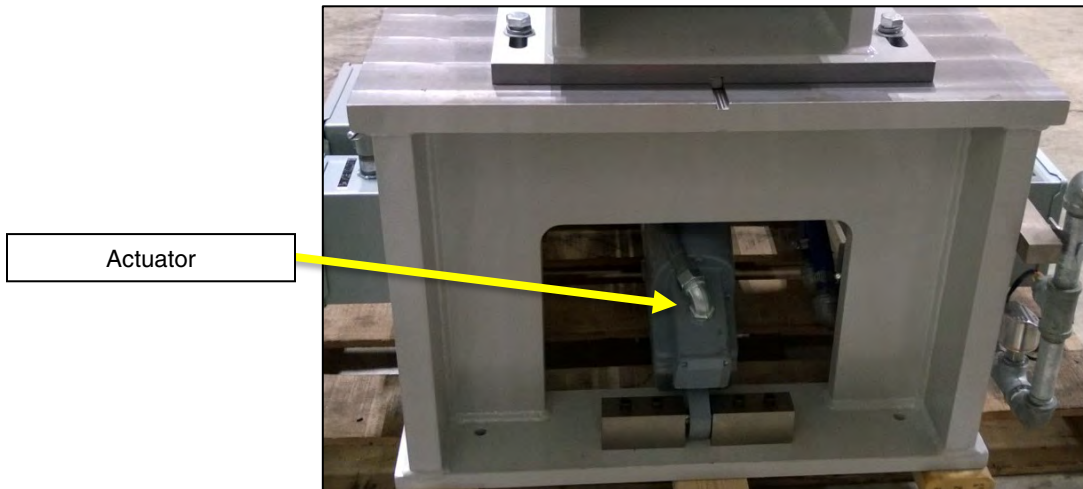


Fig. 2

2 WATER CONNECTIONS AND SAFETIES

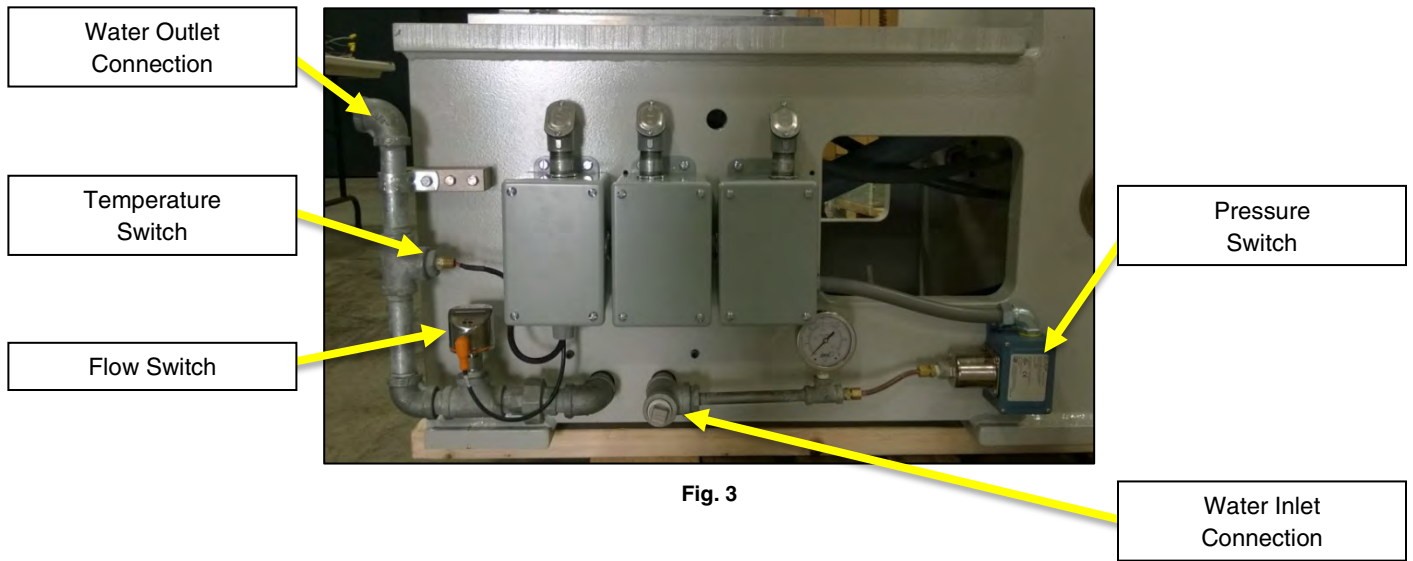


Fig. 3

3 CALIBRATION IN THE HORIZONTAL POSITION

1. Mount calibration arm to the torque arm. Make sure the calibration arm is securely tightened to the torque arm.
2. Place the hook from the calibration weight hanger through the two small loops in the wire lanyard. Form a large loop in the lanyard and place it over the machined groove in the calibration arm. Carefully let the weight hanger hang freely from the calibration arm (Figure 4).
3. Place the desired calibration weights on to the weight hanger.



Warning: Use caution when placing weights on the weight hanger. Injury can occur if a weight should fall off the hanger.

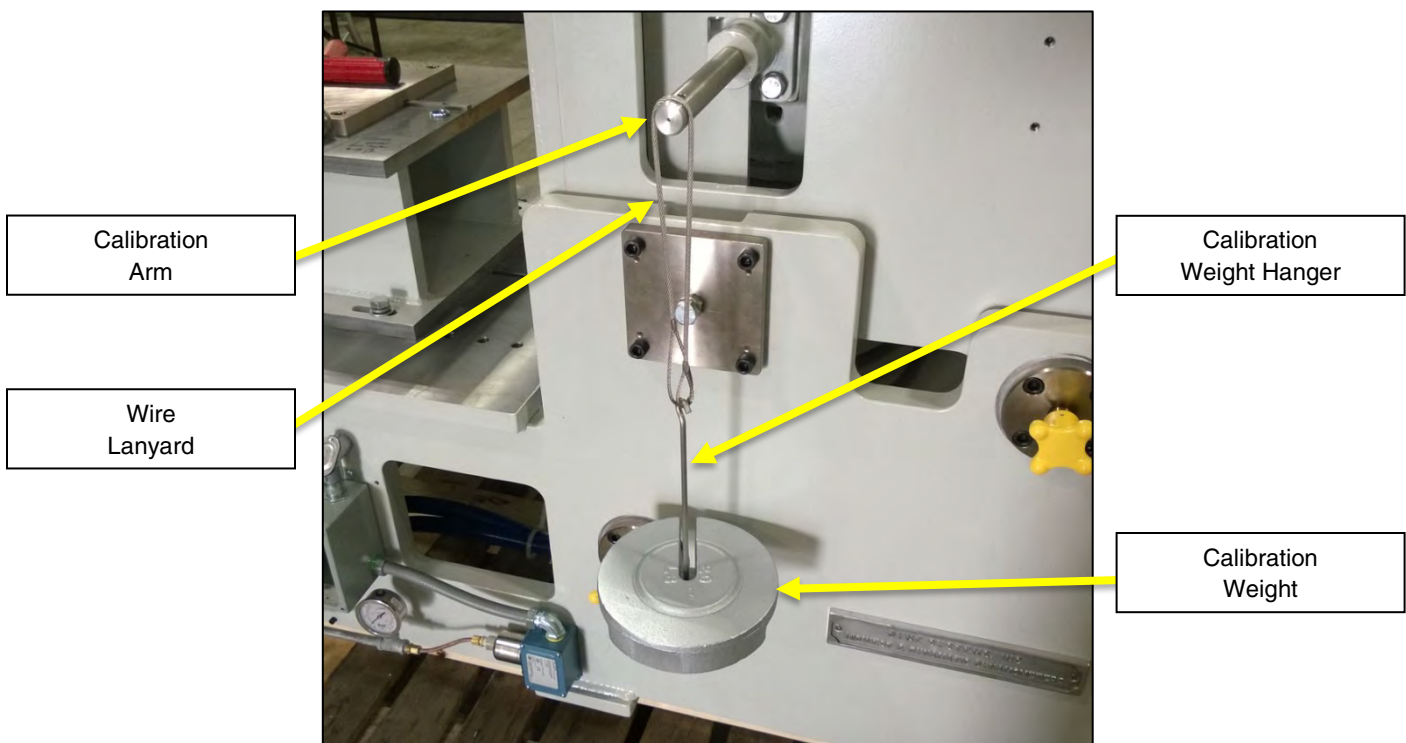


Fig. 4

4 CALIBRATION IN THE VERTICAL POSITION

1. Mount the calibration arm to the torque arm. Make sure the calibration arm is securely tightened to the torque arm.
2. Place the hook from the calibration weight hanger through the small loop in the wire lanyard. Place the large loop in the lanyard over the machined groove in the calibration arm and place the wire lanyard into the pulley wheel groove . Carefully let the weight hanger hang freely.
3. Place the desired calibration weights on to the weight hanger (Figure 5).



Warning: Use caution when placing weights on the weight hanger. Injury can occur if a weight should fall off the hanger.

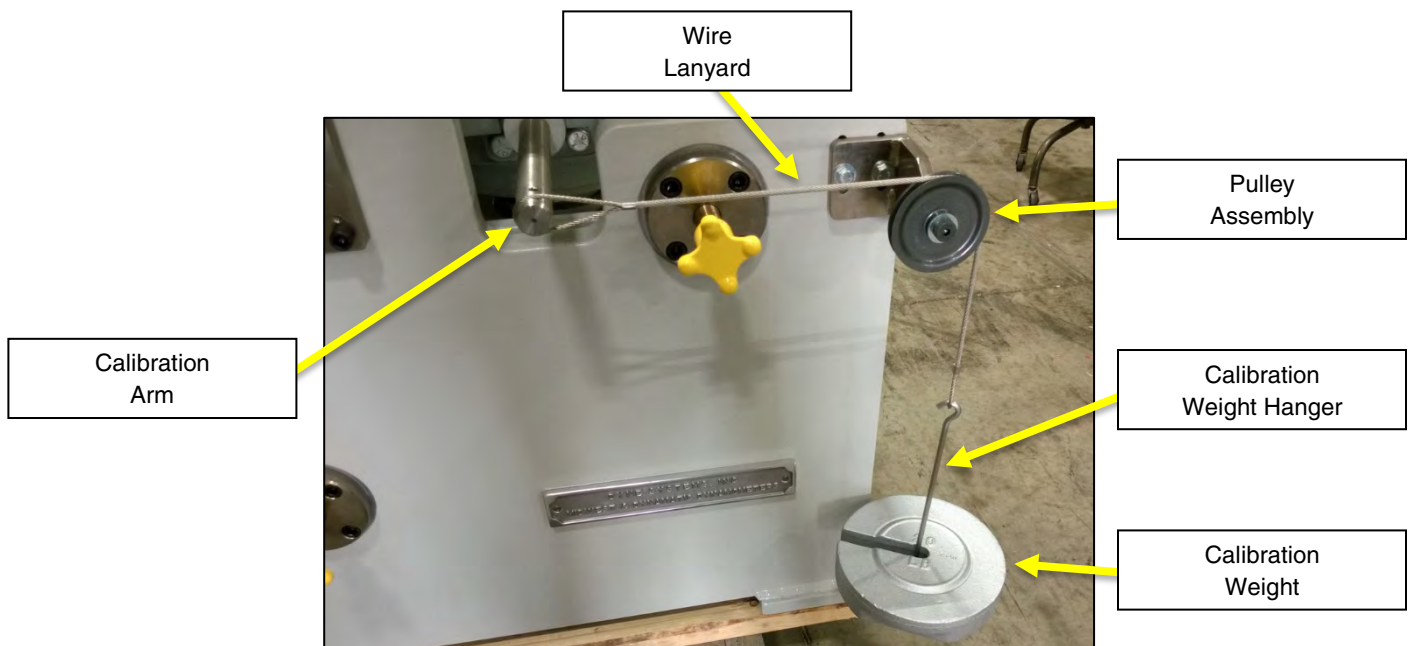


Fig. 5

5 MAINTENANCE

1. Use a right angle square to check the horizontal position. Check the position annually. Check that the vertical machined surface is perpendicular to the horizontal machined surface. Make adjustments by loosening the locknuts and turning the adjustment screws clockwise or counterclockwise until the vertical surface is perpendicular to the horizontal surface. Use a right angle plate or a square. Once the adjustment is made, tighten the locknuts. Make sure the yellow handled lock pins are backed out during this process.

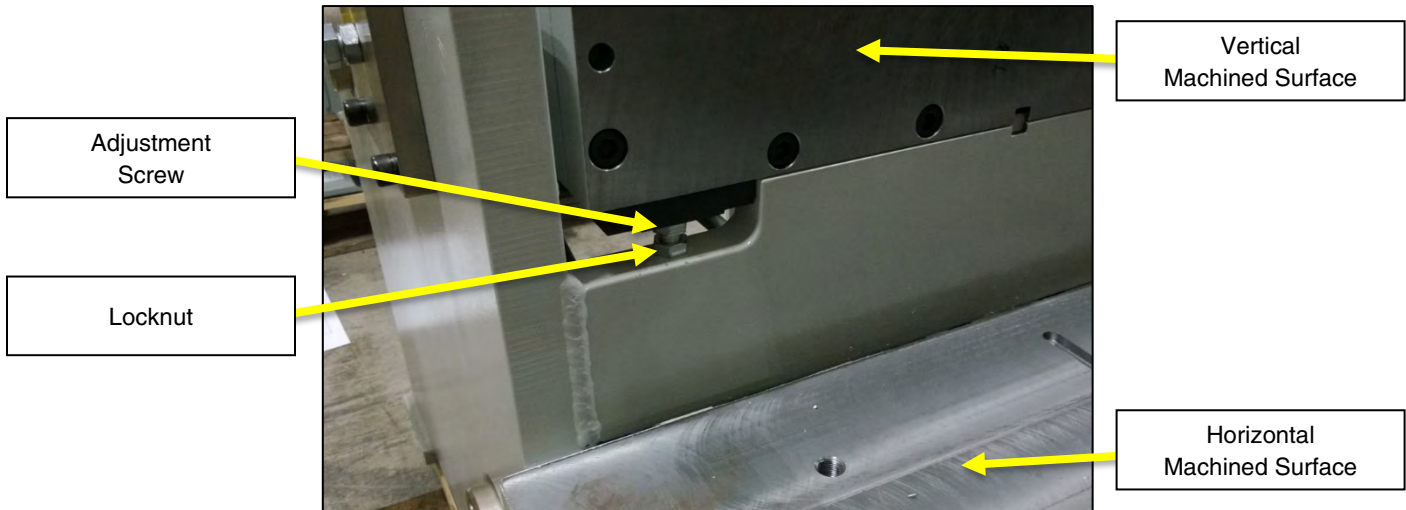


Fig 6

2. The electric actuator manufacturer recommends using Exxon Ronnex Extra Duty #1 grease in the gearbox. This requires removing the gearbox from the test stand and disassembling the actuator. Refer to OEM manual for disassembly/assembly procedures.
3. Bearings:
 - Rotor bearings** - refer to main dynamometer manual.
 - Upper box roller bearings** - re-grease only when the test stand needs to be disassembled. Regular grease intervals are not required.