

### CAUTION!

Avoid sudden shock loading on the scale and sling. Raise and lower all weights smoothly. Rapid acceleration or deceleration of an object adds the object's inertia to its mass, greatly increasing its momentary weight. This can damage the gauge.

# SHERLINE PRODUCTS

INCORPORATED 1974

## Sherline Suspended Hydraulic Scale

### Instructions for use

Please read all instructions carefully and follow the safety precautions provided. Lifting, weighing and moving heavy objects demands constant attention and the application of good common sense. This scale is intended to be used as an affordable way to determine the weight of heavy items. Gauge accuracy is rated at 2-3% of the range of the gauge. This means a 2000 lb gauge is accurate to within 2% to 3% of 2000 pounds or 40-60 pounds, and a 5000 lb gauge is accurate to within 100-150 pounds. For this reason, it would be unreasonable to expect a 5000 lb gauge to provide an accurate reading when attempting to weigh a 200-pound item. The percentage of error becomes less significant as the weight increases. Select a gauge that is properly suited for the item you are weighing.

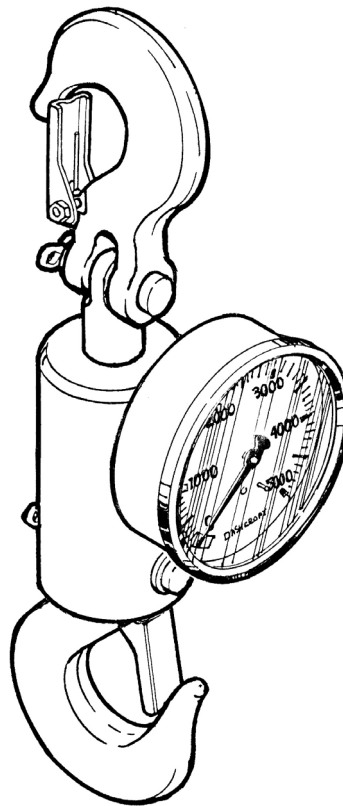
#### Recommended Gauge Ranges

**CAUTION!** Do not use a gauge that measures higher than 5000 pounds or ever attempt to suspend weights over that amount from this scale.

For maximum accuracy, use a gauge that will put your expected final measurement in about the middle of the gauge's range. For example, for weights of about 1000 lb use a gauge that reads to 2000 lb. The gauge included with your scale is accurate to within 2% at mid-range and 3% at extreme low or high readings. To provide a gauge slightly more accurate would increase the cost of the scale significantly. The supplied gauge was chosen as the most cost effective solution to providing a result that is sufficiently accurate for loading purposes.

#### Changing Gauges

The piston surface area is exactly 1 square inch, so one pound of weight exerts 1 PSI of pressure on the gauge. This converts a hydraulic pressure reading directly to a reading of pressure in PSI. To change gauges, simply unscrew the installed gauge and replace it with another gauge that reads in PSI. It should have a 1/4" pipe thread fitting. Tip the body of the scale so the hole is up so that no hydraulic fluid is lost when the gauge is removed. When replacing the gauge, position the piston so that the beginning of the round part (just below the area relieved for the hook and pin) is just above the top of the body. Push or pull it to that position if necessary.



When you install the new gauge, lay the body of the scale on a flat surface with the gauge hole in the 12 o'clock position (straight up). The fluid level in the threaded gauge hole should be right to the top of the hole. If it is not, add a little low viscosity oil, such as hydraulic jack fluid or 20 weight motor oil. Keeping the hole level, lightly tap the scale body and make sure no air bubbles appear in the hole. Use Teflon tape on the gauge threads to prevent leakage and reinstall the gauge. Do not overtighten! Avoid covering the first few threads of the brass fitting with Teflon tape to keep from having small pieces of cut off Teflon tape contaminate the fluid. They can block the tiny orifice hole in the gauge.

#### Lifting a Weight with the Sherline Suspended Scale

The Sherline scale was intended to lift a weight only high enough so that it is totally suspended while a reading is taken. It should be removed before swinging the lifted item into its final position. Do not leave a load suspended from the scale longer than necessary or during loading.

#### Important Safety Rules

- Before lifting, determine that the weight of the load is within the rated capacity of the scale and lifting chain or sling.
- Inspect chains and slings for damage before using.
- Keep all portions of your body from between the sling and the load and from between the load and the ground.
- If a basket type sling is used to lift the item (a sling that goes from the hook, around the item and back to the hook), remember that the greater the angle between the ends of the sling, the more the sling's lifting capacity is decreased. In the example shown in Figure 1, the

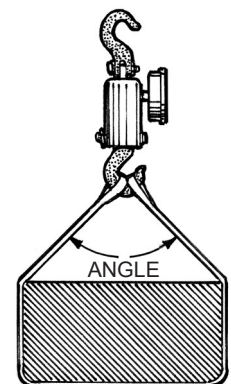


FIGURE 1

angle is about 90°. The sling's capacity is only about 70% of what it would be if were suspended straight up and down. A 60° angle yields a factor of about 86% strength. At a 120° angle the sling can lift only half its rated capacity.

- The lower hook should be well above the center of gravity of the load.
- **CAUTION: Avoid shock loading** on the scale and sling. Sudden increases in pressure can damage the gauge. Raise and lower weight smoothly and slowly.
- The Sherline scale is not intended to be used for trade; i.e., items priced by weight.
- **CAUTION:** There is a blue button on the side of the gauge on your new scale that says "PULL." DO NOT pull it. This is simply a dust cover for an access port that is used to fill the scale with glycerin from the factory. You should have no reason to add, or remove, any fluid from the scale (see Figure 2).

### Sherline Trailer Tongue Weight Scales Available

The original Sherline hydraulic scale was designed specifically to measure trailer tongue weight when the

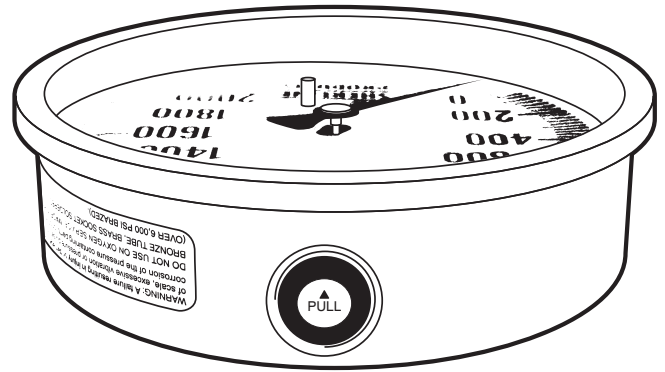


FIGURE 2—Shows the location of the blue, dust-cover button.

trailer tongue hitch or jack stand is placed on the scale. For additional information on the scale and on loading and trailering, ask for Sherline's free instruction book for the Sherline Trailer Tongue Weight Scale. It contains a wealth of advice safe loading and trailering. See [www.sherline.com/product/sherline-trailer-tongue-weight-scale](http://www.sherline.com/product/sherline-trailer-tongue-weight-scale) or call for information.

### Exploded View

### Parts Listing

NO. REQ.	PART NO.	DESCRIPTION
1	80200	Suspended Scale Body
1	80210	Suspended Scale Piston
1	80220	O-Ring Seal, Lower (Piston)
1	80230	O-Ring Seal, Upper (Body)
1	80241	Lower Hook Pin, 3" x 7/16"
1	80250	Upper Hook Pin, 1-5/8" x 7/16"
2	80260	Hook
2	80270	Washer
2	80280	Cotter Pin
(1)	80290	Hydraulic Gauge, 0-2000 lb.
(1)	80300	Hydraulic Gauge, 0-5000 lb.

### Warranty

The Sherline suspended scale is warranted by Sherline Products, Inc. for one year from time of purchase to be free of defects in manufacturing and assembly. This includes all parts, seals and the gauge installed at purchase. Should any problems occur with the proper functioning of the scale, return it to the address below along with dated proof of purchase for repair or replacement at our option. This warranty does not cover damage due to misuse, neglect, overloading or improper installation of a gauge other than the one installed by the factory.

Gauge accuracy is warranted by the gauge manufacturer to be within 2% of the total gauge scale at mid-range of the gauge and 3% at extremes of the gauge's range. This scale is not recommended for trade purposes (items sold by weight).

Sherline Products, Inc.  
3235 Executive Ridge • Vista • CA 92081-8527  
Phone: 760-727-5857 • Fax: 760-727-7857