



## MOUNTING

Mount the shock absorber securely making certain that the shock load will strike the piston rod bumper squarely at all positions throughout its full stroke. At least one of the port plugs must be uppermost to permit bleeding air from the unit.

The heavy duty model "HS" shock absorber has an internal spring designed to return the shock absorber piston rod to its "ready" position. Do not attempt to use the spring to return any weight other than the rod itself.

Attach the make-up reservoir, if used, preferably in the uppermost port of the shock absorber to permit air bleeding and replacement of lost fluid.

## FILLING

Fill the shock absorber, and make-up reservoir, with the fluid specified on the nameplate. Fill the system slowly, loosening the bleeder ports to allow air to bleed out. It helps to move the shock absorber piston rod in and out by hand or jack during the air bleeding and filling process. Be sure the rod is fully extended when filling (Spring return units are filled at the factory, but check the fluid level before operating.)

## INSPECTION AND TESTING

Periodically inspect the shock absorber system to make sure that:

- A. It is completely filled with fluid and has no air trapped inside. (See filling instructions)
- B. The piston rod fully returns to the "ready" position after each stroke.
- C. The piston rod moves and can rotate freely throughout its full stroke.
- D. All mounting bolts are tight.

For the first few days of operation, inspect the shock absorber system often. As time passes, experience will tell how often the shock absorber needs attention. Because operating conditions vary so widely, no specific period can be stated.

## OPERATION

The shock absorber does work in bringing a load to a stop. It converts this work into heat and dissipates this heat to the surroundings or to a heat exchanger. A spring returns the piston rod to its starting position, ready for the next working stroke. It is extremely important that the piston rod return promptly, otherwise the shock absorber cannot do its job.

Each shock absorber is custom designed to do a specific job at a specific frequency of operation. Using the shock absorber for the purpose for which it was designed and maintaining it properly will give long and satisfactory service.

## PARTS REPLACEMENT

Very few parts of the shock absorber are subject to wear. The rate of this normal wear depends on the frequency of use and the environment. A glance at the parts list will show how simple it is to replace the wearing parts. On spring return models always block the rod end before loosening the rod gland. This is necessary because the springs are pre-loaded at assembly. Use the parts list to identify the name of the part when ordering and state the model and serial number as it appears on the nameplate.

## REASSEMBLY

When assembling standard model "HS" shock absorbers, apply torques as follows:

### TORQUE IN FOOT POUNDS

BORE SIZE	PISTON NUT & BUMPER	TIE RODS	GLAND SCREWS	RETAINER SCREWS	PORT PLUG
4"	440	170	38	40	45
6"	600	240	38	84	75

After installing the replacement parts, always inspect the system as described above before putting it back in service.

## TYPICAL SHOCK ABSORBER INSTALLATIONS

Fig. 1

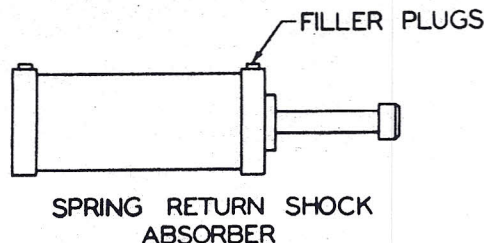


Fig. 2

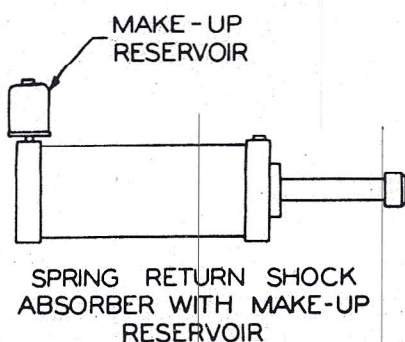


Fig. 3

