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Installation Instructions

1-1/2" Bore Adjustable Shock Absorber

Maximum efficiency of operation can be obtained by carefully following these instructions:

GENERAL

Install the adjustable shock absorber (**Figure 1**) on a surface of sufficient strength. Align the shock absorber rod end button with the load striking surface. This avoids side loading (5° maximum). Use the full stroke of the shock absorber up to the last 3/32 inch (2.5 mm) and provide a solid mechanical stop to prevent bottoming out. To allow maximum heat dissipation, DO NOT PAINT THE SHOCK ABSORBER. If necessary, guard the shock absorber to protect it from foreign materials such as acids, steam, weld flash, etc. Applications using two or more adjustable shock absorbers should have the load balanced between them as equally as possible.

SELF-CONTAINED MODEL INSTALLATION

Model SAHS or AAHS adjustable shock absorbers are pre-filled with American Industrial Oil #46 and are ready for use after proper installation.

AIR-OIL TANK INSTALLATION

Model AHS or AHSS adjustable shock absorbers are pre-filled with American Industrial Oil #46 but MUST BE CONNECTED TO AN AIR-OIL TANK before use. Install (**Figure 2**) the proper ACE air-oil tank as close as possible to, and physically higher than, the shock absorber. The line connecting the shock absorber to the air-oil tank must be free of kinks and loops - and the inside diameter of this line must be equal to, or greater than, that of the port in the shock absorber. Do not put a shut off valve or a check valve between the shock absorber and the air-oil tank. Install a check valve in the air line to the air-oil tank and plug the extra ports of the tank. Fill the tank with American Industrial Oil #46 (taking care to avoid overfilling) and charge the system to between 50 - 100 psi.

SIDE (FOOT) MOUNTING INSTALLATION (**Figure 3**)

Bolt the shock absorber to the mounting structure using bolts as listed. Be sure to securely tighten the bolts. PROVIDE A KEY BEHIND THE REAR FOOT BAR TO PREVENT MOVEMENT OF THE SHOCK ABSORBER.

Figure 1

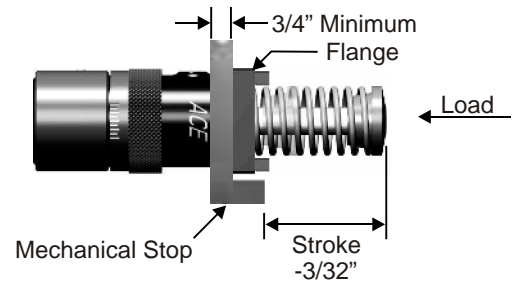


Figure 2

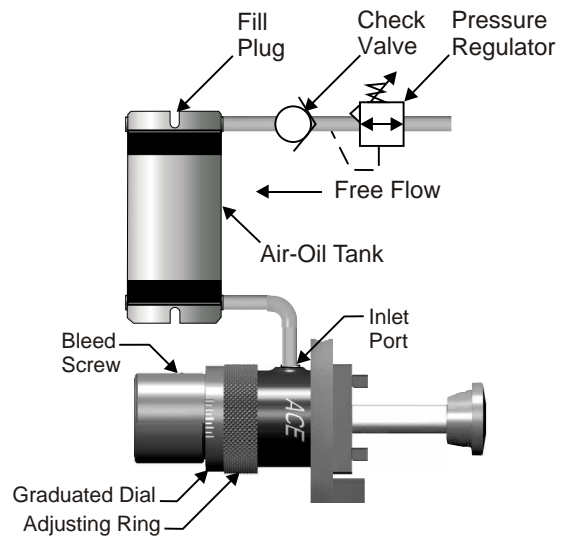


Figure 3



Bore	Bolt Size	Air-Oil Tank
1-1/2	(4) 1/2	AO-3 or AO-6-91

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World leader in deceleration technology
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CLEVIS MOUNTING INSTALLATION (Figure 4)

Fasten the rear clevis and the rod clevis to the mating clevis members of the equipment. Make sure the shock absorber is using the full stroke (less the last 3/32 inch or 2.5 mm) and not being bottomed out. Be sure that the equipment cannot pull the rod out any further than the shock absorber stroke will allow.

ADJUSTMENT

Proper adjustment is important to the efficient operation of the shock absorber. All units are pre-set at the factory. Cycle the equipment to impact the shock absorber and rotate the adjusting ring to achieve smooth deceleration. Rotate towards zero to increase cushioning and away from zero if the initial impact is too hard (Figure 5). If the final setting approaches zero (less than 1), a larger shock absorber should be considered. Tighten the adjusting ring lock screw after achieving the final setting.

AIR EXHAUST CIRCUIT FOR MODEL AHS SHOCK ABSORBERS

This type of installation (Figure 6) is necessary when it is desired to have the rod remain in the shock absorber after decelerating the load. Use special care to avoid overfilling the air-oil tank. If not built in, a special ACE check valve should be used to eliminate "misting" of oil out of the air-oil tank.

RE-CIRCULATING COOLING CIRCUIT FOR MODELS AHS & AHSS SHOCK ABSORBERS

This type of installation (Figure 7) may be required when ambient temperatures and/or cycle rates cause the shock absorber to head up beyond 200° F. Use high pressure (1,000 psi) check valves with a low cracking pressure (5 psi). If a filter is to be used in this circuit, a 30 to 40 micron filter element with a 5 psi by-pass is recommended. Consult factory for assistance.

Figure 4



Figure 5

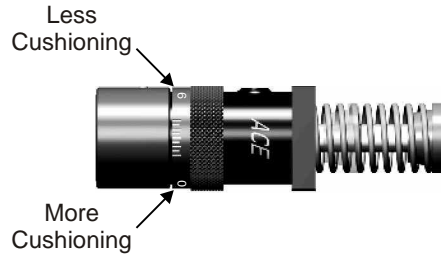


Figure 6

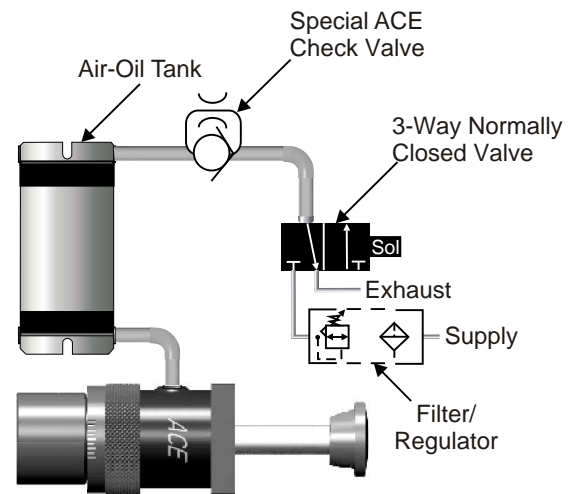


Figure 7

