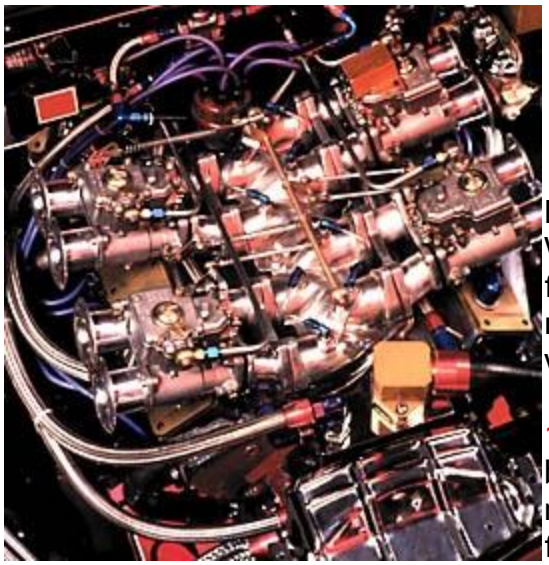

Hose/Hose End Assembly Instructions

Installation

While Earl's hose and hose ends make a pretty fool-proof combination, there are a few general rules to follow to make sure that you end up with a sanitary and trouble-free installation:

1. Make sure that there is adequate clearance between the hose ends and anything that they might be able to contact. While the hose is flexible, the hose ends are not!

2. Do not allow the hose to contact a sharp corner, nut, bolt, rivet stem or anything else that might cause damage. At any point where a hose passes through a panel, install a grommet for chafe protection.

3. Do not allow the hose to rub against anything-even if the surface on which it rubs is flat. The stainless steel braid is a very efficient low speed file and will abrade through anything that it moves against. In order to prevent chafing and to keep your hoses where you meant for them to be support the hoses every 18" or so with either a cushion clamp or a ti-wrap. Also see Tuff-Stuff hose for chafe protection.

4. Do not force the hose into too tight a bend. Follow the minimum bend radius chart. Do not kink the hose, either by too tight a bend, by misalignment between the hose end and the part or adapter on short assemblies or by getting the whole assembly into a helix on long assemblies. Align the hose end with the adapters so that the hose is not placing strain on the hose end or on the adapter. The Swivel-Seal design reduces these problems, but only care in installation will eliminate them. We manufacture enough hose end and adapter configurations to allow a sanitary and sound solution to just about any installation problem.

5. Keep the hoses as far away from extreme heat sources (like turbochargers and exhaust systems) as possible. If you must run close to such things, use an air gap insulating panel and/or fire resistant sheathing. Do not run fuel lines in proximity to hot fluid lines (or hot anything else) or you will end up with either hot fuel and low power or vapor lock. Do not run hot fluid lines near cool fluid lines or near to the driver.

6. Do not over-tighten the hose ends onto the adapter fittings or parts. The seal is achieved by the design of the mating surfaces-not by muscle. It helps a lot to use the wrenches made for the job.

Maintenance
Virtually no maintenance is required. Basically, maintaining Earl's high performance plumbing hose ends is a question of preventing abuse.

1. Inspect the plumbing installation frequently for signs of chafing, abrasion, kinking, crushing or seepage.

2. Take care not to crush, stretch, kink or otherwise damage the hose assemblies when changing engines etc.

3. Keep both hoses and fittings clean.
(a) Before removing any hose end from its adapter or port, wash the assembly down with solvent-or even gasoline-and blow it clean and dry so that no grit can find it's way into the threads or the sealing surfaces.
(b) As soon as the hose end has been removed, install a clean protective plug into the hose end and a clean cap onto the adapter. This will keep dirt out of the lines and the fittings and will keep the fluid off the floor, the machine and the mechanic.
(c) Always inspect both hose ends and adapters for dirt before reassembly.
(d) Correctly assembled Earl's hose ends will not leak if they, and the adapters are undamaged, clean and properly tightened. The only way to be certain that every hose end is properly tightened is to form the habit of NEVER leaving the adapter, a hose end (or anything else) loose, finger tight or partially tightened. Even when you know that you are going to take the thing right off again, correctly tighten it-every time.

Leaks
If it leaks, it has probably been assembled incorrectly or the sealing surfaces on the adapter and the nipple have been damaged-or just possibly someone has attempted to assemble an AN 37° seat hose end into a 45° SAE cone. Damage to the cone or the seat can be caused by a multitude of sins-dirt and over-tightening being the most common.

Re-Use
All of Earl's removable hose ends are completely reusable as is the hose and as are most of the competing brands. As usual, Earl's have an edge. When disassembling a nipple and cutter type hose end, it is very common for the inner tube of the liner, which is captured between the nipple and cutter, to be torn off and to remain in place. If this happens, the rubber must be removed before the hose end can be reused-and it is a bear to get out. With Swivel-Seal the chances of this happening are greatly diminished because the cutter can rotate with respect to the nipple so that the rubber is faced with only one moving surface. The procedure is as follows: Place

the socket in a vise, and with a wrench on the nipple and another on the cutter, hold the nipple and turn the cutter until the socket is disengaged. Then pull the hose off the nipple. This method will only work with the angled Swivel-Seals. With the straight hose ends, you can either hold the socket in the vise and turn the nipple or you can remove the cutter from the nipple. All parts of the Swivel-Seal are ready for reuse as soon as they have been cleaned and relubricated.

Pressure Test All Hose Assemblies Before Installation!