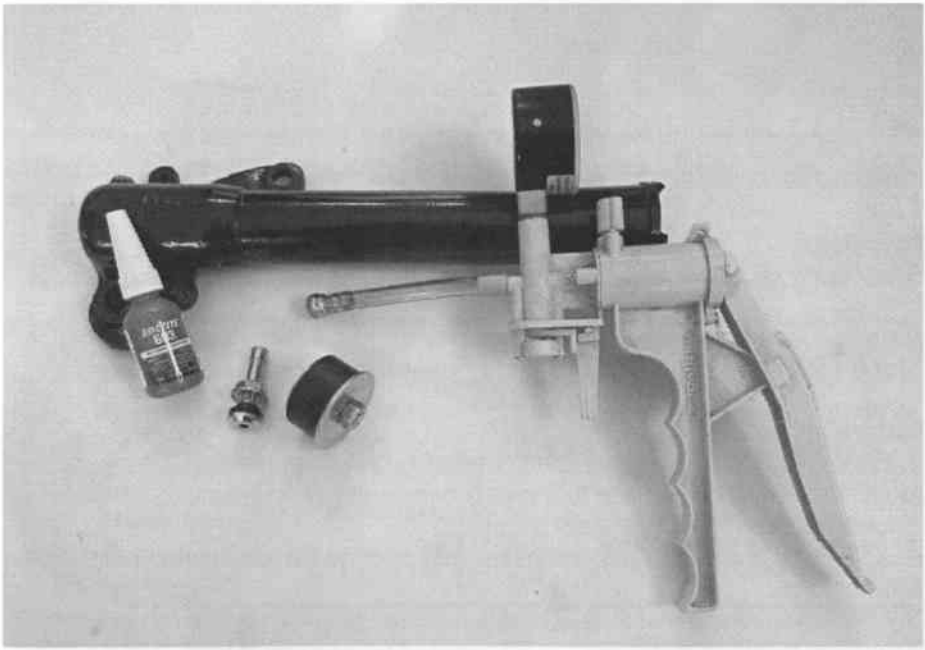
Fixing Yet Another Oil Leak – Velo Tele Forks
By Tom Ross

After only 42,000 miles and many years of Summer Rides, it was time to fix the leaky forks on the old Venom. Oil would run out as quickly as I put it in, and I got tired of cleaning it off of the front wheel rim and tire. It was obvious that the sliders would need resealing.

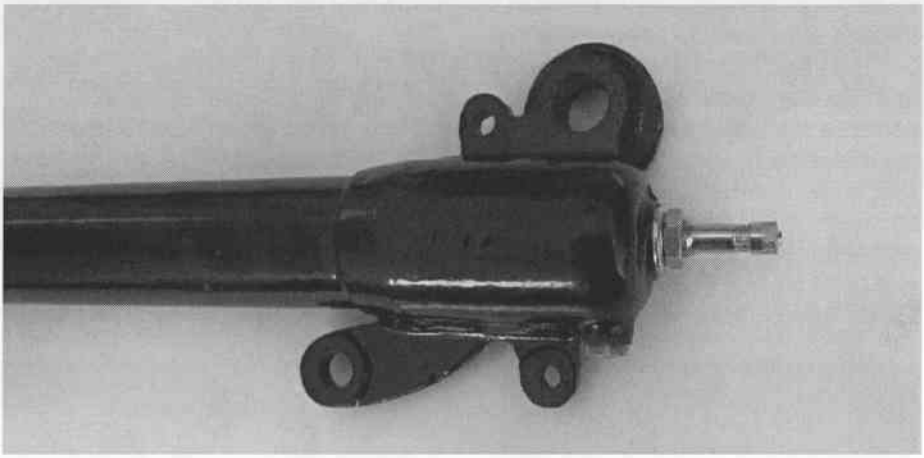
I had heard about a method of repair that did not require paint stripping and resoldering the slider. Ed G. has used it, and Pete Causer of the VOC posted a story about his successful repair on the Yahoo group. So I gathered the materials needed, found my old Mityvac brake bleeder, and set to it. All the stuff shown, except the pump and slider, cost less than $25. I had to order the Loctite, and only NAPA knew what a metal tire valve was. And the top washer on the test lug had to filed down to fit into the top of the slider. Tighten it well, and point it away from valuable items when you first pressurize the assembly... Pete's "two plates and an o-ring" put a hole in his workshop ceiling. The plumbing test plug remained in place for me.



My first attempt was on what looked like a NOS slider that came with a MSS Scrambler basket. It turned out to have a big leak, made a stream of bubbles when I immersion tested it. On my first attempt I used a bit too much vacuum for too long, and it sucked the Loctite right on through. Two more tries got it sealed up, so far. So the vacuum numbers in the following procedure are not absolute – you have to play it a bit by ear.

The other problem I had was that the pump itself would not hold a vacuum for a long enough time for a proper test. Before you start, I suggest you put a cap over the pump's inlet and check it for leakage. Mine got better after I

blew the dust out of the exit and relief valves (next to the gauge, above and below).
If anyone has more experience with this, I'd be happy to hear from you.
Tom Ross



Velocette Telescopic Fork "No-Solder" Repair:

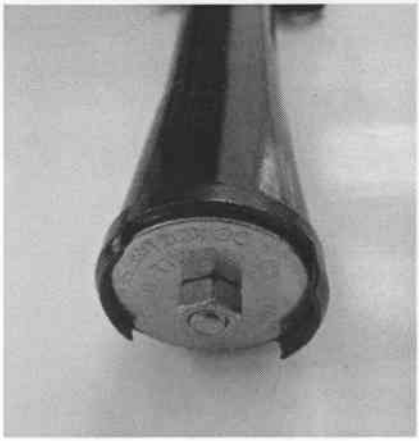
Symptom:
Slider leaks oil, especially from the brake side. Obvious remedies are fruitless.

Cause:
The soldered joint between the bottom casting and center tube has cracked.

Materials/Tools:
1. Loctite 603 - a press fit, oil tolerant bearing retaining compound. This can be found at bearing or machine tool supply companies. Threadlocking grades of "wicking" (green) Loctite are not suitable.
2. A "Mityvac" vacuum hand pump (typically used to bleed brakes) or similar, with a gauge.
3. A 1-1/2" plumbing test plug, which is a rubber plug with a through bolt for tightening by expansion.
4. A metal Schrader valve as used in a tubeless wheel rim, sized for a 0.435" valve hole. These are designated Type 435 or 416(S). You may need to add an adapter to fit the vacuum pump; this can be found at the end of an old bicycle tire pump hose.
5. A tire pump, from a bicycle if the one on your Velo has gone missing.
6. A heat gun or other "approved" heat source. Solar heat could be enough.
7. A can of brake cleaner or acetone, remember these are highly flammable.

Procedure:
1. Disassemble forks; strip and clean the fork leg. Replace the drain plug.

2. Drop the Schrader valve into the bottom of the fork leg and tighten. Then install the top plug and tighten. Pump a few psi of pressure into the fork leg via the Schrader valve and submerge in water to check for leaks at the plugs and connections. Tighten as needed. Note location of any air leak. Wipe dry.
3. Remove inner core of Schrader valve and attach vacuum pump.
4. Pull a good vacuum and spray or brush brake cleaner on the joint (step)



between the bottom casting and central tube of the fork leg. The vacuum should pull it into the crack(s). Repeat several times, let dry. It is flammable!
5. Heat the fork leg to 120 degrees F.; hot but not painful to the bare hand.
6. Pull a medium vacuum (10 - 15 in.) and apply a bead of Loctite 603 around the entire joint. Be sure to put enough at any leak noted earlier. Wait a minute, then reduce vacuum to zero.
7. Let cure for at least an hour. Apply a good vacuum and check the gauge; should hold steady for an hour or more. Repeat if needed, including immersion test to find the leak.

Results have been good but are not guaranteed...!!!