

## TECHNICAL - - Forks - Cont'd.

apart. And by all means leave one damper together while you take apart the other. That way you have a ready made map for reassembly. Just remember, the installation of just one part upside down will have you redoing the whole job. And fouled-up damper parts could result in the most curious - and dangerous - handling characteristics you've ever sampled.

(13) Clearly, having played Mr. Clean to the damper rod assembly, do likewise to the tubes' interiors. Watch the way in which you dry any metal part. As a rule, turkish towels are just great for human bodies, but they leave a trail of lint across metal. Compressed air is the best drying agent. Barring that, allow the aparts to still air dry after washing in solvent. Determine that the tubes are straight. Roll them across a glass surface or a machinist's table.

The damper assembly bush (that's the part immediately behind the Seeger ring) should press in smoothly. Be sure that you get the Seeger ring all the way in and completely seated in its groove.

(14) Having cleaned the fork leg, you're ready to drop the damper-rod seat into the bottom of the slider. Obviously, if the fork seals have been leaking, they must be replaced. Remove their retaining rings, and gently ease the seals out with a blunt screwdriver. You'll be able to press the new seals in with your fingers, or a socket the outside diameter just a little under those of the seals. Don't cock the seals in their races and don't damage the interior faces.

(15) The damper rod seat should be centered in the bottom of the slider. You should be able to look down the slider from the top and see the hole in the seat line up perfectly with the hole in the slider.

(16) It's time to put things back together. Hold the slider in one hand and lower the tube with the damper assembly down in the slider.

(17) Ease the tube downward. You can feel the damper rod drop into its seat. Then turn in the damper-rod allen-head screw. Gentle is the word. You want to get the seat and rod and slider all centered nicely to eliminate any chance of binding. With the tube fully down in the slider, rotate the tube slowly in the slider and turn the allen-head screw at the same time. Check to see that you do not have a bind when the slider is moved up and down on the tube. Any drag should come from the fork seals; there should be no binding whatever.

The damper rod screw should be tight. Remember this screw holds the slider and tube together, so you can just imagine what would happen if one or both screws came out while you were blazing down the road. So get it tight. Paranoids might want to safety wire the bolts. But don't use Loctite. If you ever have to take the assembly apart again, the difficulties caused by Loctite secured screws would be unmentionable. After everything is tightened down, check the up-and-down action by moving the slider on the tube and rotating the tube relative to the slider. At no point should there be any binding.

(18) The dust covers for the seals account for a fair amount of drag, especially when new. To a certain extent this can be minimized by packing the underside with grease. Some people soak a piece of old Filtron in oil and then position the foam under the covers. Slip the dust covers on the fork tubes but not on the sliders.

(19) Pull the fork tubes up in the triple clamps. Screw the top caps on; it's just a convenient way to remember approximately how high the tubes came up in the top fork crown. In the case of this particular Marzocchi fork, the caps line up with the top of the crown. Don't get overly precise because you really don't care what's going on at the top; it's the axle-level alignment that really counts.

(20) With a shouldered straight-through axle spend some time getting the axle holes aligned well enough so that the axle will slide right in. You make the necessary adjustment by moving one tube or



the other up or down in the triple clamps. Run the axle through, tighten the pinch bolt (in the right leg of the Marzocchi) and then make the final height adjustment in the triple clamps. Fork legs which have detachable axle caps must have the axle bolted in place in order to get an accurate read on axle-hole alignment.

(21) Should you measure the depth of the tubes in the crown after you've lined up the axle holes, you'll discover that the tubes may not be at the same apparent height. In fact, the difference here is one millimeter. Do not worry. The axle does not care. There are at least five surfaces (from the bottom of the fork leg) which could account for the height difference in whole or in part. Indeed, you have no guarantee that the top crown isn't slightly thicker on the left side than the right.

(22) Tighten the tubes in the triple clamps. At each one of the pressure points, the triple clamps should purchase or grip the tubes completely. An oval hole, for example, would only contact the tube at two points, and the purchase would be far less secure than the one produced by a round hole. If you have a severely oval hole, it must be machined round at a machine shop. But we've seen very few holes that ever required truing.

(23) Tighten the lower triple clamps. If it was exceedingly difficult to get either one or both

