

## NEW COTTERLESS CRANK SYSTEM

To tighten the chain wheel support. (T130):

1. Loosen nut to the RH crank pin ass'y. (C120)
2. Use a hammer and punch to tap out the crank pin.  
\*Be careful not to damage threads.
3. Remove right crank arm.
4. Use socket wrench to tighten axle nut.
5. Assemble the crank arm to the chain wheel support.

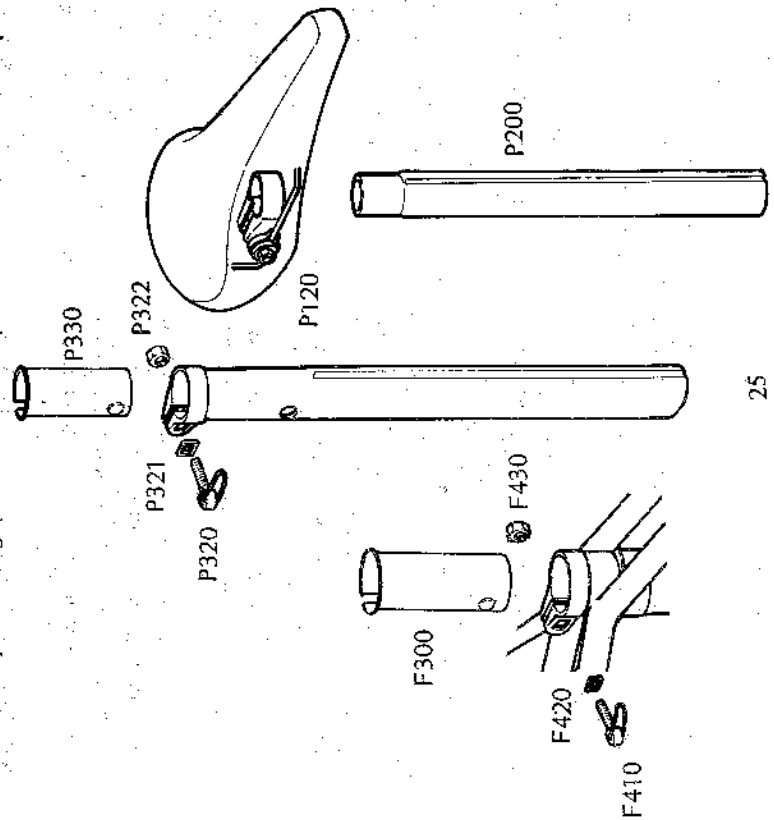
To tighten left crank arm:

1. Use socket wrench to tighten axle nut.

### 6.3.4. Saddle and Seat Post System (Excluding Clamps)

A. Disassembly and Assembly

Remove saddle from upper seat post (P-200) by loosening saddle nuts (P-120) and tapping upwards on saddle. Remove upper and middle seat post tubes by loosening quick-release clamp bolts P-320 and F-410 respectively.



B. Adjustment, Trouble Shooting and Maintenance

Durable nylon sleeves (P-330 and F-300) have been placed between the sliding seat posts and their respective seat post clamps. In order to keep the seat posts aligned, these nylon sleeves have an extrusion which fits into the groove built into the seat post. If these sleeves become worn or cracked, they must be replaced.

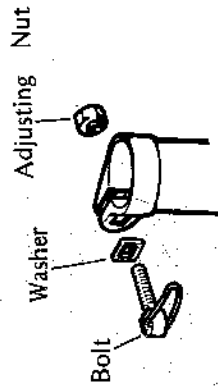
If clamps are all properly adjusted (see Sec. 6.3.5) and nylon sleeves in good condition, but the seat post fails to slide smoothly, one or more of the seat posts have probably been bent or dented. If the piece cannot be straightened without damaging or weakening it, replacement is necessary.

To adjust the saddle, simply loosen the saddle nut, adjust the saddle to your comfort, and re-tighten the nut. For your safety, make sure that the saddle bolt and nut are not bent, rusted, excessively worn and that threads are not stripped. Also be certain that the braces which clamp the saddle in place (located between the saddle nuts and saddle clamp) are properly positioned and are not bent, rusted or otherwise damaged. Always be certain the bolt is properly tightened with 200-220 foot pounds of torque.

### 6.3.5 Seat Post Quick Release Clamps

A. Disassembly

Remove in order: the adjusting nut (P-332 or F-430), clamp bolt (P-320 or F-410) and the square washer (P-321 or F-420).



B. Adjustment, Trouble Shooting and Maintenance

If properly adjusted, the seat posts should slide freely when the clamp is released, but hold steady under the pressure of a person weighing up to 250 pounds when the clamp is tightened. If this is not the case, release the clamp and adjust the tension by turning the "adjusting nut" (P-332 or F-430) by means of a wrench. Be careful not to tighten the nut to such a degree that sliding becomes difficult. A small amount of bearing grease applied to the camming surfaces of the clamp will extend its useful life.

After extended use, the inner working of the clamp bolt may wear down to the point to where clamping action is limited. In such case, it is necessary to replace the bolt, nut and washer. It may also be possible that inspection shows that replacement of the nylon sleeve is needed first.

**Warning:** Always be certain that the clamps are secured and properly adjusted each time before riding your bike.