

SHOP TIP - Front axle inspection

This tip works on most front axles that clamp inside the fork leg.

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Complete the following procedure to ensure your axle is smooth and allows for proper fork alignment. Misaligned forks are a major cause of fork harshness on square edge bumps.

1. Place your bike on a suitable stand with the front wheel off the ground. Remove the axle.
2. Using clean solvent or degreaser clean and dry the axle.
3. Carefully examine the axle boss for burrs, scratches or dents. The axle boss is the smooth portion of the axle that locates inside the right lower fork leg.
4. Using a flat file remove any imperfections on the axle boss.
5. Hammer dents on the end of the axle are very common. Using a bench grinder or coarse flat file remove any dents or flared areas you find. The axle boss must be smooth and round to achieve proper fork alignment.
6. Grind a wide 45 degree bevel around the outer edge of the axle boss (see fig.1). This will help eliminate future binding if the axle is accidentally dropped or hit with a hammer.
7. Examine the inside of the right fork axle socket. If any burrs or sharp edges exist use a round file to smooth them away.
8. Lube the axle with a light coating of grease and reinstall. Only grease the smaller diameter area. The axle boss and fork socket area should be assembled dry. If you must tap on the axle for any reason use a plastic hammer or a block of wood. Remember to torque all fasteners to the manufacturer's specifications.
9. For maximum fork performance check out the "fork alignment" shop tip.



Figure 1.