

# Angle Drive Installation

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The officer pulled you over in your shining and glorious DeLorean. Why? "Son, you were 20 miles over the legal speed limit for this roadway." "But, Officer, I didn't know, my speedometer is broken, and there are no replacement parts to have it repaired!"

Don't get caught in this situation! DMC has recently remanufactured angle drives. Have you noticed your speedometer not working? Of course you have, you can't tell your speed! Most likely the problem lies with your angle drive. The angle drive sits inside the driver's side front hub of the wheel. As the wheel turns so does the angle drive, whose gears in turn drive the speedo cable and allow your speedometer to register both actual speed and the miles traveled. Most breakdown and failure of angle drives is caused by a lack of lubrication. Heat and moisture eventually wear away the grease (lubrication) that is necessary for proper working conditions for your angle drive. Any DeLorean owner will eventually experience angle drive failure, however, now there is a solution. The newly remanufactured angle drives from DMC have gears made from chromium molybdenum steel, known for its high tensile strength and feature a grease fitting as opposed to a set screw for ease of lubrication. The angle drives also come pre-lubricated with "Big Red" brand lithium-based grease, specifically formulated for high temperature (up to 500°F) and wet problems areas.

Previous model angle drives will no longer be available. The new remanufactured angle drive will save you money in that originals sold for \$189.50, however, the new angle drive is only \$59.95, a savings of over 100 dollars.

So, now that you know the part is available, it's time to learn how to do the installation yourself. The process is quite simple and can be performed alone, or with a partner, in a matter of one hour or less. Follow the instructions step-by-step and you'll never find yourself in the situation of having to explain why you're over the speed limit, unless of course you're just testing the limits of your stainless steel dream.

1. The first step in replacing your angle drive is finding its location. To do this, you will need to jack up and remove the left front wheel of your DeLorean. Use a 19mm socket or lug wrench to remove the wheel.
2. Next you will need to remove the dust shield and then loosen the axle nut, located on the front side of the axle stub. Do not remove it entirely, simply loosen a few threads. To loosen the axle nut use a 1/2" breaker bar with the 32mm socket.
3. Next loosen and remove the speedo cable from the angle drive using channel lock pliers to loosen and then remove by hand.
4. Next remove the broken angle drive. It is located behind the stub axle that carries the wheel and bearing. The angle drive has a flexible shaft that runs through the center of the stub axle and connects to the axle nut. The flexible shaft is shown in Figure A. Use the 1 1/4" long handle wrench to loosen and remove the angle drive. You will notice that the angle drive has a large nut attached to the back. You will need to remove, clean and re-install this nut on the new angle drive you have purchased. To remove the nut use small flat bladed screwdrivers to compress the snap ring and remove the nut. After cleaning, install the nut on the new angle drive with the new snap ring.
5. Before installing the new angle drive, make sure that the flexible wire shaft turns freely and does not lock. Test it by gently rotating.
6. From behind the stub axle, feed the flexible shaft of the new angle drive through the center in the same manner as the original was removed as shown in Figure B.

## You will need:

### Parts & Hardware:

- (1) 106130 Angle Drive
- (1) 106938 Snap Ring

### OPTIONAL

- (1) 110528 Bracket Speedo Cable
- (1) 101604 Speedo Cable, Upr
- (1) 101412 Speedo Cable, Lwr
- (1) 105104 Dustshield
- (1) 105027 Nut, Adaptor
- (1) 106938 Retaining Ring

### Tools & Equipment:

- 1 1/4" long handle wrench
- channel lock pliers
- 19 mm socket
- 32 mm socket
- Lug wrench
- 1/2" breaker bar

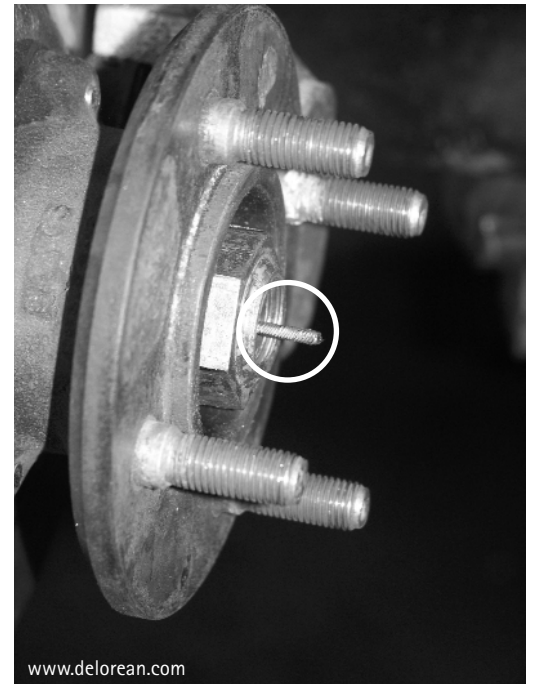


Figure A - The angle drive has a flexible shaft that runs through the center of the stub axle.

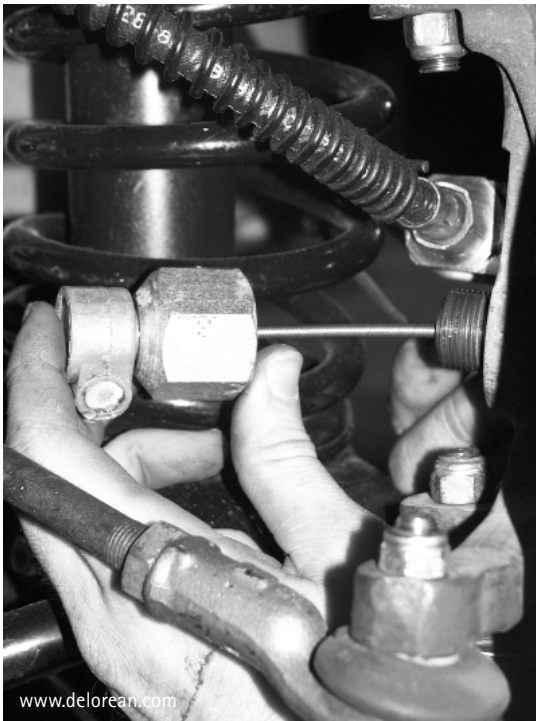


Figure B - Feed the flexible shaft of the new angle drive through the center of the stub axle.

7. Start the nut on the angle drive by hand, do not yet use the tools to tighten. Feed the speedo cable through the bracket and connect to the angle drive by hand. The properly connected speedo cable is shown on the right hand side of Figure C. After you've connected the speedo cable by hand snugly, use the channel lock pliers to tighten 1/4 turn.

8. Tighten the nut on the angle drive with the 1 1/4" long handle wrench. Make sure to tighten to 165 lb.ft. of torque.



9. Tighten outer axle nut with the breaker bar or with an air impact if you have that available. This nut must be on as tightly as possible since it actually holds the axle stub on the car. Failure to tighten properly could result in wheel loss and possible damage or injury to car and driver.

10. Replace the dust shield over the axle nut. This must be reinstalled; otherwise the angle drive will not work. Check for wear on the interior of the dust shield before reinstalling. If the interior of the dust shield has been rounded out, even slightly, it may not work properly. If this is the case you may need to order a replacement dustshield from DMC.

11. Replace the wheel. Torque lugs to 60-65 ft/lb. of torque on each lug.

12. To test your newly installed angle drive leave the front wheel jacked up and spin the wheel fairly quickly and have a friend or partner check to see if your speedometer is moving. If the speedometer moves, your installation was done correctly. If however it does not move, check all speedo cable connections, the dust shield installation and movement of the angle drive. 🚗



Figure C - Notice the speedo cable that has been fed through the bracket on the right. This is the proper positioning after threading.

### To maintain the new angle drive:



As stated earlier, it is imperative that your angle drive is well lubricated in order for it work work properly. A grease fitting is located on the side of the angle drive for ease of lubrication. Grease gently while turning the front wheel so that it works into the gears. To ensure long life DMC recommends greasing the angle drive each time you change your oil.

