

Installing clutch pulleys and IDPs

COLUMN BY AL STEADMAN

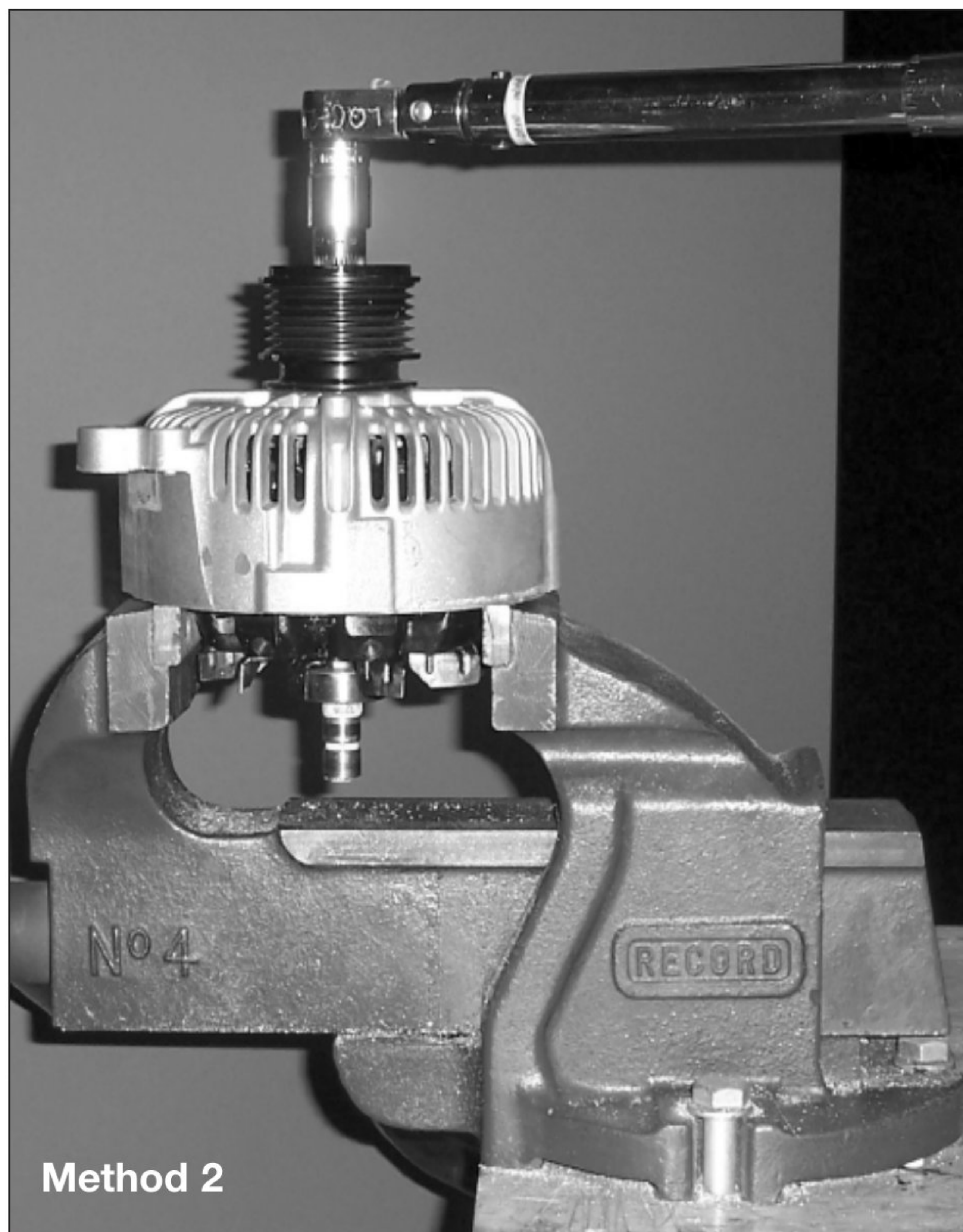
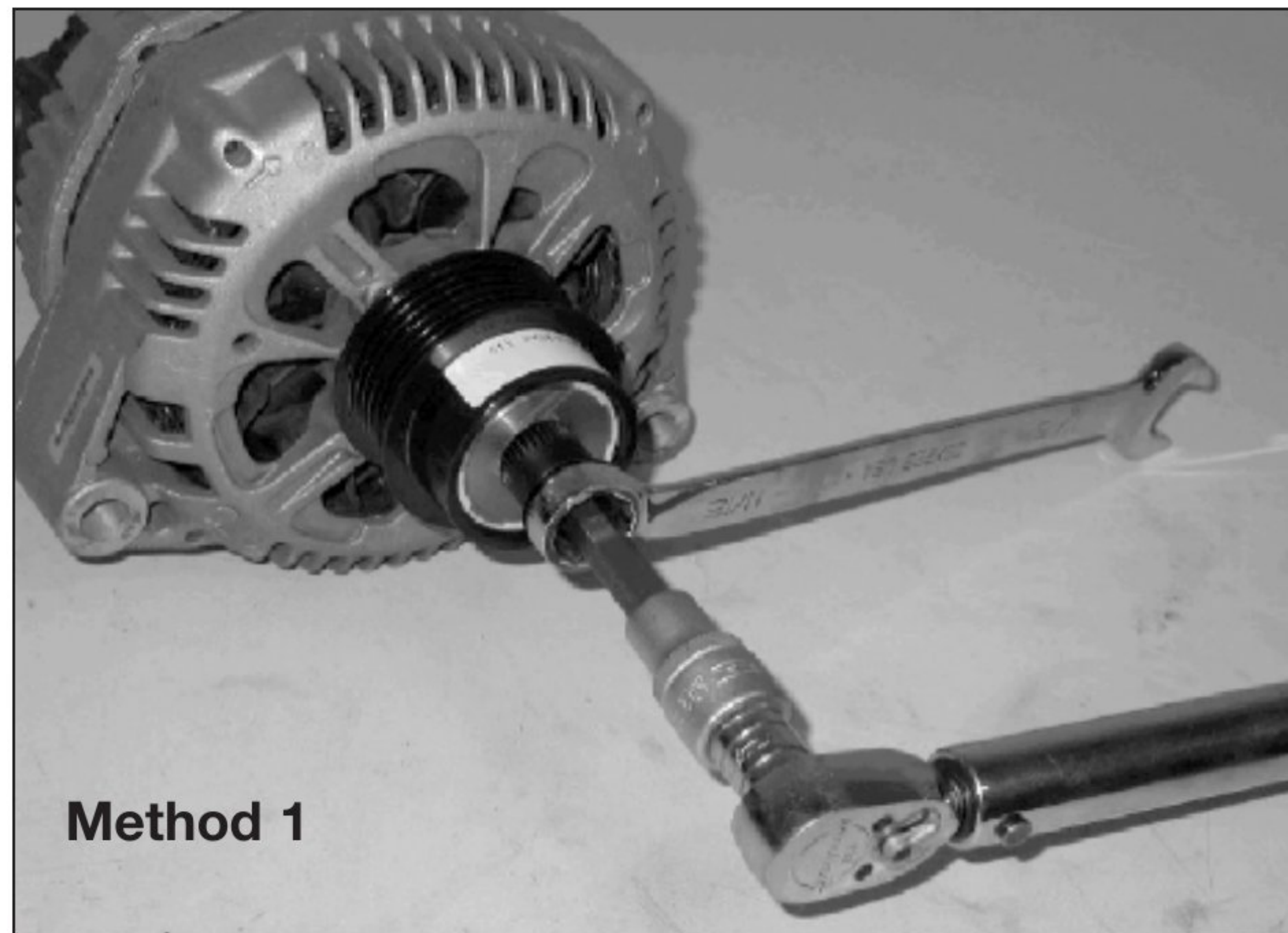
When presenting my seminar on IDPs, one of the first questions that always pops up from rebuilders is “How do I install it properly?” There are basically three different methods for installing these special pulleys. The methods are the same for both standard clutch pulleys, as well as Litens isolating decoupler pulleys (IDPs). In this article, I will explain the pros and cons of each of the three methods.

Once you finish reading this you can actually grow your shop’s revenue by advertising for clutch pulley/IDP removal and installation. There are many local shops, as well as do-it-yourselfers, that don’t want to buy the proper tools to do this job. This situation presents a great opportunity for you to make some money. Having a few of the most popular IDPs and clutch pulleys in stock doesn’t hurt either. In this economy, every little bit of income helps.

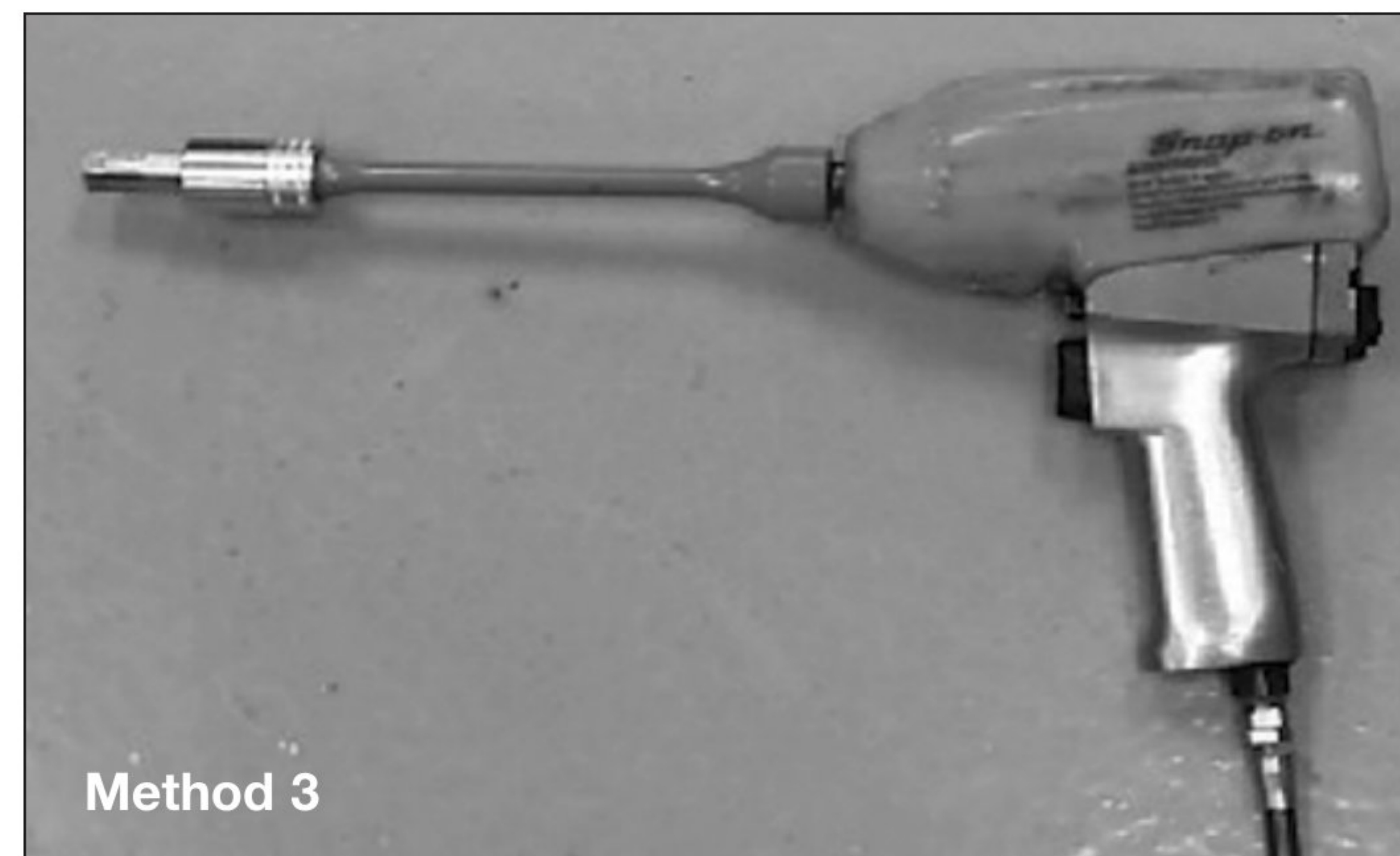
Method one: Proper installation tools (recommended method)

This type of installa-

tion requires the pulley shaft to be held with a wrench and the correct tool and then alternator rotor shaft is rotated with a torque wrench. (CCW for right hand threaded pulleys and CW for left hand threaded pulleys.) Note: Typically installation torque is the 65 ft lbs / 90Nm unless



Examples of the different types of clutch pulley and Litens IDP installation tools.



(17mm hex, 17x20 spline, 12x14 spline, etc). If the alternator shaft does not have a feature in the end to allow you to turn it, then you will have to use method number two or three.

Method two: Holding the rotor

in a vice (acceptable with caution)

With the rear housing of the alternator removed, hold the alternator rotor in a vice. Use the correct tool and a torque wrench to tighten the pulley to spec.

Pros: Correct installation torque can be achieved. It does not require the purchase of all the special tools. Fast and easy if a total rebuild of alternator is being performed.

Cons: You must remove the rear alternator housing and stator to gain access to hold the rotor. If you aren’t careful then you may damage the alternator rotor or the fan.

Method three: Impact gun (will work if the other options are unavailable)

otherwise specified.

Pros: Fast, easy, correct installation torque can always be achieved. It is often possible to remove and install the clutch pulley/IDP while the alternator is still in the car. This is a time saver and money maker!

Cons: Correct clutch pulley/IDP installation tools are required, and must be used with calibrated torque wrench.

Note: There are other installation tools. Always check to see what type of feature there is in the alternator shaft (10mm hex, 8mm allen, T50 torx, Triple square, etc.) and match the tool accordingly. You will also need to match the correct tool to the clutch pulley/IDP shaft

With the alternator secure in a vice, hold the pulley with one hand and using an impact gun with the correct tool on the end. Pulse the gun two or three times on the highest torque setting. You will notice that the shaft of the pulley will rotate while your hand holds the pulley portion.

Pros: No investment in new special tools (unless you don't have a torque stick).

This method is fast and easy. Works great for removal of old pulleys and works OK for installation if used with a torque stick.

Cons: Correct installation torque cannot be achieved with any degree of accuracy. There is risk of damaging alternator rotor threads and pulley internal components. Impact gun and air compressor required.

Remember to always take the time to install a new protective cap once you have installed the new pulley. Many of the new IDPs are grease filled and thanks to our friend centrifugal force, can get quite messy spinning at 10 to 15,000 rpm under the hood if the cap is missing.

Note: There is a major difference between standard clutch pulleys and Litens Isolating Decoupler Pulleys. They are not interchangeable. Check the Lester online Kwikfinder for the latest and most up-to-date information on which type of pulley your application requires and where you can purchase it in the aftermarket.

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