

MODIFIED MUSTANGS & FORDS Powered by Mustang 360

How to Install the S.Drive Serpentine Beltdrive

No Jive S.Drive! Introducing form and function in a cool serpentine beltdrive package from Eddie Motorsports Serpentine Beltdrive Package Finished



Jim Smart

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The factory Ford serpentine beltdrive has been with us so long that it is hard to understand why any of us would bother with an old V-beltdrive. However, if you're driving a vintage Ford, chances are good you still have the old standby rubber band drive with all of its quirks and malfunctions. V-belt systems tend to eat up belts with great regularity, especially if you're spinning your small-block to the moon. There are accessory alignment and belt sizing issues as well to contend with.

If you're considering stepping up to a serpentine beltdrive, you have options, including copping a system from a late-model 5.0L/5.8L small-block. However, that isn't going to look as sharp as a polished or brushed-finish billet serpentine beltdrive system, and one that has been well thought out and engineered to fit a small-block Ford with a compact demeanor where everything fits snugly in front of the cylinder heads.

Eddie Motorsports spent a lot of time developing its new S.Drive serpentine beltdrive system for the small-block Ford, fitting it with easy-to-find, off-the-shelf components like a Sanden air conditioning compressor, Powermaster 105-amp alternator, Maval power steering pump, and Ford Racing water pump. When you install the S.Drive system, it becomes an integral part of your engine because the foundation for the S.Drive is a cool billet timing cover on which everything is installed. Because the S.Drive doesn't have a mechanical fuel pump provision, you will need to install an electric fuel pump.

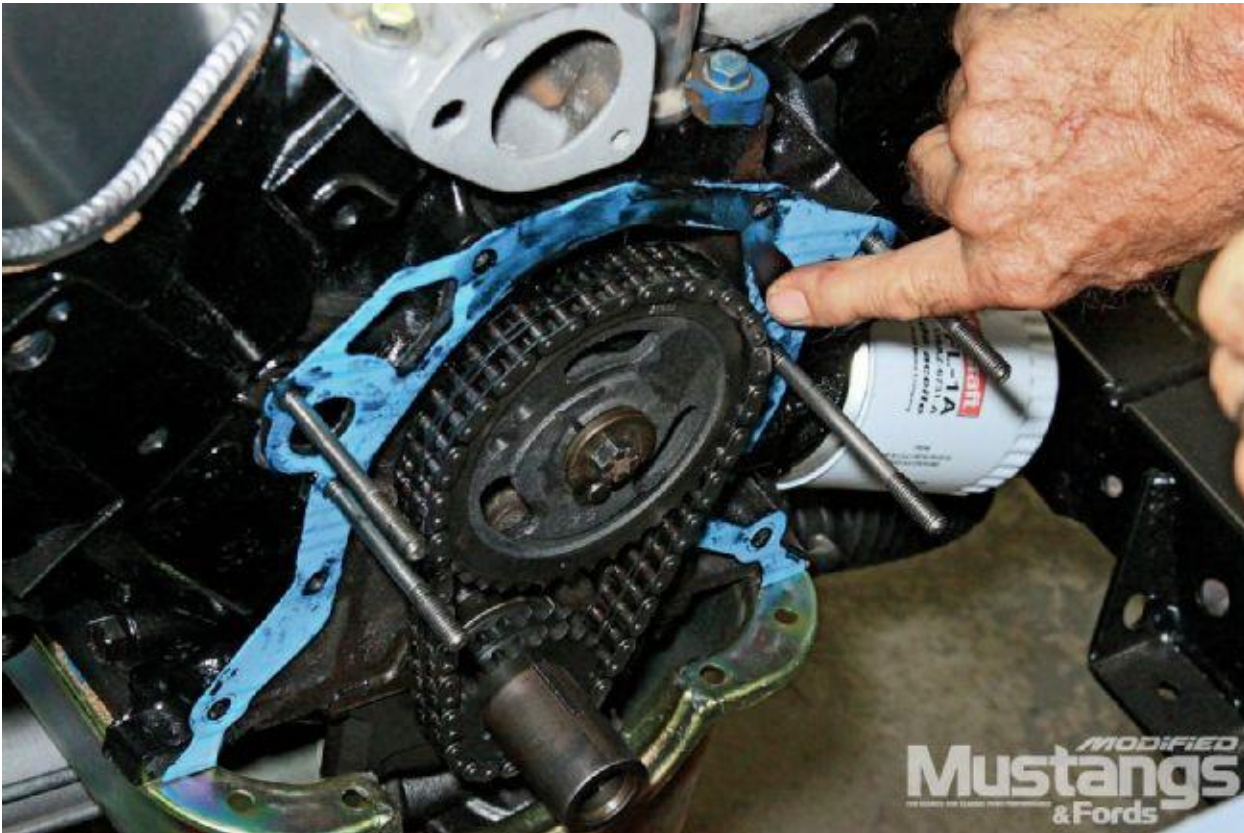
You might be inclined to ask what the gain is from the S.Drive. Attributes include durability and good looks. You also get 105-amp, single-wire charging system reliability and the reduced drag of a Sanden rotary compressor. Serpentine beltdrives are buttery smooth and quiet too.



1. The S.Drive from Eddie Motorsports arrives on your doorstep carefully packaged and ready for installation. Everything you're going to need is here, including the air conditioning compressor, alternator, all hardware, and detailed instructions.



2. The mounting studs get Permatex Form-A-Gasket on the threads for corrosion resistance and sealing. If you haven't installed the oil pan, these studs go in first. If the pan is already installed, the timing cover is installed first, then the studs.



3. The timing cover gasket is installed and prepped with a thin film of gasket sealer. We learned with this experience why the studs go in after the timing cover with the oil pan installed. You can install it with the studs installed, however, you may run into pan gasket sealing issues.



4. The Eddie Motorsports timing cover gets a new oil pan end gasket prior to installation. Although Permatex Form-A-Gasket has been around for a long time, it remains an effective sealant. The crankshaft oil seal should be heavily lubricated with engine oil or assembly lube, and carefully navigated into place during installation to prevent damage.



5a. The timing cover is carefully located and set in place against the block and oil pan. The pan end gasket is checked for proper installation.



5b. The timing cover is bolted first at the oil pan for stability before the block bolts are installed. The bolt threads are coated with gasket sealer.



6. The Maval billet power steering pump bracket is installed next using a 16mm Allen drive.



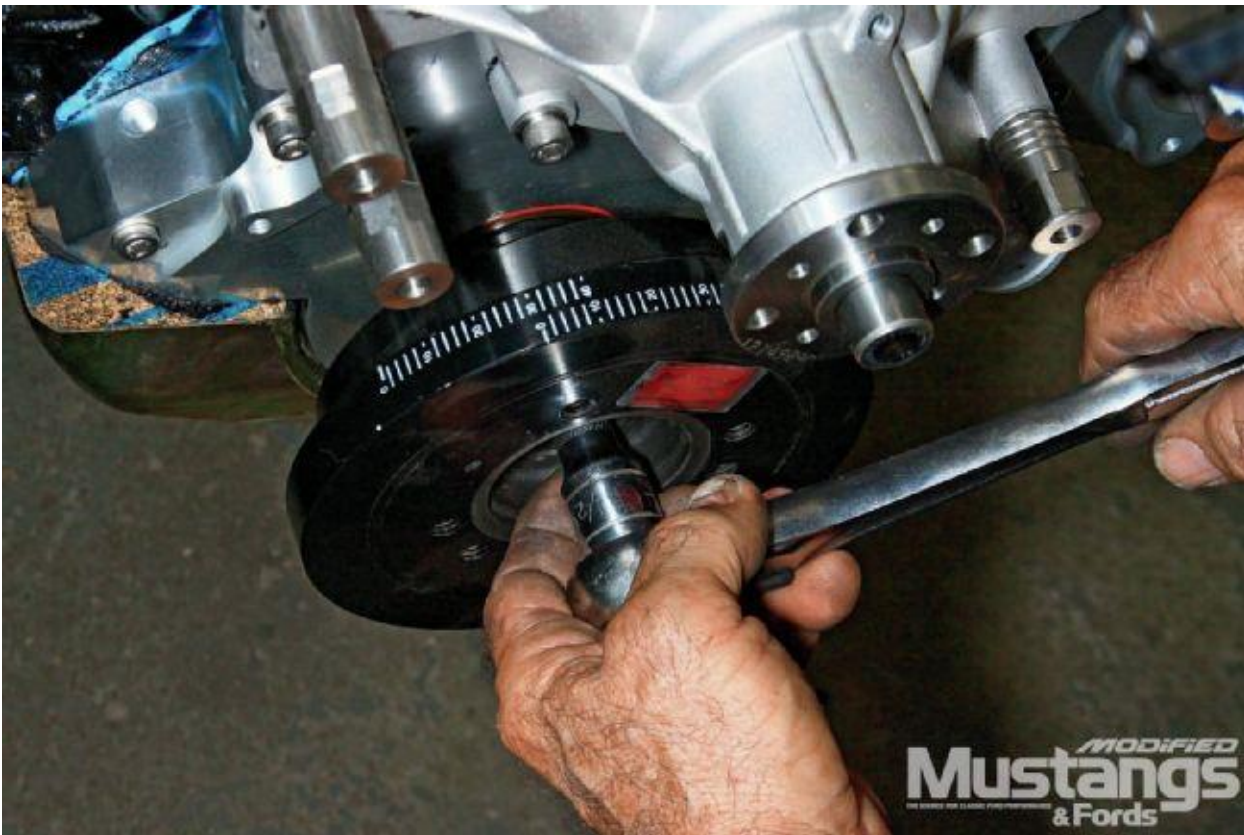
7. The water pump gasket is installed next using a thin film of Permatex Form-A-Gasket. Ford Racing's reverse-rotation water pump follows. This is also the time to install the timing pointer, which is located opposite the water pump inlet.



8. Accessory bracket spacers are installed next. The trick here is knowing where they're installed because of their varying lengths. The quickest way to tell you haven't located them properly is an accessory bracket that doesn't fit flush. The spacers simply screw onto the water pump studs.



9. If the spacers are not located properly you will see a gap like this between the accessory bracket and spacer. Spacer length differences are very slight and must be measured.



10. A Professional Products' harmonic balancer is installed next. The crank seal and balancer hub must be heavily lubed for a smooth installation. Do this dry and you can damage the crank seal and get leaks. Nobody likes leaks, except maybe your plumber.

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11. The accessory mounting plate/bracket is then secured to the spacer with these Allen screws.



12 The water pump pulley bolts get thread locker and are torqued per the Eddie Motorsports instructions.



13. When you order your S.Drive system, make sure Eddie Motorsports knows which crank pulley spacer you need for your application. If you mount the pulley out of the box without the appropriate spacer, you'll wind up with misalignment.



14. The Sanden air conditioning compressor is mounted next and pivots as shown. The beauty of a Sanden compressor is its rotary efficiency.



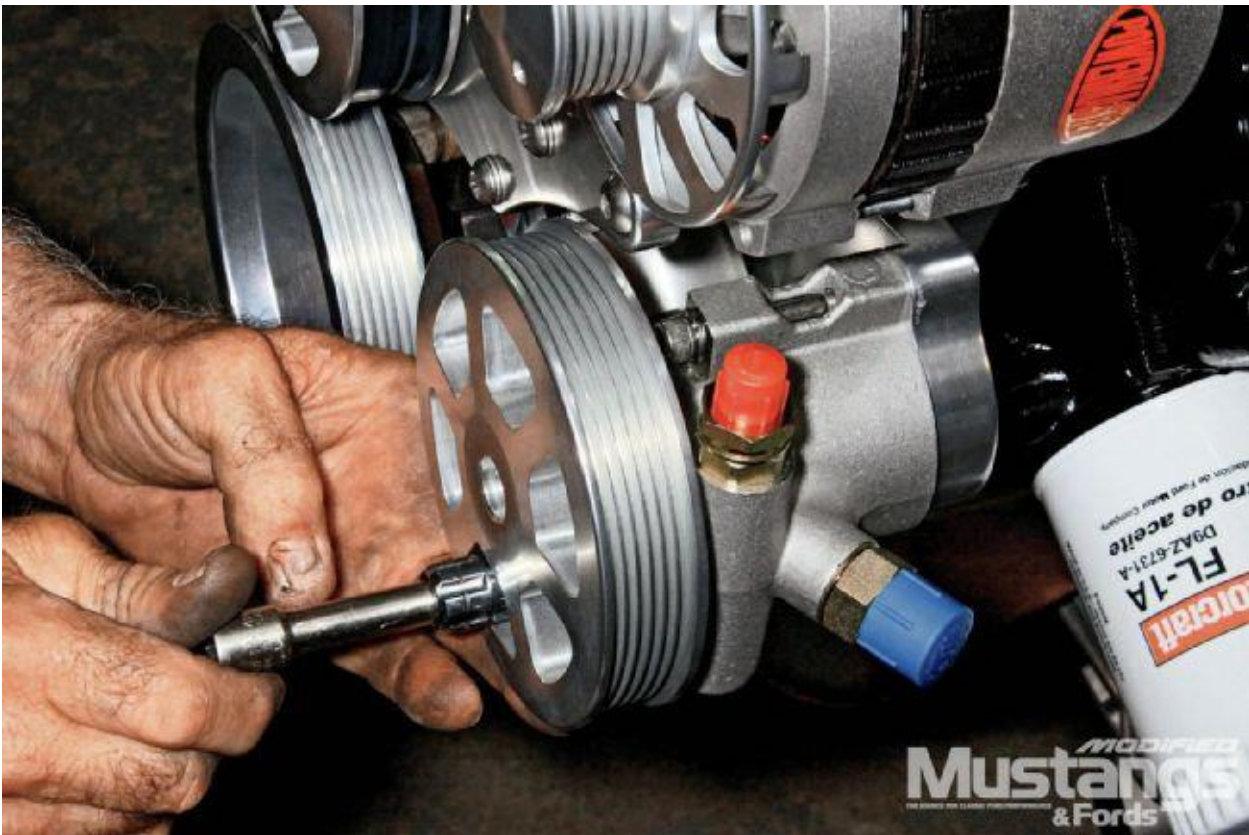
15. Included in the system is this attractive billet manifold for the Sanden compressor, which is installed last. The compressor should remain capped until you are ready to install the air conditioning lines.



16. The compressor clutch gets this cool cover, which is bolted onto the clutch, and hides the electromagnet clutch mechanicals.



17. Powermaster's 105-amp single-wire alternator looks sharp right out of the box. Installation is easy and there's just that one heavy gauge wire to deal with.



18. The Maval power steering pump is a lightweight and professional-grade design that works with a wide variety of power steering systems. You can go with this pump's integral reservoir or a remote location. Stang-Aholics is going with a remote reservoir.



19a. The belt tensioner is mounted last, bolting to the S.Drive's accessory bracket.



19b. The tensioner cover is installed once the belt is installed and tracking properly.



20. And there you have Eddie Motorsports' new S.Drive serpentine system. It is certainly compact, well-engineered, and it looks fantastic.

Sources

Stang-Aholics, LLC

Terra Bella, CA 93270

559-535-5669

<http://www.stang-aholics.com>

Eddie Motorsports
Rancho Cucamonga, CA 91730