

## Addendum for the Installation of the Lingenfelter 10 Bolt Supercharger Pulley Hub Kit



**PN: L250150309**

## Parts List

### Lingenfelter 10 Bolt Supercharger Pulley Hub Kit (PN: L250150309)

#	Description	Part number
1	10 bolt hub	L220126109
10	Stainless socket head cap screw, M4x0.7x12	47503
1	242 Loctite, 0.5 ml	24205
1	3/16" x 1" dowel pin	98381A510
1	LPE decal	LPE-DECAL
1	Instructions	N/A

### Available LPE 10 bolt supercharger pulley options

1	Lingenfelter C6 ZR1 LS9 2.35 11 Rib 10 Bolt Pulley	L220136109
1	Lingenfelter C6 ZR1 LS9 2.60 11 Rib 10 Bolt Pulley	L220146109
1	Lingenfelter CTS-V Camaro ZL1 LSA 2.55 8 Rib 10 Bolt Pulley	L220300709
1	Lingenfelter CTS-V Camaro ZL1 LSA 2.35 8 Rib 10 Bolt Pulley	L220310709

### Optional (to pin the pulley or hub)

#	Part number	Description
1	L950010000	3/16" straight flute solid carbide drill bit

### Tools and materials required

- Flat head screwdriver
- Pulley removal tool (LPE L950066509 or equivalent)
- Mill (or equivalent)
- End mill
- Black marker
- Arbor press, hydraulic press or equivalent
- Vise
- Press fit lube or equivalent
- Allen key set (metric)

### Tools and materials required to pin the hub (optional operation)

- 3/16" straight flute solid carbide drill bit
- 1/8" high speed steel drill bit
- Drill press
- Hammer
- Punch

This addendum provides instructions for the installation of a ten bolt hub and pulley. This addendum applies to the installation of a ten bolt supercharger hub and pulley kit on GM LSA (CTS-V and ZL1 Camaro) and LS9 (ZR1 Corvette) equipped vehicles.

**Read the entire instruction manual before beginning installation. Many of the stock parts will be used in reassembly.**

**Torque value warning - the torque values for the fasteners are provided in metric (Nm) and then imperial units. For the imperial units some are referenced in lb-ft and others in lb-in. Make sure you notice the difference and set your torque wrench correctly.**



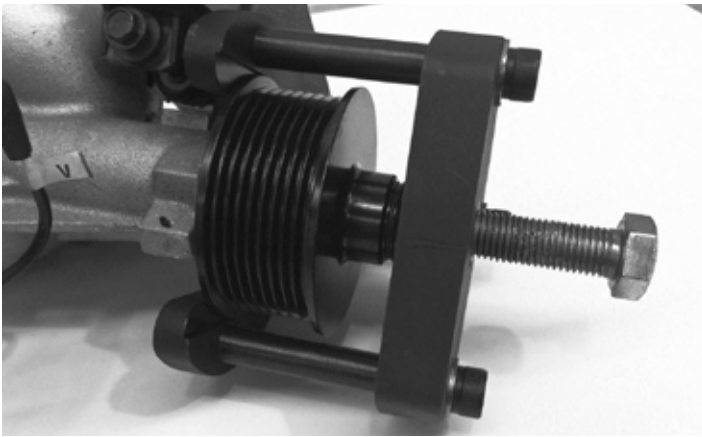
# CAUTION

**IT IS THE PURCHASER'S RESPONSIBILITY TO FOLLOW ALL INSTALLATION INSTRUCTION GUIDELINES AND SAFETY PROCEDURES SUPPLIED WITH THE PRODUCT AS IT IS RECEIVED BY THE PURCHASER TO DETERMINE THE COMPATIBILITY OF THE PRODUCT WITH THE VEHICLE OR THE DEVICE THE PURCHASER INTENDS TO INSTALL THIS PRODUCT ON.**

**LINGENFELTER PERFORMANCE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES OCCURRING FROM ACCIDENT, MISUSE, ABUSE, IMPROPER INSTALLATION, IMPROPER OPERATION, IMPROPER TOOLS, LACK OF REASONABLE CARE, LACK OF SKILLS OR ALL PREVIOUSLY STATED REASONS RESULTING FROM INCOMPATIBILITY WITH OTHER PRODUCTS.**



1. Remove the cap on the pulley by using a small flat head screwdriver and prying up.



2. Using a pulley removal tool, such as the Lingenfelter L950066509 pulley removal tool shown to the left, remove the factory pulley from the supercharger front cover.

NOTE - make sure you are pulling on the pulley against the shaft and NOT against the casting or you will move the shaft in relation to the shaft support bearings.



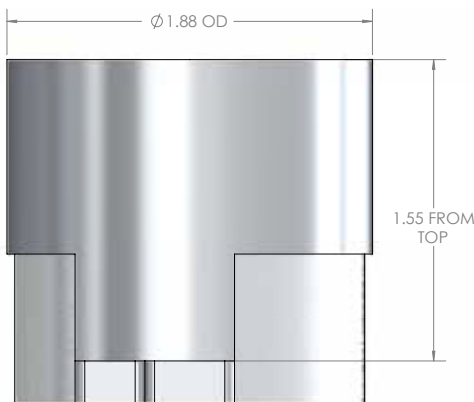
3. Steps 4-6 will detail the machining operation that must take place in order to provide enough clearance for the new pulley.



4. Start by marking both of the tabs with a black marker. Make sure that you do not go below your mark in the machining process. LPE suggests using an adjustable boring head or a die grinder to remove material. Remove the tabs 1.55" down as illustrated in the next step.



5. Using a runout gage, locate your end mill to be concentric with the inside of the jackshaft housing (you may also use the jackshaft itself to center the endmill). You can complete the machining with the jackshaft installed if your boring gage allows it, otherwise you will need to remove the jackshaft. **If you remove the jackshaft, you must replace the bearings.** See the next step for the dimensions of the machined part.



6. These are the dimensions that you will need to use to machine your jackshaft support.



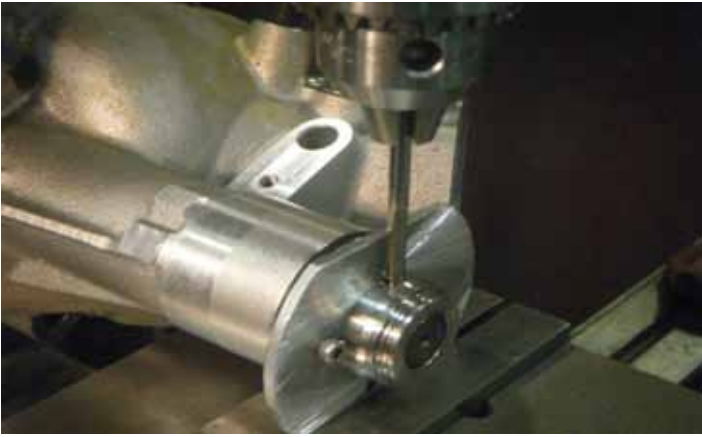
7. Using a machine press, press the supplied 10 bolt hub onto the jackshaft.

NOTE - make sure you support the center of the shaft and are not pressing on or supporting the part from the 3 pins at the end of the shaft or from the casting itself. If you support it from the casting you will move the shaft in the support bearings. The LPE pulley removal and install kit includes a machined spacer designed to properly locate the shaft when installing the pulley (see arrow).



8. The leading edge of the hub should be flush with the end of the jackshaft, as shown in the adjacent illustration.

**Steps 8-10 are optional. Since the supercharger pulley is spinning at higher RPM and driving more load than the stock pulley, pinning the pulley is recommended but not required. LPE pins all of their LSA & LS9 supercharger pulleys.**



9. Using a vise, secure the supercharger pulley so that it is clamped evenly and, using a drill press, drill a 3/16" hole, 1.05" deep in the center of the end of the pulley. Next, using a 1/8" drill bit, drill a hole completely through the pulley and shaft in the same position. This will allow you to remove the pin if you are ever replacing or removing the pulley.

**NOTE:** LPE recommends using a hardened solid carbide drill bit to drill the 3/16" hole as the shaft material is very hard.



10. Place the 3/16" x 1" LPE dowel pin (part # 98381A510) into the hole that was just drilled out.



11. Secure the front cover and supercharger pulley. Using a hammer and punch, hit the two surfaces around the pin shown to the left. This will keep the dowel pin securely in place.

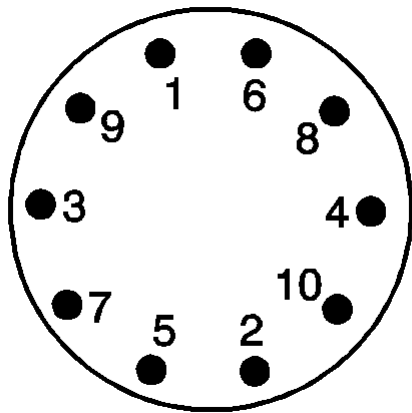


12. Reinstall the black cap onto the front of the hub.





13. Install the supercharger pulley onto the 10 bolt hub.



14. Apply a small amount of Loctite Blue to the supplied M4x0.7x12 socket head cap screws and, using a 3 mm Allen wrench or socket, secure the pulley to the hub with these screws. Use the pattern to the left to tighten the screws. Torque to 2.3 Nm (20.7 lb-in).



15. LPE LSA & LS9 two piece pulley removal:

The Lingenfelter two-piece LSA & LS9 pulleys have twelve (12) holes on the face. Ten (10) of the holes are not threaded and these are used to secure the pulley to the hub. The two (2) holes (indicated by the yellow arrows in the adjacent illustration) are threaded to accept M4 x 0.7 fasteners. These two holes allow you to use two M4 x 0.7 screws to remove the pulley from the hub. To do so, remove the ten (10) M4x0.7x12 mm fasteners from the pulley and then thread two M4x0.7x14 or longer screws into the two additional holes. Tighten one screw and then the other to evenly work the pulley off of the hub.

**For additional product installation information and technical support, contact LPE or your LPE products distributor. You can also find technical support and usage discussions regarding this product and many other LPE products in our Internet forums:**

<http://www.lingenfelter.com/LPEforumfiles>

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