

The Studebaker Co-Operator

A monthly column of current Studebaker-related technical questions and answers. Answers are researched and prepared by the advisors listed to the right. Questions and answers are edited and compiled by Bob Palma, *Turning Wheels* Technical Editor.

Please mail your question with a self-addressed, stamped envelope to the appropriate advisor. When responding to material that has appeared in *The Studebaker Co-Operator*, please address all additional information, corrections, etc., to the appropriate advisor with a copy to **Technical Editor, Bob Palma**, 309 S. Jefferson, Brownsburg IN 46112.



Mentor Mike Marino visits "Hi-Po" Advisor Jim Pepper (right) and Jim's 1963 Super Lark. Jim says "Mike was one of the best Gas Supercharged engine builders in the country during the gasser wars of the late '50s and '60s." Mike's distributor and carburetor advice aided Jim in helping Ron Hall's Avanti reach 200 MPH. All of us "young uns" are indebted to fellows like Mike for gladly sharing what they've learned.

Dear Dwain,

How do I get the rear brake drums off my Studebaker? I am a new SDC member and new to working on Studes and this is frustrating.

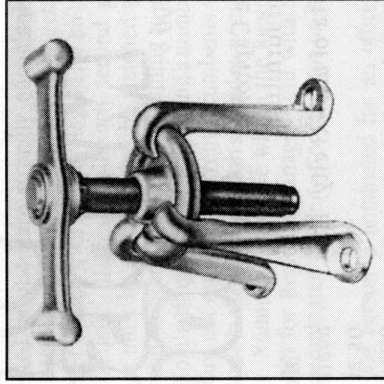
I tried using a front hub puller to no avail and damaged the threads on the end of the axle shaft. My next puller was a large, 3-jaw puller and it pulled on the back edge of the drum. You guessed it; that warped the drum.

What type of puller do I use and where do I get one? Any help is really appreciated. Thanks.

Peter Povlich
3561 E. Norwich Ct. St. Francis WI 53235

Dear Peter,

I am sorry to hear that your introduction to working on Studes has been so frustrating. Here is an illustration of the exact type hub puller you should be using. This basic design is available under several brand names from auto parts stores or off of commercial tool trucks that call on shops. I haven't priced one lately, but I would guess that they sell for at least \$75 now. If you buy one, opt for quality and guarantee, not price. This is one tool you do not want to buy cheap! Some auto parts stores and rental places may have them to rent if you don't think you'll be using one very often.



Universal Hub Puller as needed to remove rear brake drums on Studebakers with tapered-shaft rear axles; those having a large nut at the end of the axle shaft. A heavy striking hammer (mallet) may be included with new pullers.

To use one of these pullers, first back off the brake adjustment and then remove the large axle cotter key and nut.

Turn the nut around and thread it back onto the end of the shaft castle-end-first until the solid end of the nut is just flush with the end of the axle shaft. This is to prevent (or at least reduce the chances of "mushrooming" the end of the axle shaft.

Place the three legs of the puller on three wheel studs with only two legs adjacent to each other. Install the wheel lug nuts on those studs and tighten them down as far as possible without binding the legs; i.e., the legs are still able to move a bit.

Co-Operator Advisors

Mechanical Advice 1961-1966:
Bob Palma, 309 South Jefferson, Brownsburg IN 46112

Mechanical Advice 1953-1960:
Dwain Grindinger, 920 McKenzie Avenue, Bremerton WA 98337

Mechanical Advice 1946-1952:
Earl Haley: Passed away 3/16/99
"He was a Studebaker Man"

Body Work & Painting 1950-1966: **Gregg Lentini**
3725 Jugtown Road
Morris IL 60450

Pickup Trucks: **Ingvar Vik**, 131 Willow Dr., Livingston, MT 59047

Automatic Transmission Problems:
John Metzker,
12302 Jerome Street,
Garden Grove CA 92841

Avanti Troubleshooting:
Jon Myer, 128-130 Main St.,
Duncan Falls OH 43734

Supercharger Repair & Advice:
John Erb, 4019 Ponderosa Dr.,
Carson City NV 89701

R-Series Engines & High-Performance:
Jim Pepper, S66 W25070 Skyline
Dr., Waukesha WI 53186

Prewar & Skyway Champion:
Richard Quinn, 20026 S. Wolf Rd.,
Mokena IL 60448

The puller screw has a point that centers on the axle end. Place the two-eared striking wrench over the hex end of the puller screw and tighten. Finish tightening it with a few hammer blows on the striking wrench. Then, and this is important, while the whole puller is under tension trying to pull off the drum/hub assembly, hit the hex end of the puller screw hard and squarely one time.

Repeat the tightening and striking procedure if necessary. You must alternately apply *tension* (tightening the large center screw on the puller) and *shock* (hitting the end of the screw while it is under tension) to pop the hub/drum assembly loose.

When you install the hub/drum, both the axle and the tapered hub must be clean and dry. Be sure the key is positioned properly, keying together the axle and hub/drum. The axle nut should then be tightened to 170 ft/lb torque. You may want to rent or borrow a large torque wrench for that purpose. At 170 ft/lb, continue tightening the nut until the first available cotter pin holes line up to install the cotter pin. If the cotter pin holes line up right at 170 ft/lb torque, there is no need to tighten it further before installing the cotter pin. **DG**

[Editor's Note: Peter, as usual, I agree with everything Dwain had to say and would encourage you to

follow his directions. You also said you had already damaged the axle threads, so you are probably wondering what to do about that. Before you do anything else about getting those drums off, take one good axle castle nut to a good hardware store and buy a high-quality machine die for the nut's thread. Take the die home and try to repair the damaged threads before you proceed.

For the time being, buy new, Grade 8 or better standard nuts (not castle) to protect the repaired threads while you use the correct puller and Dvain's procedure to remove the drums. Finally, buy new axle castle nuts (this may take some looking) to use when you reassemble the hubs/drums/axles.

I do want to emphasize Dvain's point about a combination of *tightening* the puller's center bolt for tension and then *striking* its end for shock to remove those drums. Too many people just keep trying to tighten and tighten until the drum pops off. This more often than not results in a mushroomed axle or at least more damaged threads before the drum finally, if ever, comes off. Tighten and strike, tighten and strike is the only way to accomplish this. **BP**

Dear Bob,

Are modern fluids and anti-freezes okay for my just-acquired 1962 Lark 6 with straight three-speed? A friend of mine who is into Chevroys swears by synthetics, but my Stude is the first old car I've owned and I'm not too sure.

I understand that the OHV Six Larks had head gasket problems; true?

The car's serial number is 62S38819. Is there any way I can use that number to determine the car's history? Thanks.

Bob Andreocci
12 Clark St. Huntington, NY 11743

Dear Bob,

Modern lubricants are indeed excellent for your car. Part of the reason that new cars last as long as they do is that today's fluids, except gasoline, are so much better than older ones. If you are inclined to use full synthetic oil in your Lark, go ahead. I think it will help prolong the engine's life. Ditto the long-life

coolants now on the market; a thorough cooling system flush with the block drains open, followed with newer long-life coolants, is beneficial.

The head gaskets weren't especially a problem with the OHV six; the heads themselves were. They were prone to crack, especially when lugged, placed in extreme service, operated with cheap gasoline, too much spark advance, *incorrect valve adjustment*, or the like. If your car runs reasonably smooth and has good, even compression throughout, just keep the cooling system clean and the engine properly tuned and you'll minimize chances of having to deal with a cracked head.

Many of those heads have cracked and been repaired by now, and that isn't necessarily bad. A properly-repaired head can last longer than an NOS head. My personal observation on those heads is the potential damage that people do to those engines by lugging them; not downshifting as often as is required to keep the revs up and not hammer away at low RPMs doing hard work. Be prepared to downshift as necessary when driving your car. With a straight three-speed and no overdrive, your car's rear axle ratio was a real compromise. You've got to give it a hand by downshifting and keeping the revs up!

Send \$15 and your car's serial number to Newman-Altman or SASCO, depending on the wording in the latest *Turning Wheels*, and secure a copy of your car's production order. You'll thus find out to which state your car was originally shipped. You can start with the Bureau of Motor Vehicles in that state to see if they have any records and, at the other end of the history, start with your current title and a trip to your local BMV/DMV and see if they can go backwards for you. You might check the Internet to see if there are any such services available. I'm not aware of any, but new things are cropping up all the time. **BP**

Dear Bob,

Would it be possible to install a Lark convertible X-member in the frame of our 1963 Hawk? The frame is gone under this project and so I have to do something. How does the driveshaft clear the frame X-member?

The boxes behind the rocker panels are also rusted away. The body sags and the doors don't align properly, especially when the car is on a hoist or jacked up. When I restore the body structure, I'd just as soon beef up another frame with an X-member at the same time, so I'd appreciate your input.

Thank you and the other Co-Operator Advisors for putting together my favorite part of Turning Wheels. I don't know where Studebaker owners would be without it. Here's a U.S. dollar for postage as I don't have any U.S. stamps.

Fred Gent
141 Roland Rd Saltspring Island B. C. V8K 2B7

Dear Fred,

Thanks for your kind words and the postage allowance. It's good to hear that you are addressing your Hawk's structural integrity so ambitiously; many folks do not and wind up with cars that have squeaks, groans, and rattles, at the least. The structural integrity of K-bodied ("hardtop") Hawks was barely adequate when they were new, so structural rust repair is a serious concern when restoring these cars.

You can't remove a Lark convertible X-member and weld it directly into a Hawk frame because the wheelbase and, hence, the frame mid-section, is longer on a Hawk. However, you might well be able to make it work with some custom metal work if the body was off the chassis and the frame was stripped down. It sounds do-able to me if you are creative; just don't expect it to be easy.

The driveshaft goes right through the center of the "X" in a hole provided for that purpose. Should you try to install an X-member in a good Hawk frame, you would have to be very careful to provide enough clearance for the driveshaft throughout the rear suspension's complete range of travel. Doing this without the body on the frame would require having many 200+ pound people around to stand and sit on the rear of the frame to get the suspension 'way down and see what kind of clearance you had.

If you do undertake an X-member installation in a Hawk frame, please take photos and notes as you go along. It would make an interesting item for *Turning Wheels*. Best wishes with the project. **BP**