1992 Volvo 940

Submodel: | **Engine Type:** L4 | **Liters:** 2.3
Fuel Delivery: FI | **Fuel:** GAS

1. Raise and support the appropriate end of the vehicle safely using jackstands, then remove the wheel.
2. Remove the brake pads and caliper. Support the caliper aside using wire or a coat hanger. For details, please refer to Section 9 of this manual.
3. Remove the outer wheel bearing and lift off the rotor.
4. Properly support the rotor using press bars, then drive the stud out using an arbor press.

NOTE: If a press is not available, CAREFULLY drive the old stud out using a blunt drift MAKE SURE the rotor is properly and evenly supported or it may be damaged.

Fig. 1: View of the rotor and stud assembly

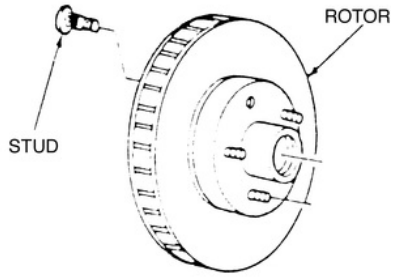
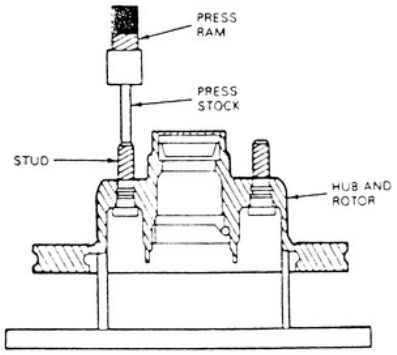


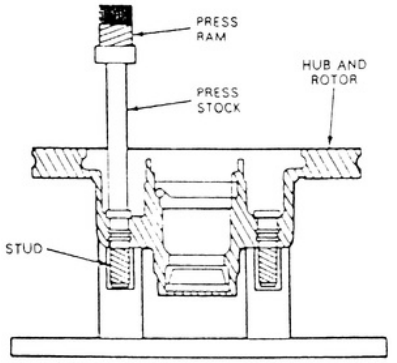
Fig. 2: Pressing the stud from the rotor



To install:

5. Clean the stud hole with a wire brush and start the new stud with a hammer and drift pin. Do not use any lubricant or thread sealer.
6. Finish installing the stud with the press.

Fig. 3: Use a press to install the stud into the rotor



NOTE: If a press is not available, start the lug stud through the bore in the hub, then position about 4 flat washers over the stud and thread the lug nut. Hold the hub/rotor while tightening the lug nut, and the stud should be drawn into position. MAKE SURE THE STUD IS FULLY SEATED, then remove the lug nut and washers.

7. Install the rotor and adjust the wheel bearings.
8. Install the brake caliper and pads.
9. Install the wheel, then remove the jackstands and carefully lower the vehicle.
10. Tighten the lug nuts to the proper torque.

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Inspect the tires for lacerations, puncture marks, nails and other sharp objects. Repair or replace as necessary. Also check the tires for treadwear and air pressure as outlined in Section 1 of this manual.

Check the wheel assemblies for dents, cracks, rust and metal fatigue. Repair or replace as necessary.

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1. Park the vehicle on a level surface.
2. Remove the jack, tire iron and, if necessary, the spare tire from their storage compartments.
3. Check the owner's manual or refer to Section 1 of this manual for the jacking points on your vehicle. Then, place the jack in the proper position.

Fig. 1: Using a rag or paper towel under the prytool will help prevent scratches to your wheels

Fig. 2: Place the jack at the proper lifting point on your vehicle

4. If equipped with lug nut trim caps, remove them by either unscrewing or pulling them off the lug nuts, as appropriate. Consult the owner's manual, if necessary.
5. If equipped with a wheel cover or hub cap, insert the tapered end of the tire iron in the groove and pry off the cover.

Fig. 3: Before jacking the vehicle, block the diagonally opposite wheel with one or, preferably, two chocks

6. Apply the parking brake and block the diagonally opposite wheel with a wheel chock or two.

   NOTE: Wheel chocks may be purchased at your local auto parts store, or a block of wood cut into wedges may be used. If possible, keep one or two of the chocks in your tire storage compartment, in case any of the tires has to be removed on the side of the road.

7. If equipped with an automatic transmission/transaxle, place the selector lever in **P** or Park; with a manual transmission/transaxle, place the shifter in Reverse.
8. With the tires still on the ground, use the tire iron/wrench to break the lug nuts loose.

Fig. 4: With the vehicle still on the ground, break the lug nuts loose using the wrench end of the tire iron

NOTE: If a nut is stuck, never use heat to loosen it or damage to the wheel and bearings may occur. If the nuts are seized, one or two heavy hammer blows directly on the end of the bolt usually loosens the rust. Be careful, as continued pounding will likely damage the brake drum or rotor.

9. Using the jack, raise the vehicle until the tire is clear of the ground. Support the vehicle safely using jackstands.
10. Remove the lug nuts, then remove the tire and wheel assembly.

Fig. 5: After the lug nuts have been loosened, raise the vehicle using the jack until the tire is clear of the ground

Fig. 6: Remove the lug nuts from the studs

Fig. 7: Remove the wheel and tire assembly from the vehicle

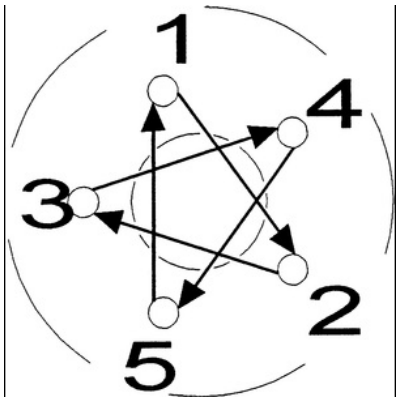
To install:

11. Make sure the wheel and hub mating surfaces, as well as the wheel lug studs, are clean and free of all foreign material. Always remove rust from the wheel mounting surface and the brake rotor or drum. Failure to do so may cause the lug nuts to loosen in service.
12. Install the tire and wheel assembly and hand-tighten the lug nuts.

13. Using the tire wrench, tighten all the lug nuts, in a crisscross pattern, until they are snug.
14. Raise the vehicle and withdraw the jackstand, then lower the vehicle.
15. Using a torque wrench, tighten the lug nuts in a crisscross pattern to the proper torque (use the charts at the end of this section). Check your owner's manual or refer to Section 1 of this manual for the proper tightening sequence.

Fig. 8: This pin is used to align the wheel upon installation

Fig. 9: Typical wheel lug tightening sequence



WARNING

Do not overtighten the lug nuts, as this may cause the wheel studs to stretch or the brake disc (rotor) to warp.

16. If so equipped, install the wheel cover or hub cap. Make sure the valve stem protrudes through the proper opening before tapping the wheel cover into position.
17. If equipped, install the lug nut trim caps by pushing them or screwing them on, as applicable.
18. Remove the jack from under the vehicle, and place the jack and tire iron/wrench in their storage compartments. Remove the wheel chock(s).
19. If you have removed a flat or damaged tire, place it in the storage compartment of the vehicle and take it to your local repair station to have it fixed or replaced as soon as possible.