2001 Honda Odyssey with 65K miles—
REAR Brake Shoes Replacement

A “sticky post” from Forum “99-04 Odyssey” on www.odyclub.com

By senior member “cnn” from Omaha, Nebraska, 4/23/06

Symptoms: Every time main brake or parking brake is applied, a squeaking noise is heard in the REAR Brake. **Honda issued a TSB in the past to fix this noise.** Basically lack of lubrication between the Rear Brake Shoes at Areas where they contact the “Backing Plate”. This procedure will show you how to do it.

GENERAL NOTES:

- Since my Ody has 65K miles, I decided to change the Brake Shoes as there is only 2mm Shoe Thickness remained (Service Limit) at FRONT LOWER corner. However, I am sure you can drive to 80-90K without problems because most of the Braking force is on the FRONT wheels anyway.

- You can use Helms or Chilton’s Repair Manual but Chilton’s mentioned apply grease the shoe ends and sides. I have a better technique (read on).

- I bought the REAR Brake Shoes from [www.autohausaz.com](http://www.autohausaz.com) for $25.00 (for set of 4 shoes). The mfg is “Enduro”. Of course, you can use Honda OEM, but they are more expensive (approx. $60-70/set of 4 shoes).

- For Brake Grease, use either high-temperature “Molykote 44MA” or “Permatex Anti-Seize Lubricant”:
  [http://www.permatex.com/products/au...Lubricant_a.htm](http://www.permatex.com/products/au...Lubricant_a.htm)

  (These 2 products are basically the same thing)

------

1. Apply a small amount of grease to the two 8 x 1.25 mm bolts and use these bolts to remove the stubborn Brake Drum. Two turns at a time. You may want to tap with a Rubber Hammer to help release the Brake Drum. After the Brake Drum is removed, Study the REAR Brake Anatomy. **Your Ody may be different so**
you may want to take a digital picture before disassembly just in case.

2. Remove “Self-Adjuster Spring B” and “Self-Adjusting LEVER”
3. Remove “Upper Retaining Spring A”
4. Remove the “Retaining Clip” holding the FRONT Shoe and remove the FRONT Shoe. This is done by using a needle-nose plier to squeeze the clip down and wiggle it out. The Adjuster Bolt can now be removed (Note the orientation for installation). Note the “Lower Retaining Spring B” sits behind the metal bracket, so when installing make sure it sits in the same place.
5. Now remove the "Retaining Clip" holding the REAR Shoe and remove the REAR Shoe.
7. Now you can see Brake Shoes wear at 65K miles. It is kind of uneven with some areas with 3.5mm and some with only 2mm (This is the nature of any drum brake as the shoes do not form a perfect “circle” conforming to the Brake Drum).
8. Now turn the Brake Drum around, you will see some rust building up at the outer lip. Sand this area with sandpaper until it is smooth, otherwise, you will NOT be able to re-install the Brake Drum because of tight tolerances here, the “rust ridge” will prevent the Brake Drum from going in.
9. Now make a note of the old Brake Shoes and see how the “Parking Brake LEVER” is attached to it. (NOTE: The FRONT Shoe is different from the REAR Shoe).

10. Remove the “U clip” by either:
   - chisel and hammer (be gentle) it out...or
   - vice-grip squeezing the “ends of U clip” and the “pin”

Then transfer this “Parking Brake LEVER” to the New Shoe.

(Lubricate the pin of the "Parking Brake LEVER" with a small dab of grease then re-insert "U Clip").

Note: You should use a new “U clip”, I did this on a Sunday so no dealer opened, ended up re-using the “U clip”. Just squeeze the ends gently together so it will not come out.
11. **Now is the IMPORTANT Part.** Apply grease to ALL parts with movement:

- Parking Brake Cable where it enters the Rear Brake Assembly.
- Brake Adjuster Threads and Pivot Points (Note: during installation, keep the “Thermal Clip” facing toward axle, otherwise it will interfere with “Upper Retaining Spring A”)
- All “Raised” areas on the “Backing Plate” where the Brake Shoes rub against. This is what causes squeaking noise when applying brakes. It is very obvious when the brake shoes are removed, you will see the “contact” points very well. In the picture, you see that grease is applied at these raised areas.
- Opposing ends of Brake Cylinder
- Opposite ends of “Lower Brake Shoe Resting Block”
Grease the Parking Brake

This is where Parking Brake Cable enters the REAR Brake Assembly.

Pliers holding Spring back so Grease can be applied to Parking Brake Cable where it enters the REAR Brake Assembly.

Bamboo BBQ skewer used to apply Grease.
12. To re-install, REVERSE steps 1-6 above.

- **IMPORTANT**: Now turn the “Star Wheel” in the “Adjuster Assembly” until the opposite ends barely touch the Brake Shoes. Then turn the “Star Wheel” another 4-5 clicks.

- **IMPORTANT NOTE: AT THIS STAGE**, Clean the Shoe BRAKING SURFACES with Brake Cleaner to make sure no grease is left on the Braking Surface. Then install Brake Drum (also make sure the braking surface of the drum is free of oil or grease).

- Install the Brake Drum and rotate it, there should be a slight drag when the Brake Drum is rotated but not more than that.

- You may have to remove the Brake Drum and repeat this step a few times to have a feel for it (Adjust the Star Wheel as necessary). Basically, when completed, there should be a slight drag when the Brake Drum is rotated.

- With Brake Drum in place (but road wheel NOT installed), gently apply main brake a few times to seat in the Brake Cylinder ends. Now apply Emergency Brake. You should not be able to turn the Brake Drum by hand.

**NOTE: Never, never, and never apply the brake without the Brake Drum installed, you will force the Cylinder pistons out and cause damage to the Brake Cylinder.**

Then Bleed the Hydraulic System (This is an option).

**** Once done, install the wheel and tell your wife (or significant other) that you are a wonderful husband fixing the Rear Brake noise for her and you need to be “compensated" properly.❤️❤️❤️