2013 Lexus LX570 – Tailgate strut

The tailgate struts also known as lift support, are aging relatively quickly compared to Volvo cars but similar to Subaru maybe because they are made by same manufacturer: KYB in Japan. Mine need replacement after 97K miles and 8 years in mild Pacific NW climate.

Reference discussions:

> LX570 power tailgate not functioning | IH8MUD Forum

Instructions:

> FSM: PDFs/RepairManual-RM19F0U-VehicleExterior-2013.pdf, page 23-27

Materials

- LH strut - 68960-69165
  - Tuff Support 612926
- RH strut - 68950-69215
  - Tuff Support 612927
- Loctite 243 - replacement for FSM Three Bond 1324
- All purposes grease
- OPTIONAL: 2x object sensor clip - 61617-42040

The strut part numbers are different between LX and Land Cruiser and the LC struts are half the price of the LX. They might work but I do not have a confirmation.

Tuff Support struts are much cheaper than the OEM ($13 vs. $65). They have the same dimensions the difference is in pistons rods finish – black vs. OEM chrome, the end attachments using clips for securing the balls inside the sockets, and the post hex is a 13mm instead of OEM 12mm.

Removal

Before you start, get someone to help you or cut a piece of wood long enough to keep the tailgate supported open, resting on the ground or easier on lower tailgate. Other options are drywall install supports or wall cabinet install helpers. If you don't, you'll have a hard time using one hand to support the tailgate and one to do all the work.

The OEM lower post (anchor) hex is 12mm requiring an open spanner. Supporting the tailgate weight makes turning the post easier.

To get access to the top 2 bolts of the strut I first need to get the bracket for the tailgate object closing sensor out of the way just enough to get a socket on the bolts. The bracket is the black metal that goes on the side of the tailgate and wraps around its bottom. The sensor stops the power closing mechanism operation in case of obstructions. I removed all the screws on the tailgate side leaving the bottom alone. It requires a Torx key. There is also a positioning plastic clip in the upper half that needs to be pried out. **Important** – this clip break easily! The most common is that the head is separating. That can be usually reattached. But sometimes the clip is stuck inside the tailgate and it breaks requiring a new clip.

Now I can remove the top two bolts using a deep 12mm socket or a regular one with an extension.

Note: Toyota FSM says to use Three Bond 1324. I found two different types of compound: blue on the bottom posts and red on the top bolts.

Install

Before installing I cleaned the threads of the old compound. I used cylindrical stainless steel brush for holes (good kits with hex handle for power driver available on amazon). For bolts I used a trade chaser and a small stainless steel brush (Home Depot has a set of stainless, brass, and nylon brushes). The brushes are a must have in my garage.

For OEM install follow FSM. Reuse the bolts. Torque for top bolts is 22Nm, and 18Nm for bottom post. Use Loctite on all. For bottom post you will need a 12mm crowfoot socket to torque it to spec as the post is not detachable from the piston rod. If you do not care about the torque just use an open spanner.

For Tuff Support I start with installing the top. Optional add some more grease to the socket, but unlike the bottom socket is comes with enough from factory. To separate the ball and socket I first remove the clip and then pull hard. Bolts torque and thread locker are the same as for OEM.

For bottom post I use a deep 13mm socket. I remove the rod socket clip – do not lose it! Optionally I put some AP grease inside the rod socket; it comes with some from factory but could use more. I lift the tailgate up as much as needed (careful the tailgate support you used does not fall onto something) so the bottom socket aligns with the post and I can press it over the ball. I insert the clip and make sure it is secure around the rod!

I do a preliminary test moving the tailgate before installing the objet sensor bracket back.

I clip the objet sensor bracket back in and install the Torx screws taking care not to overtighten them as they go into plastic clips!

Test tailgate movement both manual and automatic.