

7929 Lincoln Ave. Riverside, CA 92504  
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PART #	DESCRIPTION
51002	2005-UP HILUX 1" REAR SHACKLE KIT

COMPONENTS INCLUDED	
(2) 154027 05 UP HILUX 1" REAR SHACKLE (2) 159009 SLEEVE .750 X .510 X 3.940 (2) 159010 SLEEVE .750 X .510 X 2.680 (2) 605314 1/2-13 X 4.250 SCREW	(2) 605315 1/2-13 X 5.500 SCREW (4) 605330 1/2 FLAT WASHER (4) 605333 1/2-13 FLANGED NYLOCK NUT
HARDWARE INCLUDED	
N/A	
TOOLS REQUIRED	
JACK JACK STANDS TORQUE WRENCH	17MM SOCKET / DEEP SOCKET / WRENCH 3/4" SOCKET / DEEP SOCKET / WRENCH
TECH NOTES	
N/A	



WARNING!
<p><b>** READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!</b></p> <p><b>** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.</b></p> <p><b>** ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.</b></p>

## INSTALLATION

1. ENSURE TRUCK IS IN GEAR OR IN PARK, SET PARKING BRAKE, TURN OFF ENGINE AND CHOCK REAR TIRES!
2. Using a properly rated jack, raise the back of the vehicle and support the frame rails with jack stands. Ensure the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE.
3. With a floor jack under the rear end, slightly raise the rear axle housing from full droop to remove tension from the shock, loosen and remove the lower shock bolts. Make sure the axle is well supported. Keep all of the hardware, it will be reused.
4. Slowly lower the axle to unload the tension in the leaf spring. When the axle reaches full droop on the leaf springs jack the rear end back up about 1" to relieve any negative pressure in the spring and to insure that the axle weight is being supported by the jack.
5. Remove the nuts on the stock shackle and remove the inside plate. Remove the stock shackle to the outside of the vehicle. You may want to use a pry bar to assist in overcoming the friction of the rubber bushings.
6. Apply grease to the ID and sides of the factory rubber bushings in the frame and spring eye. Insert the sleeves in the bushings. Longer sleeve in the frame bushings and shorter in the spring eye.
7. Lower the axle slightly so that the distance between the frame and spring bushings is equal to the length of the new longer shackle.

**8.** Install the new shackle with the cross plate towards the rear of the vehicle. Install the upper and lower bolts with washer from the outside of the vehicle toward the center. Long on top and short on bottom. Install flanged lock nuts. [Torque to 78 ft\*lb] [FIGURE1]

**FIG.1**



**9.** Wipe off excess grease from around the eyelet bushings that may have squirted out when tightening.

**10.** Reinstall the lower shock eyelet. Lower the vehicle to the ground.

***VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.***

***RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.***

### ***ICON VEHICLE DYNAMICS LIMITED LIFETIME WARRANTY***

ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.

ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.

ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.

This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.



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