

CAN-AM DEFENDER HD11 LONG TRAVEL KIT

LTK-CHD11XT-1-B
79-18087

LTK-CHD11XT-1-B-BJI
79-18088

LTK-CHD11XT-1-B1-APX
79-18089

LTK-CHD11XMR-1-B
79-18090

LTK-CHD11XMR-1-B-BJI
79-18091

LTK-CHD11XMR-1-B-APX
79-18092

HL

HIGHLIFTER

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FALCON RIDGE

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POLARIS

can-am



HONDA

Kawasaki

 **YAMAHA**

PRODUCT DISCLAIMER

The installation of products sold or manufactured by High Lifter Products, including, but not limited to suspension components such as lift kits, gear reduction lifts, frame stiffener kits, snorkels, and tires that exceed the original specifications for the vehicle, may change the vehicle's center of gravity and handling characteristics both on- and off-road. You are aware that the installation of tires that are larger than original vehicle specifications may reduce the effectiveness of the braking system. Use of these products may place added stress to the original factory vehicle components which could cause them to weaken or possibly fail.

Products sold or manufactured by High Lifter Products, are intended for off-road use only. Operation of a vehicle modified with these products on a road could result in serious bodily injury or death, and such operation may violate the laws of your state or municipality. You agree to operate your vehicle exclusively in the manner intended by the vehicle manufacturer. You agree that failure to safely and reasonably operate your vehicle could result in serious bodily injury or death, and that, as a result of installation of this product(s) to your vehicle, extreme care must be taken to prevent vehicle rollover or loss of control, which may be more likely to occur as a result of said modifications. You will avoid unsafe maneuvers, including sudden sharp turns or other abrupt maneuvers, which could make a vehicular accident more likely. You understand that High Lifter Products, is not responsible or liable for any damages or any injuries to yourself or your passengers that could occur upon possible accidents due to driver error, incorrect installations, bad judgment, incompatibility with other aftermarket accessories or natural disasters to the fullest extent allowable by law.

You will have all vehicle occupants fasten seatbelts, if equipped, and wear proper safety equipment, such as DOT approved helmet and eye protection prior to operating the vehicle. You understand and acknowledge that failure to wear proper safety equipment may increase the risk of serious bodily injury or death to yourself and any passengers.

Proper installation of products sold or manufactured by High Lifter Products, requires knowledge of the factory recommended procedures for removal and installation of original equipment components. Installation of these products without proper knowledge and experience may affect the performance of these components and the safety of the vehicle and cause serious bodily injury or death. It is strongly recommended that a certified mechanic familiar with the installation of similar components perform the product(s) installation.

Prior to installing any products sold or manufactured by High Lifter Products, you will perform or cause to be performed an inspection of their vehicle to confirm its condition is suitable for the installation of these products. A proper inspection of the vehicle includes confirmation that the vehicle has not been in a collision and is free of corrosion. If the vehicle is suspected to have been in a collision or misused, or is otherwise unsuitable for modification, you will not install the product(s). You will continue to inspect the vehicle prior to each use to confirm its condition is suitable for its intended use, and you acknowledge that the failure to do so may result in serious bodily injury or death, as well as damage to the vehicle itself.

You will install any warning labels provided with the product so it may be prominently seen by yourself and all passengers. You will notify all passengers of the modifications performed to your vehicle prior to operation.

Insurance companies may handle coverage of a modified vehicle differently. Please check with your insurance carrier prior to modifying the vehicle to ensure your coverage remains sufficient. Installation of this product(s) may void your vehicle warranty. If this is a concern, please check with the manufacturer or dealer before purchase or installation of this product(s).

HIGHLIFTER

PARTS DIAGRAM

HARDWARE KIT DEFENDER HD11

LTK-CHD11-B1B | 79-18093

79-15281
10.5" BRAKE LINE
EXTENSION (4ea)



133B
79-14813
Brake Line
Clamp (2pk)



47S
73-11678
Steering Stop
(4ea)



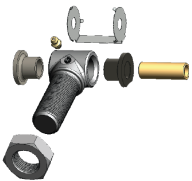
T11RB
54-61334
11" Zip Ties
(4ea)



FRONT UPPER & LOWER ARM KIT

LTK-CHD11-B2B | 79-18094

79-10172
ADJ. COLLAR
BUSHING
(4ea)



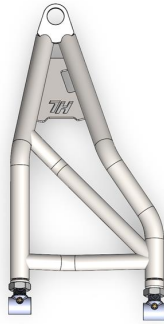
54-60792
90° GREASE
FITTING
(4ea)



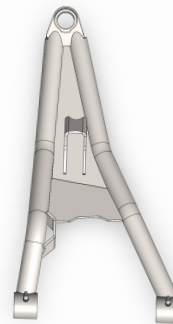
79-84390
BUSHING KIT
(1KIT)



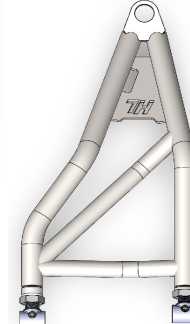
79-16934-R-B
FRONT LOWER
RIGHT ARM
(1ea)



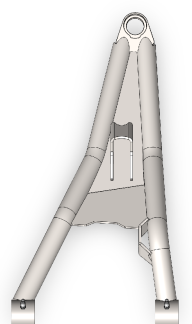
79-16940-R-B
FRONT UPPER
RIGHT ARM
(1ea)



79-16934-L-B
FRONT LOWER
LEFT ARM (1ea)



79-16940-L-B
FRONT UPPER
LEFT ARM (1ea)



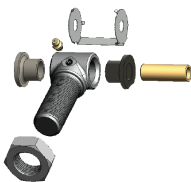
REAR UPPER & LOWER ARM KIT

LTK-CHD11-B3B | 79-18095

54-96496
M12x1.75x70
FLNG HEAD
BOLT
(2ea)



79-10172
ADJ. COLLAR
BUSHING
(4ea)



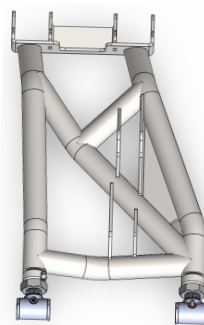
54-60792
90° GREASE
FITTING
(4ea)



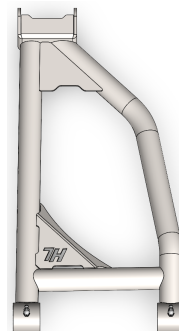
79-84390
BUSHING KIT
(1KIT)



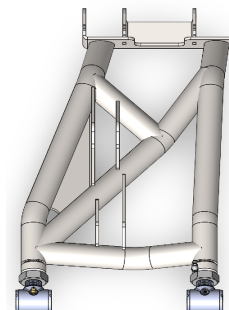
79-16946-R-B
REAR LOWER
RIGHT ARM
(1ea)



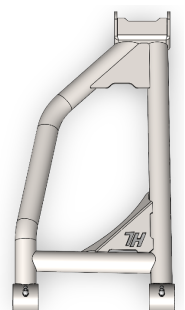
79-16956-R-B
REAR UPPER
RIGHT ARM
(1ea)



79-16946-L-B
REAR LOWER
LEFT ARM (1ea)



79-16956-L-B
REAR UPPER
LEFT ARM (1ea)



HIGHLIFTER

PARTS DIAGRAM

AXLES!..!YU!NPEFMT



DHT-XL-CHD11-FL
64-60098
FRONT LEFT AXLE
(1ea)

DHT-XL-CHD11-FR
64-60097
FRONT RIGHT AXLE
(1ea)

DHT-XL-CHD11-R
64-60094
REAR AXLE
(2ea)

AXLES!..!YMR!NPEFMT

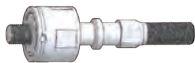


DHT-XL-CHD11-FL
64-60093
FRONT AXLE
(2ea)

DHT-X-CHD11-R
64-60094
REAR AXLE
(2ea)

TIE ROD & STEERING SET UP

(XLK-C5-B4) 79-14998



HL-TRE-002
78-10225
Inner Tie Rod
End (2ea)



79-14876
Tie Rod
(2ea)



18D
73-10858
5/8 - 18 Heim
(2ea)



MCS10X75-10.9
54-60980
M10x75mm
Bolt (2ea)



LJN58F
54-60930
Left Handed
Jam Nut (2ea)



MFW10
54-61026
10mm Flat
Washer (2ea)



79-14871
Misalignment
Cone
(4ea)



MLN10-1.5
54-61038
10mm Lock
Nut (2ea)



JN58F
54-60882
Right Handed
Jam Nut (2ea)

1

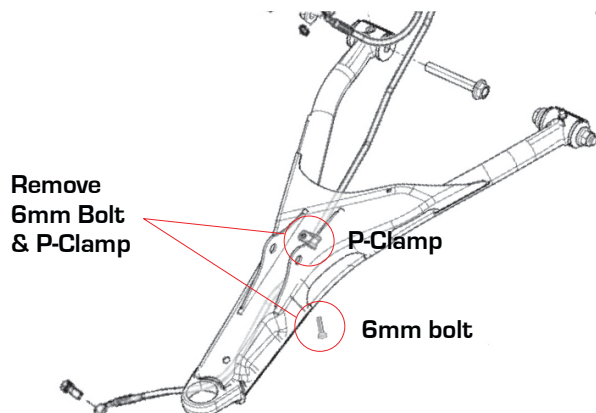
**FRONT PASSENGER SIDE****KEEP ALL FACTORY HARDWARE.**

Place **jack** under the **FRONT** center of the UTV and lift until the weight is off the suspension. Ensure that the vehicle is properly secured, so that it is stable on the jack. **ONCE LIFTED, USE JACK STANDS TO PROPERLY SECURE THE UNIT.**

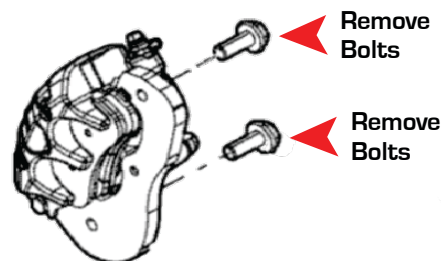
Remove the front wheels.

BRAKE CALIPER & BRAKE LINES**REMOVAL**

2



Disconnect brake by removing the 6mm bolt from the p-clamps from under the arm. **DO NOT DISCONNECT BRAKE LINES FROM THE CALIPER.**

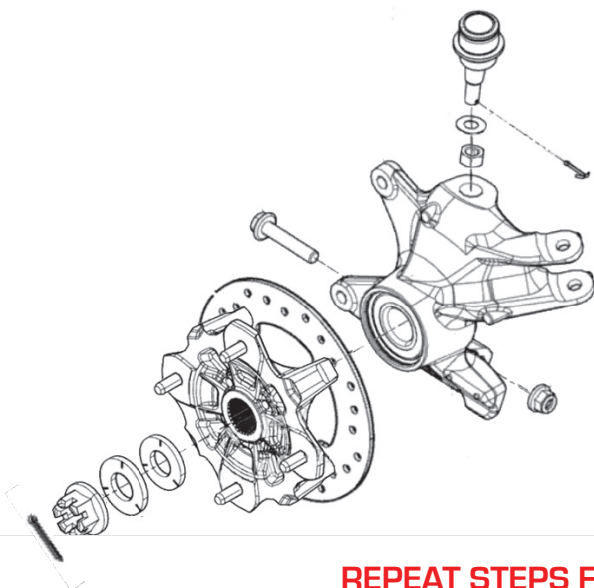


Remove the brake caliper mounting bolts from the hub (15mm) Set caliper aside.

NOTE: You will need to install the **New Brake Line Extension** once New Control Arms are installed.

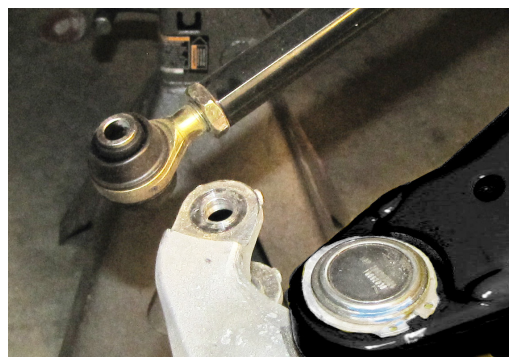
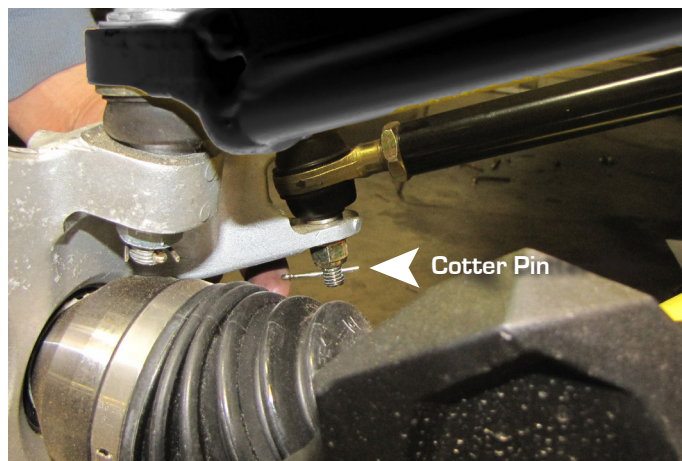
HUB ASSEMBLY**REMOVAL**

3



Remove the cotter pin, axle nut, and washers from the hub assembly, then remove the hub. (30mm)

4 TIE ROD END

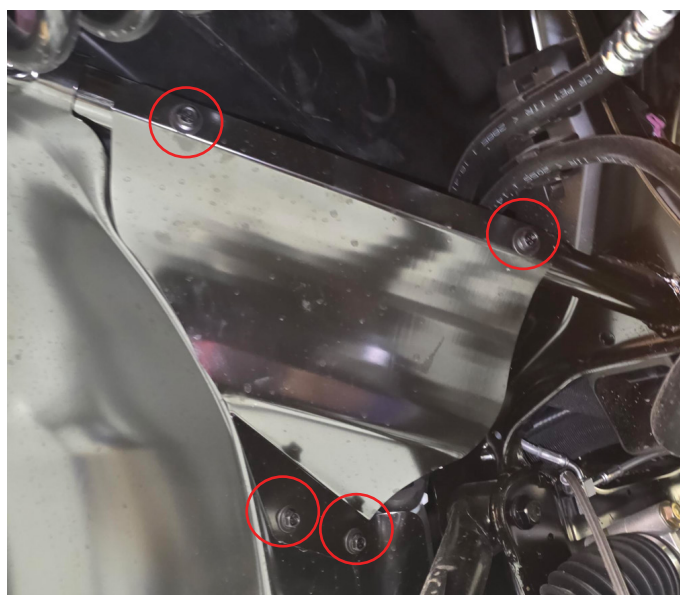


Remove the cotter pin, then remove the bolt and disconnect the tie rod end from the knuckle. (15mm) **KEEP ALL FACTORY HARDWARE.**

5 SHOCK / COVER PLATE



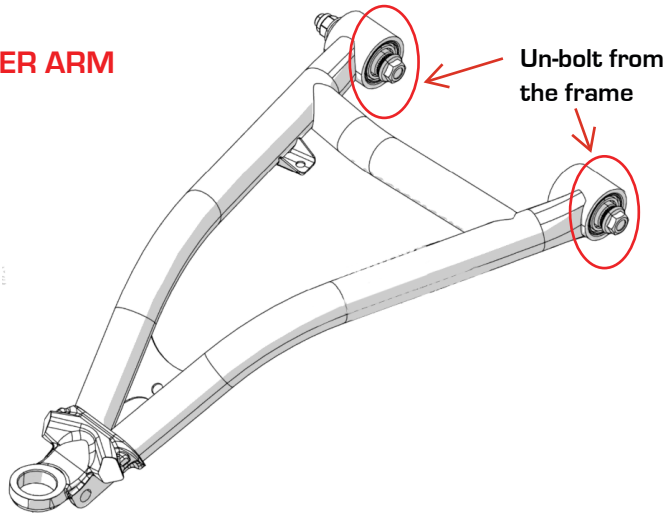
Unbolt the OEM Shock and keep hardware for re-installing later.



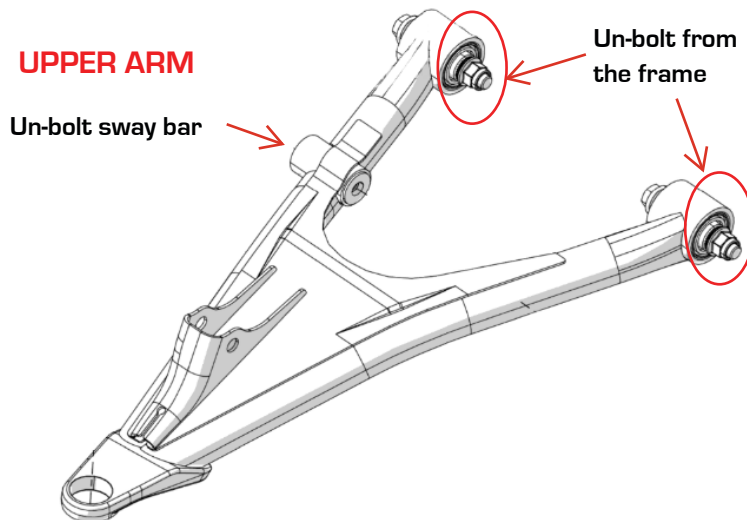
Remove (4) 10mm bolts and cover plate. This is allow for better access to the upper control arm bolt. Set aside for reinstalling later. **KEEP ALL FACTORY HARDWARE.**



6 LOWER ARM



Remove the Lower Arm **FIRST** by removing the bolts at the knuckle (15mm) and the frame. **KEEP ALL FACTORY HARDWARE.**



Disconnect the Upper arm by removing the cotter pin, ball joint bolts & tie rods. Then the bolts at the knuckle (19mm), sway bar, shock, and the frame. **KEEP ALL FACTORY HARDWARE.**

It is recommend installing Axles before installing New Arms and after factory arms are removed. See step12 for the Front and step 6 for the Rear for Axle installation.

7

NOTICE: DO NOT remove the steering rack and pinion. The images featured are for **DEMONSTRATIVE PURPOSES ONLY.**

BOOT REMOVAL

The rubber boots on the rack and pinion are held on by metal clamp. Cut the clamp that secures the boots to the inside of the rack and pinion.

START WITH THE DRIVER'S SIDE

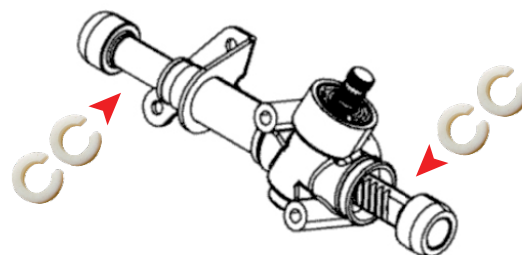
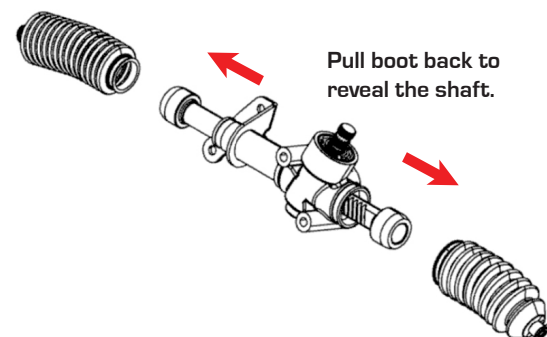
This side has the least amount of room. Once you install the spacer on the passenger side you will have less play on the drivers side. **DO NOT REMOVE THE FACTORY SPACER ALREADY IN PLACE.** Turn the steering wheel all the way to the **RIGHT**.

PASSENGER SIDE

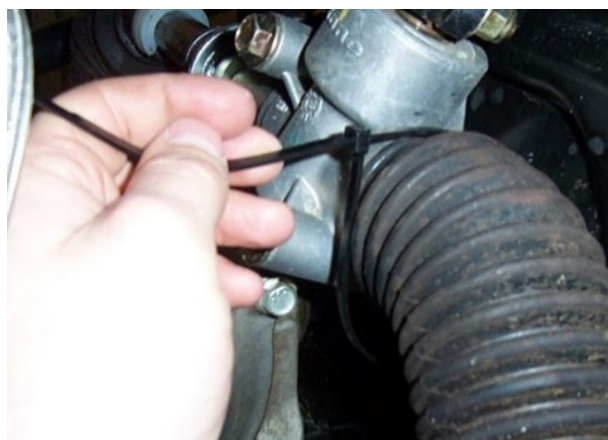
Turn the steering all the way to the left. Place the (2) steering stops (47S) between the inner tie rod joint and the rack and pinion. It is a tight fit, so you may have to force it on, this is to ensure that the spacer stays in place.

RE-SECURING BOOT

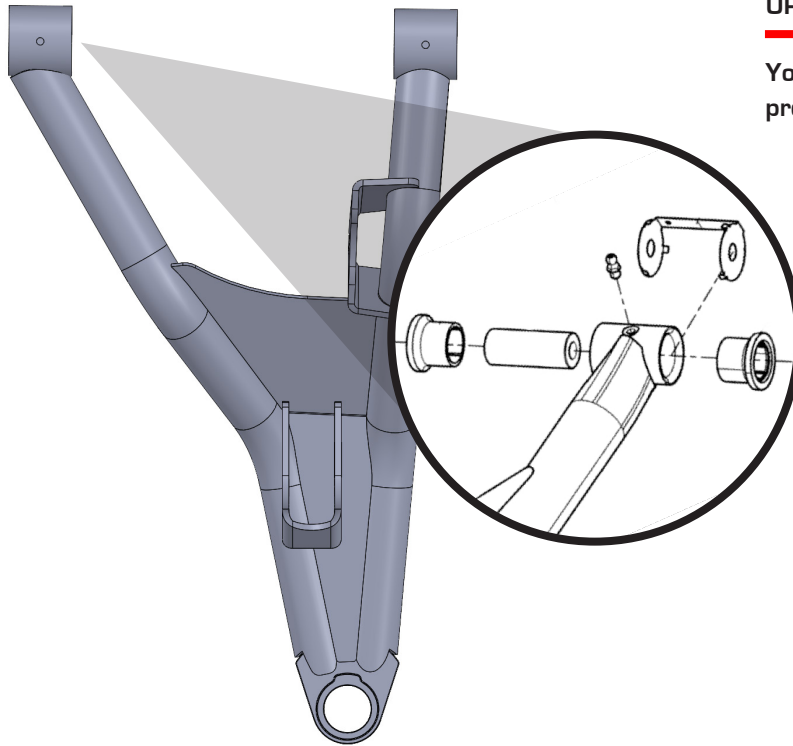
Turn the steering wheel closer to the center to allow play in the boot. Slide the boot back down and secure it with an 11" zip tie.



Install steering stops to the pinion shafts on each side.



8

**UPPER ARM**

You will need to install the bushing as provided in the kit.

BALL JOINTS**REMOVAL**

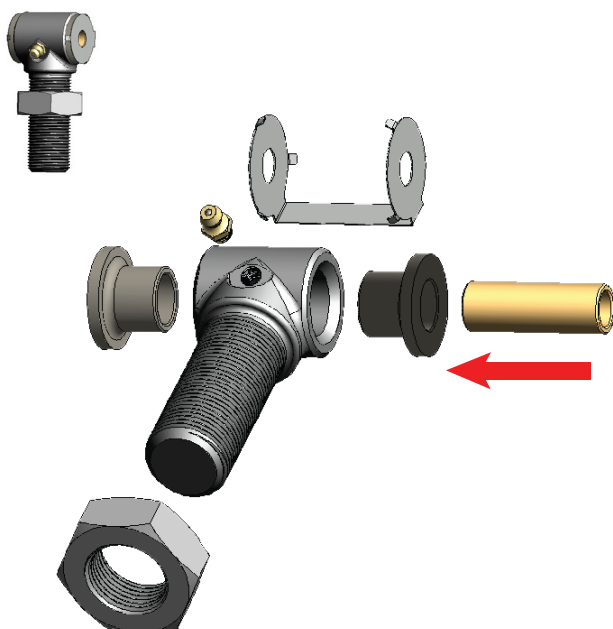
9

IF YOU HAVE PRE-INSTALLED BALL JOINTS SKIP THIS STEP.

NOTE: FOR DEMONSTRATIVE PURPOSES WE USED THE LOWER CONTROL ARM, BUT THE PROCESS IS SIMILAR FOR BOTH. A press or a vist is suggested for removing and replacing the ball joints.



10 115R

**LOWER ARM**

Insert the bushing and sleeve into the collar.

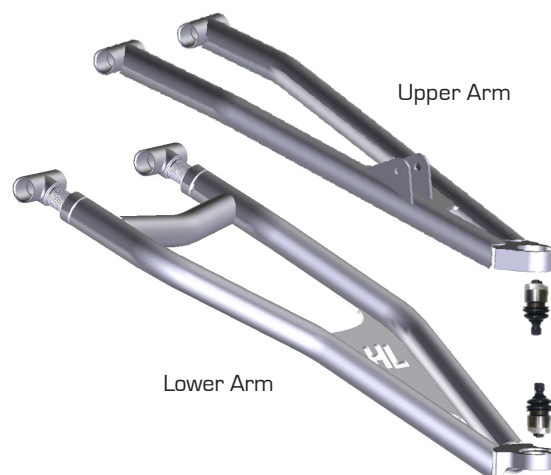
Lightly applying grease to the bushings and sleeves will help lubricate the bushings over time.

BALL JOINTS

INSTALL

11

Flip the control arm over, and using the same process, press the ball joint in using a vice or press. If you press in the ball joint crooked, **DO NOT TRY TO FORCE IT IN!** If you try to force it straight you can “egg” the opening. Press the ball joint out and reinsert it into the opening, pressing it in with a vise. Verify that the clip snaps into place after installing the ball joints into the new Control Arm. You should always double check the ball joint snap ring for proper fit. Even if you use snap ring pliers, it may not seat. You can use a flathead screwdriver and a hammer to tap the snap ring to ensure that it is seated into the groove.

**BALL JOINT ORIENTATION**

Snap the retaining clip down on to the base of the ball joint.

12



Connect the new lower arm at the frame using the factory hardware. **NOTE: MAKE SURE THE BRAKE LINES ARE OUT OF THE WAY.**

Image also shows the High Lifter Frame stiffeners being installed.

Install the Front axles



Connect the hub at the LOWER ball joint, pinch bolt FIRST, then slide the axle through AFTER. (19mm)



TIE ROD ASSEMBLY

INSTALL

13



Lightly apply blue loctite to the inner tie rod, where it connects to the rack and pinion.

**INNER TIE ROD (HL-TRE-002)
(LEFT HAND THREADED)**



LEFT HAND THREADED



Install the boot over the (HL-TRE-002) inner tie rod, thread on the left hand jam nut, then thread on the (79-14876) tie rod to the inner tie rod end.

**HEIM JOINT (18D)
(RIGHT HAND THREADED)**



RIGHT HAND THREADED

Install the heim joint (18D) and right hand jam nut to the opposite end. This will likely need to be adjusted later.

SECURE TIE ROD TO INNER TIE ROD END



You will need to turn the steering wheel closer to the center to allow play in the boot. Slide the boot back down and secure it with an 11" zip tie.

SECURE BOOT WITH 11" ZIP TIE



13



Install the (2) misalignment cones to the heim joint.



Run the 10X75 bolt through the tie rod.



Secure tie rod bolt with a 10mm washer and 10mm lock nut.



**M10x75mm
Bolt (2ea)**



**10mm Flat
Washer (2ea)**

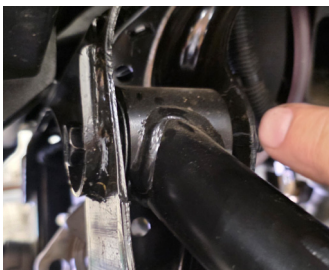


**10mm Lock
Nut (2ea)**



**Misalignment
Cone (4ea)**

14



Attach the new upper arm to the frame using factory hardware.



Secure the upper arm at the knuckle using the factory washer and nut. Install the cotter pin.

15

**SWAY BAR**

Using stock hardware, connect the lower shock tab.

REPEAT STEP FOR OPPOSITE SIDE.

**SHOCK**

Using stock hardware, connect the shock on the upper arm.

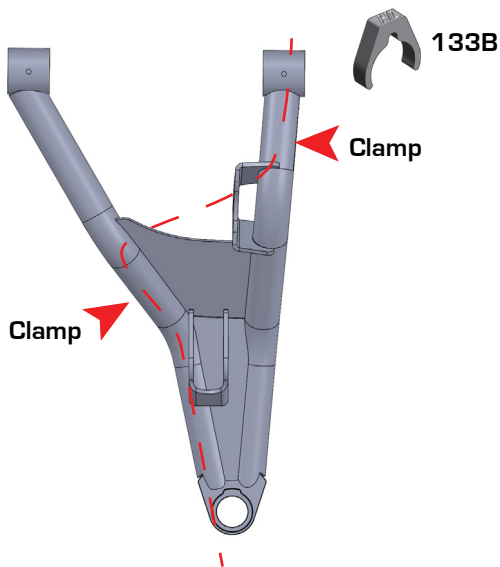
COVER PLATE

Re-install cover plate that was removed in step 5.

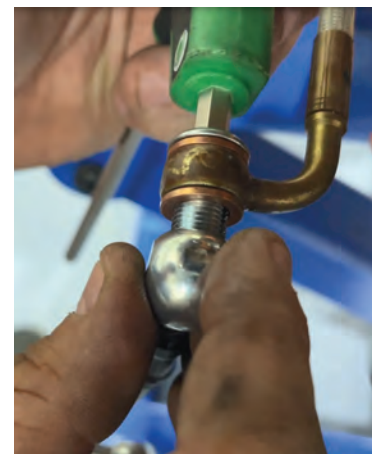
FRONT BRAKE LINE EXTENSIONS

SECURE LINES

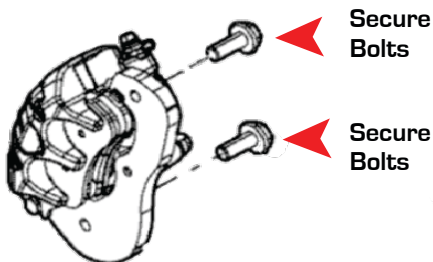
16



Attach the New Brake Line Extensions and route the brake lines down the **FRONT** of the upper control arm. Secure them with the 133B brake line clamps.



Connect the brake line extenders provided in your kit and install on to the brake caliper. Use two washers on each side like in the image below when installing.

CALIPER

Secure the caliper to the knuckle by fastening the stock caliper mounting bolts. **ENSURE THERE IS NO PINCHING OR BINDING OF THE BRAKE LINES.**

1



REAR PASSENGER SIDE

KEEP ALL FACTORY HARDWARE.

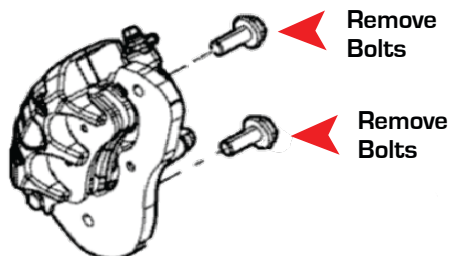
Place **jack** under the **FRONT** center of the UTV and lift until the weight is off the suspension. Ensure that the vehicle is properly secured, so that it is stable on the jack. **ONCE LIFTED, USE JACK STANDS TO PROPERLY SECURE THE UNIT.**

Remove the rear wheels.

CALIPER & HUB

REMOVAL

2 CALIPER



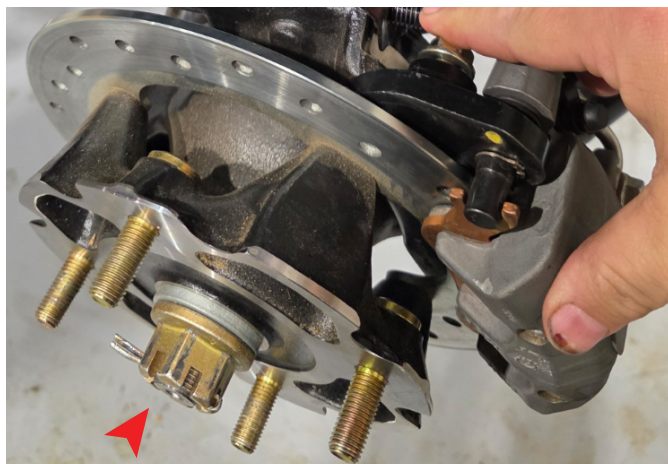
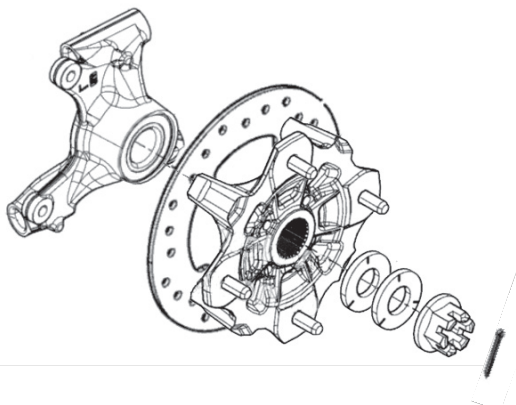
Remove the brake caliper mounting bolts from the hub assembly. (15mm) Set caliper aside. **DO NOT DRAIN BRAKE FLUID.**

Remove the cotter pin, castle nut (30mm) and washers from the rear axles, then remove the brake rotor assembly.

Note: Brake Line Extensions need to be connected after control ares are installed



3 HUB



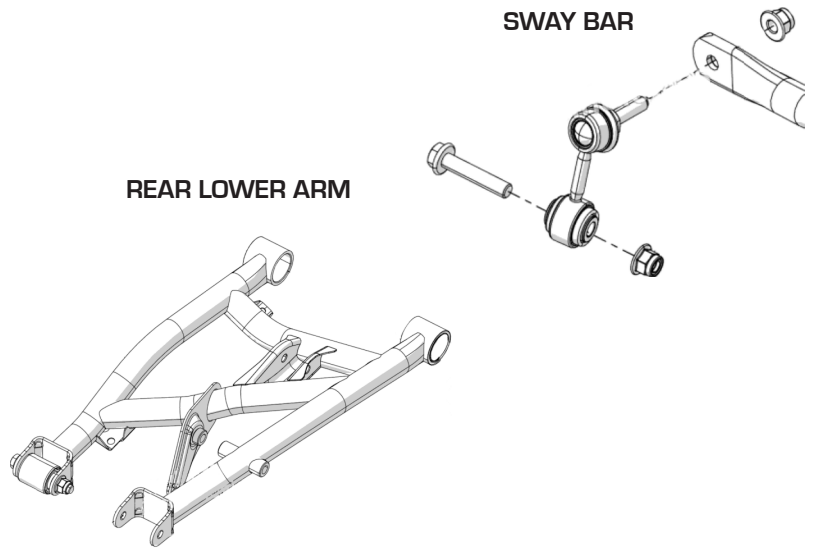
Remove the bolts and nuts that attach the rear knuckle to the upper & lower A-arms. (15mm) **KEEP FACTORY HARDWARE.**

4 LOWER ARM

Disconnect the lower arm **FIRST** by detaching the arm at the frame, then disconnect the lower shock and sway-bar. **KEEP FACTORY HARDWARE**, it will be used to reconnect the new control arms.



Shock Mount



REAR LOWER ARM

SWAY BAR

5 UPPER ARM



You will need to drill out the rivets that are holding the factory brake lines.



Remove the upper control arms at the frame by removing the frame bolts. (17mm) **KEEP FACTORY HARDWARE.**

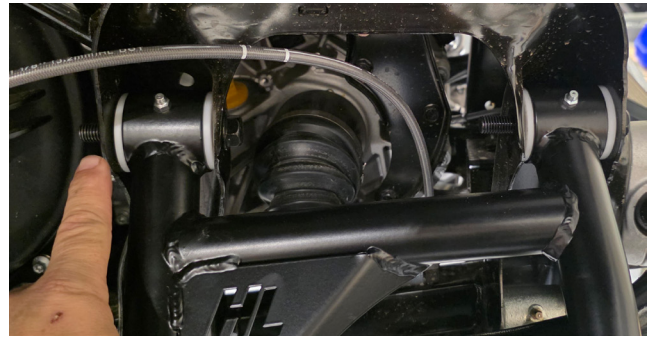
Remove Axel, it is recommended installing the new axels after the removal of the OEM and before installation of new arms.

6 LOWER ARM



Install the new LOWER control arm to the frame, using the factory hardware. (17mm)

UPPER ARM

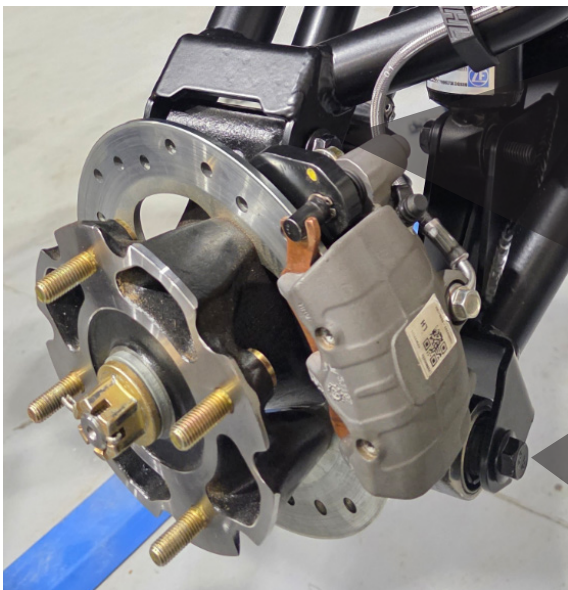


Install the new UPPER control arm to the frame, using the factory hardware. (17mm)

INSTALL REAR AXLES

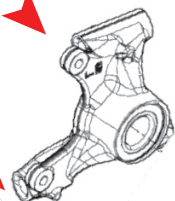


7 KNUCKLE



M10x110mm Bolt

Stock Bolt



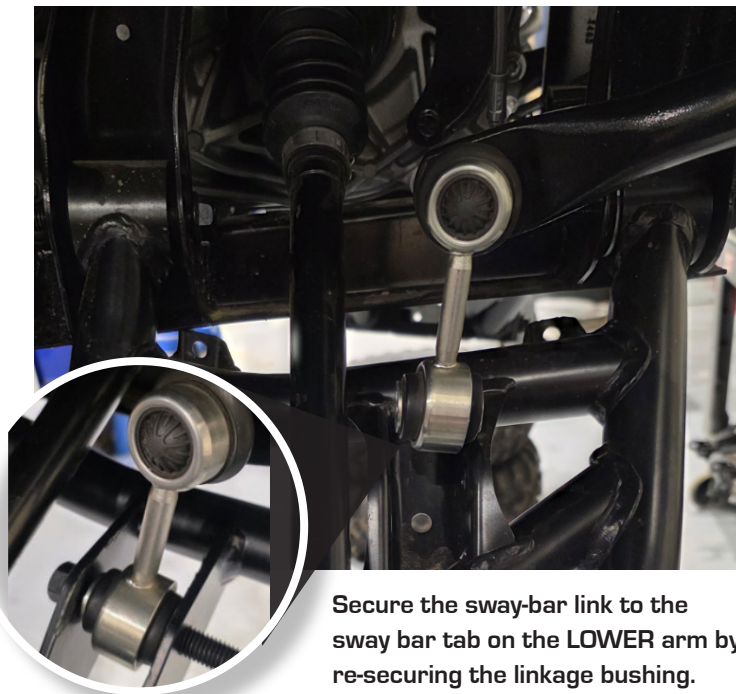
Connect the arms to the knuckle by using the OEM bolt at the TOP of the knuckle. Secure with a 12mm washer on each side and 12mm lock nut. Secure with stock hardware.

8 SHOCK



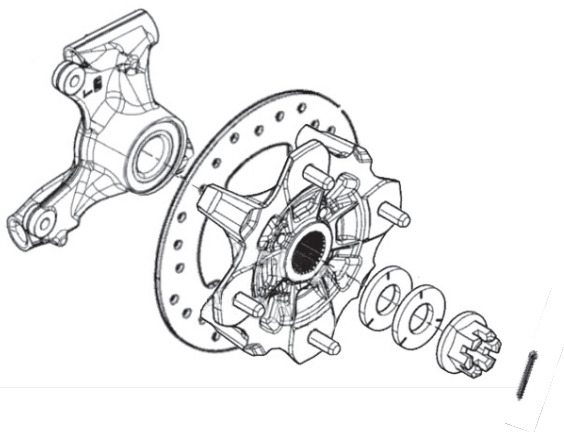
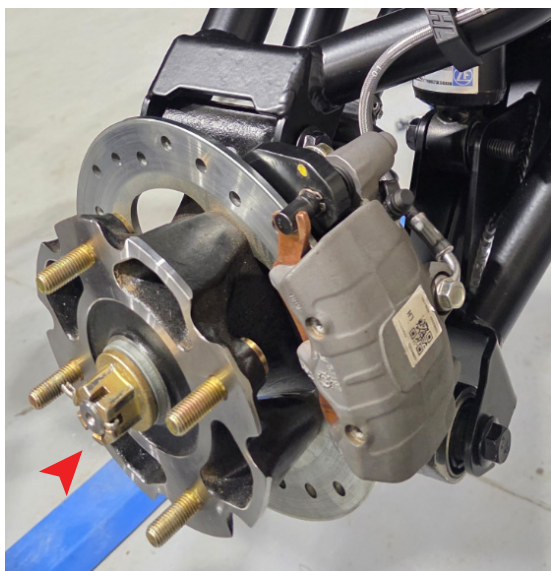
Secure the shock to the LOWER arm by installing a M12x70mm bolt provided in the kit followed by a 12mm OEM washer through the shock tab. Secure it with the 12mm OEM washer and 12mm OEM lock nut.

SWAY BAR



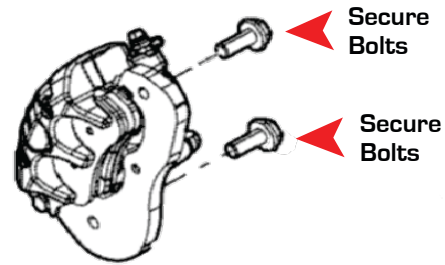
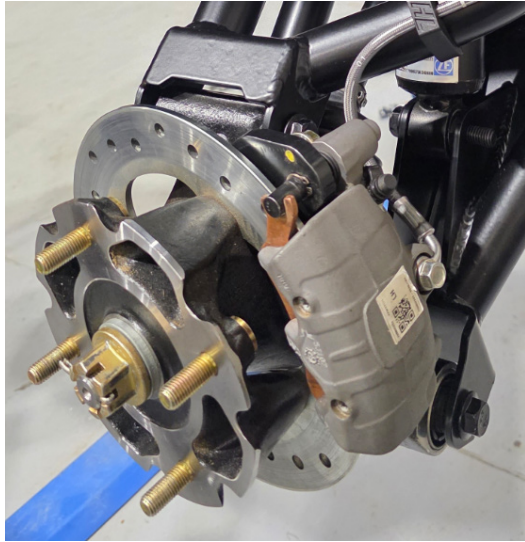
Secure the sway-bar link to the sway bar tab on the LOWER arm by re-securing the linkage bushing.

9 ROTOR & HUB



Reattach the rotor to the knuckle assembly. Install washers, then secure using the axle nut and cotter pin. (30mm)

10 CALIPER



Secure the brake caliper mounting bolts from the hub assembly. (15mm) Set caliper aside.

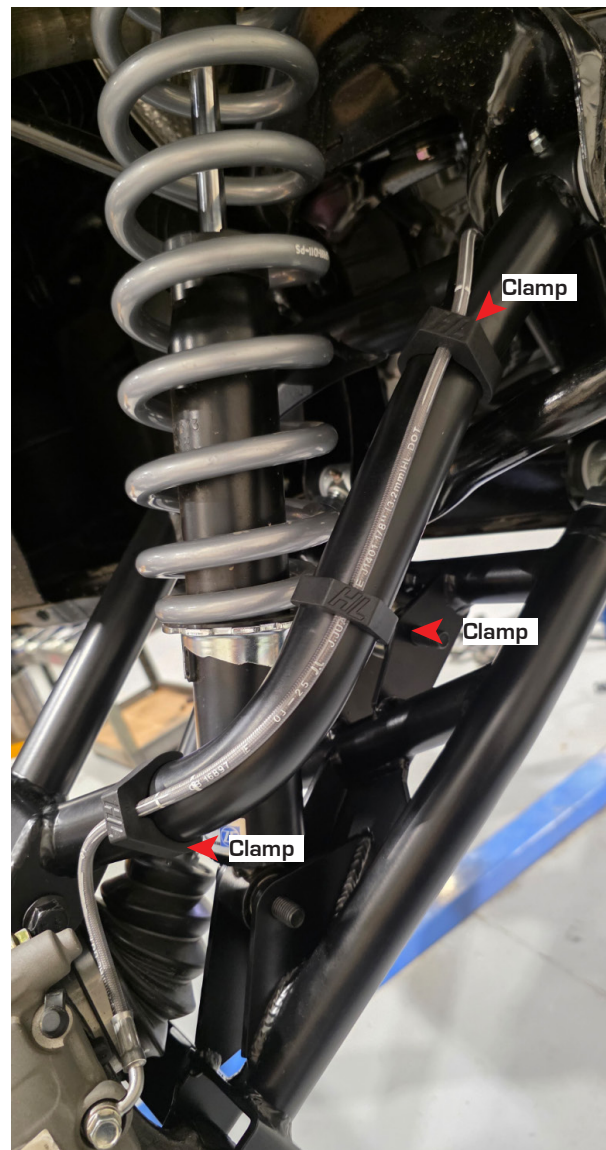
11 BRAKE LINE EXTENSION

Use the 133B brake line clamps to secure the brake line extensions to the UPPER arm. You do not have to route the lines exactly as shown, as long as they do not become pinched or bound.



133B brake line clamp

Connect the brake line extenders provided in your kit and install on to the brake caliper. Use two washers on each side like in the image below when installing.



ADJUSTING WHEEL CAMBER

BEFORE STARTING

- TIRES MUST BE OFF THE GROUND
- TIRES MUST HAVE EQUAL AIR PRESSURE
- SUSPENSION COMPONENTS MUST BE COMPLETELY ASSEMBLED

THE NEW HIGH LIFTER LOWER CONTROL ARMS WILL COME PRE-ADJUSTED TO FACTORY LENGTH, WHICH IS .937

IF YOU NEED TO RE-ADJUST THE COLLARS, PLACE THE FACTORY ARM AND NEW CONTROL ARM ON A FLAT SURFACE. MEASURE FROM EYELET TO CENTER MOUNT ON THE FACTORY ARM, AND THEN ADJUST THE NEW ARMS TO THOSE LENGTHS.

NOTE: WHEN RE-ADJUSTING, LEAVE THE JAM NUTS LOOSE. DO NOT FASTEN TIGHT UNTIL INSTALLED ON UTV, AFTER ALL FINAL ADJUSTMENTS HAVE BEEN MADE.



MAKE ALL ADJUSTMENTS IN SMALL INCREMENTS.

DO THIS BY DISCONNECTING CONTROL ARMS AT THE FRAME AND ADJUSTING COLLARS. ONCE SMALL ADJUSTMENTS HAVE BEEN MADE. TAKE THE UTV OFF THE JACK AND ROLL IT BACK AND FORTH SEVERAL TIMES TO CHECK THE CAMBER. REPEAT STEPS AS NEEDED. AFTER ALIGNMENT IS COMPLETE, TIGHTEN JAM NUTS TO 80 FT-LBS AND SECURE IT WITH BLUE LOCTITE.



POSITIVE CAMBER

IF YOU HAVE A POSITIVE CAMBER YOU WILL NEED TO ADJUST THE COLLAR OUTWARD OR LENGTHEN THE CONTROL ARM. THE MAXIMUM AMOUNT OUTWARD IS "1.250" WHICH COULD GIVE UP TO 3° OF POSITIVE CAMBER.



CORRECT CAMBER

FOR THIS APPLICATION, WE RECOMMEND A CAMBER SETTING OF 0°. COLLARS ARE PRESET TO .937



NEGATIVE CAMBER

IF YOU HAVE A NEGATIVE CAMBER YOU WILL NEED TO ADJUST THE COLLAR INWARD OR SHORTEN THE CONTROL ARM. THE MAXIMUM AMOUNT INWARD IS ZERO THREADS EXPOSED AND COULD GIVE OVER 3° OF NEGATIVE CAMBER





HIGH LIFTER LIMITED LIFETIME WARRANTY

High Lifter offers a Limited Lifetime Warranty to the original purchaser that our product shall be free from defects in material and workmanship for the life of the product if utilized in accordance with the manufacturer's instructions for installation and operation of said products.

LIMITED LIFETIME WARRANTY EXTENDS TO THE FOLLOWING PRODUCT LINES:

- Lift Kits (Signature, Standard and Big Lifts)
- Control Arms
- Trailing Arms
- Radiator Relocation Kits
- Portal Gear Lifts
- Wheel Spacers
- Tow Hooks
- Control Arm Link Kits

Damages to vehicle or any other object during the installation, use, or removal of High Lifter products are not covered under this warranty. Normal wear items included with any of the products covered under this Limited Lifetime Warranty are excluded from coverage. These items include, but are not limited to heim joints, tie rods, bearings, bushings, seals, gaskets, zinc plating, painted and powder coated finishes. Other exclusions of coverage under this warranty include, but are not limited to: damage or product failure due to improper installation, lack of maintenance, product modification, abuse, collision or use on vehicles for which product was not designed, repairs performed by anyone other than approved High Lifter personnel or made using non-High Lifter components. This warranty is valid for the original purchaser only and is non-transferable. High Lifter reserves the right to inspect any product before determining if the claim is valid and covered under this warranty. Claims determined to be caused by reasons other than a manufacturer defect will be rejected and an estimate for repair or cost of a replacement product if a repair is not possible, will be provided.

This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title.

WARRANTY PROCESSING

If you suspect your product is defective, **DO NOT** disassemble the product to determine the cause without prior approval as it may void your warranty status. This is especially true with our Portal Gear Lift. To begin the claim process, please e-mail our warranty team at warrantycare@highlifter.com and include the following in the e-mail:

- ☐ Your full name, address and contact phone number.
- ☐ The year, make and model of your vehicle
- ☐ The part number of the product
- ☐ Photos of the product installed, and vehicle product is installed on
- ☐ Proof of Purchase (Required for all warranty claims and you must be the original purchaser)

Once a claim is created, you will receive a return authorization number (RMA). Write this number on the outside of the box containing your defective product and include it along with your name and contact information inside the box. Product must be returned in the original box or a box of equal strength and packaging. Product sent without an RMA number visible on the outside of the box or sent COD will be refused. Ship your product to the following address:

High Lifter Products, Inc.
Attn: Returns 7455 Atkinson Dr, Shreveport, LA 71129

Once your product is received, we often have your replacement or repaired product shipped back to you within 3-business days of receiving it. Please note that High Lifter is not responsible for shipping charges on product returned for warranty or repair, including duties and fees required by those residing outside the United States.

THANK YOU FOR CHOOSING
HIGH LIFTER