

# OX TRAX

MADE IN USA

OX Lockers™

This is your OX Locker installation manual for the Jeep DANA 30. Please note before installation you need: an installation kit which includes bearings, shims, ring gear bolts, etc. You must use this manual in conjunction with your vehicle's service manual.

Professional installation by a certified mechanic is recommended.

**Note:** Depending on the year, make, and model of your vehicle, some deviations and modifications may be needed during installation: 1) routing of the cable 2) placement of the shifter.

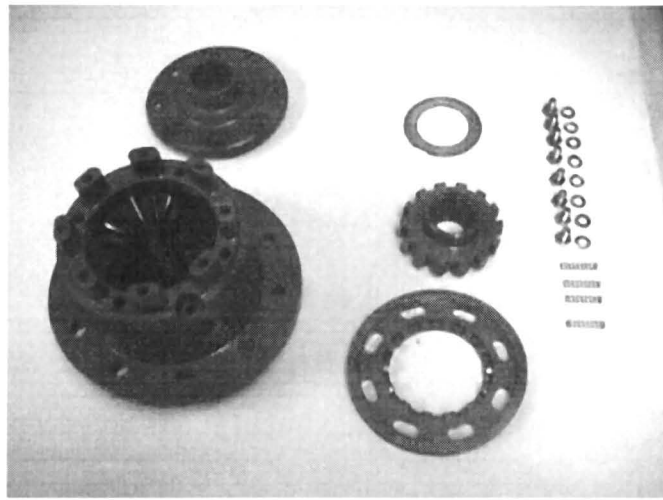
**The OX Locker is proudly made in the USA – PATENT PENDING**

If you have any installation questions please write, call, or e-mail:

**OX TRAX, Inc.**  
3330 SW 13<sup>th</sup> Avenue  
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Ox Trax, Inc.

# Carrier Assembly



OX Locker needs final assembly. Remove all packaging including any tie wraps. Picture shows the parts that need to be assembled:

8 – bolts, ¼-28 thread

8 - spring washers

1 - small carrier cap

1 - thrust washer

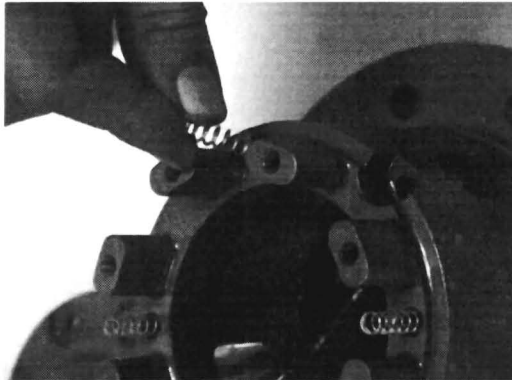
1 - locking ring gear

1 - locking side gear

4 - springs

1 - big carrier cap  
(attached to carrier)

1.



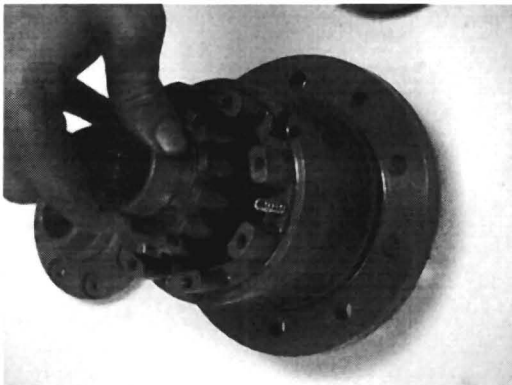
Install the 4 springs in the 4 chamfered holes.

2.



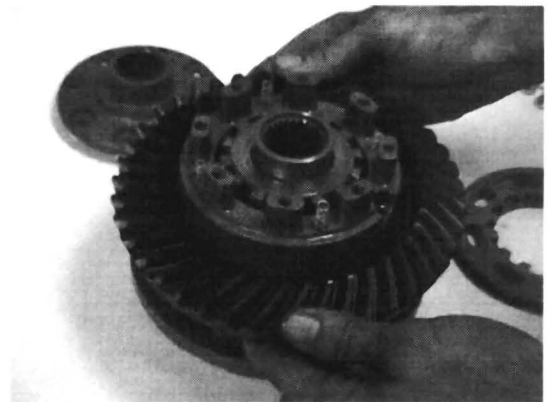
Install thrust washer behind locking side gear.

3.



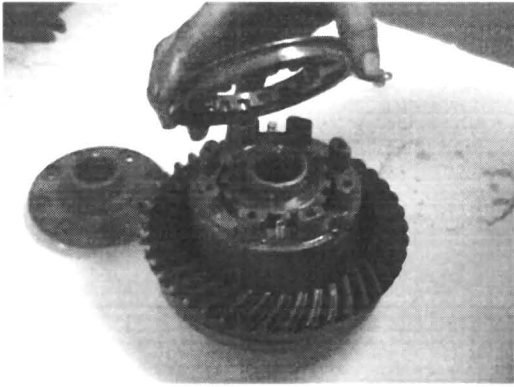
Install locking side gear with gears facing engagement with spider gears

4.



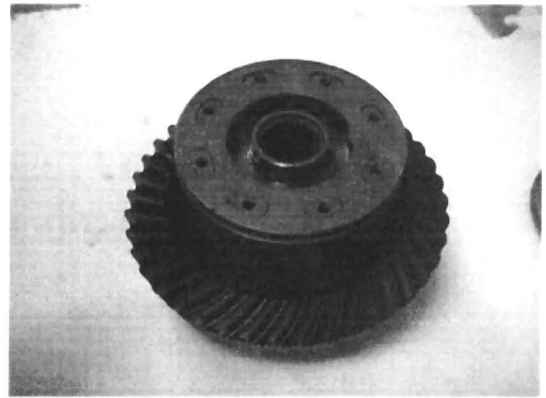
Slide the ring gear around the carrier.  
NOTE: this must be done before installing locking ring gear!

5.



Install locking ring gear with gears facing engagement with locking side gear

6.



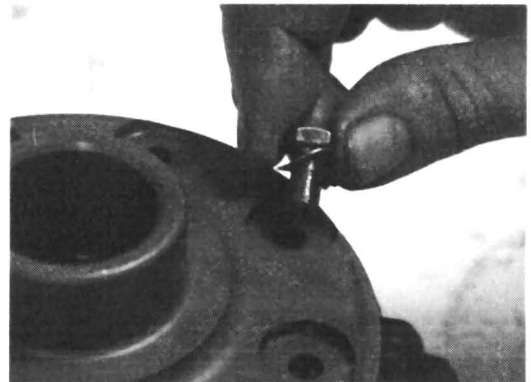
The flat side must be facing up!

7.



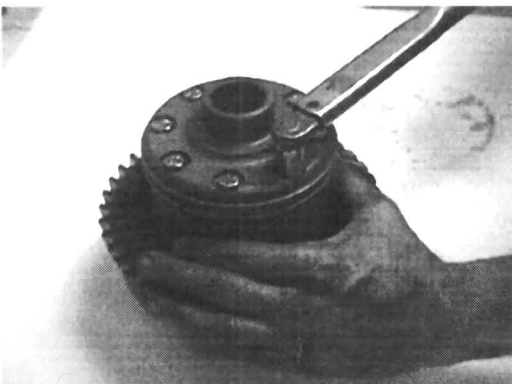
Install small carrier cap – align holes, make sure it slides into locking side gear smoothly.

8.



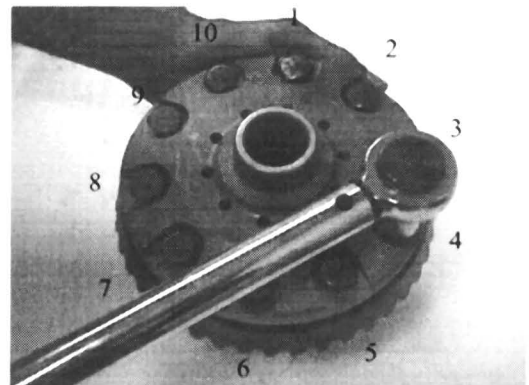
Install the 1/4 bolts and spring washers. Apply high strength loctite to bolts.

9.



Torque 1/4 bolts to 12 FT LBS. Note: when tightening, tighten the bolts in the following pattern: 1 – 5 – 7 – 3 – 8 – 4 – 6 – 2

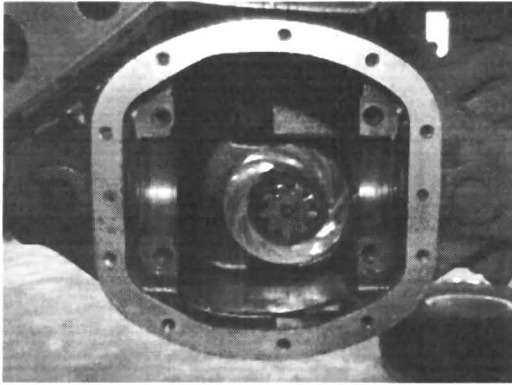
10.



Install your bolts from your original ring gear – we recommend you install new bolts. Torque them to 80 FT LBS using the following pattern: 1 – 6 – 8 – 3 – 10 – 5 – 7 – 2 – 9 – 4 Note: ring gear is a tight fit on the carrier.

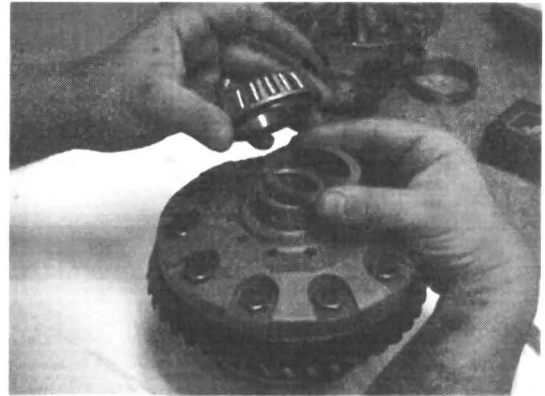
# OX Locker Installation

1.



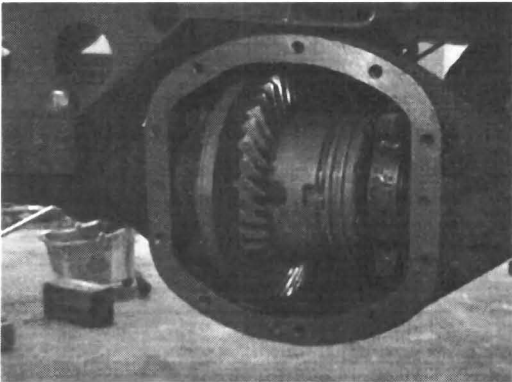
Remove tires, brakes, rotors, and axles in accordance with your vehicle's manufacturer's service manual (MSM). Drain oil then remove carrier. Now is a good time to check seals and clean entire housing.

2.



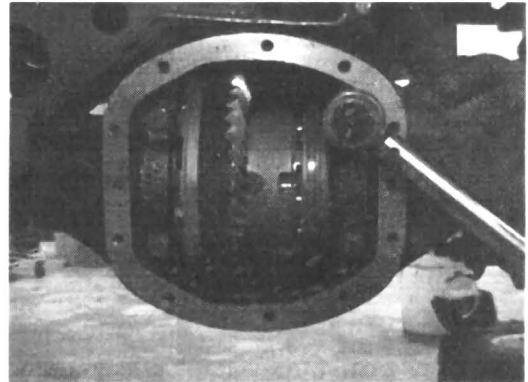
Install your bearings and shims in accordance with your MSM. Note: installation kit not included – bearings, shims, etc.

3.



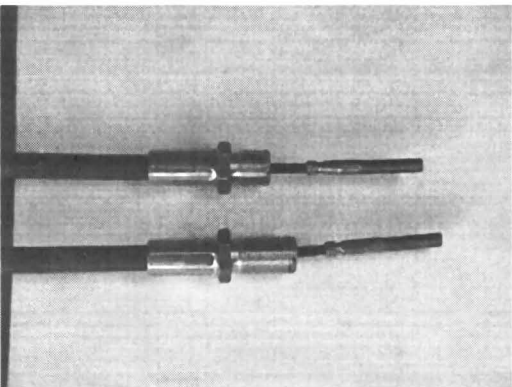
Check your pattern in accordance with your MSM. Note: gear set up should be done by a certified mechanic

4.



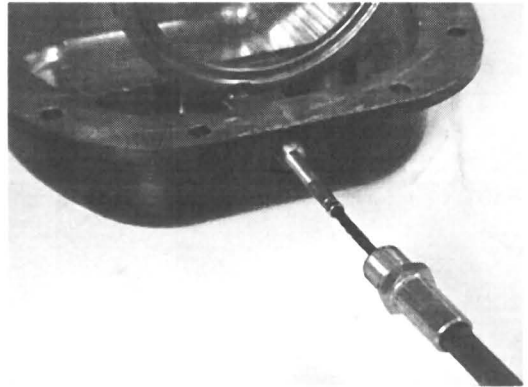
Torque bearing caps to 45 FT LBS. Install axles, rotors, brakes, and tires in accordance with your MSM.

5.



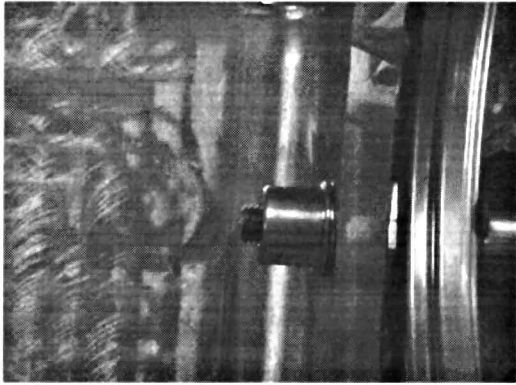
The cable has a short fitting and a long fitting. Short fitting goes into the cover.

6.



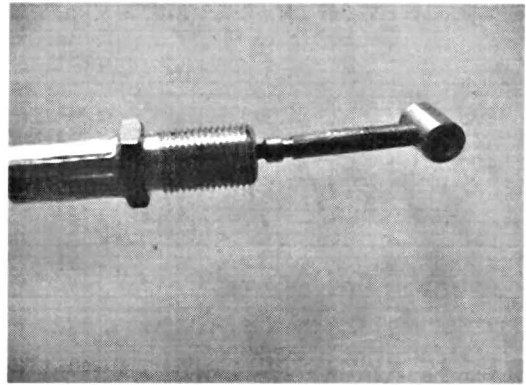
Install short fitting into the cover. Screw the cable rod in first and then the fitting as needed.

7.



Leave about 2 – 3 threads out of the piston that slides in the cover.

8.



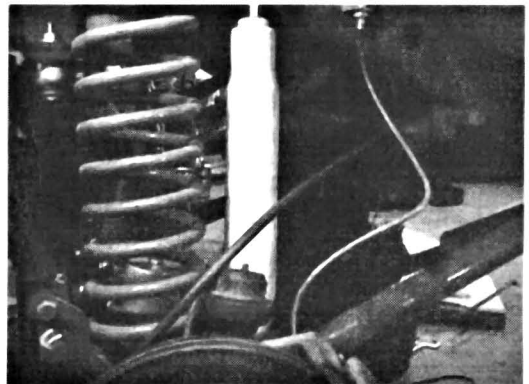
Remove the shifter rod pin from the cable so you can slide it into the shifter box. First run the cable through the vehicle.

9.



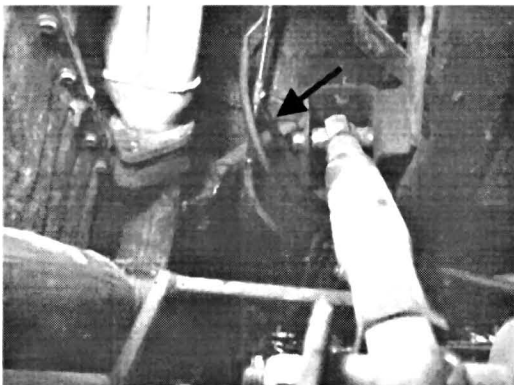
Run cable through the outside of the spring and shock. DO NOT place diff cover on yet.

10.



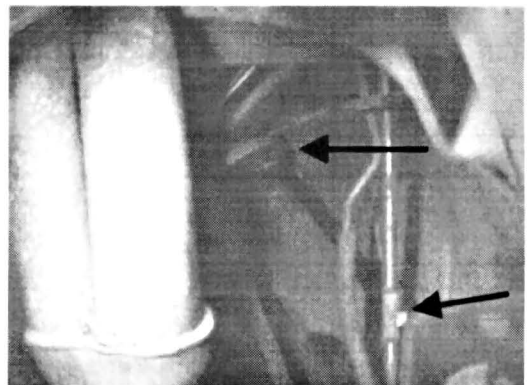
Run cable behind brake line between the upper and lower control arms and over the skid plate.

11.



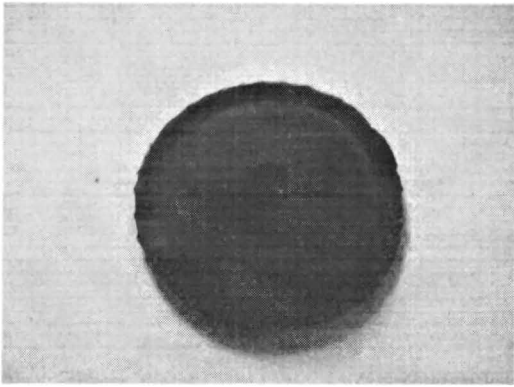
Run the cable as far away from the exhaust as possible. We recommend you run it behind the lines.

12.



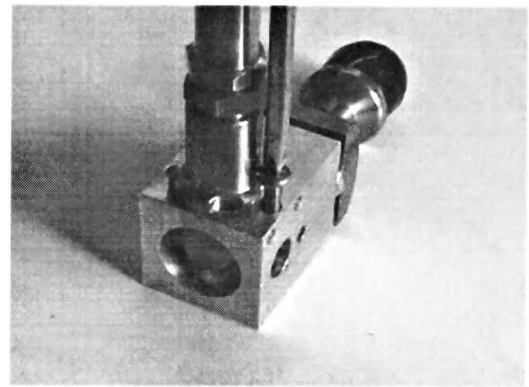
Keep cable behind the lines, away from the exhaust and into the grommet hole. Note: remove grommet.

13.



Drill grommet with a 13/32 drill bit. Cut from the center of the hole outward.

14.



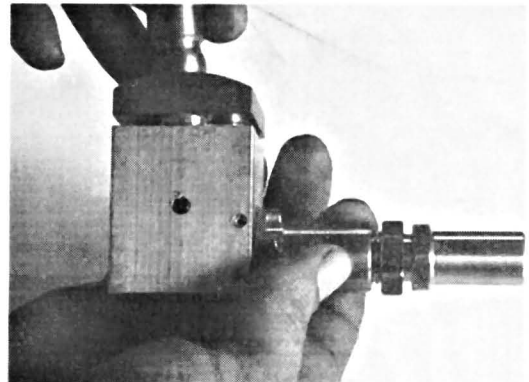
Remove the 2 locking screws before beginning the cable – shifter installation.

15.



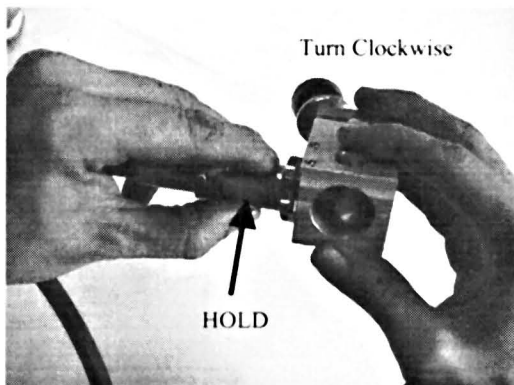
Place the cable rod pin into the shifter.

16.



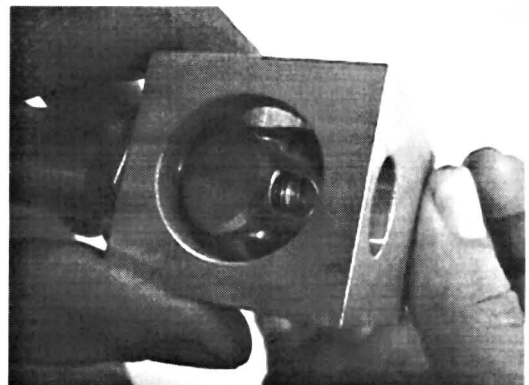
Turn the swivel fitting into the long fitting. Make sure that the locking nut is between the two fittings.

17.



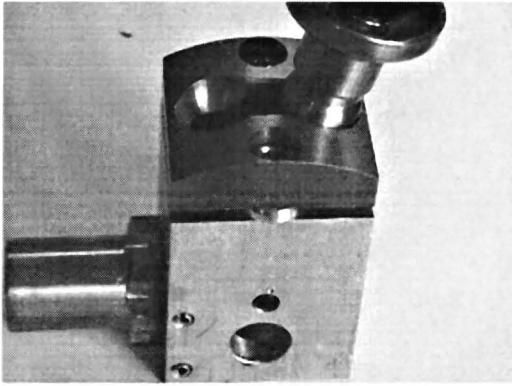
When the cable rod reaches the shifter, hold the swivel fitting and turn the shifter box clockwise.

18.



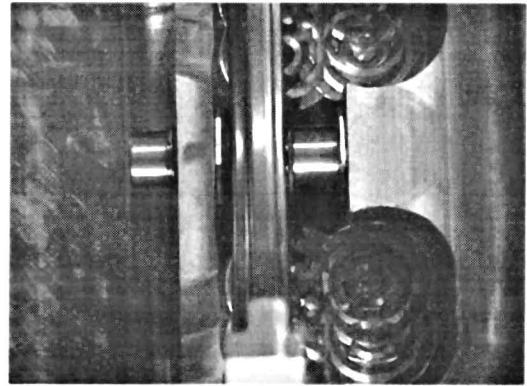
Some threads should be showing out of the back of the shifter.

19.



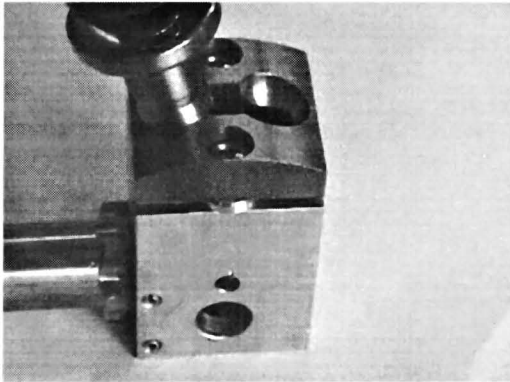
Place the shifter in the locked position. Verify that the fork traveled as seen in next photo.

20.



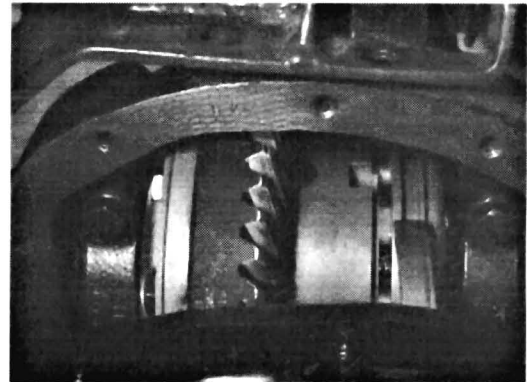
The fork should be against the inner middle wall of the cover. If not, adjust appropriately by turning swivel fitting to the right.

21.



Now place the shifter in the unlock position. The cover is to be installed next.

22.



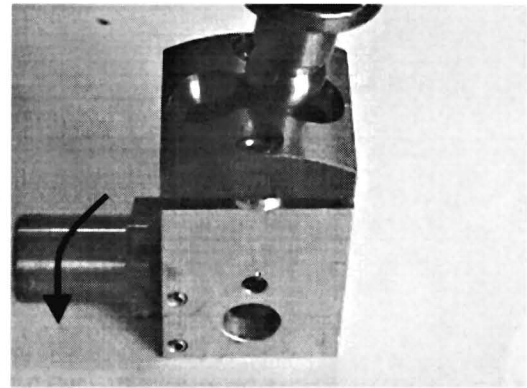
Install cover on to the differential. Make sure the fork slides on the locking ring.

23.



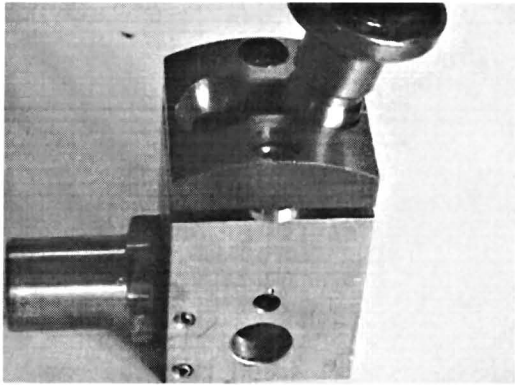
Install diff cover bolts supplied and torque to 30 FT LBS. Note: Use gasket or sealant in accordance with your MSM.

24.



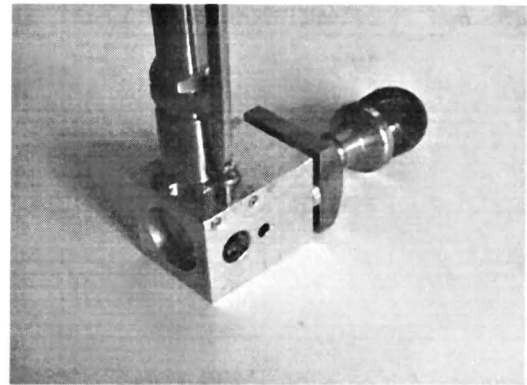
Rotate your front left tire. Do this by hand with your vehicle securely lifted. Place the shifter in the lock position. If your shifter won't lock correctly as shown, turn the swivel fitting to the left until the shifter falls into the locking position. Note: see step 25

25.



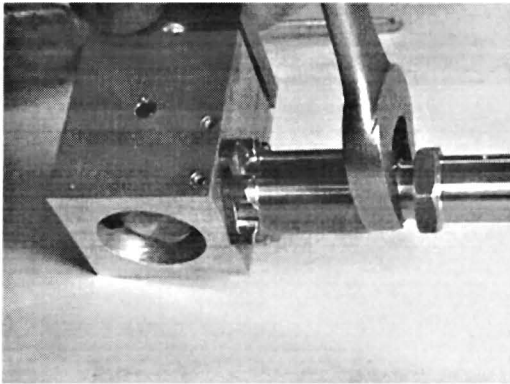
Once the cover, cable, and shifter are connected to each other, place the shifter in the lock position.

26.



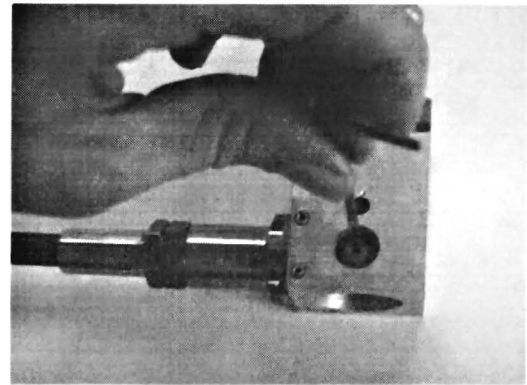
Install the lock screws and tighten.

27.



Tighten the lock nut. DO NOT over tighten.

28.



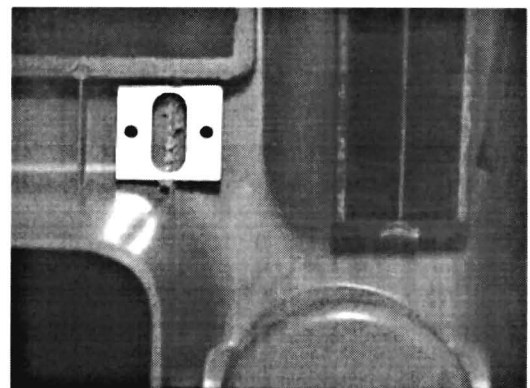
Once your locker is adjusted tighten the nylon set screw on the side of the shifter.

29.



Remove the center console. One bolt is under the shifter boot, one under the cup holder, 2 inside the storage container, and one on the rear right side.

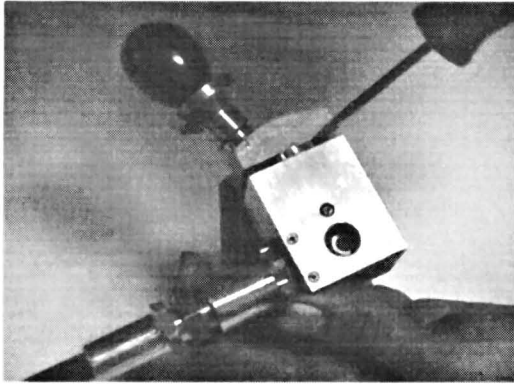
30.



Use the yellow template to cut out where you are going to place your shifter. Make sure that it doesn't interfere with the regular shifter, and make sure the cable has some slack compensating for articulation. Also, make sure the shifter is installed on a firm area

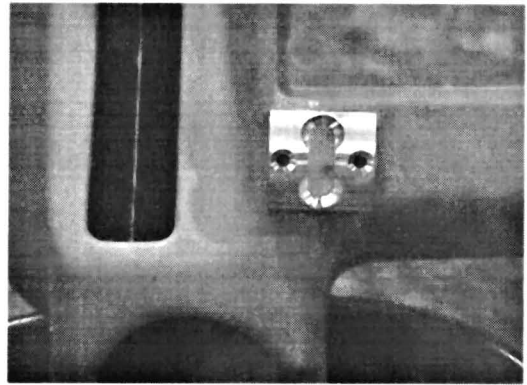


31.



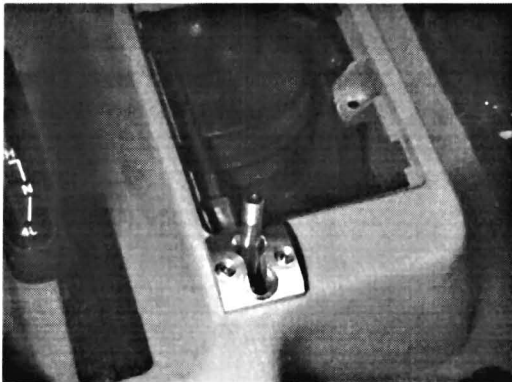
Remove the upper unit and remove the washers. These washers were only there to help set up the shifter. They simulate the thickness of where the shifter is being placed. If the shifter is placed in some other area, compensate the thickness appropriately.

32.



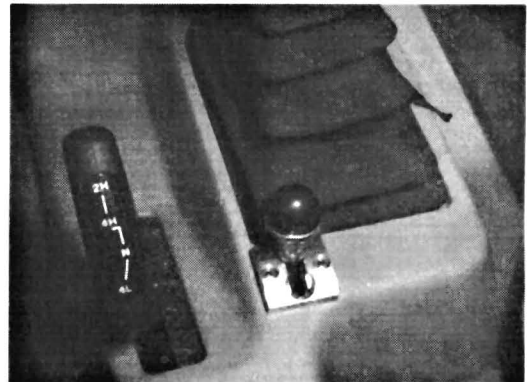
Place the upper part of the shifter in to the area just cut. This should be a firm area.

33.



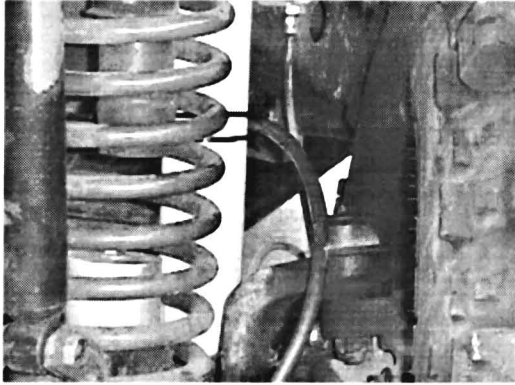
Place the console back in and bring cable with bottom part of shifter upward onto the console. Make sure to line up the upper and lower parts correctly. If you try to force them together by screwing it and they are not properly aligned, the thread in the lower unit will strip!

34.

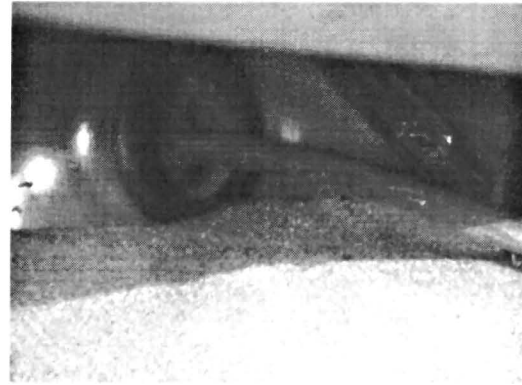


Install the rest of the assembly. Loctite the thread before you place the knob on for good. Before you loctite the knob, ensure that the shifter moves without any interference.

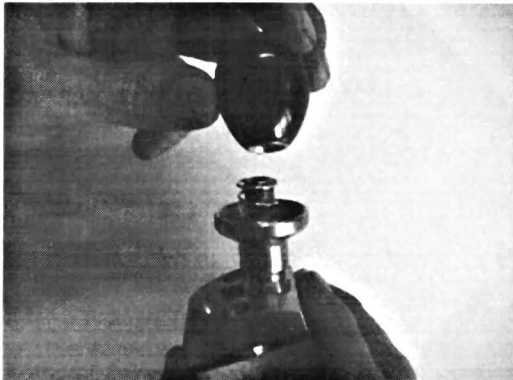
# OX Locker installation Notes:



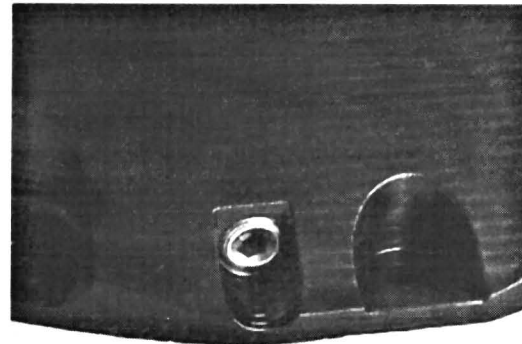
When installing the cable, fasten to your shock and other areas as necessary to keep it from rubbing against unwanted surfaces. You may want to apply some chaffing tape to areas of high friction.



After installing your grommet back in place, seal the outer and inner areas with RTV. You might want to apply some tape to sharp areas behind fire wall if cable is touching.



When installing the knob, use high strength loctite. Don't thread all the way down. Make sure first that the shifter can shift clear.



When draining oil, use bottom drain plug. If you remove the cover you have to readjust the shifter.

Questions for OX TRAX:

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## Service

1. An initial oil change at 1500 miles is recommend. After this periodic oil changes should be done in accordance with the vehicles owners manual.
2. If differential is immersed in deep water the oil could get water contamination. An oil change is recommended.

## Cable Installation Recommendation

1. Use a fuel line hose on rubbing surfaces.
2. Cut hose on one side, slip over cable, and use a tie wrap on each end to hold it in place.

## Shifter Installation Recommendation

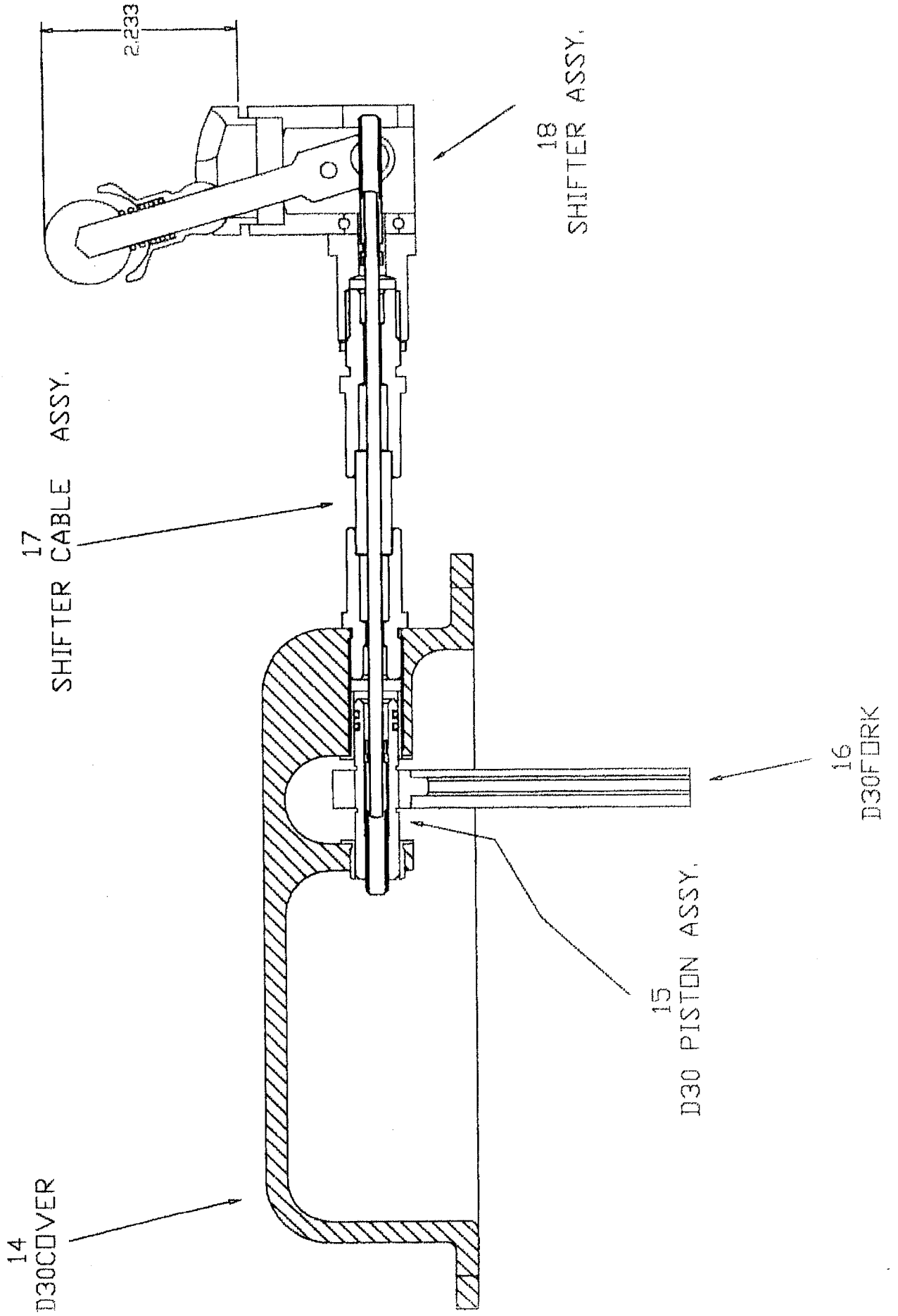
1. If installing the shifter through the floor board, plug all holes to ensure that the shifter box is water tight.
2. Add a small amount of RTV between the lower unit of the shifter box and the floor board.

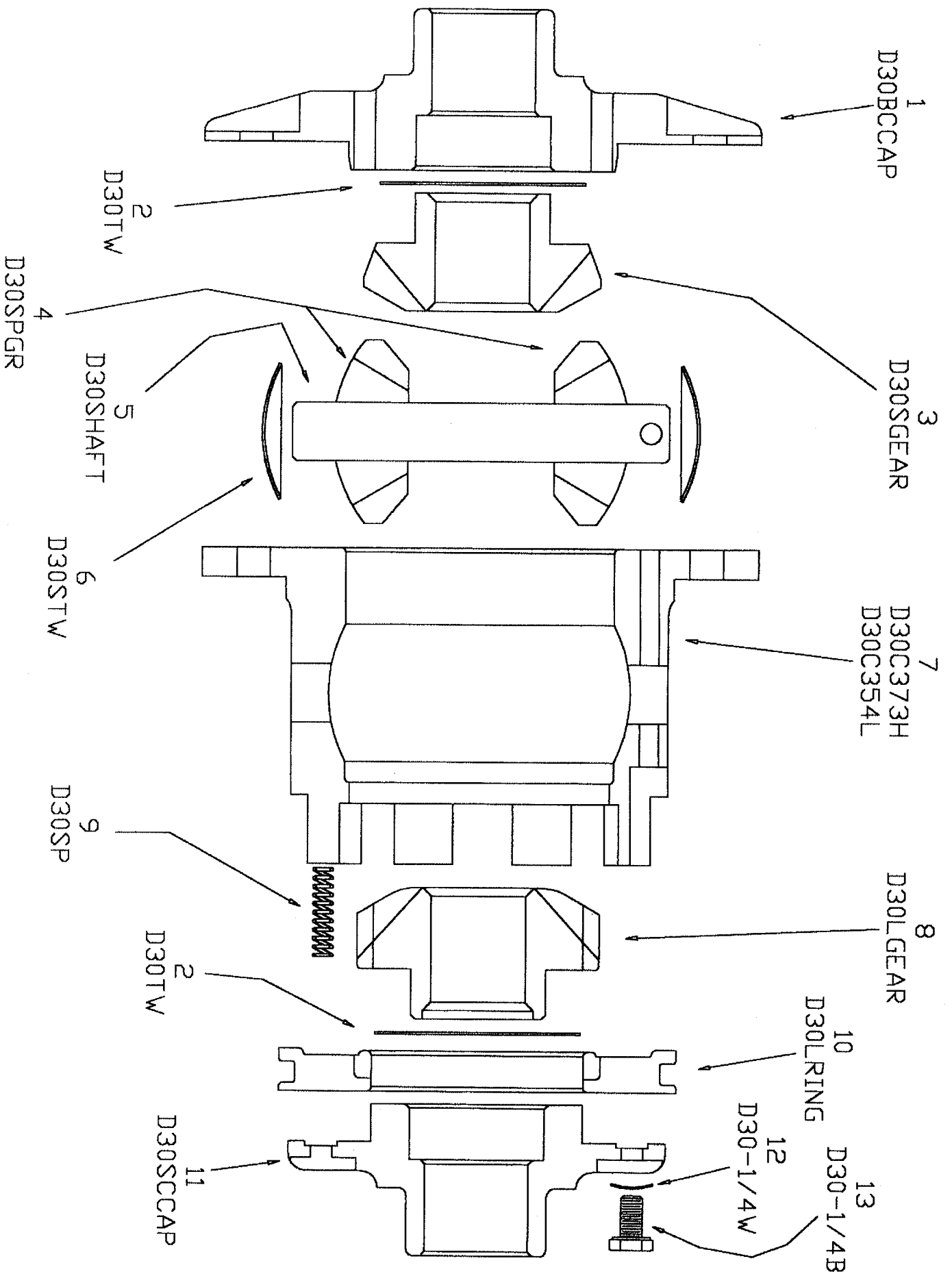
## How To Engage And Disengage

1. The OX Lockers™ can engage and disengage by simply shifting from (U) unlocked, to (L) locked while traveling in a straight line. **The OX Lockers™ cannot engage or disengage while the drive train is under load or bind, such as wheel spinning or turning a tight corner.**
2. The OX Lockers™ is intended to be engaged only when the terrain ahead requires extra traction control.
3. To engage the locker on rough or slippery terrain (while the vehicle is traveling at low speed), slowly move the shifter into the (L) position. To disengage (while the vehicle's drive train is not under load), move the shifter into the (U) position.
4. The OX Locker™ can be engaged or disengaged at any speed.

**WARNING: Do not engage the OX Lockers™ on highways or high traction surfaces, this makes the steering very difficult and puts unnecessary strain on the drive train.**

# TAKE IT TO THE LIMIT





## Parts List for D30 OX Locker

Item	Part number	Part name	Qty.
1.	d30bccap	big carrier cap	1
2.	d30tw	thrust washer	2
3.	d30sgear	side gear	1
4.	d30spgr	spider gear	2
5.	d30shaft	cross shaft	1
6.	d30stw	cross thrust washer	2
7.	d30c373h/d30c354l	carrier	1
8.	d30lgear	locking gear	1
9.	d30sp	spring	4
10.	d30lring	locking ring	1
11.	d30sccap	small carrier cap	1
12.	d30-1-4w	1-4" washer	8
13.	d30-1-4b	1-4" bolt	8
14.	d30cover	differential cover	1
15.	d30piston assy.	piston assembly	1
16.	d30fork	shift fork	1
17.	shifter cable assy.	shifter cable assembly	1
18.	shifter assy.	shifter assembly	1



### OX Locker™ Limited Warranty

ONE YEAR limited warranty on manufacturer defects:

- This warranty covers only parts originally supplied by Ox Trax, Inc. if they are shown to have a manufacturer's defect. All parts must be returned to Ox Trax, Inc and if upon inspection, they were installed correctly in their intended application and were not mistreated they will be repaired or replaced.
- This warranty does not cover vehicles with modified high-horsepower engines (modified beyond the original manufacturer's recommendation).
- Ox Trax, Inc. recommends professional installation by a qualified mechanic. Purchaser/user assumes all risks and liabilities in connection therewith.
- Installation and use of these parts constitutes acceptance of all the above stipulations. If the purchaser/user does not agree to these terms, the OX Locker should not be installed and returned to the supplier.
- TO REDEEM your coverage you must return the defective part(s) along with your claim #. Claim # can only be obtained by calling or e-mailing Ox Trax, Inc. Ox Trax, Inc. will make a complete evaluation of your claim before validating it (954) 618-6181 OR [oxtrax@mindspring.com](mailto:oxtrax@mindspring.com)
- Note: Ox Trax, Inc. recommends tires not larger than 33" dia.

OX Locker™ - Patent Pending