

**CREATE YOUR OWN
MONSTER**
FRANKENSTEIN
Pleasanton, KS, U.S.A.
Made with Pride **TRIKES**

Installation Guide

Dyna

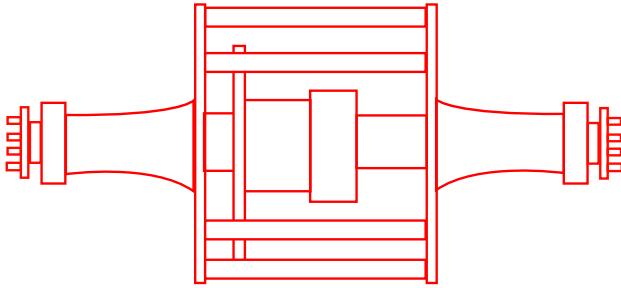
38" Sport Trike Kit

All Years

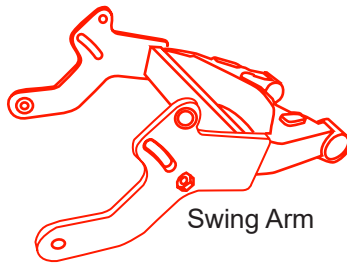


INCLUDED IN YOUR TRIKE KIT:

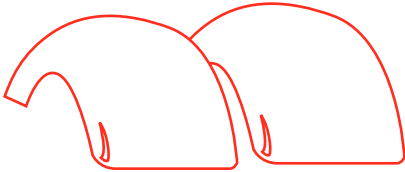
COMPONENTS



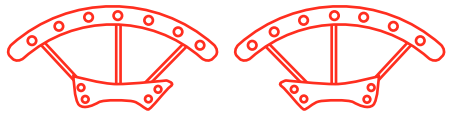
Frankenstein Trikes Rear End



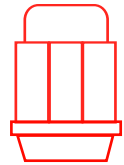
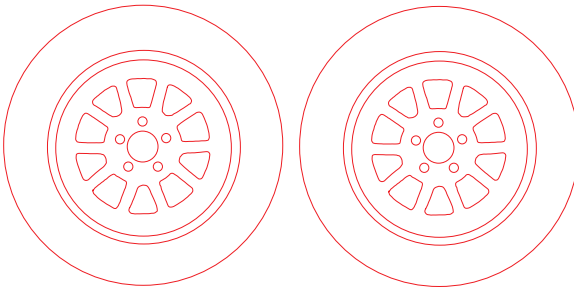
Swing Arm



2 Fenders



2 Fender Brackets



10 lug nuts

2 lon 15" X 8" wheels style 171-5865-P

1 2 Center caps and 2 General Altimax 215/60R15 tires

HARDWARE

PULLEY MOUNTING

- 5 pcs. - 7/16" -14 x 2 1/4" Grd. 8 (Gold) Bolt ('05 & up)
- 5 pcs. - 7/16" -14 x 2" Grd. 8 (Gold) Bolt ('00 - '05)
- 5 pcs. - 7/16" -14 x 1 1/2" Grd. 8 (Gold) Bolt ('99 & down)
- 5 pcs. - 7/16" Lock Washer

FENDER MOUNTING

- 14 pcs. - 3/8" - 16 x 1" Grd. 5 (Zinc) Bolt
- 14 pcs. - 3/8" I.D. 1" O.D. 1/16" Thick Grd 5 Washer
- 14 pcs. - 3/8" -16 Nylock Nut

NOTE! Additional hardware used to mount fender brackets to the rear end are pre-installed onto the rear end.

SHOCK MOUNTING

NOTE! Depending on the year of your Dyna your kit may include one or more of the following.

- 2 - Long Upper Shock Studs ('91-'05)
- 2 - 1/2" - 13 Blue Nuts (extra)


WHEEL MOUNTING

- 10 - Lug Nuts



LOCTITE is included with every kit and must be used where instructed in this manual.

STAGE 1. Motorcycle Preparation:

 **Always refer to your Harley-Davidson owners manual before performing any work on your bike.**

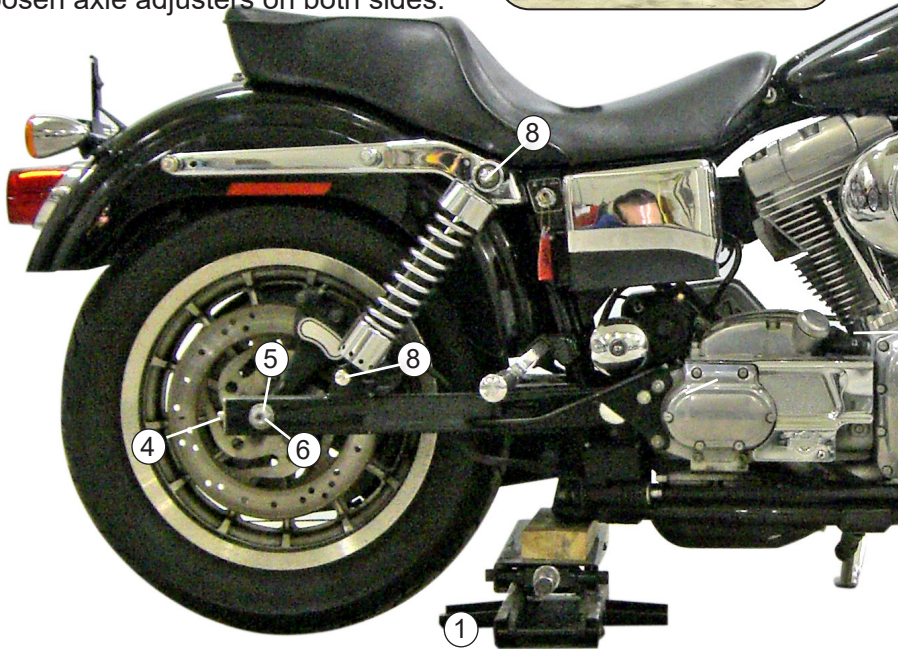
1. Secure front wheel so motorcycle won't tip, set jack under the motorcycle and raise the jack to take the weight off of the rear wheel.

 **Factory exhaust will be to long for your Frankenstein Trike Kit.**

2. Remove factory exhaust. If you have short exhaust you can leave them attached.

3. Remove upper and lower belt guards.

4. Loosen axle adjusters on both sides.



5. Remove axle nut.

6. Remove axle from wheel and swing arm.

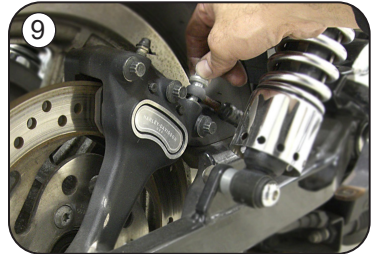
7. Slide the belt off of the pulley.



Now would be a good time to check the condition of your pulley and belt.

8. On '91-'05 Remove shock studs from both sides.

9. Remove the banjo bolt from caliper



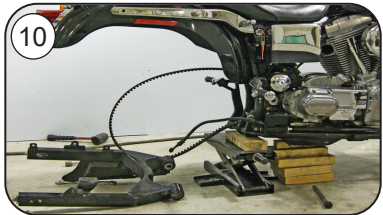
TIP

Once the brake line is unhooked from caliper, make sure to hang line upright so no fluid leaks out and no air gets trapped in the brake line.



10. Remove swing arm pivot shaft
Remove swing arm.

⚠ Note: the positions of the spacers on original swingarm, these will need to be placed in the same positions on your new swing arm. '06 & up swing arms remove snap ring and reinstall in new swingarm also reinstall spacers on new swing arm.



STAGE 2. Rear End Preparation/Installation:

★ 38" and longer rear ends are shipped with one or both axles not installed in the rear end. To install axles, remove the axle retainer plate (see diagram 11 pg. 8) and insert axle. Reinstall bolts, loctite and torque to 31 ft. lbs.

1. With swing arm and rear wheel removed, have a friend help set a wheel and tire on the brake side of the rear end. Install with lug nuts.

TIP Install center cap into wheel before mounting.

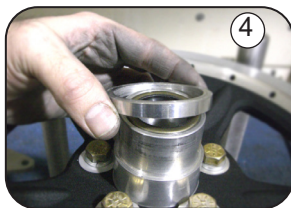
2. Set the rear end on the wheel that was previously installed. Remove the five bolts to the spokes, Remove axle, axle housing and star plate as a unit.



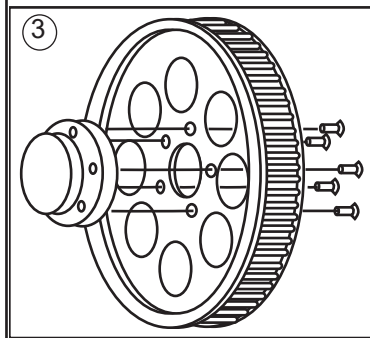
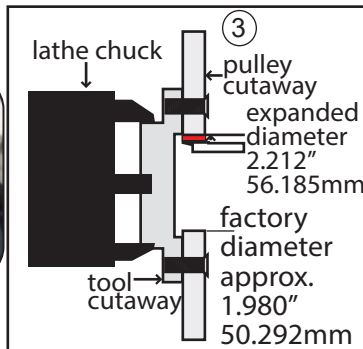
Do not remove green tape, it will be used as a reference point in the following instructions.



3. If you have a 1999 and earlier Dyna with a pulley or sprocket that has a center hole with a diameter of approximately 1.980" (50.292mm) then your pulley or sprocket will need to be machined. Install tool as shown using supplied bolts. Place back side of tool onto lathe chuck. Use boring tool to expand the diameter of the center hole. Measure frequently while boring until the diameter of the center hole is 2.212" (56.185mm). If your Dyna is 2000 and later go to next step.



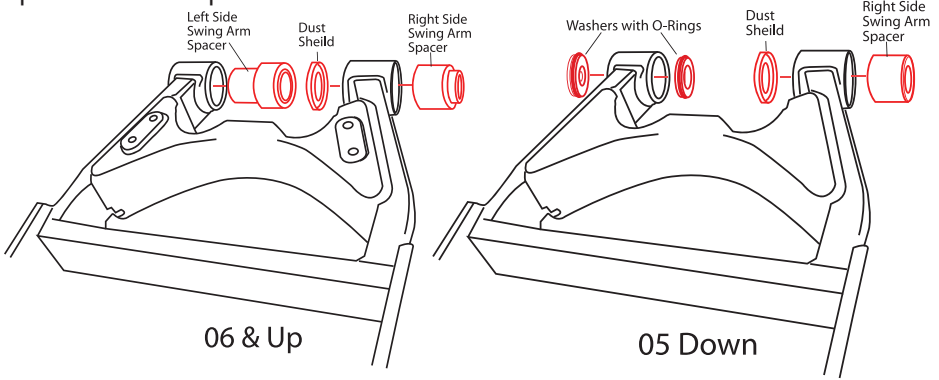
shown '00 and up



4. Install Pulley. Install 7/16" pulley bolts with lock washers provided apply **red loctite** and torque the pulley bolts. Have friend help hold the center section of the rear end with a screw driver through a hole in the rotor and through one of the holes in the star plate. Torque the pulley bolts to 65 ft. lbs. Insert spacer



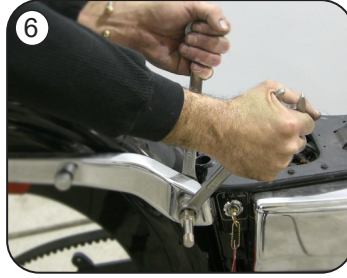
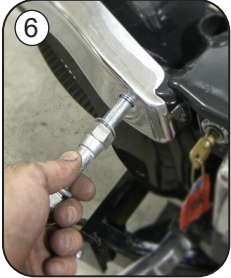
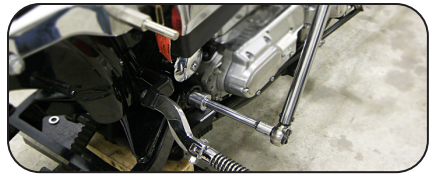
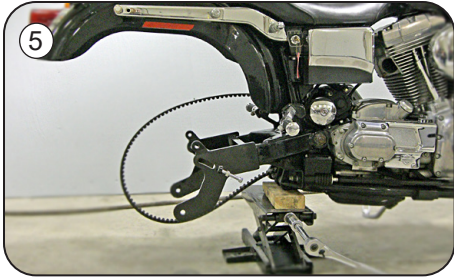
5. Install Swing Arm, use all spacers from original swingarm. Torque pivot shaft to spec.



LOCTITE
USE RED LOCTITE

Pivot shaft - Torque specs

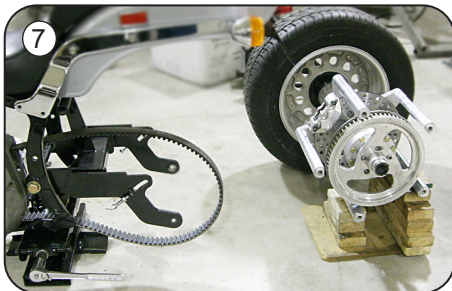
YEAR	ft. lbs.
'91 - '99	70
'00 - '05	50
'06 & up	75



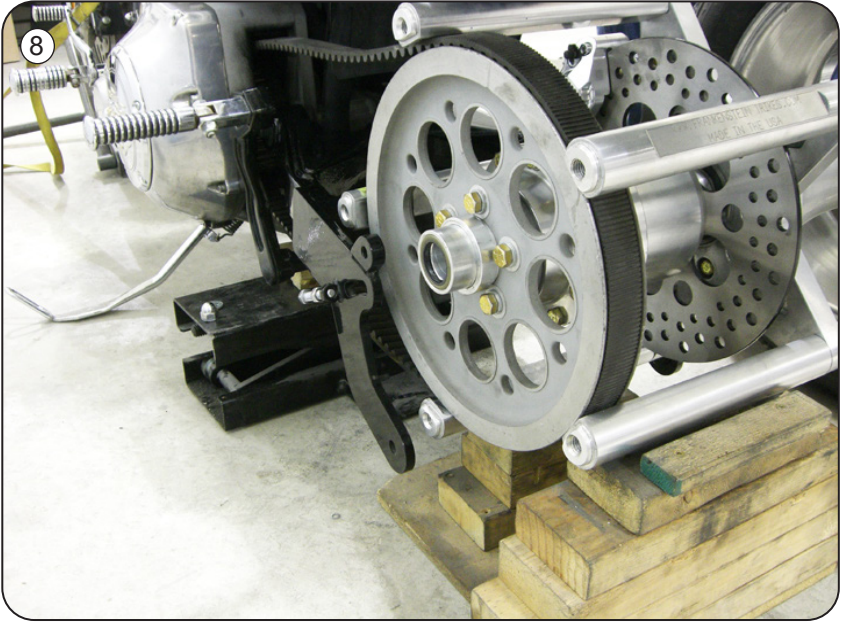
6. On '91-'05 Install shock studs, use nut from original shock studs. '06 & up 1/4" thick grade 8 washer and 4 1/4" long 1/2" - 13 bolt to mount shock to strut.
Use blue loctite.

LOCTITE

7. Prepare a Block and position rear end as shown below.

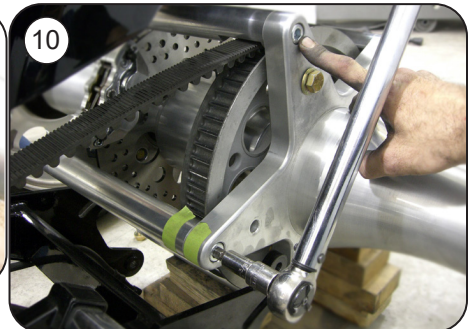


8. Slide the rear end under the bike. Lower the jack and set belt on pulley. (This is a little tricky but have patience) This is shown with a 65 tooth pulley. For larger pulley you may need to loosen the spokes on the opposite side of rear end to accommodate the belt installation. You may have to work around each spoke spreading then inserting belt while lifting the axle.

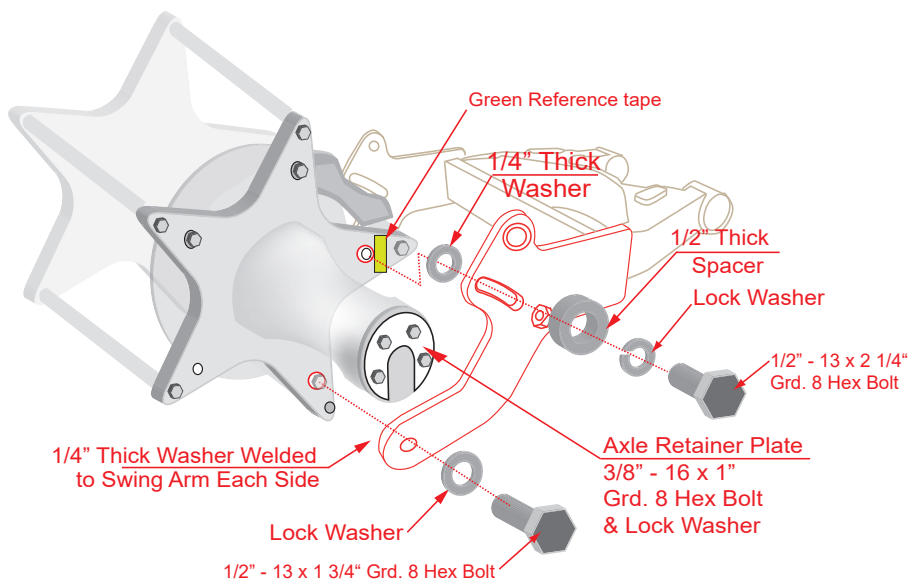
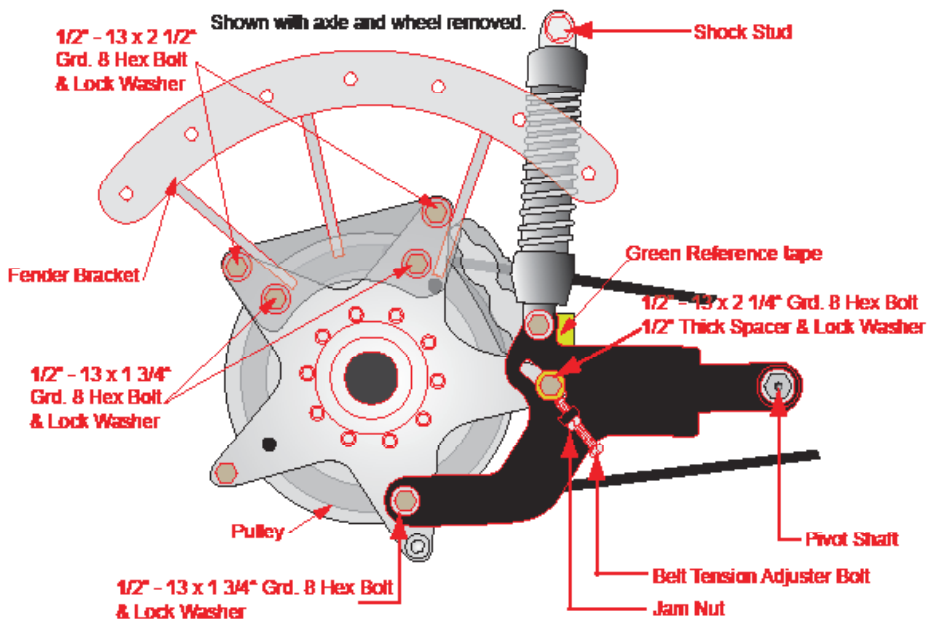


9. Slide drive side star plate onto rear end differential housing, align the star plate with the spoke that was marked with the green tape. Start all 1/2" allen bolts on star plate into spokes, tighten evenly. Use blue loctite. DO NOT FORCE BOLTS IN

10. Remove the 1/2" allens one at a time apply blue loctite and reinstall torque 60 ft. lbs. Both Sides.



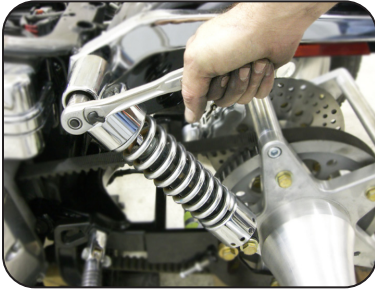
11. Install lower swing arm mounting bolts both side leave loose. Install upper swing arm mounting bolts, make sure to put the washer between the swing arm and the star plate on both sides leave loose. Refer to diagram for placement of washers and spacers.



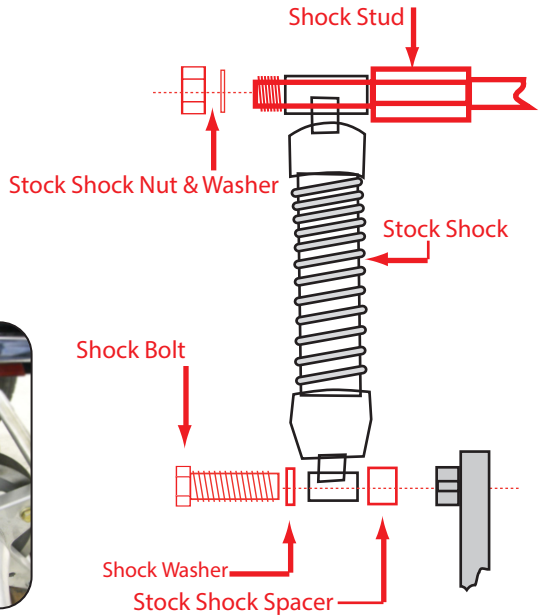
12. Install shocks

Shock bolts - Torque specs...

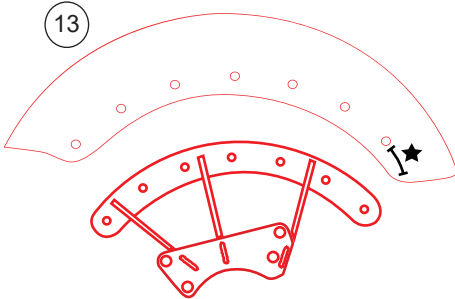
YEAR	ft. lbs.
'91 - '05 UPPER	25-40
'06 & up UPPER	21-35
ALL LOWER	55



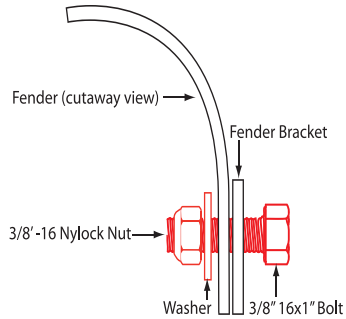
If your bike has spacer on lower shock mount you must re-use it.



13. Attach fender brackets to fenders using supplied FENDER MOUNTING HARDWARE ★ *Note: side with more space from bolt holes to edge of fender goes toward the front.*

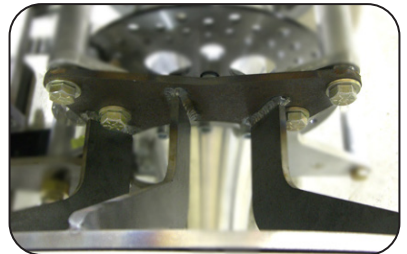


shown: left bracket and fender

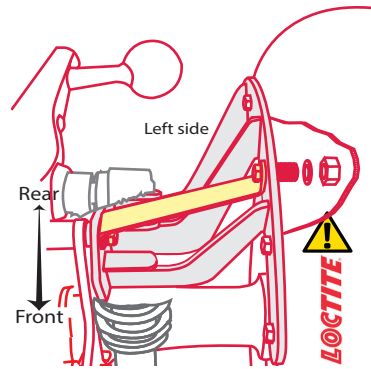


Configuration A. (standard)
for 15x8 wheels & tires
and 11" fenders


14. Remove top two star plate to spoke bolts and two bolts just below bolts previously removed, on one side at a time. Install fender and bracket on the rear end. Apply blue loctite. Install top two star plate bolts. Install lower mounting bolts on fender bracket. Install fender and fender bracket on other side as previously described. Torque upper fender bracket bolts to 60 ft. lbs. Torque lower fender bracket bolts to 60 ft. lbs.



15. We have included a strap to reduce vibration. Please install the strap on both fender brackets as shown in this illustration. (please note this is only used on kits with 15x8 wheels and 215/60/15 tires)

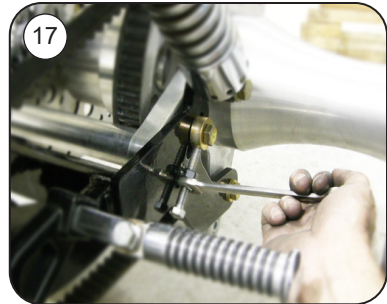


16. Install strap in the third bolt position from the front. Use Loctite on bolt to secure gold thin nylock nut. Thick side of strap attaches to the star plate on the rear end, narrow end of strap attaches to fender.

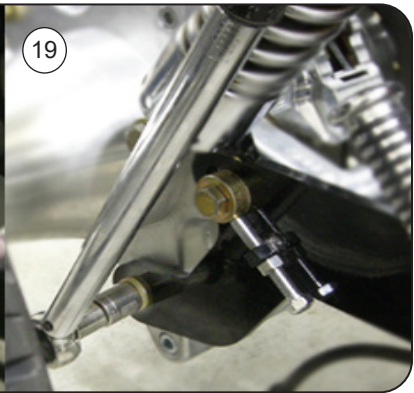
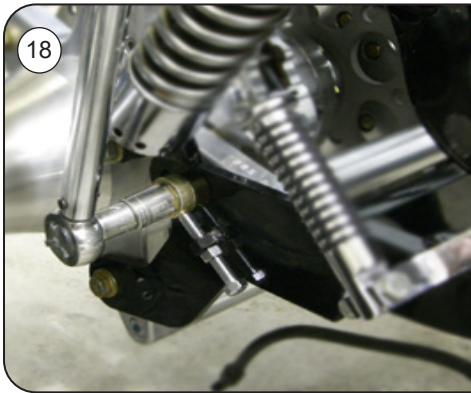
 **The trike must be sitting on the ground on its suspension to adjust the belt.**

17. Adjust belt tension to factory specs.

18. Tighten jam nut on adjuster bolts.




19. Torque the four rear end mounting bolts to 60 ft. lbs.



20. Hook up stock brake line, bled rear brake, tighten lug nuts on rear wheels torque 78 to 85 ft. lbs. and go for a ride. Re-torque lug nuts after 25 miles or 100 mile maximum.

Tip: Recommended tire pressure is 25psi.



 **Note: Initially the brake and rotor need to be worn in before maximum braking can be achieved. Please use caution.**

Our Trike rear ends are made from all 6061 T6 billet aluminum, except for our Light Sport Std. Trike rear end, which has 3/8" thick steel star plates, powder coated silver, instead of 1" thick billet aluminum star plates that we use on all our other Trike rear ends.

All of our rear ends have a Dana 30 differential, packed with Moly EP grease. 9" Ford street/strip axles with a bolt pattern of 5 studs on 4 1/2" bolt circle, wheel studs are 1/2" - 20. HHI/Frankenstein 4 piston billet caliper, 11 1/2" stainless steel brake rotor, or optional outboard Brakes with two HHI/Frankenstein 4 piston billet calipers and two 11" stainless steel brake rotors. We only use top quality new parts in our manufacturing of "Frankenstein Trikes" rear ends.

Replacement Parts

Differential seal: National oil seal # 481213 \$12.00 each

Differential Bearing: # 62102RS \$24.00 each

Axle Bearing: BCA # RW207-CCRA \$65.00 each

Brake Pads: HHI-101-001 \$39.00 pair

prices subject to change

