

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

Installation Guide

**V-Rod**

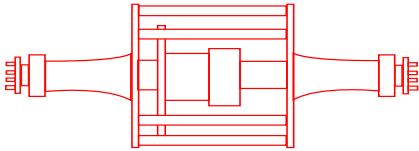
38" Sport Trike Kit

All Years

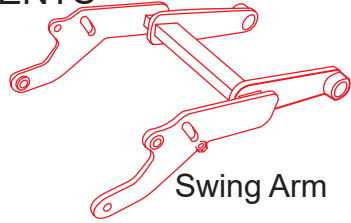


# INCLUDED IN YOUR TRIKE KIT:

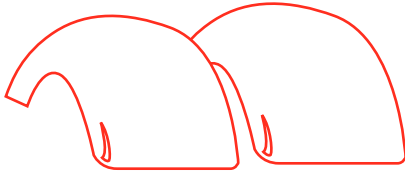
## COMPONENTS



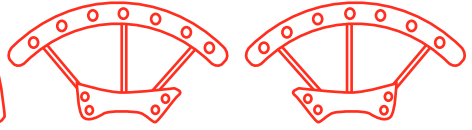
Frankenstein Trikes Rear End



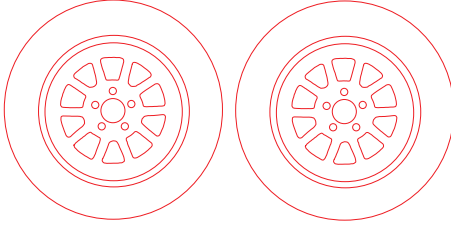
Swing Arm



2 Sport Fenders

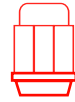


2 Fender Brackets



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

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



10 lug nuts

1/2" - 13 x 2 1/2"  
Grd. 8 Hex Bolt  
& Lock Washer

Shown with axel and wheel removed.

Upper Shock Bolt  
& Shock Spacer

Green Reference tape

Fender Bracket

1/2" - 13 x 3" Grd. 8 Hex Bolt  
1/2" Thick Spacer & Lock Washer

1/2" - 13 x 1 3/4"  
Grd. 8 Hex Bolt  
& Lock Washer

Pulley

Belt Tension Adjuster Bolt

Jam Nut

1/2" - 13 x 1 3/4" Grd. 8 Hex Bolt  
& Lock Washer

---

## HARDWARE

### PULLEY MOUNTING

5 pcs. - 7/16" -14 x 2" Grd. 8 (Gold) Bolt

5 pcs. - 7/16" Lock Washer (Pulley)

### 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 See Drawing Page 7 & 8

2 - 1/2" - 13 x 4 1/2" Grd. 8 Bolt (Upper Shock Mount)

2 - 1/2" - 13 x 2" Grd. 8 Bolt (Lower Shock Mount)

2 - 1/2" I.D. 1 1/4" O.D. 1.750" Long Spacer (Upper Shock Mount) '02 & up 180 tire

1 - 1/2" I.D. 1 1/4" O.D. 2.100" Long Spacer (Rt Upper Shock Mount) '07 & up 240 tire

1 - 1/2" I.D. 1 1/4" O.D. 1.720" Long Spacer (Lt Upper Shock Mount) '07 & up 240 tire

2 - Shock Nuts (Upper Shock Mount)

4 - 1/2" I.D. 1" O.D. 1/8" Thick Grd 8 Washer (Shock Mount)

### SWING ARM / PIVOT SHAFT See Drawing Page 7 & 8

#### '02 - '04 180 tire

1 - 1" I.D. 1 1/4" O.D. 1.630" Long Spacer (Rt. Side Pivot Shaft)

1 - 1" I.D. 1 1/4" O.D. 1.380" Long Spacer (Lt. Side Pivot Shaft)

#### '05 & up 180 tire

1 - 1" I.D. 1 1/4" O.D. 1.470" Long Spacer (Rt. Side Pivot Shaft)

1 - 1" I.D. 1 1/4" O.D. 1.520" Long Spacer (Rt. Side Pivot Shaft)

2 - 1" I.D. 1 1/4" O.D. 1.470" Long Spacer (Lt. Side Pivot Shaft)

#### '07 & up 240 tire

4 - 1" I.D. 1 1/4" O.D. 1.402" Long Spacer (Pivot Shaft)

### WHEEL MOUNTING



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

## STAGE 1. Motorcycle Preparation:

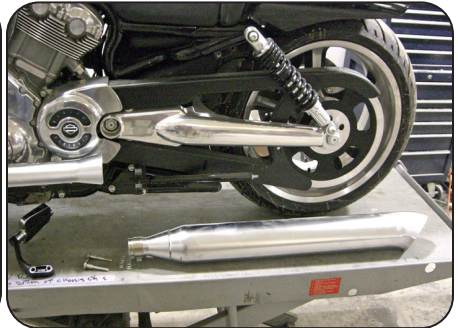


**Always refer to your Harley-Davidson owners manual before performing any work on your bike.**

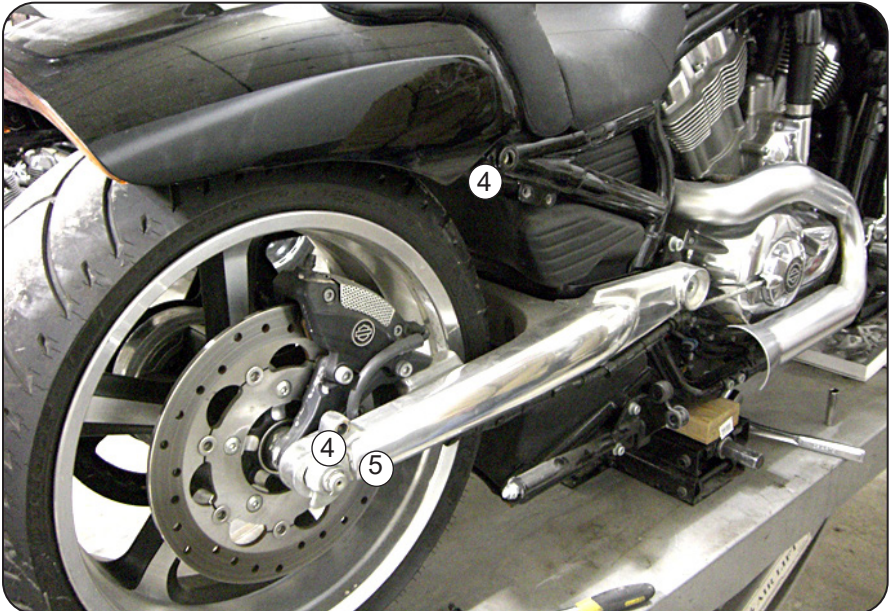
1. Secure front wheel so motorcycle won't tip, set jack under the motorcycle and raise the jack to take the weight off of the rear wheel.
2. Remove factory exhaust. If you have short exhaust you can leave them attached.



**Factory exhaust will not work when converting your bike to a trike.**



3. Remove upper and lower belt guards.
4. Remove Shocks
5. Remove axle from wheel and swing arm.



6. Remove banjo bolt and caliper

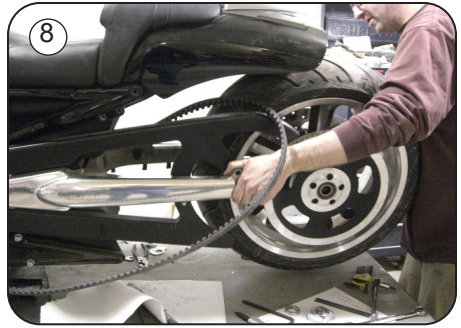
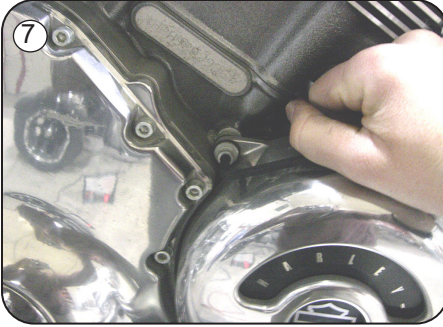


Once the brake line is unhooked from caliper, make sure to hang line upright so no fluid leaks out and no air gets trapped in the brake line.



7. Remove pulley cover.

8. Raise jack, remove wheel



9. Remove swing arm pivot shaft nut on left side. Pull pivot shaft out on right side. Remove swing arm.



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

## 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 5 pg. 6) 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.



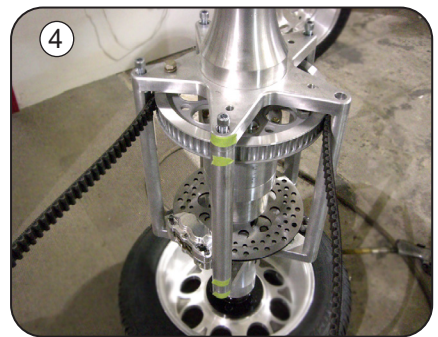
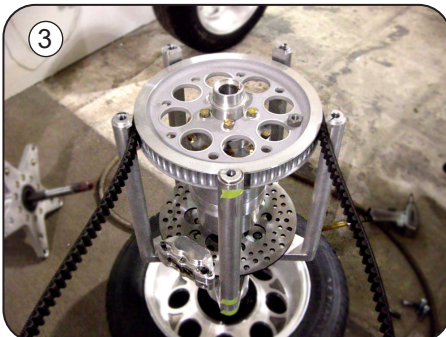
Do not remove green tape, it will be used as a reference point in the following instructions.



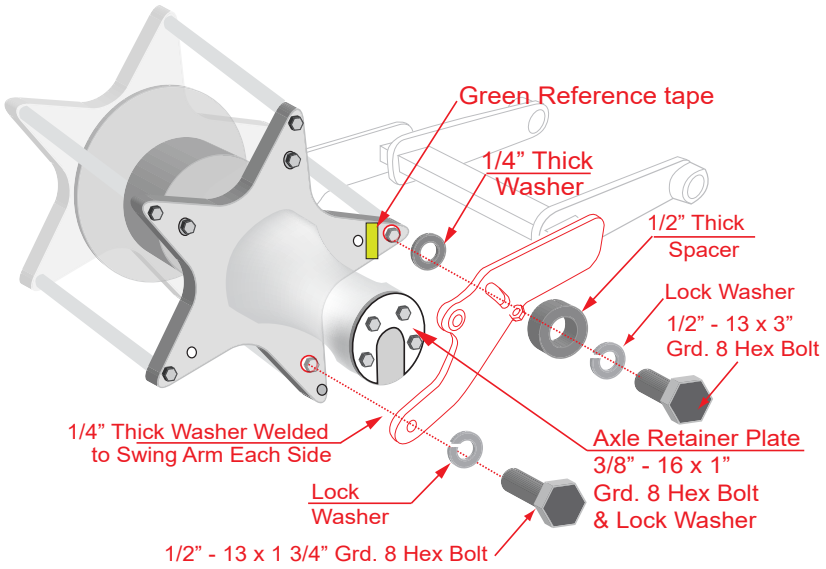
3. Insert belt leaving green tape spoke forward.

4. Install star plate and axle housing. Line up green tape, Loctite allen bolts & torque both sides (60 ft. lbs)

**LOCTITE**

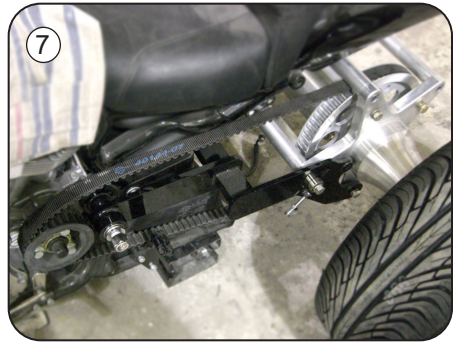
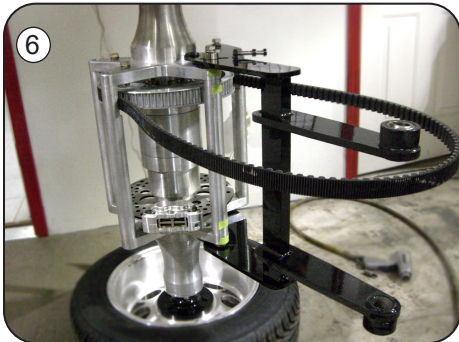


5. Install swing arm on rear end. Refer to diagram for placement of washers and spacers.



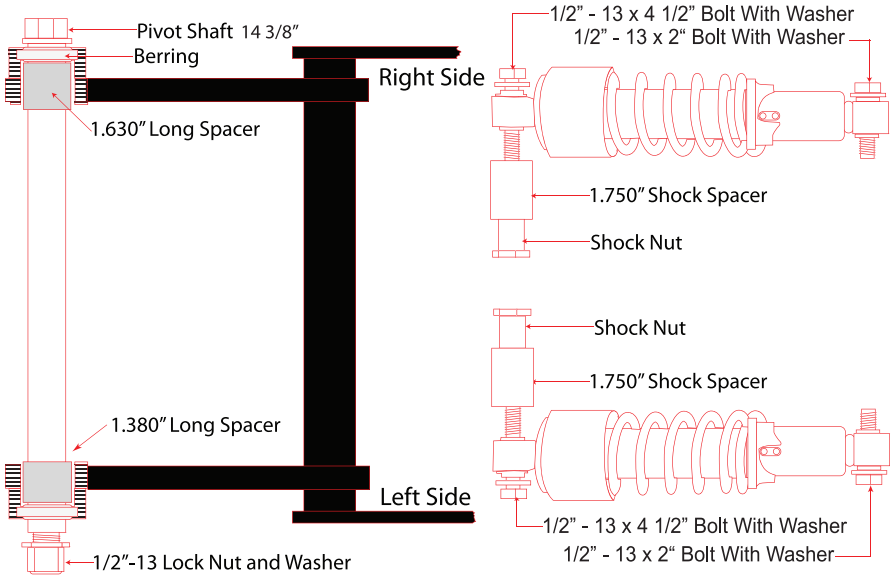
6. Install wheel on pulley side of rear end.

7. Roll rear end under bike to install pivot shaft. See next page for position of pivot shaft spacers. *please note refer to your year!*



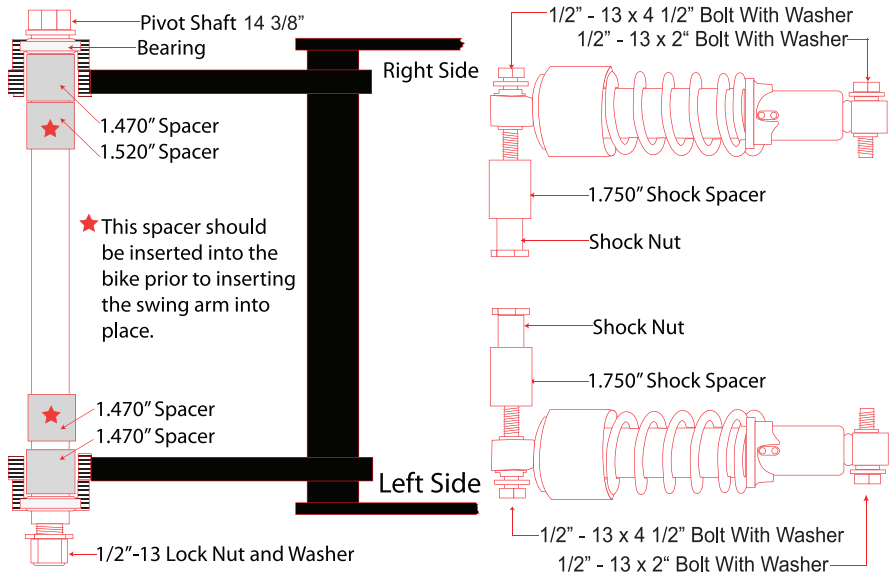
# 2002 - 2004 180 tire

## Top Down View of Swing Arm



# 2005 & up 180 tire

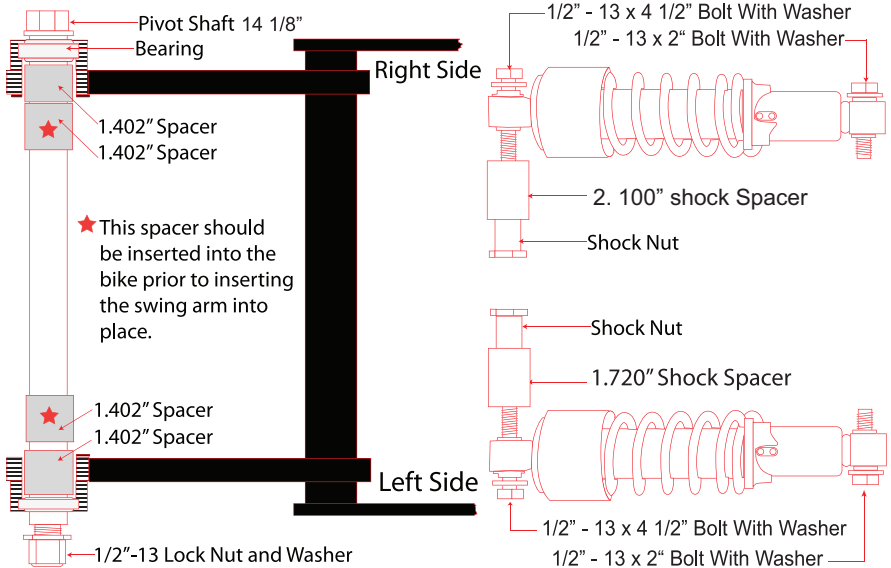
## Top Down View of Swing Arm



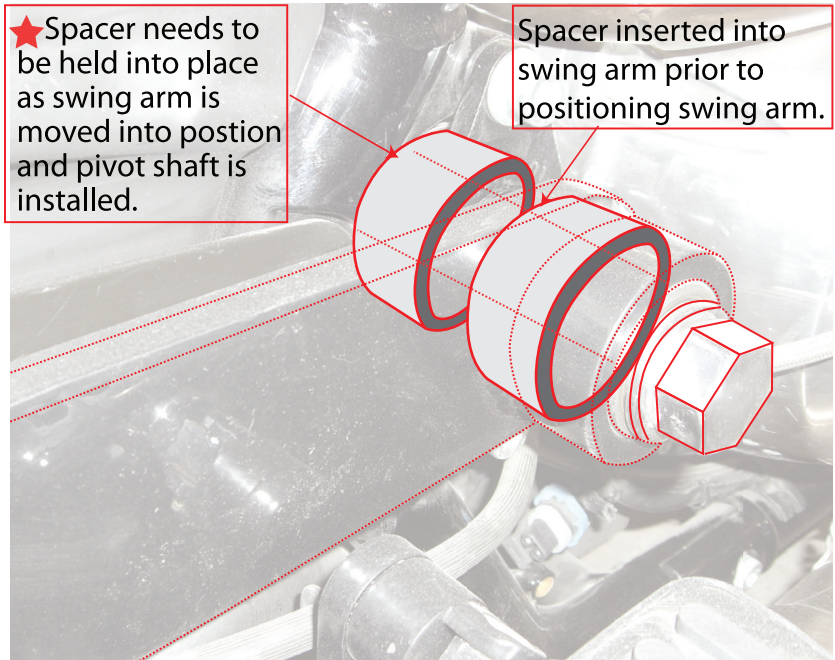


# 2007 & up 240 tire

## Top Down View of Swing Arm



Use this diagram for swing arms with 2 spacers per side.



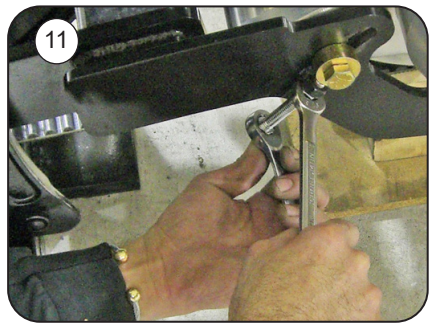
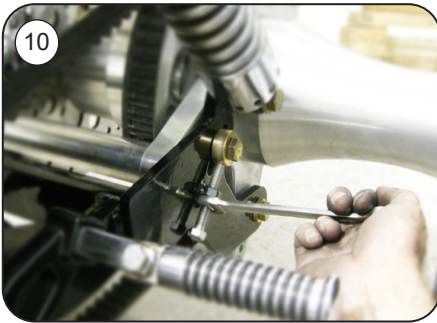
8. Raise or lower the jack to install shock. See previous page for shock spacer placement, torque shock bolts to 50 ft. lbs.
9. Install brake line to rear caliper and bled.



10. Adjust belt tension to factory specs.

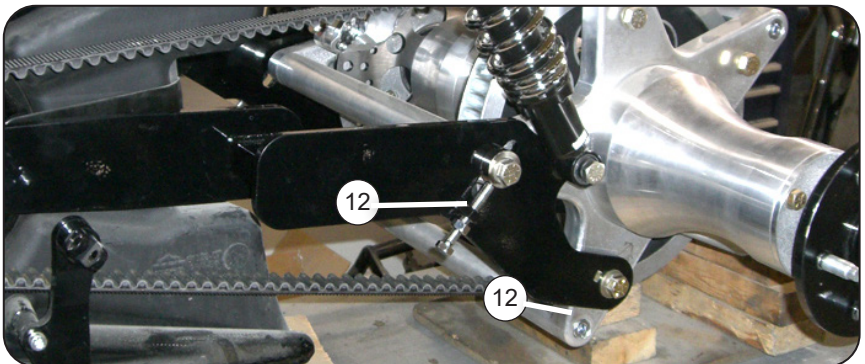
**⚠** *The trike must be sitting on the ground on its suspension to adjust the belt.*

11. Tighten jam nut on adjuster bolts.

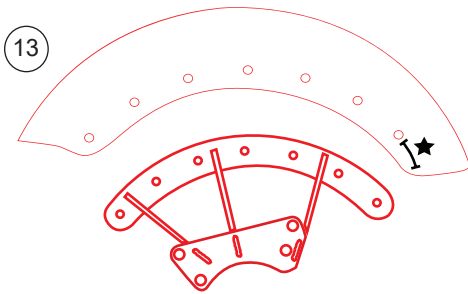


12. Torque the four rear end mounting bolts to 60 ft. lbs.

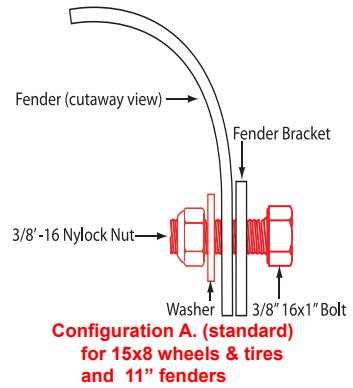
**⚠** *Shown without wheel and on blocks for photography.*



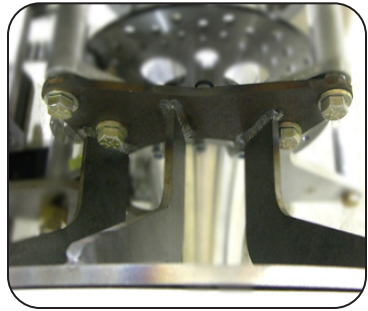
13. Attach fender brackets to fenders using supplied FENDER MOUNTING HARDWARE ★ *Note: side with more space from bolt holes to edge of fender goes toward the front.*



shown: left bracket and fender



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. 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