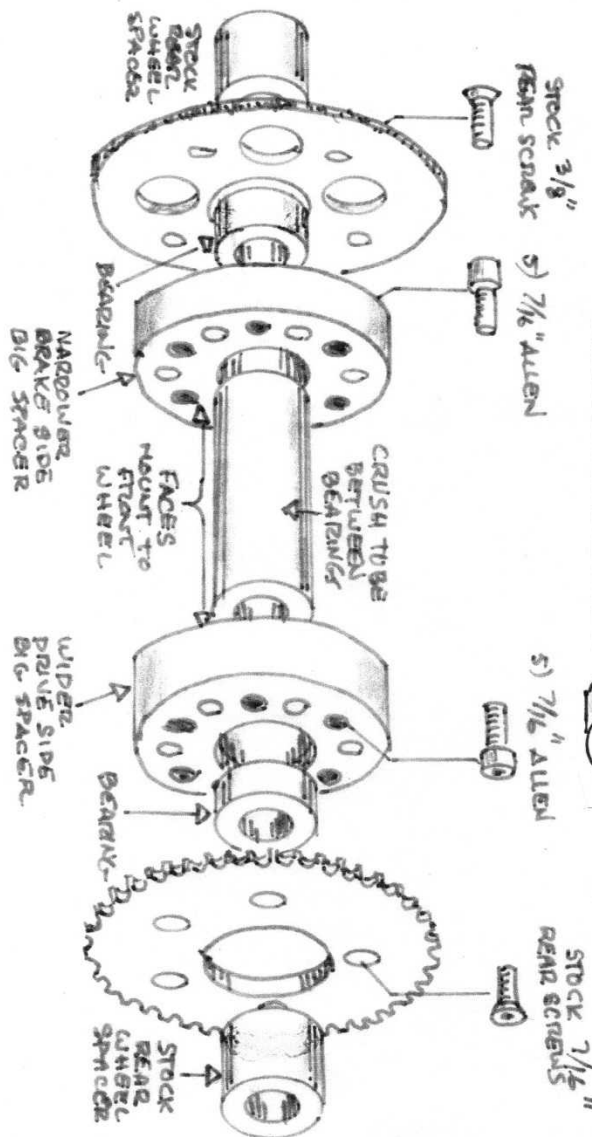


Updated 6/19/18

# ***SKR 19" kits for 13 spoke wheels***

Print this out so it's near your tool box when you need it



Street trackers, Dirt trackers and Hooligan racers need 19" wheels on the rear so they can get traction from dirt track tires only made in 19". My kits permit using a 19" Sportster front wheel on the rear. The Sportster front wheel was originally tapped for 5/16 cap screws to mount the rotor. Harley used 7/16"-14 cap screws on the rear wheel. We now make kits for 7/16 screws and they are provided with the kit. You must drill out the 5/16" holes in your front wheel for 7/16-14 cap screws in kit. Have the machining done locally or I will have it done for you at \$65 - spoked wheel for \$85.

## **Instructions for wire wheels**

Wire hubs are too wide for my kits. Use a stock Harley Davidson 19' x 2.5" cross four pattern rim mounted to a stock rear Sportster hub. Contact Buchanan's Spoke & Rim. Buchanan's rear spoke kit is custom made and the description of the **spokes is 8 1/4"-XS-75**. The estimated cost for 40, 6-8 gauge stainless steel spokes w/nipples is \$135.00 each rear set. With tax and shipping the total cost is just shy of \$160.

### **Buchanan's Spoke & Rim, Inc.**

805 W. 8th Street

Azusa, CA 91702

Tel (626) 969-4655 Ext 17

Fax (626) 812-0243

[www.buchananspokes.com](http://www.buchananspokes.com)

[techsupport@buchananspokes.com](mailto:techsupport@buchananspokes.com)

With wire wheels go with tubes. It may seem odd but here's the tube size. 5.00 to 5.8 x 18. 19" tubes tend to blow up when installing.

## **Wheels**

We now make four front wheel-to-rear conversion kits for Harley wheels from 1988 to 2005 and maybe beyond. This is good news for Street trackers and for sure Hooligan racers who need a 19" rear wheel so dirt track tires can be used. It really doesn't matter what 19" cast wheel you buy off Ebay. Make sure it doesn't have deep scratches or gouges. Just give me the measurements of your wheel and I'll get you fixed up.

## **Common kit parts**

[2] Big spacers that mount on wheel hub

[10] 7/16-14 Allen cap screws. These secure big spacers to wheel

[1] Long crush spacer between bearings

[2] Huge sealed bearings. I've inserted them in the big spacers

## **Stock OEM rear wheel parts reused**

[ ] Harley spacers against the swing arm-longest on drive side, narrow on brake side

[ ] Rotor side big spacer is 1 1/32" wide-**install with stock 3/8-16 screws**

[ ] Drive side big spacer is 1 1/4" wide- **install with my 7/16-14 screws**

## **You have to do three things to your 19" front wheel right now**

1) Remove the bearings and races from your wheel

2) Drill out the 5/16" holes in the wheel and tap and counter sink them for 7/16-14 Allen screws supplied.

3) If you have a 1" axle, have the wheel center drilled out to 1 5/16" to accept wider crush spacer

If you don't have a local machinist we can do the work for \$85

## **Instructions-wheel prep**

To make a 19" Harley wheel worthy for the rear of your Sportster, here are some recommended steps to take because these 25 year old wheels often are not pristine.

- 1) Select the nicest wheels you can find without dings. Without paint too so you don't have to pay to have it removed
- 2) Pull out bearings and races
- 3) Drill & tap out the 5/16" holes to 7/16-14"
- 4) If you have a 1" rear axle, machine out the wheel center to 1 5/16" to accept the larger diameter inside crush spacer
- 5) Subject your wheel to the parts washer and remove the dirt and bearing grease
- 6) Assemble your kit and wheel parts with Loctite
- 7) Mount and balance your wheel
- 8) Install wheel on bike

### **If big spacers just won't fit on your wheel, do these two things**

- A) Dress the edge of your wheel's pilot smooth with a file (they tend to flare out over years of use)
- B) Put your big spacers in the oven at low temp for an hour. They will grow slightly in diameter. If the wheel can be put out in the cold-even better

[Do these two steps and your kit will fit with no problem. I thank Charles Bourgois from Tucson for the inspiration to mention this in my instructions]

## **Assembly**

Once all the machining is done attach the thicker of the two big spacers (with bearing installed) to the right/drive side of the wheel

- 1) Drop the long tube (crush spacer) into the wheel. This keeps equal pressure on both sides of the bearings when you tighten axle.
- 2) Attach the thinner of the two large spacers (with bearing installed) on the left/brake side of the wheel. Okay you have all my pieces attached to the wheel.
- 3) Use 3/8 Harley screws to attach the rotor
- 4) Use 7/16 Harley screws to attach the sprocket
- 5) Use the Harley end spacers to place the wheel in the swing arm. The longest end spacer goes on the drive side, the narrow one goes on the brake side

### **Special note**

Your 13 spoke kit may come with a bearing stop in one large spacer and no stop in the other spacer. Do not worry. Simply assemble the wheel and kit in the prescribed way with the crush spacer between the

bearings and the Harley little spacers against the swing arm. As you tighten the axle, the bearing without a stop will be pushed and stops against the long center crush spacer and the Harley spacer. That is the designed plan

### **Instructions-mounting a big tire on a narrow rim**

If you don't communicate the following to your tire guy-you'll find him in the rafters mumbling to himself with his pants off and throwing 1" nuts at you the next time you go back.

- 1) Remove valve stem
- 2) Slobber mounting solution liberally to rim and tire
- 3) Introduce air in one great rush and stop when you hear the sound like a shotgun going off. If he isn't ready for the sound he'll load his pants-  
so warn him upfront
- 4) If tire fails to mount squarely inflate to the max and put it a warm room overnight. The tire will move into position on its own

## ***Phil Little handy flat track tire selection guide***

***Your limit widths for front is 5", 5.5" for rear***

### **Front max width-5" for Sportster**

<b>Maxxis 73H</b>	TT hard compound	27/70-19
<b>Maxxis</b>	Hard compound	130/90-19
<b>Mitas DOT</b>	Legal compound	27/7-19
<b>Shinko 71H</b>	Hard compound	140/80-19
<b>Golden CC5</b>	Med compound DOT	27/7-19

### **Rear max width- 5 1/2" for Sportster**

<b>Shinko 1H</b>	Hard compound	140/80-19
<b>Mitas DOT</b>	Legal compound	27/7-19
<b>Maxxis 73H</b>	Hard compound	27/7-19
<b>Golden CC6</b>	Hard compound DOT	27/7-19

### **Tire conversion guide**

<b><u>Metric</u></b>	<b><u>Flat track</u></b>	<b><u>Inches, width</u></b>
130/80	27/7-19*	5.00-5.10" [front or rear]
130/90	-	5.00-5.10" [front or rear]
140/80	27.5/7.5*	5.50-6.00" [rear]
140/90	-	5.50-6.00" [rear]

\* Source Shinko

### **Notes**

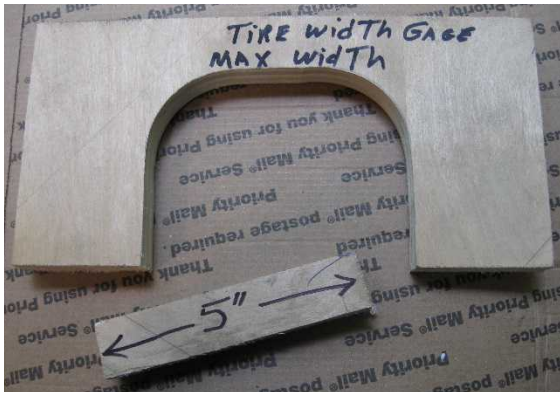
- [ ] There really is no front/rear dedicated flat track tires (a front will work on the rear etc.) the exception to this is racing tires
- [ ] Rear: select DOT approved or hardest compound-they will last longer
- [ ] Front: you can use a medium compound, some are DOT approved
- [ ] Shinko usually has the lowest price but their front is wider than 5" so you'll have to grind off rubber edge
- [ ] Most Sportster tires are tubeless (TT)

### **Tire sources**

- [ ] <https://www.shinkotireusa.com/dealer-locator>
- [ ] Zanotti Racing 510-928-3182

### **Front tire rubs on the fork slider**

You tried to mount the front 27 x 7 x 19 tire but it was too wide or you could just squeeze it in but it sorta rubs. You need clearance or the dirt on your tire will act like sand paper and will grind gouges in your sliders. Here's the quick fix.



### Step one

Make yourself a wooden template like these. The ID of your forks is 5"



### Step two

Find an old axle or a chunk of pipe which will fit in the wheel bearing hole. Clamp it in a work bench like this or an alternative.



### Step three

Plunk the wheel on the stem and pull out your belt sander. Install a course grit belt. Grind away the edge where the rubber side wall and business end of tire meet.



#### **Step four**

Start grinding. You'll find the grinder will spin the tire. Angle the grinder a bit and it starts to eat rubber.



#### **Step five**

Use your template to measure progress. After you have clearance, install a fine belt to smooth the rough dressed area. You won't be able to tell it was an operation site.

Thanks Phil PhilLittleRacing.com 952-935-8833 or cell 952-607-6063 12/7