



INSTRUCTIONS

-J03883

REV. 2006-04-25

80 SPOKE 16 INCH REAR WHEEL

GENERAL

Kit Number

42954-04, 42959-04, 42962-04, 42954-04A, 42962-07

Models

Table 1. Models

Kits	Models
42954-04 and 42954-04A	2000-later Touring, and 2005 and later XL model motorcycles
42959-04	2000-2005 Dyna™, 2000-2004 XL, 2000-2002 Softail® model motorcycles except FXSTD, and 2000-2001 Touring model motorcycles
42962-04	2003-2005 Softail® model motorcycles except FLSTS, FLSTSC and FXSTD. Also fits 2006 FLST, FLSTC, and FLSTN model motorcycles
42962-07	2003-2005 Softail® model motorcycles except FLSTS, FLSTSC and FXSTD. Also fits 2006 and later FLST, FLSTC, and FLSTN model motorcycles

Additional Parts Required

⚠ WARNING

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333a)

NOTE

This instruction sheet references Service Manual information. A Service Manual for your model motorcycle is required for this installation and is available from a Harley-Davidson Dealer.

Loctite® 262 Thread locker, Part Number 94759-99, is available from a Harley-Davidson Dealer.

If installing Kit 42954-04 on a 2007 Touring model motorcycle, Part Number 3737A screws (5), and Part Number 6516HW washers (5), are required.

Kit Contents

See Figure 1 and Table 2.

INSTALLATION

CAUTION

Do not re-use brake disc screws. Re-using disc screws can result in torque loss and damage to rotor and/or brake assembly. (00319b)

CAUTION

Do not re-use sprocket mounting screws. Re-using sprocket mounting screws can result in torque loss and damage to the sprocket and/or belt assembly. (00480b)

Refer to the appropriate Service Manual for wheel removal and installation procedures.

NOTE

The wheel should be installed so that the valve stem is on the right side of the motorcycle, except on XL models.

See Figure 1. This kit contains the necessary parts for wheel installation, however, the following OE parts must be retained and reused when you install your new wheel:

- Axle
- Axle nut
- Brake Disc
- Wheel Spacers
- Sprocket

NOTE

The cotter pin or spring clip for the axle nut must be replaced. They are available for purchase from your dealer. See your dealer for the correct part number for your model motorcycle.

NOTE

Follow the sprocket bolt torque procedure in your service manual or, if installing an accessory hardware kit, in the instructions sheet included with the hardware kit.

MAINTENANCE AND CLEANING

Chrome parts must be maintained regularly to ensure that they keep their original shine and luster.

1. Clean heavily-soiled wheel surfaces using Harley Wheel and Tire Cleaner, Part Number 94658-98 applied with Harley Wheel and Spoke Brush, Part Number 43078-99.
2. Thoroughly clean chrome with a good quality chrome cleaner, such as Harley Bright Chrome Cleaner, Part Number 94683-99.
3. After cleaning and polishing, seal the finish with a good quality sealer such as Harley Glaze Polish and Sealant, Part Number 99701-84.

BEARING REPLACEMENT

The Disc side (right side) of the wheel is the primary bearing side. When installing replacement bearings, install this bearing

first, referring to the applicable Service manual and using a WHEEL BEARING REMOVER/INSTALLER, Part Number HD-44060.

SERVICE PARTS

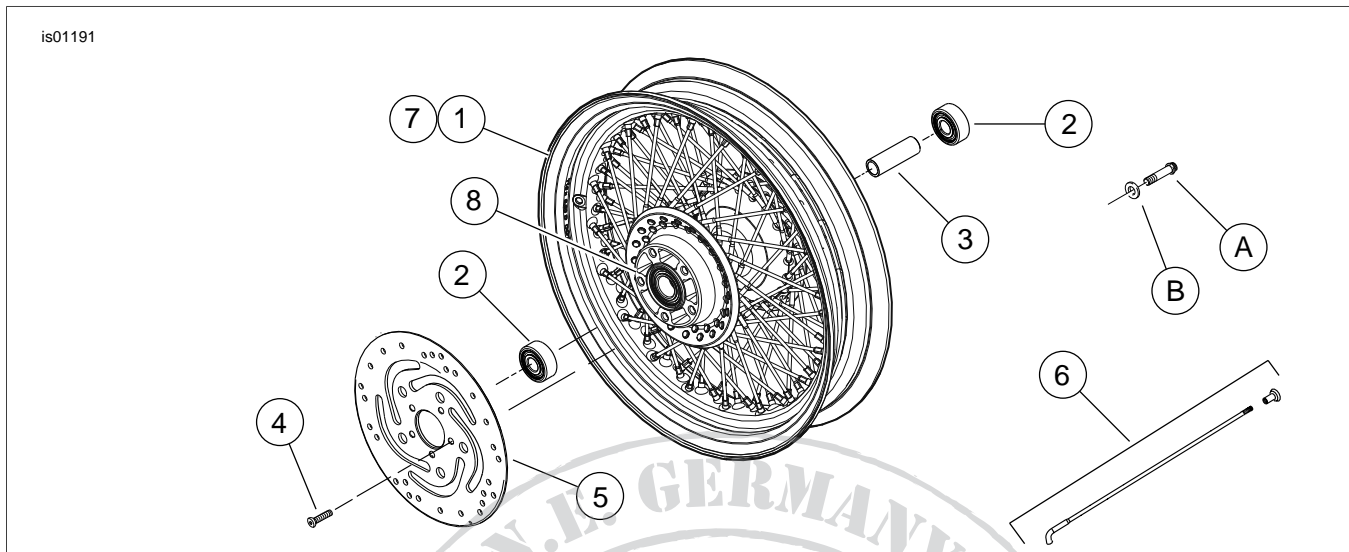


Figure 1. Service Parts: 80 Spoke Rear Wheel

Table 2. Service Parts: 80 Spoke 16 Inch Rear Wheel Kits

Item	Description (Quantity)	Part Number
1	Wheel, 80 spoke 16 inch	Not Sold Separately
2	Bearing (2)	
	Kit 42954-04, 42954-04A	9247
	Kits 42959-04, 42962-04, 42962-07	9267
3	Bearing spacer sleeve	
	Kit 42954-04, 42954-04A	43517-00
	Kit 42959-04, 42962-04, 42962-07	43608-00
4	Brake disc screws (5)	43567-92
5	Brake disc	Reference Only
	Rim strip (not shown)	43147-40
6	Spoke and nipple kit (Contains 20 inner spokes, 20 outer spokes and 40 nipples)	41899-05
7	Rim	43087-04
8	Hub Assembly for Kit 42959-04 and 42962-04 (includes bearings and spacer)	41135-04
	Hub Assembly for Kit 42954-04 (includes bearings and spacer)	40995-04
	Hub Assembly for Kit 42954-04A (includes bearings and spacer)	40995-04A
	Hub Assembly for Kit 42962-07 (includes bearings and spacer)	41135-04A
Items mentioned in text, but not included in kit:		
A	Screw (5)	Purchase Separately
B	Washer (5)	Purchase Separately
Note: Items A and B must be purchased separately. See your dealer for the correct part number for your model motorcycle.		
Note: If installing Kit 42954-04 on 2007 model motorcycles, use Screw, Part Number 3737A (5), and Washer, Part Number 6516HW (5).		

WHEEL LACING PROCEDURE

NOTE

If only rim is to be replaced, tape spokes together to hold position on hub and remove spokes from rim. Install taped hub/spoke assembly to new rim and tighten spokes. Then remove tape and true wheels.

The nipple fitting of the spoke uses a standard T-30 TORX® bit for removal and installation. See Figure 2.

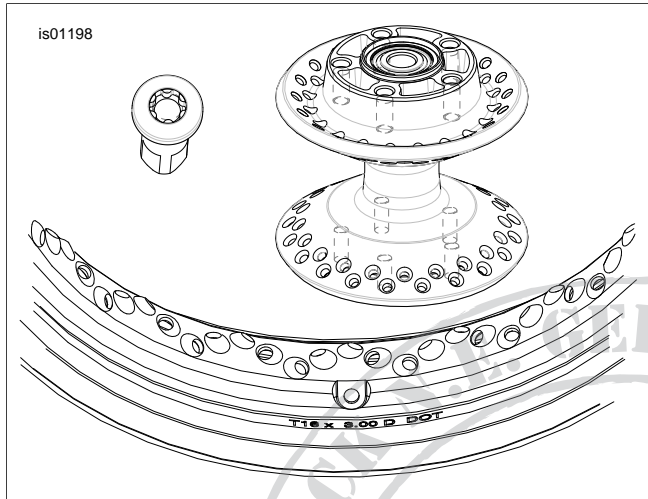
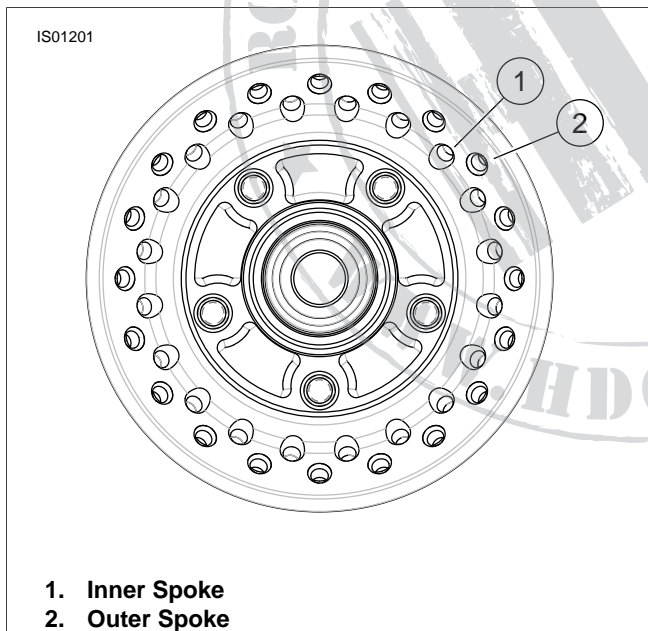


Figure 2. 80 Spoke Wheel Components

The 80 spoke wheel uses two lengths of spokes, located in inner and outer rows on the hub. See Figure 3.



1. Inner Spoke
2. Outer Spoke

Figure 3. Spoke Location on Hub

See Figure 4 and measure distance "A" to determine inner and outer spokes.

Outer Spoke: 5.19 inch (132 mm)

Inner Spoke: 5.59 inch (142 mm)

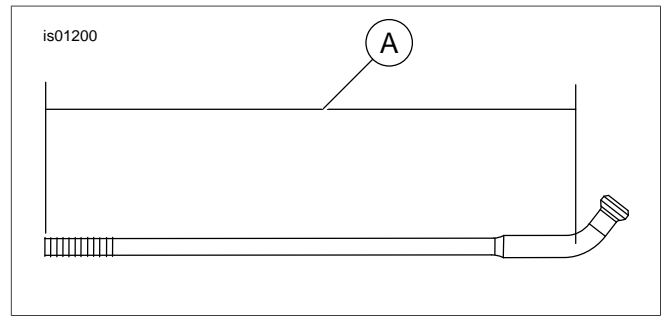


Figure 4. Spoke Length

1. See Figure 5. Place the hub on table with brake disc side up. Insert a spoke in each hole of the **outer** row as shown. Angle spokes clockwise.

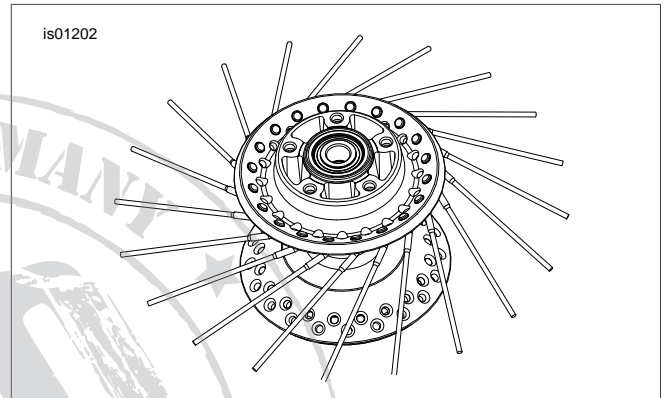
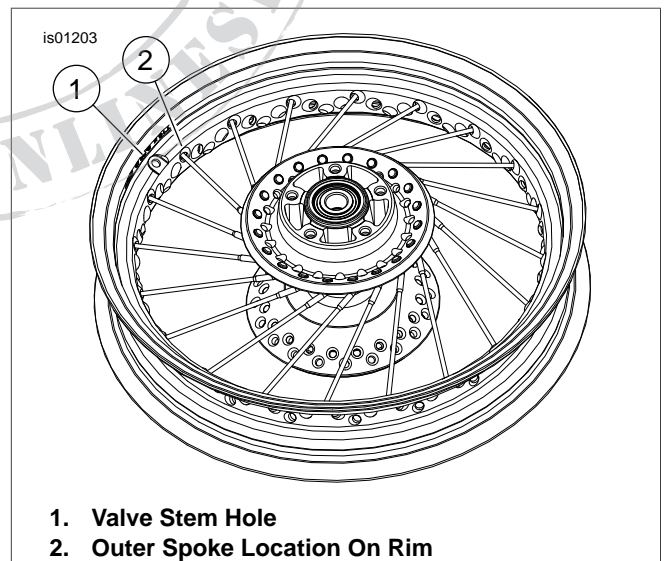


Figure 5. Install Outer Spokes on Hub

2. Center the rim over the hub assembly with the valve stem hole facing upward.
3. See Figure 6. Using any **outer** row spoke, place the first spoke into the rim hole to the left of the valve stem hole on the upper half of the rim centerline. Loosely assemble the spoke nipple.



1. Valve Stem Hole
2. Outer Spoke Location On Rim

Figure 6. Install Outer Spokes

4. Install the rest of **outer** row spokes in every fourth hole. Loosely assemble the spoke nipples.

- See Figure 7. Place the first **inner** row spoke into the hub. Angle the spoke counterclockwise crossing **four** outer row spokes. Loosely assemble the spoke nipple.

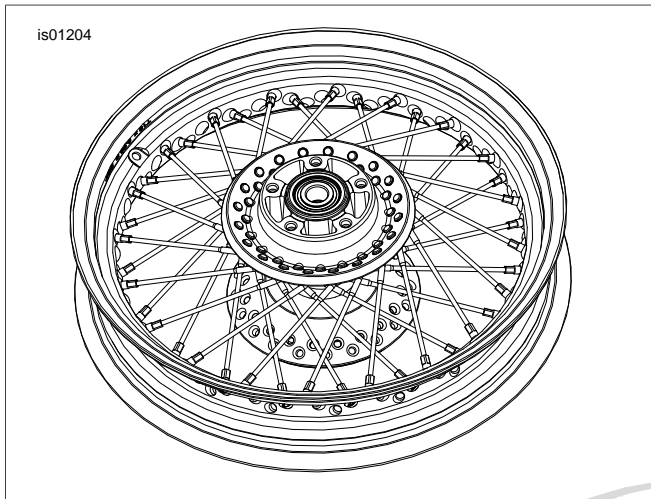


Figure 7. Install Inner Spokes

- Install the inner row spokes into every **fourth** remaining hole above the rim centerline. Loosely assemble the spoke nipples.
- See Figure 8. Turn rim over so brake disc side faces **down**. Place any **outer** row spoke into hub. Angle spoke counter-clockwise and place into rim hole angled to accept it. Loosely assemble the spoke nipple.

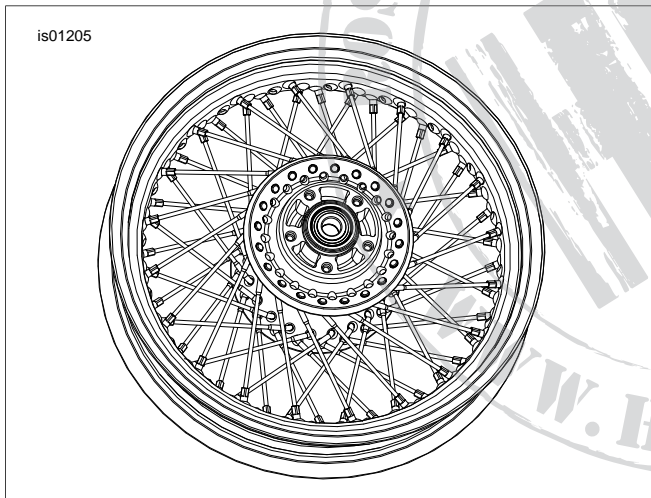


Figure 8. Install Outer Spokes

- Place the remaining **outer** row spokes, angled counterclockwise, into hub and rim. Loosely assemble the spoke nipples.
- Insert **inner** row spoke into hub and angle spoke clockwise, crossing over 4 outer row spokes. Place spoke into appropriate rim hole. Loosely assemble the spoke nipple.
- See Figure 9. Install remaining **inner** row spokes. Loosely assemble the spoke nipples.
- Tighten spoke nipples to 19-35 **in-lbs** (2.2-4 Nm). (80 spoke wheels only)

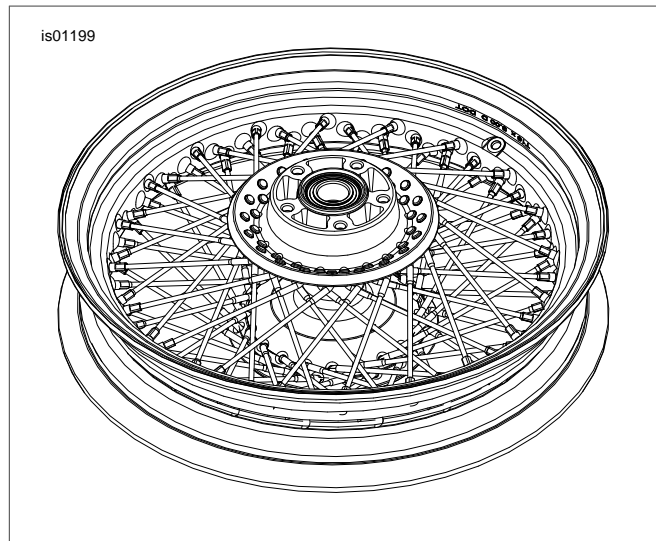
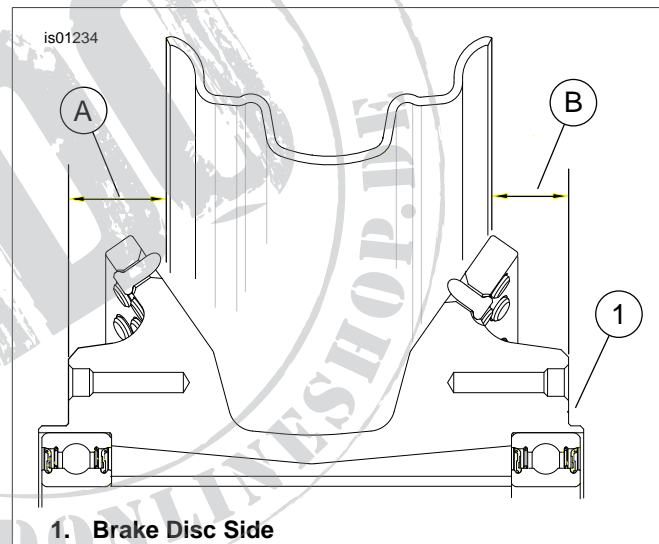


Figure 9. Install Inner Spokes

TRUING LACED WHEELS

The rim must be trued both laterally and radially. If new bearings were installed, wheels may be trued with only the bearings and center spacer installed. See and Table 3 for the proper offset dimensions for your wheel.



1. Brake Disc Side

Figure 10. Offset Dimension

Table 3. Wheel Offset Dimensions

Kit Number	"A"	"B"
42954-04, 42954-04A	1.29 inch (33.6 mm)	1.13 inch (28.6 mm)
42959-04	1.29 inch (33.6 mm)	1.13 inch (28.6 mm)
42962-04	1.41 inch (35.7 mm)	1.05 inch (26.6 mm)
42962-07	1.41 inch (35.7 mm)	1.05 inch (26.6 mm)

See TRUING LACED WHEELS the Service Manual for your model motorcycle.