



INSTRUCTIONS

J04023

2012-07-16



80-SPOKE FRONT WHEEL KIT

GENERAL

⚠ WARNING

Install only wheels and installation kits approved for your model motorcycle. Contact a Harley-Davidson dealer to verify fitment. Mismatching wheels and installation kits or installing wheels not approved for your model can cause loss of control, which could result in death or serious injury. (00610c)

Kit Number

41203-05, 42958-07

Models

For model fitment information, see the P&A Retail Catalog or the Parts and Accessories section of www.harley-davidson.com (English only).

NOTE

Accessory hub caps are not compatible with this wheel.

Kit Contents

See the Service Parts section for kit contents.

Additional Parts Required

Proper installation of this kit requires the separate purchase of the following parts which are available at a Harley-Davidson dealer:

- Wheel Installation Kit (See Table 4 through Table 7 to determine required installation kit.)
- 10 Brake Disc/Hub Cap Screws (3655A) or 2 Chrome screw kits (46646-05)
- Wheel Bearing Remover and Installer (94134-09)

The following Harley-Davidson Genuine Motor Accessories are recommended for proper maintenance and cleaning:

- Harley® Bright™ Chrome Cleaner (94683-99)
- Harley® Glaze™ Polish and Sealant (99701-84)
- Harley® Wheel and Spoke Brush (43078-99)
- Harley-Davidson® Wheel and Tire Cleaner (94658-98)
- Harley® Preserve™ Bare Aluminum Protectant (99845-07)

⚠ WARNING

Rider and passenger safety depend 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. (00333b)

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.

INSTALLATION

1. Remove existing front wheel assembly. Save axle, axle nut, brake disc and wheel spacers for kit installation. Refer to FRONT WHEEL in service manual. **For FLSTC and FLSTN Models:** Discard moon-style hub cap. **For FXSTD Models:** Discard tapered spacer.

NOTE

This kit does not use the valve stems included in the installation kit.

NOTE

Install the primary bearing first using appropriate service manual and WHEEL BEARING REMOVER/INSTALLER.

- **Kits 41203-05:** Should be installed so that the machined groove and cast-in markings on the hub are on the right side of the motorcycle.
- **Kit 42958-07:** Should be installed so that the machined groove, valve stem and cast-in markings on the hub are on the left side of the motorcycle.
- **Kits 41203-05:** For 2006 and later FXDWG Models: When correctly installed, the tire will be 2–5 mm (0.08–0.2 in) off of center, compared to the fender. For 2007 FXST, FXSTB, FXSTC Models: The primary bearing side is the left side. For 2006 and earlier FXST, FXSTS, FXSTB, FXSTC, FXSTD and 2007 and earlier FXDWG Models: The primary bearing side is the right side. For FXSTS Models: Install the brake disc on the right side. For all other models: Install the brake disc on the left side.
- **Kit 42958-07:** The primary bearing side is the left side.

NOTICE

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



- Assemble wheel installation kit components and brake disc(s) to wheel, using the appropriate service parts table. Refer to FRONT WHEEL in Service Manual.
- For FLSTC and FLSTN Models:** Install wheel kit and right side wheel spacer provided in installation kit. Refer to FRONT WHEEL in service manual. **For FXSTD Models:** Install the right side axle spacer provided in the installation kit in place of the stock tapered axle spacer. **For FXSTS Models:** Install the left side axle spacer provided in the installation kit between the stock axle spacer and fork. **For all other models:** Install previously removed wheel spacers. Refer to FRONT WHEEL in service manual.
- Install front wheel (1), stock axle and stock axle nut. Refer to FRONT WHEEL in service manual.

WHEEL LACING PROCEDURE

NOTE

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

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

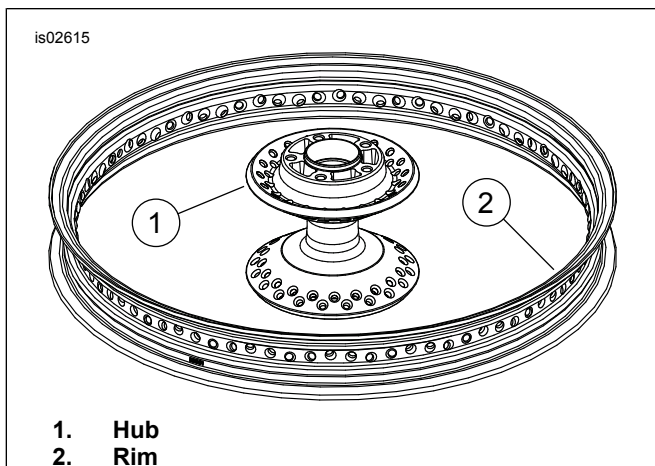


Figure 1. Spoke Wheel Components (21-inch wheel shown)

The 80-spoke wheel uses two lengths of spokes, installed in the inner and outer rows on the hub. See Figure 2.

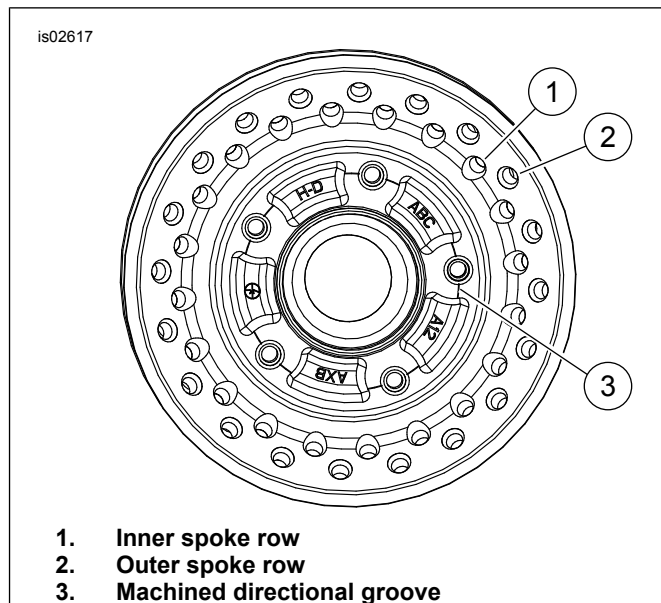


Figure 2. Spoke and Directional Groove Location on Hub

See Figure 3 and Table 1. Measure distance "A" (outer) to determine outer and inner spoke lengths. Separate outer and inner spokes in preparation for installation to hub and rim.

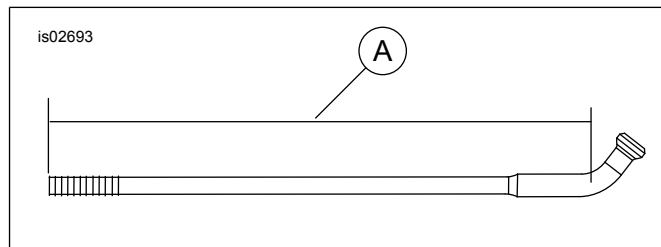


Figure 3. Spoke length

Table 1. Spoke Lengths

Spoke	Length (A)
Outer spoke (21-inch wheel)	7.83 inch (199 mm)
Inner spoke (21-inch wheel)	8.35 inch (212 mm)
Outer spoke (16-inch wheel)	5.19 inch (132 mm)
Inner spoke (16-inch wheel)	5.59 (142 mm)

- See Figure 4. Place the hub on table with machined groove side up. Insert a spoke in each hole of the **outer** row as shown. Angle the spokes clockwise.
- For Kits 42958-07:** Center the rim over the hub assembly with the valve stem hole facing up. See Figure 5. **For Kit 41203-05:** The rim size should face up.
- See Figure 4. Using any **outer** row spoke, insert 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.

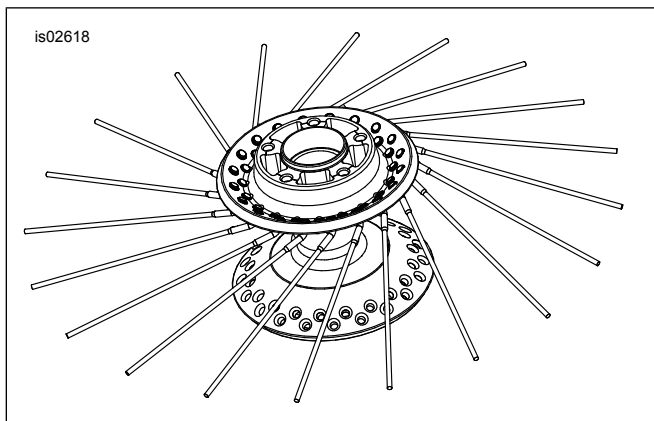
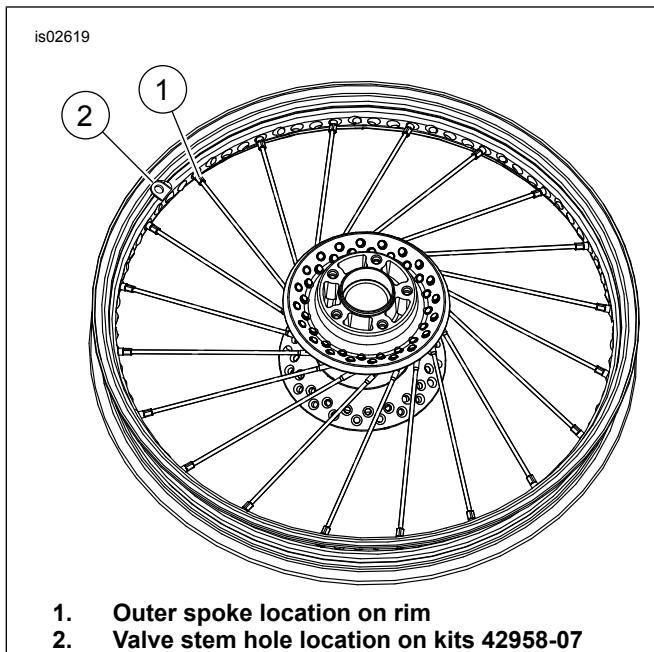


Figure 4. Install Outer Spokes on Hub



1. Outer spoke location on rim
2. Valve stem hole location on kits 42958-07

Figure 5. Install Outer Spokes (21-inch wheel shown)

4. Install the rest of **outer** row spokes in every fourth hole. Loosely assemble the spoke nipples.
5. See Figure 6. Insert the first **inner** row spoke into the hub. Angle the spoke counterclockwise crossing **four** outer row spokes. Loosely assemble the spoke nipples.

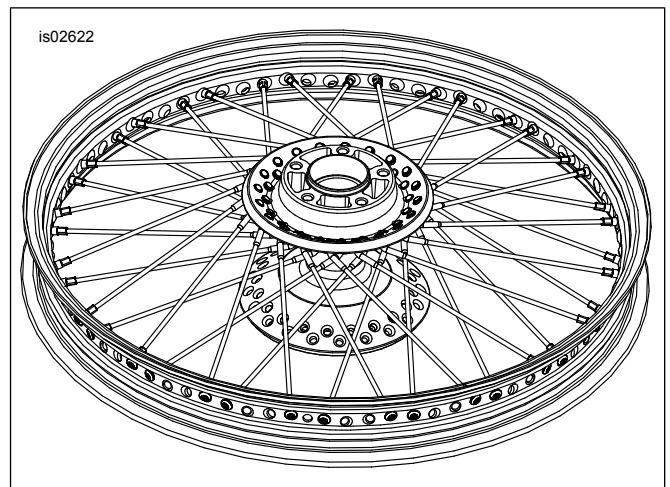


Figure 6. Install Inner Spokes (21-inch wheel shown)

6. Install the inner row spokes into every **fourth** remaining hole above the rim centerline. Loosely assemble the spoke nipples.
7. See Figure 7. Turn rim over so brake disc side faces **down**. Place any **outer** row spoke into hub. Angle spoke counterclockwise and insert into rim hole angled to accept it. Loosely assemble the spoke nipple.

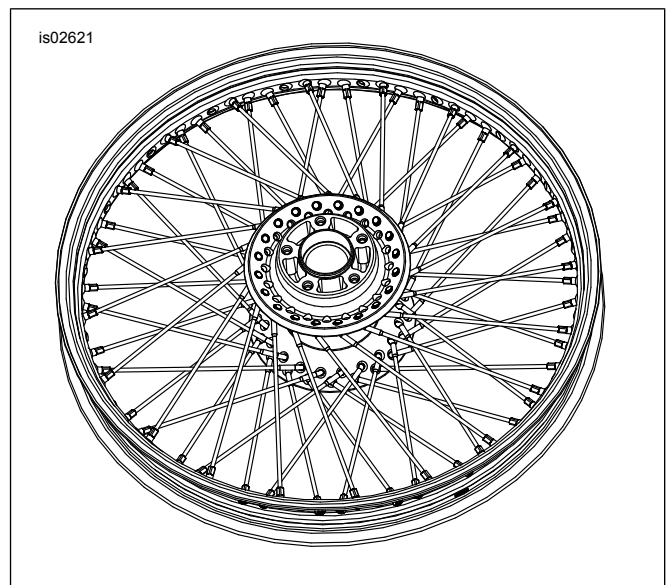


Figure 7. Install Outer Spokes (21-inch wheel shown)

8. Insert the remaining **outer** row spokes, angled counter-clockwise, into hub and rim. Loosely assemble the spoke nipples.
9. 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 nipples.
10. See Figure 8. Install remaining **inner** row spokes. Loosely assemble the spoke nipples.
11. Tighten spoke nipples to 2.2–4 N·m (19–35 **in-lbs**).

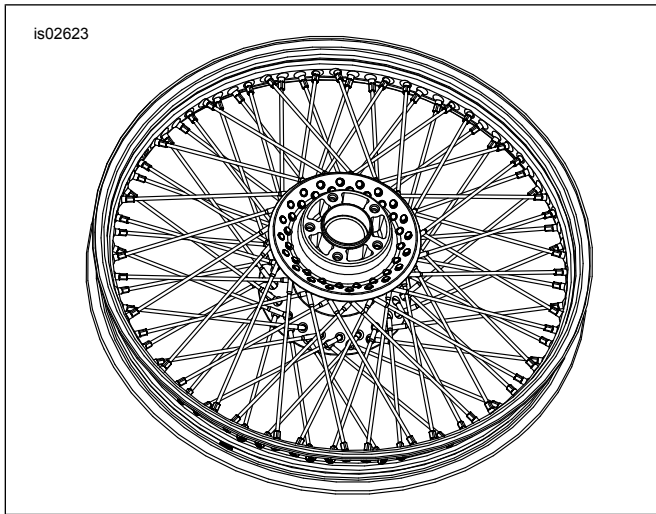
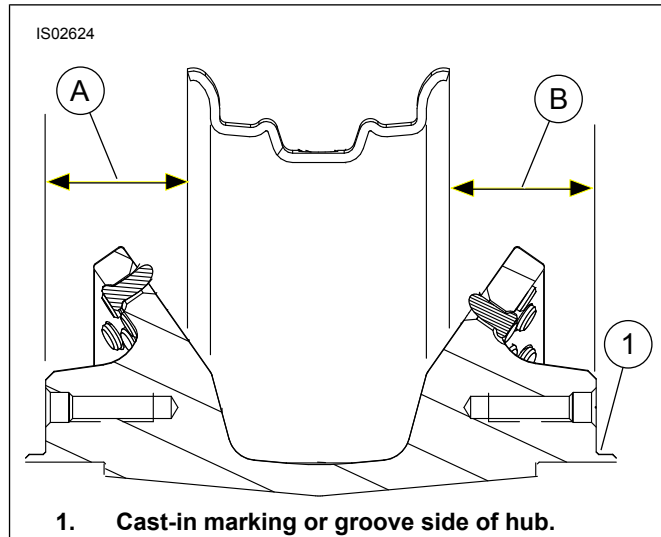


Figure 8. Remaining Inner Spoke Installation (21-inch wheel shown)

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 Figure 9 and Table 2 for the proper offset dimensions for your wheel.



1. Cast-in marking or groove side of hub.

Figure 9. Offset Dimension

Table 2. Wheel Offset Dimensions

Kit Number	"A"	"B"
41203-05	1.69 inch (42.8 mm)	1.48 inch (37.7 mm)
42958-07	1.17 inch (29.6 mm)	0.93 inch (23.6 mm)

See TRUING LACED WHEELS the service manual for your model motorcycle.

MAINTENANCE AND CLEANING

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

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

SERVICE PARTS

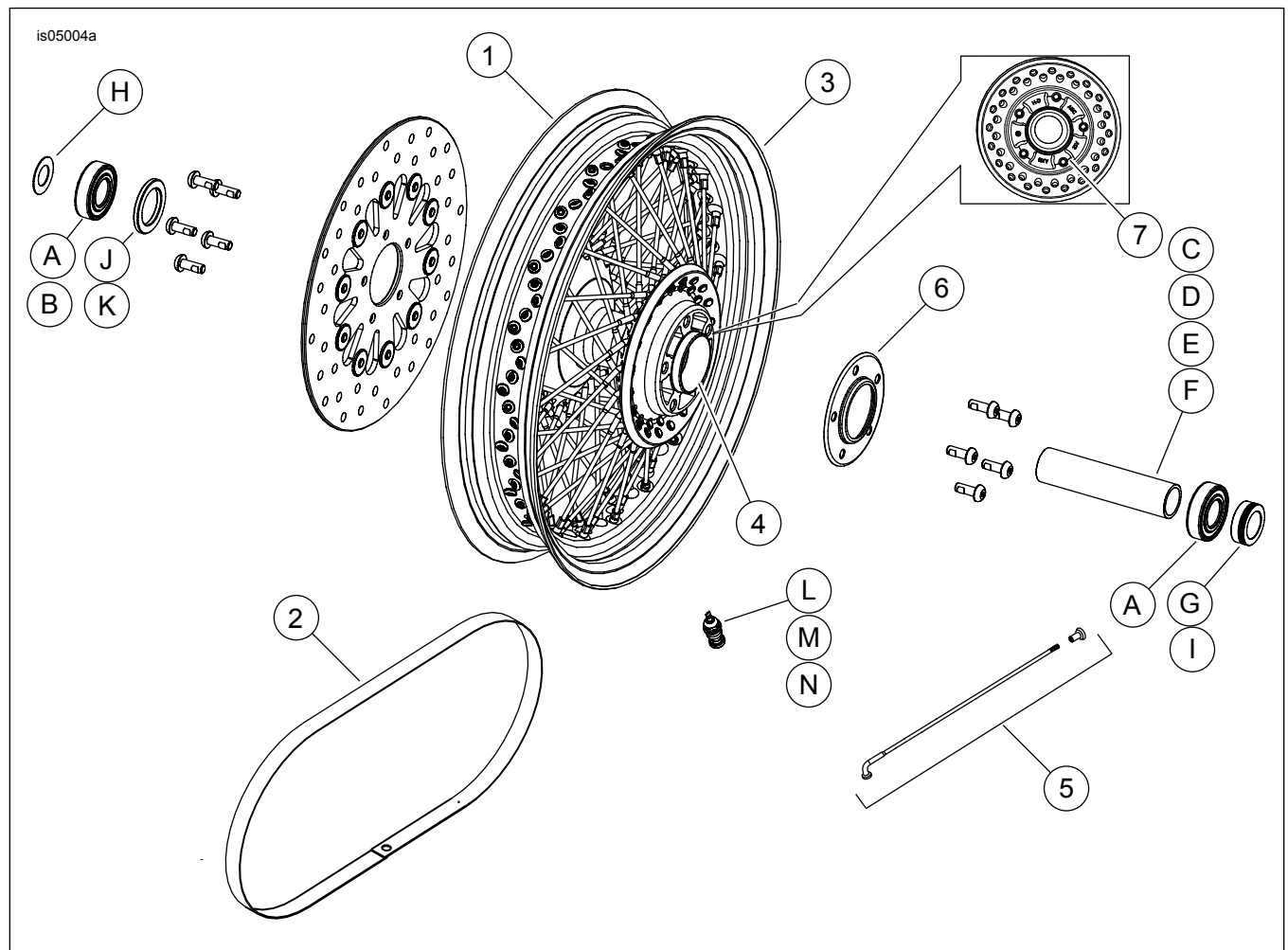


Figure 10. Service Parts: 80-Spoke Front Wheel (21-inch wheel shown)

Table 3. Service Parts and Wheel Kit Contents

Kit	Item	Description (Quantity)	Part Number
41203-05	1	Wheel	Not Sold Separately
	2	• Rim strip	43939-89
	3	• Rim	41253-05
	4	• Hub	41255-05
	5	• Spoke and nipple kit (contains 20 inner spokes, 20 outer spokes and 40 nipples)	41337-05
	6	Hub cap	44614-03
42958-07	1	Wheel	Not Sold Separately
	2	• Rim strip	43147-40
	3	• Rim	43087-04
	4	• Hub	41133-04
	5	• Spoke and nipple kit (contains 20 inner spokes, 20 outer spokes and 40 nipples)	41899-05
	6	Hub cap	44614-03
Visual indicator mentioned in text:			
	7	Machined groove (all wheels)	

Table 4. FRONT 3/4 Inch Bearing Wheel Installation Kit (43833-07A)

FRONT 3/4 Inch Bearing Wheel Installation Kit (43833-07A)		ITEM (Quantity Used and Description)									
Fitment	Wheel Size	A	C	D	E	G	H	I	L	M	
2000-2006 FLST and FLSTF (except 2006 FLSTFSE2)	16 x 3.0 in	2	0	1	0	0	0	0	*	*	
2000-2006 FLSTC and FLSTN	16 x 3.0 in	2	0	1	0	0	0	1	*	*	
2006 FLSTFSEI	17 x 3.5 in	2	0	1	0	0	0	1	*	*	
2008-later FLSTSB	18 x 3.5 in	2	0	***	0	***	0	0	*	*	
2000-2007 XL; 2000-2003 Dyna (except FXDWG)	19 x 2.5 in	2	0	0	1	0	0	0	*	*	
2000-2007 XL; 2000-2003 Dyna (except FXDWG)	21 x 2.15 in	2	0	0	1	0	0	0	*	*	
2000-2006 FXST/B/C; 2000-2005 FXDWG**	21 x 2.15 in	2	1	0	0	0	0	0	*	*	
2000-2006 FXSTS**	21 x 2.15 in	2	1	0	0	0	1	0	*	*	
2000-2006 FXSTD (Except FXSTDSE)**	21 x 2.15 in	2	1	0	0	1	0	0	*	*	
Installation kits are designed to work with many different wheel styles and fitments. Contact a Harley-Davidson dealer to verify that the wheel and installation kits are both designed and approved for the motorcycle they are being installed on. NOTES: * See NOTE above valve installation step in INSTALLATION to determine which valve stem to use for your particular kit. Discard other valve stem(s). ** The right side of the wheel is the primary bearing side for this fitment. *** See INSTALLATION section for separate hardware kit to be used for FLSTSB models.	A	Bearing, regular (2)						9267			
	C	Axle sleeve						43536-00			
	D	Axle sleeve						43608-00			
	E	Axle sleeve						43613-00			
	G	Spacer, axle						40910-00A			
	H	Spacer, axle						43313-98			
	I	Spacer, wheel						43617-00A			
	L	Valve stem, short						43157-83A			
M	Valve stem, long						43206-01				

Table 5. FRONT 1 Inch Bearing Wheel Installation Kit (43848-08A)

FRONT 1 Inch Bearing Wheel Installation Kit (43848-08A)		ITEM (Quantity Used and Description)							
Fitment	Wheel Size	A	C	D	E	F	L	M	
2000-2007 Touring	16 x 3.0 in	2	1	0	0	0	*	*	
2004-2007 Touring	18 x 3.5 in	2	1	0	0	0	*	*	
2004-2005 Dyna (except FXDWG)	19 x 2.5 in	2	0	0	0	1	*	*	
2006-2007 Dyna (except FXDWG)	19 x 2.5 in	2	0	0	1	0	*	*	
2002-2007 VRSC	19 x 3.0 in	2	0	0	1	0	*	*	
2006-2007 FXDWG**	21 x 2.15 in	2	0	1	0	0	*	*	
2004-2005 Dyna (except FXDWG)	21 x 2.15 in	2	0	0	0	1	*	*	
Installation kits are designed to work with many different wheel styles and fitments. Contact a Harley-Davidson dealer to verify that the wheel and installation kits are both designed and approved for the motorcycle they are being installed on. NOTES: * See NOTE above valve installation step in INSTALLATION to determine which valve stem to use for your particular kit. Discard other valve stem(s). ** The right side of the wheel is the primary bearing side for this fitment.	A	Bearing, regular (2)						9247	
	C	Axle sleeve						43517-00	
	D	Axle sleeve						43633-06	
	E	Axle sleeve						43641-01	
	F	Axle sleeve						43755-04	
	L	Valve stem, short						43157-83A	
	M	Valve stem, long						43206-01	

Table 6. FRONT 25 mm Bearing Wheel Installation Kit (43851-11A)

FRONT 25 mm Bearing Wheel Installation Kit (43851-11A)		ITEM (Quantity Used and Description)								
Fitment	Wheel Size	A	C	G	H	J	L	M	N	
2007 and later FLSTC, FLSTN and FLS (non-ABS)	16 x 3.0 in	2	1	0	1	1	*	*	*	
2008 and later FXDF	16 x 3.0 in	2	1	0	0	0	*	*	*	
2007 and later FLSTF and FLSTFB (non-ABS)	17 x 3.5 in	2	1	0	0	0	*	*	*	
2008 and later FLSTF and FLSTFB (non-ABS)	18 x 3.5 in	2	1	0	0	0	*	*	*	
2008 and later FXDF; 2012 and later FLD	18 x 3.5 in	2	1	0	0	0	*	*	*	
2007 and later FXS, FXST/B/C (non-ABS); 2008 and later FXDWG***	21 x 2.15 in	2	1	0	0	1	*	*	*	
2007 FXSTD***	21 x 2.15 in	2	1	1	0	1	*	*	*	
Installation kits are designed to work with many different wheel styles and fitments. Contact a Harley-Davidson dealer to verify that the wheel and installation kits are both designed and approved for the motorcycle they are being installed on. NOTES: * See NOTE above valve installation step in INSTALLATION to determine which valve stem to use for your particular kit. Discard other valve stem(s). ** Bearing shim installed under the primary bearing. *** The left side of the wheel is the primary bearing side for this fitment.	A	Bearing, regular (2)						9276		
	C	Axle sleeve						41349-07		
	G	Spacer, axle						41504-07		
	H	Spacer, axle						41695-07		
	J	Bearing shim**						43315-07		
	L	Valve stem, short						43157-83A		
	M	Valve stem, long						43206-01		
	N	Valve stem, pull-thru						40999-87		

Table 7. FRONT 25 mm Bearing ABS Wheel Installation Kit (43093-11A)

FRONT 25 mm Bearing ABS Wheel Installation Kit (43093-11A)		ITEM (Quantity Used and Description)										
Fitment	Wheel Size	A	B	C	D	G	J	K	L	M	N	
2011 and later FLSTC, FLSTN and FLS with ABS	16 x 3.0 in	1	1	1	0	1	0	1	*	*	*	
2012 and later FXDF with ABS	16 x 3.0 in	1	1	1	0	0	0	0	*	*	*	
2011 and later FLSTF and FLSTFB with ABS	17 x 3.5 in	1	1	1	0	0	0	0	*	*	*	
2011 and later FLSTF and FLSTFB with ABS	18 x 3.5 in	1	1	1	0	0	0	0	*	*	*	
2012 and later FXDF and FLD with ABS	18 x 3.5 in	1	1	1	0	0	0	0	*	*	*	
2011 and later FXCWC with ABS	19 x 2.15 in	1	1	0	1	0	0	0	*	*	*	
2011 and later FXCWC with ABS	19 x 2.5 in	1	1	0	1	0	1	0	*	*	*	
2011 and later FXS, FXST and 2012 and later FXDWG with ABS	21 x 2.15 in	1	1	1	0	0	0	1	*	*	*	
Installation kits are designed to work with many different wheel styles and fitments. Contact a Harley-Davidson dealer to verify that the wheel and installation kits are both designed and approved for the motorcycle they are being installed on. NOTES: * See <i>NOTE</i> above valve installation step in INSTALLATION to determine which valve stem to use for your particular kit. Discard other valve stem(s). ** Red side of bearing must be installed toward the wheel. The ABS bearing is the primary bearing. *** Bearing shim installed under the primary bearing.	A	Bearing, regular							9276			
	B	Bearing, ABS**							9252			
	C	Axle sleeve							41349-07			
	D	Axle sleeve							41548-08			
	G	Spacer							41695-07			
	J	Bearing shim***							41448-08			
	K	Bearing shim***							43315-07			
	L	Valve stem, short							43157-83A			
	M	Valve stem, long							43206-01			
	N	Valve stem, pull-thru							40999-87			