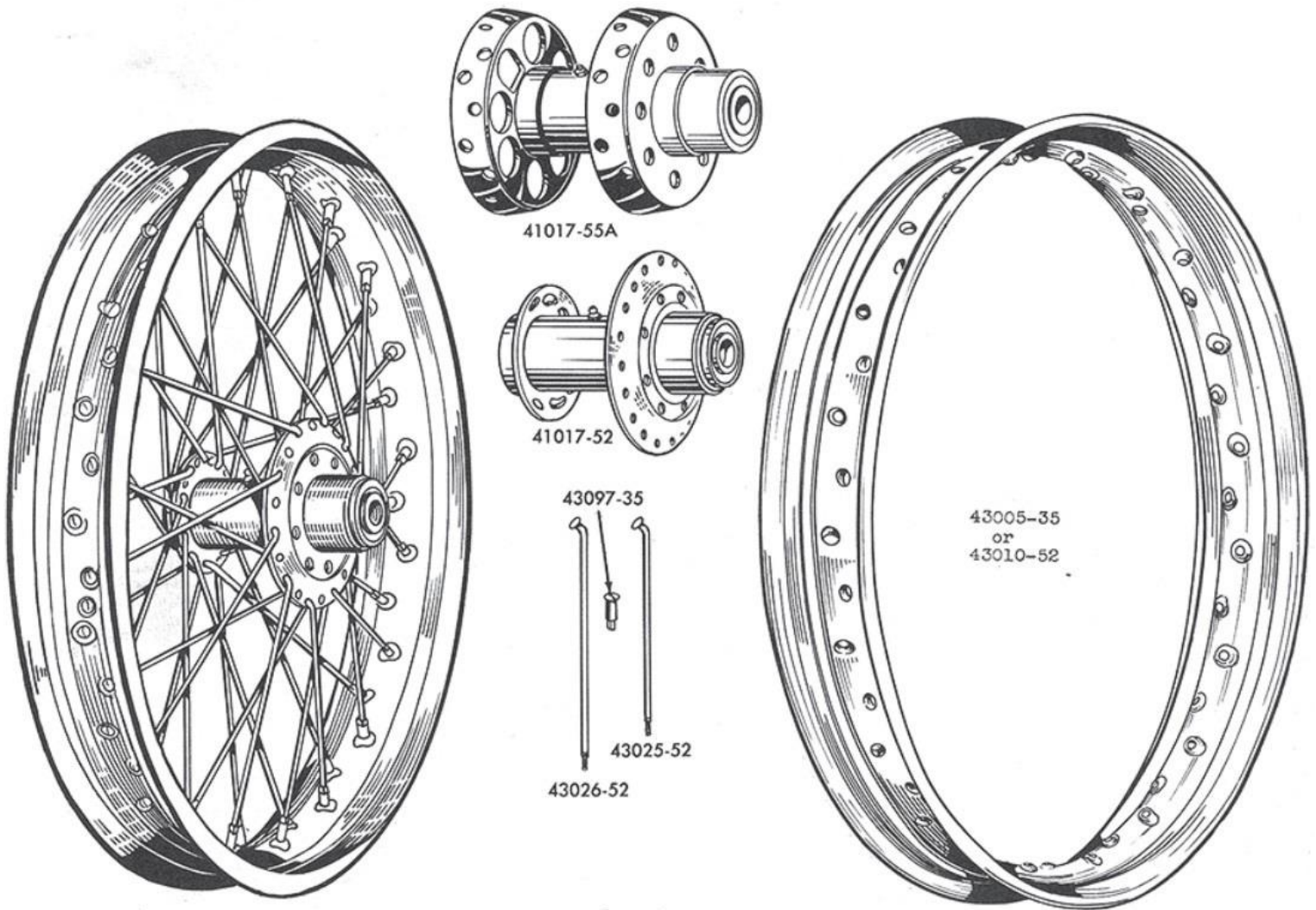


# OSKRG Research/Restoration Bulletin #14

## K & Sportster Spokes, Nipples & Hubs

1952-1979 vs14 Minus Blueprints



This OSKRG Bulletin as with all OSKRG Bulletins is a work in progress. This work is far from complete. Many images are still needed as well as feedback concerning errors or omissions. This Bulletin will be updated from time to time as additional data is collected or errors need to be corrected. Please either email additional information/images to [graino@comcast.net](mailto:graino@comcast.net) or post them to <http://www.harleykmodel.com/>.

# K Model & Sportster Spokes, Nipples, Hubs & Rims 52-79

Spoke length measurements can vary depending on how they are taken. It is unclear at this time how HD measured their spokes. I believe HD measured to the Red line; all measurements taken to the Red line will be highlighted in red. HD parts book given lengths have an asterisk after them. All other determined lengths will be highlighted in red, yellow, or blue depending on which line they were measured to. The Buchanan Spoke method is shown at the bottom of this page, the Blue line method. Spoke lengths will vary some due to measurement inconsistency and threaded ends being ground shorter when previously used.



## Rear Wheel

Part Number	Description	Length	Use
43025-52 <b>Used -35 Nip</b>	Rear Wheel Spoke 7 & 1/2" (19" Rim) (20)	7 & 1/2" *	52-55 All K Models
43026-52 <b>Used -35 Nip</b>	Rear Wheel Spoke 8 & 1/2" (19" Rim) (20)	8 & 1/2" *	52-55 All K Models
43034-53 <b>Used -35 Nip</b>	Rear Wheel Spoke (Short) (18" Rim) (20)	8 & 9/16"	53-54 All K Models
43026-52A <b>Used -35 Nip</b>	Rear Wheel Spoke (Long) (18" Rim) (20)	8 & 7/16"	53-54 All K Models
43097-35	Rear Wheel Spoke Nipple (40)		52-55 All Early Hub K Models

Spoke	Hub Used 52-54 (55?)
<p>Center OD=.15" 43025-52 &amp; 43026-52</p> <p>Note Different Angle Bends</p> <p>Center OD=.15" 43034-53 &amp; 43026-52A</p> <p>.233"</p> <p>43097-35 Nipple</p> <p>.87"</p>	<p>41018-52 Hub Only</p>

43031-36 <b>Used -29 Nip</b>	Rear Wheel Spoke (40) (Low Road Clearance) 18" Rim	8 & 1/8" 8 & 1/2"	55 & 56 K, 57-69 All 18" Rims, 70-72 -60 Aluminum Rim
<b>Note: The -36 Spoke was also used on 1937-1957--61", 74" &amp; 80" Twins &amp; 45" 41-63 FL &amp; FLH Rear for 18" Wheels</b>			
43031-70 <b>Used -29 Nip</b>	Rear Wheel Spoke (40) 18" Rim	7 & 3/4" 8 & 1/16"	70-72 XLH Chrome Rim & XLCH Chrome & Aluminum
43099-29	Rear Wheel Spoke Nipple (40)		55-56 K Model, 57-72 All Sportsters
43031-70A <b>Metric</b>	Rear Wheel Spoke (40) 18" Rim, Nipples are not shown separately with a PN.	7 & 3/4" 8 & 1/16"	73-78 XL, XLH & XLCH Note: fits 70 - 78
43032-40A <b>Metric</b>	Rear Wheel Spoke (40) 16" Rim, Nipples are not shown separately with a PN.	7" <b>Unconfirmed</b>	79-* XL Note my Parts Books End in 81

Spokes	Hubs Used 55-78
<p>Center OD=.156, 43031-36</p> <p>Center OD=.163, 43031-70</p> <p>43099-29 Nipple</p> <p>.922"</p> <p>.232"</p> <p>I believe there to be early and later produced -36 spokes with an OD ranging from .154" to .163".</p> <p>Notice -70 spoke narrows from body to threads.</p>	<p>41018-55</p> <p>41018-66</p> <p>Rounded Edge</p> <p>Sharp Edge</p> <p>Hole Depth About .15"</p> <p>Hole Depth About .25"</p> <p>PN for complete hub is 41017-66A fits 55-78</p>

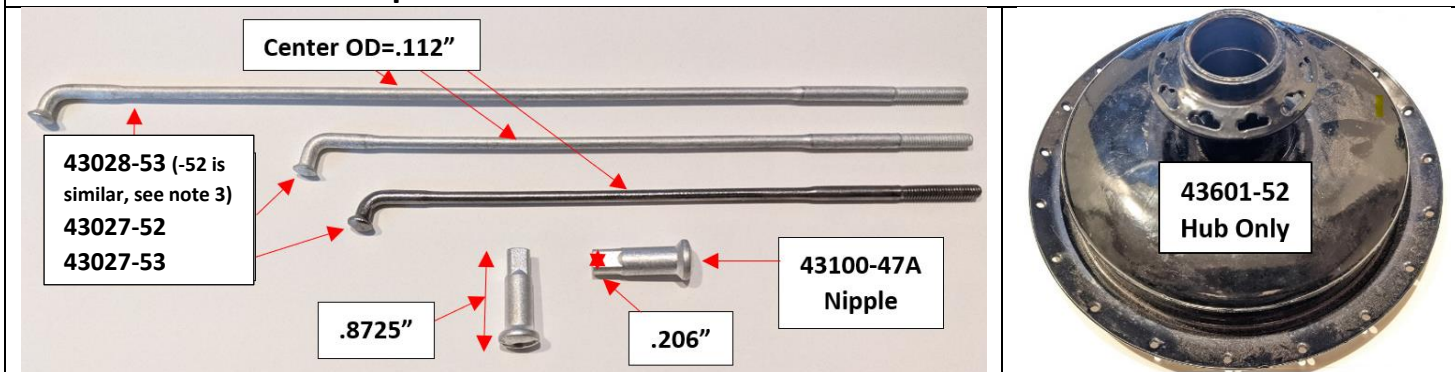
## Front Wheel

43027-52	Used-47A Nip	Front Wheel Spoke 6 & 1/8" (19" Rim) (20)	5 & 7/8" - 6 & 1/8" *	52-55 All K Models, 58-63 XLC & XLCH
43028-52	Used-47A Nip	Front Wheel Spoke 8 & 1/2" (19" Rim) (20)	8 & 1/4" - 8 & 1/2" *	52-55 All K Models, 58-63 XLC & XLCH
43028-53	Used-47A Nip	Front Wheel Spoke (Long) (18" Rim) (20)	8 & 1/4" - 8 & 1/2"	54-63 All K Models, XL & XLH
43027-53	Used-47A Nip	Front Wheel Spoke (Short) (18" Rim) (20)	5 & 3/8" - 5 & 11/16"	54-63 All K Models, XL & XLH
43100-47A		Front Wheel Spoke Nipple (40)		52-56 K Models, 57-63 Sportster

\*Note: The 63 & 65 PBs only list the 43028-52 spoke with no mention of the 43028-53. The 67 PB first list Spoke PN 43028-52 for use on both the 18" & 19" rims. The 64 Sup. PB list 43028-52s length at 8 & 3/8" & 43027-52s length at 6" as Catalog Corrections.

### Spokes

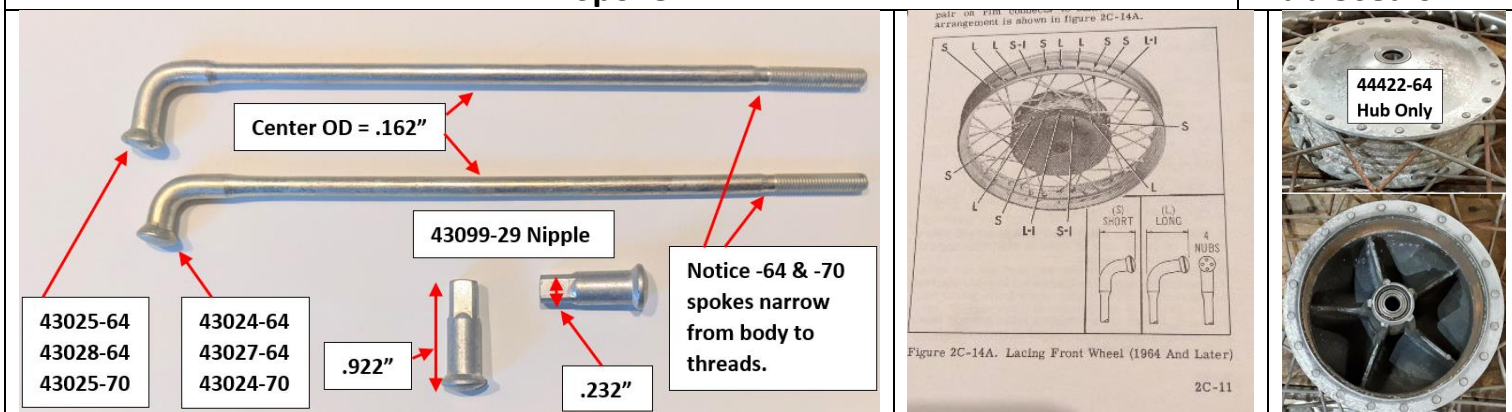
### Hub Used 52-63 Half Brake



43024-64	Used-29 Nip	Front Wheel Spoke (Short) (19" Rim) (20)	5 & 13/16" - 6 & 3/16"	64-69 XLCH, 67-69 XLH
43025-64	Used-29 Nip	Front Wheel Spoke (Long) (19" Rim) (20)	5 & 15/16" - 6 & 5/16"	64-69 XLCH
43027-64	Used-29 Nip	Front Wheel Spoke (Short) (18" Rim) (20)	5 & 1/2" - 5 & 7/8"	64-72 XLH
43028-64	Used-29 Nip	Front Wheel Spoke (Long) (18" Rim) (20)	5 & 9/16" - 5 & 15/16"	64-72 XLH
43024-70	Used-29 Nip	Front Wheel Spoke (Short) (19" Rim) (20)	5 & 5/8" - 6"	70-72 XLH & XLCH
43025-70	Used-29 Nip	Front Wheel Spoke (Long) (19" Rim) (20)	5 & 11/16" - 6 & 1/16"	70-72 XLH & XLCH
43024-73	Used-29 Nip	Front Wheel Spoke (Short) (19" Rim) (20)	8 & 1/8" - 8 & 1/2"	73-76 XL, XLH & XLCH
43025-73	Used-29 Nip	Front Wheel Spoke (Long) (19" Rim) (20)	8 & 1/16" - 8 & 9/16"	73-76 XL, XLH & XLCH
43099-29		Spoke Nipple (40)		64-76 XL, XLH & XLCH
43024-73A Metric		Front Wheel Spoke (Short) (19" Rim) (20) Nipples are not shown separately with a PN.	8 & 1/8" - 8 & 1/2"	77-* Fits 73-* XL, XLH, XLCH & XLS Note my PBs End in 81
43025-73A Metric		Front Wheel Spoke (Long) (19" Rim) (20) Nipples are not shown separately with a PN.	8 & 1/16" - 8 & 9/16"	77-* Fits 73-* XL, XLH, XLCH & XLS Note my PBs End in 81

### Spoke

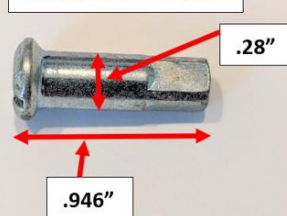
### Hub Used 64-72



Harley identified their longer throw spokes (non-threaded angled end) between 64 and 73 (not metric) with 4 nubs on the spoke head. I contend the nubs or dots started in 65.  
 43025-64  
 43028-64  
 43025-70  
 43025-73



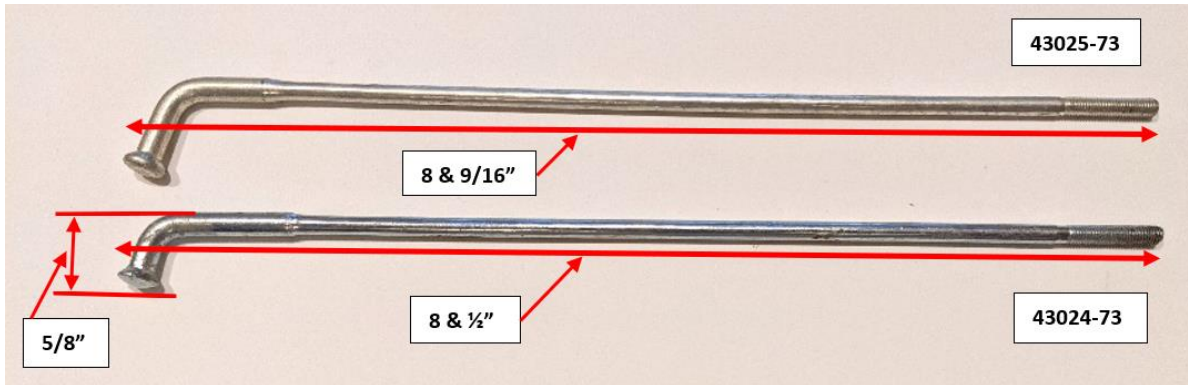
Harley Metric Nipple



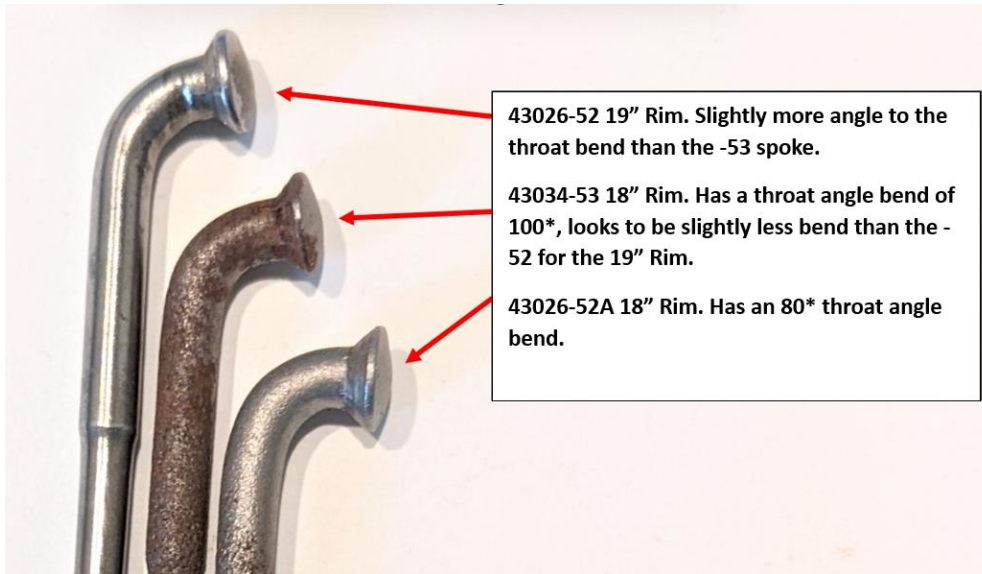
Believe Triangle Indicates Metric

## Notes/Cautions

1. The -73 front spokes are shown below. The short front spoke, 43024-73 could be mistaken for the rear 43031-36. They are the same length and both use the -29 nipple. The distinguishing feature is the bend on the non-threaded end measures about  $\frac{1}{2}$ " on the -36 spoke and about  $\frac{5}{8}$ " on the short -73 spoke.



2. It is my opinion that the early rear 18" -53 & 19" -52 spokes are so close in length and throat angle (bend at end opposite of threaded end) as to be almost indistinguishable. It appears the -52 for the 19" rim has a slightly greater throat angle bend than the -53 spoke for the 18" rim. I believe they are close enough that in a bind one could be used for the other. The 18" -52A spoke is very close in length to the -52 & -53 spokes, it is slightly shorter. It could be easily mistaken for them; you can tell it apart by its throat bend being about a 80° bend.



3. The front half break long spokes for both the 18" and the 19" rims are about 8 & 1/2" in length. Later PBs list Spoke PN 43028-52 for use on both the 18" & 19" rims. They list its length at 8 & 3/8" when used as a common spoke for both rim sizes. The only difference I see in the two spokes is the angle of the throat bend. The -52 spoke bend appears to be close to 90° where the -53 spoke bend angle is slightly greater than 90°.



4. The 3 nipples used between 52 and 73 for the K Models and Sportsters can be mixed up with each other. The nipples in order of inside thread ID size largest to smallest is the -29, -35 & -47A. Following are my observations:
  - a. Spokes designed for use of the -29 nipple will not accept the -35 or the -47A nipples, they are too small.
  - b. Spokes designed for use of the -35 nipple will accept the -29 nipple, it will thread on but will be a little loose. The -47A nipple will appear to work at first, it will start to thread but then bind up and stop.
  - c. Spokes designed for use of the -47A nipple will accept the -35 nipple but it will be loose. The -29 nipple will be so large it will slide on and off.

- The families of W & G models appear to have used the 43027-30 & 43028-30 spokes for their 18" front wheels. Both the long and short -30 spokes are very close in length and appearance to the K & Sportster 1/2 brake spokes used 52-63 on the 18" & 19" rims. The -30 spokes used a 43098-16 nipple. The -47A nipple the K & Sportster spokes used will not fit the early -30 spokes. The 43097-35 nipple will appear to fit but is incorrect.
- Harley Aermacchi spokes appear to have been marked with the letter "A" at some point. When this practice started or if it continues to this day is unknown to me at this time.



- Buchanan spokes appear to be marked with a "B" on the end. When this practice started or if it continues to this day is unknown to me at this time.



- The following picture shows two 43025-64 long spokes. Both have been chromed. At this time I believe the long 19" & 18"-64 spoke head may or may not have 4 dots on it, only one of those shown in the picture has the dots. These two spokes physically are the same length & throat and both take the -29 nipple. There are no other spokes that I am aware of with a length close to these that takes the -29 nipple. Until some evidence proves me wrong I am contending that the 4 nubs or dots on the long spokes started in 65. As can be seen below, the 64 Service Manual shows the 64 hub and spokes but no reference to the 4 nubs or dots. The 65 SM makes a point of showing the nubs.

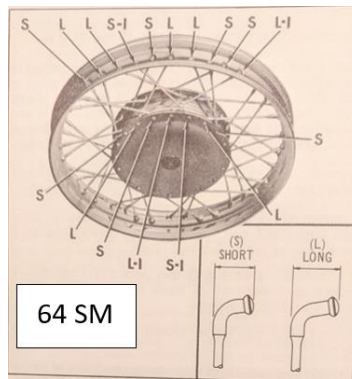


Figure 2C-14A. Lacing Front Wheel (1964 And Later)

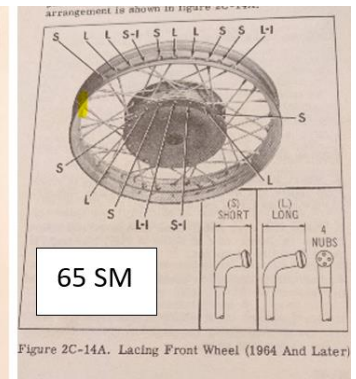
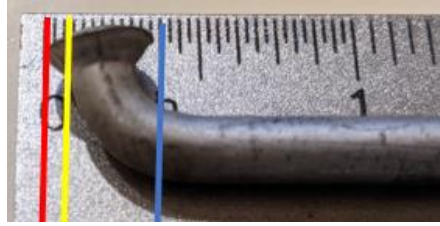


Figure 2C-14A. Lacing Front Wheel (1964 And Later)

## Racing Spokes & Nipples (Not All Inclusive)

Spoke length measurements can vary depending on how they are taken. All measurements taken to the Red line will be highlighted in red. HD parts book given lengths have an asterisk after them. All other determined lengths will be highlighted in red, yellow, or blue depending on which line they were measured to. The Buchanan Spoke method is to the Blue line. Spoke lengths will vary some due to measurement inconsistency and threaded ends being ground shorter when previously used.



### Front Wheel, -47A Nipple

Part Number	Description	Length	Use
43027-54R <b>Used 47A Nip</b>	Front Wheel Spoke (Long) 19" Conical 115* .112" Center Dia.	7 & 31/32"	Models with Large Front Brake Hub. Used on KRTT & XLRTT 52-* (Includes 68)
43025-54R <b>Used 47A Nip</b>	Front Wheel Spoke (Short) 19" Conical	5 & 1/2"	Models with Large Front Brake Hub. Used on KRTT & XLRTT 52-* (Includes 68)
43026-54R <b>Used 47A Nip</b>	Front Wheel Spoke (Long) 18" Conical 112* .112" Center Dia.	7 & 5/16" 9/10 Gauge	Models with Large Front Brake Hub. Used on KRTT & XLRTT 52-* (Includes 68)
43024-54R <b>Used 47A Nip</b>	Front Wheel Spoke (Short) 18" Conical	5"- 5 & 3/4" 9/10 Gauge	Models with Large Front Brake Hub. Used on KRTT & XLRTT 52-* (Includes 68)
43027-52 <b>Used 47A Nip</b>	19", Front, 6", 20 Spokes		52-* KRTT & XLRTT
43028-52 <b>Used 47A Nip</b>	19", Front, 8 & 3/8", 20 Spokes		52-* KRTT & XLRTT
43027-53 <b>Used 47A Nip</b>	18", Front, Short, 20 Spokes		52-* KRTT & XLRTT
<b>*Note: The 63 &amp; 65 PBs only list the 43028-52 spoke with no mention of the 43028-53. The 67 PB first list Spoke PN 43028-52 for use on both the 18" &amp; 19" rims. The 64 Sup. PB list 43028-52s length at 8 &amp; 3/8" &amp; 43027-52s length at 6" as Catalog Corrections.</b>			
43100-47A	Front Wheel Spoke Nipple		

### KR Spool Flat Track Wheels, -35R Nipple

43021-48R <b>Used 35R Nip</b>	Inner Spoke, 80* Bend 19" 20 Spokes 4 Dots-Long Throat	8 & 3/4" 9 & 1/16" .175 Swaged Portion .151 Center	KR Spool Flat Track Wheels, 52-* (Includes 68)
43023-48R <b>Used 35R Nip</b>	Outer Spoke, 100* Bend 19" 20 Spokes	8 & 3/4" 9 & 1/16" .175 Swaged Portion .151 Center	KR Spool Flat Track Wheels, 52-* (Includes 68)
43034-53R <b>Used 35R Nip</b>	Inner Spoke, 80* Bend 18" 20 Spokes 4 Dots-Long Throat	8 & 5/16" 8 & 9/16" .175 Swaged Portion .151 Center	KR Spool Flat Track Wheels, 52-* (Includes 68)
43026-48R <b>Used 35R Nip</b>	Outer Spoke, 100* Bend 18" 20 Spokes	8 & 5/16" 8 & 19/32" .175 Swaged Portion .151 Center	KR Spool Flat Track Wheels, 52-* (Includes 68)
43097-35R	The 43097-35R is the same nipple as the 43097-35. HD added the R to the suffix when they discontinued the -35 nipple for street models		KR Models

### Rear Wheel -29 Nipple

43026-49R <b>Used-29 Nip</b>	19", Rear, 40 Spokes	8 & 3/4" 9 & 1/16" 6/8 Gauge .201 Swaged Portion .161 Center	52-* (includes 68) KRTT, XLRTT. Have been told they also were used on WRTT rears and all EL/FL Starhubs for racing.
43031-36 <b>Used-29 Nip</b>	Rear, 40 Spokes		52-* KRTT & XLRTT
43099-29	Nipple		

## LARGE REAR BRAKES

41400-54R	BRAKE DRUM AND SIDE PLATE ASSEMBLY - 51 T .....	52 to * - KR TT, XL RTT
41401-54R	BRAKE DRUM AND SPROCKET ASSEMBLY - 51 T .....	52 to * - KR TT, XL RTT
41401-55R	BRAKE DRUM AND SPROCKET ASSEMBLY - 49 T .....	52 to * - KR TT, XL RTT
41402-55R	BRAKE DRUM AND SPROCKET ASSEMBLY - 50 T .....	52 to * - KR TT, XL RTT
41408-54R	BRAKE DRUM, only .....	52 to * - KR TT, XL RTT
41652-54RA	SIDE PLATE COMPLETE, with shoes .....	52 to * - KR TT, XL RTT
41662-54R	SIDE PLATE, with bushing .....	52 to * - KR TT, XL RTT
41835-30R	SPRING, brake shoe return (2) .....	52 to * - KR TT, XL RTT
41848-61R	BRAKE LINING AND RIVET SET .....	52 to * - KR TT, XL RTT
41876-54R	PIVOT STUD .....	52 to * - KR TT, XL RTT
42410-66R	FOOT LEVER, brake (used with fairing) .....	52 to * - KR TT, XL RTT
44265-54R	CAM, brake shoe .....	52 to * - KR TT, XL RTT
44401-61R	SET OF BRAKE SHOES WITH LINING .....	52 to * - KR TT, XL RTT
41699-54R	BUSHING, rear brake side plate .....	52 to * - KR TT, XL RTT
6677HB	WASHER, brake operating cam .....	52 to * - KR TT, XL RTT
9008	BALL BEARING, rear (2) .....	52 to * - KR TT, XL RTT
9010	BALL BEARING, brake side .....	52 to * - KR TT, XL RTT

## LARGE FRONT BRAKES

6677HB	WASHER, brake operating cam .....	52 to * - KR TT, XL RT
9008	BALL BEARING, brake side .....	52 to * - KR TT, XL RTT
9009	BALL BEARING, outer .....	52 to * - KR TT, XL RTT
16804-30	ANCHOR BOLT, brake side plate .....	52 to * - KR, KR TT, XL RTT
41835-30R	SPRING, brake shoe return (2) .....	52 to * - KR TT, XL RTT
43600-54R	HUB AND BRAKE SHELL, complete (large brake) .....	52 to * - KR TT, XL RTT
44145-54RA	SIDE PLATE, complete with shoes .....	52 to * - KR TT, XL RTT
44148-54R	SIDE PLATE, only .....	52 to * - KR TT, XL RTT
44156-54R	PIVOT STUD .....	52 to * - KR TT, XL RTT
44265-54R	CAM, brake shoe .....	52 to * - KR TT, XL RTT
41848-61R	BRAKE LINING AND RIVET SET .....	52 to * - KR TT, XL RTT
44401-61R	SET OF BRAKE SHOES WITH LININGS .....	52 to * - KR TT, XL RTT
44457-54R	RETAINING CUP, brake shoe (inner) .....	52 to * - KR TT, XL RTT

## WHEEL RIMS, SPOKES AND NIPPLES

43002-64R	RIM, front wheel, 19" (steel) .....	52 to * - KR TT, XL RTT
43003-30	RIM, front wheel, 18" steel .....	52 to * - KR TT, XL RTT
43005-35	RIM, 18" steel (rear - KR TT, XL RTT also front and rear - KR) .....	52 to * - KR, KR TT, XL RTT
43008-60	RIM, 18" (aluminum) .....	52 to * - KR
43009-61R	RIM, 19" (aluminum) .....	52 to * - KR
43010-52R	RIM, rear, 19" (steel) .....	52 to * - KR TT, XL RTT
43010-61R	RIM, rear, 19" (aluminum) .....	52 to * - KR TT, XL RTT
43011-49R	RIM, 19" (steel) (Replaced by 43009-61R) .....	
43021-48R	SPOKE, inner, for 19" rim (20) .....	52 to * - KR
43023-48R	SPOKE, outer, for 19" rim (20) .....	52 to * - KR
43026-48R	SPOKE, outer, for 18" rim (20) .....	52 to * - KR
43034-53R	SPOKE, inner, for 18" rim (20) .....	52 to * - KR
43024-54R	SPOKE, short, for 18" rim with large front brake (20) .....	52 to * - KR TT, XL RTT
43026-54R	SPOKE, long, for 18" rim with large front brake (20) .....	52 to * - KR TT, XL RTT
43025-54R	SPOKE, short, for 19" rim with large front brake (20) .....	52 to * - KR TT, XL RTT
43027-54R	SPOKE, long, for 19" rim with large front brake (20) .....	52 to * - KR TT
43027-52	SPOKE, 19" front rim, 6" (20) .....	52 to * - KR TT, XL RTT
43028-52	SPOKE, 19" front rim, 8-3/8 (20) .....	52 to * - KR TT, XL RTT
43027-53	SPOKE, 18" front rim, short (20) .....	52 to * - KR TT, XL RTT
43031-36	SPOKE, rear wheel (40) .....	52 to * - KR TT, XL RTT
43026-49R	SPOKE, for 19" rim (40) .....	52 to * - KR TT, XL RTT
43097-35R	SPOKE NIPPLE (40) .....	52 to * - KR
43099-29	SPOKE NIPPLE (40) .....	52 to * - KR TT, XL RTT
43100-47A	SPOKE NIPPLE, front (40) .....	52 to * - KR TT, XL RTT

## Harley Spokes **Not Used** on K & Sportster Models 52-72

### Other Models & Spokes Utilizing the 43099-29 (3947-29) "Heavy Spoke Nipple"

43032-40 <b>Used -29 Nip</b>	Rear Wheel (16" Rim) (40)	6 & 3/4"?	1940-1973—61", 74" & 80" Twins & 40-52—W Models, 40-51 Servi-cars, Front & Rear. 71-* FX
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### Other Models & Spokes Utilizing the 43097-35 (3947-35) "Spoke Nipple---Heavy"

43097-35 "Spoke Nipple---Heavy"	26-39 PB	.04xx 1935 & 1936---45" twins---rear wheel.....ejuts	
	41-54 PB	16" front wheel, 1941 to 1952—45" solo	
	49-57 PB	16" front wheel, 40---W & G models, 41-52---W models, 41-52---45" Solo	
43034-40 <b>Used -35 Nip</b>	Front Wheel (16" Rim) (20)	4-11/16" *	1940---W & G Models, 1941-1952—W Models,
43035-40 <b>Used -35 Nip</b>	Front Wheel (16" Rim) (20)	6-7/8" *	1941-1952 ---45" Solo

### Other Models & Spokes Utilizing the 43100-47A Nipple

43021-47 <b>Used -47A Nip</b>	Spoke, Brake Side (36)		48-55 – S & ST
43021-55 <b>Used -47A Nip</b>	Spoke (Short) (36)		56-59 – ST, 55 -59 - Hummer, 60 - Super 10
43023-47 <b>Used -47A Nip</b>	Spoke, Flange Side (36)		48-55 – S & ST
43023-55 <b>Used -47A Nip</b>	Spoke (Long) (36)		56-59 – ST, 55 -59 - Hummer, 60 - Super 10
43100-47A	Spoke Nipple (72)		48-60

## Harley Nipples & Spokes **Not Used** on K & Sportster Models 52-72

### Models & Spokes Utilizing the 43098-16 (3947-16) "Spoke Nipple, Light"

43098-16 "Spoke Nipple, Light"	26-39 PB	.02x. 1917 to 1929, 1930 to 1934 singles & 45" twins, 1935 to 1939 – 45" front.....smeuk	
	41-54 PB	18" front wheel, 1930-1952—45" Twins	
	49-57 PB	18" front wheel, 30 to 52---W models, 32 to 40---G model	
3943-30 <b>Used -29 Nip?</b>	Front Spoke	.148" x 8-3/8"	.04 x. 1930 to 1934 C singles, 1930 to 1939---45" twins & Servi-Cars
43027-30 <b>Used -16 Nip</b>	Front Wheel (18" Rim) (20)	5-15/16" *	1930-1952—45" Twins
43028-30 <b>Used -16 Nip</b>	Front Wheel (18" Rim) (20)	8-3/8" *	
3943-30N Early Part #			
<b>Note: The Harley Aermacchi (Italian) nipples and spokes are not included in this spoke and nipple Bulletin.</b>			

## Harley K & Sportster Nipples & Spokes **Used** on Other Harley Models

43024-70 <b>Used -29 Nip</b>	Front Spoke 19" Rim (Short) (20)	71-72 FX
43025-70 <b>Used -29 Nip</b>	Front Wheel 19" Rim (Long) (20)	71-72 FX
43031-36 <b>Used -29 Nip</b>	Spoke, 18" Wheel (80)	41-63 FL, FLH, 37-54—61", 74", 80" Twins & 45" Rear
43024-73A Metric	Spoke & Nipple, 19" Rim-Short (Metric) (20)	73-* FX, FXEF, FXEF-80
43025-73A Metric	Spoke & Nipple, 19" Rim-Long (Metric) (20)	73-* FX, FXEF, FXEF-80
43032-40A Metric	Spoke & Nipple, 16" Rim—Metric (40)	71-* FX, FXEF, FXEF-80

Note: I suspect the big twin 71-80 PB may be in error. It does not list the 43024-73 and 43025-73 short and long front spokes as being used on the family of FX models. It list the 43024-73A and the 43025-73A short and long front spokes from 73 on. The 71-80 PB does list the 53099-29 nipple for use on the FX from 71-76, it is not a metric nipple. It would fit the -70 and -73 front spokes.



# Buchanan Spoke, Spoke Measuring Method & Other Information

## Rim Types & Widths

**Selecting rim width and type.**

If you are not using the same size tire and rim as originally installed, choose the brand and size of tire that will fit within the confines of your motorcycle. Then, using the tire manufacturer's recommendations, select the correct rim size.

Many factors affect choice of rim type (cross section), including appearance. If you are unsure of which type to specify, we will try and assist you.

WM Size	Rim Width (W) in inches
WM0	1.40
WM1	1.60
WM2	1.85
WM3	2.15
WM4	2.50
WM4 1/2	2.75
WM5	3.00
WM6	3.50
WM9	4.25
WM15	5.75

**Note:** Rim width is only measured at this point

## Spoke Types

**Spoke types.**

There are basically two types of spoke, standard (single diameter) or swaged (two or more diameters). Any spoke with more than a 20 degree bend at the head has to be made of larger diameter stock to maintain strength. On the larger diameters, we recommend swaged spokes in order to save weight while maintaining the strength required at the bend. Swaged spokes may also be needed to suit certain nipple sizes. Feel free to contact us if you need help in specifying spokes.

## Measuring for Spoke Length

**How to measure the wheel**

**Information required to determine spoke length**  
(if you want a non-stock crossover pattern, specify).

- A—Number of spoke holes
- D<sup>3</sup>—Diameter of rim (usually stamped on rim)
- W<sup>3</sup>—Width of rim
- W—Width of hub at spoke flange
- D<sup>1</sup>—Diameter of spoke hole pattern
- D<sup>2</sup>—Diameter of spoke hole pattern
- F—Make of hub, if known

**How to measure spokes**

Effective throat      Effective spoke length

90° Bend

Straight or Nail Head

45° Bend (or other angle, specify)

Swaged Spoke

Wrench size      Length

Nipple measurements      Body dia.

**For Spoke Wrenches, Wheel Weights, Fork and Wheel Straightening, see inside back cover.**

## XL Forum Thread on Spokes

<http://xlforum.net/forums/showthread.php?t=1895602>

# Parts Books for Other Than Ks & Sportsters

## 26-39 PB

3043-25	Spoke, .148"x9 $\frac{1}{8}$ " .....	.04x.1925 to 1929—61" & 74" twins .....	ameof
<b>WHEEL RIMS &amp; SPOKES—(Continued)</b>			
3043-27	Spoke, .148"x8 $\frac{1}{8}$ " .....	.04x. For 18" rim (25"x3.85" tire).....	aspyf
3043-30	Front spoke, .148"x8 $\frac{1}{4}$ " .....	.04x.1930 to 1934 C singles, 1930 to 1939—45" twins & Servi-Cars .....	axzup
3045-30	Front brake shell spoke, .148"x5 $\frac{1}{4}$ " .....	.04x.1930 to 1934 C singles, 1930 to 1939—45" twins .....	axzup
3044-25	Spoke, .175"x9 $\frac{1}{8}$ " .....	.04x.1925 to 1929—61" & 74" twins .....	amerh
3044-27	Spoke, .148"x8 $\frac{1}{8}$ " .....	.04x. For 18" rim (25"x3.85" tire).....	ascar
3044-28	Heavy spokes, inside .205"x9 $\frac{1}{8}$ " .....	.07x. Later 1928 & 1929—61" & 74" twins .....	auaun
3044-28A	Heavy spokes, outside .205"x9 $\frac{1}{8}$ " .....	.07x. Later 1928 & 1929—61" & 74" twins .....	auavo
3044-29	Heavy spoke, inside .205"x8 $\frac{1}{4}$ " .....	.07x. For 18" rim (25"x3.85" tire).....	avdro
3044-29A	Heavy spoke, outside .205"x8 $\frac{1}{4}$ " .....	.07x. For 18" rim (25"x3.85" tire) .....	avdus
3043-30A	Rear spoke, .148"x8 $\frac{1}{8}$ " .....	.04x.1930 to 1934 C singles, 1930 to 1934—45" twins .....	axzmi
3043-35	Rear wheel spoke (40) .148"x8 $\frac{1}{8}$ " .....	.04x.1935 & 1936—45" twins .....	cguit
3043-36	Spokes, .161"x8 $\frac{1}{8}$ " .....	.07x.1936—61", all 1937 to 1939, 1936 to 1939 LE sidecar .....	ejupe
3044-20	Spoke, .148"x9 $\frac{1}{8}$ " .....	.04x.1926 to 1934—21" singles .....	amesi
3044-30	Spoke, inside, .205"x8 $\frac{1}{4}$ " .....	.07x.1930 to 1936—74" & 80" twins .....	axzok
3044-30A	Spoke, outside, .205"x8 $\frac{1}{4}$ " .....	.07x.1930 to 1936—74" twins .....	axzto
3044-30B	Spoke, inside, .205"x8 $\frac{1}{8}$ " (for 18" rim) .....	.07x.1930 to 1936—74" & 80" twins, Servi-Car rear wheels .....	eageg
3044-30C	Spoke, outside, .205"x8 $\frac{1}{8}$ " (for 18" rim) .....	.07x.1930 to 1936—74" & 80" twins, Servi-Car rear wheels .....	eaggi
3045-28	Front brake shell spoke, 8 $\frac{1}{4}$ " .....	.04x.1928 & 1929—61" & 74" twins .....	asrem
3045-28A	Front brake shell spoke, 8 $\frac{1}{4}$ " .....	.04x.1928 to 1934—21" singles .....	asrge
3045-28B	Front brake shell spoke, 7 $\frac{3}{4}$ " .....	.04x. For 18" rim (25"x3.85" tires).....	asrir
3047-16	Spoke nipple, light.....	.02x.1917 to 1929, 1930 to 1934 singles & 45" twins, 1935 to 1939—45" front .....	ameuk
3047-28	Heavy spoke nipple .....	.04x. Later 1928 & 1929—61" & 74" twins .....	auays
3047-20	Heavy spoke nipple .....	.04x. Later 1929 commercial front wheels, 1930 to 1939—61", 74" & 80" twins, 1937 to 1939—45" twins, all Servi-Car rear wheels .....	axzyu
3047-35	Spoke nipple—heavy .....	.04xx.1935 & 1936—45" twins—rear wheel .....	ejuys
<b>WHEELS &amp; HUBS—LATE 74" &amp; 80", 1935 &amp; LATER 45" REAR, 61" O.H.V.</b>			
3002-30	Spare wheel cpt., less tire (19")..	16.50..1930 to 1936—74" & 80" twins .....	ayaay
3003-30	Spare wheel cpt. less tire (18")..	16.50..1930 to 1936—74" & 80" twins .....	ejuzy
3051-35	Rear wheel, less tire .....	16.50..1935 & 1936—45" twins .....	egiju
3051-36	Spare wheel cpt., less tire (18")..	17.00..1936—61", 1937 to 1939—45" (rear), 61", 74" & 80" twins, front & rear .....	ejuyx

## 41-54 PB

<b>WHEEL RIMS AND SPOKES:</b>			
43002-30	Rim, 18" .....	\$ 5.30--1930 to 1952--45" twins (front wheel only) .....	
The above rim can also be supplied in chrome under the number listed below:			
	43003-30	Rim, 18" - Chrome (when available) .....	
43004-35	Rim, 18" .....	5.30--1935 to 1952--45" twins (rear only), 1937 to 1954--61", 74" & 80" twins .....	
The above rim can also be supplied in chrome under the number listed below:			
	43005-35	Rim, 18" drop center-chrome .....	
43006-40	Rim, 16" .....	5.90--1940 to 1954--all models except 45" front .....	
The above rim can also be supplied in chrome under the number listed below:			
	43007-40	Rim, 16" drop center-chrome .....	
43008-40	Rim, 16" .....	5.90--1940 to 1952--45" solo (front wheel only) .....	
The above rim can also be supplied in chrome under the number listed below:			
	43009-40	Rim, 16" - Chrome (when available) .....	
43029-30	Complete set of spokes and nipples for 18" front wheel .....	5.50--1930 to 1952--45" twins .....	
Consists of:			
	20 43027-30	Spokes-5-15/16" .....	\$ .10
	20 43028-30	Spikes-8-3/8" .....	.10
	40 43098-16	Nipples .....	.05
43030-36	Complete set of spokes and nipples (for 18" wheel) .....	8.10--1937 to 1954--61", 74" & 80" twins & 45" rear .....	
Consists of:			
	40 43031-36	Spokes .....	\$ .15
	40 43099-29	Nipples .....	.06
43033-40	Complete set of spokes and nipples (for 16" wheel) .....	8.10--1940 to 1954--61", 74" & 80" twins & 45" rear .....	
Consists of:			
	40 43032-40	Spokes .....	\$ .15
	40 43099-29	Nipples .....	.06
43036-40	Complete set of spokes and nipples for 16" front wheel .....	6.00--1941 to 1952--45" solo .....	
Consists of:			
	20 43034-40	Spokes-4-11/16" .....	\$ .10
	20 43035-40	Spokes-6-7/8" .....	.10
	40 43097-35	Nipples .....	.06

## 49-57 PB

## WHEEL RIMS AND SPOKES

43004-35	\$ 9.60	Rim (18") .....	35 to 52—W rear, 35 to 50—G rear, 41 to 57—G front, 37 to 57—61", 74" & 80" front & rear
Above rim supplied in chrome under number listed below:			
43005-35	14.25	Rim (18") drop center (chrome)	
43006-40	9.60	Rim (16") .....	40 to 52—W rear, 40 to 50—G rear, 41 to 57—G front, 40 to 57—61", 74" & 80" front & rear
Above rim supplied in chrome under number listed below:			
43007-40	14.25	Rim (16") drop center (chrome)	
43008-40	9.60	Front rim (16") .....	40—W & G models, 41 to 52— W models
Above rim supplied in chrome under number listed below:			
43009-40	14.25	Rim (16") (chrome)	
43003-30	14.25	Front rim (18") (chrome) .....	30 to 52—W Models, 32 to 40— G models
43029-30	9.00	Complete set of spokes & nipples (for 18" front wheel) .....	30 to 52—W models, 32 to 40— G models
Consists of:			
20 43027-30	.14	Spokes (8 $\frac{3}{8}$ "")	40 43098-16 .07 Nipples
20 43028-30	.14	Spokes (5 $\frac{15}{16}$ "")	
43030-36	9.00	Complete set of spokes & nipples (for 18" wheel) .....	37 to 57—61", 74" & 80" twins & 45" rear
Consists of:			
40 43031-36	.20	Spokes	40 43099-29 .08 Nipples
43033-40	11.00	Complete set of spokes & nipples (for 16" wheel) .....	40 to 52—W models, rear, 40 to 51— Servi-cars, front & rear, 40 to 57— 61", 74" & 80" twins
Consists of:			
40 43032-40	.20	Spokes	40 43099-29 .08 Nipples
43036-40	9.00	Complete set of spokes & nipples (for 16" front wheel) .....	40—W & G models, 41 to 52— W models, 41 to 52—45" Solo
Consists of:			
20 43034-40	.15	Spokes (4 $\frac{11}{16}$ "")	40 43097-35 .08 Nipples
20 43035-40	.15	Spokes (6 $\frac{3}{8}$ "")	

## 58-68 PB

### WHEELS, RIMS, SPOKES, HUBS, AXLES (CONT'D)

INDEX NO.	PART NO.	NAME	USED ON
20	43004-35	RIM, front and rear - 18 in. (black) .....	41 to 63 - FL, FLH
	43005-35	RIM, front and rear - 18 in. (chrome) .....	41 to 63 - FL, FLH
	43006-40A	RIM, front and rear - 16 in. (black) .....	41 to * - FL, FLH
	43006-57	RIM, front and rear - 16 in. (black) (safety type - police) .....	57 to * - FL, FLH
	43007-40A	RIM, front and rear - 16 in. (chrome) .....	41 to * - FL, FLH
21	43030-36	SPOKE AND NIPPLE SET (18 in. wheel) .....	41 to 63 - FL, FLH
22	43031-36	SPOKE, 18 in. wheel (80) .....	41 to 63 - FL, FLH
	43032-40	SPOKE, 16 in. wheel (80) .....	41 to * - FL, FLH
23	43033-40	SPOKE AND NIPPLE SET (16 in. wheel) .....	41 to * - FL, FLH
24	43099-29	SPOKE NIPPLE (80) .....	41 to * - FL, FLH
25	43540-36B	WHEEL HUB, front and rear .....	41 to 66 - FL, FLH
26	43540-67	WHEEL HUB, front and rear .....	67 to * - FL, FLH
27	43542-67	LOCKNUT, wheel bearing (L. h. thread) .....	67 to * - FL, FLH
	43546-36	HUB SHELL, front and rear (Replaced by 43540-36B)	
28	43549-36	SLEEVE, roller bearing, front and rear .....	41 to 66 - FL, FLH
29	43549-67	SPACER, wheel bearing .....	67 to * - FL, FLH
	43550-35	SLEEVE, roller bearing (Replaced by 43549-36)	
30	43552-39	THRUST WASHER, inner .....	41 to 66 - FL, FLH
31	43554-35	LOCK RING, thrust washer (2) .....	41 to 66 - FL, FLH
32	43556-35	SLEEVE, thrust bearing .....	41 to 66 - FL, FLH
33	43558-39	THRUST WASHER, roller bearing (brake side) .....	41 to 66 - FL, FLH
34	43560-35	ADJUSTING SHIM - .002 thick (pkg. 25) .....	41 to 66 - FL, FLH
35	43561-39	COLLAR, hub bearing .....	41 to 66 - FL, FLH
36	43563-35	THRUST WASHER, thick (2 per hub) .....	41 to 66 - FL, FLH
37	43564-35	RETAINER, cork washer (brake side) .....	41 to 66 - FL, FLH
38	43566-35A	COVER, outer thrust bearing .....	41 to 66 - FL, FLH
39	43569-35	THRUST PLATE KIT, wheel hub .....	41 to 66 - FL, FLH
40	43570-35	WASHER, cork (small) .....	41 to 66 - FL, FLH
41	43571-35	WASHER, cork (large) (brake side) .....	41 to 66 - FL, FLH
42	43574-55	THRUST WASHER, wheel hub .....	55 to 66 - FL, FLH
43	43576-35	GASKET, inner thrust bearing cover (pkg. 10) .....	41 to 66 - FL, FLH
44	43577-67	BEARING, wheel hub (3) .....	67 to * - FL, FLH
45	43578-35	ROLLER RETAINER (brake side) .....	41 to 66 - FL, FLH
46	43875-48	FRONT AXLE .....	49 to 66 - FL, FLH
	43875-67	FRONT AXLE .....	67 to * - FL, FLH

