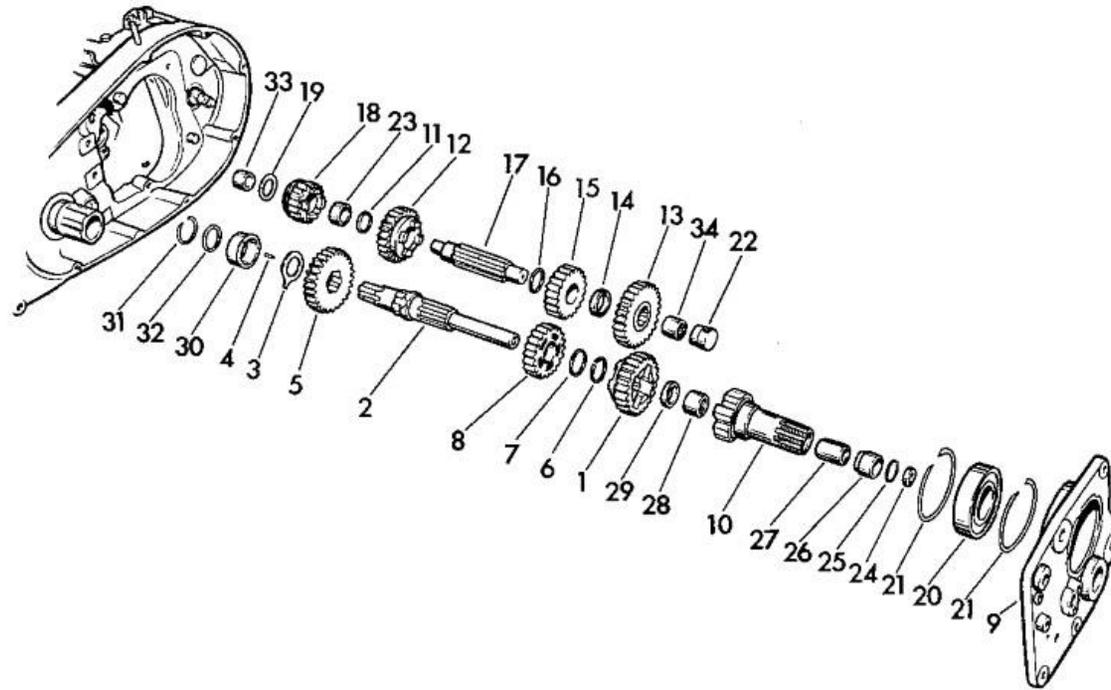


OSKRG Research/Restoration Bulletin #11

K & Sportster Transmission Gears, Mainshafts, Countershafts, Trap Doors & Shifter Cam Assemblies
1952-1972 (Plus a Little More) vs18



- | | | |
|---------------------------------------|--|--|
| 1. Mainshaft second gear | 14. Countershaft gear spacer | 24. Clutch gear oil seal |
| 2. Transmission mainshaft | 15. Countershaft second gear | 25. Clutch hub nut "O" ring |
| 3. Mainshaft thrust washer | 16. Countershaft second gear thrust washer | 26. Clutch gear oil seal extension |
| 4. Transmission mainshaft roller (23) | 17. Transmission countershaft | 27. Clutch gear bushing |
| 5. Mainshaft low gear | 18. Countershaft low gear | 28. Clutch gear needle roller bearing |
| 6. Mainshaft third gear retainer ring | 19. Countershaft low gear washer | 29. Mainshaft thrust washer |
| 7. Mainshaft third gear washer | 20. Mainshaft ball bearing | 30. Mainshaft roller bearing race |
| 8. Mainshaft third gear | 21. Mainshaft ball bearing snap ring (2) | 31. Mainshaft roller bearing retainer ring |
| 9. Access cover | 22. Countershaft oiler plug | 32. Mainshaft roller bearing washer |
| 10. Clutch gear | 23. Countershaft low gear bushing | 33. Countershaft bearing - closed end |
| 11. Countershaft low gear washer | | 34. Countershaft bearing - open end |
| 12. Countershaft third gear | | |
| 13. Countershaft drive gear | | |

Figure following name of part indicates quantity necessary for one complete assembly.

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 or post them to <http://www.harleykmodel.com/>.

Countershaft Group

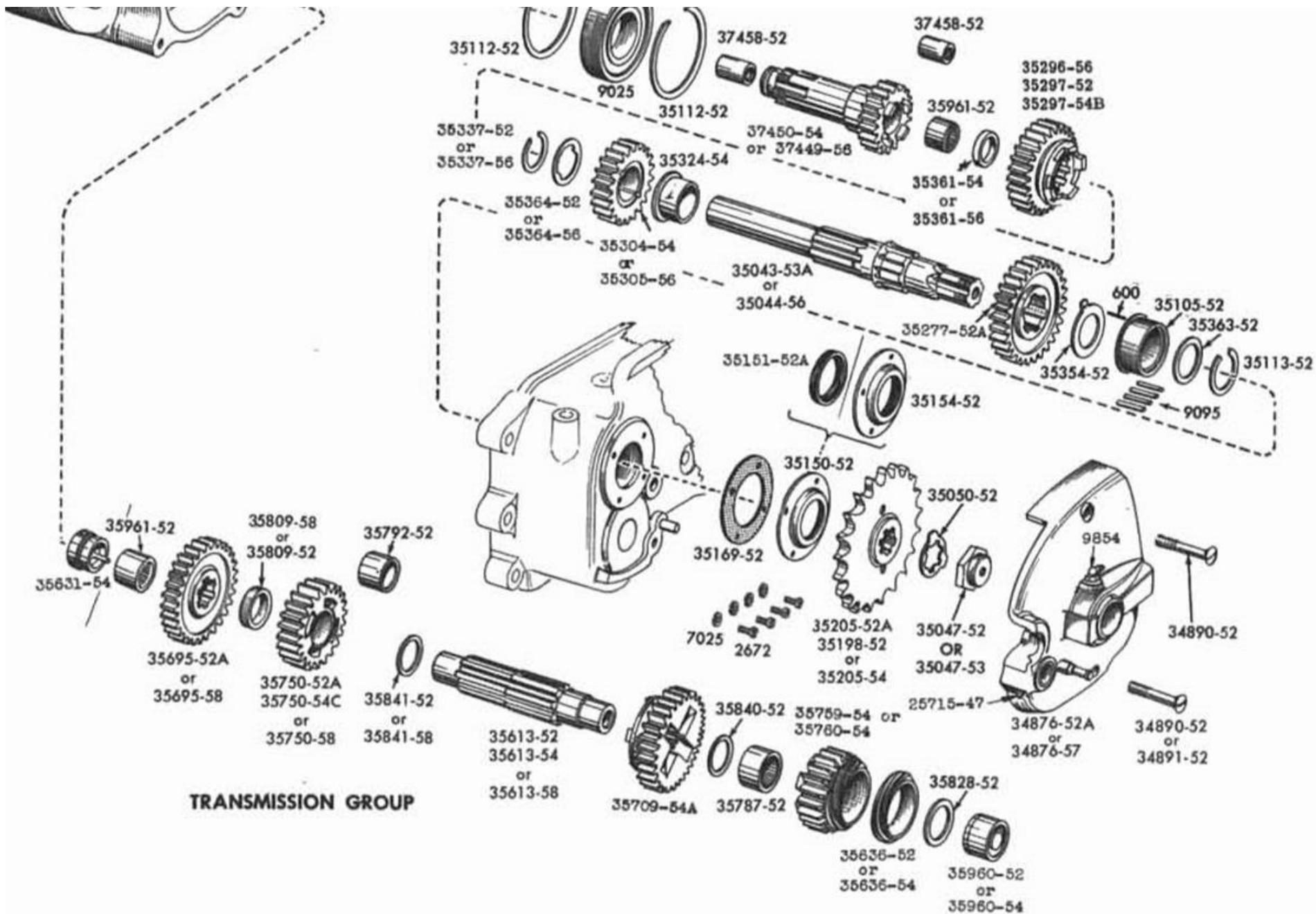
Parts Book	CS Drive Gear	Year	CS 2 nd Gear	Year	CS 3 rd Gear	Year	CS Low Gear	Year	Countershaft	Year
52-53	35695-52 (29T)	52-53Ks	35750-52 (18T)	52-53Ks	35709-52 (Per PB 26T) SHOP DOPE #345 25T or 26T	52-53Ks	35760-52 (22T per PB) SHOP DOPE #345 18T	52-53Ks	35613-52	52-53Ks
54	35695-52A (27T)	52-54Ks	35750-52A (22T)	52-53Ks	35709-52 (26T) SHOP DOPE #345 25T or 26T	52-53Ks	35759-54 Per 63PB 17T	54Ks	35613-54	54Ks
			35750-54A (21T)	54Ks	35709-54 (24T) An improved version of this Gear with the same PN per Shop Dope #356 first appears above VIN 55KH 1706 and is stamped with a "4". It is recommended to replace the earlier 54 and 55 model year CS 3 rd Gear with this one. The early versions of this improved gear stamped with a "4" will have 24T, later versions will have 23T.	54Ks				
56	35695-52A (27T)	52-56Ks	35750-54B (21T)	Unknown	35709-54A (23T) At this time I believe that the improved 35709-54 3 rd Gear changed its' PN to 35709-54A when it went from 24T to 23T. I have samples of the PN stamped 3 rd Gear, 35709-54A, with and without the "4" stamped into them.	54-56Ks	35759-54 Per 63PB 17T	54-56Ks	35613-54	54-56Ks
			35750-54C (21T) Note: Two -54C Samples have 20T	54-56Ks			35760-52 (22T per PB) SHOP DOPE #345 18T	52-53Ks		
57	35695-52A (27T)	52-56Ks & Sportster	35750-54C (21T) Note: Two -54C Samples have 20T	54-56Ks & Sportster	35709-54A (23T)	54-56Ks 57XL	35760-54	57XL	35613-54	54-56Ks 57XL
58 Sup.	35695-58 (27T)	58 Sportster	35750-58 (20T)	58 Sportster					35613-58	58 Sportster
59	35695-58 (27T)	58-* XLH-XLCH	35750-58 (20T)	58-* XLH-XLCH	35709-54A (23T)	54-56Ks 57-* XLH-XLCH	35760-54	57-59 All Sportsters	35613-58	58-* XLH-XLCH
63	35695-58 (27T)	58-* XLH-XLCH	35750-58 (20T)	58-* XLH-XLCH	35709-54A (23T)	54-56Ks 57-* XLH-XLCH	35760-54 (17T)	57-63 All Sportsters	35613-58	58-* XLH-XLCH
65	35695-58 (27T)	58-* XLH-XLCH	35750-58 (20T)	58-* XLH-XLCH	35709-54A (23T)	54-56Ks 57-* XLH-XLCH	35760-54 (17T)	57-65 All Sportsters	35613-58	58-* XLH-XLCH
67	35695-58 (27T)	58-* XLH-XLCH	35750-58 (20T)	58-* XLH-XLCH	35709-54A (23T)	54-56Ks 57-* XLH-XLCH	35760-54A (17T)	57-67 All Sportsters	35613-58	58-* XLH-XLCH
70	35695-58 (27T)	58-* XLH-XLCH	35750-58 (20T)	58-* XLH-XLCH	35709-54A (23T)	54-56Ks 57-* XLH-XLCH	35760-54A (17T)	57-70 All Sportsters	35613-58	58-* XLH-XLCH
71	35695-58 (27T)	58-* XLH-XLCH	35750-58 (20T)	58-* XLH-XLCH	35709-54A (23T)	54-56Ks 57-* XLH-XLCH	35760-54A (17T)	57-71 All Sportsters	35613-58	58-* XLH-XLCH
73 Sup.	35695-58 (27T)	58-* XLH-XLCH	35750-58 (20T)	58-* XLH-XLCH	35709-54A (23T)	54-56Ks 57-* XLH-XLCH	35760-54B (17T)	57-72 All Sportsters	35613-58	58-* XLH-XLCH

Mainshaft Group

Parts Book	Clutch Gear	Year	MS 2 nd Gear	Year	MS 3 rd Gear	Year	MS Low Gear	Year	Mainshaft	Year
52-53	37450-52 Per 63PB Has 18T	52-53Ks	35297-52 (25T)	52-53Ks	35304-52 (21T)	52-53Ks	35277-52 (29T)	52-53Ks	35043-52 35043-53	52K 53Ks
54	37450-54 Per 63PB Has 17T	54Ks	35297-54 (24T) An improved version of this Gear with the same PN per Shop Dope #356 first appears above VIN 55KH 1706 and is stamped with a "4". It is recommended to replace the earlier 54 and 55 model year MS 2 nd Gear with this one. The early version of this improved gear had 24T, later ones had 23T.	54Ks	35304-54 Per 63PB Has 20T 35304-52A Set of gears MS & CS. Consist of 35304-54 & 35709-54A	54Ks 56PB 55K 52-53Ks	35277-52A (29T) SHOP DOPE #345, Jan.15, 1954 modified 35277-52A gear with 27T.	All 54 & On	35043-53A	52-54Ks
56	37450-54 Per 63PB Has 17T	54-56Ks up to VIN 1465	35297-54 (24T) An improved version of this Gear with the same PN per Shop Dope #356 first appears above VIN 55KH 1706 and is stamped with a "4". It is recommended to replace the earlier 54 and 55 model year MS 2 nd Gear with this one. The early version of this improved gear had 24T, later ones had 23T.	54-55Ks	35304-54 Per 63PB Has 20T 35305-56	54-55Ks 56Ks	35277-52A (29T) Think PB in error about # of teeth based on Shop Dope #345, indicates replacement with 27T. Likely running change in early 54 model year.	All 54 & On	35043-53A	52-56Ks up to VIN 1465
	37450-56	Above 56K VIN 1465	35296-56 (23T)	56Ks	35304-52A Set of gears MS & CS. Consist of 35304-54 & 35709-54A	52-53Ks			35044-56	56Ks above VIN 1465
57	37449-56	Above 56K VIN 1465 & 57XL	35296-56 (23T) 35297-54A PN shown in picture but not referenced in text. I believe the 57PB is in error in that it shows the 35297-54 MS 2 nd Gear being replaced with PN 35297-54B. This -54B PN is a set of replacement gears. I believe the 57PB should have said the -54 Gear was being replaced with the -54A Gear shown in the 57PB drawings 35297-54B Set of main-shaft 2 nd gears (24T)? Corrected in 64 Sup. "35297-54B Mainshaft second and third gear set (catalog correction). 54 & 55 - KH	56Ks All Sports Believe it fits 54-55Ks 54-55Ks	35305-56 35304-52A Set of gears MS & CS. Consist of 35304-54 & 35709-54A	56Ks All Sportster 52-53Ks	35277-52A (29T) Think PB in error about # of teeth based on Shop Dope #345, indicates replacement with 27T. Likely running change in early 54 model year.	All 54 & On	35044-56	56Ks above VIN 1465 & 57XL
59	37449-56	56K above VIN 1465-59 KH, XL, XLH, XLCH	35296-56 (23T) (The 59PB is wrong about 35297-54B, says single gear with 23T.)	56Ks All Sports	35305-56	56Ks All Sportster	35277-52A (27T)	All 54 & On	35044-56	56K above VIN 1465-59 KH, XL, XLH, XLCH
63	37449-56 (17T)	56K above VIN 1465-63 KH, XL, XLH, XLCH	35296-56 (23T) (The 63PB is wrong about 35297-54B, says single gear with 24T.)	56Ks All Sports	35305-56 (20T)	56Ks All Sportster	35277-52A (27T)	All 54 & On	35044-56	56K above VIN 1465-63 KH, XL, XLH, XLCH
64 Sup.			35297-54B Mainshaft second & third gear set, catalog correction.	54-55Ks						

Parts Book	Clutch Gear	Year	MS 2 nd Gear	Year	MS 3 rd Gear	Year	MS Low Gear	Year	Mainshaft	Year
65	37449-56 (17T)	56K above VIN 1465-65 KH, XL, XLH, XLCH	35269-56 (23T) Believe this part number is in error, juxtaposing of the 6 & 9. Believe the 66 Supplement corrects this error.	56Ks All Sports	35305-56 (20T)	56Ks All Sportster	35277-52A (27T)	All 54 & On	35044-56	56K above VIN 1465-65 KH, XL, XLH, XLCH
66 Sup.			35269-56 Replaced by 35296-56							
67	37449-56 (17T)	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67 XLCH	35296-56 (23T)	56Ks All Sports	35305-56 (20T)	56Ks All Sportster	35277-52A (27T)	All 54 & On	35044-56	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67 XLCH
	37448-67 (17T)	67 XLH							35046-67	67 XLH
70	37449-56 (17T)	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67-69 XLCH	35296-56 (23T)	56Ks All Sports	35305-56 (20T)	56Ks All Sportster	35277-52A (27T)	All 54 & On	35044-56	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67-69 XLCH
	37448-67 (17T)	67-*XLH, 70-*XLCH							35046-67	67-*XLH, 70-*XLCH
71	37449-56 (17T)	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67-69 XLCH	35296-56 (23T)	56Ks All Sports	35305-56 (20T)	56Ks All Sportster	35277-52A (27T)	All 54 & On	35044-56	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67-69 XLCH
	37448-67 (17T)	67-70 XLH, 70 XLCH							35046-67	67-70 XLH, 70-*XLCH
	37448-71 (17T)	71-*XLH & XLCH							35046-71	71-* XLH & XLCH
73 Sup.	37449-56 (17T)	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67-69 XLCH	35296-56 (23T)	56Ks All Sports	35305-56 (20T)	56Ks All Sportster	35277-52A (27T)	All 54 & On	35044-56	56K above VIN 1465-66 KH, XL, XLH, XLCH & 67-69 XLCH
	37448-67 (17T)	67-70 XLH, 70 XLCH							35046-67	67-70 XLH, 70-XLCH
	37448-71 (17T)	71-*XLH & XLCH							35046-71A	71-* XLH & XLCH

59 Parts Book



TRANSMISSION GROUP

Part Number	Identifying Characteristics	Side 1	Side 2
CS Drive Gears			
35695-52 (29T)	<p>This CSDG is the only gear with 29T with the exception of the Mainshaft Low Speed Gear. The MSLSG will have a considerably larger center hole. The earliest Countershaft PN 35613-52 center hole will measure approximately .875 and will have 6 splines. The earliest Mainshaft PN 35043-52 center hole will measure approximately 1.17" and will have 6 splines.</p>		
35695-52A (27T)	<p>This CSDG is recognizable by its 27T and 6 center splines. It can be differentiated from its successor drive gear PN 35695-58 which also has 27T because the -58 will have 8 splines at its center. It can be told apart from the Mainshaft Low Speed Gear because the -52A CS Drive Gear has a center dimension at its widest of .874" and the MSLG will have a center hole at its widest of approximately 1.17".</p>		
35695-58 (27T)	<p>This CSDG is recognizable by its 27T and 8 splines at its center.</p>		

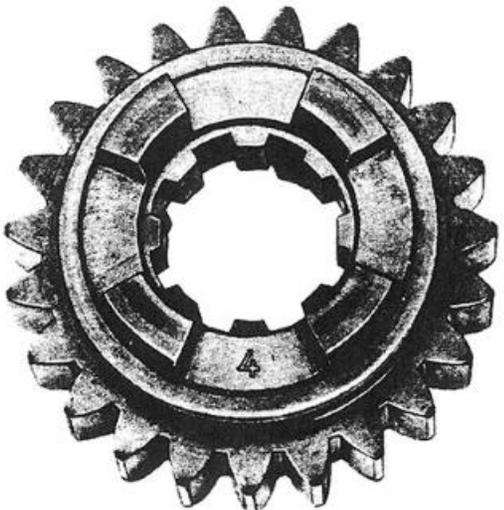
Part Number	Identifying Characteristics	Side 1	Side 2
CS 2 nd Gears			
35750-52 (18T)	<p>This is the only CS 2nd Gear with 18T. It looks similar to the MS 3rd Gear. The difference is no MS 3rd Gear will have 18T. The -52 CS 2nd Gear will have a center hole wih bushing of approximately .875".</p>		
35750-52A (22T)	<p>This is the only CS 2nd Gear with 22T. It looks similar to the MS 3rd Gear. The -52A CS 2nd Gear will have 4 voids and will have a center hole wih bushing of approximately .875".</p>		
35750-54A (21T)	<p>At this time I have a sample CS 2nd Gear that I am confident is either a -54A or -54B but am unable to determine which it is at this time. It has 21 teeth. It is not marked with a PN. It will have a center hole wih bushing of approximately .875".</p>		

35750-54B (21T)	At this time I have a sample CS 2 nd Gear that I am confident is either a -54A or -54B but am unable to determine which it is at this time. It has 21 teeth. It is not marked with a PN. It will have a center hole with a bushing of approximately .875".		
35750-54C (21T) Note: All viewed samples have only 20T.	This CS 2 nd Gear is PN marked. Parts Books say it has 21T, all samples seen to date have 20T. Has 4 voids and smooth opposite side. It will have a center hole with a bushing of approximately .875".		
35750-58 (20T)	This CS 2 nd Gear is PN marked. Has 20T. Has 4 voids and smooth opposite side. It does not have a bushing.		

Part Number	Identifying Characteristics	Side 1	Side 2
CS 3 rd Gears			
35709-52 (26T)	<p>The CS 3rd Gears look similar to the MS 2nd Gear. The -52 is the only CS 3rd Gear with 26T. SHOP DOPE #345 25T or 26T This gear can easily be mistaken for the MS 2nd gear 35297-52 which also has 4 dogs and 25 teeth. This gear will fit on both the early countershafts and mainshafts. You can tell this gear from a 25 tooth MS 2nd gear by the size of the dogs. The -52 MS 2nd gear dog measures about .19". The -52 CS 3rd gear we believe would measure about .29" (no sample at this time to verify, high confidence guess based on later CS 3rd gears and measurements of a 35750-52A CS 2nd gear).</p>	<p>Approximate length = .29"</p>  <p>An image of the 35709-54A Gear is shown for reference. This gear only has 23 teeth.</p>	 <p>An image of the 35709-54A Gear is shown for reference. This gear only has 23 teeth.</p>
35709-54 (24T)	<p>The CS 3rd Gears look similar to the MS 2nd Gear. The -54 is the only CS 3rd Gear with 24T. Note: initial and improved early versions of this gear both have 24T and the same PN.</p>		
<p>SHOP DOPE #356 35709-54 (23T or 24T)</p>	<p>As a result of changes in material and heat treatment, the above two gears now in new motorcycle production and furnished on parts order are much huskier gears than were available earlier.</p> <p>The later, huskier gears are identified by the numeral 4 stamped between the driving dogs. Disregard other numbers that may be found stamped elsewhere on the gears.</p> <p>The first huskier gears produced have twenty four teeth; later the number of teeth will be reduced to twenty three. However, gear pitch diameter stays the same whether twenty-three or twenty-four teeth, and therefore one gear can be replaced with the other. Gears identified by the numeral 4, whether twenty-three or twenty-four teeth, are OK to use.</p> <p>The new gears went into new motorcycle assembly starting with number 55KH 1706. A few lower numbered motorcycles have the new 35709-54 C/S 3rd gear, but not the new 35297-54 M/S 2nd gear.</p>		

35709-54
Improved
versions with the
same PN. The
one shown here
is the newer 23T
version.

35709-54 (23T or 24T) An improved
version of this Gear with the same PN
as the original per Shop Dope #356
first appears above VIN 55KH 1706
and is stamped with a "4". It is
recommended to replace the earlier
54 and 55 model year CS 3rd Gear
with this one. The early versions of
this improved gear stamped with a
"4" will have 24T, later versions will
have 23T.



C/S 3rd Gear
35709-54

35709-54A (23T)

The CS 3rd Gears look similar to the
MS 2nd Gear. The -54A 3rd Gear has
23T. It is also marked with its PN. I
believe this gear is the one that Shop
Dope #356 refers to as "later the
number of teeth will be reduced to
23". I think that the improved 35709-
54 3rd Gear changed its' PN to 35709-
54A when it went from 24T to 23T. I
have samples of the PN stamped 3rd
Gear, 35709-54A, with and without
the "4" stamped into them.



Countershaft Low Gear Differentiation Table

Parts Book	CS Low Gear	Year	Speedometer Drive Gear	Year	Right Side Crankcase	Year
52-53	35760-52 (22T per PB) SHOP DOPE #345 18T	52-53Ks	35636-52	52-53Ks	24556-52	52-53Ks
54	35759-54 Per 63PB 17T	54Ks	35636-54	54Ks	24556-54	54Ks
56	35759-54 Per 63PB 17T	54-56Ks	35636-54	54-56Ks	24556-54	54-56Ks
57	35760-54	57XL	35636-52	57XL	24556-57	57XL
58 Sup.						
59	35760-54	57-59 All Sportsters	35636-52	57-59 All Sportsters	24556-57	57-* XLH-XLCH
63	35760-54 (17T)	57-63 All Sportsters	35636-52	57-63 All Sportsters	24556-57	57-* XLH-XLCH
65	35760-54 (17T)	57-65 All Sportsters	35636-52	57-65 All Sportsters	24556-57	57-* XLH-XLCH
66 Sup. Issued Oct. 65					24555-57	57-* XL- XLH-XLCH
67 Issued Sept. 66	35760-54A (17T)	57-67 All Sportsters	35636-52A	57-67 All Sportsters	24555-57A Per SB Jan. 13, 66	57-66 XL- XLH-XLCH 67-* XLCH
70	35760-54A (17T)	57-70 All Sportsters	35636-52A	57-70 All Sportsters	24555-57A 24555-67A	57-66 XL- XLH-XLCH 67-69 XLCH 67-* XLH 70-* XLCH
71	35760-54A (17T)	57-71 All Sportsters	35636-52A	57-71 All Sportsters	24555-67A 24555-70	67-* XLH 70-* XLCH
73 Sup. Issued Sept. 72	35760-54B (17T)	57-72 All Sportsters	35636-52A (Per 54-81 PB)	57-72 All Sportsters	24551-72	72 XLH-XLCH

SERVICE HARLEY-DAVIDSON BULLETIN

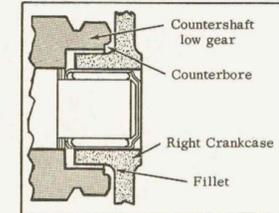
No. 537

March 22, 1966

TRANSMISSION COUNTERSHAFT LOW GEAR - SPORTSTER

Starting with motorcycle engine No. 66XLCH 6117 on January 13, 1966, a fillet has been added at the base of the countershaft low gear boss of the right crankcase. Also, the countershaft low gear has a counterbore to provide clearance at this point. See illustration.

New Part	(Replaces)	Old Part
35760-54A	C.S. Low Gear	35760-54
24511-57A	C'case assy.	24511-57 (XLH)
24515-58A	C'case assy.	24515-58 (XLCH)
24555-57A	C'case, right	XLH, XLCH



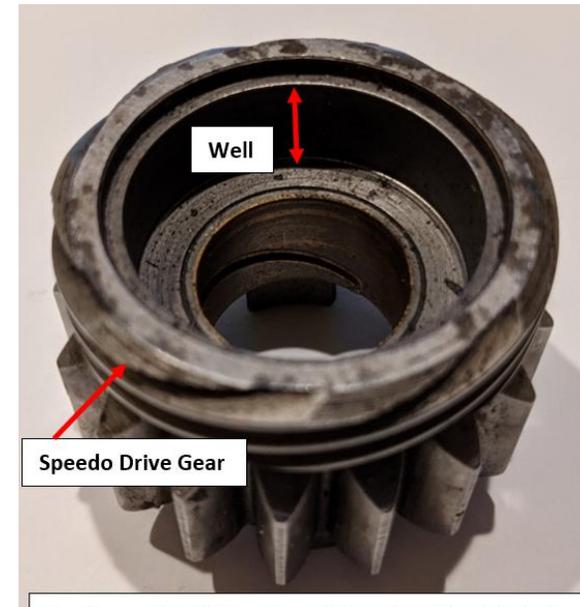
(Parts order crankcases listed above are supplied with new gear)

Old parts will no longer be supplied for parts order.

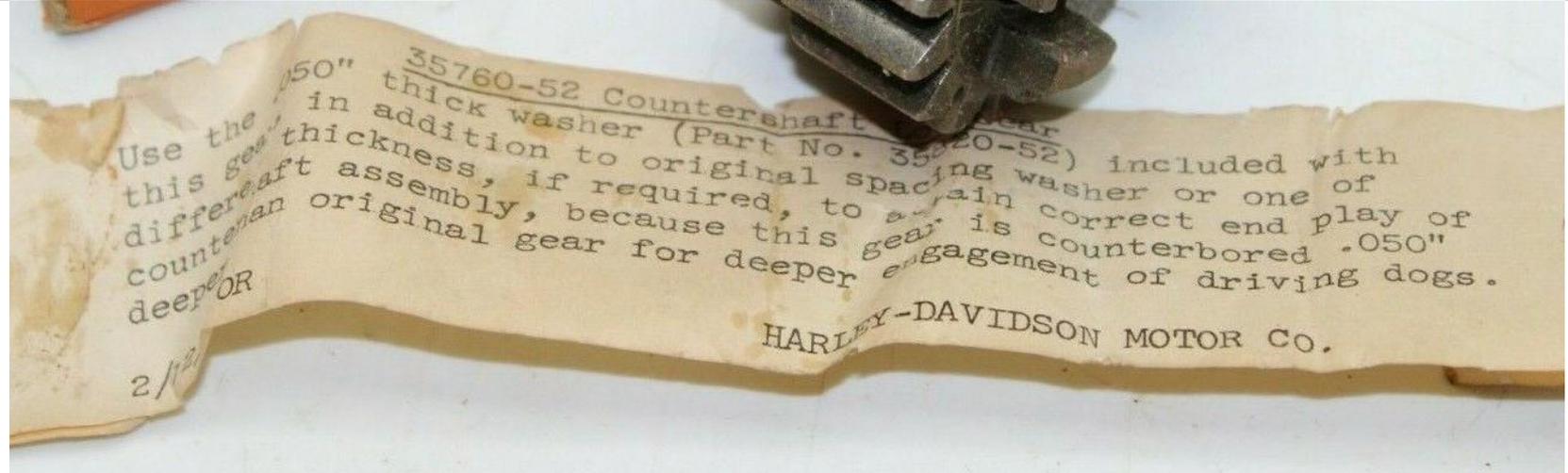
IMPORTANT

Old countershaft low gear can not be used on crankcases having fillet on countershaft bushing boss because it will jam against the fillet.

HARLEY-DAVIDSON MOTOR CO.



As of now this CS Low Speed Gear is unidentified. It has the CSLSG -54B "well" depth along with the -52 or -54 Speedo Drive Gear width.

Part Number	Identifying Characteristics	Side 1	Side 2
CS Low Gears	<p>The CS Low Gear is easy to spot because it has 4 dogs on one side and the speedo drive gear on the other. The Parts Book says the -52 CSLG should have 22T. Shop Dope #345 indicates it will have 18 teeth. This sample has 18T. The PBs indicate the other 4 versions of this gear all have 17T. Note the "Depth" and staked drive gear.</p>		
<p>35760-52 (22T?) Shop Dope #345 indicates it will have 18 teeth.</p>			

This note implies that even though there is no PN change an earlier version must have existed that was not bored as much.

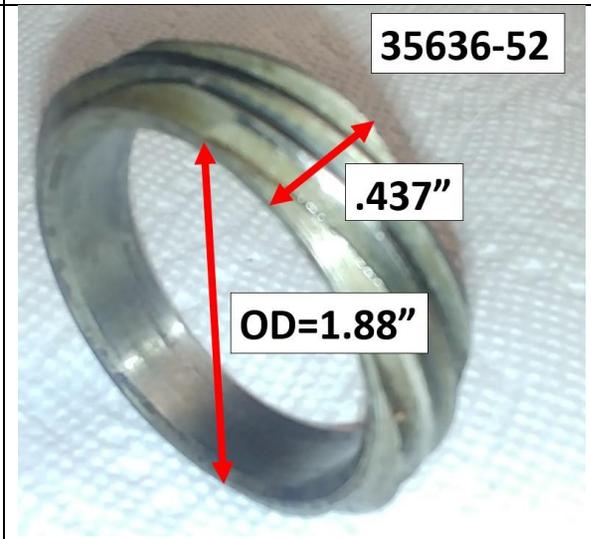
35759-54 (17T)

The CS Low Gear is easy to spot because it has 4 dogs on one side and the speedo drive gear on the other. At this time I am unable to distinguish between this 35759-54 CSLG and the 35760-54 CSLG. It can be distinguished from the 35760-52 CSLG due to that gears 18 or possibly 22 teeth. You can distinguish it from the 35760-54A or the 35760-54B versions because they use the -52A speedo drive gear that is not as wide as the 35636-54 speedo drive gear, .410" vs. .437". May have staked speedo drive gear. The PBs indicate or imply that the 35636-54 speedo drive gear shown, only used with the 54-56Ks, is different from the 35636-52 gear used on both the 52-53 Ks & the 57-66 XLs & XLHs. At this time I can not identify any dimensional differences between these 2 speedo drive gears. It would make sense that the ramp or slope would be slightly different for this gear since the 54-56Ks used a 49 tooth instead of a 51 tooth rear sprocket. I have not as yet been able to adequately test their ramp in order to verify this ascertainment.



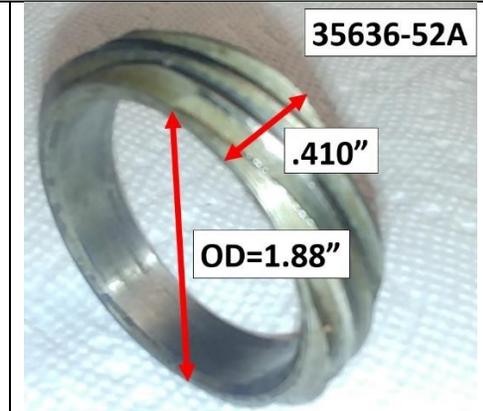
35760-54 (17T)

The CS Low Gear is easy to spot because it has 4 dogs on one side and the speedo drive gear on the other. At this time I am unable to distinguish between this 35760-54 CSLG and the 35759-54 CSLG. It can be distinguished from the 35760-52 CSLG due to that gears 18 or possibly 22 teeth. You can distinguish it from the 35760-54A or the 35760-54B versions because they use the -52A speedo drive gear that is not as wide as the 35636-52 speedo drive gear, .410" vs. .437". May have staked speedo drive gear. The PBs indicate or imply that the 35636-54 speedo drive gear shown, only used with the 54-56Ks, is different from the 35636-52 gear used on both the 52-53 Ks & the 57-66 XLs & XLHs. At this time I can not identify any dimensional differences between these 2 speedo drive gears. It would make sense that the ramp or slope would be slightly different for this gear since the 54-56Ks used a 49 tooth instead of a 51 tooth rear sprocket. I have not as yet been able to adequately test their ramp in order to verify this ascertainment.



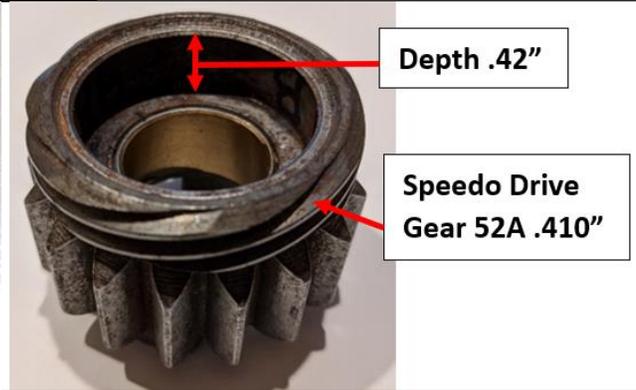
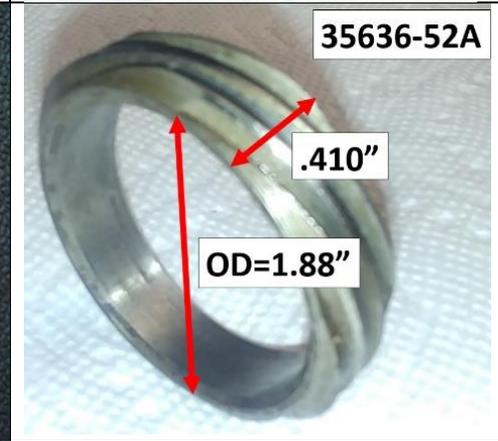
35760-54A (17T)

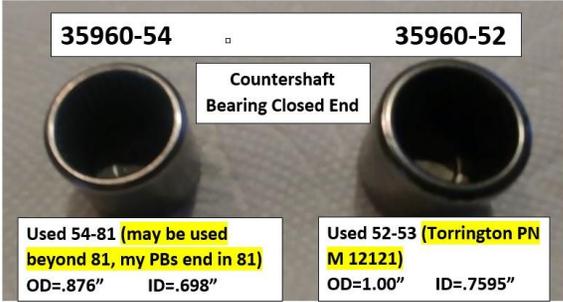
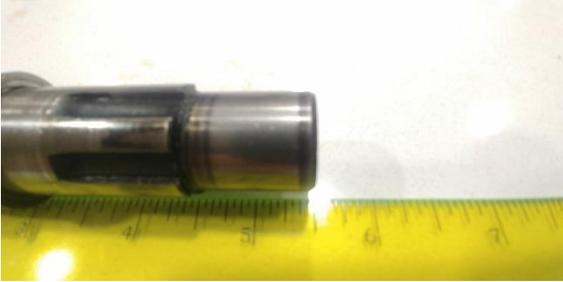
The CS Low Gear is easy to spot because it has 4 dogs on one side and the speedo drive gear on the other. At this time without a PN verifiable sample of this gear I am unable to distinguish between this 35760-54A CSLG and the 35760-54B versions. We are able to distinguish between it and the earlier 35760-52, 35759-54 & the 35760-54. The -54A and -54B CSLGs both use the same speedo drive gear, 35636-52A. It appears to have the same ID and OD as the earlier 35636-52 & 35636-54 gears but its' width is less, .410" vs .437".

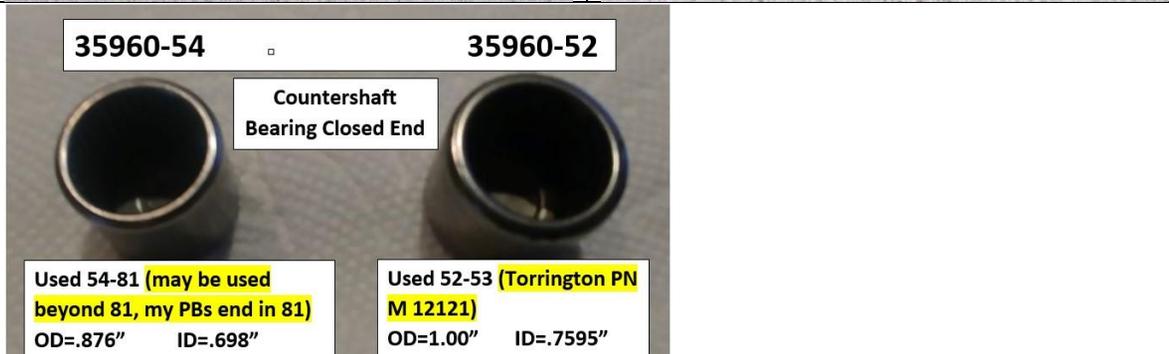


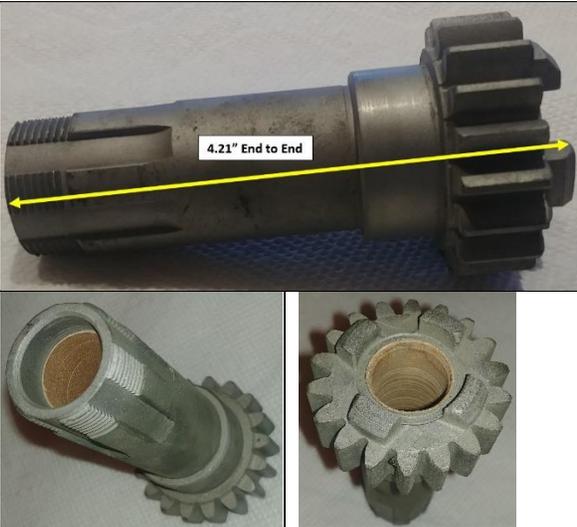
35760-54B (17T)

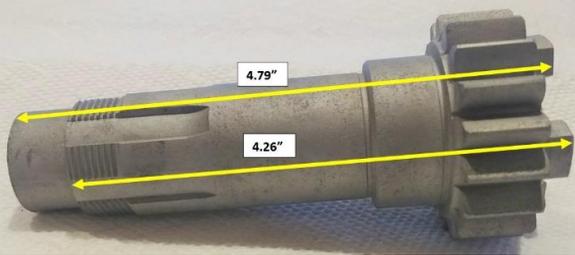
The CS Low Gear is easy to spot because it has 4 dogs on one side and the speedo drive gear on the other. At this time without a PN verifiable sample of this gear I am unable to distinguish between this 35760-54B CSLG and the 35760-54A versions. We are able to distinguish between it and the earlier 35760-52, 35759-54 & the 35760-54. The -54A and -54B CSLGs both use the same speedo drive gear, 35636-52A. It appears to have the same ID and OD as the earlier 35636-52 & 35636-54 but its' width is less, .410" vs .437". Its' recess depth also is deeper than all the other CSLG samples I have. Without a verifiable CSLG 35760-54A to compare its depth against I cannot say that this measurement is a uniquely identifying feature only to the -54B version. All other CSLG samples measure approximately .315" in depth. The "well" depth of the speedo drive end is .42". I believe this is a result of the counterbore the Service Bulletin #537 talks about. The -52A speedo drive gear sits about even with the top of the CS Low Speed Gear "well".



Part Number Countershafts	Identifying Characteristics	Side 1	Side 2
35613-52	The -52 CS is unique in that it has no oiler holes. Its' right end is larger than all the other CS, it measures about .75". This is about .06" larger than the -54 and -58 shaft ends. It also is the only CS with a large hole in its' right end. The hole measures about .375".		 <p>35960-54 35960-52</p> <p>Countershaft Bearing Closed End</p> <p>Used 54-81 (may be used beyond 81, my PBs end in 81) OD=.876" ID=.698"</p> <p>Used 52-53 (Torrington PN M 12121) OD=1.00" ID=.7595"</p>
SHOP DOPE #356 35613-54 Early version below VIN 54KH 2040	<p>When servicing the transmission of a motorcycle with number below 54KH 2040 inspect the countershaft 35613-54 with its gears removed. If an oil hole is found cross-drilled at 2nd gear position, discard shaft and replace with a later shaft that does not have this oil hole.</p> <p>It is easy to identify since it is the only CS with two oiler holes. The second hole is where 2nd gear rides.</p>		
35613-54 Later version equal to or above VIN 54KH 2040	This -54 Countershaft measures 5.5" in length and is easily distinguished from the -58 Countershaft. The -54 CS has 6 splines on the Drive Gear end 8 splines on the other end. The later -54 above VIN 54KH 2040 will only have one oiler hole where the low speed gear rides. The -58 CS will have 8 splines on both ends.		

35613-58	<p>This -58 Countershaft measures 5.5" in length and is easily distinguished from the -54 Countershaft. The -58 CS has 8 splines on the Drive Gear end 8 splines on the other end. The -54 CS will have 6 splines on the Drive gear end and 8 splines on the other end.</p>		
35960-52 & 35960-54	<p>These are the closed end CS Bushings. The right side motor case was modified in a number of ways with the 54KH model year. One of the changes was a "beefing up" of the right side CS bearing race. This enlarging of the bearing race wall necessitated the smaller -54 bearing and a reduction in the CS right end shaft diameter.</p>	 <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>35960-54</p> <p>Used 54-81 (may be used beyond 81, my PBs end in 81) OD=.876" ID=.698"</p> </div> <div style="text-align: center;"> <p>35960-52</p> <p>Used 52-53 (Torrington PN M 12121) OD=1.00" ID=.7595"</p> </div> </div> <p style="text-align: center;">Countershaft Bearing Closed End</p>	

Part Number	Identifying Characteristics	Side 1	Side 2
Clutch Gears			
37450-52 (18T)	<p>The -52 Clutch Gear can be easily distinguished from all the other Clutch Gears because it is the only Clutch Gear with 18T. It also is the only clutch gear with a sleeve bushing at both ends rather than a Torrington at one end.</p>		
37450-54 (17T)	<p>The -54 Clutch Gear has 17T and is approximately 4.25" in length. Its threaded end has about 7 threads. It was used up to 56K VIN 1465. It used the 37525-52 clutch hub nut. I believe the difference between it and the -52 Clutch Gear is the number of gear teeth and the -54 used a roller bearing at the gear end.</p>		

<p>37450-56</p>	<p>I am of the belief that the difference between the -54 and the -56 clutch gear is the addition of the oil seal extension PN 37538-56 and the only difference between the 37450-56 Clutch Gear and the 37499-56 gear is the 37450-56 gear came with the early version of the Oil Seal Extension and the 37499-56 came with the later version that showed up in late 57 This early -56 clutch gear with the extension without the outer O ring started in 56 from VIN # 1465. It used the 37526-56 clutch hub nut.</p>			 
<p>37449-56 (17T)</p>	<p>The 37449-56 Clutch Gear has 17T and is approximately 4.25" in length. Its threaded end has about 7 threads. Believe a complete original 56K VIN 1465 on transmission should have an oil seal extension inserted into its' threaded end. The extension should have a clutch gear oil seal inserted into its' end. Starting in late 57 the extension should be the one shown to the right with the outer "O" ring. This Oil Seal Extension with the addition of the "O" ring in late 57 was accompanied by a change to a new "Clutch Hub Nut" PN 37536-56A that replaced the old nut PN 37536-56. The old nut, PN 37536-56 started with the 56K VIN 1465 and on.</p>	 <p>Clutch Gear Oil Seal Extension PN 37538-56 56 Ks above VIN 1465 & 57-66 XLH & XLCH & 67-69 XLCH</p> <p>Clutch Gear Rubber "O" Ring PN 11103 Late 57 On</p>		 <p>Clutch Gear Oil Seal Extensions PN 37538-56. Early version did not have outer "O" Ring, Later version (Late 57 On) Does.</p> <p>3 Versions of the PN 37531-56 Clutch Gear Oil Seal. 56 Ks above VIN 1465 & 57-66 XLH & XLCH & 67-69 XLCH</p> <p>56PB PN 37531-56 64 Sup. PN 37531-56A 69 Sup. PN 37531-56B</p> 

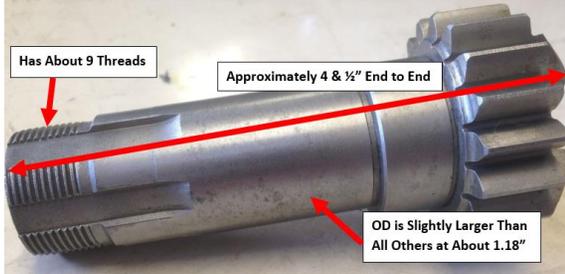
37448-67 (17T)

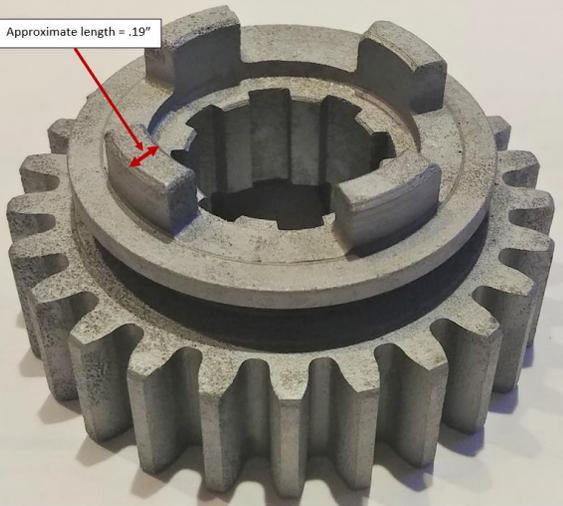
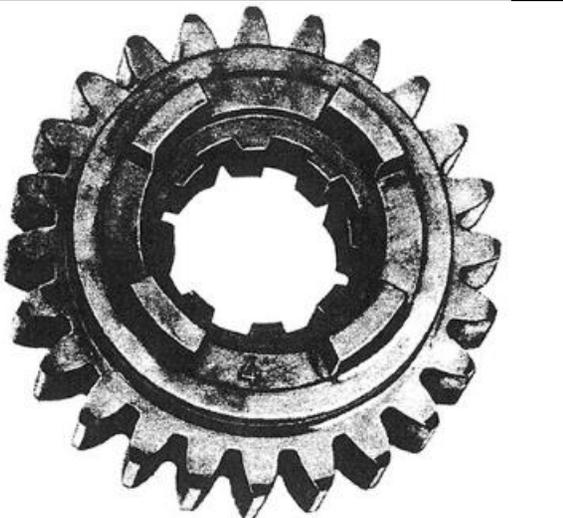
The -67 Clutch Gear can be easily distinguished from all other Clutch Gears that also have 17T by its significant "grove" and longer length.



37448-71 (17T)

The 37448-71 Gear looks similar to the -54 gear except it is about $\frac{1}{4}$ " longer, has about 9 threads instead of the about 7 threads that the -54 gear has and is a few thousandths of an inch in diameter wider than all the others. A PN 37755-57 Clutch Sprocket Spacer will not fit over the -71 gear.



Part Number	Identifying Characteristics	Side 1	Side 2
MS 2 nd Gears			
35297-52 (25T)	<p>The 35297-52 MS 2nd Gear is unique in that it has 4 dogs and 25T. This gear can easily be mistaken for the CS 3rd gear 35709-52 which also has 4 dogs and possible according to a Shop Dope 25 teeth. This gear fits both the early countershafts and mainshafts. You can tell this gear from a 25 tooth CS 3rd gear by the size of the dogs. The -52 MS 2nd gear dog measures about .19". The -52 CS 3rd gear we believe would measure about .29" (no sample at this time to verify, high confidence guess based on later CS 3rd gears and measurements of a 35750-52A 2nd gear).</p>	 <p>Approximate length = .19"</p>	
35297-54 (24T) Original Version	<p>The 35297-54 MS 2nd Gear is unique in that it has 4 dogs and 24T. See the following Shop Dope for more detail. You can tell this gear from a 24 tooth CS 3rd gear by the size of the dogs. At this time believe the -54 MS 2nd gear dog measures about .19". The -54 CS 3rd gear we believe would measure about .29" (no sample at this time to verify, high confidence guess based on later CS 3rd gears and measurements of a 35750-52A 2nd gear).</p>	 <p>M/S 2nd Gear 35297-54</p>	

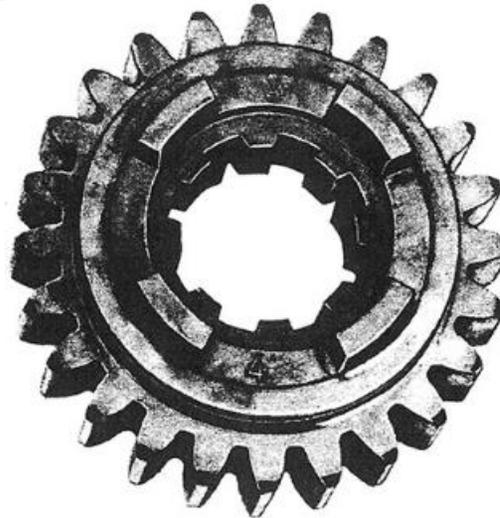
SHOP DOPE #356
35297-54 (23 or
24T)

As a result of changes in material and heat treatment, the above two gears now in new motorcycle production and furnished on parts order are much huskier gears than were available earlier.

The later, huskier gears are identified by the numeral 4 stamped between the driving dogs. Disregard other numbers that may be found stamped elsewhere on the gears.

The first huskier gears produced have twenty four teeth; later the number of teeth will be reduced to twenty three. However, gear pitch diameter stays the same whether twenty-three or twenty-four teeth, and therefore one gear can be replaced with the other. Gears identified by the numeral 4, whether twenty-three or twenty-four teeth, are OK to use.

The new gears went into new motorcycle assembly starting with number 55KH 1706. A few lower numbered motorcycles have the new 35709-54 C/S 3rd gear, but not the new 35297-54 M/S 2nd gear.



M/S 2nd Gear
35297-54

35297-54A (23T)

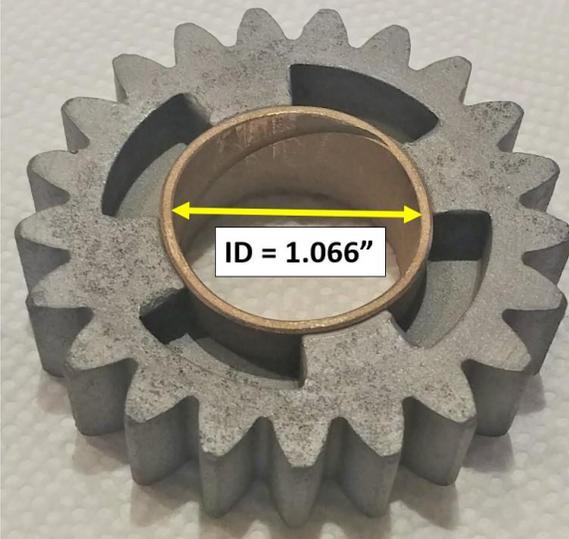
The 35297-54A MS 2nd Gear is unique in that it has 4 dogs and 23T. I believe the -54A MS 2nd Gear with 23T is what Shop Dope #356 is referring to as the later version of Gear -54 that will have 23T. See Shop Dope #356 for more detail. You can tell this gear from a 23 tooth CS 3rd gear by the size of the dogs and it may be stamped with a PN. I believe the -54A MS 2nd gear dog measures about .19". The -56 CS 3rd gear would measure about .29". The 35296-56 MS 2nd Gear cannot be mistaken for the -54A in that it has 5 dogs.



35296-56 (23T)

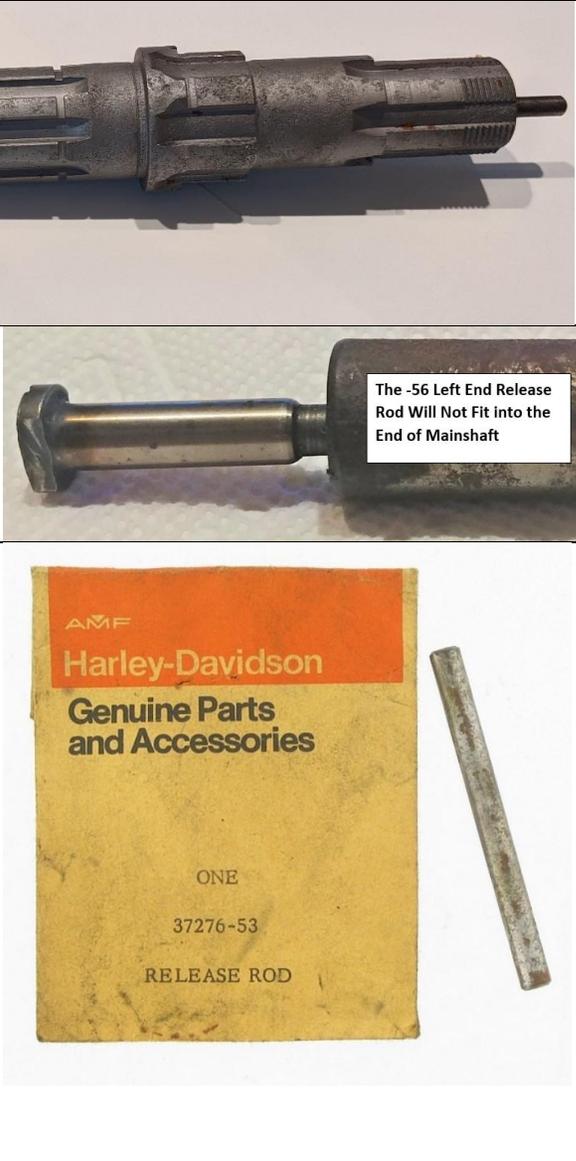
The 35296-56MS 2nd Gear is unique in that it has 5 dogs, 23T and is not marked with a "4".



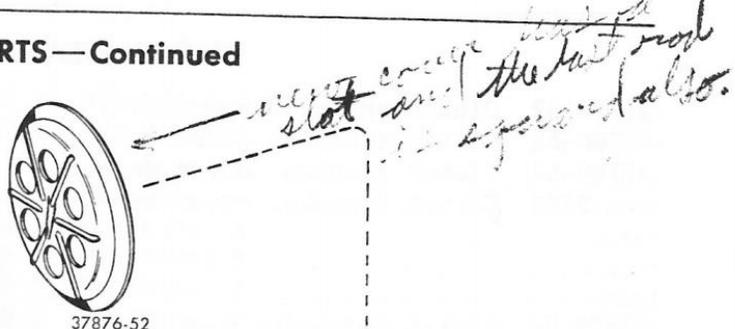
Part Number	Identifying Characteristics	Side 1	Side 2
MS 3 rd Gears			
35304-52 (21T) Original Gear	<p>The MS 3rd Gear 35304-52 is unique in that it has 21T and 4 voids. It has a “staked bronze bushing”. In addition, unlike some of the later versions, it does not have the 3 dots in the bottom of the voids. I believe these dots were used as a means to easily differentiate the MS 3rd gear from the CS 2nd gear. They look similar. The CS 2nd gears have 2 dots in their 4 voids.</p>	<p>35304-52 M/s third gear – 21 tooth gear, with straight bronze bushing staked on one side.</p> <p>Per Shop Dope #345</p> 	
35304-52 (21T) Improved Gear	<p>Improved MS 3rd Gear 35304-52. Has a “shoulder bronze busing”. See Shop Dope #345 near the end of this Bulletin for information about the original and improved gear Factory to Dealer exchange program.</p>	<p>Per Shop Dope #345</p> <p>M/s third gear – with 21 modified teeth and shouldered bronze bushing.</p> 	

35304-54 (20T)	At this time believe (no samples to evaluate) based on evidence other than the gear that the MS 3 rd Gear 35304-54 can be distinguished from the other MS 3 rd Gears in that it has 20T (the 63PB says it has 20T) and 4 voids (Shop Dope #356 shows the -54 2 nd gear that engages the 3 rd gear voids to have 4 dogs).		
35305-56 (20T)	The MS 3 rd Gear 35305-56 may be distiguisable from the other MS 3 rd Gears in that I believe at this time it is the only MS 3 rd Gear to have 5 voids, 20T and no bronze bushing (assuming the -54 MS 3 rd Gear has 4 voids).		

Part Number	Identifying Characteristics	Side 1	Side 2
MS Low Gears 35277-52 (29T)	<p>If PBs are correct would expect it to have 29T. I believe the 54, 56 & 57 PBs are in error indicating 29T for the 35277-52A MSLG. Believe the -52 MSLG is distinguishable from the later version based on its unique number of teeth, 29. Based on the outer spine OD of a -53A Mainshaft believe the -52 MSLG will have a center hole of approximately 1.17".</p>		
35277-52A (29T)? 27T Shop Dope #345 indicates this gear has 27T.	<p>Based on Shop Dope #345, believe the 27 tooth MSLG was either a running change early in the 54 model year or a 54 model year change. I believe the 54, 56 & 57 PBs are in error indicating 29T. The MS Low Gear 35277-52A is distinguishable from the earlier version based on its unique number of teeth, 27. The -52A MSLG will have a center hole of approximately 1.17".</p>		

Part Number	Identifying Characteristics	Side 1	Side 2
Mainshafts	The key to identifying Mainshafts is their internal machining to accomadate the different left and right end clutch release rods.		
35043-52	<p>The -52, -53, -53A and -56 Mainshafts all appear to be the same length, approximately 9 & 1/8". The -56 left end and the -53 right end clutch release rods will not fit the -52 shaft. The -52 shaft has a unique right end release rod, 37276-52, used only with the -52 shaft. The easiest way to identify the -52 Mainshaft is to see if the commonly available -53 right end release rod will fit or not, if it does not fit it is the -52 Mainshaft. Note: I have several Mainshafts that at this time are still a mystery to me. They are longer than the -52, -53, -53A & the -56 Mainshafts. They appear to be the same length as the longer -67 Mainshaft which measures about 9 & 11/16". They will not accept the -67 left end rease rod or the -53 right end release rod. They wil accept the -52 right end release rod but are not the right lenth for a -52 Mainshaft. The -52 & -54 left end rods feel loose in these mystery shafts.</p> <p>The -52 Mainshaft was the only shaft to use the -52 right end Mainshaft nut because of the thinner right end release rod used in 52 only.</p>	 <p>37279-52 Used 52 & 53</p> <p>Right End Release Rod Used with the 35043-52 Mainshaft Only</p> <p>37276-52</p> <p>PN 35047-52</p>	 <p>The -56 Left End Release Rod Will Not Fit into the End of Mainshaft</p> <p>AMF Harley-Davidson Genuine Parts and Accessories</p> <p>ONE 37276-53 RELEASE ROD</p>

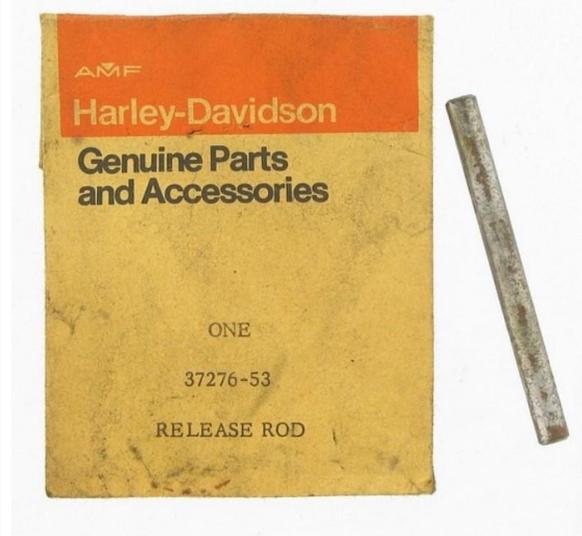
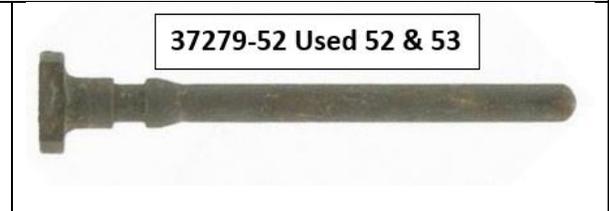
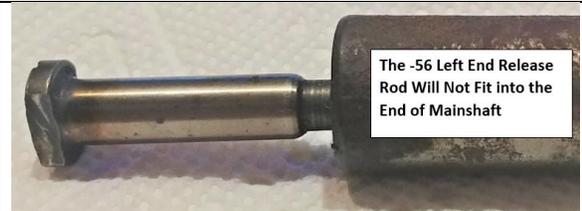
A Deeper Dig Into the 37279-52 Left End Release Rod

<p>Original 37279-52 The original Left End Release Rod appears to have been round on its end. The Clutch Release Disc had a round area that the left end rod pressed against.</p>	 <p style="text-align: center;">37279-52</p>		
<p>Version 2 of 37279-52 The second incarnation of the -52 Left End Release Rod changed from the rounded end to a squared off end. The same thing took place with the Clutch Release Disc. It went from a round center to a slot.</p>			
<p>To the right is a snip of the 52-53 PB showing the original version of the Clutch Release Disc. Scribbled by it is a note someone wrote in their PB. As best as I can tell it appears to say, <i>“new cover XXXXXX slot and the last rod is squared also.”</i>.</p>	<div style="display: flex; justify-content: space-around;"> Used On Code </div> <p>RTS — Continued</p>  <p style="text-align: center;">37876-52</p>		

35043-53

The -52, -53, -53A and -56 Mainshafts all appear to be the same length, approximately 9 & 1/8". The -56 left end clutch release rod will not fit the -53 shaft. The -53 shaft does use the -53 right end release rod, that is how you can differentiate it from the -52 Mainshaft. The trickier task is to tell the -53 shaft from the -53A shaft. The -52 left end release rod when fully inserted into the -53 Mainshaft should stick out some, around 3/8" to 1/2". If the the -52 left end release rods left end only protrudes from the shaft about 1/8" or so, the Mainshaft is a -53A, not the -53.

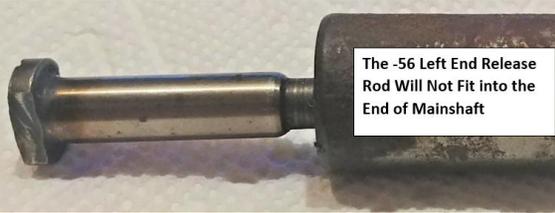
53-70 used the -53 right end Mainshaft nut. Its' ID is larger to accomadate the larger diameter right end release rod.



PN 35407-53

35043-53A

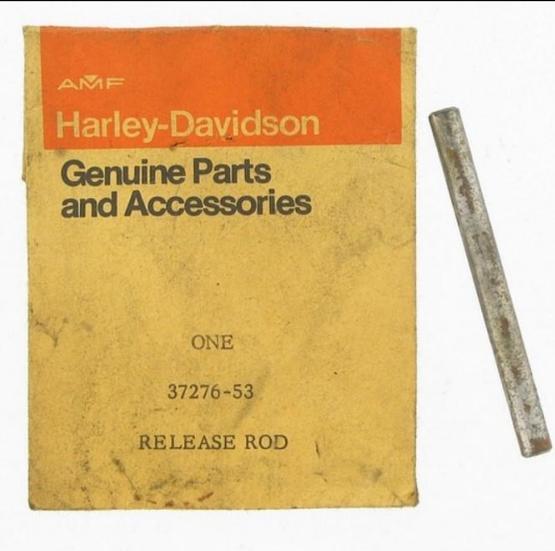
The -52, -53, -53A and -56 Mainshafts all appear to be the same length, approximately 9 & 1/8". The -56 left end clutch release rod will not fit the -53A shaft. The -53A shaft does use the -53 right end release rod, that is how you can differentiate it from the -52 Mainshaft. The trickier task is to tell the -53A shaft from the -53 shaft. The -52 left end release rod when fully inserted into the -53 Mainshaft should stick out some, around 3/8" to 1/2". If the the -52 left end release rods left end only protrudes from the shaft about 1/8" or so, the Mainshaft is a -53A, not the -53. The -54 left end release rod will protrude from the -53A Mainshaft about 9/16".



The -56 Left End Release Rod Will Not Fit into the End of Mainshaft



37279-54 Used 54-56 Up to VIN 1465



The -53 Right End Release Rod Will Fit in the End of the -53A Mainshaft

35044-56

The -52, -53, -53A and -56 Mainshafts all appear to be the same length, approximately 9 & 1/8". The -56 left end clutch release rod will fit the -56 shaft. The -56 Mainshaft uses the -53 right end release rod. One of its' identifying features is its' "threaded shoulder" about .29" in on its' left end. It is the only MS that the -56 left end release rod properly fits. The -52 & -54 release rods will be loose. The -67 rod will only fit in about 1/2 way.



"Shoulder" with threads about .29" from end.

35046-67

Believe it measures about 9 & 11/16". The -67 left end release rod fits it snugly, all other left end release rods are very loose fitting. The -67 Mainshaft uses the -53 right end release rod. Note: I have several Mainshafts that at this time are still a mystery to me. They are longer than the -52, -53, -53A & the -56 Mainshafts. They appear to be the same length as the longer -67 Mainshaft which measures about 9 & 11/16". They will not accept the -67 left end release rod or the -53 right end release rod. They wil accept the -52 right end release rod but are not the right lenth for a -52 Mainshaft. The -52 & -54 left end rods feel loose in these mystery shafts.



<p>35046-71</p>	<p>1971 and on used a different clutch release system that did not utilize release rods running through the Mainshafts center. It does not have an oiler hole or hole through its center as did the 52 through 70 Mainshafts. Of the post 70 Mainshafts I've examined I'm seeing two different lengths, about 9" and about 9 & 1/8". I have a single Mainshaft sample that tells me the -71 Mainshaft is about 9 & 1/8".</p>		 <p>Mainshaft Nut Aftermarket Part Shown PN 35047-71? PBs list a -71 and a -71A nut. Without verifiable samples I cannot list the difference in them. The -71A nut is shown as a replacement for the -71 nut.</p>
<p>35046-71A</p>	<p>1971 and on used a different clutch release system that did not utilize release rods running through the Mainshafts center. It does not have an oiler hole or hole through its center as did the 52 through 70 Mainshafts. Of the post 70 Mainshafts I've examined I'm seeing two different lengths, about 9" and about 9 & 1/8". I have a single Mainshaft sample that tells me the -71A Mainshaft is about 9". The -71A Mainshaft being the shorter of the two seems reasonable in that it is listed for use as a replacement for the -71 Mainshaft.</p>		 <p>Mainshaft Nut Aftermarket Part Shown PN 35047-71A? PBs list a -71 and a -71A nut. Without verifiable samples I cannot list the difference in them. The -71A nut is shown as a replacement for the -71 nut.</p>

Unresolved Mainshaft and Release Questions

I have viewed two different 54Ks that are utilizing the clutch gear oil seal extension that first appears on the 56K Models from VIN 1465 and up. What is interesting is the left end release rod being used, it is shown in the following picture. Based on this left end release rods right end diameter, the Mainshaft appears to be the -53A. This Mainshaft would be appropriate for the 54-56Ks up to VIN 1465. This left end release rods, right end diameter is the same as the -54 left end release rod. This left end release rods left end is the same diameter as the larger -56 left end release rod. In other words, this release rod was a mix of the -54 and the -56 to adapt the oil seal extension to the early Mainshaft. The mystery is I can find no Harley part number for it or find it for sale from any of the aftermarket companies I have checked?



I have several Mainshafts that at this time are still a mystery to me. They are longer than the -52, -53, -53A & the -56 Mainshafts. They appear to be the same length as the longer -67 Mainshaft which measures about 9 & 11/16". They will not accept the -67 left end release rod or the -53 right end release rod. They will accept the -52 right end release rod but are not the right length for a -52 Mainshaft. The -52 & -54 left end rods feel loose in these mystery shafts.

SERVICE

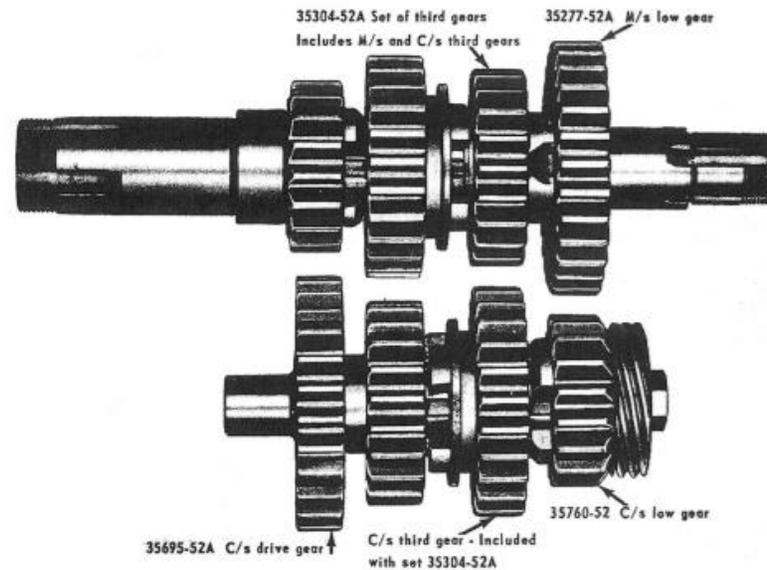
SHOP DOPE

No. 345

January 15, 1954

SERVICING 1952-53 K - KK - KRM TRANSMISSIONS

(This Bulletin does not apply to 1954 KH transmissions)



Five of the transmission gears supplied for servicing 1952-53 K transmission have been made much stronger gears as a result of modification of teeth, and changes in material and heat treatment. (These *five* gears are indicated in illustration.) The other *three* gears applying to 1952-53 transmission have not been changed. These *three* gears are:

37450-52	Clutch gear
35297-52	M/s 2nd gear
35750-52	C/s 2nd gear

RECOMMENDATION

Whenever it becomes necessary to split the crankcase of a 1952-53 K - KK - KRM, whether because of transmission trouble or trouble elsewhere in engine base, replace the *original five* gears, in the positions indicated in illustration, with the later modified gears. It is also recommended that before delivering new or used K - KK - KRM motorcycles you may have in stock for sale, you consider applying this modification.

Bear in mind that the other *three* original gears in transmission are OK to use, provided they are not damaged or excessively worn, particularly their engaging slots and dogs. If the engaging edges of slots and dogs are found quite badly worn and rounded, as results from rough or speed shifting, it is hardly worthwhile to reassemble with gears in this condition, as after a further short period of service they are likely to start jumping engagement under load, making another repair job necessary.

WHAT PART NUMBERS APPLY TO FIVE MODIFIED GEARS?

35274-52	{	35304-52A	Set of third gears - Includes two gears - M/s third gear and C/s third gear. Must be used as a pair.
Set of		35277-52A	M/s low gear.
five gears		35695-52A	C/s drive gear.
		35760-52	C/s low gear.

Only these later gears will be supplied in the future on parts orders for replacement gears for 1952-53 K. For example - if either 35709-52 C/s third gear, or 35304-52 M/s third gear is ordered from current K parts catalog (Issued Oct. 15th, 1952) 35304-52A set of third gears will be supplied. New parts catalog, in the making, will list gears as above.

HOW TO OBTAIN FIVE-GEAR COMBINATIONS

Order the same as you order other parts. Mail your order to the Parts Department (do not direct to Service Department). Order part no. 35274-52 Set of five gears. Parts will be supplied and charged for.

WHAT WILL THE FACTORY CONTRIBUTE TO THIS CONVERSION?

Gears replaced with the new *five-gear* combination in any new 1952-53 K - KK - KRM in stock, or any used K - KK - KRM with less than 7500 miles service, may be returned to factory for exchange for another new five-gear combination or for full credit, provided replaced gears are received at the factory before September 1, 1954. Applying to a motorcycle in use more than 7500 miles, gears replaced should not be returned to factory as they will not be accepted for either exchange or credit.

When returning gears replaced with the new combination, list them on a return instruction sheet. If returned with other parts, list gears on a separate instruction sheet and give the following information:

- Engine number of motorcycle from which gears were removed.
- Total mileage.
- Date gears were replaced.
- Exchange for later gears.
- Allow credit.

Unless this information is complete, gears returned will not be exchanged or credited.

Bear in mind - *This offer expires September 1, 1954.* Only gears received at the factory before this date will be accepted for exchange or credit.

WHAT ABOUT NEW GEARS I MAY HAVE IN STOCK, WHICH ARE SUPERSEDED BY THE FIVE MODIFIED GEARS?

Return these new gears for exchange or credit, but check carefully before returning to be sure you are returning only the earlier gears. (Some of the later modified gears have already been shipped on parts orders).

Return the following:

- 35304-52 M/s third gear - 21 tooth gear, with straight bronze bushing staked on one side.
- 35277-52 M/s low gear - 29 tooth gear.
- 35695-52 C/s drive gear - 29 tooth gear.
- 35709-52 C/s third gear - 25 or 26 tooth gear.
- 35760-52 C/s low gear - 18 tooth gear.

When returning above described new gears for exchange or credit, itemize on a separate return instruction sheet, and give the following information:

New obsolete stock.
Exchange for later gears.
Allow credit.

Do not return the following, as they are latest modified gears.

- M/s third gear - with 21 modified teeth and shouldered bronze bushing.
- M/s low gear - with 27 teeth.
- C/s drive gear - with 27 teeth.
- C/s third gear - with 24 teeth.

When servicing a transmission that has seen considerable use, particularly one in which something is broken or one that has been jumping out of gear, inspect following parts closely to be sure they are in good condition:

Shifter forks	34291-52
Shifter fork rollers	34168-52
Shifter cam	34012-52
Shifter centering springs	34500-52

If something has broken or gears have been jumping out of engagement under load, one or both shifter forks may be bent or badly worn - shifter fork rollers may be broken or damaged - and shifter cam slots may be beaten up and indented.

If shifter centering springs are bright finished, replace with black springs. If pawl carrier support 34513-52 does not have 34485-52 centering spring retaining plugs, they should be installed.

SERVICE

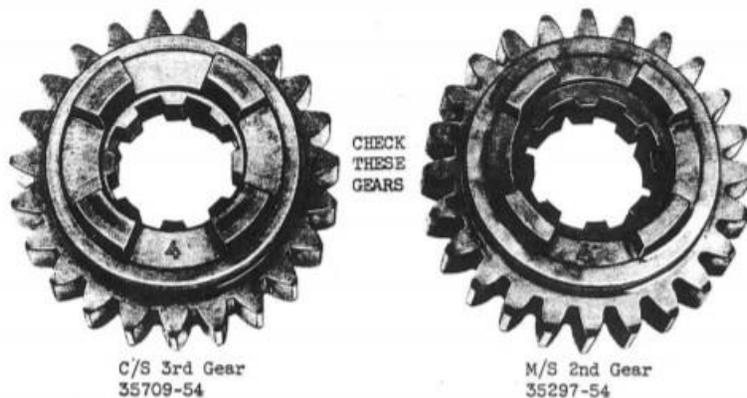
SHOP DOPE

No. 356

June 1, 1955

TRANSMISSION GEAR INFORMATION

(This information applies only to KH - KHK - KHRM Models - It does not apply to K - KK - KRM Models)



As a result of changes in material and heat treatment, the above two gears now in new motorcycle production and furnished on parts order are much huskier gears than were available earlier.

The later, huskier gears are identified by the numeral 4 stamped between the driving dogs. Disregard other numbers that may be found stamped elsewhere on the gears.

The first huskier gears produced have twenty four teeth; later the number of teeth will be reduced to twenty three. However, gear pitch diameter stays the same whether twenty-three or twenty-four teeth, and therefore one gear can be replaced with the other. Gears identified by the numeral 4, whether twenty-three or twenty-four teeth, are OK to use.

The new gears went into new motorcycle assembly starting with number 55KH 1706. A few lower numbered motorcycles have the new 35709-54 C/S 3rd gear, but not the new 35297-54 M/S 2nd gear.

SERVICE RECOMMENDATIONS - Use only the later gears for future servicing. Inspect your new stock of the above described gears. (Look closely, as the identifying 4 is not always easy to see.) If you find that you have none of the later gears, order some. Only the later gears are furnished on parts order. New, earlier gears you have on hand can be returned for exchange or credit.

(over)

Whenever a KH, KHK or KHRM engine below the number mentioned must be opened up for any kind of service, inspect these two gears. If either or both are found not marked with the numeral 4 as shown above, replace with the later gears.

New and used KH, KHK or KHRM motorcycles, with number below 55KH 1706, on hand for sale, should be serviced with the later gears before being sold and delivered.

Earlier gears, referred to above, taken from new motorcycles, or used motorcycles with less than 7500 miles service may be returned for exchange or credit.

When returning used gears replaced with later gears, or new gears from stock to be exchanged or credited, list them on a return instruction sheet. If returned with other parts, list gears on a separate instruction sheet and give the following information:

Engine number of motorcycle from which gears were removed.
Total mileage.
Date gears were replaced.
Exchange for later gears.
Allow credit.

When servicing the transmission of a motorcycle with number below 54KH 2040 inspect the countershaft 35613-54 with its gears removed. If an oil hole is found cross-drilled at 2nd gear position, discard shaft and replace with a later shaft that does not have this oil hole.

HARLEY-DAVIDSON MOTOR CO.
Milwaukee 1, Wis., U.S.A.

SERVICE HARLEY-DAVIDSON BULLETIN

No. 537

March 22, 1966

TRANSMISSION COUNTERSHAFT LOW GEAR - SPORTSTER

Starting with motorcycle engine No. 66XLCH 6117 on January 13, 1966, a fillet has been added at the base of the countershaft low gear boss of the right crankcase. Also, the countershaft low gear has a counterbore to provide clearance at this point. See illustration.

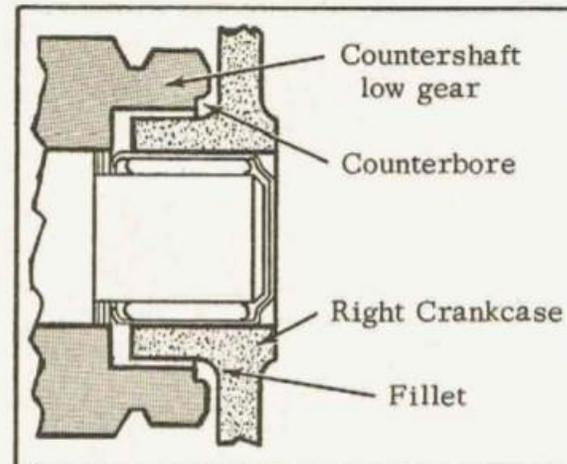
<u>New Part</u>	(Replaces)	<u>Old Part</u>
35760-54A	C. S. Low Gear	35760-54
24511-57A	C'case assy.	24511-57 (XLH)
24515-58A	C'case assy.	24515-58 (XLCH)
24555-57A	C'case, right	XLH, XLCH

(Parts order crankcases listed above are supplied with new gear)

Old parts will no longer be supplied for parts order.

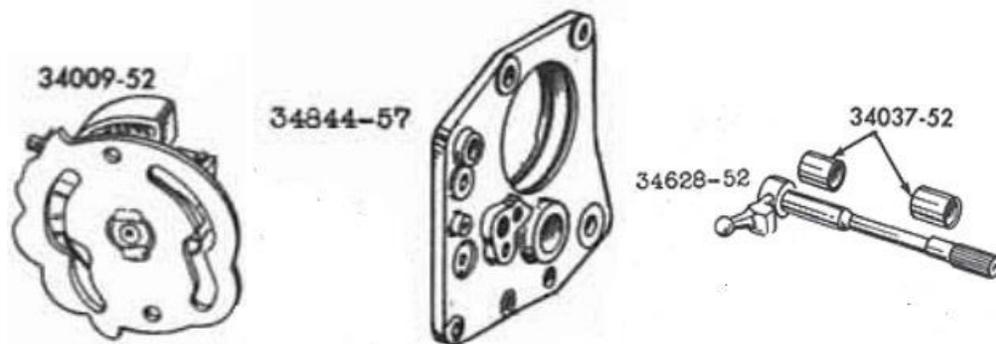
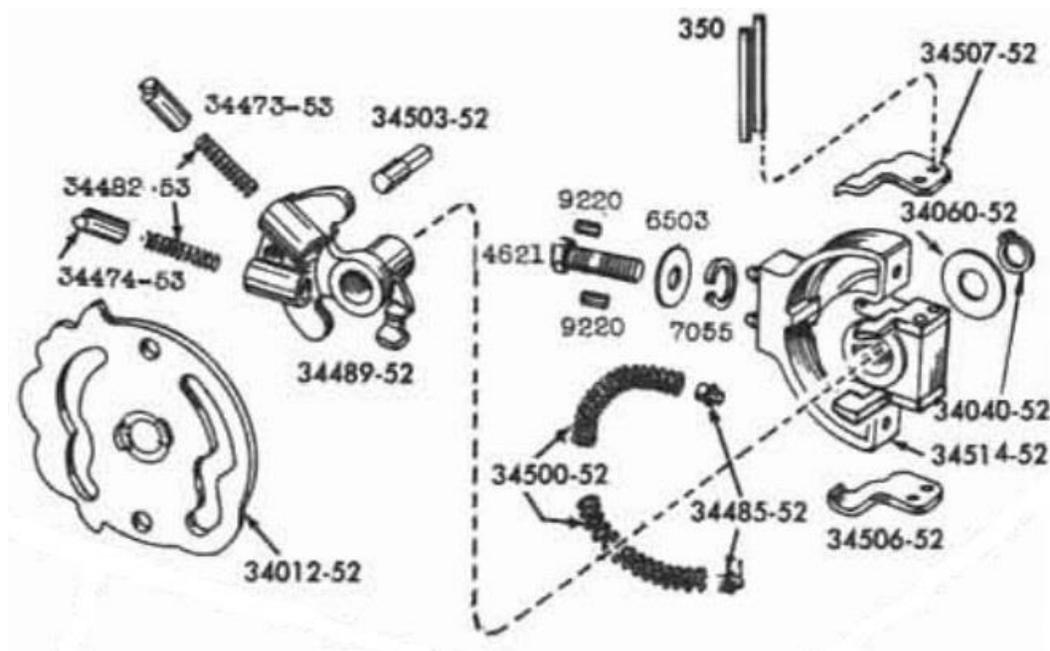
IMPORTANT

Old countershaft low gear can not be used on crankcases having fillet on countershaft bushing boss because it will jam against the fillet.



HARLEY-DAVIDSON MOTOR CO.

K & Sportster Trap Doors, Gear Shifter Shaft & Shifter Cam Assembly 1952-1972



Parts Books	Shifter Cam Assembly SCA		Pawl Carrier Support PCS		Shifter Cam SC		Access Cover Transmission (Trap Door)		Gear Shifter Lever Arm Shaft GSLAS	
52-53	34009-52	52-53	34513-52	52-53	34012-52	52-53	NA	NA	34628-52	52-53
54	34009-52	52-54	34513-52	52-54	34012-52	52-54	NA	NA?	34628-54	54
56	34009-52	52-56	34513-52	52-56	34012-52	52-56	NA	55-56	34628-54	54-56
57	34009-52	52-57	34514-52	52-57	34012-52	52-57	34844-57	57	34628-54	54-56K 57XL
59	34009-52	52-59	34514-52	52-59	34012-52	52-59	34844-57	57-59	34628-54	54-*
63	34009-52	53-63	34514-52	53-*	34012-52	53-*	34844-57	57-63	34628-54	54-*
65	34009-52	54-65	34514-52	54-*	34012-52	54-*	34844-57	57-65	34628-54	54-*
67	34009-52	54-67	34514-52A	54-*	34012-52	54-66 All 67 XLCH	34844-57	57-67	34628-54	54-*
					34012-52A	67 XLH				
68 Supplement	34009-52B	68-*	34514-52B	68-*	My OP68CH Has 52B					
70	34009-52B	54-*	34514-52B	54-*	34012-52B	54-*	34844-57	57-70	34628-54	54-*
71	34009-52B	54-*	34514-52B	54-*	34012-52B	54-*	34844-57	57-71	34628-54	54-*
73 Supplement	34009-52C	54-*			34012-52C	54-*			34628-54A	54-*
54-76	34009-52C	54-*	34514-52B	54-*	34012-52C	54-*	34844-57A	57-76	34628-54A	54-74
54-78	34009-75	77-*	34514-75	77-*	34012-75	77-*	34844-57B	77-*	34627-75	75-76
									34628-75	77-85

Note: Unless otherwise indicated by specific models being named, the years shown above will apply to all models.

Trap Doors/Access Covers

Part Number

K Model 52-53 cases did not incorporate a Trap Door. The 54-model year Ks are still up for debate and at this time undetermined as to whether any of them came with a Trap Door. I have to date been unable to find what I believe to be original 54 model year cases with a Trap Door, all I have seen with Trap Doors were obvious replacement cases. Based on cases I have and others I have seen with 554-3XXX, high numbered belly numbers with Trap Doors, I hold open the possibility that some very high VIN 54 Ks may have come from the factory with Trap Doors. Part Numbers for the 55-56 K Trap Doors are not applicable since the Trap Door came fitted to its right-side case and was not available as a separate part.

Casting # 34845-54

Clutch Side View



Transmission Gear Side



PN 34844-57

Its' casting number, 34845-54 is the same as on the K model Trap Doors. It is easy to distinguish from the K model version by the length of its "boss" that the center primary cover screw threads into. The K model boss is noticeably longer.

Casting # 34845-54

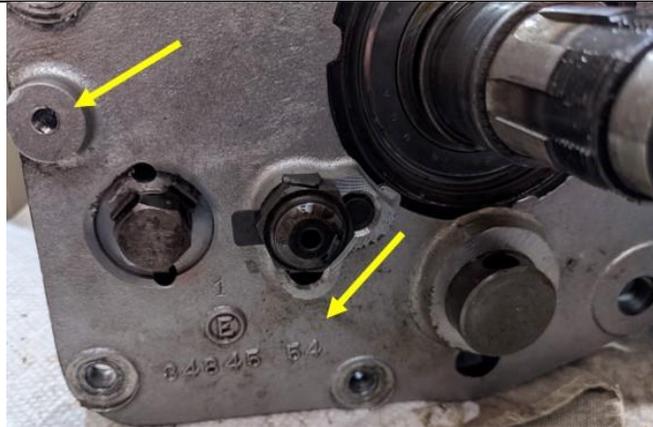
All the PBS, 57, 59, 63, 65, 67, 70 & 71 only show PN 34844-57 for the Trap Door that was used. At this time, I believe that the Trap Door with a casting number 34845-54A (the A is stamped) went by the same PN.



This Trap Door appears to be an anomaly. It is a -54 door but does not have the primary cover center screw boss threaded. It would work for a 58-66 XLCH. I just do not recall seeing one before. It looks like the Casting # 34845-54 with the stamped A cover except its Pawl Carrier Support pad is the early 1 & ½" width. Perhaps it was transitional in 67 before the 34514-52B Pawl Support with its 2" base was introduced?



This -54-casting access cover is from my 6XXX VIN original paint 68 XLCH. I believe it to be original from the factory. What I find interesting about it is, it is an example of HD not throwing anything away. I believe it to be a standard -54 casting cover used 57-66 on the XLH and 58 through apparently at least mid-68 on the XLCH. Notice the cover has the early 1 & ½" base for the -52-shifter cam assembly but is using the -52B shifter cam assembly that came out in 68 with its' 2" base.



PN 34844-57 The -54 casting and the -54A casting both have the same numbers cast into them with what I believe to be the later version having an "A" stamped into the door after the cast numbers. I think the -54A casting started sometime in 1968 and continued until at least 1971. The major differences in these two doors appear to be the not threaded boss on the clutch side used to secure the middle primary cover screw on the XLH Sportsters through 66 and the pad or base that the Shifter Cam Assembly mounts to on the gear side. If you examine the pad on the early and later versions of this cover you will notice the pad on the early door measures about 1 & 1/2". The pad on the later door measures about 2". This view fits in that the **34514-52B**, Pawl Carrier Support, that shows up in the 68 Supplement has a 2" base.

Casting # 34845-54A (Stamped A)



PN 34844-57A At this time I am unclear as to exactly when this door started but believe it was after 1971 and used through 76. Its casting number is close to the earlier versions but is different. Its clutch side lacks the center screw hole boss for the primary covers that the earlier doors had.

Casting # 34846-54A



PN # 34844-57B This PN and Door are verified by access to a NOS sample. At this time, I believe this door was used from 77 through early 79.

Casting # 34846-76



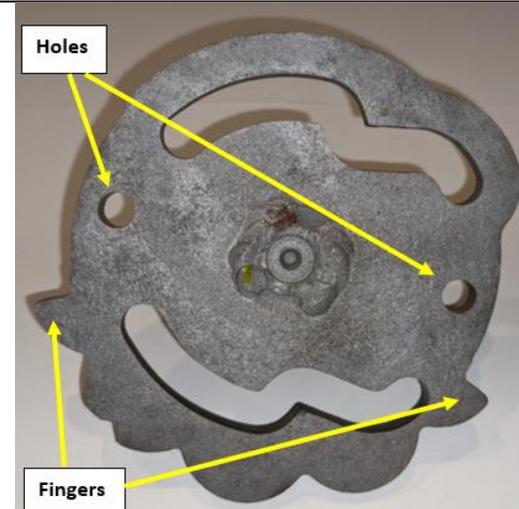
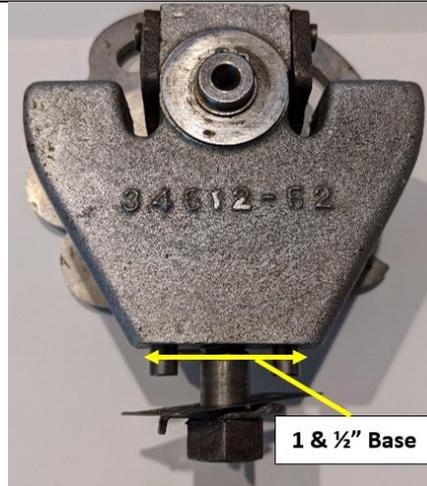
Gear Shifter Cam Assembly Parts

<p>Pawl Carrier Support PN in Color-Shifter Cam Assembly PN in Red</p>	<p>Gear Shifter Pawl Carrier Support & Shifter Cam Assemblies Identifying Features</p>		
<p>34513-52/34009-52</p> <p>The 52-67 Shifter Cam Assembly has the same PN but uses a variety of Pawl Carrier Supports, PCS. The earliest PCS design we are referring to as the "Cactus Style". The original cactus style PCS was mounted to the case using a stud that was threaded into the PCS and then a nut and special washer mounted it to the case. At this time, we are unable to determine if the mounting method that changed to a bolt through the case that then threaded into the PCS was a running change in 52 or a model year change in 53. When the cactus style PCS changed to the later style is unclear but believe it was probably early, maybe in later 52, based on the rarity of them. The later K model PCS can be identified by its upside-down casting number. All of the K Models used the "2 Hole-2 Finger" Shifter Cam, SC PN 34012-52.</p> <p>I believe this Shifter Cam Assembly was used on the Ks, 52-56.</p>	 <p style="text-align: right; font-size: small;">Early K Cactus Style Version</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Images and information courtesy of Lloyd Gadd owner Mostly Ironheads Motorcycle Shop</i></p> </div>	 <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Looks like the stud is coarse (7/16-14) going into the housing and fine (7/16-20) for fastening through the left transmission case cavity.</p> </div>	 <p style="text-align: center; font-size: small;">Pawl Carrier Support</p> <p style="text-align: center; font-size: small;">Later K Version</p>
			 <p style="text-align: center; font-size: small;">34009-52</p>
			

34514-52/34009-52

This version of the Pawl Carrier Support, PCS, can be identified by its right side up casting number. This version of the Shifter Cam Assembly used the "2 Hole-2 Finger" Shifter Cam, SC PN 34012-52.

At this time, I believe this Shifter Cam Assembly was used on the XLs, 57-66.

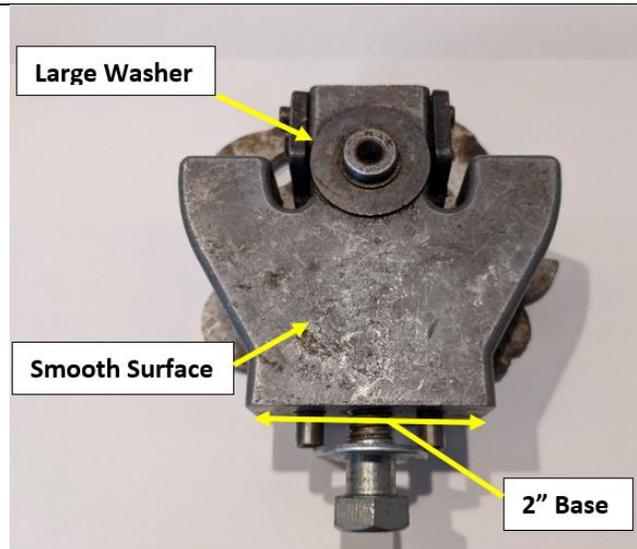


34514-52A/34009-52 This version of the Pawl Carrier Support appears to be a one year only to 67. It also lists a unique to the 67 XLH only Shifter Cam, PN 34012-52A. Currently I have no images of any of these parts or additional information.

Image Needed

34514-52B/34009-52B

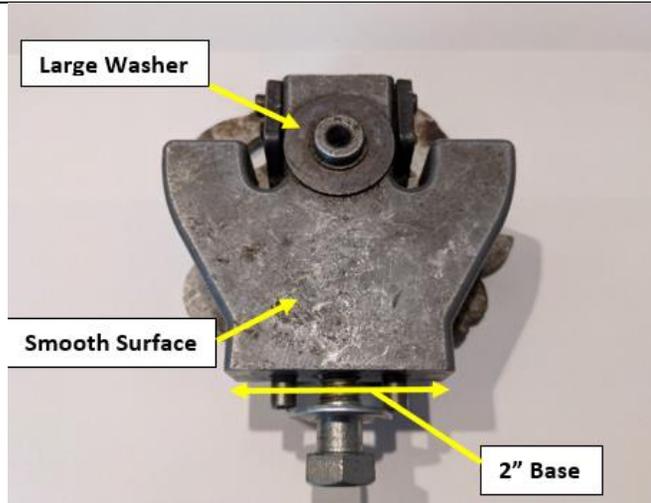
The Pawl Carrier Support used between 68 and 71 can be quickly identified by its' smooth surface. The second is its easily visible large thrust washer. The 52B Shifter Cam Assembly can be identified by its smooth Pawl Carrier Support, it has no casting numbers on its outer surface, they are on the inside. The second distinguishing feature is the lack of a "shifter pawls "Spring".



This Shifter Cam Assembly first appears in the 68 Supplement dated July of 67. I believe this Pawl Support was introduced at the same time as the Casting # 34845-54A (Stamped A) Trap Door. It has a 2" base compared to the earlier Pawl Supports with a 1 & 1/2" base. The Trap Door, casting number 34845-54A, has a 2" "Pad" for the Pawl Support to mount to. The earlier Trap Doors have a 1 & 1/2" Pawl Support pad. Harley with its' policy of never throwing anything away used up its' remaining earlier -54 casting number Trap Doors/Access Covers with the new -52B Shifter Cam Assemblies. My OP 68CH has this combination

34514-52B/34009-52C

This Shifter Cam Assembly used between 72 and 76 can be quickly identified by 3 features. The first is its smooth Pawl Carrier Support, PN 34514-52B. It has no casting numbers on it. The second is its easily visible large thrust washer. The third and easiest way to spot it is the addition of the shifter pawls "Spring". This Shifter Cam Assembly looks like the -52B SCA from the front.



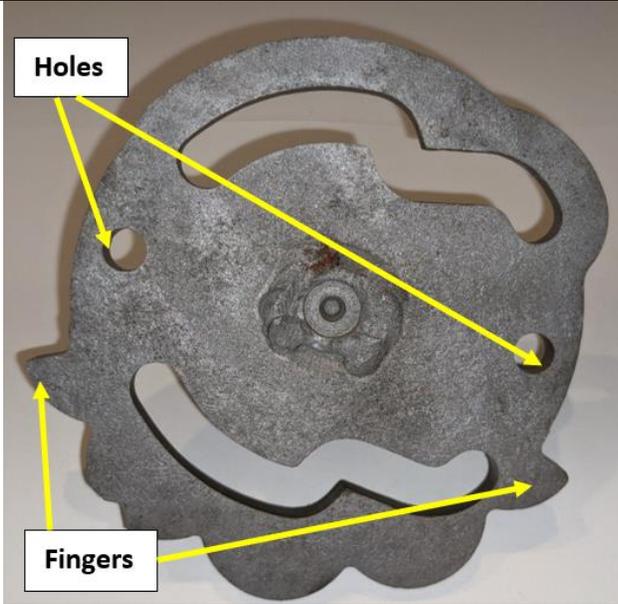
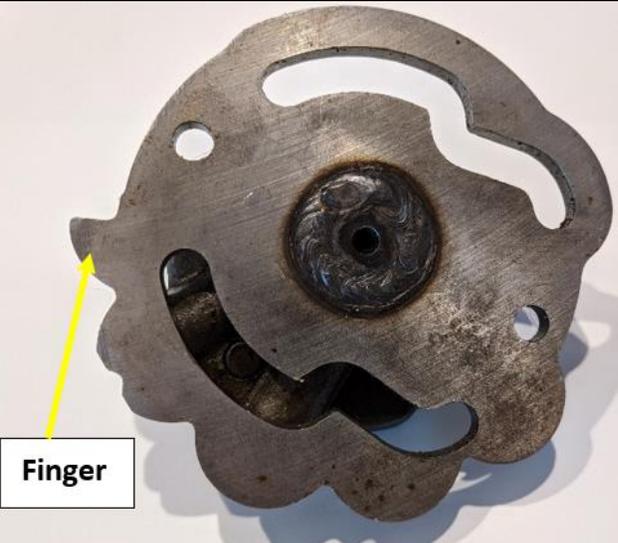
34514-75/34009-75

The -75 Shifter Cam Assembly looks similar to the -52 B & -52C assemblies. The easy way to spot it is its small washer. It will also have a shifter pawl spring.



Shifter Cam

Note: Low Confidence Level at this Time in Accuracy of Years Used

Part Number	
<p>34012-52</p> <p>I have a high level of confidence the "2 Hole-2 Finger" Shifter Cam was used for model years 52-66 for the XLH and 52-67 for the XLCH.</p>	
<p>34012-52A</p> <p>It appears this Shifter Cam was only used for the 67 XLH model year. No information available about it currently.</p>	<p>Image Needed</p>
<p>34012-52B</p> <p>I believe this 2 Hole 1 Finger Shifter Cam was used for model years 68 through 72.</p>	

34012-52C

I believe this No Hole 1 Finger Shifter Cam was used for model years 72 through 76.



34012-75

I believe this No Hole 1 Finger Shifter Cam was used for model years 77 through at least 81 (my newest Parts Book). The 23012-75B Shifter Cam is easily identifiable by its dowel or post protruding from the Shifter Cam's gear side. Apparently it carries the same PN as the 34012-75 Shifter Cam because it could be used as a replacement for it.

Per Bob Evans

"The final photo that Jerry shows is of the 1986 through 1990 four speed EVO Sportster shift cam (34012-75B) which features a dowel sticking out of the cam plate to activate a newly introduced neutral light. The dowel activates the # 33900-59 neutral switch borrowed from the FL models which is screwed into the right-side engine case. Ironically, this 1986 updated shifter cam carries the same part number as the earlier non-dowel shifter cams!"

34012-75 Image Needed



Pawl Carriers

The Pawl Carrier Assembly carries the same PN from 52 through 71, 34489-52. The first two shown are believed to be early K. When they transitioned is unclear at this time. The third version at this time is believed to have been in use at least by the 56K model year. *Images and information courtesy of Lloyd Gadd owner Mostly Ironheads Motorcycle Shop*



The 34489-72B Pawl Carrier shows use for model years 72-76. Using the PBs I have available I am unable to prove or disprove if there were -72 and -72A versions of this Pawl Carrier.

*Per Bob Evans
The -72B was used
1972 through 1976.*



The 34494-74B Pawl Carrier appears to have been used for model year 77 through at least 81? It is listed for use for model year 72 on. Using the PBs I have available I am unable to prove or disprove if there were -74 and -74A versions of this Pawl Carrier.

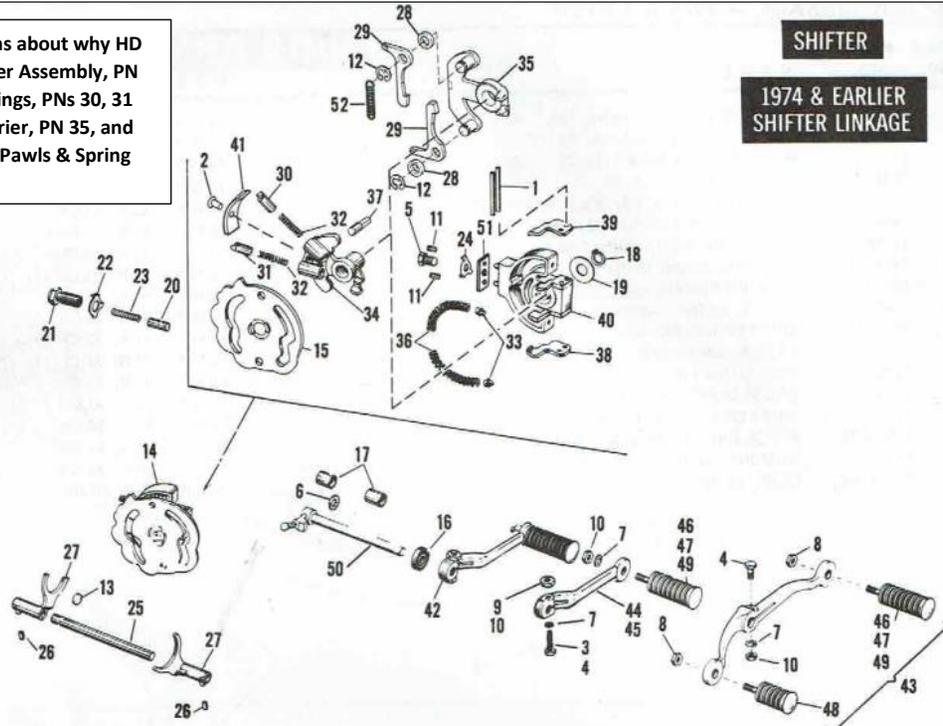
*Per Bob Evans
The 34494-74B & 74C pawl carrier was a slightly shorter version of the -72B part used in conjunction with the -75-shifter cam and related parts and was used through until the end of the four speed 'Evo' Sportster in 1990.*



Per Bob Evans

"I can tell you that the Sportster transmission received an update in 1972 which was prompted by the newly re-designed 'wet' clutch in 1971. What happened to the 1971 Sportsters is that they were getting stuck in one gear, the fault of the shifter pawls getting stuck in the cylinders they were housed in. This was due to the wet clutch plates wearing, causing fibers and particles of clutch material to contaminate the primary/transmission oil to take up the clearance within the shifter pawls. The early Sportster 'dry' clutch did not have this problem being a sealed unit. So, much of the Sportster trans parts would carry -72 #s."

Comments from Bob Evans about why HD went from the Pawl Carrier Assembly, PN 34, using the Pawls & Springs, PNs 30, 31 & 32 to the new Pawl Carrier, PN 35, and the new design of Shifter Pawls & Spring PNs 29 & 52.



Gear Shifter Lever Arm Shaft

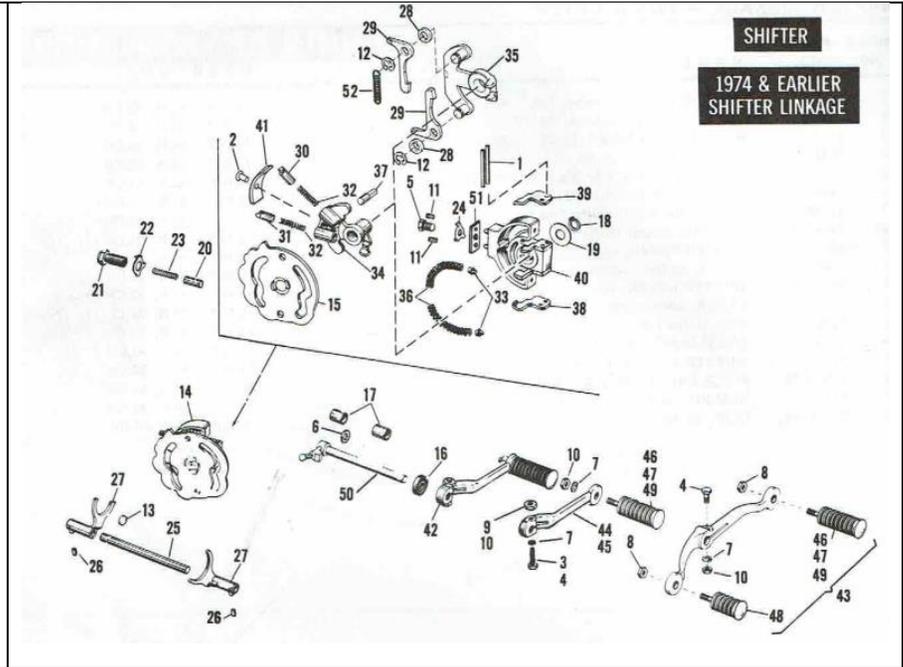
Part
Number
34628-52



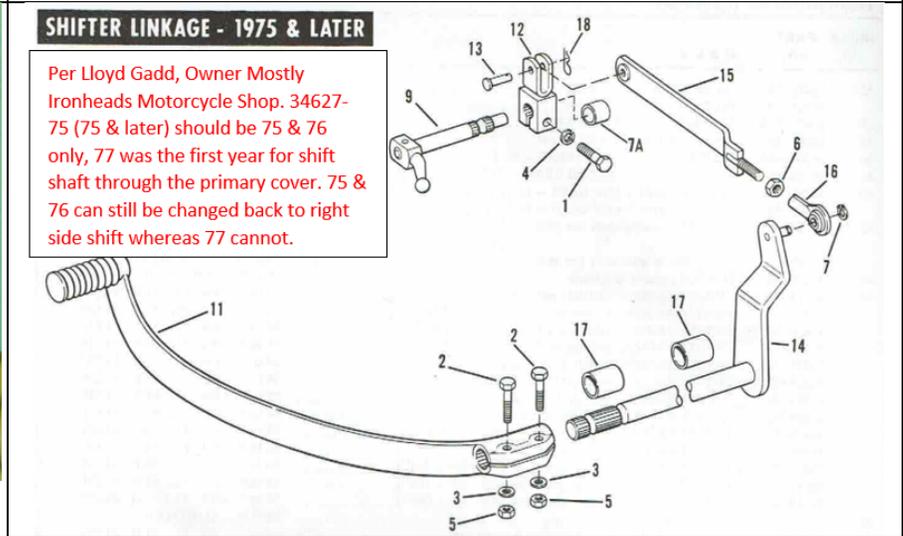
34628-54



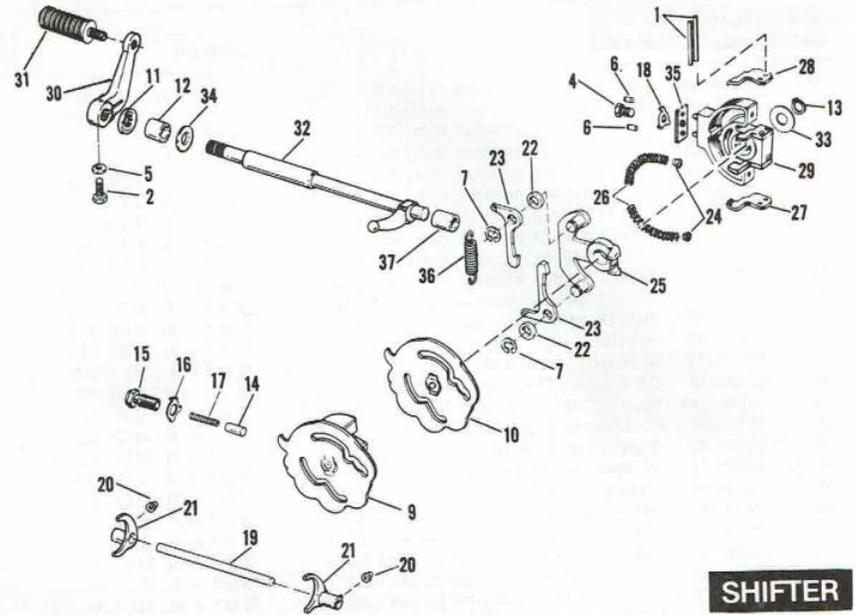
34628-54A



34627-75



34628-75



SHIFTER

TRANSMISSION SHIFTER CAM ASSEMBLY - SPORTSTER

If a shifting problem develops on a Sportster model after considerable mileage, it could be caused by a loose shifter cam assembly. This results in sticking when moving the foot shift lever into various gear positions or may cause the transmission to suddenly jump out of gear.

The shifter cam assembly is secured to the access cover by a bolt and lockwasher with two dowel pins registering in the access cover. If the shifter cam assembly becomes loose, the dowel pins, which are originally a press fit in the support, may work loose into the access cover holes. When the dowel pins have finally worked out of the support entirely, the shifter cam will tip, causing mechanism to bind.

If a Sportster does develop a shifting problem and you are sure it is not caused by a dragging clutch, before removing the access cover to check the internal parts of the transmission, remove the chain cover and check for the following.

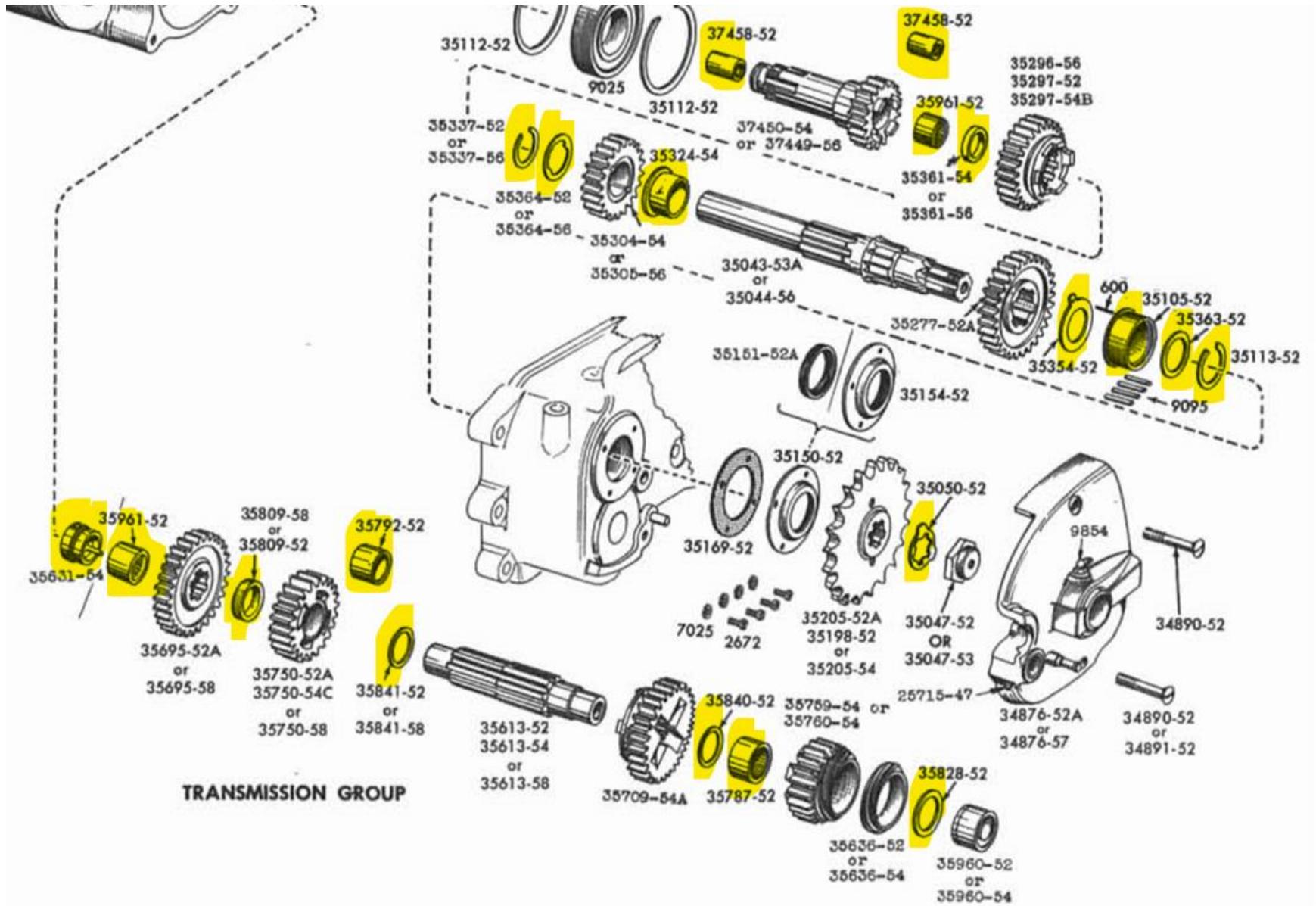
Try tightening the bolt that holds the shifter cam assembly to the access cover. If the bolt appears to be tight yet bolt and support together move slightly in each direction, the bolt is bottoming in the tapped hole in the support before it draws the two pieces tight.

This condition requires the following corrections:

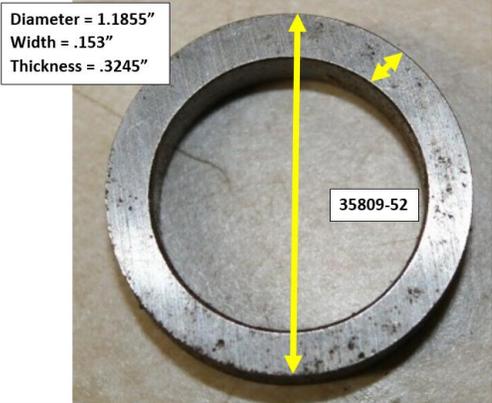
1. If assembly is not tight, remove clutch and access cover and check to see that dowel pins are a press fit in the support holes and a snug fit in the access door holes. If there is only slight wear, try replacing standard dowel pins, part No. 9220A with oversize dowel pins 9225A (+.001), 9227A (+.002) or 9229A (+.003). If a correct fit cannot be obtained because holes are worn out of round, install a new pawl carrier support, part No. 34514-52 and/or access cover, part No. 34844-57, as necessary.
2. When reassembling the shifter cam assembly to the access cover, be sure that bolt, part No. 4621 and lockwasher part No. 37080-41 secure it tightly. If necessary, shorten bolt 1/16 inch (one thread) by removing stock from threaded end of bolt. If bolt still bottoms, threaded hole is too shallow and pawl carrier support, part No. 34514-52 must be replaced.

See your Sportster Service Manual for correct transmission assembly procedure.

K & Sportster Miscellaneous Countershaft & Mainshaft Components 52-72

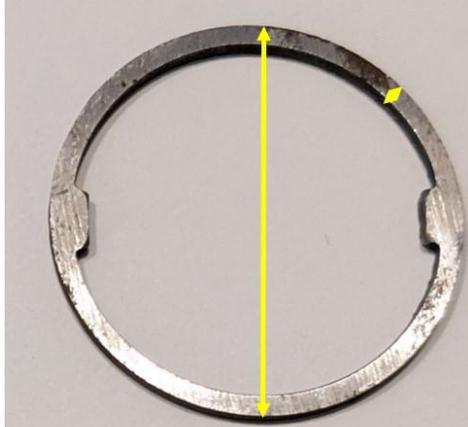


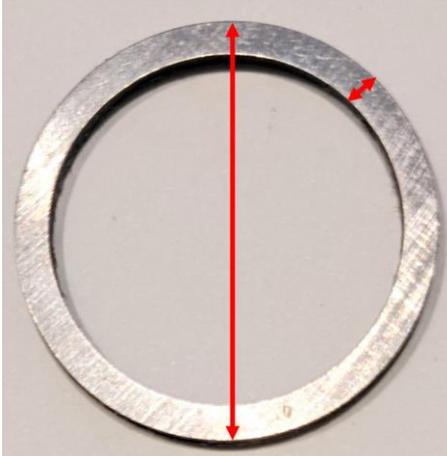
Countershaft Group

<p>35631-54 Countershaft Oiler Plug Used from 54-72, replaced with PN 35631-73 used 73-81. What was used prior to 1954?</p>		
<p>35961-52 Countershaft Bearing, Open End Used from 52-81. The 67 & 70 PBs are in error and confuse this countershaft "open end" bearing with the 35960-54 closed end bearing.</p>		
<p>35809-52 Countershaft Gear Spacer Used from 52-57. The countershaft changed significantly in 58.</p>		
<p>35809-58 Countershaft Gear Spacer Used from 58-81.</p>		

<p>35792-52 Countershaft Second Gear Bushing <i>Used 52-57.</i></p>			
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<p>35841-52 Countershaft Second Gear Thrust Washer <i>Used 52-57.</i></p>	
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<p>35841-58 Countershaft Second Gear Thrust Washer <i>Used 58-81.</i></p>		 <div data-bbox="1598 570 1944 841" style="border: 1px solid black; padding: 5px;"> <p>PN 35841-58 OD = 1.122" Width = .061"</p> </div>
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<p>35840-52 Countershaft Low Gear Washer, Left <i>35840-52 Used 52-81.</i></p>		<table border="0"> <tr> <td>35836-55</td> <td>.40</td> <td>Countershaft low gear washer .075", left</td> <td>55 & 56</td> </tr> <tr> <td>35838-55</td> <td>.40</td> <td>Countershaft low gear washer .085", left</td> <td>55 & 56</td> </tr> <tr> <td>35839-55</td> <td>.40</td> <td>Countershaft low gear washer .100", left</td> <td>55 & 56</td> </tr> <tr> <td>35840-52</td> <td>.45</td> <td>Countershaft low gear washer - .065, left.</td> <td>52 to 56</td> </tr> </table>  <div data-bbox="1661 1192 1871 1295" style="border: 1px solid black; padding: 5px;"> <p>OD = 1.057" Width = .0875"</p> </div>	35836-55	.40	Countershaft low gear washer .075", left	55 & 56	35838-55	.40	Countershaft low gear washer .085", left	55 & 56	35839-55	.40	Countershaft low gear washer .100", left	55 & 56	35840-52	.45	Countershaft low gear washer - .065, left.	52 to 56
35836-55	.40	Countershaft low gear washer .075", left	55 & 56															
35838-55	.40	Countershaft low gear washer .085", left	55 & 56															
35839-55	.40	Countershaft low gear washer .100", left	55 & 56															
35840-52	.45	Countershaft low gear washer - .065, left.	52 to 56															

35828-52
Countershaft Low Gear Washer .070"

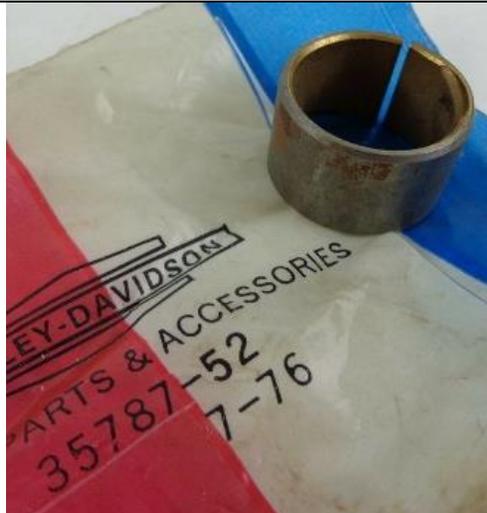
My reading of the PBs imply all of these could be used 52-81.



35820-52	.45	Countershaft low gear washer - .050, right	52 to 56
35821-52	.45	Countershaft low gear washer - .055, right	52 to 56
35824-52	.45	Countershaft low gear washer - .060, Right	52 to 56
35825-52	.45	Countershaft low gear washer - .065, right	52 to 56
35828-52	.45	Countershaft low gear washer - .070, right	52 to 56
35829-52	.45	Countershaft low gear washer - .075, right	52 to 56
35818-72		THRUST WASHER, countershaft low gear (.020")	79 to * - XL, XLCH, XLS
35819-72		THRUST WASHER, countershaft low gear (.030")	79 to * - XL, XLCH, XLS
35820-52		THRUST WASHER, countershaft low gear (.050")	79 to * - XL, XLCH, XLS
35821-52		THRUST WASHER, countershaft low gear (.055")	79 to * - XL, XLCH, XLS
35821-72		THRUST WASHER, countershaft low gear (.040")	79 to * - XL, XLCH, XLS
35824-52		THRUST WASHER, countershaft low gear (.060")	79 to * - XL, XLCH, XLS
35825-52		THRUST WASHER, countershaft low gear (.065")	79 to * - XL, XLCH, XLS
35828-52		THRUST WASHER, countershaft low gear (.070")	79 to * - XL, XLCH, XLS
35829-52		THRUST WASHER, countershaft low gear (.075")	79 to * - XL, XLCH, XLS
35836-55		THRUST WASHER, countershaft low gear, left (.075")	79 to * - XL, XLCH, XLS

35787-52
Countershaft Low Gear Bushing

Used 52 to early 72.

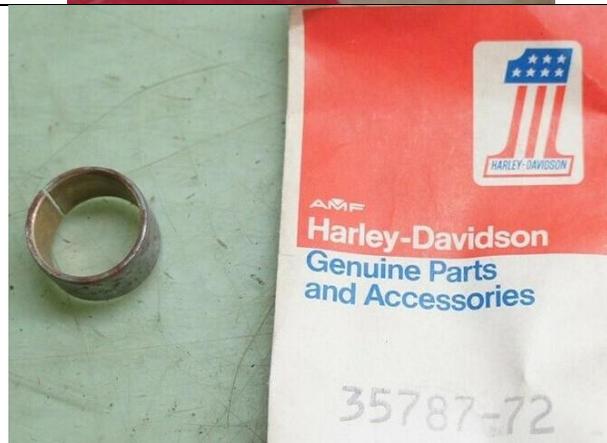


OD = 1.003"
Thickness = .0725"
Width = .593"



35787-72
Countershaft Low Gear Bushing

Used Late 72 through 81.



OD = 1.003"
Thickness = .071"
Width = .569"



Mainshaft Group

<p>35112-52 Transmission Mainshaft Ball Bearing Snap Ring</p>		
<p>9025 Transmission Mainshaft Ball Bearing</p>		
<p>37458-52 Clutch Gear Bushing</p>	 	

35961-52
Countershaft Bearing
Open End
 Believe this roller type bearing replaced one of the 37458-52 sleeve type bearings at the gear end of the clutch gear in 1954. The parts books appear to be in error in that they list the sleeve bearing for both ends up to and including the 59 PB.

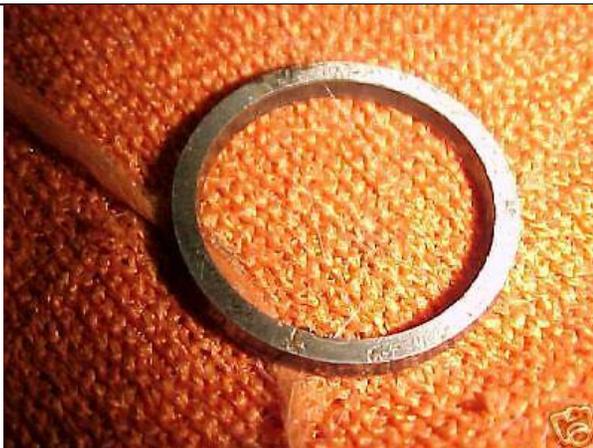


35361-52
Mainshaft Thrust Washer,
Left



35361-52 Mainshaft thrust washer– left 52 & 53 – Model K & KK
35361-54 Mainshaft thrust washer– left 54 & 55 – Model KH
35361-56 Mainshaft thrust washer– left 56 – Model KH, 57 to 59 – All Sportsters

35361-54
Mainshaft Thrust Washer,
Left



35361-52 Mainshaft thrust washer– left 52 & 53 – Model K & KK
35361-54 Mainshaft thrust washer– left 54 & 55 – Model KH
35361-56 Mainshaft thrust washer– left 56 – Model KH, 57 to 59 – All Sportsters

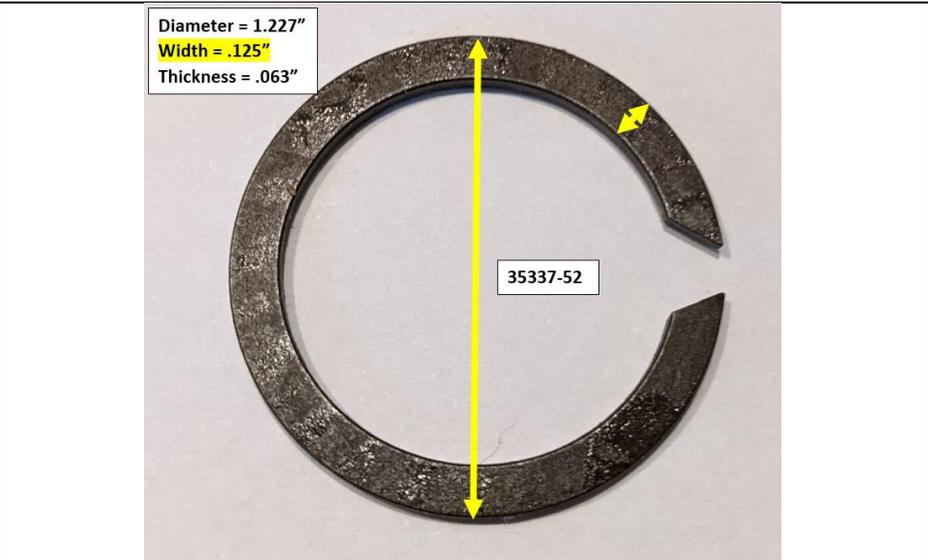
35361-56
Mainshaft Thrust Washer,
Left



35361-52 Mainshaft thrust washer– left 52 & 53 – Model K & KK
35361-54 Mainshaft thrust washer– left 54 & 55 – Model KH
35361-56 Mainshaft thrust washer– left 56 – Model KH, 57 to 59 – All Sportsters

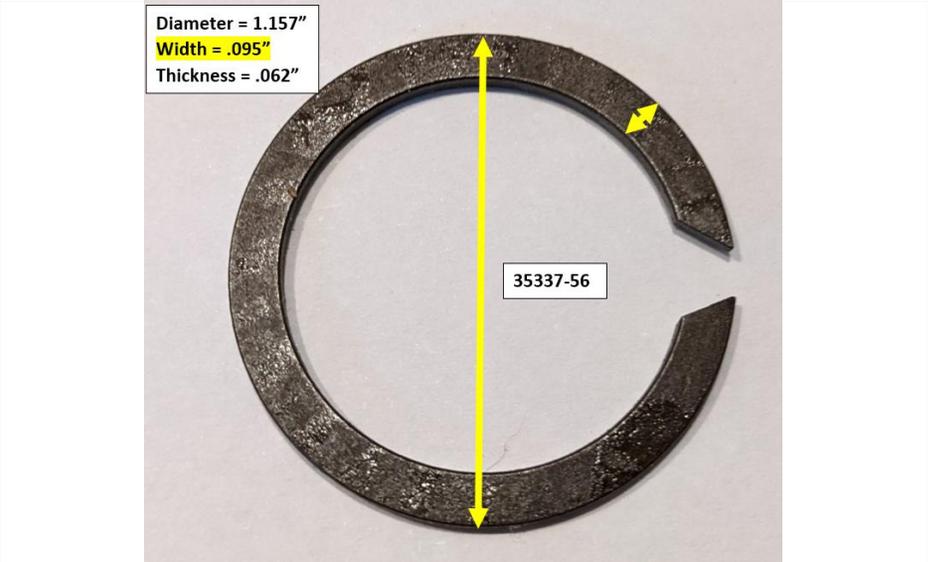
35337-52
Mainshaft Third Gear Retainer Ring

I believe the best dimension to differentiate the -52 from the -56 Retainer Ring is the width. Even though the diameters appear to be significantly different I think it could be to easily distorted and therefore unreliable.

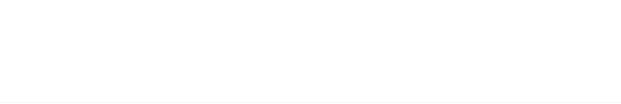


35337-56
Mainshaft Third Gear Retainer Ring

I believe the best dimension to differentiate the -52 from the -56 Retainer Ring is the width. Even though the diameters appear to be significantly different I think it could be to easily distorted and therefore unreliable.

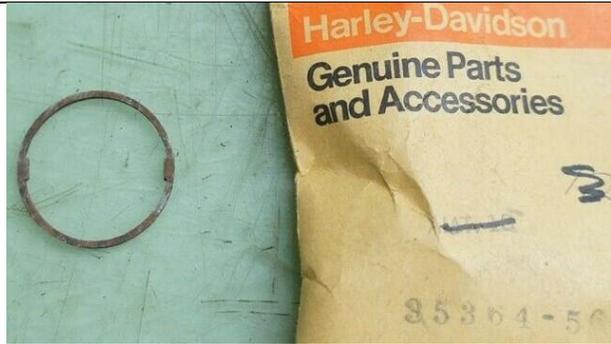


35364-52
Mainshaft Third Gear Washer

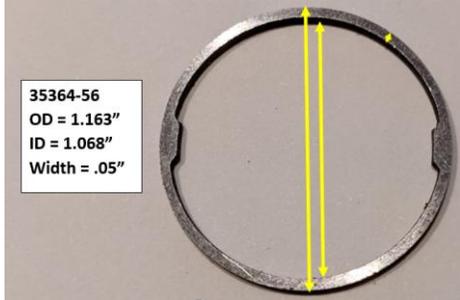


35364-52	Mainshaft third gear washer	52 to 55 – All K Models
35364-56	Mainshaft third gear washer	56 – Model KH, 57 to 59 – All Sportsters

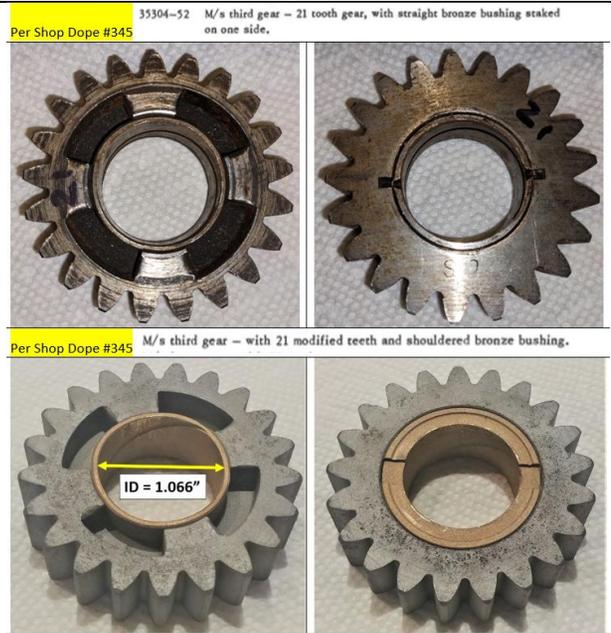
35364-56
Mainshaft Third Gear
Washer



35364-52 Mainshaft third gear washer 52 to 55 – All K Models
35364-56 Mainshaft third gear washer 56 – Model KH, 57 to 59 – All Sportsters



35324-52
Mainshaft Third Gear
Bushing



35324-52 Mainshaft third gear bushing 52 & 53 – Model K & KK
35324-54 Mainshaft third gear bushing 54 & 55 – Model KH

35324-54
Mainshaft Third Gear
Bushing

35324-52 Mainshaft third gear bushing 52 & 53 – Model K & KK
35324-54 Mainshaft third gear bushing 54 & 55 – Model KH

35354-52
Mainshaft Thrust Washer
RT. .075"



35349-52	Mainshaft thrust washer—Rt. (.050")	52 to 56—All K Models, 57 to 59—All Sportsters
35350-52	Mainshaft thrust washer—Rt. (.055")	52 to 56—All K Models, 57 to 59—All Sportsters
35351-52	Mainshaft thrust washer—Rt. (.060")	52 to 56—All K Models, 57 to 59—All Sportsters
35352-52	Mainshaft thrust washer—Rt. (.065")	52 to 56—All K Models, 57 to 59—All Sportsters
35353-52	Mainshaft thrust washer—Rt. (.070")	52 to 56—All K Models, 57 to 59—All Sportsters
35354-52	Mainshaft thrust washer—Rt. (.075")	52 to 56—All K Models, 57 to 59—All Sportsters



600
Transmission Mainshaft
Thrust Washer Pin



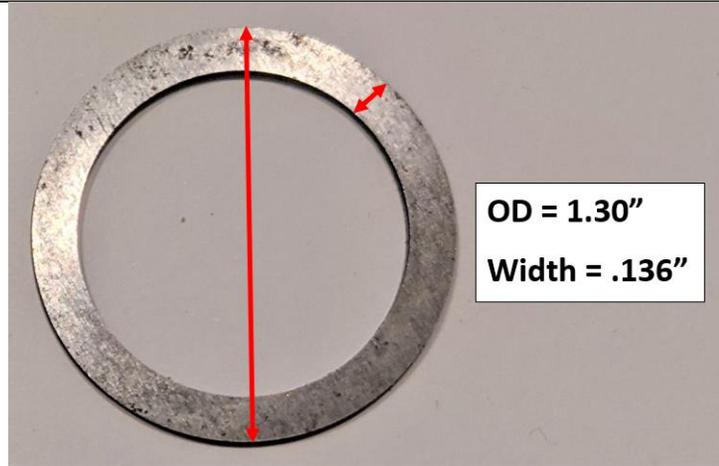
35105-52
Transmission Mainshaft
Roller Bearing Race



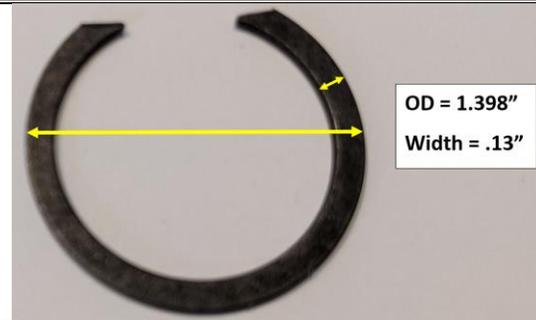
9095
Transmission Mainshaft
Roller (23)



35363-52
Mainshaft Roller Bearing
Washer



35113-52
Transmission Mainshaft
Roller Bearing Retainer
Ring



35050-52
Transmission Mainshaft
Lock Washer

