

# Parts & Accessories Bulletin

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PAB #524

## GEAR UP FOR LONG-DISTANCE TOURING

This P&A Bulletin #524 is an update of P&A Bulletin #510. It is possible to reduce engine RPM at highway speeds by using original-equipment secondary-drive components which are actually standard equipment on many Harley-Davidson International (HDI) motorcycles. The chart on the reverse side of this page lists available secondary drive ratios and component part numbers for stock Domestic models and HDI models. In order to "gear up for long-distance touring," you will need to replace (unless otherwise stated in the chart) all the listed Domestic model components with the respective HDI model components for a specific secondary drive ratio.

It is important that you inform your customers of the following facts about changing the secondary drive ratio on their particular motorcycles before they perform the modification and operate the vehicle:

- The chart information on the reverse side of this page pertains only to the five-speed, belt-drive Harley-Davidson models listed.
- Do not alter the secondary drive ratio on models with electronic speedometers (e.g.-- 1995 XLH, 1995 Dyna, and 1994-1995 FLHR Electra Glide Road King) since calibration error of the electronic speedometer will result.
- 1993 Domestic Softail models already have the "tallest" secondary drive ratio available for 1340cc models (1.91 : 1). Therefore, reducing a 1993 Domestic Softail model's secondary drive ratio is not possible.
- If you intend to reduce your vehicle's secondary drive ratio (lower engine RPM at any given speed), you must install all the components (wheel sprocket, drive belt, belt guard, and debris deflector) for that particular secondary drive ratio listed on the chart on the reverse side of this page.
- Although reducing your vehicle's secondary drive ratio will reduce engine RPM at any given speed and gear, it may also slightly decrease your vehicle's maximum rate of acceleration in a given gear.
- The primary drive ratio for 1993 and earlier 1340cc models is 1.54 : 1; whereas, the primary drive ratio for 1994 and later 1340cc models is 1.44 : 1. Therefore, overall drive ratio (primary drive ratio x secondary drive ratio) on a 1993 and earlier 1340cc model will be slightly different than that on a 1994 and later 1340cc model even if the secondary drive ratio of both is the same.

Once your customer is informed of the above information about changing secondary drive ratio, and he or she decides to proceed with the modification as defined above, you may want to suggest that this would be a good time to consider adding a chrome wheel sprocket cover to enhance the appearance of the new sprocket. Please refer to the Genuine Parts & Accessories Catalog for additional information.



**FILE IN ACCESSORY GUIDE FOR FUTURE REFERENCE**

Model (Model Years)	Drive Ratio Description	Secondary Drive Ratio	Wheel Sprkt Teeth	Wheel Sprocket Part Number	Drive Belt Part Number (Drive Belt Teeth)	Belt Guard Part Number	Debris Deflector Part Number
XLH 883* (1991-1994)	stock Domestic drive ratio (short)	2.26 : 1	61	40213-91 (black) or 40227-93 (silver)	40022-91 (128 teeth)	60381-91	60435-91
	HDI touring drive ratio (tall)	2.04 : 1	55	40252-91 (black)	40038-91 (125 teeth)	same as stock	same as stock
XLH 1200* (1991-1994)	stock Domestic drive ratio (short)	2.10 : 1	61	40213-91 (black) or 40227-93 (silver)	40022-91 (128 teeth)	60381-91	60435-91
	HDI touring drive ratio (tall)	1.90 : 1	55	40252-91 (black)	40038-91 (125 teeth)	same as stock	same as stock
Softail (1986-1992 & 1994)	stock Domestic drive ratio (short)	2.19 : 1	70	40217-79A (black) or 40221-85A (silver)	40023-86 (132 teeth)	60533-86	60362-86A
	HDI touring drive ratio (medium)	2.03 : 1	65	40312-94 (black) or 40311-94 (silver)	40017-94 (130 teeth)	60537-89	60415-89B
	HDI touring drive ratio (tall)	1.91 : 1	61	40237-88A (black) or 40236-88A (silver)	40012-90 (128 teeth)	60537-89	60415-89B
Softail** (1993)	stock Domestic drive ratio (tall)	1.91 : 1	61	40237-88A (black) or 40236-88A (silver)	40012-90 (128 teeth)	60537-89	60415-89B
Softail (1995)	stock Domestic drive ratio (medium)	2.03 : 1	65	40312-94 (black) or 40311-94 (silver)	40017-94 (130 teeth)	60537-89	60415-89B
	HDI touring drive ratio (tall)	1.91 : 1	61	40237-88A (black) or 40236-88A (silver)	40012-90 (128 teeth)	same as stock	same as stock
Dyna* (1991-1994)	stock Domestic drive ratio (short)	2.19 : 1	70	40217-79A (black) or 40221-85A (silver)	40015-90 (133 teeth)	60297-90 (black) or 60293-90 (chrome)	60399-90A
	HDI touring drive ratio (medium)	2.03 : 1	65	40312-94 (black) or 40311-94 (silver)	40017-94 (130 teeth)	60294-90 (black) or 60427-90 (chrome)	60403-90A
	HDI touring drive ratio (tall)	1.91 : 1	61	40237-88A (black) or 40236-88A (silver)	40012-90 (128 teeth)	60294-90 (black) or 60427-90 (chrome)	60403-90A
FXR (1985-1994)	stock Domestic drive ratio (short)	2.19 : 1	70	40217-79A (black) or 40221-85A (silver)	40001-85 (136 teeth)	60297-87A (FXRTs use 60299-85)	60397-85B
	HDI touring drive ratio (medium)	2.03 : 1	65	40312-94 (black) or 40311-94 (silver)	40015-90 (133 teeth)	60298-88 (FXRTs use 60296-88)	same as stock
	HDI touring drive ratio (tall)	1.91 : 1	61	40237-88A (black) or 40236-88A (silver)	40023-86 (132 teeth)	60298-88 (FXRTs use 60296-88)	same as stock
FLT* (1985-1995)	stock Domestic drive ratio (short)	2.19 : 1	70	40217-79A (black) or 40221-85A (silver)	40001-85 (136 teeth)	not applicable	60397-85B
	HDI touring drive ratio (medium)	2.03 : 1	65	40312-94 (black) or 40311-94 (silver)	40015-90 (133 teeth)	not applicable	same as stock
	HDI touring drive ratio (tall)	1.91 : 1	61	40237-88A (black) or 40236-88A (silver)	40023-86 (132 teeth)	not applicable	same as stock

\* Do not alter secondary drive ratio on 1995 XLH models, 1995 Dyna models, or 1994-1995 FLHR models due to the resulting calibration error of the electronic speedometer.  
\*\* 1993 Domestic Softail models already have the tallest secondary drive ratio available; no modification is possible.