

Sportster Front Pulley Installation

INTRODUCTION

The belt does not need to be replaced for any of our pulleys.

For pulleys with more teeth than original, the speedometer will read slower than actual road speed. The chart shows calculated mph at different rpm.

The speedometer can be corrected with the use of “The Corrector” available from us. If your ignition has not been upgraded you may purchase a high performance ignition module. These offer adjustable advance curves (helps performance greatly), adjustable rpm limiter (a big difference), and speedometer correction for pulley and tire size change, which eliminates the need for “The Corrector”.

If you desire “more gear”, we offer 66 tooth rear pulleys for 2004-Up.

Calculated Drive Train Ratios											
Years	Engine	Primary	Engine	Clutch	Ratio	Trans	Wheel	Ratio	Final	Engine	Years
'91-'03	883	35/56	35	56	1.60	27	61	2.26	3.86	883	'91-'03
'91-'03	883	35/56	35	56	1.60	28	61	2.18	3.78	883	'91-'03
'91-'03	883	35/56	35	56	1.60	29	61	2.10	3.70	883	'91-'03
'91-'03	883	35/56	35	56	1.60	30	61	2.03	3.63	883	'91-'03
'91-'03	883	35/56	35	56	1.60	32	61	1.91	3.51	883	'91-'03
'91-'03	1200	35/56	35	56	1.60	29	55	1.90	3.50	1200	'91-'03
'91-'03	1200	35/56	35	56	1.60	29	61	2.10	3.70	1200	'91-'03
'91-'03	1200	35/56	35	56	1.60	30	61	2.03	3.63	1200	'91-'03
'91-'03	1200	35/56	35	56	1.60	32	61	1.91	3.51	1200	'91-'03
Years	Engine	Primary	Engine	Clutch	Ratio	Trans	Wheel	Ratio	Final	Engine	Years
2004+	883	34/57	34	57	1.68	28	66	2.36	4.03	883	2004+
2004+	883	34/57	34	57	1.68	29	66	2.28	3.95	883	2004+
2004+	883	34/57	34	57	1.68	30	66	2.20	3.88	883	2004+
2004+	883	34/57	34	57	1.68	32	66	2.06	3.74	883	2004+
2004+	883	34/57	34	57	1.68	28	68	2.43	4.11	883	2004+
2004+	883	34/57	34	57	1.68	29	68	2.34	4.02	883	2004+
2004+	883	34/57	34	57	1.68	30	68	2.27	3.94	883	2004+
2004+	883	34/57	34	57	1.68	32	68	2.13	3.80	883	2004+
2004+	1200	38/57	38	57	1.50	28	66	2.36	3.86	1200	2004+
2004+	1200	38/57	38	57	1.50	29	66	2.28	3.78	1200	2004+
2004+	1200	38/57	38	57	1.50	30	66	2.20	3.70	1200	2004+
2004+	1200	38/57	38	57	1.50	32	66	2.06	3.56	1200	2004+
2004+	1200	38/57	38	57	1.50	29	68	2.34	3.84	1200	2004+
2004+	1200	38/57	38	57	1.50	30	68	2.27	3.77	1200	2004+
2004+	1200	38/57	38	57	1.50	32	68	2.13	3.63	1200	2004+

GUIDE RINGS



1991 - 2003, to outboard



2004 – Up, No Guide



2004 - Up, to engine

INSTALLATION: All Pulleys

- Do not loosen axle nut or adjusters until the pulley nut has been loosened with an impact wrench.
- Remove rear cylinder exhaust and Pulley Cover
- Remove lock plate screws and lock plate
- Remove Pulley Nut & pulley, left hand thread.
- Loosen axle nut, remove the axle adjuster nuts
- Move rear tire forward, push down on the belt
- Pulleys without a “boss” on the back have a 1/4” spacer to install before the pulley.
- Install pulley, nut is left hand thread. Splines are tighter than stock pulley. Use Blue Loctite.
- Torque pulley nut to 65-70 Ft Lb, continue to tighten until holes in lock plate align with the mounting holes in the pulley.
- Force the rear axle backwards, reinstall the adjuster nuts and adjust the belt tension/deflection; 883, 883R, 1200R = 3/8-7/16”, others = 1/4-5/16”
- Axle must be straight; distance axle to swing arm centers. Cut a wire shirt hanger and bend it to compare each side. There is no measurement to meet, just each side must be equal.
- Torque axle nut to 60-65 ft lb.
- Install the pulley cover and exhaust
- Test drive and then enjoy freeway cruising!
- (32TS only) If the belt rubs, it will be “shinny”. File the bosses until the belt does not rub.

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Changes in MPH & RPM for all pulleys

1991-2003 Speedometer Versus Road Speed & RPM (61 Tooth Rear)															
883 Overdrive MPH					883 Overdrive RPM					1200 Overdrive MPH			Overdrive RPM		
883	3.7%	7.4%	11.1%	18.5%	883	Overdrive Pulley				1200	3.4%	10.3%	1200	Overdrive	
27	28	29	30	32	27	28	29	30	32	29	30	32	29	30	32
20	20.7	21.5	22.2	23.7	1029	1008	988	969	935	20	20.7	22.1	988	969	935
25	25.9	26.9	27.8	29.6	1286	1260	1234	1211	1169	25	25.9	27.6	1234	1211	1169
30	31.1	32.2	33.3	35.6	1544	1511	1481	1453	1403	30	31.0	33.1	1481	1453	1403
35	36.3	37.6	38.9	41.5	1801	1763	1728	1696	1636	35	36.2	38.6	1728	1696	1636
40	41.5	43.0	44.4	47.4	2058	2015	1975	1938	1870	40	41.4	44.1	1975	1938	1870
45	46.7	48.3	50.0	53.3	2316	2267	2222	2180	2104	45	46.6	49.7	2222	2180	2104
50	51.9	53.7	55.6	59.3	2573	2519	2469	2422	2338	50	51.7	55.2	2469	2422	2338
55	57.0	59.1	61.1	65.2	2830	2771	2716	2664	2571	55	56.9	60.7	2716	2664	2571
60	62.2	64.4	66.7	71.1	3087	3023	2963	2907	2805	60	62.1	66.2	2963	2907	2805
65	67.4	69.8	72.2	77.0	3345	3275	3210	3149	3039	65	67.2	71.7	3210	3149	3039
70	72.6	75.2	77.8	83.0	3602	3527	3457	3391	3273	70	72.4	77.2	3457	3391	3273
75	77.8	80.6	83.3	88.9	3859	3779	3703	3633	3506	75	77.6	82.8	3703	3633	3506
80	83.0	85.9	88.9	94.8	4117	4030	3950	3876	3740	80	82.8	88.3	3950	3876	3740
85	88.1	91.3	94.4	100.7	4374	4282	4197	4118	3974	85	87.9	93.8	4197	4118	3974
90	93.3	96.7	100.0	106.7	4631	4534	4444	4360	4208	90	93.1	99.3	4444	4360	4208
95	98.5	102.0	105.6	112.6	4888	4786	4691	4602	4441	95	98.3	104.8	4691	4602	4441
100	103.7	107.4	111.1	118.5	5146	5038	4938	4844	4675	100	103.4	110.3	4938	4844	4675
105	108.9	112.8	116.7	124.4	5403	5290	5185	5087	4909	105	108.6	115.9	5185	5087	4909
110	114.1	118.1	122.2	130.4	5660	5542	5432	5329	5143	110	113.8	121.4	5432	5329	5143
115	119.3	123.5	127.8	136.3	5918	5794	5679	5571	5376	115	119.0	126.9	5679	5571	5376
120	124.4	128.9	133.3	142.2	6175	6046	5926	5813	5610	120	124.1	132.4	5926	5813	5610

2004+ Speedometer Versus Road Speed and RPM (68 Tooth Rear)																
Stock	Road Speed			Road Speed	Engine RPM				Stock	Road Speed			Road Speed	Engine RPM		
883	3.6%	7.1%	14.3%	Speed	Stock	Overdrive Pulley			1200	3.4%	10.3%	Speed	Stock	Overdrive		
28	29	30	32	883	28	29	30	32	29	30	32	1200	29	30	32	
20	20.7	21.4	22.9	20	1085	1063	1042	1005	20	20.7	22.1	20	1015	994	957	
25	25.9	26.8	28.6	25	1356	1328	1302	1256	25	25.9	27.6	25	1269	1243	1196	
30	31.1	32.1	34.3	30	1627	1594	1563	1507	30	31.0	33.1	30	1523	1492	1436	
35	36.3	37.5	40.0	35	1898	1859	1823	1758	35	36.2	38.6	35	1776	1740	1675	
40	41.4	42.9	45.7	40	2169	2125	2084	2009	40	41.4	44.1	40	2030	1989	1914	
45	46.6	48.2	51.4	45	2440	2391	2344	2260	45	46.6	49.7	45	2284	2237	2153	
50	51.8	53.6	57.1	50	2712	2656	2605	2511	50	51.7	55.2	50	2538	2486	2393	
55	57.0	58.9	62.9	55	2983	2922	2865	2762	55	56.9	60.7	55	2791	2735	2632	
60	62.1	64.3	68.6	60	3254	3188	3126	3014	60	62.1	66.2	60	3045	2983	2871	
65	67.3	69.6	74.3	65	3525	3453	3386	3265	65	67.2	71.7	65	3299	3232	3110	
70	72.5	75.0	80.0	70	3796	3719	3647	3516	70	72.4	77.2	70	3553	3480	3350	
75	77.7	80.4	85.7	75	4067	3985	3907	3767	75	77.6	82.8	75	3806	3729	3589	
80	82.9	85.7	91.4	80	4339	4250	4168	4018	80	82.8	88.3	80	4060	3978	3828	
85	88.0	91.1	97.1	85	4610	4516	4428	4269	85	87.9	93.8	85	4314	4226	4067	
90	93.2	96.4	102.9	90	4881	4781	4689	4520	90	93.1	99.3	90	4568	4475	4307	
95	98.4	101.8	108.6	95	5152	5047	4949	4771	95	98.3	104.8	95	4821	4723	4546	
100	103.6	107.1	114.3	100	5423	5313	5210	5023	100	103.4	110.3	100	5075	4972	4785	
105	108.8	112.5	120.0	105	5694	5578	5470	5274	105	108.6	115.9	105	5329	5221	5024	
110	113.9	117.9	125.7	110	5966	5844	5731	5525	110	113.8	121.4	110	5583	5469	5264	
115	119.1	123.2	131.4	115	6237	6110	5991	5776	115	119.0	126.9	115	5836	5718	5503	
120	124.3	128.6	137.1	120	6508	6375	6252	6027	120	124.1	132.4	120	6090	5966	5742	