

1990-2006 6-SPEED BIG TWIN BUILDER'S KITS

FACT SHEET



REFERENCE TRANSMISSIONS	COUNTRY OF ORIGIN	80 MPH 6-SPEED RPM DROP FROM STOCK 5TH GEAR (25/36 VS. 24/37 WITH 32/70 REAR)		MACHINING (AND EASE-OF-INSTALL DETAILS)	RETAIL PRICE (As of 12-07)	ADDITIONAL PARTS REQUIRED	WARRANTY YR./MI.	GEAR RATIO OPTIONS	GEAR COMMENTS	SHIFT SYSTEM	TRAP DOOR	COMMENTS
DD6 DIRECT DRIVE 6-SPEED BAKER DD6	USA	362	518	No clearancing required with the standard 3.45 ratio 1st gear. Some clearancing may be required with optional 3.77 1st gear depending on case casting variations.	\$2,495.00	Recal unit on all electronic speedometer models (\$110.95)	5-Year/50,000 Miles	Internal: 3.77 or 3.45 (1st), 2.56 (2nd), 1.87 (3rd), 1.44 (4th), 1.15 (5th), 1.00 (6th) Effective: 3.24 or 2.97 (1st), 2.20 (2nd), 1.61 (3rd), 1.24 (4th), .99 (5th), .86 (6th) Overall: 10.60 or 9.69 (1st), 7.19 (2nd), 5.25 (3rd), 4.05 (4th), 3.23 (5th), 2.81 (6th)	Spur Cut 1st-3rd Gear, Helical Cut 4th-6th	Roller detent Redundant neutral detent to aide neutral finding 1-degree dogs with lead-in ramps to ease in & out of gear transitions Ratchet pawl with anti-overshift feature and 2000-up style scissor spring Steel CNC milled shift drum precisely indexes on fixed spindle Dead stop shift pattern in 1st and 6th	Chrome, polished, or black billet trap door Same width as stock, no exhaust clearance issues Speed sensor in stock location in case Compatible with all stock and aftermarket side covers	Good shift quality Designed for Twin Cams but applicable back to 1990 1st gear ratio no cost option 6th gear is 99% efficient Silent operation Spur gears in 1st-3rd for strength and performance Helical gears in 4th-6th for silent smooth operation
JIMS	USA	474	510	Case clearance checks required in the 6th gear and the auxiliary fork rod areas.	\$2,137.00 (8085) \$2,195.00 (8085L)	Recal unit on all electronic speedometer models (\$110.95)	6-Year/60,000 Miles on complete transmissions 6 months on gear sets	Internal/Effective: 2.94 (1st), 2.21 (2nd), 1.60 (3rd), 1.23 (4th), 1.0 (5th), .86 (6th) Overall: 9.26 (1st), 6.96 (2nd), 5.04 (3rd), 3.87 (4th), 3.15 (5th), 2.71 (6th)	All Spur Cut Gears	Roller detent Drum shimming required Live spindle drum	Chrome billet trap door Wider than stock, potential exhaust clearance issues Speed sensor in door Compatible with all stock and most aftermarket side covers	Design based on venerable 5-speed Based on previous generation BAKER design licensed to JIMS in 1999 Overdrive design has great potential for noise in 4th and 6th in TwinCam applications 6th gear is 93% efficient
SCREAMIN' EAGLE	USA	373	400	Machining required in several locations in case and top cover: including complete amputation of the right fork rod boss.	\$1995.95	1990-2000 models require purchase of cable side cover release kit (\$199.95) Note: Hydraulic side cover release kit is not compatible with 1990-98 touring models 38752-04 Side cover, cable type (\$199.95) 38753-04A Side cover, hydraulic type (\$299.95)	1yr if installed at H-D dealership	Internal/Effective: 3.21 (1st), 2.21 (2nd), 1.57 (3rd), 1.23 (4th), 1.0 (5th), .89 (6th) Overall: 10.11 (1st), 6.96 (2nd), 4.95 (3rd), 3.87 (4th), 3.15 (5th), 2.80 (6th)	All Spur Cut Gears	Roller detent Cast drum Live spindle drum	Chrome billet trap door Same width as stock with special Harley side cover Speed sensor in top of door Must use Screaming Eagle side cover	Good shift quality Overdrive design has great potential for noise in 4th and 6th in TwinCam applications No gear ratio options 6th gear is 93% efficient
S&S	USA	200	223	Several areas require case and top cover clearancing including the shift fork, shift lever, and 1st gear on the countershaft. Inner primary and Dyna exhaust bracket also require modification for a successful installation.	\$2,185.00	Recal unit on all electronic speedometer models (\$110.95) Oil spout spacer on FL models (\$61.95) Longer bell for 34 tooth pulley (\$207.00)	12 month from date of purchase.	Internal: 3.88 (1st), 2.66 (2nd), 1.94 (3rd), 1.48 (4th), 1.18 (5th), 1.00 (6th) Effective: 3.65 (1st), 2.50 (2nd), 1.82 (3rd), 1.39 (4th), 1.11 (5th), .94 (6th) Overall: 11.48 (1st), 7.87 (2nd), 5.74 (3rd), 4.38 (4th), 3.49 (5th), 2.96 (6th)	All Helical Cut Gears	Roller detent 7-dog shift rings yield light and precise shifting Live spindle drum	Polished, black or raw billet trap door Wider than stock, potential exhaust clearance issues Must use S&S polished side cover	Good shift quality Does not achieve a true overdrive-style RPM reduction with 34 tooth pulley No gear ratio options 6th gear is 99% efficient Silent operation 1st overall gear ratio too short for performance applications
ODG OVER DRIVE SIX SPEED BAKER OD6	USA	474	510	Case clearance checks required in the 6th gear and the auxiliary fork rod areas.	\$2280.00 (Softail/Dyna) \$2365.00 (FL)	Recal unit on all electronic speedometer models (\$110.95)	5-Year/50,000 Miles	Internal/Effective: 2.94 (1st), 2.21 (2nd), 1.60 (3rd), 1.23 (4th), 1.00 (5th), .86 (6th) Overall: 9.26 (1st), 6.96 (2nd), 5.04 (3rd), 3.87 (4th), 3.15 (5th), 2.71 (6th)	All Spur Cut Gears	Roller detent Drum shimming required Live spindle drum Redundant neutral detent to aide neutral finding	Chrome, polished, or black billet trap door Wider than stock, potential exhaust clearance issues Speed sensor in door Compatible with all stock and most aftermarket side covers	Design based on venerable 5-speed Highly evolved since introduced in 1998 Overdrive design has great potential for noise in 4th and 6th in TwinCam applications Many no cost gear ratio options Many shift pattern options 6th gear is 93% efficient
ODG OVER DRIVE SIX SPEED BAKER DEEP OD6	USA	677	727	Case clearance checks required in the 6th gear and the auxiliary fork rod areas.	\$2280.00 (Softail/Dyna) \$2365.00 (FL)	Recal unit on all electronic speedometer models (\$110.95)	5-Year/50,000 Miles	Internal: 2.94 (1st), 2.08 (2nd), 1.53 (3rd), 1.24 (4th), 1.00 (5th), .89 (6th) Overall: 9.26 (1st), 6.55 (2nd), 4.82 (3rd), 3.91 (4th), 3.15 (5th), 2.80 (6th)	All Spur Cut Gears	Roller detent Drum shimming required Live spindle drum Redundant neutral detent to aide neutral finding	Chrome, polished, or black billet trap door Wider than stock, potential exhaust clearance issues Speed sensor in door Compatible with all stock and most aftermarket side covers	Design based on venerable 5-speed Highly evolved since introduced in 1998 Overdrive design has great potential for noise in 4th and 6th in TwinCam applications Many no cost gear ratio options Many shift pattern options 6th gear is 93% efficient
REV TECH	Korea	373	400	No modifications required on most cases.	\$999.00 to \$1228.00	Recal unit (58318 for \$109.99) and neutral switch (30439 switch for \$14.99 plug for \$20.39) on most units Trap Door (reuse 5-spd door or purchase new)	5-Year/50,000 Miles	Internal: 2.94 (1st), 2.08 (2nd), 1.53 (3rd), 1.24 (4th), 1.00 (5th), .89 (6th) Overall: 9.26 (1st), 6.55 (2nd), 4.82 (3rd), 3.91 (4th), 3.15 (5th), 2.80 (6th)	Thinner width than stock spur gears Smaller journals than stock	Plunger style detent Live spindle drum	No trap door included Speed sensor in stock location in case	Korean quality at a Korean price 6th gear is 93% efficient

REFERENCE TRANSMISSIONS

H-D CRUISE DRIVE	USA	392	392	Standard Equipment of 2006-UP	N/A	N/A	2-year/Unlimited Miles	Internal: 3.34 (1st), 2.30 (2nd), 1.71 (3rd), 1.41 (4th), 1.18 (5th), 1.00 (6th) Effective: 2.96 (1st), 2.04 (2nd), 1.52 (3rd), 1.25 (4th), 1.04 (5th), .89 (6th) Internal: 9.31 (1st), 6.42 (2nd), 4.77 (3rd), 3.93 (4th), 3.28 (5th), 2.79 (6th)	1st-2nd Spur Cut, 3rd-4th Helical, 5th Spur Cut, 6th Helical	Cast steel shift drum 1-degree dogs	Stock cast door in wrinkle black or silver	6th gear is 99% efficient 5th gear has a common complaint of noise due to it's spur cut design
H-D 5-SPEED	USA	N/A	N/A	Standard Equipment of 2006-Earlier	Consult Dealer	N/A	90 days	Internal: 3.21 (1st), 2.21 (2nd), 1.57 (3rd), 1.23 (4th), 1.00 (5th) Overall: 10.11 (1st), 6.96 (2nd), 4.95 (3rd), 3.88 (4th), 3.15 (5th)	All Spur Cut Gears	4-degree dogs	Stock cast door in wrinkle black or silver Compatible with all stock and aftermarket side covers	5th gear is 99% efficient Tried and true design goes back to 1980 3400 rpm @ 80 mph is hard on the engine and the rider Clunky shift quality

Helical Gear has a higher contact pattern so the gear is quieter.

Spur Gear is straight cut and has a lower contact pattern so it creates more gear noise.

Internal Gear Ratio is the physical number derived by dividing two gears by themselves.

Effective Gear Ratio is the overall outcome of a gear with an "effector". For example, with a primary sprocket change the overall output of the transmission will be affected by the primary gearing change.

Overall Gear Ratio is the (Primary Ratio) x (Internal Ratio) x (Final Drive Ratio). This value is what Harley-Davidson uses as standard measure.

Softail, FXR, FLT, Dyna, Cruise Drive, Harley, H-D, and Harley Davidson are all trademarks of the Harley-Davidson Motor Company. JIMS, S&S, RevTech, and Screaming Eagle are all trademarks of their respective companies. BAKER Drivetrain, BAKER Six-Speed Overdrive, Function-Formed, OD6, DD6, DD5, Drivetrain Authority and BAKER are trademarks of BAKER Inc., Haslett, Michigan.

"RIDING FREE" MEANS BEING WORRY FREE

DD6™ DIRECT DRIVE 6-SPEED



The BAKER DD6™ is the ultimate transmission for serious touring, bagger, Softail, or Dyna riders. The ones who really put the miles on appreciate the silent smoothness with our helical highway gears and direct drive engineering. All steps have been taken to dampen vibration so you, your motor, and the rest of the bike can go the long haul for years to come.

Owning an American made BAKER DD6™ will give you peace of mind in your travels. You'll know that you have *the* premium drivetrain transmission that strictly is built to endure. You'll have comfort in knowing that your investment is also supported passionately by BAKER Drivetrain with our hefty 5-year/50,000 warranty. No worries. Ride on.

Now get the hell out there, ride hard and far, and know that you're in good company with the award-winning DD6™ from the drivetrain authority. We'll take you farther.

WHAT YOU GET WITH THE DD6:

- ✘ Pre-assembled gearset, ready to easily install. Helical 4th, 5th and 6th, for a smooth and quiet ride in your cruising gears. Install on a Saturday and ride on Sunday!
- ✘ 28-tooth compensating sprocket included. Necessary to maintain 1st - 5th stock gearing. Overdrive is obtained through the primary, so this ratio reduces strain on the starter with 14% more torque. The lower RPM in the primary drive reduces resonant noise found in Twin Cam transmission cases at higher primary RPM's.
- ✘ Roller detent shift drum, with fixed spindle, eliminates shimmying and misalignment. Finding neutral is very easy with a redundant neutral detent. It also makes installation simpler and less risky to screw up.
- ✘ Inner primary race/spacer included.
- ✘ 3-point contact shift forks, hard chrome plated for extended life.
- ✘ Shifter pawl assembly with improved geometry for a perfect response. Includes a built in overshift protection for smooth, precise shifting.
- ✘ Primary chain included with kit.
- ✘ 1st, 2nd, and 3rd gears are straight cut to prevent lateral tension in those high torque, short-used gear ranges.
- ✘ Stiff, precise billet aluminum bearing door that offers more bearing-protecting lateral rigidity than any other helical gearset available.
- ✘ Proprietary fork rod made to bearing grade specifications which eliminates hang-ups.

WHAT YOU GET FROM THE DD6:

- ✘ **THE FEEL OF A NEW BIKE:** The end-all, proven and perfected helical gear design for smooth and silent operation in the cruising gears (4th-6th).
- ✘ **THE OPTION TO RIDE HARD:** Conventional gear shape for strength in the high-torque ranges (1st-3rd) so you can get on it and wick that throttle!
- ✘ **OPTIMIZED USE OF HORSEPOWER:** 99% efficient in 6th gear with a 400-500 rpm reduction depending on application.
- ✘ **CERTAIN AND POSITIVE SHIFTING:** Fixed spindle shift drum for smooth, low inertia, drum indexing. Anti-overshift ratchet pawl prevents mis-shifts.
- ✘ **CONFIDENCE IN THE RIDE:** Full width BAKER ground gears finished on diamond-coated tooling are strong and dependable.
- ✘ **A GOOD FEELING ABOUT YOUR INVESTMENT:** 5 year / 50,000 mile BAKER limited warranty keeps you worry free!
- ✘ **AN AMERICAN SOUL:** It's made in the USA! It's designed here too. You'll have a leg up on those riders with cheap, foreign junk.
- ✘ **EASY INSTALLATION:** No grinding to the case required (with very, very rare exceptions). Many competitor's 6-speed builder's kits do require grinding.
- ✘ **NO EXHAUST CLEARANCE ISSUES:** The trap door is the same width as stock.

DD6™

DIRECT DRIVE 6-SPEED

THE PROVEN FINEST FOR 1990-2006 H-D® BIG TWIN FLT/FLH | SOFTAIL | FXR | DYNA



Up to 50,000 miles!

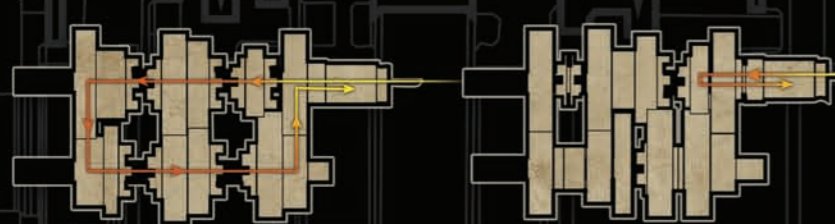
WE ARE BAGGER DRIVETRAIN

We're just going to get straight to the point: all 1999-2006 baggers ought to have a BAKER DD6 transmission. It's specifically designed with these bikes in mind. Harley acknowledged the need for a 6 speed with the release of their Cruise Drive a few years ago. There are millions of bikes of this vintage on the fast-moving modern highways that can have a brand new existence with the installation of our Direct Drive 6-Speed.

Our DD6 is finessed for touring model bikes, especially for the later Twin Cam powertrains, as the DD6 mitigates noise amplified in the hollow space between the motor and the tranny. It is the perfect blend of gear ratio, gear type, noise reduction advancements, shift system technology, bearing upgrades and ease of installation. Since the release of the

BAKER DD6 in 2003, there have been thousands of satisfied customers world-wide with American touring Big Twins who will attest that it is the premium transmission of choice.

We'll sell you our normal BAKER Overdrive 6-Speed (OD6) and you'll enjoy it, but we'd be doing you a disservice as the Drivetrain Authority if we don't convince you that the DD6 is the best value for your buck. Check out the 6-Speed Builder's Kit Fact Sheet on the other side of this page to see for yourself how the BAKER DD6 beats the competition hands down. Comparing the cost of time, labor, and additional accessories and factoring in our 5 year warranty, proven dependability, the number of years on the road and our reputation the choice will be clear.



Conventional Overdrive Power Flow: 92% efficient

Direct Drive Power Flow: 99% efficient. Waste less horsepower!



TOLL FREE: 1-877-640-2004
WWW.BAKERDRIVETRAIN.COM

INFO@BAKERDRIVETRAIN.COM

STANDARD RATIOS (w/o 28T Comp Sprocket)
3.77, 2.56, 1.87, 1.44, 1.15, 1.00

NOTE:
28-tooth comp sprocket supplied with DD6.

GEAR RATIO:
3.45 1st Gear; effectively 2.94

STANDARD TRAP DOOR:
(Shown Above)

OPTIONAL FINISHES:
1) Wrinkle Black
2) Polished
3) Raw

OPTIONAL DOOR CONFIGURATIONS:
1) Ear Type (all finishes)
2) No Ear (all finishes)

DD6 doors have the same outer profile as stock 5-speed doors so exhaust brackets, torque arms, etc...fit up to the door like stock.

TOP GEAR RPM: 5-SPEED VS. DD6

MPH	5-speed RPM in 5th	DD6 RPM in 6th
65	2945	2528
70	3172	2723
75	3398	2917
80	3625	3112

Calculated data based on a 24/37 primary, a 32/70 secondary, and a 25" rear tire.