HARLEY-DAVIDSON UNIVERSITY

TECHNICAL FORUM

2006 MODEL YEAR

ALL MODELS

Model Year '06 Paint and Graphics

- Five new OE paint colors
- Eight new OE color combinations
- In-house Custom Paint program
  - Offered Oct 2005 – May 2006
- New gold leaf graphics

Black Denim Paint

- H-D's new Hot Rod-inspired flat black finish (VRSCD and FXDBI models only)
- Refer to Owner's Manual and Service Literature for the cosmetic guidelines applying to the finish quality and products used on various finishes

- **Special Service Note:** This finish has qualities which differ from high gloss finishes on all other Harley-Davidson motorcycles. Like denim fabric, Black Denim paint will burnish or mar with age and use, thus adding character and personality to the finish of the motorcycle. If scratched, the color coat of paint does nick/scuff and these marks cannot be rubbed out. If polished, the finish will become glossier and less flat (or matte) over time. Please see your owner's manual for details on the finish and its care.

Brake Fluid Changes

- For 2006 Model Year, all models except XL models will use Dot 4 brake fluid

New Genuine Harley-Davidson Formula+ Transmission and Primary Chaincase Lubricant

- New oil will replace current Harley-Davidson Primary Chaincase Lubricant, Harley-Davidson Transmission Lubricant and Harley-Davidson Sport-Trans Fluid.
  - Primary oil change interval for BT will now be 10K
  - Transmission oil change interval for BT will now be 20K miles (32K km)
  - Transmission/Primary oil change interval for XL/XB will now be 10K miles (16K km)

Rear Brake Switch

- Commonized across all models except V-Rod®
- Increased Terminal Retention and contact
- VRSC models use switch with banjo fitting incorporated into switch

MY'06 TSSM Update

- New micro processor
- All TSSM modules can be set to 10 days for storage mode default time
- Auto arming now an option for international markets – except Netherlands remains as auto arming
- Retrofittable

Reduced Clutch Lever Effort (Touring, Softail™)

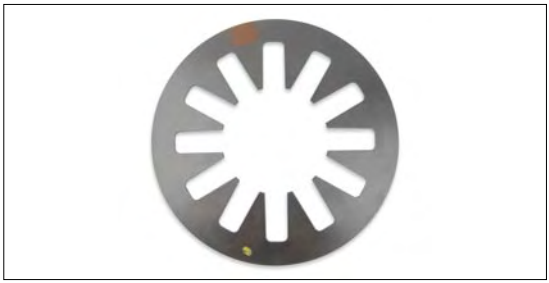
- Redesigned ball and ramp clutch-release mechanism from 21 degrees to 18 degrees

- Reduced spring pressure on clutch diaphragm spring
- Changes result in approximately 24% reduction in clutch lever effort

Reduced Clutch Lever Effort (Dyna)

- Redesigned ball and ramp clutch-release mechanism from 21 degrees to 18 degrees

- Reduced spring pressure on clutch diaphragm spring



- New low friction clutch cable
- Changes result in approximately 35% reduction in clutch lever effort

Reduced Clutch Lever Effort (XL and XB)

- Reduced spring pressure on clutch diaphragm spring
  - Unique spring for 883 and 1200 XL models
- Changes result in approximately 20% reduction in clutch lever effort

XB

- XL models have different diaphragm spring for 883 and 1200 model motorcycles

XL

BIG TWIN ENGINES

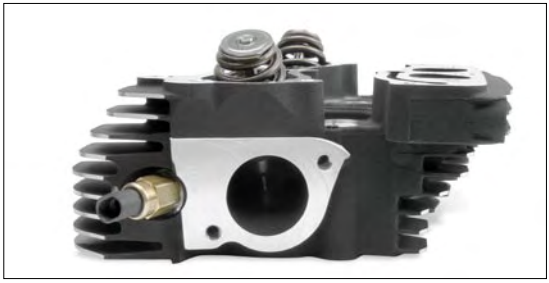
New Single Piece 46 mm Throttle Body

- New fuel injectors

- Single piece throttle body (top view)
- New fuel injector wire harness clips

Redesigned Cylinder Heads

- New intake and exhaust ports
  - Intake port requires new symmetrical flange
  - Existing intake seals to be used with new flange
  - Carbureted Big Twin engines will have a new intake manifold



- Redesigned valve seals
  - Running change in 2005 model year

New Inner Primary Hardware

- Sealing washer is now incorporated into the new bolts
- Locking tabs have been eliminated
- Torque specification has changed–refer to appropriate service manual

VRSC® FAMILY

All VRSC® Models Receive VRSCR-style Instrumentation

- Retrofittable design
- Dual tripmeters (previous design only has one)
- Time of day clock (12 or 24 hr. selectable)
- Larger LCD
- Lower standby current
- Auto range feature (range triggered with low fuel warning light)

Clock Function

- Displayed on LCD (odometer window)
- Selected with trip switch button (press release)
- Set with trip switch button (press hold / press release)

Auto Range Function

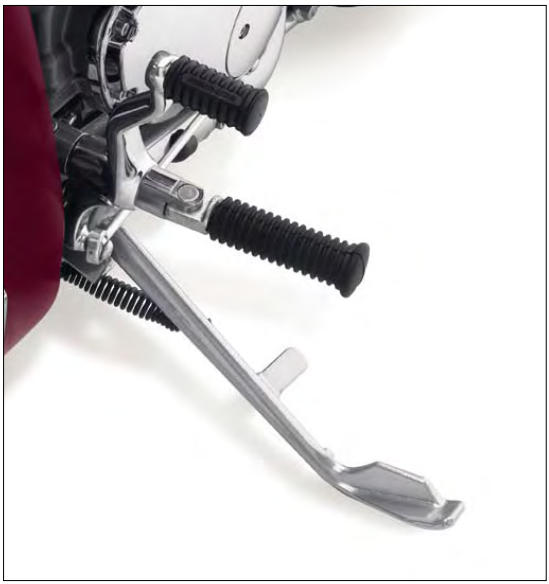
- Odometer automatically changes to fuel range when low fuel warning lamp illuminates
- Display returns to previous mode with trip switch button (press release)
- Auto range may be disabled with trip switch button (press and hold while in range mode)

Brakes Systems

- Brembo brakes introduced on Street Rod™ are now offered on all VRSC models

New Jiffy Stand

- Easier to locate retraction/ extension tabs
- Retrofittable



New Pistons and Rings

- Revised piston and ring package for OE VRSCA/B/R/D models
- Improved ring sealing
- Must order rings and pistons as a set for current VRSC models

VRSCA Models

- 10 colors (seven solid, three two-tone)
- Anodized Aluminum has new logo
- Three custom colors

VRSCD Model: Color Options

- Eight color choices (five solid three two-tone)
- Three custom color choices
- All color choices have striping except Black Denim
- Unique striping for airbox cover and rear fender

VRSCD Model: Mid-mount Operator Controls

- Same controls as VRSCR

VRSCD Model: Highway Pegs

- Standard on VRSCD models

VRSCD Model: Modified Frame

- Shared with VRSCA
- Allows installation of Street Rod™ exhaust (OE on VRSCD model)

VRSCD Model: Body Color-Matched Speed Screen Visor

VRSCD Model: Seat

- New rider and passenger seat cover
- New passenger seat filler

VRSCD Model: Front Fork

- Unique triple clamp
- Provides additional trail with 36˚ fork angle

VRSCD Model: Handlebars and Risers

- New handlebars and risers

VRSCD Model: Wheels

- Slotted disc wheels (standard)
- New black wheel option

VRSCD Model: Engine

- Black crankcase and cylinders
- Chrome engine cover kit option

Note: The VRSCB model is no longer available.

SPORTSTER® FAMILY

Plastic Battery Tray (all models)

- New battery tray incorporates new left side cover lower mounting point
  - No longer the need for rubber grommet at lower mounting point
  - Care must be taken when removing left side cover from lower mounting point

LongerJiffy Stand Leg (1200R, 883, and 883R models)

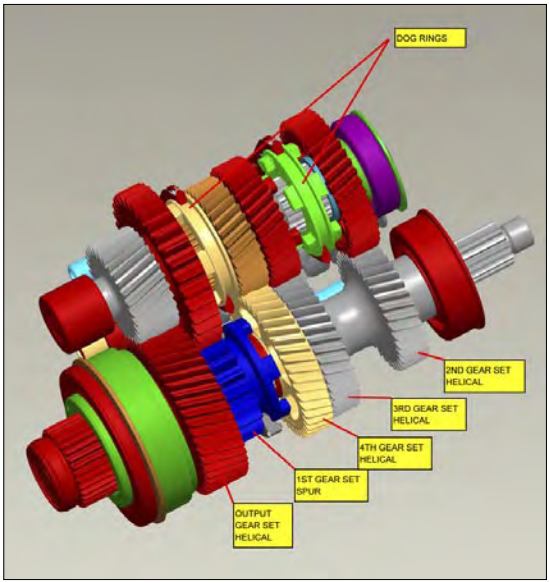
- Result is 12 degree park angle (same as 883L)
- Easier to upright vehicle from parked position
- Retrofittable

OE Security Siren

- HDI, England, and Australia destinations only

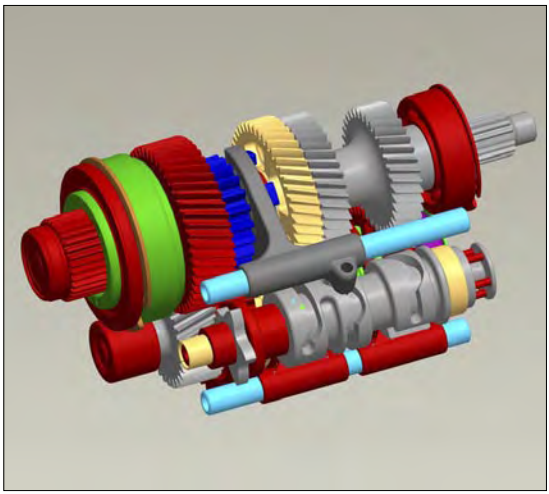
New Transmission with Helical Gears

- Uses helical gears for 2nd through 5th gear
- 2nd and 3rd gears are integral to the mainshaft
- 5th gear is integral on countershaft
- VRSC models style dog ring shifting



New Transmission with Helical Gears (cont.)

- New shifter drum assembly
- New Formula+ oil required
  - Service interval change from 5K miles (8K km) to 10K miles (16K km)



- Quad ring now replaced by o-ring, which is on new main drive gear
- New needle bearings for 5th mainshaft
  - Inner needle bearings secured by new retaining ring
- New double row output gear bearing
  - Sprocket spacer incorporated into bearing

New Engine Cases to Accommodate New Transmission Design

- New parts required due to new engine cases:
  - Oil drain line: 63596-06
  - Oil drain sleeve: 33138-06
  - Oil drain plug: 33123-06
  - Clutch cable/wire harness clip: 10289
  - Main harness: 70139-06
  - Two new case half fasteners on right side
  - New plastic anti-rotation device used for tappets

Catalyst-Equipped Muffler

- 49-state 883XL models will now come with catalyst-equipped muffler for front exhaust
- California will still have unique emissions equipment

OE Wheel Option

- Chrome Profile Laced 19" x 2.5" wheel

DYNA™ FAMILY

All Dyna Models Available with EFI Only

- O_2 sensors with closed loop system for Domestic Models
- Enabled 50-state configuration without any catalysts

Active Intake System (HDI Only)

- Solenoid controls the opening and closing of flap in air cleaner backing plate

- Solenoid attached to back side of air cleaner backing plate

1450 Twin Cam 88® Dyna Engine Changes

- New engine cases with integral oil filter adapter
  - External oil lines have been eliminated
- Material has been added to front motor mount location

- New cam plate
  - New hydraulic cam chain tensioners
  - Assembled cams

1450 Twin Cam 88® Dyna Engine Changes (cont.)

- New cam plate (cont.)

- Plain cam bearings in support plate

1450 Twin Cam 88® Dyna Engine Changes (cont.)

- New roller cam chains

- New crankshaft splines for new compensator assembly
- New increased load-carrying capacity cam bearings in engine case

1450 Twin Cam 88® Dyna Engine Changes (cont.)

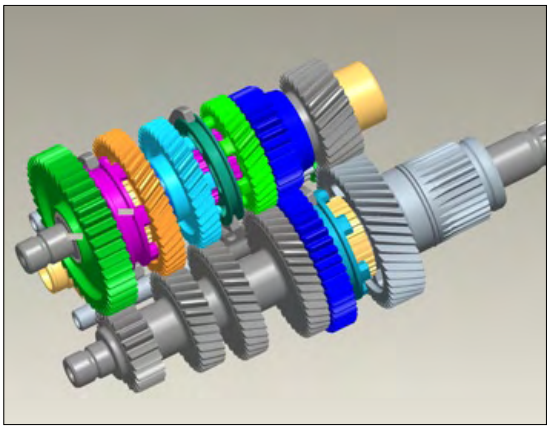
- New oil pump assembly yielding 10% more flow and 23% scavenging capacity improvement
  - O-ring between oil pump and cam support plate has been eliminated
  - 10/11 lobe gerotor set

New

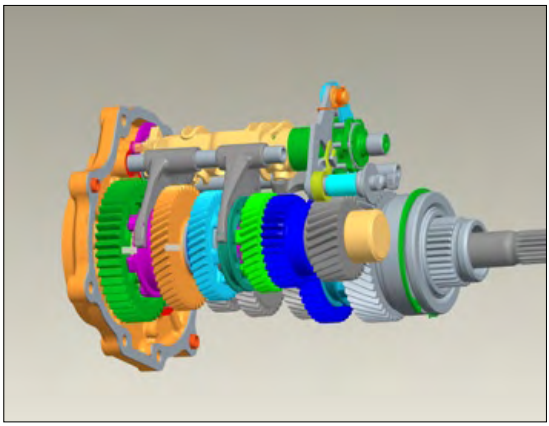
Current

New 6-speed Cruise Drive™ Transmission

- 6th gear is direct drive 1:1
  - Lower cruising RPM in 6th gear which is achieved with new primary ratio
- Helical gears 2nd, 3rd, 4th, and 6th
- Spur gears 1st and 5th
- 1st, 2nd, 3rd and 4th are integral on mainshaft
- 5th and 6th are integral on countershaft
- Six of twelve gears are individually serviceable
- Christmas tree gear layout on shafts



- VRSC-style dog ring shifting
- XL/XB-style shifter design
- Torque-carrying capacity of new transmission 125 ft/lbs. (169.5 Nm)



New 6-speed Cruise Drive™ Transmission (cont.)

- Quad ring now replaced by o-ring, which is on new main drive gear
- New needle bearings for 6th gear mainshaft
  - Needle bearings secured by new retaining rings
- New double-row output bearing
  - Sprocket spacer incorporated into bearing

- New transmission case with external oil lines eliminated
  - New transmission/engine interface gasket
- Output sprocket nut has right-hand threads
  - See applicable Service Manual for new torque specifications and procedure

New Primary Drive System

- New primary drive ratio
  - 1.35:1 compared to current 1.44:1
- New clutch shell
- Starter ring gear moved to inboard on clutch hub

- New engine sprocket/compensator assembly
- New rotor assembly
- Primary chain now outboard on clutch and compensator

New Primary Drive System (cont.)

- Auto mechanical primary chain tensioner

- New inner primary housings
- New primary housing to engine mounting points

New Primary Drive System (cont.)

- New engine-to-primary gasket
- Inner primary secured to transmission case and engine case by five same length fasteners (three to the transmission case and two to engine case)
- Four longer fasteners secure primary cover and inner primary to engine case

Note: Inner primary must be removed to service stator or rotor

- New primary covers
  - No longer has chain inspection cover

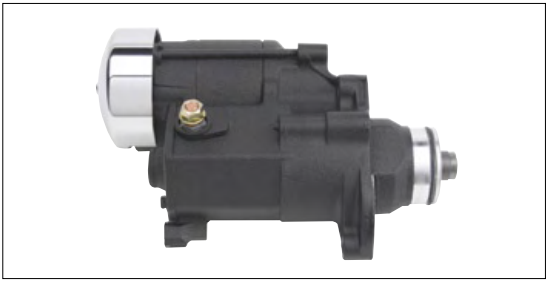
New Primary Drive System (cont.)

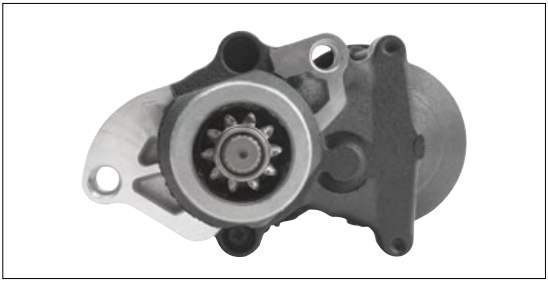
- Wide Glide® primary cover

- Wide Glide® primary cover has unique parts installed

New Starter Motor

- No jackshaft assembly
- Same style as XL/XB models
- Connects directly to primary housing
- Starter can now be removed without removing primary components
- Not retrofittable





New Frame

- FXDWGI model has 34 degree neck angle
- Full length large diameter front downtubes
  - Torsional frame stiffness dramatically improved
- New rear fender forgings
- New steering head castings

New Frame (cont.)

- FXDI/C/L/B/35 models have 29 degree neck angle
- Repositioned existing Dyna™ models motor mounts
  - Front mount is now to the right with new t-bracket
  - New t-bracket has new hardware and torque specifications
  - Rear mount to the left with the shift in transmission case casting
- Rear downtubes rotated outboard and welded directly to the fender forgings for added strength

- Integrated fork lock/ignition switch for FXDI/B/C/L models

New Frame (cont.)

- Fork lock only on FXDWGI/ FXDI35 models with console ignition switch

- New seat pan

New Frame (cont.)

- Open backbone to access main wire harness

New Swingarm

- Wider to accommodate wide tire
  - OE 160/70 B 17" rear tire
- 1" rear axle and 3/4" pivot shaft
- Passenger footrest supports move to swingarm
  - Passenger footrest does not come standard on FXDBI models

- New axle adjusters

New Swingarm (cont.)

- New spherical bearing in left side
  - Similar to current FL models spherical bearing

- Bushing and spacer still used in right side

New Triple Clamps

- FXDI/C/B/35 models: 29˚/29˚ steering head/fork angles
- FXDLI model: 29˚/30.5˚ steering head/fork angles
- FXDWGI models: 34˚/36˚ steering head/fork angles

- FLT/V-Rod™ models-style steering bearing adjuster

New VRSC®-style 49mm Forks

- 12 mm damper tube bolt
- 2 different lengths
  - FXDWGI model
  - FXDI/L/B/C/35 models

New Headlamp and Mounting

- Mounted to lower triple tree
- Eliminated the headlamp eyebrows

New Headlamp and Mounting (cont.)

- FXDWGI model utilizes XL model headlamp bucket with new trim ring
- Mounted to lower Triple Tree
- Headlamp eyebrows eliminated

New Handlebars, Clamps and Risers (all models)

- FXDWGI model 1 1⁄4" (31.75 mm) mini "ape-hanger" handlebars with internal wiring

New Handlebars, Clamps and Risers (all models - cont.)

- New FXDI/L/B/C/35 models handlebars with new risers and clamps
- FXDBI model with current Wide Glide 1" (25.4 mm) mini “ape-hanger” handlebars

New Rear Styled Shocks

- FXDCI/FXDLI/FXDWGI models only

New Wheels

- Ten spoke split cast wheels for FXDCI/FXDLI models
- New 17" rear wheels
- 17" Chrome Profile rear wheel
- 19" Chrome Profile front wheel
- 21" Chrome Profile front wheel (FXDWGI model only)
- New 1" front and rear axles

Brakes

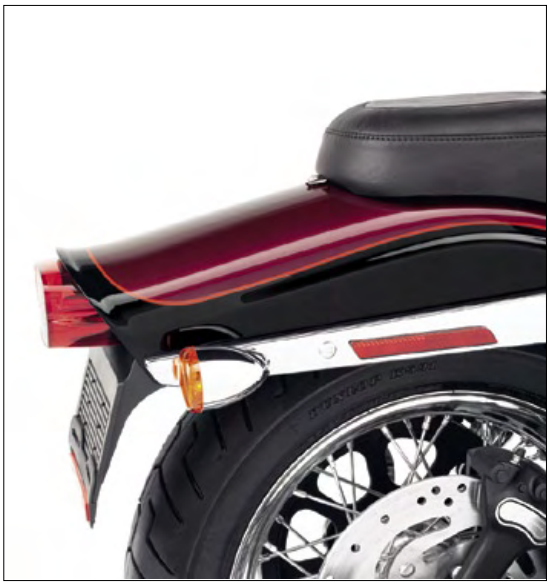
- New rear brake caliper support bracket

Brakes (cont.)

- Floating front brake rotors
  - Cast wheel uses current VRSCA/B models front brake rotors
  - Laced wheel has unique front brake rotors

Fenders

- New Bobtail fender on FXDWGI model
- New Bobtail fender support covers
- New wrap-around rear fender on FXDI/FXDBI/ FXDCI/FXDLI models
- New wrap-around fender support covers
- New front fenders and mounting brackets



Battery Cover and Support

- Moved back and inboard for improved rider comfort
- Terminals outboard for improved service access

- New plastic battery box and covers
- Battery retention with V-Rod®-model battery strap

New Dyna Model: DYNA 35th Anniversary Super Glide®

- Serialized nameplate (1 of 3,500, etc) on battery cover
- White pearl paint
- Ribbed seat
- Chrome Profile wheels
- Carry-over Softail™-model pull-back handlebars

- Unique H-D® #1 fuel tank trim strip

DYNA 35th Anniversary Super Glide® (cont.)

- Red, white, blue fender and tank graphics emulating 1971 Super Glide

- Chrome sprocket cover
- Chrome belt guard

DYNA 35th Anniversary Super Glide® (cont.)

- One-of-a-kind "Super Glide" emblem on electrical panel cover

- Silver-faced speedometer

DYNA 35th Anniversary Super Glide® (cont.)

- Unique fuel tank medallion
- Current FXDWGI model fuel tank

FXDBI Street Bob™

- Black and polished powertrain
- New Street Bob™ air cleaner trim
- Mini "ape-hanger" handlebars
- Current Low Rider® fuel tank
- New wrinkle black fuel tank console with indicator lights
- Center tank-mounted speedometer
- Unique fuel tank emblems
- Solo seat
- Wrinkle black battery cover with polished trim

- Mid-mount foot controls
- Wrinkle black electrical panel cover
- Wrinkle black belt guard
- Wrap-around rear fender
- Low seat height: 25.8" (655.32 mm)
- Chrome Pofile Laced wheels
- Low Rider™ rear shocks
- New Black Denim paint

SOFTAIL® FAMILY

All Softail® Models

- New two-piece fuel sender
  - Fuel level sender is mounted to right side of fuel tank tunnel

All Softail® Models (cont.)

- Footboard and brake pedals on FL Softail® models commonized with Touring models

New Model: FLST/I Heritage Softail®

- The return of the Heritage Softail®

New Model: FLST/I Heritage Softail® (cont.)

- Incorporates a four-bolt rear fender support attachment
  - Enables P&A saddlebags
- New OE passenger pillion

FXST/I Models (except Deuce™)

- 200 mm rear tires
- New frame and swingarm for 200 mm tires
- 20 mm drive belt for Softail models with 200 mm rear tire
- OE on FXST/I, FXSTB/I, and FXSTS/I models
  - Wider Bobtail fenders on these models for 200 mm tire.
- New 6"x17" rear wheels
- New wheel options for these models include a forged rear disc wheel and a front Chrome Profile Laced wheel

FXST/I Models (except Deuce™) (cont.)

- New slip-on brake pedal pad to include Softail Deuce model for international regulatory compliance

New Rear Brake Caliper for 200 mm Rear Tire Softail® Models

- Two-piece rear brake caliper

New Rear Brake Caliper for 200 mm Rear Tire Softail® Models (cont.)

- New brake caliper requires unique brake pads

Auxiliary Lamps

- New auxiliary lamps for domestic-configured FLSTN/I and FLSTC/I models

Auxiliary Lamps (cont.)

- New auxiliary lamp bulb
- New connector for auxiliary lamps

FLSTC/I Heritage Softail® Model

- New reinforced saddlebags
- Low-rise windshield for HDI models – 2" (50.8 mm) shorter

TOURING FAMILY

New High Output Charging System (all models)

- Three-phase 50 amp charging system OE
- Consists of a new stator, rotor, and regulator

- Integrated A/C and D/C connectors on regulator

New Reflector-Optics Auxiliary Lights (all models)

- The auxiliary lights now match the reflector-optics headlamps introduced in the 2005 model year
- New auxiliary lamp bulb

New Hot Engine Management Strategy (all models)

- Similar strategy as currently used with different parameters
- Normal operating idle RPM reduced from 1000 to 950
- Hot engine RPM reduced from 900 to 800
- Spark timing, A/F ratio and skip spark all utilized to reduce engine-generated heat
- RPMs will automatically be increased if required to maintain proper battery voltage

New Main Wiring Harness Trough (all models)

- Consists of new tray and cover
- Helps reduce variability in harness location and routing

Catalyst-Equipped Mufflers (all markets)

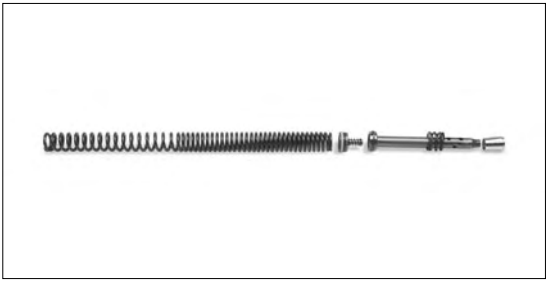
- Configuration will vary by market

HDI Road King® Models

- FLHPI models will now be available (HDI and BRZ)
- 2" (50.8 mm) lower windshield on HDI Road King models

Electra Glide® and Road Glide® Models Only

- New conventional style front forks
  - Both forks are now conventional style with a new triple-circuit damping mechanism



Electra Glide® and Road Glide® Models Only (cont.)

- New ignition switch for domestic models
  - HDI ignition switch on fairing bikes will now carry-over to domestic vehicles

New Tour-Pak® (FLHTCI/ FLHTCUI models)

- Tour-Pak is now mounted lower on luggage rack
- Grab rails have been replaced with a seat strap
- HDI and Domestic FLHTCI models will now have identical Tour-Paks
- New side marker lights on domestic Ultra models
- New chrome trim strip on all others
- New Ultra liner and Classic mat
- Made of injection-molded black GTX nylon alloy

New Tour-Pak® (FLHTCI/ FLHTCUI models) (cont.)

- Tour-Pak now has two-position adjustability
  - Can now position Tour-Pak 1" (25.4 mm) further back
  - New torque specification for mounting bolts (96-108 in/lbs) (10.85-12.20 Nm)

- New two-piece passenger backrest

New Advanced Audio System by Harman/Kardon®

- Multi-band radio software calibrated based on geographic areas
- Not retrofittable at this time

- CD media plays MP3 file format (10 hrs. music)
- Anti-skip protection (130- second memory and mechanical dampers)

New Advanced Audio System by Harman/Kardon® (cont.)

- 4-channel speaker output
- 80 watts total power on FLHTCUI models (20 watts/channel)

- Entertainment serial data line to accommodate Parts and Accessories (P&A)
- New 2 Ohm speakers
- Expanded DT functions to provide help with using radios on-board diagnostics
  - DT will be required to turn on intercom, change regional setting, review DTCs, and speaker configuration
  - DT will provide link to diagnostic manual
- Same part number for domestic and HDI radio

Plug and Play Accessory Features

- External power amplifiers
- CB Intercom – can be added to non-Ultra models

- XM satellite radio (domestic only)
- Turn-by-turn audible navigation soon to be available
- Bluetooth cellular telephone gateway
  - A list of phones that are compatible can be found on h-d.com or h-dnet.com

New Model: FLHX/I Street Glide™

- Low profile rear shocks

- New 40-watt Advanced Audio System by Harman/Kardon®

New Model: FLHX/I Street Glide™ (cont.)

- Bat-wing fairing with smoked mini wind deflector

- Rear fender fascia with low-hung license plate bracket
- HDI models do not have LED lights in fascia
- Fairing-mounted mirrors (HDI and domestic models)

New Model: FLHX/I Street Glide™ (cont.)

- New black cast slotted alloy wheels

CVO™ FAMILY

New FLHTCUSE Screamin' Eagle® Ultra Classic Electra Glide® Model

- Sceamin' Eagle® 103 c.i. (1690 cc) Twin Cam engine with oil cooler
- Hydraulic DOT4 high-performance clutch
- New triple circuit dampening forks
- Separate high beam and low beam halogen headlamp bulbs

- New 4" (101.6 mm) catalyst mufflers and calibration
- Improved power for HDI configurations below 4000 rpm
- Internally wired handlebars

New FLHTCUSE Screamin' Eagle® Ultra Classic Electra Glide® Model (cont.)

- Harman/Kardon® Advanced Audio System with amplifier, XM radio, and three months of free XM service
- Heated touring seat and hand grips
  - Independent rider and passenger switches

- New leather-covered Tour-Pak® with:
  - LED interior lights
  - Luggage rack
  - Plush interior liners
  - Two position adjustability
  - Leather lumbar-support passenger backrest
- Three exclusive color combinations

New FLSTFSE2 Screamin' Eagle® Fat Boy®

- Sceamin' Eagle® 103 c.i. (1690 cc) Twin Cam engine with oil cooler
- Hydraulic DOT4 high-performance clutch
- Lowered rear suspension

- Internally wired handlebars
- New two-piece rear brake caliper
- Unique rear wire harness

New FLSTFSE2 Screamin' Eagle® Fat Boy® Model (cont.)

- New front and rear 17" custom wheels
  - New 200/55-17 rear tire
  - New 145/75-17 front tire
- 20 mm drive belt

- New frame and swingarm
- New rear fender and strut covers to accommodate the wide rear tire
- Three exclusive color combinations

New VRSCSE2 Screamin' Eagle® V-Rod® Model

- 1250cc "Big Bore" Revolution® engine with high-flow cylinder heads
- New clutch springs
- 240 mm rear tire

- New rear wheel sprocket and 20 mm drive belt
- New 8" x 18" forged aluminum rear wheel
- Modified frame with modified shock junction area

New VRSCSE2 Screamin' Eagle® V-Rod® Model (cont.)

- Modified swingarm with shock mount changes
- New inner and outer rear fender with custom license plate bracket assembly
- New rear shocks
- VRSCD model triple clamps with additional trail

- New push-button latch for the seat in the right-rear side cover
- 1.25" (31.75 mm) handlebars with internal wiring
- Three exclusive color combinations

New VRXSE Screamin' Eagle® Destroyer® Model

- For off-road use only
- Drag Race motorcycle that is race ready out of the box
- Big Bore 1300 cc Screamin' Eagle® Revolution Motor
  75 mm stroker crank
  105 mm bore
- 170 rear wheel horsepower at 9700 RPM
- Drag race only Dunlop® Screamin' Eagle® race slick tires
- Race ready chassis
  - Black solid rear struts
  - Black wheelie bar
  - Chain final drive featuring easily removable sprockets
- Race Electronics
  - Programmable shift light
  - 2-stage launch box linked to the clutch lever
  - Race programmed ECM
  - Screamin' Eagle® EFI Race Tuner included
- Rider Interfaces
  - Electric over air shift system
  - Forward race position riser with drag handlebars
  - Custom deep bucket high rise race seat
  - Custom handlebar controls designed for racing
  - Handlebar mounted tether "kill switch"
- No warranty available once set-up bas been completed

BUELL® FAMILY

Reduced Clutch Lever Effort (all models)

- 1203 cc (22% reduction) and 984 cc (15% reduction) models now use same new diaphragm spring
- New Formula+ transmission/primary oil used helped enable this change

New Intake System (all models)

- Cosmetic airbox cover has aluminum hex screen over intake area
  - This area cannot be obstructed
- Slight increase in fuel capacity (3.82 gal./14.46 liters) due to air intake relocation

New Intake System (cont.)

- New airbox cover assembly with "breathing" holes
  - New intake routed directly into the airbox

New Swingarm (all models)

- New swingarm is .56 lbs (254 grams) lighter and more rigid than current swingarm
- New swingarm incorporates new belt guards and inner fender

New Swingarm (all models) (cont.)

- Oil filler cap design change with easy-access location

New Oil Lines (all models)

- The three oil lines between the engine and swingarm are now VRSC-style Jiffy-Tite™ connections at the swingarm

New Oil Lines (all models) (cont.)

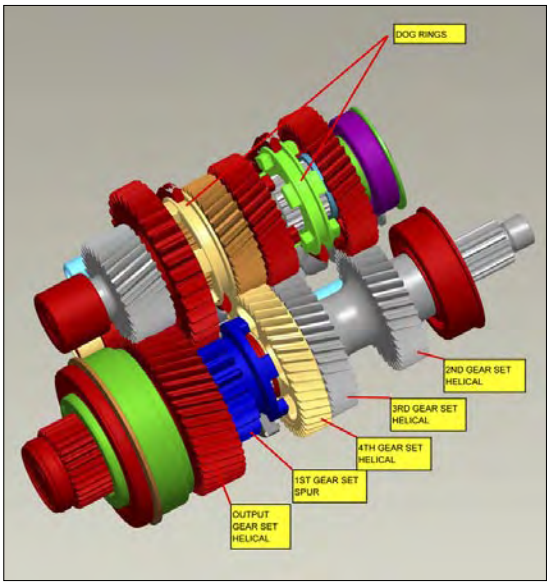
- New oil line mounting points on engine case and swingarm

New Drive Belt (all models)

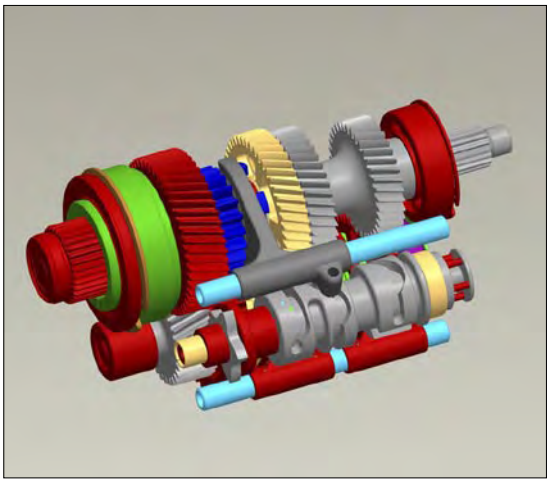
- Increased debris tolerance
- There is no longer a replacement interval
- Retrofittable

New Transmission (all models)

- Will use same helical transmission as XL models
- New Formula+ oil with same service interval as XL models

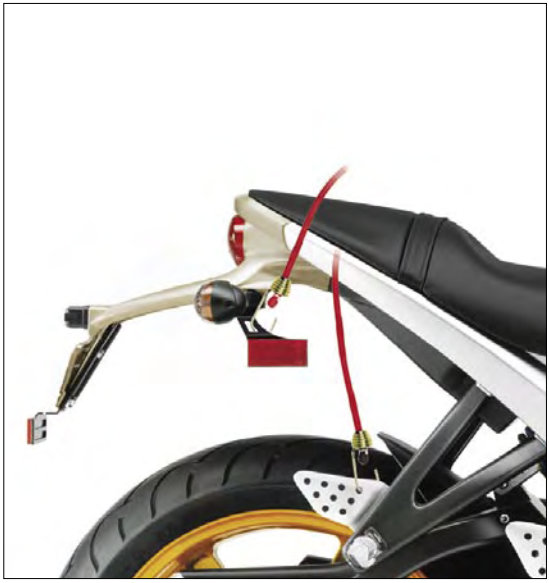


- New shifter drum
- New shift forks



Cargo Tie-Down Connection Points (all models)

- New rear reflector brackets with integrated tie-down points
- Recommended use of passenger heel guards as another cargo tie-down point



Two New Translucid Colors

- "Valencia Orange"
- "Kick-Ash"
- Same special care requirements as 2005 model year "Hero Blue," which is also still available for 2006

Valencia Orange

- Will continue to install caution decals on mirrors of XB models featuring Translucid parts

Kick-Ash

New XB Model: Lightning Long XB12Ss

- 54" (1372 mm) wheelbase with 2" (50.8 mm) longer swingarm than XB12S model
- Taller, thicker, wider seat to fit on longer tail section
- More passenger seat space
- More storage under seat
- New frame with 4.4 gallon (16.66 liter) fuel capacity
- New body and wheel color (Sunset Orange)

New Ulysses™ XB12X Model: Adventure Sportbike

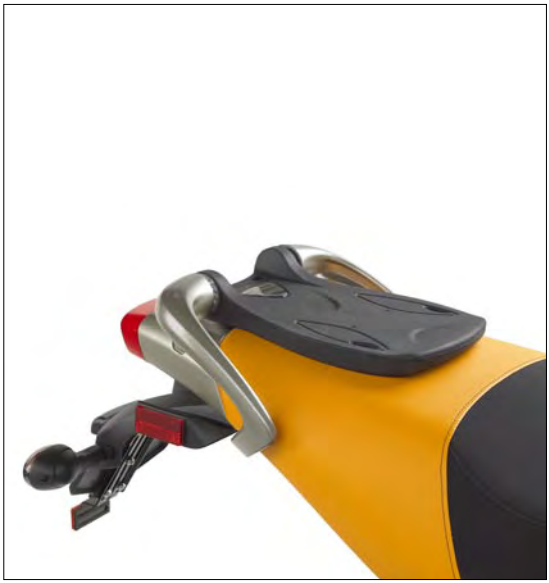
- Reinforced wheels for added durability on- or off-pavement
- Debris/weather-protective double front fender and full-coverage license plate bracket
- LED brake/taillight with 10 durable, high-visibility LED lights
- Added storage capacity under seat

- Increased suspension travel and ground clearance
- Uses the same longer swingarm as the XB12Ss model

New Ulysses™ XB12X Model: Adventure Sportbike (cont.)

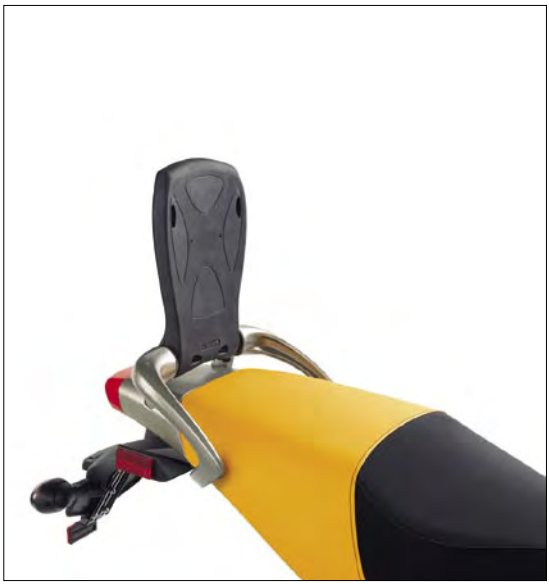
- New custom Dunlop® tires

- Three-position Triple Tail™ installed on new longer tail section
  - Forward position for use as luggage rack



New Ulysses™ XB12X Model: Adventure Sportbike (cont.)

- Three-position Triple Tail™ installed on new longer tail section
  - Perpendicular for passenger backrest with grab rails



- Rearward for luggage rack with passenger

New Ulysses™ XB12X Model: Adventure Sportbike (cont.)

- Two auxiliary power outlets

- Unique design, quick-release two-piece windscreen

New Ulysses™ XB12X Model: Adventure Sportbike (cont.)

- Easy access rear shock pre-load adjuster and helmet lock

- Increased functionality tool kit added

New Ulysses™ Model - Specific P&A

- Side Cases
- Top Case with Side Cases
- Triple Tail™ Pad
- GPS (available Fall 2005)

SCREAMIN' EAGLE®

Screamin' Eagle®

- Screamin' Eagle® EFI calibration update
  - New calibrations needed for 2006 EFI system
  - New stage cartridges will be available
- Screamin' Eagle® Pro EFI Race Tuner
  - Updated for use on 2006 EFI models
  - For race use only
- Screamin' Eagle® performance parts for Dyna models
  - Performance cam kits
    - Same as existing cams with fitment for Dyna models
  - Screamin' Eagle® Pro stroker flywheel and rod assembly.
    - Same as existing kit with fitment for Dyna models
- Screamin' Eagle® 50 mm throttle body
  - Fits 2006 Model Year Twin Cam EFI models
  - Not compatible with Screamin' Eagle Twin Cam performance or HTCC cylinder heads
  - Will fit '05-'06 Model Year Twin Cams equipped with Screamin' Eagle Pro 103+ heads or ported HTCC heads with updated '06 Model Year intake flange geometry
  - Requires recalibration through EFI race tuner or applicable performance calibration cartridges.
  - For race use only
- Screamin' Eagle® cylinder heads
  - Updated for fitment of 50 mm throttle body
- Harley-Davidson® slip-on catalyst mufflers
  - Street legal sound and 50-state emissions legal on EFI models with improved performance compared to stock

SERVICE AND TOOLS

New Torque Procedure For Big Twin Models

- See Service Bulletin M-1170
- Torque compensator nut to 75 ft-lb. (101.7 Nm) + 45 to 50 degrees of angle, with oil applied under the nut face
  - New procedure applies to '03-05 MY Big Twins and '06 MY Softail® and FL platforms
- Dyna will have unique torque procedure; refer to applicable service manual
- Dyna transmission output sprocket nut is now right-hand threads
- New shock Bolts for Softail®
  - Shock bolts receive a new lock patch
  - New torque specification of 121-136 ft/lbs. (164.1-184.4 Nm)

Do Not Perform Drive Belt Adjustment at PDI

- Drive belt tension is established at the factory to within established tolerance
- Drive belt tension should be adjusted at 1K mile (1600 km) service

New Formula+ Oil

- Will be used in primary drives and transmsissions
  - Sport-Trans, Big Twin primary oil, and Big Twin transmission oil will no longer be used
- Will retro to current designs
- Extended oil drain intervals for Formula+ oil
  - 20K miles (32K km) for Big Twin models
  - 10K miles (16K km) for Big Twin primary
  - 10K for XL/XB primary/transmission

2004 and Later XL Front and Rear Brake Calipers

- It is currently recommended that front and rear brake caliper components be lubricated in brake fluid before re-assembly.
- A new lubricant will be made available and will be published in a Service Bulletin to follow.
- It will also be recommended that the caliper pad spring, which is not sold separately, be retained in the caliper body with ThreeBond 1521. Service Bulletin to follow.

Essential Tool Kit

- **Chassis Tools**
  - Oil line disconnect for XB (B-41623-B)
  - Ignition switch wrench for Dyna (HD-47853)
  - Ignition switch alignment tool for FL (HD-45962)

Essential Tool Kit (cont.)

- **Engine Tools**
  - Primary locking tool for Dyna (HD-47977)
  - Camshaft needle bearing remover/installer with two additional new pieces to use with HD-42352 for Dyna
    - 1" collet (HD-42325-12)
    - Installer (HD-42325-13)
  - Camshaft locking tool for Dyna (HD-47941)
  - Camshaft assembly tool for Dyna (HD-47956)
- **Transmission Tools**
  - Main drive gear seal installer for Dyna/XL/XB (HD-47856)
  - Main drive gear needle bearing installer for XL/XB (HD-47855)
  - Mainshaft locknut wrench for Dyna (HD-47910)
  - Main drive gear needle bearing installer for Dyna (HD-47932)
  - Main drive gear seal installer for Dyna (HD-47933)
- Main drive gear/bearing remover/installer which has seven pieces added to parent tool HD-35316-B
  1. Receiver cup for MDG bearing Dyna/XL/XB (HD-35316-11)
  2. Installer cup for MDG bearing Dyna/XL/XB (HD-35316-12)
  3. Bearing driver for MDG bearing installation Dyna/XL/XB (HD-35316-8)
  4. Bearing driver for MDG bearing removal Dyna/XL/XB (HD-35316-9)
  5. Pilot MDG remover/installer for Dyna (HD-35316-10)
  6. Cross plate to bridge transmission case opening for Dyna (HD-35316-3-A)
  7. 8" bolt for Dyna/XL/XB (HD-35316-4-A)
- Bolts for inner bearing race removal for Dyna (HD-95637-10)
- **Electrical Tools**
  - Radio breakout box for new radio (HD-47918)
  - SWR meter adapter for FL with CB (HD-48037)
- **Available Tools**
  - 2006 Dyna transmission cradle (HD-42310-20)
  - Rear axle wrench (HD-42310-20) for torquing 36 mm axle nut without removing exhaust system (HD-47925)
  - Propane enrichment kit (HD-41417)
  - Fuel injector cleaner kit (HC-48030)
  - Additional fluid (HD-48030-10)

MOTOR
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CYCLES

Buell
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