

2013 Harley-Davidson Motorcycles New Product Technical Forum

Powertrain

A change has been made to how transmission oil level is checked.

Currently it is checked on the side stand with the dipstick resting on the threads.

It is still checked on the side stand.

The change is to screw the dipstick in until the o-ring touches the case.

Full clutch adjustment added to PDI for all BT

Tools

Midtronics GRX-3110 HD Battery Diagnostic Station

Combines Diagnostics and Fast Charging

Utilizes Conductance and Load Testing to Determine Battery Health

Battery Clamps Designed for H-D Batteries

Supports 27 Languages

USB Port for Software Updates

5 Expansion Slots Allow for Future Capabilities

Optional Cart Available





MY2013 Offerings – V-Rod®



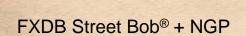


VRSCDX - Night Rod® Special

VRSCDF – V-Rod Muscle®



MY2013 Offerings - Dyna®





FXDC Super Glide[®] Custom



FXDL Dyna Low Rider[®] (JPN Only)



FXDF Fat Bob®



FXDWG Wide Glide®



FLD – Switchback

FXDB - Featured Content



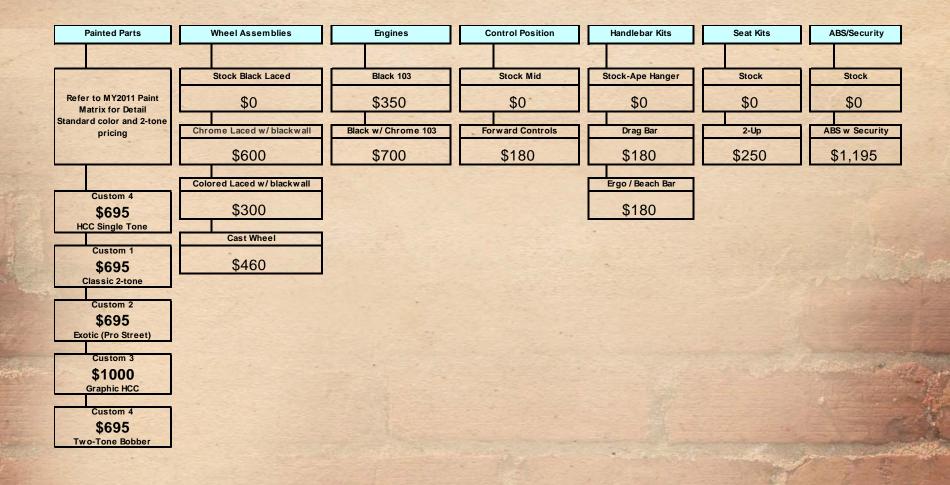
FXDBP – MY '13 Dyna®



Reasons to Buy

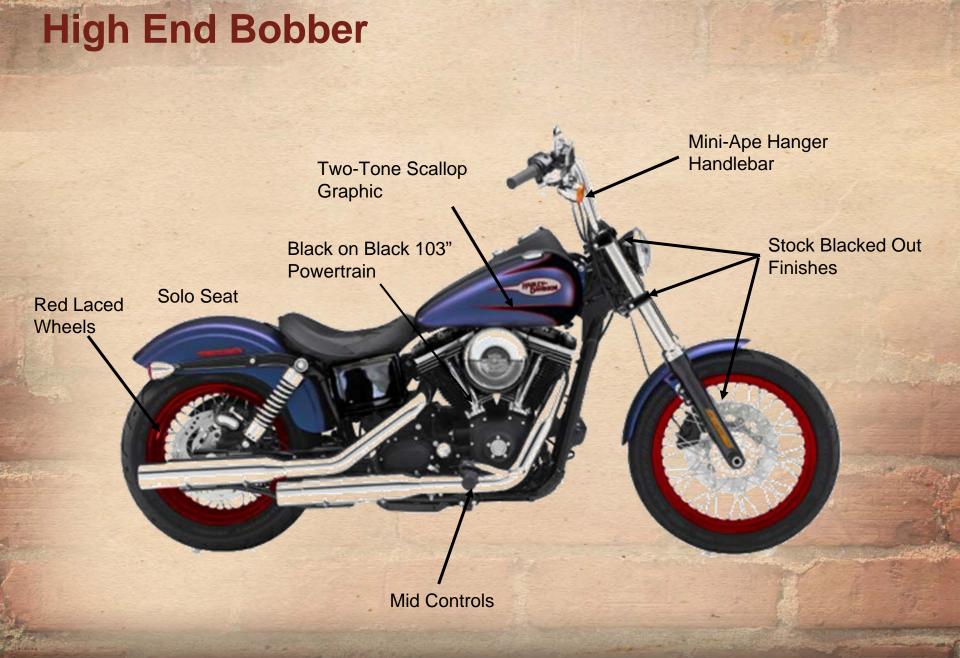
Expansion of the NGP program to reach more customers Customer selected ergonomic options – seat and handlebars Unique styling options –wheels, unique paint and finishes

Options Pricing Summary

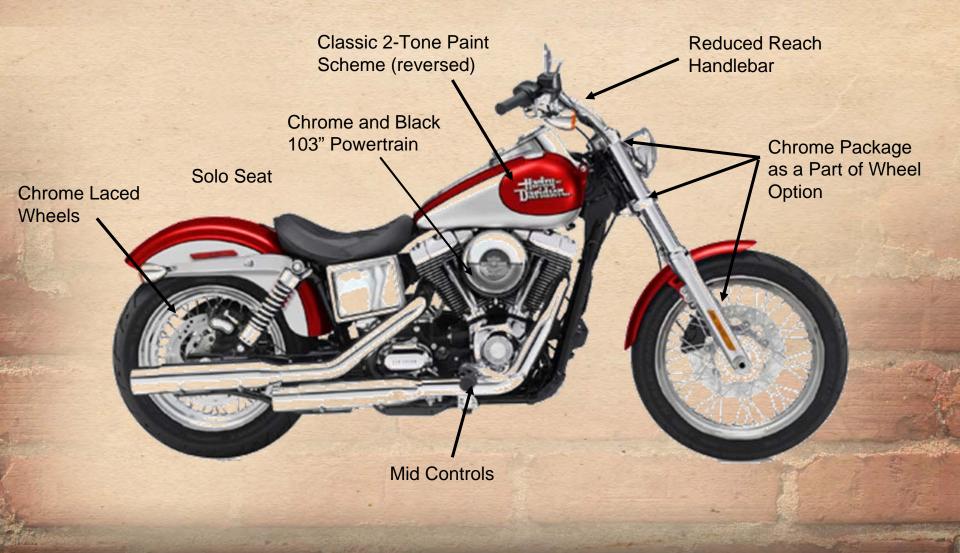


Hard Candy Custom





Classic



Dominator



MY2013 Offerings - Softail®



FLSTFB Fat Boy ® Lo



FLSTF Fat Boy®



FLSTN Softail® Deluxe



FXS – Blackline®



FLS – Softail[®] Slim[™]



FLSTC Heritage Softail® Classic



FXST Softail® Standard (Australia Only)

MY2013 Offerings - Touring



FLHTK Ultra Limited



FLHTCU Ultra



FLHTC Classic



FLTRU Road Glide® Ultra



FLHX Street Glide®



FLTRX Road Glide[®] Custom



FLHRC Road King [®] Classic



FLHR Road King ®

MY2013 Offerings - Trike

FLHTCUTG Tri Glide[®] Ultra Classic[®]

MY2013 Offerings - Trike

Reverse Motor Running Change – Corrosion Improvements

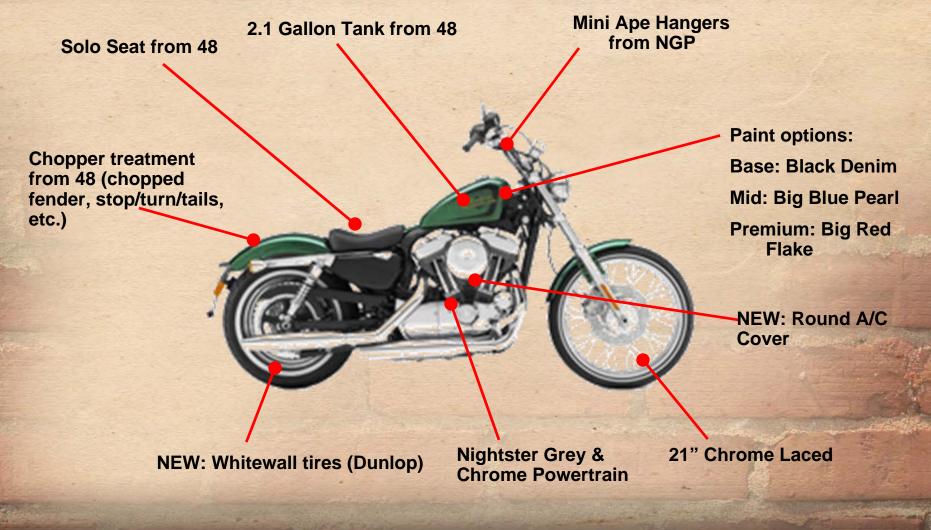




Added drain hole and drain valve to allow water to escape

Brushes rotated away from 6 o'clock position

Seventy-Two™ - Features



FLS Softail® Slim - Content

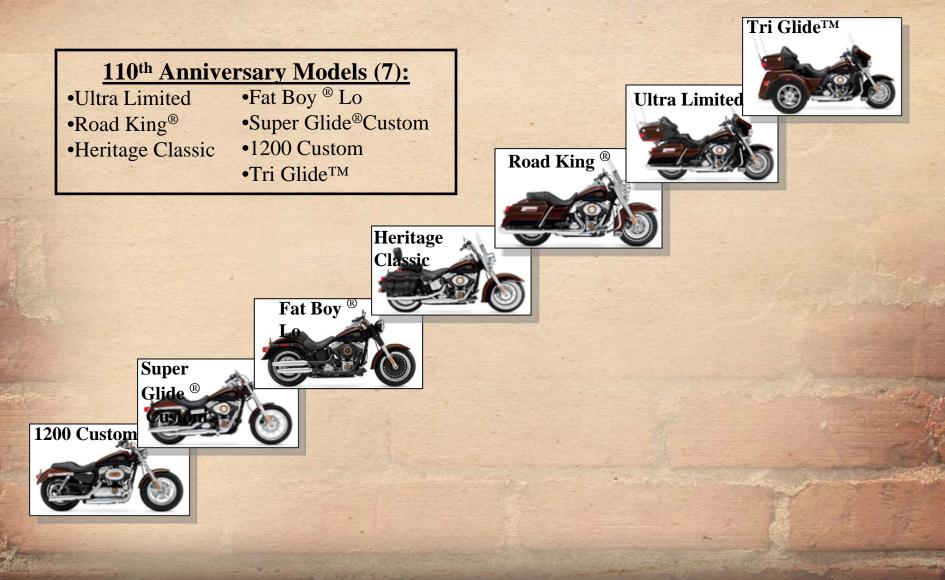


110th Anniversary - MY13

- Very limited volume; approximately 2-3 per model per dealer worldwide
- Content similar to 105th -
 - 7 OE models with 110th 2-tone Anniversary Vintage Bronze Pearl with Anniversary Vintage Black
 - 3 CVO models with special anniversary graphic package
 - Serialization
 - 110th specific identification on tank, air cleaner, derby cover, etc.
 - New seat, and wheels with special finish



110th Anniversary – Model selections



Content Overview – Ultra Limited

Contrasting

seat panels

Two-tone paint

- Anniversary Vintage Bronze with Anniversary Vintage Black
- Special Pearl Coat

New 110th Anniversary serialized badging New floating pin stripe pattern

New 110th tank badge with cloisonné insert

> Wheel upgrade for most models

New 110th Tour-Pak medallion

New timer and derby covers, A/C Inserts

Tank Medallions



- Tank Badging will be forged solid bronze
- Black nickel chrome plated and buffed
- Badging will be sealed to prevent surface oxidation
- Cloisonné Bar & Shield insert

Fat Boy® Lo

Heritage Softail[®] Classic

Road King®

Tri Glide[®] Ultra Classic[®]

ø

2013MY CVO™





FLHTCUSE8 Ultra Classic®

FLHRSE5 Road King®

FXSBSE Breakout[™]

CVO Product Updates

All vehicles will have the A&S hydraulic clutch.

- Clutch lever effort is substantially reduced compared to the OE clutch.
- All CVO engines will now have a full compliment cam bearing.
- It is recommended that the SE High Performance inner cam bearing be used on all non-OE cam shafts for all twin cam engines.
 - 24017-10 for 2000 to 2006 Big Twins except 2006 Dyna®.
 - 24018-10 for 2006 Dyna® and 2007 and later Big Twins.

CVO Hydraulic Clutch - Design

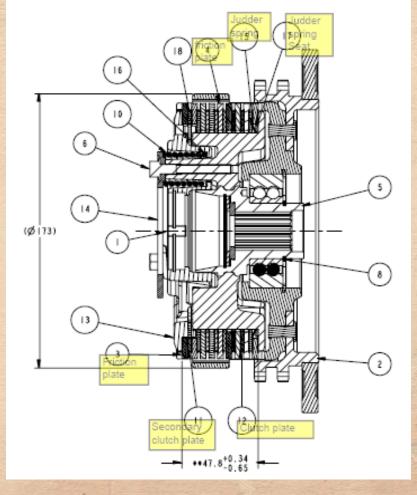
Current Production System



2012MY System

Assist and Slip Clutch (A&S Clutch)

- Parts that did not change
- •Clutch basket assembly
- •Main shaft nut
- •Center plate
- •Center plate retaining ring



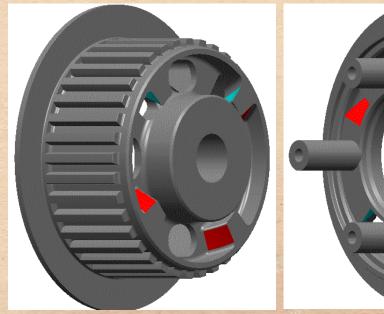
Parts that are new
Judder spring and seat
Friction plates
Clutch hub assembly
Steel plates
Clutch spring
Pressure plate

Assist and Slip Clutch (A&S Clutch)

Assist ramps provide additional clamping force onto clutch pack when torque is applied. Slip side of the ramps try to separate the clutch pack during decelerations or downshifting.

Clutch Center

Pressure Plate



FLTRXSE2 – Road Glide[®] Custom

Premium Paint & Graphics Available in 2 Colors:

- Atomic Orange and Galaxy Grey with Edge Graphics
- Roman Gold and Burnt Emerald with Edge Graphics

Custom Solo Seat w/ detach pillion and New Leather Inserts

Saddlebag Speakers w/ color matched or color coordinated grilles 1.25" FLTR Handlebar Windsplitter w/ HD graphic

Hidden Antenna

Daymaker[™] LED Headlamp

Amp & Ipod module in Saddlebags Hydraulic Clutch System Updates Slipstream Collection

S Extended Heel Shift Lever (LH side)

FLHTCUSE⁸ – Ultra Classic[®] Electra Glide[®]

Dual control Leather Seat &

components

matching

Premium Paint & Graphics Available in 3 Colors:

- Tribal Orange/Dark Slate
- Stardust Silver/Dark Slate
- Typhoon Maroon/Black Diamond

Slipstream Collection – Heated grips

Slipstream Collection – Windshield Trim

> Tank Medallion

Colormatch LED Tour-pak Wrap around

> Color-match Saddlebag Latches

Hydraulic Clutch / System Updates

Slipstream Collection Foot Controls

FLHRSE⁵ – Road King[®]

Premium Paint & Graphics; available in 2 colors Burgundy Blaze w/Hot Fusion Graphics Crushed Sapphire w/ Cold Fusion Graphics

Custom Solo Seat w/ detachable pillion and new leather Inserts

200 watt amp, audio module

and iPod in LH s/bag

5 X 7 speakers In s/bag lids New custom console and

Custom Speedo/tach

New vented, detachable, Dark smoked w/shield

Profile mirrors

Ergo designed 1 1/4 Handlebar, w/audio

controls

Extended / s/bags with LED lighting

Hydraulic Clutch System Updates

Slipstream collection Pegs, boards, grips

5 1/4 2-way speakers In fairing lowers Mirror chrome Agitator wheels

NEW – Leather

Seats with

Horn-Back

Gator-Style

Accents

NEW – 1-Piece Chrome Forged Aluminum Fender Supports NEW – Ultra-low Profile Chrome Console w/ Braided Stainless Steel Lines **NEW** – 1 1/4" Chrome Internally Wired H'bar w/ Mounted 4" Digital Speedo

> **NEW** - Wide, Slammed Front End w/ 130mm 21" tire

NEW – 240mm Wide Rear Wheel

> Polished and chrome matching rotors and sprocket

Heavy Breather High Flow Intake Cast Aluminum

Oil Tank

Slipstream Collection: Foot Controls and Grips

NEW – Mirror Chrome Turbine Custom Wheels: 21x3.5" Front

Breakout™ Paint Options

Unique, Custom Polished Metal Fuel Tank & Fenders Black Diamond and Molten Silver with Crushed Slate Graphics Hard Candy Gold Dust and Liquid Sun with Gold Leaf Graphics Crimson Red Sunglo and Scarlet Lace with Hammered Sterling Graphics



CVO Gold Museum Membership

Each New Vehicle Purchaser (NVP) receives a CVO Gold Collector Coin with Membership. CVO Gold Museum Membership Benefits:

Base Membership Benefits

•Museum Membership Card
•Unlimited Museum Admission
•Collectible Limited Edition Dog Tag
•Member-only Website Content
•Special Privileges to Museum Programs, Events & Exhibits
•10% Discounts at Motor Bar & Restaurant, Café Racer, The Shop, & Online Art Shop
•The Backroad Chronicles, a pocket-sized guide to the Museum

CVO Gold Museum Extras

•Unlimited visits for two (2) adults (and kids/grandkids)
•Bring Up To Four (4) Complimentary Guests Each Visit
•A second Collectible Limited Edition Dog Tag
•Certificate for a free Audio Tour at the Museum
•Exclusive CVO content on the Members-Only Website
•Special CVO Communications/Stories and Presence at Event
•The CVO Gold Coin



CVO - Model Selections

110th Anniversary Models (3):

- CVO[™] Road King[®]
- CVO[™] Road Glide [®]
- CVO[™] Ultra Limited

Ultra Limited

Road Glide[®]

Road King[®]



Unique Anniversary Paint Scheme

 Diamond Dust & Obsidian with Palladium graphics

110th Seating

- Unique pattern design
- New Bomber Black leather inserts





Exclusive Badges

- Solid Bronze Tank Medallion with Midnight Pearl finish
 - Bar & Shield Cloisonné
- Serialized nameplates
- Midnight Pearl Inserts







110th Anniversary Edition FLTRXSE² CVO[™] Road Glide[®] Custom

Custom Solo Seat w/ detach pillion and New Leather Inserts 1.25" FLTR Handlebar

Windsplitter w/ HD graphic

> Hidden Antenna

Daymaker™ LED Headlamp

Saddlebag Speakers w/ color matched or color coordinated grilles

Amp & Ipod module in Saddlebags

Hydraulic Clutch System Updates

> Extended Heel Shift Lever (LH side)

Slipstream Collection

Anniversary Edition FLHTCUSE⁸ CVO[™] Ultra Classic[®] Electra Glide[®]



Anniversary Edition FLHRSE⁵ CVO[™] Road King[®]

Custom Solo Seat w/ detachable pillion and new leather Inserts

New custom console and Custom Speedo/tach

New vented, detachable,

Dark smoked w/shield

Ergo 1 ¼ Handlebar, w/audio controls

> Mirror chrome Agitator wheels

200 watt amp, audio module and iPod in LH s/bag

5 X 7 s/bag lid Speakers

Extended s/bags with LED lighting

> Hydraulic Clutch System Updates

Slipstream collection5 ¼ 2-way speakersPegs, boards, gripsIn fairing lowers

MY'13 International Products



ONE COMPANY ONE TEAM ONE DIRECTION

MY'13 New Global Launches



XL1200V – 72[™](Seventy-Two[™])

FLS – Softail[®] Slim

1200 Custom Limited NGP Int'l Configs - XL1200CA



Candy Orange and Beer Bottle Delux Paint
Drag Bars
Forward Controls
Black Engine
Chrome Wheels

1200 Custom Limited NGP Int'l Configs - XL1200CB



Denim Black Paint
Mini Apes
Mid Controls
Black Laced Wheels
Black Engine

Performance Rear Suspension

Suspension upgrade to International base FLHX/ FLTRX



Electrical

Japan Headlight/Fog Lamp Harness Changes

Softail Models Receive a New Headlamp Assembly for Japan, Australia, and England Markets

• Fog Lamp Switch Power Spliced to O/W wire Instead of Y Wire.

Touring Models Continue to Use Jumper Harnesses (Installed at York Assembly Plant)

Brazil GPS Security System

Utilizes GPS for Positioning Information and GSM Cellular for Remote Immobilization Implemented on Softail Models by January 31st to Meet Regulatory Requirements All other Models will Receive System in 2014 Model Year