

Features and Specs



Engine

Type.....Powerplus 105, 45, V-Twin
Displacement.....105 cubic inches / 1720 cc
Bore x Stroke.....3.966" x 4.25"

Fuel System.....Closed Loop Fuel Injection
Exhaust System.....2 into 1 with Catalytic Converter
Rev Limit.....5250 RPM

Dimensions and Weight

Weight (without fuel):

Standard.....728 lbs. / 330.2 kg
Deluxe.....746 lbs. / 338.4 kg
Roadmaster.....747 lbs. / 339 kg
Vintage.....753 lbs. / 341.6 kg
GVWR.....1220 lbs. / 553 kg
GAWR.....671 lbs. / 304 kg
GAWF.....549 lbs / 249 kg
Seat Height.....27.25 in. / 700 mm
Wheelbase.....68.4 in / 1737 mm

Overall Length:
All.....100.5 in. / 2553 mm
Overall Width.....40.5 in. / 1029 mm
(all models)
Overall Height.....50.5 in. / 1283 mm
with Windshield.....59.5 in. / 1511.3 mm
Rake (frame).....34 Degrees
Trail.....5.92 in.
Ground Clearance.....6.0 in / 162 mm
Fuel Capacity.....5.6 U.S. Gallons / 21.0 liters

Drivetrain

Primary Drive.....Chain Drive - Wet Clutch
Engine Sprocket.....28 Teeth
Clutch Sprocket.....37 Teeth
Primary Reduction Ratio 1.32:1
Transmission.....Constant Mesh, Foot Shift, 6-Speed
1st Gear Ratio.....3.77:1
2nd Gear Ratio.....2.56:1
3rd Gear Ratio.....1.87:1
4th Gear Ratio.....1.44:1
5th Gear Ratio.....1.15:1
6th Gear Ratio.....1:1

Final Drive.....Belt Drive, 136 Tooth
Transmission.....31 Tooth
Rear Wheel.....66 Tooth
Ratio.....2.10:1
Overall Gear Ratio
1st Gear.....10.44:1
2nd Gear.....7.09:
3rd Gear.....5.17:1
4th Gear.....3.98:1
5th Gear.....3.19:1
6th Gear.....2.77:1

*Preferred method for setting tension is with sonic tension meter
see an Indian Motorcycle dealer

Primary Chain Slack.....9/16-5/8 in. / 13.4-15.9mm
Rear Drive Belt Deflection.....47 Hz + 5 Hz*

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Brakes - Tires - Wheels

Brake Pad	Front: Brembo P/N 50250061
	Rear: Brembo P/N 50250062
Brake Pad Thickness	New: Backing Plate + Pad
	Front: .240-.334 in. / 5.20-8.50mm
	Rear: .346-.362 in. / 8.80-9.20mm
	Minimum: .157 in. / 4.00mm
Wheels	3.5 in. x 16 in. 60 Spoke
	3.5 in. x 16 in. Billet Aluminum
Inner Tube	— None Required

Tires/Front

Black	— Michelin Commander 67H 130/90-16
Pressure	— Single Rider.....36 psi
	Pressure @ GVWR.....38 psi
White Wall	— Metzler Marathon ME880 130/90-16
	Pressure — Single Rider.....36 psi
	Pressure @ GVWR.....38 psi

Tires/Rear

Black	— Michelin Commander 71H 150/80-16
Pressure	— Single Rider.....39 psi
	Pressure @ GVWR.....41 psi
White Wall	— Metzler Marathon ME880 150/90-16
	Pressure — Single Rider.....39 psi
	Pressure @ GVWR.....41 psi

Fluid Requirements

Indian Motorcycle® recommends Indian Branded Oils and Fluids for trouble free operation

Engine Oil	SAE 20W-50 weight SG	Fuel	Unleaded Gasoline
	3.5 Quarts With filter at oil change		91 Octane Minimum (R+M2)
Transmission	SAE 80W90 weight GL55	Brake Fluid	DOT 4 <i>(Do Not use DOT 5 silicone fluid)</i>
	Hypoid C GL5 transmission oil	Clutch Fluid	DOT 4 <i>(Do Not use DOT 5 silicone fluid)</i>
	20-24 U.S. ounces / 591-710 cc		
Fork Oil	5 weight fork oil 165 SUS		
	Wet: 10.5 us ounces/ 310 cc		
Primary Drive Oil	SAE 80W90 Hypoid GL4		
	Wet: 20-22 US ounces/ 591-650 cc		
	Dry: (cover removed) 29 US ounces/ 857cc		

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Electrical

Spark Plugs..... BOSCH 7965/ FR7DC+ P/N 61100001

Gap..... BOSCH .036" / .90 mm

Battery 12 Volt, 20 amp/ Hr, 300 CCA (Cold Cranking Amps) Sealed Glass Mat Battery

Power Points

Front..... 3 Amp maximum

Rear..... 10 Amp maximum

Voltage Regulator..... 14 Volt / 42 Amp

Bulbs All bulbs are 12 volts

Headlamp..... P/N: 51300038

Spot Lamps P/N: 60600001

Tail/Brake Light..... P/N: 60600012

Front Fender Light..... LED- Must be replaced as assembly

Turn Signal..... P/N: 60600013

License Plate..... P/N: 60600000

Speedometer..... LED- Must be replaced as assembly

Indicator lights..... LED- Must be replaced as assembly

2009 Chief Product Features

- **Engine Displacement** – The engine displacement has been increased to 105ci
- **Engine Covers** - All the engine and transmission covers were redesigned for better looks and function.
- **Crankcases** - The crankcase casting was modified to accommodate the cylinder changes required by the larger displacement.
- **Engine Top End** - The alloy of the cylinder head and the heat treatment were changed for improved heat rejection and durability.
- **Power Cylinder** - The cast iron cylinder liner is of the past. The cylinders are new all AL and Nikasil coated. The forged pistons are ~ 100 gr. Lighter for significant reduction in vibrations.
- **Crank Mechanism** - We have a new crankshaft that eliminates the “scissoring” issues of the previous model.
- **Cam Drive** – The basic design has not changed, however, the cam timing has been updated for optimum balance of performance, emissions and noise requirements.
- **Charging System** - We do have a new charging system of increased capacity capable of working with the EFI system.
- **EFI System** - Probably the biggest change, no more carburetors but a state of the art closed loop fuel injection system. This will help provide great drivability, better fuel consumption and compliance to all domestic emissions levels of 2010.
- **Air Intake** - Totally redesigned Air Box for multiple reasons like styling, rider comfort (no more interference with the riders left knee and sound quality).
- **Gearbox** – A new six speed gear box provided by Baker is employed.
- Primary Drive - We do have a new inner primary, a new compensator (improving drivability and durability) and a much better looking primary cover.
- **Electrical** - Completely new wiring harness.

2009 Chief Product Features

- **Frame** - Totally new tooling and manufacturing process to ensure dimensional consistency. The frame will be E coated and then powder coated for outstanding corrosion protection.
- **Swingarm** - Totally new tooling and manufacturing process to ensure dimensional consistency. The frame will be E coated and then powder coated for outstanding corrosion protection.
- **Fuel System** - Brand new one piece fuel tank with "in tank" fuel pump. Fuel capacity increased to 5 1/2 gallons.
- **Dashboard and gauges** - New style dashboard Al cast accommodating a new gauge and a multi function display.
- **Front Forks** - New front fork settings for improved handling and comfort. Right fork leg modified to acclimate the second brake caliper.
- **Rear Shock** - New rear shock with improved suspension settings.
- **Brakes** - Improved brake system with dual rotors in the front. The brake lever effort, the modulation and stopping distance are improved. The entire brake system is produced by Brembo.
- **Handlebar and hand controls** - The handle bar ergonomics were improved for better rider comfort. We added a hydraulic clutch actuator. The brake and clutch master cylinders are Brembo. All the components on the bar are going to be chromed.
- **Foot controls** - New chromed foot controls with a Brembo rear master cylinder.
- **Exhaust system** - New design for the exhaust system for better performance and compliance. The exhaust system is equipped with a catalytic converter and two heated oxygen sensors.
- **Seat** - The seat foam was redesigned and tooled to provide better comfort during long rides. All the seat coverings are premium leather in multiple colors and textures.
- **Wheels** - Two type of wheels will be employed, one spoked and one billeted. As for tires we selected two premium tires. A Michelin black wall with great handling and braking performance and a stylish white wall Metzeler with great durability.
- **Painted body Parts** - The entire "sheet metal" will be E coated for enhanced corrosion protection. The Chief will be produced with the classy "long" fender and with a new shorter version. We are going to offer multiple color combinations. We do have a new fuel tank design better looking and much more functional.