

# Motorcycle Seats 101

This section of our website — “Motorcycle Seats 101” — is designed to help you make an informed decision when buying a motorcycle seat, whether you’re looking for a seat or saddle made of the highest quality materials, attractively styled, designed for comfort, reasonably priced or all of the above!

If you have concerns about replacing your original motorcycle seat, rest easy. It’s a relatively simple process and you don’t have to be a trained mechanic to perform the switch-out. In most cases, it’s a simple matter of unscrewing a rear mounting bolt and disconnecting the nose (front) of the seat that nestles up to the gas tank. As you lift up slightly on the back of the seat, pulling the seat toward the back, off it comes.

And you can be sure that makers of aftermarket seats are very careful to build replacement seats that use stock mounting points. It’s in their best interest to make the installation as easy as possible for the customer. If different hardware is needed for mounting the new seat, it should be included with the new seat.

Any quality replacement seat comes with mounting instructions — not that any of us think we need written instructions. But, for example, if you have a one-piece stock seat and you’re replacing it with a two-piece aftermarket seat, the instructions will take you through the process of mounting both seats. As long as you purchase a replacement seat that is specifically made for the exact make, model and year of your bike, there’s no need to worry about fitment.

## **Assessing your Needs**

The type of seat you purchase usually depends on the type of riding you do or a certain look you are trying to achieve. Ask yourself the following questions:

- Do you mostly ride around town or do you take long trips?
- Can you easily place your feet on the ground sitting on the stock seat
- What percentage of the time do you carry a passenger?
- Is your bike stored outside during the riding season or is it always under cover?
- Are you looking for a comfortable, touring seat or a one-of-a-kind custom seat for your show bike?

There has been a huge influx of motorcycle seats available for bike models in the past decade or so — available in a range of styles and prices. Take the time to think about the type of riding you do, the style you want for your bike and what it is specifically that you hope to achieve by making the investment in a new seat.

## **Seat Construction**

Motorcycle seats are made up of three essential parts: the baseplate, the foam and the cover (sometimes these are also referred to as the pan, the cushion and the top).

Before describing these three layers of a seat, you should know that some aftermarket or custom seat makers may use one or more parts of the original (stock) seat rather than actually provide you with all-new components. For instance, many custom seat shops simply take your stock seat off your bike and recover it with a different cover, just as an upholstery shop would recover your living room couch in a different fabric. Other custom seat shops might reshape the foam on your original seat and add their own cover.

If you and your passenger are comfortable on your stock seat and just want to change the look of your motorcycle, changing the cover on the stock seat is a reasonable way to go.

But for the large number of riders who do not find their stock seat comfortable, the best solution is a new seat “from the bottom up.” There are a few aftermarket seat manufacturers that create seats from scratch. The

following describes these three basic seat components:

## **Baseplates**

Seats are constructed on a single baseplate (both the driver's seat and the passenger's seat are built on the same, single baseplate) or a two-piece baseplate (two distinct seats). Both of the pieces on a two-piece baseplate can be attached for two-up riding or separated to ride as a solo seat.

Most stock seats and a number of less expensive aftermarket seats are built on plastic baseplates which are cheap to build but are far less sturdy than other materials. Higher quality baseplates used by aftermarket manufacturers are constructed of either marine-grade fiberglass, finished with a high-gloss gel-coat, or black, epoxy powder-coated 16-gauge steel.

The baseplate is the starting point in the design of a motorcycle seat. Ideally, the baseplate is designed to mount the motorcycle using the exact same mounting holes or brackets as the stock seat. (Nobody wants to drill new holes in their frame or fender.)

The notion behind creating an aftermarket seat is to make it far better than the original. That requires a good seat designer to roll the motorcycle into their studio, remove the stock seat and set it aside. Then, starting from scratch the designer creates a baseplate as the foundation for a great seat.

One of the best ways to assess the quality of a motorcycle seat is to turn it over and examine the baseplate area or "underbelly." When you pick up a premium seat, feel the weight and balance. That alone should show you how substantial a custom seat is compared to most stock seats.

It can be difficult to determine whether a baseplate is fiberglass or steel, but it's pretty easy to tell if the baseplate is plastic. In some cases, you can actually flex a seat made on a plastic baseplate and literally snap it in two with a little effort.

Whether your new custom seat is built on a fiberglass or steel baseplate, be sure to look for the following features:

- All exposed brackets (visible when the seat is mounted on the bike) should be chrome plated.
- Polyurethane rubber bumpers should be strategically located and riveted to the baseplate to protect the paint and minimize vibration. (Bumpers made of polyurethane are ozone protected and will not crack with age.)
- The edge of the cover material should be hemmed, not just cut off and left ragged.
- The cover should be riveted to the baseplate at close intervals around the edges. (Most stock seat covers are merely stapled on.)
- Although not readily visible, if you were able to lift up the cover, you would notice that a steel-reinforced, impact-absorbing vinyl-edge trim had been secured to the edges of the baseplate to protect the seat cover material from wearing.
- A label specifying what make/model/year of bike the seat is designed to fit should be visible as well as the manufacturer's name, warranty and contact information.
- Finally, complete mounting information should be attached to a replacement seat.

## **Foam**

The most important component of seat comfort is the foam — and that includes both the shape and the quality of the foam itself. This is truly a case of "it's what's inside that counts."

After creating the baseplate, an experienced seat designer will hand-sculpt the initial shape of the foam to

carefully contour the shape to support your body and align your spine at the best angle possible to relieve back stress. And your mother had the right idea — sit up straight. It alleviates back pain.

Most seats are built as a single piece of foam that makes up both the driver's and the passenger's seat. Other seats are built as entirely two distinct parts — the solo seat for the driver is separate from the passenger seat. This two-piece seat allows for the removal of the passenger seat so that the driver can truly ride solo. Finally, a one-piece seat (built on a single baseplate but able to carry both driver and passenger) is sometimes designed to look like two separate seats.

Once the foam shape is created, a heavy-duty fiberglass (non-shrinking, isothalic resin) mold of this shape is created in which to "cast" the foam. The liquid foam solution is poured into the mold, which is then securely closed up. Within minutes, the chemicals react and the liquid is solidified within the mold in a process reminiscent of a giant waffle maker.

The chemical compound of the liquid foam is as significant as the shape. The molecular structure of foam can be described as either open-cell or closed-cell. Think of the difference between types of foam, sponges or cushions on couches. Some foam is really soft and can be easily squeezed and almost flattened (open cell construction) while other foam is really firm and can barely be compressed (closed cell).

For a motorcycle seat to be comfortable, the foam compound must be carefully formulated to be soft enough for comfort but resilient enough to stand up to those "thousand-mile" days. The best aftermarket manufacturers use their own formula of controlled-density, polyurethane foam — a highly proprietary recipe, like those 13 mystery herbs and spices in KFC's secret recipe.

A soft seat provides no support and is just as bad as riding on the bare baseplate. On the other hand, a really hard seat can make you feel like you're sitting on a piece of plywood. Either way, your bottom will be in agony at the end of a day's ride.

First-rate foam usually feels firmer than stock but it shouldn't feel hard; it should offer "gentle" support. A good test is to stand next to the seat and press down on the foam. It should depress by about a third.

Most important, there should be no extended "break-in" period before you are comfortable. (Have you ever bought a sofa and been told you'd have to wait a month or so before it was comfortable?) A new motorcycle seat should compress and mold itself to your body shape within the first 15 minutes. The first ride should be as comfortable as the 100th and the foam should retain its shape and support for years.

Many riders ask about the use of gel in place of — or in addition to — foam. Gel displaces rather than compresses like foam. If you push down firmly on gel, it doesn't compress. It just changes its shape (imagine a tube of toothpaste), which doesn't do anything for your comfort. Foam compresses to support your weight evenly over as large an area as possible.

Gel may be suitable for very high-pressure, thin applications in a limited area such as in bicycle seats or the soles of your shoes. However, to be fully supported and comfortable all day, your posterior needs the cushioning of high-quality foam — whether you are sitting in an office chair or on a motorcycle seat.

## **Cover**

Most stock seats are covered with molded vinyl. The good news is that this prevents water from seeping inside. The bad news is that stock covers don't provide a perfect fit when it comes to the contours of the foam mold or cushion. That means any discrepancies will result in wrinkles or bulges.

As with a custom suit or the upholstered cover on your couch, well-designed covers on aftermarket seats must be meticulously pieced together and sewn to fit tight contours for a true custom-looking seat. The best aftermarket seat covers are individually hand-sewn, not mass-produced.

Keep in mind that, unlike the molded vinyl cover on a stock seat, the process of stitching the covers of aftermarket seats creates tiny holes. While these can be filled with a waxy substance, water can still seep through. On a quality seat, water will not deteriorate the foam; it will just drip out through a hole designed for that specific purpose in the baseplate. To avoid damp rear ends, riders may fill the stitch holes with Pledge or another clear waxy substance. A note of caution here: Never apply wax to the entire seat — you do not want to be sliding right off the seat when going around a tight corner!

The most popular seat cover materials are leather or vinyl and there is a range of quality within each of these categories. Riders should choose the material that best meets their needs, preferences and budget.

Leather is more likely to be used by a smaller custom seat builder. It is premium priced and can be dyed in a variety of colors. Consider the type of riding you will be doing, where the bike will be stored, how long you want the seat to last and how much time you will devote to maintaining the leather on your seat. Many of us have leather jackets, gloves, purses, briefcases or leather seats in our cars, but few people leave these leather items outside, exposed to the elements.

Many major aftermarket manufacturers build seats with a vinyl cover. Depending on the grade, vinyl can be surprisingly similar to leather. The highest-quality expanded vinyl has the appearance of leather but has the durability and resistance to the elements that exceed original equipment standards for motorcycle seats. Maintenance shouldn't ever be an issue with a premium vinyl — no fading, no treating or oiling. Just wipe it clean when you wash your bike. Unlike leather, top-grade vinyl will not dry out and crack, nor do you need to worry about it getting wet. It doesn't fade and it requires practically no maintenance.

Whether made of leather or vinyl, look for the following features on the cover of a quality seat:

- All seams should be sewn twice for strength.
- The bottom edge under the seat that is attached to the baseplate should be hemmed.
- The edges of seats with skirts should be finished with braid.
- Pillow top seats should be tufted with covered buttons, which are double-tied with four cords, not two, so as to not lose their buttons.
- The cover and stitch pattern for each model and style should complement and enhance the shape of the seat and the flow of the motorcycle.
- Stitching should be evenly spaced, uniform and tight.

While some riders like seats that are plain, others prefer the look of decorative studs and Conchos on their seats. The best studs to use are chrome-plated brass that won't rust. Top-quality Conchos are made of heavy die-cast zinc (not a thin stamping) and are hand tied with genuine leather straps.

## **Seat Accessories**

### **Driver Backrests**

The more you ride (and the older we all get), the more you realize that "the most comfortable seat possible" means comfort for your back as well as your bottom. Whether sitting in your living room, in your car or on your motorcycle, your back deserves the best support possible. Nothing takes the fatigue out of riding more than having full back support and being able to effortlessly adjust your lumbar support frequently. Touring-style seats with driver backrests are the gold standard for all-day riding comfort.

The importance of the strength and safety of the construction of a backrest for the driver cannot be over-emphasized. This is certainly not an area where you want to save money by skimping on quality.

Driver backrests are usually built into the seat but there are companies that specialize in driver backrests that can be added on many models regardless of the seat. Backrests that are "added on" attach to the frame of the bike rather than to the seat, using metal arms that reach down on both sides of the seat. These backrests can be somewhat adjustable but are not easily removed and may detract from the appearance of the bike.

Most driver backrests on motorcycles are mounted in a similar way to the headrest in your car. The backrest pad itself is attached to a tongue (think of a lollipop) that can be slid in and out of a receiver. The receiver is built into the seat itself and is firmly welded or molded into the seat baseplate. Consequently, if you think you may want a seat with a driver backrest, you should purchase a seat with that capability since it can't be added later.

In recent years, some manufacturers have begun selling seats with the backrest receiver built in.. While this provides the flexibility of deciding later to buy the rest of the driver backrest, you are paying for the extensive additional construction within the seat that you might or might not use.

The best quality driver backrests should be fully adjustable and easily removed without tools. They should pivot to match the angle of your back and easily adjust forward and backward, with several height adjustment positions. Additionally, the backrest should remove easily without tools and fold flat.

Most Harley-Davidson® FL one-piece touring seats have a split in the middle of the seat to allow for an optional, frame-mounted, driver backrest kit.

## **Passenger Backrests**

The decision to add a backrest for the passenger is usually based on safety and/or comfort of the passenger. Since most passenger backrests are attached to sissy bars, the addition of a sissy bar with a backrest can also provide convenience for securing luggage.

Although the most important function of a sissy bar pad is to prevent the passenger from falling off the back of the bike, it should also enhance the passenger's comfort. As with the backrest for the driver, the passenger backrest should support the passenger's lower back.

The passenger backrests offer the same features and benefits as Mustang's driver backrest. Mustang currently makes passenger seats with built-in, removable backrests for Kawasaki Vaquero, Honda Fury and HD FL Touring Models 97-12. Mustang will be adding more makes and models to their passenger backrest designs.

## **The Bottom Line**

Now that you have an idea of what's involved in designing and building a motorcycle seat, you probably have a better appreciation of the importance of quality materials and workmanship in creating a new seat for your bike.

While the old adage "you get what you pay for" usually holds true, keep in mind that a motorcycle seat can range in price from under \$100 for a used seat on eBay to more than \$2,000 for a custom, alligator skin work of art.

Price tags are important to all shoppers but be careful when shopping prices in catalogs or websites that show one style of seat (while listing several different bike models) and state "priced from \$\$\$." This price may

reflect the price for the least expensive seat model—not the seat for your particular bike.

Before purchasing a seat from any source, ask the following questions:

- How much is shipping? Sales tax?
- Is extra hardware needed for mounting?
- What is the return policy?
- Does riding on the seat affect the return policy?
- Is there a re-stocking fee?
- Is technical assistance available?
- What is the warranty and who would handle it?

The bottom line is this: Take the time to explore what seats are available for your particular motorcycle make, model and year and then decide what seat is the best choice for you given the style, materials, features and level of comfort you are looking for.

Talk to your local dealer and other riders, search “motorcycle seats” online and review websites, read entries in chat rooms and in magazines — and then think again about what you want from a seat.

If you are like most motorcyclists, you ride because it’s fun. Your seat should enhance both the look of your bike and the feel of your ride. Enjoy!