

# Brake Pads And Calipers

*Lyndall Racing Brakes And Hawg Halters Inc.*

**T**HERE HAVE BEEN A number of new developments in braking systems over the past several years. We spoke with Paul Kittrell, founder and president of Lyndall Racing Brakes, and Mark Thompson, owner of Hawg Halters Inc. to find out which brake pads and calipers are best suited for each application, and how to best sell these braking solutions. — MK

## Lyndall Racing Brakes

Lyndall Racing Brakes has been in business for 10 years. I started the business in 1998 with a solid background in premium friction materials from my seven-year tenure at Portefield Enterprises, the largest supplier of friction material for racecar applications on the West Coast. As a club-level motorcycle racer, I was unimpressed with what was available in the market for motorcycle brakes. So, in my

**Lyndall offers various friction-material compounds designed for different riding conditions**



**Lyndall's newest Gold Plus compound designed for high-performance braking even in extreme weather conditions**

**Lyndall's Z-Plus pad for general street riding offers no dust, no noise, and no rotor wear. It is money-back guaranteed**

Because Lyndall has chosen to focus on the V-twin market segment, our production runs are typically smaller than other brake-pad manufacturers who typically merchandise mass-produced brake pads for everything with wheels. This allows greater quality control and more focused research and development of our products. This boutique business concept also allows the company to provide superior customer service, as

Lyndall is committed to 100-percent customer satisfaction, going so far as to offer a money-back guarantee on all our products, unlike any other brake-pad manufacturer.

## Brakes Are Not Created Equal

Lyndall has found that one of the best ways to discern high-quality brake pads from others on the market, independently and without bias, is by logging onto some of the motorcycle forums on the Internet to get the facts straight from the riders themselves. A forum provides feedback from a wide cross-section of riders from all around the world. Everyone loves to express his opinion, and the Internet is one place to do that freely. So you'll find straightforward talk about products — no holds barred. Short of your own independent research, the old adage stands true: you



get what you pay for. Premium components don't come cheap, but they can save much time and aggravation. Fix it right the first time, and you'll earn your customer's loyalty, possibly for life.

Since not all brake pads are created equal, some technical information can help you understand the differences between the kinds available on the market. There are three types of friction material commonly used for motorcycle brakes: sintered metal, ceramic, and Carbon-Kevlar. Sintered-metallic brake pads, which have a high metal content, are typically hard and abrasive to the rotor surface while offering moderate stopping power and mechanical strength. Service life tends to be significantly lower, and sintered-metallic pads tend to run more dirty and noisy than other types of friction material. They are also inexpensive to manufacture and are the cheapest pads on the market.

Ceramic brake pads usually have a high copper content and are sintered as well. While ceramic pads generally offer a slightly longer service life and run cleaner than sintered-metallic pads, they offer only moderate stopping power. Carbon-Kevlar pads, often referred to as organic pads, usually have a small percentage of iron or nonferrous metal and are softer than other friction materials. Carbon-Kevlar pads typically run clean and quiet, and offer good stopping power. They have an extremely long service life and are not abrasive to the rotor because they generate less heat than other friction materials.

Lyndall's brake pads are of the Carbon-Kevlar variety. What makes Lyndall's pads unique is that they contain a premium blend of Carbon-Kevlar and nonferrous metal and have a high transfer rate. Once the pad material has transferred a layer to the rotor, the rotor effectively becomes one big brake pad, stopping against the two smaller brake pads positioned in the caliper. The result: incredible stopping power, no dust, no noise, no drag, no measurable rotor wear, and the highest service life of any pad on the market.

Finding out which brake pads work with a particular caliper can be a challenge, but most manufacturers (Lyndall included) list application information, complete with OE part numbers cross-referenced, on their web sites. Also, a phone call to a rep for those hard-to-identify pads can help provide an answer. By looking at your sales and



**A close up look at a premium Carbon-Kevlar brake pad**

service history, you can also identify which models are the most popular in your dealership. Those would be the best ones to keep in stock. Keep in mind that the older-model bikes are a diminishing market segment, so it's best to limit your stock to one or two of each fitment.

### **Safety, Service, And Sales**

As a safety precaution, shop owners and their technicians should always look at brake pads whenever a bike comes into the shop for any type of service or repair work. While brakes are a known

**Follow Lyndall's Piston Cleaning guide with each brake padservice or install (see web site for details)**



safety item, premium-quality brake pads are also a great customer service item that can enhance the pleasure of your customer's riding experience. Installing a brake pad that solves the rider's dust or noise problems can boost confidence in your service department and increase repeat business.

The brake pad is just one component of an entire braking system. This system needs regular check-ups and maintenance. Lyndall recommends cleaning the pistons located in the caliper with every brake pad service. A step-by-step guide to this process can be found on the Service/Tech page of our web site. You may also request a brochure detailing the process directly from the company. Steel-braided brake lines and high-performance brake pads and calipers are the best upgrades you can make to a brake system. Remember also that without good tires, premium brakes cannot be nearly as effective. Be sure to check tire pressure regularly, but not until the tires reach optimal operating temperature; about 30 minutes into a ride.

Brake pads should be displayed in a manner that is inviting to the customer. When shopping for anything, brakes included, tactile sense is important. People like to touch, pick up, and examine when making a choice. Nine times out of 10, if a customer picks up the part he's considering and holds it in



## ► Showcase

his hand, he'll buy it. Product displays should be accompanied by informational brochures and pamphlets for the customer to review while waiting or to take with him to consider for a later purchase. Banners and posters explaining the products can also create excitement and stir curiosity. Potential margins for selling Lyndall's pads range from 30 percent to 40 percent. Remember that the more profitable you are, the better customer service you'll be able to provide, and the happier your customers will be.

### Hawg Halters Inc.

Hawg Halters Inc., also known as HHI, started up in 1999 to meet the customer desire for improved braking performance over the stock H-D product, and to provide a custom-styled product adaptable for a variety of applications. HHI has dedicated itself to supplying the aftermarket with a top-quality brake caliper that performs well and has a smooth, clean, custom appearance, all at an affordable price. We also



HHI/RoadLok Caliper

specialize in braking systems, so we have the widest array of products to fit most any application.

### What Calipers To Choose?

To effectively sell a product to the customer, application information is critical. The dealer needs to identify the specific make/model/year for proper fitment. Dealers also need to understand what the customer expectations are. Price, performance, and appearance are all equally important.

Most dealers are aware of the low cost import products now available. If you're not sure, always ask the supplier or manufacturer.

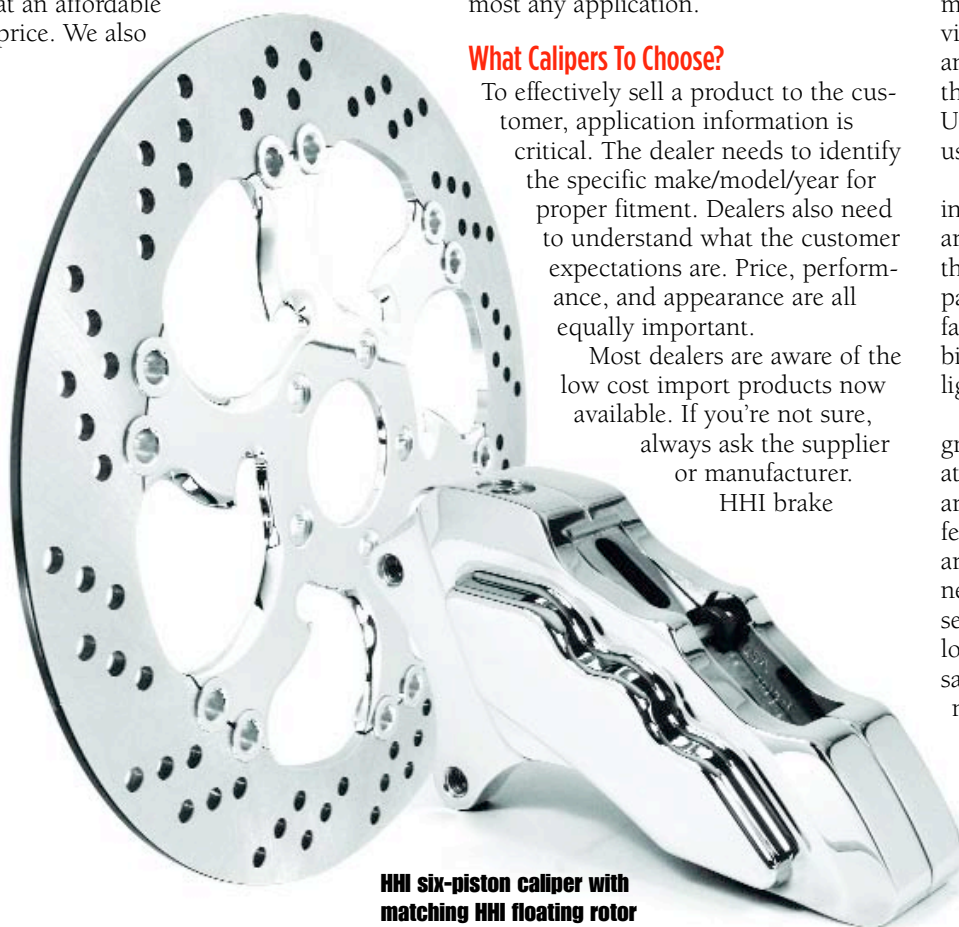
HHI brake

calipers are designed and manufactured in our plant using only USA-made materials and components. This provides us with complete accountability and support for our products. Knowing that these products are made in the USA is a strong selling point dealers can use in making the sale.

Caliper differences are mainly found in materials and design. Stock calipers are generally made of cast aluminum that has a lower tensile strength as compared to billet aluminum. HHI manufactures all its calipers from 6061-T6 billet aluminum allowing it to design a lighter, stronger caliper.

A recent offering from HHI now integrates braking with security. The idea of attaching a lock to the rotor has been around along time, but integrating that feature into the caliper is a revolutionary concept produced by RoadLok. This new product provides braking and security in one package, which makes locking the bike more convenient and safer while providing braking improvement at the same time.

Our newest braking-product line is a six-piston caliper designed specifically for use with our new 13" floating rotors. This is also a great upgrade over stock, especially with the introduction of the new braking system using a



HHI six-piston caliper with matching HHI floating rotor

11.8" rotor on the 2008 H-D touring models. We've mainly sold these as dual-to-single disc conversions on baggers when installing custom wheels.

Upgrading to an HHI four- or six-piston caliper should be done on any bike still equipped with the 1999-and-earlier single-piston unit. If it came as a stock single disc, then a single replacement will provide plenty of improvement and the same goes for the dual-disc upgrade. Bikes from 2000 and later are equipped with the



H-D four-piston caliper. Customers looking for a chrome upgrade, and who are satisfied with performance, could be sold the four-piston version; however, the six-piston will give them a performance improvement over stock. Touring model bikes equipped with dual discs will also find good performance with the HHI four-piston upgrade and a significant improvement when switching to six-piston calipers.

### Fitments and Upgrades

Most distributors and brake-pad manufacturers have a catalog cross-reference

listing the various fitments for most stock and aftermarket calipers. If unsure, the dealer should contact the manufacturer for specific fitments as there are a wide variety of pads available.

Dealers should stock the most common bike-model fitments, which include left- and right-hand front four-piston calipers for both 1999-and-earlier and 2000-and-later versions. The HHI '99-earlier caliper can also be used for rear applications when assembled with HHI rear brackets.

Caliper installations should always be accompanied by a brake fluid flush service. Periodic caliper cleaning while installed on the bike can be helpful in clearing brake dust and debris. Most HHI calipers feature dual seals, one of which is a dust seal that helps extend the life of the main pressure seal.

Calipers are best shown in a display cabinet or installed on a shop bike. Promotional literature supplied by the manufacturer and displayed with the calipers is an effective way to promote

the product and educate customers. Typical margins for the dealer are 25-30 percent. Brake caliper sales can often be coupled with other components such as brake rotors and brake-line replacements. **AIR**

## SOURCES

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## New Rock