

# CAMBER FAIRING

What happens when America's leading manufacturer of road racing fairings decides to build a touring fairing? The Camber '76.

● DIFFERENT ENTHUSIASTS ENJOY DIFFERENT THINGS ABOUT MOTORCYCLING. If you doubt that proposition, play the devil's advocate and tell some pure-blooded sporting rider (who walks around in a semi-racing tuck) how neat touring fairings are. In short order you will learn that motorcycles are sporting conveyances, and that heavy touring accessories slur the communication between man, machine and the road below. And *that* experience is the vital, compelling center of motorcycling.

Or bait the issue from the other side. Tell some long-distance rider that touring fairings are really dumb. You'll quickly be informed that you know nothing about real motorcycling; the open road, the campground scene, the miles behind and places ahead. No one has built the motorcycle that couldn't be improved by accessories, and being comfortable is a mark of progress. In these modern times people live in houses with roofs, use hot-and-cold running water, and even enjoy air-conditioning. He who says today that touring fairings are effete probably thought the same thing about swing-arm suspension in 1950. Motorcyclists need not be masochists.

The Camber Company does business with motorcycling's sports and its true-blue highwaymen. For years Camber has made a variety of road-racing fairings as a vendor to works teams and supplier to a multitude of privateers. Within the last two years, the company has entered the touring market with the Camber '76 fairing, a frame-mounted unit with its own very distinctive design.

Features are important in the touring trade, so features the Camber '76 has. The headlight, of course, is built in; and with the Vetter adapter a BMW quartz headlamp can be installed. The Camber '76 comes with directional signals/side reflectors (same as MV Agusta standard issue), Dzus-fastened lower side-panels, a neoprene cover for the standard headlight shell, removable tote bags, and an instrument panel which provides access to the electrics and space to install accessory gauges—or a radio, cigarette lighter or whatever.

Camber offers this fiberglass fairing in black or white gel coat finish for \$280 FOB Costa Mesa, CA. An additional \$85 buys custom-color matching, including pin-stripes and fogging.

It's no secret that some fairing com-



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panies have switched over to ABS plastic construction, escaping the rising cost of fiberglass resin (a petrochemical) and production problems (shrinkage, mold warpage) that often lead to poor fits. In many ways these problems trace back to the apparent ease of manufacturing fiberglass products. Almost anyone can build something in fiberglass—superficially, it's simple. But to build a really high-quality product in fiberglass, and replicate it again and again, is incredibly difficult.

In Southern California craftsmen like Jerry Greer (the principal in Camber) have vast experience with the medium and a lot of production know-how; furthermore, there's a labor pool of expert workers familiar with fiberglass lay-up. There's little waste in manufacturing, and a product of consistent quality comes off the lines. At Camber no chop-guns spit fiberglass silage; the fairings are laid up in fiberglass cloth. Camber does superb work, period.

The Seventy-sixer has a smooth gel coat finish inside; there's none of the fuzzy matt black stuff so popular among touring riders. Nor does the company offer windshields of various heights; the screen is cut so that a six-foot rider can look over or through the windshield. There are no electrical jacks enabling the installer to plug in the headlight and turn signals straightaway; you connect individual wires from the fairing to the appropriate ones inside the headlamp nacelle. But the Camber unit has clever touches. For example, neoprene boots interface between the frame and the frame-mounting hardware. These cushions serve as noise dampers and prevent the mounts from scratching the frame. The boots will fit on any mounting hardware that follows the Vetter pattern.

The Vetter-style bracketing is almost an accessory-industry standard now. While we're not overwhelmed by the use of hose-clamps to secure the mounts to the frame, the clamps are effective and inexpensive. Both the hose-clamps and the neoprene interface-boots produce a mounting that is solid, but not rigid. Consequently the rider will see some slight cowl-shake while riding along, but this movement is characteristic of all frame-mounted accessory fairings.

Greer has given the Camber fairing its own appearance; the Seventy-sixer isn't a remake of Craig Vetter's much copied Windjammer. Camber has neither the



The Camber fairing directs air around rider; the lowers are wide enough to cover legs entirely.

need nor inclination to imitate for at least a couple of reasons. First, Jerry Greer knows a great deal about controlling air around a vehicle. Not only has he built his fair share of motorcycle racing fairings but Camber has also fabricated bodies for four-wheeled racers, including Formula 5000 and Indy 500 cars. Because Greer understands how fairings manage air, he could exercise his keen styling sense and still make a fairing that would function for the touring rider.

Any maker is pulled and stretched by manufacturing economics. One size must fit all. Or nearly all. Consequently small detailed alterations may be necessary to get a fairing and/or its accessories to fit a specific model. For example, the Honda CB550 turn-signal stalks screw on small stubs which extend about three-quarters of an inch outward from the headlamp holders. These stubs did not foul anything, and we hesitated to saw them off since the Honda 550 would be restored to stock configuration after the fairing evaluation. When the tote pouches were clip-



Headlight, pointing down here, can be adjusted for proper light path; Dzus fasteners secure lowers.



Brackets mounted to the frame via hose-clamps which may require periodic re-tightening. Neoprene covers (below) interface between brackets and frame and fairing, damping noise and vibration.







On really hot days, lowers-off is the cool set-up. Sans lowers, engine is exposed for minor work.



Tote-pouches have snap-on vinyl covers over fiberglass shells held in place by Dzus fasteners.



Screw-stubs for turn-signal stalks fouled the tote-pouches. Careful installation is a must.

ped into place, the screw-stubs hung up on the fiberglass pouch-bodies and eliminated most of the motorcycle's steering lock. In fact one screw-stub dug into the naugahyde cover on the left-side pouch just as we caught the problem. The screw-stub/tote compartment was the only real snafu, and one which could be solved by buzzing the screw-stubs off.

At certain speeds touring fairings can operate like loudspeakers, picking up and amplifying sounds in the motorcycle. It's characteristic of the breed. Of course the

same motorcycle will project different noises inside different fairings, and conversely two different motorcycles using identical fairings will transmit different sounds. The Honda 550 Super Sport produced an annoying fifth-gear whine between an indicated 46mph and 59mph; consequently we used fourth gear through this speed range and avoided the noise. Generally the Honda 550 engine runs quietly, making the bike suitable for a touring fairing. Obviously motorcycles with clattery engines are poor candidates for any resonating accessory—unless the rider is deaf.

Most touring-types are willing to accept some extra engine noise in order to escape the frontal assault of wind and weather. In the trade, those riders get a place for accessories like clocks and gauges and lighters, and extra stowage space for incidentals such as gloves and road maps.

A good touring fairing will create a dead-air pocket around the rider. The Camber dead-space extends back to the rider's head, chest and hips; the windshield directs the air over the head and around the shoulders. The rider can pass his hand from the instruments back to his belt buckle, and detect nothing but still air.

There is some air movement in two places, but nothing that qualifies as a real

draft. The rider's hands are exposed to some slight turbulence, and a column of air moves up the fork legs, divides and exits along the lower portions of the gas tank. Somehow very little of this air spills back to the rider's knees; the air seems to dump out over the sides of the fairing and/or be drawn back down in the engine bay. With the tote pouches Dzus-clipped into place, air flow back to the rider's knees is really blocked.

At the legal speed-limit and far beyond, the fairing keeps air off the rider, and the faster we went—upper limit 90 mph—the more effectively the Camber fairing managed the air. The 550's stability did not suffer due to the fairing. The rear shocks on our test bike had lost what little damping they possessed before the fairing was mounted, and the rear-end-uncertainty was still evident after the unit had been bolted on. Aware that some touring fairings can aggravate limp suspensions, we fitted fresh S&W air shocks. Presto, stability restored.

Before installing a handlebar or frame-mounted fairing, common sense dictates that you replace worn-out shocks, check the operation of the front suspension (Spring sag? Proper lubricant in the correct amount? Any binding?), inspect the head bearings for slop, get the wheel alignment correct vertically and front-to-back, and have compatible tires free of any funny wear-patterns.

Sometimes strange wind conditions, or a combination of road and atmospheric conditions, can produce bizarre noises in a touring fairing, or cause the motorcycle to handle peculiarly, or even wobble. Though the fairing never upset the stability of our test 550, at one time a head-wind induced a high-frequency sizzle in the windshield. We later tried to provoke the flutter again, but the phenomenon proved unrepeatable.

Removing the side-panels exposed the rider's lower legs to the air stream and generated different kinds of noises. Not as much sound came up from the engine bay, but there was more wind noise. It's also possible that removing the "lowers" caused the main fairing section to be more susceptible to air buffeting. With or without the lowers, the Camber '76 gave outstanding head and torso protection, but the fairing provided optimum coverage with the lowers and tote-bags attached.

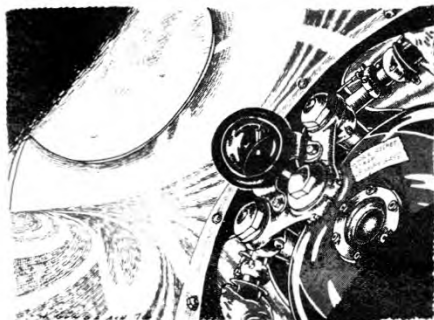
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Like other good touring fairings, the Camber unit increases the utility of a motorcycle, if utility means greater use through greater convenience. Out on a short haul? You don't have to be dressed to battle the wind-chill factor. A motorcycle is more convenient when you can grab your helmet, ignore a bulky jacket, leave your dress trousers on, pull a pair of gloves out of a fairing compartment, hit the electric starter and depart for the newsstand. Many other times during the spring and fall a fairing eliminates or minimizes the normal motorcycle ritual of getting-ready and coming back. You can be a lot less sensitive to what you're wearing, even on a grey-cloudy day.

Contrary to the pop-music myth, sometimes it does rain in Southern California, and rain-riding is not our idea of fun. A sudden shower blew up out on Interstate Five, and in seconds the windshield went opaque with raindrops. Soon thereafter you could see the Seventy-sixer knocking a hole in the weather and blowing the rain around the dead-air pocket. Happily the rain sputtered out instead of expanding into a genuine douser, so the Camber fairing held the inconvenience to nothing more than a damp jacket.

Riding inside the dead-air envelope of the Camber '76 suggests why touring buffs develop a never-ending emphasis on comfort and convenience. Sheltered from the air blast, your attention turns to other matters. Should the seat be uncomfortable then you'll notice it, and fast, because you don't have the wind slapping you around. Are the grips uncomfortable? You can't miss it. How are the legs? Could you use floorboards? One accessory leads to the next.

The Camber fairing is a stylish touring unit, well conceived and well executed. It provided comfort and protection without giving our 550 Honda a weight problem (18 pounds complete) or sacrificing its straightline stability or mucking up its handling. With few exceptions touring riders will like Camber's handiwork. And what about those hot-blooded sporting types who clench motorcycles with knees and elbows? They will have little use for the Seventy-sixer. No big problem. Camber can put the Harry Hotlaps behind a Yamaha TZ750 fairing—where there's little comfort and no place to hide. ●



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fed by a huge 36mm Bing carburetor which must be mounted at an angle for its cables to clear the upswept pipe. Carburetion was beautiful throughout 700 miles of testing, so function is not apparently effected by the tilt. Nevertheless Hercules is rerouting the pipe and re-angling the cable retainers on top of the carburetor. They should also consider rubber-mounting the carb as they did on the 175, because the 250's solid mounting requires a socket and extension to loosen, thereby complicating trail-side jet changes. Without rubber to insulate the carburetor from vibration, metering can also be effected and slide wear excessive.

While racing the Husky on a Death Valley fire road, we were running the Hercules at wide-open throttle with only 94 miles on the odometer and the piston seized. That was our fault—we simply let out all the stops before proper break-in had occurred. Rotary Cycles air-freighted another barrel which turned out to be shaped just like that—a barrel. Piston clearance ranged from .004 on top to .008 in the middle and back to .004 on the bottom. It was a used cylinder—the iron liner had merely been honed. Since a subsequent new cylinder was round, we can only assume that the liner may not be thick enough to resist distorting.

After a new cylinder was installed and break-in extended to 200 miles, the engine survived a fast-paced 86-mile District 37 enduro and several torturous dyno runs without so much as a ping. Starting usually requires one or two kicks and can be achieved in any gear, another advantage over a Penton or Husky.

The drive-train is an impressive design with several exclusive features. Most important is the relationship between the swing-arm pivot point and the countershaft sprocket—very close—so in spite of long-travel suspension, not much chain slack is necessary. This eliminates elaborate tensioners and guides, which rarely control great amounts of chain slack with total success. The Hercules chain can be adjusted with only one inch of play. It is manufactured in Germany by Jwis and features extra-thick link plates.

Both the rear hub and clutch contain rubber cushions to insulate the transmission from shock loadings. The quick-change hub can be removed without disturbing the sprocket, brake-rod or chain. Tires aren't as easy to work with because the Akront alloy rims don't employ spikes to keep them from slipping. You'll have to wrestle with rim locks when fitting new knobs. The spokes require very little maintenance, mostly because they are straight-pull on the sprocket side.

An exclusive design in the clutch—L-shaped tangs on the plates—protect the basket from the usual notching. Satin clutch action and a wide friction point top off one of the finest drivelines in motorcycling.

Another bulletproof design is the use of tapered roller bearings at the swing-arm pivot. These sealed units are superior to bushings or needles and should never need replacement. Both the swing arm and frame are chrome moly steel. The bike's wet weight of 271 pounds is indicative of heavy-gauge steel, and lots of it. The resultant durability is why 23 of 25 Hercules entries finished the ISDT.

"Can I sit on it?" the onlookers ask. They squeeze the levers and pump the forks and prove whether they're street riders by how smoothly they lift it onto the centerstand. The stand is an option weighing less than two pounds and worth every cent of its \$24 pricetag because of simpler wheel removal, chain lubrication, etc. The Hercules also comes with a side-stand.

Everybody likes the bike's feel. It sits right, it's not too tall and the Magura-equipped handlebar has a natural feeling. Both foot levers are shaped and positioned perfectly, but the pegs need sharper serrations for a better grip on boots. A thick saddle with soft but resilient foam doesn't keep inching the rider forward and doesn't sag in the middle.

Experiencing the Hercules at speed is what still leaves us enthusiastic in spite of the Big Four Problems and numerous niggles. The motorcycle steers beautifully. It will either slide or track through a turn, whichever you prefer. Metzeler tires, neutral geometry and excellent suspension damping make handling difficult to criticize. Stiff springs pummel the rider at slower speeds, but they add 6 or 7 mph to his potential speed on really rough trails. When the MR Hondas are strung out in fifth and gnashing at their suspension stops, the Hercules can catch another gear and start using full travel. A superb front brake keeps speed in check without losing its progression or feel when hot.

Power or its delivery cannot be faulted. The engine contributes greatly to the bike's steering abilities because it lifts the front end to clear obstacles and drifts the back end to set up tighter lines, all with a crack of the throttle or a poke at the shift lever—assuming you catch a gear instead of a neutral.

And that brings us to the only possible conclusion—a strong endorsement of the bike's potential and 95 percent of its actual performance, punctuated by a discouraging reminder of reality—missed shifts, vibration, brake hop and gas-guzzling. God, how we wish they weren't there. ●

