

ZARATHUSHTRA'S REVENGE

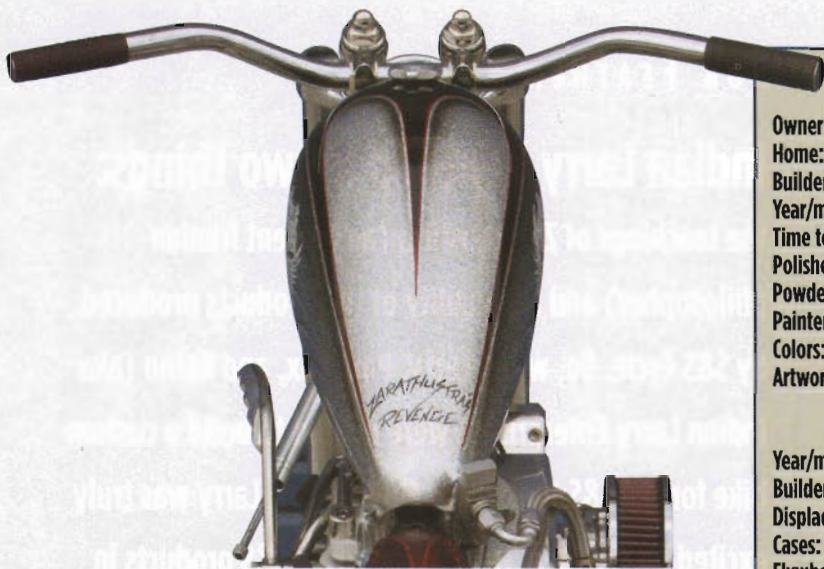


Indian Larry's crew builds an old-school drag racer's machine

BY STEPHANIE FELD • PHOTOS BY BOB FEATHER

Indian Larry believed in two things: the teachings of Zarathushtra (an ancient Iranian philosopher) and the quality of the products produced by S&S Cycle. So, when Larry, Paul Cox, and Keino (aka Indian Larry Enterprises) were invited to build a custom bike for the S&S Old School Shovel Tour, Larry was truly excited by the idea. He'd always used S&S products in his bikes — carburetors and stroker kits in the old days, and whole engines when they became available.





"Using S&S products was a no-brainer for Larry," explains Paul. "Any chance we had to use their stuff, we always did. You knew it was going to be 100 percent and do what it was supposed to do." Larry conceived the idea of Zarathushtra's Revenge, which he hoped to race at the Bonneville Salt Flats, and he started work on the bike right away. Before his untimely death, Larry managed to fabricate most of a twisted downtube rigid frame. As always with the bikes coming out of Larry's shop, this one would explore new territory. "The frame features Larry's classic 30.5-degree rake, but the downtube and backbone were shortened by 2", which really shrank the frame around the engine," says Paul.

With Larry gone, completion of this project fell on Paul and Keino, now building as Indian Larry Legacy, who accepted both burdens with grace and skill. "We didn't just want this to be an old-school chopper," says Paul. The concept was to keep the bike race/performance-oriented, in keeping with S&S Cycle's roots, and to build a bike similar to one that could have come out of an amateur drag racer's garage 30 years ago, in the days when the Shovelhead was the performance engine you just had to have.

For the most part, the chassis of Zarathushtra's Revenge does look like something created back in the '70s. The tight rigid frame was suitably old fashioned, but Paul felt that plating the whole frame as they'd done before would have been too glitzy for this bike. So Paul added gussets at the neck and below the downtube. Then he cut the frame apart, and sent the downtube out for plating. The frame was then welded back together, and the rest of the frame was powder coated in gloss black. "The black powder brings the rest of the frame down to earth," says Paul.

The front forks started life on a mid-'70s Sportster. Keino trimmed the fender mounts, caliper mount, and the dust boot retaining lips. He also smoothed the trees and removed any unneeded mounts. The fork tubes were shortened 4", giving the bike a very aggressive, dragster stance. The 21" spool front wheel was assembled from a Storz aluminum hub (sprocket holes drilled out as lightening holes), Buchanan stainless spokes, and a polished aluminum rim from Custom Chrome. The Metzeler tire is the same size as a standard Softail front tire. Narrowed K&N Superbars with friction tape grips give the rider something to hang onto, and nickel-plated Misumi risers, available only in Japan, keep the handlebars attached to the triple trees. Lighting the way for the Shovelhead is a tiny, Bates-style headlamp from Paughco.

TECH SHEET

Owner:	Indian Larry Legacy
Home:	Brooklyn, NY
Builder:	Indian Larry Legacy
Year/model:	2005 Indian Larry
Time to build:	Three weeks
Polisher:	Colorlife, Hicksville, NY
Powder coater:	Colorlife
Painter:	Robert Pradke, Custom Auto Design, Eastford, CT
Colors:	Silver flake and black
Artwork:	Robert Pradke

ENGINE/TRANSMISSION

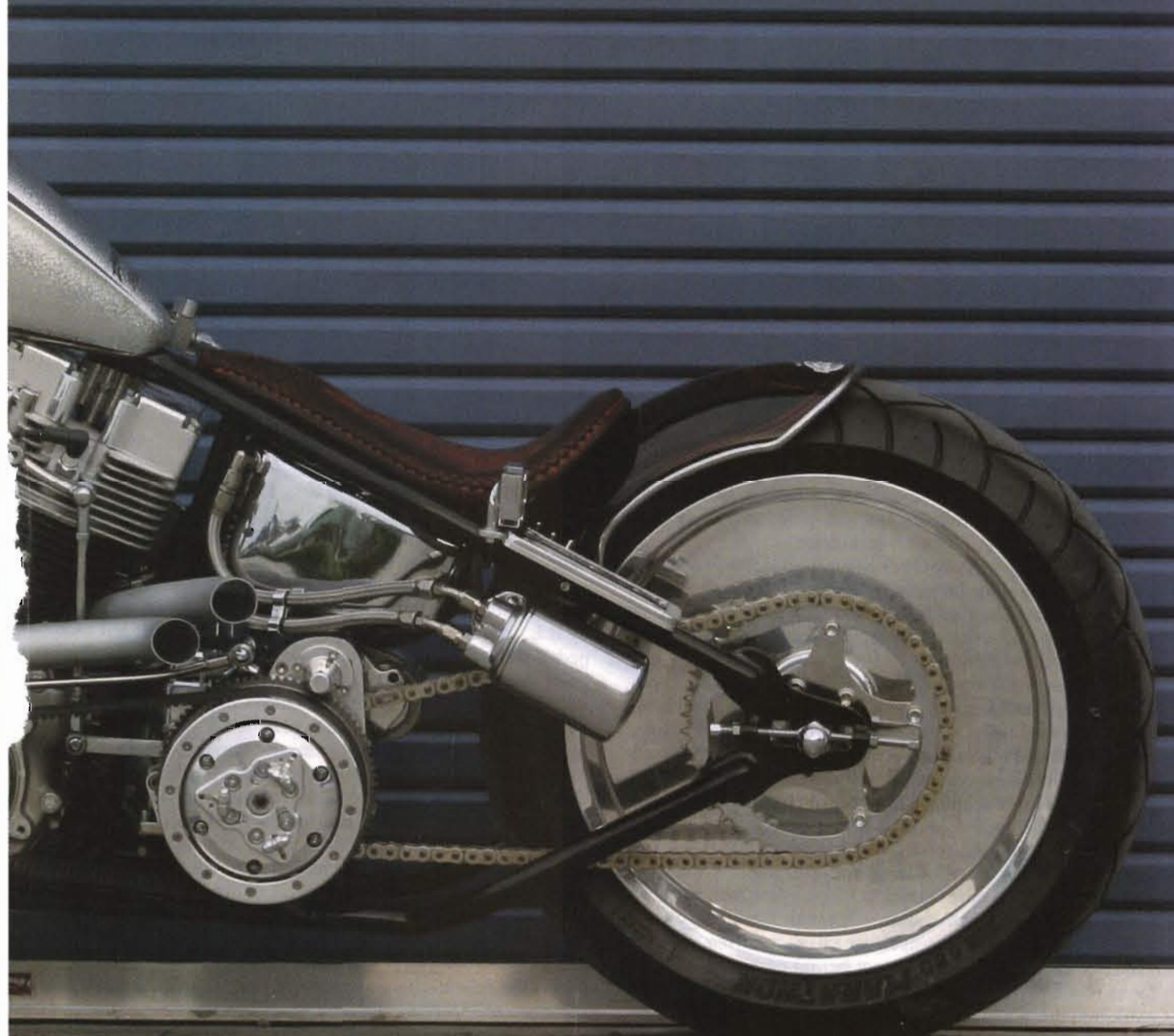
Year/model:	2005 S&S Shovelhead-style
Builder:	S&S Cycle
Displacement:	93"
Cases:	S&S
Flywheels:	S&S 4-1/2"
Balancing:	S&S
Connecting rods:	S&S
Cylinders:	S&S 3-5/8"
Pistons:	S&S 8.2:1
Heads:	S&S
Cams:	S&S
Valves:	S&S
Rockers:	S&S
Lifters:	S&S
Pushrods:	S&S
Carb:	S&S Super E
Air cleaner:	Indian Larry Legacy/K&N
Exhaust:	Indian Larry Legacy
Ignition:	Morris Magneto
Transmission, year/model:	2005 BAKER 6-in-4
Case:	BAKER
Gears:	BAKER
Primary drive:	Bandit 3" belt
Clutch:	Bandit Lock-up
Final drive:	O-ring chain

CHASSIS

Frame:	ILL twisted downtube rigid
Rake:	30.5 degrees
Stretch:	-2"
Front forks:	Mid-'70s Showa
Trees:	Mid-'70s Showa, modified by ILL
Extension:	-4"
Front wheel:	Storz hub, Buchanan spokes, CCI rim 21"
Rear wheel:	Custom Chrome 18"
Rear brake:	Performance Machine four-piston caliper
Disc:	Deep Cut
Front tire:	Metzeler 90-21"
Rear tire:	Metzeler 180-18"
Rear fender:	Indian Larry Legacy
Fender struts:	Indian Larry Legacy

ACCESSORIES

Headlight:	Paughco
Taillight:	Radiantz
Fuel tank:	Indian Larry Legacy
Oil tank:	Indian Larry Legacy
Handlebars:	Narrowed K&N Super Bars
Risers:	Misumi
Seat:	Paul Cox Leather
Foot controls:	Indian Larry Legacy





Staying true to the home-built theme, Paul and Keino sliced a set of 3.5-gallon Fat Bobs “right through the gas caps” and welded the outside pieces back together, yielding an authentic axed tank that holds about 2 gallons of fuel. A Guzzler pet-cock, valued for its reliability and leak-proof aircraft fittings, passes fuel to the S&S Super E carburetor.

The seat is one of Paul Cox’s beautiful hand-tooled leather solos, with an exploded diagram of an S&S B carb carved right into the leather. The rear fender is an ILL in-house item. Its minimal size and integrated supports reinforce the dragster looks of the Shovelhead.

Just beneath the seat you’ll notice a super-smooth horseshoe-style oil tank, a new item for the ILL crew. After so many years, round oil tanks were getting a little tired. So, Paul and Keino fabricated a horseshoe-style oil tank, but with a rounded look to it. No simple cut, bend, and weld for these guys. “There was a lot of shaping and work with the planishing hammer and English wheel to get it the way we wanted it,” says Paul. As with all ILL bikes, oil lines are custom cut and installed with real aircraft fittings for leak-proof oil lines that definitely will not come undone at inopportune moments.

Out back, Larry had chosen a Custom Chrome polished 5.50-18" aluminum disc wheel, which allowed the use of a Metzeler 180/18" rear tire. It’s not period correct, but it sure looks cool. The brake rotor, featuring Larry’s question mark/iron cross logo, was custom-made by Deep Cut Rotors. The single Performance Machine caliper provides sufficient stopping power for the lightweight Big Twin.

The powertrain of Zarathushtra’s Revenge is as capable as it is beautiful. The 93" S&S Shovelhead-style engine is untouched except for the addition of a Morris magneto (another favorite of ILL) and an Indian Larry air cleaner backing plate, crowned with a K&N air cleaner element. The no-nonsense gray exhaust system was fabricated by the crew at ILL

with a single purpose — to get the spent gases out, fast!

A BAKER 6-in-4 gearbox, complete with kickstarter, rests behind the engine. It features a prototype kill-shift shifter drum, which allows the rider to bang through the gears without touching the clutch pedal. “There’s a détent between each gear that trips a neutral safety switch and kills the ignition for a second,” explains Paul. “It’s not for loafing around, but if you’re on the throttle and banging through the gears, it will allow you to shift without using the clutch.” Like almost every bike built by ILL, this one features a jockey shift, clutch on the left foot pedal, shift lever on or, in this case, below the fuel tank. The brass and stainless kicker pedal warrants special mention — it’s a one-off creation by Craig at Nitro Choppers in Canada.

Power is transferred from the engine via a 3"-wide Bandit primary belt, and passes through a massive Bandit Lock-up clutch. This ingenious clutch has weights around the perimeter of the pressure plate. As the bike is revved and rpm increase, the weights are driven outward, placing more and more pressure on the clutch plates. It allows a massively powerful engine to be controlled by a clutch spring that a mere human can actually handle.

After passing through the BAKER transmission, horsepower travels down a 530 O-ring chain to a stainless quick-change sprocket, handmade by Fabricator Kevin, a friend of ILL. The drive chain, combined with Kevin’s clever sprocket design, allows the rider to change final drive ratios to suit the needs of the moment.

As with all of ILL’s bikes, function is paramount in Zarathushtra’s Revenge. Larry, Paul, and Keino worship at the altar of the Machine God. “It’s all about the ride” is how Paul puts it. But being artists, their work is also beautiful. Each part of this motorcycle is carefully crafted to balance function and beauty. Topped off with Robert Pradke’s silver flake lustrous paint, Zarathushtra’s Revenge is a stunning celebration of the stark beauty found in the machinery of a motorcycle. **AIM**