



# THE INDY OFFY LAND-SPEED MASH-UP

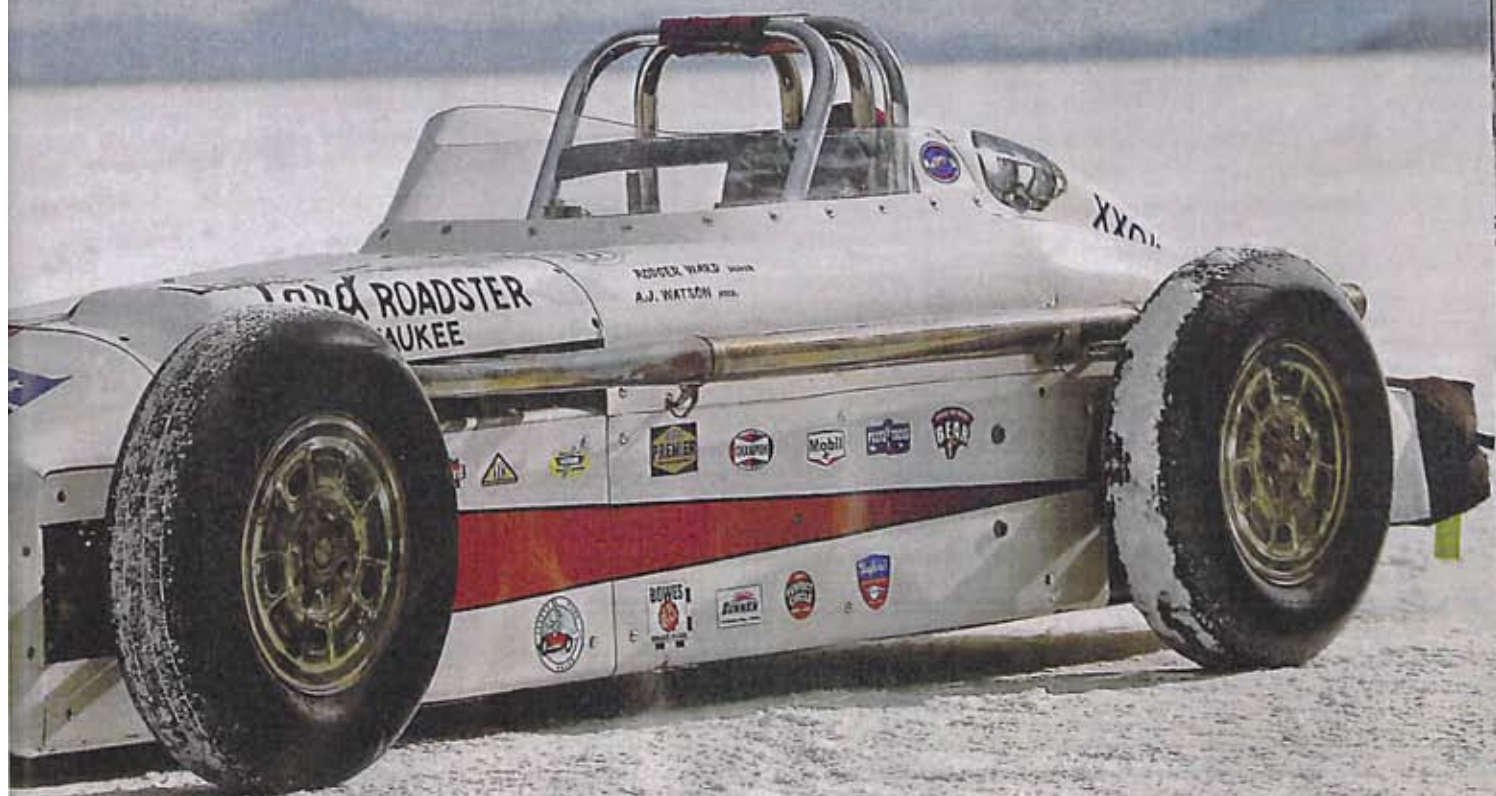
Bill Wendt's  
Replication of the  
1959 Indy 500  
Winner Is Actually  
Meant for  
Bonneville

 [@matttaylor](#)  [@granddaddylogly](#)



› There are no rules in hot rodding, so you can build anything you want—even an exact replica of the 1959 Indy 500-winning AJ Watson Indy roadster so you can race it at Bonneville. What? Hey, that's what Bill Wendt wanted, so who are we to question him going to the effort and expense to replicate a 1959 Indy car so closely that even the decals are the same—then try and set a record at the Salt Flats.

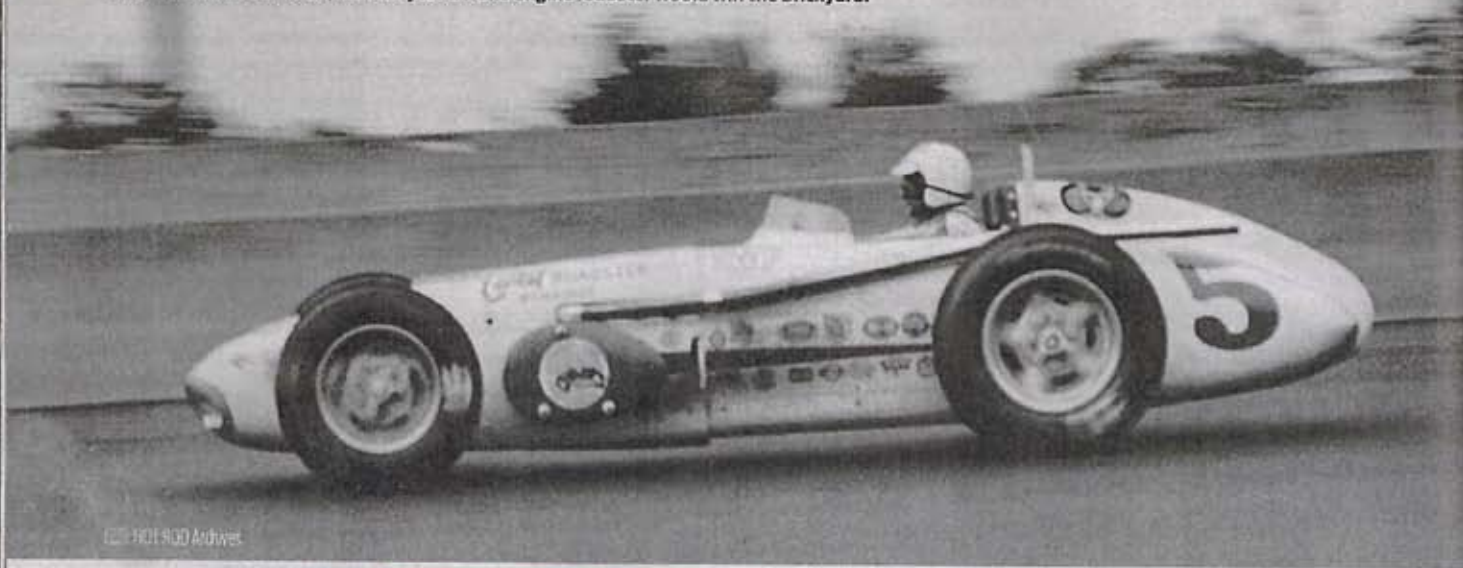
Wendt wanted something different for Bonneville and got geeked about the Indy class. The record is 176 mph, but Wendt wanted to get into the 200 MPH Club. The rules say you must start with a race car configured from the era it represents, so no later engines or swoopy bodywork are allowed. In fact, anything out of the norm must be proved to the SCTA rules committee to have existed back in the day.





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[ On the back straight at the 1959 Indy 500, Rodger Ward closes in on winning "the greatest spectacle in racing." These 1950s and early 1960s roadsters are some of the most memorable in more than 100 years of racing. AJ Watson's race cars, which Ward's car was one of, are the gold standard in Indy roadster builds, as these cars dominated the 500 from 1956–1964, the last year a front-engine roadster would win the Brickyard.



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[ The Offenhauser four-cylinder engine dominated the Indy 500 for decades. Designed by Fred Offenhauser while employed at Harry Miller's racing facility in the 1920s, it won 27 Indy 500s in all, and won the pole position 10 times (of 11) from 1950–1960. With the advent of turbocharging, the engine remained competitive into the mid-1970s. Wendt's 270ci version was the biggest one available, producing 415 hp with four valves per cylinder and five main bearings. Standard compression was 13:1 and redline was 6,000 rpm.

Wendt wanted his race car to be as close of a replica to the original winner sitting in the Indianapolis 500 Museum as SCTA rules would allow. He weaved construction between toeing the authenticity line and bending when it came to safety, reliability, or class rules. Aerodynamically, things like external oil tanks, steering linkage, and bulky suspension components—all pretty much standard fare for these Indy roadsters—will kill your speed at Bonneville. The hurdle for Wendt at every turn (no pun intended) was to find examples Watson built with wind-cheating features, then present photographic proof to the rules committee. What better way to sift through the 10 or so years of Indy roadsters and Champ cars

than to enlist the maestro; Watson himself was still residing in Indianapolis and, once approached, became an enthusiastic participant.

Tom McGriff in Indianapolis has built a number of roadster replicas and was commissioned for this unique recreation. The wheelbase, tubing diameter (1½-inch for the main chassis as original, and 1¼-inch for the driver area, per SCTA rules), powerplant, and bodywork—which, except for the aluminum belly pan, is fiberglass from AJ Watson's original molds—all adhere to the 1959 winner's specs. Visually, the tipoffs this is not Ward's winner are the Goodyear Bonneville 15-inch tires, rollcage, chute, and windscreen.



[ All of the body panels, with the exception of the belly pan, are fiberglass from the original AJ Watson molds, including the distinctive tail and nose. Wendt wanted to keep as many components as possible inside the body structure to keep the aerodynamics as clean as possible.

Per the rules, the engine must be from the era, so it was Wendt's job to find the largest Indy engine he could find, which was a 270ci Offenhauser. These four-cylinder, racing-only beasts were the de facto choice for all Indy cars throughout most of the 1950s and into the 1970s, and were available as both a 255ci and taller-deck 270ci versions. The cylinder head was cast into the block, negating the need for a head gasket and allowing the Offenhauser to tolerate much higher compression ratios than other engines of the time. Today, finding a complete engine not already in a museum is rare, and even individual parts are impossible to find; when found, they are usually damaged take-outs from back in the day. Wendt was fortunate





to piece together a complete engine through Offy expert Jim Himmelsbach in Cincinnati. Other than the pistons and rings, every engine component needed massaging or a rebuild to be serviceable in Wendt's roadster. Don Enriquez rebuilt the mechanical Hilborn fuel injection, while Himmelsbach handled the rest of the build.

The engine is offset 7 inches to the left, as it was in the original car. This was done to offset the driver's weight. Wendt wanted a completely inboard suspension, which the

SCTA immediately nixed. With no images or info to back up his inboard idea, he sought pictures of a limited amount of coil-spring roadsters Watson built. With documentation, the committee approving this, but because they were partially visible in the pics, Himmelsbach integrated the coilovers partially exposed. Besides suspension components, the Vega steering box is inboard, as is the oil tank for the dry-sump system. Getting these pieces out of the wind stream was an important aspect for blazing down the

**[Above:** There's something in the air, or maybe the salt, at Bonneville that keeps you coming back. As Wendt has been disappointed by not achieving his original goals for the roadster, it's a given he, David Johnson, and Jerry Carbone will be back this year to try and break the 176-mph record—and then get into the "2" club.

**[Left:** Compared to today's IndyCars with their complex array of functions custom-fitted to each driver's steering wheel, Indy roadsters were simple beasts with just basic functions monitored. Wendt has kept the driver confined authentic to Ward's 1959-winning roadster. Though this car uses a contemporary Phoenix two-speed transmission, a two-speed transmission would be the common setup for these roadsters. Reversers were eliminated by this time to help save weight.

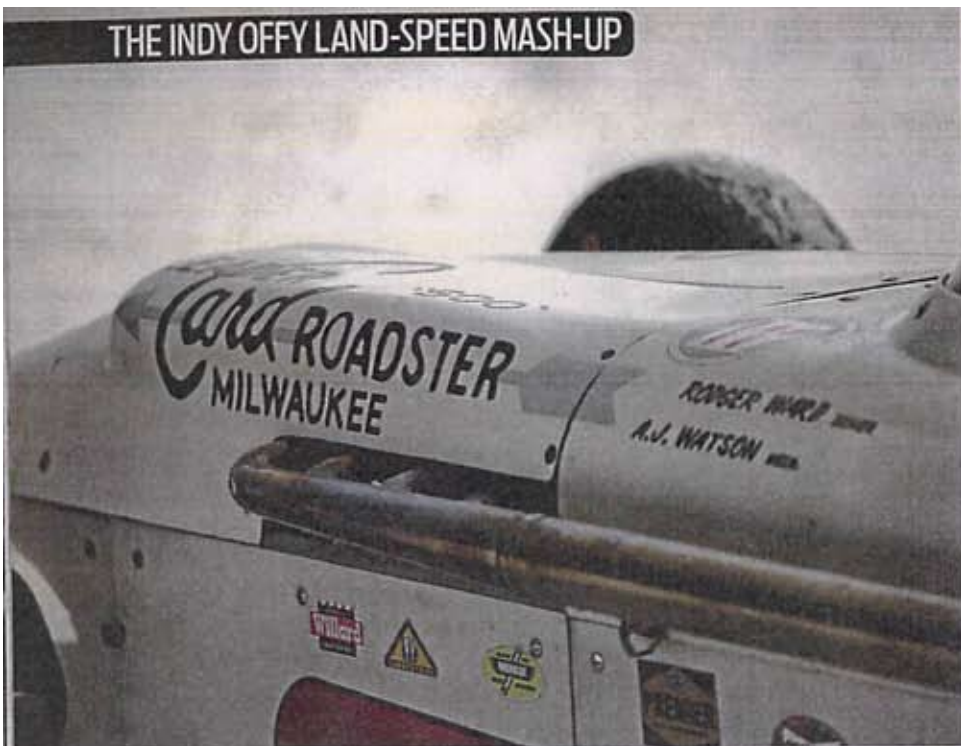
5-mile course as slippery as possible.

An offset engine meant an offset rear end was needed. Winters Performance in York, Pennsylvania, created a one-off rear end with a quick-change centersection loaded with a 2.50 gear. Connecting the engine and rear end is a compact Winters Phoenix two-speed racing transmission that Modified racers use in circle-track racing. They incorporate a small, 10-inch ring gear spun by a starter integrated into the bellhousing. As the original transmissions were basically an early Ford V8 transmission gearset in a unique housing for Offy applications, the Winters unit makes for a much-improved unit with the combined benefit that the clunky two-man starting operation (in addition to the driver) required for original Indy roadsters was now eliminated.

The gauge panel, instruments, steering



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**[Left:** The exhaust header is from an unknown Indy roadster from the 1950s. Wendt's roadster has the Offy sitting upright in the chassis, as most cars of the era were constructed, but many were also built with the engine in the "lay-down" position, meaning the engine was turned 90 degrees to lower the hood profile and center of gravity.

**[Below:** The original No. 5 Watson roadster shot during pit action at the 1959 Indy 500. This was Rodger Ward's first Indy victory, but he would almost win in 1960 in what is considered one of the most exciting 500 races ever, with leads changing multiple times with eventual winner Jim Rathman. Ward came back in 1962 to win his second Indy race.

**AJ Watson**  
jokingly told me this  
is not a Watson car  
because "the quality  
is too good."

—Bill Wendt



wheel, seat, and interior are all correct to 1959. The exhaust is actually off of a vintage Indy roadster, so authenticity is assured. The paint scheme and every decal is correct and in its proper location to the winning car. The unmistakable Watson Indycar nose further confuses onlookers.

Wheel discs on the insides of the 15-inch wheels at all four corners are stationary to aid aerodynamics. The outer wheel discs feature vinyl decals of original Indy Hali-brand magnesium wheels from back in the

day, making it a bit harder to focus the blur between originality versus recreation.

The entire project took six months to pull together, with three months of that time under actual construction and assembly. Once McGriff was finished with the chassis, Wendt finished the remainder of the roadster. Funding the project was David Johnson, who also shares driving duties with Wendt and Jerry Carbone. If Wendt's name is familiar to you, it might be from campaigning the Smokey Bear alcohol Funny Car from a few

years ago.

Finished for the 2012 Speed Week at Bonneville, Wendt's 175-mph licensing run was its fastest, with an accidental 181-mph run. The SCTA frowns on drivers exceeding their licensing speed caps, and Wendt was summarily reprimanded. But it would get worse when Wendt spun it at 171 mph on a subsequent run. Front-end lift was the culprit, something AJ Watson himself warned of. With more weight added, another run resulted in loss of oil pressure and essentially



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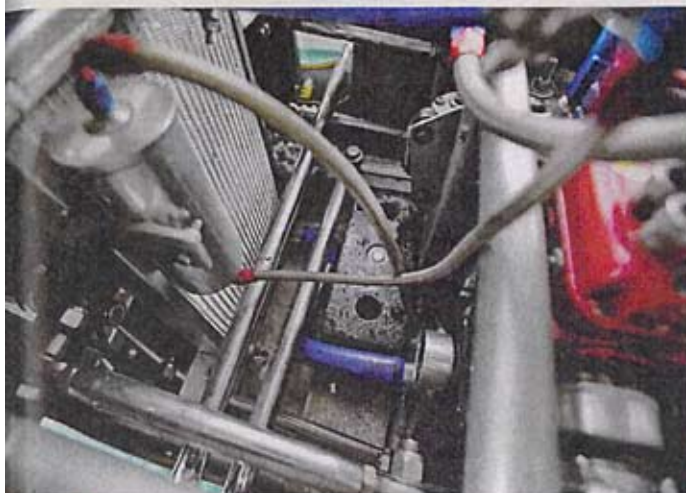
killed the engine.

For 2013 the team was back to Bonneville with their fresh engine. A number of runs could not overcome generally poor performance, so once back at America's Generators in Miami, where preparation and any repairs are performed, the engine was sent

to Himmelsbach for yet another rebuild. With a rainout in 2014 and canceled event for 2015, the 2016 event was to be the car's shining moment. It was not to be, as the roadster was down on power and never got beyond 155 mph.

On paper, the roadster should have

215- to 220-mph potential, but this is what Bonneville is all about: overcoming adverse conditions and mechanical gremlins. The one certainty is that Wendt, Johnson, and Carbone will be back this year to challenge the salt with a car worthy of its 1959 Indy 500-winning namesake.



[With the inboard coilovers, stabilizer bars, linkage, and cross steering all contained inside the body, things get crowded fast. Another component that needed to be packaged that would have been outside of the body was the oil tank for the dry-sump system, which you can see in the original black-and-white photos of the Indy-winning car.



[Don Enriquez of Hilborn Fuel Injection and drag racing fame handled the rebuild of the Hilborn mechanical-injection system. Enriquez has been working on fuel injection since first coming to work for Stu Hilborn in the 1960s. Also seen here is one of two "high tower" Offy cam covers. □