



THE DIXON V8

By Paul Grace

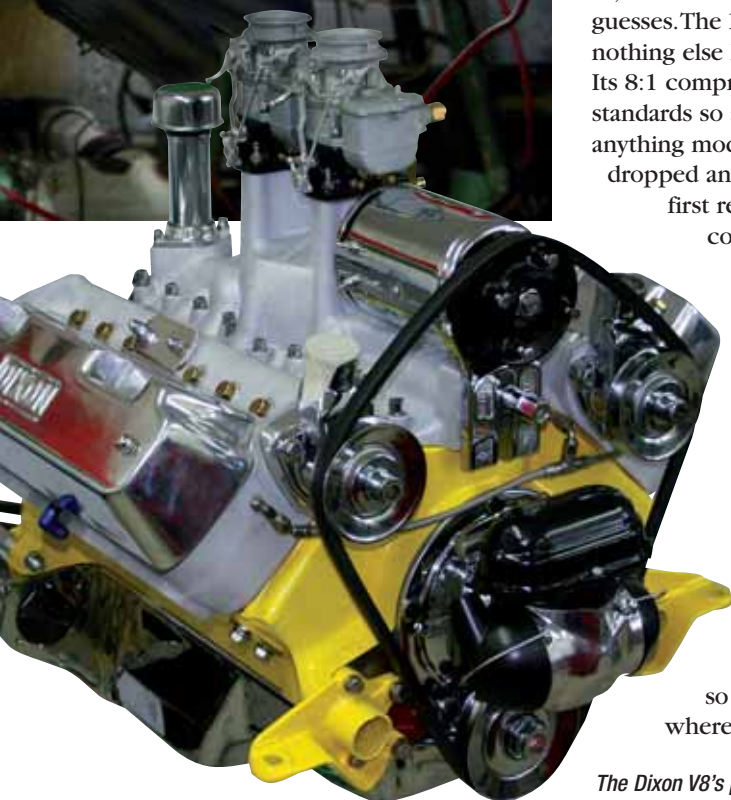
HOT RODDING is as much about engines and horsepower as it about the sleek shapes and silhouettes we install them into. For some, happiness can be found in the reliability, light weight and high power of a factory small or bigblock motor. That's never enough for others who slam dunk mediocrity with massive superchargers and fuel injection to overcome the laws of nature. That route costs big bucks so many have turned to long forgotten and out-of-production engines such as the Olds Rocket, Cadillac V8s and Buick Nailheads

to add a touch of tradition, nostalgia and creativity. It's part of the new wave of cool that's sweeping through rodding's rank and file but its still 'inside the square' thinking so to speak.

Visionaries lead with ideas and concepts that sometimes never even make paper. Occasionally they do get to the drawing board, and then some even go further and make it to production. There's normally no financially sound rationale to support the ideas, just an emotional tie to the past or future and a desire to go fast and be different. We can't forget the repro hot rod motors like Ardun, Miller, Riley, Cragar and

others that bring the flavours of racing back to us through old designs brought back to life, enhanced by new and improved technologies. Californian Gary Richards is one of the visionaries who has brought an overhead valve conversion for an ancient flathead V8 back to life from just one original head and by re-creating the '38 Dixon V8 that we reported on in NZHRM Nov '05 issue. This story is about that engine.

Dallas Howard is one of rodding's special breed who aren't satisfied with anything the factory can or could once offer, and likes his rodding genuine and pure. That desire led him to Gary



Richards and the Dixon V8 conversion. From there some 'outside the square' thinking led to a concept for a genuine nostalgic traditional hot rod - a Dixon V8 powered '32 roadster. We've been lucky to be riding shotgun on this project and were invited to the initial break-in and dyno tests to prove reliability and establish a tune-up and horsepower levels.

We found ourselves asking searching questions about just how much power should the engine make, but with virtually nothing the same to compare to, we admit having a couple of wild guesses. The Dixon is an F-head; there's nothing else like that to compare with. Its 8:1 compression is low by today's standards so again hard to compare to anything modern. Eventually the penny dropped and it hit us. The 265 Chev V8

first released in '55 could be a comparison. That engine made 162 hp from 265ci with 8:1 compression with 2 overhead valves per cylinder. By comparison the Dixon is 255ci and runs 8:1 but has the stock flathead's restrictive intake valve porting vs the Chev's better design OHV set-up.

Conjecture was rife; the answer was not there so we proceeded to the dyno where the engine was installed

The Dixon V8's point of difference is that it's different. Note the high pressure lines feeding oil to the rockers in the front of each head.

The engine was test fired on a custom-built stand. Carbs synchronised and idle set. With open headers it revs freely and sounds like a hot Y-block!



After a thorough break-in the valve lash was checked; adjusters needed replacing.

and prepped for break-in. With valves lashed and Stromberg 97s full of 100 octane, the button was hit and it instantly roared into life for the first time in 60-plus years. A quick check showed all systems normal with oil pressure at 60lb, water at 78deg and RPM at 2300. An hour down the track it was switched off and valves re-lashed, ready for some power pulls. At this point a broken valve lash adjuster was discovered and several more looked suspect. A quick call to the states found that better quality ones were available so they were flown in and installed.

A few days later, once all systems were again ready, the engine was warmed up and some preliminary power pulls made but at just 3000 rpm the motor hit the



ENGINE SPECS

Type: Ford Flathead V8 bored and stroked, ported & polished.
Crank: '49 Merc 4" stroke modified to fit the '36 block
Pistons: Ross forged 3-3/16"
Heads: Dixon F-Heads.
Manifold/ Induction: Tattersfield twin carb.
Ignition: Stromberg 48s.
Camshaft: Lincoln Zephyr.
Valves: Isky 77B camshaft, Johnson adjustable lifters.
Exhaust: Chev 1.6 intake & exhaust.
Other Facts: 12V Generator, Alloy flywheel.
 Chrome '36 water pumps.

DYNO RESULTS

Date Jan 18 '06
Ignition lead 36 degrees
Carbs Stromberg 48s
Jets #51
Fuel Avgas 100-octane

RPM	Torque	HP
2000	208.9	79.6
2500	214.5	102.1
3000	220.1	125.8
3500	211.4	140.9
4000	195	148.6
4500	167.2	143.3

Note the oil return line from the head to the sump. Three stock exhaust ports in the block are blocked off. Exhaust now exits via 4 OHV exhaust ports in the cylinder head, thereby eliminating hot exhaust passing through the block. A major performance weakness in the flathead's design, was overcome by the Dixon conversion.

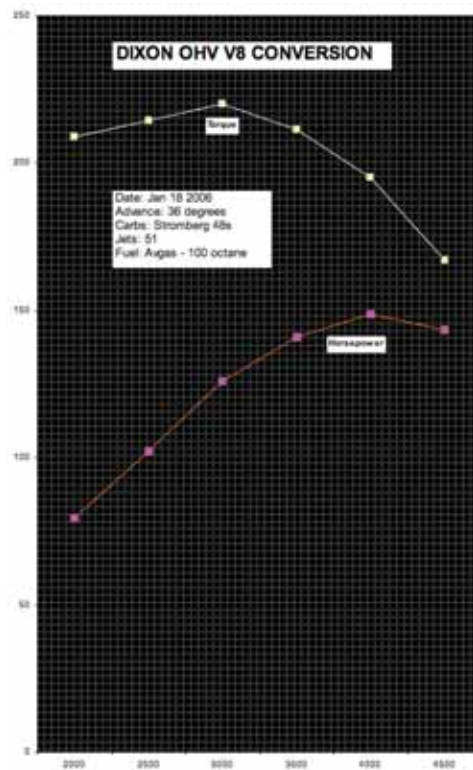
wall and would rev no higher with air/fuel indicating a full-rich condition, suggesting weak spark or power valves stuck open in the Strombergs. Dallas had 2 Jerry Jobe-rebuilt Stromberg 48s in his inventory so they were installed with #51 jets as a quick fix. That cured the problem instantly and allowed us to see the engine's output for the first time. The answer to the elusive question...with 36deg of ignition lead



Two Jerry Jobe-built Stromberg 48s with 51 jets were fitted to the rare Tattersfield twin carb intake then the engine warmed up ready for final power pulls.

the Dixon V8 made 148.6hp@ 4000rpm and 220.1 ft-lbs of torque at 3000 rpm, quite an achievement. A stock original '36 Ford engine (that the Dixon heads are bolted to) made 85hp so with few mods to the intake system but many others to the rest of the combination a whopping 75% increase in power was achieved and just 14hp short of the 162 hp made by the double OHV 265ci Chevy. Sure it's no ground pounding tar-melting V8. Its true point of difference is much stronger than that...it's genuine and it's different!

Some could argue, why bother to go through the challenge and dramas of creating a one-off engine and that's a fair question. But in a line-up of '32 roadsters at the next LA roadster show, which one is going to corner the attention, discussion and kudos. Even knuckle-draggers can figure it out. Belly-button smallblocks just don't cut it any more. Genuine hot rodding is where it's at and about thinking outside the square to create performance improvements the factory has never even thought of. Pay attention, this is one of those concepts that has come to reality. In a world-first we invite you to watch and listen to the Dixon V8 in a short video clip at www.nz-hotrod.com.



Footnote:

Eric at Scandinavian Hot Rods in L.A has constructed the '32 that the Dixon is going into, and has agreed to do the final assembly for Dallas. When it's done we may have a surprise in store for you. Stay tuned!...(pun intended)