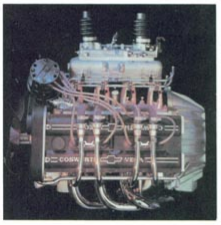
CHEVROLET INTRODUCES THE COSWORTH TWIN CAM

THE COSWORTH TWIN CAM



The Vega Cosworth started quietly enough. Back in 1971, Cosworth Engineering called from Northampton, England, and asked for some Vega engine blocks.

Cosworth—noted for their international Grand Prix engines—took the basic Vega powerplants, modified them with a Keith Duckworth-designed twin-cam cylinder head, and sold them to their race car customers.

The hybrid Vega engines have done a commendable job.

Our engineers figured that a small, sporty Vega with one of these engines under the hood—plus the right gear box, tires and chassis tuning—would make a rather exciting Vega.

Now, four years later, the Cosworth Twin Cam.

A street Vega sired by Cosworth, out of Chevrolet Engineering.

What's unique about this special Vega is of course the engine itself. Basically, it's the Vega aluminum alloy four-cylinder block with a special forged steel crankshaft, a shortened stroke (reducing displacement from 140 to 122 cubic inches), special impact-forged pistons and, most important, the double overhead-cam, 16-valve cylinder head—two inlet and two exhaust valves per combustion chamber.

The Cosworth engine is a precision-built beauty that develops 41% more horsepower than the base Vega engine. Yet it weighs about 15 pounds less and is still economical to operate. It's also a highly efficient engine that requires fewer supplementary emission control devices than other Vega engines.

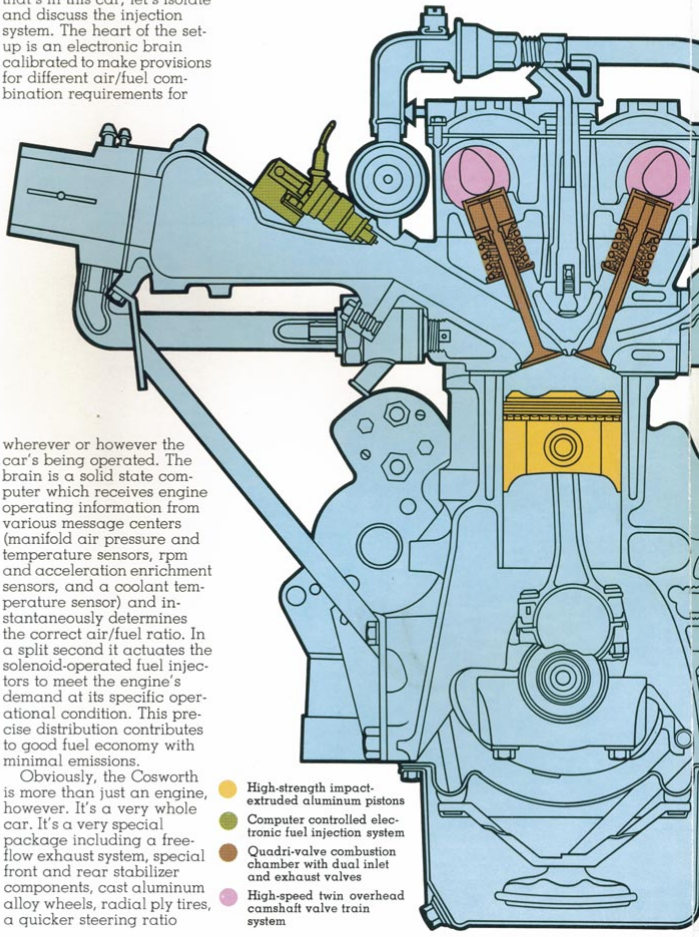
The Cosworth engine has an electronic ignition system and electronic fuel injection.

As an example of the engineering sophistication that's in this car, let's isolate and discuss the injection system. The heart of the set-up is an electronic brain calibrated to make provisions for different air/fuel combination requirements for wherever or however the car's being operated. The brain is a solid state computer which receives engine operating information from various message centers (manifold air pressure and temperature sensors, rpm and acceleration enrichment sensors, and a coolant temperature sensor) and instantaneously determines the correct air/fuel ratio. In a split second it actuates the solenoid-operated fuel injectors to meet the engine's demand at its specific operational condition. This precise distribution contributes to good fuel economy with minimal emissions.

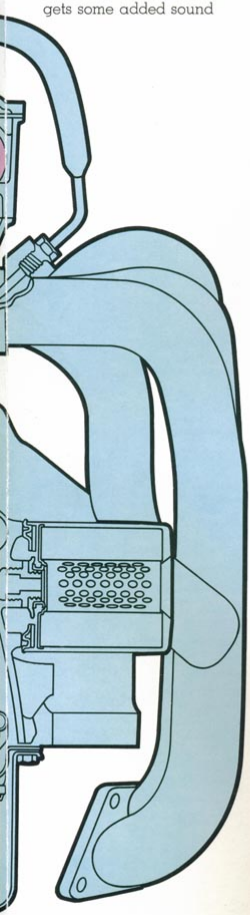
Obviously, the Cosworth is more than just an engine, however. It's a very whole car. It's a very special package including a free-flow exhaust system, special front and rear stabilizer components, cast aluminum alloy wheels, radial ply tires, a quicker steering ratio (available at extra cost), a special HD clutch, special 4-speed manual transmission, and a 3.73:1 ratio rear axle with a larger-than-standard 7½" diameter ring gear.

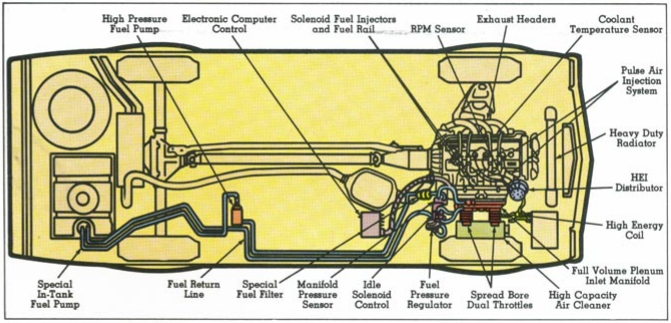
The exterior finish is black (which you can't get on any other Vega) with a gold stripe running along each side of the car—interrupted only by the words, COSWORTH TWIN CAM.

Inside, in addition to an already handsome interior, there are some rather spectacular addi-



tions. A sports steering wheel with a Vega Cosworth insert, a special gauge cluster with an 8000-rpm tach, and a consecutive vehicle number plate on the instrument panel. The facing of the instrumentation cluster is a bezeled metal. Gold colored, of course. The Cosworth also gets some added sound





treatment, and the driver's seat back adjusts to two positions.

A custom interior is standard. There's a choice of black or white perforated vinyl, or black cloth. All come with black carpeting. Very nice.

Not all Chevrolet dealers are Vega Cosworth dealers. So there are 48 Chevrolet mobile service vans dotted around the country, each commanded by a man who knows the inside of the Vega Cosworth. So, you'll have a "pit crew" in the area.

We're not building many Cosworths this year.

Those we build will be assembled at a designated Cosworth area in our Lordstown plant by a Cosworth project crew.

Each Vega Cosworth gets double inspections while it is being built and at the end of assembly is taken off the line. Then the engine, manifold and the fuel injection system are put into the car by the project crew.

The Vega Cosworth is a car you can just sit in and start getting messages. Like there's a mountain somewhere that needs to be climbed, or a 12-hour stretch of highway that wants to be crossed. It's a car that begs to be given an occasional twisting, turning piece of road.

The Vega Cosworth is a very special car.

For a limited number of people.

Cosworth 2-Litre Twin-Cam Engine Specifications:

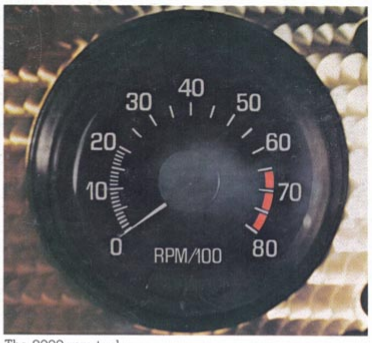
Engine	4-cylinder in-line
Displacement	122 cubic inches
Bore & Stroke	3.501 x 3.160
Compression Ratio	8.50:1
Camshaft	Twin, overhead, belt drive
Combustion Chamber	Pent roof, 4 valves per chamber (2 inlet, 2 exhaust)
Gross Horsepower	110 @ 5600
Gross Torque	107 lb.-ft. @ 4800 rpm
Induction System: Air	Air ducted thru tandem air valves to large plenum manifold.
Fuel	Electronically timed and metered with injectors on centerline of twin valve ports.
Other Special Features	Aluminum inlet manifold, cylinder head, camshaft carrier and cover. Impact-extruded aluminum pistons. High-speed direct-acting valve train. Short-stroke forged steel crankshaft.

Other Data:

Tires	BR70-13B steel-belted radial ply blackwalls.
Brakes	Manual front disc/rear drum. (Front pads are semi-metallic for reduced fade.)
Steering	Manual 20.9:1 ratio overall.
Gear Ratios	4th.....1.00:1 3rd.....1.66:1 2nd.....2.48:1 1st.....3.50:1
Curb Weight	2480
Options Available for the Vega Cosworth:	AM radio, AM/FM radio, or AM/FM stereo. Rear seat speaker. Heavy-duty battery. Rear window defogger. Door edge guards. Floor mats. Positraction. Tinted glass. Auxiliary lighting. Swing-out rear quarter windows.

The Cosworth wheel and instrument cluster.

The 4-speed transmission.



The 8000-rpm tach.

Cast aluminum alloy wheels and radial ply tires.

The Vega Cosworth is the only Vega available in black.

The Cosworth also has the convenience of that big Vega hatch in back.

Vega Cosworth, it almost begs to be driven.

COSWORTH TWIN CAM

Chevrolet

V 3/75 Litho in U.S.A.

Prepared by Chevrolet Merchandising Department—Passenger Cars.