

'69¹/₂



Motown hot stuff



By Terry Cook and John Raffa

It has been said that the motor city has produced some pretty strange bed-fellows, and Motown's '69½ mid-year release offerings underline this with the results looking like the aftermath of an engineering "key game" party. For openers, Ford has taken Chevrolet's inclined valve approach and adapted it to their small and intermediate engines. And then there's Pontiac, who took Ford's tunnel-port idea and applied it to their new 400 cubic inch engine. Or how about Chrysler Corporation, who snarked Pontiac's old tri-power carburetion concept and rejuvenated it? Meanwhile, Chevrolet keeps silently humming along, and despite big name changes in the front office, still manages to slide a seven-liter all-aluminum engine out into public without undo fanfare. Actually most of these ideas probably didn't originate with the manufacturers mentioned, so don't bother writing in to say that the 1908 Sason has tunnel ports, or the '14 Dosenbeck-Lumbago Ariel-Square 3 had canted valves, 'cause we know there's really nothing new in automotive engineering . . . or is there?

Men from MoPar open a "six-pack"

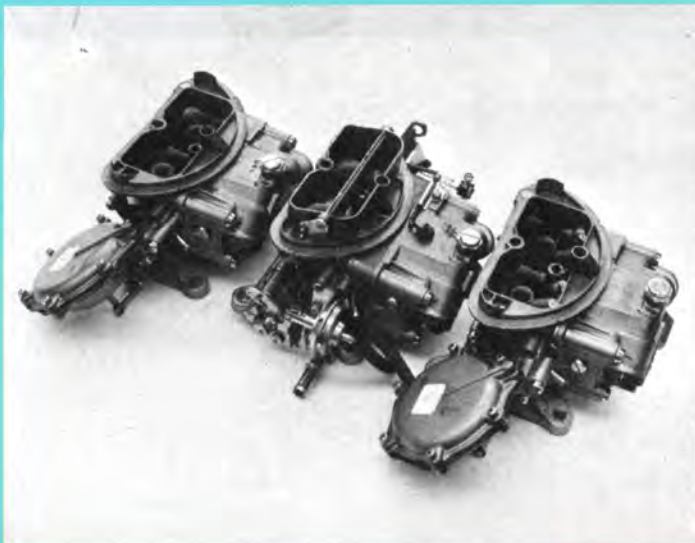
WHILE EVERYONE ELSE IN THE AUTO INDUSTRY is busy with stop-gap and harried efforts to bring out an econo-racer that can match the Road Runner and Super-B, the guys over at Chrysler Corporation are still two steps ahead in that performance package bag. Newest wrinkle for MoPar

lovers is a six-barrel carburetion setup for the 440 engine, replete with fresh air. For those of you over 21, it's the triple deuces all o'er again; and while all others — save the current Corvette — have forgotten "trips," Chrysler has revived the three two-barrel approach with no uncertain gusto. But don't be

confused into thinking it's "old hat," because there's a lot more to Chrysler's new six-barrel than just three Holleys.

Starting with the obvious external appearance differences and working to the heart of it all, the hood is all fiberglass and features a full-time fresh air

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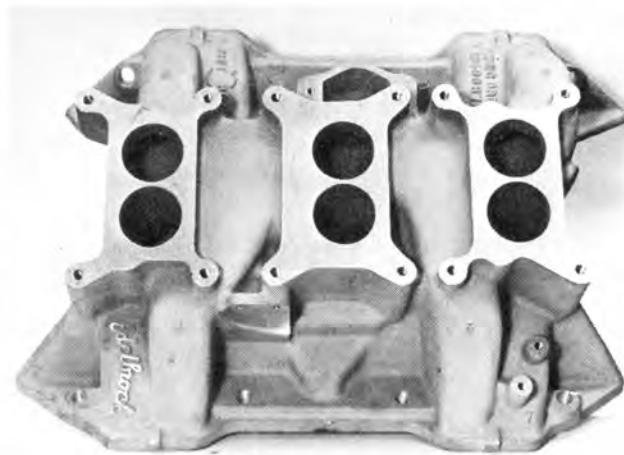


The new-old switcheroo from Chrysler Corporation this half-year is tri-power. Trio of Holley two-barrels go beneath 'glass hood.

scoop. The hood is available only in a satin (flat) black finish, accenting the standard line of Plymouth Road Runner body colors. Reportedly, the Dodge Super-B will have four additional "Mod" body color choices available (red, green, yellow, and orange), in addition to their normal array. The hood does not have the conventional type of rear-mounted Chrysler hinges, but is easily removable when the four hood pins (one located at each corner) are detached. Weather-proof lanyards keep the hood pin locks permanently attached to the hood so they cannot get lost, no matter how hard you try. My only concern is the gas station operator who removes the two front pins and tries to raise the hood in the conventional manner while you are occupied in kicking the inoperative station candy machine. The only other external distinguishing feature of the six-barrel accompanying package is the G70 by 15, wide-tread red stripe tires on 15 x 6 black street hemi wheels, with chrome lug nuts but sans covers.

When the sturdy plastic bonnet is removed, the three deuces are still not readily visible, as they are covered with a bathtub-like affair that ducts the cold air through the air cleaner and on into the carburetors for consumption. The air cleaner/ducting arrangement comes complete with special instructions for ultra cold weather or heavy rain squall operation. In the event of either, simply tape the scoop opening closed and open two special doors at the base of the air "tub" ducting by unbolting

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"Bathtub" that surrounds the air cleaner on MoPar's new six-barrel option keeps rain and snow off the engine.

Triple-deuce manifold is manufactured by Edelbrock and comes on 440 hi-perf engines as original equipment.

Small block Ford fans get a new head start on the opposition



Ford's new "anti-import missile," the Maverick, comes equipped with six-cylinder power for under \$2,000. Could get 302 V-8 soon.

IF YOU'VE BEEN WONDERING what's so boss about the new 302 Boss Mustang, we're here to tell you that there's a bunch of new stuff lurking under that crafty exterior trim reshuffling job. The key phrase for Ford's intermediate and small block performance engine's this year is inclined valve heads, the successor to last year's tunnel ports.

The whole purpose of the canted valves is to achieve more room within the cylinder head casting for cooling. These heads feature greater water jacketing, especially around the exhaust valve seats, as well as thicker walls in the area separating the intake and exhaust ports. By tilting the valves from their normal in-line parallel situation, so that the intakes and exhausts are inclined toward the chambers from two different directions, more room is created in the normally tight quarters between the ports in that area where the valve seats are adjacent. Previously other ports and obstructions demanded flattened walls. But with the inclined valves, room is created for a more ideal port configuration, and the ports themselves are also greater in physical dimensions. Better shaped and larger ports understandably mean better breathing, and Ford has radically increased the size of their valves to boot.

Ford's approach seems to be giant ports and valves, even to the point where they might appear to be too big, especially in light of the 302 cubic inch displacement of the engine. For instance, some of the more knowledgeable Chevy engine builders like to stick with about two-inch intakes and 1.5-inch exhausts for this general size of engine; e.g., the Z/28 Chevy 302 has 2.02-inch intakes and 1.60 exhausts. The valves on Ford's 302, however, are gargantuan 2.23-inch intakes and 1.71-inch exhausts. It is possible to overvalue (and port) an engine, just as one can overcarburetor; but bear in mind that the Chevy approach to the cylinder head design problem differs radically from Ford's approach. The engineers at FoMoCo are plenty sharp, and flow comparisons reportedly show that the new inclined valve heads pictured herein drastically outperform both last year's tunnel port heads and the famed Gurney types. But, as always, the proof is in the pudding, and until the Ford Trans-Am cars get out on the track and bash it head-on with the Camaros, the results of a long hard winter of work in the Triple-E building in Dearborn will be unknown. One more thing. The Chevrolet Mark engine (396-427 "Rat Motors") and its "Hog Block" predecessors (the 348-409 inch "Stonecrushers") are inclined valve engines, and it is rumored that Chevrolet has some canted valve small block heads in the develop-

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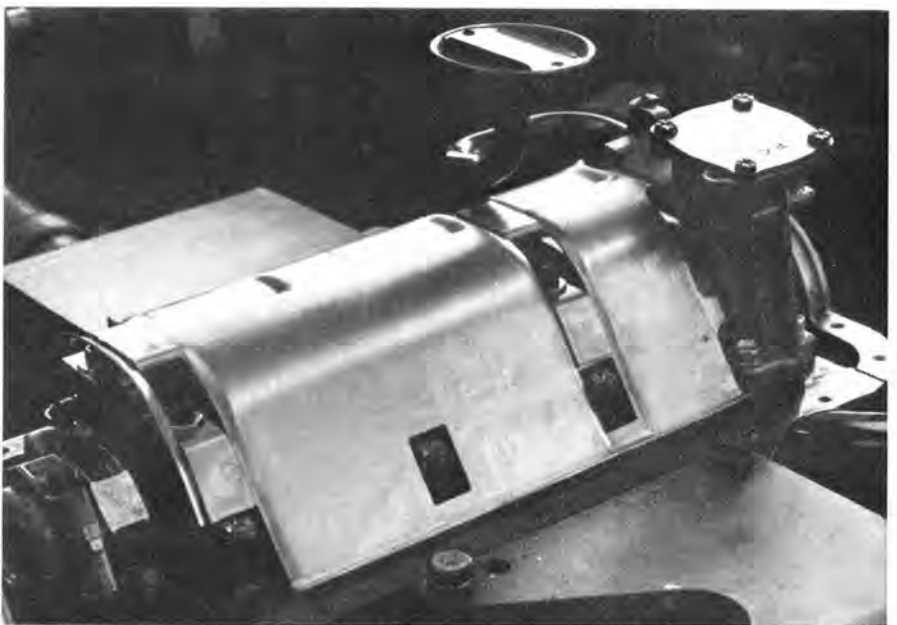
Aluminum over-and-under single four-barrel intake manifold with fine distribution, really delivers the goods. It accepts a 780 CFM Holley carburetor to feed the potent 302.



Inclined valve approach is apparent with staggered spring setup, rather than earlier in-line technique. Hardened steel pushrod guide plate keeps everything in its place.

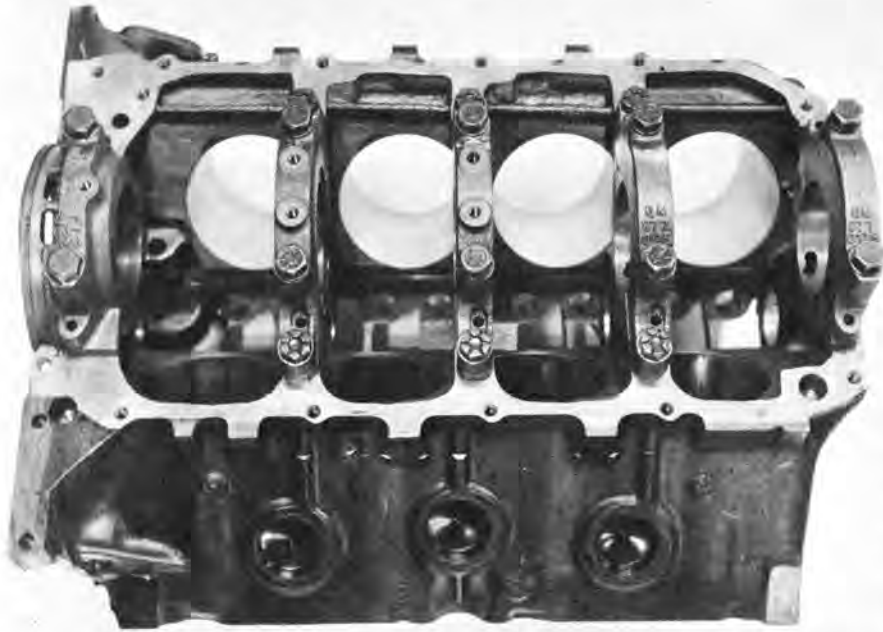


Land of the Giants. Combustion chambers house whopping 2.23" intake valves and 1.71" exhausts. Canted valves permit more water jacket cooling around exhaust valves.

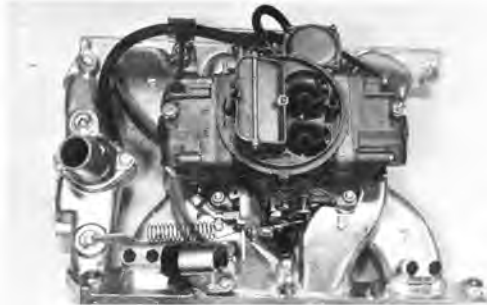


Production windage tray has custom-built look, but is standard equipment. Notice how it steps up and over the block's four-bolt main caps. Baffle prevents oil splashing.

Tunnel Ports for Pontiac put Indians back in action



The Ram Air V block retains the previous bore-stroke-displacement specs, but there have been many structural improvements, such as beefier webbing, and four-bolt main caps.



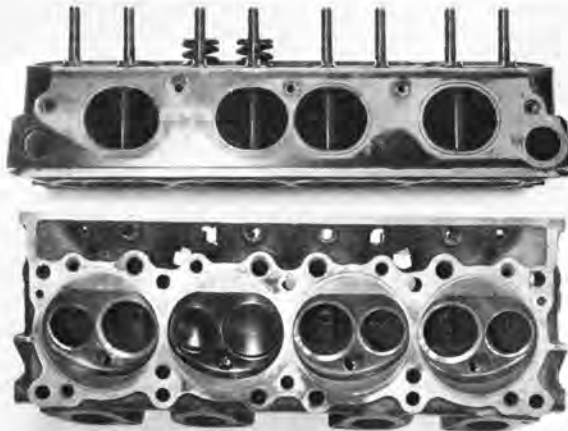
Icing on the Pontiac cake is a big 780 CFM Holley four-barrel carb sitting on aluminum 4V manifold.

And then there's the view of the massive tunnel-ports, 2.6" wide by 2.1" high, with pushrod tubes.

Redesigned combustion chambers feature a larger 2.19" intake valve. Both valves are much lighter.



We said it was a racing engine! Stock individual iron exhaust castings are slick, but heavy.



PONTIAC LOVERS, THE WAIT IS OVER! There is now some horsepower "justice" to go along with the GTO, Firebird, and the new Judge. Pontiac calls it "Ram Air V," but any relation to previous Ram Air Pontiacs is pretty thin. This is the 400 cubic inch solid-lifter cam, tunnel-port head number we mentioned a few months back in "Straight Scoop," and it definitely should not be confused with Pontiac's recent string of hydraulic cammed conventional wedges. With Ram Air V, Pontiac has really arrived engine-wise (they're still waiting for everyone else to arrive styling-wise), and you might see some seriously competitive Pontiac Super Stockers (and Stockers, for that matter) back in NHRA-type drag racing, assuming the technical committee doesn't factor it out of competition. At present, there are no released horsepower figures available on the engine, but you can bet it will be at least 380, and tentative plans call for 1500 of the engines to be built. Although we didn't dig up the particulars, there will also be a small block version, a 302 Trans-Am motor from Pontiac, which will be available in at least the Firebird line. All information and equipment of which we snapped pictures came from ol' Milt Schornack of Royal-Leader Automotive in Ferndale, Michigan, the best friend a Pontiac ever had.

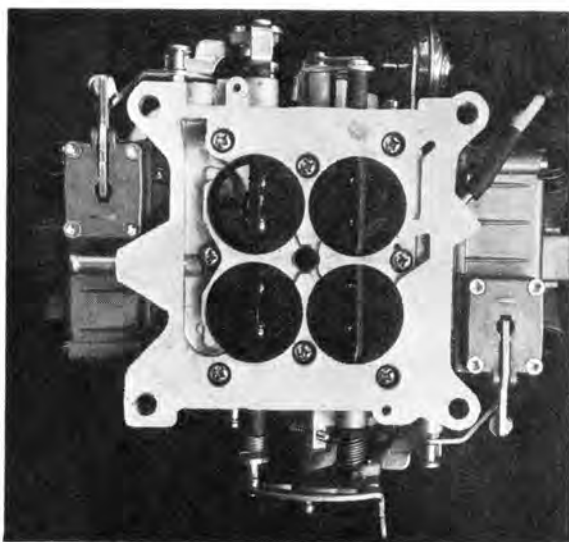
While the basic block dimensions of the engine are the same, retaining a 4.120" bore and 3.750" stroke, there are some casting differences which amount to structural improvements. Beefier webbings in the lower end main journal area, along with sturdy four-bolt main caps, add durability; and additional strength is supplied by reinforcing webbings which run longitudinally along one side of the block, just inside the skirt. Looking at the block from the top side, you can't help but notice the new cross-webbing in the lifter gallery area.

For the first time, Pontiac is offering a forged crankshaft in their production option engine. No gettin' around it, this package from Pontiac is a race motor. Connecting rods are also forged steel altogether different from previous super-duty equipment, and are essentially experimental models that have been floating around the inner sanctums of Pontiac engineering since sometime back around '63. They're known as the old "NASCAR rod" to some, are beautiful to the eye, and now, for the first time, are available to anyone. Another lower end piece which is usually overlooked is the new high performance dampener, a must for engines of this nature. Pistons in Ram Air V are Pontiac-TRW's, have a compression ratio of 10:75:1, a much nicer dome configuration than that of Ram Air IV, and weigh only 578 grams, or thereabouts.

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“ZAD” introduces more muscular Corvettes



Suction view of Chevy's new Holley R4296A 850 CFM carb shows dual pumps for primaries and secondaries. Secondaries are mechanically, not vacuum, operated.



Much-talked about, long-awaited all-aluminum ZL-1 engine is factory rated at 430 horses. New “Rat” saves 175 pounds over cast iron counterparts and 100 over aluminum headed L-88.

WE TOOK A SHORT TRIP to Phoenix during the last of February to see Chevy's latest “no race” options, all of which were previewed in '69 Corvette chassis (increasingly, Chevrolet's “live” test laboratories).

We had hoped for a look at the LT-1, the much-whispered about 375-hp version of the 350 CID engine, but Zora Arkus-Duntov, in attendance to show off his latest “toys,” notified the anticipatory press members that the LT-1 option won't see the light of day until 1970. What we were treated to, however, was more than worth the trip: an L-88 standard bodied 'Vette and a very racy looking ZL-1 equipped model that had been completely set up for SCCA-type A/Production racing. A couple of hesitant laps around Mel Larson's “Sportland” track, about 20 miles northwest of Phoenix, showed me all about the ZL-1, and, also, all I don't know about getting around corners and the like. The power/handling package of this model is superb! And just what

is the ZL-1? That's simple, it's a hotter version of the L-88. Yeah, I know, what's an . . . ?

To begin, the RPO L-88 is a total package, although the engine alone is also referred to as the L-88. Included in the package is the engine (427 inches, factory rated at 430 horses [their figures], with a single four-barrel carb). Of course, the most talked about feature of the L-88 “Rat” is the aluminum heads. These numbers reduce overall engine weight by 75 pounds. The lightweight head configuration is generally the same as that of its cast iron counterpart; however, incoming gas flow is slightly improved by further unshrouding around the inlet valve seat inserts. Larger diameter exhaust valves, increased to 1.840” from 1.720” aid cylinder scavenging.

The L-88's new camshaft significantly improves high rpm breathing when coupled with the increased capacity carb and plenum intake manifold.

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Functional rear scooped hood pushes air through plenum chamber to polyurethane sealed and filtered carburetor breather.

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them; thus, warm engine compartment air is consumed rather than the normal cold, externally supplied air. Drain holes in the "tub" permit operation of the unit in normal fashion in the event of light rain, etc.

Just as the knee bone is connected to the proverbial shin bone, the air cleaner leads to three two-barrel Holley carbs. In comparison, they have 1/16-inch larger venturis than the only other currently offered 3-2's, on the previously mentioned Corvette. The front (4393) and rear (4394) carburetors have identical bore and venturis, and in total are roughly equivalent to an 850 CFM four-barrel. The only difference between the front and rear carburetors is in jetting, to provide for the correct mixture distribution of the 440 cubic inch engine. The center carburetor (Holley part number 4391 on manual transmission models and 4392 on automatic transmission equipped cars) has a 250 CFM air flow capacity. Despite the seemingly gargantuan rating of the triad, the system is very streetable, as the center carb is usually the only one operating under a partial throttle situation. Chrysler and Holley claim the system offers good distribution at light load and idle, that it runs smoother on

the leaner mixture (demanded by today's emission requirements), and that the package permits the use of wilder camshafts. The system also features a solenoid operated anti-dieseling device, another result of the current emission flap. In studying the accompanying photo of the carburetors, those of you sharp-eyed enough to notice the difference in the configuration of the air horn entrance of the center carburetor and the two end units should understand that the front and rear carbs have a flush top only to accommodate a lower profile air cleaner, and not for performance reasons.

Hardware doesn't stop at the carbs, as another speed equipment manufacturer has broken into the OEM (original equipment manufacturer) area. The aluminum tri-power intake manifold is one of Edelbrock's, and is used by Dodge and Plymouth. Edelbrock's name, like Holley's and Hurst's is being employed as a selling point to the performance buying public, as well as for the reason that it performs like a champ.

Additional equipment supplied with the six-barrel/fresh air pack includes the standard connecting rods which have been treated to a special double-magnaglow inspection, molybdenum-filled top piston rings, and the standard camshaft grind, which is now low taper and includes flat face tappets. The new Hi-Load valve springs on the 'glass

hooded 440 are similar to the current Street Hemi valve springs, and are good for an additional 300 rpm. The rocker arms employed are identical in all respects to the normal 440 paraphernalia except that only the hardest rockers are selected for usage here. The valve stems are chrome plated, the distributor features a special double breaker setup, and a viscous fan drive is included along with the heavy-duty cooling package. Completing the package is a Dana Sure-Grip "double bullet-proof" 4.10 ratio, 9 3/4-inch diameter ring gear rear axle assembly.

Now that you've got the scoop on the new scooped MoPars, it should be made clear that the six-barrel option will only be offered on the 440 Plymouth Road Runner (where the package will be called "440 6-BBL" and so designated on the sides of the hood scoop), and on Dodge's 440 Super-B (where "SIX PACK" will similarly be notated on the sides of the scoop). Chrysler Corporation rates the 440 six-barrel "megilla" at 390 horsepower, but it should be clearly understood that neither the Plymouth nor the Dodge with this 440 variant falls into a profitable position for any stock or Super Stock class under the current NHRA classifying system, and should not be interpreted as a good bet for same. It's a streeter, which one good ride should clearly illustrate. ©

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ment stages, although they may never reach production. Just a little food for thought on the subject of valve layouts.

To be a bit more specific concerning Ford's new canted valve heads, the units will turn up on both the 351 and 302 cubic inch displacement performance offerings, as they fit both and provide a substantial power increase. As we mentioned above, the intake and exhaust valves are 2.23 and 1.71 in diameter, a big jump from last year's production 1.74 and 1.51-inch valves. The valves feature chromed stems, but are solid and not swirl polished. A single spring and flat wire dampener arrangement provides the needed tension, and the previous spherical seat rocker arm fulcrum has been discarded and replaced with a semi-cylindrical seat. The rocker arm itself, in addition to differing in rocker fulcrum seat configuration, is now a 1.73:1 ratio as opposed to the 1.60:1 ratio of old, and is now stamped rather than cast in construction. Pushrods are hardened and ground, and are kept in place by a hardened steel stamping, the pushrod guide plate. Also, screw-in 7/16-inch rocker studs replace their 3/8-inch pressed-in predecessors.

Now that we have covered the 302-351 inclined valve heads, we can get on and yak about the rest of the Boss 302 engine. But before we do, you should be aware that there are two varieties of this particular engine: a "street" version and a "race" version. We could go into detail informing you about the sodium-filled swirl polished valves, the ported heads, the 7/16-inch bolt "Indy" rods — and much more — of the race version, but we won't — at least not now. We learned our lesson with Ford last year when they bagged us into pumping you all up on their tunnel-port small block heads, and then wouldn't even let the independent Ford Trans-Am racers buy 'em, let alone you out there in the readership public. We won't tell you about the trick stuff in the race version of the 302 because we know that you couldn't get it even if you knew Bunkie Knudsen's wife! But we will tell you this: Ford is currently undergoing a startling price-cutting program to put their performance parts on a level with that of Chevrolet. If you don't believe us about the price slashing, just fall by your local Ford dealer and ask the parts man for some figures. Let him tell you.

As for the 302 Super Sedan Street Engine (or "302 HO", as Ford calls it for short), the block comes for the first time with four-bolt main caps (on caps 2, 3, & 4) as standard equipment. There are two crescents around the top of each cylinder bore to provide the needed

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WHEELS MAKE DIFFERENCES

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WHEELS MAKE DIFFERENCES

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valve clearance. Threaded welsh plugs serve as insurance against pressure popping the freeze plugs. The street crank is forged steel (another Ford first as far as small block production equipment goes), has induction hardened journals and hollow rod journal full cross drilling. The street version of the Boss 302 has an impressive looking windage tray as standard equipment, despite its custom-built appearance.



Ford's forged connecting rods for the 302 street version are an improvement; bigger 3/8" rod bolts are employed for ruggedness.

Connecting rods are forged steel, and feature 3/8" rod bolts.

Pistons for the 302 streeter are the conventional silicon aluminum extrusions, with a .060" pin offset (for noise reduction) and an 11:1 compression ratio. The camshaft is a solid lifter 300-degree duration number with .500-inch actual valve lift, using .025" lash on both intakes and exhausts. The intake manifold is an aluminum over-and-under single four-barrel affair. Carburetion is adequately supplied by a 780 CFM Holley.

In summation, the street version of Ford's 302 inclined valve engine appears in almost every respect to be about the most muscular motor that Ford has ever come up with in the small cubic inch line. Judging from the solid lifter cam, the zippy new heads, the four-bolt caps, high compression ratio, and especially the 290 horsepower tag that Ford has put on the engine, it appears that Dearborn has singled out the competition (Chevrolet's 295 horsepower 302-inch Z/28) and is ready for a point blank exchange on the '69 Trans-Am circuit, as well as in street sales. One more thing. If your dealer doesn't have or know about this canted valve 290 hp version of the 302-inch Boss Mustang, hang in there and don't lose faith in Ford or their dealers... the good parts are coming!

But Ford doesn't stop with a heavily revamped small block engine for '69½, as they've also just introduced their new "anti-import" subcompact car, the "Maverick." Essentially, the 103-inch wheelbase, 180-inch overall length, four-passenger rig is aimed at a \$2000 price range, and is basically not a performance car, with the only two engine choices being a "little" 105 hp 170-inch six cylinder and a "big" 120 hp 200 cubic inch six. Personally, we think it would be "boss" if the guys at Ford would see fit to spread the shock towers in the engine compartment a little and stuff in...ahem...an inclined valve 302-inch V-8, like for September's 1970 model year release time. But don't count on it, as Ford probably couldn't make enough of 'em to supply the demand. Still...



The crank is forged steel rather than iron, another Ford first as far as production small block equipment is concerned.

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The pins (195 grams) are relatively heavy, untapered, and are pressed in (the reliability boys understandably overrule the performance crowd on the floating-pin approach).

And then there are the heads. Tunnel-port city! No mistaking these units for quasi-, semi-, or ersatz-tunnel-ports — these are the real thing. At the intake manifold surface (don't stand too near the edge or you'll fall in), the intake port is 2.150" tall and a whopping 2.6" across, or roughly four square inches of port area each! The pushrods run up through the center of the port, shrouded by an enveloping tube. The exhaust ports aren't exactly small, either, as they are 2.025" high by 1.625" across. Valves have matured considerably from Ram Air IV, as the intakes have grown from 2.110 inches to 2.190, but have decreased in weight (approximately 134 to 106 grams). The exhausts have likewise gone on a diet, from 114 to 83 grams, for a significant weight reduction. Combustion chambers are new too, with a better design going for them. Cast iron exhaust headers are getting closer to tubular aftermarket design and away from the old "clunker" stock exhaust manifold image, but, unfortunately, are still heavyweights.



Beefy-looking connecting rod is all-new for production engines, but was first used in 1963 in NASCAR Stock Car competition. Rod should help "wild Indians" live longer.

Something else new tops off the engine, and we're not speaking of the aluminum single 4V intake manifold. What we are talking about is the Holley 780 CFM carburetor (Holley part number 4546), a big performance breakthrough. The carburetor uses an electric choke, rather than one relying on exhaust heat. Essentially, this permits the use of a cold manifold (with blocked heat risers). Also, because of linkage problems previous attempts to adapt a good-sized Holley carb to a Pontiac have been tough assignments for the backyard hot rodder. This new Holley, however, is even better than the famed 3310 Holley, yet can be easily adapted to the earlier GTO's and other "Ponchos." All

in all, the Ram Air V offering and its sundry parts offered therein looks to be one of the best things to happen to Pontiac's performance outlook since the 389 cubic inch V-8.



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Heavy-duty valve springs are also featured with the new mill. Consisting of inner and outer coils with a flat damper between them, the new spring assembly provides increased rpm potential. New lightweight valve spring caps, with pressed-in valve stem oil seals, hardened, grooved rocker arm balls, and 7/16" diameter push rods are additional valve train improvements. Combustion chamber shape is unchanged from the iron heads; however, the compression ratio is increased to 12.5:1, from 11.0:1, through the use of a heavy-duty, impact-extruded aluminum piston with increased dome height. In addition, the piston and connecting rod design incorporates a full-floating wrist pin for improved durability. Incidentally, that 12.5:1 compression ratio will probably be reduced to 11.0- or 11.5:1 on production line versions of the L-88 and ZL-1.

The biggest difference (and the only significant one we've been able to determine thus far) between the L-88 and the ZL-1 is in the block itself. As you're probably aware, the ZL-1 block is all-aluminum, resulting in an additional 100-pound weight saving over the L-88, and 175 pounds over the all-iron "Rat Motors," which were already significantly lighter than either MoPar's or FoMoCo's hottest performance engines. With the additional weight savings gained by using the ZL-1, you can begin to see why Chevy lovers are excited. And if that's not enough pound-paring for you, take a look at the optional clutch-flywheel assemblies available for the L-88's and ZL-1's. A further weight loss of approximately 15 pounds and improved high rpm operational capability are features of the small diameter heavy-duty unit. A 12.75" diameter flywheel and ring gear package replaces the 14-inch assembly used for other "Rat Motors." To increase radial strength, flywheel material is cast nodular iron, in place of the conventional gray iron; and thickness, as well as diameter, is reduced to cut weight.

Clutch-driven disc performance is improved with a thicker hub flange, increased capacity coil damper springs, high strength bonded facings and closer manufacturing tolerances.

Last item in the diet department is the replacement of the copper cored radiator with an aluminum crossflow assembly (348 square inch frontal area) with a separate surge tank. Overall vehicle weight is reduced another 14 pounds through the use of this assembly and elimination of the fan shroud.

An innovation for the late Corvette performance offerings in the induction system is the inclusion of a plenum intake to pick up outside air. The plenum is neatly concealed in the domed

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portion of the special hood used for all Turbo-Jet 427 engines. Consequently, exterior vehicle contours remain unchanged. At the base of the windshield, air is taken in by dual openings in the dome rear face and ducted forward through a captive air diffuser and circular screen. The lower face of the integral hood duct and carburetor adaptor plate are sealed by a large circular polyurethane gasket when the hood is closed.

Looking deeper into the ZL-1 aluminum option, the sharp-eyed will note



"Fat Fender" is "in the 'trunk'" option for L-88 and ZL-1 Corvettes. They cannot be installed on assembly line, so a little handiwork by buyer is required.

another new wrinkle. It's the Holley R-4296A 850 CFM carburetor, which bears Chevrolet part number 3955205. What's so different about it? Essentially, the carb has mechanically operated secondaries where its predecessor (employed on the early L-88 variant) utilized the normal vacuum operated models. With this new unit, when the primaries are opened about 30 degrees, the secondaries begin to open. Another Chevrolet "first" is introduced on this particular carburetor, as, in addition to the normal primary pump, it employs a second pump over on the secondary side, timed especially for the secondaries. Referred to by Chevy as their "Double Pumper," the major attribute of the new engineering appointment is greatly increased throttle response. Understand that one of the inherent disadvantages of current emission packages seems to be a sluggish throttle response, which the "Double Pumper" negates. Basically, the new carb works like a pair of two barrels in a progressive linkage system. In addition to being used on the ZL-1, the carb is also employed on the new L-88's. Also, a similar version, of 600 CFM capacity, is employed in dual form on the new Z/28 engines. Holley part number on the smaller carb is R4295, or Chevy part number 3957859. Just thought you sharp-eyed guys out there would like a little more infor-

mation now that you've spotted the new "face."

In the chassis department, all changes are the same for both the L-88 and ZL-1 models. First item in that package is the new four-speed trans, RPO M22, that features low helix angle gears, for greater torque capacity, and heavier, more durable synchronizing units. At the rear, numbers available are 3.08-through 4.88:1. Performance handling characteristics are the product of special front and rear suspensions provided in RPO L41. Specific changes include front and rear springs with increased rates, front and rear shocks with improved valving, plus increased capacity for rears, and heavier front stabilizer bar. Heavy-duty disc brakes complete the chassis items used with the RPO L-88 and RPO ZL-1 engines.

Should you order either of the late performance 'Vettes, you can be sure it's "programed" for all-out racing, 'cause some of the things you *won't* receive are passenger compartment heater, power steering, power windows and a radio. That's, of course, if you order the whole car. Chevy was a bit hesitant about answering questions on the availability of the L-88 or ZL-1 engine alone, but we've already heard stories of some of these units finding their way into the hands of racers who do not own 'Vettes. Time and later issues of CC will tell.

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