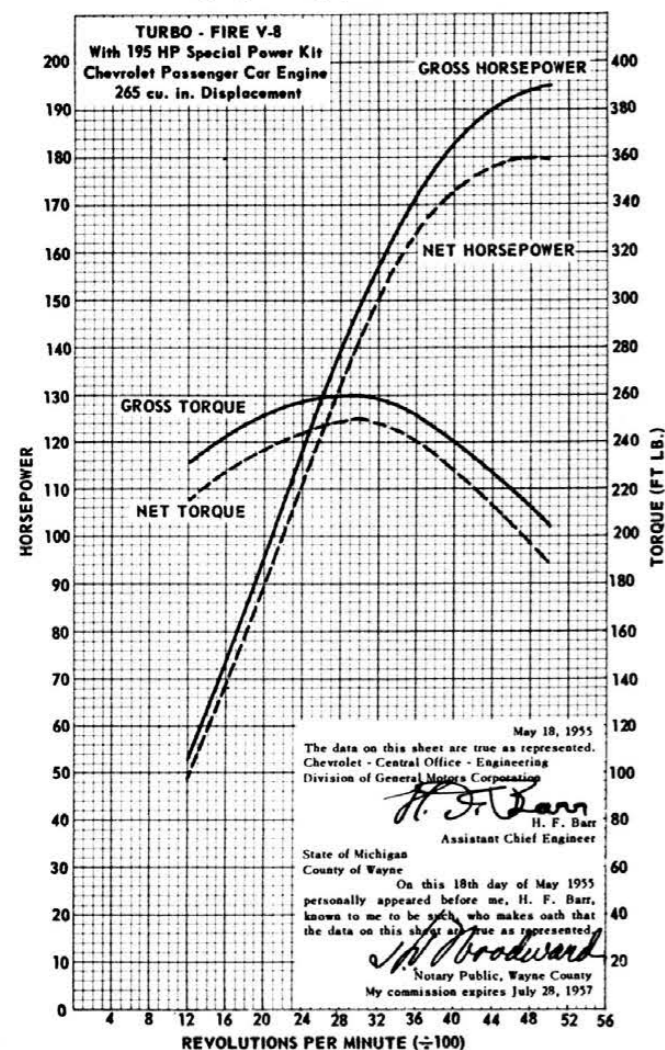


THE 265 AND HOW IT GREW

ALMOST as soon as the soundly-engineered little V8 appeared on the streets and highways of the country, Chevy owners who had despaired of ever being able to outperform the other representatives of the "Low Priced Three," except at considerable effort, were having the pleasurable experience of pulling corks instead of being trounced at both impromptu and organized acceleration contests. The 265 was considerably stouter than the current 239-cubic-inch Ford ohv, rated at 130 horsepower, or the Mercury with 256 inches and an alleged 161 horses, and the cars themselves were well set up suspension wise. A typical Chevy sedan weighed just a little over 3,000 pounds in 1955, which, for the period, gave it the good power/weight ratio of about 16-to-1. It also became *the* engine to swap into other light-weight chassis.

Two optional engines were available in the first year of the new V8, one rated at 180 bhp, the other at 195. The hotter mills used four-barrel carburetors and the 195 horsepower option employed the first of Chevrolet's "Special Camshaft Kits" with solid tappets and a cam of real "hot rod" contours. Timing was 22°-63°-66°-24°, giving 269° duration on the intake side and 266° on the exhaust with .404 inch and .413 inch lift, respectively. This was pretty respectable cam action for eight years ago, when a 270° stick was in the



definite "rough idle" category of most grinders and .425 inch was considered the maximum lift for these engines. The fact that the factory had improved its original design about 20% without a major change gave real impetus to individual modifiers around the country who were accustomed to forging ahead in more unorthodox fashion.

The following year, Chevrolet further increased the output of the 265 with a little more hot rodding, aiming the topmost option at the new segment of sports car buyers who were taking to the Corvette. This rated 225-horsepower engine was well tested by the Corvette team at Sebring's 12-Hour Enduro in 1956 where the first major effort in a race of this nature was made with the cars. Showing plenty of power, the Corvettes were mainly deficient in chassis development, which, incidentally, was largely taken care of on the spot, but showed great promise. At any rate, the 265 proved it could be thrashed without dire consequences.

The top engine used a special 9.25-to-1 compression ratio head. Pistons with valve reliefs, two four-barrel carbs and the now-famous SR or "Duntov" camshaft with 35°-72°-76°-31° timing and the same lift as the less radical option. "Duntov," of course, refers to Zora Arkus-Duntov, whose Ardun overhead valve conversion heads for Ford V8's were well known in hot rodding circles before he became associated with Chevrolet's Engineering Department, and who is regarded as the moving force behind the Corvette. Zora, still an enthusiastic and skilled driver, was an Indianapolis 500 entrant in past years and possesses a marvelous store of high performance know-how which is often reflected in many important safety features as well as the go-fast abilities of Corvettes.

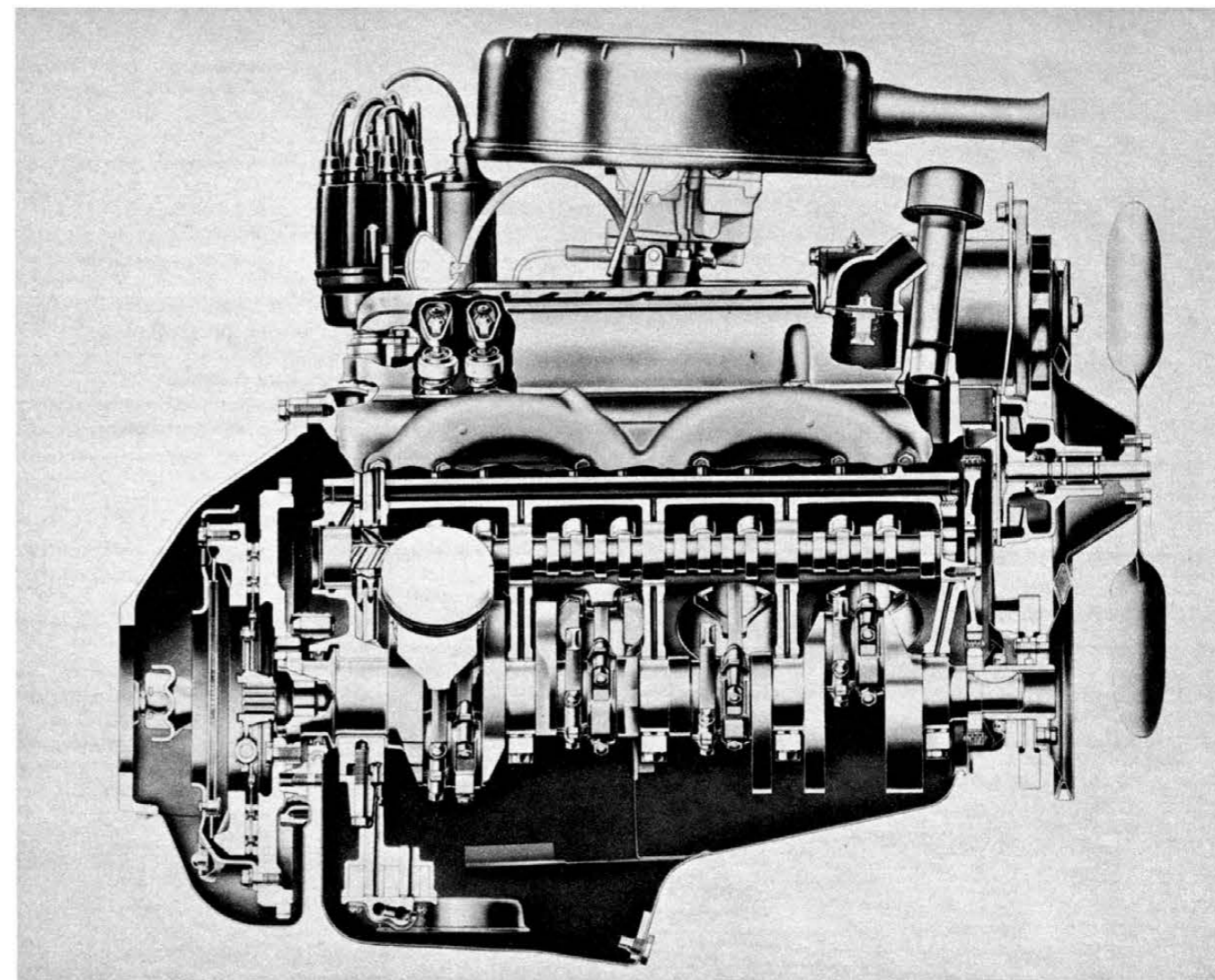
The 205 rated engine, also carried 9.25-to-1 compression but had a milder cam more suited to a heavier passenger car and its street usage, plus a single four-barrel jug. Both the 205 and the 225 used inner dampers on the valve springs. These were flat steel strips, spiral wound to inhibit secondary oscillations at critical speeds, but the 225's were rated several pounds higher in tension, being nominally designated for "truck" engine application.

The lowest horsepower option, 170 bhp at 2400, was a Powerglide version with a single four-barrel carburetor. The normal 162 was still a single two-barrel equipped model and demand for it was largely from those who wanted a V8 but sought maximum economy, which, with the overdrive combination, was quite good.

In 1957, the 265 was available only in this configuration, an enlarged engine with 283 cubic inches of displacement was the basic option and it, in turn, was offered with lots of special equipment.

The 283 was created by an overbore of just under 1/8 inch bringing the barrels out to 3.87 inches. Stroke and other major details remained the same. The block castings were re-cored to retain wall strength, however. Greater displacement resulted in more compression, with the Standard engine at 8.5-to-1 and the options all the way up to 10.5-to-1 (with pop-up pistons).

At this point the engines usually begin to be divided up by hot rodders into "Chevy" and "Corvette" categories, because the 250, 270 and 283 bhp models were most used in that automobile, although the 220 and 245 bhp engines were also available in the sports car. However, the distinguishing features of the "Corvette" application engine were principally the five-quart oil sump, four front mains with Moraine 400



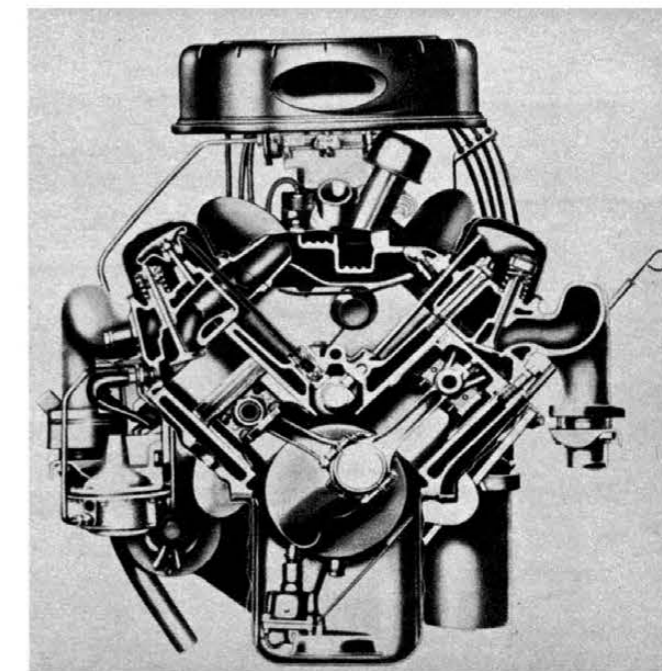
First growth in displacement of basic 265 was to 283 cubic inches via 1/8 inch increase in bore. External dimensions remained the same, new cores were made for block casting to retain optimum wall thickness. Cutaways show features.

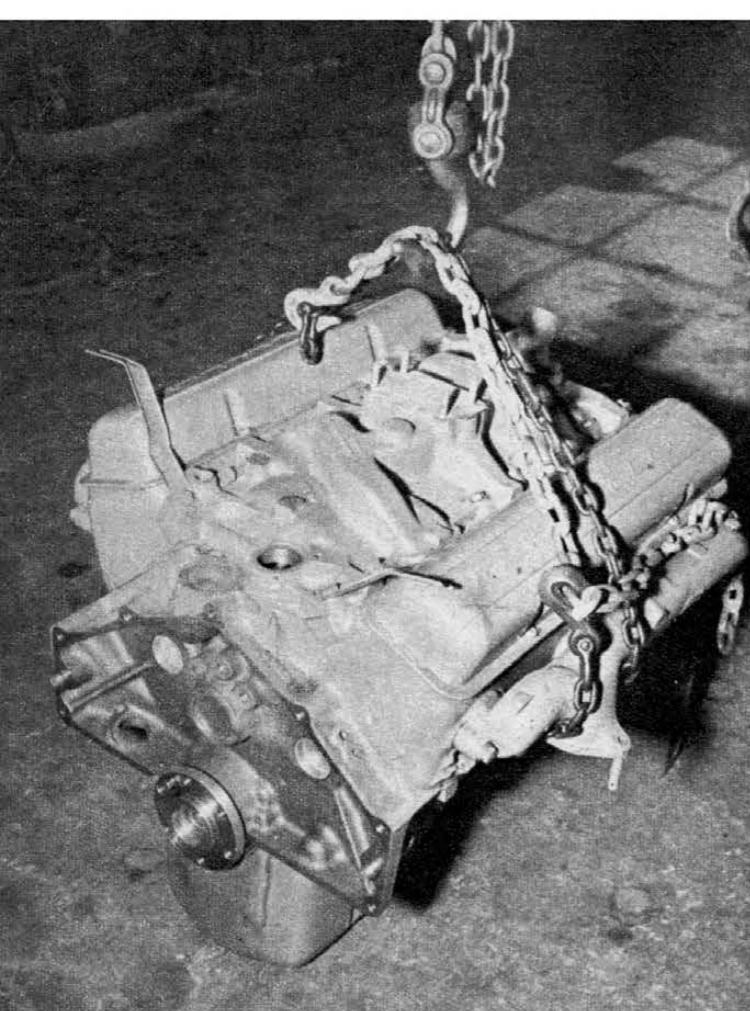
heavy duty bearings (aluminum with steel backing and thin babbitt overlay), heavier chrome plated top piston rings and notched pistons. Likewise the 10.5-to-1 compression ratio head of the fuel-injected, Duntov cam model had shorter stemmed valves. So, today, if some one offers you a "Corvette" engine rather than a "Chevy" it should have some of these items.

At one horsepower per cubic inch of displacement the 283 bhp Chevy attained a new high in American production engine efficiency. This, like the magic goal of one-horsepower-per-pound which was striven for in aircraft engines for a number of years, was an eye opener for many in the industry. The 283 still weighed only a few scant pounds more than the original 265 and had the same external dimensions. It was not "radical" even in peak output form, and had excellent wearing qualities.

It was also becoming *the* engine for the modifiers, who were beginning to extract outputs which bordered on the incredible. That they were boring and stroking the engine to huge displacement limits was not lost on the factory, although the "W" was already coming up to production as the new "big" engine. The 348 "W" was introduced in 1958 as the optional engine for all lines except the Corvette and much selling emphasis was put on it. The 283 was improved in the topmost version in 1958 by a small change in the injectors and was then rated at 290 bhp.

In 1959 the engine remained unchanged at 8.5-to-1 compression ratio in the standard, 9.5-to-1 in the optional versions





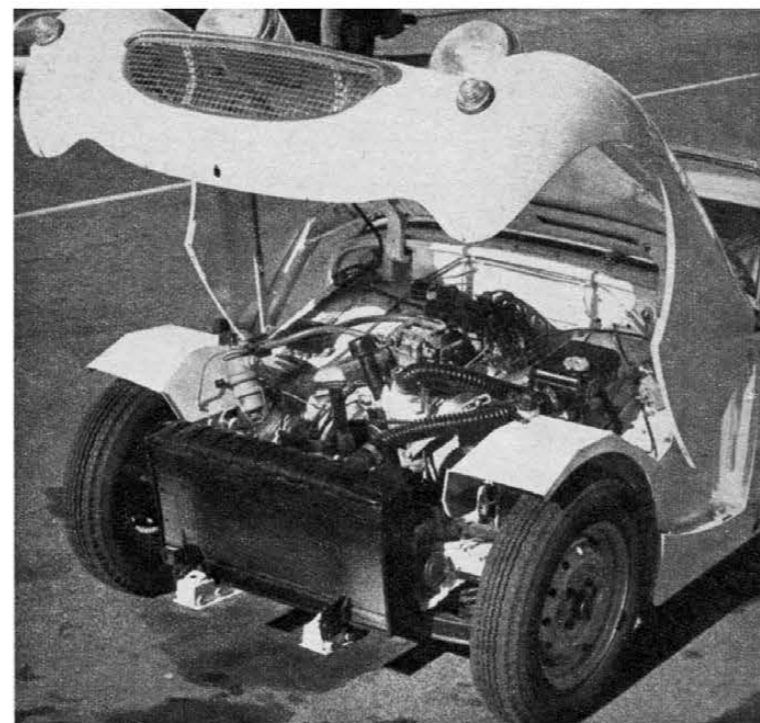
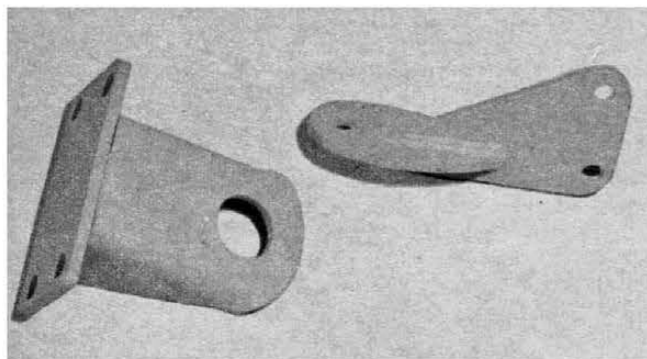
except for the hot fuel injection model which was still 10.5-to-1.

A new head in 1960 for the fuel injection engines brought horsepower to a new peak, 315 bhp, very close to double its original output as a 265, without increasing stroke.

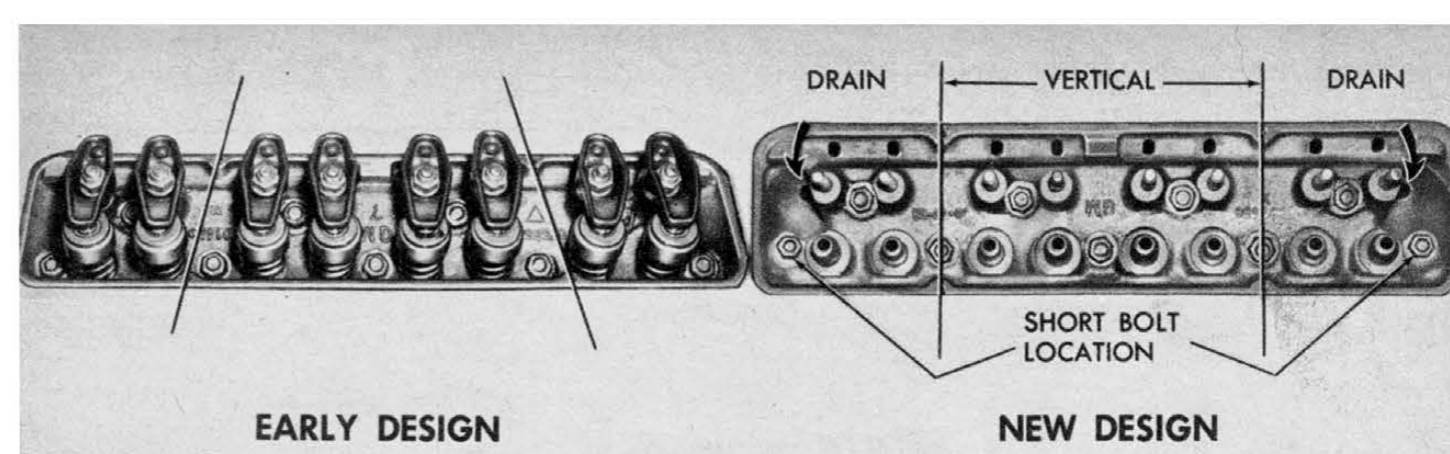
The altered head had 1.93-inch intake valves, compared with 1.72-inchers in the preceding versions, plus superior porting and breathing characteristics, as can be deduced, from the one fact that its power curve rounded off at 6,200 rpm. Valves were contoured in a different configuration from those used in the nominal head and were machined from high alloy steel. A special crankshaft was also used in the hot engines, balanced for the domed pistons, and if a replacement was to be made, a balance weight kit (part no. 3716306) was supplied to dealers.

The standard engine at this time was rated at 170 bhp at 4,200 rpm, but was going almost unnoticed in the Chevy line, as far as hot rodders were concerned, because of the debut of the 409.

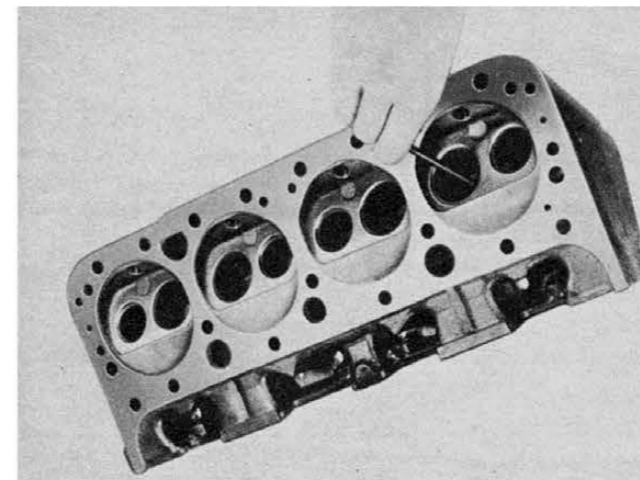
The 327, which burst upon the scene in 1962 is a direct lineal descendant of the 265, unlike the 348 and 409 "W" type, which are another entity. At four-inch bore and 3.25-stroke it is a mild version of what modifiers had been doing to the 283 for some time, but it is beautifully done, as only the factory can handle these things, with no thin cylinder wall problems or head gasket worries. In standard form, the 327 is rated at 250 bhp. With optional carburetion and the big valve head, at 300. In Corvette trim, with fuel injection and 11.25-to-1 compression ratio it whumps out a mighty 360 according to SAE specification dyno runs. An in-between model with carburetion instead of injectors, is advertised at 340 bhp at 6,000.



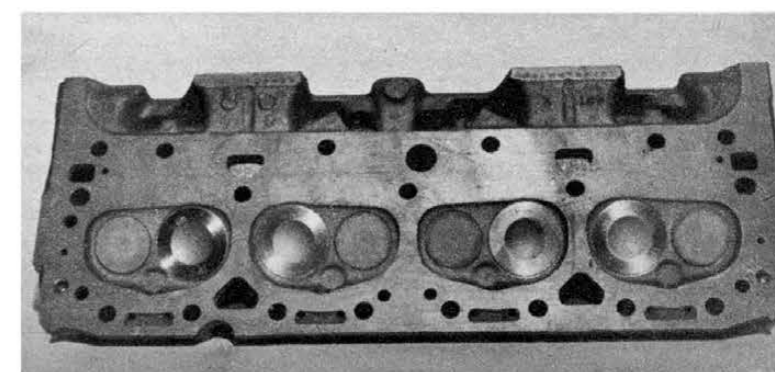
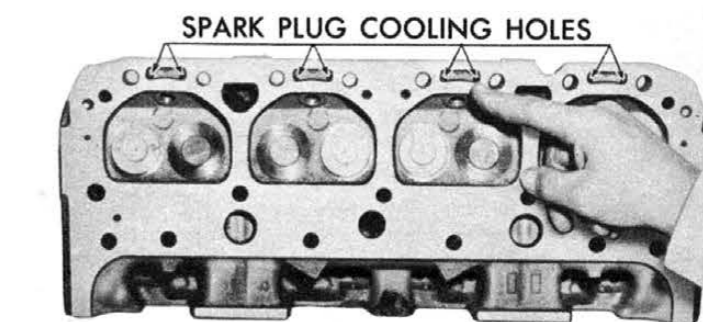
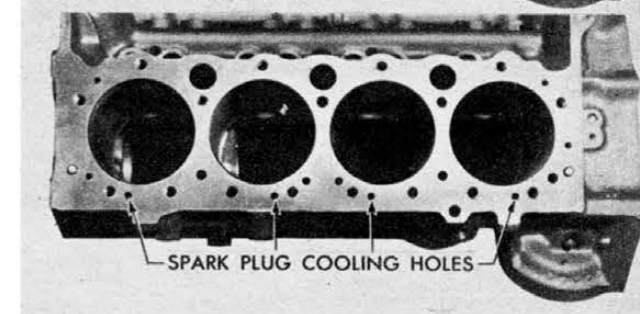
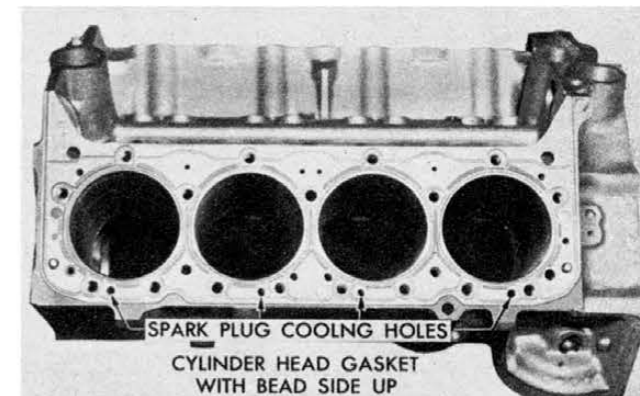
ABOVE: Anything is possible. Chevy V8 into Austin Healey Sprite produced fantastic surprises for other Sprite owners.
TOP LEFT: Light weight and compact size of Chevy have made it unparalleled choice for engine swaps.
CENTER LEFT: Fabricated motor mounts available from speed shops to make engine trading simple matter in most cases.
LEFT: One of the unusual cases! Owner of this Valiant wanted Chevy pretty bad, built special pan to accommodate tie rod.



Several different heads have been used in 265 series. 1960 and later type can be identified by in-line placing of cover bolts.



Early low compression head recognized by generous chambers.



Mighty healthy engines, all of them and showing careful, logical, conservative but highly effective development. They have kept the name Chevrolet at the top of the popularity list for modifications and set what must be an all-time record for dragstrip wins.

Of all the new National records set in 1962 at NHRA sanctioned dragstrips, *one half* were made by Chevy-powered cars! Take away the classes in which these engines are not eligible and you have an amazingly impressive percentage.

The same kind of performance was turned in at the Nationals in Indianapolis. Here again, the biggest single group of winners was the Chevy-powered clan. Street Eliminator, Stock Eliminator, High Point man of the year, Sports Cars, Gas Coupes & Sedans, all the most popular classes, were Chevrolet dominated. Of 68 First places awarded at Indy, 35 went to Chevrolets *more than half!* When you delete the classes into which it is impossible to shoehorn some Chevy, you begin to wonder what else is running.

Actually, there is plenty of competition and it is what we thrive on. Industrial competition made this country the source of the finest material conveniences. Sales competition has resulted in a superior automobile for each of us, including an exceptional V8 engine. And individual competition has developed it even further. So, let's have a searching look at the 265's bigger brothers.

Beginning with block serial numbers having "F" prefix, 283 cubic inch engines used spark plug cooling holes in head and block. Special gasket is necessary. At bottom right—latest fuel injection head. Combustion chamber revisions can be noted.

265 STANDARD ENGINE	
1955-1956-1957	
Bore	3.75
Stroke	3
Comp. Ratio	8.0
Adv. BHP	162 @ 4400
Adv. Torque	257 @ 2200
Pistons	Cast aluminum, steel strut
Type	Slipper skirt
Pins	Pressed in rod
Length	3.11
Dia.	.927
Connecting Rods	Forged steel
Wt.	19.02 oz.
Length	5.7
Crankshaft	Drop forged
Main bearing dia.	2.29
Rod bearing dia.	1.99
Valve Lifters	Hydraulic (P/G), solid, 3 spd.
Int. valve dia.	1.72
Ex. valve dia.	1.50
Spring pressure, closed	79-84
Spring pressure, open	155-165
Carburetor	1 two-bbl.

283 STANDARD ENGINE			
1957-1958-1959	1960-1961-1962	1963	
Bore	3.87	3.87	3.87
Stroke	3.00	3.00	3.00
Comp. Ratio	8.5	8.5	9.25
Adv. BHP	185 @ 4600	170 @ 4200	195 @ 4800
Adv. Torque	275 @ 2400	275 @ 2400	285 @ 2400
Pistons	Cast alum., steel strut	Cast alum., steel strut	Cast alum., steel strut
Type	Slipper skirt	Slipper skirt	Slipper skirt
Pins	Pressed in rod	Pressed in rod	Pressed in rod
Length	2.99	2.99	2.99
Dia.	.927	.927	.927
Connecting Rods	Drop forged	Drop forged	Drop forged
Wt.	19.02 oz.	19.02 oz.	19.02 oz.
Length	5.7	5.7	5.7
Crankshaft	Drop forged	Drop forged	Drop forged
End play	.002-.006	.002-.006	.002-.006
Main bearing dia.	2.29	2.29	2.30
Rod bearing dia.	1.99	1.99	2.0
Valve lifters	Hydraulic	Hydraulic	Hydraulic
Rocker ratio	1.50	1.50	1.50
Int. valve dia.	1.72	1.72	1.72
Ex. valve dia.	1.50	1.50	1.50
Spring press. closed	84	84	86
Spring press. open	169	165	180
Carburetor	1 two-bbl.	1 two bbl.	1 two-bbl.

265 OPTIONAL EQUIPMENT ENGINES			
1955	"A"	"B"	
Horsepower	180	195	
Torque	260@2800	260@2800	
Comp. Ratio	8.0	8.0	
Carburetor	1 four-bbl.	1 four-bbl.	
Head	Std.	Std.	
Valve springs	Std.	Std.	

1956	"A"	"B"	"C"
Horsepower	170@4400	205@4600	225@5200
Torque	257@2400	268@3000	270@3000
Comp. Ratio	8.0	9.25	9.25
Carburetor	1 two-bbl.	1 four-bbl.	2 four-bbl.
Head	Std.	Special	Special
Valve springs	Std.	W/damper	H.D. W/damper

*P/G transmission.

265 CAMSHAFTS							
H.P. Rating	162	162PG	170	180	195	205	225
I.O. BTC°	12	18	26	18	22	26	35
I.C. ABC°	54	54	63	54	61	63	72
E.O. BBC°	52	52	66	52	62	66	76
E.C. ATC°	14	20	23	20	24	23	31
Int. Lift	.336	.324	.373	.324	.404	.373	.404
Ex. Lift	.343	.324	.373	.324	.413	.373	.413

283 OPTIONAL EQUIPMENT ENGINES					
1957					
Horsepower	220 @ 4800	245 @ 5000	250 @ 5000	270 @ 6000	283 @ 6200
Torque	300 @ 3000	300 @ 3800	305 @ 5000	285 @ 4200	290 @ 4400
Comp. ratio	9.5	9.5	9.5	9.5	10.5
Carburetor	1 four-bbl.	2 four-bbl.	Fuel Injected	2 four-bbl.	Fuel Injected

CAMSHAFT SPECIFICATIONS					
I.O. BTC°	12° 30'	12° 30'	12° 30'	35	35
I.C. ABC°	57° 36'	57° 36'	57° 36'	72	72
E.O. BBC°	54° 30'	54° 30'	54° 30'	76	76
E. C. ATC°	15° 30'	15° 30'	15° 30'	31	31
Int. Lift	.398	.398	.398	.393	.393
Ex. Lift	.398	.398	.398	.399	.399

327 ENGINE		
1962-1963	With Optional Carb.*	
Bore	4.00	4.00
Stroke	3.25	3.25
Comp. Ratio	10.5	10.5
Adv. BHP	250 @ 4400	300 @ 5000
Adv. Torque	350 @ 2800	360 @ 3200
Pistons	Cast aluminum	Cast aluminum
Type	Slipper skirt	Slipper skirt
Pins	Chrome steel	Chrome steel
Length	3.0	3.0
Dia.	.927	.927
Connecting Rods	Drop forged	Drop forged
Wt.	20.32	20.32
Length	5.7	5.7
Crankshaft	Forged	Forged
Main bearing dia.	2.3	2.3
Rod bearing dia.	2.0	2.0
Valve Lifters	Hydraulic	Hydraulic
Rocker Ratio	1.5	1.5
Int. valve dia.	1.72	1.93
Ex. valve dia.	1.50	1.50
Spring press. closed	80	80
Spring press. open	170	170

*Carter 3797699 or 3819207 (P/G)
*Rochester 7020027

283 OPTIONAL EQUIPMENT ENGINES			
1958-1959-1960*-1961			
Horsepower	230 @ 4800	250 @ 5000	290 @ 6200
Torque	300 @ 3000	305 @ 3800	290 @ 4400
Comp. Ratio	9.5	9.5	10.5
Carburetor	1 four-bbl.	Fuel Injected	Fuel Injected

CAMSHAFT SPECIFICATIONS		
I.O. BTC°	12° 30'	12° 30'
I.C. ABC°	57° 30'	57° 30'
E.O. BBC°	54° 30'	54° 30'
E.C. ATC°	15° 30'	15° 30'
Int. Lift	.398	.398
Ex. Lift	.398	.398

*230 HP available in passenger car only

CORVETTE ENGINES						
1956 (265)			1957 (283)			
Adv. HP	210@5200	225@5600	220@4800	245@5000	250@5000	270@6000
Adv. torque	270@3200	270@3600	300@3000	300@3800	305@3800	285@4200
Comp. ratio	9.25	9.25	9.5	9.5	9.5	9.5
Carburetor	1 Carter WCFB	2 Carters WCFB	1 Carter four-bbl.	2 Carter four-bbl.	Fuel Inj.	2 four-bbl.
Int. valve dia.	1.72	1.72	1.72	1.72	1.72	1.72
Ex. valve dia.	1.50	1.50	1.50	1.50	1.50	1.50
Spring press. closed	79	79	79	79	79	79
Spring press. open	169	169	169	169	169	169
Cam.	Reg.	Special	Reg.	Reg.	Reg.	Special

CORVETTE ENGINES					
1958-1959					
Adv. Horsepower	230@4800	245@5000	250@5000	270@6000	290@6200
Adv. Torque	300@3000	300@3800	305@3800	285@4200	290@4400
Comp. ratio	9.5	9.5	9.5	9.5	10.5
Carburetor	1 four-bbl.	2 four-bbl.	Fuel Inj.	2 four-bbl.	Fuel Inj.
Int. valve dia.	1.72	1.72	1.72	1.72	1.72
Ex. valve dia.	1.50	1.50	1.50	1.50	1.50
Spring press. closed	79	79	79	79	79
Spring press. open	169	169	169	169	169
Cam.	Reg.	Reg.	Reg.	Special	Special

CORVETTE ENGINES					
1960-1961 (283)					
Adv. Horsepower	230@4800	245@5000	270@6000	275@5200	315@6200
Adv. Torque	300@3000	300@3800	285@4200	305@4400	295@5000
Comp. ratio	9.5	9.5	9.5	11.0	11.0
Carburetor	1 four-bbl.	2 four-bbl.	2 four-bbl.	Fuel Inj.	Fuel Inj.
Int. valve dia.	1.72	1.72	1.72	1.72	1.93
Ex. valve dia.	1.50	1.50	1.50	1.50	1.50
Spring press. closed	79	79	79	79	79
Spring press. open	169	169	169	169	169
Cam.	Reg.	Reg.	Special	Reg.	Special

CORVETTE ENGINES		
1962-1963		
Adv. Horsepower	250@4400	300@5000
Adv. Torque	350@2800	360@3200
Comp. ratio	10.5	10.5
Carburetor	1 Carter 3788246	1 Carter 3797699
Int. valve dia.	1.72	1.93
Ex. valve dia.	1.50	1.50
Spring press. closed	80	80
Spring press. open	170	170
Cam.	Reg.	Reg.

Adv. Horsepower	340@6000	360@6000
Adv. Torque	344@4000	352@4000
Comp. ratio	11.25	11.25
Carburetor	1 Carter 3797699	Fuel Inj.
Int. valve dia.	1.93	1.93
Ex. valve dia.	1.50	1.50
Spring press. closed	80	80
Spring press. open	170	170
Cam.	Special	Special

