

CARBURETORS	ENGINE APPLICATIONS/COMMENTS	INSTALLATION KIT (<)
		, 318 (LATE), 360 CHRYSLER V-8
RUEL NJECTION	Stock engine or some mild performance modifications. Cam has fair idle with great low and mid range power. Power range is 1500 – 5000 RPM.	65004LUN
2	Stock engine with low compression. Cam has good idle and will improve low-end torque and response. Power range is idle – 4800 RPM.	Includes lifters
FUEL PUMPS REGULATORS	Engine built with some mild performance modifications. Cam features a good idle and will improve low end and mid-range torque. Power range is 1000 – 5500 RPM.	Includes lifters
23	Engine with mild performance modifications. Cam has lopey idle. Power range is 2400 – 5800 RPM.	65005LUN
š.,		440 CHRYSLER V-8 (EXC. HEMI)
Manfolds	Stock engine. Cam has smooth idle. Good for strong low-end torque. Power range is 1000 – 5000 RPM.	65003LUN
SUPERC	Stock engine or some mild performance modifications. Cam has fair idle with excellent mid-range power. Power range is 1800 – 5200 RPM.	65003LUN
SUPERCHARGERS	Stock engine with low compression. Cam has good idle with improved low-end throttle response. Power range is idle – 4800 RPM.	Includes lifters
보통		LER HEMI V-8 - SUPERCHARGED
FLAME ARRESTORS THROTTLE BOOKS	Competition built engine running alcohol for hydro or flat drag boats. Power range is 4800 – 9400 RPM.	65540LUN
55 55		10BILE V-8 (FROM 1968)
IBATION SYSTEMS & COMPONENTS	Stock engine. Cam has smooth idle and offers excellent low end and mid range power. Power band is from idle – 4500 RPM.	65010



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CAMSHAFTS

HEADERS

WATER COMPONENTS

VALVE COVERS

TECHNICAL Information

NEX



## EXHAUST SYSTEMS

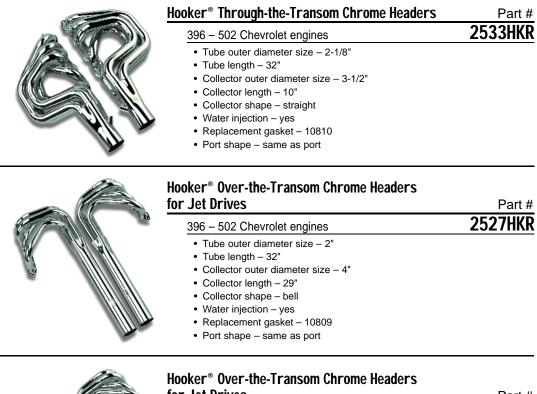
#### **HOOKER® SUPER COMPETITION RACE HEADERS**

Hooker<sup>®</sup> Super Competition race headers for boats are available in through-transom and over-transom styles. They're designed with equal length, large diameter primary tubes to achieve maximum horsepower and torque in the mid- to high-RPM ranges.

These are show-quality pieces with the flanges and tubes all pre-polished prior to chroming. Hooker race headers also feature a heli-arc welded construction; exhaust ports are fully heli-brazed and they include stout 16 gauge tubing.

In addition to the show-quality chrome finish these header sets include a chrome regulator valve, aircraft quality stainless steel water har ness, gaskets and chrome-plated mounting bolts.

You can't beat Hooker® Super Competition race headers for "show" or "go".





for Jet Drives	Part #
396 – 502 Chevrolet engines	2525HKR
<ul> <li>Tube outer diameter size – 2"</li> </ul>	
<ul> <li>Tube length – 32"</li> </ul>	
Collector outer diameter size 4"	

- · Collector outer diameter size -
- Collector length 29"
- Collector shape straight
- Water injection yes
- Replacement gasket 10809
- Port shape same as port





HOOKER SUPER COMP HE	ADERS - (cont'd)		CARB
	Hooker® Over-the-Transom Chrome Headers for Jet Drives	Part#	CARBURETORS
	429 – 460 Ford engines • Tube outer diameter size – 2"	6527HKR	REL NECTON
	<ul> <li>Tube length – 32"</li> <li>Collector outer diameter size – 4"</li> <li>Collector length – 30"</li> <li>Collector shape – bell</li> </ul>		FUEL PUMPS REGULATORS
	<ul> <li>Water injection – yes</li> <li>Replacement gasket – 10824</li> <li>Port shape – same as port</li> </ul>		NEKC
	Hooker® Over-the-Transom Chrome Headers for Jet Drives	Part#	SUPERCHARGERS
	400 – 455 Oldsmobile engines         • Tube outer diameter size – 2"         • Tube length – 31"         • Collector outer diameter size – 4"	<u>3527HKR</u>	FLAME ARRESTORS Throttle bodies
	<ul> <li>Collector length – 27"</li> <li>Collector shape – bell</li> <li>Water injection – yes</li> <li>Replacement gasket – 10846</li> </ul>		IPATTON SYSTEMS & COMPONENTS
	Port shape – same as port		CAMSHAFTS
	Hooker <sup>®</sup> Over-the-Transom Chrome Headers for V Drives 396 – 502 Chevrolet engines	Part# 2531HKR	HATERS .
	<ul> <li>Tube outer diameter size – 2-1/4"</li> <li>Tube length – 29"</li> <li>Collector outer diameter size – 4"</li> <li>Collector length – 18"</li> </ul>		COMPONENTS
	<ul> <li>Collector shape – straight</li> <li>Water injection – yes</li> <li>Replacement gasket – 10810</li> <li>Port shape – round</li> </ul>		VALVE COVERS
			TECHNICAL Neormation
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		179	

1391) [[[[]]] 2078][[][[]]

### WATER SYSTEMS

#### WATER SYSTEM COMPONENTS

It's the little things that count. Well, start counting with new Holley custom marine thermostats and water crossovers. These quality products will put the finishing touches to your blower motor(s) and make your boat the envy of the marina. Holley custom marine thermostat housings and water crossovers combine practical function with extreme good looks. They're an unbeatable combination that'll help mak e your vessel the standout performer that you know it is.

	Therm	nostat sp
	90° th	ermostat
726-10	726-11 <u>Ther</u>	mostat
726-12	Two ( Hard	aluminu 2) 1/2" coat an tock the
/20-12		r Cros
726-14	726-15 The w manife the cy The c	ater cros old repla- linder he rossover ned for
726-16	Water	Distribursal Cros
62		inless s superch
	30 Wate	r Outle
		olet S/B,
	Pro-M	arine 256
62	240 <u>Wate</u>	r Outle
180	Chevr	olet S/B,
		7.77

the cylinder heads. It's made with corrosion-resis The crossover adapter is also made of stainless Designed for use with superchargers Water Distribution Block – polished finish (Photo Universal Crossover Adapter – polished finish (Photo Stainless steel construction. Designed for on supercharged engines	stant electroplat steel to resist of on p.129) hoto on p.129)	ted stainless ste prrosion. 155162 155163 aight 726-1 726-1 726-1
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The water crossover adapter replaces the stock water crossover adapter replaces the stock water and the stock water crossover adapter replaces the stock water crossover adapter crossover adapter replaces the stock water crossover adapter crossover		attaches to the
Water Crossovers		Part #
Billet aluminum construction Two (2) 1/2" - 1/4 NPT holes Hard coat anodized finish Fits stock thermostat flange. (Photo on p.129)	1	7900-1
Thermostat Spacer (GM)		Part #
90° thermostat housing for 250 POWERCHARG	ER™	155160
Offset thermostat adapter Thermostat spacer		90845 155161
	1" push-o	
	-12A	
	-10A 3/4" FF	774 17
Designed for use with superchargers		776 11
Stainless steel construction Designed for use with superchargers	3/4" push-o	176 10

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#### **ENGINE ACCESSORIES**

#### **HOLLEY CUSTOM VALVE COVERS**

Holley cast aluminum valve covers are available in a "custom look" with a polished or ballmilled finish. Either way, the rigid one-piece aluminum castings combine strength and light weight in a design that provides a tight gasket seal while also acting to reduce valve train noise. You can say that Holley valve covers are made for Show & Go!

	CUSTOM			
APPLICATION	Ball-Milled	Polished		
CHEVROLET MOTORS				
Small Block V-8				
4-bolt - old style	241-73	241-72		
4-bolt - center style	241-75	241-74		
Big Block V-8				
All	241-77	241-76		



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NOTE: Ball-milled valve covers are installed on this engine.



NOTE: Polished valve covers are installed on this engine.



### **ENGINE ACCESSORIES**

#### HOLLEY SHEET METAL VALVE COVERS

Part #



Chevrolet Small Block V8	241-78
Chevrolet Big Block V8	241-79

These Holley welded aluminum valve covers are specially fabricated with an extra thick gasket rail and a large overall radii on the main body cover for strength and crack resistance. The gasket rail is counter-machined to capture the gasket for positive location. It also acts to prevent oil leaks and further aids gasket retention on high crankcase vacuum engines. Built with a low profile to gain extra under-hood clearance, the design also facilitates aerodynamics on open-engine race cars.

#### Features:

- Designed for maximum strength and minimum weight
- Extra-thick gasket rails are machined to achieve maximum gasket retention
- Will clear roller rockers
- Curves utilize large radii to eliminate any chance for stress cracks
- Vertical pads are incorporated in the top of the covers for breather tubes
- The welding is a work of art

2-PIECE TIMING COVER		Part#
CNC machined from 6061 billet aluminum, this	Chevrolet - small block V8	120-202

Holley two-piece cam/timing cover can solve a number of problems for you before they even get started. Problems such as cam walk, oil leaks and camshaft access. The inner ring bolts directly to the block and seals the oil pan. The outer cover can be removed and the cam changed without disturbing the oil pan seal. The timing cover seal is installed from the back side of the front cover, so there is no way it can come out.

#### Other good points to consider are:

- · Replaceable roller thrust button that is easily adjusted to set end play.
- · Access hole in cover to check cam end play with a dial indicator
- Any water pump can be used without spacing of pump and pulleys
- · Easy access to cam and cam gears









#### HOLLEY TECHNICAL INFORMATION

This catalog section includes technical information on carburetors and fuel injection.

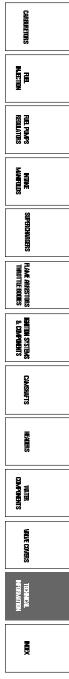
It also reviews service literature that is available on Holley products, summarizes footnotes and includes a very handy part number to page number index.

**Carburetor Technical** is a comprehensive overview of the various carburetor systems. Detailed line drawings are included to help further illustrate and explain these systems. Also included is the carburetor numerical, a listing of Holley marine carburetors in a numerical sequence. Useful carburetor technical information such as model, CFM, repair kits, jet, power valve and accelerator pump sizes are all here in addition to other data.

**Fuel Injection Technical** is a run-down of the components that make up a typical fuel injection system. Component line drawings are included here also to further help explain and identify these parts.

**Part Number to Page Number Index** is a handy tool for those in a hurry. It's simple to use. If you know the Holley part number you can find where it's listed in the catalog by referencing the page number that is listed opposite it in the listing. Once you start using this index you'll wonder how you ever got by without it.



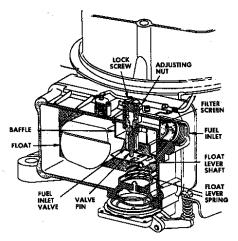






The carburetor is quite simply a fuel metering device that operates under the logical and straightforward laws of physics. It has evolved over the years from a very simple and basic design to the complex and intricate models that are available today. A carburetor's functions can be easily analyzed and understood but at the same time it can be frustratingly difficult to troubleshoot problems associated with it. Many times a carburetor is looked at as the prime culprit or the main cause for a myriad of other engine-related difficulties that might exist. Therefore, it's best to check and verify the condition of the complete engine system before proceeding with any carburetor work.

There should be no vacuum leaks, the carburetor floats and the ignition timing should be properly set and the carburetor and engine should both be in sound mechanical condition. There's an old saying that "You can't beat a dead horse". Well, the same can be said about carburetors. Tuning the carburetor won't cure bad valves, leaky head gaskets, worn piston rings or cracked and leaking vacuum lines and, no matter how much time and effort you devote toward it, the results will be the same.



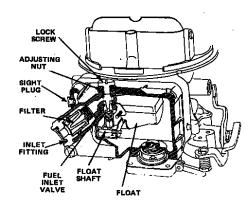
Fuel Inlet System. Side Pivot/Hung Float. Externally Adjustable Fuel Inlet Valve.

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#### **Fuel Inlet System**

The fuel inlet system consists of a fuel bowl, fuel inlet fitting, fuel inlet needle and seat, and a float assembly. A fuel inlet screen or filter is usually installed in the fuel inlet fitting. However, if there is no filter or screen in the fuel inlet fitting, an in-line filter must be installed to prevent dirt or other contaminants from entering the carburetor.

Holley performance carburetors are equipped with a fuel bowl that is designed either for a center pivot or a side pivot float. An externally adjustable needle and seat assembly is used so that the float level can be easily adjusted without the need to disassemble the carburetor. Refer to the "FLOATS" page in the "CARBURETOR PARTS AND ACCESSORIES" section of this catalog for instructions on how to properly adjust and set the float level.



Fuel Inlet System. Center Pivot/Hung Float. Externally Adjustable Fuel Inlet Valve.





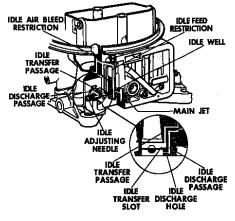
#### **Idle System**

The idle system supplies the air/fuel mixture to operate the engine at idle and low speeds. Fuel enters the main well through the main metering jet that is screwed into the metering block. Some of this fuel is then bled off to an idle well where it is mixed with air from the idle air bleed hole. The idle well leads directly to the idle discharge port and the idle transfer system where this air/fuel mixture is discharged.

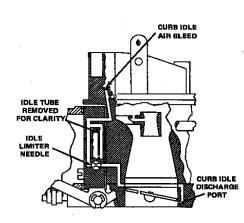
Most Holley Street Performance, O.E. Muscle Car, Competition and Pro-Series HP carburetors utilize idle mixture screws, located on the sides of the primary metering block. These control the volume of the pre-mixed air/fuel coming through

the idle well. Turning the screws clockwise will "lean" the idle system. Conversely, turning the screws counterclockwise will

The initial adjustment is made by turning the mixture screws in a clockwise direction until they lightly bottom. Back them both off 1-1/2 turns. Connect a vacuum gauge to a carburetor vacuum port that will have access to full manifold vacuum at idle. Start the engine and allow it to warm up. Once the engine has warmed up and the idle stabilized, the choke should be disengaged. Adjust the idle mixture screws to obtain the highest vacuum reading. Each screw should be turned an equal amount so that the system is balanced.



Idle System. Model 2300 — Primary Side 4V.



Curb Idle System. Primary Idle Transfer System.





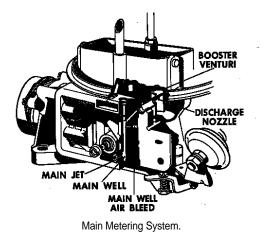
#### **Main Metering System**

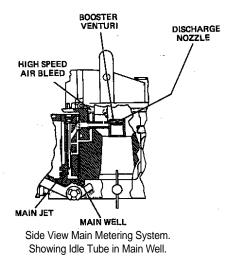
The main metering system is designed to supply the leanest fuel mixture for cruising in the 35 MPH and over range. Operation is simple. Fuel from the main metering jet enters the main well and is mixed with air from the high speed air bleed. Engine vacuum pulls this air/fuel mixture and discharges it through the booster venturii and into the manifold through the throttle bores.

On a street vehicle optimum jetting can be determined by driving at various steady speeds and taking vacuum and spark plug readings. Manifold vacuum will increase the closer you get to ideal jetting; it will fall off once you get past this point. The ideal color for the spark plug porcelain is light brown or tan. Acolor lighter than this indicates that the carburetor is jetted lean; a darker color indicates that the carburetor is jetted rich.

Holley jets are number-stamped on their side for identification purposes. Ahigher relative number indicates a larger jet size. Changing to a larger or smaller jet will either richen or make leaner the carburetor's fuel curve from part throttle to full throttle, respectively. **NOTE:** Jump two sizes when changing the carburetor jetting. There is approximately a 4-1/2% flow difference from one jet size to the next and one size won't make that much of a difference. If you must go up or down 8-10 jet sizes then you have a problem either with the fuel delivery system or the carburetor is wrong for the application. See page 41 of this catalog for a complete listing of jets.

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#### **Accelerator Pump System**

The accelerator pump system consists of three main components: the pump diaphragm, the pump cam and the pump nozzle. This is the carburetor system that is most responsible for having good, crisp, off-idle throttle response. Its purpose is to inject a certain amount of fuel down the throttle bores when the throttle is opened. By accomplishing this purpose it acts to smooth the transition between the idle and main circuits so that no stumble, hesitation or sluggishness will be evident during this transition phase.

The first adjustment to check is the clearance between the pump operating lever and the pump diaphragm cover's arm, at wide open throttle. This clearance should be around .015". The purpose for this clearance is to assure that the pump diaphragm is never stretched to its maximum limit at wide open throttle. This will cause premature pump failure. Once this clearance has been set take a good look at the pump linkage and work the throttle. Make sure that the accelerator pump arm is being activated the moment that the throttle begins to move. This will assure that pump response will be instantaneous to the movement of the throttle. These adjustments can be made by turning the accelerator pump arm together with the pump override spring and lock nut.

The amount of fuel that can be delivered by one accelerator pump stroke is determined by the pump's capacity and the profile of the pump cam. The period of time that it will take for this pre-determined amount of fuel to be delivered is affected by the pump nozzle size.

Alarger pump nozzle will allow this fuel to be delivered much sooner than a smaller pump nozzle. If you need more pump shot sooner, then a larger pump nozzle size is required. During acceleration tests, if you notice that the car first hesitates and then picks up, it's a sure bet that the pump nozzle size should be increased. Abackfire (lean condition) on acceleration also calls for a step up in pump nozzle size. Conversely, if off-idle acceleration does not feel crisp or clean, then the pump nozzle size may already be too large. In this case a smaller size is required.

Holley accelerator pump nozzles are stamped with a number which indicates the drilled pump hole size. For example, a pump nozzle stamped "35" is drilled .035". Pump nozzle sizes are available from .025" to .052". Please note that whenever a .040" or larger accelerator pump nozzle is installed the "hollow" pump nozzle screw should also be used. This screw will allow more fuel to flow to the pump nozzle, assuring that the pump nozzle itself will be the limiting restriction in the accelerator pump fuel supply system.

Accelerator Pump System. Discharge D

**NOTE:** When changing the pump nozzle it's best to jump three sizes. For example if there's currently a off-line hesitation with #28 (.028") pump nozzle, try a #31 (.031") pump nozzle. If you must use a #37 (.037") or larger pump nozzle, then also use a 50cc pump.

The same applies to the accelerator pump cams. Once a pump nozzle size selection has been made the accelerator pump system can be further tailored with the pump cam. Holley offers an assortment of different pump cams, each with uniquely different lift and duration profiles, that are available under Holley P/N 20-12. Switching cams will directly affect the movement of the accelerator pump lever and, subsequently, the amount of fuel available at the pump nozzle. Lay out the pump cams side by side and note the profile differences. This little exercise may help to better explain the differences between the cams and their effect on pump action.

Installing a pump cam is straightforward. It's a simple matter of loosening one screw, placing the new pump cam next to the throttle lever and tightening it up. There are two and sometimes three holes in each pump cam, numbered 1, 2 and 3. Placing the screw in position #1 activates the accelerator pump a little early, allowing full use of the pump's capacity. Generally, vehicles which normally run at lower idle speeds (600 or 700 RPM) find this position more useful because they can have a good pump shot available coming right off this relatively low idle. Positions #2 and #3 delay the pump action, relatively speaking. These two cam positions are good for engines that idle around 1000 RPM and above. Repositioning the cam in this way makes allowance for the extra throttle rotation required to maintain the relatively higher idle setting. Pump arm adjustment and clearance should be checked and verified each and every time the pump cam and/or pump cam position is changed.

Lastly, a 50cc accelerator pump conversion kit is available under Holley P/N 20-11 when maximum pump capacity is desired.



THE PROPERTY OF NICTO FUEL PUMPS MANEFOLDS FLAME ARRESTORS 8. COMPONENTS CAMSHAFTS HEADERS WATER COMPONENTS VALVE COVERS TECHNICAL ð

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#### **Power Enrichment System**

The power enrichment system supplies additional fuel to the main system during heavy load or full power situations. Holley carburetors utilize a vacuum operated power enrichment system and a selection of power valves is available to "time" this system's operation to your specific needs. Each Holley power valve is stamped with a number to indicate the vacuum opening point. For example, the number "65" indicates that the power valve will open when the engine vacuum drops to 6.5" or below. An accurate vacuum gauge, such as Holley P/N

26-501, should be used when determining the correct power valve to use. Acompetition or race engine which has a long duration high overlap camshaft will have low manifold vacuum at idle speeds. If the vehicle has a manual transmission, take the vacuum reading with the engine thoroughly warmed up and at idle. If the vehicle is equipped with an automatic transmission, take the vacuum reading with the engine thoroughly warmed up and idling in gear. In either case, the power valve selected should have a vacuum opening point about 2" Hg

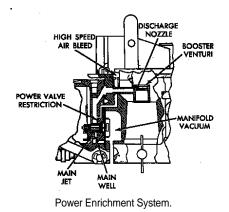
Astock engine, or one that is only mildly built for pleasure boats, will have high manifold vacuum at idle speeds. To determine the correct power valve the vehicle should be driven at various steady speeds and vacuum readings taken. The power valve selected should have an opening point about 2" Hg below the lowest steady speed engine vacuum observed.

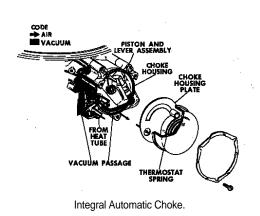
Many of the popular Holley carburetors incorporate a power valve blow-out protection system. Aspecial check valve is located in the throttle body expressly for this purpose. This check valve is designed to be normally open but will quickly seat to close off the internal vacuum passage when a backfire occurs. Once closed, the check valve interrupts the pressure wave caused by the backfire, thus protecting the power valve.

#### **Choke System**

The choke system is designed to supply a rich fuel mixture to the engine for cold starts and cold drive-away conditions.

Holley carburetors with chokes will come equipped with either a manual, electric or hot air choke.











#### **Secondary System**

The secondary system of a Holley four barrel carburetor can be either vacuum or mechanically operated.

The opening rate of a mechanical secondary system is pre-determined by the linkage which is usually designed to allow the secondary throttle plates to begin opening once the primary throttle plates have rotated open about 40 degrees. Special Holley kits are also available which will allow the conversion to 1:1 linkage (primary and secondary throttle plates opening simultaneously) for special racing applications.

The opening rate of a vacuum secondary system is controlled by the diaphragm spring located in the vacuum secondary diaphragm housing. A"lighter" spring will allow the secondary throttle plates to open more quickly. A spring assortment kit, Holley P/N 20-13, is available to help you "tailor" the secondary opening rate to your application. A "quick change" kit, Holley P/N 20-59, is also available for fast and easy access to the spring. It consists of a two-piece secondary diaphragm housing cover which, after it's installed, can easily cut in half the time required to change the secondary spring.

DO NOTput a screw in the linkage of a vacuum secondary carburetor to mechanically "force" open the secondary throttle plates. Normally there is an accelerator pump on the secondary side of a mechanical secondary carburetor. The purpose of the secondary pump is to inject additional fuel to "cover" the transition time up to the point when the secondary main system starts to flow. Without this secondary pump shot the engine will go to an instant lean condition. Therefore, forcing the secondaries to open prematurely will hinder performance and may cause an engine backfire.

CARBURETORS

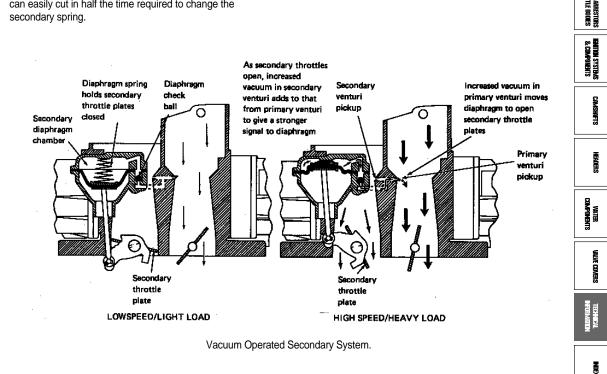
NICTO

FUEL PUMPS Regulators

MANEOLDS

THROT

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#### How to Select the Right Carburetor Size\*

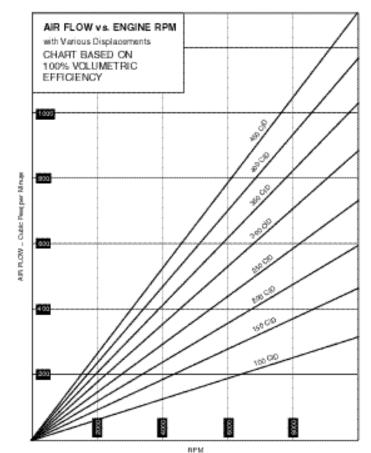
#### **Volumetric Efficiency**

Before you can determine the correct carburetor size for your engine, you must know its volumetric efficiency. Volumetric efficiency is an indicator of how well an engine can breathe. The better an engine's "breathing ability" the higher its volumetric efficiency. It is expressed as the ratio of the actual mass (weight) of air taken into the engine compared to the mass which the engine displacement would theoretically take in if there were no losses. The ratio is expressed as a percentage. It is quite low at idle and low speeds and varies with engine speed. Volumetric efficiency should be computed at the expected operating RPM or your engine application.

Use the following examples as a guide to estimate the volumetric efficiency of your engine.

(A) An ordinary low-performance engine has a volumetric efficiency of about 80% at maximum torque.
(B) A high performance engine has a volumetric efficiency of about 85% at

maximum torque. (C) An all-out racing engine has a volumetric efficiency of about 95% at maximum torque.



A highly tuned intake and exhaust system with efficient cylinder head porting and a camshaft ground to take full advantage of the engine's other equipment can provide such complete cylinder filling that a volumetric efficiency of 100%, or slightly higher, is obtained at the speed for which a system is tuned.

The graph below can be used to find your airflow requirement. It's based on 100% volumetric efficiency so any indicated airflow must be multiplied by the volumetric efficiency of your particular engine. Use a carburetor with an airflow rating equal to or slightly smaller than the air requirement of your engine.

Let's take for example, a 300 C.I.D. V-8 which has a maximum RPM limit of 8000 RPM. It's been determined that this particular engine has a volumetric efficiency of 85%. According to our chart the engine's airflow requirement is 700 C.F.M. at 100% volumetric efficiency.AT 85%, however, the C.F.M. requirement is 595 C.F.M. This engine would, therefore, require a 600 C.F.M. carburetor.

\*Supercharged engines generally require carburetors with 40% to 50% more C.F.M. than normally aspirated engines.





#### Selecting a Mechanical Secondary Carburetor

For high performance engines a carburetor with mechanical secondaries has an inherent advantage over a carburetor with a "controlled" secondary system (air valve or vacuum diaphragm). This is possible because a controlled secondary carburetor, until it reaches wide open throttle, will not have as great a pressure drop below the throttle plates as would a mechanical secondary unit. The greater the pressure drop below the throttle plates the more dense will be the fuel/air charge to the engine and, hence, the more output.

Greater care, however, must be taken in selecting the correct size mechanical secondary carburetor for an application. Double pump, mechanical secondary carburetors initially depend only on the accelerator pumps to provide adequate fuel until enough air flow can be established to begin pulling in the main system. The larger the carburetor the higher the air flow required to accomplish this. If the carburetor is too large, the pump shot will be consumed before the main system starts. The result is a "bog" or a "sag".

The handy chart, below, will help you to determine the correct carburetor size for your application.

Carburetor Size Selector\*

For Model 4150 Double-Pumpers, Model 4165 Spread-Bore, Model 4500 Dominator

More about using the chart - If your car has an automatic-transmission, make sure you know the converter stall speed before using the chart. If in doubt, use the figure shown for a typical Chevrolet converter (1350 ŔPM). If you are using a modified converter for a racing application, make sure the stall speed is what you think it is.

If your car has a manual transmission, use the lowest RPM at which you use wide-open throttle. This must be a very conservative RPM (on the low-RPM side, that is!) and should be found by observing your own driving habits in the vehicle involved. Watch your tachometer! The heavier the vehicle and the lower the numerical axle ratio (higher gear ratio) - the lower this RPM must be.

With engines from 300 to 400 CID, the right choice usually works out to be a 650 to 700 CFM carburetor. A light car, such as a Camaro, Mustang

Airflow vs. Engine RPM

- 4000

- 3500

- 3000

2500

2000

1500

1000

- 500

MINIMUM RPM AT WIDE-OPEN THROTTLE

For Model 4150 Double-Pumpers, Model 4165 Spread-Bore, Model 4500 Dominator

200

400

500

INSTRUCTIONS

estimate RPM column A.

secondaries.

00-

ENGINE DISPLACEMENT

or Duster may be able to use a 700 or 750 CFM unit, especially with a high numerical gear ratio (low gear ratio).

When in doubt, select a smaller carburetor size because it will typically give better acceleration times - even though power may fall off slightly at top RPM. You can believe that you'll be happier with the smaller carburetor nearly every time!

\* From "Holley Carburetors & Manifolds" by Mike Urich and Bill Fisher

Grey line is EXAMPLE described below

1. Select minimum RPM at wide-open throttle in column A: this will be converter stall speed on

cars with automatic transmissions. Do not over-

2.Select engine size (cubic inches) in column B.

3. Draw line between selected points in columnsA & B, extending the line to intersect column C.

4. Maximum recommended carburetor size is read

NOTE: Applies only to mechanically operated

converter stall speed. (Typical for

stock Chevrolet converters).

from point at which line crosses column C.

EXAMPLE: 350 CID engine with 1350 RPM

600

650

700

750

800

850

1050

QEM

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Carburetor Part No.	Carb. Model No.	CFM	Renew Kit	Trick Kit	Primary & Secondary Needle & Seat	Primary Main Jet	Secondary Main Jet or Plate	Primary Metering Block	Secondary Metering Block	Primary Power Valve	Primary Discharge Nozzle Size
R4473	4160	450	703-1	N/A	6-506	122-58	N/S	N/S	N/S	125-85	.025
R6105	2300	500	3-396	N/A	6-504	N/R	N/S	N/S	N/S	N/R	N/R
R6105-1	2300	500	3-396	N/A	6-504	N/R	N/S	N/S	N/S	N/R	N/R
R6106	2300	350	3-396	N/A	6-504	122-65	N/R	N/S	N/S	125-65	.031
R6107	2300	500	3-396	N/A	6-504	N/R	N/S	N/S	N/S	N/R	N/R
R6107-1	2300	500	3-396	N/A	6-504	N/R	N/S	N/R	N/S	N/R	N/R
R6150	2300	300	3-888	N/A	6-506	122-59	N/R	N/S	N/R	125-25	.028
R6151	4160	600	703-1	N/A	6-506	122-66	34R9716-3	N/S	N/S	125-105	.025
R6152	4160	600	703-1	N/A	6-506	122-66	N/S	N/S	N/S	125-85	.025
R6317	2300	300	3-888	N/A	6-506	122-60	N/R	N/S	N/S	125-50	.028
R6317-1	2300	300	3-888	N/A	6-506	122-60	N/R	N/S	N/S	125-50	.028
R6361	4150	650	3-1184	N/A	6-504	122-72	122-84	N/S	N/S	125-85	.026
R6407	4160	450	703-1	N/A	6-506	122-58	N/S	N/S	N/R	125-85	.021
R6846	2300	300	N/A	N/A	6-511	122-60	N/R	N/S	N/R	125-50	.028
R7036	2300	300	703-32	N/A	6-511	122-60	N/R	N/S	N/R	125-50	.028
R7128	4160	650	703-33	N/A	6-511	122-73	N/S	N/S	N/R	125-65	.026
R7159	4160	450	703-33	N/A	6-511	122-59	134-8	N/S	N/R	125-85	.021
R7163	4160	600	703-33	N/A	6-511	122-66	N/S	N/S	N/R	125-25	.025
R8123	4160	600	N/A	N/A	6-511	122-66	N/S	N/S	N/R	125-50	.025
R8159	4160	450	703-33	N/A	6-511	122-59	34R9716-32	N/S	N/R	125-85	.021
R8572	4150	715	3-1184	N/A	6-504	122-72	122-84	N/S	N/S	125-85	.026
R9011	2300	500	3-474	N/A	6-504	122-75	N/R	N/S	N/R	125-50	.028
R9013	4160	600	3-720	N/A	6-506	122-64	34R9716-44	N/S	N/R	125-65	.031
R9015	4160	750	3-720	N/A	6-504	122-76	34R9716-27	N/S	N/R	125-105	.025
R9022	4150	800	3-485	N/A	6-504	122-72	122-87	N/S	N/S	125-65	.031
R9023	4165	800	3-605	N/A	6-504	122-61	122-86	N/S	N/S	125-85 (15)	.025
R9029	4150	715	3-1184	N/A	6-504	122-75	122-84	N/S	N/S	125-85	.026
R9392	4160	600	703-33	N/A	6-511	122-66	N/S	N/S	N/R	125-25	.025
R9393	4160	450	703-28	N/A	6-511	122-59	N/S	N/S	N/R	125-85	.021
R9394	4160	650	703-28	N/A	6-511	122-73	N/S	N/S	N/R	125-65	.026
R9399	4160	650	703-28	N/A	6-511	122-73	N/S	N/S	N/R	125-65	.040
R9399-1	4160	650	703-28	N/A	6-511	122-73	N/S	N/S	N/R	125-65	.040
R50405	4160	650	703-28	N/A	N/S	122-74	N/S	N/S	N/R	125-65	.040
R50405-1	4160	650	703-28	N/A	N/S	122-74	N/S	N/S	N/R	125-65	.040
R50417	2300	300	703-30	N/A	6-511	122-60	N/R	N/S	N/R	125-50	.028
R50417-1	2300	300	703-30	N/A	N/S	122-60	N/R	N/S	N/R	125-50	.028
R50418	4160	450	703-28	N/A	6-511	122-59	N/S	N/S	N/R	125-85	.021
R50419	4160	600	703-29	N/A	6-511	122-66	N/S	N/S	N/R	125-25	.025
R50419-1	4160	600	703-29	N/A	N/S	122-65	N/S	N/S	N/R	125-25	.025
R50419-2	4160	600	703-29	N/A	N/S	122-65	N/S	N/S	N/R	125-25	.025
R50461	2300	300	703-30	N/A	6-511	122-60	N/R	N/S	N/R	125-50	.028
R50461-1	2300	300	703-30	N/A	N/S	122-60	N/R	N/S	N/R	125-50	.028
R50462	4160	450	703-28	N/A	N/S	122-59	N/S	N/S	N/R	125-85	.021
R50462-1	4160	450	703-28	N/A	N/S	122-59	N/S	N/S	N/R	125-85	.021
R50463	4160	600	703-29	N/A	N/S	122-65	N/S	N/S	N/R	125-25	.025
R50463-1	4160	600	703-29	N/A	N/S	122-65	N/S	N/S	N/R	125-25	.025
R50464	4160	750	703-33	N/A	6-511	122-74	N/S	N/S	N/R	125-65	.040
R50467	2300	300	703-30	N/A	6-511	122-61	N/R	N/S	N/R	125-50	.028
R50467-1	2300	300	703-30	N/A	N/S	122-61	N/R	N/S	N/R	125-50	.028

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