

HEMMINGS  
CLASSIC CAR

BARRACUDA BUYER'S GUIDE: 1964-1966



# Hemmings Classic Car #62

THE DEFINITIVE ALL-AMERICAN COLLECTOR-CAR MAGAZINE

## ORIGINAL OWNERS



### WHY THEY KEPT THEIR CARS



**MECHANICAL MARVELS:**  
HOW ROCKER  
ARMS WORK



**DRIVEABLE DREAMS:**  
1950 CHEVROLET  
DELUXE

November, 2009





1964-1966

# Plymouth Barracuda

Undeniable sports car appeal without today's sports car price tag



Words and photography by Matthew Litwin

Contrary to what muscle car enthusiasts would have you believe, there are still a select number of Chrysler products that anyone can obtain with relative ease. One such vehicle is the first-generation Plymouth Barracuda. Aimed directly at the youth market and its craving for affordable, stylish speed, the Barracuda actually went to market 16 days prior to its main competition: Ford's Mustang. Built on the Valiant platform, it was offered as a hardtop with a sporty fastback body style, featuring perhaps the largest rear window ever molded. History has since proven the Mustang to be far more popular, which is good news today—it makes this early compact performance car affordable for almost anyone looking for a sporting option.

1964 and '65 feature faux Lucas-like lamps that actually house turn signals; bulbs and sealed beams are available.



Along with the floor carpet, door armrests are also prone to problems: they have a tendency to become brittle and discolor. Door panels themselves can be replaced with units sourced from a few companies; armrests typically have to be restored. However, we found a set of new pads for \$79 on the Pro/Fit Auto Interiors website.



Only the top-tier Commando V-8 engine bays feature a heater hose clamp on the outer edge of the right inner fender—this is a different configuration than that found on lesser engines; heat sink-like aluminum trim on rocker arm covers is unique to the high-output 273 V-8 engine. Hose, plugs and wires are all easily obtainable.



Barracudas were offered with 13-inch wheels (standard) or 14-inch wheels (optional), and a choice of wheel covers. Smaller wheels are often swapped for 14-inchers; NOS or like-new covers can cost up to \$90 each. Our feature car owner swapped stock wheels for these later-style small bolt-pattern 15 x 7-inch Rallye wheels from Wheel Vintiques—cost ranges from \$123 to \$132 per wheel.



Valiant badge at base of rear window was replaced in the middle of the 1965 run with now-famous Barracuda emblem.



One identifier for 235hp Commando V-8-equipped Barracudas is the cutout in the rear valance for its specific exhaust: a low backpressure system with a muffler and resonator capped by rectangular exhaust tip. A complete V-8 system costs \$330 from Waldron's Antique Exhaust.





Optional simulated woodgrain steering wheel stands out against standard interior; all Barracudas featured vinyl-clad front buckets—reproduction material is available.

Our feature example, a 1965 variant, is currently under the care of Rocky Hill, Connecticut, resident Don Carpenter. Powered by a desirable Commando 273-cu.in. V-8 engine, Don's Barracuda is slightly altered from stock in the interest of drivability—not an uncommon decision among Barracuda owners today. We'll address these changes, as well as several other items you should be aware of before purchasing a fastback of your own.

#### ENGINES

"As a general rule, the Slant Six engines are normally very durable; they were all-purpose workhorse units built for trucks that have the ability to last a lifetime with regular maintenance," commented Tony Dagostino, owner and operator of Tony's Parts in Harrington, Delaware; the shop specializes in A-, B- and C-body Mopars.

As for the 273-cu.in. V-8, Tony stated that, "The heads from a 1966 block do not interchange with those

from a '65 or older engine. During the first two years of Barracuda production, the two-barrel intake manifold had a different angle where it mates to the cylinder heads than that of later production runs, 1966 and up.

"The easiest way to get more power out of the engine was by sourcing a four-barrel intake back in the day. This has made finding such an intake somewhat difficult in recent years. Rebuilding a 273-cu.in. engine is not impossible, but again, not done often due to their durability. If one has not been maintained, it's not unusual to find worn bearings, piston rings, even camshafts—more so when the mileage is well past 100,000."

Engine parts are readily available today, although demand for such parts is relatively low because of the recent trend towards performance modifications.

The Slant Six engines Tony referred to were 170- and 225-cu.in. designs, making 101 and 145hp respectively. The former was offered as standard equipment in the Barracuda's 1964 introduction; the 225 was optional. For the following model year, the 170 was dropped from the Barracuda altogether, which elevated the 225 to standard equipment status.

Also available from 1964-'66 was the new, and optional, 180hp 273-cu.in.

V-8 featuring a two-barrel carburetor; it was one of the more popular options buyers selected during this period.

Beginning in 1965, a 235hp Commando 273 was offered if a buyer shelled out for the Rallye Pack option. This variant of the V-8 featured not only a hotter cam and a four-barrel carburetor, but also a bump in compression, from 8.8:1 to 10.5:1, and a dual point distributor. It would arrive from the factory as standard equipment if the Formula S package was selected during the ordering process.

#### TRANSMISSIONS

"There should really never be any questions about the durability of any of the available transmissions during this time. The power output from the engines was limited to what would become available in later models, so they were quite capable of taking any punishment. What's interesting is that the four-speed manual was actually designed for larger V-8 engines, so even the heaviest load from the 273 won't stress the unit," said Tony.

"One thing to keep in mind, however, was that the drive shaft was flange-mounted to the four-speed and TorqueFlite transmissions for 1965 and older Barracudas, unlike the slip yoke versions that everyone is familiar with

today. It's not a demerit by any means, just a different design to be aware of, limiting interchangeability."

Standard equipment all three model years was the three-speed manual. However, a buyer could have substituted either the famed TorqueFlite automatic (pushbutton on the dash in 1964, later moved to a conventional shifter in a short console in 1965-'66) or the aforementioned floor-mounted four-speed, which featured Hurst Competition linkage; the four-speed was only available in combination with a 225- or 273-cu.in. engine.

Specialists can quickly rebuild each of these units with ease, and kits are available for the do-it-yourself restorer.

#### REAR AXLE

"Chrysler's 7 $\frac{1}{2}$ -inch rear differential wasn't exactly their crown jewel; the 8 $\frac{1}{2}$ -inch unit wasn't available in an A-body car until after 1965. Even though these were sporty cars when new, you're not looking at a lot of torque being generated compared to what was available in the full-size cars, so ring gear failure should not be a huge concern.

"Keep in mind that there have been a number of owners who have swapped in a stouter 8 $\frac{1}{2}$  unit, making potential repairs tricky for unsuspecting owners; they are relatively hard to obtain," cautioned Tony.

Each housing contained a hypoid system with semi-floating axles. Final drive ratios were dictated by engine.



Larger front and rear bumpers, redesigned fenders and quarter panels were used on 1966 Barracudas.

## SPECIALISTS

**Kanter Auto Products**  
800-526-1096  
www.kanter.com  
Engine, brake and suspension  
rebuild kits; new exhaust and  
electrical parts

**Legendary Auto Interiors**  
800-363-8804  
www.legendaryautointeriors.com  
Reproduction upholstery

**Rock Auto**  
866-762-5288  
www.rockauto.com  
New brake and mechanical parts

**SMS Auto Fabrics**  
503-263-3535  
www.smsautofabrics.com  
Reproduction upholstery

**Stainless Steel Brakes Corporation**  
800-448-7722  
www.ssbrakes.com  
Reproduction and aftermarket  
brake parts and systems

**Steele Rubber Products**  
800-425-6088  
www.steelerrubber.com  
Reproduction weather seals

## WHAT TO PAY

### Plymouth Barracuda

1964 Sport hardtop			
Low	Average	High	
\$5,000	\$9,000	\$13,000	
1965 Sport hardtop			
Low	Average	High	
\$5,500	\$9,500	\$14,000	
1965 Formula S			
Low	Average	High	
\$6,500	\$11,500	\$17,000	
1966 Sport hardtop			
Low	Average	High	
\$5,500	\$9,000	\$13,500	
1966 Formula S			
Low	Average	High	
\$6,500	\$11,000	\$16,000	

Note: Add 10 percent for 273-cu.in. V-8 with two-barrel carburetor; 5 percent for four-speed manual





Every engine offered in the Barracuda is rebuildable, including this 235hp V-8; lack of fan shroud indicates this car was not equipped with optional air conditioning.

size, and ranged from 2.93:1 to 3.23:1. Other ratios were available off the option chart, such as 3.55:1 for the more performance-oriented youth buyer. Also available was the Sure-Grip (positive traction) differential, containing the same final drive ratio offerings. Dimensionally, the rear end was unchanged from 1960-'76, so replacing a damaged unit is not impossible.

#### SUSPENSION

"Parts that bear the brunt of road conditions will wear over time, even if you do your best to lube the system regularly—something many owners forget to do," warned Russell Jacobs, owner of RJ Cars Inc. in Arkport, New York, which specializes in Mopar restorations.

"One of the first things I would actually do is inspect the front subframe for damage. Remember, this was a car that competed directly against the Mustang, so it was likely that the younger generation pushed the Barracudas a little hard. I've seen several cars with tweaked subframes that had to be straightened on a frame machine, usually due to early reckless owners who drove them into a ditch or were in a collision. Repairs then were not what they are today.

"Also, tow truck drivers can get a little careless when hooking up, bending anything from torsion bars to tie-rod ends. Finally, be sure to inspect the rear leaf spring shackle mounts—these are known for their rust issues on virtually any Mopar," said Russell.

Barracuda's suspension was not unlike other Mopar products of the time:

an independent torsion bar system with unequal-length control arms up front, and leaf springs at the opposite end. Tubular shocks were installed all around, as well.

Starting in 1965, customers could have selected the Rallye Pack option that effectively installed the Commando 273 engine, heavy-duty springs and shocks and an anti-roll bar. A step further—the Formula S package—netted buyers with 14-inch wheels with wide-tread tires, simulated bolt-on wheel covers and a tachometer, plus the Rallye Pack equipment.

Today, many of the necessary suspension components can be purchased from multiple sources, including new leaf springs and entire front end rebuild kits, with the exception of the front subframe.

#### BRAKES

Though some consider the first generation of Barracudas underpowered, the smaller engines do provide an advantage when it comes to stopping. The four-wheel drum system is actually quite adequate, especially when it has less than 3,000 pounds to stop. The trick here is ensuring that the system is properly adjusted to avoid directional pull under heavy braking.

It is not uncommon to see front disc brakes—a factory option starting in 1965—on a Barracuda, which greatly improves the stopping power. Some later swaps were performed with components obtained by the owners from later A-body Mopars, using either

four-piston calipers with rotors using the same 4-inch bolt circle or single-piston calipers with 4.5-inch bolt-circle rotors. If the Barracuda you're examining has front discs from a later A-body, look for potential wheel clearance issues with the front fenders. Don made the conversion himself with a kit obtained from Stainless Steel Brake Corporation.

Fortunately, everything for a factory-stock system—from the 10-inch drums (9-inch drums with a Slant Six) to individual wheel cylinders—is available from several suppliers; even hardware kits are easy to come by. Restoring the car from a disc system to drums is possible as well. If you prefer to stick with a stock disc system, reproduction rotors—once unobtainable—are available once again.

#### CHASSIS

"It's a Mopar, so unless the car has already been restored by someone who knows what they're doing, you're bound to find some rust," said Russell. "This is especially true of the northern snow-belt regions. Always check the inner and outer fenders and quarter panels. The rocker panels were actually part of the unit-body structure, and as a result were formed with thicker steel; rarely have I had a need to replace a rocker panel.

"Rust can also be found on the floor pans and trunk floor. This usually happens because moisture is soaked up by the floor carpet and gets trapped inside. As for the trunk, rust is usually a result of the window and trunk seals leaking; moisture would get trapped underneath the trunk mat; this is actually a common problem with most Mopars.

"Look at the glass as a whole," continued Russell. "Shortcuts are often taken by some restorers and they unknowingly damage the glass, either with a grinder or blasting media while prepping for a quick repaint. A few companies reproduce the side glass and windshield, but the unique rear window is not reproduced."

Nonetheless, Tony told us that the large rear window, a one-piece unit, is not difficult to obtain. "A number of people saved them if the car was wrecked or junked, thinking that it would be worth money; because of that, they aren't."

The new Barracuda, part of the Valiant line, was offered in only one body style through the 1966 model year; the 106-inch wheelbase remained unchanged throughout the run. Though visual updates during the first two model years were minimal, '66 models stand out due to their eggcrate grilles, which replaced fine horizontal units featuring

faux Lucas foglamps (actually turn signals) and a chrome horizontal bar. Also, 1966 models feature slightly reworked fenders and quarter panels, making interchangeability with earlier versions nearly impossible.

Racing stripes were a valid option all three years, usually color-keyed to the interior. Only the 1964 models feature Valiant badging.

Keep in mind when checking over a potential purchase that it's not uncommon to see aftermarket wheels present, sprucing up the Barracuda's appearance. According to Tony, "A buyer should be aware that the original 13- and 14-inch wheels have a 4-inch bolt pattern versus the later 4½-inch pattern, so be sure to see what the car has before placing an order—some owners have already made a swap to the larger pattern." One of those owners, Don, made his switch to the Rallye wheels seen on our feature car thanks to Wheel Vintiques.

Russell and Tony both noted that replacement trim and body parts are becoming harder to obtain. "You're basically going to be spending the bulk of your time looking for solid, used parts. Some patch panels for the floors and quarters are available from Auto Body Specialties," said Russell.

"They are not expensive to restore, just difficult to find complete panels for; the first-generation Barracudas are not the most popular among collectors today," added Tony.

#### INTERIOR

"The biggest problem you're going to face is sun damage to the interior. With over 14-sq.ft. of rear glass, finding faded carpet is always a possibility, and de-

pending upon the car's origins, so too, is worn and/or brittle upholstery, even door armrests," cautioned Russell. "One other area that many owners tend to overlook is the wiring. A series of aftermarket radios can result in faulty wiring behind the dash, leading to shorts and possibly a fire. The same can be said if the car was stored for a prolonged period; critters such as mice can cause unbelievable damage to the wiring harness as a whole."

There is good news for those with a worn interior: Select companies, such as Legendary Auto Interiors, offer door panels, seating material and floor carpet. While specialists can rebuild gauges, dash trim will have to be restored or sourced from a parts car.

Somewhat utilitarian in nature, the Barracuda was an affordable, sporty car from the start. Up front, bucket seats were standard equipment, while the rear seat—fitting five snugly—could fold forward to provide more fully carpeted storage space; drop the "security panel" separating the trunk from the seating and there was enough space to fit a surfboard. A padded dash and AM radio were optional all three years.

#### RESTORATION PARTS

While the first-generation Barracuda's lack of broad appeal translates to affordability, it also comes with a downside: a lack of aftermarket and reproduction parts when compared to later generations. With the exception of mechanical components and select interior items, many owners must turn to parts cars, swap meets and restoration specialists to bring their Barracuda back to showroom-fresh life. ☛

## Owner's View

"I used to own a 1966 Plymouth Valiant Signet convertible, which was basically the same chassis as that of the Barracuda; I've always had an interest in early A-body Mopars. After losing it to a garage fire in 2003, I ran across this Barracuda listed for sale in Massachusetts in 2005. Although it needed some minor work, it was completely rust-free, greatly aided by the fact that it spent most of its life in California.

"I've since driven it to several shows in the region annually, and have taken it to a few Mopar events in Carlisle, Pennsylvania—it's a very comfortable and easy car to drive. Mechanically, it's also very easy to work on. One of my more favorite attributes is still the large rear fastback window"

—Don Carpenter



## PARTS PRICES

Brake drum, front	\$25
Brake shoes, rear	\$33
Camshaft, 170-cu.in.	\$127
Carpet, cargo area	\$174
Carpet, floor	\$160
Door panel	\$265
Front end rebuild kit	\$239
Leaf springs	\$595
Main bearing set, 273-cu.in.	\$53
Oil pump, 225-cu.in.	\$100
Piston, 170-cu.in.	\$28
Piston, 273-cu.in.	\$44
Shock absorber	\$14
Starter, remanufactured V-8	\$52
Upholstery, front buckets	\$326
Voltage regulator, V-8	\$50
Weatherstrip, front windshield	\$122
Weatherstrip, rear window	\$122
Wheel cylinder, rear	\$6

## PRODUCTION

### Plymouth Barracuda

1964	23,443
1965	64,596
1966	38,029

Note: Production totals include six-cylinder, V-8 and Formula S-packaged Barracudas

## CLUB SCENE

### Plymouth Owners Club

P.O. Box 416  
Cavalier, North Dakota 58220-0416  
www.plymouthbulletin.com  
Dues: \$26/year; Membership: 3,200

### WPC Club

P.O. Box 3504  
Kalamazoo, Michigan 49003-3504  
269-375-5535 (fax)  
www.chryslerclub.org  
Dues: \$35/year; Membership: 4,000