

Interesting Studebaker Muscle Car Facts

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Fact 951: Every muscle car enthusiast knows what an STP sticker looks like. But is there a Studebaker tie-in? Yes. STP oil treatment was first introduced in 1952 as a product of Chemical Compounds Inc. of St. Joseph, Missouri. An abbreviation for Scientifically Treated Petroleum, STP was a thriving business when Studebaker president Sherwood Egbert acquired the company and trademark on March 1, 1961.

Fact 952: The claim that STP stands for Studebaker Transmission Products is just a myth. That said, after the 1961 acquisition, the STP trademark was briefly co-opted to stand for Studebaker Tested Products. Soon after, Egbert realized the popular oil supplement was best kept as a standalone brand. STP, under the leadership of Andy Granatelli was a strong source of profits and positive PR through its many Indy 500 attempts and active support of all facets of professional motor sports.

Fact 953: Some think Studebaker died a broke, beaten company. But the termination of Canadian vehicle production in March 1966 wasn't the end of Studebaker as a corporation; not by a long shot. Rather, Studebaker thrived for more than a decade as a closed investment company, a conglomerate corporation with numerous, non-automotive divisions. The diversification was instigated in 1958 and funded by the surprise success of the compact 1958 Lark and shrewd stock transactions, which created huge cash reserves and tax incentives. Having grown weary with the fickle auto industry and numerous brushes with bankruptcy, Studebaker's management team invested in numerous non-endemic businesses (CTL, maker of plastic nose cones for missiles, Franklin home appliances, Italian appliance maker Domowatt S.P.A., Gravely lawn tractors, Trans International Airlines, industrial refrigerant giant Schaefer, STP lubricants, Paxton Products, and others). In 1961 alone, these divisions did more than \$100 million in sales.

When Studebaker terminated automobile production these other entities carried the torch; some successfully, some less so. Last known as Studebaker-Worthington and with annual sales in excess of \$1 billion, the Studebaker name ceased to exist after absorption by

McGraw-Edison in 1979. That same year, the Avanti Motor Company (which was not affiliated with Studebaker-Worthington) enjoyed its best season to date with 179 cars sold.

Fact 954: At great expense, Studebaker, Packard, and AMC all tooled their own modern OHV V-8 engines in the post-World War II era. These variously successful engine families displaced 232/259/289/304 (Studebaker), 320/352/374 (Packard), and 250/287/327 (AMC) cubic inches. Model builders will recognize the architecture of Renwal Plastic's Visible V-8 1/4-scale plastic model kit of the 1960s as being that of the Packard V-8. The kit is currently offered by Revell.

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Fact 955: What was the rationale for continuing to build Studebakers in Canada? To put it bluntly, had Studebaker simply slammed the doors shut in Indiana, the remaining 2,025 dealers (1,700 in the United States and 325 in Canada) would have flooded the company with lawsuits. The plan also avoided further payment into UAW pension funds. Remember, Studebaker wasn't out of business; it simply quit building cars. There were huge assets to be protected. The Canadian scheme was a means of winding down automotive production in a graceful fashion. Legal, yes. Ethical? You decide. Despite the fact the Hamilton, Ontario, Canada, plant was profitable (its 7,000 annual unit break-even point was met by a factor of three), the truth was Studebaker management didn't want to continue making cars (see Fact #953). Approximately 19,000 Canadian-made Studebakers were imported to the United States in 1965–1966 as corporate automotive activity ground slowly to a halt.

Fact 956: There's plenty of confusion regarding the origins of certain Studebaker powerplants. Though Ford offered a 289 in 1963, Studebaker's 289 V-8 (a completely different engine) was first offered in 1956 and there was no cross-breeding. Confusion stirred again in 1964 with closure of the South Bend factory. For a brief time, US-made Studebaker 169-inch sixes and 259/289-inch V-8s were shipped north to the Studebaker of Canada, Ltd. plant, which lacked engine manufacturing capabilities. But when the South Bend engine plant's union contract ended a few months into 1964, so did the supply of engines.

To solve the problem, Studebaker sourced 194,230 OHV six-cylinder and 283 V-8 engines from McKinnon Industries. Yes, these were Chevrolet engines built by McKinnon under license from General Motors and they were installed in all 1965 and 1966 Studebakers.

Ready for more confusion? In 1965–1966 Studebaker marketed the Chevy-sourced 283 as the Thunderbolt V-8, the same term used to designate 427-powered Ford Fairlanes in 1964. What a tangled web we weave!

Fact 957: The McKinnon Chevrolet engines were much more costly than earlier Studebaker-built units. Before production ceased, South Bend–built Studebaker engines cost the Canadian plant \$190 (169 OHV six) and \$214 (base V-8). The Chevrolet-sourced mills cost \$315 and \$434 (respectively) and doubled the plant's breakeven point to 14,000 cars per year.

Incidentally, the Canadian plant only handled Commander, Cruiser, and Daytona models. All Hawk, Avanti, and truck production was terminated after the 1964 model run with one notable exception, the Avanti.

Fact 958: The thought of watching the Avanti wither on the vine was unacceptable to former Studebaker dealer Nate Altman. With business partner Leo Newman, Altman purchased six dormant buildings within the massive South Bend complex and restarted Avanti production as the Avanti 11's in 1965. The only major change was the use of Chevy small-block engines and GM-sourced transmissions. Otherwise, the car remained true to Loewy's intent and stands as a very rare example of the successful revival of an ailing marque by passionate investors.

Fact 959: The last US-built Studebaker rolled off the South Bend assembly line on December 20, 1963. It was a red Daytona two-door hardtop. Initially consigned to a dealer in Pennsylvania, Studebaker instead chose to keep the car. It currently resides in the Studebaker Museum in South Bend. The final Canadian-built Studebaker left the Hamilton, Ontario, plant on March 4, 1966. A V-8–powered turquoise Lark Land Cruiser, it's also on display at the Studebaker Museum.

Fact 960: Pioneering Studebaker speed seekers were surprised to discover that 1955–1956 Cadillac Eldorado dual-quad intake manifolds can be adapted to the 1951–1964 Studebaker V-8 with only a small amount of effort (attachment bolt holes need reaming and hand-cut gaskets are required). It is one of the few happy coincidences in the hot rod world. Going the other way, 1950s hot rodders discovered the sleek 1953 Starliner hardtop was a perfect home for the Cadillac OHV V-8. Hot Rod magazine depicted many Stude-i-lac engine swaps and was directly responsible for spurring the Golden Hawk factory muscle package of 1956.

Fact 961: Studebaker installed 1-inch shims between the frame and body of every Avanti equipped with the R3 engine option (nine built). The extra height was needed to provide clearance between the large cast-aluminum carburetor pressure box and underside of the hood. Unfortunately, the Avanti's unique hood bulge (described as a "speed ramp" by Loewy's design team) was asymmetrically positioned (ahead of the driver) so it couldn't be refigured for pressure box clearance (which was centered directly over the carburetor). The added inch of body height raised the vehicle center of gravity, but budget-conscious Studebaker engineers chose this route rather than endure the cost and aesthetic burdens of adding a hood blister.

Fact 962: When Studebaker closed shop in 1963, Molded Fiberglass Body Company still had 150 semi-completed body shells on hand. This made it easier for Nate Altman to keep momentum going for his Avanti II continuation project. Without Altman, it's likely the bodies would have been scrapped. Under various subsequent leadership teams, Altman's Avanti II was produced in limited quantities through 1990. Looming passive-restraint mandates (air bags, automated shoulder belt mechanisms, etc.) squashed further output though persistent sparks of interest rise from the ashes even to this day.

Fact 963: Studebaker resisted assigning model years to the Avanti. During a 19-month production period running from June 1962 through December 1963, a long list of running changes were made. In August 1963 the square headlamp bezels were phased in. These cars are regarded as 1964 models. Of the 4,643 Avantis built, only 752 were fitted with square bezels. The only true model-year identification method is to check the VIN. The first and second digits correspond to the vehicle model year, i.e., 63 for 1963s and 64 for 1964s. Drivers who don't like wet shoulders on rainy days should get a car built after April 1963, when drip rails were added to the roof seams above the doors.

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Fact 964: The 1963 1/2 and 1964 Super Lark performance package included a limited-slip differential, heavy-duty springs and shocks, front and rear anti-sway bars, finned rear brake drums, front disc brakes, traction links, 6.70-15 tires, and either a T-10 4-speed or heavy-duty B-W automatic transmission. R1 (289-4, naturally aspirated), R2 (289-4 supercharged), R3 (304-4 supercharged), and R4 (304 dual-quad, naturally aspirated) engine options were available. The R3's thicker harmonic damper, wide supercharger drive pulley, and inlet air feed duct required a specific radiator support stamping. Not shared with standard six-cylinder or V-8 Larks, nor R1, R2, or R4 cars, the R3's unique radiator support was later adopted for use on all Canadian-built Larks in 1965–1966. It turns out the inline Chevy 194/230 OHV six (see Fact #856) was longer than the tiny Studebaker 169-cube six and interfered with the standard Lark radiator support, but the R3 stamping worked perfectly. R3 Super Lark restorers/replicators seeking replacement radiator support panels need look no further than any 1965–1966 (Chevy) six-cylinder-equipped Lark.

Fact 965: Packard Hawks were built in 1958 only. Each of the 588 muscle machines featured a centrally mounted hood scoop that was an essential ingredient for allowing use of its standard Studebaker-sourced, supercharged 289 V-8. But don't assume the scoop was there for better breathing. Rather, the hood bulge and faux scoop were simply a means to achieve needed clearance between the cast-aluminum carburetor pressure box and low-slung steel hood skin. The opening was sealed shut by a die-cast metal trim plate.

Fact 966: The hood line of the supercharged 1957 (4,071 made) and 1958 (878 made) Studebaker Golden Hawk wasn't as low as the Packard Hawk but still required a small bolt-on fiberglass blister. It sealed a hole that had to be manually cut into the steel hood skin to

accommodate the carburetor pressure box. The 1956 (only) Golden Hawk was naturally aspirated and relied on the sheer displacement of the Packard-supplied 352 V-8. Not as tall as the supercharged 289s used in 1957–1958 Golden Hawk, the 1956 Golden Hawk hood skins lack the blisters seen on 1957–1958 models. That said, all 1956 Hawk models (including the lowly 185 six-powered Flight Hawk) shared the same twin-nostril hood scoop insert bolted atop the hood. It was a strictly non-functional styling flourish. Speaking of styling flourishes, the fiberglass tail fins and trunk lid of the 1956 Golden Hawk were replaced by steel parts on the 1957 edition.

Fact 967: Far away from the staid confines of the main styling department in South Bend, design of the Avanti's futuristic body shell was initiated on Monday, March 20, 1961, by a team of freelance stylists led by Raymond Loewy. Under his guidance, Tom Kellogg, Bob Andrews, and John Ebstein toiled for six weeks in a rented home on the outskirts of Palm Springs, California. Though Loewy owned a home nearby, the team didn't want to occupy Loewy's residence so an alternate location was leased for the purpose. On one wall was an image of the 1961 Lincoln Continental; Loewy liked its slab-sided form and blade-like fender peaks. Pictures of other advanced vehicle designs plastered the walls and served as inspiration. The entire affair was very "art school" and the results show it. The team conjured the Avanti's shapes in a mere 40 days.

Fact 968: The supercharged R2 289 engine was offered on any 1963–1964 Studebaker model and cost an extra \$210 (Avanti), \$581.70 (Hawk), \$701.70 (Cruiser), \$731.70 (Daytona), or \$766.70 (Commander). But due to compact body architecture, Avanti applications moved the supercharger location to the front of the passenger-side cylinder head. The extra cowl height of Lark-based Cruiser, Daytona, Commander, and Hawk engine bays allowed the R2-spec Paxton supercharger to be mounted high atop the engine, directly in front of the Carter AFB 4-barrel carburetor. Rated output was not affected by the different intake tract layouts.

Fact 969: Like the Corvette body, the Avanti fiberglass body was not effective at containing ignition "noise" and preventing radio reception problems. Every radio-equipped Avanti engine was fitted with stainless-steel shrouding around the distributor and secondary ignition wires. To further isolate ignition energy from degrading radio reception, the antenna mast was positioned atop the left-rear quarter panel. Corvettes utilized a similar strategy to improve signal reception.

Fact 970: Aside from the notable difference in acceleration, Avanti drivers seated behind supercharged R2 and R3 powerplants were greeted by different tachometers. The R3 tach reads to 8,000 rpm; regular R1 Avantis have a 6,000-rpm tach. Supercharged Avanti drivers, regardless of engine tune, quickly learned to roll down the windows on summer days. Air conditioning was only available (\$280) with the naturally aspirated 240-hp R1 base engine. Later Avanti 11'ss catered to luxury-seeking customers by making GM's C60 air conditioning a readily available option on all models.

Fact 971: The Paxton belt-driven supercharger used by Studebaker performance models in the 1960s was an evolution of the McCulloch model VS-57 supercharger used on the 1954–1955 Kaiser Manhattan, 1957 Studebaker Golden Hawk, Ford F-code Thunderbird (211 built), and 1958 Packard Clipper. The Paxton's biggest difference was its name, which was taken from Robert (Paxton) McCulloch's middle name. When Granatelli took over in 1958, minor mechanical changes were made and the name was changed to Paxton. Paxton is still active in the centrifugal supercharger business and offers numerous bolt-on kits for popular applications, which are available from Granatelli's son, JR, who operates Granatelli Motor Sports in Oxnard, California.

Fact 972: The 1956 Studebaker Golden Hawk claimed the most power per pound of any American car. Thanks to the 1954 Studebaker-Packard merger, the Golden Hawk gained access to Packard's 275-hp, single Carter WCFB 4-barrel 352 V-8. With a 3,360-pound shipping weight and 275 hp, the Golden Hawk carried 12.2 pounds per rated horsepower. It was good, but muscle junkies knew Packard's dual-quad 374 was even hotter. Unfortunately, this 310-hp monster was reserved for the Caribbean luxury model even though it would have been a simple bolt-in swap.

Fact 973: The Packard V-8 engine program was nipped in the bud before it got the chance to blossom. After dragging its feet (and losing performance-minded luxury customers to Cadillac and Imperial) for several critical post-WWII years, Packard made up for lost time with the new-for-1955 320/352/374 OHV V-8 engine family. A key detail was its 5-inch bore spacing. Larger than the 426 Hemi, Chevy 454, and Buick 455, the figure was matched only by the 1968 Cadillac 472/500 engine family. Had Packard remained solvent, there is no doubt displacement would have grown close to 500 cubes. Unfortunately, Packard's 1954 merger with Studebaker, which brought its own V-8 to the table, made the big V-8 redundant. It was scrapped after only two years on the market (1955–1956) and a great chapter in American V-8 engine history went unwritten.

Fact 974: The 1957 Packard lineup set an industry precedent in that every single car sold to the buying public was supercharged, even the Country Sedan station wagon. Power came from a McCulloch VS-57– assisted Studebaker 289 rated at 275 hp. Remember too that 1957 marked the year that Packard ceased making its own cars; they were simply rebadged and lightly restyled Studebakers. Regardless, 4,809 Packards hit the road in 1957, each one with exciting forced induction.

Fact 975: A major difference between the McCulloch/Paxton supercharged 289 engines of 1957–1958 and the 1963–1964 R2 289 is the type of carburetor employed. Engines built in the 1950s used an enclosed Stromberg model WW 2-barrel (275 hp at 4,800 rpm). Later engines built in the 1960s got bigger Carter AFB 4-barrel carburetors (289 hp at 4,800 rpm). The R2 version was not equipped with an encased carburetor. Both superchargers were of the blowthrough type and delivered 4 to 7 psi of boost.

Fact 976: Unlike the 289-hp R2, the also-new-for-1963 335-hp R3 304 V-8 enclosed its Carter 3808-S AFB within a cast-aluminum pressure box (similar to those used in the 1950s)

to maximize boost potential. A 3/32-inch overbore increased displacement from 289 to 304 cubes (the 3.625 stroke was unchanged). By contrast, the R2's Carter AFB was fed pressurized air by a rubber duct and carburetor "hat." The R2's cast-iron exhaust manifolds were replaced with steel tube headers on the R3 and a larger oil pan sump was used.

Each R3 engine was hand built at Paxton Products and shipped to South Bend for installation with an 8-inch harmonic dampener (versus the stock 6-inch dampener used on lesser Stude V-8s). External identification was easy. R2 engines were painted black with yellow valve covers. The R3 was finished in bright red with chrome valve covers. About 20 R3s are known to have been factory installed in Avanti, Hawk, and Lark platforms. Another 50 or so R3 crate engines were sold by Studebaker/Granatelli Bros. for customer installation.

Fact 977: The naturally aspirated R4 304 shared its block, heads, crank, and rods with the hand-built R3. But compression was raised from the R3's 9.75:1 to 12:1. The R4 breathed through a pair of Carter AFBs to deliver a claimed 280 hp. All R-series engines (R1, R2, R3, and R4) used Prestolite dual-point distributors. The R3 and R4 were upgraded with transistorized control modules and solidcore ignition wiring. Only two R4 factory installations are known, both in 1964 Daytonas. The hardtop is known to exist, the lone convertible has been lost to time.

Fact 978: The supercharged R3 and naturally aspirated dual-quad R4 engines were made in very small numbers. They used specially cast cylinder heads with the valve guides moved apart 1/4 inch. This allowed room for larger 17/8-inch intake and 15/8-inch exhaust valves for superior breathing. These special heads can be identified by casting number 1555479. Unlike R1 and R2 engines (which used cast-iron intake manifolds), the R3 (single 4-barrel) and R4 (dualquad) manifolds were made from lightweight aluminum.

Fact 979: Studebakers used Dana-Spicer–built Model 27 and 44 rear axles during the 1951–1964 V-8 era. Well known for its massive Dana 60 rear axle (as used under big-bore Street Hemi and 440 4-speed Mopar muscle cars), the largest Spicer axle employed by Studebaker was the Model 44. Its 8.5-inch ring gear and clutch-type Power-Lock differential were fully capable of handling anything the supercharged 289- and 304-cube Studebakers could dish out. Perhaps the only drawback was the 44's use of two-piece axle shafts, except on R3 and R4 models (see Fact #983).

Fact 980: The 1965 utilization of Chevy engines in Canadian-built cars could have led to some amazing performance packages. Can you imagine a big-block 396 or 327 Rochester fuel-injected Daytona? But it was not to be. The only V-8 supplied to Studebaker by McKinnon Industries was the 195-hp 283 2-barrel. There was no 4-barrel option and access to the 327 was restricted.

Speaking of McKinnon, the Ontario-based company was founded in 1878 and purchased by General Motors in 1929. In 1969, its name was officially changed to General Motors of Canada, Ltd. In addition to engines, McKinnon made numerous chassis components,

including the extra-duty rear axles installed under 1970 455-powered Pontiacs (see Fact #146).

Fact 981: To keep costs under control, the sleek fiberglass Avanti shared its rolling chassis with the compact Lark Daytona convertible. Minor changes were made but the 109-inch-wheelbase frame is technically interchangeable between the two cars (rear axle torque link anchor points are different). Of course, for the sporting Avanti, Studebaker chassis engineers tuned the spring rates to suit the lighter fiberglass body and the full host of optional, heavy-duty Daytona brake and suspension upgrades were made standard on the Avanti's substructure. The twin boxed protrusions punching out from the Avanti's fiberglass rear valance panel and simulated bumper guards serve only to mask the rear spring shackles, which would have stuck out like a pair of sore thumbs if not covered.

Fact 982: The muscular 1955 Packard Caribbean featured dual-quads, a push button automatic transmission, and torsion-bar suspension a full two years before the 1957 Chrysler 300C boasted of similar features. Packard's halo offering, the Caribbean, was offered only as a convertible. 500 of the 275-hp dual-quad maulers were built, each one fitted with Torsion-Level Ride, a four-wheel torsion-bar suspension system. Replacing conventional coil springs, TorsionLevel Ride employed a pair of extremely long torsion bars spanning the distance between the front and rear suspension control arms.

These torsion bars carried the main load but were assisted by a pair of shorter "Levelizer" torsion bars. Connected to a twoway electric motor, ride-height sensors detected changes in vehicle body orientation (hard cornering, braking and acceleration), which signaled the electric Levelizer motor to crank extra tension into the secondary Levelizer bars. The result was real-time adjustable suspension. By most accounts, it worked very well, when it was new. Failed systems are betrayed by a chronic nose-down stance. Standard on the Caribbean, nearly 75 percent of all 1955 Packards were ordered with the Torsion-Level suspension, a \$150 option.

Fact 983: R3- and R4-equipped cars used special one-piece forged axle shafts with integral flanges. The revised axles eliminated the less durable two-piece tapered assembly and its failure-prone Woodruff key. The presence of extra-duty axle shafts is easily spotted if the wheel cover is removed. Look for the absence of the central hub-to-axle lock nut and cotter pin. Besides being stronger, the one-piece axle shafts used slip-on brake drums and avoided the need for a hub-pulling tool for brake service.

Fact 984: The 1963 Studebaker Avanti was the first American-built, five-seat passenger car fitted with standard caliper-style front disc brakes. Crosley Hot Shots and Super Sports also had spot-type disc brakes as early as 1949, but those miniature cars belong to an entirely different category of vehicle. Chrysler fans can point out the Ausco-Lambert four-wheel discs unveiled in 1949 (see Fact #832) but they were a much different enclosed design.

Fact 985: Like same-year Thunderbird and all Chevrolet models (except Corvette), the Studebaker Golden Hawk switched from 15- to 14-inch-diameter wheels for the 1957 model year. The “extra wide” 5 1/2-inch rim width was unchanged. Styling was the main goal but the shorter, stiffer tire sidewalls reduced tread-to-rim deflection for better cornering. The rest of the 1957 Studebaker line retained 15-inch hoops. Another change for the 1957 Golden Hawk was a new steering box. The total number of turns (lock-to-lock) was reduced from 5.75 to 4.5.

Fact 986: The 15x4.5 plain steel wheels used on most 1960–1964 Studebakers (manufactured by Budd) are highly sought after by 1962–1965 Mopar Super Stock clone builders. When used on the front of a 1962–1964 Max Wedge or 1964–1965 Race Hemi car (usually painted to match body color) they offer a perfect touch of brutal austerity and are a great contrast to the 7-inch rims typically used on the rear axle. Surprisingly, most Max Wedges were delivered new with 14x5.5-inch steel rims all around. Before the discovery of 15x4 1/2 Studebaker wheels, sleeper-seeking Mopar builders settled for 15x5.5 rims from pre-1968 Dodge A100 van applications. They’re simply 1 inch too wide and spoil the Super Stock look. The secret is out! Studebaker owners, hide your Larks!

Fact 987: Halibrand and Studebaker collaborated on adding the cast magnesium, five-spoke Touring wheel to the 1963–1964 option list, for dealer installation. Supplied in the 15x5.5 size, identical wheels were sold through speed shops but differed in one critical detail. The three-bar press-fit spinner was inscribed Studebaker Corporation. Non-Studebaker Touring wheel spinners were embellished with the Halibrand name and its Culver City, California, location.

Fact 988: To curb axle hop, the South Bend factory installed torque links on 1963 Hawk and Lark performance models (and all Avantis). Mounted above the axle tube to prevent ground clearance issues caused by under-rider bars like Traction Masters, the 1/2-inch-diameter struts connect to frame brackets and control oscillating spring wrap. Beware, Larks and Avantis used different-length struts. Lark struts are longer and mount to the forward spring perch. The longer bars were needed to clear the unique shape of the Lark’s inner wheel houses. Avanti and Hawk torque links are interchangeable despite the fact the cars have different wheelbases (109 and 120, respectively).

Fact 989: Part of the Avanti’s recipe for great handling was its standard rear anti-roll bar, which was mounted behind the Dana 44 rear axle housing. Sharing the same frame, suspension, and axle, you’d think Studebaker would have offered the rear bar on Lark Daytonas as well. But they never did or could. The fiberglass floor/trunk pan of the Avanti body shell was very different from the Lark’s steel shell. The Avanti’s trunk floor had a deep spare tire well, which pushed the 21-gallon gas up above the rear axle. By contrast, the Lark’s floorpan architecture positioned its 18-gallon fuel tank under the trunk floor—right in the way of the Avanti roll bar.

Fact 990: Studebaker was very serious about brake performance. In 1963 any passenger car could be ordered with the Avanti’s (standard) Bendix front disc brakes. All it took was an

extra \$97.65 and even the humble six-cylinder Lark Challenger could stop on a dime. But even before the arrival of discs, generously sized drum brakes were standard. For example, the 259 2-barrel V-8–powered Lark Daytona convertible tested in the January 1962 issue of *Motor Trend* was fitted with 11-inch front drums and 10-inch rear drums. Remember, the Lark was a compact car! For comparison, the legendary Pontiac GTO (like most GM muscle cars) used smallish, 9.5-inch drums all around (11-inch front discs arrived in 1967 but were a \$79 option).

Fact 991: One thousand Avantis per month. That was Studebaker president Sherwood Egbert's initial production forecast. By assigning body assembly to Molded Fiberglass Body Company in Ashtabula, Ohio (which had presumed experience as the producer of Corvette bodies), the plan was to receive completed bodies by rail and insert them into the South Bend production line before the "body drop" phase. Things got started in February 1962 so there'd be plenty of finished cars on hand for the official April 26, 1962, introduction.

Unfortunately, persistent quality-control and panel-fitment problems forced a rethink. Just as consumer interest was peaking in the summer of 1962, Studebaker had no choice but to bring the trouble-prone fiberglass body assembly process in house. The restructuring slowed output to a crawl; only 24 cars were built in June, 14 in July. The delays resulted in many canceled purchase orders and lost opportunities. Described as "organized chaos," the South Bend plant eventually managed to crank out a total of 4,643 Avantis. Not quite the 12,000 annual output predicted by Egbert.

Fact 992: Accurately described as a cross between the sporty, fiberglass two-seat Corvette (which averaged 21,871 sales in 1963–1964) and the four-seat Thunderbird (which averaged 79,573 sales in 1963–1964), Egbert's anticipation of 12,000 Avanti sales per year was a realistic goal. Pricing was also competitive. Avanti's \$4,445 base sticker was an exact match to the 1963 Thunderbird Hardtop (Ford raised it to \$4,486 in 1964). The Corvette Sting Ray coupe (in its first years of availability) was \$193 less with an average list price of \$4,252. The real problems turned out to be availability (see Fact #991) and a valid concern among the buying public that Studebaker was about to become an orphaned brand. Press reports of Studebaker's constant struggle were seemingly constant at the time. Would you buy a car from a company you knew was about to go out of business?

Fact 993: Despite the ultimate closure of Studebaker's South Bend auto plant (and a few final gasps from Canada) Nate Altman's Avanti Motors was a thriving concern. Even after Altman's death from pneumonia in 1976, a succession of owners kept the flame burning for decades. The first Avanti II was completed on July 22, 1965, and shown to the public on August 2 of the same year. Free from federal impact and emissions standards until later years, Altman's concern flourished and vindicated Loewy's design. Between 1965 and 1991 a total of 2,251 Avanti 11's were constructed. Here's an annual breakdown: 1965, 45; 1966, 59; 1967, 66; 1968, 100; 1969, 92; 1970, 117; 1971, 107; 1972, 127; 1973, 106; 1974, 123; 1975, 125; 1976, 156; 1977, 146; 1978, 142; 1979, 179; 1980, 168; 1981, 195; 1982, 188; 1983, 289; 1984, 200; 1985, 100; 1986, zero; 1987, 200; 1988, 150; 1989, 200; 1990, 90; 1991, 15.

Fact 994: 915 bucks. That was the price difference between a base 1964 Pontiac GTO convertible (\$3,081) and an R3-equipped 1964 Lark Daytona hardtop (\$3,995.70). Meanwhile, a new K-code 289 to 271 Mustang hardtop with 4-speed and limited-slip differential cost \$2,874.50, a whole \$1,121.20 less than the boxy supercharged Stude. With all this tempting showroom competition, you really had to want a Studebaker and it is little wonder that only one R3 Daytona hardtop was built (a road test appeared in the January 1964 issue of Hot Rod magazine).

A decade ago, I was shocked and saddened to discover an R1-equipped 1964 Lark Daytona in a Riverside, California, self-serve wrecking yard. The Carter 4-barrel, T-10 4-speed, Twin Grip Dana 44, Bendix disc brakes, torque links, and radio-delete plate were still present. Lacking the means to save it, I snatched the radio-delete plate and all five 15x4.5 Budd rims (including the spare). When I returned a week later, the 4-speed and Dana 44 had been scavenged. Tragically this rust-free rarity went to the crusher 30 days later. (See Fact #973 for more.)

Fact 995: “In 1946, Packard instituted an engine development program to explore the possibilities of new and novel engine designs suitable for future production as successors to the venerable straight eight . . . By 1949 most of the details of the new Packard engine were established; that is, nearly everything except the piston displacement which was originally set at 269 cubic inches. The leaps and bounds by which other manufacturers increased piston displacement, power and torque prompted Packard engineers to reconsider and redesign . . . So they went to the other extreme and made the production engines big, with provisions for going bigger whenever the need arises.” Racer Brown’s technical analysis in the August 1955 issue of Hot Rod magazine hints at Packard’s displacement-based design strategy. While Chrysler banked on efficient combustion chambers and General Motors assumed ever-increasing compression ratios (and the high octane gasoline needed to support them), Packard knew there’s no replacement for displacement!

Fact 996: 70 cubic inches separated the Studebaker 304 from the Packard 374, which was the maximum production-line displacement offering from each respective engine family. While the Studebaker’s 4.50-inch bore center spacing was a limiting factor and the 304 was pretty much tapped out from its 232-inch launch size, at 374 cubes, the Packard was just getting started. The irony is that the displacement-challenged Studebaker design weighed about the same as Packard’s seedling. Historians like to speculate about what might have been.

If the winds had blown differently during the 1954 Packard-Studebaker merger, the Studebaker V-8 would have been scrapped and the Packard V-8 carried forward. I like to envision Studebaker’s 1962 Super Stock package. How about a Scotsman two-door post with cardboard door panels, a rubber floor mat, fiberglass fenders, hood, and trunk, and radio delete? Power would come from a 425-inch Packard with Caribbean-spec dual-quads and a Hurst-shifted Borg-Warner T-10 poking through the floor. Toss in an R3-spec Dana 44

rear axle (one piece axles), torque links, Twin Traction differential with 4.44 gears, and you'd have a legendary machine. Oh, what might have been.

Fact 997: Many 1956 Golden Hawk owners dispute the 1957 Rambler Rebel four-door's claim as the first big-engine/small-car muscle car combination. With its Packard-sourced 352, the 1956 Golden Hawk delivered 275 hp and 380 ft-lbs of torque down at 2,800 rpm. In 1957 the Studebaker-built supercharged 289 replaced the naturally aspirated 352 and 63 cubes fell by the wayside. Horsepower remained 275 but torque dropped to 333 ft-lbs at 3,200 rpm despite 5 psi of blower boost.

In the December 1956 issue of Motor Life, road tester Ken Fermoye witnessed a drag race between the two engine types at Studebaker's South Bend proving grounds: "In an acceleration test the 1957 took the 1956 by a comfortable margin. The 1956 (352) led by a nose for the first few car lengths; then, as the 1957 (supercharged 289) got its revs up, it took over and was ahead all the way up to 80 mph." Some of the difference in performance likely came from the claim the 1957 was 120 pounds lighter than the 1956, with Fermoye citing the heft of the iron Packard Ultramatic transmission as a burden versus the lighter Borg-Warner slushbox fitted to the 1957.

Fact 998: In a hint of things to come, Motor Life magazine's test of a 1958 Packard Hawk (June 1958 issue) made this observation: "S-P's use of fiberglass in reshaping of the basic Hawk front end design, incidentally, is a good indication of how valuable this material can be for cases where only a limited-production volume is expected." Proof that fiberglass was ready for mass consumption appeared just a few years later. The Studebaker Avanti's all-fiberglass, closed body was the first of its type in the US market. Production began in February 1962, a full six months before the first Corvette Sting Ray coupe left the St. Louis assembly line in September of the same year.

Fact 999: The author of a November 1962 new-car roundup story in Hot Rod magazine offered mixed reviews for the Avanti: "Brakes for the Avanti are unbelievable. An appropriate word would be fantastic. Bendix disc brakes are used on the front wheels and drum brakes on the rear. The car will stop quicker from 100 mph than most cars can from 50 mph. They are by far the best ever produced on an American car." The controversial body was another matter; "styling of the Avanti seems to affect the public just two ways; they're either crazy about it or dead against it."

Fact 1,000: "A little too much forward thrust in the heat of a top rpm upshift and the stick might slide through 2, D, N, . . . and into Reverse! How's that for an easy way of killing an engine and transmission plus \$582 dollars worth of supercharger, etc.? We would think that converting both Park and Reverse to lockout positions would be a wise move on Studebaker's part." Hel Kemper, writing in the July 1963 issue of CARS magazine wasn't impressed by the floor-mounted automatic transmission control stick in his R2-powered 1963 Super Hawk test car. The questionable shift lever was part of the \$275 Power-Shift automatic transmission option (a 4-speed manual was also available for \$188.30). Either transmission was an extra-cost item on top of the \$581.70 cost of the Paxton-assisted 289.

Fact 1,001: Carmakers often build public interest in new products by aligning them with celebrities. Such was the case in 1962 when Studebaker gave a new Avanti to Indy 500 winner Rodger Ward, making him the world's first Avanti owner. But the famed race driver had to wait several weeks before he took delivery so Studebaker could tour the giveaway car and milk its PR value. A hand-written note on the car's build sheet read "Hold for Roger Ward." Maybe it should have read "Hold from Rodger Ward." Of note is the fact the Avanti was not the official 1962 Indy Pace Car. That honor went to the Lark Daytona convertible.