

CAR and DRIVER ROAD TEST

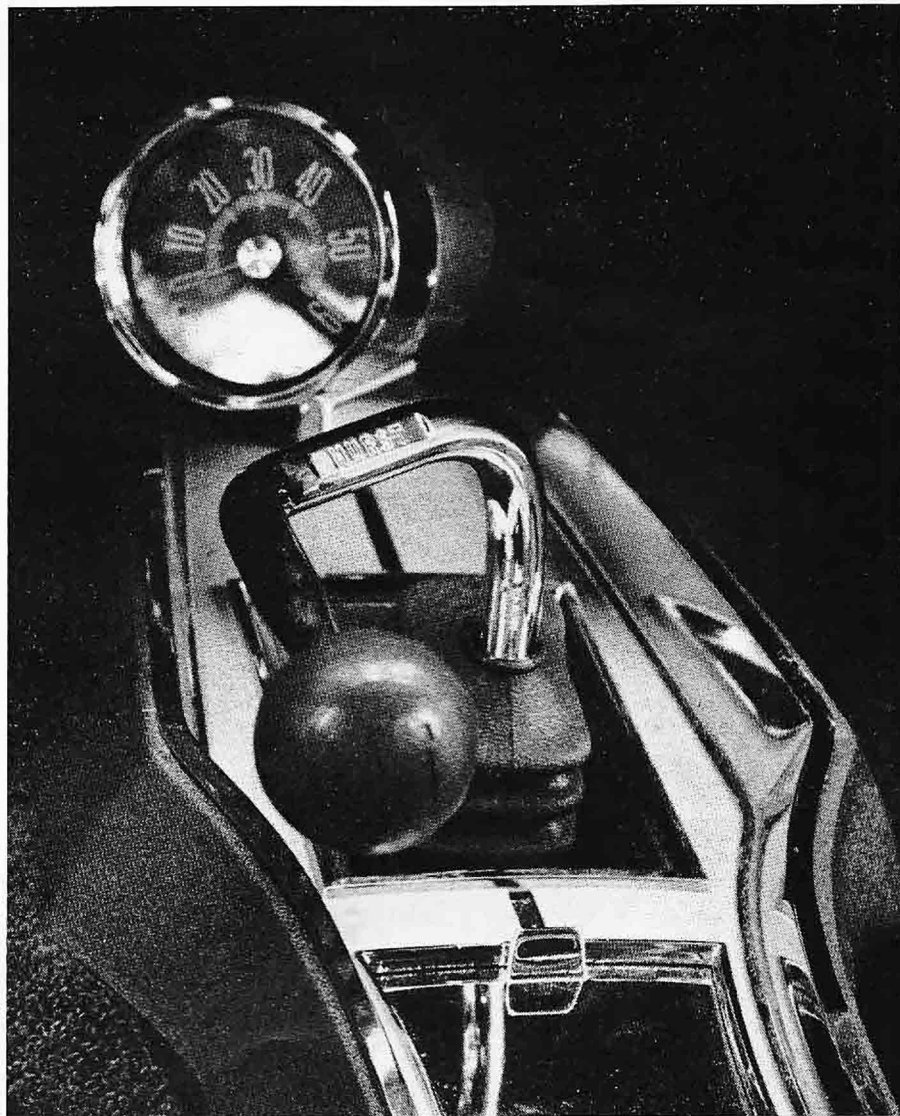
Dodge Dart GTS

We figure that the "S" stands for sneaky.

GT-what *this* time? Suddenly we're like the tiny cartoon characters who are crouched sideways, hands and arms outstretched, ready for any manner and form of animal or device to leap out from the world to attack. Lately it's been a GT, and they've gone from A to Z so *naturally* it's been only a matter of time until the GTS came along.

Maybe GTS stands for something fairly obscure. Maybe GTSneaky for those Chrysler engineers who have made a modest sized 340 cubic inch V-8 put out more horsepower than even the insurance companies would believe. Or perhaps GTSuper for a car able to leap a wide variety of public roads in a single bound with only a polite grunt to mark its passing. Or even GTSilly which describes offering both 340 and 383 cubic inch engines when each produces substantially identical performance. According to Dodge it's GTSport which is descriptive to a degree that only ad men and product planners have mastered.

Dodge wants it GTSport, so GTSport it will be although the car is clearly conservative in the appearance department. The stylists have tried very hard to convey a racer impression by painting part of the grille black, fastening die-cast, incredibly remote facsimiles of intake stacks onto the hood and bolting GTS signs in strategic locations. The Dart defies their best efforts and manages to blend into the greenery as though it had been practicing. Funny thing, though—whenever we stopped at a gas station or parked it at some event that drew the youthful car culture we were immediately greeted by queries, "... uh, 340?" Offhand that may seem aboriginal, but in the lexicon of the young it was also remarkable in itself because nowhere on the Dart's exterior is there any mention of the engine. "How does it do against Road Runners?" Information gathering for the mandatory street racer classifying system. Then comes the astounding part. "It's only rated at 275 hp but really it puts out about 350." *They* were telling *us*. When it comes to finding out about cars those kids easily have the CIA covered. None of them want to spend their hard earned dollars for a sheep in wolf's clothing so the word gets through the underground pretty fast about who is building stones and



whose cars really can do the job.

The latest word from the underground is that the little Mopar 340 is the hot set-up. A giant killer from Hamtramck. We're believers.

In concept the 340 is just a big-bore version of the 273-318 series V-8s which have been quietly going about their duties under Plymouth and Dodge hoods for years. The 340's 4.04-inch bore is a monstrous hole when compared to the 3.63-inch bore of the 273 but the stroke remains the same at 3.31

inches. To make sure the 340 lives under the hard use that a high revving engine like this can expect, the bottom end consists of a heat-treated, forged steel crankshaft with stronger connecting rods of a new design. In the Chrysler engineers' eagerness to get horsepower out of their new little engine, not a single part that might restrict breathing escaped redesign. Starting with the cylinder heads, they simply threw the old ones out and started all over again. All of that resulted in very generous ports with 2.02-

The stylists did their best to make it stand out but the GTS blends into the greenery as though it had been practicing. It was up to the engineering department to make it stand out.

inch intake and 1.60-inch exhaust valves. (For comparison they're exactly the same size as the high performance small-block Chevrolet valves.)

Then came the new low-restriction 2-level intake manifold and 4-bbl. Carter carburetor with air valve secondaries. To let everything out in the same style that it got in, the exhaust manifolds were also completely redesigned.

A little known fact about 340s is that the manual transmission version gets a different camshaft than the automatic—a cam with more lift and duration which should make more power although both engines remain rated at 275 hp.

Because the 340 was intended to be very effective in high speed ranges, no effort was spared to make sure that it didn't give away any horsepower when you're twisting it. For that reason things like a viscous-drive fan, dual-point distributor and a windage baffle in the crankcase to prevent the crankshaft from playing egg beater with the oil are all part of the package. Because of its 10.5 to one compression ratio, the 340 requires premium fuel, but that's par for the course in the high performance world. As we've already said, the intrepid Chrysler engineers bravely stuck their necks way out and rated this strong-hearted little engine at 275 hp at 5000 rpm. We'd be the last to accuse anyone of underrating but the underground isn't kidding when they say 340s shoot Darts down the road in a 350-hp fashion.

The test car was a 4-speed version with a 3.91 rear axle ratio which right away tells you that it wasn't built with top speed in mind. Still, you could hardly call it a serious drag strip car either since its option list included almost every weight adding device available on Darts—with the exception of air conditioning—which brought the curb weight up to 3480 pounds. Nothing that the 340 couldn't cope with, however, because standing quarter miles were a matter of 14.4 seconds at 99 mph. Nothing to be trifled with—and nobody has to be told *that* either. The engine willingly revs to 6000 rpm, the highest number on the tach, but the best times were obtained by shifting at 5500 rpm.

The real question is whether a 3.91 gear is unbearable on the street. We would have thought so, but after 2000 miles of both turnpike and city traffic driving we've concluded that the 340 and a 3.91 gear are admirably suited to each other. The benefits are obvious. The 340 tends to be slightly short on torque so the deep ratio helps to get through the weak spot in a hurry. It also makes the car very easy to drive. You can get launched without bogging—which is difficult to avoid with the standard 3.23 ra-

tio. The big surprise is that engine noise isn't objectionable in a 70 mph cruising situation. The hydraulic lifters are, of course, totally silent. The exhaust is quiet to the point of being almost overmuffled from the enthusiast point of view, but probably most important is the viscous-drive fan which significantly reduces cooling fan noise at high engine speed. Strangely enough, the only time noise ever becomes objectionable is at idle when the manifold heat valve sets up a ruckus that wouldn't even be tolerated in a Maytag. This clatter has been a characteristic of every 340 we've driven, which indicates that a little help is needed in the design department.

The last point in favor of the high numerical axle ratio, or at least not against it, is that fuel economy doesn't suffer appreciably. The Dart averaged over 14 mpg in a trip from Detroit to New York when cruising speeds were held in the 70-75 mph range wherever possible. The poorest tank average was 11 mpg which included the acceleration tests.

The big news for 4-speed fanciers is that Hurst shift linkage is once again standard equipment, thanks to a mid-year change. When Chrysler first introduced its beefy 4-speed transmission in 1964, the Hurst linkage was included as a standard part of the package. Everything was fine until the product planners, always on the lookout for some new, trick device, spotted a Ford with a reverse lock-out on its shifter. With lightning speed it was decided that reverse lock-out triggers would be a part of every Chrysler 4-speed too. Black were the years between 1966 and 1968½—the years of the infamous wet-noodle shifter as it was known by the dissenters within Chrysler's engineering walls—the shifter that required readjustment after every hard shift. You know, the one with the buzzing reverse trigger.

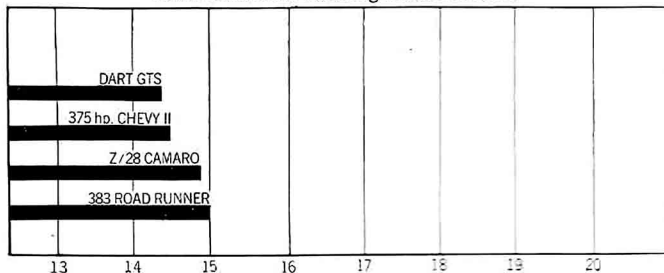
Anyway, forget the past because once again Hurst has taken up residence in Dart consoles, supplying the solid and precise feeling that makes manual transmission cars fun to drive. Chrysler 4-speeds have always been of the high shift effort variety, higher than any other domestic box, and that hasn't changed. Trying to engage low gear when stopped is a task whose difficulty is exceeded only by trying to find reverse. As an apparent acknowledgment of the problem, a reverse indicator light under the instrument panel lights whenever the shift lever is pushed fully home in the R-slot. It doesn't make reverse any easier to *engage* but at least you know when you're there.

About here the shape of the shift lever
(Text continued on page 69;
Specifications overleaf)

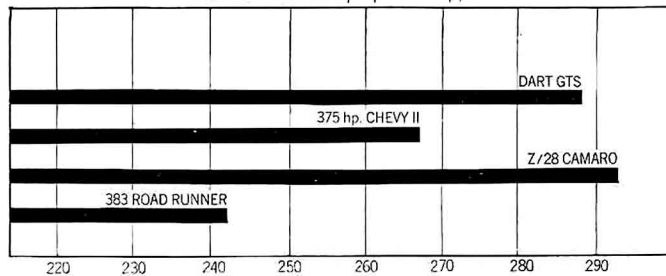


NOTE: Image Damaged in original magazine.
We are seeking an undamaged Copy

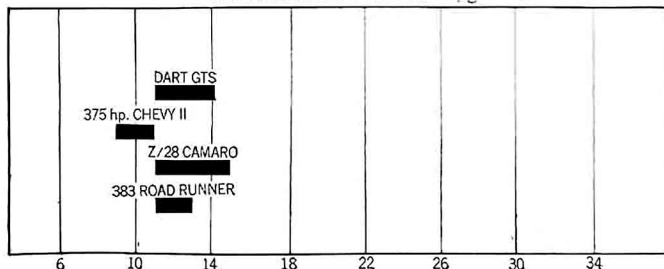
ACCELERATION standing 1/4 mile, seconds



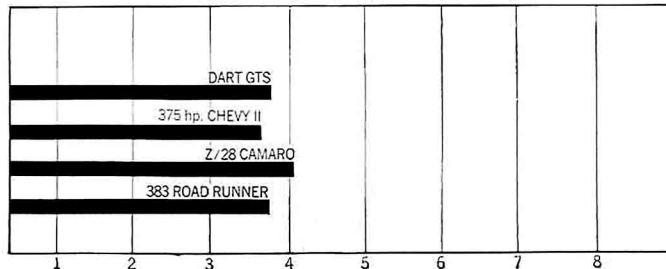
BRAKING 80-0 mph panic stop, feet



FUEL ECONOMY RANGE mpg



PRICE AS TESTED dollars x 1000



DODGE DART GTS

Manufacturer: Dodge Division
Chrysler Corporation
7900 Joseph Campau
Detroit, Michigan 48231

Vehicle type: Front-engine, rear-wheel-drive, 5-passenger, 2-door hardtop

Price as tested: \$3795.30

(Manufacturer's suggested retail price, including all options listed below, Federal excise tax, dealer preparation and delivery charges; does not include state and local taxes, license or freight charges)

Options on test car:

Dart GTS including 340 cu. in. engine, paint stripe, 4-speed transmission, E70-14 tires (\$3189.00), vinyl roof (\$75.10), radio group (\$182.45), light package (\$22.15), power brakes (\$41.75), disc brakes (\$72.95), bumper guards (\$25.30), console (\$50.10), wood rim steering wheel (\$25.95), tachometer (\$51.10), undercoating and hood insulating pad (\$16.10)

ENGINE

Type: V-8, water-cooled, cast iron block and heads, 5 main bearings
Bore x stroke: 4.04 x 3.31 in, 102.7 x 84.0 mm
Displacement: 340 cu in, 5580 cc
Compression ratio: 10.5 to one
Carburetion: 1 x 4 bbl Carter AVS
Valve gear: Pushrod-operated overhead valves
Power (SAE): 275 bhp @ 5000 rpm
Torque (SAE): 340 lbs/ft @ 3200 rpm
Specific power output: 0.81 bhp/cu in, 49.4 bhp/liter

DRIVE TRAIN

Transmission: 4-speed, all-synchromatic
Final drive ratio: 3.91 to one

Gear Ratio	Mph/1000 rpm	Max. test speed
I	2.66	39 mph (5500 rpm)
II	1.91	54 mph (5500 rpm)
III	1.39	75 mph (5500 rpm)
IV	1.00	114 mph (6000 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase	111.0 in
Track	F: 58.1 in, R: 56.3 in
Length	195.4 in
Width	69.7 in
Height	52.8 in
Ground clearance	5.9 in
Curb weight	3480 lbs
Weight distribution, F/R	55.8/44.2%
Battery capacity	12 volts, 48 amp/hr
Alternator capacity	444 watts
Fuel capacity	18.0 gal
Oil capacity	4.0 qts
Water capacity	18.0 qts

SUSPENSION

F: Ind. upper wishbones, single lower arms with struts, torsion bars, anti-sway bar
R: Rigid axle, semi-elliptic leaf springs

STEERING

Type: Recirculating ball, power assisted
Turns lock-to-lock: 3.5
Turning circle curb to curb: 41.5 ft

BRAKES

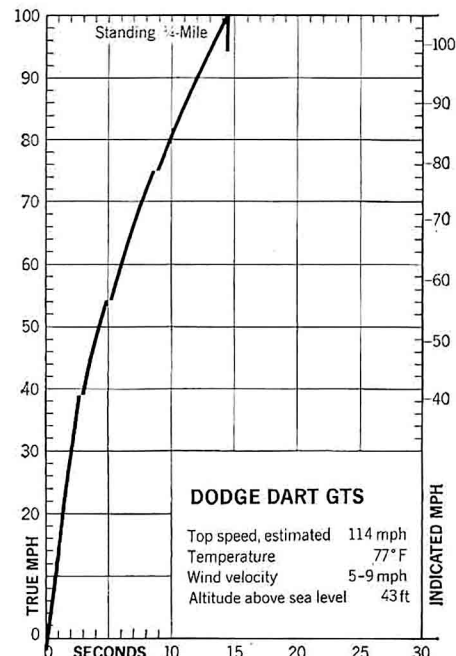
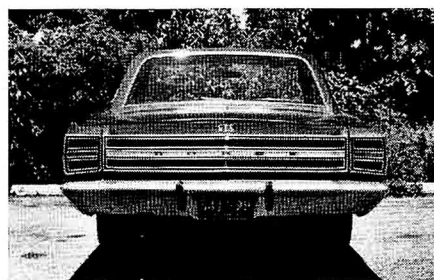
F: 10.8-in vented disc, power assisted
R: 10 x 1.75-in cast iron drum, power assisted

WHEELS AND TIRES

Wheel size: 14 x 5.5-in
Wheel type: Stamped steel, 5-bolt
Tire make and size: Firestone E70-14
Tire type: Tubeless, 4 P.R.
Test inflation pressures: F: 26 psi, R: 26 psi
Tire load rating: 1120 lbs per tire @ 24 psi

PERFORMANCE

Zero to	Seconds
30 mph	2.0
40 mph	3.2
50 mph	4.3
60 mph	6.0
70 mph	7.7
80 mph	9.9
90 mph	12.2
100 mph	14.5
Standing 1/4-mile	14.4 sec @ 99.0 mph
Top speed	114 mph
80-0 mph	288 ft (.74 G)
Fuel mileage	11-14.5 mpg on premium fuel
Cruising range	198-256 mi



DODGE DART GTS

(Continued from page 46)

comes in for some comment. The stylists, with the stylists' eye for what's right, decided that it must come through the widest part of the console and right in the middle. That the hole in the console is a foot forward of the spot where the shifter comes through the floor is merely a problem for the engineering department. The result is a shift lever that looks as if Charles Atlas got mad at it, but fortunately function is in no way impaired.

Just when you conclude that Chrysler is really tuned in to the performance market you discover the tachometer, mounted on the console under the instrument panel. There can be no rational explanation for locating such an important instrument so far from the driver's line of sight. The tach's less-than-precision nature, particularly when cold—which allows the needle to waver over a 1000 rpm range on the dial when the engine is operating at a steady speed—plus the incredible location, makes it the biggest waste of \$51.10 we've come across in some time.

Heavy duty suspension, which is standard equipment on the GTS, certainly rates high marks in the handling department. It has a modest understeering nature which most drivers will find very secure for any type of road driving. The only improvement we would suggest would be to control the movement of the rear axle which bounces around more than is comfortable on rough surfaces.

In the past we've been very critical of the power steering in Chrysler's small cars blaming the lack of road feel on the very low steering effort. As we drive more of these cars we've discovered that although the effort is approximately the same in all of them, the road feel varies widely from one car to the next. The problem actually results from a large amount of free-play

encountered when reversing the direction of the steering wheel in some cars and is apparently a matter of quality control rather than a design fault. The accuracy of the steering in the test Dart was more than acceptable.

Only in braking does the Dart fall short of the ability expected of a high performance automobile. The power-assisted disc brakes respond predictably with very reasonable pedal effort to normal stopping demands, but when an emergency arises you're really in trouble. Any sort of maximum effort stop with the manual transmission car sends the rear axle into a violent hop and the disc/drum system is proportioned in such a way that straight line stops are out of the question. After an 80-0 panic stop the Dart was invariably broadside to the direction of travel, the only consolation being that in each stop it consistently turned in the same direction. Inside, the driver has the sensation of a violent, shaking doom which is reinforced by the screws coming loose and raining on his legs from under the instrument panel. The managing editor, who was stationed along the strip to measure braking distances, reported seeing daylight under the rear wheels on every hop. No wonder the Dart requires 288 feet (0.74G) to stop from 80 mph. How can it be expected to do any better when its wheels only touch the ground half of the time? It's true that the hop never gets started if the clutch is depressed at the time of brake application.

To meet government safety standards the lower portion of the Dart's instrument panel has been padded in such a way that it actually forms a shelf useful for storing cigarettes, parking meter change and other small necessities for travel. The Dart's instrumentation is easily readable and complete with the exception of a warning light which supplies oil pressure information. Chrysler

products traditionally have more complete instrumentation than their competitors, and for that they deserve credit.

We found the Dart's driving position difficult to get used to. The seat is very low, creating the impression that the driver is sitting in a hole. The steering wheel is so high that you have to reach up for it and diminutive ladies have trouble seeing over—a kind of automotive equivalent to Ape-Hanger handlebars. It does make for plenty of headroom though, if you like to wear high hats while driving.

The Dart's interior is fully covered with vinyl which is easily cleanable and looks smart but is definitely lacking comfort in times of extreme temperature. To make matters worse, the seats are covered in a completely rib-free design which assures that every square inch of your backside contacts the unventilated surface. Cloth inserts in the seats would make a highly desirable option.

The interior ventilation provided in the Dart by traditional corner vent windows is complimented by two trap doors under the instrument panel—one on each side. The amount of air and its direction can be controlled by the position of the doors, which we think is a simple and effective system.

After more than 2000 miles in the GTS we find it to be an endearing machine which does exactly what it's supposed to do—brakes excluded, of course. The 340 engine is an eager performer and remarkably tractable considering its output. Easily the most exciting engine Chrysler has produced since the Hemi. The car is well constructed with a unit body free of shakes and groans even though road noise is present to a noticeable extent. Its greatest virtue is that it can cover great stretches of public roads with ease and yet never be boring. Even the picture editor, who we'd like to think didn't have a clue about anything but cameras, tries to get dabs on the Dart whenever he can. ●

SPA '68

(Continued from page 43)

Stewart got his feet stuck between the pedals at the start and the two Ferraris streaked off ahead of him. But after three-and-a-half minutes Surtees got between them and came past firmly in Amon's slipstream. At Blanchimont, on the second lap, Amon encountered the aging Bonnier wandering along in the fast line nursing a set of broken wheel studs. In the panic, Surtees took the Honda into the lead with Amon hanging on for eight laps until the Ferrari picked up a stone in the radiator and retired. Two laps later, Surtees lumped the Honda into the pits with a broken chassis, and Hulme and Stewart were left to fight for the lead. Driving mostly one-handed, Stewart swapped places with Hulme until the McLaren broke a driveshaft 10 laps from the finish. This left the Matra 30 seconds in front—a lead Stewart held until he ran out of gas.

In the meantime, Hill had retired the

Lotus at Burnenville with driveshaft trouble, both Brabhams had been long gone, and on the sixth lap Redman had crashed badly. Climbing up the hill from the pits, he had braked from 160 mph for Haut de la Côte, but, "It wouldn't steer, it just wouldn't steer," he said. The Cooper's right front suspension had collapsed. The car climbed the guard rail, hit a turn marshal, breaking his back, sent one parked car crashing into another, and caught fire. It was extinguished immediately and Redman was taken out with a broken arm and a slightly burned hand.

The rest of the novices fared a lot better. Attwood dropped out of 12th place after six laps when the BRM overheated. Oliver circled cautiously until a driveshaft broke two laps from the finish, which still gave him fifth place behind Stewart. Beltoise, in the flattest-sounding V-12 you ever heard, trailed home in seventh place, three laps behind Bianchi.

It was over.

The banshee wail that had echoed through the hills all afternoon finally ceased.

Within two hours the cars were loaded up, the 20,000 spectators had left, and the road was handed back to the common man, with nothing to show it'd been a stage for the Grand Prix circus but a shadow of rubber wandering gently across it from one side to the other. And alone, at the top of the valley, Mme. Anna Nailis could walk safely out to the terrace beside her cafe and collect the empty glasses in the gathering dusk. ●

BELGIAN GRAND PRIX Spa-Francorchamps, Spa, Belgium June 9, 1968

1. Bruce McLaren	McLaren Ford V-8	28 laps
2. Pedro Rodriguez	BRM V-12	28
3. Jackie Ickx	Ferrari V-12	28
4. Jackie Stewart	Matra-Ford V-8	27
5. Jackie Oliver	Lotus-Ford V-8	26
6. Lucien Bianchi	Cooper-BRM V-12	25
Average speed: 147.147 mph		
Fastest lap: John Surtees, Honda V-12, 3:30.5 (144.844 mph), new record		