



CAR LIFE
ROAD TEST

DUSTER 340

The re-roofed budget-racer Valiant is lighter, faster and roomier than the new Barracuda. The old way is the best way.

THE FRENCH have a word for it: That little kick of the mind, when the object seen is so familiar it seems it's happened before, is *deja vu*. Plymouth's Duster is *deja vu* of the spirit. The shape and the name are new, but we've seen the concept before.

Twice. The first Barracuda was a Valiant with another roof. The Road Runner was the baseline sedan, with a performance engine and a bargain price. Take both ideas and you have the Duster 340, a re-roofed Valiant with a performance engine, priced to sell. Add pocket Road Runner to bargain Barracuda and you get about two and one-half.

The roof lift was not without some loss of line, meaning nobody here is willing to go to the barricades in defense of the Duster's looks. A clean grille, Firebird taillights and Nova notched rear windows don't blend as well as they might. And the test car had the vinyl roof covering. The body wasn't designed for it, and the plain metal top looks better. Our opinion, of course, and if vinyl turns you on, buy one.

Styling aside, the Duster begins with an advantage. It is light, several hundred pounds less weight than the 340 Barracuda tested last month. With the same engine, transmission and axle gears, the Duster puts the hurt on the Barracuda from the first green. A 14.72-sec. E.T. is better than any stock 'Cuda we've tried, not to mention a swarm of big-inch cars. The Valiant proper is a carry-over for 1970, and nobody had a chance to add things to it. So the weight hasn't gone up the way it did in the all-new cars. There is a traction problem on a slick surface, but we've been hanging around dragstrips lately, and we have a hunch that with enough bite, perhaps with legal tricks like shocks and spring clamps, a Duster owner could clean up in pure

stock without doing anything more than getting a blueprint tune.

The engine and transmission should be so familiar by now to make explanations redundant. The TorqueFlite is excellent. The 340 is better than that. In terms of power for money, reliability for weight, it's the best Mopar has. It isn't promoted the way it might be, a deplorable thing to do to such a keen engine. We keep telling you about it, rather than heaping more abuse on the 383, so you will rush out and buy one, protecting performance fans who may want one later. Plymouth keeps thinking about letting the 340 go, and we are campaigning to keep it. The idle is smooth, and power comes on so soon that we know a man who complains about too much torque. Too much in first becomes a blinding flash in second, and a boot in the back in third, so that's no flaw. And the 340 winds easily to 6000 rpm, past rated peak. Deliberate, probably. The 340 produces closer to 325 bhp than the 275 claimed for it. The factory wouldn't file a false figure with NHRA, but they could stop taking readings before the engine was doing its all, now couldn't they?

Nothing is perfect. The fuel line still is too close to the water pump. We found it so on our blueprint '69 Barracuda, and there it was again on the 1970 test car, and they hadn't read the magazine by the time the Duster was built. You can move it yourself, and cure fuel percolation in five minutes.

The test Duster had the optional front disc brakes, with assist. Chrysler is reluctant to promote this good thing, too, or the makers don't have the production capacity, but the front discs seldom come on cars from the factory. They are worth ordering. The figures in the data panel aren't as good as they should be. The regular test track was on vacation when we had the car, and





OUR FAVORITE Mopar engine, the 340, is the perfect engine, and is easily serviced in the lightweight Duster.



BIG TRUNK has spare hidden under the floor. Second tube under fender is vapor separator for smog control.

DUSTER

continued

the braking test was done on another track, with a slicker surface. So the readings were only good, and the stopping distance was longer than we've seen on cars with comparable systems. Sorry about that. Better a test with

apologies than no test at all.

The car did not have the power-assisted steering. It's virtually standard equipment by now, and worth having. There is no consensus here on the best way to buy Mopars. Chrysler's power steering is the lightest offered by a domestic company. It does not have the road feel of the GM variable-ratio system. There are those who say it takes time to sense any feel at all. There are those who say the quick non-boost

steering is too confounded heavy. But nobody liked the standard steering. Takes lots of effort in tight spots, and it's woefully slow all the time.

The lack of enthusiasm for the steering only added to the distress recorded by the Dusters' behavior on the handling course. Somebody has been tampering with Plymouth's suspension. The Duster had the stiffer springs that come with the 340 engine. The rear felt firm enough, maybe more than

1970 DUSTER 340



DIMENSIONS

Wheelbase, in.	108
Track, f/r, in.	57.4
Overall length, in.	188.4
width	71.6
height	52.6
Front seat hip room, in.	51.5
shoulder room	55.4
head room	37.2
pedal-seatback, max.	40
Rear seat hip room, in.	54.4
shoulder room	55.1
leg room	29.6
head room	35.5
Door opening width, in.	42.5
Trunk liftover ht., in.	33

PRICES

List, FOB factory	\$2547
Equipped as tested	\$3155
Options included: Standard equipment includes (on Duster 340) 340 engine, dual exhaust, front disc brakes, 3-speed manual trans, floor mounted, heavy duty suspension, heavy duty shocks, wider wheels, rally instrument panel.	

CAPACITIES

No. of passengers	4
Luggage space, cu. ft.	14.5
Fuel tank, gal.	18
Crankcase, qt.	4
Transmission/dif., pt.	16/4
Radiator coolant, qt.	16

CHASSIS/SUSPENSION

Frame type: Unitized.	
Front suspension type: Independent, short and long arms, torsion bars, antiroll bar.	
ride rate at wheel, lb./in.	100
antiroll bar dia., in.	0.88
Rear suspension type: Live axle, multileaf springs.	
ride rate at wheel, lb./in.	132
Steering system: Manual type recirculating ball gear, parallelogram linkage behind front wheels	
overall ratio	28.7:1
turns, lock to lock	5.3
turning circle, ft. curb-curb	37.8
Curb weight, lb.	3105
Test weight	3520
Distribution (driver)	
% f/r	55.5/44.5

BRAKES

Type: Disc front, drum rear: proportioning valve.	
Front rotor, dia. x width, in.	10.79
Rear drum, dia. x width	10 x 1.75
total swept area, sq. in.	314.7
Power assist	
line psi at 100 lb. pedal	800

WHEELS/TIRES

Wheel rim size	14 x 5.5J
bolt no./circle dia. in.	5/4
Tires: Goodyear Polyglas.	
size	F70 x 14

ENGINE

Type, no. of cyl.	V-8
Bore x stroke, in.	4.04 x 3.31
Displacement, cu. in.	340
Compression ratio	10.5:1
Fuel required	premium
Rated bhp @ rpm	275 @ 5000
equivalent mph	115
Rated torque @ rpm	340 @ 3200
equivalent mph	73.4
Carburetion: 1x4 Carter AXS.	
throttle dia., pri./sec.	1.44/1.69
Valve train: Hydraulic lifters, pushrods and overhead rocker arms.	
cam timing	
deg., int./exh.	22-66/74-22
duration, int./exh.	268/276
Exhaust system: Dual, reverse flow mufflers.	
pipe dia., exh./tail	2.25/1.88
Normal oil	
press. @ rpm	45-65 @ 2000
Electrical supply, V./amp.	12/37
Battery, plates/amp. hr.	54/48

DRIVE TRAIN

Transmission type: Three-speed automatic TorqueFlite.	
Gear ratio 3rd (1.00) overall	3.23:1
2nd (1.45)	4.69:1
1st (2.45)	7.91:1
1st x t.c. stall (2.1:1)	16.61
Shift lever location: Column.	
axle ratio	3.23:1



PHOTOS BY GORDON CHITTENDEN

PLAIN upholstery justifies the price tag. Buckets are optional.

that. Dips in the road came through ker-bump every time, even with driver only in the car. At speed, the car understeered, to the same degree displayed by the Barracuda last month. Most of the time, this is due to inadequate spring rates in back. Not so this time. The cornering pictures show severe camber loss, that is, the front wheels are leaning away from the car. Ideally, they would lean in, to brace the tire against lateral force and keep

the tread flat. Some tip is unavoidable in any passenger car, but this was more than it should be. The outside wheel has knuckled under, the inside has lifted half its tread off the pavement.

The picture shows an extreme condition. The driver was baffled, then angered by the Duster's persistent plow on turns. Sudden bursts of power only pushed harder, until the rear tires gave way and the tail came out, so quickly that the steering wheel couldn't be whirled fast enough to save things, or keep the car in a power oversteer. So the car was pitched into the turns by short, hard jabs on the brake. In this artificial way, the Duster could be forced into a neutral attitude, even though the front wheels were cranked all the way over into the turn.

This is no fun. It is a desperate way to motor along, and should under no circumstances be done on public roads. There is nothing left for emergencies at this point. The Duster will drive well at half its maximum cornering speed,

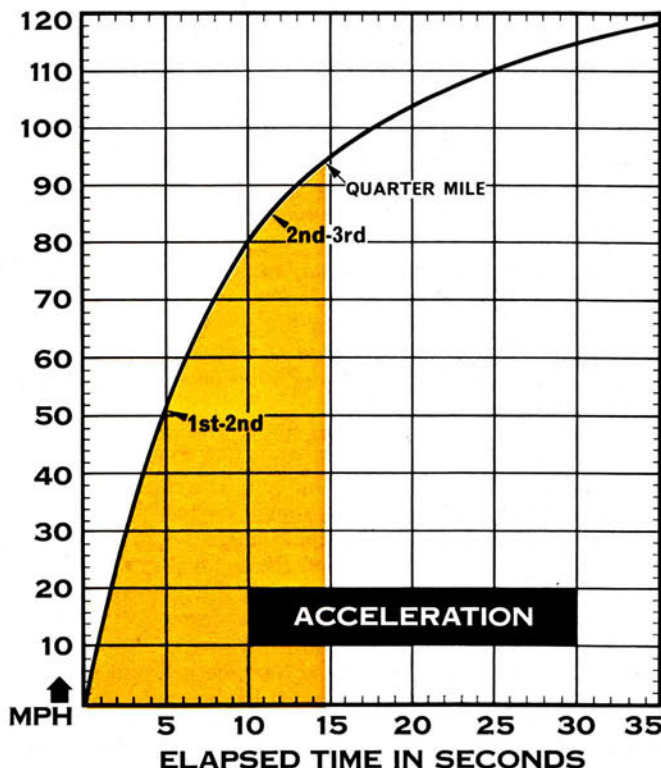
and can be driven at its white-knuckled limit, but not in between. Here, the original Barracuda was a better car.

The cure is not going to be simple. The winning road racing sedans are usually set so that the inside front wheel lifts off the ground at maximum cornering. It's done by making the front springs stiffer and stiffer until the wheel is carried through the corner. The Duster is just about there.

The next step is to make the rear springs stiffer and stiffer, until there's enough roll resistance dialed in to give neutral cornering. The springs in the test car, as mentioned, were firm enough to call attention to themselves in normal driving. Perhaps the rear anti-roll bar that was announced for the 340 Barracuda last summer will also be fitted to the Duster 340, with softer springs. When the rear bar appears on the Barracuda. If it does.

With that much understeer on corners, you'd expect the car would go straight as an arrow on the highway.

CAR LIFE ROAD TEST



CALCULATED DATA

Lb./bhp (test weight)	12.8
Cu. ft./ton mile	145.8
Mph/1000 rpm (high gear)	23.0
Engine revs/mile (60 mph)	2610
Piston travel, ft./mile	1440
CAR LIFE wear index	37.6

SPEEDOMETER ERROR

Indicated	Actual
30 mph	28
40 mph	38
50 mph	48
60 mph	58
70 mph	67
80 mph	76
90 mph	85

MAINTENANCE

Engine oil, miles/days	4000/90
oil filter, miles/days	8000/180
Chassis lubrication, miles	36,000
Antismog servicing, type/miles	
tune up check and PCV valve replacement/12,000	
Air cleaner, miles	replace/24,000
Spark plugs: Champion N-9Y	
gap, (in.)	0.035
Basic timing, deg./rpm	.5 BTC/900
max. cent. adv., deg./rpm	22/4000
max. vac. adv., deg./in. Hg.	8.5/10.5
Ignition point gap, in.	0.014-0.019
cam dwell angle, deg.	1 set 27-32
	both sets 37-42
arm tension, oz.	17-21.5
Tappet clearance, int./exh.	0/0
Fuel pressure at idle, psi	5-7
Radiator cap relief press., psi	16

PERFORMANCE

Top speed (5200), mph	120
Test shift points (rpm) @ mph	
2nd to 3rd (5200)	.85
1st to 2nd (5200)	.51

ACCELERATION

0-30 mph, sec.	2.6
0-40 mph	3.6
0-50 mph	4.8
0-60 mph	6.2
0-70 mph	7.9
0-80 mph	10.0
0-90 mph	13.1
0-100 mph	17.5
Standing 1/4-mile, sec.	14.72
speed at end, mph	94.24
Passing, 30-70 mph, sec.	5.3

BRAKING

Max. deceleration rate and stopping dist. from 80 rate, ft./sec./sec.	.27
distance, ft.	341
rate and distance after 8 1/2 g stops from 80 rate, ft./sec./sec.	.21
distance, ft.	356
Overall brake performance	good

FUEL CONSUMPTION

Test conditions, mpg	14.8
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INSIDE FRONT wheel is tipped off its tread as Duster plows through turn at speed. The severe understeer did not lend itself to sporting driving. Let's hope the factory has a cure, like a rear antiroll bar, in the works.

DUSTER

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Instead, it hunted, nibbling back and forth in answer to cracks in the pavement and sidewinds. Steering lag may have been a factor here, too, as a slight motion by the car needed major corrections by the driver.

We seem to be permanently saddled with weight distributions of 55/45. The new Barracuda has an extended nose and a chopped-off tail. The Duster has a shorter front and a longer tail. But the Barracuda engine was moved back, and the Duster's engine stays where it was in the Valiant, presumably because the big V-8s aren't offered in that body, so the extra room isn't needed. Engines weigh more than sheetmetal, and the two cars have almost the same weight balance.

Now, back to the good part. The Duster has more interior room. There was no need to lower the roofline, or to move the front seats back so the occupants would have head room. The Duster driver sits higher and straighter. Adults can sit in the rear seat. Two people will ride without complaint, three can do it if they must. Only fair; the Duster is a Compact coupe, the Barracuda is a Ponycar. The designers know that fun people buy Ponycars, and they only travel in pairs. Still it's nice to know you can carry four passengers if asked to.

The instrument panel is performance Valiant, two big dials for speedometer and gauges, one small dial between them for the optional tachom-

eter (not fitted to our car). The gearshift was on the column.

The seats were as spartan as they come. A bench front, and it and the rear seat and door panels were covered in what looked to be test-tube Rhinoceros hide. Thick, shiny black stuff, that looked ready to be the site of a grade-school football game, with cleats, and come through unscratched.

Durability is not the object. The material is durable, but the Duster 340 is designed and advertised as the no-nonsense performance car. There is a reverse psychology working here. Tell a man that he's only paying for the necessities, and it helps to prove it. The quickest way to do that is to show him an interior that a taxicab would sneer at.

This only works part of the time. As the Road Runner proved, once you have the image of the bucks-down racer established, you can sell extras. The Duster can be bought with bucket seats and upholstery that doesn't look like a gymnasium floor. A console, too, and the slick-shifter gear change that let the driver punch the transmission into the next higher gear without worrying about finding neutral and 8000 rpm.

The short hood/long trunk body pays off with the long trunk. There is enough room for all the suitcases you can possibly need, and the distance between rear axle and rear bumper is such that the spare tire can go into a well below the trunk floor. The wide

tire trend has caught this feature napping, and the floor wasn't flat; the F70 x 14 tire a 14/5.5-in. wheel that came with the 340 package was so much wider than the skinny tires used when Valiant was born that the tire cover jutted up some two inches. But it's better than having the tire on top of the floor.

The only intrusion into the trunk came from the evaporative control fitted to California-sold cars this year. The fumes from the tank aren't allowed into the atmosphere any more. They are allowed to condense back into fluid in sort of a standpipe, jutting out of the tank, through the floor next to the filler. No drawback, but Chrysler managed to use the crankcase for carburetor fumes while the other makers needed cannisters. Why wasn't some neater solution for the fuel tank worked out?

Next to speed, and possibly interior room, the thing the Duster has going for it is money. The baseline Duster, with six-cylinder engine, is priced low, because the Valiant six is priced low, to stave off the small cars until Chrysler has one. The factory can add the 340 engine and suspension, the disc brakes, the automatic transmission, even the power steering, and still have a sticker price low enough—and lower than the same sort of car from the competition—to attract the budget racer. With blueprint tuning and G70 or F60 tire, it'll be a winning budget racer. ■