

Michigan's wilderness backroads are not Canada, but they can be just as exciting when Scott Harvey takes you for a demonstration ride in the car that won the Shell 4000 cross-Canada rally.

BY ERIC DAHLQUIST

# HOW TO BEAT THE SHELL (4000) GAME



It was like the Cyclone — the big roller coaster at Crystal Beach, Ontario on the Canadian side of Lake Erie across from Buffalo. You will always remember your first ride — like all the times you just slipped through the clench of death — it is forever printed in the circuits of your memory bank, the tape readout set in motion by some partially connected thought and it all comes back. There was never any warning what was really going to happen on the Cyclone because the man took your ticket, strapped you down and the car rolled slowly down a slight incline where the tracks dipped, then up the ramp where it caught the conveyor chain that took it to the top. It all happened very slowly, this part. The

chain seemed to inch along forever until at last you were there, the place where the pawl in the conveyor-chain disappeared around the last sprocket on its return to the bottom and gravity became solidly engaged. The only measure of your progress was the long-spaced click of the steel wheels on the joints of the track.

And then the front of the car fell away before you and for that one split second of your life there was nothing around to obstruct your vision — left (the park, submerged under a green carpet of trees) or ahead and right, straight out across the blue-green mirror of the lake. It was like emerging from the barrel of a fish-eye lens into the dome of the glass itself, from horizon to

horizon, the world was all laid out, completely unfiltered — for an instant. And then you were looking straight down the steel tracks that stretched like a plumb line and you could barely see where they came back up. The car fell, safe-like, the acceleration blinding yet not pushing you against the seat. The velocity multiplied in your ears, the diminishing interval of the wheel's clicking jamming together in mechanical blur. Down, down, down you went into the abyss, knowing at the bottom you were almost going too fast to recover, reconfirming it as the hurtling car came over the next small rise and got light, slightly airborne — centrifugal force carrying it into a higher orbit above the track. Centrifugal force — that had



**1. To beat the Shell game you must shrink time and space, beat the clock, catch the wind — blurring down gravel roads that wind like brown rivers through the spring afternoon.**

**2. The classic attitude on dirt: slightly hung out, power on, gravel spewing. Executed by the classic rally driver — Scott Harvey, winner of more major rallies than any other American driver. Next, the world!**

**3. The route. Scott Harvey (right) pinpoints a special section in Manitoba on the trail that meanders from the tall, silent mountains of British Columbia to green, damp Nova Scotia, hard by the Atlantic.**

**4. One Saab rally bucket seat and a normal Saab chair work very well.**



just rammed you down into the seat at the bottom of the first chute — was now lifting you up and in a few seconds would try to rip you off the track where it bent sharply around to the left at the bottom of the next grade. Just before the 90-degree kink, the track leveled and you looked directly out into the void above the lake, the space through which on two specific afternoons, other cars had traced a trajectory on their plunge into the water. The last thing you remember about the Cyclone's incredible voyage was that down in the bowels of the scaffolding the light flickered eerily at the periphery of your vision's fragmenting motion — stylizing movement like the actions of a silent movie . . .

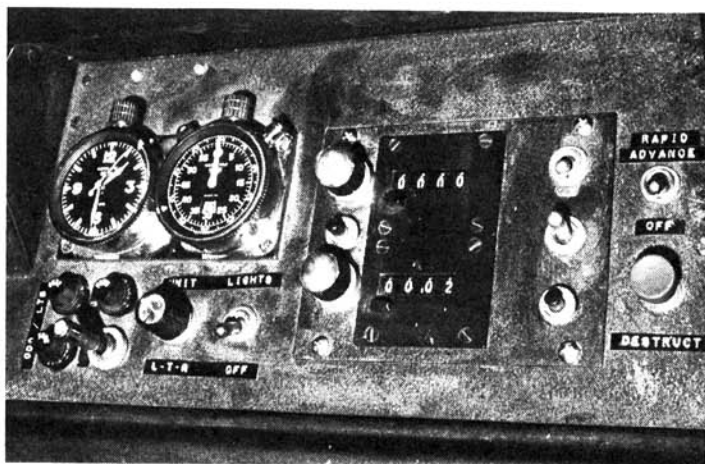
The elm trees and the oak trees that flank a particular dirt road in Chelsea, Mich., create the same effect at 100 mph. Their branches coalesce overhead, canopying out the sky and the light — what light there is comes in at the side. Like the Cyclone, you are only vaguely aware of precise details at that

particular time, just that things, things that could pretty well bash you in, are being sucked through your vision at a frightening rate. But you don't think about it — the trees or speed or 12-foot width of the uncertain road, or stray livestock or even people — just how many minutes you've got to make up to be dead on time at the next checkpoint, and that when it gets dark, oncoming cars thankfully will be easier to see.

At least that's how you would have to project if you were actually in a rally, the Shell 4000 for instance — driving hell-bent-for-election across what's left of undeveloped Canadian North America. Only we're not. We're having our very own instant replay of how it really was in June of 1968 when Chrysler Corp.'s Scott Harvey and University of Michigan's Ralph Beckman beat the weather, the terrain, the special stages, and some of Europe's premier factory teams to win the 4000 rally.

To know, even in microcosm, the sheer exhilaration of hurling a 3200-

pound machine down a dirt road at a hundred miles per hour would seem to require a certain amount of mental preparation, but like the Cyclone, words are a hollow substitute for experience. Scott Harvey is not hollow. His Corporate Blue Barracuda was ready in the parking lot. Except for a few decals, the rally numbers on the doors and Cibie quartz-iodine driving lights, it did not look materially different from any other fastback. Which is only proper, because it isn't really. The engine is a stock bore and stroke 235-hp, 273-cubic-inch unit that uses an Edelbrock high-rise manifold, Carter AVS (air valve secondary) carburetor, and unsilenced paper air filter. Inside, the dash has a few more instruments like a Halda Speed Pilot, an ingenious device that you can set to any desired average speed and thereafter tells you whether you're on time, ahead or behind. Since the Halda is interconnected with the speedometer and the odometer is dead on, the mechanical drive is taken from the left front wheel which is not sub-





ject to spin when running in low traction conditions.

The disparity between an American approach to bucket seats and the European is apparent when you slide into the Saab rally chairs Scott has installed up front — it's like being gripped by a giant hand. The fit is so good you hardly need lap and shoulder belts to keep from bobbing around in the rough. Bolting them solidly to the floor restricts back seat utility somewhat but then you don't pick up many riders on the run.

Scott fired the engine and rolled sedately down the highway to an almost deserted gravel road, a relic of an almost extinct rural America. As he turned off the asphalt, it was almost as if a green start flag had waved somewhere. Bawhaaah! The Carter butterflies came full open and it was again the Cyclone gaining speed. Click. Bawhaaah! The shift into second and a blimpful of Michigan air is being rammed into those long aluminum manifold passages. Click. Bawhaah! Third. We are at 90. Click. High. We had ex-

pected the car to fly off the potholed road but it doesn't somehow. Up ahead there is a flat 90-degree bend to the left. It has stopped raining and there is a big puddle just before the turn. Scott gets on the brakes, downshifts and pitches the tail out to effect a classic power drift, spewing out a sheet of gravel and brown water.

Now the road narrows, and we drive under the canopy of branches, a long green tunnel with light at the end and flickering in at the sides. The countryside is more hilly and as we shoot up the side of each rise, Scott pumps the brakes rhythmically and shifts down so we slow to 80-85 mph cresting at the top. "Can't ever tell what's on the other side," he yells. "At night you can see other cars' lights. Pumping the brakes like that is cadence braking. If you lock the brakes you'll lose control immediately in this loose stuff." Bawhaaah! Click. We fly ahead — airborne cresting the hills, skipping over the level ground like a pebble over flat water. Our F-70x15 Goodyear low-profile snow

**1. The complete rallyist could not be at home unless his cockpit looked like Apollo 9. Harvey's car has Heuer 12-hour watch, 60-second watch, Halda trip meter to tell if you're behind or ahead of time, various light switches and a handy, little red destruct button. Spare fuses are racked under dash for accessibility.**

**2. Speedometer is taken off front wheel. With all that slippin' and slidin', rear wouldn't be what you call precise. Note extra cable.**

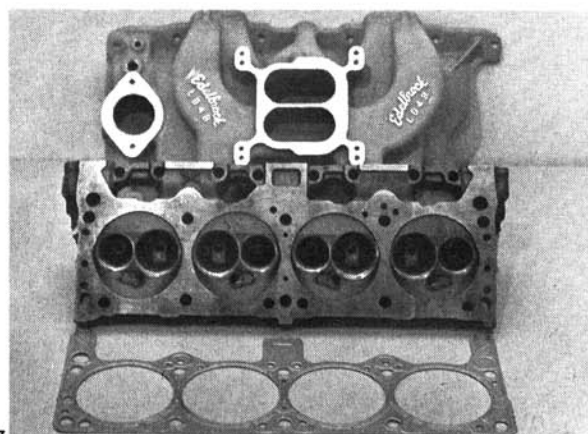
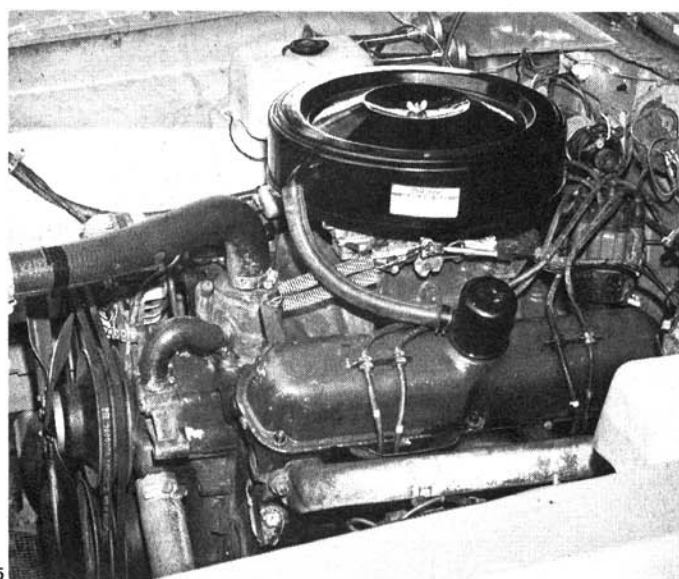
**3. It always gets back to this, right?**

**4. Standard lights are augmented with four quartz-iodine Cibes.**

**5. Engine is normal 273-cube hi-performance with Edelbrock medium high-riser manifold. Air filter is must.**

**6. Trunk is chuck full of spares.**

**7. Hot tip is using 340 heads on 273.**



## Spare Parts & Equipment in 1968 Shell 4000 Rally Car

### BOX A

Front Wheel Bearings (inner & outer)  
Brake Shoe Springs, Misc. Brake Parts  
Fuel Filter  
Clutch Linkage Clips, etc.  
Lug Nuts (5 mag & 5 steel)  
Distributor Cap, Points, Condenser, Rotor  
Coil  
Spark Plugs (3) N9Y  
Dimmer Switch  
Radiator Cap  
Throttle Return Springs (2)  
Misc. Small Nuts & Bolts  
Baling Wire  
Water Pump Bypass Hose  
Headlight Bulbs (2)  
Back-Up Light Bulb

### BOX B

2 Headlight Bulbs  
2 Tail-Stop Light Bulbs  
2 Park-Signal Light Bulbs  
2 License Plate Bulbs  
2 U.I. Bulbs  
1 Underhood Bulb  
2 Flasher Units  
Misc. Fuses, Instrument Bulbs  
Plug for Brake Line & Oil Line  
Clutch Linkage Clips, Misc.  
Misc. Cotter Keys

### C (UNDER REAR SEAT)

Radiator Hoses (2)  
Brake Fluid  
Fan Belts  
Throttle Cable  
Windshield Wiper & Arm  
Radiator Stop-Leak  
Headlight Unit  
Landing Light Unit  
Odometer Cables  
Hub Cap Odometer Drive

### D (IN TRUNK)

Driving Light (OSCAR)  
Spare Tire & Wheel  
Tow Rope  
Detrenching Tools (2)  
Aluminum Winch  
Lug Wrench  
Jack with Base & Handle  
Tool Roll  
Flex Handle with Sockets  
Flares  
Oil (1 qt.)

### E

Fire Extinguisher  
Flashlight  
Tire Pressure Gauge  
Ice Scraper with Squeegee  
Tape — Electrical, Masking, Cloth  
Helmets (2)  
First Aid Kit  
Hand Spotlight  
Flares

tition, but he's a professional and his ability leaves no question.

We start off easy, feeling the car out. Click. The Inland shifter's long handle slips into second. But this cannot be an Inland linkage; everybody knows they don't work, always hang up and jam. "Yes, it's an Inland," Scott says. "We adjusted it properly and have never had any trouble with it. I like the long throw because it's easy to tell what gear you're in — a narrow gate drag-race shifter just wouldn't do."

We go through the first series of turns and the car steers dead neutral — goes where it's pointed — is predictable like the Porsches Harvey drove years ago. "I tried to set it up to feel like a Porsche," Scott mentions. "The trick is to keep

the unsprung weight as low as possible, then adjust the spring rates and tire pressures. In the front end, we use 1/2-degree negative camber with 1/8-inch toe-in. Regular Formula S front torsion bars are retained and in back, '64 Valiant station wagon springs (PN2495087) add a little control, as well as ground clearance. B-body (Belvedere) police car rear shocks dampen the springs and we added a one-inch O.D. sway-bar in front. Actually, the springing is quite soft and yet reliable. Even with going off the road a couple of times in the Shell 4000, all we had to do to put it back in condition was adjust the front end. In fact, the whole car is that way. I don't think any other machine has ever participated



tires good for 135 mph are fantastic performers.

Then — as we are just accustomed to the speed, road, hills, cadence braking, power slides — Scott stops the car. After all, that's why we're here, to find out what driving one of the world's best rally cars is like. But there's no way to approach what Scott Harvey has just done. Of course, he hasn't hung it all out, not as if he were in compe-

in four major rallies without complete rebuilding. We've run the British Empire Motor Club's International Canadian 1000-mile Winter Rally for two years, as well as the Shell 4000. Last year we finished 2nd in the Shell."

At every turn we seem to have increased speed slightly because the car builds confidence and does not surprise you. Now, unbelievably, we are almost as fast as Scott. Everything feels right. The engine is strong up to about 5500 and the space between the gears (2.66, 1.91, 1.39, 1.00) is nearly ideal. Down one long straight we are between 95-100 mph — and instantly ahead a blind, unmarked turn materializes. There is just time for several jabs at the brake and we are committed

— trying to turn but sliding sideways across the road, off the shoulder and into a rather broad ditch with about a five-foot bank. We gas the engine at the last second before hitting the bank, hungry Town and Country's take a bite, and the car lunges back on the road. During the whole deal Scott sits unperturbed in the Saab rally seat.

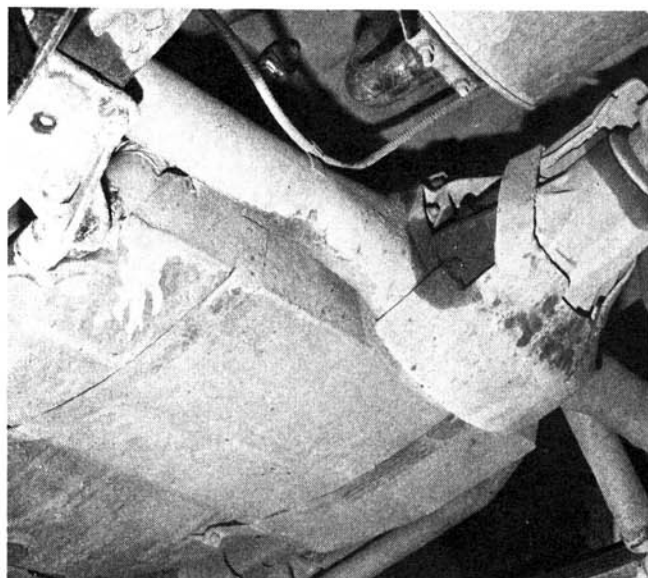
There is only one thing to do now. It's like falling off a bike. You check to see nothing is broken, hop back on and make it. Bawhaaah! Click. Bawhaaah! Click. On and on, following that gravel trail that winds like a brown river through the misty, green summer afternoon, strongly reminiscent of a Cyclone we once rode.

**1. Sideways, steering with the slide, Scott shows how you can be still going south but set up to head west at the same time. Like well mannered Porsche, Barracuda is worked over to neutral handling. Steering with the throttle, you see, really does exist.**

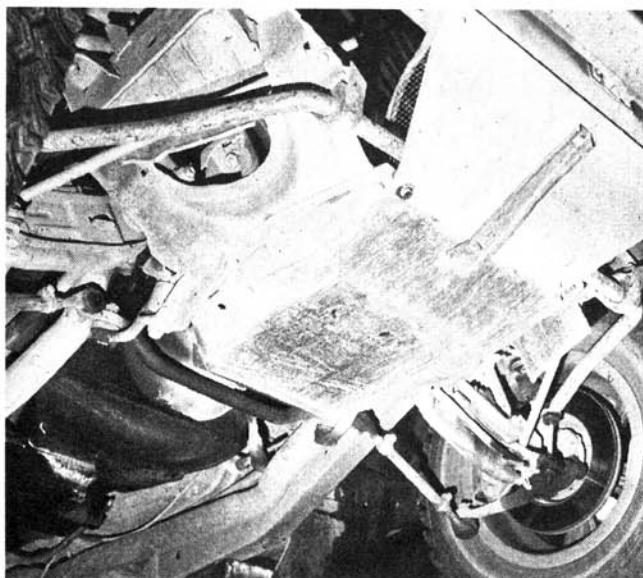
**2. Production 273 standard-shift Barracuda differential is used with Sure-Grip limited slip. Notice that 1/8-inch steel armor-plate is shaped around banjo housing. Visible steel shield also protects fuel tank.**

**3. And, of course — more important than even the back — it's vital to maintain your oil pan in virgin form.**

**4. V-shaped bracket keeps muffler and tailpipe married on long trip. At this, one side still was broken.**



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