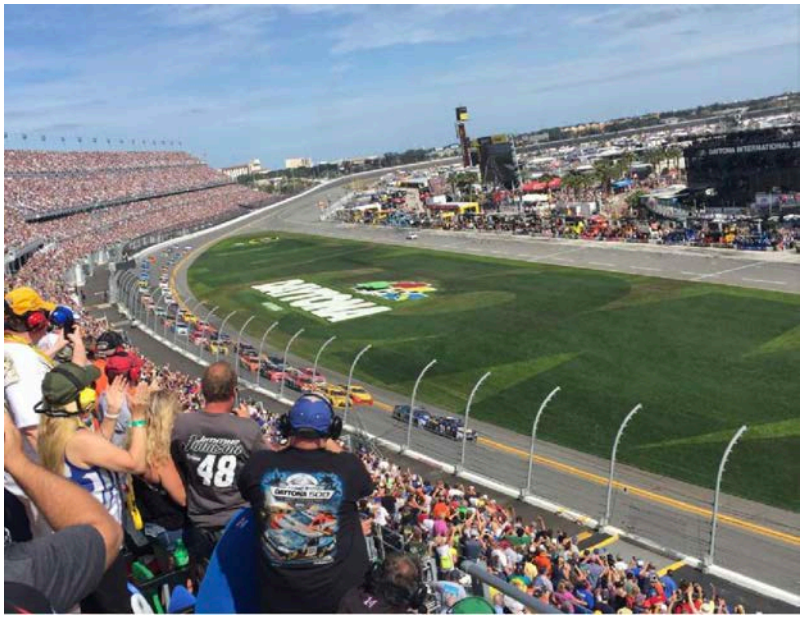
Chapter 5

RIDING AN ITALIAN STALLION

Daytona Beach, Florida - Thursday, February 13, 1964

Imagine yourself standing in a vast three-sided cement-and-asphalt bowl sprawled across the landscape, baking in the Florida sun. Its giant maw waits to swallow the unwary, chew them up and spit them out against its unyielding barriers. Welcome to the Daytona International Speedway.

It's not like any other place on Earth. Racing people call it "the Speedway" or just "Daytona." Two and a half miles around, it boasts a 3,000-foot-long back straight and two steeply banked turns inclined at thirty-one degrees. Retaining walls circle the rim to keep wayward race cars from soaring off into the Daytona Beach Airport next door.



Speedway Panorama *Courtesy Daytona International Speedway*

Since its opening to much fanfare five years ago, no one has yet discovered how fast you can actually go on this swiftest of all tracks. Its creator and NASCAR founder, Bill France, is offering $10,000 to the first car/driver to average over 200 mph for three laps. No one has managed to run that fast yet.

The Race

This weekend will inaugurate the Daytona Continental 2000 Kilometer. At 1,230 miles, it will be twice the length of the classic races at the Nürburgring, Spa Francorchamps, and Monza and roughly half the distance of that daddy of them all, the 24 Hours of Le Mans. Running on a

special road-racing layout, Bill France has arranged for "his" event to last thirteen hours, one longer than the famed 12 Hour Grand Prix of Endurance held every March at Sebring, Florida less than 150 miles away.

Pundits expect that the Daytona winner will likely come from the ranks of Ferrari 250 GTOs that have ruled the global Grand Touring category for some time. Or perhaps it will be one of the newly threatening Shelby American Cobras. Out of fifty-four entrants, eleven GTOs and ten Cobras are listed. (Note: At the moment only 33 GTOs exist anywhere in the world; a third of them are entered in this race.)

The Test

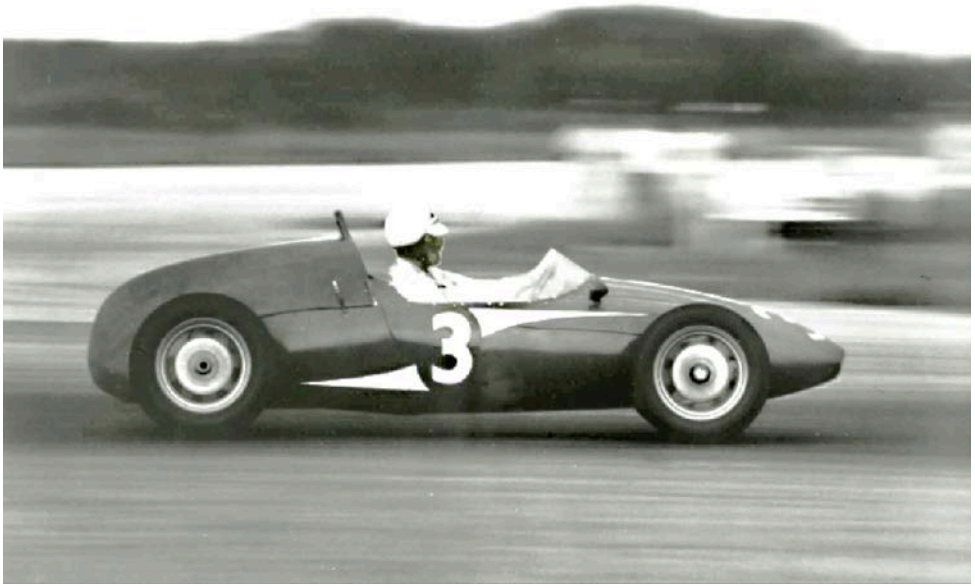
One of the drivers, Larry Perkins, is preparing to go pretty fast here himself—taking his first laps with the new car around this formidable track. His crew is keyed up too. His chief mechanic, John Sabiston, scarcely hides his apprehension. His quicker co-driver, Bill Eve, is hoping for the best. All are anxious to see whether Larry can handle a serious thoroughbred race car in big-time professional competition.

Cars haven't always been in Larry's blood. He's owned a few unremarkable ones, and his current commuter ride is a tiny Fiat. But he recently joined the Sports Car of America, attended driver's school and immersed himself in the sport. He bought a glistening red Cooper Formula Jr, a new kind of critter—an open-wheeled single-seater meant to be driven at the limit all the time. It really seemed less a "car" than a piece of sporting gear for his new hobby—motor racing.

But the hobby has quickly morphed into more than that. He has become a hard-driving competitor and shown substantial skills at the wheel. He has earned an advanced license and adopted a credo popular in those circles: *Racing is life; everything else is just waiting*.

He has now bought an example of Enzo Ferrari's noblest rolling stock, the 250 GTO, a *Gran Turismo Omologato*, and a moment of truth is bearing down. He has not driven his GTO at speed—and only heard its engine run yesterday morning. *This* morning he's taking it out for practice on the Speedway.

Of the four dozen men slated to drive the top-rated cars here, including World Champion Phil Hill, Larry has by far the least experience. He's aware of the speculation going around. Folks who know him seem to think he's on some sort of kamikaze mission. Their expressions say, "Perk, what are you thinking?" No wonder there's eye-rolling in the pits.



Larry's Cooper Formula Junior *Photo courtesy Larry Perkins*

Larry's little Cooper has a one-liter, 100 hp engine and weighs about 900 pounds. Today he'll tackle the big three-liter GT car—at 300 hp and 2,100 pounds, a thirty percent increase in power-to-weight ratio. But Larry's tongue-in-cheek attitude is: "My day job is 'rocket scientist,' so I might as well try out my very own rocket!"

The Car

The Ferrari 250 GTO is rated in the Grand Touring class, a hybrid between a deluxe sports car and a serious racing machine. But the GTO's design leans heavily toward the latter. It's fitted with the minimum in legal road equipment—lights, turn signals, wipers, horn, mufflers—but no creature comforts. There is no carpeting, no glove box, no ashtray, no sound or heat insulation, not much venting. No interior door handles or roll-down windows. No cup holder.

Ferrari 250 GTO s/n 3223 GT on the banking *Painting by Wally Hampton*

But the GTO includes the maximum in endurance racing features—a high-revving three-liter dry-sump six-carburetor V12 engine, massive disk brakes, a five-speed gearbox, plenty of lightened components, and hand-formed aerodynamic aluminum bodywork. It sports a huge radiator and oil cooler, but no power-robbing fan or other accessories. Fuel consumption is about 8 mpg, so a thirty-four-gallon fuel tank in the rear is good for just under three hours or so on track at speed.

There's no roll-over bar or cage; the thin aluminum roof is supported by a lightweight hoop. The dashboard is minimal, dominated by a king-sized tachometer centered among the gauges. The top end of the tach scale reads "100," indicating 10,000 rpm.

Unlike a road car, there are oil temperature and fuel pressure gauges and no speedometer. It's all designed to win long-distance endurance races at speeds well above 150 mph for many hours or even days on end. The Ferrari 250 GTO is definitely a big boy's toy.

GTO Office *Photo Eric Lian Studios*

10:00 a.m.

- The track is open for practice. Cars circle, some with engines buzzing, some thundering, some—especially the Ferraris—shrieking along the straights. People often liken the sound of an accelerating Ferrari V12 to ripping a sheet of canvas: *vvvvrrrrreeeeeEEEEEEEEPPpah!*
- Drivers dive into Turn 1 next to the pits, slowing and downshifting—*brruppuh, ... brruppuh*—then get hard on the gas, entering the short road course that winds around the lake in the Speedway's infield.
- Five turns, then back onto the tri-oval for the flat-out run to the Start/Finish line and Turn 1 again.
- The drivers circulate, lap after lap, learning the track, getting up to speed, checking tire wear, testing and tuning the cars, testing and tuning their own performance.
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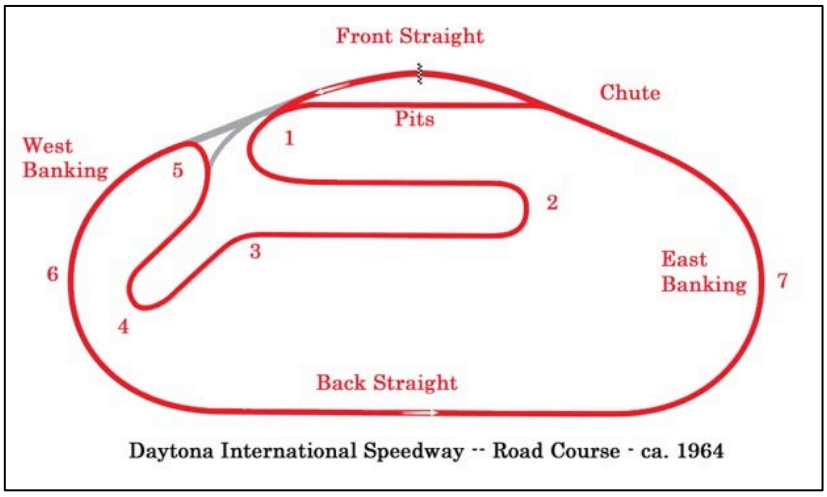
At last it's time for Larry to discover which way the track goes, where the tricky parts are and how the GTO, and he himself, will take to it.



Daytona International Speedway -- Road Course - ca. 1964

The pit crew has run the engine, getting everything nice and warm—oil, water, electrics—and checked tires, brakes, all the settings (including the sinister tell-tale). The car sits in the pit box, seeming to wait impatiently for something exciting to happen.

Like the other drivers, he's suited up: blue cotton coveralls, freshly "fireproofed" last night with dips in 20 Mule Team Borax; no long-john underwear though—this is Florida! (Nomex fire suits are still a couple of years in the future.) String-back leather-palmed gloves; Bell Shorty open-face helmet; cotton crew socks and leather loafers (secured with duct tape to prevent slipping off). No ear plugs (he's spurning the only thing available: nasty little clumps of wax-impregnated lamb's wool ... *yuck* ... but his hearing will pay dearly in years to come). No goggles required; this is a closed car. He chuckles to himself, *it's really a luxury ride*.

Larry has a bit of a contortionist's moment, tucking himself into the seat ... the roof line is just forty-seven inches off the ground, with a high door sill and the steering wheel set at a low angle. But once he's in place it's a snug, comfortable fit with the controls—wheel, gear-shift, pedals, dash switches—"all ready to hand" as the British say.

Visibility is good, with a wide windscreen, big rear window and adequate views to the sides. But there are two aspects peculiar to this car: (1) the front fenders rise on right and left, in seductively rounded swells, potentially blocking the driver's view of nearby roadside obstacles and (2) there is only one mirror, a conventional interior unit mounted on a stalk above the windscreen.

It will later develop that this mirror is nearly useless on the Daytona high banks and under heavy braking elsewhere. When the road rises up behind, or the car's nose goes down in front, one can see nothing in the mirror but asphalt or sky. No amount of adjusting will fix this. There's a strong temptation to mount outside mirrors, but the crew hasn't done it (and notably, neither has any other GTO team). Since the rear view is limited, Larry wonders, *"Do you suppose Enzo assumed no one would ever overtake his GTOs?"*

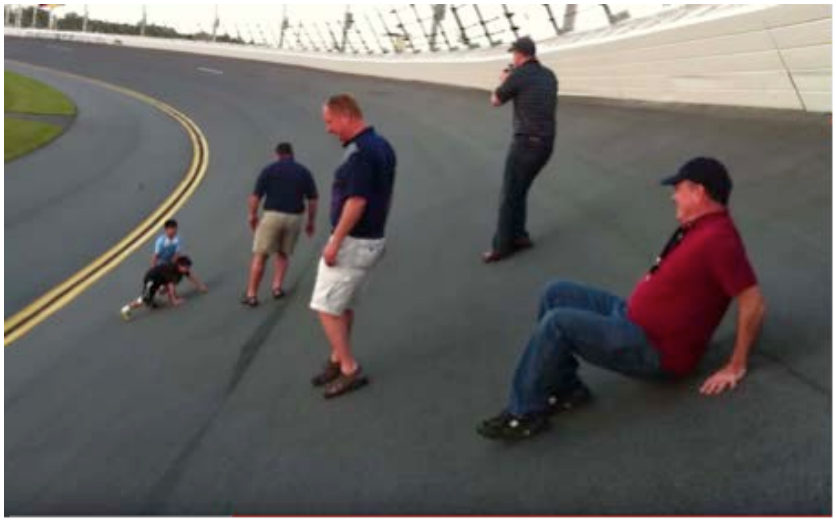
Describing Larry's first ride requires a quick overview of the road-racing course. (See Figure 5-6 "Road Course"). It's 3.81 miles long, combining nearly all of the NASCAR tri-oval with a twisty infield section. A level back straight, more than half a mile long, connects the west and east banked turns. The direction of travel is counter-clockwise, typical in American-style oval-track racing and retained here.

There are eight turns in all, the first five traversing the infield, flat as a pancake. Turn 6 is actually the thirty-one-degree "west banking" and Turn 7 is an identically constructed "east banking." Turn 8 is part of the "front straight," not in fact straight, but also curved and banked at eighteen degrees.

The front straight passes between the pits and main grandstand, with the Start/Finish line at its center. Approaching it from Turn 7 is a relatively short, flat

"chute," with a conspicuous bump where the infield entrance tunnel passes under the track. The front straight ends at Turn 1.

To give an idea of how steep the Daytona high banking is, a car must go about 100 mph to avoid losing traction and slipping steadily down to the bottom. It's even tricky for a person in rubber-soled shoes to walk up or down it. (For sailors, consider that a heeling sailboat will tip about twenty-five degrees. A motorcycle rider in a turn leans his bike a bit more than that.) So, a thirty-one-degree bank is dramatic, and, since it's also curved, it restricts front and rear visibility. The driver feels like he's in a big barrel, pulling Gs, pressed against the surface. The track ahead sweeps upward at the top of the windscreen and behind in the rearview mirror. A good way to check what's ahead is to glance through the left *side* window!



Strolling on the Speedway *Courtesy Daytona International Speedway*

OK, it's time for Larry to get the show on the road.

He snaps the bulky seatbelt latch, *clack*, turns the key and listens for the fuel pump's electric *tick-tick-tick*. He gets a whiff of fresh gasoline and watches for the pressure to come up. He gives the accelerator a couple of pumps, pushes the key in to run the starter and fire the engine—*ruh, ruh, ruh ... brrr**rufff**ah*. He lets it idle a bit to get its juices flowing, blips the gas a couple of times to clear its twelve throats—*brrr**RUFFF**ah, brrr**RUFFF**ah*—checks the gauges again and decides all look good—GIRI "**1200**," BENZINA **4/4**," "BENZINA **4** kg/cm$^{2"}$," "ACQUA **90º** C," "OLIO **5** kg/cm$^{2"}$," "OLIO **80**º C." He grips the thin wooden steering wheel, fingers the smooth alloy shift knob on its oddly tall stalk. It all feels right.

Larry presses the clutch in and shoves the shift lever into first gear. He waves to his anxious pit crew, flicks the turn signal to pull out, gets a "go" signal from the pit steward, raises the revs to 2000 rpm, eases the clutch out, feels the tires grab with a chirp and—kills the engine. *Shit.*

Red-faced, avoiding the incredulous glares of his crew, he goes through the motions again, catches a few more revs and this time—*vvrrrrroooom*—**at last**, Larry is on his way.

Many cars are circulating now. The pit lane merges into the left side of Turn 1; protocol dictates that entering drivers stay left, gain speed briskly and merge into traffic. The track is wide and up ahead is Turn 2, a 40-mph right-hand horseshoe, with room to run two- or maybe even three-wide. But Larry has never been here before, nor driven the car over 30 mph, so he is damn busy in this first stretch.

He arrives at the turn in third gear at around 3,500 rpm, drops to second and checks the mirror, searching for the racing line, and alert for the yardage markers so he can begin memorizing the track. He rounds the turn on the outside edge, almost in the dirt, giving way to two other guys overtaking on the inside, who leave him in their dust as all head down the short straight to Turn 3. Whew, he's made it!

Larry can tell he needs to use more revs, but he has just left the pits and already the GTO amazes him. He has never experienced this kind of acceleration steadily up through the gears without faltering. He will later recognize that the V12 Testa Rossa engine is one of the world's all-time great racing tools. Once "on the cam," at around 4000 rpm, it never runs out of *oomph*. If a driver gets careless, he can rev it right past the red line in any gear until this supremely capable machine finally gives up and disintegrates.

Inside the cockpit, Larry notes the muffled engine wail—plus a clamor created by the whine of the drivetrain, air rushing over and through the bodywork, fluids gurgling, cold brakes squealing at every corner, the suspension thumping, stressed tires chirping, and vibrations large and small all over the place.

Speed

On with the first lap: Turn 2 exits onto a short straight just long enough for Larry to accelerate and upshift once. The next corner is a quick dog-leg to the left, taken nearly flat out, and promptly followed by a sharp right-hand switch-back. The good line for this sequence is to stay far to the right down the straight, upshifting to third gear, touch the brakes and turn in, moving sharply to the left edge (caution; there's no curb) to make a quick squirt through Turn 3. Then lift, brake and downshift to second for Turn 4. Clear the apex late, move to the right and be on the gas, rolling briskly in third at Turn 5. This will carry speed up onto the west banking (Turn 6) and begin the long run down the back straight. That stretch will be taken in fourth, upshifting to fifth at 7,500 rpm or more, and is by far the fastest part of the course.

> So now for the quick part. A little more explanation is probably helpful:
> To attain good lap times at Daytona, it's vital to set up the car for maximum speed on the long stretch from Turn 5 to Turn 1, even allowing some performance concessions in the infield. Good visibility and constant driver attention are essential because in endurance racing cars from many classes, with different performance levels, compete together. The speed differential between the slowest and fastest cars on the back straight may easily approach 100 mph.

> For example, a Ferrari GTO approaching an MG from 100 yards back, the length of a football field, might only take two seconds or so to overtake and pass. It's vital that drivers anticipate such events. The contrast becomes even more critical as dusk turns into night. (Note: in 1964 there was no track lighting beyond the front straight and pit area.)

Heeere we go! At first, dropping off the west bank and accelerating down the back straight, Larry hesitates to put his foot down. (Soon, after a couple of shake-down laps, he'll sense that his times aren't up to snuff and he'll get more determined.) Now he goes up through the gears, shifting at 7,000 rpm, and settling on 6,800 in fifth. The GTO is in its element, eating ground, and wailing like a banshee.

Along with the commotion, it's hot. Any race car is a bit of an oven. That lovely V12 motor, as well as the brakes, running gear, the track itself, all blast heat through the un-insulated aluminum firewall, floor and drive-shaft cover—straight into the driver's space. A five-gallon tank behind the passenger seat collects 200-degree oil from the engine. The windows are closed to maintain aerodynamic efficiency, and the "passenger cooling vents" are a joke. This all raises the cabin temperature to around 140º F (60º C) on a warm Florida day. The driver's foot well gets even hotter, and one wears rubber-soled shoes at his peril—feet will go numb in half an hour. The GTO cockpit is a true symphony of noise, heat, and visual and inertial stimuli, with nothing to dampen or diminish any of it.

Everything may look smooth as gravy to an outside observer, but all hell is breaking loose in the driver's seat. The whole car complains as the din from engine, gearbox, drivetrain, tires, bodywork, road surface, and wind becomes literally deafening. The hood and front fenders flutter as if they'll depart any second; doors rattle; windshield wipers start an unstable jitter, creeping up the glass. The steering gets feather-light, and the car feels like it's dancing on the road. Larry has already given up any illusion that this is a luxury ride!

Straight ahead, the east banking seems to grow higher. Closing at this speed, Larry's peripheral vision narrows, and that sweeping turn towers like a vertical wall ahead. At 160 mph, "driving on ice," this is definitely a time for rapt attention.

An obvious thought dawns on Larry—this car is *not* a rocket, and it is *not* flying. It's rolling on four rubber tires, hurtling down the Daytona back straight with him as the "pilot more-or-less in command." It's anchored to Planet Earth by just four contact-patches totaling about 320 square inches ... the area of an open coffee-table book.

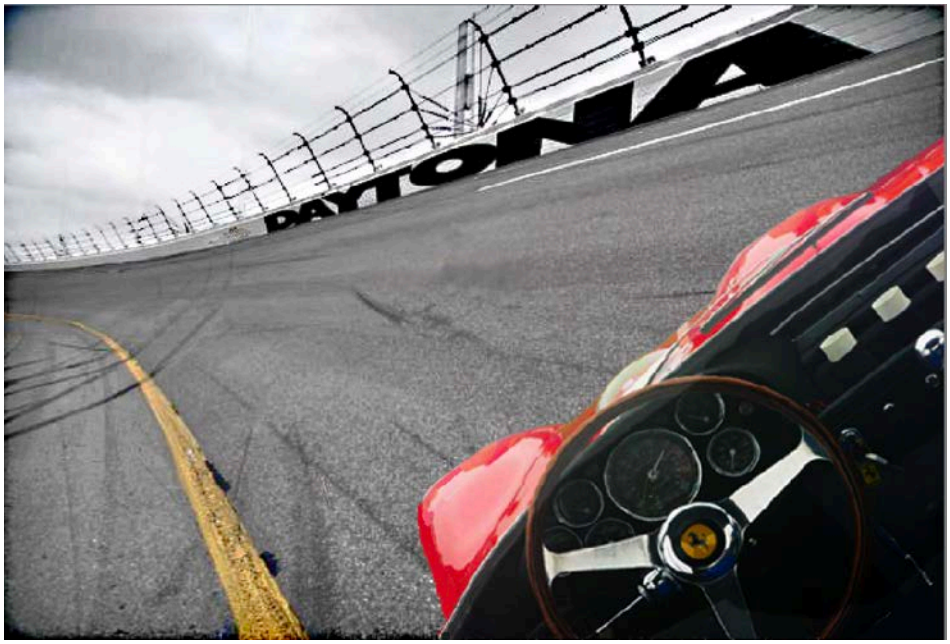
And poised less than a foot above said Planet is his butt.

> Aiming into any corner, a driver's backside first detects the car's attitude change. One gets a tiny directional tug in the seat of the pants. Then the G's build until one feels some real side-force. If the car tends to "push"—understeer—the front end will try to go straight ahead. If it oversteers, the rear end will jerk around in a spin. The butt's job is to let one know in time to make corrections. Drivers who don't pay attention to their butts end up getting them into all sorts of trouble.

Heads up, Larry! Fast cars overtaking on the right ... a GTO and a Cobra ... V12 delivering the *soprano* high note ... *vrrreeEEEEeeeeeeeee* ... V8 thundering the *basso profundo* ... *bbrrumMMMMmmmmmm* ... and they're gone, ahead, down the straight. *Jeez*, he thinks, *how come they're going so much quicker than me?* But there's no time to ponder ... the banking is HERE ... RIGHT NOW!

Larry aims for the middle lane, lifting his foot a bit, backing off to maybe 6500 rpm, turning left just a tad, getting that little butt tug—and around he goes, tipped like a banking airplane, body pressing firmly into the seat, elbows tugged down by G-force, drumming over the asphalt cracks and patches—and there are plenty of them.

He notes the black crisscrosses on the road ... there are plenty of those, too ... the tire signatures traced by spinning cars, twisting up, up, to the right, until they stop ... ***WHAM!*** ... at multi-hued scrape marks on the unforgiving wall at the top.



Driver's view of the banking, at speed *Courtesy DIS/Larry Perkins*

Larry licks his lips, a bit sweaty and salty, and braces his left shoe firmly against the little footrest. He's not ready just yet to run close to that forbidding wall. He follows a mid-line and heads downhill into the chute. He stays on the gas, bringing the revs back up. Mustn't lose momentum in the stretch before the Start/Finish line.

He's staying to the right now, along a not-so-daunting straight wall. *Alley Oop!* … a near-weightless hiccup over "the hump." *Whoooff* ... past the north gate, where a random breeze can give a surprise lane-change to the south. Past the "Y" at the pit lane entrance. Staying high and close ... big letters ... D A Y T O N A ... flashing by ... crossing the Start/Finish stripe ... time to shut off for Turn 1... NOW.

Wrapping it up
Lifting, Larry aims for the outside line; gets haaarrrddd on the brakes—dropping into the decreasing radius turn—*oops, watch that slow Porsche on the inside*! Double-clutching for the downshifts ... *d'dunhh, d'dunhh, d'dunhh* ... now in second, touching the apex, he gets back on the gas, up to third, *vvvrrrrreeeEEEpah,* drifting a bit to the right, heading for Turn 2.

Wow! ... our hero has completed his first "OK" lap of the Daytona Speedway with his howling, jaw-dropping Ferrari GTO.

His lap time = 2 mins. 38 secs. An 87-mph average; not terrible but definitely not wonderful. Lots of work to do. But he has about 500 more laps to turn this week ... each, he's sure, better than the last. This coming Sunday, between 10 a.m. and 11 p.m., he and Bill will ride this ground-shaking Italian stallion, in daylight and dark, as fast as they can go for 1,200 miles or so.

By coincidence, the same day down in Miami, a British band of teenage musicians called The Beatles (***Beatles?!)*** will turn pop culture on its head forever. But Larry and the rest of the Speedway denizens are unaware of it; they're totally preoccupied with ... **The Race**!

POSTSCRIPT— random notes from the Speedway experience:

Faster Faster! In some ways, a race car and its crew are just a life-support system for its engine. Preserving the power plant is crucial—mechanically, competitively and financially. Larry's team has learned during practice that their rev limit setting is too low. "No wonder those other guys are going so much faster than us!" Hooray! There's more speed to be had at over 1,000 rpm higher, without fear of hurting that amazing Ferrari V12!

John, the chief mechanic, will instruct the drivers on what redline he wants. And in "trust but verify" mode, he'll relentlessly monitor that indispensable gadget: the tell-tale.

Tell-tale: Often called a "spy," the tell-tale is a friction-mounted needle on the tachometer dial. As the white rev counter needle advances, it pushes the bright red spy with it, but the spy stays at the highest rpm (revolutions per minute) the engine has turned. It's the chief mechanic's engine- protection gizmo that shows whether the driver has over-revved even once during a run. The reset knob is strategically located in an obscure spot behind the dash, so an embarrassed driver can't nix it before coming into the pits.

Tiny Lund's lesson: On that first day of practice, "Tiny" Lund, a very big NASCAR driver in every sense of the word, strolls through Larry's pit and looks the team over. Tiny, himself entered to race a mighty Cobra, is intrigued with the low-profile, delicate-looking, wire-wheeled Ferrari. He bends way down, studies the car inside and out (especially noting the absence of a roll-cage), raises an eyebrow and drawls skeptically, "Ah y'all goin' up on th' bankin' in THAT?!" When they affirm that's the plan, Tiny decides to share some of the tricks gained from his many miles of oval track experience and help these newcomers stay out of trouble.

Tiny's principal lesson is to stay high, as close to the outside wall as possible for the given conditions. To quote him, "Y'all don't never wanna hit that wall goin' straight ahead ... it'll hurt a lot. So don't run down low 'less'n ya hafta." He goes on, "It takes some gittin' use' to, 'speshly in traffic, but someday it'll save yer ass."

Larry gets a sharp reminder of Tiny's advice during practice that very day. A rival driver leads Larry's down the chute toward Turn 1, both running near the wall. As the first driver applies the brakes, a glittering shower of sparks bursts around him and he spins … ***WHUMP*** ... into the wall, hard, but at a fairly shallow angle.

The car bounces off the wall and rolls down into the infield near Turn 5. Larry worries about fire, so he continues around and slows coming through Turn 4. He spots the driver standing in the infield grass, leaning on the car's roof, his form sagging, his face ashen. A wire wheel collapsed and sent him into the wall; the windshield has popped out, and the car looks seriously bent. But there's no fire and the driver seems OK. They exchange thumbs-up and Larry carries on. The low-impact angle has just saved that guy's ass.

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*[Get your copy of **"Full Circle"** and continue reading the adventures of GTO 3223 GT.]*