



The 750 Monza, s/n 0428 MD, restored to its striking 1954 Carrera Panamericana livery.

From Mondial to Monza

A WORKHORSE FERRARI 4 CYLINDER

IT'S CONVOLUTED LIFE BY NOTED HISTORIAN ALAN BOE

375 VICTORIES

In the early years, it was not uncommon for Ferrari to change the model designation of a race car simply by swapping its engine, or to change the car's serial number to save a loyal customer taxes or import duties. Sorting all this out decades later can be frustrating for Ferrari historians and vexing to owners, collectors, auction houses, restorers, and dealers, and even, on occasion, to the Ferrari factory itself. The Ferrari pictured on these pages, identified for most of its years as a 750 Monza with aluminum coachwork by Sergio Scaglietti (chassis number 0428 MD), is one such example, although not the most egregious, of a Ferrari whose identity, as a factory team car, changed not once, not twice, but three times in its first few months.

When plans for the car were laid down in late 1953, it was anticipated that 0428 MD would be built as a four cylinder 500 Mondial bodied by Scaglietti, and so it was. Note the

"MD" suffix in its serial number which was used on all the Mondials. This put it in the middle of the Series I 500 Mondial production line-up. By the way, the Italian word "mondiale" translates to "world" in English and was used with the 500 Mondial to commemorate Ferrari's two Grand Prix World Championships won by Alberto Ascari in 1952 and 1953.

Ferrari's relationship with in-line double overhead cam four cylinder engines for sports racing cars began in 1953 when three cars were built - a Vignale spyder, subsequently rebodied as a berlinetta by Vignale (chassis 0302 TF), a spyder bodied by Autodromo of Modena (chassis 0304 TF), and a Vignale spyder (chassis 0306 TF). The engines in the first and third of those cars were each identified as a 625 S, but both were upgraded to 735 S engines before they were a year old, while chassis 0304 TF was built as a 735 S. Both versions were four cylinder overhead cam engines, but with different displacements.



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625 S vs. 735 S

Each cylinder of the 625 S engine displaced about 625 cubic centimeters for a total displacement of 2498 cc. This engine was good for up to 220 horsepower at 6800 rpm, while the 735 S, displacing 2941 cc, was good for up to 225 horsepower, also at 6800 rpm. The first outing for both the 625 S and the 735 S Ferraris was the sixth Gran Premio dell'Autodromo at Monza on June 29, 1953, where Mike Hawthorn turned in the best finish for Ferrari, a fourth overall, in a 625 S, chassis number 0302 TF, although Alberto Ascari had the pole in his 735 S, chassis number 0304 TF.

Both the 625 S and the 735 S engines were derived from Ferrari's very successful two liter Formula Two four cylinder twin overhead cam engine designed by Aurelio Lampredi. This was the engine used in the 1952 and 1953 grand prix Ferraris that Alberto Ascari drove to win the Driver's Championship both years. Formula Two engine rules had replaced the existing Formula One engine rules (1500 cc supercharged or 4500 cc normally aspirated) for those years when no manufacturer, except Ferrari, would support them.

THE FORMULA ONE INFLUENCE

The reason Ferrari got into four cylinder engines had everything to do with grand prix racing and those rule changes for 1952 and 1953. When Alfa Romeo dropped out of Formula One racing after the 1951 season, no one was left to battle Ferrari for the title under existing Formula One rules, so the FIA, the sport's governing body, decided Formula Two rules would be used to determine the Grand Prix Championship beginning in 1952, with engine sizes capped at two liters unblown.

Although Ferrari already had a two liter V-12 engine developed from a 1.5 liter design laid down by Gioachino Colombo in late 1945, and refined by Giuseppe Busso, chief engineer Aurelio Lampredi felt that an engine with four large cylinders would work better than one with twelve little cylinders due to its lighter weight (Lampredi's design was about 100 pounds lighter than Colombo's V-12), better torque, less power lost to friction, fewer moving parts, and better fuel consumption. Ferrari agreed.

LAMPREDI'S FIRST DESIGN

This was the Type 500, Lampredi's first pure racing engine designed for Ferrari. It was a great success, and quite versatile, because it brought Ferrari those first two Grand Prix Championships, and Ferrari was able to carry it over for use in sports car racing. The four cylinder engine's versatility was proven by the various displacements it came in, everything from two liters to 3.4, made possible by the wide 108 mm bore centers of Lampredi's design - the bore centers were only 90 mm apart in Colombo's design.

The engine bores in Lampredi's motors used wet steel liners that screwed into the heads making head gaskets unnecessary, a feature found in Lampredi's big displacement V-12s as well. Lampredi's four cylinder engines featured a dry sump oiling system, gear driven overhead camshafts, hemispherical combustion chambers, and two valves and two spark plugs per cylinder.

When Ferrari began building Series I 500 Mondials in 1954, a type 501 tubular steel chassis was used along with a type 110 four cylinder in-line double overhead cam engine based on



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The 750 Monza, s/n 0428 MD, with that long sculpted body by Sergio Scaglietti.

Lampredi's grand prix design, with twin Marelli magnetos for ignition, a pair of spark plugs per cylinder, and two Weber 40 DCOA/3 side draft carburetors. Displacement was 1985 cubic centimeters (496 cc per cylinder, hence the "500" used in the model's name) capable of producing up to 160 horsepower at 7000 rpm, using an 8.5 to 1 compression ratio. A four speed transaxle and drum brakes completed the package.

FIRST OVERALL AT IMOLA

But back to 0428 MD. It was finished as a 500 Mondial in March of 1954, and made its racing debut as a factory entry at Imola, Italy, the following June 20 driven by Umberto Maglioli. This, by the way, was the first race at the newly established Imola race track 55 miles southeast of the Ferrari factory in Maranello. Maglioli brought the little Ferrari home first overall on race number 36 in the Shell Golden Cup race (Coppa d'Oro Shell), a 50 lap go for two liter cars organized by the Italian Shell Oil Company. The next day 0428 MD was back at the factory, but only for three days before it was off to Monza for its next race. But during this brief sojourn, a three liter four cylinder 750 S engine overstamp 0428 MD was installed in chassis 0428 MD, replacing its original Mondial engine.

The 750 S engine is identified as a type 105 displacing 2999 cubic centimeters and running with two magnetos. Also, Lampredi and Ferrari used a head angle that was 85 degrees wide with the type 105 motor instead of the narrower 58 degree angle used on the Mondial motors, so things looked different under the bonnet.

MONZA 1000 KILOMETERS

At Monza, a week after Imola, the 750 S Scaglietti spyder, 0428 MD, was entered by Ferrari for the second Gran Premio Supercortemaggiore 1000 kilometer race organized by the other major Italian oil company, AGIP. The race was limited to cars with engines displacing less than three liters. "Our" Ferrari was to be driven by world champion Giuseppe "Nino" Farina, but the car caught fire during Friday's practice when the differential exploded shooting a piece of metal into the fuel tank. The fire sent Farina to the hospital for 20 days and sent the car on a two and a half hour truck ride back to the factory, and then to Sergio Scaglietti's shop in Modena, for repairs.

Upon arrival in Maranello, the factory mechanics descended on 0428 MD, pulling a Friday all-nighter. The fire damaged engine from 0428 MD was quickly removed, cleaned up, repaired, and installed in chassis 0430 MD, a Pinin Farina spyder, while the latter's smaller 500 Mondial motor was removed and set aside.

A WIN AT MONZA

The new three liter Ferrari 750 S (0430 MD/0428 MD) was trucked back to Monza early Saturday morning, arriving before qualifying, where Mike Hawthorn placed it second on the grid behind José Froilán González in the other factory 750 S (chassis number 0440 M). At a wet Monza on Sunday, the car was turned over to Hawthorn and Maglioli, who brought it home first overall on race number 14 completing 160 laps, one more than teammates González and Maurice Trintignant in the other 750 S.

The Monza event was important to Enzo Ferrari because he decided to use that race to debut his new three liter, four cylinder 750 Sport spyders, which is why it was necessary to get two cars into the race, albeit with some difficulty. The Monza race is also historically important to Ferrari because it was used to rename the 750 S as the 750 Monza in honor of the Hawthorn/Maglioli win. After Monza, the three liter engine, over stamped 0428 MD, was removed from 0430 MD and reinstalled back in the repaired 0428 MD for its next race, the Portuguese Grand Prix at Monsanto Park. As such, 0428 MD has been accurately and rightly referred to as the 750 Monza prototype.

0428 MD MYSTERY

Chassis 0428 MD also carries with it a curiosity involving the chassis number stamping on its three liter engine block. While the block is clearly stamped 0428 MD, there are faint remnants of another chassis number underneath. That number is either 0440 M, 0446 MD, or 0448 MD, all of which were originally built as 500 Mondial or 735 Sport spyders. This may have occurred when the original two liter motor in 0428 MD was replaced overnight by the three liter at the factory between the Imola and Monza races. The interesting part of this is why a lower chassis number would be over stamped over a higher number, seemingly going backwards.

Repaired of its fire damage, chassis 0428 MD next appeared at the fourth Grand Prix of Portugal at Monsanto Park near Lisbon on July 25, 1954, after having missed the Reims 12 Hours on July 3 and 4 since it was still undergoing repairs. The “new” 0428 MD was now a 750 Monza which González drove to a first overall at Monsanto on race number 4, setting a new 85.7 mph lap record in the process. That made it two major wins for chassis 0428 MD (Imola and Monsanto) and two major wins for its three liter engine (Monza and Monsanto).

SENIGALLIA TWO LITER RACE

Its fourth outing was at Senigallia, Italy, on August 8, 1954. This was another important race for Ferrari because the team was battling Maserati and their little A6GCS spyder for the Italian Two Liter Championship. Thus, hoping for a good result, chassis 0428 MD was returned by Ferrari to its original two liter 500 Mondial configuration once again. The car was handed over to factory test driver Sergio Sighinolfi who took it to a second overall, finishing three minutes behind Luigi Musso in a two liter six cylinder Maserati A6GCS.

After that race, the three liter 750 Monza engine went back into 0428 MD once again where it stayed for the next five years, and numerous races in the U. S., until pushed out by a fresh Chevrolet small block V-8 in California. Rumors circulating in 1954 indicated that the engine returned to 0428 MD

The 750 Monza, s/n 0428 MD, 4-cylinder engine of 2999 cc, with two 58 DCOA/3 Webers, for 250 hp at 6200 rpm.



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after Senigallia may have been a 735 S displacing 2941 cc, but by 1954 the 735 S was last year's motor having been replaced by the 750 S. So, in its first six months and its first four races, 0428 MD was twice a 500 Mondial and twice a 750... you can see how sorting all this out might drive Ferrari historians nuts.

TOURIST TROPHY RACE

Next up for 0428 MD was the Royal Automobile Club's Tourist Trophy race at Dundrod, in northern Ireland, near Belfast, on September 11, 1954. Ferrari turned the 750 Monza over to González and Masten Gregory running on race number 14. This was the fifth of six races counting for the 1954 Sports Car Manufacturer's World Championship, and this was the second major race for Ferrari's new three liter, four cylinder 750 Monza.

The highly dangerous 7.4 mile circuit at Dundrod was laid out on narrow two lane public roads with hedgerows, deep drainage ditches, and farm fencing paralleling every lap. Ferrari sent a pair of 750 Monzas to Ireland, chassis numbers 0428 MD and 0440 M, backed up by two privately entered 750 Monzas. Both the factory team entries were using magneto ignitions once again, but only one of them managed to start the race and it wasn't 0428 MD. In practice on Saturday, it was badly damaged by González when he slid off the asphalt surface and turned the car over in a ditch, putting both him and 0428 MD out of action (González was bruised but OK).

FERRARI WINS SPORTS CAR CHAMPIONSHIP

The format for the Dundrod Tourist Trophy race was unusual. It was run on a handicap basis with the slowest, small-engined cars given a head start amounting to as many as 27 laps. The race was won by a little 750 cc French Deutsch/Bonnet Panhard, which completed just 67 laps outright but, when its full 27 lap handicap was added in, it beat the 90 actual laps turned in by Hawthorn and Maurice Trintignant in the runner-up Ferrari 750 Monza (serial number 0440 M). Although not a great weekend for 0428 MD, the second place finish of Hawthorn and Trintignant's works Ferrari earned enough points to clinch the 1954 Manufacturer's World Championship for Ferrari.

After Dundrod, 0428 MD was once again returned to the factory and Scaglietti for repairs which were completed in October, 1954. This work generated a new set of build sheets which now officially identified the car as a 750 Monza. The repair job included transaxle and engine work, plus body straightening by Scaglietti which included a new, wider grille that protruded less than the original.

SOLD TO DE PORTAGO

After its factory racing days were over, following Dundrod, the repaired Ferrari 750 Monza was sold in November, 1954, as a new car to Marquis Alfonso "Fon" de Portago of Madrid, Spain. De Portago was a wealthy Spanish nobleman and aristocrat who enjoyed motor racing as well as bobsled competition. De Portago immediately sent the Ferrari to Mexico to run in the fifth Carrera Panamericana in late November, but he never made it to the finish due to a broken oil line and fuel



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TECHNICAL SPECIFICATIONS OF 0428 MD (AS A 750 MONZA)... COMPILED BY ALAN BOE

Chassis Type:	501, welded tubular steel
Wheelbase:	2250 mm (88.6 inches)
Front Track:	1270 mm (50 inches)
Rear Track:	1285 mm (50.6 inches)
Length:	4165 mm (164 inches)
Width:	1651 mm (65 inches)
Height:	1054 mm (41.5 inches)
Weight:	760 kilograms (1676 pounds)
Wheels, front:	Borrani wire, RW 3035 (4.5 x 16)
Wheels, rear:	Borrani wire, RW 2976 (5.00 x 16)
Tire size:	Pirelli, 5.25 x 16 (front), 6.00 x 16 rear
Brakes:	Hydraulic by Lockheed, aluminum drums, iron liners
Steering:	Worm and sector manufactured by ZF
Clutch:	Double dry plate
Instrumentation:	Borletti, 8000 rpm tachometer, oil pressure and temperature, water temperature, fuel pressure
Engine Type:	105, internal number 105/2
Engine:	In-line four, water cooled, double overhead cam, two spark plugs /cylinder, hemispherical combustion chambers, silumin block and crankcase
Valves:	Two per cylinder, opened by roller tappets, closed by two hairpin springs per valve
Compression Ratio:	9:1
Displacement:	2999 cc (183 cubic inches)
Maximum Horsepower:	250 hp at 6200 rpm
Top Speed:	113 to 164 mph depending on rear axle ratio
Bore:	103 mm (4.062 inches)
Stroke:	90 mm (3.531 inches)
Ignition:	Twin Marelli magnetos
Camshaft Drive:	Gears, front mounted
Carburetors:	Two 58 DCOA/3 Webers, twin choke, side draft
Fuel Tank:	145 liters (38.3 gallons)
Transaxle:	Four speeds plus reverse, non-synchromesh
Differential:	Limited slip by ZF
Electrical System:	Baroclem battery, two magnetos
Shock Absorbers:	Houdaille hydraulic, lever action
Suspension, Front:	Independent, unequal length A-arms, transverse leaf spring
Suspension, Rear:	de Dion beam axle, transverse leaf spring, twin parallel trailing arms per side



ED McDONOUGH IMAGE

The 750 Monza, s/n 0428 MD, at the start of the 5th Carrera Panamericana on November 19, 1954, Portago up, friend unknown.

issues. The car was by now painted a shiny black with hand painted signage and Mobil Oil and Champion spark plug stickers. This is how 0428 MD has been restored, complete with its Carrera Panamericana lettering and sponsor advertising.

After Mexico, de Portago had the body hand sanded to remove all the Carrera markings giving it a “flat black” finish. The Monza remained this way for the upcoming races in The Bahamas in December and at Sebring the following March.

Two weeks after the Carrera Panamericana, 0428 MD was in The Bahamas for the Speed Week races where de Portago won with it in the 105 mile, 30 lap preliminary race on December 11, and finished second overall and first in class the next day in the 60 lap Nassau Trophy race. De Portago then sold the Ferrari to Manfredo Lippman, a Guatemalan coffee grower and amateur race driver, who sent it to Sebring the following March for the 12 Hours to be raced by Sterling Edwards and Chuck Daigh, but they finished a lowly 54th overall. Following the Sebring race, 0428 MD was sold to Sterling Edwards who took the car back home to Beverly Hills, California.

WEST COAST RACING

Edwards raced it numerous times on the west coast beginning with the 1955 Pebble Beach races on a wet April 17, where he finished second behind Phil Hill in another 750 Monza (chassis number 0510 M). Edwards’ Monza still displayed

scars from previous races and still carried its “flat black” finish. After the race, Edwards was awarded a can of paint by the race officials suggesting that the car needed a new paint job, so Edwards had it repainted blue and white, American racing colors, and ran it that way in all its subsequent California races.

Edwards went on to race 0428 MD eight times in California achieving four overall wins and two third place finishes (but class wins). He was back at Pebble Beach on April 22, 1956, for what turned out to be the final races through the Del Monte forest, finishing fifth overall. The Pebble Beach races, which Edwards founded in 1950, were stopped after 1956 due to Ernie McAfee’s fatal accident that year. (See Cavallino 214.)

Edwards continued to enter it for racing into 1956, unsuccessfully offering it for sale at the same time. He then put it into storage at Dana Fuller’s shop in San Mateo, California, later in 1956, but without its motor which Edwards kept. The Ferrari stayed with Fuller until Edwards sold it in 1959 to Bob Whitmer who worked for Edwards. Whitmer had it repainted red and he installed a small block Chevrolet V-8 engine, common practice at the time, which he obtained from Lance Reventlow. The original four cylinder Ferrari motor remained with Edwards until about 1973 when he sold it to Whitmer.

Between 1967 and 1982, the Monza went through a series of owners in California during which time the car was disassembled. Will Haible of San Leandro, California, ended up



The 750 Monza, s/n 0428 MD, with Marquis Alfonso "Fon" de Portago at the wheel, at the Bahama Speed Week on December 11-12, 1954. Note that the body paint has been sanded down, to remove the sponsor labeling seen at the Carrera Panamericana, resulting in the first (?) matt black finish Ferrari.

with the Ferrari in pieces in 1982, intending to eventually put the car back together. To that end, Haible obtained its original engine in March, 1993, from Mike Sheehan of Costa Mesa, California, who had purchased it from Whitmer in 1990.

SOLD IN PIECES

Then, in June, 2016, 0428 MD was sold still in hundreds of pieces to current owner Tom Peck of Irvine and Laguna Beach, California. Included in Peck's parts stash were de Portago's original tool boxes and owner's manual. Peck says it took a day and a half to sort and pack everything before sending it all a few days later, minus engine and transaxle, to Bob Smith Coachworks in Gainesville, Texas, for a massive, full, three year restoration/rebuild. Patrick Ottis of Berkeley, California, redid the engine and transaxle, also working from boxes of parts received from Peck.

The body had undergone a poor restoration earlier, which needed to be undone and, using period pictures, the nose was brought back to its original configuration. Although all major components were with the car - engine, body, chassis, and running gear - Peck credits the availability of his two other four cylinder Ferraris, plus Patrick Ottis's 750 Monza, 0510 M, and Admiral Phillips' 500 Mondial, 0446/0556 MD, for making it much easier to get everything right.

THREE YEAR RESTORATION

The restoration took all of three years to finish because every single component needed some level of restoration, which included machining, plating, metal work, fabrication, and painting. But then last July in Texas, with its 750 Monza engine and transaxle back in place, 0428 MD came to life once

again under its own power after 63 years, 41 of which the car was in pieces. Its first public appearance post-restoration was at last August's Pebble Beach Concours where 0428 MD finished second in a very strong Class M-2 for competition Ferraris, but it won the prestigious Enzo Ferrari Award which is given to the most significant Ferrari on the field. Look for it in January at the Cavallino Classic in Palm Beach, Florida.

MONZA BODY DESIGN

Down through the years, the aggressive design for the body used on the Scaglietti 750 Monzas has been attributed to Enzo's young son, Dino. But when asked about this by Ferrari historian David Seielstad at Pebble Beach in 1998, Sergio Scaglietti replied, promptly and firmly via his translator-nephew, that the design was his. However, he said that Dino had appeared at his shop in Modena one day and suggested that the car needed a headrest behind the driver, so Scaglietti put one on. When Enzo stopped by later he voiced displeasure with the headrest, noting it looked awkward, but when Scaglietti mentioned that it was Dino's idea, Enzo withdrew his complaint and the headrest stayed.

THE PERFECT SEAT

Like so many competition Ferraris, the view forward from the driver's seat through the Plexiglas windscreen and down the long, smooth, low-sloping hood, is impressive. Closer to home is an instrument panel anchored by an 8000 rpm tachometer flanked on the left by oil temperature and oil pressure gauges, and on the right by water temperature and fuel pressure gauges. The starter button is to the lower left just above the magneto switch.



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THE PERFECT CAR

The four cylinder Ferraris were an interesting and successful temporary departure away from the great V-12s in the 1950s, and today occupy a special historical place in the Ferrari tradition. Not only did they win important races for Ferrari, but they made competition Ferraris available to private race teams in greater numbers than ever before, thereby contributing to a positive cash flow at Ferrari and helping to build Ferrari's race winning reputation worldwide. All around, a win-win situation for Ferrari, its private racing teams, and for racing fans everywhere.

ACKNOWLEDGEMENTS

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REFERENCES

The detailed history of the Carrera Panamericana can be found in Cavallinos 9, 10, 91 & 186.

The detailed history of the Bahama Speed Weeks can be found in Cavallinos 25, 135, 136, 137, 138 & 140.

A detailed history of the 500 Mondials can be found in Cavallinos 37, 61, 62, 63, 116, 122, 124, 163, 164, 171, 173, 198 & 228.

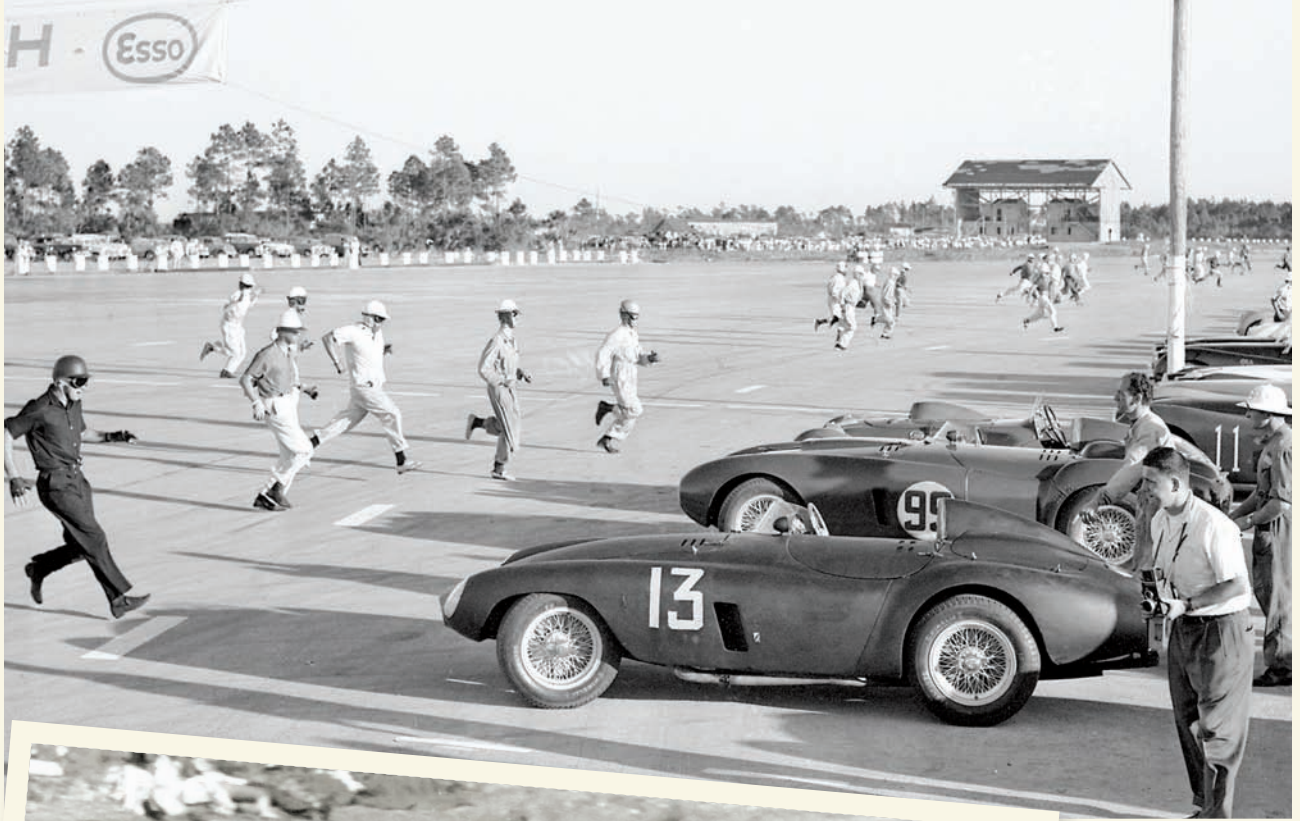
500 MONDIAL VS. 735 S VS. 750 MONZA ENGINES... COMPILED BY ALAN BOE

	Series I 500 Mondial	735 S	750 Monza
Type Number:	110	735	105 (1954) 119 (1955)†
Number Built:	14	2	37
Head Angle:	58°	85°	85°
Bore:	90 mm	102 mm	103 mm
Stroke:	78 mm	90 mm	90 mm
Displacement:	1985 cc	2942 cc	2999 cc
Camshaft Drive:	Gears	Gears	Gears
Carburetors:	40 DCOA/3	50 DCOA/3	58 DCOA/3
Power:	160 @ 7000 rpm*	225 @ 6800 rpm	250 @ 6200 rpm
Compression Ratio:	8.5:1	9:1	8.7:1
Ignition:	2 magnetos	2 distributors	2 magnetos

* 165 horsepower at 7200 rpm with two 40 DCOA/3 carbs and 8.8:1 compression ratio.

† The type 119 engine produced 260 hp at 6200 rpm using a 9:1 compression ratio.

Alan Boe is no doubt one of the foremost Ferrari historians and researchers of our day, and he writes intelligently, and extensively, on Ferraris for many serious publications, including full length feature articles for Cavallino magazine. He is also Chief Judge Emeritus of the exclusive Ferrari Class at the prestigious Pebble Beach Concours d'Elegance, and an IAC/PEA Lifetime Judge at the Palm Beach Cavallino Classic and the Ferrari Club of America National Meet. He is also an Associate Editor of Cavallino.



ABOVE - GETTY IMAGES

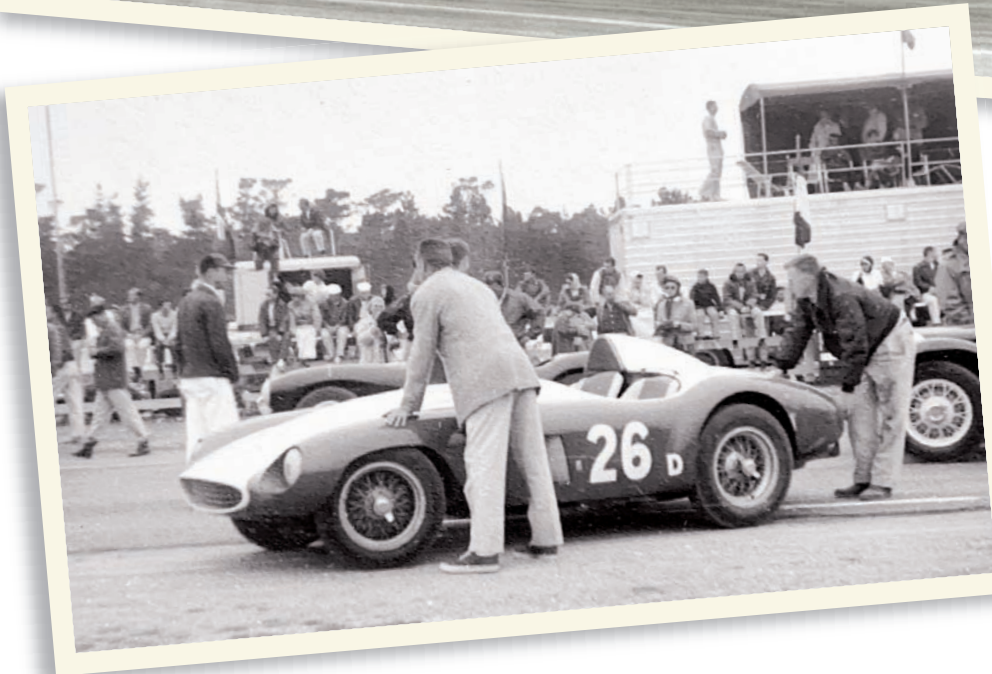
LEFT & BELOW - TOM PECK COLLECTION



Above - The 750 Monza, s/n 0428 MD, with Fon de Portago on the run at the start of the main event at the Bahama Speed Week on December 11-12, 1954.

Middle - Sterling Edwards in s/n 0428 MD, at Santa Rosa on June 5, 1955.

Left - 0428 MD lining up for the start of the April 22, 1956 Pebble Beach race, Sterling Edwards up.





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The 750 Monza, s/n 0428 MD, with Mobil Oil logos and "V Carrera Panamericana" plate.



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750 Monza

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