

MUSTANG-FORD'S NEW SPORTS CAR

HOT ROD

EVERYBODY'S AUTOMOTIVE MAGAZINE



BAKERSFIELD FUEL SHOWDOWN

MAY 1964 50c IN CANADA 60c

COMET SAFARI CARS

African Rally Specials

'64 INDY PREVIEW

New Engines and Chassis

THE DAYTONA '500'

175 mph MoPar Stocks

151 MPH DRAG BIKE

The World's Quickest?



MANTARAY-OAKLAND ROADSTER SHOW TOURNAMENT OF FAME CHAMPION

COMETS

Already proven superbly durable on asphalt, now Comet goes after the worst roads in the world by competing in a rally through East Africa

ON

BY RAY BROCK



Comet, Mercury's entry in the medium-size field, recently completed 40 days and nights of steady running with a team of four specially-prepared Super Cyclone models and shattered more than 100 International speed and endurance records in the process. Each of the four averaged over 105 mph for the distance and this included all refueling and service stops. The ease with which the Comets captured these records brought up one question: how do you top a

feat like this? Simple, just look for the most demanding automotive event anywhere on the face of the earth and enter a team of cars.

Even while the Comets were rolling up miles on Daytona's Speedway last fall, a group of men under the direction of Fran Hernandez, Mercury's Manager of Performance and Evaluation, was busy preparing another team of

SAFARI

Comets to compete in the world's toughest road rally, the Twelfth East African Safari. This rally comes by the words "world's toughest" naturally for its 3100-mile length winds through the three East African countries of Kenya, Uganda and Tanganyika, on roads bordering the unbelievable. Only about 100 miles of the 3100 total are paved; the rest varies from graveled roads to animal trails. Compounding the problems are jungle, swamps, elevations up to 9000 feet and wild animals. The Safari passes through several game reserves in the heart of Africa's big game country.

This rally is unlike rallies held in Europe, Canada or America because penalty points are given only for being late, not for being early. The end result of this type of scoring is that all competitors are as "flat out" as road conditions will permit at all times to avoid being late and incurring penalties. In the eleven previous Safaris, there have been only three times when 50% or more of the entrants completed the rally. Last year only seven out of 84 starters completed the Safari. Give you an idea about how tough it is?

The worst problems of the Safari, other than trying to maintain about a 50 mph average over the wildest road anywhere, are combating mud and trying to keep the car in one piece. Mud is the big enemy and since the Safari is held at Easter time each year, just at the beginning of East Africa's rainy season, chances are better than even that mud will prevail over much of the route. This year Easter falls on March 29, earlier than usual, so there is hope among competitors that not so many cars will bog down as last year. *(Continued on following page)*



Team Manager Don Francisco shows off one of the specially-prepared Comets prior to loading aboard ship for lengthy trip to East Africa. Note Perlux fog lights, aircraft landing cowl lights. **OPPOSITE PAGE** - Comet in practice through Kenya's big game country meets cross traffic.

RIGHT—Car colors are red, white and blue but top of front fenders and hood are dull black to cut glare from sun and cowl-mounted driving lights. Hood, deck are secured by hairpin snags and pegs.



COMETS ON SAFARI *continued*



A dry Safari has its drawbacks too: blinding dust, washboard and suspension-wrecking ruts.

The Safari has unusual rules for competing cars. Although there will be six classes, based on engine displacement, all six classes will be allotted the same time to complete the event. Now, although this sounds grossly unfair with the small displacement Saabs, Volkswagens and the like having to compete against the larger displacement cars like Comets for the outright winner title, East African roads have their own way of handicapping machines. Through the prior eleven Safaris, smaller displacement cars have won the outright classification eight times. Volkswagen has won four times. Larger, heavier cars not only get in more serious trouble in the mud, they also suffer more as they bounce over the severely rutted roads. Once they're stuck in the mud or off the road in a ditch, the larger cars are also much harder to get back in motion.

In preparing the Comets for the Safari, Mercury called on Bill Stroppe and Associates of Long Beach, California, who have considerable experience in the field of competition cars. A number of export components were used on the cars and further special modifications had to be approved by the FIA in Paris, under special homologation procedures. A number of modifications and extras are permitted by the Safari committee without homologation papers, such as: roll bar; skid plates to protect oil sumps and other vital parts beneath the car; extra lights; reserve fuel tanks; and an unlimited number of spare tires.

Stroppe's crew, with ex-*HRM* technical editor Don Francisco as manager of the Safari cars, prepared two Comets initially so that they could be taken to Africa for test purposes last November. These first two cars were hastily set up, loaded aboard a cargo plane in New York and flown to Nairobi, Kenya. Fran Hernandez, Don Francisco, Mercury publicity man Grover Page and Firestone tire engineer Bob Martin also flew to Nairobi at the same time.

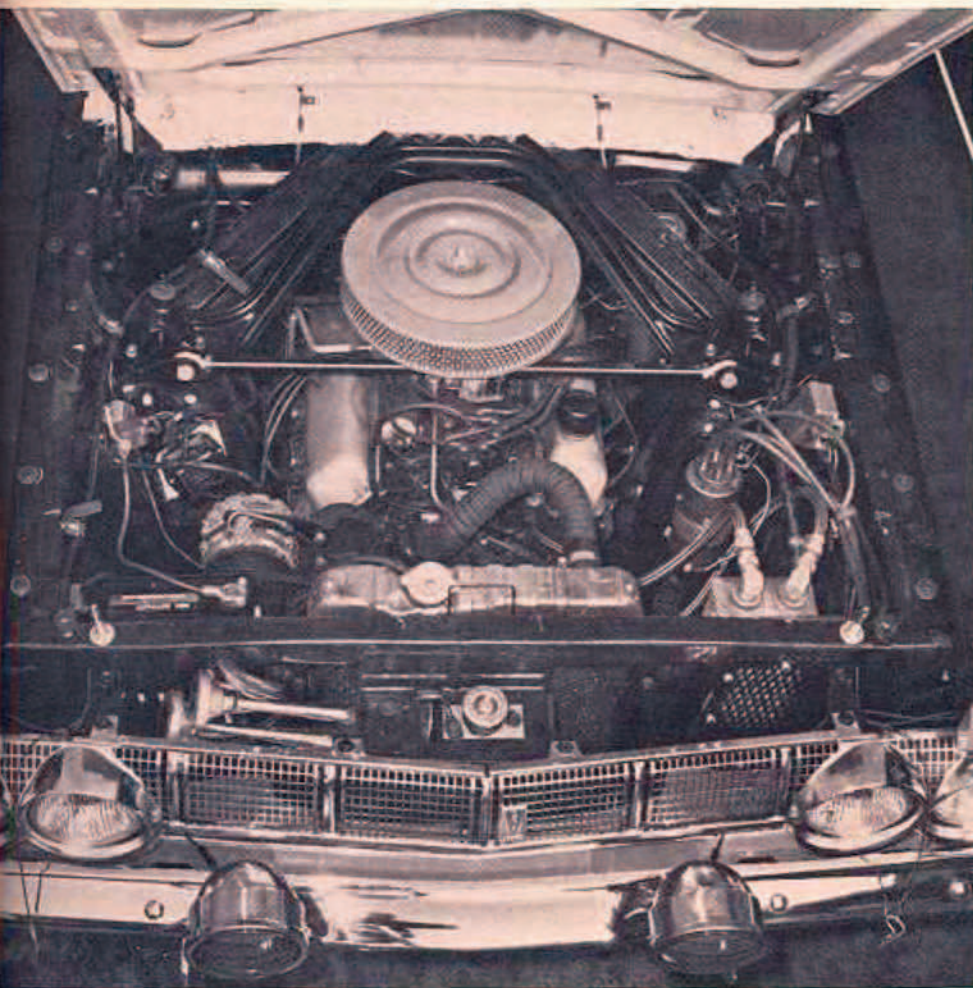


In Nairobi, the Comet team was met by Viscount Kim Mandeville and Peter Walker, two drivers with considerable experience in earlier Safaris. Both drivers, who live in Kenya, had previously agreed to drive for Mercury and would handle the test program for the Comets. For almost a month, Mandeville and Walker pushed the cars over tortuous East African roads while Mercury representatives watched for car problems and Firestone's Martin checked out various tire designs and compounds that had been brought along.

Just before Christmas, the team members returned to the United States, leaving the two Comets in Nairobi. The test program had been very successful and except for a few minor changes, the cars seemed well suited for the Safari. They had survived brutal punishment over rutted roads, washouts, deep gumbo mud and sharp rocks.

While the tests were being conducted, three more cars were being completed at Stroppe's so that they could be loaded on a ship for the month-long voyage to Mombasa, seaport of Kenya. These three, plus the two left in Kenya, were the practice cars for teams recruited in Africa and from the latter part of January until just before the rally, March 26, 1964, these five Comets were sched-





LEFT — Heavy-duty yoke bolts between upper front spring towers and firewall. Heavy tube passes just ahead of carb to prevent towers bending from bottoming.



ABOVE — Longitudinal pair of wide, spring steel skids protect oil pan sump from high-centered roads that will be encountered. Suspension is heavy-duty.

ABOVE LEFT — Comet mechanic Louis Unser installs an oil radiator during build-up. Louis will also drive in Safari. Air horn compressor is far left in photo.

LEFT — Rear area has been revised to carry two spare tires, 3-gallon tank for windshield washers, tool box, extinguisher. Roll bar anchors the shoulder straps.

uled for practice trips over the 1964 Safari route.

Five more Comets were prepared for the Safari and shipped by boat the early part of January so that they would arrive in Mombasa a couple of weeks prior to the Safari. These last five were to be the cars used in the rally by the ten-man (two per car) first team. The five practice cars were to be repaired as necessary, one entered and the other four used as service cars with four of Stroppe's mechanics and yours truly, Ray Brock, as drivers. Stroppe's mechanics are: Louis Unser, an able mechanic and professional driver of stock cars, sprints and midgets; LeRoy Neumayer, mechanic and professional driver of sprints, championship cars and dragsters; Don Bailey, mechanic and member of Comet's Durability team at Daytona; Jack Conley, mechanic.

The duties of the four-car service group will be to precede the Rally and set up service stops. Comet team members in the Rally who might get stuck in the mud or have other trouble may assist each other. This is legal under Safari rules and pushing or towing for short distances is quite common between team members. In many places, car crews often have to assist their competition out of trouble to clear the road

so they can get through themselves. At the same time we compete, with a co-driver to be chosen in Nairobi, we will also shoot pictures to show the terrain and other problems encountered.

The 3100-mile course is divided into two loops, both of which start and end in Nairobi, Kenya. The first loop starts Thursday, March 26, on a raised ramp in Nairobi with the first car, as determined by drawing February 28, leaving at 4 pm and following cars spaced at 3-minute intervals. The Safari runs through the night to arrive at Kampala, Uganda, Friday. The course then turns back around Mt. Elgon, past Thompson's Falls, up a rugged 9000-foot pass at the base of 17,058-foot Mt. Kenya, through Friday night and back to Nairobi.

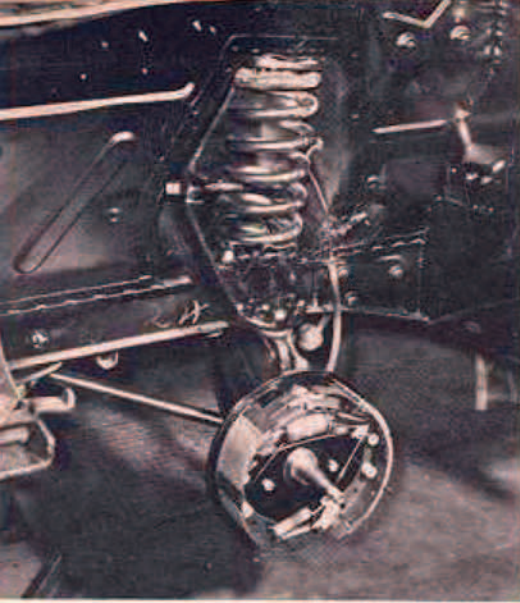
Following a rest period and servicing of the cars, the second loop starts at 4 pm Saturday, heads south past 19,340-foot Mt. Kilimanjaro into Tanganyika. Easter Sunday, the first cars will arrive in Dar Es Salaam, Capital of Tanganyika, at about noon. Sunday afternoon the cars will make their way north along the Indian ocean to Mombasa, then through the night again to Nairobi where the run finishes on Monday, sometime after 8 a.m.

The northern loop to Uganda is approximately 1350 miles long and the southern loop through Tanganyika is about 1800 miles long. The first leg of the run is approximately 40 hours long and the second loop is slightly more than 40 hours in duration, so competing crews must carry food and drink with them. Each car must carry either two or three drivers and rules state that a driver cannot drive more than 200 miles at a stretch without rest or relief; the Comets will have two-man crews.

The Comets will be powered by 289-inch, high-performance Super Cyclone engines, identical to those which powered the Daytona Durability cars. They're rated 271 horsepower and have 12:1 compression, mechanical lifter camshaft, large valves and a single four-barrel carburetor. The engine is a standard high-performance option manufactured by Ford's Engine and Foundry Division.

The transmission is a product of Ford's Transmission and Chassis Division and is their new heavy-duty four-speed. Ratios are 2.32, 1.68, 1.29, 1:1 and 2.32 in reverse. A floor-mounted Hurst four-speed shifter will be used. During last December's tests, Hurst units were used and worked fine until the heavy mud got into the shifter and made shifting effort high. Hurst has

(Continued on following page)



ABOVE—Don Francisco, left, and Bill Stroppe discuss hose routing for special air horns during modifications. Stroppe's shop turned out 10 highly tuned Comets.

UPPER LEFT—Heavy-duty suspension components include springs, spindles, control arm struts, shocks. Front brakes are 3 inches wide, use metallic lining.

LEFT—LeRoy Neumayer, another of the Comet mechanics who will drive in Safari, prepares to install 2½-inch wide Velvetoach lining on the 11-inch rears.

RIGHT—Rear compartment has plywood platform with slide-buckle straps to prevent shovel, jacks, brush knives and towing gear from ricocheting around.



photos by Eric Rickman and Mercury Division



COMETS ON SAFARI *continued*



since designed a protective shield and rubber boots to keep the mud away from critical points.

The rear axle is a standard high-performance item with 4.57 ratio and a No-Spin differential for positive traction on all types of road surfaces. Wheels are steel, 15-inches with 6½-inch rim width. They fit the conventional Mercury five-bolt pattern but acorn nuts will be used instead of standard lug nuts. The reason for this is to prevent mud getting into thread ends

and causing hard removal. Tires are Firestone 7.10/7.60 x 15 and have a self-cleaning pattern similar to Firestone's stock car dirt track tire. Pattern and size are the same front and rear with two spares carried in the passenger compartment on a special mount behind the driver. Best air pressure is 26 lbs.

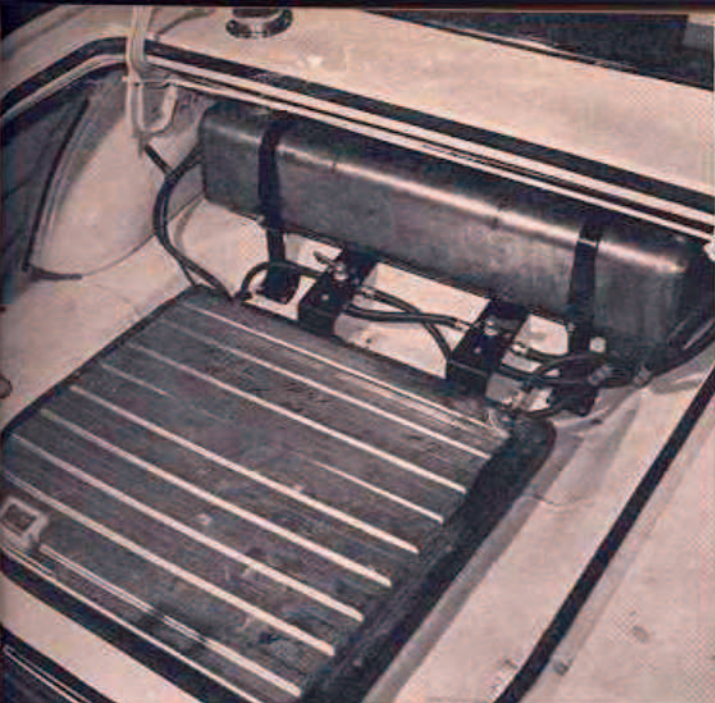
Heavy-duty springs and shock absorbers are used both front and rear and they're really high rate. For the front end, heavy-duty parts, spindles, radius rods for the lower control arms, and stabilizer bar are used. Comet front springs mount between the upper control arm and a tower in the inner fender panel; two extra members have been fitted between spring towers to prevent their being crushed toward each other by severe bottoming. One member is an export yoke and the other is a heavy-walled tube with spherical bearing ends which passes across just ahead of the carburetor.

Brakes were tested extensively in the practice session and several types of

linings tried. The one which worked best under all conditions — mud, water, dust, heat, cold — was Velvetoach metallic. Drums both front and rear are 11 inches in diameter with 3-inch width for fronts, 2½-inch width rears. A vacuum-assisted power brake unit is also used. The cast iron drums have vent holes in the braking surface to help exhaust dust and water.

A heavy-duty radiator is used and a removable screen protects it from stones and insects. The screen can be pulled out with the hood open, cleaned of mud or insects by shaking or washing, then reinstalled in a matter of seconds. On the subject of water, a 3-gallon auxiliary tank is mounted inside the passenger compartment and fitted with a pair of small electric pumps to supply water to the windshield washer nozzles. The large capacity ensures ample supply in event of long sections of mud or dust.

Refueling during the Safari is strictly up to the competitor, with no special



ABOVE LEFT—Standard 20-gallon fuel tank in floor of luggage compartment is supplemented by a 22-gallon reserve over rear axle. Transfer valves permit tank selection. ABOVE RIGHT—A pair of steps on rear bumper plus handles on deck lid provide secure spot for co-driver when extra traction is needed on rear wheels. Note large back-up light, tow eyes in bumper, large diameter gas fill neck. LEFT—Comet bucket seats are retained but catch-all tray replaces console. Speed pilot is mounted over the tunnel. Light switches fill dash center.

time allowances, so a reserve fuel tank has been added above the rear axle step-up behind the rear seat area. This tank has a large, quick-fill neck in the body just behind the rear window, and transfer valves into the main fuel tank beneath the rear deck compartment. The standard tank hangs down beneath the car behind the rear axle so for protection against puncture by rocks, it has been fiberglassed and fitted with a sheet metal shield.

Up front, a pair of 3½-inch wide, spring steel straps are bracketed from the front crossmember to the front of the transmission. These steel skids protect the engine oil sump from rocks and will also act as runners in heavy mud. Although extensive protective skids and plates are permitted by the Safari committee, these two are the only major protectors used. The reason for no more is that they add weight and it was felt that with heavy-duty springs and 15-inch wheels, road clearance was quite good for the Comet.

To eliminate extra pieces which might add weight and also be damaged on rough roads, a single exhaust system is used instead of duals. The crossover pipe from left exhaust manifold is protected by the skid plates and the head pipe is tucked well up alongside the driveshaft. A single, low-restriction muffler mounts behind the rear axle and as high as possible for road clearance.

Several types of lights were tried on the test trip and those determined best were the standard Comet quad headlights plus a pair of bumper-mounted fog lights and a pair of cowl-mounted driving lights. The fog lights are made by Perlux and, instead of being amber, are clear but with metal shutters which direct the light in a low, flat beam with no reflection upward to glare in fog.

The cowl lights are aircraft landing lights. Several highly-touted European driving lights were tried, too, but the landing lights worked best. These cowl lights have deflectors to keep glare from passengers' eyes and the whole hood and

tops of front fenders are painted dull black to prevent glare from lights at night and sun during daylight hours.

A single large, wide-angle light mounts on the rear bumper to provide illumination should the car have to be backed out of a tight spot at night. A flexible navigation lamp is fitted to the right side of the instrument panel for reading charts or instructions. All lights, except the standard quad headlights, are controlled by a switch panel in the location normally occupied by a radio. It can be reached by either driver or co-driver. Also, in front of the co-driver, a smaller panel has switches for windshield washers and a loud, Italian motor-driven air horn that can emit a single blast or a three-toned warble. It is hoped that these distinctive horns will move both animals and spectators.

Together with the roll bars, seat belts and shoulder straps protect passengers. They will also wear crash helmets. All items within the passenger compartment will be securely anchored to keep them in place in the event of a roll-over or collision.

Jacks, tow straps, shovels, brush knives, etc., will be carried in the trunk on a plywood platform. Three nylon belts with slide buckles are used to fasten these items securely so they won't rattle around. The deck lid (also the hood) does not use the conventional lock but is fitted with steel pegs which pass through reinforced holes and have holes for hairpin snaps. These latter items are quite popular in stock car racing and eliminate fumbling for releases or inserting a key.

A pair of handles are also fitted to the deck lid and their purpose is to provide hand-holds should the co-driver have to stand on special pads fitted to

(Continued on page 112)

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COMETS ON SAFARI

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the rear bumper to increase traction over the rear wheels. Extending from the bottom side of both front and rear bumpers are a pair of steel plates with large tow rings. Their purpose is obvious. Each Comet will carry about 70 feet of heavy nylon strap and clevis attachments to use for towing. The nylon straps are comparable in strength to medium size chains or cables and are much lighter and more flexible.

As you've obviously learned by now, Mercury's Comets are being sent to Africa with one thought in mind—to grab the outright winner's title in the Twelfth East African Safari. From all indications they have a good chance with their first team of five cars in the hands of experienced drivers who are familiar with the country, plus an additional backup car.

By the time you read this story, the Safari will be history but with magazine deadlines such as they are, we will have to wait until the June issue to present a first-hand report. We are taking a wide assortment of cameras to record the countryside and the action, and will present several pages of four-color pictures in our coverage. With all the natural beauty of the high plateau big game country, the Rift Valley, Mt. Kenya, Mt. Kilimanjaro, Thompson's Falls, Lake Victoria and the Indian Ocean, prospects for thrilling action shots are unlimited.

We have been excited beyond words since we got approval to accompany the Comet team and now that we've seen the cars being prepared and watched them load up for the long journey nearly half-way around the world, we are carefully watching each step to make sure we don't slip and break a leg or something and miss the trip.

We will be in Nairobi the first of March and spend a month practicing, shooting pictures and competing. Don't miss June HOT ROD because we will sure be anxious to talk about the world's toughest rally. ■ ■



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DICK WELLS Managing Editor
ERIC RICKMAN Photo Editor

GEORGE FUKUDA Editorial Design
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COVER:

Hollywood model Pat Slattery has custom car star Dean Jeffries at her mercy; if she pushes the right buttons, the canopy closes, the engine fires and away he goes! Photo by Eric Rickman.

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