

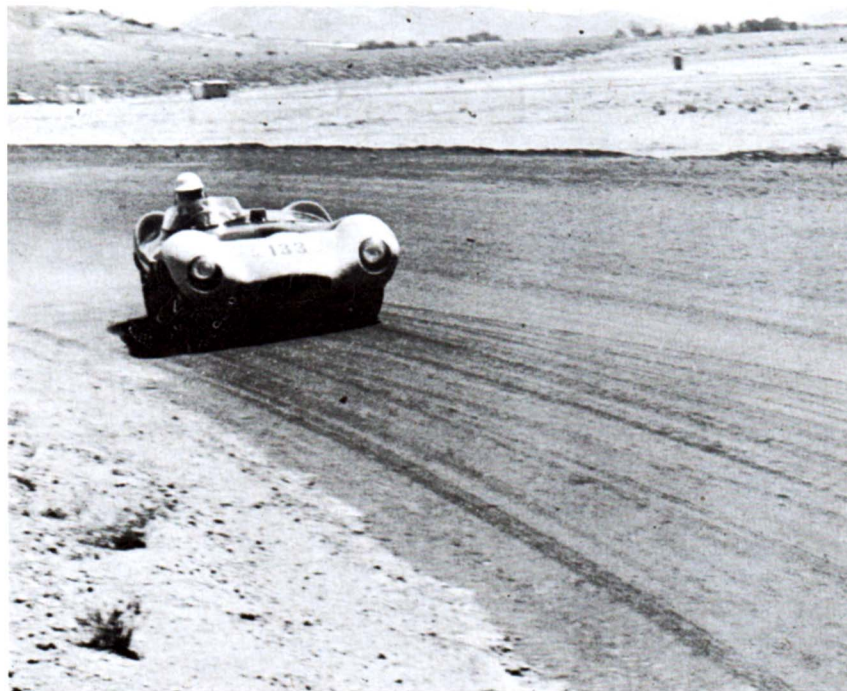
Complete lack of temperament combined with blinding speed makes the D-Jag an almost perfect competition car. Its one bad habit is its objection against being hauled off a straight line.

Driver's Report

The D-Type JAGUAR

By **RUSS KELLY**

SCI West Coast Technical Staff



Jerry Austin steams through the second turn of test site at Willow Springs at 100 mph. Major problem on this turn was keeping the car from straightening out.

TELEVISION isn't the only place you can find a \$10,000 question... the D Jag has brought one to sports car racing. This, the only sports-racing car in Europe that could really worry Herr Neubauer and the 300 SLR's, was recently, in production form, humbled in California competition by a 1500 Porsche.

The more you learn about the D the more paradoxical it becomes. The further away from the factory it gets, the less of a first place threat it seems to be. In the eastern part of the US it has had in the past year a couple of notable successes; on the West Coast, up to the time of this writing, only one.

If these cars aren't capable of consistently winning races, why aren't they changing hands? Sentiment has little place in racing. The D owners that take their racing seriously are not interested in selling. The only answer there could be to this is that there's a lot more to the D than has been written in the final race reports.

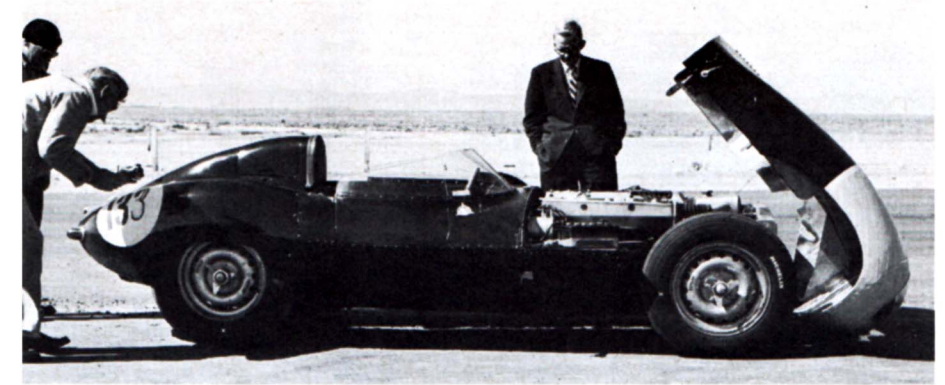
Let's try a few questions and answers on the D that first come to mind when we think about racing cars... How about horsepower translated into ac-

celeration, the delivery of horsepower is fantastic. The D has lead the pack into the first corner from the start more often than any other car on the coast. In southern California there is perhaps as representative a collection of going cars as in any place in the world, but the only sports car here that can out-accelerate the D is a 4.9 Ferrari.

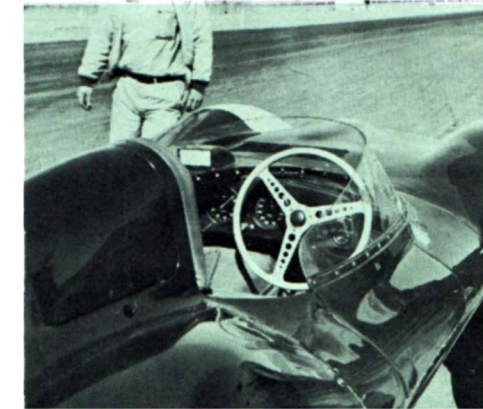
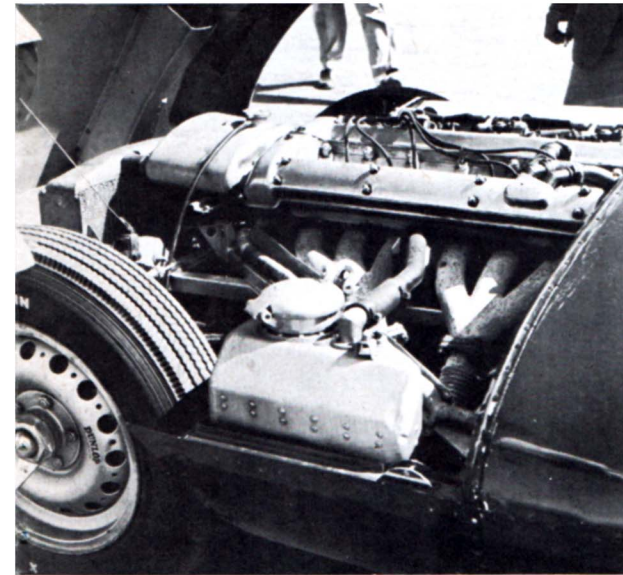
How about keeping the D in tune? Jerry Austin, the only driver to carry the checker in the D on the coast and who made his car available to SCI for the driver's report has never had to do so much as change the distributor points. This is the car that only a couple of weeks before this test, in a race at Bakersfield, got the jump at the start on John Edgar's potent 3.5 Monza and led it for the first lap on sheer speed.

Is the car temperamental? This word has become almost synonymous with racing sports cars, but it certainly doesn't apply to the D. One west coast owner bought his D in Pennsylvania and drove it to LA and has consistently raced it since.

So far the D sounds like the ideal private owner racing car, but what



RIGHT: D-Jag has number painted on by owner Austin. Car got the jump on a 3.5 Monza, and led it for first lap at Bakersfield race a few weeks before this run. BELOW: Detailed view of exhaust side of engine.



Cockpit view of D-Jag shows tach at far left, and speedometer to right. Small dials to right of steering wheel are oil pressure and water temp. gauges. Trap door in headrest is for gas tank filler.

about the handling? Obviously, this is the \$10,000 question.

The factory states that the car was designed for flat high speed Le Mans type courses. That the car has built-in understeer characteristics makes it unsuitable for the short tight corners so popular in American and especially western courses. All this tells us about the D is that we've got the wrong courses over here.

Available literature on the handling of the D tells little more, so SCI made arrangements to test the D type under as nearly safe, sane conditions as possible.

Jerry Austin, winner of the six hour endurance race at Torrey Pines, offered SCI the loan of his car and at the same time volunteered a lot of interesting information. Most relevant at this time was his thoughtful answer when I asked him why he lost the lead in the Bakersfield race. "You should have seen the Monza go through the corners from where I did. It slipped by me so easily on the inside it wasn't even funny. Are the Ferraris that much better? Or is it the difference in drivers? I certainly wish I knew."

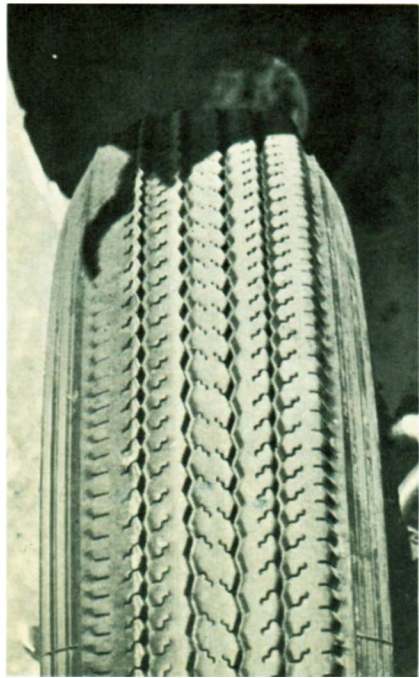
Instead of shaking the D down on

our usual sports-car test course, we took it to the 2.4 mile Willow Springs course near Lancaster, California.

Present to watch the test was John Dugdale, manager of the western territory of Jaguar Cars North America, Inc., accompanied by Buck Hickman, the service manager in the same organization. Also present was Hal Moody, Michelin tire man, to watch over the Michelin X's used on the D Jag.

After Austin had warmed the car up on the course and the oil and water had been checked, Moody gave his personal attention to the tires and the car was turned over to me. It's not true that I stumbled over my own feet in my hurry to get at it; somebody tripped me.

When I settled into the cockpit, it took a moment for me to realize that the easy-chair attitude the leather-covered seat was trying to bend my resisting body into was the right one for controlling the car. I was pleased to find that there was no sense of envelopment to tickle any latent sense of claustrophobia. Controls are convenient and easy to locate. The instruments include, from left to right, a large-diameter tachometer a speedometer—

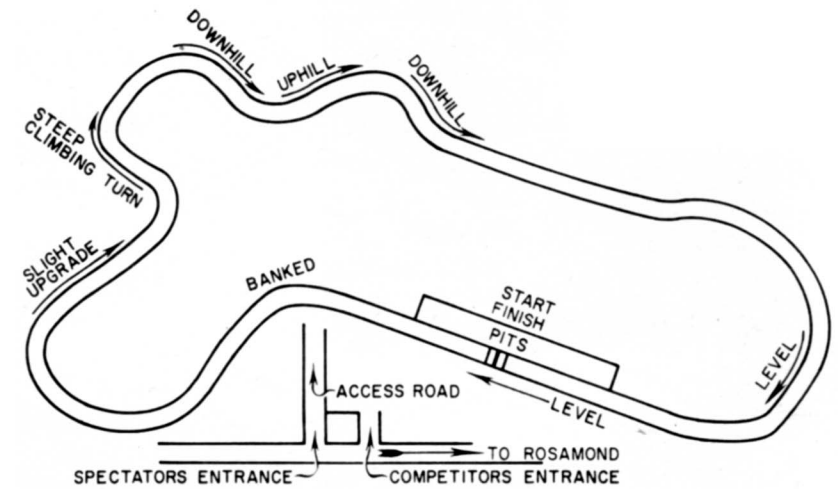


The Michelin tire after the test run. Course at Willow Springs has reputation for being hard on tires, as seen here.

Author checks hoses and engine compartment to make sure all is secure before climbing aboard for the run. Jag's untemperamental nature requires the barest of maintenance.



In compliance with FIA regulations, The Jag carries its spare in a readily accessible location. On long races, quick changes can be essential in case of tire failure.



a handy item in a car so effortlessly fast, and another indication that the factory still considers the D to be a road car—the oil pressure gauge and temperature gauge.

After a few moments I had things reasonably well sorted out and made a mental note that Austin had turned his last warm-up lap in less than one minute 50 seconds without raising the tell-tale needle above 5000 rpm. I turned the key and touched the starter. First gear is high and requires some jockeying of clutch and throttle to get away smoothly, but for normal starts presents no real problem. It took only

an instant to cross the pit area and I was out in the course. Willow Springs can be a real shocker on first acquaintance, but it isn't too difficult to learn... either the hard way or the easy way.

The D delivers impressions with the impact of a .45 slug. Everything you expect from a racing sports car is given to you by this one, only more so... except in tight corners. The first corner off the pit straight is a left-hander taken in third in the D. It is so dependent on the driver's judgment in braking from the straight and on getting just the right approach that it would be grossly unfair to judge the

D's character here. This corner can be deceptively narrow when you're in a hurry and you tend to teeter delicately along the edge repeating "oops, oops, OOPS" to yourself.

Turn two is of a constant radius; it is extremely long and comes up rapidly after the first. Since the car is still accelerating in third, it's only a question of lifting your foot and going in; no braking is necessary. Its combination of length and radius make it a favorite if everything goes nicely, but if you get slightly out of shape at over 90, it seems to go on for an awfully long time. With the D here maximum road

speed is in the neighborhood of 90 to 100 mph and it lacks something of being comfortable; the car refuses to retain its attitude in relation to the corner as chosen by the driver. You must constantly correct the car's tendency to straighten out. The corner's length and the fact that it is uphill cause the car to lose momentum rapidly. The application of more power to compensate for this makes necessary more rapid corrections and loss of responsiveness in the steering.

The third corner is to the left and steeply uphill. Second gear is used here and it is perhaps the slowest corner on the course. Turn three can all too easily start a chain of approach problems because turn four follows immediately, dipping sharply downhill and leading directly into a series of right-left-right bends that constitute the slow section of the course. All this section is negotiated in seconds in a fast car. In turn three the D again attempts to straighten itself out and pushes its front wheels to the outside, leaving you with a poor approach to turn four. Obviously, there is only one thing to do and that is to slow down to make sure that your exit from this right-hander leaves you in position to deal with the right-left-right "S" further down the hill. If you decide not to lift your foot, your attitude to each corner would only get progressively worse, until desperate measures would

have to be taken to avoid spinning out on the left-hand portion of the "S".

After the "S" bend comes a right-hand jog on a slight rise and then a short straight to the last two corners on the course. These last corners could almost be called one, except for a slight, almost straight relief in radius before entering the last bend onto the main straight. This section is very fast and the short relief in radius gives you a chance to decide how bad you want to look coming onto the main straight. If you decide you don't care, and don't lift your foot a little, the decreasing radius is not so great that you won't

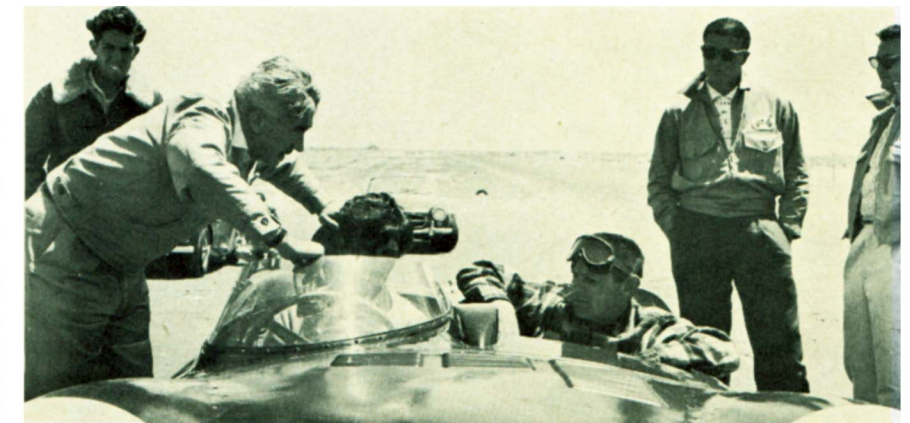
get a glimpse of the main straight, but it might be discouragingly far to the right and heading in quite a different direction than you thought it should.

Once out of the tight corners and into this section of the course, the character of the D changes completely. This Dr. Jekyll-Mr. Hyde transformation comes with a real thrill. The slightly rising approach to the right-hand job after the "S" bends is full-bore in second. The change into third comes breathtakingly with the crest of the rise and the turn. The fact that your confidence returns on the headlong full-bore plunge in third and

(Continued on page 63)



The Jag coming through the down hill "S" curve holding to the left of the road. Corner is not too fast, somewhere between 70 and 80 mph, but extremely tricky. Note the tire marks trailing the car around the turn.



SGI's test pilots, Kelly and Borgeson, receive some pointers from owner Jerry Austin just before beginning their acceleration runs.

D-Jag

(Continued from page 43)

fourth gears towards the sweeping corners is a real tribute to this car.

Speeds up to 140 mph were indicated here on entering the first part of these bends and although the car has a light feel that some drivers might find objectionable, it is beautifully manageable. Austin summed it up nicely with the statement, "It's your nerve that limits you here, not the car." Except for the handling in the tight corners, it's almost unbelievable that this car can be bought "over the counter."

The delivery of horsepower without temperament at low rpm is astonishing, especially today when with some cars you can find yourself in a corner at 4000 rpm with a spitting recalcitrant engine and at 4200 rpm something happens all over you and you discover you're looking at where you've been for no better reason than a hundred horsepower came in all at once. This amazing engine combined with all the other design goodies incorporated into this car, i.e. disc brakes, triple-plate clutch, dry sump lubrication and other things too numerous to mention, should make the D top dog in this country.

But there can be no argument with the factory that the D understeers. There's also no denying that we have unsuitable courses for a machine that incorporates the steering characteristics found in the D—but these are the only courses we've got. The question immediately arises, "If understeer is a manifestation of design, why can't it be designed out?" It can, but who's going to do it? This is the question that makes this handling problem of the D of real interest to anyone connected with sports car racing.

Sports car racing has become tremendously fast: the cars themselves are bewilderingly complex and sensitive. Once, if a race meet boasted two Ferraris and a competition type Jaguar on the entry list, it could be considered a success due to the rarity of the cars alone. Now the appearance of a dozen cars of this caliber is commonplace. This is fine for the sport on the surface, but, like a toadstool, the weight is all at the top. A tremendous amount of money is invested in the cars, but little is available to supply the active professional know-how so necessary to iron the kinks out of a 170 mph sports car. Stirling Moss tried a D at Willow Springs last year. Lap times were of

the one minute, 51 seconds variety. He suggested that the use of a factory recommended limited slip differential should reduce this time by about three seconds. Austin, whose car Moss had driven, fitted a Hi-Tork unit. His lap times with this unit fitted? One minute, 48 seconds. It isn't coincidence that the estimate and the actual time saved were so close. Moss's close contact with racing has honed his perception to a razor edge in all the angles of this demanding sport.

The fact that the handling problems of the D have not been entirely cured here in this country certainly isn't because of lack of cooperation between all parties interested. The factory checked and labeled suitable the readily available Hi-Tork self-locking differential. The Cunningham organization in the east and the factory came up with a torsion anti-roll bar that connects the two bottom trailing arms in the rear and has contributed to better handling. A heavier factory specification sway bar has been added in the front. New shock absorbers of a different make have been made available but these were not yet installed in the test car.

Even with these improvements the problems seem to be a long way from solution. Austin frankly confesses that the car is a mystery to him. In the interests of verifying what I had learned about the car while driving it, I volunteered to be a passenger while Austin turned a few fast laps. Besides confirming my original opinions, we were amazed to find that the car handled better with the added weight of a passenger. Guinea pigs from a light weight Moody to a 180 pound innocent bystander were given the unusual treat(?) of a couple of fast laps to see if there was a narrow critical limit on this weight distribution angle. Nothing startling was learned but with this sort of an attitude on the part of D owners, the opposition can never be sure at the starting line that someone hasn't cracked the combination.

The new experimental head could possibly be adopted as standard production and should then be available to current owners. This would seem to be in the nature of gilding the lily because some of the times recorded in the test were pretty sensational. Zero to 100 mph can be reached consistently in just over twelve seconds with a 3.73 final drive ratio. Perhaps the most interesting time is that it's possible to go from 3000 to 5000 rpm in fourth gear or an actual road speed of 66.4 mph to 110.6 mph in less than twelve seconds.

After this closer acquaintance with the D, I'm afraid that if I owned one, I would feel like the others do and not consider selling—this D just might be the greatest thing since bottled beer.

—RK #



CAPILLARY TIRE TESTER, WITH LEATHER POUCH

Precision Instruments FROM MOTOMETER OF GERMANY TIRE TESTERS

■ Correct tire pressure is vital for top acceleration, peak performance, and proper cornering technique. MoTest gauges are accurate and rugged instruments. There is a MoTest Tester for every application.

Capillary Type, as shown, 9-43 lbs.* \$2.95
Clock Type, 2" dial, 10-50 lbs.* 1.95
Clock Type, 16" hose ext. 10-50 lbs.† 3.50
* With Genuine Leather Pouch
† With Snap-Cover Box

AUTOMOTIVE INDOOR-OUTDOOR



AIR Thermometer For ALL Cars!

■ Now available in America! The world's only Indoor-Outdoor Automotive Thermometer. Accurately indicates inside and outside air temperatures. Warning light automatically signals freezing; warns of ice conditions on the road. A terrific safety device! The instrument is illuminated, and can be easily installed in any automobile. 2 1/4" dial. Heavily chromed. TH-311-6V (For 6-Volt Systems) \$9.95
TH-311-12V (For 12-Volt Systems) \$9.95
Under-Dash or Over-Dash
Chrome-Plated Mounting Bracket \$1.75

All prices plus applicable taxes
Write For Booklet • Dealer Inquiries Invited
FISHER PRODUCTS, 21-25 44th Dr., L.I.C., N.Y.



AUTOSHOOES, for discriminating drivers

These specially designed driving shoes of supple black leather have steel plates between the ball of the foot and the double sole in order to distribute the pressure from the foot pedals over a larger area, thus preventing undue fatigue. A layer of sponge rubber between the soles cushions the heel when walking. The outer sole is continued up the heel of the shoe, forming the counter and taking the wear that comes from driving. Its flat shape also holds the foot in the correct position for pedal operation. The shoes, which come in a plastic drawstring bag, are extremely light weight (18 oz. a pair) and exceptionally comfortable for long driving. Guaranteed to fit and to satisfy or your money cheerfully refunded. \$11.95 ppd in the U.S. Calif. add 4% tax.

Also Michelin "X" tires for fast drivers. Fantastic roadholding, outstanding mileage, silent cornering, increased comfort. Write

AUTOSHOOES

Box 34639, DEPT. S, LOS ANGELES, CAL.