


## $G_{\text {realest of of them all... }}$

 On the "Autocar" 1930 road tests the Pelage Cliraight Eight proved a superior speed and acceleration to all non-supercharged cars tested, irrespective of horsepower or price. Duet the Pelage cliraight Eight combines these sensational dualities will t smooth, flexible running and luxurious coachwork. Available at an extremely moderate price, the Lelaşe Cliraiglit Eight is greater value for money than any other car in the world...
## Deluge Cars



The model illustrated above is the Gigoni diraight Eight Deluge, costing fling: Available for immediate delivery.

# Motor Sport 

 LAND • AIR • WATERIncorporating the
BROOKLANDS GAZETTE


MONTHLY KEEN MOTORIST

## For the Best

Illustrated Account of this Event read next month's issue of 'Motor Sport.' 'Motor Sport' is read by all interested in the sporting side of Motoring, and each issue contains Technical Articles, and Photographs, Reports, etc., of all Events, both at home and abroad.

Motor Sport (1929) Ltd., 39 Victoria St.,

## THOMSON \& TAYLOR

(BROOKLANDS) LTD.

## ENGINE TUNING EXPERTS

Aufomobile Engines Aero Engines Mofor Boal Engines



## All Makes of Cars Supplied

 Riley, MG and Wolseley Cars in Stock

SECONDHAND CARS FOR SALE

## AUSTIN 7

1927 Chummy. Good con-
dition - ..... £45
1930 2-Seater. $9,000 \mathrm{~ms}$. ..... £85
1930 Swallow 2-Seater ..... £90
BENTLEY1925 3-Litre Saloon. Good
condition
.
.
1801923 3-Litre FWB Tourer - $£ 150$
BUICK2-Seater Sports "OHV."New body. 90 m.p.h. . $£ 150$
BUGATTI
2.3-L. 8 cyl. Supercharged
T.T. Model£325
2.3-L. 8 cyl. Supercharged ..... t450
2-3-L. 8 cyl. Supercharged
Single Seater. 125 m.p.h. . ..... £350
2-L. 8 cyl. Grand Prix. $110 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. ..... - £250
CHRYSLER
192624 H.P. Saloon ..... £60
DELAGE
192524 H.P. 6 cyl. Sports Tourer. $70 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. ..... $£ 75$
HISPANO SUISA1924 Boulogne Model 2 -seaterSmart and fast$£ 390$
LEYLAND 8Holder of the World's SpeedRecord, by late Parry Thomas.Rebuilt for road use. Van denPlas 2-Seater Body . $£ 975$
HORSTMAN
2-Seater Racer ..... $£ 40$
LEA FRANCIS
$1930 \quad 12 / 40$ 2-Seater Sports. $12,000 \mathrm{~ms}$. ..... $£ 245$
MORRIS COWLEY1927 2-Seater. Wings re-cellu-losed. Two spare wheels.Spring steering wheel. Boschhorn$£ 55$
M.G. 6
1929 Mark I Tourer. NewFort Dunlop Tyres. $80 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.$£ 250$
MERCEDES
1925 - ${ }_{4}$-Drop Head Coupe ..... $£ 250$
RILEY
1929 Mark IV Tourer Special $£ 150$
1928 San Remo Saloon ..... $£ 100$
1931 Stelvio Saloon. 6 cyl.2,000 miles only$£ 345$
1928 Brooklands T.T. Model ..... $\Varangle 250$
1929 Mark III Brooklands Model. With extras - -1929 Mark IV BrooklandsT.T.Model. Two wins at Brook-lands. Perfect condition - $£ 350$
SUNBEAM
192916 H.P. 2-Seater. NewTyres. Perfect condition$£ 230$
THOMAS SPECIAL
1,500 c.c. S.C. 120 m.p.h. - £350
1,100 c.c. S.C. 120 m.p.h. . $£ \mathbf{3 5 0}$

## Large Selection of Bentley and Rolls-Royce

 Cars available
# SAFER-BECA1SE ITS STRONGER * 

The NEW PALMER is definitely the safest tyre for modern high speed cars.
The rubber used in its manufacture - vulcanised by a new process - is proved by test to be the toughest quality yet devised, and makes tyre bursts highly improbable. Its greater resiliency adds riding comfort to fast driving.


Made by the Silvertown Company
Road pull cannot break up Palmer construction. This tensile test ensures correct vulcanisation. Palmer strength goes right through the tyre. The new Palmer is better than the best in this and every test-it predominates.


THE PALMER TYRE LIMITED, 100.106 CANNON STREET, LONDON, E.C. 4 .


> See this amazing firefighter demonstrated by PADDIE NAISMITH the Film Actress \& Competition Motorist

To set fire to one's own car to demonstrate an extinguisher requires some confidence. Miss Paddie Naismith, the British Screen Actress does this daily to prove that NUSWIFT is, without question, the most modern aid to fire protection. In addition to setting fire to her own car, Miss Naismith also demonstrates on two others, all 1931 models. She will be coming to your district soon. Watch the local papers for dates and full particulars.

> 3 Car's set on fire and extinguished by Miss Naismith with the NUSWIFT ${ }_{\text {atatise }}$ FIRE-FIGHTER

## *NUSWIFT and the "DOUBLE-TWELVE"

Capt.Fronteras and Count Ramponi the Famous Italian drivers and the amateur Austin team are all carrying NUSWIFT FIRE•FIGHTERS service arrangements from the nuswift pit

You can obtain a NUSWIFT Fire Fighter from any
good garage or motor agent. Prices:
Quart Size NUSWIFT 57/6 Pint Size NUSWIFTA 30/-

## CONTENTS



## ADVERTISEMENTS



## Thorough Breeding Tells!




In all TALBOT Cars thorough breeding is evident !

The distinction and grace of its appearance are enhanced by the soundness and finish of its smallest detail I

A Car for the "gentleman about town"!
A Car for the "sports" enthusiast !
TALBOT Cars have earned golden opinions by outstanding performances on road and track !
It is the pre-eminent Car for the discriminating !
"Ninety" Six Sports Tourer

# De Luxe £675 

Works. Sales, Service and Export

## CLEMENT TALBOT LTD.,

BARLBY ROAD, LADBROKE GROVE, LONDON, W. 10
Telephone-PARK $50 c 0$
Telegrams-"CLEMTAL, NOTTARCH,* LONDON

## BRITISH DOUBLE-TWELVE HOUR RACE.

## BROOKLANDS MAY 8th \& 9th, 1931.

Held under the International Sporting Code of the Association Internationale des Automobile-Clubs Reconnus, the General Competition Rules of the Royal Automobile Club, the Racing Rules and Regulations of the Brooklands Automobile Racing Club, and such supplementary regulations as were issued by the Junior Car Club.

## OFFICIALS:

Stewards of the Meeting:
Lieut. Col. T. B. Browne, O.B.E. Prof. A. M. Low, D.Sc., etc.

Capt. M. G. W. Burton A. I. Logette Lionel Martin Major W. H. Oates, O.B.E.

Judge:
John V. Pugh
Official Scrutineer and Measurer: Hugh P. McConnell, M.S.A.E., A.M.I.A.E., F.I.M.T.

Assistant Scrutineers :


Time Auditors:
J. D. Ferguson, F.C.A. L. V. Russell, A.C.A. B. H. Uhde

Result Calculations by:
Frank Ibbotson
(Mercedes Calculating Machines Ltd.)
Public Speech Announcements:
Alan C. Hess Capt. B. H. Austin
Chief Medical Officer:
Dr. E. Gardner
Chief Marshal:
Major F. H. Bale
Chief Control Marshal:
H. N. Edwards
Press Secritury:
F. J. Finion
Press Marshals:
E. J. Anderson $\quad$ W. H. Condington H. R. Harveyson
E. C. Lester $\quad$ F. Dixon-Spain

Pit Marshals:
P. Arondel
W. Urquhart Dykes
E.: Magee
T. Beaton
C. Laurence Clayton
W. G. Fowler
E. Gribben
J. Gordon Offord

S, F. Seyfried
M. Hudlass
E. L. Littlewood
J. L. Tully
L. H. White

Pit Marshais' Assistants by courtesy of The Automobile Es gineering Training College, London, S.W. 3

Motor Cycle Marshals:
Under Direction of F. W. Bariees
Marshals:

| P. Brough | R. W. Gale | D. McNiel |
| :--- | :--- | :--- |
| R. L. Burnet | H. R. Godfrey | C. R. Oliver |
| P. J. Calvert | C. W. Haswell. | A. Richards |
| F. D. Cooper | H. C. F. Haywood | A. C. Scarff |
| H. S. Davidson | F. Johnstone | H. T. J. Scott |
| D. S. Davies | C. A. H. Mason | V. Soper |
| H. John Dyer | K. A. Maxwell | F. S. B. Sution |
| N. Fielden | M. W. Maxwell | E. H. Tustain |

> Clerk of the Course:
> L, F. Dyer
> Assistant to Clerk of the Course:
> H. J. Morgan

Fire Precautionary Arrangements by:
The Pyrene Co., Ltd., Great West Road, London, W.
(Staff under the direction of Mr. J. W. Tweeddale, late of the London Fire Brigade)
Officials Residential Quarters supplied by:
The Nomad Caravan Co., Ltd., Kingston-by-Pass, Surrey
Field Telephone System by:
47Th (2nd Ldn.) Divisional Signalc, T.A.
Public Address Sustem by:
Messrs. Phillifs Lamps Ltd., 145 Charing Cross Road, London, W.C. 1
Timekeeping Omnibuses supplied by:
The Associated Equipment Co., Ltd., Southall, Middlesex
Electric Scoreboard by:
British Automatic Totalisators Ltd., Kingsway, London, W.C. 2
Organisers of the Meeting:
THE JUNIOR CAR CLUB
Empire House, Thurloe Place, London, S.W. 7 Telephone: Kensington 1294-2756

## The Distinctive Sports Car



WOLSELEY HORNET SWALLOW 2-SEATER 220
SUPER SPORTS, $12 \mathrm{~h} . \mathrm{p} .6$-cylinder model. $70 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.
Also Special Agents for
AUSTIN • RILEY • M.G. • TALBOT, etc. SUPER TUNING SERVICE


EXPERIENCE MUST COUNT

## VERNON BALLS

95 HIGH HOLBORN, W.C.l (Opp. Holborn Empire)
(CHANCERY 8623/4)

Rudge-Whitworth Wire Wheels are fitted to most Cars because nearly all

Car Races are won on them - just as nearly all Motor Bicycle Road Races are won on Rudge Motor Bicycles

RUDGE-WHITWORTH LTD., BIRMINGHAM



THE British Double-Twelve is undoubtedly the most interesting motoring event held in England at the present time, and the Junior Car Club, which has always been entrusted with the organisation of the Race, now presents the third of the series to the British public.

The idea of holding a Race in England, possessing similar characteristics to the Le Mans twenty-four hour endurance contest, had remained in the minds of many people from 1923, when l'Automobile Club de l'Ouest held the first Le Mans race, until 1928, when the Junior Car Club took the initiative, albeit in the face of considerable pessimistic comment. Thus it was that on January 1st, 1929, the Regulations were published for the first British Double-Twelve Hour Race, which was to be held at Brooklands Motor Course on May Ioth and 1 ith of that year. The Daily Telegraph, upon learning of the Club's intention, immediately offered a first prize of $£ 1, o o o$, which generous action promptly ensured the widest attention for the race. At the same time the Junior Car Club was privileged to receive the handsome trophy which the Society of Motor Manufacturers and Traders, Ltd., desired should be offered for annual competition. Blessed now with the seal of the industry's approval and practical support, the success of the venture from the point of view of entries was assured.

There was still a certain amount of doubt in the minds of the promoters as to the attitude of the public in England towards a race of such length. The law of the land prevented, as it still does, a road race, and further complications were presented by legal restrictions at Brooklands which prevented the use of the Track between $8 \mathrm{p} . \mathrm{m}$. and $8 \mathrm{a} . \mathrm{m}$. Public imagination would have been quickened by the thought of cars hurtling round through the darkness of the night, the beams of a battery of powerful headlights blazing a trail before them. But these things were not to be. Nevertheless, those who predicted a fiasco misjudged the British public and the power of the Press. The latter realised that British automobile supremacy was being challenged by the finest products of other lands. Considerable space was devoted to the forthcoming battle, thrills were predicted, and the public came in its thousands.

## The Second Race.

Exactly twelve months afterwards the second race was held. The number of entries increased from 56 in 1929 to 65, and there were nine manufacturers' teams. New and bigger Bentley cars were in the field, and there were new and larger AlfaRomeos from Italy. Bad luck, however, dogged the latter, and the majestic Speedsix Bentleys were able, one by one and step by step, to strip the advantages of the handicaps from all their opponents. Finally, two of their cars came home in the first and second places, the winner with the fine average speed of $86.68 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Once again H.R.H. Prince George graciously attended the race, and was present on this occasion to congratulate the winners. Still larger crowds were a feature of the second British Double-Twelve, but its success was marred by a serious fatal accident which occurred towards the end of the first day.

An entry remarkable for its challenge from the small cars, but still possessing prospects of a keen struggle for International supremacy, has been received for the 1931 race.

The Junior Car Club is indeed grateful to those who have contributed in many ways towards the success of its three ventures, and it is proud to be able once again to raise the curtain at Brooklands upon another British Double-Twelve-a classic contest which has no equal in this country.

## For Riding Comfort always choose a Car fitted with

 SHOCK ABSORBERS

STUDY the specification when choosing your car - riding comfort is the greatest factor of comparison among leading cars of to-day. Therefore, decide upon a car fitted with Luvax Hydraulic Shock Absorbers, otherwise you may lose, through poor suspension, much of the pleasure of motoring.
Luvax Hydraulic Shock Absorbers ensure freedom from bouncing, stability on corners and general steadiness at speed. In addition they minimize physical and chassis strain - vital factors on both road and track.


## FITTED AS STANDARD ON THESE CARS

Alvis Silver Eagle.
Armstrong-Siddeley (all models).
A.E.C. (certain models).

Daimler (all models).
Daimier (all models).
Dennis Arrow and Lance.
Dennis Arrow an
Gilford 166 O.T.
Hillman Wizard.
Humber Snipe, Pullman \& 16/50 h.p.
Invicta.
Lanchester Straight Eight.
Leyland (certain models).
Morris Isis and Oxford Six.
Morris isis Commercial "R,"
"D," "Y," and "H" types.
Rover Meteor.
Singer six and Super Six.
Standard Envoy and Ensign.
Star Comet and Planet.
Sunbeam 16 h.p.
Swift 10 h.p.
Talbo t "75" and "90."
Triumph Scorpion.
Willys-Overland Palatine Six.
Wolseley (all models).

## SUPPLIED © SERVICED BY LUCAS-C.A.V. - ROTAX

Behind Luvax Products there is the ever-growing and world-wide Lucas-C.A.V.-Rotax Service Organization which gives specialized service on every unit of Lucas-C.A.V.-Rotax equipment.
SERVICE DEPOTS:-Belfast, Birmingham, Brighton, Bristol, Cardiff, Coventry, Dublin, Edinburgh, Glasgow, Leeds, Liverpool, London (Acton, Leyton, Wandsworth), Manchester, Newcastle-on-Tyne.

[^0]
## The"Double-Twelve," 1930



## ENTRY LIST SHOWING HANDICAP CLASSIFICATION

This table shows the complete entry of sixty-five cars at a glance and also indicates grouping on handicap with minimum speeds and mileages.


| Class F (Over 1,100 e.c. and up to 1,500 e.c.). |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15 | G. C. Dugdale... | ... | ... |  | Lea Francis (S) | ... | ... | 69/100 | $\ldots$ | 4 | ... | 1496 |  |  |  |  |  |  |
| 16 | E. N. Oetzmann | $\ldots$ | $\ldots$ | ... | Lea Francis (S) | $\cdots$ | ... | 69/100 | ... | 4 | ... | 1496 |  |  |  |  |  |  |
| 20 | E. Farley .. | ... | $\cdots$ |  | Alvis (S) ... | ... | $\ldots$ | 68/102 | $\ldots$ | 4 | $\ldots$ | 1482 |  |  | $62 \cdot 5$ |  |  | 1500 |
| 21 | A. Methley ... | ... | ... |  | Alfa Romeo (S) | $\ldots$ | ... | 62/82 | ... | 6 | ... | 1487 | $\ldots$ | ... | 62.5 | $\ldots$ |  | 1500 |
| 22 | J. R. Jeffress ... | ... | ... |  | Alfa Romeo (S) | ... | ... | 62/82 | $\ldots$ | 6 | ... | 1487 |  |  |  |  |  |  |
| 23 | H. J. Aldington | ... | .. |  | ( Frazer Nash 1 (S) | ... | ... | 69/100 | ... | 4 | ... | 1496 |  |  |  |  |  |  |
| $\begin{aligned} & 24 \\ & 25 \end{aligned}$ | (A.F.N., Ltd.) . | ... | ... |  | $\left\{\begin{array}{l}\text { Frazer Nash 2... } \\ \text { Frazer Nash 3... }\end{array}\right.$ | ... | ... | $\begin{aligned} & 69 / 100 \\ & 69 / 100 \end{aligned}$ | $\cdots$ | 4 4 | ... | $\left.\begin{array}{l} 1496 \\ 1496 \end{array}\right\}$ | $\ldots$ | $\ldots$ | 59 | ... | ... | 1416 |



Captain Malcolm Campbell's wonderful new World's land speed record, on his Napier-engined 'Bluebird' was achieved on Pratts Ethyl Petrol, specially prepared and taken with him for his successful attempt.

94 m.p.h.
on an Austin 'Seven'! Another marvellous record by Capt. Campbell, using Pratts Ethyl Petrol, specially prepared.

## 'Bluebird' and 'Baby'both used



## SPECIAL

The spirit the speed aces depend upon-Try it in your car. It's amazing!

McC 110

## The British Double-Twelve Hour Race, May 8th and 9th, 1931

## STARTING NUMBERS OF CARS, ENTRANTS AND DRIVERS

It will be noted that Cars are numbered in groups of six or seven, this being done to facilitate the task of the Timekeepers.

Class B (Over 5,000 c.c. and up to 8,000 c.c.)

| No. | Car |  | Entrant | Driver (1) | Driver (2) | ( Bore/Stroke in m.m. | ( $\begin{gathered}\text { No. of } \\ \text { Cyls. }\end{gathered}$ | C.C. | No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Mercedes (S) |  | The Earl Howe | The Earl Howe ... | C. Penn-Hughes | 100/150 | 6 | 7068 | 1 |
| 2 | Bentley ... | ... | Jack Barclay <br> (Jack Barclay, Lt...) | Sir Henry R. S. Birkin, Br . | B. O. Davis | 100/140 | 6 | 6597 | 2 |

Class C (Over 3,000 c.c. and up to 5,000 c.c.)

| 3 | Invicta |  | F. H. Cairnes | $\ldots$ | G. Field |  | D. Froy |  | 88.5/120.5 | 6 | 4467 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Class D (Over 2,000 c.c. and up to 3,000 c.c.) |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 5 | Maserati (S) Maserati (S) | ... | M. C. Morris M. C. Morris | ... | G. E. T. Eyston E. Fronteras | $\ldots$ | G. Ramponi... R. S. Outlaw | $\ldots$ | 65/94 $65 / 94$ | 8 | 2494 2494 | 4 5 |

"(S)" denotes supercharger fitted.
Teams denoted thus-" Talbot 1.2.3."
NOTICE.-Where betting takes place, the public are advised to back on the number of the car and not the driver, as changes of drivers may be made during the Race.

## Motor Salesmanship as a Career..!



## SUBJECTS

GROUP 1
Technical
Demonstration Driving
Makes and Models
Used Cars
GROUP 2
Business English
Correspondence
Office Routine
GROUP 3
Hire Purchase
Insurance Commercial Law GROUP 4
Motor Car Regulations Road Traffic Act, 1930 Trade Organisations GROUP 5
Publicity and Advertising GROUP 6 Sales Procedure Sales Practise Showroom Display

# "A Step in the Right Direction!" 

17th April, 1931
Mr. Broad,
The Institute of Motor Salesmanship, 16-17 Little Portland Street, London, W. 1

My dear Broad,
I should like to thank you very much indeed for the very courteous reception you gave me yesterday. I should like to say straight away, I was very impressed indeed with your Institute. I am satisfied in my own mind that it is a very definite step in the right direction of ultimately improving the status of the selling side of the Motor Industry, in proof of which statement I shall be sending one of my sales staff up to start your evening course on Monday next and I only hope that it will be possible for for me to so organise matters, that I can at a later date, send further members of my staff.
My reason for doing this, is simply that I fully realise the impossibility of finding time to impart the necessary educational knowledse covering the phases of the selling side of my business, owing to pressure of work and appointments upon my time: furthermore, you have summarised down the main facts, and you have the necessary machinery for imparting these to your students. In other words, the efficient training of salesmen for the Motor Trade is a specialist's job, and in your Institute you are offering to the trade and the public alike for the first time, the full facilities for this specialised training.
As you know, I have very sincerely at heart the welfare of the Motor Trade as a whole, and I therefore cannot but congratulate you upon the facilities which you are now giving towards definitely improving what has probably been, and probably still is, the weakest link, viz: sales organization.
Having arrived at this conclusion, I shall be only too happy to do anything I can towards furthering the interests. of your undertaking, and I hope you will not hesitate to let me know if I can prove to be of any service or help in this direction.

1 am ,
Yours wery truly,
For Weybridge Automobiles Ltd
G. J. ALLDAY, F.I.M.T., M.I.B E. Managing Director

Tuition Day, Evening or Correspondence Classes

## INSTITUTE of MOTOR SALESMANSHIP Ltd.

16-17 Little Portland Street, W. 1

Phone: Langham 3930
Write for Free Booklet-"The Motor Trade as a Career"

## STARTING NUMBERS OF CARS, ENTRANTS AND DRIVERS-continued

Class D (Over 2,000 c.c. and up to 3,000 c.c.) - continued

| No. | Car |  |  | Entrant |  | Driver (1) | Driver (2) |  | Bore/Stroke in $\mathrm{m} . \mathrm{m}$ | No. of Cyls. | C.C. | No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | Talbot |  |  | E. Burt |  | E. Burt ... ... | S. J. Burt |  | 69.5/100 | 6 | 2276 | 6 |
| 10 | Talbot 1 |  | .. | A. W. Fox |  | B. E. Lewis ... ... | J. S. Hindmarsh | $\ldots$ | 75/112 | 6 | 2970 | 10 |
| 11 | Talbot 2 | $\ldots$ | , | (Fox \& Nicholl) |  | T. E. Rose Richards... | John R. Cobb | $\ldots$ | 75/112 | 6 | 2970 | 11 |
| 12 | Talbot 3 |  |  | (Fox \& Nichol) | 1 | A. O. Saunders-Davies | W. Y. Craig |  | 75/112 | 6 | 2970 | 12 |

Class E (Over 1,500 c.c. and up to 2,000 c.c.)


Class F (Over 1,100 c.c. and up to 1,500 c.c.)
15
16
20
21
22
23
24
25

| Lea Francis (S) | $\ldots$ | G. C. Dugdale |
| :--- | :--- | :--- |
| Lea Francis (S) | $\ldots$ | E. N. Oetzmann |
| Alvis (S) ... | $\ldots$ | E. Farley ... |
| Alfa Romeo (S) | $\ldots$ | A. Methley ... |
| Alfa Romeo (S) | $\ldots$ | J. R. Jeffress |
| Frazer Nash 1 (S) | .. | H. J. Aldington |
| Frazer Nash 2 | $\ldots$. | (A.F.N., Ltd.) |
| Frazer Nash 3 | .. | (A.S. |

G. C. Dugdale
E. N. Oetzmann
E. Farley
A. Methley ...
J. R. Jeffress
T. G. Moore...
C. M. Harvey
D. A. Aldington
...

| C. T. Delany | $\ldots$ | $69 / 100$ |
| :--- | ---: | :--- |
| F. Ivins $\ldots .$. | $\ldots$ | $69 / 100$ |
| P.Fotheringham Parker | $68 / 102$ |  |
| G. W. Olive ... | $\ldots$ | $62 / 82$ |
| C. Paul $\ldots$ | $\ldots$ | $62 / 82$ |
| W. S. Braidwood | $\ldots$ | $69 / 100$ |
| H. J. Aldington | $\ldots$ | $69 / 100$ |
| Mrs. T. Wisdom | $\ldots$ | $69 / 100$ |


| 4 | 1496 |
| :--- | :--- |
| 4 | 1496 |
| 4 | 1482 |
| 6 | 1487 |
| 6 | 1487 |
| 4 | 1496 |
| 4 | 1496 |
| 4 | 1496 |

"(S)" denotes supercharger fitted.

## Teams denoted thus-" Talbot 1.2.3."

NOTICE.-Where betting takes place, the public are advised to back on the number of the car and not the driver, as changes of drivers may be made during the Race.

## STARTING NUMBERS OF CARS, ENTRANTS AND DRIVERS-continued

Class F ( $\mathrm{Over} 1,100 \mathrm{c} . \mathrm{c}$. and up to 1,500 c.c.)-continued

| No. | Car | Entrant | Driver (1) | Driver (2) |  | Bore/Stroke in m.m. | No. of <br> Cyls. | C C. | No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | Aston Martin 1 .. | H. J. Aldington <br> (A.F.N., Ltd.) | A. C. Bertelli $\quad .$. | J. Bezzant ... | $\ldots$ | $\begin{aligned} & 69 / 99 \\ & 69 / 99 \end{aligned}$ | 44 | $\begin{aligned} & 1493 \\ & 1493 \end{aligned}$ | 3031 |
| 31 | Aston Martin 2 |  | Capt. Sir Malcolm | L. Cushman ... |  |  |  |  |  |
| 32 | Aston Martin 3 ..) |  | H. W. Cook ... ... | J. D. Benjafield |  | 69/99 | 4 | 1493 | 32 |

Class G (Over 750 c.c. and up to 1,100 c.c.)

"(S)" denotes supercharger fitted.
Teams denoted thus-"Aston Martin 1.2.3."
NOTICE.-Where betting takes place, the public are advised to back on the number of the car and not the driver, as changes of drivers may be made during the Race.

## 103 m.p.h.



FOR


# WHOLESALE AND RETAIL DISTRIBUTORS 

## Earliest Delivery of the New Mark II Midget

Main Showrooms:

Telegrams: "Jarvis, Wimbledon."
M.G. Service Depot:

GROVE WORKS, SOUTH WIMBLEDON
(Opposite South Wimbledon Station)
'Phone - . Wimbledon 4366

## STARTING NUMBERS OF CARS, ENTRANTS AND DRIVERS-continued

Class H (Over 500 c.c. and up to 750 c.c.)


## "(S)" denotes supercharger fitted. <br> Teams denoted thus-"Austin 1.2.3."

NOTICE.-Where betting takes place, the public are advised to back on the number of the car and not the driver, as changes of drivers may be made during the Race.

## UNIIVERSITY £MOTORS <br> Main London Distributors for THE BRITIS H Y SPORTS CARS <br> The most advanced car of 1931 "The car that cruises at sixty!" The first small car in the world to exceed $100 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. <br> We have just produced a new Art Book, printed in seven colours, dealing with these cars. <br> May we send you a copy? <br> The Observer ( ${ }_{5}$ 5.2.31) epitomises the <br>  as offering: describes the " $£ 1,000$ performance for $£ 650$ " and car as being "a delight to drive, attaining and holding 80 on top... and over 60 on third ... without a trace of effort. Flamboyant claims find no place in the announcements of University Motors Limited. Our policy is to let the sell itself by asking those interested to take the wheel. Fill in the coupon and let us send round an M.G. for you to drive. <br>  <br> Head Office : 7 HERTFORD STREET, MAYFAIR Grosvenor 4141 ( 10 lines) <br> $1 \& 4$ BRICK ST., PARK LANE 27 HIGH ST, NOTTING HILL GATE <br> 46 KNIGHTSBRIDGE <br> As London Distributors for M.G. Cars we usually have a few used models. Any good car taken in part exchange <br> 

STARTING NUMBERS OF CARS, ENTRANTS AND DRIVERS-continued
Class H (Over 500 c.c. and up to 750 c.c.)-continued

| No. | Car |  | Entrant | Driver (1) | Driver (2) | Bore Stroke in m.m. | No. of Cyls. | C.C. | No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70 | M.G. Midget 7 | .. | A. T. G. Gardner .. $\{$ | A. T. G. GardnerR. T. HortonR. R. Jackson | R. C. Murton-Neale ... <br> W. E. Humphreys ... <br> F. H. B. Samuelson ... | 57/73 | 4 | 746 | 70 |
| 71 | M.G. Midget 8 | .. $\}$ |  |  |  | 57/73 | 4 | 746 | 71 |
| 72 | M.G. Midget 9 | ..) |  |  |  | 57/73 | 4 | 746 | 72 |
| 73 | M.G. Midget 10 | $\cdots$ | Hon. Mrs. Chetwynd | Hon. Mrs. Chetwynd | A. M. C. Jameson ... | 57/73 | 4 | 746 | 73 |
| 74 | M.G. Midget 11 | ... | H. H. Stisted ... | H. H. Stisted ... | J. Kindell ... ... | 57/73 | 4 | 746 | 74 |
| 75 | M.G. Midget 12 | ...) | D. Higgin ... | D. Higgin ... ... | J. F. Field ... ... | 57/73 | 4 | 746 | 75 |
| 76 | M.G. Midget | $\cdots$ | J. H. P. Clover | J. H. P. Clover ... | O. H. J. Bertram | 57/73 | 4 | 746 | 76 |

"(S)" denotes supercharger fitted.
Teams denoted thus-"M.G. Midget 7.8.9."
NOTICE.-Where betting takes place, the public are advised to back on the number of the car and not the driver, as changes of drivers may be made during the Race.

## TOTALISATOR BETTING <br> For B.A.R.C. and J.C.C. Members only

During the race, there will be six pools : three on Friday, May 8th, and three on Saturday, May 9th.
The periods are as follows :

$$
\begin{array}{llll}
\text { FRIDAY } & 8 \mathrm{a} . \mathrm{m} . \text { to } 2 \mathrm{p} . \mathrm{m} & \text { SATURDAY } & 8 \text { a.m. to } 2 \mathrm{p} . \mathrm{m} . \\
& 2 \mathrm{p} . \mathrm{m} . \text { to } 5 \mathrm{p} . \mathrm{m} . & & 2 \text { p.m. to } 5 \mathrm{p} . \mathrm{m} . \\
& 5 \mathrm{p} . \mathrm{m} . \text { to } 8 \mathrm{p} . \mathrm{m} . & & 5 \mathrm{p} . \mathrm{m} . \text { to } 8 \mathrm{p} . \mathrm{m} .
\end{array}
$$

The unit will be $2 /$ - and multiples of this amount.
Dividends will be paid out to the winners-1st, 2nd and 3rd-after each of the above periods each day.

# J.C.C. "DOUBLE TWELVE" BROOKLANDS 


$\mathbf{1 s t}_{\text {st }} \mathbf{2 n d}_{\text {nd }}$ (IRRESPECTIVE OF CLASS)

BENTLEY
swept the board
and
BUGATTI won Class D
all on Racing SHELL

AND "SUMMER SHELL" PETROL AND
SHELL OIL

## More 1930 Scenes




## ALL ABOUT THE RACE

All cars are carefully examined previous to the race to see that they conform to the Regulations. Extracts from the latter are given on pages 59 and 61 .

Each driver in the race had to do a minimum of five observed practice laps during the week preceding the race.

All cars are fitted with wind-screens, wings, hoods, and lamps, which must all be carried throughout the race.

In 1929, competitors had to erect the hoods of their cars at the start and complete ten laps of the course before refurling them. Since then, however, the regulations have not made it necessary to run with hoods raised.

Only certain alterations are allowed from "standard" to "Double-Twelve" form. These are detailed on page 61. The cars competing to-day are "standard" in that they are evolved from manufacturers' catalogued productions.

Every car must stop its engine while refuelling at the pits and re-start on the self-starter.

Only the electric motor may be used for all starting, including the re-start on Saturday morning.

The Public are warned against playing cards with strangers.
The time of every car on every lap is taken as it passes the double-decker A.E.C. 'bus just beyond the "Fork." This 'bus has been specially converted into a mobile timing office, and a staff of over twenty people is continually engaged inside. Over 23, C0J lap times were taken during the 1930 Double-Twelve.

The broadcast description of the race by the B.B.C. at 11 p.m. on Friday, typifies the experiences of a famous racing driver in the Double-Twelve. The driver concerned is Dr. J. D. Benjafield, who is handling an Aston-Martin car.

To "blind" all out on a cold engine immediately after the re-start on the second morning of the race is to court disaster, and a highly-tuned engine is not always the easiest thing to start. In the two previous races a little Austin 7 has been the first car to get away after the re-starting signal.

Notice that on Saturday some cars are flying coloured pennants from their front number. These are the Class leaders at the end of the first day's run.

A Supplement is issued $\underset{\text { free with all }}{\boldsymbol{*}}$ programmes sold on Saturday. This contains full results of Friday's racing. Single copies are 2d. each.

The prizes for the race are on view in the Paddock, and will be presented, after the race, from the platform on the Straight by the "Shell" Bridge,

Extracts from competitors' time table:-
7.30 a.m.-All competing cars to be at the pits, lined up side by side in starting order.
$7.45 \mathrm{a} . \mathrm{m}$.-All engines to be stopped.
$7.45 \mathrm{a} . \mathrm{m}$. to $7.55 \mathrm{a} . \mathrm{m}$.-Verbal instructions to crews.
7.55 a.m.-First warning for start. Driver and mechanic to be in position on line in front of their cars.
$7.58 \mathrm{a} . \mathrm{m} .-$ Second warning for start.
$8 \mathrm{a} . \mathrm{m}$.-Starting signal. Crews immediately start engines on starter and drive off on first circuit of the race.
(This procedure is repeated on both mornings of the race.)
8 p.m.-Maroon signal for end of racing each day. Cars to complete the lap upon which they are engaged and then come to their pits. Friday, May 8th.-Cars to be pushed to Paddock Stalls, where they will be under guard for the night.
Saturday, May 9tb.-Winning and placed cars to be sealed and left in charge of the Club for engine medsurements to be checked. checked.
8.15 p.m. (Saturday, May 9th)-Prize distribution.


THE LARGEST STOCK IN ENGLAND OF NEW AND SLIGHTLY-USED ROLLS-ROYCE \& BENTLEY CARS



IN 1928, when the Junior Car Club decided to hold a twenty-four hour endurance contest at Brooklands, there were many people who were sceptical concerning its chances of success and few who would be bold enough to forecast a demand for an annual fixture of this unique character. To-day, however, the Junior Car Club is organising the third race of the series and although many spectators are undoubtedly familiar with the procedure of past years there are certain important differences which it will be as well for us to mention here.

The major alteration is that the race to-day is running in a clockwise direction, which is a reverse of the course in previous years. This means that the cars will now be slowing for the turn where they were accelerating in the past, and they will be gaining speed as they pass the public along the Straight instead of decelerating as they did last year. The Straight, this year, is divided into four "zones." A $20-\mathrm{ft}$. zone is reserved for traffic to and from the pits, and a "fairway" in the centre carries the bulk of the competitors at speed. To the left of this latter zone is a "passing area" reserved for a car that is in the act of overtaking another, and on the extreme left is a "neutral area" into which no cars may cross except in
 an emergency.

## DRIVERS AND HANDICAP.

Probably no other race in the world requires as many drivers as the British Double-Twelve. This year over one hundred are necessary, allowing for a maximum of two for each car, and steps have been taken by the promoters of the contest to admit only people who are experienced racing drivers. The capabilities of a large number of to-day's drivers were tested in a series of special races earlier this year. A perusal of the list of entries on pages 17-25 will disclose the names of many who are famous on road and track all over the world. Physical fitness is a most desirable qualification in a race of such severity as this, and it is interesting to know that every driver has been called upon to undergo a medical examination.

The revision of the course, coupled with the progress in automobile engineering, necessitated a careful revision of the handicaps for the race. In order to provide a race or test between objects of widely different potential capabilities, some levelling up process has to be employed. For this purpose, cars are grouped into sections or classes according to the cubic capacity of their engines, and, in the British Double-Twelve, a minimum average speed is set for each class for the race. The figures are tabulated on pages 14 and 15 , the proportionate speeds being the result of carefully calculated anticipated performances.

ANALYSIS OF PERFORMANCES OF 1929 FINISHERS IN ORDER OF MERIT.

| Place | Car | Entrant | Driver(s) | Figure of Merit | Miles per <br> Hour | Mileage Covered and Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st | Alfa Romeo (S) | F. W. Stiles ... | G. Ramponi ... | 1.413 | 76.00 | 1824.1 <br> 1st in Race, 1st in Class F, Leader at 6, $12 \& 18$ hours |
| 2nd | Bentley ... | Woolf Barnarto ... | Sir R. Gunter, <br> S. C. H. Davis .. | 1.410 | 81.39 | 1953.4 <br> 2nd in Race, |
| 3rd | Salmson | A. Bovier ... ... | F. J. Clarke, <br> G. Casse ... | 1.388 | 67.95 | $\begin{aligned} & \text { 1st Class C } \\ & 1630.9 \\ & \text { 3rd in Race, } \end{aligned}$ |
| 4th | Alfa Romeo (S) | F. W. Stiles | B. Ivanovsky ... | 1.358 | 73.04 | 1752.8 |
| 5 th | Aston Martin ... | W. S. Renwick ... | A. C. Bertelli, <br> J. Bezzant | 1.337 | 69.36 | 1664.7 |
| 6th | Riley ... ... | V. Riley ... ... | B. E. Lewis, H. Wood... | 1.301 | 63.55 | 1525.2 |
| 7th | Lea Francis (S) | H. E. Tatlow | J. Shaw, <br> T. P. Turner | 1.260 | 67.84 | 1628.1 |
| 8th | Lea Francis (S) | H. E. Tatlow | W. H. Green, E. L. Meeson | 1.258 | 67.72 | 1625.3 |
|  | Studebaker ... | C. N. Galer | A. Hollidge, <br> G. A. W. Laird | 1.232 | 71.65 | 1719.8 |
| 9th |  |  |  | 1.232 |  | 1st Class B |
| 11 | $\begin{array}{ll}\text { Lagonda } \\ \text { Bentley } & \ldots . \\ \end{array}$ | W. M. Couper W. B. Scott | W. M. Couper Mr, and Mrs. W. | 1.232 | 66.48 | 1595.5 st in Class E |
| 11 | Bentley ... |  | B. Scott | 1.222 | 70.52 | $1692.6$ |
| 12th | Alfa Romeo (S) | E. Fronteras ... | E. Fronteras, K. Thom ... | 1.211 | 65.12 | 1562.9 |
| 13th | Lagonda ... | A. W. Fox | W. E. Edmonson, G. Roberts | 1.203 | 64.87 | 1556.9 |
| 14th | Lagonda ... | A. W. Fox | R. R. Jackson, C. A. Broomhall. | 1.178 | 63.52 |  |
| 15th | Lea Francis (S) | Gordon Hendy ... | Gordon Hendy, |  |  | 1524.5 |
|  |  |  | T. O. Hodder .. | 1.176 | 63.28 | 1518.7 |
| 4 16th | O. M. ... ... | L. C. Rawlence ... | R. F. Oats, <br> F. Clark ... | 1.170 | 63.13 | 1515.2 |
|  |  |  |  |  |  | Member |
|  | O. M. . | M. C. Morris | A. V. Wilkinson, |  |  | Winning |
|  |  |  | A. F. Ashhy ... | 1.148 | 61.97 | 1487.4 |
|  |  |  |  |  |  | Member |
| 18th | L | A. W. Fox | F. King, |  |  | Winning |
|  |  |  | H. F. Woolfe ... | 1.147 | 61.84 | 1484.3 |
| 19th | Studebaker ... | C. N. Galer | C. W. Johnstone A. E. S. Walter |  |  |  |
| 20th | Lea Francis (S) | G. L. Jackson | A. E. S. Walter ... G. L. Jackson, | 1.117 | 64.98 | 1559.4 |
|  |  |  | S. Woods ... | 1.110 | 59.74 | 1433.7 |
| 21st | O. M. ... ... | L. C. Rawlence ... | W. Dickie, J. Parker | 1.095 | 59.06 | 1417.6 |
|  |  |  |  |  |  | Member |
|  | Invicta... ... | Hon. Mrs. A. Fane | A. O. Saunders- |  |  | Winning Team |
| 22nd |  |  | Davies, <br> C. W. Fiennes .. | 1.057 | 61.00 | 1464.1 |
|  | Austin ... ... | F. S. Barnes ... | F. S. and J. D. Barnes ... | 1.057 | 47.58 | 1141.8 |
| 24th | Frazer-Nash ... | N. Jupp ... ... | N. Jupp ... ... |  |  |  |
|  |  |  | D. A. Aldington... | 1.049 | 54.54 | 1308.9 |
| 25 th | Fiat | S. Watt $\ldots$ | S. Watt ... ${ }^{\text {. }}$ | 1.035 | 49.43 | 1186.2 |
| 26th | Frazer-Nash ... | A. Frazer-Nash ... | A. Frazer-Nash, R. L. Bowes | 1.028 | 53.43 | 1282.4 |

ANALYSIS OF PERFORMANCES OF 1930 FINISHERS IN ORDER OF MERIT.


Mobiloil
500 Miles Race $\mathbf{I}^{\text {min }}$
Double Twelve Hr. Race

1,100 c.c. Class 1 st
RILEY

Entire Race
$8^{\text {rd }} \& 4^{\text {th }}$
RILEY ASTON MARTIN

## IR.A.C. Ulster TT


R.I.A.C. Grand Prix

First Day's Race
$\begin{array}{cc}\text { 1,100 c.c. Class } \\ \text { sit } & 5,000 \mathrm{cc} \text {. Class } \\ \text { RILEY } & \text { BENTLEY }\end{array}$

RiLEY \&t Bral
$\begin{array}{cc}750 \mathrm{cc} . \text { Class } \\ \text { st } \\ \text { st } \\ \text { AUSTIN } & 1,100 \text { c.c. } \mathrm{Cl} \\ \text { AUSTIN } & \text { RILEY }\end{array}$ $2^{\text {nd }}$ in Entire Race-RILEY
World's Record
200 Miles at $117.68 \mathrm{mop.h}$ (Sunbeam) 39 International Class Records ete., ete. Use the oil the Champions use VACUUM OIL COMPANY, LTD

## GENERAL INFORMATION

Continued from page 31

It must be remembered that these are minimum speeds, all of which will be exceeded during the race, and it is the car which exceeds its minimum by the greatest percentage which is the winner.

## A LIGHTER TASK.

The International Sporting Commission, which controls motor racing throughout most of the countries in the world, has recently decided that it is no longer necessary for competing cars to conform to a minimum weight limit, and they have also removed the necessity for the cars in larger classes to be weighted with ballast to represent a full load of four people. Cars such as the Bentley and the Mercedes are now relieved of this dead weight of $264-\mathrm{lb}$. of lead.

The foregoing paragraphs have dealt with what may be termed the technical differences in the Double-Twelve of to-day and those of previous years. The Junior Car Club every year does its best to learn by experience, and to incorporate in future contests any improvements which will be of benefit to the large
Another handsome figure, specially designed for the Automobile Engineering Training College as part of the second prize. crowds it is privileged to attract.
Last year we introduced a "comparative-speed" table into the programme by means of which it was possible to obtain a direct comparison between the performances of any two cars. The use of this table undoubtedly unravelled the complications which are an inherent feature of all handicap systems, and, since its introduction by the Junior Car Club, it has been adopted in connection with other international car races. This year we have been able to improve on the "comparative-speed" table and the lap times are shown with their equivalent in miles per hour.

## THE SCORING SYSTEM.

The electric scoring board which was also a 1930 innovation is retained for 1931, and a description of the scoring system is given on page 55. With the object of establishing a permanent record for the public, two leader boards, one in the Public Enclosure and one in the Paddock, will record hourly results as the race progresses.

The efficiency of the scoring system depends largely upon the speed with which information can be transmitted, and this is a matter to which considerable attention has been paid this year. Highly skilled timekeepers, calculating experts and auditors are working continuously in the double-decked A.E.C. omnibus which has been converted specially for this race into a mobile timing office. A telephone code is used to transmit the results, as soon as they are ready, by direct lines to the score board, to the broadcast box, and to the control office. Similarly, specially laid direct lines connect telephones in the pit row with the control box and this latter point is linked with some thirty other parts of the course. News, therefore, is continually being received and transmitted over the entire telephone system and the Club gratefully acknowledges the help given by the 47 th (2nd London) Divisional Signals, T.A., which unit has supplied, erected, and staffed the entire external communication system.

DO YOU REALISE that all of the following benefits are offered by membership of the JUNIOR CAR CLUB for the low annual subscription of $35 /-(25 /-$ small car $)$ for twelve months from date of joining?

ASSOCIATE MEMBERSHIP OF THE R.A.C., embracing:

Free Legal Defence.
Free Get-you-Home Scheme.
Righe to display R.A.C. Badge.
Services of R.A.C. Road Guides.
Touring advice, routes and facilities for Foreign Travel.

Right to enter J.C.C. Competitions.
"J.C.C. Gazette," post free, monthly. Members' Special Insurance Policy.
Right to participate in various social events, and visits to industrial centres.

Further information and application form for membership on pp. 62 \& 63.


159-161-163, Castelnau, London, S.W. 13
Riverslde 4444-5-6-7
Soonest, Hammer, London

## Light-Car Incidents, 1930



## petrol ahead Of encine DESIGN


today and you will be amajed at the difference it makes in the running of your car


ANGLO - PERSIAN OIL CO. LTD
British Petroleum Co. Ltd., Britannic House, Moorgate. E.C. 2
Distributing Organization

A maximum of two drivers is allowed for each car entered in the race. Changes of crews can only be made at the pits in the Straight. All drivers have been subjected to an examination of physical fitness.
"Doped" fuels are not allowed, and the cars are all running on spirit which is normally obtainable at garages in this country.

When at the pits, only the driver and passenger-mechanic for the time being may work on the car.

There were 632 calls at the pits during the 1930 race, and the total mileage of all the competitors exceeded 60,000 miles. The winning car, the British Bentley, covered $2,080.34$ miles in the twenty-four hours, which is equivalent, roughly, to travelling by road from London to Brighton and back ten times a day for two days!

The British Double-Twelve still remains the only English race of twenty-four hours' duration. As there is no place in England where a continuous race of this length can be run, the Double-Twelve is divided into two stages, the cars being impounded, and no work permitted on them during the intervening night.

Supercharged cars are assumed to have a 30 per cent. increase in their cylinder capacity and are handicapped accordingly. The set minimum mileage on which performance is based is therefore increased over that for an unsupercharged car of the same engine size. The extent of the increase is shown clearly on pages 14 and 15 .

A brochure of the analyzed results of this year's Double-Twelve will be prepared and issued in due course by the Junior Car Club. This booklet, in addition to detailing final placings of all runners, will give hourly placings, hourly lap records, and much other valuable data. Copies of the brochure may be obtained from the Junior Car Club, Empire House, London, S.W.7, at 1/each, post free.

If the Earl of March is lapping on his M.G. Midget No. 60 at 61.6 m.p.h., Ramponi, in car No. 4, Maseratti, should be lapping at at least $89.7 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. to equal the other performance.

This example, taken at random, from the comparative speed table on page 45 , shows the type of interesting information which the latter provides at a glance.

It is equally obvious from the table that if one of the Rileys is "hitting up" 74.1 m.p.h., the other two cars will have to improve their speeds in order to keep abreast.

The Junior Car Club has taken over two hotels, in addition to establishing the Officials' Caravan Park, to house the special staff required for running the DoubleTwelve.

In addition to the organisation staff, over 500 persons are officially engaged as competitors' pit personnel.

More than twelve miles of telephone cable has been used within Brooklands to link up contact points with the central control office.


# THE AUTOMOBILE ENGINEERING TRAINING COLLEGE CHELSEA 

## S.W. 3

## (Day and Residential)

Founded especially to train boys of good education for the Automobile Industry. The curriculum combines an essentially practical modern works' experience with training in administration. Students enrolled on Probationary term in the first instance

The syllabus can be obtained from the Secretary, who will be pleased to show visitors over the College by appointment

## AWARDS FOR THE <br> BRITISH DOUBLE-TWELVE, 1931

THE Council of the Junior Car Club takes this opportunity of recording its grateful thanks to the many firms and individuals mentioned below who have awarded trophies or contributed to the Junior Car Club's Prize Fund for the Race.

## LIST OF PRIZES AND DONORS.

## To the Entrant of the Winning Car. <br> The S.M.M. \& T. Challenge Trophy and replica in miniature. Presented by the Society of Motor Manufacturers and Traders, Ltd., and The "Rudge-Whitworth" Trophy and a cash prize of 200 guineas. Presented by Messrs. RudgeWhitworth, Ltd.

## To the Drivers of the Winning Car.

Prizes value $£ 100$ presented hy Lord Wakefield.

## To the Entrant of the Car placed Second in the Race.

A trophy presented by The Automobile Engineering Training College.
To the Drivers of the Car placed Second in the Race.
Trophies also presented by The Automobile Engineering Training College.
To the Entrant of the Car placed Third in the Race.
An award presented by The Junior Car Club.
To the Entrant of the Winning Car in Class D.
An award presented by The Junior Car Club.
To the Entrant of the Winning and Second Cars in Class F.
Awards presented by The Brooklands Automobile Racing Club.
To the Entrant of the Winning Car in Class G.
The "K.L.G." Trophy. Presented by Messrs. K.L.G. Sparking Plugs, Ltd.
To the Entrant of the Winning Car in Class H.
The "Mobiloil" Trophy. Presented by The Vacuum Oil Co., Ltd.
To the Nominee of the Winning Team.
A trophy presented by the M.G. Car Company, Ltd., together with prizes for the drivers in the team.

## Contributors to the Junior Car Club Prize Fund:

The Royal Automobile Club.
The Dunlop Rubber Co., Ltd.

```
The Junior Car Club decided that, in view of the large number of entries in Classes \(H\) and \(F\), additional prizes should be given for second and third, and second places respectively.
```



Issued by the Publicity Dept. of The M.G. Car Co. Ltd., Abingdon-on-Thames

## SPEED TABLE

For One Lap of the British-Twelve Course.
One Lap equals 2.616 Miles.

| Time per lap |  |  | Miles per hr. | Time per lap |  |  | Miles per hr. | Time per lap |  |  | Miles per hr. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| m . |  |  |  |  | secs. |  |  |  | secs. |  |  |
| 1 | 25 |  | $110 \cdot 79$ | 2 | 12 | ... | 71.34 | 2 | 59 | $\ldots$ | 52.61 |
| 1 | 26 |  | $109 \cdot 51$ | 2 | 13 | ... | $70 \cdot 81$ | 3 | 0 |  | 52.32 |
| 1 | 27 | ... | $108 \cdot 25$ | 2 | 14 | ... | $70 \cdot 28$ | 3 | 1 |  | 52.03 |
| 1 | 28 |  | 107.02 | 2 | 15 | ... | 69.76 | 3 | 2 |  | 51.74 |
| 1 | 29 |  | $105 \cdot 81$ | 2 | 16 | ... | $69 \cdot 24$ | 3 | 3 |  | 51.45 |
| 1 | 30 |  | 104.64 | 2 | 17 | ... | 68.74 | 3 | 4 | $\ldots$ | $51 \cdot 18$ |
| 1 | 31 |  | 103.49 | 2 | 18 | ... | 68.24 | 3 | 5 | $\ldots$ | 50.90 |
| 1 | 32 | ... | $102 \cdot 36$ | 2 | 19 | $\ldots$ | $67 \cdot 75$ | 3 | 6 |  | 50.63 |
| 1 | 33 | ... | $101 \cdot 26$ | 2 | 20 | ... | $67 \cdot 27$ | 3 | 7 | $\ldots$ | $50 \cdot 35$ |
| 1 | 34 |  | 100•19 | 2 | 21 | $\ldots$ | 66.79 | 3 | 8 |  | 50.09 |
| 1 | 35 |  | $99 \cdot 13$ | 2 | 22 | $\ldots$ | 66.32 | 3 | 9 |  | 49.83 |
| 1 | 36 |  | $98 \cdot 10$ | 2 | 23 | ... | 65.86 | 3 | 10 |  | 49.56 |
| 1 | 37 | ... | 97.09 | 2 | 24 | $\ldots$ | 65.40 | 3 | 11 | $\ldots$ | $49 \cdot 30$ |
| 1 | 38 | ... | 96.09 | 2 | 25 | ... | 64.95 | 3 | 12 | $\ldots$ | $49 \cdot 05$ |
| 1 | 39 | ... | $95 \cdot 13$ | 2 | 26 | $\ldots$ | 64.50 | 3 | 13 | $\ldots$ | 48.80 |
| 1 | 40 | ... | 94.18 | 2 | 27 | ... | 64.06 | 3 | 14 |  | $48 \cdot 55$ |
| 1 | 41 | ... | 93.24 | 2 | 28 | ... | 63.63 | 3 | 15 |  | $48 \cdot 30$ |
| 1 | 42 |  | 92.33 | 2 | 29 | $\ldots$ | 63.20 | 3 | 16 | ... | $48 \cdot 05$ |
| 1 | 43 |  | 91.43 | 2 | 30 | ... | 62.78 | 3 | 17 | . | $47 \cdot 80$ |
| 1 | 44 | .. | 90.53 | 2 | 31 | $\ldots$ | 62.37 | 3 | 18 | $\ldots$ | $47 \cdot 56$ |
| 1 | 45 | ... | 89.69 | 2 | 32 | $\ldots$ | 61.96 | 3 | 19 | $\ldots$ | $47 \cdot 32$ |
| 1 | 46 | $\ldots$ | 88.84 | 2 | 33 | $\ldots$ | $61 \cdot 55$ | 3 | 20 | $\ldots$ | $47 \cdot 09$ |
| 1 | 47 | ... | 88.00 | 2 | 34 | ... | $61 \cdot 15$ | 3 | 21 | $\cdots$ | 46.85 |
| 1 | 48 | ... | 87.20 | 2 | 35 | $\ldots$ | 60.75 | 3 | 22 | ... | $46 \cdot 62$ |
| 1 | 49 | $\ldots$ | 86.40 | 2 | 36 | $\ldots$ | 60.37 | 3 | 23 | $\cdots$ | $46 \cdot 38$ |
| 1 | 50 | ... | 85.61 | 2 | 37 | $\ldots$ | 59.98 | 3 | 24 | $\ldots$ | $46 \cdot 16$ |
| 1 | 51 | ... | 84.84 | 2 | 38 | ... | 59.60 | 3 | 25 | $\ldots$ | 45.93 |
| 1 | 52 | ... | 84.08 | 2 | 39 | $\ldots$ | 59.23 | 3 | 26 | $\ldots$ | $45 \cdot 71$ |
| 1 | 53 | $\ldots$ | 83.34 | 2 | 40 | ... | 58.86 | 3 | 27 | $\ldots$ | $45 \cdot 48$ |
| 1 | 54 | ... | 82.61 | 2 | 41 | $\ldots$ | 58.49 | 3 | 28 | ... | $45 \cdot 26$ |
| 1 | 55 | $\ldots$ | 81.89 | 2 | 42 | $\ldots$ | 58.13 | 3 | 29 | $\ldots$ | 45.06 |
| 1 | 56 | ... | 81.19 | 2 | 43 | $\ldots$ | 57.77 | 3 | 30 | $\ldots$ | $44 \cdot 84$ |
| 1 | 57 | $\ldots$ | 80.49 | 2 | 44 | $\ldots$ | $57 \cdot 42$ | 3 | 31 | $\ldots$ | $44 \cdot 63$ |
| 1 | 58 | $\ldots$ | 79.81 | 2 | 45 | $\ldots$ | 57.08 | 3 | 32 | $\ldots$ | $44 \cdot 42$ |
| 1 | 59 |  | $79 \cdot 14$ | 2 | 46 | ... | 56.73 | 3 | 33 | ... | 44.21 |
| 2 | 0 | ... | 78.84 | 2 | 47 | $\ldots$ | 56.39 | 3 | 34 | ... | 44.00 |
| 2 | 1 | $\ldots$ | 7783 | 2 | 48 | $\ldots$ | 56.05 | 3 | 35 | $\ldots$ | 4380 |
| 2 | 2 | ... | $77 \cdot 19$ | 2 | 49 | $\ldots$ | $55 \cdot 72$ | 3 | 36 | $\cdots$ | 43.60 |
| 2 | 3 | $\ldots$ | 76.57 | 2 | 50 | $\ldots$ | 55.30 | 3 | 37 | $\ldots$ | $43 \cdot 40$ |
| 2 | 4 | ... | 75.94 | 2 | 51 | $\ldots$ | 55.07 | 3 | 38 | $\ldots$ | 43.20 |
| 2 | 5 |  | 75.34 | 2 | 52 | $\ldots$ | 54.75 | 3 | 39 | .. | 43.00 |
| 2 | 6 |  | 74.74 | 2 | 53 | $\ldots$ | 54.43 | 3 | 40 | $\ldots$ | $42 \cdot 80$ |
| 2 | 7 | ... | $74 \cdot 15$ | 2 | 54 | . | $54 \cdot 12$ | 3 | 41 | $\ldots$ | 42.60 |
| 2 | 8 | ... | 73.57 | 2 | 55 | $\ldots$ | 53.81 | 3 | 42 | $\ldots$ | 42.42 |
| 2 | 9 |  | 73.00 | 2 | 56 | $\ldots$ | 53.51 | 3 | 43 |  | 42.22 |
| 2 | 10 |  | $72 \cdot 44$ | 2 | 57 |  | 53.20 | 3 | 44 | $\ldots$ | 42.04 |
| 2 | 11 | ... | 71.89 | 2 | 58 | $\ldots$ | 52.90 |  |  |  |  |

Use the Comparative Speed Table overleaf.

## USE THE "COMPARATIVE SPEED" TABLE OPPOSITE.

THE Table opposite shows the performances expected of the various cars on handicap. For example, selecting car No. 1 (which is in the first column): if this car laps in $1 \mathrm{~min} .35 \mathrm{secs} .(99.1 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.), and car No. 10 (which is in the fourth column) laps in 1 min .44 secs. ( $90.5 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.), and car No. 15 (fifth column) laps in 1 min .49 secs. ( $86.4 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. ), and so on across the page, they are all running level on their handicap basis, and would all tie at the end of the race if these respective lap times were maintained.

The table is used to compare the performance of any cars in the race. As an example, we will find out how car No. 5 is faring in comparison with car No. 33 .

Time a lap of either (it does not matter which):-No. 33, lap time 2 mins. 9 secs. Look down the column headed by that car number (the sixth column) until we come to 2 mins. 9 secs. Then read across to the third column, which shows that all cars in that section (including No. 5) must lap at 1 min .51 secs. to equal No. 33 's time of 2 mins. 9 secs. If No. 5 is quicker or slower than his required 1 min . 51 secs. he is either gaining or losing.

We note this figure of 1 min .51 secs. and then time car No. 5 and get a lap at 1 min .48 secs . This is quicker than 1 min .51 secs., and therefore No. 5 is gaining on his rival.

This example shows that it is easy to get a comparison between any cars in the race.

Further interesting information can be obtained from the table as follows: Having discovered that No. 5 is lapping at 1.48, we look in his column (third column) for that time, and reading back again to the sixth column, we see that No. 33 will have to quicken his lap time to 2 min .7 secs . in order to equal No. 5 's performance.

For the purpose of simplicity fractions of a second have becn omitted and mileages are taken to the nearest tenth of a mile.

Table on page 43 converts minutes and seconds per lap into miles per hour the latter also being given in every case in the Comparative Table opposite.

## ARRANGEMENT OF PITS.

| Section 1. FORK END (South Section): <br> Car No. Car |  |
| :---: | :---: |
| Pit Marshal. |  |
|  | Mercedes (S) (The Earl Howe) |
| Rotax, Ltd. |  |
|  | Bentley (Jack Barclay) |
| 3 | Invicta (F, H. Cairnes) |
| 4, 5 | Maseratti (S) (M. C. Morris) |
| 6 | Talbot (E. Burt) . |
| British Petroleum Co., Ltd. |  |
| Pit Marshal. |  |
| 10, 11, 12 | Talbot (A. W. Fox) |
|  | Lagonda (S) (W. M. Couper) |
| The Pyrene | Co., Ltd. |
|  | Lea Francis (S) (G. C. Dugdalc) |
| 16 | Lea Francis (S) E.N.Oetzmann) |
| 20 | Alvis (S) (E, Farley) |
|  | Alfa Romeo (S) (A. Methley) |
|  | Alfa Romeo (S) (J. R. Jeffress) |
| Champion $\mathrm{Sp}_{\text {p }}$ | Sparking Plug Co., Ltd. |
| 23, 24, 25 F | Frazer Nash (H. J. Aldington) |
| 30, 31, 32 A | Aston Martin (H. J. Aldington) |
| Pit Marshal. |  |
| C. C. Wakefield \& Co., Ltd. |  |
|  | Amilcar (S) (B. L. Byron) |
| 34 | Maseratti (S) (H. Widengren) |
|  | Riley (W, A. Cuthbert) |
| Control Pits. |  |
| Section 2. (North Section) : |  |
| Press. |  |
| Rudge-Whit | tworth, Ltd. |


| K.L.G. Sparking Plugs, Ltd. |  |
| :---: | :---: |
| 40 | Riley (A.F. Ashby) |
| 41 | Riley (E. Martin) |
| 42 | Riley (C. R. Whitcroft) |
| 43 | M.G. Midget (C. Balme) |
| Vacuum Oil Co., Ltd. |  |
| 44, 45, 46 | Austin (S) (Sir Herbert Austin) |
| Pit Marshal. |  |
| 50 | Austin (S) (V.S. Balls) |
| The Palmer Tyre, Ltd. |  |
| 51, 52, 53 | Austin (G. H. R. Chaplin) |
|  | Austin (G. H. R. Chaplin) |
| J. Blakeborough \& Co., Ltd. ("Nuswift"). |  |
| 54 | Austin (Miss V. Worsley) |
| 55 | Austin (M. C. Lewns) |
| Shell-Mex, Ltd. |  |
| 60, 61, 62 | M.G. Midget (The Earl of March) |
| 63, 64, 65 | M.G. Midget (C. J. Randall) |
| Pit Marshal. |  |
|  | M.G. Midget (G. Bradstock) |
| Anglo-American Oil Co., Ltd. |  |
| 70, 71, 72 | M.G. Midget (A, T, G. Gardner) |
|  | M.G. Midget (Hon. Mrs. Chetwynd) |
| 74 | M.G. Midget (H. H. Stisted) |
| 75 | M.G. Midget (Dan Higgin) |
| 76 | M.G. Midget (J. H. P. Clover) |
| Dunlop Rubber Co., Ltd. |  |
| Pit Marshal. |  |
| PADDOCK END: |  |

## Comparative Speed Table Based on Handicaps

| CAR | NOS. <br> 1 | 2 | 345 | $\begin{array}{ccc} 6 & 10 & 11 \\ 12 & 14 \end{array}$ | $\begin{array}{lll}15 & 16 & 20 \\ 21 & 22 & 23\end{array}$ | $\begin{array}{llll}24 & 25 & 30 \\ 31 & 32 & 33 \\ & 34\end{array}$ | $\begin{array}{lll}35 & 40 & 41 \\ 42 & 43 & 44 \\ 45 & 46 & 50\end{array}$ | $\begin{array}{\|lll} 51 & 52 & 53 \\ 54 & 55 & 56 \\ 60 & 61 & 62 \\ 63 & 64 & 65 \\ 66 & 70 & 71 \\ 72 & 73 & 74 \\ 75 & 76 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Times and Speeds are for 1 "Double-Twelve" lap in every case |  |  |  |  |  |  |  |  |
| Time Speed | $\begin{array}{lr} \text { M. } & \text { s. } \\ 1 & 29 \\ 105.8 \end{array}$ | $\begin{array}{lr} \text { M. } & \mathrm{s} . \\ 1 & 30 \\ 104.6 \end{array}$ | $\begin{array}{lr} \text { M. } & \text { s. } \\ 1 & 33 \\ 101.3 \end{array}$ | $\begin{array}{cr} \mathrm{M} . & \mathrm{s} . \\ 1 & 38 \\ 96.1 \end{array}$ | $\begin{array}{cr} \mathrm{m} . & \mathrm{s} . \\ 1 & 43 \\ 91.4 \end{array}$ | $\begin{array}{cr} \text { M. } & \text { s. } \\ 1 & 49 \\ 86.4 \end{array}$ | $\begin{array}{cc} \text { M. } & \text { s. } \\ 1 & 56 \\ 81.2 \end{array}$ | $\begin{array}{cc} \mathrm{m} . & \mathrm{s} . \\ 2 & 15 \\ 69.8 \end{array}$ |
| Time <br> Speed | 1.30 104.6 | 1831 103.5 | 1834 100.2 | $1 \quad 39$ 95.1 | 1844 90.5 | 1 <br> 80 <br> 85.6 | $1 \begin{array}{r}58 \\ 79.8\end{array}$ | 216 69.2 |
| Time <br> Speed | $\begin{aligned} & 1.31 \\ & 103.5 \end{aligned}$ | 1032 102.3 | $1 \begin{aligned} & 35 \\ & 99.1\end{aligned}$ | 140 94.2 | 1845 89.7 | $1 \begin{array}{lr}51 \\ 84.8\end{array}$ | $1 \begin{array}{r}59 \\ 79.1\end{array}$ | 2.18 68.2 |
| Time <br> Speed | $\begin{array}{lr} 1 & 32 \\ 102.3 \end{array}$ | $\begin{aligned} & 1 \quad 33 \\ & 101.3 \end{aligned}$ | $\begin{gathered} 1 \quad 36 \\ 98.1 \end{gathered}$ | $\begin{array}{rr} 1 & 41 \\ 93.2 \end{array}$ | $1_{S 8.8}^{46}$ | $\begin{array}{r} 1 \quad 52 \\ 84.1 \end{array}$ | ${ }_{2}^{2} \quad 0$ | $\begin{gathered} 2 \quad 19 \\ 67.7 \end{gathered}$ |
| Time Speed | $1 \quad 33$ $101: 3$ | 1834 100.2 | ${ }^{1} 97.37$. | ${ }^{1942} 9$ | 1 88.0 | $1 \begin{array}{c}53 \\ 83.3\end{array}$ | ${ }^{2} 77.2$ | $\begin{aligned} & 2 \\ & 66.8 \end{aligned}$ |
| Time Speed | $\begin{aligned} & 1 \quad 34 \\ & 100.2 \end{aligned}$ | 1835 99.1 | : $1 \begin{array}{r}188 \\ 96.1\end{array}$ | 14 41.4 | $1 \begin{gathered}48 \\ 87.2\end{gathered}$ | $1 \begin{gathered}55 \\ 81.9\end{gathered}$ | 2 76.6 | 2.23 65.9 |
| Time <br> Speed | $\begin{array}{r} 1 \quad 35 \\ 99.1 \end{array}$ | 1 98.1 | $1 \begin{array}{rr} \\ 39\end{array}$ 95.1 | $1{ }_{90.5}^{44}$ | 1849 86.4 | $1 \begin{array}{r}56 \\ 81.2\end{array}$ | $\begin{array}{r} 2 \\ 75.9 \end{array}$ | $2 \times 24$ 65.4 |
| Time Speed | $1 \begin{array}{r}36 \\ 98.1\end{array}$ | $1 \quad 37$ 97.1 | $1 \begin{array}{r}40 \\ 94.2\end{array}$ | $1 \begin{aligned} & 186 \\ & 88.8\end{aligned}$ | $1 \begin{array}{rr}51 \\ 84.8\end{array}$ | $\begin{aligned} & 187 \\ & 80.5 \end{aligned}$ | ${ }^{2} \underset{74.7}{6}$ | $\begin{gathered} 2 \quad 26 \\ 64.5 \end{gathered}$ |
| Time Speed | 1 97.1 | 1 96.1 | 1481 93.2 | 1847 88.0 | $1 \begin{aligned} & 1 \\ & 84.1\end{aligned}$ | $1 \begin{gathered}58 \\ 79.8\end{gathered}$ | 274.1 | 2 27 64.1 |
| Time Speed | $1 \begin{array}{r}38 \\ 96.1\end{array}$ | 1 95.1 | ${ }^{1} 942$ | $1 \begin{gathered}48 \\ 87.2\end{gathered}$ | $1 \begin{gathered}53 \\ 83.3\end{gathered}$ | 20 78.8 | 2 73.6 | $2 \quad 29$ 63.2 |
| Time Speed | $\begin{gathered} 1 \quad 39 \\ 95.1 \end{gathered}$ | 140 94.2 | $1 \begin{array}{r}143 \\ 91.4\end{array}$ | $\begin{array}{r} 1 \quad 49 \\ 86.4 \end{array}$ | $\begin{aligned} & 1 \quad 54 \\ & 82.6 \end{aligned}$ | ${ }^{2} \quad 1$ | $\begin{array}{r} 2 \quad 10 \\ 72.4 \end{array}$ | $\begin{array}{r} 2 \quad 30 \\ 62.8 \end{array}$ |
| Time Speed | 1440 94.2 | 1441 93.2 | $1{ }^{1} 90.5$ | 1 850 85.6 | $\begin{array}{ll} 1 \quad 55 \\ 81.9 \end{array}$ | ${ }^{2}{ }_{77.2}^{2}$ | $\begin{array}{rr} 2 \quad 11 \\ 71.9 \end{array}$ | $\begin{gathered} 2 \quad 32 \\ 62.0 \end{gathered}$ |
| Tine Speed | $1{ }^{1}{ }_{93}{ }^{41}$ | ${ }_{1}^{1842}$ | $1 \begin{aligned} & 145 \\ & 89.7\end{aligned}$ | $1 \begin{aligned} & 1 \\ & 84.8\end{aligned}$ | $1 \begin{array}{r}56 \\ 81.2\end{array}$ | ${ }^{2} \times 6.6$ | 2.12 71.3 | 2 61.6 |
| Time Speed | $\begin{aligned} & 1 \quad 42 \\ & 92.3 \end{aligned}$ | $\begin{array}{r} 143 \\ 91.4 \end{array}$ | 1846 88.8 | $\begin{aligned} & 1 \quad 52 \\ & 84.1 \end{aligned}$ | $\begin{aligned} & 1 \quad 58 \\ & 79.8 \end{aligned}$ | $\begin{array}{rr} 2 & 4 \\ 75.9 \end{array}$ | $2 \quad 14$ 70.2 | $\begin{array}{r} 235 \\ 60.7 \end{array}$ |
| Time Speed | $\begin{array}{r} 1 \quad 43 \\ 91.4 \end{array}$ | 1844 90.5 | 1847 88.0 | $1 \begin{array}{r}53 \\ 83.3\end{array}$ | 1.59 79.1 | ${ }^{2} 74.7{ }^{6}$ | 215 69.8 | 2 60.4 |
| Time Speed | $1{ }_{90.5}^{44}$ | 1845 89.7 | 148 87.2 | $\begin{aligned} & 1 \quad 54 \\ & 82.6 \end{aligned}$ | $\begin{array}{rr} 2 \quad 0 \\ 78.8 \end{array}$ | ${ }^{2} 74.7$ | $\begin{gathered} 2 \quad 16 \\ 69.2 \end{gathered}$ | $\begin{gathered} 2 \quad 38 \\ 59.6 \end{gathered}$ |
| Time Speed | $\begin{aligned} & 1 \quad 45 \\ & 89.7 \end{aligned}$ | $\begin{array}{ll} 1 \quad 46 \\ 88.8 \end{array}$ | $1 \quad 50$ 85.6 | $1 \begin{gathered}55 \\ 81.9\end{gathered}$ | $\begin{array}{r}2 \\ 77.8 \\ \\ \hline\end{array}$ |  | 2817 68.7 | $2 \quad 39$ 59.2 |
| Time <br> Speed | $\begin{gathered} 1 \quad 46 \\ 88.8 \end{gathered}$ | $\begin{aligned} & 1 \quad 47 \\ & 88.0 \end{aligned}$ | $\begin{gathered} 1 \quad 51 \\ 84.8 \end{gathered}$ | $\begin{gathered} 1 \quad 56 \\ 81.2 \end{gathered}$ | ${ }^{2} \quad .2$ | $\begin{array}{r} 9 \\ 73.0 \end{array}$ | $\begin{array}{r} 219 \\ 67.7 \end{array}$ | $\begin{array}{r} 2 \quad 41 \\ 58.5 \end{array}$ |



Comparative Speed Table Based on Handicaps - continued

| CAR | NOS. | 2 | 345 | $\begin{array}{lll} 6 & 10 & 11 \\ 12 & 14 \end{array}$ | $\begin{array}{lll} 15 & 16 & 20 \\ 21 & 22 & 23 \end{array}$ | $\begin{array}{\|lll} 24 & 25 & 30 \\ 32 & 32 & 33 \\ & 34 & \end{array}$ | $\begin{array}{llll}35 & 40 & 41 \\ 42 & 43 & 44 \\ 45 & 46 & 50\end{array}$ | 51 52 53 <br> 54 55 56 <br> 60 61 62 <br> 63 64 65 <br> 66 70 71 <br> 72 73 74 <br> 75  76 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Times and Speeds are for 1 "Double-Twelve" lap in every case |  |  |  |  |  |  |  |  |
| Time Speed | $\begin{gathered} \text { m. } \\ 1 \quad \text { s. } \\ 147 \\ 88.0 \end{gathered}$ | $\begin{gathered} \text { M. } \\ \text { s. } \\ 148 \\ 87.2 \end{gathered}$ | M. s. <br> $1 \quad 52$ 84.1 | $\begin{array}{cc} \text { M. } & \mathrm{s} \\ \mathrm{I}_{79.8} & 58 \\ & \end{array}$ | $\begin{array}{lr} \mathrm{M} . & \mathrm{s} . \\ 2 & 3 \\ 76.6 \end{array}$ | $\begin{array}{cr} \text { M. } & \text { s. } \\ 2 & 11 \\ 71.9 \end{array}$ | $\begin{gathered} \text { M. } \\ 2 . \\ 2 . \\ 67.3 \end{gathered}$ | $\begin{array}{lr} \mathrm{m} . & \mathrm{s} . \\ 2 & 42 \\ 58.1 \end{array}$ |
| Time Speed | $\begin{gathered} 148 \\ 87.2 \end{gathered}$ | $\begin{array}{r} 1 \quad 49 \\ 86.4 \end{array}$ | $\begin{aligned} & 1 \quad 53 \\ & 83.3 \end{aligned}$ | ${ }^{1} \begin{gathered} 59.1 \end{gathered}$ | $\begin{array}{rr} 2 & 4 \\ 75.9 \end{array}$ | $\begin{array}{r} 12 \\ 71.3 \end{array}$ | $\begin{array}{r} 2 \quad 21 \\ 66.8 \end{array}$ | $\begin{gathered} 2 \quad 44 \\ 57.4 \end{gathered}$ |
| Time Speed | 1 86.4 | $1 \begin{aligned} & 150 \\ & 85.6\end{aligned}$ | $1 \begin{gathered}54 \\ 82.6\end{gathered}$ | ${ }^{2} \begin{array}{r}0 \\ 78.8\end{array}$ | ${ }^{2} \quad{ }_{74.7}^{6}$ | $\begin{gathered} 2 \quad 13 \\ 70.8 \end{gathered}$ | 2.23 65.9 | 245 57.1 |
| Time Speed | 1 850 85.6 | $1 \begin{array}{r}51 \\ 84.8\end{array}$ | $1 \begin{array}{r}55 \\ 81.9\end{array}$ | ${ }^{2} 711$ | ${ }^{2} 74.1$ | 214 70.3 | 2.24 65.4 | 24 <br> 56.4 |
| Time Speed | $\begin{aligned} & 1 \quad 51 \\ & 84.8 \end{aligned}$ | $\begin{array}{rr} 1 \quad 52 \\ 84.1 \end{array}$ | $\begin{aligned} & 1 \quad 56 \\ & 81.2 \end{aligned}$ | ${ }^{2} \underset{77.2}{2}$ | $\begin{array}{r} 28 \\ 73.6 \end{array}$ | $\begin{gathered} 215 \\ 69.8 \end{gathered}$ | $\begin{array}{r} 2 \quad 25 \\ 64.9 \end{array}$ | $\begin{gathered} 248 \\ \\ 56.0 \end{gathered}$ |
| Time Speed | $\begin{aligned} & 1 \quad 52 \\ & 84.1 \end{aligned}$ | $\begin{aligned} & 1 \quad 53 \\ & 83.3 \end{aligned}$ | $\begin{aligned} & 1 \quad 57 \\ & 80.5 \end{aligned}$ | ${ }^{2} \quad 3$ | $\begin{gathered} 2 \\ 73.0^{9} \end{gathered}$ | $\begin{array}{r} 2 \quad 17 \\ 68.7 \end{array}$ | $\begin{gathered} 2 \underset{64.1}{27} \end{gathered}$ | $\begin{gathered} 2 \quad 50 \\ 55.4 \end{gathered}$ |
| Time Speed | $1 \begin{array}{r}53 \\ 83.3\end{array}$ | 1854 82.6 | 1858 79.8 | ${ }^{2} 84$ | 2 72.4 | 2.18 68.2 | 2.28 63.6 | 2 <br> 51 <br> 55.1 |
| Time <br> Speed | 1854 82.6 | 155 81.9 | 1 79.1 | 275 75.3 | 2111 71.9 | 2819 67.7 | 289 63.2 | 2 53 54.4 |
| Time <br> Speed | 1855 81.9 | $1 \begin{gathered}56 \\ 81.2\end{gathered}$ | ${ }^{2} \begin{array}{r} \\ 78.8\end{array}$ | ${ }^{2} 74.7{ }^{6}$ | 2 71.3 | 2620 67.3 | 23 620 | $2 \quad 54$ 54.1 |
| Time Speed | $\begin{aligned} & 1 \quad 56 \\ & 81.2 \end{aligned}$ | $\begin{gathered} 1 \quad 57 \\ 80.5 \end{gathered}$ | ${ }_{77.8}$ | ${ }^{2} 74.1$ | $\begin{gathered} 2 \quad 14 \\ 70.3 \end{gathered}$ | ${ }_{66.3}^{22}$ | $\begin{gathered} 2 \quad 32 \\ 62.0 \end{gathered}$ | $\begin{gathered} 256 \\ 53.5 \end{gathered}$ |
| Time <br> Speed | $1 \quad 57$ 80.5 | 1858 79.8 | ${ }^{2} 77.2$ | ${ }^{2} 83.9$ | 2815 69.8 | 2.23 65.9 | 2 61.5 | $2 \quad 57$ 53.2 |
| Time <br> Speed | $1 \begin{array}{rr}58 \\ 79.8\end{array}$ | 1859 79.1 | ${ }^{2} \begin{array}{r}3 \\ 76.6\end{array}$ | 2810 72.4 | 2.16 69.2 | 2.24 65.4 | 2 61.1 | $2 \quad 59$ 52.6 |
| Time Speed | ${ }^{1} \begin{gathered} 59.1 \end{gathered}$ | $\begin{array}{r} 2 \quad 0 \\ 78.8 \end{array}$ | $\begin{array}{r} 2 \\ 75.9 \end{array}$ | $\begin{gathered} 211 \\ 71.9 \end{gathered}$ | $\begin{gathered} 2 \quad 17 \\ 68.7 \end{gathered}$ | $\begin{gathered} 2 \quad 25 \\ 64.9 \end{gathered}$ | $\begin{gathered} 236 \\ 60.4 \end{gathered}$ | $\begin{gathered} 3 \\ 52.3 \end{gathered}$ |
| Time Speed | $\begin{array}{r} 2 \quad 0 \\ 78.8 \end{array}$ | ${ }_{77.8}{ }^{1}$ | ${ }^{2} \quad 5$ | $\begin{array}{r} 2 \quad 12 \\ 71.3 \end{array}$ | $\begin{gathered} 2 \quad 18 \\ 68.2 \end{gathered}$ | $\begin{gathered} 2 \quad 26 \\ 64.5 \end{gathered}$ | $\begin{array}{r} 237 \\ 60.0 \end{array}$ | ${ }^{3} \underset{51.7}{2}$ |
| Time Speed | $2 \begin{array}{r}77.8\end{array}$ | ${ }^{2} \times 2{ }_{77.2}$ | ${ }^{2}{ }_{74.7}{ }^{6}$ | 2813 70.8 | 2819 67.7 | 2.28 63.6 | 2 38 59.6 | 3 51.4 |
| Time Speed | ${ }^{2} 77.2$ | ${ }^{2}{ }_{76.6}{ }^{3}$ | ${ }^{2} 74.15$ | 2.14 70.3 | $2 \quad 21$ 66.8 | $2 \quad 29$ 63.2 | $\begin{array}{r} 2 \quad 40 \\ -58.9 \end{array}$ | $\begin{aligned} & 3 \\ & 50.9 \end{aligned}$ |
| Time Speed | ${ }_{76.6}{ }^{3}$ | ${ }^{2} \quad \begin{gathered} 4 \\ 75.9 \end{gathered}$ | $\begin{array}{r} 2 \\ 73.6 \end{array}$ | $\begin{gathered} 215 \\ 69.8 \end{gathered}$ | $\begin{array}{r} 2.22 \\ 66.3 \end{array}$ | $\begin{gathered} 230 \\ 62.8 \end{gathered}$ | $\begin{array}{cc} 241 \\ 58.5 \end{array}$ | ${ }^{3} \quad{ }_{50.6}$ |
| Time Speed | ${ }^{2} \underset{75.9}{4}$ | $\begin{array}{r} 2 \\ 75.3 \end{array}$ | $\begin{array}{r} 29 \\ 73.0 \end{array}$ | $\begin{gathered} 216 \\ 69.2 \end{gathered}$ | $\begin{array}{r} 2 \quad 23 \\ 65.9 \end{array}$ | $\begin{array}{r} 2.31 \\ 62.4 \end{array}$ | $\begin{array}{r} 2 \quad 42 \\ 58.1 \end{array}$ | $\begin{array}{r} 3 \\ 50.1 \end{array}$ |

## The astonishing Racing \& Reliability Record of the Riley" 9



Also Across America in 120 hours $\mathbf{~ 4 , 2 0 0}$ miles at $41 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.
Malaya to London without touching the engine Round the World in Seven Months Six Countries in Five Days Australian Trans-Continental Record Standard Time Paris-Madrid Express beaten' by three hours

RILEY (COVENTRY) LTD., COVENTRY
LONDON: 42 NORTH AUDLEY ST., W. 1

## CONVERSION TABLE.

British Double-Twelve, Laps to Miles.

|  |  |  |  |  |  |  |  |  |
| :---: | :---: | ---: | ---: | :--- | ---: | ---: | ---: | ---: |
| Laps. |  | Miles. | Laps. |  | Miles. | Laps. |  | Miles. |
| 1 | $\ldots$ | 2.616 | 38 | $\ldots$ | 99.406 | 75 | $\ldots$ | 196.198 |
| 2 | $\ldots$ | 5.232 | 39 | $\ldots$ | 102.022 | 76 | $\ldots$ | 198.814 |
| 3 | $\ldots$ | 7.848 | 40 | $\ldots$ | 104.638 | 77 | $\ldots$ | 201.430 |
| 4 | $\ldots$ | 10.464 | 41 | $\ldots$ | 107.254 | 78 | $\ldots$ | 204.046 |
| 5 | $\ldots$ | 13.080 | 42 | $\ldots$ | 109.870 | 79 | $\ldots$ | 206.662 |
| 6 | $\ldots$ | 15.696 | 43 | $\ldots$ | 112.486 | 80 | $\ldots$ | 209.278 |
| 7 | $\ldots$ | 18.312 | 44 | $\ldots$ | 115.102 | 81 | $\ldots$ | 211.894 |
| 8 | $\ldots$ | 20.928 | 45 | $\ldots$ | 117.718 | 82 | $\ldots$ | 214.510 |
| 9 | $\ldots$ | 23.544 | 46 | $\ldots$ | 120.334 | 83 | $\ldots$ | 217.126 |
| 10 | $\ldots$ | 26.160 | 47 | $\ldots$ | 122.950 | 84 | $\ldots$ | 219.742 |
| 11 | $\ldots$ | 28.776 | 48 | $\ldots$ | 125.566 | 85 | $\ldots$ | 222.358 |
| 12 | $\ldots$ | 31.392 | 49 | $\ldots$ | 128.182 | 86 | $\ldots$ | 224.972 |
| 13 | $\ldots$ | 34.008 | 50 | $\ldots$ | 130.798 | 87 | $\ldots$ | 227.588 |
| 14 | $\ldots$ | 36.624 | 51 | $\ldots$ | 133.414 | 88 | $\ldots$ | 230.202 |
| 15 | $\ldots$ | 39.240 | 52 | $\ldots$ | 136.030 | 89 | $\ldots$ | 232.818 |
| 16 | $\ldots$ | 41.856 | 53 | $\ldots$ | 138.646 | 90 | $\ldots$ | 235.434 |
| 17 | $\ldots$ | 44.472 | 54 | $\ldots$ | 141.262 | 91 | $\ldots$ | 238.05 |
| 18 | $\ldots$ | 47.088 | 55 | $\ldots$ | 143.878 | 92 | $\ldots$ | 240.666 |
| 19 | $\ldots$ | 49.704 | 56 | $\ldots$ | 146.494 | 93 | $\ldots$ | 243.282 |
| 20 | $\ldots$ | 52.320 | 57 | $\ldots$ | 149.110 | 94 | $\ldots$ | 245.898 |
| 21 | $\ldots$ | 54.936 | 58 | $\ldots$ | 151.726 | 95 | $\ldots$ | 248.514 |
| 22 | $\ldots$ | 57.550 | 59 | $\ldots$ | 154.342 | 96 | $\ldots$ | 251.130 |
| 23 | $\ldots$ | 60.166 | 60 | $\ldots$ | 156.958 | 97 | $\ldots$ | 253.746 |
| 24 | $\ldots$ | 62.782 | 61 | $\ldots$ | 159.574 | 98 | $\ldots$ | 256.362 |
| 25 | $\ldots$ | 65.398 | 62 | $\ldots$ | 162.190 | 99 | $\ldots$ | 258.978 |
| 26 | $\ldots$ | 68.014 | 63 | $\ldots$ | 164.806 | 100 | $\ldots$ | 261.60 |
| 27 | $\ldots$ | 70.630 | 64 | $\ldots$ | 167.422 | 200 | $\ldots$ | 523.2 |
| 28 | $\ldots$ | 73.246 | 65 | $\ldots$ | 170.038 | 300 | $\ldots$ | 784.8 |
| 29 | $\ldots$ | 75.862 | 66 | $\ldots$ | 172.654 | 400 | $\ldots$ | 1046.4 |
| 30 | $\ldots$ | 78.748 | 67 | $\ldots$ | 175.270 | 500 | $\ldots$ | 1308.0 |
| 31 | $\ldots$ | 81.094 | 68 | $\ldots$ | 177.886 | 600 | $\ldots$ | 1569.6 |
| 32 | $\ldots$ | 83.710 | 69 | $\ldots$ | 180.502 | 700 | $\ldots$ | 1831.2 |
| 33 | $\ldots$ | 86.326 | 70 | $\ldots$ | 183.118 | 800 | $\ldots$ | 2092.8 |
| 34 | $\ldots$ | 88.942 | 71 | $\ldots$ | 185.734 | 900 | $\ldots$ | 2354.4 |
| 35 | $\ldots$ | 91.558 | 72 | $\ldots$ | 188.350 | 1000 | $\ldots$ | 2612.0 |
| 36 | $\ldots$ | 94.174 | 73 | $\ldots$ | 190.96 |  |  |  |
| 37 | $\ldots$ | 96.790 | 74 | $\ldots$ | 193.582 |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

For Minimum Hourly Mileages for all Cars see page 53.

## LEADER CHART

As Race Results are shown on the Score Board, Insert Car Nos. in Proper Squares.

|  | Position in Race. |  |  |  |  | Class Leaders. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Time | 1st | 2nd | 3rd | 4th | B | D | F | G | H |
|  | 1 Hour 9 a.m. |  |  |  |  |  |  |  |  |  |
|  | 2 Hours 10 a.m. |  |  |  |  |  |  |  |  |  |
|  | 3 Hours 11 a.m. |  |  |  |  |  |  |  |  |  |
|  | 4 Hours 12 noon |  |  |  |  |  |  |  |  |  |
|  | 5 Hours 1 p.m. |  |  |  |  |  |  |  |  |  |
| A | 6 Hours 2 p.m. |  |  |  |  |  |  |  |  |  |
|  | 7 Hours 3 p.m. |  |  |  |  |  |  |  |  |  |
|  | 8 Hours 4 p.m. |  |  |  |  |  |  |  |  |  |
|  | 9 Hours 5 p.m. |  |  |  |  |  |  |  |  |  |
|  | 10 Hours 6 p.m. |  |  |  |  |  |  | . |  |  |
|  | 11 Hours 7 p.m. |  |  |  |  |  |  | . |  |  |
|  | 12 Hours 8 p.m. |  |  |  |  |  |  |  |  |  |
|  | 13 Hours 9 a.m. |  |  |  |  |  |  |  |  |  |
|  | 14 Hours 10 a.m. |  |  |  |  |  |  |  |  |  |
|  | 15 Hours 11 a.m. |  |  |  |  |  |  |  |  |  |
|  | 16 Hours 12 noon |  |  |  |  |  |  |  |  |  |
|  | 17 Hours 1 p.m. |  |  |  |  |  |  |  |  |  |
|  | 18 Hours 2 p.m. |  |  |  |  |  |  |  |  |  |
|  | 19 Hours 3 p.m. |  |  |  |  |  |  |  |  |  |
|  | 20 Hours 4 p.m. |  |  |  |  |  |  |  |  |  |
|  | 21 Hours 5 p.m. |  |  |  |  |  |  |  |  |  |
|  | 22 Hours 6 p.m. |  |  |  |  |  |  |  |  |  |
|  | 23 Hours 7 p.m. |  |  |  |  |  |  |  |  |  |
|  | 24 Hours 8 p.m. |  |  |  |  |  |  |  |  |  |



SOLE DISTRIBUTORS FOR ALVIS IN LONDON \& DISTRICT

## Charles Follert Lrd.

 I8, Berkeley Streé: London.W.I. TELEPHONE MAYFAIR 6266

## Each the BESTin its class

Full range of Models
from
F395

ALVIS CAR AND ENGINEERING CO. LTD., COVENTRY LONDON SHOWROOMS: 18 BERKELEY STREET, W. 1
LONDON SERVICE STATION:: JUBILEE PLACE,"KING'S ROAD, CHELSEA

## MINIMUM MILEAGES

A minimum mileage is set for all the cars in the Race, the distance varying according to the International classification of engine capacities. The following table shows the number of miles that must have been covered by the various cars each hour.
The winner of the Race is the entrant of the car that exceeds its set minimum by the greatest percentage.
A CONVERSION TABLE OF MILES INTO DOUBLE-TWELVE LAPS IS ON PAGE 49

| CAR NUMBERS | 出 | FRIDAY |  |  |  |  |  |  |  |  |  |  | SATURDAY |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{\|c} \mathbf{1} \\ 9 \\ \text { a.m. } \end{array}$ | $\begin{array}{cc} \mathbf{2} & 3 \\ 10 & 11 \\ \text { a.m. } & \text { a.m. } \end{array}$ | $\begin{gathered} \mathbf{4} \\ 12 \\ \text { a.m. } \end{gathered}$ | $\begin{gathered} 5 \\ 1 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} \text { Ho } \\ 6 \\ 2 \\ 2 \\ \text { p.m. } \end{gathered}$ | $\begin{array}{r} \text { ours } \\ \mathbf{7} \\ 3 \\ 3 \\ \hline \text { p.m. } \end{array}$ | $\begin{gathered} 8 \\ 4 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} 9 \\ 5 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} 10 \\ 6 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} \mathbf{1 1} \\ 7 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} 12 \\ 8 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} 13 \\ 9 \\ \text { a.m. } \end{gathered}$ | 14 <br> 10 <br> a.m | $\begin{gathered} 15 \\ 11 \\ \text { a.m. } \end{gathered}$ | $\begin{gathered} \mathbf{1 6} \\ 12 \\ \text { a.m. } \end{gathered}$ | $\begin{gathered} \mathbf{1 7} \\ 1 \\ \text { p.m. } \end{gathered}$ | $\begin{aligned} & \text { Ho } \\ & \mathbf{1 8} \\ & 2 \\ & \text { p.m. } \end{aligned}$ | $\begin{gathered} \hline \text { ours } \\ 19 \\ 3 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} 20 \\ 4 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} \mathbf{2 1} \\ 5 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} 22 \\ 6 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} \mathbf{2 3} \\ 7 \\ \text { p.m. } \end{gathered}$ | $\begin{gathered} 24 \\ 8 \\ \text { p.m. } \end{gathered}$ |
| 515253545556 60616263646566 70717273747576 | H | $\begin{aligned} & \mathrm{Mls} . \\ & 47.5 \end{aligned}$ | $\begin{aligned} & \hline \text { Mls. Mls. } \\ & 95 \quad 142.5 \end{aligned}$ |  | $\begin{aligned} & \text { Mls. } \\ & 237 \cdot 5 \end{aligned}$ | $\begin{aligned} & \text { Mls. } \\ & 285 \end{aligned}$ | $\begin{aligned} & \mathrm{sis} . \\ & 5332.5 \end{aligned}$ | $\begin{aligned} & \text { Mls. } \\ & 380 \end{aligned}$ | $\begin{aligned} & \text { Mls. } \\ & 427 \cdot 5 \end{aligned}$ |  | $\begin{aligned} & \text { Mls. } \\ & 522 \cdot 5 \end{aligned}$ | $\begin{aligned} & \text { Mls. } \\ & 570 \end{aligned}$ | $\begin{array}{c\|} \hline \text { Mls. } \\ 617 \cdot 5 \end{array}$ | Mls. <br> 665 | $\begin{aligned} & \hline \text { Mls. } \\ & 712.5 \end{aligned}$ | $\begin{aligned} & \hline \text { Mls. } \\ & 760 \end{aligned}$ | $\begin{gathered} \text { Mls. } \\ 807 \cdot 5 \end{gathered}$ | Mls. <br> 855 | $\begin{gathered} \mathrm{Mls} \text {. } \\ 902.5 \end{gathered}$ | $\begin{aligned} & \text { Mls. } \\ & 950 \end{aligned}$ | $\begin{gathered} \hline \text { Mls. } \\ 997.5 \end{gathered}$ | $\begin{gathered} \text { Mls. } \\ 1045 \end{gathered}$ | $\begin{gathered} \hline \text { Mls. } \\ 1092 \cdot 5 \end{gathered}$ | $\begin{gathered} \hline \text { Mis. } \\ 1140 \end{gathered}$ |
| 3540414243 44454650 | $\begin{gathered} \mathrm{G} \\ \mathrm{H}(\mathrm{~S}) \end{gathered}$ | 55 | 110165 | 220 | 275 | 330 | 385 | 440 | 495 | 550 | 605 | 660 | 715 | 770 | 825 | 880 | 935 | 990 | 1045 | 1100 | 1155 | 1210 | 1265 | 1320 |
| $\begin{aligned} & 2425303132 \\ & 3334 \end{aligned}$ | G <br> $\mathbf{G}(\mathbf{S})$ | 59 | 118177 | 236 | 295 | 354 | 413 | 472 | 531 | 590 | 649 | 708 | 767 | 826 | 885 | 944 | 1003 | 1062 | 1121 | 1180 | 1239 | 1298 | 1357 | 1416 |
| 151620212223 | $F(S)$ | 62.5 | 125187.5 | 250 | 312.5 | 375 | 437.5 | 500 | $562 \cdot 5$ | 625 | $687 \cdot 5$ | 750 | 812.5 | 875 | 937.5 | 1000 | $1062 \cdot 5$ | 1125 | 1187.5 | 1250 | $1312 \cdot 5$ | 1375 | $1437 \cdot 5$ | 1500 |
| $\begin{aligned} & 6101112 \\ & 14 \end{aligned}$ | $\begin{gathered} D \\ E(S) \end{gathered}$ | 65.5 | $131196 \cdot 5$ | 262 | 327.5 | 393 | $358 \cdot 5$ | 524 | 589.5 | 655 | 720.5 | 786 | 851.5 | 917 | 982.5 | 1048 | $1113 \cdot 5$ | 1179 | 1244.5 | 1310 | 1375.5 | 1441 | 1506.5 | 1572 |
| $\begin{aligned} & \hline 3 \\ & 45 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathbf{C} \\ \mathrm{D}(\mathrm{~S}) \end{gathered}$ | 69 | 138207 | 276 | 345 | 414 | 483 | 552 | 621 | 690 | 759 | 828 | 897 | 966 | 1035 | 1104 | 1173 | 1242 | 1311 | 1380 | 1449 | 1518 | 1587 | 1656 |
| 2 | B | 71.5 | 143214.5 | 286 | 357.5 | 429 | 500.5 | 572 | 643.5 | 715 | $786 \cdot 5$ | 858 | 929.5 | 1001 | 1072.5 | 1144 | $1215 \cdot 5$ | 1287 | 1358.5 | 1430 | 1501.5 | 1573 | $1644 \cdot 5$ | 1716 |
| 1 | B (S) | 72 | 144216 | 288 | 360 | 432 | 504 | 576 | 648 | 720 | 792 | 864 | 936 | 1008 | 1080 | 1152 | 1224 | 1296 | 1368 | 1440 | 1512 | 1584 | 1656 | 1728 |

NOTE.-SUPERCHARGED CARS. If a car has a supercharger fitted, it is assumed to have an increase of 30 per cent. in its capacity.
This puts the car into the next larger class for the purpose of ascertaining its minimum distance.

# APYRENE FIRE EXTINGUISHER NOT ONIY SaTIIFFES THE LAW BUT CIVES UNEALING FIRE PROTECTION 

- FIRE REGULATIONS FOR CAR OWNERS

FOR YOUR OWN SAFETY'S SAKE BUY A


Write for illustrated folder F/ES
THE PYRENE COMPANY LIMITED, Great West Ro., BRENTFORD, MIDDLESEX

## THE SCORING SYSTEM

THE Main Scoring Board is situated in the Public Enclosure, facing the Finishing Straight and the Pits, and the layout of this Board is shown below. The Junior Car Club is again employing the instantaneous electric control which it introduced into motor racing at the British Double-Twelve, 1930. This system will permit the more interesting portions of the board to record progress without delay, and it is proposed to show fresh results at half-hourly intervals during the Race.

A glance at the actual board or at the diagram on this page will show that the electric board will indicate the time applying to the information and, beneath, the first four cars in the Race. Provision is also made for the number of laps each car has completed, the actual distance in miles that separate the second, third and fourth from the leader, and the speed which each car has averaged since the start of the Race at 8 a.m. on Friday.

## CLASS LEADERS.

Beneath the electric board is one which will be hand painted and will show Class leaders as distinct from Race leaders. The laps done in each case will also be shown. The numbers of cars which are non-starters or retirements from the Race will also be indicated.

The Result Indicators in the Public Enclosure to the right of the main board described above, and also in the Paddock, will be in operation. In each case they will record an hourly summary of the main results. This information will permit visitors to see what changes have taken place among the leaders during previous hours.

## LAPS OF UNPLACED CARS.

Arrangements have been made whereby the total number of laps covered each hour by all runners will be available at the score board on request by those requiring this information. As Race and Class leaders are the most keenly sought particulars, preference has been given to these figures and the laps of all cars will not be similarly displayed.


## The Brooklands Experts Know

In whatever sphere of radio or lighting it may be, it is to Philips that those who know invariably look, for their past experience has taught them that it is from Philips that they will obtain the best results. Witness the Philips amplifier installation on this track.

Philips manufacture radio sets for all purposes and all pockets. Prominent among
 them is their "2511," a de luxe 4-valve all-electric receiver, which has been described by experts as the "World's finest radio receiver." Used in conjunction with Philips moving coil loudspeaker type 2109, its performance over a wide variety of stations is incomparable.
Receiver Type 2511 - £35. Loudspeaker Type 2109
£9 10s.
Fit your car with Philips Automobile Lamps and be certain of safe night driving.
For your home lighting there are the Philips "Argenta" (opal) and "Arlita" (pearl) lamps, ideal for all internal illumination. Use Philips Lamps and see.

Electric lamp factories in England and Holland.


PHILIPS LAMPS, LTD., Philips House, 145, Charing Cross Road, London, W.E. 2


## CATERING ARRANGEMENTS

(Catering by the Army and Navy Co-operative Society, Ltd.)

LUNCHEONS. Paddock Building, at $3 / 6$ per person.
LIGHT REFRESHMENTS. Alcoholic Refreshment and Teas.
Fork Grand Stand.
Test Hill Restaurant.
Snack Balcony Bar in Paddock.
BARS. As above and also
Marquee behind Pits (Competitors and Officials only) Paddock Public Bars.

TEAS. Paddock Building, Table d'Hote at $2 /-$ per person.
DINNERS. Members' Hill Restaurant, at 6/- per person.
NOTE.-Accommodation for Dinner may be reserved before 3 p.m. each day, in the Paddock Lunch Room, or in the Test Hill Restaurant.

All Buildings and Bars are licensed for the sale of liquor up to 9 p.m.

## RAILWAY TIME TABLE

Friday and Saturday, May 8th and 9th, 1931.


## WRIGHT"S COAL TAR SOAP $£ 350$

## for"Happy-go-Lucky"Snaps

## WRIGHT"S SIMPLE COMPETITION OPEN TO YOU ALL

Here's an opportunity to win a handsome Cash Prize in an easy competition! Amongst those photographs you will be taking, now that the summer is here, will be a few that stand an excellent chance in Wright's "Happy -go-Lucky" Snap Contest. Whether they are of yourself, baby, wife, fiancee, husband, mother, father, or all of you together, it doesn't matter as long as they make a jolly snap. Don't trouble to pose specially; often the best results are obtained by catching someone unawares in a really happy moment. After reading the rules below, send your snaps to us.
Cut out this advertisement and keep it by you as a reminder.
You will probably be slad later on


2nd ${ }_{\text {pRIZE }}$ £50 3rd Prize 225
20 prizes of \& 5 each
25 prizes of £ 1 each
100 prizes of $10 /$ each You will probably be glad later on!

## RULES

1. Name and address must be written on the back of the snap. Competitors may send in as many snaps as they like. but each must be accompanied by three outside printe. $\downarrow$ wrappers from Wright's Coal Tar Soap. Prizes valued $£ 350$ will be awarded.
2. They must not have been previously published in any way.
3. The Editor of the DAILY SKETCH will act as judge, and his decision must be regarded as final. No correspondence can be entered into in connection with this decision.
4. The last day for receiving entries is August 29, and the result will be announced in the DAILY SKETCH on September 19.
5. All photographs submitted must be free from copyright fees. None can be teturned under any circumstances.

Address entries to
"Snaps," WRIGHT'S COAL TAR SOAP. 48 Southwark St., London, S.E. 1
WRIGHT'S COAL TAR SOAP
6d. per tablet

## Extracts from SUPPLEMENTARY REGULATIONS

4. Entries.-Entries will be received by the Club at the times and rates shown below, the Club reserving the right, at any time, to declare the entry list closed without assigning a reason.

## TABLE OF ENTRY FEES.

(a) Up to noon on Tuesday, March 17 th: Entry fee 15 guineas per car.
(b) From noon on March 17 th until noon on Monday, April 13th: 30 guineas per car.
(c) From noon on April 13th until noon on Monday, April 2oth: 40 guineas per car.
Multiple entry fee rebates: Where more than one car of the same make is entered by the same entrant at the same time the fee for the second car will be reduced by 10 per cent., and the fee for the third or additional entries will be reduced by 20 per cent.

All entries must be sent, together with remittance and catalogue, to the General Secretary of the Club, Mr. L. F. Dyer, Empire House, Thurloe Place, Brompton Road, London, S.W.7.

Entries will only be accepted after consideration by the Club, which may refuse to accept any entry without stating any reason.

If, in the opinion of the Club, insufficient entries are received, the race will not be held.

The entry fee will be returned in full if an entry is not accepted, or if no race is held, or if an entrant is prevented from starting owing to the limitation of entries or starters, but in no other circumstances. Acceptance of an entry does not guarantee that the Club accepts the car entered as actually complying with the regulations.

Provided a manufacturer or concessionaire enters a team of three cars, all entries of other cars of similar make can only be accepted on receipt by the Club of the written consent of that manufacturer or concessionaire.
6. Conditions for Awards.-To qualify for an award, a car must have accomplished at the conclusion of twenty-four hours the minimum distance for its class.

Engines which are supercharged will be considered to have 30 per cent. more than their actual cylinder capacity, and will be placed in the race accordingly for the purpose of computing minimum distance, but cars will remain in their class for the purpose of body dimensions and class awards.

The minimum distance is set for the classes recognised by the International Association and not for each individual car. At the end of each of the four consecutive periods of six hours the officials have the right, acting through the Clerk of the Course, to exclude and to withdraw those competitors whose cars have not maintained their minimum average speed for these periods of time.

The relative performance of the cars will be ascertained by dividing the set minimum distance figures into the figures for the distance actually covered, and thus arriving at a figure of merit to three places of decimals, the third figure of decimals being augmented by one if the calculation shows that the fourth place of decimals exceeds the figure 5 .

The winner of the race will be the car with the highest figure of merit as a result of this calculation, class winners being similarly determined.

The engine bore and stroke will be taken in millimetres and in round figures up to tenths of a millimetre. The capacity will be reckoned without decimal points, the last figure being increased by one if the first decimal point would have exceeded the figure 5 .

A car that has failed to complete its set minimum distance in the twenty-four hours, shall not be regarded or advertised as one that has finished the course or the race.
7. Cars Eligible.-The race is open to any open car having a chassis with not fewer than four wheels, not being what is commonly known as a racing chassis, which complies with the following requirements:-
(a) The model of which the chassis entered is an example must have been described fully in a catalogue published by the manufacturers of, or conconcessionaires for, that car prior to the closing of the entry period at which the car was entered, such catalogue to be lodged with the Club by that time.

(b) Chassis must be built prior to 31 st March, 1931, in sufficient quantity to satisfy the Club that the type of chassis is a bona fide commercial model.
(c) The car must be normally constructed, catalogued and offered for sale with an electric starting motor, an electric lighting set including a dynamo driven from the engine, wings, screen and hood, provision for all of which shall have been made in the design for the engine, chassis and body from the time the first car of the series was produced.
(d) In order to satisfy the Club that entries fulfil the conditions laid down in (a), (b) and (c) above, the entrant shall grant to the Official Scrutineer appointed by the Club, such reasonable facilities as he may require in order to verify the same, and to inspect all cars entered, and entrants must advise the Club in ample and sufficient time before the race that their cars are ready for such inspection.
If the catalogue in which the car is referred to is not complete in every detail, the Club has the right to demand a full specification from the manufacturer or concessionaire of the car which it is desired to enter, and to obtain a declaration of the number of cars built.

Where a catalogue contains specifications of more than one model that referring to the car entered must be identified by the initials of the entrant in the copy of the catalogue forwarded to the Club.
8. Alterations.-Provided that the chassis complies in the first place with the foregoing regulations, provided the bore and stroke are not altered in any way, and provided that neither the type of component nor the system on which it operates is altered, the entrant is allowed to effect such changes as he desires in the internal mechanism of the existing components of the chassis.

Externally, for the purposes of this race, only the following alterations may be effected:-
(a) Any type or size of wheel or tyre may be used.
(b) Any type of sparking plug may be fitted.
(c) Supplementary oil tanks may be installed in order to replenish, but must not form part of the oil circulation system.
(d) Fuel tanks must be carried in the standard position, but need not be of standard size.
(e) Stone guards may be provided.
(f) Provided that the number of carburetters used is not altered, the size and make may be varied.
(g) Fillers of any type may be fitted for fuel, oil and water replenishments.
(h) Any make of shock absorber may be fitted.
(i) Spring-spoked steering wheels may be fitted.
(j) The means adopted to convey the liquid fuel through a pipe from the fuel tank and deliver it through a pipe to the float chamber of the carburetter may be anything the entrant pleases.
(k) The silencer system must conform to the Brooklands regulations for exhaust systems.
(1) Recording instruments of any make and type may be used.
(m) Bonnets must be secured by at least one strap, of not less than $1 \frac{1}{2} \mathrm{in}$. wide and $\frac{1}{6} \mathrm{in}$. thick, the single strap, if used, being placed in the centre.
( $n$ ) The nosition of the battery may be changed, but neither its size nor its capacity may be altered.
(o) The mechanism for adjusting the brakes may be varied to suit the driver's convenience, providing that it does not materially interfere with the general brake layout.
With these exceptions there must be no external alterations whatever, either in general or in detail, and the position of any external part must not be changed nor must any detail of a component be omitted.
13. Closed Cars.-Cars with closed bodies are not eligible for the race or practice.
19. Engine Starting.-During the race engines must be started only by the electric starting motor. The starting handle, or any orifice through which the starting handle might be placed, will be sealed by a representative of the Club beforehand. Entrants must provide a means whereby this sealing can be effected satisfactorily before the cars are presented at inspection.
28. Knowledge of Rules.-Entrants, drivers and mechanics will be required to sign a statement certifying that they are conversant with the A.I.A.C.R. Rules and such other rules as govern the race.
29. Competitors bound by Rules.-All competitors are definitely bound by the Rules, Regulations and Instructions issued by the Club.

## THE JUNIOR CAR CLUB.

## ABOUT OURSELVES-

WE cannot miss the opportunity of introducing ourselves to those who may not know of us, for it is an appropriate-if not auspicious-moment at which to do so.
The Junior Car Club, in so far as years go, may not be very old, but it has crowded into its nineteen years of active life many accomplishments of which a longer-established and much larger organisation might well be proud.

## A SMALL BEGINNING.

In its early days, the Club consisted of a mere handful of enthusiasts who drove comical "cycle-cars" and held week-end Trials and rallies at which they pitted the strength of their curious hobbies against one another. From these small beginnings we have grown into one of the premier motor clubs in the country-and by providing the Trials and Races, as we have done in the past, for "light" cars, we feel, and know, that we have contributed in great measure to the immense progress made by this class of vehicle.

In past years, we have been responsible for the General Efficiency Trial, the famous series of Brooklands 200 Miles Races and the "Double-Twelve." These are the peaks, as it were; lower in the scale, there are the numerous Trials and events at Brooklands, the Social Rallies, Dinner-dances, and hosts of novel events, such as Treasure Hunts, Flights in air liners, and Visits to Industrial Centres.

## CATERING FOR LARGE CARS.

The light car has been established for many years now as a definite type of vehicle, and with its approach to perfection our object in life may have passed. However, having once been brought into being, we do not find it easy to die; on the contrary, we grow with the times. Up to 1929, our events were restricted to cars with engines not exceeding 1,500 c.c. engine capacity, although for a number of years a great many of our members owned cars exceeding this. Now, however, neither our programme nor our membership is restricted in this way, and owners of all types of cars may participate in most of our events.

The I.C.C. competition activities do not present the sole advantages of membership, and it would probably be true to say that the majority of our members are unable to take part in our Social and other events. Our members receive the full benefits of Associate Membership of the Royal Automobile Club. The extent of these benefits may be demonstrated by quoting the headings under which they occur.

These are as follows:- The "Get-you-Home" Service, Free Legal Representation, Touring Guides, Touring Information (English and Continental), Roadside Repairs by Appointed Garages, Traffic Controls, Car Parking arrangements, Telephone Boxes, Arbitration, Financial Help in certain cases, Route Cards and Maps, Appointed Hotels, Restaurants and Inns, Services of R.A.C. Engineer, Lost Property Scheme, Licence Reminder Service, Handbook and Guide, and others.

This is a comprehensive list, and one of the most interesting and useful benefits is the "Get-you-Home" scheme. You may take pride in the fact that your car has never yet let you down. That is not to say that it never will. The R.A.C. deals annually with thousands of cases under this scheme, and invaluable service has been rendered.

## MODEST SUBSCRIPTIONS.

We would very much like to send you some literature amplifying these benefits, but you will want to know the cost of joining. If your car is under 1,100 c.c. engine capacity (this includes Austin 7's, Morris Minors, Rileys, M.G. Midgets, etc.), the annual subscription is $25 /-$; where a car exceeding 1,100 c.c. is owned the subscription is $35 /-$. In both cases there is an entrance fee of $10 /-$.

Thus for a modest outlay, you can have the advantage of the security offered by Associate Membership of the vast R.A.C. organisation, together with just those interests and entertainments which can make so much difference to one's motoring life.

May we send you an application form and full details of membership? If you are a motorist you ought to belong to one of the motoring organisations, and the Junior Car Club, we think we can prove to you, is the best one for you to join. Anyway, tear this page out and send it with your card to: Junior Car Club, Empire House, Thurloe Place, Brompton Road, S.W.7. We will send you full details, together with a new programme so that your souvenir of to-day's great race will not be spoilt. Our telephone number is Kensington 1294, if you want to ring us.

## Application Form

To the General Secretary.
JUNIOR CAR CLUB.
Sir,-I desire to be nominated for election by the Council as a Member of the Junior Car Club, and, if elected, I undertake to abide by the Rules and Regulations of the Club. I enclose the sum of
to cover Subscription and Entrance Fee for one year from date of enrolment (see below).

Surname

> (in block capitals)

Full Christian Names
Address
$\qquad$
$\qquad$

Clubs (if any).
Rank or Profession
(Mr., Mrs. or Miss)

Name of Member of
Club Proposing $\}$
Name of Member of
Club Seconding
Give reference (not a banker's) if unknown to any Member of the Club $\}$ $\qquad$
Make of car and h.p.
Signature of Applicant.
Cheques should be made payable to the Junior Car Club and crossed "\& Co."
This form; together with remittance, should be sent to the General Secretary, Junior Car Club, Empire House, Thurloe Place, Brompton Road, London, S.W.7. Applications for membership are not considered unless the form is properly filled in, and is accompanied by a remittance, which will be returned in the event of non-election.

## SUBSCRIPTION RATES, etc

1. UNLIMITED (For members who own a car exceeding subscription entrance fer

$$
\begin{array}{lllllll}
1,100 & \text { c.c. engine capacity } & \cdots & \ldots & \ldots & \ldots & 35 /- \\
10 /-
\end{array}
$$

2. SMALL CAR OWNERS (For members who do not own a car which exceeds 1,100 c.c. A Declaration to this effect to be signed)

25/- 10/-
3. SOCIAL MEMBERS (For members who do not own a car) $\ldots$... $. . . \quad . . \quad$..... ... $15 /-\quad$ 5/-
FULL ASSOCIATE MEMBERSHIP OF THE ROYAL AUTOMOBILE CLUB is included in 1 and 2.
NOTE.-Subscriptions run for twelve months from date of enrolment.
CAR BADGES, etc.
The following are available for Members-

| *R.A.C. Badge Centre) | (with | $\begin{aligned} & \text { J.C.C. } \\ & \text { small } \end{aligned}$ | 12/6 | J.C.C. Silk Tie ... J.C.C. Scarf |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{*}$ R.A.C. Badge | (with | J.C.C. |  | Badge orders should |  | pan |  |
| Centre) |  | large | ${ }^{1} 7 / 6$ | remittance, and the |  | bad |  |
| *J.C.C. Car Badg |  | ... | 10/6 | fitting required shou |  | ica |  |
| J.C.C. Button-h | Badg |  | 3/- | Chromium P |  |  |  |



The continued demand for ASTON MARTIN cars proves the attraction this car has for the motoring sportsman who appreciates a car capable of high speeds together with thorough reliability. The Aston Martin is a ear built to give the maximum pleasure to its owner, while no expense has been spared to make the car perfect in detail. Wherever this Season's model differs from its predecessors, the alterations and improvements have been made solely in pursuance of Aston Martin's policy of continued progress. The latest series are worthy successors to a line of thoroughbreds.


## Feltham, Middllesex

II, All enquiries should be addressed to Mr. H. J. Aldington, Sales Department, 400, London Road, Isleworth. Requests for eatalogues and detailed information in respect of either of these well-known British sports cars will be dealt with immediately, while demonstration runs can be arranged anywhere and at any time.


The FRAZER NASH is pre-eminently the car for the enthusiast at a reasonable price. It has proved its worth by its consistent success over many years, and is famous for its "liveliness" and unequalled road performance under the most severe conditions. While the Frazer Nash is primarily for the enthusiast who wishes to compete in Reliability Trials, Speed Events and Hill Climbs, it is bound to attract the business man who has to cover long distances at really high average speeds, so that it is in fact a general-purpose car with a very wide appeal.

[^1]

# THE SYMBOL OF TRANSPORT EFFICIENCY 




THE LEADING MOTORING JOURNAL
EVERY FRIDAY 4 d.


Felice Nazarro, the ultimate wimner. driving a Fiat in the 1907 Targa Flonio, in Sicily. From "The Autocar" series of Coloured Supplements Meteors of Road and Track" by F. Gordon Crosby
"THE AUTOCAR" presents a wide survey of motoring for all car owners and drivers, and contains the finest illustrated accounts of the leading sporting events on road and track


[^0]:    Lucas-C.A.V.-Rotax Official Battery Service Agents throughout
    the country. Agents and Service Stations throughout the World.

[^1]:    
    Nash
    Cars
    "Falcon Works," London Road, Isleworth, Middlesex

