

Motor India

1957 - October

VOL - 2. NO-3



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MOTORINDIA

VOLUME 2

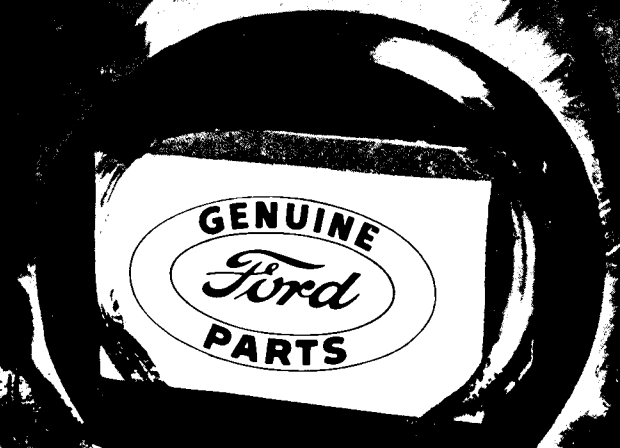
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NUMBER 3

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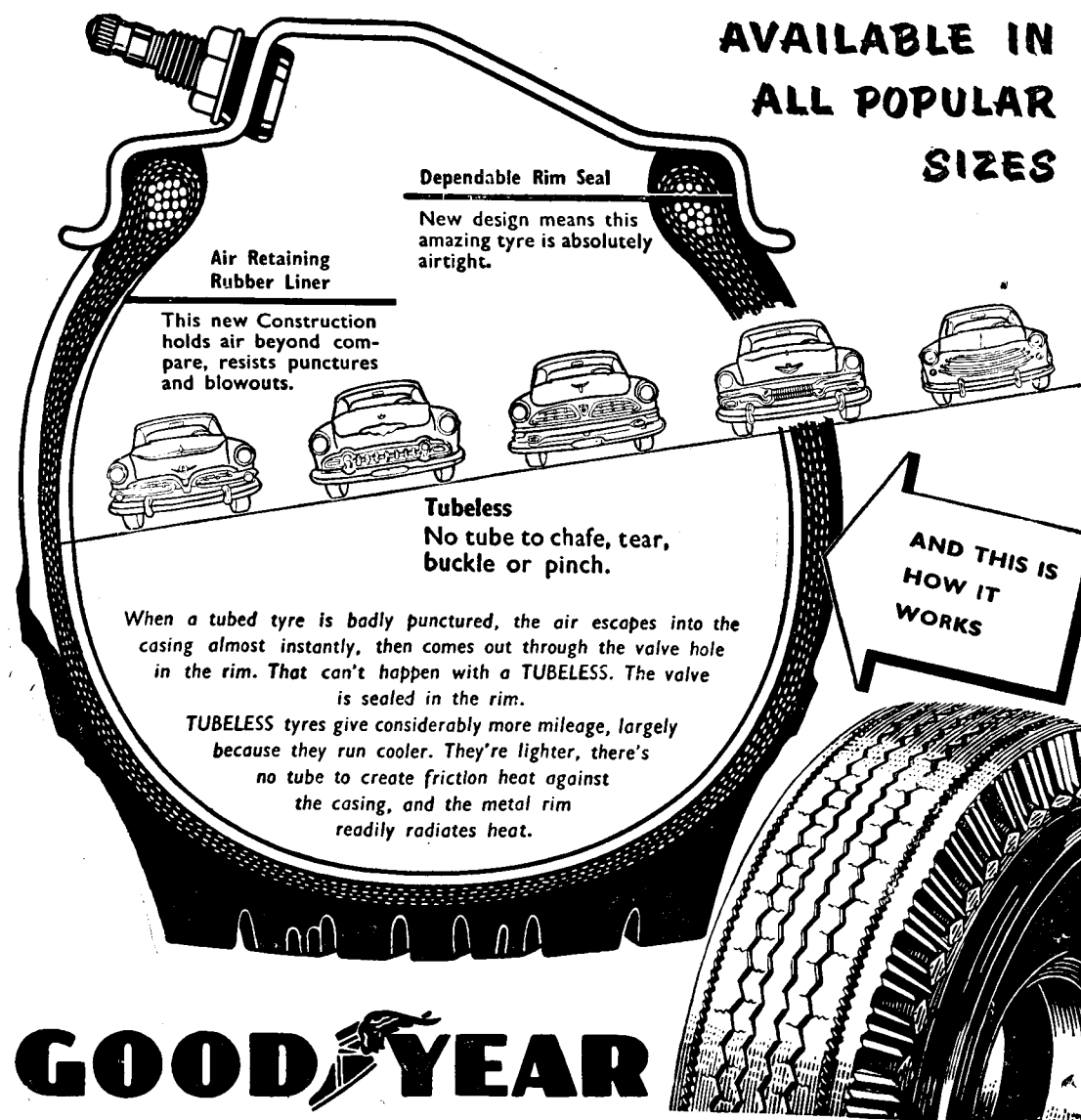
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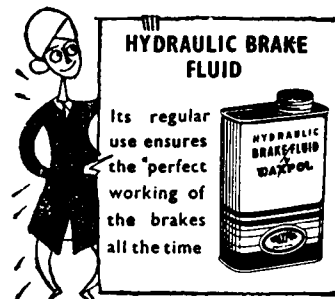
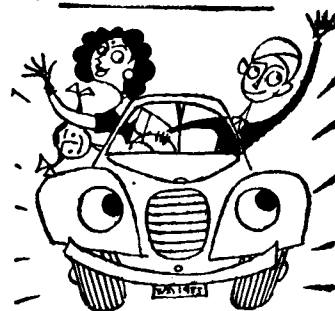
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MOTORINDIA

Vol. 2

OCTOBER 1957

No. 3

Editor : M. RAJAGOPALAN

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“Additives, Sir,
are things
that are added
to things . . .”

the boy's a genius

It sounds simple enough. To add special qualities to a motor oil,
you just...well...add things to it.

Simple? It was revolutionary! When SHELL X-100 MOTOR OIL was
first introduced, eyebrows were raised in query. Here was a new kind of
oil altogether, an additive oil, claiming to do things no motor oil could
do before and completely refuting existing ideas on engine wear.

It's not friction, we said, which causes most wear in engines. It is corrosion from
acid products of combustion. Research has proved it. A modern oil must therefore
be able to fight acid action. Again, conventional lubrication is no longer
enough. A modern oil must have a detergent action, to keep working parts
clean and free from clogging deposits. Again, standards of stability must be raised
to resist the higher temperatures and pressures of modern engines. How could
these things be achieved? Shell research found the answer...by remarkable
chemical additives. SHELL X-100 MOTOR OIL, with its three special forms
of protection, was a major advance in car lubrication. Its success was immediate.
To-day it is the leader amongst detergent oils whose superiority is now
universally recognised. It is yet another instance of how Burmah-Shell are
continually distributing the better products which a changing situation demands.

BURMAH-SHELL... in India's life and part of it

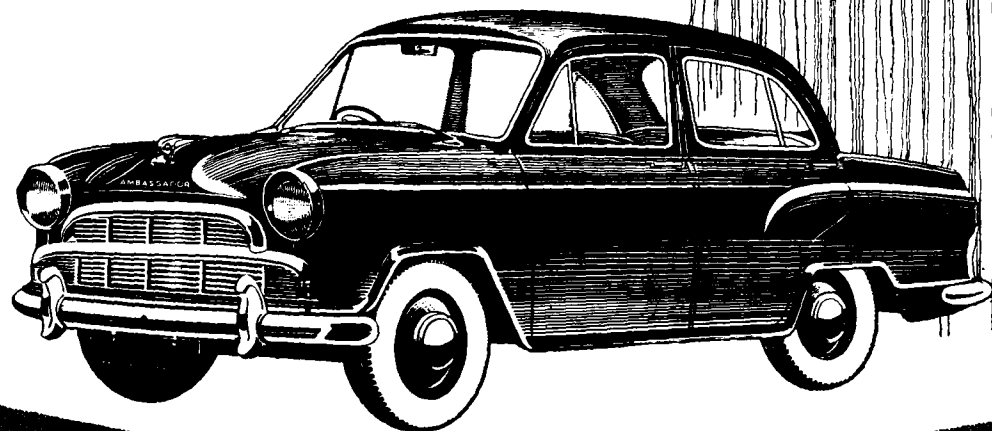
Many schemes for the indigenous production of goods which had
hitherto been imported into this country have been launched, and very
rightly too, since India attained independence over a decade ago. Such
a changeover from a dependant economy to one of self-sufficiency and
stability cannot ordinarily come about and hence Herculean efforts are
necessary. We, therefore, congratulate the Government of India on the
very wise decision which made them embark on successive 5 Year Plans.
These plans were framed with a view to getting from abroad the know-
how and the huge amount of machinery that must come one day or other
into this country to enable sufficient production of the very items which
we would like to produce in this country itself instead of importing. The
Plan brought within its wake numerous problems, some essential and some
not so very essential. Among the most essential of all such things is the
availability of transport facilities for moving either the machinery for
the implementation of the Plan or products including food, cloth, etc.,
from one place to another within the country. As the production of these
go up gradually in proportion to the success of the various Plans, the need
for their transport becomes greater and the problem becomes more intense
day by day.

It is, therefore, very encouraging indeed that the Government have
thought fit to give the necessary impetus for the production of automobiles,
particularly those for carriage of goods. Many firms are now engaged in
this vital task of providing the much needed transport and we are glad
that progress has been made by most of them at various levels since they
started, thanks to a very large extent to the protection that has been offered
in the matter of import of automobile parts. However, it has to be noted
that these manufacturers do produce and have planned their manufacturing
only with regard to some essential items like Piston, Spring Leaves, etc.,
and some proprietary lines. So far so good. But, have the authorities
looked into another aspect of the road transport picture in the country
today? We doubt very much that they have. Because if they had, the
Import Policy for October 1957 to March 1958 that has been made public
at the beginning of this month, should have been different from what it is.
It is of course true that, thanks to a liberal policy in the recent years, there
are stocks of automobile parts in the Indian market today. But there
are nearly 400,000 vehicles on the roads of this country now and a majority
of these are transport vehicles. What is to happen to all these vehicles which
no doubt require replacement parts to enable them be on the road? There
is no Indian manufacture worth mentioning of replacement parts as such
for the existing vehicles and there is no doubt that the entire transport
system will be paralysed unless and until these vehicles are serviced with
parts. The existing stocks in the market will probably last, on a most
conservative estimate, perhaps till about July-August next. What are
vehicle owners to do for their requirements of replacement parts? This
is an aspect which has been very regrettably neglected in the framing
of the Import Policy and this neglect will be more disastrous to the national
economy and the smooth working of the plan than perhaps even the major
economic bunglings associated with our Government for the simple reason
that the shortage that is created by the Import Policy in respect of auto-
mobile parts will affect *vehicles now serving* the nation. It is, therefore,
our earnest hope that by a revision of this Policy during this current period
itself or atleast at the end of March 1958, the Government will allow enough
replacement parts into the Indian market so that we do not face a nasty
situation in the matter of movement of goods after some months now.

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... and increased family safety with many new advanced features



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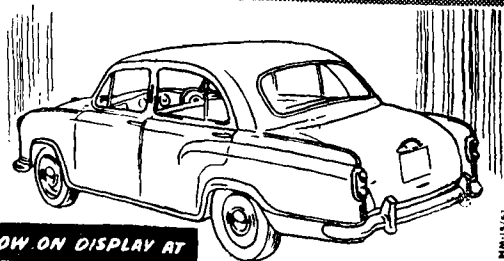
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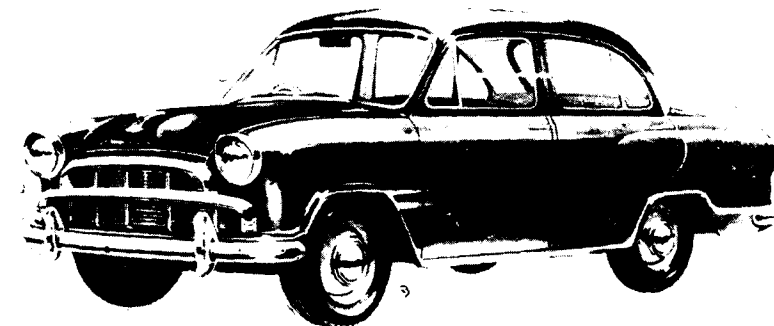
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Introducing

THE NEW

HINDUSTHAN AMBASSADOR



The new Hindustan Ambassador 1957 Model which was introduced to the Indian public this month

The Ambassador which was introduced into the market this month in various centres in India is the latest model in the popular Hindusthan line of cars and incorporates many new features and improvements that will be welcomed and appreciated by the motoring public.

In keeping with its name, the keynote of the Ambassador is stateliness and elegance, both in exterior design and interior furnishing and fittings.

A freshly designed bonnet, new hood ornament, entirely redesigned rear-end with raised fenders and restyled luggage boot, new ornamented white-metal mouldings on top fenders both front and rear, and new conical twin stop and tail lamps, all go to enhance the stately appearance of the Ambassador.

Inside, there is a blend of refinement and luxury. Six adults can sit in comfort, eliminating the fatigue factor on long journeys. And the interior courtesy light adds an essential comfort feature.

Perhaps it is on the safety side that the Ambassador scores heavily over the general run of cars. The deep-sunk-centre steering wheel and sponge-rubber protection on facia rails offer maximum safety in modern motoring. Children's safety-lock doors remove parental anxiety. Completely redesigned facia panel with lidded glove boxes reduce distraction of the driver. The new easy-to-reach, easy-to-read grouping

of instruments on the dash board offers the driver an instantaneous check on speed and other driving data.

The shifting of gears is much smoother and easier in the Ambassador. Engaging of reverse gear has been made simpler by eliminating unnecessary pulling of the lever as in the Landmaster Model. In spite of so many improvements and changes there is no change in the price of the new model. This is a factor which will be universally welcomed by the customers and will definitely increase the popularity of the car.



On the occasion of the introductory display of the new Ambassador, a cock-tail party was given by Messrs India Automobiles at Calcutta. Photo taken on the occasion includes, Mr. Pandit of P & T, Mr. M. Sanjeeva Rao of Hindustan Motors, Sri Dhiren Mitra and Sri R. P. Patodia

October 1957

MOTORINDIA



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DUNLOP 
TRAKMASTER



DC-491

Simpsons MAKE HISTORY

in labour relations

Messrs. Simpson & Co. Ltd. of Madras, who have passed "5 score and 10" some years ago and who have all along been moving with the times with a number of "firsts" to their credit, have added to their laurels this month by constituting a Joint Council of Management in the Simpson and Group Companies. This is another "first" of which Messrs. Simpsons and their Labour may indeed be proud of. The agreement which is for a scheme of workers' participation in the Management, sponsored for the first time in the private sector in the State, was evolved following a decision at the recent Conference of State Labour Ministers at Delhi. At the special function for the inauguration of the Joint Council of Management, the Chief Minister of Madras, Mr. K. Kamaraj and the popular Labour Minister Mr. R. Venkataraman were both present, besides a large number of officials and non-officials.

Mr. S. Anantharamakrishnan, Chairman of the Simpson and Group Companies, at the outset expressed the delight of all at the presence of the Ministers and referred to the ceaseless work that Mr. R. Venkataraman had done as President of the Simpsons Unions.

Proceeding he said that when he learnt first that this concern was selected for the experiment decided upon at the Labour Ministers Conference, he was filled with mixed feelings of joy and anxiety, joy because it showed the confidence that the authorities had in the Management and workers of this great firm; anxiety and also a little hesitancy lest the experiment should fail and they become the target of attack in the process. But this hesitation was overcome and the Companies were now divided into two sections, the Engineering Section and the Press and Miscellaneous section. The idea was to have a Joint Council of Management with equal representation for Management and workers in each Unit. The Council would meet as often

as necessary and the Chairmanship itself would be for six months in rotation between the Management and the Workers' Representatives. There would be Joint Secretaries from the Management and Workers. As far as the Management was concerned, this scheme should be made a success and so they will do everything to make it a success. He hoped the same from the workers' side as well.

The Vice-President of the Simpsons Unions, Mr. A. V. Srinivasan, then referred to the very cordial relations that existed between the management and workers in this era of labour unrest. The scheme may not pay an immediate share in the profits for the workers, but it might in future lead to such a thing.

Mr. R. Venkataraman, Minister for Labour, who presided over the occasion said that the great enthusiasm and joy that marked the occasion were evidence of their determination that the experiment should be made a success. He dwelt on the labour-employer relations in various countries and particularly in India and said that the improvement in the condition of the workers in the Simpson Group Companies was itself a demonstration of how by concentrating on improving the lot of the workers much could be achieved. *Referring to the question whether this experiment meant a sharing in the profit immediately, he pointed out that bonus paid to workers was already a share in the profit.*

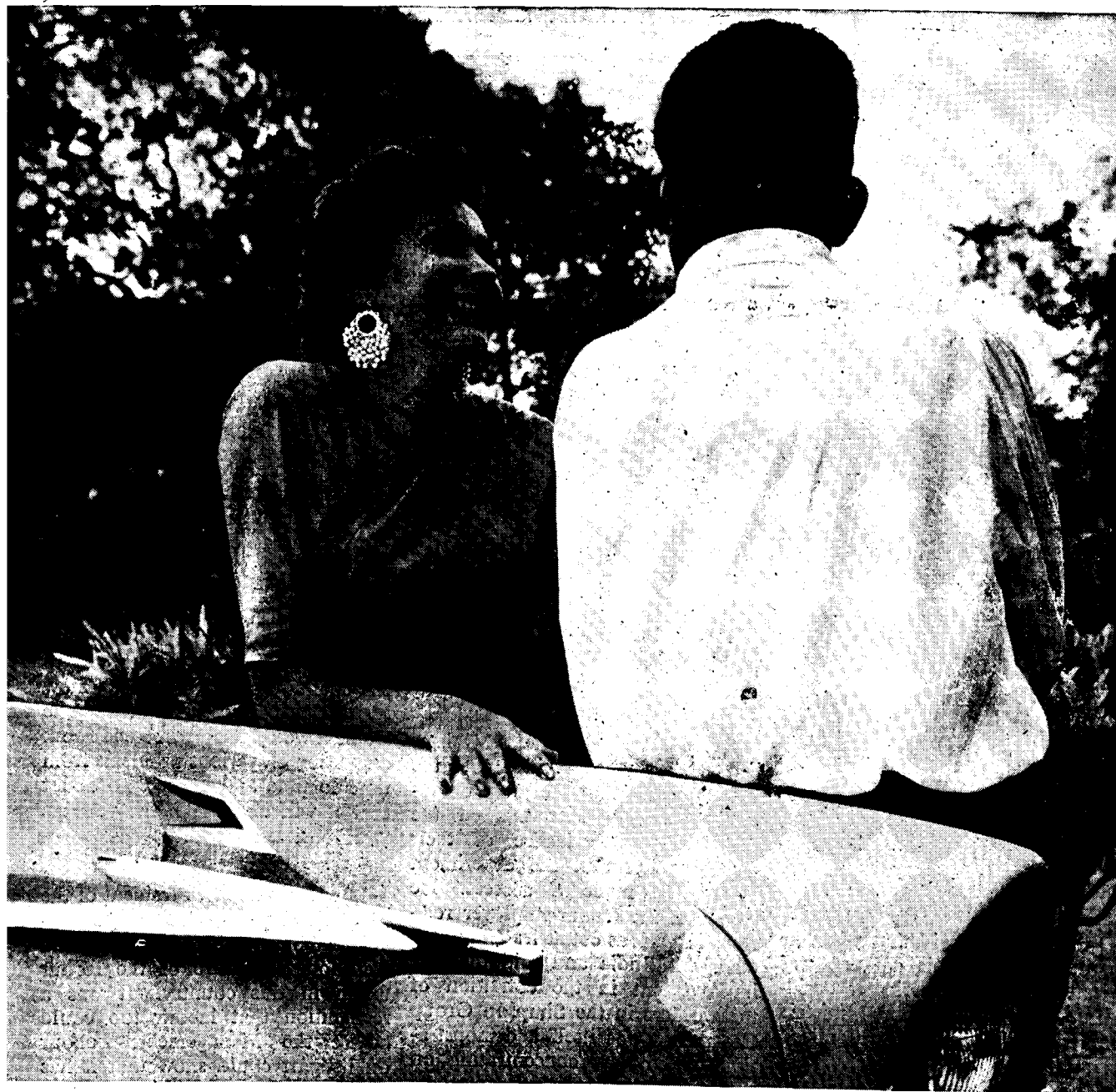
The reason why he selected this concern for the experiment was that he knew the management and the workers very well and he considered that the experiment was bound to succeed and will be a shining example to other industries and firms in India.

After the agreement was signed by the Management and labour in this scheme, Mr. K. Kamaraj, Chief Minister, inaugurating the Council, said that only when the workers were ready to undertake responsibilities that rights would accrue to them, for there was no question of rights without responsibilities.

As regards the present experiment, in Simpsons, there was no need for any apprehension as to whether it would succeed. It will not fail so far as he can say. It was because the Union had conducted itself very well all these years. He congratulated the Management and workers on their excellent relationship and stressed the fact that a greater responsibility to themselves and to the country as a whole existed now as a result of the experiment. The Council would enable free and frank discussion on various problems from time to time and he had no doubt that it will also make the workers "responsible-minded."

Mr. Gurumurthy, President of the Simpson & Group Company's workers and Staff Unions said it augured well for the future of the labour union in this country. It was a recognition that labour too could advise the Management. Labour on its part could show that it has realised its responsibilities and was not after making demands only. The responsibility they had now undertaken on behalf of the entire working class was born of the realisation that the interests of the employer and labour were common and that there was a feeling of oneness in them.

Among the subjects to be considered by the Joint Council from time to time will be standing orders, retrenchment, rationalisation, closure or cessation of operations etc.



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TATA MERCEDES BENZ

(From a Correspondent)

Facts speak for themselves. And the single most important fact about the Automobile Division of Tata Locomotive and Engineering Company is : It has more than adhered to the schedule so far of its manufacturing programme and in doing so, it has caught up with and outstripped the progress in indigenous production of trucks and buses made by all other manufacturers in the country, including firms which commenced production several years earlier. In other words, the rate of development at Telco's factory is much faster than that obtaining in the plants of the other licensed manufacturers.

The significance of this achievement becomes clearer when it is realised that this development, which is according to the original schedule, has been achieved in spite of the doubling of the annual output from 3,000 to 6,000 vehicles. (Actually in 1956-57 over 7,000 vehicles rolled out of the factory).

The manufacturing programme is to be completed in four stages by 1959-60 when the factory is scheduled to produce the complete vehicle including the engine. All plans have been geared to the fulfilment of this phased programme and thereby to the saving of much valuable foreign exchange.

Agreement for technical and financial assistance between the Company and Daimler-Benz was concluded in March 1954 ; the Government of India's sanction was received in July 1954 ; and within less than four months thereafter, in October 1954, the first Tata-Mercedes-Benz vehicles rolled off the assembly line. To anyone familiar with the problems of getting workshops ready, setting up plant and equipment, training workers under the conditions prevailing in this country, the magnitude of the task accomplished within

Progress Ahead of Schedule

the short space of four months needs no emphasis.

Soon the manufacturing programme went into action. The First Stage was to be completed by October 1956 and in this, indigenous production had to account for over 25 per cent of the total ex-factory value of the chassis without tyres and batteries. Hardly had a few months passed when in response to the growing demand for the vehicles, it was decided to raise the annual output target from the original figure of 3,000 vehicles to 6,000 vehicles. This was done on the clear understanding that the manufacturing programme will be strictly fulfilled in spite of the increase in production. And so it was—by October 1956, the factory accounted for 25.5 per cent of the total ex-factory value of the products. The First Stage was thus successfully completed.

The odds were heavy. There were irksome delays in the arrival

of the required machines and materials and, moreover, production had to be kept up even while the machines were being installed and the workshops remodelled. It is a tribute to the technicians and men of the factory that despite these odds, there was no letting up on the schedule of the manufacturing programme.

In the year 1956-57 a total of 549 parts and components of the vehicle were taken up for indigenous development. These can be grouped under the following heads : (a) Sheet metal components ; (b) Braking system ; (c) Face parts ; (d) Frame members ; (e) Front axle ; (f) Propeller shaft ; and (g) small parts.

Many modern and intricate machines had to be imported for the completion of the First Stage and the year 1956-57 saw the arrival and installation of as many as 267 machines taking the total to 354.

As has been observed before, Telco has been anxious to complete its

A view of the Machine Shop of the Telco Automobile Division



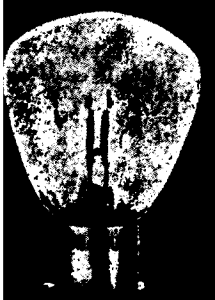
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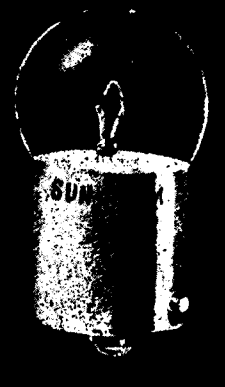


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manufacturing programme by the scheduled date. This anxiety is spotlighted by the following decisions taken by Telco :

- (i) Pressings are among the many parts bought out by the Automobile Industry in the West from subsidiary workshops. Such workshops are unfortunately not available in this country to the desired extent ; so the company decided to have its own Press Shop including the massive 3,000 ton-Scholemann Press which produces the long and cross members of the chassis frame and other heavy components. This means that a higher percentage of the parts and components of the vehicle will be produced in the Company's factory than is produced in the Daimler-Benz factories or any other Western automobile plant.

- (ii) Although, as stated above, local resources for the manufacture of parts and components are limited, it was decided to make the best use of the available workshops. With this end in view, a Development Department has been created and in 1956-57 this Department was able to farm out 170 items among different workshops.

- (iii) Special castings are required for the engine and some other parts of the vehicle. Telco, therefore, decided to have its own upto-date Alloy Iron Foundry. This will be commissioned in 1958.

Stage Two will be completed on 31st October, 1957, and will be followed by Stages Three and Four. Meanwhile, substantial extensions to the factory are being made to house the new shops and sections such as the Engine Shop and the Heat Treatment Shop which are in the process of creation for completing the manufacturing programme. Plant and machinery required for the new sections will be

installed directly in the new workshops which are expected to be completed in the next few months.

The successful completion of the remaining stages of the manufacturing programme requires the import of several more machines and machine tools. For a time doubts arose whether the import programme would be adversely affected as a result of the present grave foreign exchange situation. But the Company is happy that the Government of India has assured it that the minimum foreign exchange required for completing the manufacturing programme will be made available. The assurance is most welcome. From the national point of view, the foreign exchange that will be saved every year after Telco completes its manufacturing programme will be more than the aggregate foreign exchange the Company will have spent on plant and equipment.

A review of the achievements of the Tata-Mercedes-Benz factory will be incomplete without mention of the schemes launched by it to overcome the dearth of skilled personnel. At the higher levels, skilled workers employed in the factory

and selected graduate apprentices are sent to Germany for higher and specialised training in the factories of Messrs. Daimler-Benz.

At the lower levels, 100 stipendiary apprentices are trained every year under a three-year course by the factory's apprentice school. Plant and equipment costing over Rs. 25 lakhs have been installed in the schools (which has drawn praise from all visitors, including the Tariff Commission) duplicating the production processes of the factory. Apart from this, wherever possible, the trainees are encouraged to participate in the actual processes of production. This illustrates the high quality of the training imparted to the apprentices.

The effect of the training schemes and of correct work-loads and the group system of incentive bonus, evolved after scientific time-studies, is seen in the increasing efficiency of the workers. The ratio today between the work-time in Daimler-Benz's factories and that in the Telco factory is as low as 1 : 1.8. This augurs well for the future of the Automobile Industry in this country.

Mr. U. Ba Hein, Deputy Director of the Burma Purchase Board, talking to Engineers when he visited the factory of Fuel Injections Ltd., at Bombay recently



October 1957

4

MOTORINDIA

13

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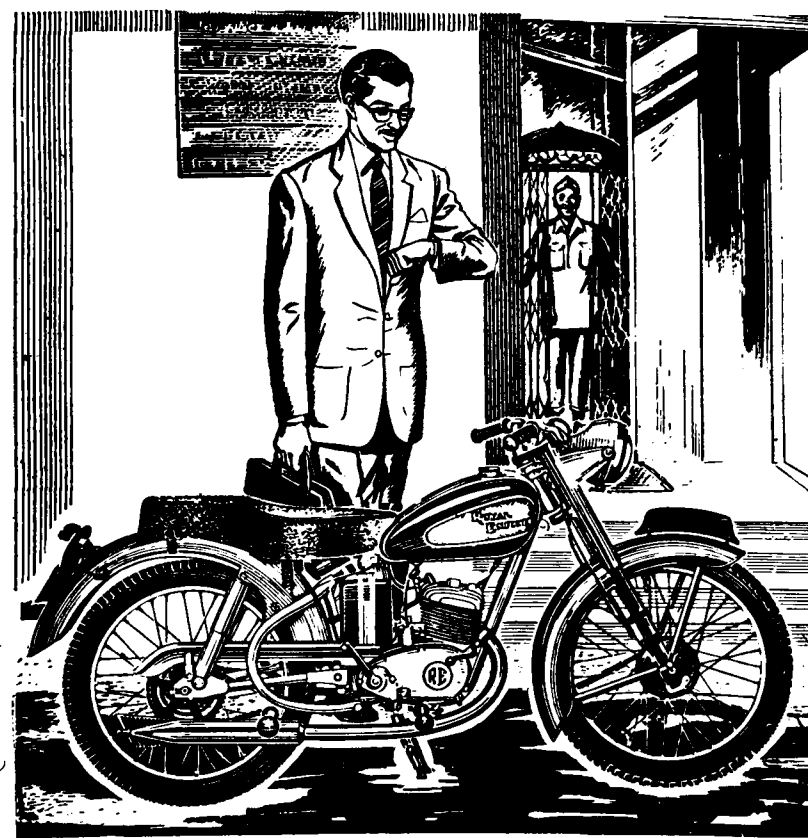
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DEALERS SEE PRODUCTION AT TIRUVOTTIYUR Enfield India's Successful Conference

A conference of all India Dealers of the Enfield India Ltd., manufacturers of Enfield motorcycles in India was recently held at Madras when Enfield dealers from far and near took part in the deliberations. It was a four day programme of visits, lunches, dinners, business discussions and sight-seeing and the way in which these things were arranged left no doubt that the delegates to the conference were all not only immensely pleased with the arrangements but they left with increased knowledge of the usefulness of the motorcycle, particularly the excellent way in which Enfield cycles were produced in Madras under the phased programme of manufacture approved by the Government of India.

The numerous delegates were received by Mr. S. Sankaran, Managing Director of Enfield India Ltd. and Mr. S. R. Subramaniam, Managing Director of Madras Motors (Private) Ltd.

The Enfield India Ltd., whose Chairman is Mr. K. R. Sundaram Iyer, have just completed two years out of the phased programme of 5 years. It is gratifying to note

that within these two years, the indigenous content of the Enfield motorcycle was about 35%. According to their present programme, they propose to increase the indigenous content of the motorcycle to 50% by the end of this year and almost to 100% by the end of 1958 so that they will be completing the phased programme well ahead of the schedule.

At present, some of the major components that were being made in their own shops were: Frames, Petrol Tanks, Dual Seats, Silencers, etc. Apart from these, there were large number of various small machined and pressed components made in their own works.

Specialised items like rubber components, etc., were obtained from indigenous sources.

Arrangements have been made for obtaining from indigenous sources various engine components, such as crank-case, etc. By the end of this year, or early next year, they propose to commence supplies of these from indigenous sources and these castings machined in their works will go into production com-

ponent by component during the next year.

More than 50% of the fixed assets, i.e., plant, machinery and buildings required for the scheme have already been acquired and the balance were in the process of being acquired at a very fast pace. This was as a result of their decision to considerably advance the phased programme having in view the exchange difficulties that they would have to face at any time in future.

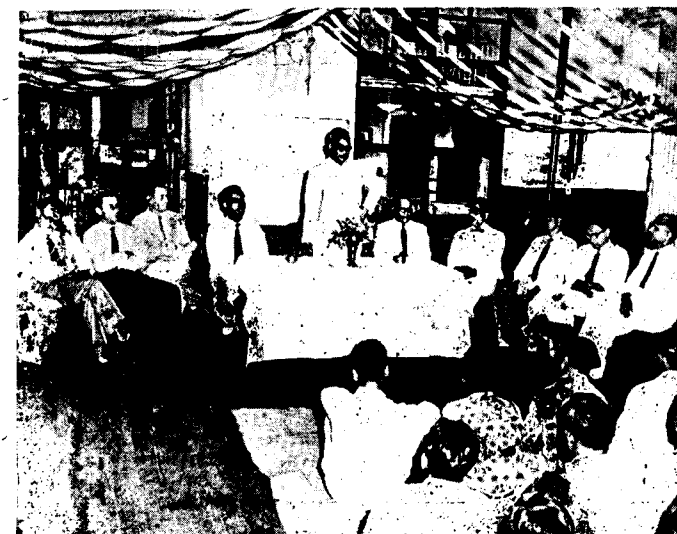
Delegates to the conference were shown round the various parts of the workshop, the machine shop in the third and fourth bays which commenced working some time ago and the other machines in the process of being erected. The delay in the erection was due to difficulty in obtaining steel and cement, it was pointed out. Sheet Metal and Press Shop building are now complete.

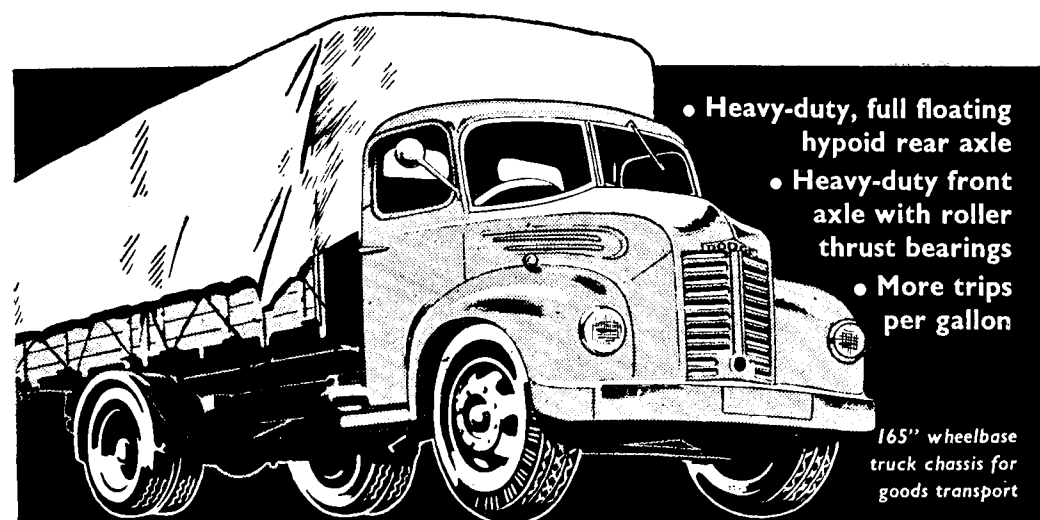
The present production of the factory was 300 vehicles a month. By the end of this year they hope it will be 400 a month and before the middle of 1958 it will be about 600 vehicles a month.

GEORGE OAKES CELEBRATE AYUDHA PUJA

Mr. A. C. Bannerjee, Executive Director of George Oakes Ltd., Bombay addressing the members of the staff on the occasion of the celebration of Ayuda Puja Day

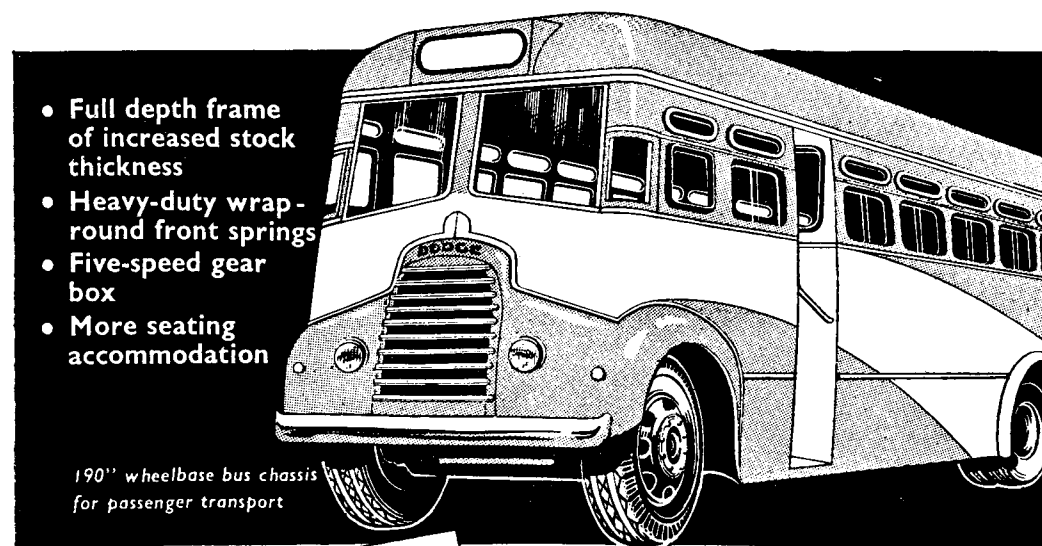
Members of the staff of George Oakes, Bombay Operations are seen in the picture at the Ayuda Puja celebrations





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 The reason why the car should "bite"
 Now, pass it on to a Service hand
 Like Albert, who can fix it right.

He holds his friends through winning manners,
 He loves his ring-and double-end spanners.

His Service work and Service mind
 Began to rule his life so much
 He did not have the time to find
 The true and needed rest as such.

Once at midnight did he scream,
 Jumping off his cozy bed ;
 Like Archimedes of old, he said
 'Eureka', in the height of steam.

Half in alarm, half in mirth,
 All aghast his missus stood.
 She knew he had his usual food,
 Why then, prates he, why on earth ?

"Bertie dear, What is wrong ?
 Did you have a frightful dream ?
 You have not been known to scream,
 And you were sober all along !"

"The nuts were not of correct size,
 They would not suit or fit in place".
 The dame with deep and heavy sighs
 Stood before him, face to face.

"Wall nuts, grapes and almond core,
 In plenty have I got in store.
 Choose your liking, don't complain,
 Take your fill and sleep again".

"The water pump was not in order,
 And would not function as it should."
 "Then I'll call the garden warder,
 To put it right and make it good."

"The springs had lost their proper tension,
 They had my first and best attention."
 "Don't you worry on that score,
 Buy a new cot, as before."

"The belt was tight without the sag,
 Sheer neglect was all the snag."

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BY
 V. GANAPATHI

"If tight at waist, you make it loose,
 Of all this fuss, what's the use ?"

"And then the washer, what a shame !
 It could not well be worth the name."
 "The laundry firm is near enough
 Stop the washer, pay him off."

"To get this straight I cannot fail,
 Till I can find it right on test,
 I will not eat or drink or rest,
 Like him who sought the Holy Grail."

"Is it the bug or want of sleep
 That makes you crazy, O my Dear ?
 Or else is it the drink too deep
 That puts you so much out of gear ?"

"There you are, the Gear, the Gear !
 That is the thing, the only thing
 That makes the belly noise so queer ;
 Now I know it, I can sing.

"The grinding noise and nasty seizure—
 I have to think at greater leisure.
 Mind the teeth, or I am sworn,
 One is broken, another worn."

"Go to the dentist, straight at once,
 Don't neglect affected teeth,
 For if you sustain loss of teeth,
 You will be eating only buns."

"Ouch, you do not understand,
 My teeth are firm and strong and grand.
 God be blessed, I can bite and eat
 A raw potato, even meat.

"It is the car and noisy gear—
 I am in senses, there is no fear—
 The 'teeth' are those the gear has got,
 I will repair them on the spot.

"So then tomorrow must I go
 To take the car of So-and-so,
 Pull out the parts and put them right
 And make the car behave aright."

All of which would go to show
 That Service men do always keep
 A conscientious way to go.
 Their problems make them lose their sleep.

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PROGRESSIVE NEW ZEALAND

The New Zealand economy though largely agricultural sustains a prosperous community of which a distinctive feature is the high consumption of energy, with oil providing a rising share. Per capita consumption of petroleum products, at nearly 200 gallons in 1956, is one of the highest in the world, with gasoline by far the leading product, owing to the density of motor vehicles. Productivity on the land is much aided by the use of aircraft for the spreading of fertilizers, and by the operation of 65,000 tractors. The search for oil is now being resumed, and drilling in North Island will begin next year.

HAS ONE AUTOMOBILE FOR EVERY 3.35 PERSONS.

Although rising production and prosperity have been a general feature of world trade during recent years, New Zealand, in common with most producers of non-industrial primary products, has benefitted little from this trend. Indeed, balance of payments problems, partly attributable to a deterioration in the terms of trade, have necessitated restrictions on imports. Nevertheless, imports of motor vehicles and of petroleum products have continued to increase, enabling New Zealand to maintain her position as second only to North America in number of vehicles and consumption of petroleum products, *per capita*, in the world. With the population increasing very fast, there is every indication that the demand for energy, including oil, will continue to grow.

New Zealand depends on a small range of exports, chiefly wool, meat and dairy produce, to pay for the goods she does not produce herself. Of her imports, capital equipment and industrial raw materials account for 63 per cent, consumer goods for 18.5 per cent, vehicles for 11.5 per cent, and petroleum products for 7 per cent. Demand for these imports has in recent years consistently exceeded the overseas funds available to buy them and, although the value of exports has risen, demand still remains far from satisfied. The problem of living within its export income has been accentuated for New Zealand in recent years by its rate of population growth, one of the highest in the world. From 1951-56 the population increased 12 per cent, *i.e.*, at an annual rate of 2.3 per cent; immigration accounted for approximately a quarter of the annual increase in population and nearly half the annual increase in the labour force. The concomitant increase in consumer demand has intensified the demand for imports.

Trading receipts have steadily improved, mainly through increased production of wool, which has risen 18 per cent in the last five years. The tonnage of meat and dairy produce exported has also risen, although falling prices have offset this gain. Farm production, as a whole has been rising by 2 per cent a year through increased productivity in which the most important factor has been the use of aircraft to spread fertilizers on the land. However, the future trend of prices for New Zealand's principal exports is still far from clear and the prospects for relaxation of import control in the near future are negligible.

Oil is playing an increasingly important role in the New Zealand economy. Inland consumption of major petroleum products exceeded a million long tons for the first time in 1954 and has since risen substantially, probably, exceeding 1,200,000 tons last year. New Zealand is one of the highest *per capita* users of petroleum products—nearly 200 gallons in 1956—and this figure is a third higher than in 1950. So oil consumption is not just rising with a rapidly expanding population, but is providing a growing share of total energy requirements. This high rate of consumption is largely due to the intensive use of the motor vehicle.

Since 1950 the number of vehicles on New Zealand roads has increased by some 37 per cent, to give a density of 3.35 persons per vehicle. Nearly two-thirds of all vehicles are private cars, giving a density of 5.7 persons per car, a figure second only to that of North America. A total of 693,821 motor vehicles were licensed at June 1956, the highest number ever recorded. There was an increase in the past year of almost 8 per cent, with cars showing the largest gain. Even so, the rate of growth has been limited by import licensing policy; when imports were relatively free from restrictions in 1954-55, motor vehicles

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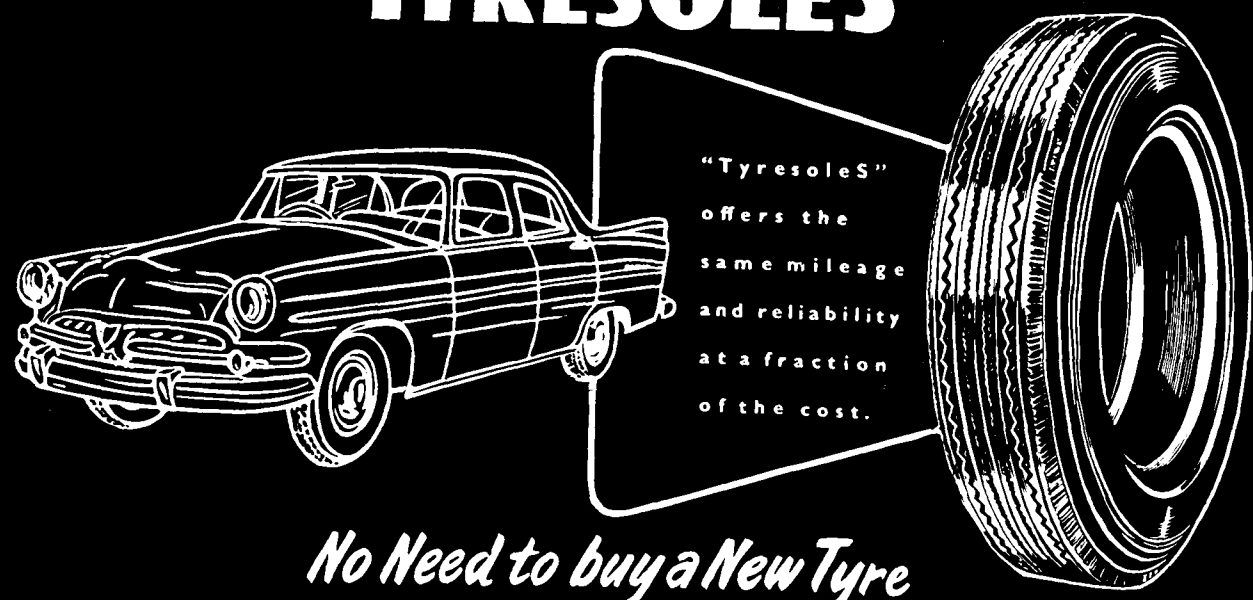
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NEW ZEALAND : ESTIMATED INLAND CONSUMPTION OF MAJOR PETROLEUM PRODUCTS

(Thousand Long Tons)

	1951	1952	1953	1954	1955	1956
Aviation Fuel ...	18.3	22.1	25.1	27.4	32.3	36.6
Motor Gasoline...	525.4	588.3	632.7	675.4	730.2	780.4
Kerosine ...	7.3	8.4	9.0	10.0	11.7	15.7
Vaporizing Oil ...	18.5	15.2	14.0	11.7	10.3	9.5
Gas Oil ...	63.0	71.8	78.4	92.2	106.9	124.5
Diesel Fuel.*	60.5	64.3	62.8	70.0	73.6	69.8
Fuel Oil ...	165.0	160.9	134.0	159.3	175.0	170.5
Total ...	858.0	931.0	956.0	1,046.0	1,140.0	1,207.0
Per cent increase over previous year ...	...	8	3	10	9	6

* 90 per cent is used as a burning oil, etc., and balance for diesel purposes.

In addition about 250,000 tons of bunkers were delivered during 1956.

in use rose by 12 per cent, from 335,960 at June 30th, 1954, to 376,677 a year later. Over 200,000 vehicles have been imported in the last six years, but a considerable demand still remains unsatisfied. For 1957, imports of 40,000 vehicles, costing £16 million, have been licensed, compared with 34,750 imported in 1956. Eventually, however, the present high rates of increase in demand are expected to taper off.

Gasoline consumption has more than kept pace with the growth in the number of vehicles, increasing in the last five years by 40 per cent. From 525,800 tons in 1951 it went up to 675,400 tons in 1954 and reached nearly 800,000 tons in 1956, forming 65 per cent of total inland consumption of petroleum products. *Per capita* consumption of gasoline was 109.4 gallons last year.

Not only private motoring, but goods transport by road has grown rapidly in recent years, although subjected to restrictions designed to protect the state-owned railways and to reduce wear-and-tear on the roads. New Zealand has an area of 103,000 square miles, and in 1955 there were about 55,000 miles of roads, which about 12,800 miles were classified as motorways, state highways and main highways. The National Roads Fund receives all revenue from vehicles licences and registration fees, and from duties on gasoline tyres and tubes, also a grant from the New Zealand

Government. Its funds are therefore ample for road development. Expenditure by the Board in 1955-56 was estimated at £15.4 million.

The railways are entirely state-owned, except for a few light lines serving special industries, and form the largest industrial undertaking in the country, with a staff of over 25,000. Manpower shortage is severe and 3,000 jobs were unfilled early in 1956, mainly on locomotive work. Operation by diesel-electric locomotives is increasing and by mid-1956 more than 80 were due to be in operation. *A number of articulated diesel railcars for long-distance passenger services are also in operation. A considerable number of steam locomotives are oil-fired. The trend away from the use of steam, and away from coal-firing, is expected to continue.*

Consumption of gas oil, mostly in high speed stationary or automotive diesel engines, has doubled during the last six years. Large quantities of fuel oil are used by the railways, for glass manufacturing and for the generation of electricity.

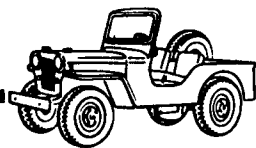
A feature of recent years has been the rapid advance of aviation fuel consumption to a figure of over 36,000 tons last year, or double the figure for 1951. All aspects of civil aviation are outstandingly developed for a small country with under 2½ million people, and in the case of aerial work for agriculture New Zealand's techniques are unrivalled in the world. In 1955 there were 237 aircraft engaged in "agricultural aviation," more than half the flights and hours flown being for the purpose of aerial topdressing with fertilizer on the hill farms which form a large part of the land, and 280,000 tons of super-phosphate were dropped in that year. Other operations are the aerial sowing of seed, the poisoning of rabbits, spraying of crops, and the dropping of supplies, including even fencing materials in hill areas. Aerial top-dressing is one important factor responsible for rising productivity on the land, the other being increased mechanization. In 1951 there were 60,000 tractors and by the end of 1956 it was estimated there were over 65,000 in the country; sales of tractor fuels, gasoline, diesel and power kerosine have risen accordingly.

The most important source of energy in New Zealand is electricity, over nine-tenths of which is hydro-generated. The state owns more than 800,000 kW. of hydro-electric capacity, and the state Hydro-Electric Department has the largest capital investment of any industrial enterprise in the country. Demand for electricity has

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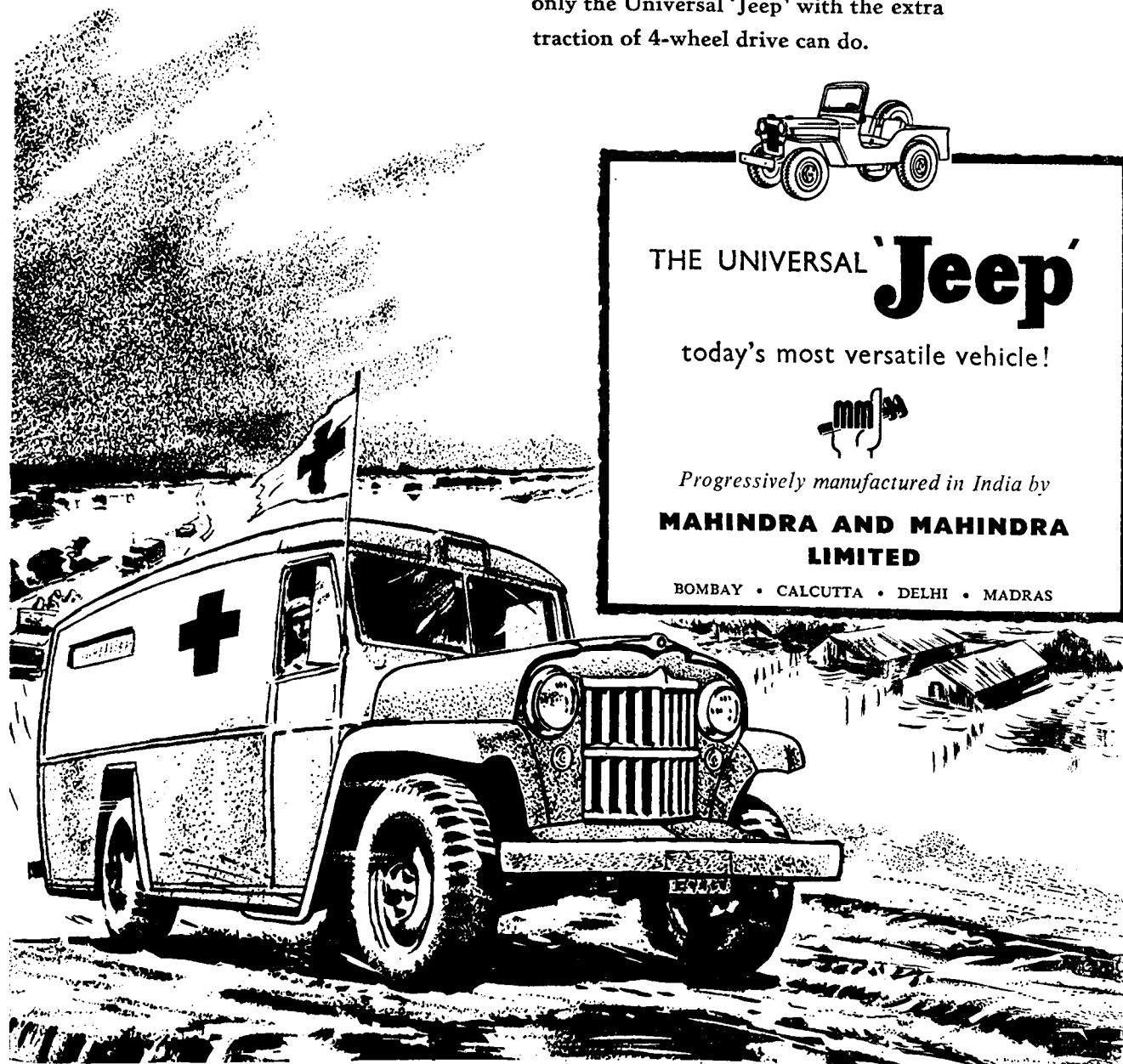
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outstripped existing generating capacity. In the South Island, potential hydro capacity, estimated at about 5 million kW., is ample, and the completion of the giant Roxburgh scheme, with an initial capacity of 160,000 kW. eventually to be increased to 320,000 kW., provides more than adequate supplies, with the possibility of other projects in the future. In the North Island, however, the margin for expansion of hydro-power is very small and the Government is going ahead with plans for a large coal-fired station near the Waikato coalfield, which will generate about 180,000 kW. There are also two other schemes under study. One is to take electricity across from the South to the North Island by submarine power cable; this has been recommended as practicable. The other is for the further utilization of geothermal resources. The Government is building at Wairakei a geothermal station to generate 40-60,000 kW., and an estimate for another plant of 250,600 kW., costing nearly £22 million has been submitted to the Government. New Zealand has total coal reserves of about 1,000 million tons, but labour is short and production has been steady or declining for some 15 years. Output is about 2.6 million tons a year, of which about 1 million tons is used in industry, three-quarters of a million in households and two-thirds of the rest on the railways. Although consumption by the railways is declining, the Waikato thermal power station mentioned already will call for some increase in coal production, which is considered likely to rise by about 20 per cent from 1958 onwards.

Oil resources so far known in New Zealand are very small indeed. The only production is by Egmont Oil Wells, Ltd., of about 1,000 tons a year from four wells in the Moturoa field near New Plymouth on the west coast of the North Island. But extensive exploration work is now under way, and drilling is expected to begin in 1958. In the North Island, in the Taranaki and Rangitikei districts on the west coast, Shell (Petroleum Mining) Company Ltd., B.P. (Oil Exploration) Company of New Zealand Ltd., and a local company, Todd Petroleum Mining Company Ltd., are carrying out a search programme which is expected to cost initially £1 million, in a concession covering approximately 5,500 square miles; geological and geophysical work, including magnetic, gravity and seismic surveys, is well advanced. On the east coast, in the district of Gisborne, Hawke's Bay and Wairarapa, the same companies are carrying out a joint programme of geological and geophysical exploration costing as a first stage £500,000 over an area of 12,586 square miles.

The New Zealand Geological Survey Department has done valuable preliminary surveying, and the present exploration efforts are not the first made to find oil in New Zealand. B.P., Mobil, Shell and Caltex all prospected before the war without success, drilling a total of 73,565 feet, including 13 deep dry holes with a maximum depth of 10,925 ft. Geological indications are favourable to oil accumulation in several parts, and there are a number of seepages, but it is not expected that very large fields will ever be found. Natural gas has been obtained in both islands from wells put down for other purposes, and many of the

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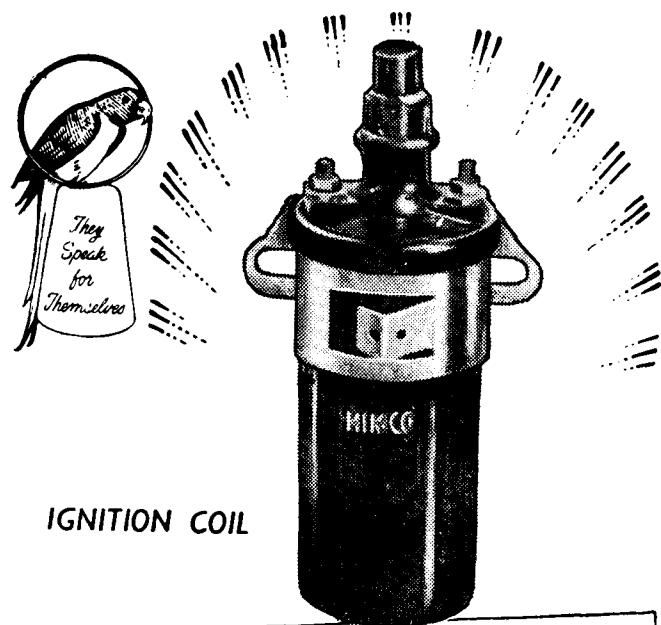
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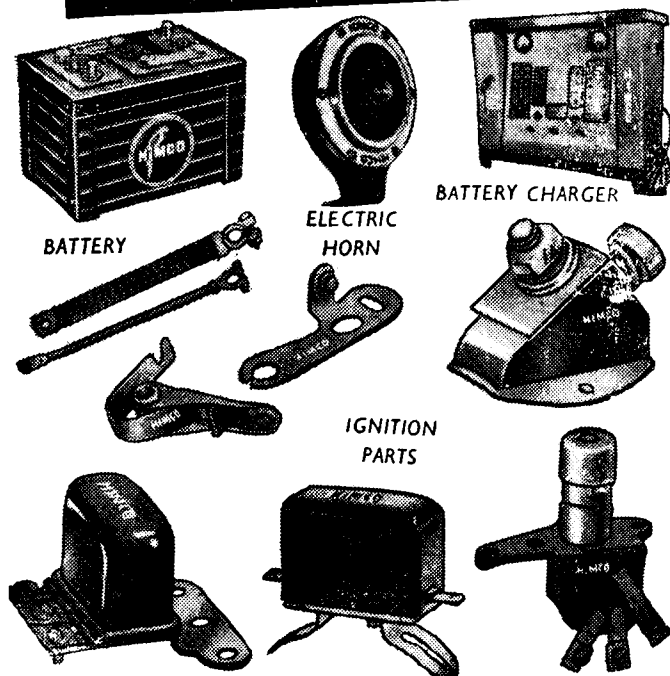
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coal deposits contain large quantities of methane there are also large deposits of oil-shade.

The salient features of New Zealand's transport and energy scene are the advanced role played by aviation, the widespread and intensive use of the motor vehicle and correspondingly high consumption of gasoline, and the generation of large quantities of electricity from water power. All are characteristic of a modern economy, in which the members enjoy a high standard of living. **We are often accustomed to thinking of primary producing countries as underdeveloped, but it is a far cry from the undernourished Asian peasant to the motoring New Zealand farmer with his electric-run farm and house.** This is a pastoral and agricultural country in the twentieth century fashion that is to say, with a high consumption of energy. Also, it is a young state, inheriting no social problems, with a temperate climate and great natural beauty. Indeed, it has all the natural prescriptions for a good life.



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THE ART OF INDIA

BY

C. SIVARAMAMURTI

Keeper, National Museum of India, New Delhi

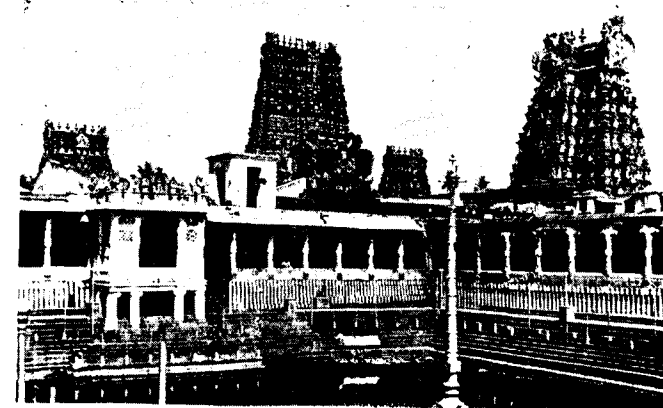
The art of India reflects the Indian temperament, the philosophic outlook, a joy in the appreciation of beauty of nature and an imagination that draws lessons of a very great and noble nature from the mountains and rivers, from forests and plains, from birds and beasts, in short from every phase of Almighty's creation.

The accounts for the peculiar characteristics that distinguish Indian art among other great arts all over the world. The sculptor of India has given his best and produced masterpieces not as a craftsman ordered about to do a thing, but as a devotee to the art and the Lord, giving his best as an offering to the Almighty. Whatever was done by the sculptor, painter or architect was conceived and executed in a spirit of reverence. The great temples that stud the country all over area a glorious expression of this silent offering at the alter of religion.

Tradition of " Dhvaja " Pillars

The earliest monuments of the historical period in India are generally Buddhist and when it is remembered that Asoka was a great follower of the Buddhist faith, the reason is easily understood. The Rampurva Bull, the Elephant from Sankisa, the Lion from Rampurva and Sarnath all crowning Asokan pillars, point to the earlier tradition of the *dhvaja* pillars in temples. The vigorous treatment of these sculptures of Asoka's time as seen in these and on the facade of the Lomas Rishi Gave suggests a rare strength derived from, influences from Iran fused in subtle manner with pleasing indigenous traditions. To this period belongs the lovely Yakshi from Didarganj.

The pure indigenous tradition with its simplicity and directness is observed in the early Sunga sculptures from Bharhut and those from Sanchi. The stupa at Bharhut is a visual presentation of the story of Buddha and the Jatakas in a manner calculated to rouse the mind of the devotee to edifying heights of spiritual advancement, as the noble sentiments of the Bodhi-sattva in his previous births as an elephant, deer, monkey and so on, always sacrificing for the sake of others, suggests a great ideal to be followed. The southern gate at Sanchi shows the work of the ivory-carvers of Vidisa as the inscription gives it and all the *toranas*



Sri Meenakshi Temple, Madurai

are a veritable treasure-house of Buddhist lore. Here we have the most graphic representation of Vessantara Jataka and the touching story of Sama who attended on his blind parents. The eastern and northern *torana* gateways have survived almost intact with the central stupa to suggest the glory of early stupa architecture.

Kushana Art

In the Krishna valley the stupa at Amaravati with the rail around it renovated, as the legend has it, by Nagarjuna himself, has a wealth of sculpture reflecting the rich life of the period and is in the best traditions of Indian art as observed here and in the Mathura art of the Kushana period and in Bamiyan in Afghanistan where the empire of the Kushanas extended. The ivories of Begram show a parallel development of a pleasing school of sculpture so strikingly resembling the Kushana art at Mathura. Here as in Mathura and Amaravati, the *torana* gateway, the lady's toilet and the *mithuna* motif are popular themes. The Satavahanas, though of the Brahmanical faith, were nevertheless great patrons of Buddhism and in Western India a number of cave temples came into being as at Bhaja, Karla, Kondane, Bedsa, Junnar, Nasik and the earliest ones at Ajanta to proclaim the flourishing condition of Buddhism here and the patronage it extended to art resulting in such great achievement.

The earliest paintings in Cave X at Ajanta show the perfection of the painter's art in the second century B.C. and the art continued unabated illustrating in the most graphic manner such interesting and pleasing themes as the flying *vidyadharas*, musical *kinnaras* and *kinnaris* and *mithunas* in addition to the numerous Jataka stories and scenes from Buddha's life presented in picturesque fashion. The scene of Maradharsana

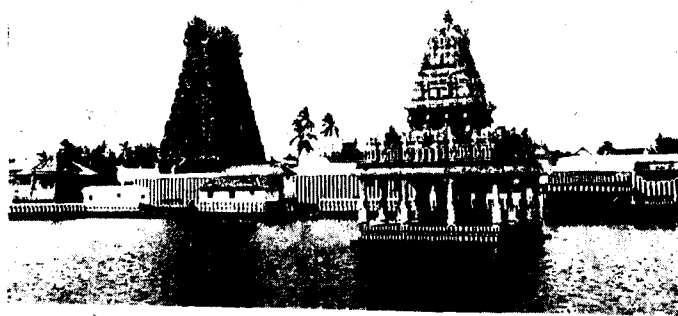
at Ajanta and the subjugation of Nalagiri with their wealth of detail can only be compared with similar narration of the Chhaddanta Jataka or Vidhurapandita Jataka or Vessantara Jataka.

The Satavahanas who were followers of the Brahmanical faith have left us wonderful sculpture of the second century B.C. at Gudimallam to give us a peep into their faith at that early date in a two-armed Siva on dwarf yaksha with *ajya-patra* (sacrificial pot) and *danda* in one hand and a sacrificial animal in the other suggesting his Agni-Rudra concept.

The Krishan valley is studded with rich sculptural material from various stupas of this period and that of the Ikshvakus who succeeded them in the area. The glory of the Ikshvakus and the achievement of the sculptor patronised by the princesses of the house is illustrated in the great wealth of sculpture from Nagarjunakonda, Goli, Ghantasala and other places. The Vessantara Jataka is nowhere better represented than in the long frieze from Goli. The casting of the horoscope at Nagarjunakonda, the subjugation of Naga Apalala, the visit of Kappina, the story of Nanda, are among the finest depictions of the theme in Buddhist art.

Masterpieces of Gupta Art

The glory of Vakataka art at Ajanta both in sculpture and painting shows the high water-mark of art traditions in the country during the time of the Guptas. To this period belong the great masterpieces of Gupta art like the two famous Buddhas from Mathura with highly decorated halo and the Preaching Master and Lokanatha from Sarnath. The Guptas were great followers of the Brahmanical faith, being *parama-bhagavatas*, and the large panels showing Seshasayi Vishnu, Gajendramoksha and Nara-Narayana are among the greatest masterpieces of Gupta art ranking with the colossal Varaha rescuing earth from the ocean at Udayagiri. The noble theme of Amritamathana, which was a great favourite in the Gupta period embodying as it does an assurance of immortality through the nectar of life (*amrita*), was continued by successive dynasties like the Western Chalukyas, the Gurjara Pratiharas, Kakatiyas and others and travelling beyond the mainland has been expressed in the most glorious fashion in far off Angkor Thom, where the temple is conceived as Mount Mandara and decorated with two balustrades of *devas* and *asuras* and holding Seshanaga. Some of the finest terracottas were produced during the Gupta period as also stuccos. The plaques from Bhitargaon and Achichhhatra show how well the Gupta modeller could handle soft and malleable material.



Temple and Tank, Suchindram

Gupta traditions continued long after the dynasty came to an end and some of the most pleasing sculptures from the kingdom of the Palas, the Gurjara Pratiharas and in Western India and Rajasthan are an elephant testimony to this. The panels in the Elephanta Caves near Bombay are gems of art representing a great step forward over what was achieved by the Gupta craftsman and it is a glory of the sculptors of the kings of Valabhi who were originally feudatories of the Guptas. The temples from Osia in Rajasthan have given some of the most lovely sculptures of the early medieval period. In East India Nalanda and Kurkihar have yielded some of the finest bronzes of the Pala period.

Medieval Period

The medieval period has been very rich in sculpture. The great temples at Khajuraho put by the Chandellas, those from Bhuvaneshvar of the same time like the Raja Rani and Muktesavara have great architectural as well as sculptural charm with great stress on the beauty of feminine toilet and the *mithuna*. This is Eastern Ganga art at its best. The early medieval temples from the Deccan and Western India like those from Aihole and Pattadakal that closely followed the earlier cave temples excavated by Mangalesa and others at Badami are dainty pieces of art. Vikramaditya's queen Trailokya Mahadevi was a great a connoisseur of art as probably Rangapataka, the queen of Rajasimha, whose lovely Kailasanatha temple at Kanchipuram is in continuation of the great earlier traditions of rock-cut temples at Mahabalipuram and other places. It may here be recalled that the great king Mahendravarman, who as a versatile genius, introduced for the first time cave architecture in South India as recorded in his Mandagappattu inscription for which he earned the title "*vichitra chitta*" (the curious-minded one) on account of his excavating the temple from the living

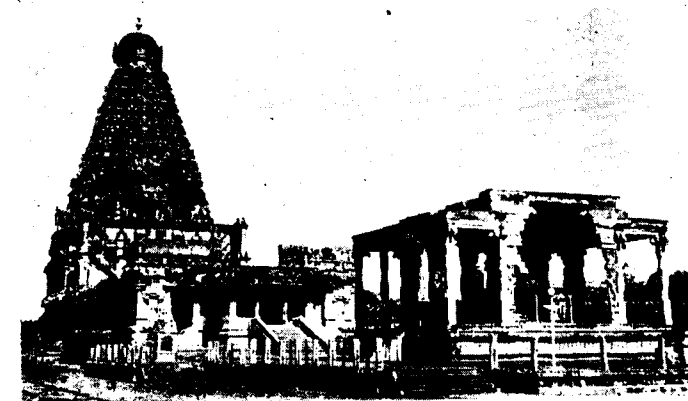
rock, a process he learnt from the kingdom of his maternal grandfather the Vishnukundin in the Mughal-rajapuram caves at Bezvada.

The sun temple at Mudhera in Gujarat and the temple from Ambernath can indicate sufficiently the glory of architecture in Gujarat, though one of the greatest temples of the area in Somnath was utterly destroyed. The Jain temples at Mt. Abu are noteworthy examples of this school. The sun temple at Konarak built by Narasimha of the Eastern Ganga dynasty, shows the continuation of great traditions of the gigantic structures already seen in the Lingaraja temples at Bhuvaneshvar and at Puri.

Great Wonder of Architecture

The flying *Vidyadharas*, the loving *mithunas* and the figures from pillar brackets noticed in Badami, Aihole and Pattadakal continued in the Rashtrakuta and later Western Chalukyan sculpture. The Eighth century temple of Kailasa at Ellora is one of the great wonders of architecture baffling one as to how a sculptor could conceive of the whole plan in every detail of such a stupendous structure and proceed top downwards cutting it into the cliff. The later temples from Kuriavatti and other places show a pleasing but ornate tradition which had its offshoots in the kingdom of the Kakatiyas and of the Hoysalas, who became the political successors of the Western Chalukyas. The famous Sarasvati Image from the college in Dhara established by Bhoja, the great patron of literature, and now in the British Museum, shows the glory of Paramara sculpture.

The Cholas who succeeded the Pallavas were great temple builders and two of the emperors of this dynasty stand out as pre-eminent temple builders—Rajaraja and his son Rajendra, the one responsible for the mighty edifice at Tanjore and the other at his newly established capital Gangaikondacholapuram. The Brihadisvara temple at Tanjore is rich not only in sculpture, but in painting, that follows the earlier tradition at Sittannavasal. The Chola period has given a rich wealth of bronzes that adorn the temples so lavishly raised by the Chola monarchs so that almost every little village in the realm has a gigantic tower of great artistic beauty; and when it is remembered that every temple was a great centre of not only religious but cultural and social activity and how important a place music, dance, sculpture, painting and metal-work were given in the temple in every village enabling even little urchins to understand the essentials of the fine arts, it is no wonder that with a fine background created for the appreciation of great and noble art, it flourished.



Sri Braghadheeswarar Temple, Tanjore

The later Pandyas and the Vijayanagar emperors, particularly the greatest of them all Krishnadevaraya, raised colossal *gopuras* and pleasing pillared mandapas and stepped tanks, with water pavilions for the barge festival initiating a great era of artistic activity.

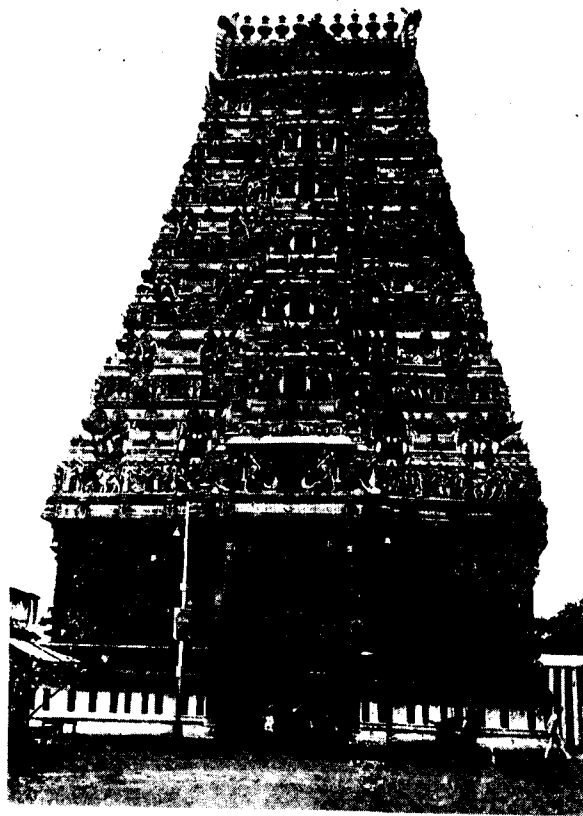
Blending of Hindu and Muslim Architecture

The palaces of the Vijayanagar emperors, the mahals at Chandragiri and other places, the lotus hall at Hampi, the queen's bath and other structures like many others of Akbar's time at Fatehpur Sikri suggest a blend of Hindu and Muslim elements which brought forth a new style of its architecture quite pleasing to the eye.

This tendency is also noticed in the Rajput and Mughal paintings wherein the Persian and Indian elements have been so fused as to produce a very pleasing pattern that proclaims the great aesthetic taste of the great Mughal Akbar whose one great desire was to bring together the best elements of both these cultures in every sphere. The fine taste of Akbar and his son Jehangir have given us great masterpieces of art by several painters of their court, many of whom we know fortunately even by name. Some of the finest portraits were produced about this time that enable us to visualise many great personages of the time. The delicacy of treatment of these painters of the Mughal court was indeed remarkable and Jehangir took pride in his ability to distinguish the work of one painter from the other by a mere sight.

Muslim Rulers' Contribution

In the field of architecture the contribution of the Muslim rulers has been very great and some of the most remarkable buildings have been raised in several parts of India. The Qutab at Delhi is a noteworthy monument. The intricate and delicate decorative work here has evoked great admiration from connoisseurs. The Minar, about 250 feet high, is a remarkable example of a detached minaret.

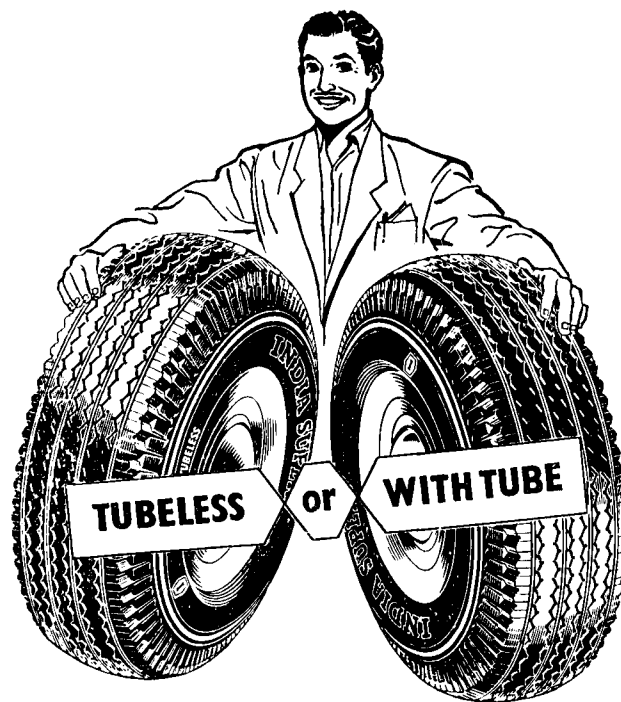


Sri Kapaleeswarar Temple, Mylapore

The austere Tughlaq style illustrated in the tomb of Tughlaq Shah or even the less austere and beautifully designed tomb of Sher Shah form a contrast to the very delicately conceived and executed monuments of the Mughal period, specially during the time of Shahjahan, whose Taj Mahal is a monument of liquid beauty almost feminine in its grace.

There are special styles of work in Gujarat, Bengal and in the Deccan which have given great monuments of interest. The Gol Gumbaz, the tomb of Mohammed Adil Shah at Bijapur, is a wonder monument with its remarkable dome so difficult of execution.

The Mughals were great builders and there is a famous painting of Akbar personally supervising the construction of Fatehpur Sikri. Several noble monuments came up during the time of the Mughal rulers, but the most beautiful of them all is the Taj Mahal at Agra entirely built of marble with a delicate decorative work by Shahjahan who had an exceptional taste for beautiful architecture and who conceived and executed this structure as an everlasting tribute to the memory of his good and loving wife Mumtaz Mahal.

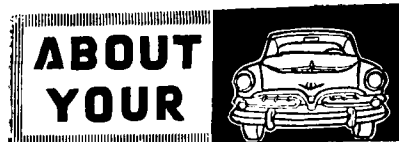


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By 'ROBOT'

Mr. B. S. Madras, says that his Hillman 1952 car gives only 23 m.p.g. in the city, while other similar cars give about 28 to 30 m.p.g. The car has covered about 34,000 miles and he has recently replaced the spark plugs, contacts, condenser and gaskets. He has also checked the carburettor jets and fuel pump. Still the fuel economy has not shown any improvement. Oil consumption is rather high. He wants to know how he can obtain more m.p.g.

It is rather difficult to tell you precisely where the fault may be that causes this low m.p.g. However, I give below some of the factors and may be one or more of them are responsible for your difficulty. Since you say that oil consumption is high, it is possible that the piston rings are either worn out or they are stuck in the grooves. I would suggest you to take a compression test. The compressions should be between 120 to 125 lbs. per square inch on each cylinder, for your car. If the compressions are much lower you should drain the engine oil and fill the sump with neat Redex and run for about 200 miles. This will completely flush the lubrication system of your engine and if the rings are stuck up they will be freed of carbon and gumming. Then they will expand properly in their grooves and enhance the compressions. It will be also advisable to pour about 2 to 3 ounces of Redex into each plug hole, while the engine is hot, and leave to stand for about half an hour. Before replacing the spark plugs the surplus Redex in the plug holes must be ejected by just pressing the self starter.

At the same time, test the vacuum reading with an Engine Tester or any good vacuum gauge. The vacuum reading should be between 18 and 21. If the reading is not upto the required limit the causes may be ascertained with the help of the instructions provided with the Engine Tester. While the engine is running,

slowly feed in about 10 ounces of Redex through the carburettor air intake. This will clear off any gummed or sticky valves and tappets and improve the vacuum reading.

During the above test run of about 200 miles, add about one ounce of Redex to each gallon of petrol so that the fuel system is also thoroughly cleaned. If you, at any time during the run of 200 miles, feel any engine 'knock' it may be due to carbon particles from the combustion chamber being lodged on the spark plugs. Only just remove the spark plugs, clean them of carbon and refit them.

The next point is about the carburettor air mixture and the distributor settings. These should be properly adjusted with the help of the Engine Tester. Please also check the fuel pipe for any possible leaks between the petrol tank and the engine. Examine the exhaust system of the engine. If the muffler is choked this will result in back pressure and loss of m.p.g.

I have written in some detail about the above points in my articles appearing in the June and August issues of Motor India. If you will contact Messrs. Parry & Co. Ltd. Engineering Department, Madras they will be able to recommend you to a garage who may be having the above testing instruments.

If the compressions and vacuum readings do not improve after the above mentioned procedure, then the low m.p.g. may be only due to worn out piston rings. In that case, you will have to change rings or pistons after a thorough examination of your engine by some reputable workshop.

Even when the mechanical condition of the engine may be perfect, your driving habit will contribute a lot to your fuel economy. This depends upon how you use the accelerator. This could be well demonstrated when you fit a small vacuum gauge to your car and you will find a remarkable improvement in the m.p.g. by trying to maintain the maximum possible reading on the vacuum gauge at all driving conditions.

'ROBOT' will be glad to answer in these columns, from the Readers of this Magazine, any questions pertaining to their Motoring problems. Questions may be addressed to 'ROBOT' C/o 'MOTORINDIA' MADRAS-6.

I would like to hear from you as to what you do to your car and the result thereof.

In my article appearing in the June issue of Motor India, I had mentioned that the "Vacuum Gauge is marked to show the vacuum in the inlet manifold of the engine in terms of pounds per square inch." Mr. S. R. Ramalingam of M/s. Erode Transport (Private) Ltd., Erode, has pointed out that "only pressure is expressed in terms of lbs./in. sq. in., whereas vacuum is always expressed in terms of inch of mercury." This error had crept in inadvertently and I am thankful to Mr. Ramalingam for pointing out the same.

REGISTRATION CERTIFICATES—NEW RULES PROPOSED

The Madras Government have published Draft Rules to amend the Motor Vehicles Rules in respect of the issue of duplicate registration certificates, where the certificates have become torn, soiled or otherwise defaced.

Under the proposed rule if any registering or licensing authority or any Regional Transport Officer or any Police Officer not below the rank of Sub-Inspector of Police or any Motor Vehicles Inspector or Assistant Motor Vehicles Inspector considers that a certificate of registration is completely written up or has become soiled, torn or otherwise defaced so as to be illegible, a notice to this effect shall be served on the owner of the vehicle and within seven days of the service of this notice, the owner shall surrender the certificate of registration to the registering authority by whom the certificate was issued or by whom the registration mark of the vehicle has been assigned under Section 29 of the Motor Vehicles Act along with an application for the issue of a duplicate certificate.

1,500 MILES OF NEW ROADS IN HIMACHAL PRADESH

Smooth, motorable roads are stringing together far-flung villages and inaccessible areas of the mountainous State of Himachal Pradesh. Gains of the inhabitants are : a better price for the produce, more avenues for employment and a closer contact with the outside world.

Prior to 1951 the 11,000 sq. mile State had only a few, tiny roads and all the bits added did not measure more than 180 miles. Now these very tracks and the new ones—have been spread and stretched to the length of about 1,500 miles and widened to the breadth of generally 9 feet to 24 feet. Of these about 80 miles are metalled, about 700 miles unmetalled but motorable and 720 miles jeepable.

The cost has been approximately Rs. 4 crores. Almost an equal amount has been allocated for the next Plan which will give another 1,300 miles of road. The State hopes to spread one mile of road in every 4 sq. mile area by the end of the Second Five-Year Plan. It is expected that the entire Hindustan-Tibet road will be jeepable by July next.

Prosperity by yards

As the roads lengthen and the areas open there is a better deal for the people. Already potatoes which used to fetch only Rs. 5 per maund are now cashing Rs. 15 per maund. Fruit which generally perished in the gardens because there was no quicker way to convey it to the market is now a dependable source of income. Wheeled transport has been found not only speedier but also cheaper than a pacing hill-pony. Carrying one maund of weight by a mule would cost 3½ annas per mile but now the vehicular traffic has reduced it to six to nine pice per mile. Furthermore, the returning transports bring foodgrains, cloth and several consumer goods from the plain and make them available at a reasonable price.

Where better and quicker arteries for the flow of produce have encouraged people to plant new gardens and cultivate new fields, they have also provided employment. As many as 50,000 persons—5 per cent of Himachal's population—are employed on road construction. It has been estimated that about 2/3 of the money spent on road construction goes towards employing labour. There is a marked fall in rural indebtedness and a consequent rise in the standard of living. Labour intensive methods are being used to employ more hands. A scheme has been evolved whereby a work not involving much technical skill is given to petty contractors or gangmen who are mostly local people.

Tourists' delight

The roads have also opened the interior of Himachal Pradesh for tourists who seldom went beyond Simla. A place where even sheep or goat could not reach is now considered almost next door. And all along the roads, there are inspection bungalows provided with all possible comforts for the visitors.



A road to Chamba, Himachal Pradesh through picturesque hills

Linking the interior by a swift transport system is helpful in exploration and exploitation of the mineral wealth. Similarly, the forests have been conveniently reached for a substantial revenue through the sale of wood, selected timbers, herbs and fruits.

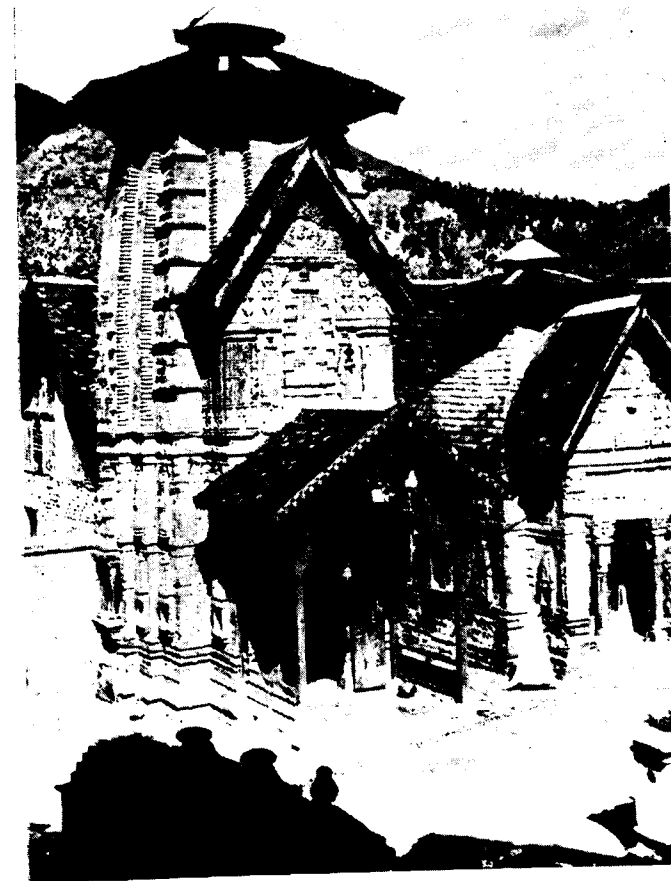
Difficult work

How difficult is the construction of roads in a hilly area can be judged from the arduous and laborious work it entails. Initial stage is that of reconnaissance, survey and cutting a 2 feet wide walkable "track." This path is then widened first to a jeepable road and later to a motorable one to be ultimately metalled and tarred. The work at places requires blasting of rocks, balancing on verticle precipices and spanning hilly rivers.

Those days when the Chamba and Sutlej valleys are being measured by roads a great many difficulties are being experienced.

As the roads spread, yard by yard, hamlet by hamlet, across the once-shunned dry river-beds up the hillsides into the valleys and jungles, even along the fringes of

A general view of Simla, Himachal Pradesh



One of the oldest Temples in Chamba stated to be more than a thousand years old

the forbidding mountains, they are bringing prosperity to the people and a feeling that there is no area which is remote and no part which is cut off.

Folk musicians of Himachal Pradesh



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Import Policy and Auto Parts Dealers

By V. NARAYANASWAMI

According to the Government of India Import Trade Control Policy for the Licensing period October 1957 to March 1958 particularly relating to the Automobile Parts Trade in this country, the last date for submission of applications will be 31st December 1957 in the case of established importers, 31st January 1958 in the case of actual users and all others. The application fees are on a scale beginning from Rs. 10 for applications upto Rs. 10,000 and extending to Rs. 100 for applications above Rs. 2 lakhs with an additional Rs. 15 for every 50,000 above this 2,00,000 subject to a maximum of Rs. 250 as license fee.

Application forms can be had from Appendix VI of the Red Book pages 279, 280 and 281.

Applications received after the prescribed dates are liable to be summarily rejected and applicants are therefore advised to submit applications in their own interests much in advance of the last dates as prescribed above. Forms which have undergone changes in their constitution should submit their application for quota licences to the proper licensing authority, if they can do so by the prescribed dates after the sanction regarding the transfer of quota rights is issued in their favour. For the benefit of importers, we give below definitions of established importers, basic period, procedure of calculating value of licences, establishment of refixation of quotas, etc.

Established importers: "Established Importers are persons or firms who have been actually engaged in import trade of the articles comprised in any one serial number or sub-serial number, as the case may be of the I.T.C. Schedule during at least one financial year (1st April to 31st March) falling within the basic period as specified for the particular serial number or sub-serial number. The importers may choose the best year from the basic period for the purpose of obtaining quota certificates certifying the value of their best year's imports. A large majority of established importers have already in their possession quota certificates issued on security paper, and during the previous licensing periods an attempt was made to replace the old quota certificates with fresh ones on security paper.

Basic period: The basic period out of which the established importers can select the best year for the purpose of calculating the quota runs from 1st April 1945 to 31st March 1952. In the case of Caustic Soda, Soda Ash and Art Silk yarn, however it had been curtailed to run upto 31st March 1951 only. The basic period has been extended to 1952-53, 1953-54, 1954-55, 1955-56 and 1956-57 in the case of a large number of other items. The list of items for which the basic period has been extended will be found in Appendix IX of the Red Book. In respect of items which were covered by Open General Licences Nos. XLIV and XLV, dated 29th September, 1956 and which have now been brought to a quota licensing, the basic period will be any financial year from 1952-53 to 1955-56 only.

The importers of the items having an extended basic period will now be entitled should they choose, or ask for their basic imports being recalculated and determined on the basis of their best performance in any year from 1952-53 to 1956-57 as the case may be.

Procedure of calculating value of licenses: Quota licences are given to established importers as a percentage of the total-value of imports in any one financial year, out of the specified basic period of the importers choice, as evidenced.

- (a) by valid quota certificates issued on security forms ;
- (b) by registration numbers issued by J.C.C.I., Calcutta, or the licensing authority concerned with the Quota Registration Scheme.

No other evidence need be tendered along with the application.

It may be noted that in no case, will an import licence be granted on the basis of the old quota certificate (i.e., quota certificates not issued on security form).

Establishment or Refixation of quotas: Applications for establishment or refixation of quota should be made in the form "F" given in Appendix VI to the Red Book and should be accompanied by.

- (1) the previous quota certi-

ficate, wherever it is sought to be revised ;

- (2) a certified copy of the Import Licence, if any, received for the previous half year ;
- (3) a statement of basic year's imports in the forms prescribed in Appendix VI, supported by relevant documents mentioned in paragraph 25 of Chapter II of the Hand Book of Rules and Procedure, 1956
- (4) a statement giving reasons to prove the necessity for the establishment or refixation of the quota.

Applications for establishment/refixation of quotas should be made so as to be received not later than 15th December, 1957. Applications received thereafter will be entertained upto 15th March, 1958 subject to the condition that quota certificates granted on the basis of such late applications will not entitle the applicants to claim licences for October 1957—March 1958 period.

Established importers having more than one office in India are to make separate applications to different licensing authorities on the basis of the location of the particular branch whose name appeared on the documents submitted for establishing the import quota. According to the licensing policy of January-June 1953, the basic year for the head office and all its branches should be one and the same for this purpose. Many firms affected by this provision have no doubt already selected a particular financial year as the common basic year and must also have obtained revised quota certificates in that year. The head office and branches of these firms should, when applying to different licensing authorities, append to their application a certificate as in Appendix VII of Red Book, certifying that all the branches of the firm throughout the country have selected a common basic year and the quota certificate on the basis of which the import licence is claimed. Where a consolidated application is made by the head office or the branch of the firm on the basis of past imports standing in the name of the head office and all the branches,

the certificate to that effect that the other branches of the firm have not made an application for the same item to any other licensing authority, should be attached to the application. For the purpose of determining whether the applicant is a separate entity or a branch the criteria that will make a decision will be whether the firms are assessed to income-tax jointly, or separately. Motor car lamps (auto bulbs) and motor cycles still remain under the Quota Registration Scheme.

In respect of the licensable items of the above, the applicant need to indicate only their quota registration number and they need not furnish any other documents as evidence of past imports.

It has now been decided that the information required in columns 7 to 11 of the application form appended to Public Notice No. 45-I.T.C. (P.N.)/52, dated 26th April 1952 need not be supplied by the applicants for quota registration certificates, in future.

The minimum value of quota/ additional licences granted to established importers will be as follows where the importer's entitlement comes to Rs. 1,000 and below. 20% or less in respect of licences of the value of Rs. 500 over 20% and upto and including 40% in respect of licences to be granted to the value of Rs. 750 and over 40% in respect of licences to be granted to the value of Rs. 1,000.

Under the above provision, even the importers having import of small value to their credit can get their quota licences for minimum value. It should, however, be noted that casual imports namely imports for personal use or imports as

samples will not qualify for quota licence.

The minimum value of licences granted to any other category of importers will be Rs. 500 unless the value applied for is less.

According to Appendix XXVI, licences for motor-vehicle parts falling under S. Nos. 193, 295 and 297 of Part IV will be granted to established importers on the basis of a joint quota of past imports of all the articles falling under these serial numbers, excluding the list III items. Quotas already established will not, however, be disturbed.

The quota licences for October 1957 to March 1958 will be issued on the basis of 25 per cent Gen. and 25 per cent Soft quotas.

Firms with approved manufacturing programme will also be allowed licences on *ad hoc* basis. The applicants should indicate the utilisation of licences granted to them in the last two or three licensing periods. They should make their applications to the Chief Controller of Imports, New Delhi.

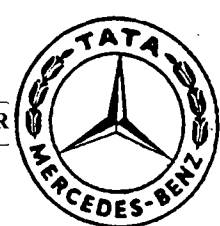
Licences for Motor Vehicles parts granted on the basis indicated in the preceding paragraphs will not be valid for the import of the items specified in List I and List III ; and not more than 4 per cent of the face value of the licence can be utilised for the import of items specified in List II.

Upto 1 per cent of the fact value of the licences for motor vehicle parts granted on the basis indicated in the previous paragraphs can be utilised for the import of Ball bearings not specified in Appendix XIV to

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the Red Book. However, (i) water pump bearings (used exclusively for all vehicular types of engines but not general purpose bearings), (ii) front axle inner bearings (manufactured in the form of cones, cups and retainers), (iii) front axle outer bearings (manufactured in the form of cups, cones and retainers) and (iv) Clutch and release bearings (with or without collar can be imported against the licences for motor vehicle parts without restriction).

For items mentioned in List III of this Appendix, quotas will have to be re-established not only on the basis of imports of these items effected in the past as motor vehicle spares (S. Nos. 293, 295 and 297/IV) but on the basis of any one year's imports of these individual items within the basic period, effected against any S. No. and Part of the I.T.C. Schedule, excepting the Air Craft spares (S. Nos. 87 and 88 of Part V). It should be noted that imports of these items will, in future, be regulated only against the specific of this Appendix. Import of these items will not be permitted against the provision for import of spare parts, if any, made against any other S. No. and Part of the I.T.C. Schedule.

Bolts, nuts, screws and washers whether specifically adapted for use on motor vehicles or not will be allowed clearance to the extent of 1% of the face value of licences for Motor Vehicles parts falling under S. Nos. 293, 295, 297/IV.

List I

Items for which licences issued for motor vehicle parts falling under S. Nos. 293, 295 and 297 of Part IV will not be valid—

I. Bulb horns.

II. Fan belts whose bottom width (i.e., on the inner diameter) is more than 0.250 inch and the following rubber parts :—(1) Radiator hoses, (2) Hand and foot pump connections, (3) Rubber horn bulbs, (4) Rubber mats, (5) Gromet used with wind screen wiper, (6) Rubber buffers-doors, (7) Rubber connection

Article	Policy for Established Importers	Remarks
Brake linings in any form.	15% Gen. 15% Soft.	NOTE.—Importers of brake linings in rolls or sheet form made under licences for S. Nos. 7A, 7B, 7C and 8 of Part II will also be taken into account for calculation of quota.
Clutch facings in any form.	20% Gen. 20% Soft.	NOTE.—Importers of clutch facings in roll or sheet form made under licences for S. Nos. will also be taken into account for calculation of quota.
Cylinder liners ...	100% Gen. 100% Soft.	Not more than 25% of the face value of licences can be utilised for import of cylinder 1 liners of 6" diameter and less.
Electrical horns.	100% Gen. 100% Soft.	
Filter/Cleaner Assembly, air, fuel or lubricating oil.	50% Gen. 50% Soft.	(i) Not more than 50% of the face value of the licence can be utilised for filter cartridge and filter inserts. (ii) The quota may be established on past import of complete filter/cleaner assemblies and filter cartridge/filter inserts. NOTE.—The Piston Assemblies, Piston Rings and Valves and filters referred to in list III of Appendix XXVI pertain to those for internal combustion, engines only.
Gaskets ...	100% Gen. 100% Soft.	
Piston Rings ...	50% Gen. 50% Soft.	(i) Not more than 25% of the face value of these quota licences can be utilised for import of piston rings of 6" diameter and below. (ii) Piston rings (both of 6" diameter and below, and over 6" diameter) will also be allowed to be imported when they are imported with : (a) original equipment either C.K.D.

BATTERY CHARGERS OF ANY SPECIFICATION FOR
GUARANTEED PERFORMANCE & DURABILITY

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★

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430, LAMINGTON ROAD BOMBAY 4

PHONE: 71497

for filler tube-petrol tank, (8) Air vent pipe rubber connection-petrol tank, (9) Rubber insulating washers for bolts connecting body and chassis, (10) Rubber connection-Air cleaner, (11) Rubber mountings for silencer, (12) Joint-washer-petrol filter tube with cap, (13) Rubber packing for better clamping channel, (14) Sealing strip for trafficator boxes, (15) Sleeve rear drain pipe, (16) Rear strip roff opening, (17) Sidle strip roff opening, (18) Strip steering column, (19) Wind shield wiper tubing, and (20) Hose pipes other than brake hose pipes, (21) Mascots.

III. Seat cushions of all types, Kool Cushions of all types, Hairlock, Cushion covers of all types, materials cut to size or otherwise for kool and seat cushions and leather, leatherette, plastic or cloth for upholstery for all motor vehicles.

IV. Cab bodies, bus bodies, station wagon bodies, truck bodies, steel cabs for lorries, pick up bodies and panel bodies.

V. Fuel injection equipment and component parts thereof.

VI. Dynamo lighting sets.

List II

Items for which not more than 4 per cent of the licences issued for Motor Vehicles Parts falling under S. Nos. 293, 295 and 297 of Part IV be utilised.

1. Leaf springs and spring leaves, shockles, Shackle pins, 'U' bolts, centre bolts, clips and pressure plates (i.e., those need in the leaf spring assembly but not those of clutch assembly).

2. Hand inflator pumps which can be easily used for cycles with slight modification and change of nozzle will be treated as accessories of cycles (S. No. 301/IV) and cannot be imported against licences for motor spare parts.

3. Malleable Iron brackets and shackles as well as Cast Iron shackles and brackets.

4. Muffler and tail pipes.

5. Oil Seals.

6. Dynamo pulleys.

7. Component parts of items 1 to 6 above.

List III

The items listed below required

Piston Assemblies. 100% Gen.
100% Soft.

Shock Absorbers. 100% Gen.
125% Soft.

Spark Plugs ... 5% Gen.
5% Soft.

or assembled.
(b) fitted to pitons when imported as complete piston assemblies under items No. (8) below.

(i) not more than 33.1/3% of the face value of quota licences can be utilised for import of aluminium piston assemblies of 6" diameter and less within the face value restriction of 33.1/3%, not more than 25% of this part of the licence can be utilised for import of Aluminium pistons (including over sizes) for models detailed in Annexure to this Appendix.

(ii) Licences will not be valid for the import of piston rings except as a component praf of complete piston assemblies. Please refer entry against item 7 of this list.

(iii) A.U. applications from garages for import of complete piston assemblies of the following makes will be considered *ad hoc* at the ports :—(a) Cars—Buick, Cadillac Fraser, Hudson, Nash, Open, Skoda, Kaiser, Lincoln, Fiat 1400, Olds mobile, Pontiac, Reo, Rolls Royce, Mercedes Benz and Humber ; (b) Trucks—Diamon-T and Mack ; and (c) Scooters—All makes other than Lambertta.

(iv) Quota will be calculated on the bais of import of complete piston assemblies and pistons.

NOTE.—Past imports of Gudgeon Pins, bushings and circlips will not be taken into account in the calculation of quotas for Piston Assemblies.

(v) Licences granted for this item will also be a valid for the import of the following :—

(a) Pistons assemblies of 36 m.m. diameter and below.

(b) Piston assemblies for auto attachments of all types provided the pistons are 40 m.m. and below.

(vi) Not more than one set of complete pistons assembly for any internal Combustion Engine may be licensed to actual owner of the Ports provided not more than one licence is issued to each party during the period.

(i) Licences will not be valid for import of spark plugs of 14 m.m. and 18 m.m. sizes.

as spare parts of equipment falling under S. Nos. 29, 30, 31, 32, 33, 33-A, 33-B, 34 and 36 of Part II, S. Nos. 4 and 5 of Part III, S. Nos. 293, 295 and 297 of Part IV and S. Nos. 65, 74 and 86 of Part V will be licenced in accordance with the provision made below. Imports thereof will not be permitted under any licence issued or any provision made against any other S. Nos. and part of the I.T.C. Schedule.

NOTE.—1. Spare parts of these items will be also be regulated only against licences for these items, unless otherwise stated in this list.

2. Quotas, if necessary, may be re-established on the basis of Over-all imports in the best year included in the basic period. Please see para 7 of this Appendix.

Thin-walled bearings.

100% Gen.
125% Soft.

(ii) Licenses issued under this item will also permit import of one spark plug water-spark plug provided the value of the licence is not exceed thereby.

The following types of bearings of thickness 3/16" or below will be considered as thin-walled bearings :—

- (i) bearings for cam shat.
- (ii) bearing for connecting rods (small end and big end) and
- (iii) bearings for carnk shaft.

Valve, guides (sleeves) 100% Gen.
valve rotators, 100% Soft.
tappers, springs,
valve seat
inserts.

BHARAT BHUSHAN RETURNS FROM U.S.

Mr. Bharat Bhushan, son of Mr. Inder Sain of Messrs. Upper India Trading Co. Private Ltd., the well known automobile parts dealers, returned to India on October 16th from the United States of America. He had gone to the United States in 1949 after completing his B.Sc. in Madras and got his M.Sc. and B.E. Degrees in the University of Michigan in Automobile Engineering with specialisation in Internal Combustion Engines. He finished his training in 1954 and since then he was working in different departments of Chrysler Corporation, Detroit. His last appointment before resigning and returning home was in the Engine Research and Development Department. Mr. Bharat Bhushan was given a fitting reception on his arrival in Madras by friends in the automobile and allied trades. It is to be hoped that the specialised knowledge that Mr. Bharat Bhushan has brought back with him on his return from the United States will be available in particular not only to Messrs. Upper India Trading Co., but also to the entire automobile trade and industry in the country.

L. L. Narayan for U.K.

Mr. L. L. Narayan, Managing Director of Rane (Madras) Limited, Engine Valves Limited and other allied firms, left Madras by air on

Mr. Kunjitapadam
Unanimously Re-elected

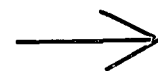
We are glad to announce that Mr. V. Kunjitapadam of Ms. Bharat Motors, Madras has been unanimously re-elected President of the Madras Motor Parts Dealers Association for the year 1957-58

Tuesday 22nd October for the United Kingdom. Mr. Narayan, whose trip to the U.K. is in connection with plans to manufacture automobile products, is expected to stay in England for nearly two weeks to finalise arrangements. Mr. Narayan was given a hearty send off at Meenambakkam Airport where those present included Messrs. R. Rathnam, Director, Sundaram Motors, V. Narayan of Good Year, N. Krishnan of Associated Trades, H. Krishnan of Blue Star Engineering Co., R. K. Sukumaran, Deputy Commissioner of Police, S. Venkataraman, T. M. Rangachari, C. R. Rao and U. Ramesh Rao, Directors of Engine Valves, V. Kunjitapadam of Bharat Motors, S. R. Pejavar of Premier Automobiles and T. G. K. Raman, Working Director of Ranes.

G. C. PATTABIRAM TO RUSSIA AND BACK

Mr. G. C. Pattabiram of Messrs. G. N. Chakrapani Chetty & Sons left Madras on the 4th October on a three week tour of the Soviet Union. Mr. Pattabhiram, who is a well-known figure in the automobile and allied circles, was seen off by quite a large number of prominent automobile and allied leaders at the Central Station when he entrained for Delhi from where he flew for Russia.

Mr. Pattabhiram returned to Madras during the last week of this month when he was given a fitting reception at the Central Railway Station by friends and members of the Automobile Parts Trade. He told MOTORINDIA that the tour had been very pleasant and as regards comforts for the tourist, he can vouch safe that everywhere they went the transport as well as lodging arrangements were astoundingly perfect.



Mr. Bharat Bhushan of Messrs Upper India Trading Co., who has just returned after years of useful study in the United States



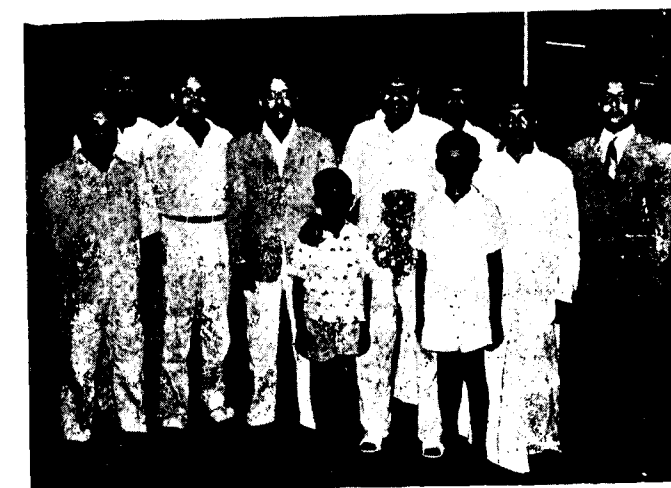
Mr. Lloyd Cutler and Mr. Keith Covelle of Willy's Overland Export Corporation of America were met on their arrival on a short business visit at Bombay Air Port by Mr. H. C. Mahindra, Keshub Mahindra and Mr. S. K. Swaminathan, seen below.

Arrivals & Departures (PICTORIAL)

Mr. L. L. Narayan, who has left on a fortnight's visit to the United Kingdom in connection with plans for manufacturing automobile components at Madras



The photos below were taken at Central Station where a large number of automobile men gathered to welcome back home from Russia, Mr. G. C. Pattabhiram. He was garlanded by Mr. P. Chandriah and Mr. Vasudevan. Those in the other photo include, Messrs P. Chandriah, A. K. Chettiar, S. M. Subramaniam, K. Vasudevan, S. S. Kalyanpur, V. Sethuraman and others



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The Madras Motor Parts Dealers Association

In a circular on the import policy for Machine Tools during the quarter July-September, 1957, the Secretary says :—

Attention of importers is invited to para 4 of the Ministry of Commerce and Industry Public Notice No. 44-I.T.C. (P.N.)/57, dated June 29, 1957 in the Import Policy pamphlet for the current quarter—July-September, 1957 according to which the quota licences granted during the current quarter for Machine Tools can be validated on *ad hoc* basis for import of spare parts of Machine Tools. It has been further decided that applications for import of spares for Machine Tools will also be entertained on an *ad hoc* basis by the Development Officer (Tools) from Manufacturers' sole selling agents, other than the quota holders of Machine Tools, who are able to prove that they have orders on hand for spares for servicing Machine tools imported by or through them and who are not able to cope with these orders ex-stock or against licences in hand. Intending newcomers sole selling agents may submit their applications for spares for Machine Tools in the prescribed form and manner to the Development Officer (Officer) as early as possible. The following particulars should also be furnished with the applications : (i) Stocks of spare parts in hand on the date of application ; (ii) Licences in hand on date of application ; (iii) Expected arrivals against orders already placed (iv) Detailed justification for grant of licences and (v) Average imports of Machine Tools/spares against licences granted during (a) July-December, 1955 (b) January-June 1956 (c) July-December 1956 and (d) January-June 1957. Documentary evidence may be furnished.

Registration Scheme—Allotment of Income-tax Verification Certificate Registration/Exemption Numbers—Validity thereof.

Vide Public Notice (Madras) No. 12/57, dated September 7, 1957.

Attention of the trade is invited to Para 5 of the P.N. No. 32-I.T.C. (P.N.)/55, dated June 29, 1955, incorporated as Appendix of Section III to the Policy Book of the Import Trade Control for January-June 1957 period. As the Import Policy is now related to the financial year, it has been decided to make corresponding change in the validity period of the Registration/Exemption Numbers, valid till December 1957, June 1958 and December 1958 which are still current, will be valid for a further period of three months each, so that they may cover the complete licensing period which would henceforward be considered according to the financial year. (ii) Registration/Exemption Numbers issued hereafter, during the current quarter ending September 1957 will be made valid for the next three complete half years *viz.*, October 1957 to March 1958, April 1958 to September 1958 and October 1958 to March 1959. Registration/Exemption Numbers, issued during the next period, *i.e.*, October 1957 to March 1958 will be valid for that

period and also for the subsequent two licensing periods upto March 1959.

Motor Vehicle Parts (Export Policy)

Vide E.T.C.C. (Madras) No. 296/57, dated September 24, 1957.

Applications for export of motor vehicle parts will be considered on merits by the Joint Chief Controller of Imports and Exports, Madras. All the applications should be accompanied by declarations giving types of vehicles (*i.e.*, trucks, jeeps, cars, station-wagons, motor cycles, etc.), in which each type of part desired to be exported is used. Further in the case of imported parts and those sold by disposals, applicants should also state the circumstances in which exports is desired to be effected. All applications should be in the prescribed form containing all particulars including I.V.C. Registration/Exemption Number duly supported by requisite treasury chalan for application fee.

List of items for which the basic period for establishment of quota has been extended to include the year 1956-57.

Part IV. 275 (b) Garage Tools 293, 295 and 297 ; Motor Vehicle Parts Consolidated Quota. 293, 295, 297 Motor Vehicle Parts List III Items, Machine Tools.

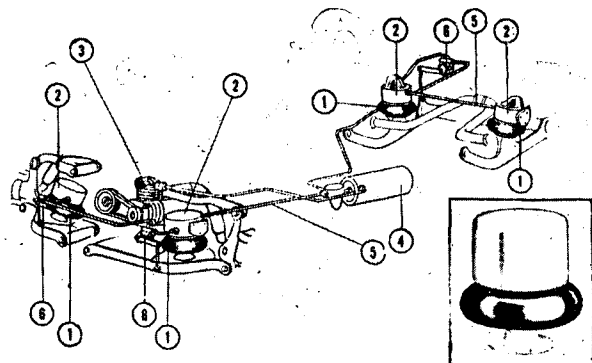


Photo above shows the new Airide Suspension system developed by the Firestone Tyre & Rubber Co. Compressed air, regulated by special leveling valves is forced into the below's chamber to compensate for heavy loads, are allowed to escape in the case of lighter loads

MOTORINDIA

October 1957

OPERATORS DISCUSS PROBLEMS WITH KUNDAN LAL

Under the auspices of the Madras State Lorry Owners Association, a reception was accorded recently at a special meeting of the Association to Sri Kundanlal, Secretary of the All India Motor Union's Congress, Delhi, who visited Madras on September 25th. The lorry operators from the city as well as from important centres in the districts of Madras were present to discuss the common problems of lorry owners. They found it plain that the problems of lorry owners were the same whether they were operating in far off South or in the upper regions of the North.

Mr. Kundan Lal who discussed these problems made it plain that the amount of success that the lorry owners will be able to achieve will depend upon the unity and strength that they exhibit by strengthening their association in various parts, and in the just principles. Organisation of such Associations was very vital for their existence because if they were to carry on their trade in peace without pinpricks either from the police or from the transport authorities, they should act collectively and present their problems to such authorities. He congratulated the Madras State Lorry Owners Association on the work they have been doing in the cause of its members and the trade and he was sure that the Association will grow from strength to strength and that they will also tie up with the all India Body and strengthen their parent association, by their membership.

He instanced some of the disabilities from which lorry operators were now suffering namely, the restrictions on permit laden weight and pleaded for the increase of weight that the vehicles can carry up to 12 tons atleast and improvement of roads to meet heavy lorry traffic. Mr. Kundanlal also very rightly referred to the existing system of bogus operators styling themselves agents etc. and suggested that some licensing system should be found which would be acceptable not only to the lorry operators but also to

the client who entrusts goods for transport. Mr. Kundan Lal pointed out how the All India Motor Union's Congress had helped the interests of lorry owners throughout the country by their keeping a vigil on the legislation and allied matters affecting the lorry owners and also how they were able to succeed to a considerable extent in dealing with the Government at various levels.

Exide at the International Motor Show

Calcutta : Prominently displayed on the Exide stand at this year's Motor Show at Earls Court, London are a selection of new Silver Exide batteries specially developed to meet the demand for small, lightweight units on light cars.

Assembled in translucent polystyrene containers, so that the acid level can be seen at a glance, these batteries represent a new step forward in battery manufacturing technique. They combine an attractive appearance and high efficiency with a sturdy construction which matches

the high standards of long life and durability set for all Exide vehicle batteries.

One of these batteries on display, the Silver Exide 3-EY7, which has a capacity of 25 Ah, is now being fitted as standard equipment on the 1957 Bond Minicar. A cutaway sample of this unit is displayed to show the interesting internal construction.

Also on show are a selection of car batteries of various sizes from well-known Silver Exide and Exide 'Double-life' ranges. One interesting recent addition to the Silver Exide series is the 6VNF5/7L, a Lightweight 12-Volt battery which is fitted on all new Perkeley sports cars.

For the discriminating motorist, prepared to pay a little extra for the finest quality, the Exide 'Double-Life' series incorporates all the features which have made the Silver Exide an outstanding success plus that extra 'something' only found in hand-built quality products.

It might be noted in this connexion that Silver Exide batteries are also manufactured in India at the modern factory of Chloride and Exide Batteries (Eastern) Private Ltd. at Sharnagar, near Calcutta. Incorporating all the features of the battery manufactured in the U.K. Silver Exide has already made its mark on the Indian market.

Mr. J. M. Ogara (centre), District Manager of Caltex India Ltd. seen chatting with officials of Messrs. Standard Batteries Factory at Bombay which he visited recently



MOTORINDIA

October 1957

BATTERY SERVICE AND MAINTENANCE

By I. C. ANAND

An interesting speech on Battery Service and Maintenance was delivered by Mr. I. C. Anand, Managing Director of Himco (India) Private Ltd., New Delhi when he addressed the trainees at the Training Course of District Sales Representatives of Burmah-Shell.

Mr. Anand said that a battery was nothing more than a device used repeatedly for storing energy at one time and for use at another. The energy was stored in a chemical form and delivered from it in an electrical form. The battery used on automobiles, continued Mr. Anand consisted of a container, Top Covers, Vent Plugs, Positive and Negative Plates, Separators and chemically pure Sulphuric acid (Electrolyte).

He added, "The Container is usually made of hard rubber or bituminous materials, both acid resisting. The 6 volts batteries have 3 Compartments whereas the 12 Volt batteries have 6 Compartments and each compartment (cell) is of 2 Volts.

The Top Covers are also either of hard rubber or bituminous product with 3 holes in them to keep the elements of the cells in their position.

The Vent Plug has the function to allow the electrolyte or distil water to be poured into each cell. The vent plug has a hole on the top of it or at the sides to prevent the splashing of acid, but to allow the gases to escape through the hole and if this hole is blocked by allowing the dirt to settle on the surface of the battery and vent plug, the gases being unable to escape, sometimes, the container explodes.

Both Positive and Negative Plates have as their backbone a cast grid made of a stiff alloy of lead and antimony. This grid work of the battery plate is pasted with lead oxides and after formation (cooking) the colour of the positive plate is Chocolate brown peroxide of lead, and gray spongy lead of the negative plates.

These positive or negative plates are grouped into positive or negative



Mr. I. C. Anand, Managing Director of Himco (India) Ltd. second from left, explaining the special features of Himco Battery Chargers to Mr. C. H. B. Wanten, Sales Manager and other Sales Representatives of Messrs. Burmah-Shell

groups; a positive group dovetailed with a negative group and with the separators in place between all positive and negative plates, are called the elements or active materials of a battery.

The Separators used in the batteries are of either chemically treated wood rubber, perforated plastic sheets, etc. Some manufacturers have tried to use a fine sheet of glass wool separators along with thin sheet of wood separators, but in an automobile battery this fine sheet of wool separator has no function to perform because there is no chance of growing lead trees in a cell. However, in the stationary batteries, this glass wool of 1/4" thickness is wrapped round the plate and wood separators to prevent this process. The function or duty of a separator is to keep the negative and positive plates apart. This is necessary, because if any part of one group should come in contact with the other, it would produce a short circuit inside of the battery.

The electrolyte is a solution in the battery and consists of a definite mixture of chemically pure sulphuric acid and distill water. The ordinary commercial sulphuric acid, must not, on any account, be used, as it usually contains minerals which are highly detrimental to the plates. Great care has to be exercised when handling and mixing acid as it is extremely dangerous if handled incorrectly. The acid slowly and carefully must be poured into the water. If this operation is reversed, that is if the water is poured on to the acid, great heat, is generated giving off violent boiling which may not only cause ruined clothes, but also seriously injure the person. The liquid must be also thoroughly stirred with either a piece of clean wood or a glass rod to mix the electrolyte and sufficient time should be allowed for the liquid to cool before being poured in the cells.

The above process brought the battery ready for use, but before it had to be put into service it was



Sardar Pratap Singh, a leading transport operator, inaugurates the first body of Mercedes Benz L325 7 1/2 ton truck introduced in the Bombay market recently

to be charged by a charging device called the battery charger. The function of this machine was to convert A.C. into D.C. and also to bring down the voltage pressure considerably.

Mr. Anand proceeded to refer to the method of installation of battery in a car and its maintenance and said that the battery cradle must be well ventilated and the battery itself should be firmly secured in the cradle so that it does not bounce while the vehicle was in motion, as otherwise there was chance for the container to break, elements to disintegrate and cut short the life of the battery. For efficient service and better performance the outside of the battery had to be kept clean and dry, and distil water had to be added regularly and never allowed to become exposed to the air. Dampness and dirt permit electrical current to lead away and the connections and surrounding parts of the battery must also be kept clean and dry.

Dealing with some of the battery troubles, causes and remedies, he said these were overcharging, sulphation, loss of capacity and impurities. These require the attention of technical experts so that it was always advisable to approach some reputable service people to get better service and more performance in perfect condition. He also gave a practical demonstration of the Himco distilled water still and battery charger.



Mr. A. B. Parakh, Deputy Agent of Tata Locomotive & Engineering Co. Ltd., is seen addressing the transport operators at a function to introduce the 7 1/2 ton truck in the Bombay market

TELCO INTRODUCES 7 1/2 TON TRUCKS

Bombay : Mercedes-Benz L 325/46 7 1/2 ton trucks were introduced in the Bombay market for the first time on October 3 when almost all the big transport operators in Bombay placed their orders for these trucks.

The Federation of the Bombay Motor Transport Operators at its office at Frere Road arranged a function to celebrate the occasion. Mr. Indravadan Oza, M.L.A., President of the Federation presided. Tata Locomotive & Engineering Co. Ltd. were represented by Mr. A. B. Parakh, Deputy Agent and Mr. N. Annaswamy, Sales Manager, Automobile Division. A large number of the transport operators attended the meeting.

The transport operators as well as the company's representatives had a frank exchange of views in a cordial atmosphere and the discussions at the meeting revealed that the operators appreciated the merits of the new 7 1/2 ton model being offered by Telco.

Mr. A. B. Parakh explained the Hire Purchase Scheme introduced by the Company. Mr. N. Annaswamy assured the operators that there was no shortage of spare parts.

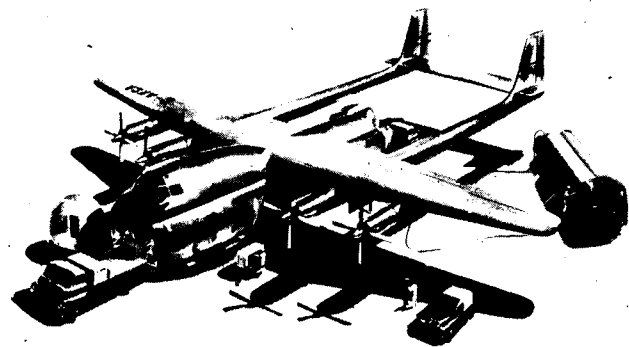
Changes in Dunlop

It has been announced that Sir George Beharrell has resigned from the Presidency of the Dunlop Rubber Co. Ltd., U.K. and therefore from the Board, but has consented to act as an honorary consultant.

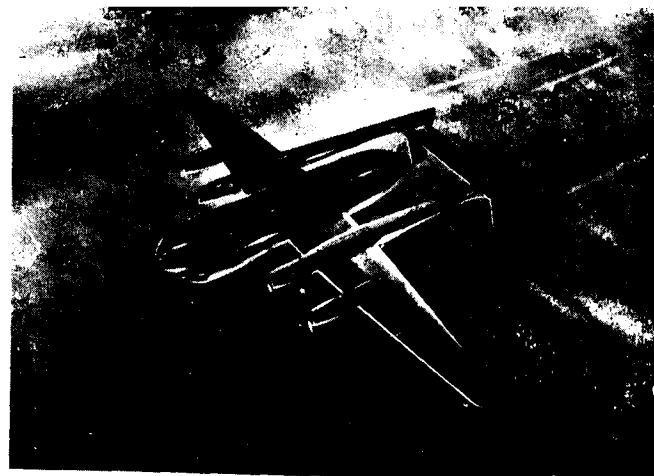
Lord Baillieu has resigned from the Chair but remains on the Board and succeeds Sir George Beharrell as President of the Company.

Mr. G. E. Beharrell has been elected Chairman of the Board in succession to Lord Baillieu and will continue to act as chief executive of the Company. Mr. John H. Lord and Mr. R. M. Geddes have been appointed joint Managing Directors. Mr. T. E. Peppercorn has been appointed an executive member of the Board. Mr. Peppercorn served with the Dunlop Indian Organisation for 10 years from 1929 to 1939.

Mr. R. M. Geddes is also a Director of the Dunlop Rubber Co. (India) Ltd.



The AW 650 "Freightercoach" shown above is designed by Sri W. G. Armstrong Whitworth Ltd., of Coventry and can be loaded at front and rear simultaneously



The "Freightercoach" in flight shows clean but utilitarian lines. The payload is in excess of 11 tons, and it is powered by four Rolls-Royce "Dart" turbo-jet engines.

BY DEREK HARVEY

(A pilot who tested some of Britain's first jet aircraft)

Countless thousands will remember the strange and brightly coloured convoy of double-deck buses that caused a sensation with their tours of Europe and Scandinavia in 1948.

Now comes news that a jet-age double-decker, driven by four prop-jet turbine engines, will make its first appearance in October next year. The makers, Armstrong Whitworths, call it their "Freighter coach." Its existence has for some time been one of the best-kept commercial aviation secrets, for not only does it mark a break-away from the all-military programme associated with the Hawker Siddeley Group of companies who build the Vulcan, the Javelin and the Hunter, but it promises to revolutionise several forms of air transport in the 1960s. In the last few months it has become one of Britain's most talked about civil aircraft projects.

Utility, Reliability, Flexibility

Yet this is no luxury airliner for the world's "blue riband" routes. Instead, it is first and foremost a utility aircraft, with economy the keynote of its design, even at the expense of good looks. It also aims at a standard of reliability and flexibility which more than one operator believes may eventually make air freighting as normal as rail, road and sea transport.

The aircraft can also carry passengers, of course, but the accent is on its cargo capabilities. The build-

A NEW DEPARTURE IN AIR FREIGHTING

Britain's Latest Cargo or Tourist Carrier

ders maintain that since the railways make about three quarters of their whole revenue from freight carrying, the same should apply to air transport.

Freight carrying, they say, is still an under-exploited business mainly because there are so few aircraft in use designed specifically for goods. Nearly all of it goes in the holds of ordinary passenger airliners, yet how little revenue could the railways expect if they relied solely on carrying freight in the guards, vans of passenger expresses or in converted sleeping coaches?

Payload more than 11 tons

So the "Freighter coach" has been designed from the outset as a utility aircraft, whose four Viscount-type prop-jets—the 1,900 h.p. Rolls-Royce Darts that are acknowledged as the most reliable aero-engine ever built—will give it 300 miles per hour cruising at 25,000 feet, and which will carry anything from trucks and bulldozers to 80 tourist passengers—a total payload of more than 11 tons.

Several alternative versions are planned, using standardised wings, tail and undercarriage, but differing in their choice of cabin capacity. The secret of this flexibility is the twin boom and high wing layout, not unlike that of the present Royal Air Force Beverley, which will allow the fuselage to be varied in a number of ways without affecting the basic structure.

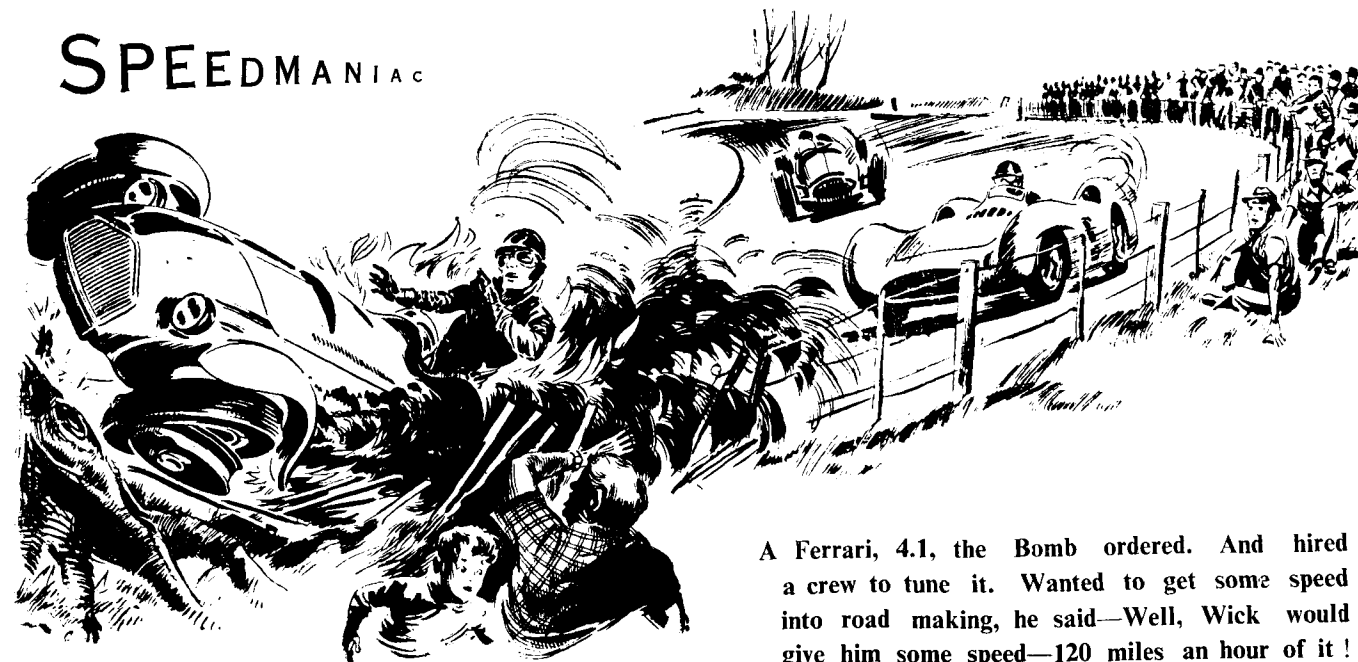
It also permits the use of large loading doors at both front and rear—something new in aviation—which will make for extremely rapid handling of freight into and out of the "free fuselage," as it is called. This in turn should speed up turn-round and reduce airport labour and equipment costs.

But perhaps the most interesting version of all is the Car Ferry. Unlike the others, it will not be pressurised, for it is hardly worthwhile climbing to high altitudes on ferry trips which are usually over fairly short distances. Instead it will have an extra-wide fuselage which will take no fewer than six big cars, side-by-side in two rows.

Loading or unloading them will be easy, as they are simply driven up or down ramps and through the full-width doors at each end of the fuselage in the best auto-park style. In addition, there is to be seating accommodation for 30 passengers upstairs in this bulbous giant.

So sure are Armstrong Whitworth that theirs is the correct formula for air travel at real excursion fares and lowest-ever freighting costs, that they have already started building ten of these hefty prop-jet work-horses as a private venture which runs into several millions of pounds. Certainly reduced rates are the surest means of stimulating additional traffic. It looks as if this new venture is destined to play an important part in expanding air traffic in the 1960s.

SPEEDMANIAC



A Ferrari, 4.1, the Bomb ordered. And hired a crew to tune it. Wanted to get some speed into road making, he said—Well, Wick would give him some speed—120 miles an hour of it!

By Alfred Coppel

There is a saying that speed costs money, but the Golden Bomb should never have let himself believe it. And if there isn't a saying about not sounding off until you hear the other guy's story, there should be, and Wick Kenyon should have taken it to heart.

No two people could have been more unlike than Wick and the Bomb. In looks, in background, in just about everything except passion for fast cars. They hated each other naturally.

Now Wick I've known a good long while, I remember him from before the war when he was begging rides in training races in the Coast Midget Racing Association circuit. He was only eighteen then, but a good hand at the wheel. He could take a flogged V8-60 and make it go like an office in its prime. Owners loved him, because he'd ride for free—just for the love of driving.

I said it then, and I'll say it again; the tracks lost a good man when

NOTE: NAMES MENTIONED HERE ARE NOT REAL

Wick was ruled off for racing in wildcat meets.

It was after the war and may be Wick had a chip on his shoulder from too many (four) years in China. But I think racing meant so much to him he couldn't keep his hands off, even when the big wigs of the Automobile Association said no one was to drive in non-sanctioned events. In effect, Wick told them to go jump—and they lowered the boom on him.

Wick came to work for me then. I'd just started up a little shop tuning sports and foreign jobs. I could see the handwriting on the wall, okay. I saw the midgets fading away fast and racing on tracks

degenerating to a destruction derby with so-called "hardtops" beating themselves to pieces against the fences.

I could see something else, too. That the amateurs were coming back into the racing game. I saw a couple of road goes and deduced they had the right idea. So I set up shop helping the eager ones with their foreign iron. Cars and cars. They can all be made to go. And those sports cars bring back happy memories to me. I learned to drive on a Mercer.

But Wick hated them. Or said he did. As far as he was concerned, racing was on the tracks and all

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this dodging straw-bales was strictly for the lifted pinky set.

That was Wick. Now the Bomb was something else again. Filthy with money and cocky as they come. His name was Dodge Lavell Carrington—with may be a “3rd” after it, for all I know. That gives you some idea. He had a jaguar with a dozen European badges on the front and twin pipes on the back, and he drove it like a freeway commando—beating off hot-rods whenever he could find them. He could do it, too. I’d put a set of factory

“I’ll run Torrey Pines and Pebble Beach,” the Bomb said, not grinning any more. All Wick had to do was use that “know it all” tone of voice, and the Bomb’s temperature would begin to go up. “It doesn’t take much experience.” The way he said it, we all know he meant: *If you’re good. Like me.*

“No, I guess not” Wick said. “It’s not like real racing.”

I was just thankful there was only the Bomb in the shop to hear Wick make a fool of himself with a crack like that.

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high-lift cams in the jag and she turned 140 without breathing hard.

The Bomb—I guess it’s obvious now why everyone called Carrington the Golden Bomb—was hot to go racing. He’d herded a stock MG a few laps on the easy circuit at Palm Springs, and he figured all he had to do now was busy in with something really hot.

He came in one afternoon to have the pots balanced, and while Wick and I worked on the car, he held forth—loud and cocky.

“I’ve ordered a Four One Ferrari,” he said, grinning at Wick. “And hired a crew to tune it. It’s about time there was some speed in these races.”

“Figuring on running in the Park?” I asked. The thing in Golden Gate Park is a classic now. The first races ever to be run through a major city—that is, since the old Vanderbilt Cup days. And they bring out the best.

“You’ll have to run somewhere else first,” Wick said, dry. “No novices allowed in that one.”

“You have a lot to learn, Wick,” I said.

“Don’t ask too much of him,” the Bomb said.

“For cripe’s sake, you don’t call tooling around in *this* thing racing?” Wick sneered. And that was pure green envy. Wick knew enough about cars to know the Jag could travel. But the Bomb, with his yellow hair and big teeth set Wick to seething, and he had to talk big.

“Okay,” Carrington said, real easy. “Put your money where your mouth is. My pink slip says this car will clean yours over any measured mile you want to go. How about it?”

Now Wick had a track job he was building up for the day when he could get back on the midget circuit, and the Bomb knew all about it. A good little machine, but no match for the Jag over a mile run.

I could see Wick getting red in the face. He was ready to make a

big mistake, and I felt I should try and save it for him.

“What would you do with a Jag, Wick?” I laughed, trying to make a joke out of it all. But Wick wasn’t having any.

“Mine against yours,” he said to the Bomb. “Winner gets the loser’s car.”

“Wick,” said Carrington easily. “You’re a crazy fool.” May be he was sorry that he’d gotten the guy so far out on a limb, or may be he thought there was a chance he might lose. It was hard to tell. But whatever it was, there wasn’t any way to straighten it out, except by racing.

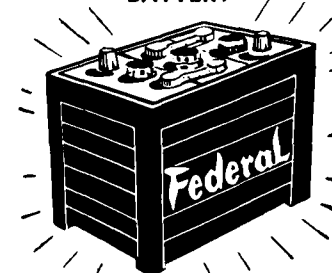
“Let’s go,” Wick said. And go we did. Wick in his little track midget and the Bomb in his Jag, with me right beside him trying to talk him out of it.

“Nothing doing,” the Bomb told me. “Wick’s got it coming to



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him.” And there wasn’t anything more I could do about it.

We went off down the valley towards a deserted airfield we all use for testing. A concrete runway about a mile and a half long. When we got there I got out of the Jag and went over to where Wick was gunning his V8-60 impatiently.

“Wick,” I told him, “you are going to lose your car.”

“Bunk,” he retorted.

May be he really believed he had a chance, I thought. He was always running down the foreign sports cars around the shop—making fun of the racing club badges they carried or the replica plaques on the instrument panels. It could be, I told myself, that the Bomb is right, and Wick does need a lesson.

The Midget and the Jag had attracted quite a crowd of kids—some with rods, some with just long hair and side-burns, Wick knew a lot of them, and they soon got wind of the match race coming up. They gathered around wishing Wick luck, telling him to blow the Jag off, making fun of the Bomb and his European badges.

I told one of the more sanitary types to stand on the starting line while I hiked off down to the end of the runway . . . taking plenty of time, so that they could change their minds about this race. Naturally, they didn’t, and so I figured the fat was in the fire and raised my hand to them.

I could hear rubber squeal even a mile away as I signalled them to start. Wick’s midget, with a better power to weight ratio was off the mark first, leaving the Jag tied. I felt a flutter of hope for Wick.

It was short-lived. The midget, with everything open, just ran out

of gears at about eighty, and the Jag was just beginning to stretch its legs. The Bomb pulled abreast of Wick a good quarter mile from the finish line. I saw him hang there—give Wick a scornful wave and pull away. He thundered past me turning at least 120 with Wick’s track job a good fifty yards astern, and almost out of control from the rough surface.

Wick pulled up and got out, white-faced with anger and disappointment. The Bomb parked the Jag and sauntered over in his most irritating way, his yellow hair tousled and his big, china-white teeth showing in a fat and happy grin.

Without a word, Wick fished out the ownership certificate to the midget and held it out to Carrington. He was almost in tears, I could see.

“Forget it,” the Bomb said. “I wouldn’t have that can as a gift.”

“Take it,” Wick said in a tight voice.

“Don’t be silly,” said Carrington.

“It was a bet.”

“Look. I don’t want the stinking thing.”

I thought Wick was going to explode. He took the certificate

and tried to force it into Carrington’s hand, but the Bomb let it flutter to the ground.

I guess Wick couldn’t take it any more. He wound up and let the Bomb have one. A hard right on the side of the jaw that sat him down, a thin trickle of blood coming from his mouth.

“You lousy punk,” Wick said.

The Bomb got up, his eyes watering, and made a lunge at Wick, swinging like a wind-mill. One of the blows caught Wick in the eye before he floored the Bomb again. This time, the Bomb stayed down.

Wick threw the certificate at him and stalked off.

A week later, he’d begged or stolen enough money—and he’d bought himself an Allard-Chrysler. Used, but sound—and primer grey.

Wick had decided to try road racing.

Just getting Wick into a sports car racing club was almost more of a chore than I would care to tackle. His cracking wise about road racing and foreign iron had made him as unpopular a guy as there could be with the high revving set.

Finally, someone spoke for him, and they let him join the West

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Coast Sports Car Club—by odd coincidence, the same outfit the Golden Bomb was tied up with.

Early in March we snaffled the Allard to a tow-bar and headed for the Palm Springs meeting. The car was really loaded—roller cam, four pots, headers—the full treatment. We had put her on the dynamometer and pulled two hundred and ninety horses out of her. But that was all Wick was interested in. Brakes? For kids. Suspension? What's that? I tried to tell him, but he was tackling this kind of racing like a go on the tracks. And I was filled with misgivings.

When we arrived, we found a field of at least ninety sports-racing jobs there—most of them beauties. Allards, Jags, and MGs by the dozen. And the Bomb was there too. With a hired in red Pirelli coveralls and the most luscious red Ferrari that ever was. It made Wick's primer-painted, Allard look like from the other side of the tracks.

As is always the case at road races, the day before was set aside for technical inspection and practice. And our first hassle came early. Someone had complained that Wick was a pro—and the sponsoring club's officials were all for ruling Wick out of the meet. It took a lot of talking and a call to the Midget Racing Association to prove that Wick wasn't a pro—and that he hadn't been paid for driving for over two years. One year is enough to make a driver into a simon-pure.

"It's that louse Carrington," Wick said to me.

I didn't know and wouldn't venture a guess, though I had to

forcibly restrain him from seeking the Bomb out and punching his nose again.

Then they informed Wick that he would only be permitted to drive in the Novice Race. That made him blow his stack again, but the club people made it stick.

"Track racing doesn't teach you a thing about this kind of driving," they said.

"The devil it doesn't," was Wick's only printable comment.

And then the technical inspectors told him his brakes would need work before the Allard could race, and Wick was ready to start throwing rocks at everybody in sight. But we fixed the brakes, not the way they should be fixed, but just enough to get by the inspection.

The Bomb and his Ferrari 4.1 had no trouble at all with anyone. The crew he'd hired for himself actually worked, though from the way they talked I surmised they knew very little about the Italian thorough-bred.

The practice session started at one. Three hours of familiarization at speed. The course was a two and one-half mile circuit with some ten corners—mostly right angles to the right and left. Roads. Not banked like a track or anything like it.

Wick fired up the Allard and took off out of the pits like a fireball. I saw him screech into the first corner in a four-wheel drift and vanish into a cloud of dust and flying straw in the grandfather of all spinouts.

The whole afternoon went like that. Wick, growing more and more exasperated with his seeming inability to maintain his speed in the corners.

Joe Pollard, one of the best road racing drivers on the coast, was in our pit when Wick came in for the fifth time—fenders dented and trailing hay from every corner of the Allard. He asked Wick what times he was making.

"I can't seem to hold this bucket on the road," Wick complained, adding a few choice remarks about the handling qualities of Sidney Allard's handiwork.

Pollard's face darkened as he listened. He'd won too many races himself in an Allard to take kindly to that kind of talk from Wick.

"You should be able to turn 2:09 easily," he said.

"Care to try?" Wick added nastily.

"Glad to."

Pollard got in and turned 2:10 from a standing start, and then a lap at 2:08:5 and one at 2:06 flat. When he came in, the Chrysler mill wasn't even breathing hard, but the brakes were smoking.

"Your brakes stink," Pollard said. "What have you done to them?"

"They're okay," Wick said stiffly.

Pollard shrugged and took off with a wave of the hand and a "thanks for the ride."

For the rest of the afternoon we sat in the pits and watched the others whistle around the circuit. The hotter MGs were consistently lapping faster than Wick had, and the other Allards were touring at 2:10, which figures to something over seventy miles per hour average through ten boulevard-stop types of corner. It was apparent to me, at least, that Wick Kenyon had one devil of a lot to learn.

Carrington, on the other hand,

seemed to have the right idea, but the Ferrari began to sound sick after he had turned a half-dozen laps. And his greaseballs couldn't seem to get the hang of the gemlike V-twelve.

So there we had the two of them, Wick and the Golden Bomb, each of them trying in his own way to show the peasantry how this thing was done, Wick with useless track know-how and the Bomb with useful but sadly misspent money. Not misspent on the Ferrari—that was twelve grand in the right place—but misspent for a bunch of knuckleheads to crew him, when what he needed most to do was get his own hands into the engine and learn about it.

The race the next day was almost an anti-climax. Wick, in his Novice Race, took the lead with the Allard-Chrysler's terrific acceleration, and lost it because he tried to drive like he had on the track. He stuffed his foot in the carburetor until his brakes gave out on the seventh lap of a fifteen lapper, and he skittered out into the desert and bogged down but good.

The Bomb started in the main—but he didn't even get seven laps. In the third time around the Ferrari came by with that awful rattle that means a big-end is gone and a con-rod is about to come flying through the side of the sump.

We didn't bother to go to the Trophy Dinner the night of the race. Wick did have the courtesy to congratulate Pollard for winning the 100 mile main event. I'll say that much for him.

We came back home and knocked the dents out of the Allard, relined the brakes with the proper lining this time, and took Wick out on the back roads to practice.

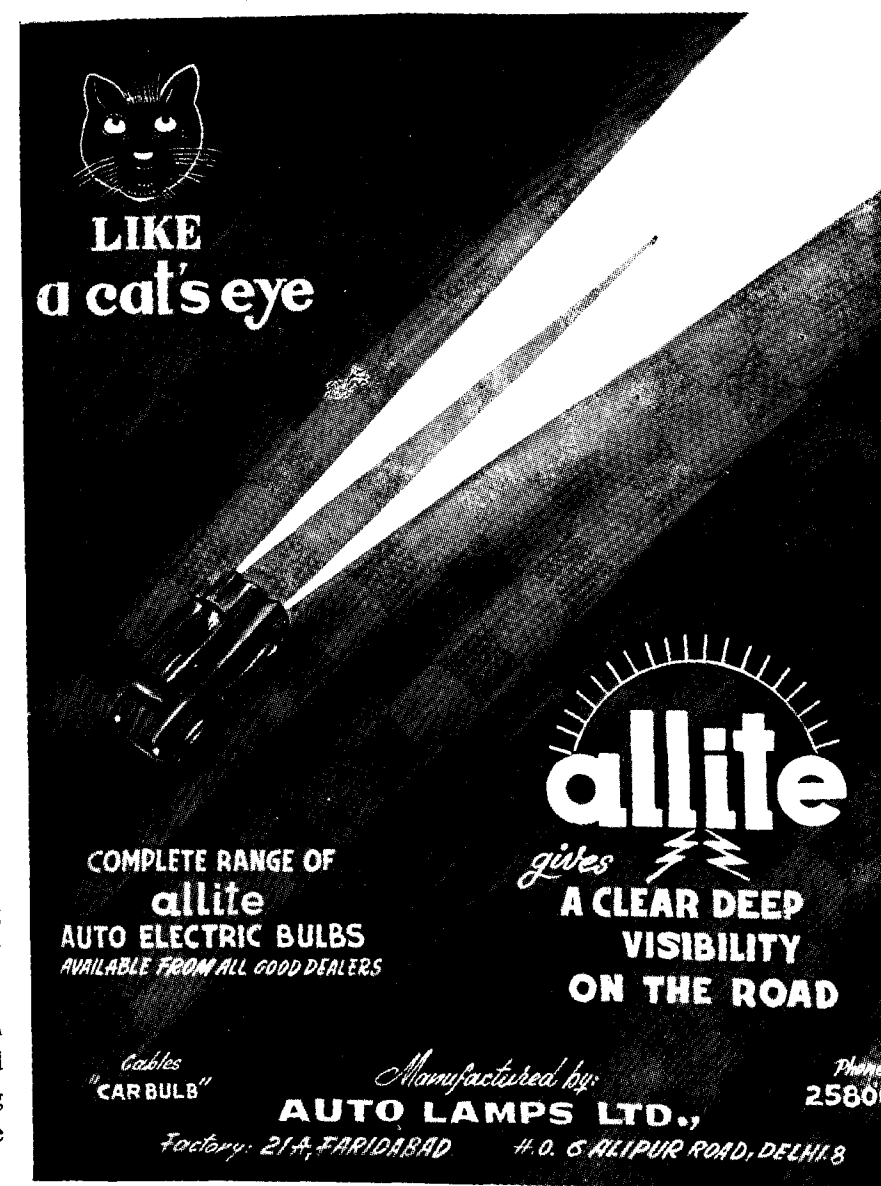
In spite of the fact that his talk didn't change much after Palm Springs, I could see his attitude undergoing a change. He still, sneered, but not so loud or so often.

I rode a lot with Wick in the Allard, and he began to get the rhythm of driving in a road racing car. He began to learn something more than the steer-it-and-stab-it style of the quarter mile tracks. It got better. He learned to use his brakes and engine in cornering, and how to heel-and-toe the pedals so he could

perform the entire operation of getting his machine into a corner and out without losing revs.

The learning paid off at a small club meet at Half Moon Bay. Wick took the Allard into third place in a fifty miler. The Golden Bomb didn't race there because his hired hands still had the Ferrari in tiny pieces all over his garage floor.

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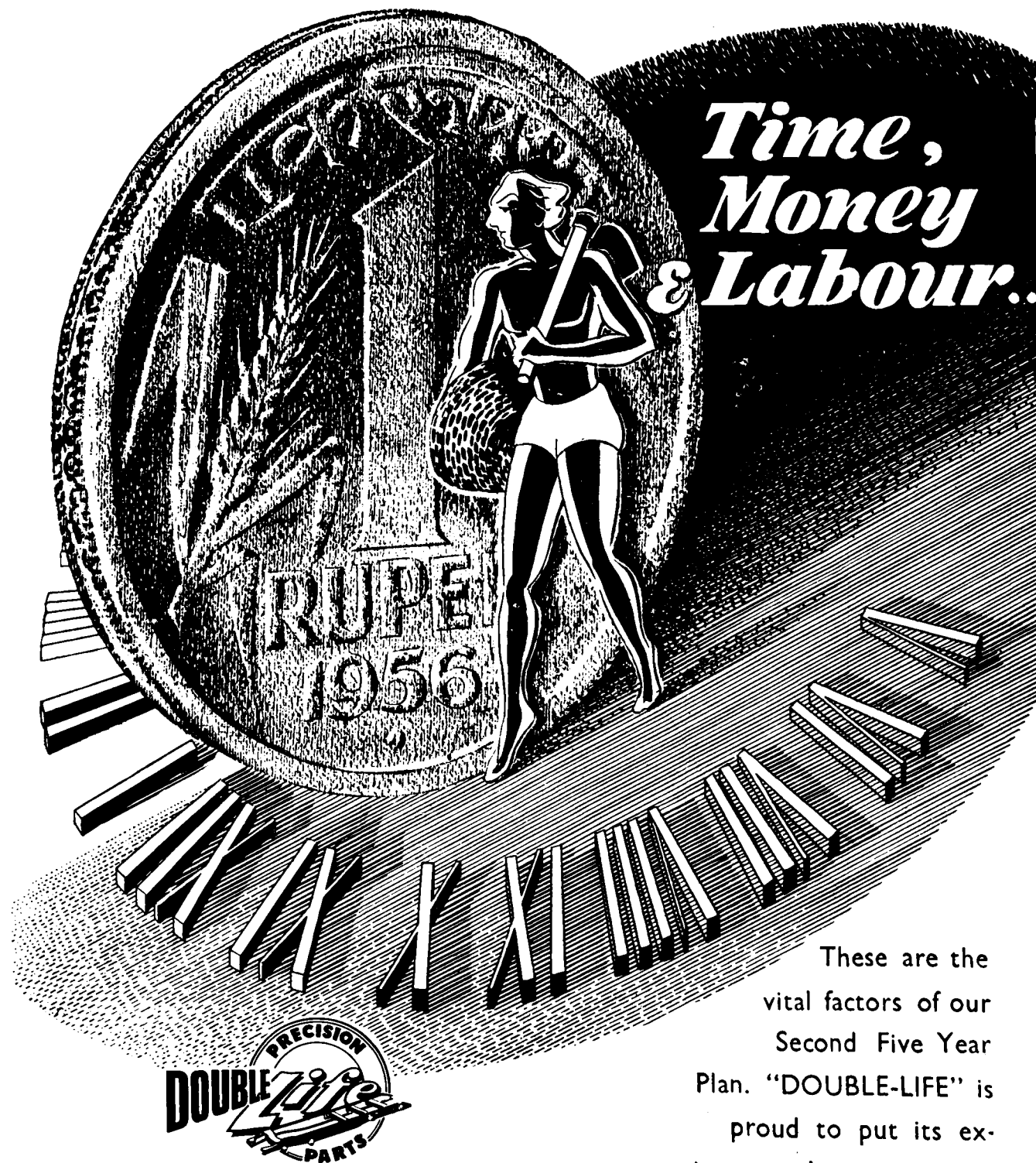
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