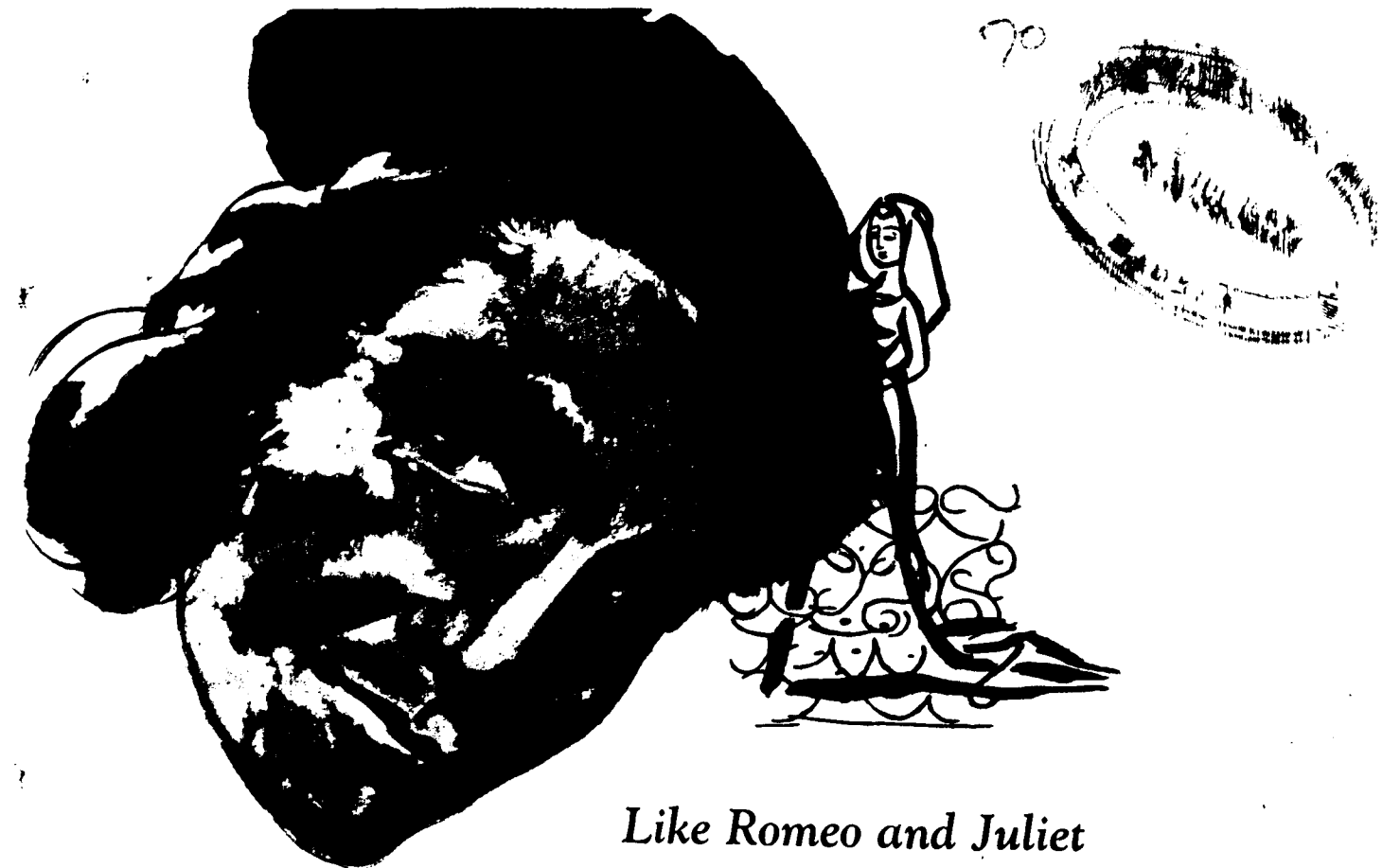


MOTORINDIA

VOLUME 1

JUNE 1957

NUMBER 11



Like Romeo and Juliet

George Oakes and FORD spares belong together

Looking for genuine FORD Spares? You'll find them with George Oakes—in full supply!

George Oakes, authorised FORD distributors throughout India, have nationwide distribution facilities to make sure *you* don't run out of stocks.

GENUINE



PARTS

George Oakes Private Limited

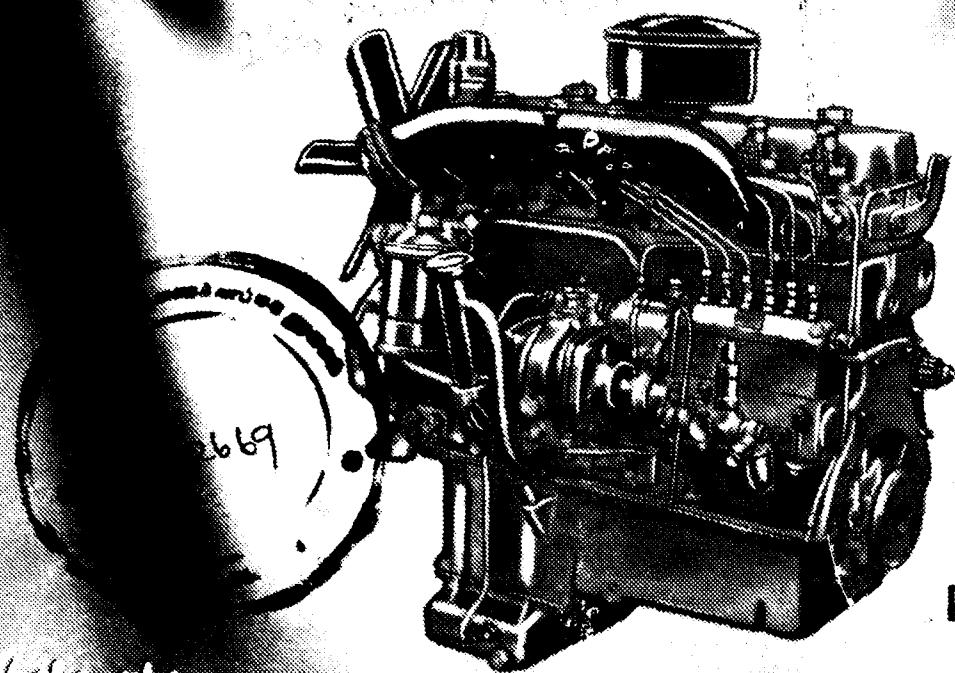
Authorised  Distributors
Throughout India

New Queen's Road, Bombay 4.

Perkins

HIGH SPEED DIESEL ENGINES

THE POWER BEHIND MODERN TRANSPORT



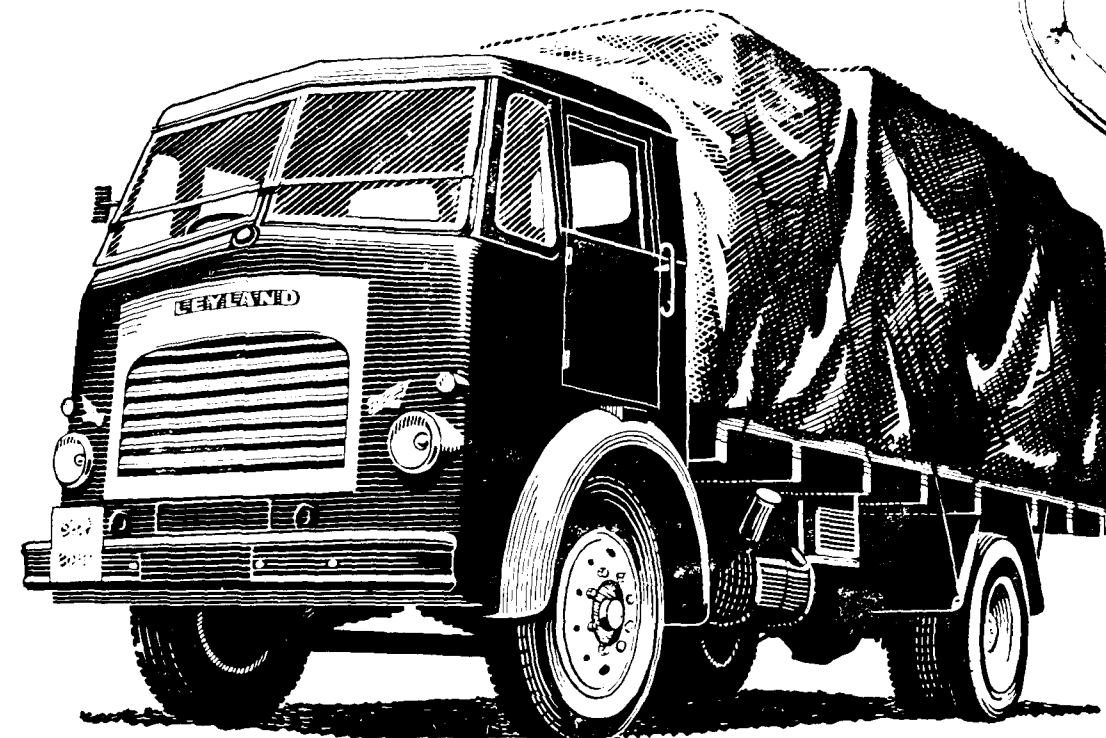
P.6. AUTOMOTIVE

There are
**MORE perkins DIESELS IN OPERATION THAN ALL
OTHER MAKES OF DIESEL ENGINES PUT TOGETHER.**

Simpson & Co. Ltd.
ESTABLISHED 1914

HEAD OFFICE & WORKS, MADRAS-2.

Branches:- Bangalore, Ootacamund, Tiruchirappalli, Secunderabad (Dn.)



For maximum payload— The **LEYLAND 'COMET'**

It's the only 7½-ton payload chassis made in India!

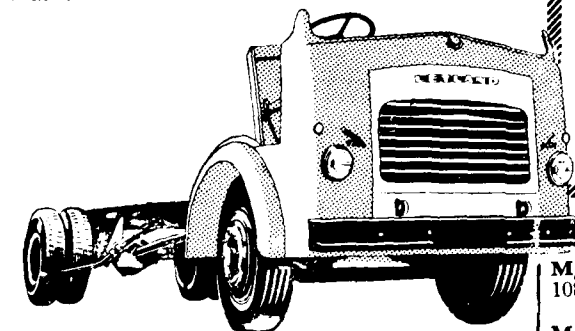
FAMOUS throughout the world for rugged service over all types of road surface, the Leyland 'Comet' chassis offers exceptional strength, easy handling, low fuel and maintenance costs.

Five great models

Sturdy, reliable, economic

Model No.	Wheelbase	Overall length
ECOS2. 1R	13ft. 7in.	22ft. 5in.
ECOS2. 2R	9ft. 10in.	16ft. 4in.
ECOS2. 4R	14ft. 8in.	24ft. 0in.
*ECPO2. 1R	16ft. 11in.	27ft. 0in.
*ECPO2. 2R	14ft. 8in.	24ft. 0in.

**Passenger models*



Main Dealers and their Territories

M/s. Automotive Manufacturers Private Ltd.
108, Bazaar Ward, Kurla, Bombay-37
(Bombay State and Andhra Pradesh)

M/s. Associated Indian Enterprises (Private) Ltd.
206, Lower Circular Road, Calcutta-17 (West Bengal)

M/s. Dharam Singh Ram Singh (Motors) Private Ltd.
25, Bhopal House, Lal Bagh, Lucknow (Uttar Pradesh)

M/s. Globe Motors Private Ltd.
Prithvi Mansions, Asaf Ali Road, New Delhi.
(Delhi, Himachal Pradesh, Punjab and Rajasthan)

M/s. George Oakes Private Ltd.
36-D, Mount Road, Madras-2 (Madras, Mysore & Kerala)

M/s. Jay Kay Automobiles
Residency Road, Srinagar (Kashmir) (Jammu & Kashmir)

M/s. C. Eduljee & Co.,
Kamptee Road, Nagpur. (Madhya Pradesh.)



Ashok Leyland
LIMITED

Ennore, Madras

the **EXTRA PERFORMANCE**
that makes Champions



Just as a champion high jumper calls on his reserves for extra performance—so it is with the truck or bus operator who uses Caltex products. There's a reserve of power in Caltex fuels for greater haulage, better climbing and, to bring out the best in any engine and chassis, there's nothing so good as Caltex lubricants. For extra performance, extra economy.

give your truck or bus
the **CALTEX** ★ 1 ★ 2 ★ 3

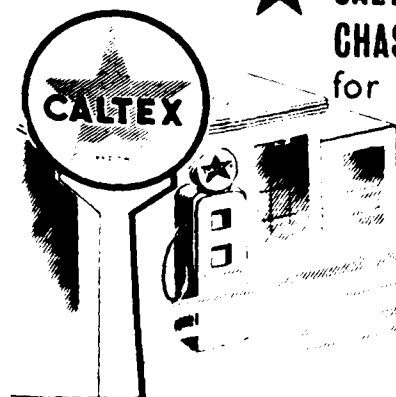
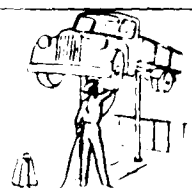
★ **CALTEX IC-PLUS PETROL**
or **HI-SPEEDOL...**
for Haulage and Climbing



★ **CALTEX RPM MOTOR OIL** or **RPM DELOS**
for Dependability
and Economy



★ **CALTEX MARFAK**
CHASSIS LUBRICATION
for longer wear



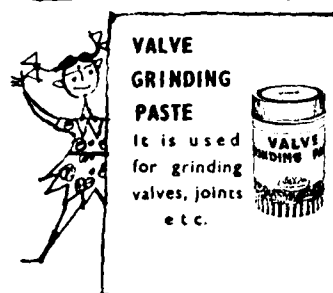
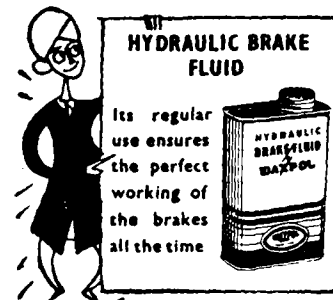
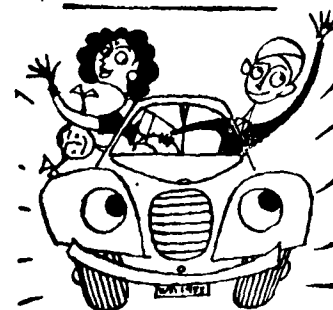
AND SEE HOW SHE PULLS!

DRIVE TO YOUR FRIENDLY CALTEX DEALER

MOTORINDIA

June 1957

WAXPOL
GIVES YOU
SOMETHING
EXTRA



other products
Auto Cleaner, Cycle Polish,
Metal Polishes, Rubbing
Compound, N. C. Thinner

Manufactured by
THE WAXPOL
INDUSTRIES LTD.
82, STEPHEN HOUSE
CALCUTTA-1

MOTORINDIA

Vol. 1

JUNE 1957

No. 11

Editor : M. RAJAGOPALAN

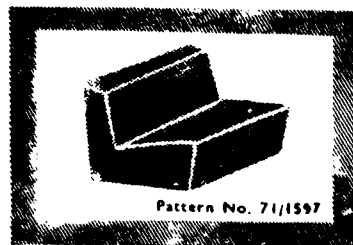
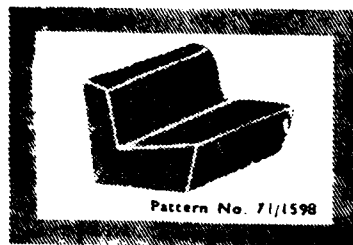
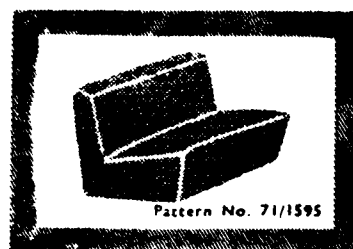
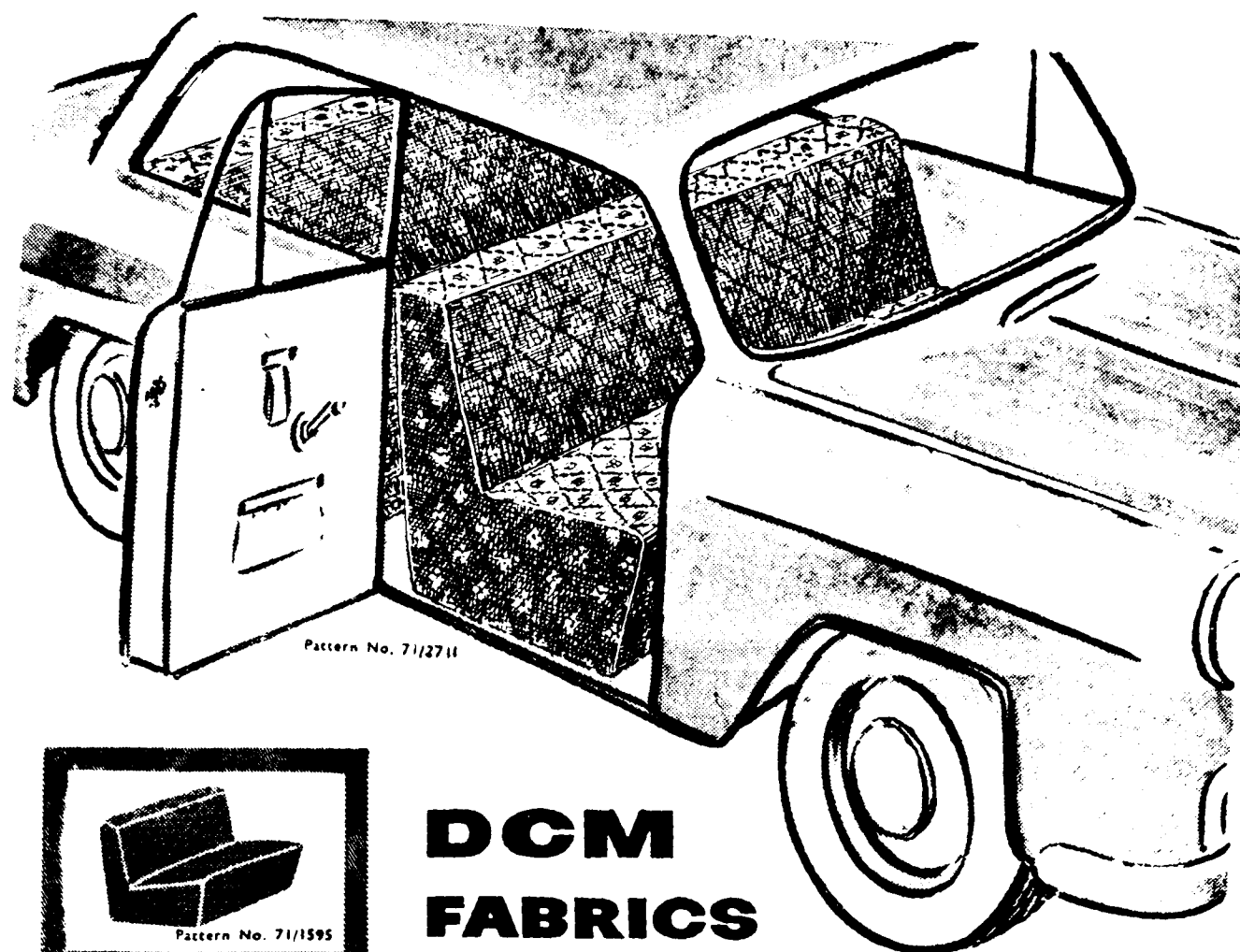
CONTENTS

Editorial	7
Oil News (Special)	9
Company News in Brief	15
About Your Car	19
Pre-monsoon Care	21
Social and Personal	22
Hand-made Car	25
Watching the Exhaust	27
The Redex Car Club	28
British Car Industry Looks Ahead	29
Ignition Warnings in Cars	30
Exhibitions and Shows	31
Transport in Rajasthan	32
Motorindia News Section	33
Models and their Prices	42

INDEX TO ADVERTISERS

Ashok Leyland Ltd.	3
Automobile & Agricultural Industries Corporation	Third Cover
Bower Battery Manufacturing Company	28
Burmah-Shell Oil Storage & Distributing Co. of India Ltd.	12
Caltex (India) Ltd.	4
Canara Workshops Ltd.	18
Chimanlal Desai & Co.	33
Delhi Cloth & General Mills Company Ltd., The	6
Diamond Industries, The	39
Dunlop Rubber Company (I) Ltd., The	14
George Oakes Private Ltd.	Front Cover
Glass & Miniature Bulb Industries	37
Himco (India) Private Ltd.	37
India Tyre & Rubber Co. (I) Private Ltd.	35
Lucas Indian Service Private Ltd.	41
Madras Motor Insurance Co. Ltd., The	20
Modern Automobiles, The	35
Modern Distributing Company	41
Motorindia Annual	Back Cover
Motor Industries Co. Ltd.	39
Premier Auto-Electric Private Ltd.	39
Premier Automobiles Ltd.	10
Shantilal C. Mehta	31
Simpson & Co. Ltd.	Second Cover
Standard Vacuum Oil Company	8
Sundaram Industries Private Ltd.	16
Waxpol Industries Ltd., The	5

PUBLISHED ABOUT THE 28th OF EVERY MONTH



DCM FABRICS

for car seat covers

Give your car a new look with car seat covers made from DCM Fabrics. Widely used by motorists in India and abroad, these fabrics add enduring comfort and luxurious appearance to your car.

- * Attractive fast colours
- * Washable.....fadeless
- * Best suited for the Indian climate

(Material should be well shrunk before use)

Stockists :
T. S. HAJI MOOSA & CO.
P. O. Box 1771

95, GODOWN STREET, MADRAS 1

Available everywhere.

For trade enquiries:

THE DELHI CLOTH & GENERAL MILLS COMPANY LIMITED, DELHI.

MOTORINDIA

DCM-1378

June 1957

MOTORINDIA

INVITES

ORIGINAL ARTICLES

AND ILLUSTRATIONS

FOR PUBLICATION

ON MATTERS RELATING

TO

AUTOMOBILES

and on

ROAD,

RAIL,

AIR &

SEA Travel

(RATES BY ARRANGEMENT)

•

EDITOR

MOTORINDIA

141, MOUNT ROAD

MADRAS-6

Single Copy — Re. 1.

Annual subscription — Rs. 10.

Edited and Published by M. Rajagopalan at 141, Mount Road, Madras-6.
Printed by S. Viswanathan at the Central Art Press, 11, McNichol Road, Chetput, Madras 31.

2

editorial

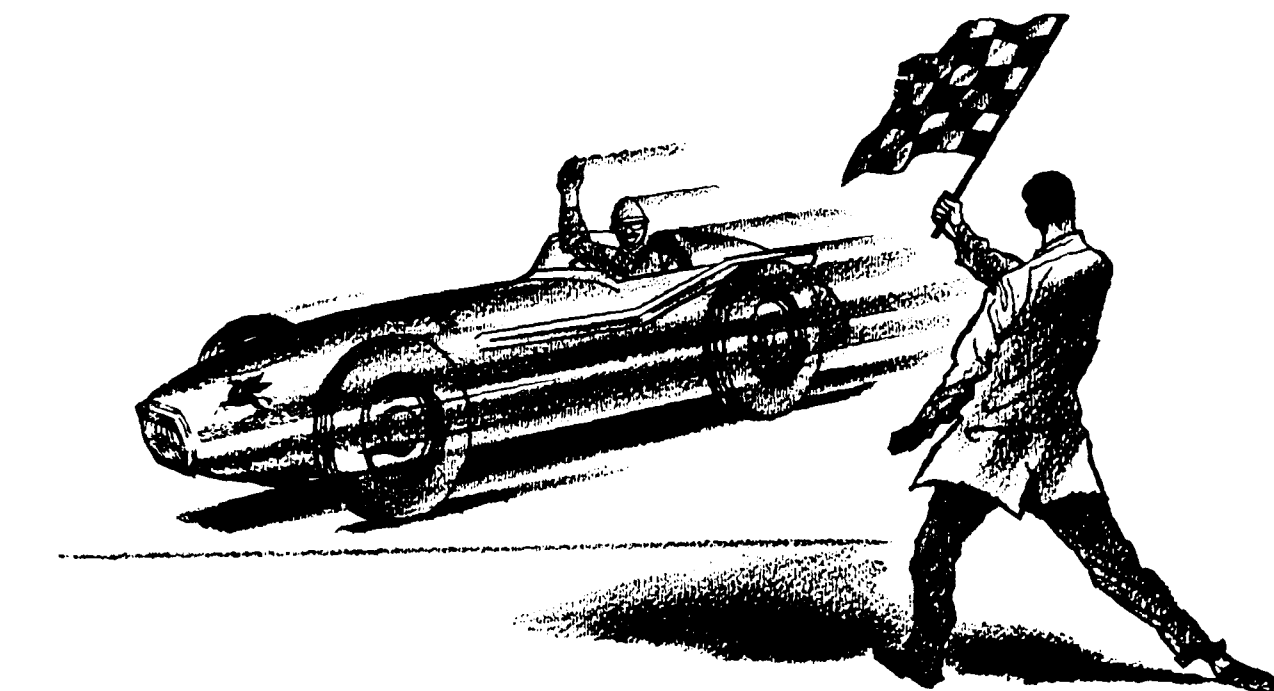
Since the publication of our last issue, the Indian Finance Minister has introduced his new budget proposals and through them a shock to the general economy of the country. The reception to the budget proposals has not been very favourable in practically every sphere of society in the country and it is not surprising that the business community who have been most hard-hit by the new proposals have also raised their voice of protest against the revolutionary character of the taxation plans announced.

The automobile industry and allied trades in this country are at a stage of development where all the concessions that the Government can manage are quite welcome for its growth towards its normal goal. It is in this context that we feel that the new taxation plans may create problems to the trader and the manufacturer; and in fact, may retard the progress of the industry which is just making a beginning in various parts of the country. The taxation proposals are themselves an effort to save the Second Plan and push it through to a success. It is a well known fact that though the Second Plan may result in many new industries, the movement of raw materials and finished products alike are vitally necessary to save the Plan. In such matters, the automobile has a definite part to play in the movement of goods. And in the absence of enough new vehicles in the country due to various reasons including that of import control, the duty of the industry and trade to keep the existing vehicles on the move is a task that cannot be easily attempted.

"The motor car has come to stay," said Sri Sri Prakasa, the Governor of Bombay the other day, but if the new Import Policy and the taxation proposals are such that enough servicing and spare parts cannot be provided for the automobiles in current use, automobiles may just stay and not run.

With indigenous manufacture of automobile parts just in its infancy the need for a regular supply of imported items to fill the gap is much greater today than at any period in the history of the automobile industry in the country. The needs of the Second Plan also emphasise the same point. For these and other valid reasons, it will be wise on the part of the Government to so adjust the import position as to see that in their attempt to save valuable foreign exchange the cause of a vital industry is not unduly affected. The automobile today is not merely used for carrying goods or passengers only; the automobile has many and multifarious functions to perform. In some countries thousands of families find their own homes within the automobile. They practically live in mobile homes. In India, mobile clinics have become almost a necessity, particularly with schemes directed towards the welfare of the rural population. Mobile libraries are playing their due part in the matter of educating the village folk. And even in the recent influenza epidemic, in places like Madras and Bombay, the automobile has played a role which is second to none. It is common knowledge that hundreds of mobile vans have been giving relief and succour to the suffering thousands of patients, who cannot be expected to proceed to hospitals already overcrowded with such patients. In advanced countries the automobile is used as a walking exhibition for many things.

When such is the increasing use to which the automobile is being put to, the need for keeping the vehicles trim and in excellent condition by the availability of spares for all cars and trucks is something so essential that even in a crisis as at present the Government should not neglect it.



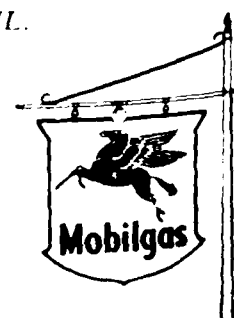
Mobiloil ... the winner, and still champion in the Indianapolis '500' Race!

STANDARD VACUUM OIL COMPANY (Incorporated in the U.S.A. with Limited Liability)

MOBIL OIL has again won the world's greatest motor race, taking top honours in the gruelling Indianapolis '500', held in the U.S.A. Zooming into first place, Sam Hanks set a new track record with an average speed of 135.601 miles per hour for the 500-mile course... using the same MOBIL OIL unchanged from start to finish!

You, too, can get this kind of star performance from your car — when you use MOBIL OIL. It is the first choice of motorists throughout the world.

MOBIL OIL is a STANVAC product... available only at the Sign of the Flying Red Horse.



OIL NEWS

WAVE OF REFINERY EXPANSION

In the free world, excluding North America, there are now 25 new refineries being, or about to be, built and there are projects for a further 11 new plants. In addition, 22 existing refineries are being expanded. As detailed in this article, altogether an additional 101 million tons or more annual throughput capacity is in course of being provided, of which 56 million tons will be in Western Europe. Refinery expansion now underway involves capital expenditure equivalent to several hundreds of £ million.

The prospect of a continually increasing demand for petroleum products in all parts of the world necessarily calls for a more or less corresponding growth, over a period, in all phases of the oil industry. Today's heightened exploration activity and the tanker building boom are the consequence of judgments about the level of crude oil demand several years ahead, and how it is likely to be satisfied. In the case of refinery expansion, however, a view must also be taken about the pattern of both total and local demand for finished products and where additional refinery capacity can best be provided. In the countries of the free world outside North America, new refineries or refinery extensions now building or projected will add over 100 million metric tons to the existing annual crude distillation capacity. Over half of this additional capacity will be in Europe. This is a vast expansion which, like that of tankers, will make big demands upon steel supplies. A year ago, refinery construction projects in hand or in preparation in the free world outside North America totalled about 50 million tons annual capacity. About a quarter of this capacity was completed in the course of last year. Our present figures include such of those projects as are still being built or remain firm projects, plus the many fresh projects announced during the past year or so.

Annual crude oil throughput capacity outside North America and the Communist countries has risen from about 125 million tons early in 1948 over to 330 million tons now. The steepest rise occurred in the three or four years following the introduction in 1947/48 of the Marshall Plan for the economic reconstruction of Europe. Refinery capacity had reached about 215 million tons early in 1952 by which time the unexpected shutdown of the world's largest refinery, at Abadan, had given an impetus to refinery expansion elsewhere, helping to raise total capacity to rather more than 300 million tons early in 1955. There was then a short-lived lull, followed by a fresh burst of new announcements late in 1955. As was forecast in our article in February last year, this third post-war wave of refinery expansion has now gained further strength. As a result, total refinery capacity in the countries under review will probably reach approximately 365 million tons early next year—a threefold increase in ten years—and about 400 million tons in two years' time.

TABLE I

FREE WORLD EXCLUDING NORTH AMERICA:
TOTAL ADDITIONAL REFINING CAPACITY—UNDER
CONSTRUCTION OR PROJECTED (a)

	Probable Completion in 1957	For Later Completion	Pending Projects	Total
New Capacity to be built in :				
Middle East ...	7,100	800	750	8,650
Caribbean Area ...	6,250	4,150	—	10,400
Mexico ...	—	1,500	—	1,500
Ecuador ...	—	300	—	300
Total Producing/Exporting Countries ...	13,350	6,750	750	20,850
Europe (b) ...	10,350	34,850	10,500	55,700
Asia (c) ...	3,945	2,000	2,750	8,695
Hawaii ...	—	1,250	—	1,250
Africa ...	—	1,000	—	1,000
Latin America (a) ...	6,575	6,000	1,300	13,775
Total Consuming/Importing Countries ...	20,870	45,100	14,450	80,420
Grand Total ...	34,220	51,850	15,200	101,270

New Capacity to be built for :				
Private enterprise ...	29,410	43,400	11,500	84,310
Governments and Government entities ...	3,600	8,450	3,700	15,750
Mixed entities ...	1,210	—	—	1,210
Grand Total ...	34,220	51,850	15,200	101,270

(a) Based on details shown in Tables II and III but excluding projects whose planned throughput capacities have not been disclosed, also excluding projects for further expansions as shown in footnotes to Table II.

(b) Including Turkey.

(c) Excluding producing/exporting countries, which are included in preceding part of the Table.

Refinery capacity in the U.S.A. is substantially larger than in the remainder of the free world but, in line with the slower rate of increase in oil demand, is expanding less rapidly. Operable capacity in the U.S.A. rose from 5,800,000 barrels daily in 1947 to

Trustworthy

FARGO

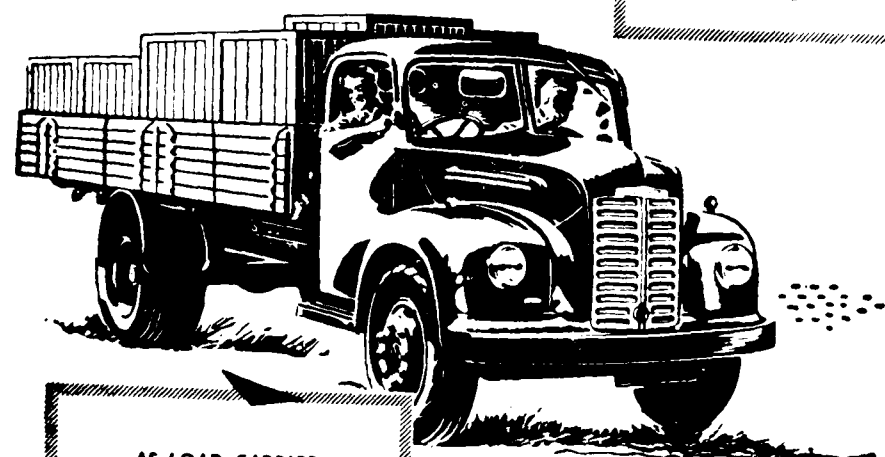
DIESELS

TWO STURDY MODELS: 165" wheelbase truck chassis, 5-ton load capacity, designed for goods transport. 190" wheelbase bus chassis, with full forward control, for passenger transport.



AS PASSENGER BUS

In full forward control, the engine is brought right in front, providing larger passenger space, greater driver vision. Economical to run. Ideal weight distribution



AS LOAD CARRIER

With Fargo truck, you carry more load at lower fuel cost as compared to a petrol truck. Its sturdy frame is built for longer life and more efficient hauling on all kinds of roads.

PROGRESSIVELY MANUFACTURED BY

**THE
PREMIER AUTOMOBILES
LIMITED**
AGRA ROAD KURLA

CONTACT YOUR NEAREST DEALER

8,250,000 b/d in September 1955 and 8,700,000 b/d (equivalent to about 435 million tons annually) in September 1956, the latter being over 100,000 b/d more than was forecast a year ago. Refinery runs last year averaged about 93 per cent of capacity. It is now expected that operable refining capacity will reach 9,000,000 b/d in the U.S.A. by November 1957. Canada's refining capacity, which totalled 260,000 b/d at end-1947, had been expanded to 625,000 b/d by November 1955 and to over 700,000 b/d (35 million tons annually) by November 1956. Expansion plans for the Toronto and Montreal areas indicate that Canadian refinery capacity will this year rise by something like 100,000 b/d.

TABLE II

FREE WORLD EXCLUDING NORTH AMERICA :
MAJOR REFINERIES UNDER CONSTRUCTION OR
PROJECTS AT JANUARY 1st 1957

	Approximate Throughput Capacity (1,000 Metric Tons p.a.)	Probable completion of Distillation Facilities
A. Under Construction and Firm Projects		
I. Oil Producing/Exporting Areas		
Caribbean Area		
Venezuela, Moron (Venezuelan Petrochemical Institute)* ...	150	End -1958
Colombia, Cartagena (Intercol)	1,250	Summer 1958
Mexico		
Guaymas, West Coast* ...	1,500	Uncertain
Ecuador		
La Libertad (Anglo-Ecuadorian)	300	Summer 1958
	3,200	
II. European Area		
U.K.		
Southampton Water (Texas Co. and California Standard) ...	5,000	Uncertain
Eire		
Whitegate, County Cork (Esso-Caltex-Shell Mex and B.P.)	1,500-2,000	During 1950
Netherlands		
Botlek, Rotterdam (Esso) ...	1,500-2,000	Early 1960
France		
Bec d'Ambes, nr. Bordeaux (Esso-Standard) ...	1,500-2,000	During 1959
W. Germany		
Colongne (Esso) ...	6,000 (a)	During 1961
Rhine Area (Shell) ...	3,000 (b)	During 1960
Rhine Area (B.P.) ...	3,000 (d)	Uncertain
Duisburg/Ruhr (Ruhrbau) ...	1,000	End-1958
Italy		
Palermo, Sicily (ISLON) ...	600	During 1957
Norway		
Oslo Fjord (Esso) ...	2,000	During 1960
Finland		
Tupavuori (Neste O/Y)* ...	900	May 1957
Greece		
Aspropyrgos, nr. Athens (Govt.)* ...	1,300	Autumn 1957
	Ca. 28,050	
III. Other Territories		
India		
Vizagapatam (Caltex) ...	675	During 1957
Burma		
Syrian Nr. Rangoon (Burmah Oil Co. (1954)† ...	210	March 1957

Japan		
Tokuyama (Idemitsu) ...	1,500	Spring 1957
Yokkaichi (Shell-Showa) ...	2,000	During 1959
Hawaii		
Honolulu (California Standard)	1,250	Uncertain
Angola		
Luanda (Lobito Purfina) ...	1,000 (c)	Uncertain
Brazil		
Rio de Janeiro (Petrobras)*	4,500	During 1960
Cuba		
Havana Bay (Shell-Canadian Eagle)	1,250	January 1957
Santiago de Cuba (Texas Co.)	1,000	Mid- 1957
	13,385	
Total Under Construction and Firm Projects ...	44,635	

B. Pending Projects

Syria		
Homs Area (Govt.)* ...	750	Uncertain
U.K.		
Mildford Haven (Esso) ...	5,000	Uncertain
Australia		
Location uncertain (OMV)*	1,000	Uncertain
Spain		
Puertollano (INI)* ...	750	Uncertain
Turkey		
Location uncertain (Socony Mobil-Shell-Caltex-B.P.)	3,000	Uncertain
Location uncertain (Turkish American Oil Co.) ...	750	Uncertain
India		
Eastern India (Assam Oil Co.)	1,500	Uncertain
Ceylon		
Location uncertain (Shell/B.P.-Standard Vacuum-Caltex) ...	Not announced	Uncertain
Thailand		
Bangkok Area (Niigata Engineering Corp.) ...	250	Mid-1958
Philippines		
Location uncertain (Standard Vacuum) ...	1,000	Uncertain
Location uncertain (Shell) ...	Not announced	Uncertain
Total Pending Projects with stated capacities ...	14,000	

Grand Total (excluding projects with unknown capacities) 58,635

- (a) Or 7,500,000 tons : the refinery will start operations in 1959 with a capacity of 3,000,000 tons.
(b) Initial capacity, probably to be raised later to upwards of 6,000,000 tons.
(c) Minimum capacity which may be raised to 3,000,000 tons a year later.
(d) Initial capacity, possibly to be raised later to 6,000,000 tons.

About half the free world's post-war refinery expansion outside North America has taken place in Western Europe where capacity has risen from 22 million tons early in 1948 to about 126 million tons at the present time, the latter representing about 38 per cent of the total capacity in the countries under review, compared with 18 per cent nine years ago. More than half the new capacity listed in the accompanying tables will be located there, comprising at least a dozen new plants and the expansion of eleven existing ones. But even this does not allow for a number of further refinery

*Government and Government-owned entities ; †Government participation.

"I. C. A. ? never heard of it!"



"You haven't been told about I.C.A."

"What is it? A new parlour game?"

"I.C.A. stands for Ignition Control Additive. An important petrol development exclusive to Shell and patented by them."

"What do I want the stuff in my petrol for? The old car chugs along quite well as it is..."

"But pre-ignition...just think of the pre-ignition—"

"What's pre-ignition?"

"...and spark plug fouling..."

"Never heard of it!"

"...two of the major causes of power loss in your engine."

"Power loss, did you say? Do you mean I'm not getting all the power I pay for?"

"Exactly, but I.C.A. makes the deposits on cylinder heads and pistons quite harmless, and ensures s-m-o-o-t-h—"

"Yes, yes—but what does it do?"

"Briefly, you get more power and more miles to the gallon by filling up with Shell and B.O.C. Petrol with I.C.A."

"I'll believe you...thousands wouldn't"

"Thousands *do*! They've filled up and felt the difference—with I.C.A."

Only
Burmah-Shell
has

BOTH!

HIGH POWER
PETROL—and
ICA

I.C.A. means Ignition Control Additive, incorporating tricresyl phosphate, exclusive to Shell



TABLE III
FREE WORLD EXCLUDING NORTH AMERICA: MAJOR
REFINERY EXTENSIONS AT JANUARY 1st, 1957
(Approximate throughput capacity in 1,000 Metric tons)

	At beginning of 1957	Planned	Addition	Probable Completion
A. Under construction and Firm Projects				
I. Oil Producing/Exporting Areas				
Middle East				
Kuwait, Mena el Ahmadi (Kuwait Oil Co.) ...	1,400	8,500	7,100	End-1957 or Early 1958
Iraq, Baghdad (Govt.)* ...	1,200	2,000	800	Uncertain
Caribbean Area				
Venezuela, Amuay (Croco) ...	12,000	17,000	5,000	During 1957
Venezuela, Cardon shell ...	7,250	11,250	4,000	During 1958
			16,900	
II. European Area				
U.K.				
Fawley (Esso) ...	7,500	10,500	3,000	End-1958
Isle of Grain (B.P.) ...	4,500	7,000	2,500	1957/58
Shell Haven (Shell) ...	4,000	8,000	4,000	End-1958
France				
L'Averne (B.P.) ...	2,200	3,500	1,300	During 1958
W. Germany				
Hamburg (Shell) ...	900	2,800	1,900	1957/58
Hamburg (B.P.) ...	1,500	1,900	400	End-1957
Bremen (Socony Mobil) ...	750	1,250	500	During 1957
Gelsenkirchen-Buer (Scholven-Chemie) ...	1,000	2,000	1,000	Uncertain
Italy				
Near Rome (Pertina) ...	500	800	300	Uncertain
Spain				
Escombreras (INI-CEPSAS-Caltex)† ...	2,500	3,500	1,000	During 1957
Belgium				
Antwerp (Petrofina-B.P.) ...	3,750	5,000	1,250	End-1957
			17,150	
III. Other Territories				
Japan				
Kawasaki (Mitsubishi Sekiyu) ...	1,350	2,550	1,200	End-1957
Kawasaki (Toa Sekiyu) ...	270	450	180	End-1957
Nigata (Nippon Sekiyu) ...	170	350	180	End-1957
Brazil				
Mataripe (Petrobras)* ...	250	1,750	1,500	During 1958
Uruguay				
LaTeja (ANCAP)* ...	1,400	2,800	1,400	During 1957
Puerto Rico				
Guayanilla Bay (Commonwealth Oil Refining Co.) ...	1,100	2,700	1,600	During 1957
Cuba				
Belot (Esso) ...	425	1,750	1,325	End-1957
			7,385	

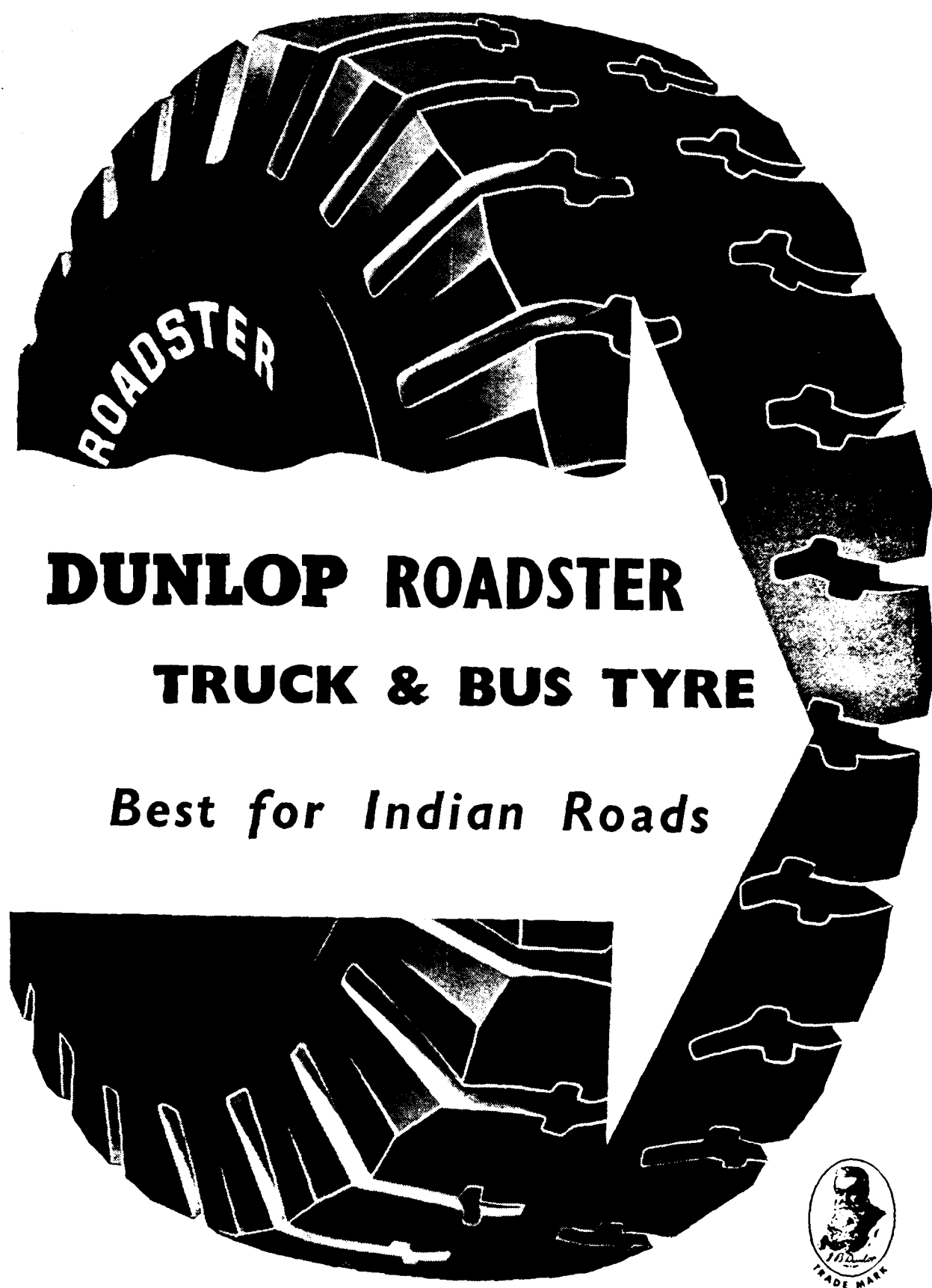
expansions already tentatively envisaged. Europe's total oil demand is expected to treble by 1975, so that further big additional capacity will be needed in the years ahead. Higher yields of heavy fuel oil will, however, be called for, which in terms of real cost will diminish the capital investment per ton of new capacity.

In the U.K. and Western Germany, major projects have been announced which, within a few years, will add between 15 and 20 million tons capacity in each of these two countries. Most of the new German capacity will be in the Rhine-Ruhr area which will be served by the pipeline now to be laid down from Wilhelms-haven, and ultimately also by the projected Marseilles-Colongne-Rotterdam pipeline system now under study by Sappeur N. V. Among projects in other European countries, the first full-scale refineries in Finland and Greece are now nearing completion, and Norway and Eire will also have their first major refineries when the present planned projects are completed in the course of the next two or three years. Then there will be full-scale oil refineries in almost all countries of Europe, both East and West, the only exceptions being Switzerland and Denmark, also Luxembourg and Iceland.

All the major refiners in Europe are expanding their capacity. Esso will probably erect over 20 million tons annual capacity, Shell about 10½ million tons, B.P. about 8 million tons, Texas Co. and California Standard together about 6½ million tons, and Socony Mobil 1½ million tons, all these figures taking account of the share held by these companies in local affiliates or in jointly owned plants. Compared with the total of the foregoing of 46½ million tons annual capacity, other private enterprise companies account for about 4½ million tons, and State entities also for about 4½ million tons.

Except for the big expansion of the refinery at Kuwait now nearing completion—the largest single project in terms of capacity shown in our tables—no additional capacity is now under construction in the Middle East. The Iraq Government intends, however, to expand its refinery in Baghdad, and plans for a plant in Syria seem definite though no commitments have yet been entered into. The idea of building a refinery in Jordan has long been under discussion, but no firm decision has yet been taken. The largest expansion now in hand in an oil importing country east of Suez is in Japan, where additional capacity totalling nearly 5 million tons is to be provided by local and foreign concerns. Plans for refineries in the Philippines and in Ceylon are under study and, although not finally determined, merit inclusion in our tables. In India, Caltex's plant in the east coast will come on stream this year. Additional refinery capacity may, however, have to be provided to treat the crude from the newly discovered fields in northern Assam. The first refinery on the west coast of Africa is going to be built by Petrofina in association with the local government and Portuguese interests at Luanda in Portuguese Angola, in the vicinity of the new oilfield.

No new major projects were announced last year in the Caribbean oil-producing countries but work is going ahead on the previously announced projects for expanding Shell's and Esso's major refineries in Venezuela, and for building Intercol's (Esso's) new refinery



DUNLOP ROADSTER

TRUCK & BUS TYRE

Best for Indian Roads

DC 490

Total Under Construction and Firm Projects ...					41,435
B. Pending Projects					
Mexico					
Poza Rica (Pemex)*	5,000	Not announced	Not announced	Uncertain	
Chile					
Concon (Empresa)*...	1,000	2,200	1,200	Uncertain	
Grand total (excluding one project with unknown capacity)					42,635

*Governments and Government-owned entities; ‡Government participation.

in Colombia. In Mexico, the state entity Pemex has announced plans for building a refinery on the west coast at Guaymas, also for expanding its Poza Rica refinery and modernizing other plants. There are

projects either in hand or under consideration in the main oil importing countries of South America, notably in Brazil, where new capacity will total 6 million tons, also in Argentina, Chile and Uruguay, all having a feature in common of being for the account of Government-owned entities. While the Argentinian state entity Y.P.F. has not indicated any precise refinery expansion plan, the laying of a products line, for which tenders have been asked, from its Lujan de Cuyo refinery implies that the capacity of this plant will be increased. Three refinery projects in Cuba are now nearing completion while the refinery at Guayanilla Bay, Puerto Rico, which was only completed early last year, is now to be expanded.

This and recent annual surveys show that oil refining is no longer mainly confined either to large oil producing areas or to very highly industrialised countries, but is an activity that is becoming world-wide.

—Copyright

COMPANY NEWS IN BRIEF

Group sales of B.O.C. increased by 12 per cent in Burma, where slackening demand for motor spirit was more than compensated by increases in kerosene and furnace oils. Sales in India were 7 per cent higher, and rose in Pakistan by 2 per cent, where natural gas from Sui displaced some trade in furnace oils. Sales of gas from Sui were 23 million cubic feet a day at the end of the year. This is less than earlier estimates, but sales have since been improving steadily.

it over. Indian participation has now been agreed at 33 1/3 per cent, and the Indian Government has decided to take up this interest itself. Apart from developments at Nahorkatiya, no prospecting was undertaken in India owing to the uncertain position of private enterprise. Instances of adverse measures are given in the report, which points out that their cumulative effect must be taken into account whenever the board has to consider investing further capital in the country.

141,860 were diesel-engined. There were 83,949 diesel-driven goods vehicles exceeding 3 tons unladen weight, and 50,857 exceeding 2 but not exceeding 3 tons, out of total numbers of goods vehicles in these two categories of 139, 772 and 339, 143 respectively. There were also 78, 837 buses and coaches (with nine or more seats) in use, of which 61,904 were diesel-driven.

All four areas in the Assam Oil Company's field near Nahorkatiya have now been proved. Out of eleven wells drilled in 1956, nine were oil producers and one a gas well, and the production target has been raised from one million to 2½ million tons a year. Development of this field has gone ahead pending the formation of the rupee company to take

Consolidated net profit of Burmah Oil and Subsidiaries for 1956 was £ 7,123,896 (£ 5,990,453 in 1955). General reserve receives £ 1,650,000 (£ 1,500,000) and the final dividend is 17½ per cent making 22½ per cent (17½ per cent).

Of 1,173,311 goods vehicles in use in Great Britain last September,

Imperial Chemicals will discontinue at the end of 1958 the production of synthetic gasoline from creosote at the Billingham plant, originally built before World War II for the hydrogen to raise the company's output of synthetic ammonia by 60,000 tons p.a.—I.C.I.'s latest addition to its petrochemical facilities is a plant for making a range of butyl alcohols (for use in solvents and plasticizers) from propylene, obtained from its oil-crackers at Wilton.

Have you seen your tyres lately?



Take a good look. It is dangerous to drive with smooth, worn-out tyres. What's to be done? Buy expensive new tyres?

Not really. Wise transport operators are turning more and more to TUF (TVS) TREADS by Sundarams. TUF (TVS) TREADS are retreads (NOT re-soles) which give rugged wear, longer mileage and economical maintenance.

Full circle
mould retreading.
Reinforced shoulders.
Precision vulcanizing.
Air-conditioned
storage of materials.
Guaranteed ma-
nufacture

TVSZ-94A

Tuf TVS Treads

THE TOUGHEST IN RETREADS

SUNDARAM INDUSTRIES PRIVATE LTD.

(UNIT OF T.V.S.)

BUDUKOTTAI

MADRAS



The Propane Decarbonizing Unit of the Caltex Oil Refinery at Visakhapatnam.

Caltex Decarb Unit Completed

The Caltex Oil Refinery at Visakhapatnam has begun the operation of the Propane Decarbonization Unit, the second of the major processing units to be completed.

The Unit uses as feed a vacuum residuum, which is the heaviest component of crude petroleum remaining after all other products have been separated by distillation in the Crude Distillation Unit. The Propane Decarbonization Unit converts this vacuum residuum into two products, Decarbonized Oil and Bottoms. The Decarbonized Oil is later catalytically cracked into a blending component of petrol and the Bottoms are used in the blending of fuel oil.

Built at a cost of Rs. 15 crores the refinery employed over 9,000 workers at the peak of construction. It is of the most modern design and in full operation will produce over 160,000,000 gallons of products every year for the Indian market.

Oil in India

New Delhi: Shri K. D. Malaviya, Union Minister for Mines and Oil in a statement in reply to a question by Shri L. Achaw Singh stated that the Assam Oil Company held two mining leases for petroleum covering an area of 5120 acres in Digboi and one lease for 0.55 sq. miles in Naharkatiya area. They also held prospecting licences covering an area of 409.8 sq. miles in Naharkatiya Extension, Hugrijan and Moran areas which were valid for three years each.

The leases for Digboi area were valid for a period of 25 years and they were issued by the Assam Government in 1942, prior to the coming into force of the Petroleum Concession Rules, 1949. Mining lease for Naharkatiya area was granted in January 1954, under the P.C. Rules, 1949. It was valid for a period of 30 years renewable for a further term of 30 years.

Apart from the P.C. Rules, 1949, the three prospecting licences mentioned above were also subject to certain special clauses which *inter alia* provided for the formation of a Rupee Company for production of crude oil from these areas in which Indian capital would also be associated by the Assam Oil Company. As these conditions form the basis for the negotiations with the A.O.C. for the formation of the new Company, it was not in the public interest to disclose them pending finalisation of the negotiations.

Production on a commercial scale was obtained from the Digboi fields while drilling for oil was in progress in Naharkatiya, Hugrijan and Moran areas. Oil has been struck in Naharkatiya and Moran areas.

Referring to the rate of production of petroleum and other by-products every year from 1947 to 1957 in Digboi and Naharkatiya oil fields and the gross value of the above products every year since 1947 the

Mr. T. S. Santhanam starts on a Global Tour

Mr. T. S. Santhanam, Managing Director of Sundaram Motors Private Ltd., has recently left on a world wide tour. He was accompanied by Mr. M. R. Kannan when he left Madras, and at Bombay, Mr. D. R. Sondhi joined the party.

Mr. Santhanam's popularity with the automobile and allied interests and the esteem in which he is held here was reflected in the numerous farewell functions arranged in his honour both in Madras and Bombay. The most notable one was by Messrs. P. Chandriah and S. M. Subramaniam of M/s. Modern Automobiles and Modern Distributing Co. The party was held at Mr. Chandriah's residence and the elite of the Industry and Trade responded to Mr. Chandriah's invitation.

Mr. Santhanam, who will be away from Madras till the end of November, will visit important places in Italy, Switzerland, Germany, France, The United Kingdom, The United States of America, where he will spend a month, Japan, Hongkong, and Singapore, before returning to Madras on 29th November 1957. (see photos on centre page)

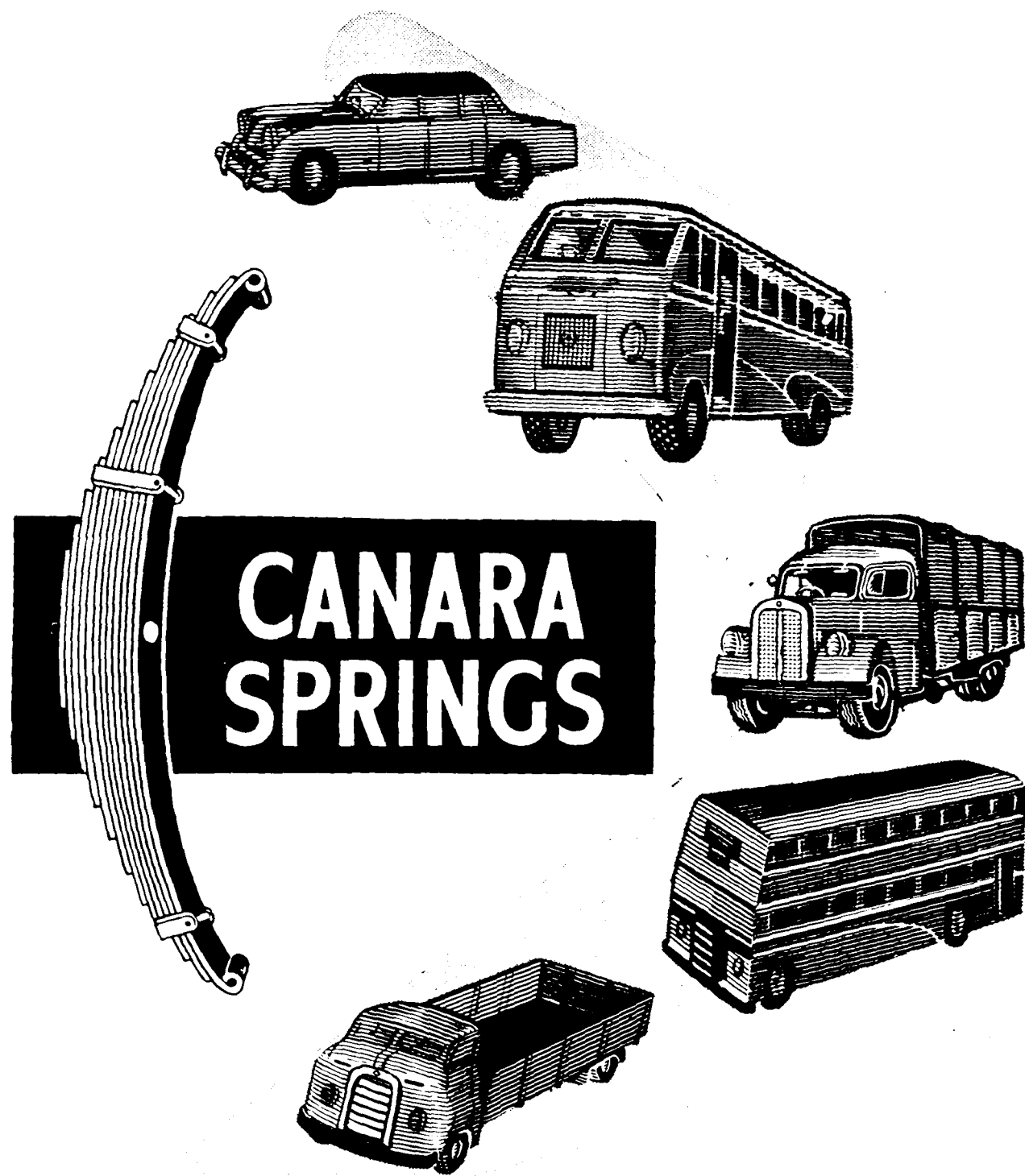
Minister added that the Government did not consider it desirable to disclose the information in the public interest.

Indigenous Crude Oil Production Stagnant

New Delhi.—The import of petrol has decreased considerably as a result of the setting up of refineries in the country, said Shri K. D. Malaviya, Union Minister for Mines and Oil, in reply to a question by Shri Bishwa Nath Roy in the Lok Sabha.

The comparative import figures in gallons, as given by the Minister are: 269,674,238 in 1953-54; 215,764,975 in 1954-55; 75,387,825 in 1955-56; and 28,571,613 in 1956-57 (April to December 1956).

Crude oil was being imported for the refineries as there was no increase in the production of indigenous crude.



CANARA SPRINGS

Fit and Forget

CW 65



MANUFACTURERS :

THE CANARA WORKSHOPS LIMITED

MANGALORE-3

ABOUT YOUR



By 'Robot'

Most of the motorists—over ninety per cent—waste a considerable quantity of petrol due to improper tuning of their engine. To obtain the best economy in fuel consumption and the highest efficiency out of the engine, it is most essential that the engine should be accurately tuned. **YOUR DRIVING HABIT** is also a vital factor in fuel consumption.

Perfect tuning could be done, as I had already mentioned in an earlier article, with the Vacuum Gauge, called the "Engine Tester," suitable for workshops. No doubt, there are other equipments such as Dynamometer—which are so costly that very few garages could afford. *The Vacuum Gauge is the ideal thing for every garage—big or small—as it costs only about Rs. 75/- and this can be successfully used by any ordinary mechanic or motorist.*

The Vacuum Gauge is the *only, simple, most accurate, practical and scientific* instrument at its price for engine Testing and Tuning. With the Vacuum Gauge, it is possible, in a matter of few minutes, to
(a) CHECK SPARK PLUGS ;
(b) ADJUST IGNITION TIMINGS ; (c) CHECK FUEL PUMPS ;
(d) DETECT STICKING OR BURNT VALVES ; (e) CHECK VALVE SPRINGS ; (f) CHECK THE EXHAUST SYSTEM ; (g) CHECK THE CARBURETTOR, AIR MIXTURE AND (h) CHECK THE BUTTERFLY IN THE CARBURETTOR. In short, this instrument detects practically ALL mechanical and electrical defects of the engine, *without opening any of the engine parts.*

For the benefit of those interested, I give below, a brief idea as to how

the Vacuum Gauge works. The Vacuum Gauge is marked to show the vacuum in the inlet manifold of the engine in terms of pounds per square inch. The marking on the Gauge is from 0 to 30. The Vacuum Gauge works on the universally accepted principle that the vacuum in the inlet manifold is affected by every operating condition of the engine, such as, lubrication, compression, combustion deposits, worn pistons, rings, valves, etc.

The engine should be warmed up to the normal working temperature and then the gauge should be connected to the inlet manifold. The reading of the gauge should be between 18 and 21 for an engine in good mechanical condition. The readings should be taken when the engine is running at the normal idling speed. The needle should be steady. The above reading is at sea level and for every 1000 feet of altitude, the reading will be less by 1 degree.

For instance, to check the spark plugs, short each plug to the earth with a screw driver. The needle should show a drop of 2 degrees on a four cylinder engine ; 1½ degrees on a six cylinder engine and less than 1 degree on a eight cylinder engine. If the gauge does not show the above drop, either the plug or the concerned cylinder is faulty.

If the needle shows a lower than normal reading, say below 17 and the needle remains steady, it indicates that the piston rings are in poor condition.

To check the exhaust system, press the accelerator quickly and leave it. The needle should drop to zero and jump quickly to 25 and gradually return to normal reading. If the needle movement is slow, it shows that the exhaust is choked or that the engine is in a rather poor condition. Similarly, the other defects are also revealed by the characteristic movement of the needle and it is needless to describe all of them here. From the above it will

'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 'MOTOR INDIA', MADRAS-6.

be seen that it is absolutely essential for a garage to own a Vacuum Gauge to do a good tuning job and it will be also wise on the part of the motorist to insist upon his service agent to do the tuning with the above gauge.

As mentioned earlier in the article, the other reason for high fuel consumption is *your driving habit*, namely, how you use the accelerator. When you accelerate, you waste a certain amount of fuel ; but the question is whether this waste is justified. How and who is to judge whether you are not wasting much fuel ? The only device is the Vacuum Gauge again. After fitting the Vacuum Gauge, if you press the accelerator slightly, the needle will immediately show a drop, may be to zero, 10 or 15 depending upon the pressure you give. The sudden drop to a low reading indicates excessive acceleration and wastage of fuel. But, if you press the accelerator very gradually, you will find that the needle does not drop so suddenly or to such low readings and the engine picks up revolutions. This indicates that you are gaining speed without undue waste of petrol.

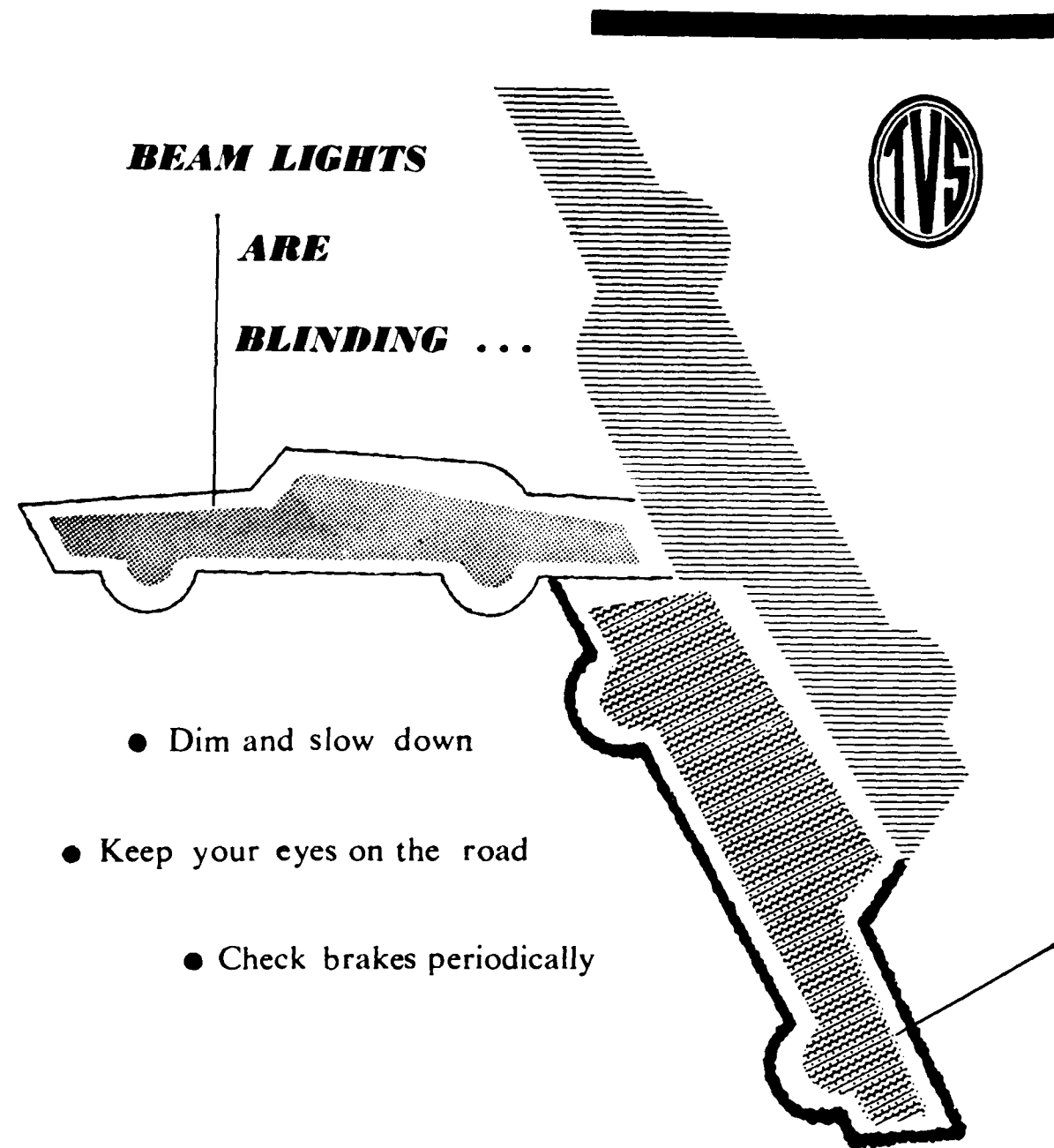
Keep an eye on the Vacuum Gauge while you accelerate. If you find that the needle drops suddenly, relax your foot pressure. Just practise this for a few days and you will automatically get used to giving a gradual pressure on the accelerator, thus saving a lot of petrol. The vacuum gauge can be permanently fitted on the dash-board of your car since this is much smaller in size

MOTORINDIA

June 1957

5

19



THE MADRAS MOTOR INSURANCE CO. LTD.

(Unit of T.V.S)

MADRAS

Courtesy on the road pays It saves you

MMI/107

PRE-MONSOON

CAR CARE

With the approach of rains cars need some precautionary measures to ensure smooth and care-free driving without harassing break-downs and protection to the vehicles.

The following hints may prove useful :—

1. Try out the 'Wind Screen Wipers before it rains.
2. Protect the Body Paint with a good Polishing Wax and the chrome parts with grease.
3. Make sure that no water gets under the Bonnet and on to the Engine.
4. Make sure that the Luggage Boot and Window Channels do not leak.
5. Check all H.T. leads, grease Battery Terminals and Wiring in general.
6. Treat the Wheel Rims from inside by Anti Rust Paint.
7. Use well treaded Tyres and keep correct Tyre pressure to avoid skids.
8. Keep Tools and Jack well oiled to prevent rust.
9. Clean and Service Carburettor, Distributor and Fuel Pump.
10. Keep the Under Chassis well greased to prevent rust.

About Your Car—(Contd.)

than the "Engine Tester" and the cost is also much lesser (about Rs. 40/-). This is a very sound investment for every motorist and within a few months you would have saved more than the cost of the instrument by way of fuel economy alone. The fuel saving may be anything upto 10 or 15 per cent !

French Parts Manufacturer Mr. Hassid in India

Mr. H. Hassid, Sales Manager, Societe Des Usines, A. Moreniere of France, was in India recently on a flying visit to various important centres of the country with a view to cementing their sales contacts in this country and to study the possibilities of expansion. A short history of his firm of Messrs A. Moreniere will not be out of place and so we give the details in brief for the benefit of our readers.

Messrs. A. Moreniere was founded in the year 1918 by Mr. Alfred Moreniere, the uncle of Mr. Henri Hassid and was started on a very small scale with about 8 to 10 men working in the Factory, producing parts for the vehicles produced in France, and has gradually grown to a full-fledged factory to its present position with about four hundred workmen in the factory and 300 people working in the offices.

Till of late they have been specialising production of parts for Renault, Peugeot, Simca etc., and the total number of parts produced in the factory is well over 30,000 items.

Mr. Hassid has taken over to the sales and distribution of parts thus produced in the factory in the year 1950 and has with a lot of patience, perseverance, wide travels, last but not the least his genial manners and co-operation won over to him friends and customers almost all the world over.

Not being content with the business the above firm has been enjoying, the firm has come out with their ambitious programme of manufacturing and supplying the fast moving parts for all Popular American, British and Continental Cars and Trucks and expanding the possibilities of a very wide Export Programme. They have started this with the production of King Pin

Units, to be followed by Front Suspension Parts, Transmission Gears, Axles and Propeller Shafts etc. for all vehicles.

Mr. Hassid has entrusted the sales of the above in India to Messrs Associated Manufacturers' Agencies, Bombay—who have their branches at Madras, Calcutta and Delhi—a firm founded in 1930 who have also been specialising in sales of *Automobile Parts, Accessories and Allied Electrical and Hardware Trades*—who have the unique credit of having introduced quite a number of well known products in the Indian market.

Mr. Hassid during his tour visited Delhi, Calcutta, Madras and Bombay where he met members of the Government Departments and prominent members of the automobile trade and industry. In all the centres visited by him Mr. Hassid was the Guest of Honour on various functions and socials arranged in his honour.



Mr. N. Kureshi of Messrs. Turner, Hoare & Co. (Private) Ltd. and Mr. K. C. Mahindra, Chairman of Messrs. Mahindra and Mahindra Ltd. left recently on a business visit to the U.K.

Madras send off to T. S. Santhanam : T.V.S. Chief on World Tour

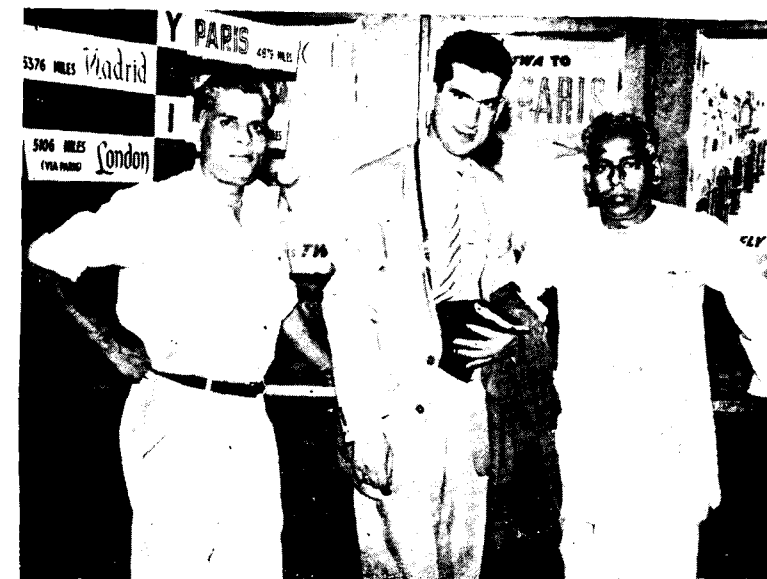


The photo on the left shows Messrs Kunnan Chetty, P. Veeraraghavalu (father of Mr. Chandriah) and Dr. U. Krishna Rao, Speaker.

The photo on the right shows Messrs Roshan Singh, V. Narayanan, R. Ramachandran and N. Krishnan.



Mr. S. Natarajan of Auto Parts Trading Co. who has recently returned from a successful business tour of Germany, Holland, Belgium, U.K., France, Switzerland and Italy.



Social & Personal

Photo below shows Messrs R. Ramachandran, V. Kunjitapadam, T. S. Rajam, K. V. P. Rao and S. M. Subramaniam.



The Photo below shows Mr. Santhanam with Mr. K. Hariharan, Mr. S. M. Subramaniam, Mr. P. Venkateswaran, Mr. K. P. Shah, Dr. Avadani and others.



Photo above shows Mr. Chandriah and Mr. S. M. Subramaniam, the hosts with Mr. R. Kannan and Mr. T. S. Santhanam, the chief guests.

The photo below shows the main table at the send off party to Mr. Santhanam.



Mr. Henry Hassid, Sales Manager of Messrs A. Moreniere of Paris visited the main cities of India during his recent business trip. Photo on the right shows Mr. N. Krishnamurthy, General Manager of Associated Manufacturers Agencies welcoming Mr. Hassid at the dinner in Calcutta, while the photo on top right shows Mr. Hassid being received at Santa-Cruz by Mr. N. Ramachandran and Mr. C. G. Balakrishnan.

The photographs below show a section of the guests who responded to a dinner arranged in honour of Mr. Hassid by Mr. V. Kunjitapadam of Bharat Motors





Mysore Automobile Parts and Allied Merchants Association

The Association was 'At Home' to the three Members of the Australian Trade Mission, which visited Bangalore recently. Messrs A. Menhinick, W. R. Greig and J. M. Ratcliffe, at the premises of the Mysore Chamber of Commerce, Bangalore.

During tea-time, each member of the Association was able to meet the three members of the Mission for individual discussion and it was quite interesting to see that the visitors were enjoying such an informal discussion amongst the invitees as well to this meeting. It was a fairly large gathering consisting of members of the Association, their guests and the members of the Press.

After the President Mr. F. D. Ahmed had given a welcome address, Mr. A. Menhinick (representing Messrs REPCO LIMITED of Australia, manufacturers of Motor Vehicle parts other than electrical parts) said in his speech, besides other things, that he felt Australia was in a position to help India in her development in the manufacture of Motor Vehicle parts. He further mentioned that the factory he was representing was producing spare parts for all types of vehicles on the Australian roads.

Mr. W. R. Greig (representing Messrs CHRYSLER AUSTRALIA LTD., manufacturers of Cars and Trucks), while endorsing the views expressed by his colleague Mr. A. Menhinick, expressed his admiration for India's Second Five Year Plan, the implementation of which was a great responsibility placed in the hands of the Indians. He wished to convey his best wishes for the success in achieving the targets of the Plan. He had sincere hopes that the relations between the two countries, Australia and India, would prove to

mutual advantage.

Answering questions, Mr. A. Menhinick gave out the information about an Australian firm negotiating with an Indian manufacturer to start a factory in India for the production of thin-ball bearings.

The meeting terminated with a vote of thanks by Mr. P. Venkatasubba Rao, Secretary of the Association, who wished the Mission all success and the hope that they would carry back with them a good impression of our country.



The photographs on this page show Mr. Menhinick and Mr. Greig, Members of the Australian Delegation with the President of Mysore Automobile Parts and Allied Merchants Association.

MOTORINDIA

June 1957



The photo shows Mr. K. A. B. Menon with the car he has assembled in Trivandrum.

A Handmade Car!

Malayalee Engineer's Enterprise

An enterprising Indian Automobile Engineer has been almost the first to assemble what is rightly described as a handmade car in India. He is Mr. K. A. B. Menon, formerly of Prompt Motors, Trivandrum and now Engineering Proprietor of Messrs. Aravind Automobiles, Trivandrum.

In February 1956, his Studebaker Champion car met with a major accident at Kottayam and the car was completely smashed to pieces including body, chassis, engines etc. With the result, he was hospitalised for over seven months. Since coming back to the works after recovery, he just utilised his and all his worker's spare times in building up a car by using only a very few parts from the old Studebaker Champion. Now the vehicle is completely built up with a Cargo

Carrier six Cylinder Engine, converting the Transmission to the ratio of 4 speed, and making the entire body, grill, chassis and suspension of his own design in Transfare Road Spring with centre tilting bar arrangements. The fenders are made of 18 gauge M.S. Plate, the grill, bumper and other ornaments are made of 16 gauge M.S. Plate and plated in chromium. The entire design and shape are of his own which actually expels all other models that has so far come out in India. The total weight of the car is only 21 cwt. and gives 28 miles per gallon. The front seat back rest is collapsible electrically to convert it as a bed for long travel.

The car was recently exhibited in the midst of a distinguished gathering on 2nd May at the premises of the Arvind Automobiles.

BODY DIMENSIONS

Overall length	15'	7"
Overall width	5'	4"
Overall height	5'	
Ground clearance		8½"
Front clearance angle		11½"
Rear clearance angle		10½"
Interior compartment length 7'		9½"
Front head room		5"
Height of front cushion from floor	1'	2"
Depth of front cushion		3"
Width of front seat	1'	6½"
Steering wheel to squab minimum	1'	5"
Steering wheel to squab maximum	1'	11"
Pedal to cushion minimum	1'	1"
	maximum	1' 4"
Interior height	3'	9½"
Interior width	4'	10½"
Height from rear cushion to floor		11½"
Depth inside arm rest	1'	6½"
Rear head room		5½"
Luggage locker width at opening	3'	5½"
Luggage locker capacity		4 cwts.
Rear screen width	6'	4"
Rear screen depth		13"
Windscreen width	4'	6"
Windscreen depth	1'	6"

The above measurements are only approximate.

WEIGHTS

Unladen with stepvey, petrol and water	23 cwts.
Wheel base	108"
Turning circle	
Front track	4' 2"
Rear track	4'

MOTORINDIA

June 1957



Four new models of the Australian Holden Motor car have been announced in Melbourne by General Motors-Holdens Ltd. They comprise two new station sedans, a new coupe "utility" (or buckboard) and a new panel van. They bring the 1957 Holden range to seven distinct vehicles. New features are increases in track and wheelbase, lower centre of gravity, lower overall height, improved steering and road comfort. Most interest has been shown in the station sedans which have spacious load-carrying facilities, and provide comfort and luxury on holiday trips.

A large curved rear window forms the upper half of the full opening two-piece rear door of the Holden station sedan.

Four new Holden car models in Australia

General Motors-Holden's Limited Australian offshoot of General Motors Corporation, has announced four new models of the Australian Holden. They comprise a new coupe "utility" (or buckboard), a new panel van, and two luxurious station sedans.

The general popularity of the Holden car in Australia can be gauged from the fact that of a total registration of new vehicles in metropolitan areas in 1956 of 75,425 Holdens totalled 49,440, next highest being Fords, with 23,964. Holden "utilities" also led the commercial field, with 17,380 out of 25,165, Ford being next with 7,983. These figures do not include the 67,706 motor cars and 49,160 commercial vehicles registered outside the metropolitan areas.

The new types increase the Holden range to seven distinct models all featuring the same front end styling but with increases in track and wheelbase, a lower centre of gravity, lower overall height, improved steering and road comfort.

The "square" design of the improved engine in each of the new models develops greater power than formerly, due mainly to increase of compression to 6.8 to 1. The result

is livelier acceleration, with finer top-gear and hill-climbing performance without loss of economy and durability.

Among the notable mechanical features of the new models are :

- *13-inch wheels carrying 6-ply 6.40-inch tubeless tyres.
- *New handbrake, with re-designed linkage for surer, more positive braking.
- *Hydraulic clutch control with pendant brake and clutch pedals.
- *New rear axle springing with deeply-cushioned, six-leaf stronger and longer springs.
- *Improved independent front wheel suspension, with stabiliser bar.
- *Ignition lock with single key operation for starting, on, off and lock position, and for door lock.
- *Improved "aerobilt", all-steel body and frame integral construction.
- *Retention of the Holden's remarkable turning circle of only 36½ feet.
- *Increase of front and rear track to 54½ inches.
- *New type non-draught ventilation windows fitted with locking handles and anti-theft buttons.

Greatest interest has been in the station sedans which provide spare load carrying facilities, and give comfort and luxury on holiday trips, and are also suitable for general purpose, and social use in town and country.

The front seat has space for three people. When the rear seat cushion is tilted, and the seat folded forward, there is a smooth floor. This gives roomy sleeping space for outdoor camping and for carrying loads.

The new utility has new exterior and interior beauty and wide more-comfortable seating. It has also new front suspension with stabiliser bar, wider, lower centre of gravity and other improvements.

The panel van has a distinctive new radiator grille, longer and flatter bonnet, hooded head lamps, and one piece curved windscreen.

Prices in Australia, inclusive of tax for the various vehicles are : Station Sedan, Standard, £1248 14 6 ; Special £1311 9 6 ; Utility £1038 18 4, and Panel Van £1061 15/-.

Opel

The latest model of the "Opel Olympia Reckord" which has recently arrived in Madras is now running on the roads of Madras, has during the few days it has been in operation in Madras, being a new model, has excited much curiosity and plenty of welcome comments.

Germany produces many cars including the Opel.

Total production of the "Volkswagen" (People's car) Factory, located at Wolfsburg/Germany was 395 211 units including 62 294 small buses and delivery vans in 1956.

A new factory producing buses and delivery vans has gone into operation last spring.

A further increase of "Open" output has been registered and the Adam Opel A.G. Russelsheim, has produced a total of 207 010 cars in 1956.

The corresponding figures for 1954 and 1955 are 167 650 and 185 340, respectively. Total of 113 278 units, that is 54.7% of the production were exported. (1955 : 98 350 : 53.1 ; 1954 : 91 754 : 54.6%)

A breakdown of the 1955 "Opel" production shows the following figures : 120,185 Opel Olympia Reckord ; 25,308 Caravan ; 5,917 High Speed Lorries ; 42,958 Opel Kapitän ; and 12,642 1½ to lorries.

The increase of production figures is due to the new Automobile Factory K 40 which went into production in August 1956 and which has a daily output of approximately 900 units.

Exhaust smoke and atmospheric pollution

Public demand for cleaner air in cities and industrial areas has brought the exhaust from motor vehicles under sharpened scrutiny in recent years. Though the burning of any kind of fuel in any kind of appliance produces smoke and gases, road vehicles are liable to make this fact especially noticeable. For they discharge their exhaust right under our noses, whereas stationary plants do it some distance over our heads. So the automotive engines may easily come under suspicion of being the worst offenders. *Actually their contribution to atmospheric pollution is very much smaller than that due to the burning of solid fuels in domestic fires and industrial boilers and furnaces.* This cannot, of course, alter the fact that motor exhausts can be a considerable nuisance and, like other air contaminants, may to some extent even become detrimental to health. However, the sometimes expressed fears that they might be partly responsible for the rise in the incidence of lung cancer have not so far been supported by any medical evidence.

While a certain amount of air pollution by automotive engines cannot be avoided, appreciable scope for reducing it to acceptable proportions was indicated in a series of papers presented to the Institution of Mechanical Engineers in London at a recent Conference on the Mechanical Engineer's Contribution to Clean Air. The main pollutants in the exhausts of road vehicles are carbon monoxide, hydrocarbons, alcohols and organic acids, aldehydes, oxides of nitrogen and of sulphur, and soot. They arise from the combustion of the fuel with air and from the formation of complex chemical compounds resulting from additives in fuels and lubricants. In

both diesel and gasoline engines, their concentration varies widely with different engine and operating conditions.

In a gasoline engine the carbon monoxide content of the exhaust is greatest (nearly 10 per cent) at idling, and least (under 3 per cent) during acceleration and cruising, whereas the formation of nitrogen oxides rises with power output. In the diesel exhaust, the concentration of carbon monoxide is negligible in a well-maintained and efficiently operated engine, but with faulty fuel-injection or at high overloads it may rise to that of a gasoline engine. Normally, the emission of other air pollutants is also less with a diesel than with a gasoline engine, except for the former's higher concentration of nitrogen oxides at idling. Various attempts have been made in the past at lessening the discharge of air contaminants from gasoline engines by removing part of the combustible constituents of their exhaust gases with the aid of after-burners. One of these designs embodies a catalyst for oxidizing carbon monoxide to carbon dioxide, and hydrogen to water vapour; but the practical merits of this and other after-burning devices have yet to be established.

Though the diesel's combustion is appreciably better than that in a gasoline engine, it is none the less the exhaust of diesel buses and lorries that arouses most complaints from the general public, because it is sometimes emitted in the form of sooty smoke. Apart from being distinctly visible, it may also cause irritation to eyes, noses and throats.

The emission of smoke is mainly due to overloading of the engine or to failure to keep it in a first-class state of repair and to operate it efficiently. This applies foremost to the pump and

oil-injection system and to the proper use of the starting controls.

Even with a well-maintained and skilfully operated diesel vehicle, the emission of smoke cannot as yet be entirely avoided. In so complex a mechanism as the fuel-injection pump, which is designed to introduce accurately metered, very small quantities of fuel into the cylinders during each engine cycle, slight changes in the setting of the system are bound to occur after a time. These may suffice to result in overinjection and smoky exhaust but they can be kept in small proportions by the adoption of standard settings and by regular re-checking of the pumps. Furthermore, since smoke emission tends to rise with the increase of the fuel-to-air ratio near the rated power output of the diesel engine, bus companies have commonly adopted the practice of limiting the output of diesel engines to 85 or 90 per cent of their rated capacity.

The smoke problem could conceivably be further eased by raising the volatility of diesel fuels, or by blending them with a certain percentage of gasoline. It seems, however, that any advantages in that respect would be offset by a deterioration in the reliability of the injection equipment, and that far wider scope for diesel smoke reduction would lie in the avoidance of excessive injector temperatures by improved designs of nozzles and cylinder heads. Apparently, all the experts at the London conference were agreed that the exhausts of automotive engines in general, and of diesels in particular, want careful watching, but that they should give the public little grounds for complaint as long as the engines are properly operated and maintained.

(Copyright)

Redex Car Club arranges Auto Technic Exhibition

BOMBAY

To foster a spirit of enthusiasm to know more about the work of different parts of the motor car, as well as to study the various devices that go to make engine performance and minimise wear thus effecting efficient, but economical maintenance, the Redex Car Club arranged recently the first Auto Technic and Accessory Exhibition at Sir Cawasji Jahangir Hall, Bombay. The Exhibition was inaugurated by the Mayor of Bombay, Sri Salebhoy A. Kadar.

The Redex Car Club which was started in Bombay about two years ago has quite a sizable membership just now and the Club tests and tunes the car engine on all its members, with precision instruments free initially. Free assistance and discussion of various aspects is also made available to members by the Organisation and its Secretary. The Exhibition was the result of a deep interest in the subject of motor cars by members and their questions about car gadgets etc.

The President of the Redex Car Club in a short speech said that with the development, both industrially and culturally, that was now taking place in India, various types of exhibitions were being held all over the country. "Seeing is believing," and so the Redex Car Club have organised this Exhibition to bring to motorists the advancements and improving care and technique of the uses of various equipments. He was proud to say that it was the first Exhibition of its kind here.

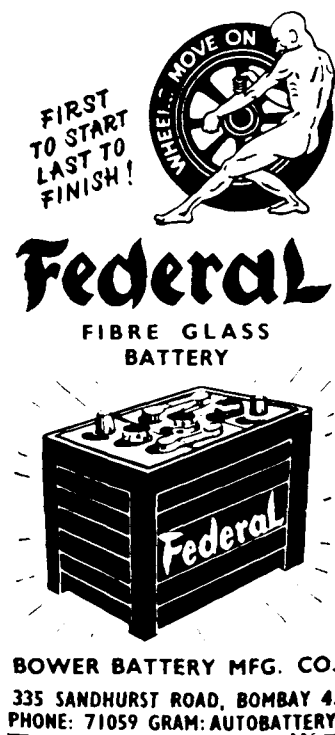
He added: "I would like to take this opportunity of explaining to this distinguished gathering the main objects of the Redex Car Club. The Redex Car Club stands for better and safe motoring in all aspects so as to achieve and promote the highest technique in driving and economical maintenance of cars.

These objectives it endeavours to achieve by (a) interchange of ideas and discussion of problems amongst members, (b) by showing films of motoring interest such as engine operation and maintenance, (c) by holding symposia to discuss ways and means of increasing the performance of their cars, (d) by providing a library where books and magazines of automobile interest are kept for reference by members, (e) by providing engine tune-up and tests and inducing various garages for auto repairs to install the latest equipment for efficient engine tuning methods and rendering these services to their patrons at nominal charges, (f) and lastly by means of exhibitions such as the one you will today witness. In these days when every rupee must be saved to help the country's economic plans, it is very important that the motor vehicle driver and particularly an owner-driver should be able to attend personally to the common faults which develop in a car and also take care of ordinary adjustments such as in the carburettor and the distributor, and in general maintain the various parts of car in good working condition. Today, a car is no longer a luxury, but a real necessity in life, and we cannot simply afford to send our cars for repairs to the garage every now and again.

In this exhibition, we have arranged to show different types of auto accessories and testing equipment which we hope will be installed by the repair garages not only in Bombay but all over India. You will see here (a) cut-out models of various functional parts of the car, (b) all types of automobile accessories, (c) modern devices aiming to give better performance and economical maintenance of car such as the Redex car care Robo-Lubrocharger—exhaust gas extractor—Moto-

vacuum device—Exhaust gas analyzer—H₂O bomb which is well-known in Europe for injecting water in cars. This will give a first-hand information regarding the manufacture of cars and their components and these could be studied by parties interested and then manufactured in India. We will be only too glad to explain their working and put the prospective customers in touch with manufacturers and render all other assistance in this matter.

In this country, we are not still by far and large as mechanically minded as people are in some other countries such as the United Kingdom and U.S.A. That is why in this exhibition, we have placed many things connected with automobile repair and maintenance under one roof and we thus hope that the interest of the individual will be cultivated and his curiosity stimulated and new vistas of hobbies and trade will be opened up to him.



THE ACCENT IS ON QUALITY

British Motor Car Industry Looks ahead

(by Bertram Mycock)

The motor industry in Britain is battling through a very difficult period. Even before the Middle East oil crisis the industry was facing the quickening tempo of foreign competition, the trade barriers erected against its products by many overseas countries, the restrictions of hire-purchase at home, and the persistence of what the industry has always said was too high a rate of purchase tax.

Most of these adversities have toughened in recent months. Add to them now the repercussions of the Middle East oil crisis—petrol rationing virtually all over Europe, and, in Britain at any rate, a sharp rise in the cost of petrol—and you get a formidable picture of an industry, highly organised, strongly financed, forward-looking, facing a future that seems pretty forbidding. The home market for cars is hit (who wants a new car if he cannot get, or cannot afford, the petrol to run it?) and the tough markets of the nearby Continent are shrinking for the same reason.

One wondered whether the British Motor Corporation had thought of stopping short with its expansion programme and lopping off the last few million pounds that remain unspent. Indeed, I asked the question at the headquarters of the Corporation, and I got two replies. The chairman, Sir Leonard Lord, said briefly: "We do not share the fashionable defeatism about the motor industry." And the deputy chairman, Mr. George Harriman, said that never at any time in the past had capital expansion proved to be wrong in the motor industry. It had always paid, and he was sure it would pay this time in a world still hungry for motor vehicles.

So the plan goes on: £15,000,000 goes on machinery and equipment, £2,500,000 on buildings largely concerned with a world-wide "service after sales," and £7,000,000 for Australia. The Australian factory is nearly ready, with brand-new machinery and automated processes making it the biggest and the most up-to-date car factory in Australia. Within a few months it will be

turning out more than 1,000 vehicles a week.

Shift of emphasis

The emphasis in the British motor industry has shifted. What was needed just after the war was quantity, both to satisfy the pent-up demand for new vehicles and the need to find export markets to earn the foreign currency which was vital to Britain. But now the, emphasis shifts from quantity to quality.

The B.M.C., by a recent scheme of amalgamation, has cut down the variety of its products and is basing its output broadly on only four different power units. The great effort now is to ensure that the quality of these products is as high as it can be made. New production techniques have been brought in. Much use is being made of transfer lines, which some people say are automation, and others argue are no more than an extension of mechanisation. Perhaps, above all, a great effort is being made to control quality by constant and detailed inspection.

The Austin works at Longbridge, Birmingham—part of the B.M.C. set up—has gone a long way with the transfer-machine technique. I saw one of these transfer lines performing 160 operations on engine blocks, with only two men to operate it. The engine block is automatically passed from one machining operation to the next, and many of the 32 "stations" along the line are clever devices for checking that everything has been done properly and accurately up to that point.

In some of the newer buildings there are empty spaces on the floor almost as large as a football pitch. Into those empty spaces there is being put, week by week, the most modern machinery for making car parts. More than £1,250,000 is being spent at Castle Bromwich on new presses which will increase the output of car bodies to 2,500 a week.

Control by punched cards

The Longbridge works has an assembly system for engines and bodies which is controlled and

operated by the punched cards which are now commonly used in costing offices and in making up the wage-packets of many large concerns. Through this punched-card system the components are sent in a predetermined sequence through a tunnel 1,000 ft. long into the assembly building, and it is one of the weirdest sights of all to see these components going silently to and fro on lines of conveyers waiting for the moment when they are to be whisked by an invisible hand to the place where they will be needed on the assembly line.

The assembly building has been very nearly doubled in size and most of the extension is devoted to inspection. For the first time this inspection is being done on a moving line. Every half-minute a car is driven off the assembly line across 30 or 40 ft. of open floor on to the inspection line. A machine that the men call the "rock 'n' roll" enables the car to be driven through its four forward gears and reverse while it remains stationary on the shop floor. Then it moves off down the inspection line where everything in the body is checked. Men and women make sure that the doors fit, that the lights work, that the windows are clean, that there are no body scratches—everything down to the last detail is scrutinised. Only when everyone is satisfied is the car driven away.

Meanwhile, the "back-room boys" are hard at work getting quality right for the present, and ideas in order for the future. In a big research set-up (on gas turbines alone about a hundred men are at work) almost every aspect of car production comes under the closest scientific scrutiny. The B.M.C. has for instance, the only full-size wind-tunnel owned by a car company anywhere in the world, and in the hurricane wind induced by the suction of a very large three-bladed propeller interesting work is being done on the body design of British sports cars.

"Service after sales" is something in which more than 2,000 people are involved in acres of workshops and offices at Cowley, just outside the University city of Oxford. Every week 1,200 tons of these spares go out to depots in Britain and to distributors all over the world.

Ignition Warning Lamp in Cars

(By S. Subbarayan)

Almost all modern cars are equipped with an "ammeter" which is mounted on the instrument panel. It shows at a glance whether the battery is being charged or not. But in most of the English cars, this is replaced by a "tell-tak" red light. This is found to be reliable than the ordinary "ammeters" since it not only warns the driver by its "glowing" to switch off the ignition before leaving the vehicle but also to indicate a faulty charging circuit. Also there is a possibility of the generators in some cars being set for overcharging because of the trickle charge reading shown by the ammeter with a fully charged battery. This often happens when the generators are used in conjunction with C.V.C. (Compensated Voltage control) unit—ignition warning lamp is of much use here.

This lamp is connected in the car's wiring. It is between the coilside of the ignition switch and the dynamo side of the "cut-out" (reverse current relay) when the ignition is switched on, the lamp is in series with the dynamo armature and with the stationary engine it glows with brilliance.

When the engine is started, the dynamo comes into action and it builds up its voltage. This voltage is in opposition to that of the battery and the voltage, (6V or 12V) across the lamp. This is the difference between the battery and dynamo voltages and it diminishes to "nil" when the dynamo voltage equals that of the battery. The cut-out points also close, thus shorting out the lamp completely. Then the lamp fades out showing that the battery is being charged.

This lamp is of considerable use to detect any defect in the charging circuit. (1) Supposing the lamp continuously glows even with the engine running, it shows that the generator is at fault. (2) When it "dimly" glows when the engine is running, it indicates a bad contact in the "cut-out" circuit across which the lamp is connected, causing

current to be diverted through the lamp. Now the remedy is to check the "cut-out" contacts, series coil connections, terminals and wiring.

If there is any other defect in the charging circuit, it will be indicated by :

- (1) Failure to light with engine "Not" running.
- (2) Flashing of light before blacking out.
- (3) Dim light with engine stationary on running.

These defects can easily be rectified.

When the bulb in the warning lamp "blows-out," a correct type should be used. Some cars have a bulb of the same voltage as that of the battery, while some have a lower voltage rating. When the voltage rating is low, this is compensated for by a resistance wire in the bulb-holder to reduce the current to the correct value.

Traffic safety apparatus

One of the most interesting inventions demonstrated at a recent Automobile Exposition of Amsterdam was the X-Ray apparatus (Fluoroscope). Until now it was only possible to make use of X-Rays for tyre-inspection to a limited extent.

After 9 years of experimenting, Dr. Liese in 1945 succeeded in developing a prototype of an X-Ray apparatus that made it possible to detect inside casing failures. Because of this, Dr. Liese was given a distinction on the occasion of the "Düsseldorf Rationalisierungsausstellung."

The principle was found ! Now a construction had to be realized which would also enable the workers in the tyre business to safely operate this apparatus.

In close co-operation with Messrs. Reif and Von Galera, Dr. Liese continued developing the apparatus. One of the difficulties was to find the right X-Ray tube. In the first place this tube must be stronger and

more robust of construction than a normal tube. Furthermore, the fact had to be taken into account that the several materials of which the tyre is made, could be examined at one and the same time. Last but not least the apparatus must be built in such a way as to exclude any harmful effect of the X-Rays on health. This problem was solved in a very simple way. The "TyreXplora"—as is the name of the apparatus—cannot be put into operation unless the drum is closed in such a way that no rays can escape. Any effort to use the apparatus when not absolutely closed is bound to fail.

At the turn of 1955 all difficulties were overcome. The moment had arrived to have the apparatus tested. Experiments were carried out which lasted for months, growing pains were conquered, some small improvements were made and in February 1957 the new X-Ray apparatus was shown to the motor world that received it enthusiastically. There were reasons for this enthusiasm, for the results of the "TyreXplora" unmistakably proved that once again a positive contribution had been made to obtain more traffic safety.

Moreover, the "TyreXplora" is very practical in use. The apparatus can be connected to the normal electric mains. The testing of a tyre takes little time : about 5 minutes a normal tyre can be thoroughly examined. A large tyre takes a little more time : about 10 minutes. It is very important that the place of the damage can be located with millimetre accuracy.

A great number of tyres has been tested. These tyres were selected from the following groups : 1. New tyres ; 2. Tyres in different phases of production ; 3. Worn tyres ; (a) of different makes (b) of different sizes (c) of different types (d) of different users who, because of their using, show more failures than other users, and 4. Repaired and retreaded tyres.

From this experience in testing thousands of tyres it has been proved that this apparatus is of vital importance to new-tyre manufacturers, tyre dealers, retreaders and fleet-operators, since it adds to greater safety.

1957 International Automobile Show at Frankfurt

(By Herbert Bahr)

Automobile shows are designed to give a survey of the achievements and progress in the motor car industry. They are supposed to win new customers and make new friends for motor cars among an ever-increasing segment of the population.

The degree of motorisation in a country, however, is closely interdependent with the general level of its economy and its living standard. Even though the wish to own a motor car is as great among Germans as in any other country, there are still fewer cars in relation to the total of the population here than in other comparable European countries. The figure at present is one car for every 23 persons, compared with one for every ten in France and one for eleven persons in Great Britain.

Only relatively few of the 758,000 persons who visited the 1955 automobile show in Frankfurt actually bought a motor car. But all of them showed great interest in the products of the German and the foreign motor car industries, proof enough that the desire to own a car one day is there, and that it is to be found among all walks of the population.

International automobile exhibitions are held in West Germany only once in two years in accordance with a decision of the board of the Association of the Automobile Industry (VDA). This decision was made so that the value of the international automobile exhibitions as the industry's best means of advertisement should not be lowered and to keep down the expense arising to the industry. The association, which has its headquarters in Frankfurt, is the sponsor of all automobile exhibitions

in West Germany, which are regularly held at Frankfurt.

Preparatory work for this year's exhibition, the 38th international automobile show in Germany, to be held from September 19 to 29, has already started. It will again be under the patronage of the West German Federal President, Professor Theodor Heuss.

All the permanent halls at the Frankfurt Fair Grounds, many of the foreign pavilions and nearly all the open-air exhibition space will be occupied by the exhibition, which will comprise passenger cars, delivery vans, lorries, buses, trailers, spare parts and accessories.

At the last show in 1955 a total of 696 firms exhibited their products, including foreign firms from 11 countries (Australia, Belgium, Denmark, France, Great Britain, Italy, the Netherlands, Sweden, Switzerland, Czechoslovakia and the United States). Among the 758,000 visitors to the 1955 show were foreign visitors and buyers from more than 60 countries.

It is impossible to say at this time what the companies will show this year, because they keep everything secret until the last minute and even keep their motor cars under wraps until the very moment the show opens. The fact that the exhibition will offer to experts as well as laymen a complete picture of German

and foreign production explains the keen interest with which the exhibition is awaited by the automobile world.

Machine Tool Exhibition at Hanover

The European Coordinating Committee for Machine Tools is organizing the 5th European Machine Tool Exhibition which is scheduled to be held in Hanover, West Germany from September 15th to 24th, 1957 on the Hanover Fair Grounds which may justly be styled as the showcase of progressive industrialism.

Almost 1,000 exhibitors will display: Machine tools for metal working; portable machines, either electric or pneumatic; tools, accessories and attachments for machine tools, including electrical, hydraulic and pneumatic devices; tools and instruments for measuring and controlling; machines for testing metals; welding equipment; metal or plastic die-casting machines; equipment for heat treatment or surface treatment connected with the machining of metals (but excluding equipment for applying protective coating, etc); and auxiliary equipment for steel works and rolling mills (such as scrap baling presses, scrap shears, etc) with a total tonnage of 1,700 tons.

The Exhibition in Hanover will be the largest and most important function of this nature attracting thousands of customers from all over the world.

"for all types of"

- Oil Seals, Piston Rings & Bearings
- Spare Parts of Diesel Engines & Tractors
- Enquiries of Indenting Mercedes Truck Parts

Please Contact :
SHANTILAL C. MEHTA
71-73, Apollo St.,
BOMBAY-1
Tel: NISHESH
Phone: 254564

MOTORINDIA

TRANSPORT SERVICES IN RAJASTHAN

JAIPUR. The development of transport facilities being a major need of Rajasthan for promoting its trade and industry, the State, concentrated last year on both extension and improvement of the transport services.

THE TOTAL NUMBER OF VEHICLES OF VARIOUS CATEGORIES IN THE STATE HAS GONE UP TO 18,699 AGAINST A TOTAL ROAD MILEAGE OF 13,230, OF WHICH 5,168 IS METALLED AND 8,062 UNMETALLED. TO MEET THE INCREASED DEMAND OF TRANSPORTATION. A NETWORK OF TRANSPORT SERVICES HAS BEEN SPREAD THROUGHOUT THE STATE AND REGULAR BUSES ARE PLAYING OVER 750 ROUTES, COVERING A LENGTH OF ABOUT 22,475 MILES.

A number of inter-state routes have been opened following the revision of reciprocal transport arrangements with neighbouring States, namely the Punjab, Pepsu and Delhi, the last two now being parts of the first in the reorganised set up of India.

Rajasthan has two State transport undertakings, one at Tonk and another at Sirohi. The staff engaged in them was formerly getting fixed salary and there was no pay-scales for them. With the introduction of uniform pay-scales and the integration of services, this staff has since come at par with other Government officials. The merger of Abu Taluka in Rajasthan as a result of States Reorganisation has given the State a route mileage of 101 miles, which

was formerly operated by Bombay State Road Transport Corporation.

Strenuous efforts such as internal checking of cash and stores accounts, regular inspections and the provision of uniform and badges for the inspectorial staff of the Transport Department have considerably improved the motor transport services and increased the income of the Government from taxes which has gone up to about Rs. 4.75 lakhs.

The State Board of Transport has sent certain recommendations to the Union Ministry or Railways for the construction of various railway lines in Rajasthan during the Second Five Year Plan. As a result of repre-

sentation of the cause of Rajasthan, various amenities have been provided for the passengers on 216 railway stations in the State. Two new railway lines — Raniwara-Bhiladi and Fatehpur-Churu—are at present under construction and the survey of Kota-Chittorgarh, Udaipur-Himmatnagar and Loharu-Pilani rail links is in hand. Work on the re-modelling of the Jaipur railway station has also started.

The Rajasthan Flying Club started in March, 1953, has been doing useful work by training the students. There were 35 active flying members. Ten pupils appeared in the technical examination for 'A' licence of whom 5 were declared successful.



Mr. T. V. Krishnamoorthy of M/s. The Modern Automobiles with his bride Mangalam. The marriage was celebrated in the City recently and was largely attended.

MOTORINDIA

June 1957

MOTORINDIA NEWS SECTION

(BY OUR SPECIAL CORRESPONDENTS)

Indian Shipping

With the attainment of independence, the building up of an adequate and efficient MERCHANT NAVY became an accepted objective of State policy.

The Government of India, in pursuance of this policy, have taken SEVERAL STEPS TO ASSIST DEVELOPMENT of national shipping, such as the reservation of the coastal trade to national shipping; the setting up of shipping corporations in the public sector for operation in overseas trades; the development of a national ship-building yard at Visakhapatnam and the grant of loans to shipping companies for the acquisition of ships.

Indian shipping, as a result of these measures, has made STEADY PROGRESS during recent years. Total Indian shipping tonnage, which was only about 125,000 GRT in the pre-war period, now stands at about 520,000 GRT.

While Indian tonnage had only a one-third share in the coastal trade in the pre-war years, it is now carrying the ENTIRE coastal trade.

While Indian ships had not plied anywhere beyond the coast of India, Burma and Ceylon before the war, they are now used in trade between India and the European continent, including Britain; between India and Australia, Malaya, East Asia and Japan and between India and the Persian Gulf and East Africa.

The ultimate target is a tonnage of TWO MILLION GROSS TONS which will enable Indian shipping to carry the entire coastal trade and 50 per cent of our overseas trade.

TWA

Trans World Airlines' world famed Super-G Constellations—the most luxurious airplanes ever—now link India with Ceylon and the U.S., and other major international capitals of the world, effective June 4th, according to Jules C. Gindraux, TWA's District Sales Chief in India.

Early in 1955, the Lockheed Aircraft Corporation began delivery of these giant "airborne hotels," catering to the ultimates that a passenger requires in air transportation. Advantages of speed, comfort and luxury service have never been enjoyed to this extent.

Air travellers entering the cabin of the new plane will pass through a sumptuous lounge to reach the first of two forward compartments. Deep-pile carpets, rich colours accented with gold, indirect lighting, natural wood panelling, and wide, comfortable seats suggest the atmosphere of complete luxury.

Designed by the world-famed Henry Dreyfuss, who explains that compartmentation adds interest to the plane interior and allows passengers to move from room to room,

giving him a feeling of freedom and lack of confinement.

The 50-inch double seats, the widest in any airliner; the adjustable reading lamps; sound-proofing materials throughout the passenger compartments; slit-type night lights marking the aisles but not seen by seated passengers; a highly perfected system of cabin pressurization; improved cabin heating; a well-modulated Hi Fi public address system featuring TWA's version of "stereophonic sound"—providing for speakers scattered throughout the cabin, and easily heard by every passenger; a constantly circulating water system; full-length berths, larger than Pullman size; and the finest, most complete galley on any airplane, are a few added plus features on the Super-G.

The Super-G "New look" on airplanes is easily recognizable by its elongated black nose—the radar equipment, that guarantees you calm weather flying, at all altitudes, at all times and enhances the beauty of the plane. The two wide gleaming wing-tipped tanks are another familiar sign and one more distinctive feature of the new Super-G with the "New Look."

NOW SOLD EVERYWHERE



CHIEF PERMATEX
GASKET SHELLAC COMPOUND
MADE IN INDIA

INDIAN HEAD
GASKET SHELLAC COMPOUND
Under the Exclusive Licence & Formula Granted by
PERMATEX CO. INC.
BROOKLYN N.Y. U.S.A.
Manufactured by
CHIMANLAL DESAI & CO.
Cool Mansion, Homji St.
Sir P. M. Road, Fort, Bombay-1
Branches in India
DELHI CALCUTTA MADRAS



MOTORINDIA

33

Telco output to Double

New Delhi: Dr. Fritz Koenecke, Chairman of Daimler-Benz (West Germany) on a two-day visit had discussions with Central Ministers and officials on the project of expanding the production of the Telco automobile works at Jamshedpur.

Dr. Koenecke was accompanied on his arrival by Mr. A. Wychodil, another Director of Daimler-Benz, and Mr. S. Moolgaonker and a number of ministers.

The Telco factory at Jamshedpur, Mr. Koenecke said, was one of the most modern in the world. Its present production capacity of 6,000 trucks a year was expected to be doubled in the course of the next two years.

Asked whether the factory would produce passenger cars also, Mr. Koenecke said it was entirely up to the Government to take a decision in the matter. For their part, they would be ready any time to take on such work.

50,000 LIVE IN MOBILE HOMES!

Fifty thousand Canadians live in mobile homes, and Canada's 20 trailer manufacturers this year turned out about 5,000 units, with an additional 1,000 being imported from the United States. Production of mobile homes has more than doubled in Canada every year since 1950, when only 20 Canadian-made trailers were sold. The industry expects to sell 10,000 trailers in Canada in 1957, and it is predicted that within the next 10 years the mobile homes business will be a \$100,000,000 a year industry.

Bombay Engineer Studies British Diesels

Now in Britain making a special study of Diesel engines at the Diesel Instruction School of F. Perkins Ltd., at Peterborough, Northamptonshire, is Mr. R. S. Hingorani, technical officer in the mechanical engineering department of the Bombay State Road Transport Corporation. He will stay in the United Kingdom six months.

The Peterborough school trains thousands of oversea students every year in the intricacies of Diesel propulsion. About 2,500 of the 4,000 buses and trucks operated by the Bombay State Road Transport Corporation are Perkins-powered.

When he leaves the school, Mr. Hingorani will spend some time with the Birmingham City Transport Authority studying maintenance and workshop organization.

Engineering and Electrical Products

A. A. to manufacture in Kerala

It is announced that Forbes Campbell & Co. Private Ltd. have acquired the controlling interest in and have been appointed Secretaries and Treasurers of Auto Accessories (India) Private Ltd. of Kurla.

Auto Accessories (India) Private Ltd. are already manufacturing the famous K.L.G. Spark plugs and planning is in an advanced stage for the manufacture of other engineering and electrical products.

The Directors of Auto Accessories (India) Private Ltd., are Mr. F. H. Kemple (Chairman), Princee Udaya-

sinhrao S. Gaekwar of Baroda (Vice-Chairman), The Hon. R. D. Campbell, Princee Khanderao S. Gaekwar of Baroda and Mr. C. F. Barnard.

Big overseas orders for new British Car

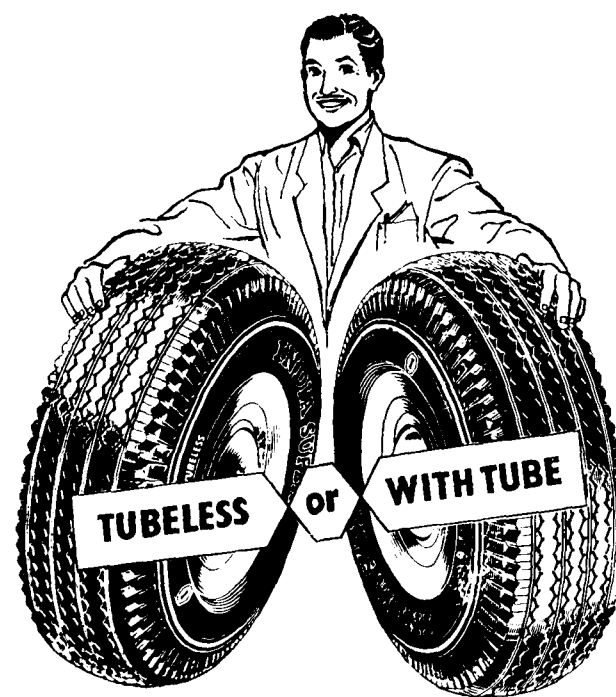
London:—Over £8,500,000 worth of export orders have been received for the new Austin "A 55" family saloon car now in production at Longbridge, near Birmingham.

At its introduction to the public, a spokesman of the British Motor Corporation said that trade reaction to the car had exceeded all expectations, and total orders for the home and overseas markets already exceeded £14,000,000. Large export shipments had already been made. Production lines were working full time on output.

Another new British car announced to the public is the Jaguar 3.4-litre model, being produced primarily for the American market.

Ford Retirement Fund

Washington.—The United Auto Workers (UAW) says its Ford Motor Company Retirement Fund showed a net increase of more than \$20 million last year. The Union said during 1956, 12,185 retired Ford employees received benefits totalling \$9 million. The seven-year-old fund totalled about 191 million at the end of 1956, an increase of \$20 million for the year. Since the fund was established, the Union said about \$29 million has been paid to more than 15,000 retired Ford workers.



you're safer with

INDIA

SUPER

quality

INDIA SUPER make tyres with and without tubes—same price, same INDIA SUPER quality in tread and sidewall, the vital factor in long mileage with maximum safety and comfort.

INDIA TYRE & RUBBER CO. (INDIA)
PRIVATE LTD.

KEEP THE
VEHICLES
MOVING

*

WE SUPPLY
ALL THE
SPARES

For all your
requirements
contact

THE

MODERN

AUTOMOBILES

4/17-A, MOUNT ROAD
MADRAS-2

Phone: 86765

Grams: MOBILE

Post Box: 322

BIGGEST
IMPORTERS
OF PARTS AND
ACCESSORIES

FOR ALL
POPULAR CARS
AND TRUCKS

Japan exports more Tyres, Tubes

Exports of automobile tyres and tubes made in Japan registered a tremendous increase this year as sales were doubled that of last year.

In the January-to-July period this year, exports totalled \$8,796,000 as compared with the \$4,289,000 worth of tyre and tube products exported in the corresponding months last year.

The remarkable thing about this increase is that it was achieved despite the fluctuating raw material prices, shortage of reinforced rayon, and other discouraging factors.

The chief export markets are countries in Southeast Asia, Central and South America and the Middle and Near East.

Rubber Industry Active

The rubber industry in general has been extremely active since the beginning of the year, with production of all types of rubber goods showing unusual gains. This trend is conspicuous among such rubber products as automobile tyres and tubes, rubber belts, rubber hoses and industrial rubber items.

Last year's output of rubber products totalled approximately 90,000 tons (quantity of raw rubber), but it is estimated that this year it will exceed 110,000 tons.

The price of raw rubber since the beginning of the year has been generally stable, one pound costing from Straits 90 cents to one dollar. Since raw rubber, however, is a strategic material, its price fluctuates depending on the slightest change in the international situation.

Exports of rubber products as a whole this year are very good compared with last year. They registered an approximate 170 per cent

gain from \$10,849,000 (January-July, 1955) to \$8,560,000 (January-July, 1956). Since exports are remaining at a high level, it is expected that they will amount to about \$40 million for the entire year.

The export boom is most clearly reflected in the automobile tyre and tube industry, which is the largest producer of rubber goods.

Production Capacity

The productive capacity of the combined six largest Japanese tyre industry is approximately 3,500 tons of raw rubber a month. Calculated in terms of standard truck tyres and tubes, it amounts to about 175,000 units.

Atom Battery!

The development of a tiny atomic-powered battery that will yield low-powered electricity for as long as five years was announced by the Elgin National Watch Company and the Walter Kidde Nuclear Laboratories in New York.

The cell is the result of five years of development work, the companies said, and should prove useful in miniature radios, hearing aids and watches.

The power output of the battery, as now produced, is about 20 micro-amperes or 20 one-millionths of an ampere, they said. This power comes from a small amount of radioactive promethium 147 which shoots energy particles into a phosphorous crystal, thereby producing a light which is converted into electricity by a photo-cell, they explained.

New Motor Cycle Battery

A new Motor Cycle Battery has recently been introduced to the Indian Market by Chloride and Exide Batteries (Eastern) Private Ltd. Silver Exide type 3ERA7. This new unit incorporates corrosion resistant CB95 alloy pasted with improved active materials, and hard rubber containers which are tough, leak-proof and shock resistant.

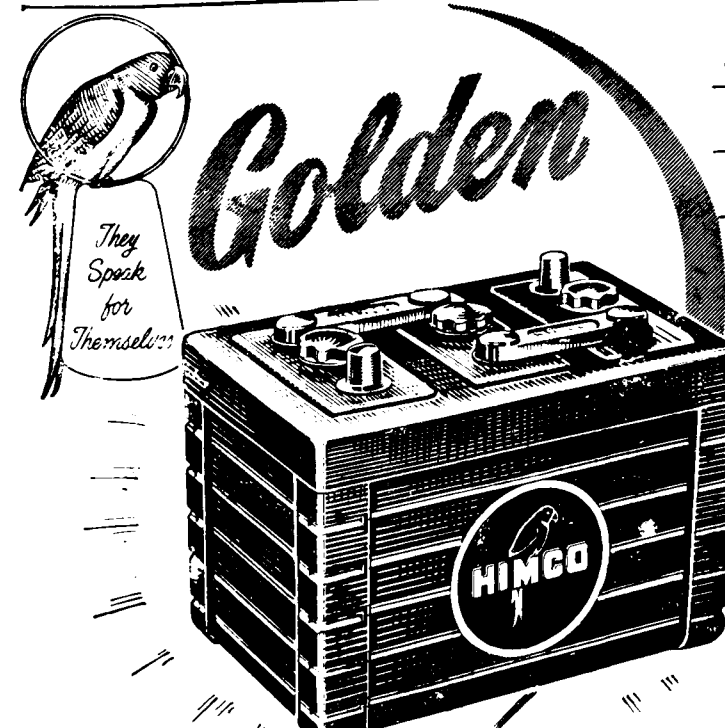
Other new features include larger anti-splash vent plugs to facilitate easy topping up and specially designed elements for elimination of short circuits. Also to obviate short circuits, insulated terminal nuts are provided and these are coloured and boldly fluted for finger tightening.

This new Motor Cycle battery is already being fitted as initial equipment by Enfield India Ltd. who, since their inception, have used Exide exclusively on the Royal Enfield Motor Cycle.

And now a "Dry Charged" Battery!

Sydney:—A new "dry-charged" battery, made by Dunlop Rubber Australia Limited, is now made available to Australian motorists. It is sold sealed and inert, and in under five minutes can be fully charged, ready for use.

The battery has no acid in it until it is sold to the motorist. The acid required is contained in sealed unbreakable polythene bottles, which have a special pouring spout. The vent plug seal is broken, and the acid poured in to activate the battery. Within minutes it is fully charged and ready for the motor vehicle.



**Now HIMCO OFFERS YOU A
GOLDEN BATTERY—ALREADY
ACCLAIMED A BETTER BATTERY
THAN OTHERS..**

All GOLDEN HIMCO Batteries are fitted with Texon Separators which have

- Increased Mechanical Strength
- High Porosity & Consequent low Electrical Resistance
- Excellent Capillary Action

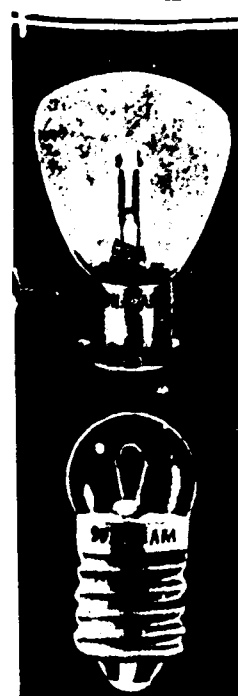
Exclusive Features of GOLDEN HIMCO Battery

- 1 FIRST TIME in India fitted with special acid resistant synthetic separators
- 2 Gives you still Greater Service
- 3 Internal short-circuit completely eliminated
- 4 Over charging, the enemy No. 1 of all Battery failures, is cut off to minimum

Yet you pay **NOTHING EXTRA** for the increased performance and service life.

A Network of Service Everywhere * HIMCO (INDIA) PRIVATE LTD. ANDHERI | BOMBAY 4 | DELHI 6 | MADRAS 2

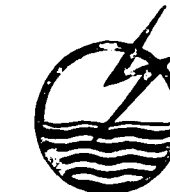
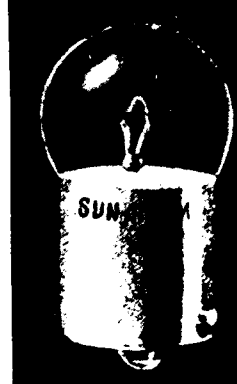
BUILT IN INDIA WITH AMERICAN PRECISION ON AUTOMATIC MACHINES.



For BEST Performance **INSIST on**

'SUN-BEAM'

AUTO LAMP

**GLASS & MINIATURE BULB INDUSTRIES
KANPUR**

Distributors:

JAFER ABID ALI, 66, Commercial Chambers, Masjid Bunder Road, Bombay 3. (For Bombay Presidency).
V. C. RAMALINGAM & SONS, 2/422, Mint Street, Madras 1. (For Madras, Andhra, Mysore).
NATIONAL CORPORATION LTD., Mandi Road, Jullundur City. (For Punjab, Jammu & Kashmir States, PEPSU & Himachal Pradesh).
B. D. GOPAL DASS, Laxmi Building, Mall Road, Kanpur. (For Uttar Pradesh Only).
R. SHANTILAL & CO. LTD., 52A, Old China Bazar Street, Calcutta. (For Bengal, Bihar, Orissa & Assam).
HINDUSTAN AUTOMOBILES, 509, Sandhurst Road, Bombay - 4 (For Saurashtra & Cutch).
B. D. GOPAL DASS, Jindal Trust Building, B-B, Ajmere Gate Extn., New Delhi (For Delhi Only).

Research in Friction Materials

London: In these days of lighter weights, more power per c.c., improved road-holding and the corresponding need for increased stopping power, few branches of the Motor Industry have greater demands made upon their ingenuity and resource than those which make the friction materials that set in motion, drive and stop the cars to which they are fitted. As a result, a vast amount for research is constantly required to meet demands for materials capable not only of withstanding greater loads imposed by modern car design, but also of giving correspondingly long periods of service between replacement.

Believing that maximum research efficiency can be obtained by concentration of effort, British Belting and Asbestos, Ltd., manufacturers of Mintex friction linings, have built a large new block of research laboratories at their factory at Cleckheaton, Yorkshire. In this £150,000 building, with the frontage of 240 ft., and floor area of 23,600 sq. ft., are concentrated all the concern's previously existing research facilities plus a considerable quantity of new equipment which will add materially, not only to production of improved linings, but also to keeping a closer check on the quality of materials passing through and emanating from present production processes.

Started in 1954 and completed a few weeks ago, the new B.B.A. research block incorporates no fewer than six individual laboratories, each equipped to provide the most up-to-date and exhaustive research into specific aspects of friction lining manufacture. Further, in addition to the necessary administrative facilities, there is a small drawing office where special jigs and tools and, if

necessary, entire machines to deal with new processes, can be designed.

The official opening ceremony was performed by Professor J. B. Speakman, D.Sc., F.R.I.C., F.T.I. (Hon.), Professor of textile industries at Leeds University.

FIRST SOVIET GAS TURBINE LOCOMOTIVE

Moscow:—The Kuibyshev Works in Kolomna is building, the first Soviet gas turbine locomotive.

This two section, seven thousand H.P. machine will develop a speed of one hundred kilometres an hour. It will be almost forty metres long. Each section will have its own control post.

In developing this new locomotive, its designers paid visits to the largest turbine, ship-building and aircraft plants to study their latest achievements. The design, worked out with the assistance of staff members of the Bauman Higher Technical College in Moscow, was subsequently subjected to a searching discussion.

Kolomna workers are now assembling separate sections of the locomotive. A new type of injector and combustion chamber are undergoing tests.

The gas turbine locomotive will work on masout which is more than fifty per cent cheaper than the diesel fuel consumed by diesel locomotives. It needs no water and the capacity of its engine can rise 20-25 per cent under low temperatures.

Kolomna designers are now blueprinting new, more efficient gas turbine locomotives.

Luxury Bus

Built on a British-made Leyland Worldmaster chassis with a powerful 150 h.p. underfloor Diesel engine, a special 30-seater luxury coach placed in service by the Madras State Transport Department has a toilet compartment at the rear of the coach with a wash basin and the usual fittings. The basin is supplied from a 25-gallon overhead tank, a stainless-steel drinking-water container also being fitted.

The bus is well ventilated by extractor fans and side louvers, the drop windows being fitted with attractive curtains to avoid sun glare. The foam-rubber seats can be adjusted to a reclining position, and folding writing desks are provided. A sizable luggage boot is incorporated at the rear of the coach, and a detachable ladder gives access to the roof for filling the overhead tank with water.

The Bangalore Motor Sports Club Office Bearers Elected

At the Annual General Body meeting of the Bangalore Motor Sports Club held recently the following office-bearers were elected for the current year:

Fred Webb, President; V. N. Shankar and K. S. Hariharan, Vice-Presidents; S. F. Stonham, Honorary Treasurer; L. S. Doraiswamy, Honorary Secretary; John W. Webb, A. J. Sait, A. D. Jayaram, Cyril H. Doveton, J. Merwanji and Vinod K. Gupta, Managing Committee Members.

After the meeting, there was a gala dinner at the Noble Restaurant.



DON'T GAMBLE



FIT TO-DAY A DIAMOND AXLE AND HAVE CARE-FREE DRIVE

★ STURDY CONSTRUCTION
★ ACCURATE WORKMANSHIP

★ EASY INSTALLATION.



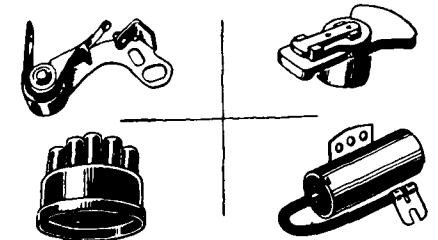
Diamond Industries



2254, FOUNTAIN ROAD, DELHI-6

When competition is at its toughest, the driver's confidence in his machine and fittings is much more effective than trusting to luck. That is why the leading operators of today refuse to take chance and insist on DIAMOND AXLES

Insist on...



AUTO-LITE

ORIGINAL EQUIPMENT REPLACEMENT PARTS

HERE'S WHY:

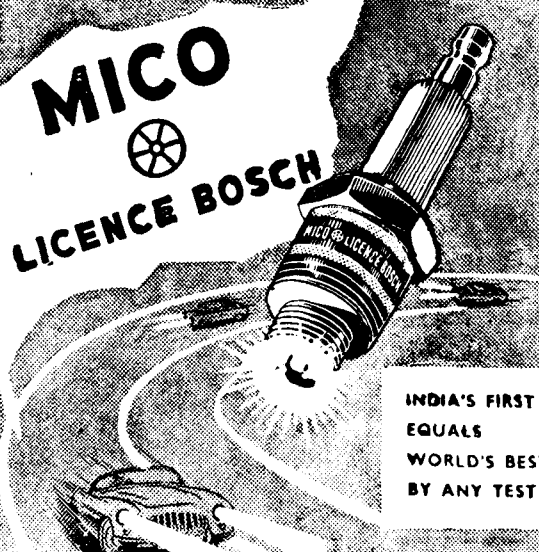
- Original equipment in many leading cars
- Make the manufacturer's choice *your* choice
- Ignition engineered by ignition engineers
- Sturdy construction—rigidly tested

PREMIER AUTO ELECTRIC PRIVATE LTD.

Bombay 7; 69 Tardeo Road
Calcutta 16; 45/1 Wellesley Street
Madras 2; 4 Patullo Road. (Opp. Spencer's)

MICO

LICENCE BOSCH



INDIA'S FIRST
EQUALS
WORLD'S BEST
BY ANY TEST

Manufacturers:

MOTOR INDUSTRIES CO., LTD.,

P. O. BOX 93, BANGALORE-1.

MC-P.3

Cleaning Diesel Parts

The technique of testing and cleaning of the parts of diesel electric-locomotives, as carried out in the Australian State of Victoria by the Victorian Railways, has been developed to high standards of efficiency. A careful examination is made of cylinder heads, pistons, cylinder liners and connecting rods, to ascertain whether they show any signs of wear, and the cleansing covers a series of baths commencing with a kerosene dip.

After this the parts are placed in a large steel basket and immersed in a special solvent heated to 140 degrees Fahr. The basket is given an up and down movement to remove carbon. From this dip the basket and parts are lifted out and left on benches to drain for half an hour or so. A second kerosene dip then removes all possible traces of solvent. After a second draining further treatment in a trichlorethylene bath may be necessary to remove any remaining traces of greases or oil.

Any parts with carbon still adhering to them are given finer cleaning in the sand blast cabin, in which a graded almond shell (crushed and screened for size) is used to remove the last traces of the carbon. Although the shell is hard enough to remove carbon it will not damage steel or cast iron.

In the final operation all the parts are given a magnetic particle test to determine the presence of any crack or flaw. They are checked with a special type of measuring equipment for signs of wear. Engine manufacturers have indicated the stage of wear at which a part must be condemned.

More room for Tourists Motels on the increase

The Canadian Travel Bureau reports that all across Canada tourist accommodation was on the rise in 1956, with new motel and motor courts springing up in most of the ten provinces. In Ontario alone new construction included 127 motels, 28 cabin establishments, 15 lodges, two inns and 80 cottages. Alberta added ten new motels, comprising 117 units, and British Columbia reported 600 new accommodation units. Fourteen new units were added to a Charlottetown, Prince Edward Island hotel. Manitoba had 110 new motel units, and 85 tourist camp or resort unit. The motel building boom continued in Saskatchewan and extensive camp building went on throughout the province, particularly in northern fishing areas. New accommodation in Nova Scotia included 105 motel units, 98 tourist home rooms and 21 cabins, while New Brunswick reported 87 new motel units. Newfoundland added 235 guest house, cabin and motel units.

YAROSLAVL AUTOMOBILE WORKS

Moscow

The Yaroslavl automobile works are producing 10 and 12 ton capacity three axle lorries.

The ten thousand heavy lorry was delivered by the works a few days ago.

Yaroslavl lorries and self-dumping trucks can be seen on many of the country's construction sites. One of the three axle models in that class can draw trailers weighting up to 50 tons.

Trans-Canada Highway

TORONTO

Public works Minister Robert Winters has announced that more of the Trans-Canada Highway was built in 1956 than in any previous year and has predicted that this pace will accelerate in the year immediately ahead. The greater 1956 performance was due largely to increased provincial Highway construction programmes linked with the Federal Government's gap-closing formula which provides special financial incentive to Provincial Governments.

"Total commitments for construction authorized in 1956 approximate \$82 million of which the Federal Government's share will be about \$50 million," he said. "This more than doubles the federal share of the commitments in any previous year."

Order
Your Copy
of the
MOTORINDIA
Annual
Now
Re. 1 only

MOTORINDIA

June 1957

Wholesale Stockists of Spare Parts for	IT PAYS YOU TO BUY FROM
PERKINS DIESEL ENGINES CHEVROLET DODGE JEEP etc.	THE MODERN DISTRIBUTING CO. 68, SINGANNA CHETTY STREET CHINTADRI PET MADRAS - 2 PHONE : 85550 POST BOX : 2241 GRAMS : JEEPSARES

Use only genuine LUCAS C.A.V. & GIRLING Spares 	LUCAS ELECTRICAL EQUIPMENT
	C.A.V. FUEL INJECTION AND ELECTRICAL EQUIPMENT
	GIRLING BRAKES & DAMPERS
	LUCAS INDIAN SERVICE PRIVATE LTD. BOMBAY · CALCUTTA · MADRAS

June 1957

MOTORINDIA

41

MODELS AND THEIR Prices

CARS

	Rs.	as.
Plymouth Car, Sundaram Motors Private Ltd., Ex-Factory, Kurla	20,000	0
1956 Model Plymouth Suburban	22,646	0
Hindustan Landmaster 1956 'Southern Automotive Corporation Private Ltd. ex plant Uttarpara	11,161	10
Dodge Kingsway sedan	20,371	0
Dodge Suburban Addison & Co. (P. Ltd.) ex Bombay	22,899	0
Baby Hindustan 1956 Addison & Co. (P. Ltd.) ex Madras including S.T. & Import charges	9,550	0
Standard Super Ten Saloon Union Co. (Motors) Private Ltd. on the road	10,022	2
Standard Estate Car (Union Co. Motors) Private Ltd. on the road	14,889	2
Studebaker 'Parkview' station Wagon 1956 model [Reliance Motors Ltd.] ex plant Calcutta	20,280	0
Studebaker 1956 Commander (V.S.T. Motors) Private Ltd. Including S.T. & Delivery Charges	19,850	15
Studebaker 1956 President Classic (V.S.T. Motors) Private Ltd.]	22,237	13
The Fiat 1100 The Elegant [Sundaram Motors Private Ltd.]	8,847	0
Willys C.J. 3B Universal Jeep [Sundaram Motors Private Ltd.] ex plant Bombay	12,160	0
Willys Model 4 - 4-75 Station Wagon [Sundaram Motors Private Ltd.] ex plant Bombay	18,150	0
Jeep 1 ton truck	13,045	0

MOTOR CYCLES

Royal Enfield [The Madras Motors Private Ltd.]—		
"150 Ensign"	1,890	0
"350 Bullet" with spring frame	3,430	0
499 c.c. Model "J2"	3,500	0
"500 Bullet" with spring frame	3,950	0
"500 Twin" with spring frame and with Magdyno or coil ignition	4,450	0
"700 Super Meteor" with spring frame and with Magdyno or coil ignition	4,650	0

	Rs.	as.
Matchless 350 c.c. with rear suspension [Addison & Co. (P) Ltd.] ex Madras	3,675	0
Triumph Terrier [Addison & Co. (P) Ltd.] ex Madras	2,175	0
Triumph Tiger Club [Addison & Co. (P) Ltd.] ex Madras	2,325	0
The New Bina Peugeot 48 c.c. [The Union Co. (Motors) Private Ltd.] on the road	970	3
B.S.A. Motor cycles. [The Union Co. (Motors) Private Ltd.]		
125 c.c. Bantam on the road	1,880	4
150 c.c. Bantam Major on the road	2,212	0
250 c.c. Model C. 11. G. on the road	2,736	8
350 c.c. Model B. 31. on the road	3,978	11
650 c.c. Plunger type on the road	4,629	13
50 Swinging Arm on the road	4,892	8
Jawa (S.P. Ramam & Sons) 2.5 H.P. with spring frame, dual seat, with unique kick starter and gear change lever in one	2,660	0

SCOOTERS

Lambretta, manufactured by Automobile Products of India Ltd. Distributors, South India Automotive Corporation Private Ltd., Madras. (At Vishakapatnam—Western Automobiles Ltd.) Prices are ex-Factory, Bhandup, Bombay.		
48 c.c. Scooterette	872	0
150 c.c. 'D' Model Standard Scooter	1500	0
150 c.c. 'LD' Model Deluxe Scooter	1795	0

VANS

Standard Delivery Van. [Union Co. (Motors) Private Ltd.] on the road	10,628	9
--	--------	---

TRUCKS & COMMERCIAL CHASSIS

[George Oakes Ltd.]		
Leyland Comet "203" WB Passenger Diesel Chassis including S.T. & dely. charges.	36,000	0
Leyland ECPO 22R-176 WB full forward control Passenger Chassis S.T. & dely. charges	35,500	0
Leyland ECOS 21R-163 WB goods chassis including S.T. & dely. charges	34,700	0
Leyland ECOS 22R-118 full forward tipper chassis including S.T. & dely. charges	34,500	0

	Rs.	as.
[Rane (Madras) Ltd.] Studebaker 1956 Diesel Truck Chassis.		
2E 38B-155 W.B. Chassis with Diesel Engine ex plant Calcutta	21,317	0
2E 38B-155 W.B. E.H.D. Chassis ex plant Calcutta	16,208	0
Willys Model 4-75 Wheel Drive one ton truck chassis 118" W.B.		
[Sundaram Motors Private Ltd.] ex plant Bombay	13,935	0
Jeep Trailer ex plant Poona or Madras	1,800	0
[V.S.T. Motors Private Ltd.] Tata-Mercedes-Benz Diesel Truck and Bus Chassis L 312 42 165" W.B. 5-Ton Truck Chassis ex Works Jamshedpur	26,430	0
L.P. 312 42 165" W.B. Full Forward Control Truck Bus Chassis ex Works Jamshedpur	27,295	0
L.P. 312 48 190" W.B. Full Forward Control Bus Chassis ex Works Jamshedpur	28,085	0
L. 312 36 142" W.B. 5-Ton Truck Chassis ex Works Jamshedpur	25,905	0
L.K. 312 36 142" W.B. 5-Ton Truck Chassis ex Works Jamshedpur	29,475	0
Fargo (at Sundaram Motors Private Ltd. Dodge at Addison & Co. Private Ltd.) prices ex-Factory Premier Automobiles Ltd., Kurla, Bombay :		

DODGE FARGO PETROL TRUCKS

C3D6-116" WB	11,615	0
C4D6-126" WB	12,062	0
C3PW6-126" WB	17,974	0
C4G6-155" WB	16,391	0
C4G6-153" WB	16,062	0
C4G6-171" WB	17,008	0
C4H6-153" WB	17,710	0
C4H6-153" WB	17,979	0
C4H6-171" WB	18,305	0
C4H6-193" WB F.F.	18,116	0
C4H6-193" WB F.F.	18,385	0
C4H6-193" WB W.S.	18,479	0
C4H6-193" WB W.S.	18,748	0

PETROL TRUCK WITH CAB AND PICKUP

C3D6-116" WB	15,012	0
--------------	--------	---

DIESEL CONVERSION

C4H6-153" WB	22,662	0
C4H6-153" WB	22,937	0
C4H6-171" WB	22,903	0
C4H6-171" WB	23,172	0
C4H6-193" WB F.F.	22,992	0
C4H6-193" WB F.F.	23,261	0
C4H6-193" WB W.S.	23,293	0
C4H6-193" WB W.S.	23,567	0

DIESEL TRUCKS

105P6-165" WB	22,018	0
105P6-165" WB	22,297	0
105AP6-165" WB	22,320	0
105AP6-165" WB	23,039	0
87P6-190" WB	23,962	0
87P6-190" WB	23,617	0
87AP6-190" WB	24,410	0
87AP6-190" WB	24,752	0



AUTOMOBILE & AGRICULTURAL INDUSTRIES CORPORATION

Grams: REACH-ROD Office Phone: 70767 Works Phone: 75552
497/3, Sardar Vallabhbhai Patel Rd., Bombay 4.
Works:
Victoria Mills Compound, Gamdevi, Bombay.

These are the vital factors of our Second Five Year Plan. "DOUBLE-LIFE" is proud to put its experience and resources for successful implementation to achieve our Nations economy. Quality alone helps in saving Time, Money and Labour.

12
28/7

Regd. No. M 6788

Advertise
in



TO BE

PUBLISHED

SHORTLY

Approved Organ of

THE MADRAS MOTOR PARTS DEALERS ASSOCIATION