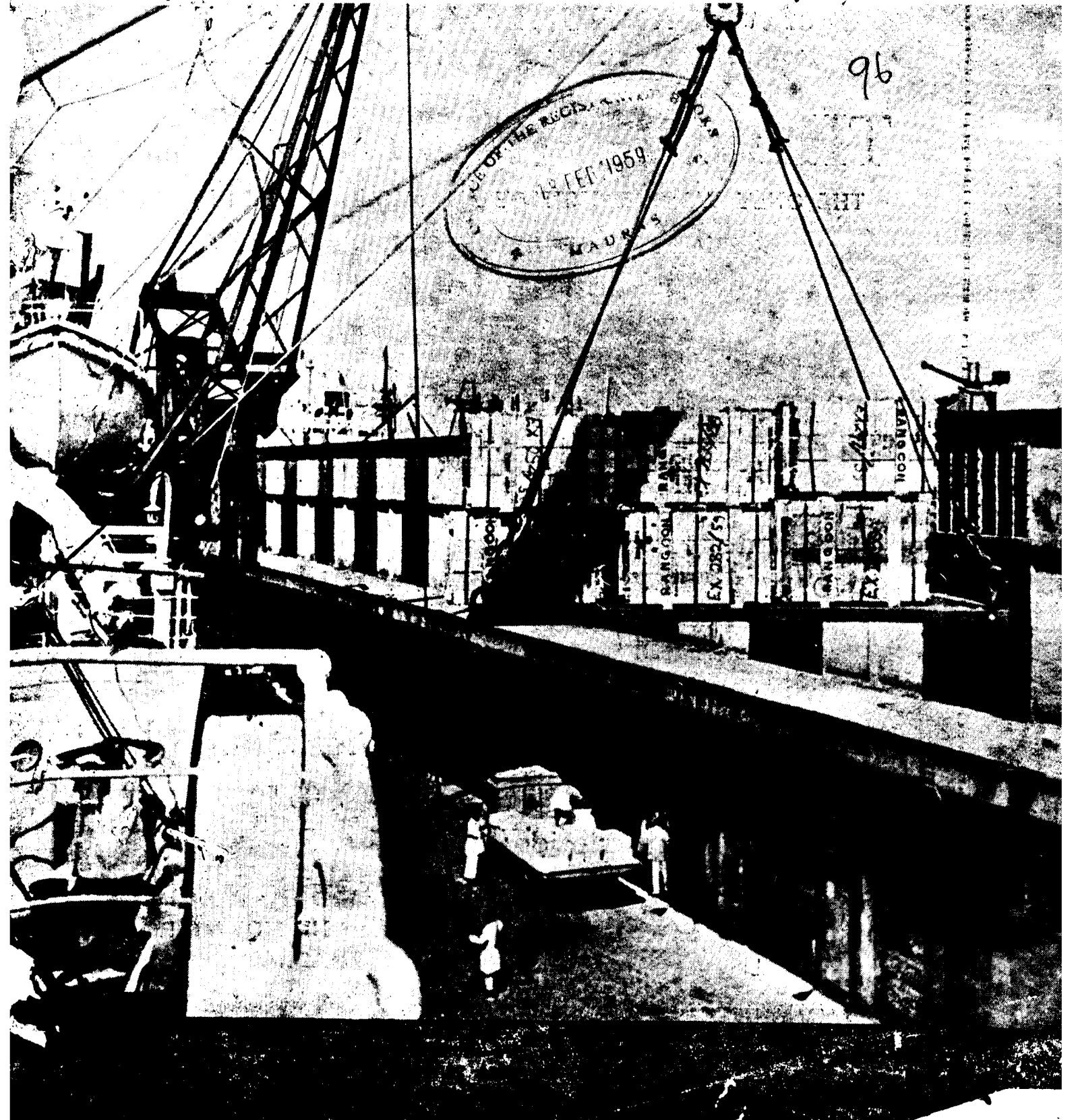


MOTORINDIA

VOLUME 4

JANUARY 1960

NUMBER 6



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The publication early April 1960

ON TAMIL NEW YEAR'S DAY

of the ANNUAL NUMBER of

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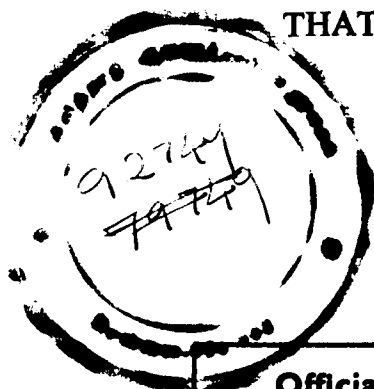
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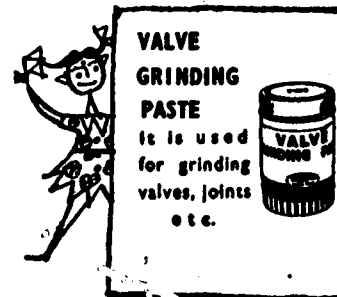
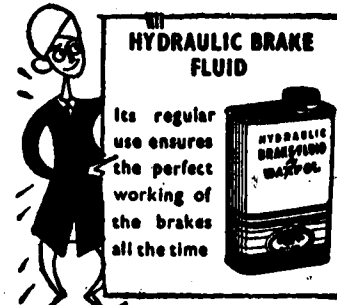
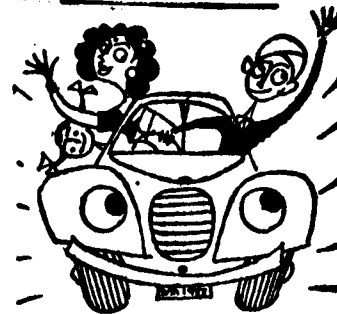
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editorial

In a convincing Memorandum to the Chief Minister of Mysore, the State Lorry Owners' Association has made a number of interesting points on the need for increasing the laden weight for lorries to 12 tons at least.

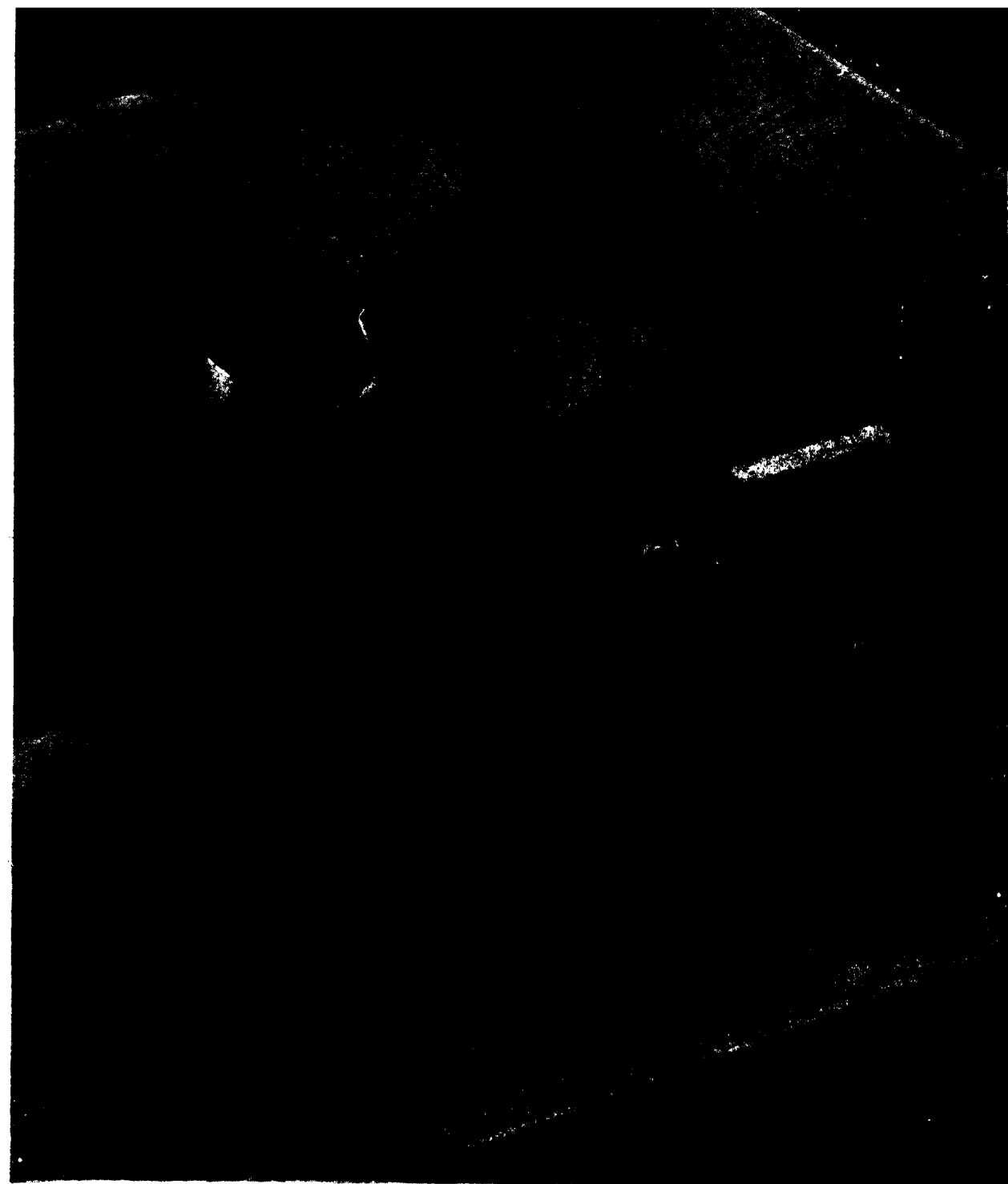
While the petition itself exposes in detail the weak points of the policy that has kept laden weights to 8 tons for lorries, we cannot help remarking that such a reduction of laden weight, particularly when applied as a result of conditions of existing bridges on particular road should not make any difference between lorries and buses. In fact, if at all there is any safety measure that applies to dangerous or weak bridges, it should have more consideration for the lives of human beings being transported by buses than to the loads carried by lorries.

It is therefore surprising while buses with full complement of passengers weighing very nearly 14 tons are allowed on particular bridges, lorry traffic has been warned about the condition of bridges and their laden weights restricted to 8 tons. A little thought on the subject will convince even the transport ministries of Governments that 14 tons of a vehicle full of human beings is certainly more precious than a vehicle with a goods load, aggregating to 8 tons.

These laden weight limits on lorries were fixed years ago based on the capacity of vehicles then manufactured and the conditions of roads then existing.

In independent India, roads are being improved practically every day all over the country with modern surfaces, which will stand fast traffic and heavy loads. Also, the changes in methods of manufacture of vehicles introduced in the country during the last few years have resulted in larger, heavier vehicles, which can carry greater loads than before.

It will not, therefore, be too early if a revision of this policy of laden weights is carried out as early as possible not only by the Government of Mysore, but also in other parts of the country, so that the movement of goods transport, which has got a very vital bearing to the success of the Five-Year Plans, can go on unhampered and as fast as it should during the coming years. Incidentally, such a step will be welcomed very widely by the transport operators throughout the country for the simple reason that the increased cost of vehicles and maintenance necessarily involves increased capacity if goods transport is to be run on an economic basis.



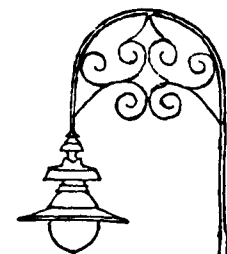
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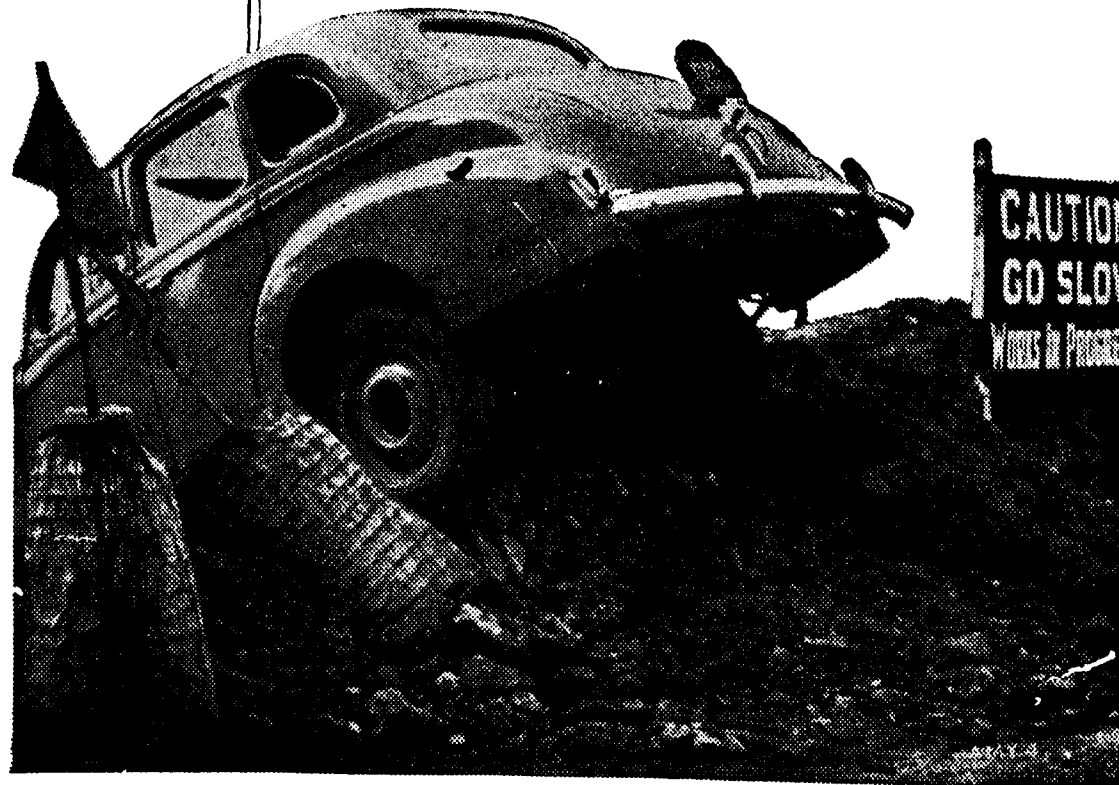
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DRIVING SHOULD BE A—"Signal Success"

AND SO SAY ALL OF US!

BY

A. Holden

Have you ever stood at a street corner—any town, any city, any state, any country—doesn't matter, and watched the number of motorists who fail to give, completely ignore the matter of hand signals? Or who give signs in a variety of meaningless and unorthodox ways?

Awful, isn't it? It might, you know, be a good idea, if hand signals were done away with, scrapped so that motorists may have a little more fun while driving, by playing games like: "Guess what the man in front's going to do next?"

Might as well, you'd lose little.

Trouble is with an analysis of hand signals (or lack thereof) you hardly know where to begin, let alone end, but judging by the manner in which many drivers approach the subject, each and every one behind the wheel of an automobile has a complete answer to the charge.

If they don't *they evolve hand signs of their own*, which, if having no legitimate purpose or function, can hoodwink, influence and intimidate other motorists.

According to the laws and regulations governing the use of a motor vehicle, hand signals should serve as advance indications, or warnings of impending or projected changes in the movement, rate or direction of the said vehicle. At least that is what we are led to believe when we first become interested in, intrigued by and initiated into the ways of safe and lasting motoring.

One of the best ways of starting such a survey would be for me to quote from a London doctor, who a few years ago, emphasising the need for reform in signals and a uniform code of application, asserted that: "The majority of motorists who indulge in the irritating habit of excessive hand signals are certainly not trying to be courteous."

"They are, in fact," he continued, "not announcing their perfectly obvious intentions of slowing down so much as ordering someone else to do likewise. They are the men who have failed to get promotion, men smarting under a reproof from the boss, henpecked husbands, men with a terrible inferiority complex, unsure of themselves and unable in their normal lives to command respect and attention."

All of them find arm-waving a wonderful solace to their poor thwarted egos. Here at last they get their

own way. They signal a following car to slow down, of course, it does so and if it is a large, expensive vehicle, driven by a large successful man, so much the better."

Now, come on, all those who have acted this way, stand up and be counted! What everyone of you! Shocking! shocking! Well, all I can say is, er, er, SIT DOWN and hear this!.....

There are really types of signs, to the tune of two, despite what others may tell you, assert or believe. These are the right and the wrong. It's actually only how others may interpret YOUR signal that defines the difference between yea and nay. The confusion might exist in the minds of the "other motorist."

Unfortunately, some people WILL read the signs all WRONG, while others give no signals at all. Then there are those who possesses a complete and complicated repertoire of a dozen or so signals, the meaning of which is known only to themselves.

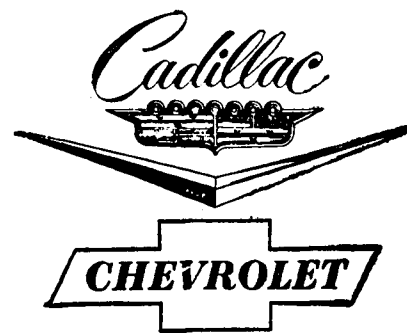
As far as knowing WHEN to make signals, it could be said that to-day there are many motorists who do not give them because they are too OLD to remember, or beyond caring. On the other hand, in some countries, teenage drivers believe that none of these signals apply to them—only to "the other fellow," or who are too YOUNG to care, too immature to acknowledge or realise the importance of proper signs. And, I suppose, even if they DID care, they don't seem to want to remember them, anyway!

Signals cost very little to make, yet can mean so much in the long run for anyone possibly involved in an accident, because of a failure to "show" a change of direction. In the latter regard failure to comply with them can prove most expensive.

There's ONLY one thing to do about hand signals—to make them clearly, legibly and correctly, pregnant with meaning for all to see and to respect. Why not make your own driving "a signal success?" It's worth it and it's so much easier and pleasanter.

Nevertheless, you'd think that with so many instances of motorists failing to indicate their intentions these fraternity drove a railway engine, a submarine, or steered an aeroplane or rode a horse, where normally such hand signals would be redundant!

Unfortunately, some hand signals are far too haphazard for so dangerous a subject. Some are devoid of life or animation, while many, mindful owners, realising that they have their own and others' lives "in their



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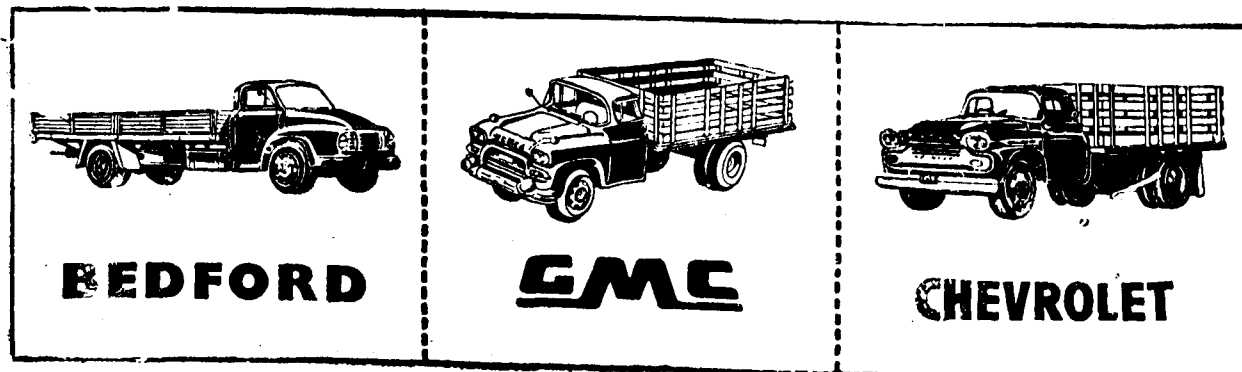
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hands," give signals with great order and precision, leaving no doubt of their moves. 'Tis a tragic fact that the military precision and meaningful hand signal in a crowd of motorists is not in the ascendancy.

Because, it is an odd facet of human behaviour that motorists often give one signal, preliminary to making a special turn of stop, and then in practice do the opposite, accidents MUST happen. This category also incorporates the motorist who watches other signs and signals and then does the opposite or ignores the signalled requests.

But, there's no end of variety in signals. There's the "goodbye" type, *this made with the hand thrust out of the car window and waved up and down*—like a child farewelling a friend from a train. The move could also be likened to the up and down movement of a yo yo, a lot of movement, but meaning practically anything at all to other drivers.

Then there is the "dead meat" sign—with the hand dripping over the window ledge, limp and inert, something like a bunch of sausages. This sign might mean: "I am stopping (I think). I am turning left, or right (don't know). But if you're not looking for trouble, you'd better keep your distance!"

Some folk have a variation of this, construed often as being "the seal flipper" type, quite lifeless and a

menace, and more so when it springs to life so unexpectedly, with the man driving behind having to "stand on his brakes" to avoid a collision.

As well as the "dead meat" species, we have the "pendulum arm," which operates when a slow moving vehicle is on the side of the main line of traffic, requires to make a turn to the left or is anxious to return to the main channel. The meaning might be, viz., "I am going to turn back shortly just to give you the right of your life. So watch for it!"

Sometimes this hand sign is known as the "paralysed hand." Avoid it.

Many motorists employ the "two finger" signal. *This is directed up into the air, and wriggles like a worm.* This could signify "Come on if you dare! If you don't MIND, I am about to stop, and if it's NOT causing you any bother, I might be going to the left, so you had better stop also—in case I think of something else I might want to do!"

Now and then you may encounter the motorist adopting the "finger twiddling" procedure, *with his arm fully extended and pointed skywards.* By way of explanation, this might be: "Hey, do you think YOU know where I am going?"

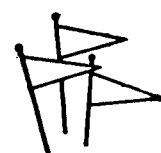
Of course, while there may be many a motorist who extends his hands beyond the window, it would be wise

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to be duly wary. He might be giving a sign. Or otherwise he may be seeing if it's still raining.

The motorist who uses the "clenched fist" sign might be stating: "Stop! Or else! I am turning right, then left or then right. I am going into reverse. Make your own conclusions, but whatever else you do, don't hit me. I've got a pretty severe right fist!"

One has also to contend with the motorist who is a "gutter gripper," his right hand usually grips the roof of his vehicle, as if frightened it will blow off. He usually makes his signs by releasing his fingers and flipping them up and down in turn. This might mean: "Look out! I'm going to turn, there, there, there!" But in reality, he might only be pointing out a passing landmark to a passenger.

Confused by the endless variety and lethargy of most motorists at giving signals, a friend one time in a 30-mile journey, met up with 40 motorists. Three of these gave "standard" signs, seven have right hand signs and the remainder, he indicated, ranged from the pointers, to the twiddlers, the waves, roof-clenchers and the pendulum types.

He's now trying to combine all the best features of the signs and to incorporate them in one that should make him "at home" with more motorists than if he had continued to go his own way, making all the normal time-honoured, significant and proper signs.

It is not to be wondered at that women, generally regarded as being "responsible" for bad driving, and all "the trouble about the place" when they get behind a wheel, have not escaped criticism in respect to hand signals. An Australian woman motorist recently complained that there were too many hand signals, including those given by men and women.

"You see hands frantically waving when there is nothing else in sight. Or in heavy traffic, completely incomprehensible to the driver behind, and then when most required no signal is given at all. Sometimes, we see," she added: "A languid hand cooling itself in the breeze or one which looks as if it might be waving goodbye to somebody on the other side of the road, or perhaps just two fingers poking grudgingly through two inches of open window."

She admitted that some women drivers move out of line before making any requisite signal, and often with disastrous results. But no reference was made to the perennial joke that whenever a "Woman puts her arm out of the car window, she's not making a signal, but merely drying her nail polish, or even waving to a friend."

However, some small women, because of their size have to raise themselves to windscreen level with cushions. Thus, it was not unusual to find a woman so seated, giving all the right-hand procedure for a stop. Unfortunately, she was not high enough in the seat to make

this fully, with the result that signal was given wholly within the limit of the car.

Now, too, that "automatic" arms are being used as official signals, it's likewise confusing to travel behind a vehicle so-equipped, particularly should a mechanical failure occur and the arm is permanently stuck out into the windstream. Often as not the "mechanical" arm will vary from the "manual" signal given.

Personally, with all the dangers and problems of incorrect or invisible signals by hand at night-time, I carry with me a close-fitting white glove, the fingers of which are picked out eerily in reflector tape, giving the whole hand a skeleton-like appearance. Seen in the eyes of other driver's car headlights, the illuminated hand certainly makes them stand up and take notice.

But in the midst of winter, a Sydney (Australia) driver, a businessman, dispensed with hand signals as he drove to his office, but at the same time got himself into trouble with the police. This was after he drove his car into the busy city, with a notice displayed in the rear window, worded: "No hand signals, too cold."

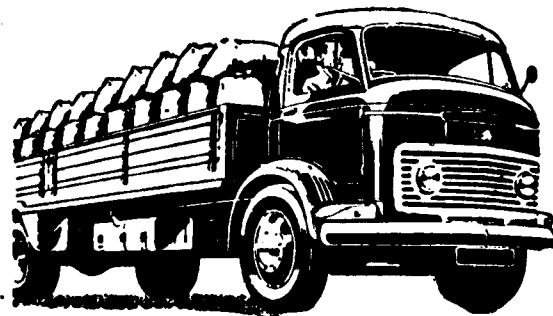
Similarly, there was the resourceful American man who made use of a message in his car, warning other road users. "Beware of sudden stops. Teaching wife to drive."

Then there was the policeman who stopped a woman driver and asked her why she didn't give a signal at the corner. "Because," she said disarmingly. "I hadn't made up my mind which way I would go."

And the time the male motorist was hit by a car, driven by a woman. "Why didn't you give a signal?" he asked her. "I gave you all the road you wanted. But you swung from side to side and then ran into me! Why didn't you signal what you wanted?" "Because, my good man," she said haughtily. "There's no signal for what I wanted to do!"

It took some convincing for the court to acknowledge that the charge for which the Sydney motorist was under duress was not a deliberate act. This was when the said motorist was at the wheel of a car, eating a meat pie as he drove it through the city. At an intersection, he was forced to stop, with the half-eaten pie in his right hand, and as he thrust out his hand to give the signal, the pie fell from his grasp through the open window of a passing car, into the face of the passenger, a local Australian Member of Parliament!

Sometimes motorists remember the rules of the road—even under difficult circumstances, like the fellow who had been celebrating too much at a local hotel, who managed to drive his car home safely. He stopped at all the corners, made the appropriate signals, but having driven down his driveway and into his garage, stopped his vehicle with the habitual stop sign. In sticking his hand dramatically through the open window he hit the garage wall a resounding smack, and broke his wrist!



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EXHAUST SILENCER

BY

M. J. Patel

Silencer is an unit used in all internal combustion engines, either in automobile engines or stationary engines to remove the exhaust gases from the engine in a noiseless manner. It is an essential unit fitted underneath the vehicle frame for noiseless and comfortable motoring.

The function of the silencer is to reduce the pressure of the exhaust gases by expansion, to a point where the exhaust gas will pass out to the atmosphere without noise and at a low temperature. The exhaust gases, when it escapes through the exhaust valve (when exhaust valve opens) at a pressure of 30 to 50 lbs./square inch, and at a temperature of 600°C to 800°C at a speed of 150 feet/second. During every exhaust stroke of the engine "A sound wave is sent out." This sound wave should be silenced.

Thus to silence the sound wave, the exhaust gas is allowed to expand into a number of concentric tubes. Therefore a silencer in simplest form consists of concentric chambers of varying sizes. The exhaust gas is first allowed to expand from the first passage into the second passage, which is larger and then into still larger third one and so on, to the final and largest passage, which will be connected to the tail pipe of silencer leading out to the atmosphere. The construction of silencer is not so simple as it appears from outside. If it is not designed properly, the gases will exert a back pressure which will reduce the power and performance of the engine.

Usually the diameter of the exhaust pipe should not be less than $\frac{1}{4}$ th of the diameter of the cylinders. The capacity of silencer depends on the horse-power and speed of the engine.

On an average the capacity of a silencer should be 14 cubic inches/B.H.P. (Brake horse-power).

The damage or leaky silencer will not affect the power or running of an engine, but the vehicle in such a condition cause excessive noise and as a motorist's obligation it is not good to use such vehicle on the public road.

Many designs of silencers are available in the market, viz., (1) Muffler type, (2) Chambers type, (3) Perforated Tube Type.

Muffler Type : This type of silencer is a very simple type of silencer in which the pressure of exhaust gases reduce with the help of varying diameter of silencer pipe to expand the exhaust gases.

Chamber Type : In this type of silencer the pressure of the exhaust gases reduces with the help of chambers which causes exhaust gases to pass different direction to expand the gases.

Perforated Tube Type : The best and well designed silencer is perforated tube type, in which both lower and higher frequency are damped down with the help of concentric different sizes of perforated tubes. In this case the exhaust gases has to pass through holes from one tube to another.

Causes of silencer failure

1. Loose connection between exhaust manifold and silencer.
2. Improper ignition timing which causes misfiring in silencer and damage in silencer results.
3. Improper valve setting.
4. Rough driving on rough road which damages the silencer.
5. Poor engine condition which pumps engine oil through exhaust valve which in turn causes choking of silencer.
6. Chocked silencer tale-pipe.

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1960 MODELS

Renault Dauphine

New suspension, using auxiliary air cushions is called Aerostable. Previously, coil springs, designed to handle full range of load, were rather harsh with driver only on board. Coil springs are now much more flexible and at the rear they are supplemented by hemispherical air cushions which give steeply rising resistance to deflection and so give more consistent ride characteristics regardless of load. Broadly speaking the springs take the car weight; air cushions come in to help support weight of passengers and luggage. At the front there are hollow rubber buffers of hour-glass shape round the lower ends of the dampers, which supplement the springs. With driver only, car rides slightly lower than before; rear wheel camber is increased and road holding improved.

Other improvements; top gear ratio slightly higher for fussless cruising, new thermostat giving slightly higher engine running temperature. Front seats with plastic foam overlay, increased range of sliding adjustment nylon strikers for door locks; spring loaded door checks, new direction indicator/parking lamps, rain gutters on ventipanes.

Dauphine Gordini sedan has these improvements plus new Floride engine and two-colour Floride steering wheel, new selectors for four-speed gearbox reducing lateral travel of gear lever in neutral.

Humber Snipe Series II

For 1960 the Humber Super Snipe appears with engine enlarged to 2.9 litres and Girling disc brakes on the front wheels. It remains the most luxurious car the Rootes Group has ever produced and now has considerably higher performance, with a maximum speed said to be around 100 m.p.h.

Bores of the six-cylinder ohv engine, have been enlarged from 82.55 to 87.3 mm, stroke remaining unchanged at 82.55 mm. so that the swept volume goes up from 2.651 to 2.951 c.c. (180.1 cu.in.). At the same time, the compression ratio is raised from 7.5 to 8 to 1. Result is an increase of 15 per cent in maximum power to 129 b.h.p. at 4,800 r.p.m. While maximum torque goes up by 17 per cent to 162 lb.ft. at 1,800 r.p.m.

There is no change in general design but an eight-blade fan is now used to take care of the greater heat dissipation required. This engine has hemispherical combustion chambers with valves operated by angled pushrods. Transmission is by three-speed all-synchromesh gearbox with option of Laycock de Normanville overdrive acting on top. Alternative is Borg Warner automatic.

Girling disc brakes of 11.375 in diameter (289 m.m.) are now fitted on the front wheels. They have a total swept area of 245 sq. in. (1581 sq. cm.). Drum brakes are used at the rear of 11 in. diameter (279 mm.) giving a total swept area of 156 sq. in. (1006 sq. cm.) Vacuum servo assistance is provided and the brakes are self-adjusting. There are three models, saloon, limousine and station wagon, all available with power-assisted steering as an optional extra. Detail improvements

include modified front seats which give a slightly lower position, said to give greater comfort while increasing the headroom. More efficient screen wipers are fitted and instrument lighting is improved. Equipment includes heater, demister, screen washers, reversing lamps. Externally, there is a bolder flash along the side as demarcation for the two-ton colour schemes. A stronger anti-roll for improved road holding, particularly at high speeds.

The limousine has a glass division and can have separate heaters for front and rear compartments.

Prices in England are increased by 3 per cent for sedan and limousine 3½ per cent for Estate car.

Humber Hawk

The Humber Hawk, which has bodywork generally similar to that of the Snipe, but with a four-cylinder 2,267 c.c. engine giving 78 b.h.p. has been improved in detail for 1960.

The four-speed gearbox now has closer ratios as below:

Hawk gearbox New	...	3.346	2.141	1.392	1 to 1
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The Hawk also has redesigned front seats, new side flashes and more efficient screen wipers, but there is no change in the price.

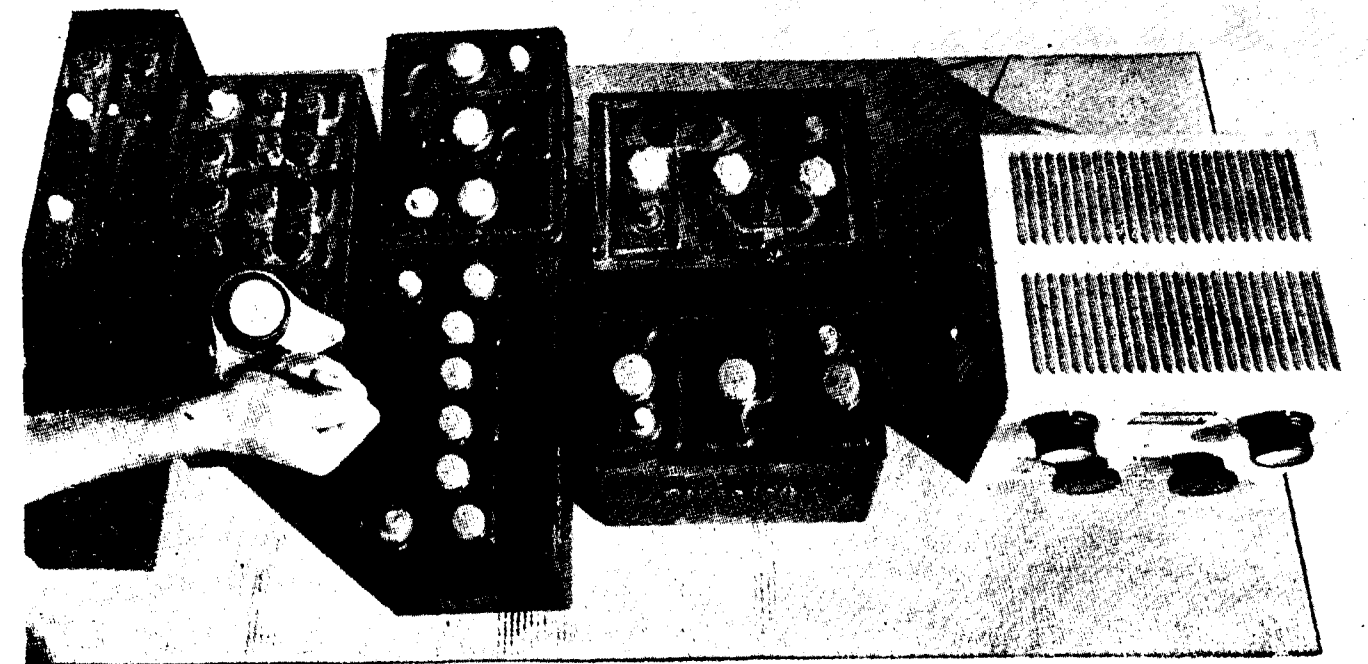
Aston Martin D. B. 4 GT

A new Aston Martin made its debut at the Paris Salon. It is the DB4 G.T. a high performance competition machine with an engine fitted with three twin choke Weber carburettors and tuned to give 302 b.h.p. (331 b.h.p. SAE). The chassis has a shorter wheelbase than the standard DB4 and the body panels are in magnesium. Transmission is through a twin plate clutch and four-speed close ratio gearbox with Salisbury "Power Lox" limited slip differential. Girling disc brakes are fitted on all four wheels. Fuel tank is in light alloy and holds 30 imp. galls. Bodywork resembles the standard DB4 in general style but the headlamps are recessed under plastic covers. There are only two seats, with room for luggage behind them.

The engine is the well known six-cylinder unit with block, crankcase, cylinder head and other parts in aluminium. There are two plugs per cylinder, two distributors and three horizontal Weber twin choke carburettors. Compression ratio is 9 to 1. Bore and stroke are 92 x 92 mm. (3670 c.c.).

A twin plate clutch of 9 in. is used and the four-speed David Brown close ratio box has ratios of 2.49, 1.74, 1.24 and 1 to 1. The buyer has the choice of the following rear axle ratios: 2.93, 3.31, 3.54, 3.77 and 4.09 to 1. Light alloy wire wheels made by Borrani are used and carry Avon Turbo-speed tyres of 6.00-16. Wheelbase is reduced to 93 in. and the car is only 52 in. high. With the 3.31 axle, 6,000 r.p.m. in top gear corresponding to the peak of the power curve gives a speed of 148 m.p.h. With the 2.93 axle the corresponding speed is 170 m.p.h.

A BATTERY FEATURE



Prior to actually charging batteries, make a discharge test such as is being done above, to determine whether or not batteries are still serviceable. Before charging, make sure battery contains sufficient electrolyte—dry batteries won't accept a charge.

KEEP BATTERIES SERVICEABLE BY LINE CHARGING

How many times have your vehicles been stalled, simply because the battery needed charging, all because the terminal didn't have a fully charged battery for installation before the vehicle was to start its run? The answer in eliminating this type of down time is line charging.

What is line charging?

Line charging is the name applied to battery charging when more than one battery is charged at one time. This can be done either in series or parallel, whichever best suits the fleets operation. This is about the only method of making sure all batteries installed in a vehicle are fully charged and ready for service. Most fleets find it more advantageous to charge in series because of the uniformity of charge attained.

In slow charging, batteries are brought up to full charge just as the name implies, slowly. Not only is this an advantageous type of charging, but it provides the service man with a better means of evaluating a battery. The best time to make battery tests to determine their serviceability, is take the test after the battery has been fully charged and allowed to stand idle for a period of 48 hours. Some batteries that have varied considerably in initial cell readings will level off under this full charge and prove to be good. When that happens, the variation of cell readings can usually be traced to surface leakage on units having embedded straps and excessively corroded conditions.

M 5-a

Batteries that have balanced cell readings, but are worn out (considerable plate material has sluffed to bottom of the battery case) can easily be detected after charging, and, by applying a discharge test. Shorted cells and internal leakage will fall in the same category. This type of battery inspection will save valuable time and money because the service man is installing only good fully charged units—not batteries that appear to be in a good condition.

Bulb-type Chargers are Versatile

One battery or in some cases up to 24, can be charged at one time. Also, even batteries of different voltage (6, 8, 12, 24) can be inter-mixed in the same charging line. Here, the charging rate is usually adjustable from ½ to 6 amperes, although some models are available up to a 12-ampere charging rate. The best method of course is lining the units up in series.

In series charging, all batteries connected in the line receive the same amount of current. If it is desirable to charge some batteries at a lower rate than others, two batteries of the same voltage may be paralleled. They will then only charge at one-half the normal rate of other batteries in the same line. As an example, two 50-ampere hour batteries may be series-paralleled in a line with 100-ampere hour batteries. Because the two 50s are paralleled, they will receive only half the charge while the others (connected in full series) would

AMCO CHOKKIAH

Mr. V. Chokkiah, the Managing Partner of M/s. The Imperial Trades, Tiruchirapalli, is an efficient Battery-Technician, with ten years of continuous practical experience in the battery line. Mr. Chokkiah started his business in the name and style of "THE IMPERIAL TRADES" in the year 1952, as an ordinary SERVICE-STATION, undertaking battery-charging and repair works connected therewith. During the course of two years through hard and enduring labour, his diligence enabled him to win over the confidence of the public because of his excellent service tempered with pleasing courtesy.

The business started by him in a small scale in the beginning, grew up gradually into a lucrative one within four years from the commencement and throughout these strenuous years, he has been able to successfully cater the needs of all the owners of private cars, commercial vehicles, and bus transports to their best satisfaction, thus commanding an endearing reputation and an envying popularity. Thus, his enterprising spirit has won for him the privileged position to represent M/s. Amco Batteries (Private) Limited, Bangalore, as their Sales and Servicing Agent for the Tiruchirapalli District.

The sales of Amco Batteries is steadily on the increase month by month in his territory, and in order to enlarge the sphere of his activity to satisfactorily cater the needs of his increasing clientele, a new Show-room and Office has been opened just opposite to the existing service station. Sri K. G. Parameswaran, the Managing Director of M/s. Amco Batteries (Private) Limited, during his itinerary visited the new show-room and expressed appreciation of Mr. Chokkiah's skilled and efficient services rendered to the Amco consumers. Sri Parameswaran was glad to surname his best dealer as "AMCO CHOKKIAH."



Mr. V. Chokkiah
with
Sri K. G. Parameswaran.

Mr. Chokkiah pays his personal attention to each and every item of the job and he has received from various Transport Operators a number of unsolicited testimonials in appreciation of his excellent services to the clientele. It may not be strange if Mr. Chokkiah should feel proud of his achievements and the endearing reputation he has built up over years of hard labour with patience and self-reliance.



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Also, your **Standard** Battery:

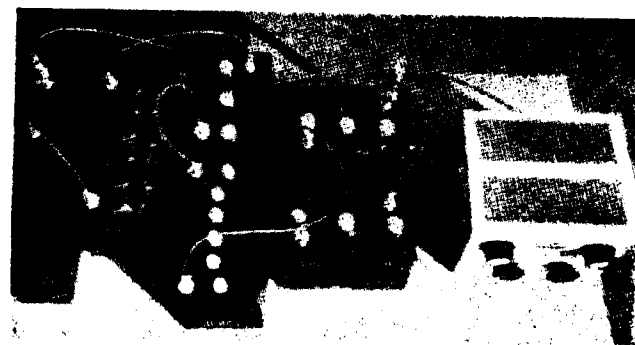
- * is made by India's largest and most modern national battery manufacturers
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Insist on **Standard**
— India's **best** batteries



STANDARD BATTERIES LIMITED, Bombay 25



The six batteries shown above are hooked up in a series parallel connection. The two batteries at the extreme right are the ones hooked in parallel while the others are in series. This enables the mechanic to charge 6-and 12-volt units at the same time. Number of batteries in line will depend largely upon the charging capacity of the charger being used.

receive a full charge. The two 50s in parallel would, of course, be counted as only one battery when counting the full like of batteries to be hooked up for charging.

Bulb type battery chargers are inexpensive to buy and simple to operate. Since there are no moving parts, they are practically trouble-free so far as maintenance is concerned. Standard models are available which will operate from either a 115 or 230-volt, 50 or 60 cycle A.C. current supply. These units are so constructed that in even of a power failure, the batteries will not discharge into charger. Charger will automatically resume charging when current comes on.

Charger selection

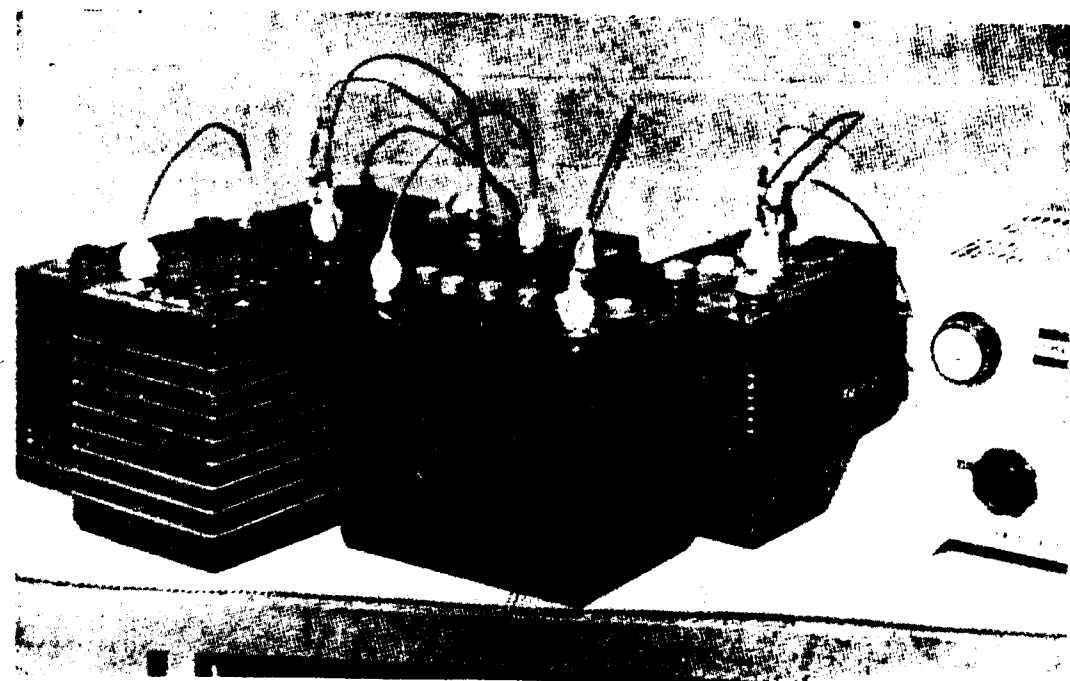
Selecting the proper charger is really no great problem. The larger capacity chargers have become popular in recent years because of the wide use of 12-volt systems. This type of charger can line charge twice the batteries



Although the charges will shut off automatically when batteries reach a full charge, it is best to check the battery charge condition periodically as a means of checking on their progress. This is especially true when there are both 6-and 12-volt batteries intermixed. Why? Because the 12-volts units charge at half the 6-volt rate.

if they are six-volt as they can twelve-volt. In selecting the charger, determine the maximum number of cells to be charged at one time. This must be figured in cells, and not the amount of batteries, because a 6-volt battery has 3 cells, 8 volt-4 cells, 12 volt-6 cells, 24 volts 12 cells, etc. Then it must also be determined if a 6-ampere model will be satisfactory, or if a 12-ampere maximum charging rate is necessary. One thing is certain, it is more economical to operate these chargers from a 230-volt A.C. supply line, although they can do the same job on 115-volts A.C.

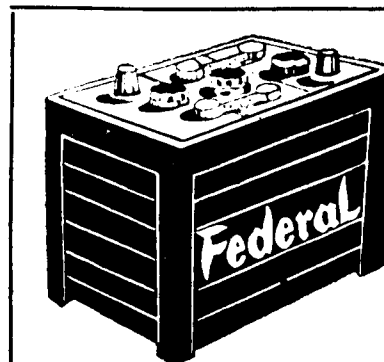
Regardless of the type of charger, number or type of batteries to be charged, the cost of a good charger for keeping batteries line charged can almost be written off in one simple battery failure where a vehicle was caught on the highway simply for want of a fully charged battery. A fleet isn't a fleet if it does not have these batteries fully charged and ready for dependable use.



This photograph shows how to properly hook up batteries when all are connected in series. The only precaution is to make sure jumper wires are all connected to the proper battery terminals. Intermixing battery posts with the wires is not practical, so be very careful.

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ISSUE
680,000
SHARES**

Associated Battery Makers (Eastern) Private Limited, the manufacturers of the well-known Silver Exide, Exide-ironclad, Chloride and Dagenite batteries are shortly, it is understood, to make, subject to consent being obtained, a public issue of 680,000 ordinary shares (per value Rs. 10) at Rs. 15 per share, out of which the present U.K. shareholders have been allotted 200,000 shares.

The business to be included in the offer will embrace the Sales and Service Organisation of Chloride and Exide Batteries (Eastern) Private Ltd., who have offices in various parts of India. The whole undertaking forms part of the well-known Chloride Electrical Storage Co. Ltd. Group, which is the largest Storage Battery Manufacturing Organisation in the Commonwealth.

Associated Battery Makers' manufacturing activities in India extend over the past 15 years and the Factory near Calcutta is now one of the world's most self-contained Storage Battery Factories. Its products enjoy a first-class demand throughout India. Over the past 7/8 years considerable development and expansion schemes have materialised. The company shows a good record of profits over the past few years and further developments are already in progress.

With the great expansion in transport and communications in India an increase of the present excellent demand for the company's well-proved products would seem likely. This new Indo British partnership in an organisation which has been established in India for nearly 50 years, should have a good future.

**FIVE YEARS
UNINTERRUPTED
SERVICE!**

**IRONCLAD'S
PERFORMANCE
IN CALCUTTA!!**

An Exide-Ironclad Battery fitted to an electrically operated Fork-lift Truck has given Five Years uninterrupted service and is still in excellent condition for further use.

This remarkable performance has been recorded in the modern Dynamo and Switchgear Factory of Messrs. J. Stone & Company near Calcutta who operate a number of battery powered fork-lift trucks for efficient handling of their goods.

The practice of using electrically operated mechanical handling equipment is becoming increasingly common in our factories, warehouses, dockyards and hospitals where swift, silent and efficient movement or storage of goods is an important consideration. In terms of economy and turnover the advantages of mechanical over manual handling are so obvious as to need no elaboration. But what needs emphasis is that in most instances a battery operated vehicle has proved superior to others on the following counts:

- (a) It is quieter,
- (b) It is cleaner,
- (c) It is more economical.

Tests carried out recently in U.K. factories have proved that the total annual cost, including depreciation of operating a battery powered Fork-lift Truck is approximately Rs. 2,150 less than that of an internal combustion vehicle. The battery, which is the power unit of an electrically operated mechanical handler, is responsible for a substantial part of this saving. Exide-Ironclad, for instance is carefully designed for this kind of job: robustness and full power output throughout discharge life are its special characteristics. It will do a full day's work and then, plugged into the mains through a charger is ready for another job. As regards its service life, an Exide-Ironclad lasts for a long time indeed—5 years and more if well maintained. Exide-ironclad batteries are the standard source of power for most individual electric handling equipment.



The interior of a section of one of the most up-to-date battery manufacturing units in this country, namely that of Messrs. Mysore Electro-Chemical Works Ltd at Yeswantpur, is shown in the photograph above. Mr. S. R. Krishnamurthy, Secretary of Mysore Electro-Chemical Works is seen giving instructions to a worker. The batteries manufactured at this factory are marketed under the trade name MEC.



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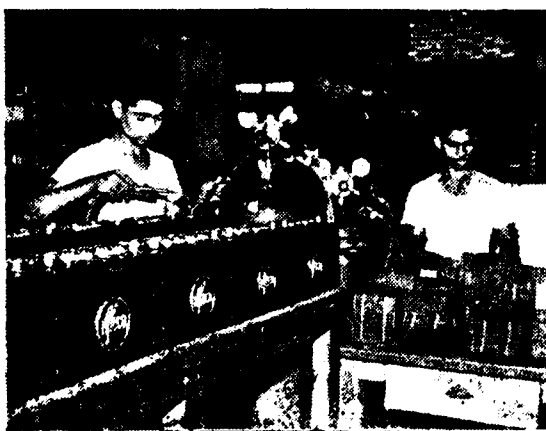


Photo above shows the interior of a section of Messrs. Himco Batteries factory at Alandur, which was established as part of Himco expansion recently, to cater to the needs of consumers in South India



Grids pasting at Himcos Factory at Alandur is done on automatic machines, as revealed in the picture above.

Photo below shows a view of the Battery Charging section of Himcos Alandur factory.



steady
progress
by himco

Founded 23 years ago by the enterprising Sri K. R. Anand, M/s. Himco Batteries have made vast strides during this period of just over two decades.

At first, it was just manufacturing battery cables, but now Himcos make not only all the component parts of the battery itself, but their activities have even extended, just as the current from the battery extends through various circuits, to a complete line of the complicated ignition parts, Electric Horns, generator cut-outs, Relays, Ignition Switches and like items.

Able assisted by his brother, Sri L. C. Anand and a number of highly trained technical staff, Himco production has been expanding gradually from year to year, so that Himcos have now established factories to meet particular demands of various areas at Bombay, Delhi and further down in Madras.

The Madras wing of Himcos is fortunate in having the benefit of business contacts and experience of people like Sri Ramachandra Iyer of Bharat Motors and Sri V. Kunjitapadam, whose association with the Southern organisation has gone a long way in establishing a regular and continuous market for Himco batteries as well as other Himco products. The Director in-charge of the Madras office and factory is Mr. I. K. Luv, whose association with Himcos extends to over a decade.

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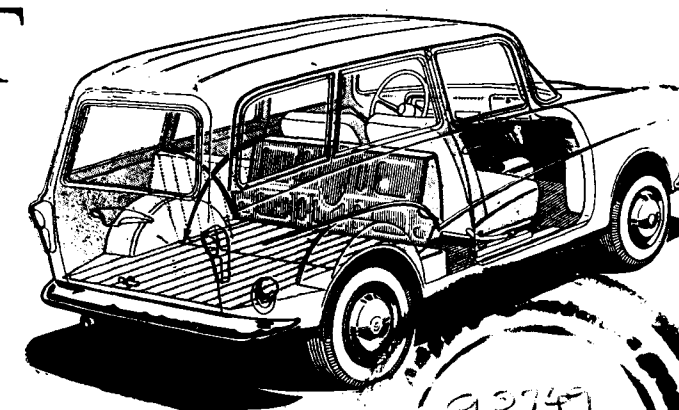
BRILLIANTLY STAGED EXHIBITION, MANY NEW MODELS

From Gordon Wilkins

The German Motor Industry only holds a Motor Show once every two years, but when it does it is a brilliant display, with elaborate and costly pavilions for the main manufacturers. In the great blue and white Mercedes-Benz hall, the latest models hung dramatically in the air as though diving down on to the spectators. Volkswagen had somehow fitted a train loaded with export cars and a cut-open ship crammed with them into their hall, giving the visitor the impression of standing, not just in an exhibition hall, but on a vast dockside. Ford relied on simple decor and shadowless lighting to present their cars as though floating in mid air.

Although the German industry is the second vehicle producer after the U.S.A. it is also the world's greatest exporter and there are now long waiting lists for popular models in the expanding home market. With only one for car every 17 persons, there is still plenty of scope for expansion in the home market and Germany's common market partners France and Italy have been taking advantage of it, moving in with Renaults, Fiats and other makes, thanks to the low traffic, which are the lowest in West Europe, apart from Sweden's. Last year they sent Germany 58,000 cars, but thanks to quotas and high traffic, took only 16,000 cars in return; a fact which produced sharp comment from German car makers. This is why Germany looks uneasily on the efforts to unite Britain, Sweden, Norway, Denmark, Switzerland, Austria and Portugal in an economic union, outside the common market. Only 15 per cent of their vehicle exports go to the common market, but 32 per cent go to the countries of the proposed new union, where they feel Britain stands to gain at Germany's expense.

Despite tax and insurance concessions, the trend in Germany is now right away from bubble cars and other miniatures which have had their day but do not fit into the pattern of rising living standards and rising traffic speeds. The Popular new class is the small four-seater of around 700 c.c., represented by N.S.U., Goggo-



Goggomobil ISAR Station Wagon

mobil, the DKW Junior and the new B.M.W. 700 four-seater with silhouette reminiscent of the Triumph Herald (Nichelotti did the initial styling projects for both).

A NEAT LITTLE JOB

The B.M.W. 700 is a neat little job with good luggage space under the front hood. Its all-independent suspension is derived from that of the front-entrance 600 model, which continues in limited production; so is the flat-twin air-cooled 697 c.c. engine which delivers 30 b.h.p. nett at 5,000 r.p.m. (35 SAE). It has 5.20-12 tyres and a kerb weight of 1,610 lb.; does 75 m.p.h. and 42-52 miles/Imp. gal. Price is 4,750 DM including heater and screen washer.

Against this, NSU have added wind-back windows, reclining seats and better silencing to their rear-engined twin at 3,890 DM, but their Bertone-bodied Prinz sport coupe at 6,510 looks dear beside the BMW 700 sport at 5,300.

Goggomobil, with their front-engine rear-drive four-seater 700, now called the Isar, come between the other two on price at 4,470 DM and have added a neat little station wagon to the range. They also have a new 700 sports coupe using the body of the 400 coupe on the 700 chassis with new oval air intake at the front. With 34 b.h.p. they say it does 82 m.p.h.

The DKW Junior now in production with front-drive and 3-cyl 841 c.c. two-stroke engine has torsion bar front suspension and inboard front brakes to reduce unsprung weight. The finish is good, the trunk roomy. It looks good value at 4,950 DM.

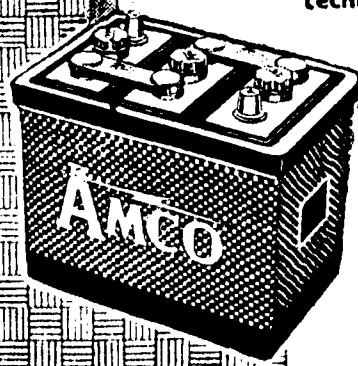
The larger DKW 1000 now has synchromesh on all four speeds and a wrap-round windscreen on two-door models. DKW is the last German manufacturer to remain completely faithful to two-stroke engines, long a German speciality.

The Lloyd Arabella with 897 c.c. 38 b.h.p. water-cooled flat-four engine and front-wheel drive, attracted

Backed by RESEARCH

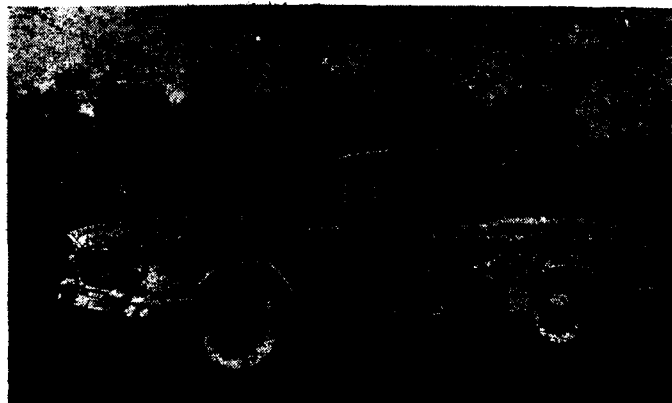
The technical tie-up of Amco with Gould-National U.S.A. has made it possible for AMCO to offer Better Batteries by employing identical manufacturing techniques as their collaborators.

Amco Batteries are backed by Gould Research and give you steady and better service.



AMCO BATTERIES "STAY STRONGER LONGER"

AMCO BATTERIES (PRIVATE) LTD., BANGALORE.



The new Humber Hawk Estate Car with the revised body style for 1960

a lot of attention at 5,250 DM and the new sports coupe by Frua was shown for the first time. This should find a ready market at 7,250 DM and will presumably supersede the projected Frua-designed coupe on the two-cylinder Alexander TS which it resembles in general style.

IMPROVED IN APPEARANCE

The front-drive Hansa 1100, formerly the Goliath is improved in appearance and in numerous details. Power of the 1,093 c.c. flat-four ohv engine is now 36.5 b.h.p. with single carburettor or 50 b.h.p. with two as fitted in the coupe. Windscreen and rear window are 1- $\frac{1}{2}$ in. deeper and appearance has been improved by eliminating the centre strip down the grille and fitting a straight through chromium moulding along the side. Steering column gear lever replaces the umbrella handle type and the instrument panel is safety-padded. Track is increased to 50 $\frac{1}{2}$ in. front and rear and ground clearance is slightly increased by new shock absorber mountings. Improvements also to wipers, seats, ventilation system and door locks.

Fiat's are available on the German market in big variety. The full Italian range is imported, selling in competition with the 500, 600 and 1100 made at the Fiat-controlled NSU factory at Heilbronn (no connection with the Neckarsulm NSUs mentioned above). NSU Fiat enlarge the Fiat 600 engine to 629 c.c. by increasing the bores to give 20 b.h.p. Their sedan sells at 3,990 DM and there's a new Weinsberg occasional four-seater coupe at 5,140. The NSU Fiat 500 with special Weinsberg body now has four small seats and price is reduced to 3,540 DM. It is distinctly uglier than the normal model.

Against all this blossoming small-car competition, Ford of Germany produced a face-lifted version of their 12 M with new bonnet and grille, and new, flatter roof which slightly overhangs the rear window, and sharply reduced their price to 5,400 DM. They also reinstated the 1500 c.c. engine as an option. Compression of the 1172 c.c. engine is raised to 7.4 to 1 to give 38 b.h.p.

at 4250 r.p.m. and the 1498 c.c. unit gives 55 b.h.p. Rear axle ratio is changed from 4.44 to 4.11 to 1 in the interests of fuel economy. Suspension is also improved and an anti-roll bar is added at the front. New steering wheel, instrument panel and general redesign of interior trim complete the transformation.

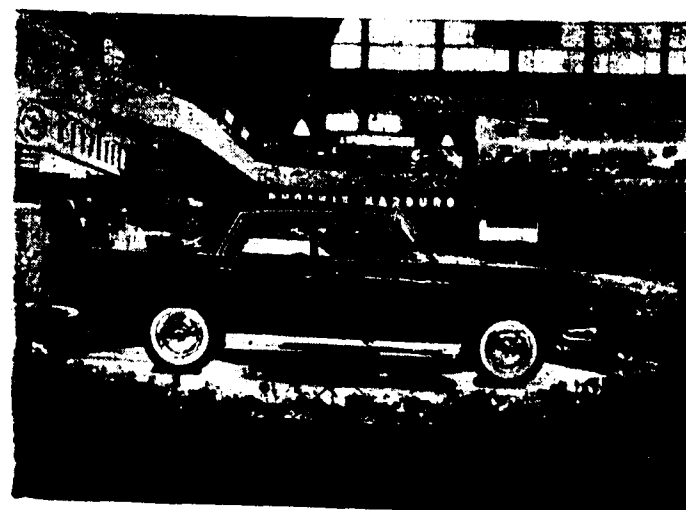
Just before the show there were much excitement about a promised new "small Opel" but it turned out to be an austerity version of the Rekord with bore reduced to 72 m.m. to give 1,205 c.c. On a 7.4 to 1 compression, this gives 40 b.h.p. at 4,400 r.p.m., with 60.5 lb. ft. torque at 2,200 r.p.m. and axle ratio is changed from 3.9 to 4.22 to 1. The three-speed gearbox has synchromesh on all ratios and maximum speed is said to be over 70 m.p.h. Ashtrays, thermometer, door-operated interior light and electric wipers are included in the price of 5,675 DM.

The normal 1 $\frac{1}{2}$ -litre Rekord engine now has higher compression and the 1.7-litre unit with 85 mm. bore, giving 55 b.h.p. at 4,000 r.p.m. is available with two-door or the new four-door body.

None of this affected Volkswagen's plans for continued expansion, scheduled to produce an output of 3,000 cars a day and 650 light commercials by next June. Minor changes: push-button door locks, foot rest for front passenger, front anti-roll bar and revised engine mounting to produce a lower rear roll centre are included in the price of the "export" model at 4,600 DM. The simpler standard costs a mere 3,790 DM.

A big attraction among the larger cars was the new Mercedes 220 range, already described separately. Remarkably similar in silhouette is the new Opel Kapitän, with body entirely re-worked after only one year. Flat roof, straight waistline, lower bonnet, new grille and a slim suggestion of fins at the rear have transformed it and the interior is tastefully finished in modern style. The six-cylinder engine is enlarged, with bores increased to 85 m.m. but a shorter stroke of 76.5 m.m. to give 2,605 c.c. producing a nett 90 b.h.p. at 4,100 r.p.m.

Photo shows the Borgward 2.3-litre



Bigger wheels, with tyres of 7.00-14 allow space for bigger brakes. The gearbox has synchromesh for all three speeds and an overdrive is optional. Price from 9,975 DM.

Similar in general proportions to the Mercedes and Opel is the new 2.3-litre Borgward. The engine has six cylinders of same dimensions, with same valve gear as the four-cylinder Isabella, giving a nett 100. b.h.p. from 2,240 c.c. with an 8.2 to 1 compression. The four-speed gearbox with steering column shift is fully synchronised. All-independent suspension similar in design to that of the Isabella is mounted on two sub-frames, that at the front also carrying the engine mountings. At the forecast price of 12,000 DM it is in the Mercedes class, but the performance will be nearer to that of the Opel. It should however sell on the German home market if deliveries can be made while the waiting period for the Mercedes 220 is anything from 18 months to two years.

MOST POWERFULL

The BMW V-8 of 3.2-litres, Germany's most powerful saloon car, now has Dunlop disc brakes at the front, the first time Dunlops have been combined with drum rear brakes. British Lockheed discs are also being made under licence in Germany and are being tested by several manufacturers.

A good deal of interest was also taken in the Russian Volga and Moskvitch which are being presented at the autumn exhibitions in Europe.

SPORTS CARS

Among the sports cars, appearance of the Porsche has been changed to a remarkable extent—and not for the better, by the combination of redesigned front wings giving a higher position for the headlamps, and higher, more robust bumpers to suit American traffic conditions. As a result, the whole car looks higher built and higher off the ground. The gear lever is more rigid and closer to the driver, the new steering wheel has a recessed centre, and a new multi-purpose switch on the steering column operates head lamp flasher, dipper, and direction indicators. Brakes are turbo-cooled. Rear occasional seats are redesigned. Engine innovation is a 1600 Super 90 with 90 b.h.p. at 5,500 r.p.m., an increase of 15 b.h.p. over the old Super. It has a 9 to 1 compression, stronger crankshafts and Carrera carburettors on larger inlet ports, with larger inlet valves. It gives a performance close to that of the Carrera at a lower price and the Carrera will now be built only to special order. Super 90 also has a new compensator spring consisting of a single transverse leaf at the rear to promote understeer.



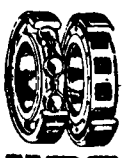
Porsche Coupe TYP 356 B

Fiat showed their 1500 sports convertible in production form with body by Pinin Farina and twin-cam 1,491 c.c. engine developed from an OSCA sports-racing unit. Mechanical parts now derive more from the 2100 than the 1200 but the same body is available on the 1200 chassis at a lower price.

Abarth showed his new 850 pushrod sports model, with a superb little coupe body by Allemano. Bore and stroke are increased above those of the 750 model, to give 50 or 57 b.h.p. at 6,000 r.p.m. in normal or sports versions but the price, equivalent to £ 970 even at the factory, is high for what is primarily a road car. For competitions, an 850 twin-cam unit is offered.

There was also a Fiat 2100 coupe with a lean and hungry look by Vignale but this year the German coach-building industry had no new custom bodies.

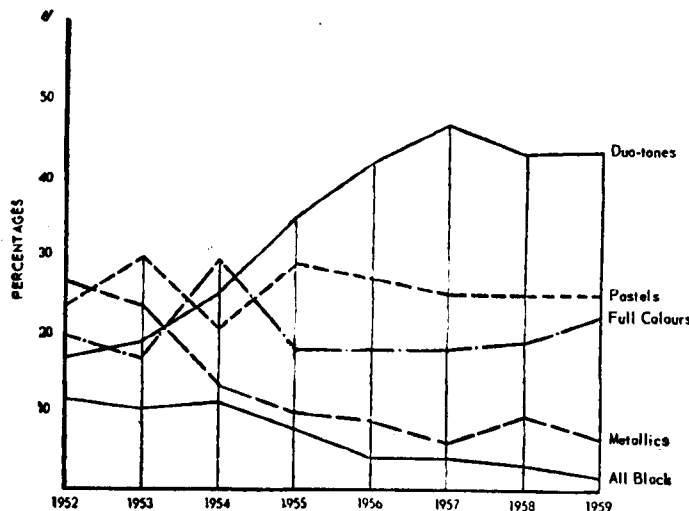
A remarkable new utility car is the new Steyr-Buch Haflinger from Austria. Like a tiny jeep only 111 inches long, it is built around a single central tube with all-independent suspension by coil springs. A flat twin air-cooled ohv engine of 643 c.c. at the rear, giving 22 b.h.p. on a 6.7 to 1 compression, drives the rear wheels or all four. There are four speeds in the gearbox and reduction gears in the hubs. It weighs 1,275 lb. carries four people and does from 32 to 40 m.p.h. according to final drive ratio.



NBC
BEARINGS
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BANGALORE 2

Phone: 3586 Gram: "Jairamdas"



The above graph shows the colour trends on cars at the Motor Show over the past eight years, based on percentage of total exhibits

COLOUR AT THE SHOW

BOLD AND GAY PROMINENT

Bold and gay are the colours on the cars at the 1959 International Motor Show. Stronger colours generally and reds in particular have come back into favour, after several years in which pastel shades have predominated.

This is the main fact shown up by the survey of Motor Show colours conducted by the Paints Division of Imperial Chemical Industries Ltd., principal suppliers of finishes to the British Motor industry.

METALLIC FINISH

At this year's Show, although single colours have gained in favour since 1958, duotone schemes are still widely used, with many exhibits showing how colour

can be used to emphasise the low, sleek lines of present-day car design. Indeed, on 54 out of the 139 cars painted in two colours the colours are alternated to give three and sometimes four horizontal bands. The duotone schemes also follow the trend towards more striking colours with a noticeable decline in the number of schemes employing two pastel shades; where a pastel is used the second colour is usually in bold contrast. There is a slight increase in the use of a metallic finish as one of the elements in dual schemes but no increase in the use of duotones composed of two metallic finishes.

Metallic finishes, as such, are less popular than last year but they too reflect the move away from the lighter colours. Metallic reds, maroons and greys show substantial increases over last year, largely at the expense of blue and beige/fawn shades.

BLACK DOWN

Black, for many years of negligible significance, has declined still further and represents only 2 per cent of the total exhibits. Pastel shades as a class account for 26 per cent of all exhibits—the same proportion as last year.

RETURN TO REDS

The full colours show a big return to reds and maroons after a slight decline last year and green has gained ground at the expense of blue. An indication of the trend towards bolder colours is the reduction in the use of grey—it has dropped from 19 per cent to 11 per cent.

This year's survey includes also an analysis of the colours in a random sample of cars on the road. The popularity of black among car owners and its comparative unsuitability as a 'display' colour makes comparison between the two analyses difficult but there are some significant points of similarity between the colours now on the road and the colours at the Show six or seven years ago!

A "DO IT YOURSELF"

SPORTS CAR

118 M. P. H.

A new British sports car, the Alexander-Turner, said to be capable of 118 m.p.h. and costing £ 595 ex-works in "Do it yourself" kit form, is to go into production early next year. It is the joint product of Turner Sports Cars, of Wolverhampton, and the Alexander Engineering Co. of Buckinghamshire.

The car is powered by the B.M.C. 4-cylinder engine used in the Austin-Healey Sprite, but is fitted with a special light alloy cross-flow cylinder head which is said to raise its performance considerably. A range of optional extras is also being made available, to permit owners to modify the car to suit various types of competition.



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GIRGAUM BOMBAY 4

Retread Yourself Tyres!!

BY Gordon Wilkins

Two names came into the news recently Giuseppe Lugli and Carlo Barassi. They are two leaders of the technical team responsible for the most remarkable tyre development for many years; the Pirelli BS3—with replaceable tread. Barassi is an unusual person. A brilliant skier when young, he crashed in a downhill race, blinding himself in one eye, but he finished the race. During World War II he broke out of a prisoner-of-war camp in Kenya solely for the purpose of climbing Mount Kenya, having done which he returned to camp. He must have seemed a logical choice for the tricky task of test driving with a revolutionary but unproved development in tyre design.

The result, now available in Italy, and soon to be available on other markets, is a tyre with three separate tread rings which can be replaced when they wear out at little more than one-third of the cost of a new tyre. A motorist can fit the new treads himself; you just deflate the carcass and slide them on. It is not even necessary to take the tyre off the wheel. You can take off your fast summer treads and put on a different set designed to give greater grip in winter conditions. When ice and snow arrive you can even insert hard steel spikes with tungsten carbide tips which are gripped between tread rings to take the terrors out of ice driving. Demonstrations on the ice rink at Cortina showed a car with spiked BS3s doing a slalom like skating star, while an identical car with normal tyres slid helplessly into the straw bales. Of course, rally drivers have been using steel spikes in normal tyres for years, but they can cause local overheating which ruins the tube if used on dry roads for any length of time, as several crews found to their cost in the 1959 Monte Carlo rally. The Pirelli design should delay the overheating if it does not fully prevent it. In fact there is no need to keep special spiked tyres and risk overheating. The spikes are quickly fitted or removed as necessary.

Spikes ararp, it is claimed that the new tyre has much better cornering power than conventional tyres, gives much lighter steering, and is quieter on corners. It is

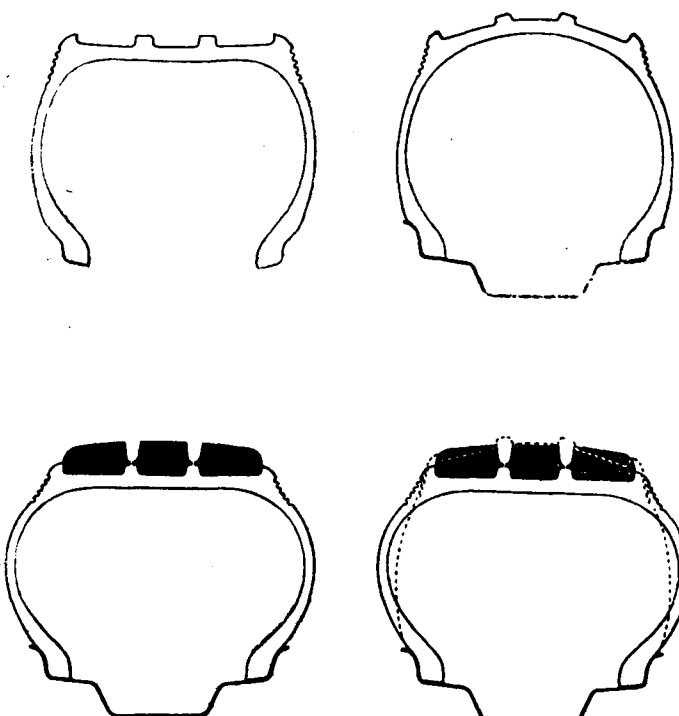
said to be safe up to 120 m.p.h. A special valve—similar to those used with tubeless tyres is used to prevent sudden deflation in a puncture. Escaping air trapped between tube and casing cannot escape through the valve holes, its usual outlet. Furthermore, as the tread rings are backed by steel cords, the possibility of punctures is reduced.

This is the latest of a series of developments which are focussing interest on tyres. Once they were taken for granted. Now the experienced driver looks to see what tyres are fitted before driving an unfamiliar car. It is specially important now in motorway driving for the tyres fitted as standard on the average car should not be used for sustained

speeds of over 85 m.p.h. unless they have been inflated to about 6 lb./sq. in. over normal pressures. Even with extra pressure, as I have found recently, the tyres sold as standard equipment on many cars, cannot stand up to sustained speeds over 90 m.p.h., for any considerable time. Some grow big blisters which under the tread cause violent thumping and quickly destroy the tyre. In other cases the damage may be an all-round distortion which passes unnoticed on casual inspection but causes severe vibration at high speed. For sustained fast driving it is advisable

Pirelli BS 3 Tyres: The Pirelli BS 3 type with the winter tread band fitted, and the ice spikes in position





Picture shows, top left : Uninflated BS 3 casing ; top right : inflated BS 3 casing on a rim ; bottom left : inflated casing with tread bands on a rim and bottom right : inflated casing with tread bands (solid line) inflated casing without bands (broken line)

to have special speed tyres. These usually have nylon cords in the casing. Nylon is used in practically all aircraft tyres and in racing tyres including the Dunlop R/s which have won every major international Grand Prix in, 1959. Nylon is very strong, highly resistant to heat and moisture and very elastic. It therefore runs cooler than other casings, so can be run at a lower pressure for the same speed, giving a more comfortable ride and increased contact area. Being very strong for its weight, it also helps towards producing lighter tyres. But it costs more than rayon. Nylon-cased tyres tend to acquire flat spots when standing overnight, which give a bumpy ride during the first few miles in the morning, and a lot of research has been done in the search for a cure. Aggressive import advertising by rayon interests has not so far affected the predominance of nylon in the fields of aviation and motor racing.

REINFORCED TREAD

Another important tyre development is the reinforced tread which gives a big increase in cornering power. The Michelin X was the pioneer development in this field. The tread is reinforced with wire mesh, which prevents a high resistance to lateral distortion, so that cornering speeds can be increased in safety. The Dunlop Duraband is the latest development on similar lines. Casings of the Dunlop, Michelin and the Pirelli Cintura are made with the cords running straight over from rim to rim instead of diagonally as with conventional tyres.

It makes a very flexible casing which can be run at pressures well below normal, without loss of steering and road holding. The point to watch with tyres using reinforced treads is that they give very little warning when approaching the breakaway point. They raise safe cornering speeds beyond anything normally attainable but an unskilled driver who takes too many liberties with them on fast corners can suddenly find himself in a difficult predicament. Because these tyres reduce lateral drift they can be used on the rear wheels of cars which oversteer in combination with normal tyres on the front. The smaller drift angle reduced the tendency of the tail to swing outward on corners. For normal handling cars, they are fitted on all four wheels. Makers recommend they should never be fitted on the front wheels only.

COMPARTMENTAL TYRES

The big unsolved problem is how to eliminate the spare wheel and save the space it occupies. In the U.S.A. a lot of work has been done on compartmental tyres. One design is a tubeless tyre with an inner diaphragm which is uninflated. If the tyre is punctured, you connect a small gas bottle which is carried in the toolkit and blow up the diaphragm to form a sort of inner tube to get you home. The Goodyear Captive Air tyre has inner and outer compartments which are inflated through separate valves. If the outer compartment is holed, the inner one takes the load. But so far there is no simple way of telling when the outer compartment has been punctured and so the driver can continue unawares overdriving the tyres on the inner compartment. In rare cases both compartments may be holed. But they are rare. Goodyear reported to the Society of Automobile Engineers the results of an 18 months test on a fleet of 166 taxi cabs. Out of 1776 flats, the vehicles were only immobilised in 69 cases in 42 million miles, an average of once every 610,000 miles.

Another approach is a more compact cheaper type of spare wheel. A slim disc with a solid rubber tyre which bolts on alongside the punctured wheel is one idea. Another is a disc with a small pneumatic tyre like a motor bike tyre. They would cost much less than a conventional spare and take up about half the space, but if used on a front wheel of some modern cars they so upset the steering geometry that it is difficult to control the car except at very low speeds.

The reign of rubber as a tread material may not last indefinitely. One American company is already making tyres of butyl which costs 20 per cent more than rubber, but they claim shorter stopping distances, longer wear and total absence of squeal when cornering fast. Another promising material is urethane. Its abrasion resistance is up to ten times that of rubber and engineers say urethane tyres which will run 100,000 miles are "imminent."

The modern tyre has a critical influence on road holding, riding comfort, noise within the car and other aspects of car performance and as road performance rises its importance increases.

Associations AND THEIR ACTIVITIES

THE TAMILNAD MOTOR PARTS DEALERS' ASSOCIATION

At a recent meeting of the Executive Committee of the Tamilnad Motor Parts Dealers' Association held under the presidency of Sri Ramachandran, the following firms were enrolled as members of the association :

Pandyan Automobiles, Madurai.

Rajanathan & Company, Automobile Dealers, Madurai.

A.R.A.S.P.V.P.V. & Co., Palayamkottai.

A.R.A.S.P.V.P.V. & Co., Trichinopoly.

G. N. Chakrapani Chetty & Sons (P.) Ltd., Tirunelveli.

Arasan Automobiles, Tirunelveli.

Sundaram Automobiles, Tirunelveli.

Lakshmi Automobiles, Tiruchirappalli.

Everest Automobiles, Tiruchirappalli.

Anjaneya Motor Stores, Erode.

City Automobiles, Erode.

Bangalore Automobiles, Salem.

L. G. Balakrishnan Bros., Coimbatore.

Associated Agencies, Coimbatore.

The Pudukottai Industries Ltd., Pudukottai.

Lakshmi Automobiles, Cuddalore N.T.

Royal Agencies, Cuddalore N.T.

Katteri Automobiles, Coimbatore.

Coimbatore Auto Industries, Coimbatore.

S.P.S.S. Auto Stores, Karaikudi.

Madura Auto Stores, Tirunelveli.

Balu Automobiles, Salem.

A. Muthuswamy Chettiar, Namakkal.

Erode Automobiles, Erode.

Meenakshi Automobiles, Erode.

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T. V. Sundram Iyengar & Sons Private Ltd., Salem.
Motor & Services Ltd., Coimbatore.

Lucky Auto Stores, Madurai.

Vairavan Commercial Enterprises, Madurai, and

Sri Ramdas Motor Transport Ltd., Kakinada.

The meeting then decided on the number of holidays to be observed during 1960.

The meeting then decided and accepted MOTOR-INDIA as the official organ of the Association.

CO-OPTED

Mr. K. V. Padmanabhan of Salem and Mr. G. C. Pattabhiraman of Trichinopoly were co-opted to the Executive Committee unanimously. The meeting decided to send a delegation to the Seminar to be held at Bangalore, in response to a letter from the Mysore Automobile Parts & Allied Merchants' Association, and suggested the month of February 1960 as most convenient for the Tamilnad Association members to participate.

FEDERATION PLANS

By another resolution, the Committee considered a letter from the Madras Motor Parts Dealers' Association, and welcomed the move to form an all-India federation of motor parts dealers, but regretted its inability to attend the federation at present since the clauses, rules and regulations fixed by the other four founder members were not found acceptable to the Association. It was decided that the secretary should send a reply to the sponsors of the Federation, in detail explaining the decision of the Tamilnad Association.

The meeting concluded with a sumptuous dinner held in honour of the attending members by Mr. N. Kannairam.

Mr. A. P. R. Rajappa, Joint Secretary, thanked Mr. Kannairam for the entertainment and particularly the distant members for having found it possible to attend and encourage the function.

Photo shows Mr. M. V. Arunachalam, Managing Director, Carborandum Universal Ltd., Madras who visited West Germany, U.K. and U.S.A. as a member of the National Productivity Council Team on Top Management and Organisation, on his return to Madras on 5th December 1959. He was received at the airport by Mr. A. M. M. Arunachalam



THE REDEX CAR CLUB

MADRAS CENTRE

The Madras Centre of the Redex Car Club was inaugurated on the 22nd October, 1959 with a filmshow at the U.S.I.S. Little Theatre, Mount Road, Madras. A very interesting film, "The World's Toughest Car Trial—6500 miles Round Australia" was shown to the motoring enthusiasts who were present. At the end of the show, Mr. P. F. Lally, the Honorary Secretary of the Club, who had specially come from Bombay for the above function, explained the objects of the Club, some of which are as follows :

- (1) Free Initial Testing and Tuning of Member's Car Engine with the help of precision instruments.
- (2) Free supply of Redex Literature and Bulletins to enable the motorist to take proper care of his car.
- (3) Free supply of the Club's Official Magazine, viz., MOTORINDIA.
- (4) Rebate in hotel charges in U.K., Europe and India.

The annual membership is Rs. 12.00 and an entrance fee of Rs. 5.00. Motoring enthusiasts interested in joining the club may obtain the membership forms and other information either from Messrs. Parry & Co. Ltd., Engineering Department or from the offices of the MOTORINDIA.

Provisional arrangements have been made at the following places, where members of the Redex Car Club can obtain the Free Initial Testing & Tuning Service, by prior appointment.

Madras—

- (1) M/s. Sundaram Motors (P.) Ltd.
- (2) M/s. Union Company (Motors) Ltd.
- (3) M/s. Premier Auto Electric Co. (P.) Ltd
- (4) M/s. Rumeda's Service Station.
- (5) M/s. Approved Auto Services.

Bangalore—

- (1) Mr. J. Webb of Webb's Sales & Services.
- (2) Mr. V. N. Sivaswamy, 65, Commercial. St. (For membership forms and general information only).
- (3) R. J. Anthony's Motor Works, Jayachamarajendra Road. (For testing and tuning service)
- (4) Kumaran Service Station, Central Street. (For testing and tuning service)

Ooty—

- (1) M/s. Stanes Motors (South India) Ltd.

Pondicherry—

- (2) Mr. P. A. Colombani (Citreon Agents)

Any other information or assistance may be had from the Hon. Secretary, The Redex Car Club, 3, Sprott Road, Ballard Estate, Bombay-1.

I. R. T. D. A.

Chinubhai Re-elected President

At its recent meeting held at Bombay, the Council of the Indian Roads & Transport Development Association Ltd., has re-elected Mr. Chinubhai Kilachand as its President for the ensuing year. A leading figure in the automobile and allied industry circles in Bombay, Mr. Chinubhai Kilachand is also prominently connected with Premier Automobiles Ltd., of which he is Joint Managing Director.

The meeting also elected Dr. F. P. Antia of the Cement Marketing Co., as Vice-President of the Association and Mr. B. V. Vagh as Executive Vice-President. It may be mentioned that Mr. Vagh has been Executive Vice-President since 1954.

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Spare parts TRUCKS & TRACTORS

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PHONE :
85789

Madras Motor Parts Dealers' Association

The General Body of the Madras Motor Parts Dealers' Association has fixed the following holidays to be observed by all members for the year 1960—

List of holidays for the year 1960

New Year Day	Friday	1st January
Vaikunta Ekadasi	Saturday	9th January
Pongal	Thursday	14th January
Republic Day	Tuesday	26th January
Mahasivarathri	Thursday	25th February. (Closing at 2 p.m.)
Ramzan	Tuesday	29th March.
Tamil New Year's Day	Wednesday	13th April.
Avani Avittam	Saturday	6th August.
Independence Day	Monday	15th August.
Vinayaka Chaturthi	Friday	26th August.
Mahalaya Amavasai	Tuesday	20th September
Ayudha Pooja	Thursday	29th September.
Deepavali	Wednesday	19th October.
Guru Nanak Devji's Birthday	Thursday	3rd November.
Christmas	Sunday	25th December.
Vaikunta Ekadasi	Wednesday	28th December.

Besides it has also been decided to close establishments at 2 p.m. on the Aruvathumooval festival day.

In a circular to the members, the secretary urges members' co-operation in strictly observing the holidays.

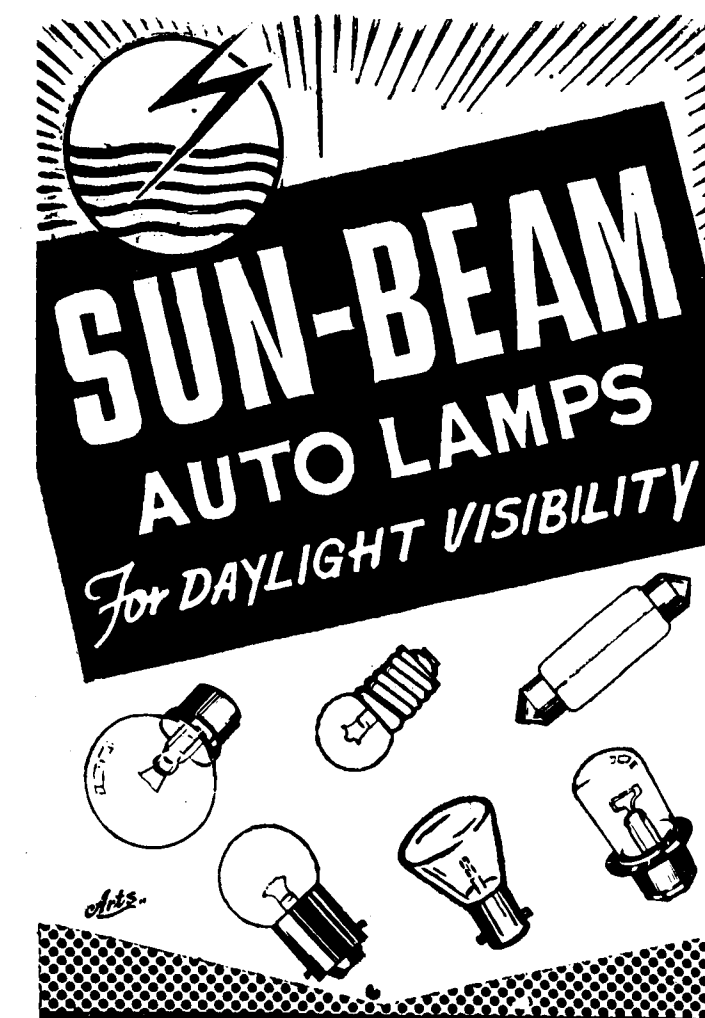
Mysore Automobile Parts and Allied Merchants' Association

The Managing Committee of the Association recently met under the presidency of Mr. Ujagar Singh and among other things, considered a letter from the Hon. Secretary of the Madras Motor Parts Dealers' Association on the formation of a federation of All-India Automobile Spare Parts Dealers' Associations. After discussion, it was resolved that suitable recommendations be sent to all the founder members of the association elucidating the Mysore Association's serious objections to the proposal to restrict the membership of the federation to associations with not less than 100 members only. It was resolved that after getting further clarifications on the point, the question of attending the Federation should be considered.

The Committee decided to convene a meeting of tyre and battery dealers in the State at the time of the forthcoming annual general body meeting of the Association, to consider and take stock of the tyre prices and to suggest suitable decisions in the matter.

Another meeting of the Executive Committee held later (December) under the presidency of Sri Ujagar Singh resolved to admit M/s. Motor Stores and M/s. Maroor Padmanabha Pai & Co. as members of the Association.

The meeting decided to send a detailed reply outlining their objections to the Draft Rules in respect of the formation of the proposed Federation of automobile dealers.



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- M/s CHIMANLAL DESAI & CO., 54, Bentinck Street, Calcutta 1 (For West Bengal, Bihar, Assam, Orissa, Madhya Pradesh & Rajasthan)
- M/s B. D. GOPAL DASS, 8-B, Ajmere Gate Extension, New Delhi and The Mall, Laxmi Building, Kanpur. (For Uttar Pradesh & Delhi)
- M/s NATIONAL CORPORATION LTD., Mandi Road, Jullundur City. (For Punjab, Himachal Pradesh, Pepsu, Jammu & Kashmir)



Group photo taken on the occasion of the Annual General Body Meeting of the Madras State Lorry Owners' Association held recently at Madras.

MADRAS STATE LORRY OWNERS' ASSOCIATION

New Office-Bearers Elected

The General Body Meeting of the Madras State Lorry Owners' Association, was held at the Registered Office of the Association at 104, Varadamuthiappan Street, Madras, under the Chairmanship of Mr. S. C. V. Gopal on 13th December last.

At the outset, Mr. A. G. Gopalakrishnan, Secretary of the Association presented the Annual Report, which explained the very good work that had been turned out during the last year.

The speakers at the meeting suggested that the Government should be informed about the non-availability of taxation discs for those who pay the taxation, application forms, treasury chalan etc., which resulted in serious inconveniences and hardships to the lorry operators.

Another suggestion was made that the quarterly tax and surcharge may be collected at the Transport

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Offices, instead of at the Treasury, as was being done at the Commissioner's Office.

In view of the difficult situation in the matter of supply and availability of new motor vehicles, it was suggested that the condition of the old model vehicles and the date of registration of ex-army vehicles should be considered and lorry operators should be enabled to operate the vehicles provided they were roadworthy, instead of the age of the vehicle concerned. It was also suggested that lorry owners should not be asked to give declarations pledging renewal of vehicles in the Certificate Books.

RESOLUTIONS

The General Body resolved among other things, to rectify the change of address of the office of the Association to 104, Varadamuthiappan Street.

The meeting also resolved to accept the resignation of the former President Mr. M. Sankaran and placed on record the great services he has rendered to the Association.

The meeting considered that the recent enhancement of the appeal fee from Rs. 10 to Rs. 100 and the revision fee from Rs. 50 to Rs. 150 under Rule 148-A of the Madras Motor Vehicles Rules, was prohibitive and requested the authorities to cancel the enhanced fee and restore the original fees instead.

The meeting drew the attention of the Government to an earlier memorandum submitted to them urging the abolition of check posts especially in Madras State and reiterated that checking done in various checkposts caused great inconvenience to the free flow of transport



Sri A. G. Gopalakrishnan, Secretary, Sri S. R. Kuppuswamy Chettiar, President and others at the M. S. L. O. Association's annual meeting.

which resulted in the dislocation of industry, particularly as vehicles were detained for a considerably long time by the check post officials as well as by sales tax officials and traffic guards. The Association urged the Government to take early action to abolish check posts.

By another resolution, the Government was requested to implement their G.O. No. 2010 so that some control can be exercised over lorry brokers under whose mercy the lorry owners are now placed. It was pointed out that unlicensed lorry brokers taking away a major slice in the revenues of the lorry trade affect the transport business considerably. It was, therefore, urged that early licensing of lorry brokers should be the aim of the Government.

The next resolution referred to the collection of single point tax in respect of transport vehicles plying between Madras and Andhra, Mysore and Kerala and Mysore and Bombay etc., and urged the Government to extend this system of single point tax collection in respect of vehicles plying to and from Pondicherry, Karaikal, Kerala and Mysore States also.

OFFICE-BEARERS

The meeting next proceeded with the election of office-bearers and the following were elected unanimously for the period 1959 to 1962.

President : Sri S. R. Kuppuswamy Chettiar.

Vice-President : Sri M. Sambandam Mudaliar.

Secretary : Sri A. G. Gopalakrishnan.

Treasurer : Sri A. Doraiswamy Chettiar.

Committee Members : Messrs. M. Natesa Pillai, D. Y. Munuswamy, P. Kailasam, T. G. Kannappa Mudaliar, S. Narayanaswamy, G. Ganapathy.

G. N. Chakrapany Chetty & Sons (Private) Ltd

AUTOMOBILE DEALERS & ENGINEERS

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TIRUCHIRAPALLI

Phone No : 35

Head Office : Madurai

Grams : AUTOSPARES

Branch : Tirunelveli



Mr. S. C. V. Gopal, Corporation Councillor, who presided over the Annual General Body Meeting of the Lorry Owners' Association, is seen here addressing the gathering.

Operators' Problems

INCREASE LADEN WEIGHT TO 12 TONS

Mysore Petition to Govt.

The Mysore State Lorry Owners' Association, Bangalore, in a representation to the Hon. Chief Minister of Mysore on the question of enhancement of permit laden weight to lorries, states :

In continuation of our previous representations on the subject requesting for the enhancement of Permit Laden Weight to lorries, we beg to state that it has come to our notice that the Government of Mysore have now been running regular passenger buses from Bangalore to Madras and *vice versa* daily and also on many important routes through their State Transport Service. These buses consist of big vehicles, "Tiger Leylands" with a seating capacity of 50 passengers or more, with their luggage and other belongings, and the laden weight, we believe, range from 12 to 14 tons approximately. Further, we understand that the Government propose to introduce double-deck passenger buses also very shortly. These vehicles also may accommodate 100 or 110 passengers and the overall weight of these vehicles may be considerably higher than the vehicles now running from Bangalore to Madras and *vice versa*.

FAIRNESS TO ALLOW LORRIES

When such big passenger buses are allowed to run on the roads, passing through bridges and culverts, en route as a matter of course, yielding substantial margin of profits to Government, it is in fairness that lorries, having a far lower tonnage weight should also be allowed without let or hindrance to carry tonnage

equal to Government buses. The bogey of "weak bridges and culverts" so often pitted against the Road Transport operators by Government authorities as the main reason for the Government in not increasing the Permit Laden Weight in the case of lorries plying on these roads, stands exploded as Government themselves have now been running such huge carriers with such large tonnage weights.

We, therefore, request that in fairness to all cannons of justice and reasoning the Road Transport operators may be permitted to ply their lorries, which we need hardly point out carry far lesser weight and tonnage. If buses are allowed a laden weight of 12 to 14 tons, there is no reason why the permit laden weight of lorries should be restricted to 8 tons only. If as alleged the bridges are weak and cannot carry more than 8 tons, then the seating capacity of the buses also should be reduced to 20 or 25 persons only and it would be uneconomical to run buses on this basis as it happens in the case of lorries with a permit laden capacity of 8 tons.

UNECONOMIC

With a crushing burden of Central and State taxation, and the enormous increase in maintenance costs, it has been impossible to run services with such a low permitted laden weight and this has led to all sorts of malpractices.

We, therefore, appeal to Government to enhance the permit laden weight to 12 tons to enable the operators to organise their business on a proper basis.

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In response to representations made by the Madras State Lorry Owners' Association, regarding acceptance of Composition Fee, the Government of Madras in a Home Department Memorandum dated 10th December, have stated that the Transport Commissioner, Madras, has issued necessary instructions to the Secretary, Regional Transport Authority, Madras, to allow 15 days' time for the acceptance of Composition fee from the date of commencement of the period for which tax is intended to be compounded.

The Secretary of the Lorry Owners' Association is also requested to instruct all the members to adhere to the provisions of the Act and the Rules in these matters, instead of waiting for the grace periods.

M. S. L. O.

REPRESENTATION TO GOVT.

The Madras State Lorry Owners' Association in a representation to the Government of Madras, have drawn pointed attention to the artificial scarcity of tyres and the existence of blackmarket therein and offered suggestions to relieve the difficulty in such a way as to help the independent small operator, who is now the worst sufferer.

It is pointed out in this connection that the Central and State Governments, who get the first preference and take their requirements from the tyre companies in the country should stop drawing from the tyre companies for at least two months to ease the situation. It was also suggested that the Central and State Governments, who have their nationalised transport should have their own tyre factories so that the existing factories may be able to supply the private operators without any difficulty.

DISPOSAL DELAYS

Sri A. G. Gopalakrishnan, Secretary, Madras State Lorry Owners' Association, in a representation to the Secretary, Home Department, Government of Madras, regarding delay in disposal instructions for goods vehicles, states that many members of the association have reported undue delay in disposing of usual correspondence at the Regional Transport Office, Chingleput. For instance, an application for grant of zonal permit field on 29th May was still pending action, whereas at Madras, the R.T.A. had issued over 500 public carrier permits during this period. It was also submitted that in respect of alterations, transfers, etc., in registration certificates permit effects, etc., there was undue delay in disposal at the office in Chingleput District.

ACQUITTALS UNDER M. V. ACT

Reveal Flimsiness of Charges

NON-EXHIBITION OF T. L. DISC

Yesodai Ammal, owner of Lorry No. MDY 5066, who was recently charged by the Tirunelveli Police under Section 6 (1) of the Motor Vehicles Taxation Act was found not guilty of the offence and acquitted under Section 245 (1) of Cr.P.C. by the Sub-Magistrate of Tirunelveli, Sri T. Pattabiraman.

The accused in this case was charged for not having exhibited the taxation licence disc on her vehicle, when it was inspected on 9th March last year. A clerk of the Sub-treasury, who was examined in this connection, as a defence witness, has stated that the accused paid the taxation fee of Rs. 341.60 in chalan No. 1355. Since the stock of taxation discs was exhausted at his office, it was not issued to the accused, but an entry to that effect had been made in the register. Instead of the disc, the chalan was asked to be kept by the accused. The payment of the tax had also been endorsed on the Registration Certificate.

The Magistrate in delivering the judgment observed *inter alia* that the point that arose for consideration in this case was whether the accused contravened the particular Section of the Motor Vehicles Act. But, the evidence in the case was very clean in that no taxation disc was issued to the accused. Instead, he

was asked to keep the chalan for the payment of tax. In this connection, it is not possible to make the accused liable for no fault of hers. The Magistrate added that the prosecution had not cared to ascertain the real facts of the case and the act in filing this charge-sheet had caused great expenditure to the State and much expenditure and harassment to the accused. In the result, the accused was found not guilty and acquitted.

NON-PAYMENT OF Q. TAX

Mr. N. Tajamul Hussain, Second Presidency Magistrate, Madras in a recent case under Section 7 of the Motor Vehicles Act acquitted Mohamed Ghouse, who was charged under that Section, in that he was alleged to have plied his lorry without paying the quarterly tax for the period ending 30th June 1957.

On an examination of the offence, the Magistrate held that it was clear that even before the date of the alleged offence, the vehicle was under repair and was kept in the workshop compound as not roadworthy. "I find no reason to disbelieve the evidence of the defence witness who is a respectable witness owning five lorries himself. As contended by the learned defence Counsel, the number of vehicles might have been wrongly noted by the head constable."

Believing the evidence of the defence witness, the Magistrate passed orders as stated before. Mr. S. Daivasigamani, Advocate appeared for the accused.

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NEWS LETTER

Oil Exploration

The Government of West Germany and the French Institute of Petroleum have approached the Government of India to participate in exploration for oil, said Shri K. D. Malaviya, Union Minister for Mines and Oil in the Lok Sabha.

The German seismic teams would conduct geophysical investigations in the Indo-Gangetic plain and the offer has been accepted.

The French Petroleum Institute, added the Minister, proposed to conduct exploration under the aegis of the Oil and Natural Gas Commission in the Kutch area. On discussion, the French authorities have agreed to send revised proposals which were awaited.

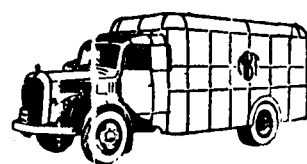
"SHAKTIMAN"

Production Details

The approximate saving accruing to the Ministry of Defence with the starting of "Shaktiman" truck in the country in collaboration with a German firm was detailed in an answer to a question in Rajya Sabha. The Deputy Minister of Defence, Shri K. Raghuramaiah, replying to a question on the subject by Shri Niranjan Singh said :—

"Starting with a saving of Rs. 7,500 per truck in the beginning, the saving is expected to increase as the percentage of indigenous manufacture goes up. "Shaktiman" truck has additional advantages over other trucks which the army have been getting like better increased payload by 30 per cent, multi-fuel engine and

Photo shows Mr. R.P. Eswar of Scott & Pickstock Private Ltd., Madras, with his bride N. Hymavathy (daughter of Sri K. Narayana-kutty). The marriage was celebrated on 23rd November at Nemmara, Kerala



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other special features as to make it a sturdy cross-country vehicle more suitable for military purpose.

The agreement provides for assistance in establishing complete indigenous manufacture. The production programme envisages progressive manufacture of trucks in India, so that by June 1954, the entire truck will be made in India. The percentage of indigenous manufacture of truck components to be achieved is as under :

First year, 30 per cent ; second year, 50 per cent ; third year, 70 per cent ; fourth year, 80 per cent ; and fifth year, 90 per cent. This schedule has been improved upon already and an earlier total truck production may be anticipated.

AUTOMOBILE LEAF SPRINGS

Government wants prices down

The Government of India's resolution on the Tariff Commission's report on the continuance of protection to the automobile leaf spring industry has been published today.

The Government have accepted the Tariff Commission's main recommendation that the protection granted to the automobile leaf spring industry need not be continued beyond December 31, 1959.

The Government of India have drawn the attention of the manufacturers of leaf springs and spring leaves to the Commission's recommendation that they should

immediately effect a further reduction in their selling prices and maintain them in fair relation to the cost of production.

[Protection to the automobile leaf spring industry was first granted in 1954. The period of protection ended on December 31, 1959.]

There are at present six major units and 28 small units producing leaf springs and spring leaves. The annual rated capacity of the major units on single shift has been estimated at 7,450 tons and of the small-scale units at 11,824 tons.

In the last few years, the industry has achieved notable progress by installation of additional machinery and equipment for testing of raw materials and finished products. Production of leaf springs and spring leaves by the six major units increased from 4,954 tons in 1956 to 7,047 tons in 1958. Production in the small-scale sector amounted to 4,254 tons in 1958.

The current demand for leaf springs, exclusive of the defence requirements, has been estimated at about 14,550 tons. The Tariff Commission expects that the demand will not increase by more than fifteen per cent over the next three years.

The quality of springs produced by the organised sector has been found satisfactory by the Commission. To improve the quality of the products in the small-scale sector, the Small Industries Service Institutes are rendering technical assistance. Model workshops are also being set up which would be equipped with laboratories where testing of raw materials could be undertaken.]



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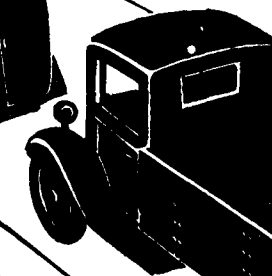
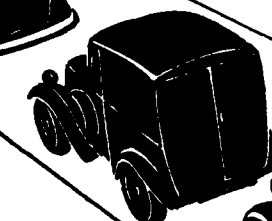
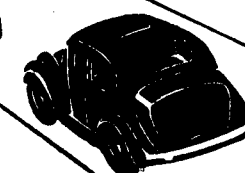
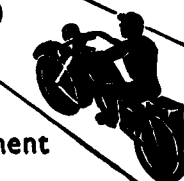
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MORE TAXIS ON DIESEL

Diesel engines are bringing about a minor revolution in the taxi business throughout Malaya, according to a report from the Federation.

Taxi operators are switching over to diesel at a rate of 100 a month.

Statistics issued by the Federation Road Transport Department show that the number of diesel taxis registered in Malaya was almost doubled in three months. There were 382 diesel taxis on the road on June 30, and by September 30 the number had risen to 701.

The demand for diesel has been accelerated by recent importation of small four cylinder engines suitable for a wide range of cars.

For example, more than 1300 1.6-litre Perkins Four 99 engines have been ordered for Malaya and Singapore in the last 18 months. At least 95 per cent of these are for installation in taxis, including Consuls, Zephyrs, Morris Oxfords, Austin A.55s., Hillman Minx and the Australian Holden.

Conversion from petrol to diesel costs about 2,750 dollars, or about £ 320, but this is quickly recoverable through reduced operating costs.

These taxis, which average up to 12,000 miles a month, use diesel fuel costing only 60 cents a gallon—and have a consumption rate of about 56 m.p.g.

BR. MOTOR INDUSTRY'S PROGRESS

Signs of further period of expansion

Plans announced for the British Motor Industry clearly show that a further period of expansion is about to begin.

The British Motor Corporation—the biggest motor-producing group in the country—has announced that it would spend some £ 49,000,000 in the next three years on capital account to boost production capacity to 1,000,000 vehicles a year.

The Ford Motor Co. has recently completed a £ 75,000,000 development programme and plans to begin another which will cost between £ 45,000,000 and £ 50,000,000.

Vauxhall Motors Ltd., wants to expand, and the Rootes Group recently announced its intention of spending £ 10,000,000.

The City editor of *The Times* writes that the British Motor Corporation is now better placed since the recent costs of launching eight new models are out of the way.

“The new small cars, whose development cost £ 10,000,000 have been so well received that output of them is to be raised from 4,000 to 8,000 a week, and for the first time the group's vehicles are all BMC models designed for group manufacture, and so making production economies possible.”

The BMC annual report showed that the corporation's home-market order book at the end of July 1959 was nearly three times as large as at the same time in the previous year.

Mr. P. V. S. Mani, Managing Partner, M.B.T., was given a jubilant welcome on his return to Madras by Air India International after studying the transport industry on 12 weeks' tour in the continent, U.K., and U.S.A. as a member of the delegation under the T.C.M. Programme



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