Nr 6-7 JUNE-JULY 1945

PATE EN

THE VOLVO REVIEW

We at Volvo are always ready to take a plunge

Volvo-girls on the track

TILL DEN SVENSKA LÄSEKRETSEN

En förklaring och en ursäkt

Vi här på Volvo har som bekant alltid varit rätt säkra i korken och medvetna om både vår egen och våra vagnars förträfflighet. Naturligtvis känner vi då också en stark övertygelse att vår tidning Ratten är bland det läsvärdaste och trevligaste som finns, och att läsekretsen går och räknar dagarna, till dess nästa nummer kommer ut, för att då, glömsk av tid och rum, riktigt sätta sig till att insupa dess visdom.

Att någon endast förstrött skulle bläddra igenom tidningen och titta på bilderna eller rent av snegla åt papperskorgen, har vi ytterligt svårt att tro.

Under sådana förhållanden känner vi oss nästan litet generade över att vi denna gång kanske lurar en del av läsarna på konfekten. Som Ni kommer att finna, är nämligen hela detta nummer skrivet på engelska. Många kommer att kunna läsa den lika obehindrat för det. Andra kanske med någon möda. Åter andra, vars liv gestaltat sig så, att de aldrig haft tillfälle att lära engelska, kommer denna gång endast att kunna ägna sig åt bilderna. Till dem vänder vi oss alldeles särskilt med denna ursäkt.

Tro inte, att vi blivit högfärdsgalna! Tro heller inte, att vi har för avsikt att, nu när kriget är slut, bara ägna oss åt exportaffärer och strunta i den svenska allmänheten.

Men vi har nu i snart sex år överhuvudtaget inte kunnat sköta om vår export. Några få hundratal vagnar har gått till några av de länder vi kunnat nå. Reservdelsleveranser har kunnat ske till vissa länder i mycket begränsad omfattning. Andra har vi endast kunnat hjälpa med anvisningar om hur de skulle kunna erhålla de mest oumbärliga delarna. Med många länder har vi endast med långa avbrott och mycket knapphändigt kunnat upprätthålla brevkontakt.

Vad är då naturligare än att vi nu, när postgången länderna emellan åter börjar fungera, försöker att ge alla våra utländska försäljare en bild av vad som hänt här hemma under krigsåren, en idé om vad Volvo uträttat och vad Volvo är idag, samt en förhandsuppgift om vad vi kommer med i vårt fredsprogram.

Mycket har dock hänt under dessa sex år. Av Aktiebolaget Volvo har blivit en koncern: Volvo-Penta-Flygmotor-Ulvsunda-Köping.

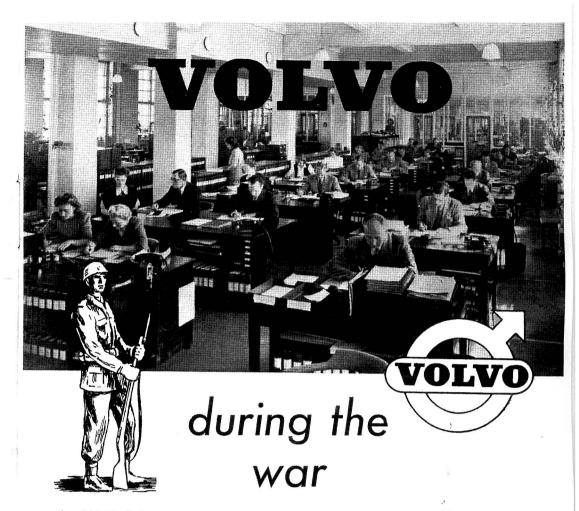
Vi har fördubblat vårt aktiekapital. Vi har lagt upp ett fredsprogram, som innebär en dryg fördubbling av vår tillverkning, sådan den skulle varit 1939, om inte kriget hade kommit.

Även personal- och arbetsförhållanden har ändrats en smula. Vi har många nyanställda. Inte minst på exportavdelningen, där flera av de gamla slutat för att söka nya verksamhetsfält, när inte Volvo längre kunde exportera.

Det är om allt detta vi berättar i detta nummer av vår tidning. Det är saker, som våra svenska läsare fått till livs successivt under sex år. Men det är nyheter för våra vänner i främmande länder.

I nästa nummer är vi åter svenska, svenskare än någonsin, ty redaktörn har just återkommit från en tids beredskapstjänst. R. H.

Mezäta
522708 GOTHENBURG 1945



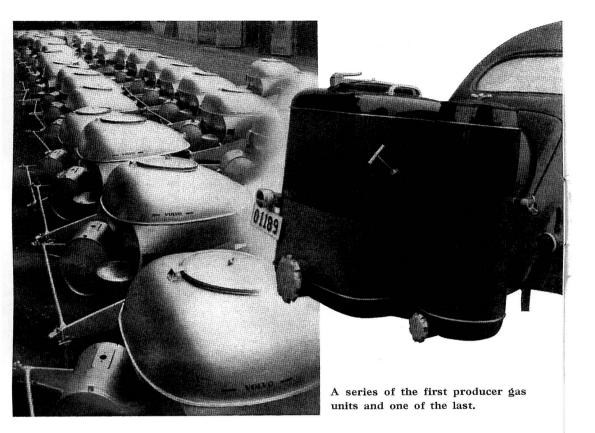
A RETROSPECT AND A FEW SPECULATIONS ABOUT THE IMMEDIATE FUTURE

The outbreak of war.

When the war broke out in September 1939 Volvo was experiencing one of the liveliest years in its history. 1939 promised to be a record year which would put all previous efforts in the shade. In spite of this we planned a programme for 1940 that meant a production increase of 33 %. Large

quantities of cars were delivered to both the home and export markets and desperate efforts were made to cope with the demand. In July we had moved into attractive new offices which were 100 % roomier and 200 % more attractive than the old ones.

A new assembly shop with a floor space of 7000 sq.m. had just been completed and we were in the midst of



our production plans for this building. Then the war started.

The situation changed completely overnight. Yesterday's problems were no longer problems, but they were superseded by others.

Sales ceased as if by magic. Those who had previously clamoured most after cars became mute, except when they wished to cancel an order.

That 1939 broke all records in spite of everything, was mainly due to the fact that to all intents and purposes the record was already beaten during the first eight months of the year, that is to say before the outbreak of war.

The main question for the motorist now became, how long he could reckon on being able to get gasoline, and for the manufacturer, how long he could sell automobiles and spares when gasoline was unobtainable.

Producer-gas.

Producer-gas saved the situation. For several years producer-gas had lived a languishing existence in Sweden, and we, like the rest of the trade, had not believed in its possibilities. Rumours of a coming conflict made us revise our opinion of the usefulness of producer-gas, and in the early

stages of 1939, in direct contrast to the others, we drew up preliminary plans to enable the factory to switch over if necessary to production of producer-gas units.

Once we got going, everything went quickly enough. The world's radio stations had hardly finished broadcasting the news of the outbreak of war, before the blue-prints of our first producer-gas unit left the drawing office, and a fortnight later the first specimens came off the line.

This was the birth of a new era in the history of the nation as well as the Volvo Company — in many respects a time of trial, at least in the beginning. People who previously had not had the slightest idea of what existed under the hood, suddenly became deeply interested in the scientific side of motoring, and it was always a matter of extreme interest, whether or not the automobile would start voluntarily after a nights sojourn in the open, or whether the vehicle would surmount a gradient of 1/1000 without having to resort to bottom gear.

In the beginning everyone was rather at sea about producer-gas in general and their own units in particular, but after a while both the motoring public and mechanics acquired a considerable amount of knowledge about them, with the result that six months after the outbreak of war, nearly every mechanical workshop with ten or more employees began manufacturing producer-gas units.

The Volvo unit was neither better nor worse than its competitors, but we gained a certain lead thanks to our early start and our superior manufacturing organisation. In all we sold 13000 units before the market was saturated.

The first Russo-Finnish war and the invasion of Norway meant that the scene of operations was moved into our backyard so to speak. The continual threat of war hung over us like the sword of Damocles. The fact that all able-bodied men between 20 and 47 were repeatedly drafted for military service, more often than not had dire consequences in both their work and private life. Under the circumstances it is only natural that a certain nervous tension prevailed everywhere during the first year of the war

Volume of employment.

Moreover, many industries, including the automobile trade, were deeply concerned about the possibilities of keeping their plants fully employed.

During the first part of the war Volvo's production of producer-gas units compensated to a certain extent the downward trend of automobile sales, even if the value of the former was naturally not so very high.

However, the paralisation following the first shock caused by the outbreak of hostilities disappeared. The sale of trucks started again and gradually rose to about 50 % of the pre-war figure. A contributory factor was the large number of orders placed by the government in connection with the national re-armament programme. With regard to passenger vehicles, the army covered its requirements by purchasing and requisitioning direct

from private owners who did not desire to run their vehicles on producer-gas, or were prohibited from doing so by tire restrictions, and were therefore compelled to jack up their automobiles for the duration of the war. As a consequence our passenger car sales sank to a few hundred a year.

As it was uncertain how long the production of trucks could continue, and as it was not large enough to keep the factory fully employed, we began to look around for suitable objects for our activities.

War vehicles.

We began by manufacturing under licence the »Lynx» armoured car, one of the most intricate vehicles which we have ever built. Although a comparatively small and light vehicle, the mechanical equipment was so extensive, that there was hardly any room over for the driver and crew. It was built as a reconnaisance car, and was designed so that it could be driven equally well in both directions, and was equipped with double sets of manual controls, steering gears, gear shift levers and pedals, and room for two drivers, one at each end.

At the same time we were occupied by designing several other military vehicles.

Before the war we had built the large TVB six wheel artillery truck with the drive on both rear axles. After the outbreak of war we improved the design by introducing the drive on the front axle as well, which considerably increased the vehicle's possibilities with regard to traversing rough

country. Considerable numbers have been delivered to the War Office.

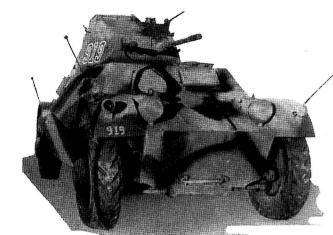
Another vehicle for towing light artillery was built for the Swedish army, a so-called combined wheel and crawler tractor, equipped with conventional front wheels for steering and caterpillars instead of wheels at the rear. A steel body for passenger transport formed an integral part of this vehicle. The mobility of artillery, and its ability to utilize advantageous gun emplacements, was considerably increased on account of the vehicle being able to traverse loose and marshy ground.

In 1942 we began making 22-ton tanks. The drawings were ready and we were given the job of putting them into production, but as the Swedish industry's manufacture of war material was now at a peak, considerable obstacles had to be overcome before we could start. However, during 1943 the first of the series came off the line. They were powered by twin engines. In the meantime we had designed a 400 HP V 8 engine specially for tanks, and this was fitted to the second series of the 22-ton model which we delivered during 1944.

Although we were thus overloaded with government contracts this did not mean that we left our civil production in the lurch. On the contrary, our drawing office has expanded considerably, and has probably never before worked at such high pressure.

Commercial vehicles.

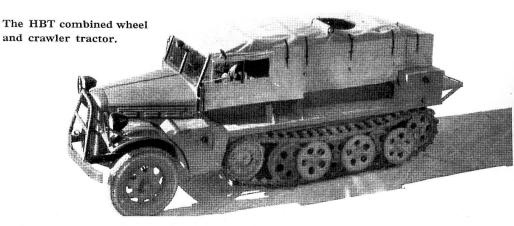
By introducing four-wheel-drive on a vehicle based on the design of the



The "Lynx" armoured car.

The TVC 6-wheel-driven artillery tractor.







Above: The 22-ton tank. Below: Interior of assembly shop for 22-ton tanks.

Volvo LV-141, we launched a model which to all intents and purposes was an ordinary truck. The use of four-wheel-drive enables the truck to transport lumber or other loads over

rough country and up gradients which would normally defy the efforts of a conventional truck. Although we have hitherto delivered mainly to the War Office, it will be on the market after the war, and should be of great interest for certain operators.

Already at the beginning of the war it was obvious that the number of vehicles that could continue operating, and consequently the volume of sales, were entirely dependant on the rubber situation.

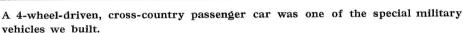
To compensate our dealers for the anticipated loss of the car market due to the rubber shortage, we decided to manufacture agricultural tractors, where in many cases iron wheels are required instead of rubber. We designed therefore, in collaboration with the Bolinder-Munktell Company, who had previously been engaged in this trade, a medium-sized tractor. As at this time the Swedish industry was overloaded with war work, and moreover government orders had priority, the production of the tractor was con-

siderably delayed, with the result that the tractor was unable to play the prominent part which was, originally intended for it in our dealer organisation. Up to the present time we have only delivered 454 tractors.

Expansion. Import problems.

A stage in our efforts to keep our different factories fully employed during the war, was reached when we obtained a controlling interest in the Swedish Aero-Engine Company at Trollhättan, which manufactures aero-engines for the Swedish government. Already at the outbreak of war, when a considerable increase of the production at Trollhättan was required, a certain amount of the sub-contracts had been placed with our engine works at Skövde. When Volvo acquired the controlling interest in the





Aero-Engine Company, a basis for cooperation was established, that meant an increase in employment for our engine factory. As great skill and precision are required when manufacturing aero-engine parts, this must in the long run have a great influence on the Penta works, and means that their products will reach a standard which is even higher than that which they have hitherto attained.

On the other hand, this increase in production at the Penta works turned out to be more of a disadvantage than an advantage. The manufacture of both standard and military vehicles had become larger than we had anticipated when we took over the aero-

engine factory and our requirements with regard to engines from Penta had grown accordingly. Moreover, the blockade became more stringent and prevented us from importing those automobile parts which we had previously bought from USA and England. This compelled us to start the manufacture of many of these special parts in Sweden, primarily at the Penta Works, where we had not only modern machines but also a well trained and experienced staff of engineers and workmen. A typical example of this were the rear axle gears, which we make in Gleason machines, which were delivered from America just before Sweden was completely cut off



The TLV 4-wheel-driven, cross-country truck with armoured body was another.

from the rest of the world as a result of the blockade.

All this meant that tremendous pressure was put on the Penta Works, which for a considerable time had the triple task of manufacturing a) aeroengine parts b) Volvo engines and c) various other parts for Volvo chassis.

But Penta was not the only factory that had to tackle jobs of this kind. Several prominent Swedish industries, which were old suppliers to Volvo, saddled their share of the burden and attacked various manufacturing problems with praiseworthy energy.

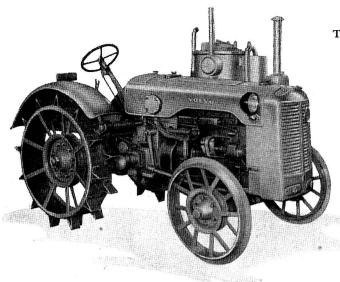
Besides the Penta factory we had access to another plant, namely the Ulvsunda Works, which we had acquir-

ed in connection with the purchase of the Swedish Aero-Engine Company.

The Ulvsunda Works already had a very good reputation for fine work-manship when we took them over. During the course of many years special parts for Bofors guns, which demand the most scrupulous accuracy and precision, had been manufactured by them. Their long experience was therefore invaluable when we were in need of a supplier of articles which we had hitherto imported.

Increased use of Swedish made parts.

Before the war we imported 10—15 % of the parts employed in the



The agricultural tractor.

manufacture of our cars, but the war and the blockade gradually reduced the percentage of foreign equipment to a minimum.

As the Volvo Combine has always emphasized the fact that it manufactures a Swedish product, and uses Swedish steel, and that the finished article is the result of Swedish craftmanship, one would have thought that this development would be a source of great satisfaction. Quite frankly we must admit that we are not so pleased with it, for although there are no signs of our cars being better or worse now that they have become almost entirely Swedish, they are certainly not cheaper.

The explanation is quite obvious. Certain automobile parts are so specialized that they can only be produced at a reasonable cost when made in large quantities, and more often than not by the use of specialized machinery. This applies not only to ac-

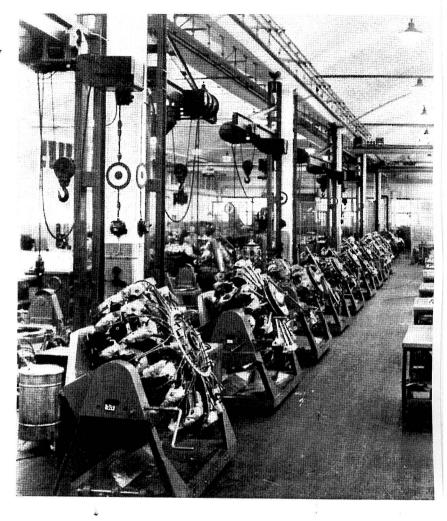
cessories such as carburetors and electrical equipment, but to a certain extent to rear axle and steering gears, propeller shafts etc.

Before the war our purchasing department had the following policy:

»All parts should if possible be manufactured in Sweden, but patriotism should not be a reason for not buying abroad, if a foreign part was cheaper and just as good as the corresponding Swedish product. However, the superiority of Swedish steel had to be taken into consideration, when comparing foreign parts with Swedish ones.»

Under the circumstances it was, of course, a source of great satisfaction that 85-90~% of the parts could be manufactured in Sweden, and that only 10-15~% had to be imported.

On the other hand, it is obvious that the latter could not really be manufactured in Sweden at competitive prices. Unquestionably the manufacture of The assembly shop of the Aero-Engine Company.

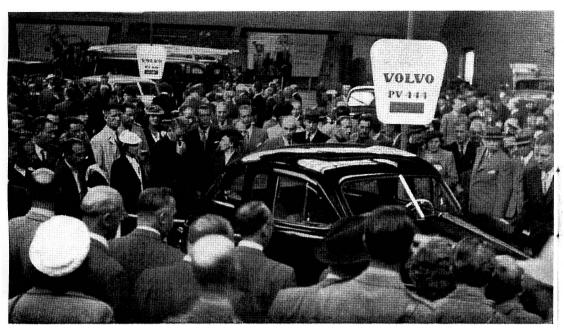


these parts in Sweden has turned out to be considerably more expensive than importing them ready-made from abroad. In some cases, however, we have managed to rationalize the production and thereby reduce the prices to such a level, that we hope to continue manufacturing them in Sweden, but in most cases we shall resume buying abroad as soon as circumstances permit.

In other words: we are to go back to our old purchasing policy as soon as possible. Our aim will be as previously, to make the best possible car at the lowest possible price, even if the result is not 100 % Swedish.

Prices.

The increase in our production costs is, however, caused only to a limited degree by this enforced manufacture



At the Stockholm Exhibition the new small passenger car was received with enthusiasm.

in Sweden of parts previously imported. More important is the increase caused by the general rise of prices in Sweden. It is estimated that the average increase in the cost of materials that are likely to influence the automobile industry is 55 %, to which must be added, the extra cost of the aforementioned accessories, now manufactured in Sweden and previously imported.

It must have come as a shock to our dealers abroad when they saw our present export prices. But obviously prices in Sweden and most other countries are bound to decrease with the return of normal trade conditions. The fuel question means a great deal in this respect for the use of substitutes for coal and coke such as wood and peat, has caused an increase in industrial overhead charges. But the most important factor is that when trade routes begin to function again, one can purchase goods where they are cheapest.

The blockade compelled not only us but several other industries to manufacture many articles in Sweden which previously could be obtained cheaper abroad. Other countries were faced with the same problem, and were forced to use expensive substitutes for products which they had previously purchased cheaper in Sweden.

For obvious reasons transport costs between countries have been abnormally high but will gradually diminish, thereby contributing to a general decrease in prices.

When international relations become re-established and the economic life

of the country begins to function normally again Swedish prices will go down and Volvo's will automatically follow suit. We don't think that the time is far off when such a tendency for a drop in prices will become apparent. But it is difficult to prophesy how soon this will occur, how rapid the fall will be and to what level prices will drop. Most people have given up all hope of returning to pre-war prices. It is obvious that in the long run Swedish prices will be determined by those existing in the countries with which we are going to compete. But for the time being Volvo's prices are determined by the present Swedish price level.

Although the volume of employment during the war has thus been extremely good and at times has almost been more than we could cope with, the war has unquestionably hindered our development. What we strive after is not the making of war vehicles or other kinds of war materials, but the development of the manufacture of vehicles for peacetime occupations such as passenger cars, trucks, buses and tractors, and the building up of our name and future in the various countries where we had only just begun to appear.

Here the war has been definitely detrimental to our interests. Truck sales have decreased by 50 %, and the production of passenger cars and buses has been reduced to a minimum. We have been unable to deliver anything to our export markets and have only with the greatest difficulty been able to maintain a limited spare parts service to some of them.

Post-war programme.

We have therefore a considerable amount of lee-way to make up. In the first place we want to make as many cars during 1946 as we would have done if the war had not intervened. In the second place we are anxious to distribute as many units as possible to the different export markets which we had begun to develop, and where we already had a sales organisation, which has had to manage without Volvo products during the last six years.

We have planned a postwar production of 20,000 vehicles consisting of 10,000 passenger cars, 8,000 trucks and buses and 2,000 tractors for the first year. What strikes one when studying these figures is the comparatively large number of passenger cars.

Not until 1938—39 did our passenger car sales amount to any figure of importance. Previously truck and bus sales had entirely dominated.

The reasons for our optimism with regard to passenger car sales, is the unqualified success of our new small car PV-444 at the Volvo Exhibition at Stockholm last September, and the enthusiastic reports concerning the same which we have received from all over Sweden, as well as from abroad. Considerable numbers have already been sold, although we do not expect the car to go into production until next year.

It is at present difficult to foresee what part our new small car is destined to play in our export markets.

When planning our postwar programme, we did not seriously consider



One of the factories of Köpings Mek. Verkstad, earlier an independent company, now incorporated with the Volvo Combine.

exporting passenger cars, but this, of course, does not preclude the possibility of selling them abroad. At least the Scandinavian countries may be interested in our small car.

Our postwar bus and truck programme on the other hand does not show the same increase compared with the 1939 figures.

During the last few years all the necessary preliminary measures have been taken to cope with a production of 20,000 cars.

The capacity of our engine factory at Skövde has been increased, new buildings have been erected at our Gothenburg assembly plant and others are planned. The gear box factory at Köping, previously an independent company, was incorporated with the Volvo Combine two years ago, and new buildings were recently completed there. Whether the aero-engine works will be of any value with regard to our automobile production is difficult to say. On the other hand the Ulvsunda Works should definitely be able to contribute to our production.

The fact is that during the war we have developed from a single company to a combine consisting of five different firms.

With the exception of the engines which we made ourselves, all the various parts necessary for assembling motor cars, were previously supplied

by different sub-contractors. Now a substantial number of them emanate from companies belonging to the Volvo Combine.

Considerable capital has been necessary to finance the expansion of the Combine's holdings and the purchases of machinery, as well as for the plans for further extensions. We have therefore been compelled to increase successively our capital from 18.2 million kronor at the outbreak of the war to its present figure of 37.5 million kronor.

Restrictive factors.

There are, however, several reasons why the near future does not appear as bright as it should.

A large portion of Swedish Industry is paralysed as the result of the strike in the engineering trade, which broke out on February 5th.

Although the economic side of the strike is not entirely negligible, it is nothing compared to the delay it has caused in the preliminary preparations for our passenger car production. Whereas we had originally calculated that the first series should come off the line this autumn, they cannot now be expected to be ready before next year. Moreover, during the strike quantities of orders have accumulated which means that the factory's capacity is booked several months ahead after the termination of the strike. Under these circumstances it is difficult to say what is going to happen to our export production. There is not the slightest doubt that the question of deliveries will be a bone of contention between the home and export sales departments. Obviously the demand for vehicles in different countries is most acute at the beginning of the post-war period, and we could really have achieved something if we had had a large stock of our vehicles available now. The current demand on the different markets will to a large extent have been covered by foreign manufacturers when our production capacity reaches its peak.

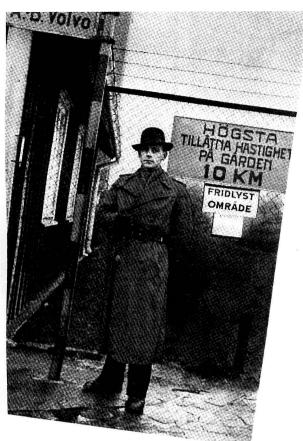
One of the most difficult problems is the shortage of rubber tires. During the war extremely severe restrictions have been imposed on tire users in Sweden on account of so few being available and the necessity of keeping certain quantities in reserve for military purposes.

We are not in a position to say how much rubber Sweden will be able to import for the manufacture of tires in the near future, but it will take a considerable time before any export licences are granted for tires. Every country must consequently cover its own rubber requirements by importing tires and raw rubber direct from the producers, for both its present car park, and for any new car deliveries made by us or any other manufacturers.

In the beginning it is fairly certain that tires will consist of a mixture of synthetic and raw rubber.

Export prospects.

Putting the situation into a nutshell, one can say, that there will be an enormous demand for cars during the next few years. Nothing has been left



Union guard at factory entrance after the outbreak of the strike.

quite some time. Several of our overseas markets will probably be unable to purchase any Volvo cars for some considerable time on account of the rubber shortage and exchange difficulties. In the long run we cannot be expected to reserve any particular vehicles for overseas markets which are unable to purchase on account of the aforementioned reasons, and will under such circumstances allot their share to other countries instead.

We therefore advise our dealers in different countries to discuss the various import problems with their home authorities without delay, especially the exchange and rubber questions.

The quicker we know how many cars without tires you can reckon on getting the necessary exchange for, the easier it will be for us to assure you of your fair share of our exports, and the sooner you will receive them. We will hardly consider your orders as definite, before we know for certain that your exchange and import licences have been granted.

Rolf Hanson.

undone to reach a yearly production of 20,000 cars as soon as possible. It is probably easier to sell than to produce this number. We are anxious to allot a reasonable share of our production to those markets to which we previously exported but shall be unable to develop any new markets for





OUR POST-WAR PROGRAMME

The following pages give a short resumé of the specifications of the passenger cars, bus and truck chassis and agricultural tractor, which are included in our immediate post-war programme.

Swedish readers should bear in mind when studying the specification of the different models, that this is a special export edition of the magazine, and that there is a slight difference in the equipment of the vehicles built for the home and export markets.

The suffix T after a model designation, means that the chassis frame and rear springs are reinforced for use with dumping equipment.

The interpreting of the term gross vehicle weight, is rather vague. It varies considerably in many countries, depending upon their attitude towards overloading as well as service operating conditions.

The gross weights mentioned by us can be regarded as reasonable average figures. Far more important is the chassis weight when attempting to judge a truck's carrying capacity. This always gives a good idea of a truck's payload, although it is not the chassis weight alone which determines the quality of a vehicle.

Dealers in some markets have during the war received orders for the LV-130 series truck chassis, which has been superseded by the LV-140 series. In order to make it possible for the aforementioned dealers to execute these orders, we have decided for an indefinite time to continue manufacturing the LV-130 series for export.

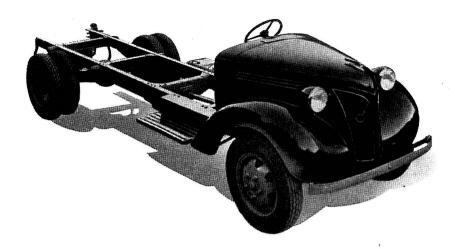
The B-20 series bus chassis have been superseded by the new 36 seater B-512 and 40 seater B-513, but it has not been worth our while to introduce a successor to the 29 seater B-10 series, as the trend is towards bigger vehicles. To those who are still interested in this size of bus, we can offer the LV-123 and LV-128 chassis with side members swept up over the rear axle. This gives a low center of gravity, and a more attractive body. It is moreover easier for the passengers to get on or off.

In a few months we intend putting a 6 cylinder overhead valve 6.12 liter Diesel engine, developing 95 b.h.p. at 2000 r.p.m. on the market. This engine with model designation VDA, will be fitted to the B-512 and B-513 series bus chassis to begin with, and later on to the LV-140 series truck chassis. The engine has naturally been thoroughly tested by us, but we wish to let it run in the hands of Swedish operators approximately a year before putting it on export.

In order that our dealers abroad should not be without an oil engine during the transition period, we shall be continuing with the Hesselman FCH engine, which has been improved and is now known as model FDH, which has been a great success on many of our overseas markets. It can be fitted to both the LV-125 and LV-130 series chassis.

We intend manufacturing a small agricultural tractor T-21, of approximately 20 h.p., in the near future. It will run equally well on gasoline or kerosene. This model should cater for a more extensive category of users than the larger type which has been such a success on the home market.

As usual we reserve the right to change specifications without incurring any responsibility.



 $2^{1}/_{2}$ — 3 ton Truck chassis with EC engine LV 110, 111, 112

	LV 110	LV 111	LV 111T	LV 112	LV 112T
Wheelbase	$3400~\mathrm{mm}$	$3800 \mathrm{mm}$	$3800~\mathrm{mm}$	$4100 \mathrm{mm}$	$4100 \; \mathrm{mm}$
Overall length	5155 »	5805 »	5805 »	6105 »	6105 »
Overall width, rear, singles	1800 »	1800 »	1800 »	1800 »	1800 »
Overall width, rear, duals	1960 »	1960 »	1960 »	1960 »	1960 »
Total weight	$5500 \mathrm{\ kos}$	$5500 \mathrm{\ kos}$	$5500 \ \mathrm{kos}$	$5500 \mathrm{kos}$	$5500 \mathrm{kos}$
Chassis weight	1660 »	1675 »	1690 »	1685 »	1705 »

Engine. 6-cylinder side valve EC engine developing 88 B.H.P. at 3400 r.p.m. Maximum torque 22.5 kgm. Bore and stroke 84.14×110 mm. Displacement 3.67 liters. Compression ratio 6.05:1. Seven bearing crankshaft.

Clutch. Single dry plate 10".

Gear Box. With silent 3rd and 4th speed. Gear ratios:

1st speed	 		 	 		6.65: 1
2nd »	 		 	 		3.72:1
3rd »						
Direct	 	٠.	 	 	٠.	1: 1
Reverse .	 		 ٠.	 		7.98: 1

Rear axle. Full-floating. Spiral bevel gear drive. Ratio 6:41 (1:6.833).

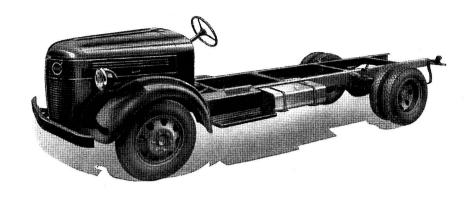
Wheels. Pressed steel disc wheels. Front wheels and dual rear wheels with 5" rim, single rear wheels with 7" rim.

Standard tires. Front wheels and dual rear wheels $6.50\times20''$, single rear wheels $7.50\times20''$.

Maximum tires. Front wheels and dual rear wheels $7.00\times20''$, single rear wheels $34\times7''$.

Brakes. Lockheed hydraulic four-wheel brakes. Total brake area 1612 cm². Fuel capacity. 75 liters.

Electrical system. Bosch 6 volt. 85 amp. hour battery. Belt-driven generator with automatic voltage regulator, 130 watt at 2000 r.p.m. 1.0 HP starter.



4 ton Truck chassis with EC engine LV 120, 121, 122, 123

	LV 120	LV 121	LV 122	LV 122T	LV 123
Wheelbase	$3400~\mathrm{mm}$	$3800~\mathrm{mm}$	$4100 \; \mathrm{mm}$	$4100 \mathrm{mm}$	$4700 \; \mathrm{mm}$
Overall length	5392 »	6042 »	6342 »	6342 »	7572 »
Overall width, rear, singles	1738 »	1738 »	1738 »	1738 »	1738 »
Overall width, rear, duals	1992 »	1992 »	1992 »	1992 »	1992 »
Total weight	$7000~\mathrm{kos}$	$7000 \mathrm{\ kos}$	$7000\mathrm{kos}$	$7000 \mathrm{kos}$	7000 kos
Chassis weight	1885 »	1925 »	1925 »	1940 »	1975 »

Engine. 6-cylinder side valve EC engine developing 88 B.H.P. at 3400 r.p.m. Maximum torque 22.5 kgm. Bore and stroke 84.14×110 mm. Displacement 3.67 liters. Compression ratio 6.05:1. Seven bearing crankshaft.

Clutch, Single dry plate 10".

Gear Box. With silent 3rd and 4th speed. Gear ratios:

speea. Ge	ar r	atios:		
1st speed				6.65:1
2nd »				3.72:1
3rd »				1.82:1
Direct				1: 1
Reverse .		,		7.98: 1
Rear axle.	Full	-floating	. Spiral	bevel
gear dri	ve.	Standar	d ratio	6:41

(1:6.833), optional 6:38 (1:6.333).

Wheels. Pressed steel disc wheels.

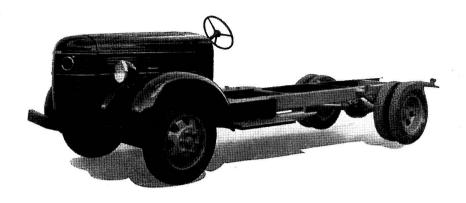
Front wheels and dual rear wheels with 6" rim (7" at extra cost), single rear wheels with 8" rim.

Standard tires. Front wheels and dual rear wheels $7.50\times20''$, single rear wheels $36\times8''$.

Maximum tires. Front wheels and dual rear wheels $34\times7''$ (7" rim necessary), single rear wheels $36\times8''$.

Brakes. Lockheed hydraulic four-wheel brakes. Total brake area 1676 cm².
Fuel capacity. 75 liters. 120 liters at extra cost on LV 121—123.

Electrical system. Bosch 6 volt. 114 amp.hour battery. Belt-driven generator with automatic voltage regulator, 90 watt at 1100 r.p.m. 1.2 HP starter.



4 ton Truck chassis with FC engine LV 125, 126, 127, 128

	LV 125	LV 126	LV 127	LV 127T	LV 128
Wheelbase		$3800~\mathrm{mm}$	$4100 \; \mathrm{mm}$	$4100 \mathrm{mm}$	$4700 \; \mathrm{mm}$
Overall length		6042 »	6342 »	6342 »	7572 »
Overall width, rear, singles		1738 »	1738 »	1738 »	1738 »
Overall width, rear, duals		1992 »	1992 »	1992 »	1992 »
Total weight		$7000 \mathrm{kos}$	$7000 \mathrm{kos}$	7000 kos	$7000 \mathrm{kos}$
Chassis weight	2010 »	2020 »	2035 »	2050 »	2080 »

Engine. 6-cylinder overhead-valve FC engine developing 90 B.H.P. at 3000 r.p.m. Maximum torque 27 kgm. Bore and stroke 92.07×110 mm. Displacement 4.4 liters. Compression ratio 5.25:1. Seven bearing crankshaft.

Clutch. Single dry plate 11".

Gear box. With silent 3rd and 4th speed. Gear ratios:

1st speed	£.1	6.65: 1
0 1		3.72:1
3rd »	**************	1.82: 1
Direct		1: 1
Reverse .		
$Rear \ axle.$	Full-floating. Spiral	bevel

gear drive. Standard ratio 6:41 (1:6.833), optional 6:38 (1:6.333).

Wheels. Pressed steel disc wheels.

Front wheels and dual rear wheels with 6'' rim (7" at extra cost), single rear wheels with 8'' rim.

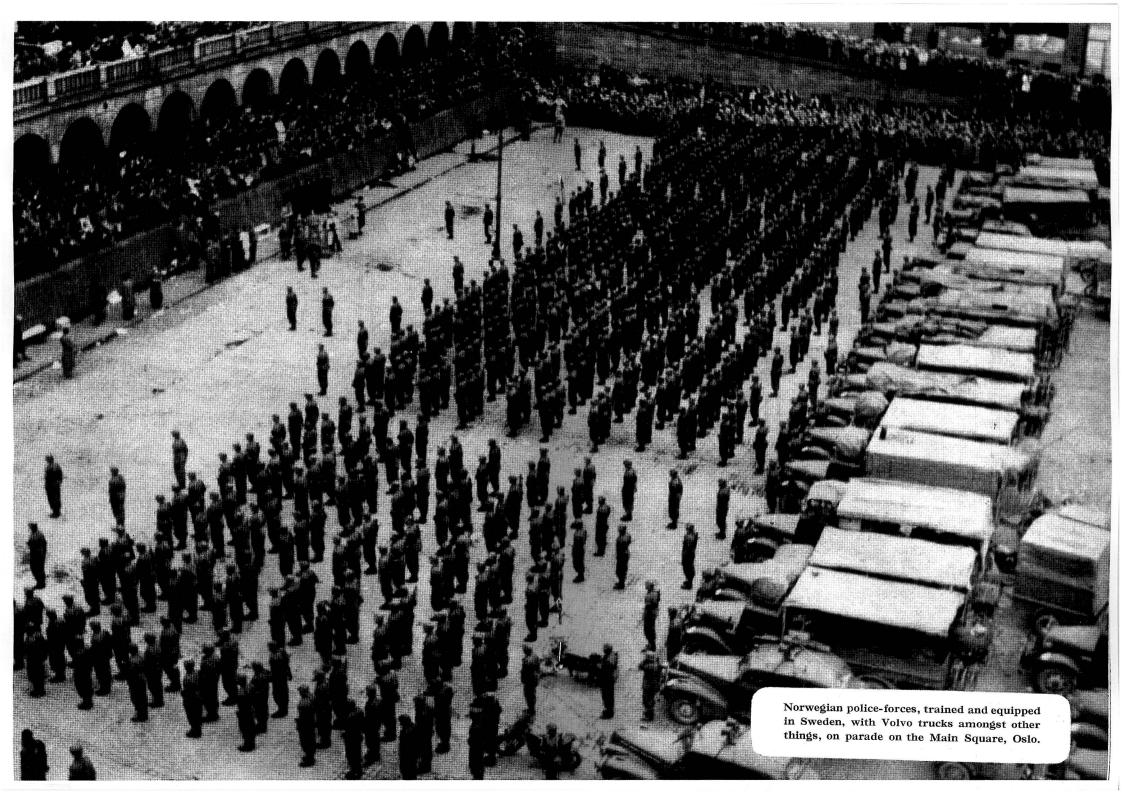
Standard tires. Front wheels and dual rear wheels $7.50\times20''$, single rear wheels $36\times8''$.

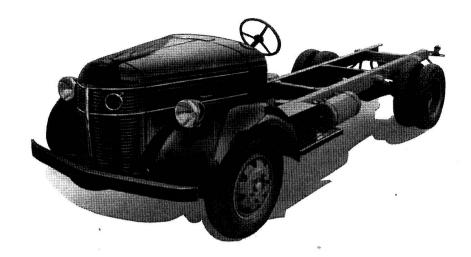
Maximum tires. Front wheels and dual rear wheels $34 \times 7''$ (7" rim necessary), single rear wheels $36 \times 8''$.

Brakes. Lockheed hydraulic four-wheel brakes. Total brake area 1676 cm².

Fuel capacity. 75 liters. 120 liters at extra cost on LV 126—128.

Electrical system. Bosch 12 volt. 70 amp.hour battery. Belt-driven generator with automatic voltage regulator, 150 watt at 1400 r.p.m. 1.2 HP starter.





5 ton Truck chassis with FE engine LV 140, 141, 142, 143 with single reduction LV 145. 146. 147. 148 and double rear axle

	LV 140 LV 145	LV 141 LV 146		LV 143 LV 148
Wheelbase	$3400~\mathrm{mm}$	$3800 \mathrm{mm}$	$4100~\mathrm{mm}$	$4700 \mathrm{mm}$
Overall length	5650 »	6150 »	6450 »	7050 »
Overall width, rear (duals)	2222 »	2222 »	2222 »	2222 »

weight 2500 » 2650 » 2535 » 2685 » 2565 » 2715 » 2595 » 2745 »

Engine. 6-cylinder overhead-valve engine developing 105 B.H.P. at 2500 r.p.m. Maximum torque 36 kgm. Bore and stroke 100×120 mm. Displacement of 5.65 liters. Compression ratio 5.4:1. Seven bearing crankshaft. Wet cylinder sleeves.

Clutch. Single dry plate 12".

Gear box. With silent 3rd and 4th speed. Gear ratios:

1st s	peed	٠						•				•	6.65:1
2nd	>>	•	٠		٠	٠		•		•		•	3.72:1
3rd	>>												1.82:1

Direct .				٠						•	1: 1
Reverse					-						7.98: 1

Rear axle. Full-floating. Spiral bevel gear drive.

LV 140—143: Single reduction drive gears. Standard ratio 6:41 (1:6.833), optional 6:38 (1:6.333).

LV 145—148: Double reduction drive gears. Ratio 1:7.14.

Wheels. Pressed steel disc wheels. Front wheels and dual rear wheels with 8" rim.

Standard tires. Front wheels and dual rear wheels 36×8 ".

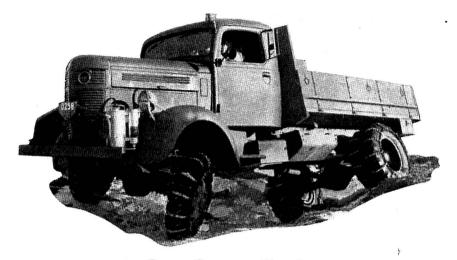
Maximum tires. Front wheels and dual rear wheels $36 \times 8''$.

Brakes. Lockheed hydraulic four-wheel brakes with brake booster. Total brake area 2173 cm².

Fuel capacity: 75 liters. 120 liters at

extra cost on LV 141—143 and LV 146—148, 100 liters at extra cost on LV 140 and LV 145.

Electrical system. Bosch 12 volt. 95 amp.hour battery. Belt-driven generator with automatic voltage regulator, 150 watt at 1400 r.p.m. 2.5 HP starter.



Cross-Country Trucks

The TLV 141 and TLV 142 with four-wheel-drive and 8 speeds

have been designed for difficult military or civil transport over rough country and up gradients which would defy the efforts of ordinary trucks.

They are based on the standard LV 141 and LV 142 models but are four-wheel-driven, the conventional front axle having been replaced by one of rear axle type.

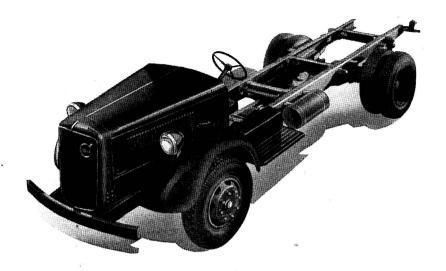
Normally, only rear wheel drive is used, in conjunction with a conventional four speed gear box.

When driving conditions require the use of four-wheel-drive, this is brought into action by means of a shift lever. Power is transmitted to both front

and rear axles through a transfer gear unit fitted behind the main gear box, operating on a ratio of 1.76:1. Consequently the vehicle has two sets of four speed gears, one for rear wheel drive, the other, with lower ratios, for four-wheel-drive. In all 8 speeds. Lowest ratio 11.7:1. Pulling power increased by 76 %.

A power-driven winch which enables the truck to extricate itself, or a trailer, from any particularly difficult situation can be fitted as optional equipment.

Twin front wheels can be fitted for driving on loose ground.



6 ton Truck chassis with FB engine LV 290, 291, 292, 293

1	LV 290	LV 291	LV 292	LV 293
Wheelbase	$3400~\mathrm{mm}$	$3800~\mathrm{mm}$	$4100 \mathrm{mm}$	4700 mm
Overall length	5765 »	6265 »	6565 »	7165 »
Overall width, rear (duals)	2094 »	2094 »	2094 »	2094 »
Total weight	$10000 \ \mathrm{kos}$	$10000~\mathrm{kos}$	$10000 \mathrm{\ kos}$	10000 kos
Chassis weight	2860 »	2890 »	2920 »	2950 »

Engine, 6-cylinder overhead-valve FB engine developing 134 B.H.P. at 2600 r.p.m. Maximum torque 48 kgm. Bore and stroke 111.125×130 mm. Displacement of 7.6 liters. Compression ratio 5.1:1. Seven bearing crankshaft.

Clutch. Single dry plate 14".

Gear box. With silent 3rd and 4th speed. Gear ratios:

1st speed		6.36
2nd »	.,	3.07
3rd »		1.66
Direct		1.00
Reverse		7.22

Rear axle. Full floating. Spiral bevel

gear drive type. Double reduction drive gears. Ratio 1:7.14.

Wheels. Pressed steel disc wheels. Front wheels and dual rear wheels with 8" rims.

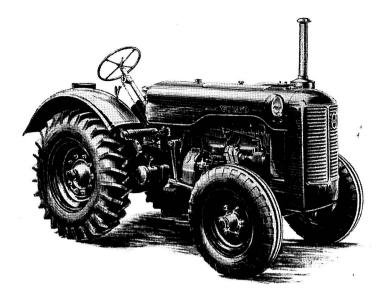
Standard tires. Front wheels and dual rear wheels $36 \times 8''$.

Maximum tires. Front wheels and dual rear wheels $36 \times 8''$.

Brakes. Lockheed hydraulic four-wheel brakes with brake booster. Total brake area 2470 cm².

Fuel capacity, 100 liters on LV 290, 120 liters on LV 291, 292, 293.

Electrical system. Bosch 12 volt. 95 amp. hour battery. Belt-driven generator with automatic voltage regulator, 100 watt at 625 r.p.m. 2.5 HP starter.



Agricultural wheel tractor fitted with A4B engine for gasoline or kerosene Model T 42

Wheelbase	1800 mm
Overall length	3200 »
Overall width	1725 »
Turning radius	4000 »
Weight	2250 kos

Engine. 4 cyl. overhead valve A4B engine developing 40 HP at 1150 r.p.m. Bore and stroke 104.8×130 mm. Displacement 4.48 liters. Compression ratio 5:1. 3 bearing crankshaft. Wet cylinder liners.

Clutch. Single dry plate 14".

Gear box. Ratios:

	1st s	speed					•						- 200		3.2	km/hou
-	2nd	>>	٠				٠								4.5	>>
,	3rd	>>													5.7	>>
3	4th	>>							•						6.7	>>
	$5 ext{th}$	>>													16.5	>>
	Rev	erse	٠			٠			ě						2.7	>>
For	ont	mhoe	.7.		5		51	3.5	3	1	,	1	5	2"		

Front wheels. 5.50S×18".

Rear wheels. 8.00T×28" (24" optional).

Tires. 7.50×18 " front.

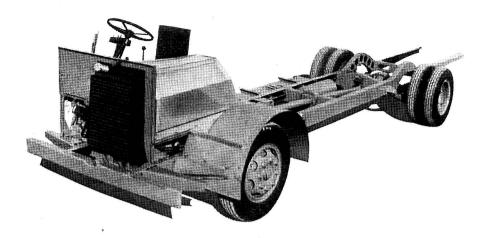
11.25×28" (24" optional) rear.

Fuel capacity. 70 liters.

Electrical system. 12 volt. 76 amp. hour battery. 130 watt generator. 2.5 HP starting motor. Magneto fitted with automatic impulse starter.

Belt pulley. Diameter 335 mm. Width 160 mm. 750 r.p.m. Output 37 HP. Belt speed 13.2 meters per second.

For those desiring an oil engined tractor, we can supply a model known as the T 43 with the same specification as the T 42, but fitted with a 4 cylinder A4H Hesselman engine developing 40 HP at 1150 r.p.m. and with a compression ratio of 6.25:1.



Bus chassis with FE engine B 512 and B 513

	в		В	513
Wheelbase	4700	mm	5200	mm
Overall length	8750	>>	9500	>>
Overall width, rear, with 8.25×20" tires			2163	>>
Overall width, rear, with 9.00×20" tires	2218	>>	2218	>>
Total weight	9500	kos	9500	kos
Chassis weight	3035	>>	3085	>>

Outstanding features

Bulldog type.

Seating capacity 36 and 40 respectively.

Overdrive gear box with 5 speeds forward.

Low floor line. Frame upswept above front and rear axles. Rear springs underslung.

Power operated hydraulic brakes. Fully insulating engine cover.

Switch panel within easy reach of driver.

One piece body support member.

Driver's seat support with turntable.

Battery box hinged for accessibility.

Engine. 6-cylinder overhead valve FE
engine developing 105 B.H.P. at
2500 r.p.m. Maximum torque 36
kgm. Bore and stroke 100×120 mm.

Displacement 5.65 liters. Compression

ratio 5.4:1. Seven bearing crank-shaft. Wet cylinder liners.

Clutch. Single dry plate 12".

Gear box. Five forward speeds, of which the fifth is overdrive. Remote control gear shift. Gear ratios:

LSU	speed	•	•		•			٠	•	٠	٠		•		5.12:1
2nd	>>														3.03:1
3rd	>>			٠								٠			1.69:1
4th	>>												٠	٠	1:1
5th	>>														0.81:1
Rev	erse .	٠		٠		٠			•	ě					6.15:1

Frame. Upswept above the front and rear axles, giving a low floor line. Rear axle. Full-floating. Spiral bevel gear drive. Ratio 1:5.86.

Springs. Rear springs underslung.

Wheels. Pressed steel disc wheels. Front wheels and dual rear wheels with 7" rim (8" at extra cost).

Standard tires. Front wheels and dual rear wheels 8.25×20".

Maximum tires. Front wheels and dual rear wheels $9.00\times20''$ (8" rim necessary).

Brakes. Lockheed hydraulic fourwheel brakes with brake booster. Total brake area 2674 cm².

Fuel capacity. 120 liters.

Electrical system. Bosch 12 volt. 95 amp.hour battery. Belt-driven generator with automatic voltage regulator, 400 watt at 1150 r.p.m. 2.5 HP starter.

Fully insulating engine cover. The chassis is equipped with a one piece removable engine cover, which extends over the whole length of the engine. The engine cover consists of an outer shell of aluminium and an inner shell of galvanized iron between which cork and asbestos sheets are inserted, thereby ensuring efficient insulation. The edges of the engine cover are fitted with a rubber packing in order to keep out

engine heat and fumes. Easy access to the engine and its components is obtained by tilting back the engine cover which is hinged to the body support member, and if necessary by removing floor boards on either side as well.

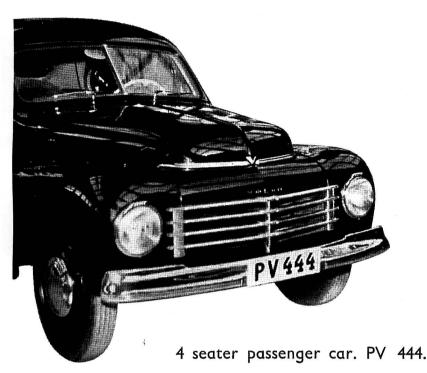
Switch panel. All controls are concentrated on a panel located below the steering wheel within easy reach of the driver.

Body support member. A one piece body support member extending from just inside the outer edge of one of the front fenders to the corresponding edge of the other is mounted on the side member just above the gear box.

Driver's seat support with turntable complete with fixture for sliding seat (but without seat frame, cushion and upholstery).

Standard equipment includes floor and toe boards, front body brackets, front fenders, and dash, complete with instrument panel.





Wheelbase	2600	mm
Overall length	4350	>
Overall width	1550	>>
Track	1300	>>
Weight-dry		

Engine. 4-cylinder overhead valve B4B engine developing 42 B.H.P. at 3900 r.p.m. Bore and stroke 75×80. Displacement 1.41 liters. Compression ratio 6.5:1. Aluminium pistons. Full pressure lubrication by gear driven pump. Down-draught carburetor with thermostat fitted to manifold heat control.

Clutch. Single dry plate 8".

Gear box. 3 speed synchro-mesh. The 2nd gear ratio is specially chosen with a view to rapid acceleration.

Rear axle. Semi-floating. Spiral bevel gear drive. Ratio 4.7:1.

Suspension. Independent front, coil

springs. Torque arms rear, coil springs. Double action telescopic aero shock absorbers.

Wheels and tires. Pressed steel disc wheels. $16\times3.50''$ rims. $5.00\times16''$ tires.

Brakes. Lockheed hydraulic four-wheel brakes. 9" drums.

Fuel capacity. 35 liters.

Electrical system. 6 volt. 85 amp. hour battery. 90 watt generator with automatic voltage control. Built-in head-lamps.

Bodywork. Pressed steel of the bodycum-chassis type. Adjustable front seats the back of which can be tilted forward and inward which in combination with large doors allows easy entry to rear seat. Spacious trunk with room for at least four large suitcases. Swivelling wing windows give draught-free ventilation. An extract from a description of PV-444 published in the English journal »The Motor» may interest our readers:

The close-up of the interior reinforces the alliance of Continental size with U.S.A. style. The cloth seating and instrument panel are entirely out of line with, shall we say, British smallcar layouts. The speedometer needle moves through the arc of a circle across a large, indirectly illuminated dial. and beneath are rectangular slots in which are partitioned the gauges for the other services. Below the dials is a grill for heater or radio, whilst on each side are large glove boxes with pull-down doors. The steering wheel, which has a plastic rim, also incorporates the horn ring, which, having originated in Europe, has now been widely adopted in U.S.A., so is thus making in effect a return circuit.

In order to keep the overall height down, a deep tunnel in the centre of the car has had to be incorporated, but the floor is flat on each side of it. Stiffness is provided by the combined body and chassis construction previously mentioned. This is shown in the photograph of the front end, in which details not to be missed are the large diameter of the tubular cross-member and the deep section of the frame which runs forward from the dash-board.

Turning now from these general comments to some of the more technical details, it is interesting to observe that the independent front suspension linkage is built up on to a channel section cross-member, which acts as a further stiffener to the front end of the frame. Moreover, the rubber engine mountings are attached directly

to the suspension component, as can be seen clearly in one of the illustrations. The springing unit is again highly reminiscent of the U.S.A. and, in particular, General Motors practice, there being two wishbones of unequal length and coil springs.

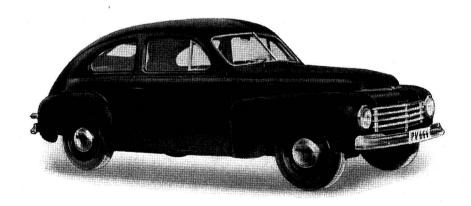
The rear-springing layout is almost identical to that employed on the Oldsmobile, although on a smaller scale. That is to say, there is a conventional rear axle with a spiral bevel reduction gear, the springs being coils. This axle is located transversely by a Panhard rod, and fore and aft by two long arms. which are inclined towards the centre line of the frame. These also take the driving torque through the medium of rubber bushes, probably of the Harris-flex type. The transmission itself is quite conventional through Spicer needle-bearing-type universals. three-speed gearbox and a single-plate clutch. The power unit on the other hand, shows many features of distinct interest, particularly to British designers now freed from the bias of piston area taxation.

Although only 1,410 c.c. capacity, the bore is 75 mm., the stroke only 80 mm., giving a s/b ratio of only 1:1066. Despite this short stroke, maximum power (43 b.h.p.) is devoloped at only 4,000 r.p.m., and the output per square inch of piston area is held down to the relatively modest figure of 1.57 b.h.p. Nevertheless, the short stroke does show its particular advantage by providing the very low maximum piston speed of only 2,100 ft. per minute at the peak of the horse-power curve. This aspect of the engine design is in harmony with the high gear of the car, and whereas comparable English models are geared to give 3,100 r.p.m. and 2,000 f.p.m. at 50 miles per hour, in the case of the Volvo the relevant figures are 2,700 r.p.m. and 1,420 f.p.m. respectively.

Despite these facts, the road performance should be quite good, as the weight has been held down to the commendable low figure of 17 1/2 cwt. The dimensions have not been squeezed, for the wheelbase of 8 ft. 61/2 ins. and a track of 4 ft. 3 ins. are both within an inch of British averages, although the car as a whole weighs 6 cwt. less than the British Twelves road-tested by »The Motor» in 1939. In consequence, the litres-per-ton-mile figure comes out at 2.930, and even with two up and fuel, an acceleration of 10-30 m.p.h. in about 10.5 secs, should be obtained on top gear. This excellent combination of low piston speed and relatively good acceleration derives directly from a proper proportion of weight-to-piston area, the Volvo figure being 71.5 lb. per square inch, as compared to an average of 100 lb., which is the normal figure for cars of this size and type.

A 70 m.p.h. Maximum.

No figures are available giving the performance of the car in the upper speed ranges, but it is significant that the peak of the power curve corresponds with a road speed of 66 m.p.h.. so that a flat-out maximum of 70 m.p.h. is a reasonable assumption. In this respect the designer appears to have deliberately chosen to sacrifice maximum in order to achieve good low end performance. In view of the fact that the horse-power and frontal area figures are very close to those of the Lancia-Aprilia, and that the drag of the Volvo should be little, if any, greater than that of the Italian model. a higher rear-axle ratio should permit an increase in the maximum to a round 80 m.p.h., as even at this speed the piston velocity would be less than 2,600 ft, per minute. Even discounting such speculations, the performance may be considered above the average of cars of this kind, and, in combination with modern appearance and practical features of design, makes it appear that the Volvo will secure a considerable share of the Swedish market in competition with imported types, and may well be a factor in trade with other Continental countries.







6 seater passenger car PV 60

Wheelbase	2850	mm
Overall length	4725	>>
Overall width	1800	>>
Track, front	1400	>>
Track, rear		>>
Weight-dry	1430	kos

Engine. 6-cylinder side valve ED engine developing 92 B.H.P. at 3500 r.p.m. Bore and stroke 84.14×110 mm. Displacement 3.67 liters. Compression ratio 6,5:1. Seven bearing crankshaft. Aluminium pistons. Full pressure lubrication by gear driven pump. Downdraught carburetor with thermostat fitted to manifold heat control.

Clutch. Single dry plate 9".

Gear box. 3 speed synchro-mesh. Steering wheel gearshift.

Rear axle. Semi-floating. Hypoid gear drive. Ratio 4.1:1.

Front suspension. Independent front wheels with coil springs. Ride stabilizer and double-acting hydraulic shock absorbers.

Rear suspension. Semi-elliptic springs with double-acting hydraulic telescopic shock absorbers.

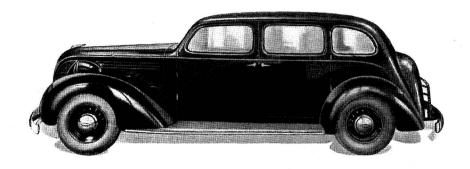
Wheels and tires. Pressed steel disc wheels. 16×4" rims. 6.00×16" tires. Brakes. Lockheed hydraulic four-wheel brakes. 10" drums.

Fuel capacity. 50 liters.

Electrical system. 6 volt. 95 amp.hour battery. 130 watt generator with automatic voltage control.

Frame. X member with partly box sectioned side rails, completely welded.

Body. All steel body. Swivelling wing windows fitted both front and rear give draught-free ventilation. Roomy luggage trunk.



8 seater passenger car PV 801 and 802

Wheelbase	3250	mm
Overall length	5150	>>
Overall width	1820	>>
Track, front		
Track, rear	1524	>>
Weight-dry	1750	kos

Engine. 6-cylinder side valve EC engine developing 88 B.H.P. at 3,400 r.p.m. Bore and stroke 84.14×110 mm. Displacement 3.67 liters. Compression ratio 6.05:1. Seven bearing crankshaft. Full pressure lubrication by gear driven pump. Down-draught carburetor with thermostat fitted to manifold heat control.

Clutch. Single dry plate 10". Gear box. 3 speed synchro-mesh.

Rear axle. Semi-floating. Hypoid drive gear. Standard ratio 4.45:1, optional 4.73:1.

Suspension. Semi-elliptic springs.

Double-acting hydraulic telescopic shock absorbers.

Wheels and tires. Pressed steel disc wheels $16 \times 5''$ rims. $6.50 \times 16''$ tires. Brakes. Lockheed hydraulic four-wheel brakes. 12" drums.

Fuel capacity. 60 liters.

Electrical system. 6 volt. 114 amp.hour battery. 130 watt generator with automatic voltage control.

Body. All steel. PV 801 with glass partition for driver fitted with sliding window. PV 802 without partition. Both models equipped with two folding seats and adjustable front bench type seat. Adjustable individual front seats can be fitted to PV 802 at an extra cost.

If the car is intended to be used for stretcher cases, half the rear seat is detachable, and by lifting the trunk lid the stretcher can be pushed into the car. PV 801 is also equipped with a heater and defroster. Roomy luggage trunk.



WITH VOLVO IN

By Doctor S. Linné

Two things in particular impressed me after twenty months as representative of the International Red Cross in one of the most mountainous parts of Greece, namely Greek drivers and Volvo trucks.

The Greek driver is worth an eulogy. With incredible skill he manœuvres his truck on narrow roads, slithery from ice or líquid mud, not infrequently with sheer drops on both sides. He is second to none when it is a question of patching up a truck with

only the most primitive tools at hand. Countless nights I have crouched over the engine with a flash-light whilst Eugenios, my driver and my infallible and trusty companion through thick and thin during my sojourn down there, with his unfailing intuition would trace the source of the trouble and remedy it with an artistic elegance, arousing my deepest admiration. The Greek driver's ability to keep a vehicle going, which in Sweden would have been donated or consigned to

a museum or scrap heap, never fails to impress a foreigner. A typical example of this was, when the Swedish Crown Prince was on an archæological expedition to Greece during the summer of 1922. He was a constant source of anxiety to his adjutant, because he used to bounce about the Peloponnesian hills in an ancient Ford which was to a large extent held together with rope and string.

The motor-minded section of the public were extremely enthusiastic about Volvo trucks, which thanks to the courtesy of the Swedish authorities, were used in connection with food transport for the International Red Cross in Greece. Certain details were criticized such as too small radiators, larger ones should have been fitted to cope with the terrific heat which is especially prevalent there in July and August. Otherwise the Volvo

villages perched 2000 metres up on the steep slopes of the Pindus Mountains. All roads between the starving villages and the town on the East coast where I had my headquarters. had been blocked for some time due to heavy snow-fall. It was therefore imperative to get through, cost what it may. As the snow was too deep for mules and power-driven snow-ploughs were unfortunately non-existent, two hundred labourers were mobilized to clear the road. After several days intensive work they succeeded in making a path through the snow which was just wide enough to allow the passage of the trucks, and their adventurous journey could begin. The road or rather the mule track consisted of innumerable hairpin bends and went winding up the mountain slopes. In this sort of country mules, in order not to lose their foothold, invariably go

Greece

truck's sturdy features were greatly approved of, and I must say, without exaggeration, it was largely due to the Volvo trucks which I had at my disposal, that the extremely complicated transport problem existing in my district, was solved in such a satisfactory way.

I particularly remember one episode amongst the numerous ordeals to which the trucks were subjected. It was necessary to convey food to some zigzag. I followed the column in a 1943 U.S. passenger car, but almost immediately it skidded into a snow-drift, and such was the force of impact that it was put out of action and had to be abandoned. After much difficulty I managed to reach the first truck and was able to continue the journey. At one moment we crawled along, at the next we rushed down inclines at breakneck speed, and between whiles we crashed into snow-drifts and had



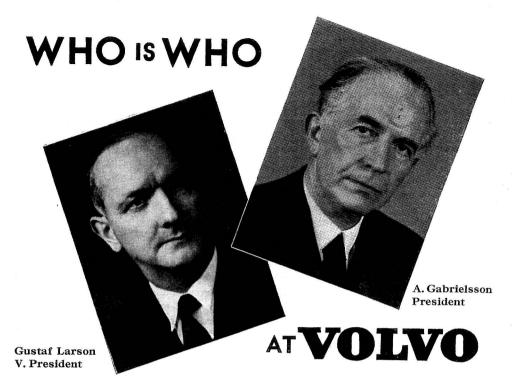
Not only Volvos are subject to overloading.

to hold tight to avoid putting our heads through the windshield. Darkness fell and we switched on the lights, and the rays of the headlamps playing on the snow which lav considerably above the level of the cab-roof, was a magnificent sight. Over and over again we had to dig out the trucks, especially at corners. The badly buckled fenders were ample evidence of the strenuousness of the journey. However, we arrived at our destination after having covered 120 kilometres in 19 hours. I shall never forget the sight of our drivers, dead tired but glowing with satisfaction, patting the radiators of their Volvos in acknowledgement of excellent team work.

Equally trying in its way was driv-

ing in certain districts during the summer, where roads had been destroyed or were mined, and one was compelled to get through by going across country. Only once did our Volvos let us down, and that was when we were fording a stream. We miscalculated the depth, and the truck sank so deep that it was unable to extricate itself under its own power. Fortunately the other Volvo was in the neighbourhood and soon came to our rescue.

I hope these anecdotes will give an idea of the far from insignificant part played by Volvo trucks in the service of the International Red Cross in Greece, and the pride felt by the Swedish representatives who had the good fortune to have them at their disposal.



It is always useful to know with what sort of people one does business. We at the Volvo factory have a pretty good idea of what our overseas dealers are like, but what do they know about us?

The following snapshots of the members of our staff who are directly or indirectly connected with our export activities, can be useful even to dealers who visited us before the war. Much has happened since then. Amongst other things we are six years older.

Just as significant as the setting is for a precious stone, so are the office surroundings for a staff.

A plainer and more overcrowded office than ours during the first part of our existence cannot be imagined.

We all sat on top of one another. The whole staff, directors included, were squeezed into one room, very large, it is true, but not large enough. Everything one said or did was common property, and any visitors who dared to step over our threshold knew more about us after half an hour in the office, than he would have gleaned from a year's correspondence. It was an extreme form of the open door policy.

Considerable difficulty was experienced in making oneself heard. The clatter of twenty typewriters and adding machines combined with the loud voices of a dozen individuals shouting on the phone at the same time, more often than not made it impossible to discuss anything even with one's immediate neighbours.

By the summer of 1939 we were thoroughly fed up with overcrowding, but new offices were now ready, so

light and spacious and airy that even the most fastidious individual should have had no reason to complain. To us oldtimers who were not so spoilt in these matters, the new offices seemed like the Garden of Eden whose atmosphere would soothe and stimulate our minde

Now we sit in splendid isolation in glass compartments where nothing can disturb us unless it is the sight of our next door neighbour.

We have separated the departments; the commercial on one floor. the drawing office on another.

As a result we office slaves are spared the sight of our designers, sitting with that dreamy look which seems to be the necessary requisite of all creative spirits. We are spared the pain of seeing them, after ruminating a couple of hours, suddenly drawing a few inspired lines on the board only to relapse into a coma again, and finally, after brooding a few hours more. rubbing them all out, whilst the smoke from innumerable pipes and cigarettes peacefully curls up towards the ceiling.

What a contrast to the commercial department where gentlemen with furrowed brows stalk round like lions in a cage, dictating long epistles to neat and attractive stenographers, and between whiles talking on the phone.

Some use two phones at the same time. This always makes an impression of efficiency on visitors. We have a

loudspeaker system which enables one to speak to the different departments. One just presses a button and talks into thin air just like they do on the American movies, the only difference being that we do not have our feet on the table. Perhaps this is only a question of evolution.

The flowers and plants which line our office window-sills are a constant source of inspiration. When those on the south side of the building are in full bloom, it is a sight of almost tropical splendour, and when we inhale their perfume we temporarily forget the hectic rush of modern times.

Well, the setting for the precious stones as we have shown above is spacious, light and colourful, so now let us turn to the gems. What is more natural than to take the Directors first

Assar Gabrielsson. President and commercial manager and Gustaf Larson, Vice-president and technical manager, are the men who started and built up the Volvo company, and it is thanks to them that Volvo is what it is to-day. An introduction is hardly necessary, since they have so often featured in the press that they are well known to the majority of people here in Scandinavia. Their good qualities are too many to enumerate so we advise our overseas dealers to pay us a visit and make their personal acquaintance. It would be definitely worth their while.

More on a plane with ordinary mortals is T. G. Andersson, director's assistant, a steady middle aged gentleman, with a cultivated though slightly worried air. Sometimes, however, he allows the ghost of a smile to flicker over his features, which immediately makes one wonder what he really is like. One of his jobs is to see that the Sales Department charges enough for our cars, and no one has yet dared to doubt the accuracy of the calculations on which he bases his criticism. He is not talkative, but when he speaks one listens, except when he boasts about his skill as a golfer and pistol shot. On these subiects he is garrulous.

The Export Department is run by a man, who judging from his grev hairs ought to have retired ages ago. Rolf Hanson is, however, only 39, temperamental, with an inherent recklessness which he tries to curb, and a slight tendency to brag, which his association with Volvo cars rather increases than decreases. An unintentional nonchalant manner and an intentional sharp tongue is neutralized by a great sense of humour and a good portion of self-irony.

He has boundless energy and is an intensive worker when it suits him. His enthusiasm for putting a plan into execution is only equalled by his complete lack of interest in the same when it has been brought to a successful con-

clusion. He is a good linguist with a large vocabulary including a great fund of oaths. Playing the fiddle and visiting art exhibitions dominate among his secret vices.

All matters which Hanson hasn't time for, are looked after by Gösta Wik, and that means a lot, especially as he is in charge of shipping and invoicing as well. In his eves no detail is so insignificant as not to be worthy of a certain amount of attention. It is no use criticising any investigations or statement of accounts made by him, for sooner or later you'll find that he is right. And he is obstinate enough to see that he gets the last word. This obstinacy is typified by his daily walk during the lunch hour, wet or fine.

Gunnar Wingren is the »Flying Dutchman» of the Export Department. Though in the late fifties he is still a schoolboy overflowing with enthusiasm. In his capacity of fieldman for Volvo. he roamed around foreign lands, mainly the Mediterranean countries, during the years 1932-39.

The blockade has been doubly hard on him. Partly because he has been unable to import delicacies and partly because he has been unable to export himself to his beloved South. He is in his right element among Arabs and Europeans in Egypt, and truck drivers and bartenders in Lisbon and Madrid. At the office he is like a fish out of water.

T. G. Andersson

Rolf Hanson

Gösta Wik

G. Wingren



Thor Karlsson Folke Reich

Erik Nilsson

G. Johansson















His troubadour spirit never fails him. If he can stimulate the efforts of our dealers as easily as he can infect his surroundings with joy and happiness, tell a good story or sing a song, then Volvo should have a brilliant future in the Mediterranean.

Although he has been ten years in the firm, Thor Karlsson is a comparatively young man. He is calmness personified, has a pleasant smile and is extremely helpful to anyone in trouble. He never gets flurried not even when playing tennis. Only after a great deal of hesitation does he run after the ball, but in spite of all he invariably returns it. When we start exporting again, he is going to look after shipments and invoicing to certain markets.

The remaining males in the Export Department are newcomers.

Folke Reich is our expert in English, born and bred in England. Our reader has an excellent opportunity of judging the truth of this statement, as it is he who has translated this edition of »Ratten». We hope that next time we introduce the members of our staff, we have become better acquainted with him, so that we can make some rude remarks about him as well.

Erik Nilsson and Gunnar Johansson are somewhat older members of the Volvo team. They are such fiends for accuracy, that they even consider the position of a decimal point to be of importance. Give them a calculator and a handful of figures and they will work miracles. If Nilsson can get hold of a typewriter as well, he composes a letter and duns some overseas dealer for the whole amount, whilst Johansson juggles with the figures and conjures forth a graphic diagram with which he can prove almost anything.

But what would the Export Department be without its ladies. Four out of approximately onehundred work in this department, and it is thanks to their help and inspiration that letters to our customers are so stimulating.

The theory about the non-existence of the female mind is entirely upset by this quartet. Languages, bridge and high-brow conversation is mother's milk to them, and at the same time they possess considerable feminine charms.

The Spare Parts Department however, takes the cake with regard to the largest number of pretty girls. In spite of this they are one of our busiest departments.

Their work consists amongst other things, of solving riddles. It is one thing sending a dealer what he orders (if one has got it in stock), but it is another to deliver what he really requires. Very often there is a considerable difference between what they order and what they are really in need of.

Gunnar Pettersson, head of the Spare Parts Department, is an expert at interpreting a spare parts order. It is not an inherited but acquired gift as a result of handling Volvo spare parts during the last seventeen years. If there is any truth in the saving we have in Sweden: »there is nothing like work to prevent you becoming a sinner», then he can be certain of getting a ticket to heaven when he dies. His one and only hobby is automobiles. What he adores, is to drive, talk, pull and put together cars, swear about them and finally reel off their spare part numbers. Therefore it is perhaps not so surprising that the passage of time has made him slightly ironical towards us others, who have other gods besides Volvo.

Unfortunately, he is nowadays unable to attend to spare parts orders personally, as he has to supervise a staff of over fortyeight. He has to rely on his subordinates, a thing which he is probably not so very happy about.

His right hand man with regard to export orders is Alf Albinsson, and whether he can do the job or not remains to be seen, because as far as export is concerned he is new to the game, although he has been working with spares in ony way or another since 1937.

Let us hope that he, too, can learn the art of solving riddles. $\overset{\star}{}$

There are many others who deal with export orders as well, but this time we must leave them to their fate, and look at the Service Department instead.

This department has a double purpose in life. Firstly to help cars when they misbehave and secondly dealers when they cannot help themselves.

Taking into consideration the good behaviour, in general, of both cars and dealers, one is surprised at the necessity of such a department, but the fact remains that it does exist, and is quite a big one at that. Let us now have a look at some of its good Samaritans.

The head of the department Ivan Carlson is a man who never gets ruffled, at least as long as he has got something left of his tobacco ration. He listens thoughtfully and with a slightly preoccupied air to the most unrestrained criticism. Only a spasmodic twitch around the eyes betrays the fact that he is alert. He bides his time and more often than not with a furtive smile completely disarms his opponent.

That he is not lacking in temperament, he demonstrated, when he strained his Achilles sinew at the factory sports a couple of years ago.

When he discusses cars, he gives the impression that he really does know a good deal about them.

Harald Örtendahl is the Service Department's export man par préférence. He is a happy combination of theoretical and practical knowledge, the latter the result of experience gained just as much in China, Java, South Africa and

Eva Fridh

Maud Hallén

L. Gradmark

I. Andersson

G. Pettersson

A. Albinsson

Ivan Carlson

H. Örtendahl















