

# Quality

**AB Volvo, Parts Division**

**down to the smallest detail**

The most important assets Volvo has in the severe international competition consist of quality and safety. This does not merely imply that Volvo produces high-quality products but also that quality in itself is an important factor in all the significant services. Even since Volvo was established in 1927, it has been a basic principle that no products may be sold on a market without there first being guarantees for comprehensive servicing and accessibility of replacement parts. This objective also includes the fact that the Volvo customer can obtain first-class accessories when necessary.

The Volvo Parts Division, which is one of the

profit units in the Volvo Automotive Group together with the Volvo Car, Truck and Bus Divisions, is also responsible for this. As a result, the Volvo Parts Division today sells its products on about 120 markets.

The aim of this publication is to provide a brief impression as to how Volvo, through rational marketing and distribution of replacement parts and accessories, contributes to creating confidence in the products of the Volvo Automotive Group.



The Volvo Car Division is located east of the Volvo Head Office in Gothenburg and has almost 600 employees. In common with the greater part of the Volvo administration, the office personnel of the Volvo Parts Division work in landscape type offices. The Volvo Parts Division requires rational storage and distribution accommodation for its activities. The

warehouse, which includes one of the largest high-level stores in Scandinavia, is located close to the office building. One characteristic of the Volvo Parts Division storage resources is that the high degree of mechanization is based on thorough technical, economical and human engineering studies.

# Marketing in the face of severe international competition

The Volvo Parts Division is facing very severe international competition. There are many people who would like to sell replacement parts and accessories to dealers and directly to the customers.

Detailed studies of various markets provide the basis for the marketing work. Short-term and long-term plans are made up for each market and group of products.



*A considerable proportion of Volvo replacement parts and accessories are sold in modern shops of the self-service type. Volvo uses a Snabbex system to a great extent and provides, printed directly on the package, all data containing the part concerned and possibly also installation instructions or the recommendation to contact a specialist.*



*Extensive training of parts personnel is carried out at the dealers and subsidiary companies. During 1970 the Volvo Parts Division was responsible for the training of 650 people.*

## **A high-quality product needs high-quality accessories**

The accessories offered by the Volvo Parts Division make up one of the factors in the adaption of Volvo vehicles to various markets as far as climate and road standard are concerned. These accessories also give the customers the possibility to modify their cars according to their own individual tastes.



# Quality down every detail

The most important competitive factors used by Volvo consist of quality and safety. The extensive quality control organization in the Company has a subsidiary at the Volvo Parts Division where there is full equipment for checking incoming parts.

Every individual safety component is tested and those parts which must operate perfectly pass through an extremely severe control. Parts which do not stand up to severe Volvo quality control process are scrapped or sent back to the supplier. The various stations in this process employ 22 people.

*Even brand products, for example alternators, are checked in special test-benches.*



*Hardened safety components such as, for example, king pins and spring bolts, are subjected to extensive control in a hardness test.*

*The profiles of rubber moulding are tested thoroughly in enlarger units.*



*Material of a buffer stock character is lifted down to pick-up level by high-lift trucks.*

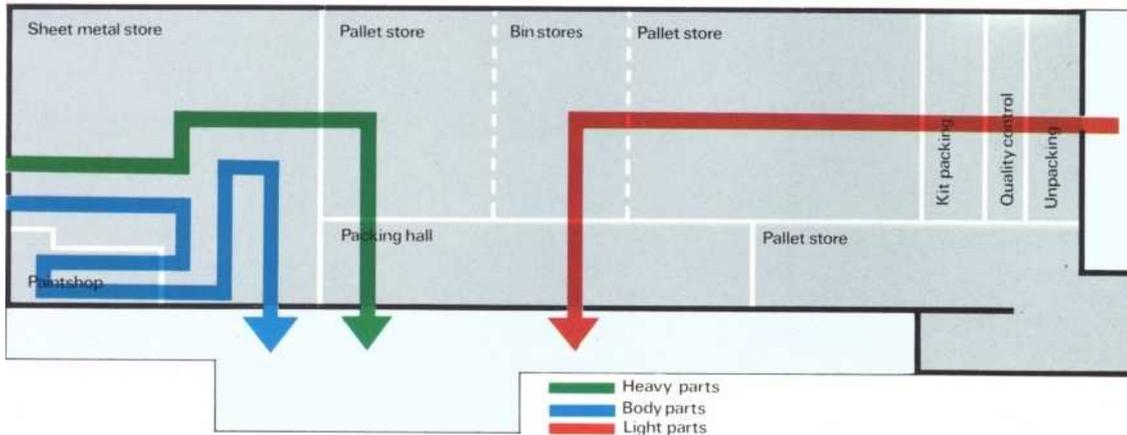


# The largest replacement parts store in Scandinavia

More than 60,000 different parts are stocked in the central warehouse of the Volvo Parts Division in Gothenburg. Rational administration is necessary in order to take care of these stores. Computer processing constitutes a valuable aid. The stores include about 10,000 tons of

material in the form of 60,000 different parts and accessories, 12,000 of these being in pallet stores which are stacked up to a height of more than 8 metres.

More than 300 people are engaged within the stores function.



*The warehouse has a surface area of 71,000 m<sup>2</sup> and a roof height of 9.3 metres. This corresponds to 14 normal football pitches or 120 tennis courts.*



*The painting plant utilizes electro-dipping and has a capacity which corresponds to a production of about 20,000 bodies per year.*

*The greater part of the material being delivered to and from the Volvo Parts Division is carried in containers.*

# Modern packing methods

During 1970, more than 110,000 shipments of material were delivered to the warehouse.

Before it reaches the warehouse, some of the material is repacked in smaller quantities, suitable for the requirements of the importers and dealers.



*Extensive work is carried out in offering a limited but functional range of packing material.*

*Many parts intended for sales in shops of the self-service type are mechanically packed in hermetically sealed plastic packings. Eight million packings of this type are expected to leave the Volvo Parts Division during 1971.*



## 36 million catalogue pages

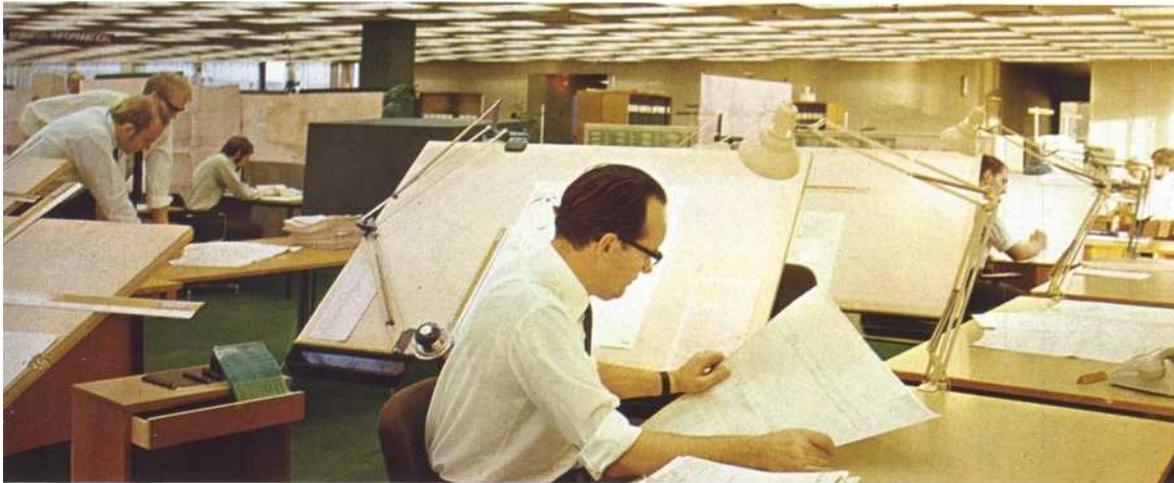
In the case of model changes, the Volvo Parts Division takes part in the preparatory work by selecting the units to be included as replacement parts and their appearance. An investigation is also made as to whether a new part can replace an old part in order to prevent double stocking as far as possible. In this way older models are provided, as far as possible, at the same time with the improvements which are

introduced later. In order to keep distribution prices down, finished repair kits and bulk packs are made up.

In the case of model changes and when a new market is being opened, a basic stock is prepared, that is to say a stock of replacement parts with which the importer or dealer can start.

*Each year nine parts catalogues are published. The total number of catalogue pages to be produced per year is about 36 million. About 90,000 kg of catalogues are sent out to importers and dealers all over the world.*

*At the moment a system is being worked out for catalogue manufacture which implies the use of micro-film. Using this technique, the volume of catalogues sent out in connection with a model change will weight only 35 kg. The delivery time is reduced from a couple of months to a few days at the same time as there is a significant reduction in costs.*



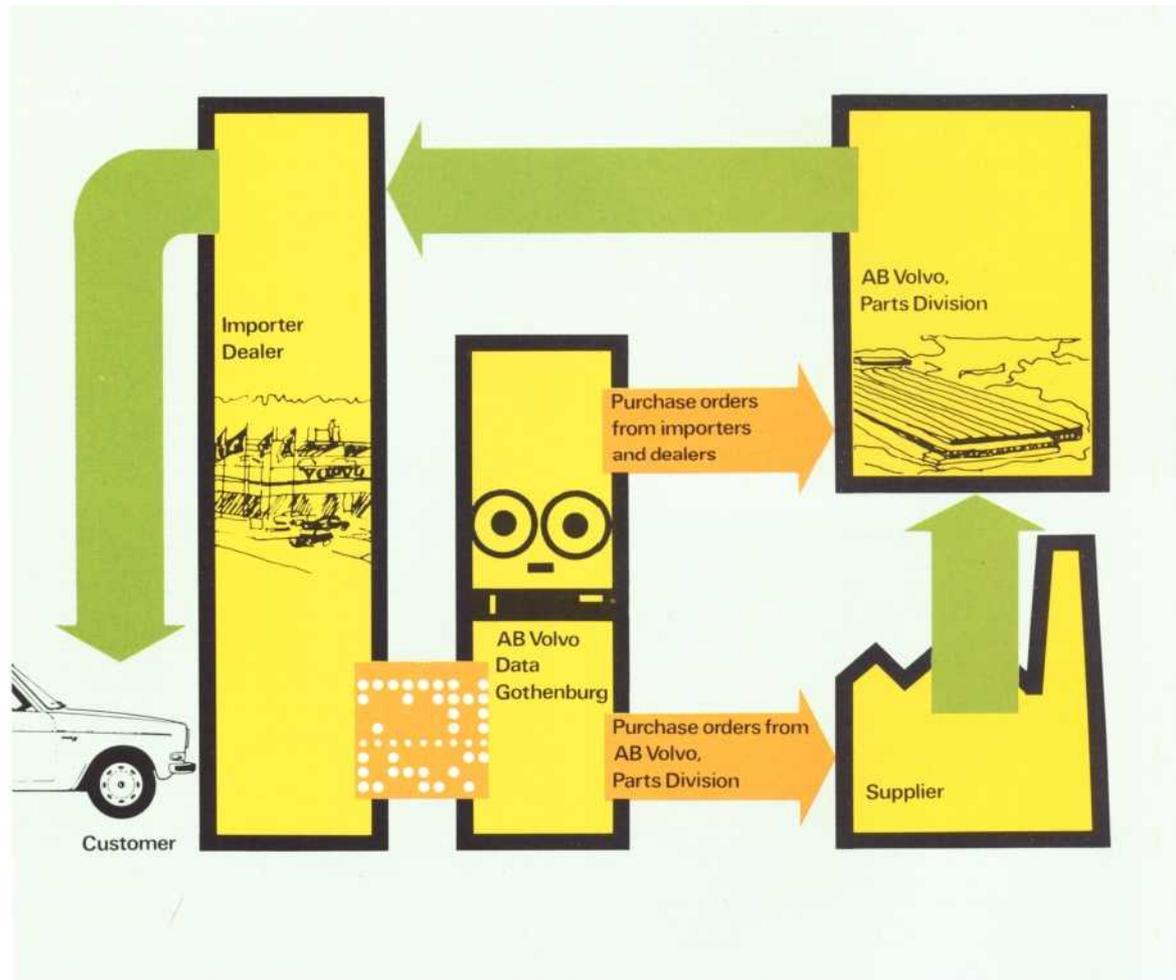
# Computer-controlled flow of material

Advanced data processing is one of the keys to the success of the Volvo Parts Division. In order to maintain a good delivery capacity and economical stocks, the Volvo Parts Division has developed methods and standards for control of purchasing, incoming deliveries and also stock and delivery control which are mostly based on electronic data processing. The flow of material consists of more than 60,000 different parts in the form of 90,000 incoming shipments per year.

The forecasts for material flow are made up in units of 18 months and also 5 years.

Corresponding systems have been worked out for stock control and the handling of orders at Volvo dealers and importers. A by-product of these systems is capital and personnel requirements and also the stores accommodation necessary. Practically every sales point is connected to this system known as "VR".

*The Volvo stock-keeping system for replacement parts. Punched tapes from the various Volvo sales points are collected at Volvo-Data. Here automatic evaluation is carried out of the suitable time to top up the stocks of various parts. When the stocks of the Volvo Parts Division start to decrease, the computer issues a purchasing order to the supplier. During 1970 36 million transactions were carried out.*

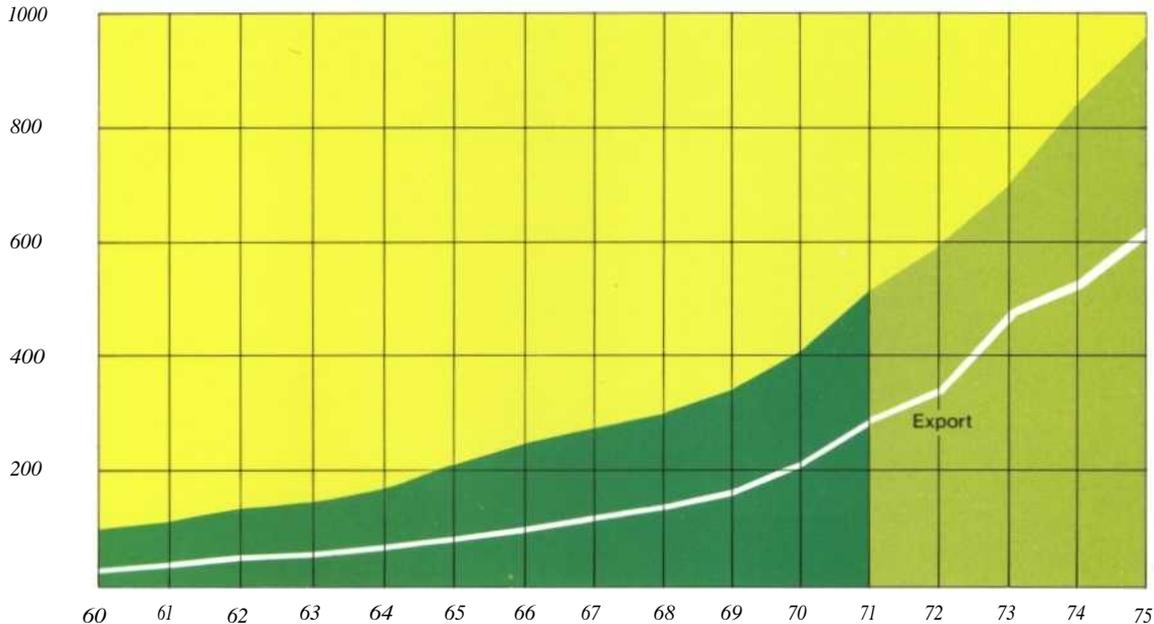


# Exports dominate

The turnover of the Volvo Parts Division during 1970 was five times greater than during 1960. Today, more than 50% of the turnover is made up of exports and this proportion is expected to increase to a marked extent as well as for the rest of the Volvo Corporation.

By 1975, sales are expected to have increased to a level which is five times higher. At this time exports will attain about 65%.

Total sales of Volvo cars and trucks during this period will have increased by three times. In 1970 about 75% of production was sold on export markets.



*Turnover of the Volvo Parts Division Index 1960:100.*

## A systematic appraisal of the future

The continually stiffening competition together with larger and more long-term investments make keener demands on well-developed appraisals of the future. As far as the long-term planning of the Volvo Parts Division is concerned, the Long-term Planning Department operates in both an advisory and co-ordinating capacity.

The delivery volumes of the Parts Division naturally depend on the number of Volvo cars in use on the various markets. Since this volume can be pre-determined with a fairly wide margin of safety for the next few years, the Volvo Parts Division has excellent possibilities to make up satisfactory long-term forecasts.

Special computer programmes have been developed which study the relationship between the number of Volvo cars on a certain market and the future sales there of replacement parts. Similar types of analysis can be used to estimate Volvo market coverage and to evaluate the effect of future changes in quality.

The Volvo Parts Division has built up a bank of information as to how different types of replacement parts are used by cars in various age classes. Each year a sales forecast is made up covering a certain number of years, this providing the basis for the appraisal of the future in other departments within the range of activities of the Volvo Parts Division.