HIAB METHOD

No. 2

Broader Base - Greater Resources

HIAB is a young company. It hasn't yet celebrated its 25th anniversary. Its idea, the HIAB Method, and its foremost product, the HIAB Loader, are even younger. Its development is still a long way from its peak. The HIAB Loader is multiplying swiftly within its initial fields, roundwood and piece goods, and is constantly finding new uses. This trend of events means that ever-increasing demands are being made on HIAB's production apparatus. More loaders have to be produced per year. New applications call for the development of new implements and accessories. The rapidly growing number of HIAB Loaders in operation is stepping up the demand for service and spare parts. It all adds up to a need for greater resources.

THE TECHNICAL DEVELOPMENT of road-transport vehicles has been moving fast these last twenty years. The ancillary equipment that makes the truck a really effective means of transport—tippers, platforms, trailers, timber bolsters, and so on—has not been developed at the same rate. The explanation of this lag lies in the structure of the production apparatus. The trucks are made by a small number of large and highly developed companies with vast resources. The ancillaries, on the other hand, are produced by numerous small firms. They have a large range of products, short production runs, a locally limited market and inadequate standardization. Manufacture by these companies tends to be haphazard. Each of them develops its own specialities. The overall picture of the market is a chaotic tangle of good and bad, which is poor economy both for the customers and for the trade. Yet it stands to reason that research and methodical, long-term product development are impossible for a small company. Bringing order out of that chaotic picture calls for real resources in the shape of capital, staff and management.

The HIAB Method is one of the few important innovations on the equipment side to have come out during recent decades. Its decisive advantages in the shape of safer, faster and more convenient loading, and cheaper hauls, have been a powerful factor in enabling the rapid technical progress on the truck side to be exploited to the full.

TO ENSURE the continued expansion of the HIAB Method and to secure the resources needed for its further development, the founders of the Company have taken what is a significant step for the whole HIAB world by transferring their shareholdings to Investment AB Promotion. In this way they have secured access to the resources in the way of capital and administration that are needed to carry the method on to fresh successes.

By its concurrent acquisition of AB Tranåsverken, Promotion has laid the foundations for an integration of the whole field of truck equipment, in which we are now able to supply, from a unified source, tippers, platforms, loaders, lift dumpers, bogie lifts, and the component hydraulic systems consisting of pumps, valves, connections, couplings and standardized pressure and suction hoses. Later on we shall also be able to offer the rest of the range: tail-end loaders, timber bolsters and so on. That will set the stage not only for standardization and long production runs but also for management, organization, research and product development.

For the customer and for the trade it all boils down to safer, more convenient and cheaper hauls.

All those of us who as HIAB owners, HIAB salesmen or HIAB employees have learned to think HIAB-methodically can accordingly look forward to an interesting and rewarding phase of development—a development in which striking advantages are almost within our grasp.

Rune Bäckström

A WINDOW ON FINLAND

The HIAB Method has had great success out and about in the world, and HIAB's products are now being exported to every continent. The biggest successes beyond Sweden's borders have been registered in Finland. Johan O. Nyholm is Managing Director of Oy Suomen HIAB, which supplies HIAB's chief export market with the Company's products and service.

Finska HIAB's display window in the centre of Helsinki.

HIAB's successes on the other side of the Gulf of Bothnia are not hard to explain. Finland is the most densely forested country in Europe. And the advances which the HIAB Method has brought about in the handling of timber have paved the way for its introduction into other fields of transportation as well, so that by the present time about 55% of sales are in sectors other than forestry. When Finska HIAB was launched in 1959, a good many customers admittedly gave voice to a certain amount of conservative scepticism towards the new appliances. But the advantages of the hydraulic loaders, compared with manual loading and the mechanical loaders which had previously held the field in forestry, soon made themselves felt. Only three years after export to Finland began it had grown so large that HIAB could be said to have scored a complete breakthrough on this market.

By today, HIAB in Finland, just as in Sweden, has made its name synonymous with rationalized, labour-saving handling with vehicle-mounted loaders. This is largely the result of the intensive demonstration activities that featured prominently in the introduction of the HIAB Method into Finland. HIAB-equipped trucks and tractors with specially trained drivers toured the country, and at one working site after another they gave such striking displays of their capacity and versatility that even the most sceptical truckers were persuaded to abandon their preconceived ideas about these "new-tangled contraptions".

Rapid Development

In a timber-rich country like Finland we should expect to find that the HIAB Method is most decisively important in the transportation of logs and wood goods. Sure enough!—45% of the loaders that have been sold so far have been put into service on timber hauls, and in Finland, no less that in Sweden, the HIAB Method has brought about a transformation of the whole technique of transportation, so that haulage men quite rightly talk about "the time before HIAB came in" and "the time since HIAB came in". The savings run into millions in costs alone—not to mention the thousands of backaches.

The mechanization of forestry is moving fast in Finland. Anyone who wants to sell to forestry people has to keep up and to tailor his products and methods to suit the ever-changing and ever-growing requirements. The same sort of de-

The new repair and service shop in Sockenbacka has a floor-space of 4,300 sq.ft.

To back up the local service in provincial districts, Finska HIAB has four service trucks.

Finska HIAB's Head Office—in the centre of Helsinki.

velopment is under way in other fields of transportation, too. In order to be able to offer customers sound solutions of their transport problems, Finska HIAB's sales organization includes a forester, a motor engineer and a builder, whose task it is to see that what the Company offers is always what the market wants.

One of the difficulties when you're working out transport methods in Finland is the rich variety of truck and tractor makes. Since the firms that sell these tractors and trucks act as HIAB dealers we get a comparatively large number of outlets, each with a relatively small sales volume. A further consequence is that numerous more or less specialized methods of mounting and application must be worked out for the many different makes. Another problem is that timber haulage in Finland is still pretty seasonal. But thanks to HIAB, one and the same outfit can readily be converted for use on other transport tasks as the seasons change.

120 Service Stations

One of the most important tasks for Finska HIAB has been to build up an effective service organization. The backbone of this organization is provided by the numerous dealer workshops, which have to be thoroughly familiar with the functioning and application of HIAB equipment, and must have the spares and facilities needed to cope with the service requirements and most of the repair jobs that are liable to turn up. The HIAB service chain comprises 120 stations at 54 places throughout the country.

The mechanics who man the service stations are trained at courses which are held once a month in Helsinki, while crane-owners and operators are trained in operating techniques and working methods at courses which are put on twice a year.

Local service is under the supervision of four service inspectors, each of whom is responsible for one of the four service districts which between them cover all Finland. To back up its local service, Finska HIAB has four service trucks which travel the whole country. In Helsinki there is also a modern repair shop with ample resources and a complete central store, together with a shop which displays and sells spare parts, located in the centre of Helsinki. As of today, the Company employs a total of 76 persons.

In order to give truck-owners complete service and the convenience of buying from one source all the equipment they need for their outfit, Finska HIAB also carries stocks of all leading makes of the most important items of equipment such as tippers, platforms, towing hooks, trailers, etc.

The efforts which Finska HIAB has devoted to making the work of truck-owners more economical and less complicated have not been in vain—that's evident from the sales results. Some time during the early part of 1966 the 5,000th HIAB crane in Finland is expected to find its buyer.

Once a month, courses are held for dealers' mechanics in Helsinki.

A HIAB Speedloader without a grab (right) feeds scrap steel plate to the press for the firm of Bil & Allskrot in Stockholm. The three pictures below show how a cactus grab is used for a number of different kinds of scrap at the British scrap firm of J. & H. B. Jackson.

BIG DEAL IN SCRAP

Scrap is in many ways awkward stuff to move. It's pretty heavy, often very bulky, and so inconsistent that about the only thing most batches of scrap have in common is that none of them is like any of the others. So there are big problems, both economic and technical, involved in the loading and discharging of scrap on its way to the depots where it is processed in one way or another to make it easier to handle. Two scrap businesses, one in Coventry, England, and the other in Stockholm, nevertheless afford good examples of how the HIAB Method can be used to eliminate the difficulties bound up with loading and to achieve more than twice the transport capacity.

The British firm, J. & H. B. Jackson Ltd., carries on its business in the heart of the industrial Midlands. It deals chiefly with industrial scrap from workshops and factories within a radius of 30 or 40 miles from its scrap depot. Much of this material consists of straggly swarf and various other kinds of chips from milling and boring operations, though it also contains odds and ends of wire and cable, besides larger items like structural girders, pipes, cisterns and machine components, with the odd car body thrown in for good measure.

Since the hauls are comparatively short, the time spent on loading is a decisive factor in transport economy, and a year or so ago Jackson's mounted HIAB 173 Speedloaders on three of their trucks. Each loader was equipped with a cactus grab, an advanced poly-grip bucket with six grab arms made by HIAB's representative in England, George Cohen Machinery Ltd. Hydraulic legs brace the truck during loading.

Replaces 9 Men

The first HIAB loader was actually bought for work within the depot itself during the severe winter a few years ago, when everything was frozen fast and covered by what was for English conditions an unusually thick blanket of snow. But the serviceability and capacity of the loader proved to be such that the firm very quickly bought two more, and put all three of them onto transport duties.

Jackson's have every reason to be satisfied with the result. The three HIAB-equipped trucks now get through the same amount of work as six trucks did before, while at the same time a driver's mate on each truck has become redundant. So the HIAB cranes have saved wages and other expenses for nine men, which means that the whole of the new equipment paid for itself in less than six months.

Loss Scrap Made to Pay

Jackson's are under contract to pick up all the scrap from certain firms, and this means that they're obliged to undertake the removal of certain scrap which, by reason of its low metal content and very troublesome and tedious handling, used to yield little or no profit. Since they began to use the HIAB Method they've been able to handle even these awkward scrap batches more easily and quickly, so that nowadays they can be made to turn a profit as well.

In the old days, when large-sized scrap was to be collected from a factory or workshop that had no loading aids of its own, Jackson's often had to send a special vehicle with a mobile crane, or a man equipped with a flame cutter, in order to get the scrap onto their truck. But with its lifting capacity of 5 tons the HIAB Loader can manage practically all such jobs, which obviously leads to substantial savings in money and time.

With a HIAB Speedloader and a special grab made for car bodies, Dan Liss can manage on his own the loading and unloading of the wrecks he moves to Gladö Kvarn. They're plentiful at this time of the year.

SCRAP (cont.)

In all fields where Jackson's have begun to use the HIAB Method it has at once resulted in really worthwhile economies, which means that the firm are now prepared to go to considerable lengths to get it into action on as many as possible of their scrap-handling jobs. In one case they even went so far as to raise the roof—literally!—in a building where they had to collect industrial scrap —and at their own expense! The outlays involved were soon covered by the savings which the HIAB Method yielded.

HIAB Collects the Holiday Crocks

The firm of Bil & Allskrot in Stockholm is almost exclusively concerned with junk cars, and at this time of the year its big depot at Gladö Kvarn is pretty full, with the wrecks piled several deep. Most of them have been collected and removed at the expense of the City of Stockholm and the surrounding municipalities from their territory. Since the firm also collects wrecks from Solna, Sundbyberg and other municipalities north of Stockholm is sometimes has to make fairly long hauls, and in the days before it bought its HIAB Speedloader it had to have two men on the truck that was responsible for haulage to the scrap depot. Nowadays, with the Speedloader and a specially designed grab, the truck driver on his own can lift on and off the four wrecks that usually make up one load. And he does it in a good deal less time than it used to take for two men with a wire-rope crane. Charlie Petterson, one of the two brothers who run the business together with their father, calculates that the HIAB Method has roughly doubled the haulage capacity of the truck.

Within the scrap depot the wrecks are usually handled with fork-lift trucks, but at one stage a HIAB Speedloader has proved to be very useful. The feeding of the dismembered wrecks to the press, which converts the steel sheet into handy parcels, is carried out by a loader without a hydraulic grab. Once you've seen it at work you find it hard to believe that any other method could make a better job of it.

HIAB MAKES SHORT WORK OF THOSE

LONG BEAMS

In transporting the long concrete beams which are coming increasingly into use in present-day building, the HIAB Method has proved itself able to contribute to easier handling, faster movements and better economy. The pictures on this page show how Wesströms Åkeri, a Stockholm trucking firm, has solved the problem of moving such beams from the factory south of the capital right through the city centre to a building site in Åkersberga north-east of Stockholm. The beams or piles, which are up to 46 ft. long (14 m), the longest weighing 6,600 lb., (3,000 kg), are loaded and unloaded with a HIAB 173 Speedloader mounted in the centre of the deck on a bogie truck with a bogie trailer. The beams are loaded on both sides of the crane, the foot of which is completely countersunk below the deck surface so that when the crane frame has been lifted off the outfit can be used for other purposes requiring an unbroken or flat deck space.

The result of this is that the special cranes that used to be required for loading at the factory and unloading at the building sites are no longer needed. The outfit is loaded and unloaded by the driver, and the time that used to be lost in queuing up at the special cranes is now saved. In the old days, moreover, it was often necessary to shift piles from the discharge point to the piledriver using a building crane or a special crane. Nowadays they can generally be discharged right next to the piledriver.

The way the HIAB Method is applied to the transportation of long beams and piles is described in the HIAB Method Service publication No. 12.

130 roundwood-transport experts

take to the woods

Around 130 forestry experts from all over the world—some of them from as far afield as New Zealand and Chile—gathered to study Swedish roundwood transportation during the two-day excursion in the Hälsingland forests which HIAB arranged last summer together with Iggesunds Bruk and Ström Ljusne AB. The picture above shows a demonstration of how the Speedloader is used for cross-country haulage by the short-wood method, while on the left it is being used for the tree-length method together with a bunk fitted with hydraulic jaws. Prince Karl zu Hohenlohe-Langenburg, of Königseggwald in West Germany, was among the participants, and in the picture at centre left he is seen (right) enjoying a sandwich together with Professor Juta of Holland, while in the bottom picture the whole party is being treated to Hälsingland folk music before lunch in the Bjuråker Rural Community Centre. The last picture, below, shows a demonstration of a barking outfit mounted on a Brunett tractor and fed by a Speedloader.

ERIK FORSGREN: CANADA

HIAB's product manager, Erik Forsgren, is an expert on timber transportation, having formerly been in a major forestry company.

In comparison with Sweden, Canada has really vast forestlands, covering half a million square miles. Fellings amount to 5,650 million cu.ft. a year. About a third of this huge quantity of timber comes from the area of British Columbia on the west coast, another third from Ontario in Central Canada, and the remaining third from the eastern parts, Quebec, New Brunswick and Nova Scotia. So far, however, only about 20% of the area of the huge forestry resources has been exploited. Those in eastern and central Canada are not thinned out at all.

It is easy to understand that during the harvesting of these enormous quantities of timber interesting methods have been developed for the logging and transportation of roundwood, and I was given the opportunity to study them through the good offices of our representative in Canada, Atlas Polar of Toronto. Production in central Canada is no more than about 30-40 cu.ft. per acre, while in the eastern districts one can find production rates of up to 115-140 cu.ft. per acre. There are wide variations in timber stands. The forests of Central Canada are dominated by conifers, mostly spruce. Such broadleaf trees as do occur, chiefly birch, are left behind during clear-cutting. By contrast, the eastern parts have mixed stands including a number of hardwoods—oak, beech, elm and maple. Along the east coast conifers once again become dominant, with some hardwoods here and there. The topography, particularly in New Brunswick, is very reminiscent of the central part of Northern Sweden.

Understandably enough, roundwood haulage takes various forms, from the intensive logging of the large-scale forestry enterprises to the simpler felling operations of the smaller forest-owners. Logging is often organized by "producers", who engage labour for felling and transportation. The supply of trucks is good, leading to fierce competition in road transport, with prices cut to the bone and poor profitability for the truck-owners. Axle-loading regulations are less of a problem in Canada, since most of the hauls take place over forest roads that are owned by the holder of the felling rights. So the outlook for the rationalization of roundwood loading by the HIAB Method is excellent.

At present there is a marked tendency to go over to log skidding using wheeled tractors with articulated steering. Current practice is that the trees are felled and trimmed at the stump to the extent of about 60%, and then dragged to a landing, where the logs are either cut to size or loaded as they are onto trucks for haulage to a larger bucking plant alongside a railway or at a mill. The remainder are bucked by the cutter, and the pulpwood is piled next to the stump and brought out by horse or tractor, which latter may be equipped with a grab loader.

Pulpwood lengths in eastern Canada are generally only about 4⅓ ft., which makes handling awkward. Very large quantities are still loaded by hand onto trucks, either in two lengthwise piles, in which case the deck is constructed so that the piles lean slightly towards each other, or in numerous cross-laid piles, with the stakes 3 ft. apart. On arrival at the mill the bundles are generally unloaded in slings by very large loaders. The terrain and road conditions in the mountain districts of eastern Canada are such that only two-axled trucks can get up to the landing. They usually manage to get down all right, even though it doesn't always look as though they'll make it. Experiments are going on at present with two-axled trailers which on the way up to the landing can be hauled up onto the deck of the truck so as to give it a sporting chance of climbing the hills. Loading is carried out with a grab loader mounted on the truck or on a separate chassis.

At the Nova Scotia Pulp Corporation, two Swedish foresters, Hans Lindberg and Hans Åkesson, have done a very sound job of organizing the transportation of roundwood from the forest to the mill. Farmers and sub-contractors equipped with a tractor or a horse skid the timber to the landing, from which it is collected by trucks equipped with grab loaders.

Wheeled tractor with articulated steering, equipped with the HIAB Speedloader and a grab for use as a separate loader or in combination with a semitrailer as a transport tractor for cross-country haulage of bucked timber.

The Speedloader first lifts the launcher down onto the pad and then puts the missile in place.

HIAB puts the Blood-hound in its place

The British missile Bloodhound II was originally designed as a transportable weapons system for the defence of British interests overseas. For this purpose the missile system was built up of units of suitable size for air transport to remote parts of the earth. For Swedish conditions, such airlifts are of course of minor interest.

So a modified version, retaining full mobility, was needed to enable the weapon to be integrated into the Swedish defence system. Transportation by truck and loading and unloading with the HIAB Speedloader proved to be the answer.

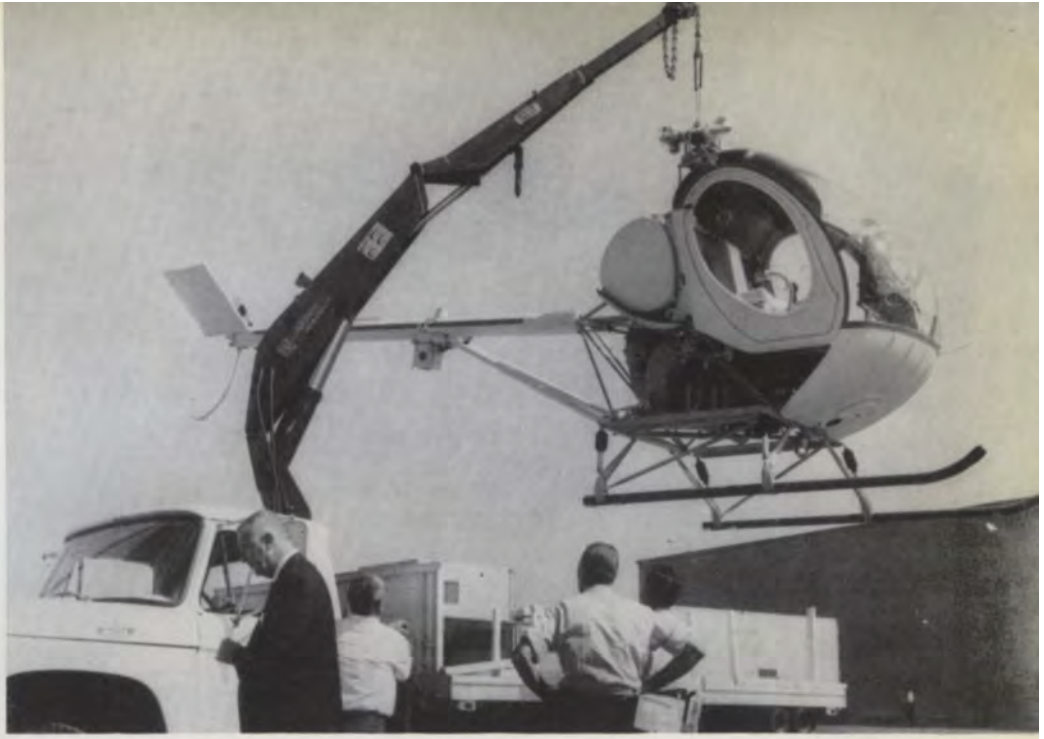
Since the whole weapon system is built in relatively small units a complete Bloodhound group with missiles, launchers, radar installation, group control post, electricity plant and all can be loaded onto trucks for transportation. Four trucks transport one launcher each, with the missile on a specially built trailer. Both launcher and missile can be quickly loaded and unloaded by the HIAB Speedloader mounted on the left at the front end of the deck. A fifth truck tows the illuminating radar that helps the Bloodhound to home onto its target, and on the deck of this truck are some of the abundance of cables that are needed to connect up the launchers, radar and group control post.

Electricity supplies come from two diesel-powered electricity plants—one a standby—which are towed by another two trucks with more cables on their decks. One truck tows the nerve centre of the whole group, the group control post, with a built-in advanced electronic brain and accommodation for the battle commander. The ninth and last truck outfit carries certain workshop and test equipment. All the trucks have a specially built Speedloader for handling their equipment, which is pretty heavy. The transport organization also includes a Volkswagen bus to take the personnel who don't ride in the trucks.

Sweden was the first country outside Great Britain to procure the Bloodhound II, and the Swedish transport system has been subjected to thoroughgoing tests in England. They turned out so well that a number of countries are now planning to make use of the HIAB Method in their air defence.

Nine trucks and a Volkswagen bus transport a complete missile group, with four missiles, launchers and all ancillaries.

HIAB Hoists



UNITED STATES

Even aircraft sometimes need help for short hops. This HIAB Speedloader is hoisting a helicopter aboard a truck for a road haul in the U.S.

SEATTLE

Some human-interest pictures have a universal appeal, like the shot below of youngsters in the Seattle City Park admiring the Vasa cannon and the HIAB Speedloader.

IGGESUND

The tractors that are used for cross-country haulage of roundwood on Iggesund's ranges have to a large extent been made "self-contained" in point of fuel and service. A "farm unit" holding 1,000 litres of fuel is equipped with a special bail so that it can be loaded onto the vehicle by the grab loader and taken from one felling site to another. The unit is refilled about five times a year straight from a road tanker that does the rounds of the felling sites according to a schedule drawn up by the Company. The toolbox, too, is fitted with a bail and is transported in the same way as the farm unit.

THE GOODYEAR COMPANY

has been able to give really effective service since its trucks were equipped with HIAB Loaders (below).

CALIFORNIA

When olive trees have to be transplanted in California the HIAB handling method makes a very neat job of it.

METHOD HIAB No. 2

A magazine featuring the HIAB Method and its applications, published by **Hydrauliska Industri AB,** Hudiksvall, Sweden.
Publisher: **Rune Bäckström.**
Editing and layout: **Lars Rosengren.**
Translation: **D. Simon Harper.**
Production and Printing: **Wiking Tryckeri AB,** Södertälje 1966.

COVER PICTURE:

The front cover shows how the HIAB Method is applied in the transportation of hollow concrete blocks in housebuilding. The blocks, which are put up in piles of appropriate size, are handled by a HIAB Speedloader and a special grab. When the truck-driver arrives on site the HIAB Method enables him to discharge his load right onto the building foundation, eliminating all unnecessary movements.

The high-riding subject of this picture is a cargo which most HIAB owners would be only too pleased to handle!