

# HIAB



# METHOD

No. 5





# Success for the 174

A factor that explains much of the success scored by the HIAB 174 is its versatility. Added to this, some 30 special accessories are available to go with the HIAB loaders for the most widely varying handling jobs, giving them virtually unlimited utility. The well-known roundwood grab, which revolutionised forest haulage, the polygrip grapple for loading irregularly shaped and hard-to-handle material, particularly scrap, and the pallet forks of various kinds for convenient and efficient handling of palletized goods are just a few examples of common accessories by which the capacity of the loader is increased and loading is made still more effective and still faster. The catalogue of HIAB accessories has given many a trucker an idea that has enabled him to simplify a particularly troublesome handling job by bringing in the HIAB Method.

The HIAB 174 can also be equipped with a 4-metre (13-foot) telescopic extension, giving a total reach of 9 metres (29 feet 6 inches). With this equipment, too, erection and retraction are effected entirely by hydraulic means, since the extension is withdrawn into the jib when it is not in use.

In this issue of METHOD we're showing examples from a fairly wide range of lifting problems solved by using the HIAB 174, with or without special handling tackle. Almost daily we receive news of new and interesting tasks successfully performed by HIAB cranes. With all the modern aids that HIAB has developed, and with the expertise and experience possessed by our customers and ourselves, the scope for finding new and profitable solutions by applying the HIAB Method to transport and lifting problems is still very far from being exhausted.

HIAB loaders and accessories are available through distributors in some 30 countries, among them AUSTRALIA, 600 Overseas Australia PTY. Ltd., Sydney; AUSTRIA, F. M. Tarbuk & Co, Vienna; BELGIUM, Ets. G. Lambert & Cie, Brussels; CANADA, Atlas Polar Company Limited, Toronto; GERMANY, HIAB-Hydraulische Industrie GmbH, Hanover; GREAT BRITAIN, George Cohen Machinery Ltd., London; ITALY, Hidrocom s.a.s., Milan; MEXICO, Equipos Exclusivos Leomex S.A., Mexico City; THE NETHERLANDS, N.V. Bedumer Machinefabriek, Meppel; NEW ZEALAND, Steel Brothers Ltd., Addington; PORTUGAL, Rolim Comercial s.a.r.l., Lisbon; SINGAPORE and MALAYA, Jardine Waugh (Malaya) Ltd., Singapore; SOUTH AFRICA, Mantel Brothers (Pty) Ltd., Johannesburg; SPAIN, Sociedad Europea de Ingenieria y Comercio S.A., Barcelona; SWITZERLAND, Firma Fritz Häusermann, Zürich; U.S.A., HIAB Hydraulics Inc., Wilmington, Stanco Mfg. & Sales Inc., Harbor City, Stanco Midwest Sales Inc., Chicago.

## SERVICE WEST AND SOUTH

HIAB's service network is steadily being enlarged and its workshops are being given added resources.

Some time ago the chain of specialist mounting and service shops in Sweden was beefed up by the addition of AB Tranåsverken's resources, which were described in an earlier issue of Method.

Some of HIAB's special shops have had their capacity still further increased by enlargements to their premises, among them being HIAB-Alingsåsverken and HIAB-service in Malmö.

Both these firms have long formed part of HIAB's regular service organisation in Sweden.









## Service West and South (cont.)

Alingsåsverken employs some 60 operatives and about 20 office staff, and is responsible for the mounting and servicing of HIAB loaders in the Gothenburg area and western Sweden. Alingsåsverken also manufactures HIAB hydraulic presses, among other things. Much of the firm's capacity is

at present occupied on the assembly of the long series of army rescue trucks which have been ordered from HIAB and which were mentioned in the last issue of Method.

Partly in consequence of this major operation, which is keeping 15-20 men busy, the

plant at Alingsås has been substantially enlarged. A new stores building, holding complete stocks of spare parts for both HIAB's and Tranåsverken's products, was also opened recently—making another notable addition to the firm's resources and capacity.



## In Malmö

during the autumn, HIAB-Service moved into a new

workshop and office building. The new shop has five assembly bays and a spare-part store. One of the assembly bays in

the old shop has been retained, and the old premises also house such things as the manufacture of the polygrip

grapple that has become an invaluable tool for scrap handling in particular. In all, HIAB has 35 employees in Malmö.







HIAB-Alingsåsverken (south-west Sweden) has a large workshop capacity. In the foreground of the picture at the top left are trucks being equipped with HIAB cranes, while further back the assembly of HIAB hydraulic presses and other equipment is in progress. In addition, in an annexe not shown in this picture, the firm is doing the equipment work on the long series of military rescue trucks which it is now supplying. In the newly erected stores building above, there are complete stocks of parts for both HIAB's and Tranåsverken's production programme. The popular head of this part of the HIAB service organisation is Curt Andersson (left).

At the far left is the new workshop and office building of HIAB-Service in Malmö (southern Sweden). At the bottom left is an interior view of the workshop, while the picture below shows Bertil Persson, the sure and steady boss of the Malmö outfit.



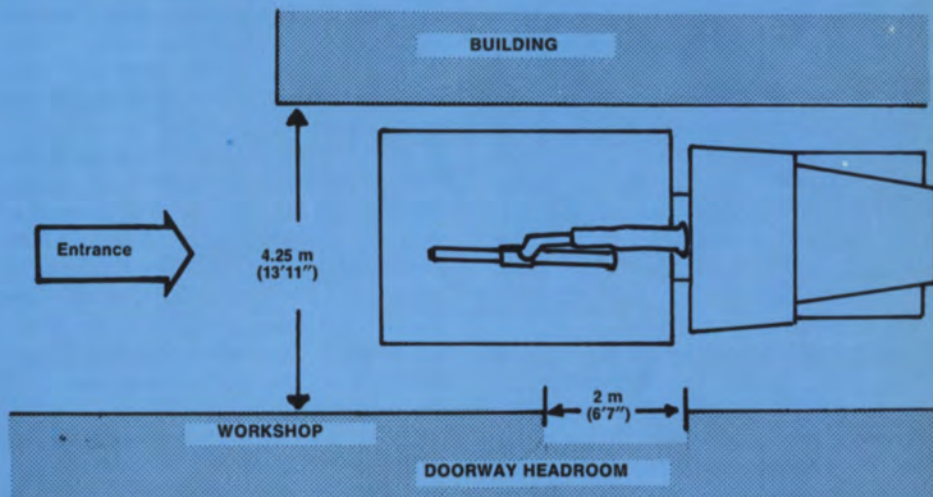
# A "THANK-YOU" in Pictures



The students at the college of technology in Vienna had a problem. The college had bought a lathe for one of its laboratories, and now they were faced with the job of getting it into the premises.

The lathe weighed over two tons. The dimensions of the laboratory doorway and the access road outside were so small that the students saw no way of getting the machine into the building without tearing down a wall or going to some

other drastic lengths. But the firm of F. M. Tarbuk & Co. had the answer—in the shape of the HIAB Method. One of the firm's trucks, equipped with a Speedloader 174, was manoeuvred into the narrow lane. From then on it was no trouble to put the weighty and bulky machine where it was wanted, and as a thank-you for the valuable assistance given by Tarbuk & Co. the head of the laboratory, Dr. W. Prazak, sent these pictures of the installation job.





# Hit men ej längre utan skyddshjälm

ETA P 203

## This far but no farther without a safety helmet

The use of safety helmets—"hard hats"—has been coming increasingly to the fore in recent years. At the schools for driver training which are now being run in Sweden the trainees learn right from the word "go" to wear their helmets whenever they're at work. At more and more places where loading and unloading are carried on you'll see notices saying that safety helmets must be worn, and the driver who disregards them will soon be pulled up by an energetic watchman who makes sure the rule is followed.

Safety helmets have been on the market in Sweden for more than 40 years, but it took a good many years before the initial sales resistance was overcome. Nobody wanted to look "soft", and there can be no doubt that plain and simple shyness was a big factor as well. Besides this, people regarded the helmet as an uncomfortable inconvenience on the job.

But nobody can use that excuse when it comes to the modern helmets in use today, the weight of which is maximised to half a kilogram (one pound).

Erik Leijonhuvud, senior executive officer of the Workers' Protection Board of Sweden, which is responsible for industrial safety, has had the satisfaction of seeing the general attitude towards helmets undergo a change for the better over recent years. Laws and regulations are there to be observed, but when it comes to industrial-safety matters he considers it open to question whether the law should be enforced by coercive measures. He believes in the soft line instead. The nub of the matter is that everyone who *ought* to wear a safety helmet should also *want* to wear one, and should realise the importance of this protection. That's why you can get a lot further in this field by information and discussion than you can by compulsion. Mr. Leijonhuvud also stresses the importance of seeing that visitors to a hard-hat area really do put their helmets on, not only for the sake of their own safety but also for the psycho-

logical effect. Why, for example, should the worker who is thoroughly familiar with his workplace wear a helmet when he doesn't see one on the head of a visiting driver who knows nothing of the local conditions?

This is a field in which a good example has a powerful effect all round, says Mr. Leijonhuvud. For instance, there was a steelworks in Germany which encountered really stubborn problems in getting safety helmets accepted. The workers left them demonstratively hanging on the hooks in their changing rooms, and paid not the slightest attention to all the notices at the workplace. Finally, someone came up with the bright idea of getting certain specialist operatives, foremen and so on to wear their helmets. It took a year for the experiment to pay off, but by that time all the affected personnel had begun to get used to helmets and no longer thought they looked odd.

We haven't had quite such drastic cases as that in Sweden, but all the same there has been resistance, and it has been largely overcome by information and propaganda.

There's a lot of help to be had from TV and other mass media. If people see pictures from workplaces where the personnel are wearing safety helmets and where the visitors respect the helmet rule too, then in time they will become an accepted and unquestioned feature of the industrial scene.

# Spanish Forestry People Learn the HIAB Method

The HIAB Method and HIAB equipment for loading and materials handling are often demonstrated in connection with international exhibitions, and they always arouse keen and well-deserved interest. Not very long ago there was a demonstration of roundwood handling by the HIAB Method, both in the forest and during subsequent transportation, for Spanish forestry people in Madrid and Barcelona. The Spanish forests, too, are yielding increasing quantities of timber which are being hauled out by modern transport outfits loaded with the pedestal-mounted HIAB 177 Forest Speedloader. A Swedish cross-country vehicle, a "Brunett", was also demonstrated, and if the interest shown by those Spanish foresters is anything to go by the HIAB Method will soon be gaining ground in this phase of roundwood haulage as well.



Forestry in Spain is on a more important scale than most people think, and the Spaniards take a keen interest in roundwood handling and transportation using modern methods. A Forest Speedloader is here being demonstrated on a Spanish forest-haulage outfit.

At a recent fair in Barcelona, HIAB's Spanish distributor displayed this impressive collection of HIAB equipment.



Off-the-road mechanisation is also going ahead rapidly in Spain. This demonstration of the Swedish Brunett tractor roused great enthusiasm among the on-lookers.

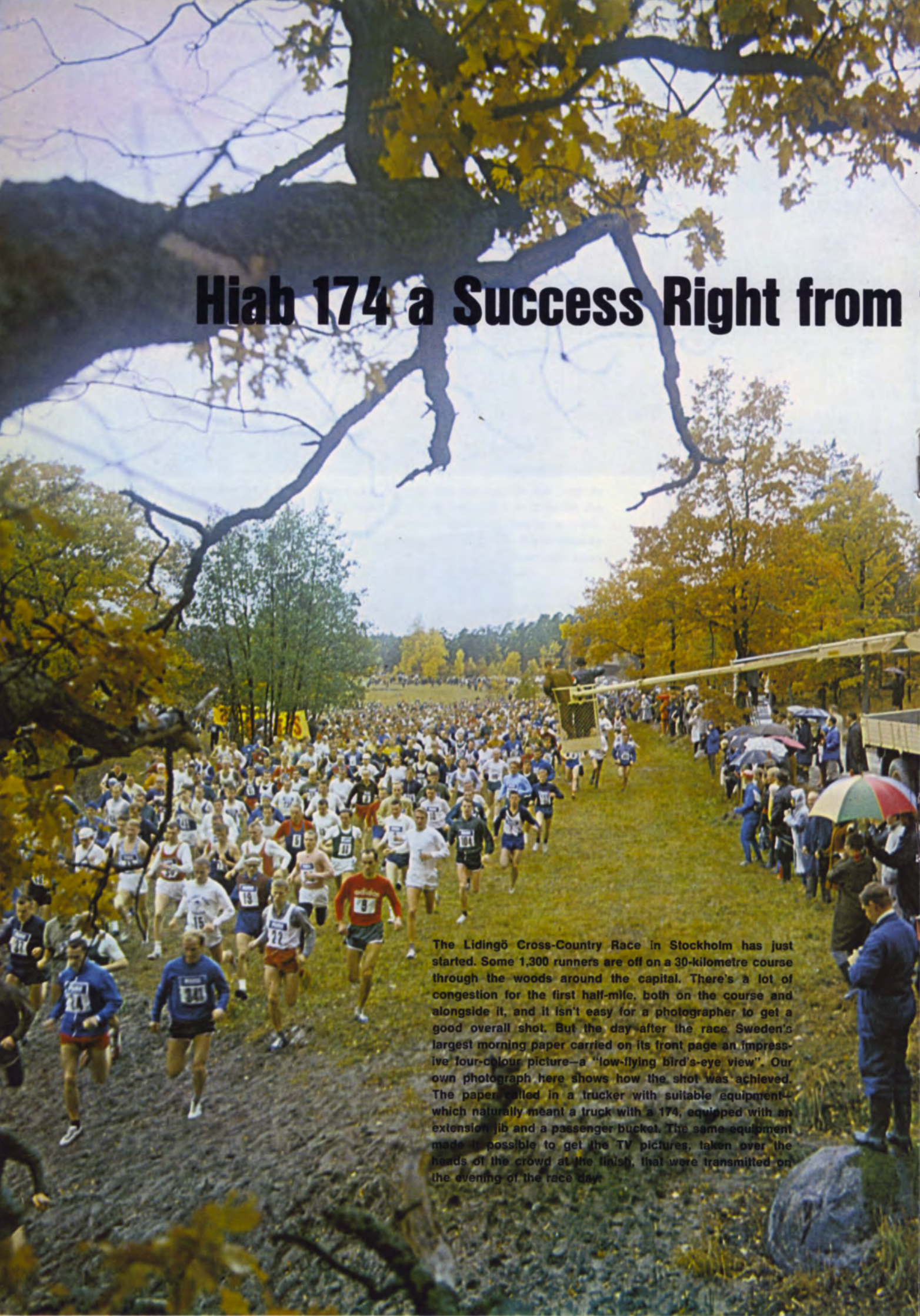


## In Paris too

In France, too, HIAB's products have found a large and growing market. This picture comes from an exhibition in Paris at which a squad of HIAB cranes stretched their muscular steel arms skywards.





A large crowd of runners is seen from a high angle, running along a dirt path through a forest. The runners are wearing various athletic gear, including blue, white, and red singlets. The path is flanked by trees with yellowing autumn leaves. On the right side of the path, a crowd of spectators is gathered, some holding umbrellas. A crane with a bucket is visible on the right, positioned high above the runners. The sky is overcast.

# Hiab 174 a Success Right from

The Lidingö Cross-Country Race in Stockholm has just started. Some 1,300 runners are off on a 30-kilometre course through the woods around the capital. There's a lot of congestion for the first half-mile, both on the course and alongside it, and it isn't easy for a photographer to get a good overall shot. But the day after the race Sweden's largest morning paper carried on its front page an impressive four-colour picture—a "low-flying bird's-eye view". Our own photograph here shows how the shot was achieved. The paper called in a trucker with suitable equipment—which naturally meant a truck with a 174, equipped with an extension jib and a passenger bucket. The same equipment made it possible to get the TV pictures, taken over the heads of the crowd at the finish, that were transmitted on the evening of the race day.



# the Start

The HIAB Speedloader 174, introduced in the spring of 1966, has been a great success both in Sweden and abroad. Only six months after the loader was put onto the market almost 2,000 174s have been sold, including 200 on a single order from the United States and another 55 to the Canadian army.

The reasons for this popularity are obvious, showing that HIAB's designers backed the right horse when they went in for a flexible, fast, all-hydraulic crane having wide versatility in combination with all the special lifting tools that have been developed for the Speedloader 173 and 177.

On these and the following pages we give some examples of the many different classes of work in which the 174 has already made itself invaluable—not to say indispensable.



Scrap handling is a field in which the HIAB Method has long been used with success. Fitted out with a polygrip grapple, this HIAB 174 can tackle a wide range of jobs at Trelleborgs Skrot AB. See also pp. 10–11.



The sugar-beet harvest is a hectic time of year in southern Swedish agriculture. With a HIAB crane and a special beet grab the loading of the crop has been greatly simplified. See also p. 10.



A Swedish contracting firm has had this tractor specially fitted up for its primary job of handling lightweight concrete elements, but with its great reach it also makes a mobile crane that can perform all kinds of tasks on a building site. See also the back cover.





AB Uno Borgstrand in the south of Sweden is among other things a wholesaler in window glass. The firm uses the HIAB Method to handle the heavy and fragile cases of glass, both at its own depot in Malmö and in making deliveries to its customers. Thanks to the hydraulic extension it's no trouble to lift the cases vertically up from the stores basement to the yard where the truck is waiting. The 174 is ideal for this job says the driver, who can load and unload his truck himself. In his opinion it's the best thing HIAB has ever brought out. It eases the work enormously and saves a lot of time.

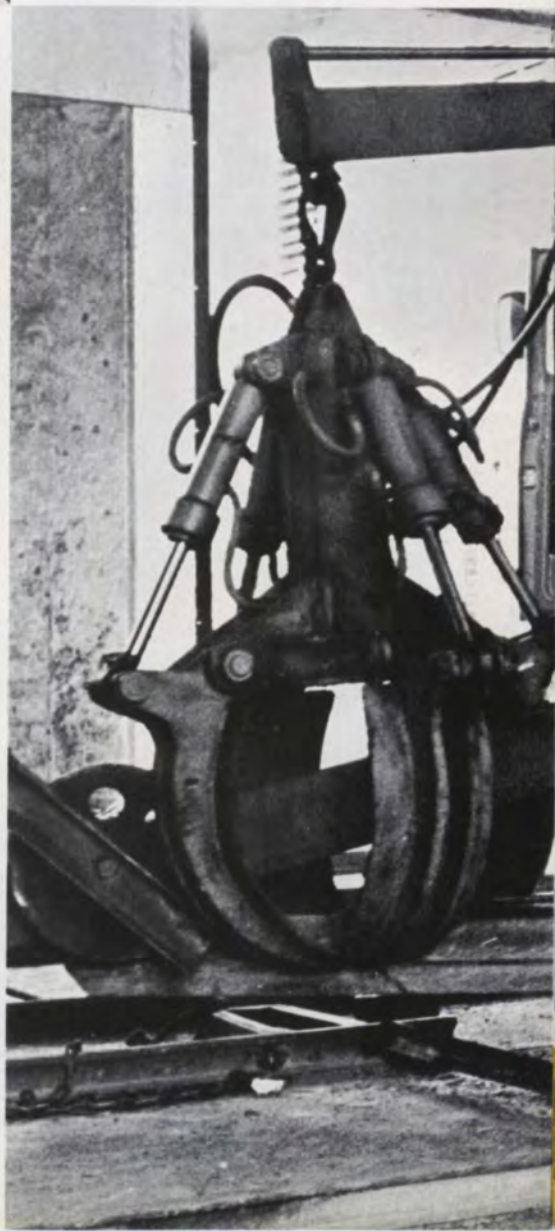
At Börringe Tegelbruk, a brickworks in the south of Sweden, they're scrapping a large number of cars on which the bricks used to be run into the firing furnaces. The cars are cut into pieces by torch. Since the loading has to be done indoors there isn't all that much elbow-room, and Brynolf Andersson, who drives the truck, finds the hydraulic extension of his 174 a great help in manoeuvring the polygrip grapple. One load a day is hauled from Börringe to Trelleborg, where the brick-car scrap is tipped straight onto rail freight cars.



Within a few hectic weeks the heavy beet harvest of the Scanian plain in southern Sweden has to be moved to the sugar refineries. The beet harvest used to be a backbreaking grind for all concerned. Nowadays, machines have taken over much of the heaviest work. The beet was formerly loaded by hand onto the trucks going to the refinery. With a HIAB crane and a beet grab the truck driver can now load 20 tons on his own in an hour or so's work at the beginning of the day. And he doesn't get tired out doing it. Earlier in the autumn, before the beet harvest gets going, the same equipment serves for loading potatoes.



This old HIAB crane has certainly done its share of hoisting since it left the factory, but it's still giving good service as a mobile loader for the southern Swedish scrap merchant who bought it second-hand and fitted it up with a special grab to handle bales of waste paper.





## ENGLAND

The HIAB Speedloader 174 has been a great success on all the markets where it has been introduced. This picture from England features heavy and awkward items for a power-transmission building job. Hauliers J. Curtis & Sons Ltd. of Oxford have a 174 on their truck, so they have no trouble with loading and unloading. They can place their heavy cargoes right where they want them, both on the truck deck and on the ground.







The HIAB "Rol-Loader" is a HIAB crane that has been provided with its own power unit in the shape of a petrol engine, which frees it of dependence on its tractor truck. So it can load a trailer without having to tie the tractor truck down in the meantime. The whole unit travels on rollers along the deck of the trailer, enabling it to work with its maximum lifting capacity at any point on the deck. If need be, it can also be moved over to the tractor truck or to another trailer.



It isn't always that a fixed truck loader offers the best solution to a goods-handling problem. The loading and unloading of semitrailers for long-distance haulage is an example of a class of work in which it is often inconvenient to use a crane that is dependent on the truck engine as a source of power and therefore keeps the truck tied down for an unnecessary length of time at the terminals. If the loader is mounted on the semitrailer

and given its own petrol engine to supply pressurised hydraulic oil, the turnaround time of the truck can be cut to just what is needed for coupling up or uncoupling the semitrailer. This is the principle used in a type of crane equipment that has made a lot of friends for itself in the U.S., Canada, Holland and elsewhere.

One of the first outfits of this type was built in Canada and consisted of a HIAB

173 mounted on a rolling frame with a separate petrol engine to power the hydraulic pump and hydraulic motor of the crane.

The idea behind the HIAB "Rol-Loader" is to free the crane from the tractor truck, so that it can work at maximum lifting capacity throughout the whole

## Speedloader with Hydraulic Winch as Mobile Crane in Australia

How do you go about depositing heavy and fragile equipment down in excavations more than thirty feet deep, or on pavements right up against the walls of the houses, and frequently under projecting superstructures and shop signs? That's the problem which a power company in Australia had to wrestle with.

The equipment that has to be lowered into or hoisted out of excavations consists of units weighing about 500 kg (1,100 lb.). With ordinary lifting methods these installation jobs are time-consuming and costly. A block and tackle for example calls for an elaborate set-up on the pavement, which obstructs traffic, and a building crane is often unable to get at the job because of interfering buildings and overhangs.

But the designers at HIAB's Australian

distributor had a simple and effective solution to the problem. They equipped a HIAB 177 Speedloader with a hydraulically driven winch carrying a hundred feet of half-inch steel wire rope. The winch is operated from a pair of extra valves mounted above the regular control valves.

The wire passes over a simple block, and its free end is secured to the crane jib. Both the parts run over sheaves at the end of the jib and between double sheaves in the hinge between the lifting jib and the luffing jib, which makes the load on the crane symmetrical. A spring-loaded suspension hook, to which the lifting hook is secured when the crane is folded up, gives sufficient tension in the rope to keep it in place while the outfit is travelling. Further refinements in this well-





The picture on the left comes from the U.S., where the "Rol-Loader" idea was first put into practice. The semitrailer is of the Fruehauf brand. The picture on the right shows a Swedish "Rol-Loader" at work loading pipes with the help of a special fork.

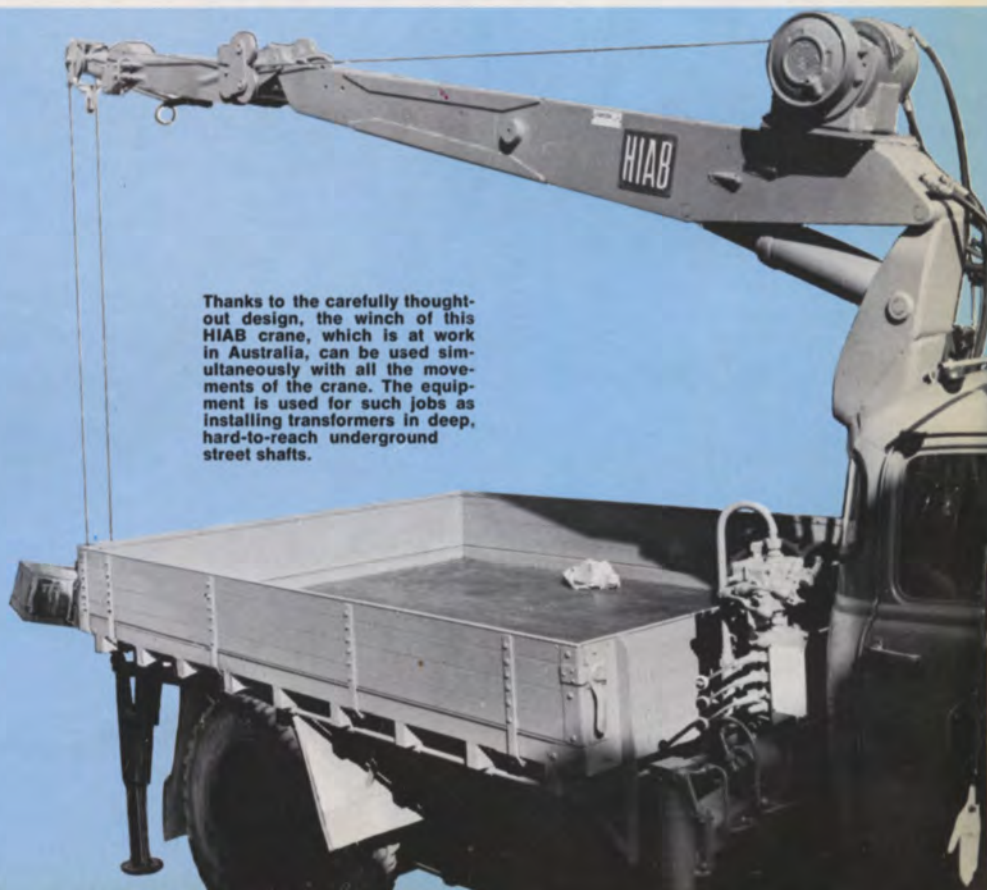
length of the semitrailer. The base of the loader is fitted with rollers so that the loader unit can run along the two supporting joists in the middle of the trailer deck. The top flanges of the joists are flush with the deck, making it very easy to mount a "Rol-Loader" unit on this type of trailer. The loader gets its lateral stability from claw-like shoes which run along beneath the flanges of the joists. Naturally, the crane equipment does not encroach

on the space available for sideboards and tailboard and for any other equipment that may be fitted, nor does it increase the width of the outfit. And it can easily be transferred to other vehicles or to loading banks, etc. Items weighing up to 3 tons can be handled with ease by the loader. A semitrailer is generally loaded from front to rear, so that the crane steadily works its way rearwards. Unloading will be in the reverse direction.

It was only to be expected that the "Rol-Loader" idea should first have been put into practice in the United States and Canada, since semitrailer traffic there has developed a good deal more than in many other countries. A couple of hundred "Rol-Loader" units are now at work in the U.S., and the first vehicles in Sweden to be equipped with them are expected to go into service at the beginning of 1967.

considered design include a safety cut-out at the end of the crane jib. It is connected into the ignition circuit of the truck engine and breaks the ignition current if the lifting hook is raised too high. Similarly, the four hydraulic support legs are fitted with contacts which switch on warning lamps in the cab when any of the legs is extended.

With this equipment it is easy to put the heavy transformer components into place even in the most awkwardly sited excavation, and the Australian power firm has got itself a transport outfit which at the same time serves as a versatile mobile crane. Thanks to the careful arrangement of sheaves in the crane jib, all the movements of the crane can be used even when hoisting is in progress with the rope winch.



Thanks to the carefully thought-out design, the winch of this HIAB crane, which is at work in Australia, can be used simultaneously with all the movements of the crane. The equipment is used for such jobs as installing transformers in deep, hard-to-reach underground street shafts.



# METHOD HOISTS



## Method Experts Compare Notes

A regular comparing of notes by HIAB people from all over the world is an important element in the work of further developing the HIAB Method. International Method conferences of this kind have recently been held in Sweden and in Spain. This picture is from one of the Swedish meetings, showing a group which includes some of the American participants discussing a new type of crane mounting made for tree-length timber hauls.



Door to door by goods container is a transportation principle that is coming into increasing use for movements of general freight. It involves cross-loading between rail and road vehicles, and HIAB equipment can be used to achieve substantial savings of time and effort.

Finland is one of HIAB's largest markets. Here is part of a large batch of Mercedes-Benz trucks that were recently equipped with HIAB Speedloaders 173.



## Safer Tunnel Work with the HIAB Method

This rig, consisting of a gunite unit at the end of a HIAB 174 with an extension jib (9 metres  $\approx$  26 ft. 6 in.) is used to reinforce rock surfaces after blasting and to bind any loose boulders or rock zones. Its chief use is in tunnelling work, where it can save lives. After a round of

shots in unsound rock it is often unsafe to enter the tunnel. Now the workers insert the nozzle of the gunite unit and cover the tunnel roof with a thin layer of quick-setting concrete. After this the blasting team can go in without qualms and start drilling and charging for the next round.

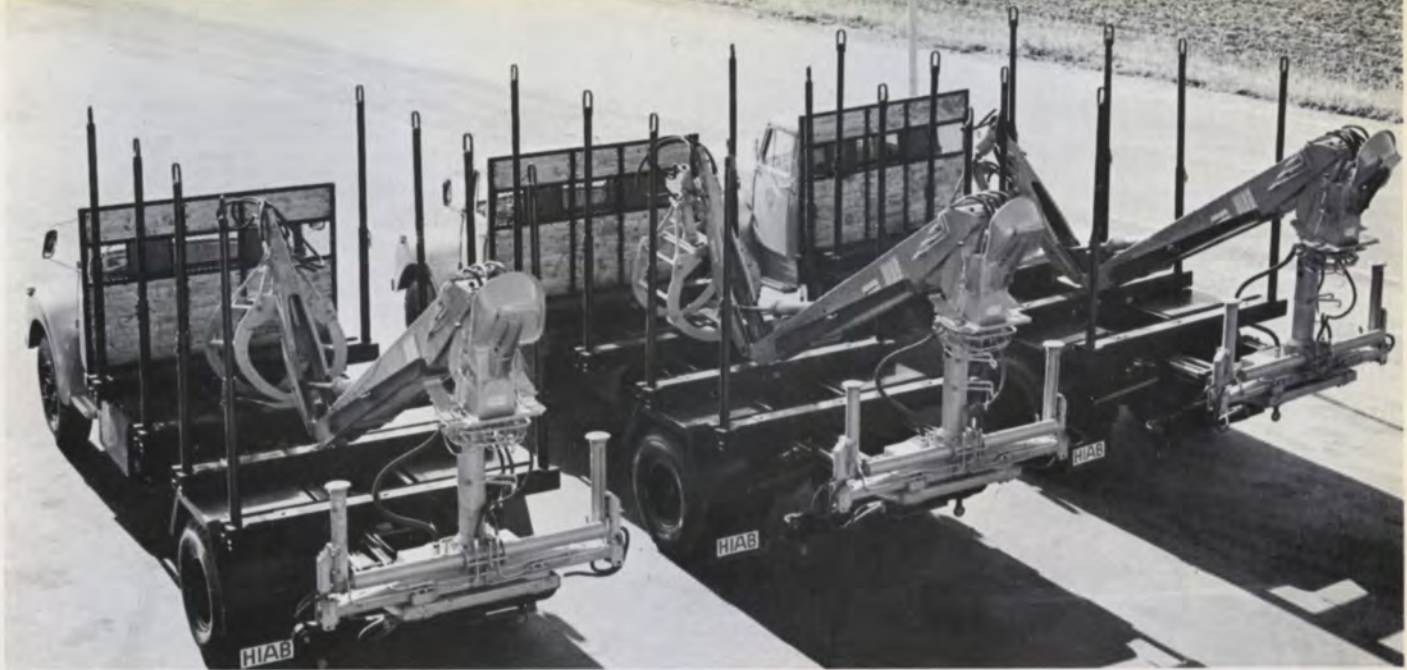


Just how the ancient Vikings Björn and Holm, some time back in the 10th century, went about raising a runestone in the Stockholm area is something we can only guess at. But it's a safe bet that the job was tough on their muscles. By contrast,

museum men R. Wibeck, Åke Gustavsson and their team didn't need to exert any berserk strength when they moved the stone a while back from the garden of the Alfa-Laval plant outside Stockholm to a new site at another of the company's







## Speedloaders for the Chilean Forests

Roundwood handling by the HIAB Method has attracted attention in virtually all timber-producing countries. Chile is one of them. From Sweden it has decided to buy not only the loaders but also the trucks they will be mounted on. These three Scania-Vabis L76s make up the second consignment out of a large order, and further vehicles will follow on the way to the Chilean forests. The picture was

taken outside the HIAB plant in Stockholm, where the trucks have just been equipped with rear-mounted, detachable HIAB 177 Speedloaders fitted with rotators and roundwood grabs, and arranged for pedestal (mast-top) control. In other words they're well-equipped rigs all set to make a first-class job of showing what Swedish quality equipment can do in the way of forest transport.

## New Head in Stockholm



Per Gunnar Lundell, 45, recently took over as manager of HIAB-Service in Stockholm. Before that he was marketing manager for a major motor firm in the north of Sweden. Among previous posts was that of sales inspector for Scania-Vabis, so the new manager can be said to have formidable qualifications in the truck line.

establishments. All that was needed was a HIAB-equipped truck. Moving runestones is certainly not part of the everyday round for a HIAB. Normally, the Swedish Central Office for National Antiquities does not give permission for such trans-

fers, but the Kättilbjörn stone had already been moved once and the new shift brought it nearer to its original site.

The inscription reads: "Björn and Holm raised this stone to Kättilbjörn, their father. God rest his soul."





## METHOD HIAB NO. 5

A Magazine featuring the HIAB Method and its applications,  
published by **HYDRAULISKA INDUSTRI AB**, Hudiksvall, Sweden.  
Publisher: AKE NAUMANN  
Editor: LARS ROSENGREN  
Photography: ROLAND ANDERSSON et al.  
Translation: D. SIMON HARPER  
Printing: WIKING-TRYCK, Södertälje, 1967

At Olofström in the south of Sweden, an impressive new factory is going up. It is to be built of lightweight concrete elements which will be lifted into place by this tractor, equipped with a detachable HIAB Speedloader 174 with an extension jib. But the first job of the brand-new outfit was to lift down some lightweight concrete elements from the wall of the old factory bay where the new building adjoins it.

Safety helmets of the type worn by the crane operator on the tractor are becoming increasingly common on working sites of this kind.

