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#### HIAB Method No. 18

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#### Cover:

Heavy electrical supplies being handled by a Hiab 950 for the North Eastern Electricity Board in England.

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- • With the streamlining of the distributive trades, ever larger transport and handling units are being adopted at all stages of distribution.
- Prefabricated houses are being manufactured and delivered in ever larger sections.
- ● To facilitate assembly, machinery is nowadays being delivered to factories and workshops in large units that are hard to handle but easy to assemble.
- Modern harvesting machines make forestry more efficient and result in heavy concentrations of timber at the landings.
- • Handling tasks that in earlier times were dealt with by mass labour are scarcely economic propositions today unless they can be managed by one or at the most two men.
- • With the mechanisation and rationalisation of building and civil engineering it is becoming necessary to move heavy machinery and other equipment around from site to site.

One consequence of these trends is that goods in transit consist to an increasing extent of heavy, awkward, indivisible units. Efficient handling aids, once desirable, are now becoming essential. In this issue of Method we devote some of our space to exemplifying this development and methods of coping with it. In other words, the theme this time is

## **Heavy Lifts**



## A Whole House On The Hook

Prefabricated houses are by no means uncommon these days, but you don't often see the house arriving fully assembled on a truck and being unloaded onto the site. It happens in Germany, though. Such houses aren't big, it's true — they're just transformer houses covering a few square metres. They are transported by truck and handled by a Hiab 950 mounted in the ordinary way behind the cab. They have lifting eyes in the top corners and are hoisted by wire slings. The outfit is firmly supported during unloading by its outrigger legs, and the house can be deposited on the "site' with millimetric precision. The whole "erection time" is just a few minutes. 🗾 1



## **Heavy Tanks**

Broklin Concrete, of Ontario, Canada, makes concrete tanks. They're weighty items — the heaviest weigh well in excess of 2,000 kg. The tanks are transported to the installation sites by truck, but you don't lift two tons on and off trucks just like that. So the firm has Hiab 950s on three of its trucks, and they don't just transport tanks — they also lift them down into place in their installation pits. To achieve the best possible reach during unloading the loaders are rear-mounted. In addition, the firm has mounted them 30 cm higher than normal on the heavily reinforced frame and has lengthened the outrigger-leg extension, all in quest of optimum stability during these heavy lifts. 2

Thanks to the Rol-loader mounting the loader can reach 9 metres beyond the side of the barge when it is run to one or other end of its travel (near picture).





One of the main jobs of the loader is handling buoys and their anchorages (picture on right).

## Canal Maintenance With The Rol-loader

Almost 150 years ago they built the Rideau Canal in Canada. It runs from Kingston, at the outlet of Lake Ontario into the St. Lawrence River, up to Ottawa — a distance of about 200

km, with 49 locks. Before the days of railways, trucks and flying it was an important link in Canada's transport system.

In our day, the canal is of merely historical interest and is of hardly any account as a transport route. But it is still kept open, to the delight of the pleasure-boat owners who make use of the beautiful old waterway in great numbers. In 1970 they racked up more than 40,000 lock passages.

But maintaining the numerous locks and keeping the canal open for traffic poses a lot of problems. Buoys and navigation marks have to be put out and picked up, and miscellaneous material and equipment for the maintenance of the locks has to be transported on barges and loaded and unloaded.

Formerly, this work was always done by hand or using simple me-

chanical winches, which was a lot of trouble and effort for all concerned and was costly for the canal administration Until Mr Lloyd Lortie, acting canal inspector, began to consider what could be done to ease and simplify all the heavy work. He found what he wanted in the Hiab Method. Why couldn't they mount a Hiab Rol-loader on a barge and use it for loading and unloading and handling buoys?

No sooner said than done!

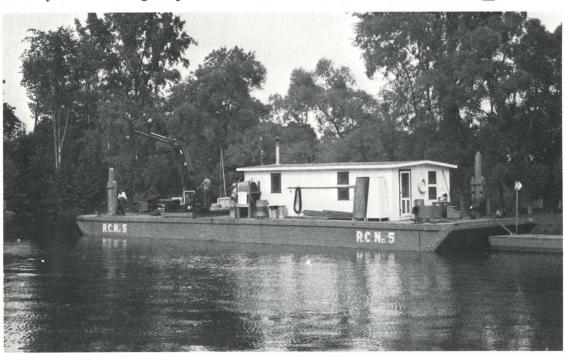
Now they have a Hiab 950 Rolloader that can travel athwart the 7.5-metre-wide barge. The most important task of the loader is to raise buoys and navigation marks. A buoy and its anchorages weigh some 500

kg, and if the concrete weight has lain for some time on a soft bottom it takes a good deal of force to pull it clear. But using this loader, and a winch with a pull of 2,000 kg, it's done in a moment.

The loader can reach 9 metres beyond each side of the barge. Since the Rol-loader mounting enables it to move from one side to the other it's never necessary to turn the barge round to get at a buoy. That's a big plus, since at many points the old Rideau Canal is far too narrow for the big working barges to turn round in.

The hydraulic pump that delivers the pressurised oil to the loader is driven by a small petrol engine.

3



The working barges on the Rideau Canal are pretty large, and cannot be reversed in the narrower parts of the waterway. But thanks to their Rolloader, they can still work on both sides of the channel



A transformer like this isn't just heavy — it's fragile too. But with the Hiab 950 it can be handled easily and safely by one man.

## A 90% Time-Saving With A

## Rear-Mounted 950

The North Eastern Electricity Board in England has a good deal of heavy equipment to handle. Among other things, transformers and cable drums have to be transported from the depot in York to the working sites. Some fairly heavy units are involved; a transformer weighs about 3<sup>1</sup>/<sub>2</sub> tons and a full cable drum can weigh 4 tons.

At one time it took the driver and his mate 45 minutes to roll a big cable drum off the lorry. With his Hiab 950 the driver can do the job alone in less than ten minutes.



For some time now, the Board has had a lorry with a Hiab 950 rearmounted on a lasse bracket. This equipment has proved a very big time-saver. In order to load and unload the heavy equipment without too much bother the Board used to use a low-loader trailer. There was seldom any unloading equipment available on site, so that the material had to be off-loaded by hand. The men used rollers, levers and a simple mechanical winch. On the average it took the driver and his mate 45 minutes to unload a cable drum or transformer. The job was heavy, awkward, and seldom without risk.

With the Hiab loader, it is no trouble for the driver to unload a cable drum or transformer unaided in less than ten minutes.

The reason why they chose a rearmounted, detachable loader was that at many sites the situation is such that it is difficult and often impossible to discharge a load over the side. And a detachable loader is not counted as part of the fixed equipment, which puts the lorry in a cheaper taxation class. Sometimes, too, the Board has to move things that aren't suitable for handling with the loader, and detaching the latter then enables full use to be made of the lorry's payload. Finally, they have found that the rearmounting increases the stability of the lorry during loading, which is very important when the full lifting capacity of the big Hiab is brought into play. 📉 4



With a Hiab 950 mounted over the bogie of the tractor truck the driver can unload and load both the trailer and the truck. In the foreground is one of the firm's older loaders, a Hiab 173 — still doing a day's work.



Before they had the Hiab 950 the men had to wait for a building crane to help them handle a concrete vibrator like this.

## CONCRETE Blocks In New Zealand

Concrete-block manufacture is a big industry in New Zealand just as in many other places. Vibropack Blocks Ltd., of Christchurch, has seven factories which each produce 200 tons of concrete blocks a day. When the blocks have finished curing in the factory stores they are taken out to the building sites by a large fleet of modern and well-equipped trucks.

At quite an early stage the firm went in for the Hiab Method and equipped its trucks with the Hiab 173. Three of the old loaders are still doing their bit, but on the new outfits the company has mounted Hiab 950s. Each rig consists of a sixwheel tractor truck and a fourwheel trailer. The loader is mounted over the bogie of the tractor and can load and unload both the truck and the trailer. Since the blocks are hollow they can be handled in piles with the aid of a special lifting fork without first being palleted. The

fork has tines which go through all the blocks in the bottom layer of the pile.

The greater lifting capacity and reach of the new loader has given the firm substantially cheaper loading and unloading and, in combination with its big truck rigs, substantially better transport economy. And on top of this it can now offer its customers even better service than before by off-loading the blocks exactly at the spot where they are to be used.

## CONCRETE Vibrators In



## SWEDISH EMIGRANT INTRODUCES

The Hiab Method plays an important part all over the world in the quest for better transportation. In Peru, for instance, they are currently working hard to harness the natural resources in the north-east.

The area is shut-off from the more developed coastal region by the Andes, with peaks soaring close to 7,000 metres. On the eastern side of the range the roads are few — but the waterways, the headwaters of the Amazon, are all the more nu-

merous. To develop the river traffic, the Peruvian Government has ordered 38 barges and seven tugs from a yard in Pucalpa, a small town on one of the tributaries which is also the end-point for one of the few highways crossing the mountains to the coast.

The yard is run by a Swede, Kurt Alfredsson, who emigrated to South America 35 years age. Eight barges have already been delivered, all equipped with a Hiab 950 and a

winch on the roof for handling materials and equipment. They are powered by four-cylinder Chrysler-Nissan Japanese-made diesels. 

6

One of the first of the 38 barges Kurt Alfredsson is building — and equipping with the Hiab 950 — has been launched in the upper reaches of the Amazon in the picture on the right.



The heaviest stairways which Lennart Arvidsson handles weigh three tons, but the Hiab 950 can take the weight and outrigger legs give it the stability needed for spotting the stairway exactly in position.



## the U.S.

The great lifting torque of the Hiab 950 has opened up new worlds for the Hiab Method. Heavy concrete vibrators and vibrating concrete moulds are two examples. Vibrators of this type with a petrol or diesel engine are too heavy for effective handling by the smaller classes of crane. They are usually employed on small sites which often lack large building cranes. This outfit, which is serving in the U.S., consists of a short four-wheel chassis with a Hiab 950 mounted behind the cab. It can manage even the heaviest vibrators with ease.

A vibrating mould also weighs quite a bit, but the Hiab 950 has lifting torque to spare.

## CONCRETE Stairways In Herrljunga

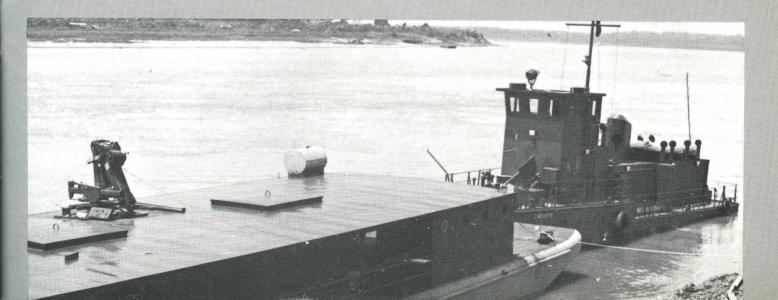
Factory-made concrete stairways for houses and cottages have given Lennart Arvidsson in Herrljunga a fulltime job, and since he got himself a new outfit mounting a Hiab 950 he has been able to handle a good many more per day. The stairways are cast in concrete at a factory in Hudene just outside Herrljunga, and Lennart Arvidsson is in charge of delivery and erecting. The stairways vary in weight; the heaviest weigh up to three tons and on homesites there is never any building crane or other equipment to handle such hefty pieces. So a strong loader on the delivery truck is essential if the stairway is to be supplied and put in place.

Earlier, Lennart Arvidsson had a smaller crane, and was able to

manage — but it took more time. Nowadays, when everything goes smoothly, he can fit a stairway in ten minutes, and he seldom takes more than half an hour. There is usually someone working on the site who can give him a hand in positioning the stairway, although he can manage quite well alone if need be. The only equipment he needs besides the loader is a pair of wirerope slings.

These days, the number of stairways he can set up in a day is largely decided by the distance and their weight. The truck payload sets a limit to the number of stairways he can take at a time. The actual erection time is now so short that it scarcely affects his daily capacity.

## THE HIAB METHOD ON THE AMAZON



### **Harbour Service**

This scrap truck plunged into the harbour in Malmö and was fished out by a raft-mounted Hiab 550. The loader and raft belong to Skånska Cementgjuteriet, and rescuing trucks is not part of their regular duties. Their main jobs are various service operations in harbour construction, staking out boundary lines for dredging, etc. The oil pump of the loader is driven by an electric motor, and the raft carries a diesel-powered generating set. 

9



## **Pipelaying**

The laying of pipelines is a field in which the Hiab Method has found wide use in many parts of the world. This example is from West Germany, where they're building an all-welded gas line. The rigs that transport the pipe lengths have Hiab 950s mounted behind the cab. With its winch and hydraulic extension, the loader is able to spot the pipes with great precision in the trenches. The position of the welded line can also be adjusted very accurately by the loader. This work, which otherwise would require a big labour crew with pry-bars and levers and would still be a slow business, is now handled by the truck driver in a few minutes. 10

# Two-stage Truck for Weekend Houses

Myresjöhus in Denmark is a firm making prefabricated houses. Its weekend houses have enjoyed special success. They are relatively cheap and easily erected. They are made in small units that can readily be assembled on site without the aid of a crane or other lifting tackle.

Delivering them, on the other hand, is a problem, since the roads out to the recreation areas are often poor and the sites themselves are hard to get at. Frequently, the gradients and ground are such that it is impossible to get an ordinary truck onto the site — still less one big enough to carry a complete house.

Determined to deliver its houses right to the foundation, Myresjöhus has adopted an approach that could be called the "two-stage" truck. It consists of a small, light tractor truck that can make its way along poor roads and has fair cross-country capability. It tows a trailer that carries the bulk of the load. On the tractor is a Hiab, used for cross-loading and off-loading the freight.

Myresjöhus chose as its tractor a four-wheel-drive Unimog, which it fitted with a Hiab 550. On a delivery run, the complete outfit goes as far as the road permits. When the trailer reaches its limit, the truck goes on alone to the site and discharges its load right next to the foundation. Then it returns to the trailer and uses its Hiab to transfer another load to its small deck.

Thanks to its four-wheel drive and low weight, the truck can easily get about even on cramped and undulating sites. And after a series of round trips between trailer and foundation the complete house is in place. It's true that off-loading takes longer than it would with a big, conventional rig, and the highway

underpowered tractor. Yet the "twostage" truck normally manages two deliveries a day, and an ordinary truck could do no more over the distances normally involved in this

you have items such as prefabricated wall units dangling from a building crane by a rope up to 90 metres long you run a serious risk of damaging them. That risk has been entirely eliminated by the Hiab Meth-

speed is also less with the relatively

case.









# How To Make A Lake — For Peat's Sake

Lennart Andersson has always been interested in peat bogs — and there are plenty of them in the parts where he lives. The peat can be put to many uses. In olden days — and even quite recently at times of crisis — it was a valuable fuel. Apart from that, it is chiefly employed as mulch.

From the shores of the lake the dried peat is hauled to a dump. All handling is done with the loader, except the comminution, for which a soil shredder is used.



But if peat-digging is going to pay you have to do it on a pretty big scale, and that's not so easy, since the boggy ground won't carry heavy machinery. Lennart Andersson knows of numerous attempts to exploit peat bogs that came to grief because the machines became hopelessly stuck, necessitating expensive recovery operations.

But a method used at some of the sandpits in Germany gave him an idea. These sandpits are in low-lying terrain, and when the surface layers of sand have been stripped off the resulting pit gradually fills with ground water. Work is continued from barges floating on the water, the sand being dug from the bottom by buckets lowered from a crane jib.

Lennart Andersson reasoned that it ought to be possible to employ that method in a bog, so he bought an old steel barge previously used to collect discharges from ships in the Port of Gothenburg. On the stern he mounted a second-hand Hiab 176, a veteran of five year's forestry work. He fitted the loader with an extra boom section and a hydraulic bucket.

#### Andersson Barges In

Andersson had his barge transport-

ed out onto a peat bog and laid on a bed of planks. Then he started digging. He dug up peat behind the stern and piled it up on each side of the barge. The pit behind the barge soon filled with water, and when Andersson had dug out all the peat within reach of the loader he shifted the barge astern by clawing along the bottom with the loader boom. Before long, the barge was afloat in the pit and Andersson was chewing his way backwards through the bog, creating a long canal banked high with peat on both sides.

#### Hiab All The Way

Before the peat can be sold as a mulch it must be dried and pulverised. To get rid of as much water as possible straight away, the bucket Andersson uses to dig with has numerous small holes through which the water is squeezed out. The piled peat is left to dry beside the canals for at least one year sometimes for two. Andersson then loads it into the barge - another job for his Hiab - after which it goes to a dump where it is pulverised by a soil shredder. Both the unloading at the dump and the loading of the trucks that deliver the finished peat to the customers are carried out using the Hiab loader.

# The Prefabulous 950

This is Lennart Andersson, cruising around the lake he made for himself with his Hiab loader. He uses the loader boom both for propulsion and for steering.

#### The Growing Lake

During the four years that have passed since Andersson bought his barge and began digging, the original canal has grown so that there is now a whole lake amidst the bog. It's about two metres deep and is constantly spreading as Andersson digs up more and more peat.

Since the peat is used as a mulch in gardening and in laying out lawns, etc., sales follow a seasonal pattern. During the peak period, Andersson ferries 160—200 cubic metres of dried peat a day from the bog to the dump in his barge, which holds about 25 cubic metres. During the quiet times he expands his lake by digging out fresh peat and piling it up on the banks.

The busy loader is even used to propel the barge. By "poling" along the bottom with the boom and bucket. Andersson can make his way around his home-made lake speedily and safely. While he is digging, the barge is held still by two long beams running vertically in fittings on the sides of the vessel. When the beams are released they plunge into the bottom like spears and immobilise the barge. The loader is used to raise them again when it's time to move on. A 15-h.p. petrol engine provides power for the loader.



Exterior-wall units, complete with cladding, are deposited close to the foundations for erection at a later stage.

Wall units of this size enable the builders to work fast — but would be impossible to handle on site without powerful lifting equipment. The firm of Råby-Huse in Denmark produces prefabricated concrete houses, which it delivers and erects using the Hiab Method. Deliveries are effected with an outfit consisting of a tractor truck and a specially built trailer. The truck is equipped with Hiab 950 or 550, and the first job of the loader is to load the concrete units at the factory in Råby. On the building site, the trailer is detached, the units are unloaded, and the truck then serves as a mobile building crane.





There can be few pieces of roundwood that are moved as often as those in this picture. From morning to night they're loaded onto and off the dummy forwarders to help trainee loader operators learn their trade.

## Correct Technique Makes For Speed In The Training Of Loader Operators

It doesn't look particularly difficult when a truck driver uses his Hiab for a slick and speedy job of loading or unloading. And in point of fact it isn't. Hiab loaders have always been easy to handle. Anyone can use them with little more

Even so, in certain sectors there's a shortage of skilled loader operators. This is particularly true in forestry haulage, where efficient grapple loading is the decisive factor in transport economy. Ability to use the loader properly is just as important in the drivers as having full command of their vehicles. That applies to truck drivers and - even more so — to the drivers of the "forwarders", the off-road load-carrying tractor rigs that collect the timber on the logging area and move it to the landing beside the motor road. The forwarder driver uses his Hiab for both loading and unloading, so that he normally spends a good deal more of this working day facing rearwards towards the loader levers than at the steering wheel.

It follows from this that loader technique and grapple loading by the Hiab Method are prominently featured on the curricula of Swedish forestry schools. The one at Älvdalen, to which we paid a visit, runs several different courses varying in scope and length from eight weeks up to two years. Besides the loaders mounted on its tractors, the school has two stationary Hiabs that are used solely for training in loader technique. They serve to give every trainee attending the school a basic

training in grapple loading which usually runs to at least 30 hours. This is then rounded out with practical exercises on tractors in the forest.

#### **Teaching The Basics**

"Unfortunately, we can't claim that anyone passes out from here as a fully fledged forestry loader operator," says Sten Johansson, who is in charge of loader training. "It takes a year or so on the job in the forest to acquire the experience and confidence that's needed for really efficient loading and unloading. All we can teach here is the actual technique. The trainee is taught the correct method of grasping, lifting, turning and releasing the timber in the simplest and most time-saving manner. Once he has mastered that, he's ready to work up speed and accuracy in the forest.

With the stationary loaders we first practise the simple elements that go to make up the loading operation. The exercises are arranged so that the trainee first learns movements for which he needs only one or two controls, such as grasping and lifting, lowering and releasing. Once he knows all the controls he graduates to more complex movements, such as moving a log

to go by than the symbols on the control levers. And with the movement patterns and sensitive valves of modern loaders, even a green beginner quickly learns to operate the loader gently and smoothly so as not to damage the goods.

from one place to another, gathering several logs into a bundle enough to fill the grapple, and so on.

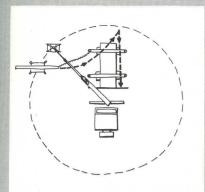
In due course we introduce the time element, and the trainees are made to practise every operation until they can manage it in a time in the vicinity of the standard times we've laid down by experience for the various exercises. The final operations are the loading and unloading of 10 cubic metres.

#### Big Differences

We find that there are pretty big differences among trainees — as also from exercise to exercise. One trainee may learn fairly quickly the things that another finds hardest, yet you can't tell from that alone which one will come out on top in the final test — the complete loading operation. That's why it's very difficult to say in advance what qualities a man needs to become a skilful loader operator.

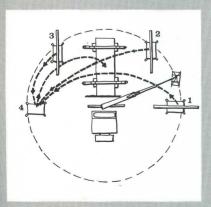
We try to each the trainees to work calmly and methodically with their loader. We attach more importance to doing it right than to doing it fast. As long as they've learned the right method from the beginning, speed will come as they gain experience."

## The Pet Monkey



One of the first exercises in the course on loader technique is popularly known as the "Pet Monkey". The idea is to move a piece of pulpwood from a trestle to the left of the dummy forwarder, place it next to the right-hand side, and then move it back the same way. One end of the wood is secured to the rear left-hand stanchion by a chain  $2^{1/2}$  metres long. This forces the loader operator to manoeuvre the "monkey" in and out between the stanchions. The complete movement has to be performed ten times in an ideal time of  $4^{1/2}$  minutes.

Another exercise, used in practising loading technique, is known as "Kristina" (a surprising number of the exercises are named after girls!). It employs four trestles and three pieces of pulwood, placed as shown in the sketch below. The operator's job is to move the pieces on trestles 1, 2 and 3 to trestle 4. Then, in a single grappling movement, he has to lift all three over the stanchions and place them on the forwarder. Finally, he must unload the pieces one at a time and place them on trestles 1, 2 and 3, back where they started. The ideal time is 4 minutes.





The Hiab Method provides the solution to one of the most ticklish problems in conductor changing: lifting the new conductors over the contact conductor and out onto the outside of the posts.

# Conductor Changing With The Hiab 570

A Hiab 570 performing a rather unusual task is to be found on a maintenance train in northern Sweden. It helps a crew of eight men to change the return conductor along the railway line. The large, modern locomotives on the Swedish State Railways call for return conductors with greater capacity.

"We replace the old copper conductor, with a cross-sectional area of 130 sq. mm, by two aluminium conductors each of 218 sq. mm," says line boss Arne Hansson. "That doubles the capacity of the conductor. The most awkward stage in the work is stringing the new conductors up to each post. Since the conductor we're changing runs along the outside of the posts, the overhead power conductor above the track is in the way. With two rope sheaves on the tip of the loader boom we can easily lift the new conductors over the power line, and attaching them to the posts is now a pretty simple matter. Nowadays we only need to stop the train when we have to joint the conductors and at viaducts or other obstacles. On unobstructed stretches we can polish off 1,500 metres in just over 20 minutes. We save a lot of time and can manage with one man less in the crew, but all the same the prime gain is that the work is much easier than before. We're also able to use the loader for handling the conductor drums, which are heavy and cumbersome even though it's aluminium they're carrying." 16.

## **Method Hoists**



## Cooler Counter Quicker

Knudsen Køling of Copenhagen makes retail refrigerating equipment and delivers it to the customers using the Hiab Method. In the above picture, the Danish chain-store firm of Irma is taking delivery of some refrigerated merchandisers for its new shop in Gilleleje — a fishing village that has developed into a fashionable bathing resort. A Hiab 550 lifts the merchandisers, which at 300 kg are heavy as well as fragile, straight in onto the shop floor. ■ 17

### A Girl, A Chain And A Hiab 950

It's a safe bet that the chains in this girl's life up to now have been of smaller size and nobler metal. When Cardoze & Lindo of Panama let her handle the firm's newly acquired Hiab 950 the idea was to demonstrate how easily they can now handle service and spare parts for large contracting machinery. Manual methods remain preferable for positioning chains on the necks and arms of pretty girls.







# Anchors Aweigh For The "Santa Elena"

Minutes before the Peruvian fishing vessel "Santa Elena XXIV" set out on her maiden voyage from Callao, the port of Lima, she took on board her two anchors plus 50 metres of heavy-gauge anchor cable. They were supplied by Fabriment, which makes a range of nautical gear for ships, shipyards, tugs and so on. Mounted on its delivery truck is a Hiab 174, which made it easy to lift anchors and cable on board. And Fabriment isn't alone in Peru in having discovered the Hiab Method. Study the picture closely and you'll find another Hiab in the background. It belongs to a firm forming part of Metal Enpresa, and we may have more to say about it in a coming issue of Method.

## For Breakdowns in Basel

"Europe's Most Modern Breakdown Truck" was the way Luzerner Neueste Nachrichten, a Swiss daily, headlined its presentation of this vehicle, recently purchased for the rescue and service centre jointly operated by a number of car firms in Berne. Besides a Hiab 550, the truck's recovery equipment includes a winch and a towing lift, each capable of handling 3,500 kg.

### Hiab in Japan

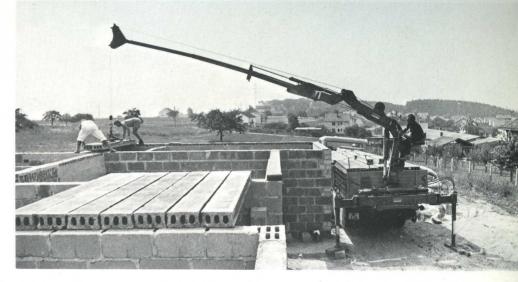


In recent years, Hiab loaders have found a big market in Japan, and our distributor there, Kato Works, now has more than twenty men solely occupied on Hiab sales and service. Some of the personnel were recently got together for a group photo (left) at a conference i Hakone. On the right, a Hiab 550 lifts a wheel onto a big contracting machine. Wheels this size are no joke to manhandle, but the Hiab Method makes it laughably easy.



# Floor Slabs in Germany

The firm of Raab, in Neuwied, West Germany, makes concrete houses which are poured in its factory. The houses are delivered to the customers aboard trucks fitted with Hiab loaders. Here is a Hiab 950, unloading a floor slab and swinging it straight into place on the house foundation. Two of the construction workers are helping to position the beams. The winch-equipped loader, with its 9-metre boom extension, can easily reach right across the foundation.



## Service Trucks in Singapore

This is one of the six trucks that have been equipped with Hiab 245s and put into operation by the city authorities in Singapore. The loader is mounted on a Unimog chassis, and Hiab's distributor in Singapore, George Cohen Far East, has also fitted the outfit with outrigger legs, thereby giving the lightweight vehicle sufficient stability to permit full utilisation of the loader. According to reports reaching Method the arrangement has proved a great success.

### Looms in Milan

Protti of Milan, in Italy, makes machinery for the weaving industry. It delivers its products to the customers on its own trucks — two of which are seen on the right — and since they're heavy and fragile items they're handled by the Hiab Method.



