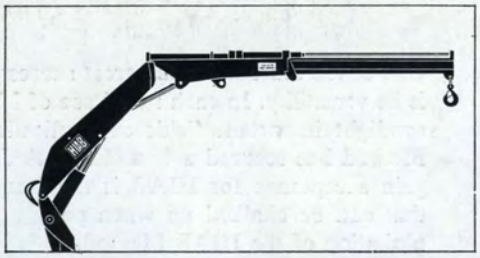
HIAB METHOD



No. 9

New Ways With HIAB

One of the reasons for the great successes of the HIAB Method is its versatility. In each new issue of METHOD we are able to spotlight important fields of application in which the HIAB Method has secured a beachhead. A factor that does a lot to gain acceptance for HIAB is the frequently amazing benefits that can be chalked up when people go in for *consistent* exploitation of the HIAB Method. This issue features two stories that bring this point out very clearly. One of them deals with the application of the HIAB Method to an entirely new field: concreting work in underground chambers blasted out of the rock. The other shows you how, by using the right equipment and mounting it in the right way, you can increase your reach —both literally and figuratively—in one of the areas where the HIAB Method has been predominant for many years: roundwood haulage. Summed up on this page are brief data and the most significant advantages in the two fields in which our stories are set.

CONCRETING IN ROCK CHAMBERS (see pages 3–5)

ASSIGNMENT

- Transportation of concrete in rock chambers from reception point to pouring point.
- Pouring in formwork reaching as much as 20 feet above floor level.

DIFFICULTIES

- Cramped transport routes.
- Low headroom, tall forms.
- Many different, small-scale casting jobs.
- Big, high-capacity casting jobs in tall forms.
- Costly, time-consuming concrete reception.

SOLUTION

- A HIAB 177 Speedloader with a rotator and a 10½-cubic-foot concrete skip mounted on a Michigan 175 A1, provided with a 4-cubic-yard hydraulically controlled concrete bin.

RESULTS

- Ease of movement thanks to tight turning circle and low height.
- The concrete is moved right from the point of reception to the form with an outfit served by one man.
- Elimination of all barrowing of concrete and all transport scaffolding.
- Great flexibility on small pours. The equipment can be moved from one pouring site to another.
- Simpler concreting, since the HIAB crane, thanks to its jib, can cope in one pass with the pouring of both walls in forms that would normally require two pours.
- Large capacity on the big casting jobs.
- Cheaper concrete. The delivery trucks dump all their loads into bins, giving the lowest price per yard and the least waiting time.
- Faster jobs, shorter pouring times, no waiting for erection of scaffolding.

ROUNDWOOD LOADING BY A MODIFIED HIAB METHOD (see pages 8–11)

ASSIGNMENT

- Loading timber and pulpwood onto truck rigs of maximum overall length.

DIFFICULTIES

- A truck-borne crane on a conventional mount has insufficient reach to load the whole outfit without the trailer being uncoupled.
- Separate loaders entail a lot of planning work, make for a vulnerable transport organisation, and require special loader operators.

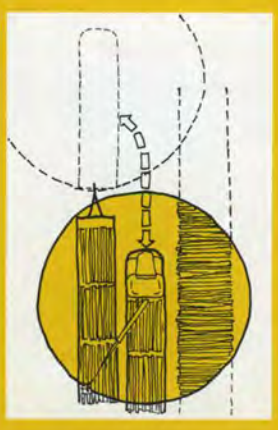
SOLUTION

- A HIAB 177 Forest Speedloader mounted according to the "Kullerback" system on a four-axled trailer and a three-axled tractor truck.

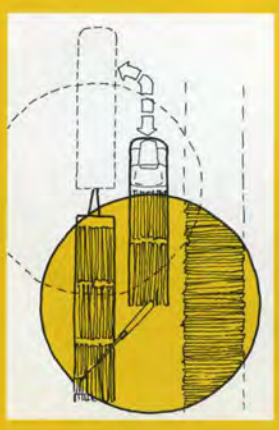
RESULTS

- Thanks to the "Kullerback" mounting the loader has sufficient travel along the length of the truck to command the whole loading space.
- Simpler and less vulnerable organisation.
- Each outfit operates as an independent self-contained unit.
- Lower personnel costs since the truck drivers double as loader operators.
- Lower investment outlays and higher return on capital.

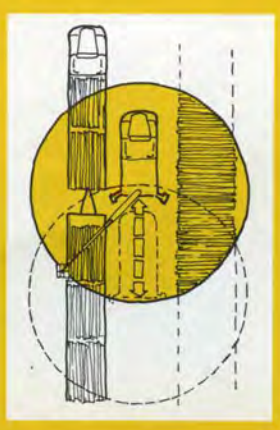
Loader mounted behind cab



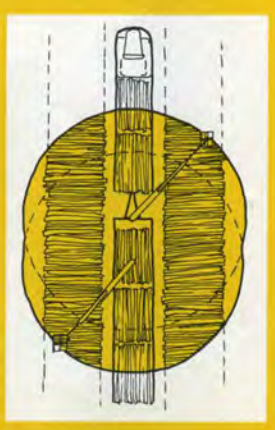
Rear-mounted loader, detachable



Loader on separate chassis



The new loader mounting



All-round hauls in underground halls

Tens of thousands of cubic yards of concrete are going into the construction of the City of Stockholm's sewage-works, sited underground in a great rocky outcrop near the Swedish capital. With conventional methods, the transporting of concrete on site would have been a very slow and laborious business. To avoid this, the engineers adopted the HIAB Method, "marrying" a Michigan rig to a HIAB 177 to produce an outfit that could be crewed by one man.

All-round hauls...

One of Hugo's important jobs is handling the concrete slabs that form the cover of the vent ducts. Screwed sockets are embedded in the slabs at the time of casting. When the slabs are to be lifted, eye-bolts are screwed into these sockets, providing points of attachment for the crane ropes. Thanks to his rotator, Hugo can then hoist the slabs—which weigh around a ton apiece—and deposit them in position with the millimetric precision that the job calls for.

The City of Stockholm sewage-works is being built by the Stockholm City Municipal Services Department, and Lennart Ström is the engineer in charge of construction. "Our problem," he says, "had three distinct aspects. To begin with, we had to take delivery of the concrete, which is brought in by truck from a mixing plant not far away. Then there was transportation on site, which of course included the job of lifting the concrete up into the often relatively high forms. And the equipment we used for these operations had to be readily mobile, since this project involves a lot of pretty small-scale pouring jobs—5 to 25 cubic yards or so —in which case we'll be pouring at several different points in a single day.

"So what we needed was a compact, short machine with a tight turning circle so that it could get about in cramped quarters and negotiate the sharp corners between tanks and communication tunnels. And it couldn't be allowed to tie down too many men, since wages are one of our biggest cost items.

Hilda The Hybrid

"The cranes and suchlike equipment normally used to handle concrete on building sites would have been hopelessly unwieldy down in our tunnels. A machine that met our specifications just wasn't to be had for love nor money. So I gathered a group of experts and we went into a huddle in an effort to piece together a suitable rig from what the market had to offer.

"The outcome was Hilda. She consists in essentials of a Michigan 175 A1 mounting a rotator-equipped HIAB 177. We replaced the loading fork at the front end of the Michigan by a concrete bin holding 3¼ cubic yards, while the crane was fitted out with a skip taking about 10½ cubic feet. To enable the driver to manage the whole operation on his own a control for the emptying hatch of the concrete bin was added to the hydraulics.

"Hilda joined the force in the summer of 1966, and it was soon evident that the little lady was up to our expectations and more besides. The main job for which we had dreamed her up was the pouring of the actual tank walls and of a high vent duct mounted on columns in the centre of certain tanks. But we found that concreting with Hilda had such tangible advantages that we were soon using her for jobs that could have been tackled with conventional means, such as lining pipe trenches and placing the inclined infills in the joint between the floor and walls of the tank. By now we're doing about three-quarters of all our casting jobs with Hilda and her mate Hugo. He's been with us nearly a year now and is identical to Hilda except that his concrete bin is detachable so that his loading fork can be used for various lifting and moving jobs."

Savings On All Sides

It's difficult to make any direct comparisons of cost as between Hilda and Hugo and other conceivable arrangements for transporting concrete since no other method has been tried out on this project. All the same it's clear that in all essentials the new method offers substantial advantages.

Just as in so many other fields the HIAB Method has first and foremost eliminated one of the most exhausting jobs in this class of civil engineering—the barrowing of wet concrete, which was often the only way of getting it from the delivery truck to the formwork. At the same time, Hilda and Hugo have notably speeded up the job of concreting. They shift the 3¼ yards of mix from the bin to the form in 10-12 minutes. In other words they can easily manage 10½ yards an hour—often a good deal more. Using barrows over an average-length run, an engineer would be glad if his men could cope with half that much. A further gain is that the concreting crew can be reduced by at least a half, since the entire transport job is done by one man—the driver of the machine. The man who would otherwise have looked after the concrete reception at the bin is no longer needed, nor are there any barrows that need pushing. In addition to the machine operator only one or two men are needed up on the formwork to empty the concrete out of the skip and vibrate it.

Another important economy is that transport scaffolding is completely eliminated. The only scaffolds erected are for the men who do the actual pouring. Besides saving scaffold timber and carpentry work this also means a big cut in fixed costs. There are time economies too, often amounting to several days, since pouring can start as soon as the form is ready and the reinforcing steel fixed. Otherwise a complete form has to wait several days while the transport scaffolding is put up, since this work can seldom be started before the form is wholly finished.

Cheaper Concrete

Hilda and Hugo have even cut the price of concrete. The background to this is that the concrete supplier charges not only for truck time spent in emptying but also for extra difficulties in discharging. Per cubic yard, it costs more to discharge concrete into a skip than into a bin, and still more to discharge it into a barrow. In the present case the average saving is about a dollar per cubic yard, since all deliveries are discharged straight from the truck into the bin on the machine—the cheapest way of all. Economies like that soon mount up—the engineers at the Stockholm sewage-works reckon to use about 63,000 cubic yards of concrete all told. Without Hilda and Hugo they would have had to pay a higher delivery charge on the bulk of this total.

In the actual pouring operation the articulated jib of the HIAB loader gives it yet another advantage over other types of crane. Take the concreting of the above-mentioned vent duct, for instance. An ordinary crane with a rigid jib would be able to reach the form only on the side nearest to it. When that had been poured it would be necessary to shift the crane round to the other side to get at the form for the opposite wall. But the HIAB jib can insinuate itself between the form and the roof and command both walls of the duct from the same side. It's obvious how much time and trouble this saves.

And It Doesn't Stop At Pouring . . .

Once they'd started using the HIAB Method in underground operations it soon showed that it could give good service in a lot of other ways besides the actual casting. The cover of the vent duct consists of concrete slabs weighing nearly a ton which are cast at an underground concrete station. Hugo transports the slabs from there to the duct and does his own loading with his HIAB crane, since the overhead crane at the concrete station is often otherwise engaged. The slabs are hoisted up onto the duct and positioned right to the millimetre with the help of the rotator. Pre-assembled reinforcement is put into the forms in the same way.

There are also plenty of other lifting jobs on which the HIAB loader is kept busy. Indeed, the builders have found it so useful that they are thinking of getting another HIAB 177, this time mounted on a highway truck so that it can be used for surface movements as well.

The skip is filled with concrete from Hilda's bin and is then hoisted by the crane and emptied straight into the form. (Another picture is on the back cover.) The bottom hatch of the concrete bin is operated hydraulically by the driver. The 3¼ yards held by the bin can be poured in ten or twelve minutes.

The concrete slabs for the covers of the vent ducts are cast at an underground concrete station. Hugo both loads the slabs and transports them to the site, piled on the fork of the machine.

RATIONAL TRANSPORT

BUILDING WITH HIAB

UNDERCOVER SPEEDLOADER IN THE MOSELLE VALLEY

A truck drives up to the low, smooth concrete structure. As though moved by a giant hand, the roof swings open. The driver walks over to the opening and takes out a cable with a control box. And rearing out of the underworld comes the long, lean jib of a HIAB 177.

The scene of this little drama is one of the many locks which the French and Germans have co-operated in building along the winding course of the Moselle to render the river navigable. The low, smooth concrete structure houses one of the power stations that harness the head of water at the locks. Like all the rest of the installation the HIAB loader is hidden away in the building, which is almost entirely underground so as to obtrude as little as possible upon the scenery. The sole task of the crane is to lift down the supplies—replacement parts, servicing material, etc.—that are delivered at intervals. So this HIAB, unlike most of its fellows, isn't made to work hard. It got the job not for its strength but for two other outstanding HIAB properties—precision and responsiveness. For it often has to handle turbine components that are as delicate as they are costly. The headroom in the underground turbine hall is about 33 feet. The crane, which is also equipped with a hydraulic winch, is remotely controlled electromagnetically via a cable so that it can be operated both from the roof and from the floor. The hydraulic pump is driven by an electric motor.

Wherever there's a truck on the move there's a job for the HIAB Method, and this is particularly true in the building and construction sector. The problems facing today's contractor are in very large part transport problems whose solution is vital to the smooth functioning of the business as a whole. The HIAB Method provides a simple and often unbeatably efficient solution for almost all transport and handling tasks in this field.

Earlier issues of METHOD have contained many descriptions of how HIAB loaders are playing their part in building. The emphasis has been on new, highly developed and in some cases revolutionary building methods. Yet even on ordinary and apparently familiar transport jobs that occur in more conventional building operation the HIAB Method can be utilised without drastic upsets in the established routine—but with very striking results.

The versatility of the HIAB loaders and the speed with which they can be got ready for work enable them to be used and to achieve savings in both time and money where mechanical handling would not normally suggest itself. Their reach, which can be more than doubled with extra jib sections, their lifting capacity and not least of all their precision of control mean that many components and units can be moved straight from the deck of the truck to their permanent position in the installation. This not only eliminates temporary storage on site but also cuts out at least one stage of handling.

On the opposite page we show some pictures of the HIAB Method in action on building sites. None of them is particularly sensational as far as it goes. And yet these pictures and their captions may provide others who are engaged in transportation within the building industry with impulses that will lead to further rationalisation with the help of HIAB. In the world of building, just as in any other, it holds good that a job of transport begins with loading and isn't finished until the goods have reached their final position.

GOOD FORM WITH FORM GOODS

Here's a load of shuttering timber being unloaded by a HIAB 174. The material goes straight into place in the dump. Note that in this case the truck doesn't even have to enter the actual building site—the crane simply hoists the timber over the fence. Notice also the convenient racks for panels and walings, which make handling still easier.

RIGHT ON THE SPOT

With the HIAB Method it is possible to unload the building material, in this case shuttering timber and other formwork materials, without interfering with work on the building site. Thanks to the great reach of the loader—16 ft. 5 in. with the HIAB 174 Speedloader— the supplies can often be deposited only a yard or so from the place where they are to be used. And as always when the HIAB Method is employed the truck-driver can manage the unloading job unaided.

RATIONAL HANDLING

The transport of various concrete items, such as pipes, well casing sections and building blocks, can easily be rationalised with the HIAB Method. The reach of the crane and the precision with which it works enable it to place heavy, awkward concrete pipes right on the spot in the pipe trenches and well casing sections one upon the other with millimetric precision. The 174 in this picture has a winch so that it can work in deep wells, too.

THE 173 AS A BUILDER'S CRANE

Even with an extra jib section a Speedloader is capable of working in very small and cramped areas, especially when it is equipped with a winch like the one in this picture. It is serving as a mobile builder's cane on a site where space would be insufficient for most other types of crane. With the jib in its highest position throughout, concrete floor slabs are winched straight off the truck and deposited in place on the site.

One of Sweden's largest roundwood hauliers is phasing out his separate loaders in favour of Hiab-equipped trucks that can operate as independent units. He uses a modified form of a system that was introduced by HIAB ten years ago and made the HIAB Method world-famous.

A NEW METHOD FOR SHORT TIMBER

Five roundwood outfits with a HIAB 177 Forest Speedloader mounted according to a new patent HIAB system are at present in service at one of Sweden's largest timber trucking firms, located not far from HIAB in Hudiksvall. The first of them were delivered in January 1968, and if they continue to perform as well as they have done so far it may be that the firm will replace all the rest of its fleet by outfits of this kind. In other words it intends to go over to a crane mounting that was originally designed for the transportation of felled lengths (see METHOD No. 6) but which has been adapted specifically for moving bucked logs: either three piles of timber or five piles of pulpwood on an outfit 78 ft. 9 in. long.

The reason for the changeover is that Hans Åkesson, the owner of the firm, feels that loading by vehicle-mounted cranes will in the long run prove more advantageous than the separate loaders previously used. This is in spite of the fact that most of his hauls must be considered very suitable for loading with separate loaders.

"In strict theory, the separate loader has a lot of advantages over the vehicle-mounted crane," says Åkesson. "It doesn't cut into the truck payload and it does a faster job of loading. But in practice we've found that these merits are far outweighed by the drawbacks.

At the left in the above picture is the turnable used in the new HIAB system, for which patents are pending. It enables the crane mounting to be slewed from one side of the outfit to the other—essential in loading felled lengths—and also 4 ft. 3 in. forwards or backwards along the length of the vehicle. It is this latter facility that is exploited on these long outfits—which are intended for moving short wood, not felled lengths. The turnable movement enables the loader to reach any part of the rig.

With a crane on his truck, the driver can manage alone at the landing in the forest. Yet it takes only a trifle longer to load his truck than when a separate loader did the job for him. He starts early, and does two round trips before his day's work is done—loading up, driving the 60 kilometres to the mill, and unloading. After that he hands the outfit over to his relief driver, who does the next shift. Appropriately organised shiftwork is necessary if equipment and labour are to be used to best advantage. Two-way radio in the truck is a safety factor for these lone-wolf drivers. It's also useful for fixing the relief rendezvous—and comes in handy when two trucks have to pass on the narrow forest roads.

Organisation a Headache with Separate Loaders

Avoiding waiting times for the trucks and the loader calls for perfect organisation, so that the trucks arrive at the landing punctually almost to the minute. That's difficult to achieve, especially as we run our trucks in three shifts. Even if the trucks start out at exactly calculated staggered times in the morning things soon happen to put them off schedule and towards the afternoon or evening you begin to get waiting time and extra costs even though nothing out of the ordinary may have occurred. Of course, if any of the trucks has a mishap the whole timetable falls to bits. And if the loader goes wrong then it's still worse—all movements from the affected landing are paralysed.

"A further point is that a separate loader has to have an operator, so that we should have to add a man to each shift in our transport organisation. For loading with a separate loader you also have to have a good landing. You need pretty big timber concentrations so that it's worth while laying on three or four trucks, and at the landing there must be space for both the loader and truck side by side. Most of the landings we work from do meet these requirements, but if we only had separate loaders there would in all likelihood be certain hauls that we couldn't tackle.

"The reason why we've been using separate loaders so far, despite these disadvantages, is to be found in the length of our outfits, which are all close to the permitted maximum—24 metres or 78 ft. 9 in. It enables us to take three piles of timber or five piles of pulpwood. The cranes on the market today are unable—if they're mounted in the ordinary way—to load up the front and rear piles on an outfit that long, unless you go to the trouble of uncoupling the trailer. And uncoupling and coupling up trailers entails such serious drawbacks and slows the work down so much that the separate loader, despite its handicaps, still has the economic edge.

More Reach

"However, a HIAB 177 that is mounted according to the new HIAB system is free to move 4 ft. 3 in. forwards or backwards from the mounting centre, thanks to the turntable. The practical effect of this is to increase the loader reach. If it is mounted just behind the front axle of the trailer it can comfortably reach both front and rear piles—even when it's handling pulpwood. For travelling, the crane is put in its forward position, which brings it ahead of the front pile on the trailer.

"With a crane mounting like that we can operate every truck as an independent unit that can load, transport and discharge without assistance. If one vehicle is delayed it doesn't affect the remaining units in the transport organisation. That gives us such telling advantages in the form of reduced waiting times and a simpler and more flexible organisation that it easily outweighs the somewhat longer loading time. Once the driver has got used to loading with the crane he polishes off the actual loading just as quickly as a separate loader would. So the increase in terminal time arises from a somewhat longer changeover time, as the work-study engineers call it, but the difference is so small that it can't affect the capacity per vehicle per working day.

"After less than a month of practice the drivers of our first outfits had learned to load so fast that their performance rose from three loads in two shifts to two loads per shift with a 60-kilometre transport run. Even if we were able to cut changeover time to zero we still couldn't squeeze in another load per day, so the point is of no practical significance."

Here is the crane advanced to its foremost position for loading up the last lot of timber, the pile in the middle. Notice the additional articulation joint with which the jib of the crane is equipped. It functions automatically in connection with the operation of the extension, giving increased reach and making it easier to work close in to the loader column.

During travelling the loader jib is placed above the timber pile in the middle.

Once the outfit is clear of the forest roads it can maintain a good speed.

CARRY ON, GIRLS!

It isn't so very often you find a woman behind the wheel of a big truck, and it's uncommoner still to find women actually running a firm in the haulage business. But the Ernst Persson trucking outfit in the southern Swedish city of Malmö is one of the exceptions, though neither the name nor any other striking anomaly would lead you to think so. And after all, why should it make any difference that the business is run by two women? They have demonstrated that they are just as capable as anyone else of successfully managing a large haulage firm.

In point of fact, sisters Alva Johansson and Ulla Andersson have trucking in their blood, being daughters of Ernst Persson, who founded the business. Together with their brother, they took over the firm and its six trucks when their father died in 1964. The girls are in charge of the planning, economy and bookkeeping, and it also happens on occasion that they take the wheel in the more literal sense in the cab of a truck. Normally, their brother is in charge of the drivers and drives one of the trucks himself.

In the few short years that have passed the sisters have not only managed to keep the business going but also expanded it, so that they now operate ten trucks and a number of tractors. A lot of the firm's work consists of crane-truck runs for a power utility, the National Swedish Telecommunications Administration and others. The newest addition to its fleet consists of a large semitrailer fitted with a HIAB 174 rigged up as a "Rol-Loader", a travelling crane that can work over the whole length of the deck and can also be moved over onto the tractor truck if necessary.

The firm's latest purchase is equipped with a HIAB 174 mounted on a roller track. With this arrangement the crane can not only reach all over the deck but can also be rolled across onto the tractor truck if need be.

The HIAB Method in Stone-crushing

Stonecrushing seems to be yet another field in which there are jobs that are best tackled by the HIAB Method. One crusher plant that has just been completed a few miles south of Stockholm has three HIAB cranes—two 174 Speedloaders and a 293. They stand beside the three crushers with which the plant is equipped.

The coarse crusher has a 174 that is used to raise blocks that have got stuck in the actual crushing machine. The crusher is capable of swallowing blocks up to a cubic yard or more, and boulders larger than that are supposed to be sorted clear in advance. But a large block does occasionally find its way into the crusher, and sometimes a block goes in broadside on and stops production. But the hold-up doesn't last long. Hovering over the crusher intake is the jib of the HIAB crane, equipped with specially designed tongs, and the offending block is soon whisked out of the way. The plant promptly gets back to work, processing 200 tons an hour when everything is running properly.

The material handled by the other crushers isn't large enough to stall the machines. The sole duty of the cranes at these stations is to lift the weighty components of the crushers when they are being dismantled for service or to have their crusher plates changed. This doesn't happen often, and the intervals are long enough for the cranes to acquire a thick coating of stonedust while they're standing idle. But when their time comes they're indispensable—the crusher parts are too heavy to be shifted by hand and space in the crusher houses is too cramped for any other lifting equipment. The speed and precision with which the cranes work moreover makes servicing a quick job, so that crusher idle time is kept short.

The intake crusher has a HIAB 174 at its side to lift out blocks of stone that are too large or go in broadside on so that the crusher stalls.

The intermediate crusher also has its HIAB crane, a 293, which is used for servicing work on the machine. Since the crane is on a high mounting it is equipped with a winch.

In the sorting department is a finishing crusher, and this machine too has a crane for servicing work. In these narrow confines the choice fell on a HIAB 174.

A pair of stout rails can be swung down to form a continuation of the frame side-members so that the crane can be run across between tractor truck and trailer.

CONCRETE BLOCKS DELIVERED BY ROLLER-MOUNTED HIAB CRANE

A major precast-concrete works in northern Sweden has begun to use the HIAB Method to rationalise the transportation of its building blocks. It uses four-foot-square pallets which, when loaded with blocks, weigh about 3,300 lb. They are transported by a three-axled tractor truck pulling a four-axled trailer. The outfit is unloaded by the driver using a HIAB 174, which is mounted on rollers and is thus able to reach any part of the 60-foot-long load. By means of hinged bridge rails between trailer and tractor the loader can be rolled across from one deck to the other. While the outfit is travelling the crane equipment is parked on a bracket behind the truck deck and thus does not encroach upon the actual load space.

An outstanding advantage of the mobile crane is that it can tackle all its lifts at short radius, wherever they may be along the length of the rig. Previously the pallets of concrete blocks had to be dragged in close by a chain attached to the crane before being hoisted.

Method Hoists

ROUNDWOOD HANDLING

GRAPPLE LOADING IN SOUTHERN GERMANY

In the forestry areas of the Königseggwald district in southern Germany about 900,000 cubic feet solid measure is harvested every year —75% timber and 25% pulpwood in lengths of one and two metres. Both cross-country and highway hauls can be managed by tractor outfits that deliver straight to the railway. The average haul is about three miles long. The transport cost is 5 German marks per cubic metre solid measure.

Both the 20-foot logs and the pulpwood are loaded and unloaded by a HIAB 174 fitted with a rotator and a roundwood grapple. The outfits have an average annual capacity of 320,000 cubic feet solid measure. Also in service is a Cambio barking machine dealing with 635,000 cubic feet piled measure per year, and capable of raising this to a million. In barking operations the wood is handled by a HIAB 177 Forest Speedloader.

As a result of mechanisation in Königseggwald the total labour input for marking, felling, haulage, cultivation, roadbuilding, etc. is now down to five minutes per cubic foot. Production per worker has doubled since 1962, so that costs are lower despite higher wages.

GRAPPLE LOADING IN AUSTRIA

A group of Spanish forestry experts (left) recently studied roundwood handling by the HIAB Method in Austria. In many places, by reason of the steep gradients, the Austrians prefer to use a winch in combination with grapple loading.

174 ON SERVICE TRUCKS — I

Centre Pneu de Seraing is a large tyre firm in Liège, Belgium, which has recently taken up the HIAB Method as a means to more efficient service. With a HIAB 174 on his truck the serviceman is able to manage without assistance the very heavy and awkward tyre sizes often used on such things as contractor's machinery of various kinds. In the lower picture is a big order drawn up to be photographed before dispatch. The ten trucks, equipped with 174s, are on their way to a Belgium water utility.

HIAB JOINS THE U.S. NAVY

HIAB's distributor on the U.S. West Coast, Stanco Co., recently delivered the HIAB-equipped trucks shown below to the U.S. Navy. In the lower picture is another big military crane delivery from the same firm. Notice the copious attachments with which the cranes are provided.

174 ON SERVICE TRUCKS — II

A power utility has a lot of material that needs transporting, often in small batches to numerous different sites. A couple of cable drums here, a transformer cabinet there, some poles to the next place and so on. This driver has been in the business since the days when poles for overhead power lines were transported on two bicycles—one under each end! Hard work and slow work it was, and at the end of the run the pole had to be raised—by muscle-power of course.

These days a utility worker has a lot more power to his elbow. He drives an up-to-date truck, and as crew-mate he has a HIAB crane, a 174 to be precise, for loading and unloading. A HIAB operator makes it a point of honour to get along without any other help, and avoids scrambling on and off the truck deck to handle his cargo. To him, the jib of his HIAB crane is a third arm, with all the flexibility and precision he needs, whether he's moving a cable drum or raising a lamp-post.

ALL-ROUND CRANE

Previous issues of METHOD have shown many examples of HIAB at work in scrap handling. The equipment illustrated here consists of a HIAB 177 mounted on a long platform with a pair of wheels at one end and support legs at the other. The crane is fitted with a polygrip grapple and a rotator, and when it is not handling scrap it can be used for a multitude of other purposes. It is moved with the aid of a fork-lift truck which raises the wheelless end of the platform and tows the crane to the spot where it is needed. The coupling arrangement between the platform and the truck is shown in the small picture. A similar set-up, but on a stationary mounting, is equipped with a roundwood grapple and used for handling aluminium ingots that are being put through a homogenising heat-treatment.

ROCKDRILLING IN THE U.S.

The Moran Engineering Company inCalifornia has rationalised its tunnelling operations with the HIAB Method. In driving a 30-foot-wide and 23-foot-high tunnel through rock the drilling is done by big Jumbo rigs mounted on Euclid trucks, each carrying twelve drills. A 174 Speed-loader is mounted on rails on one of the rigs and is used for erecting the rib-like steelwork that reinforces the tunnel. The motor that powers the drilling compressors also drives the hydraulic pump of the crane. A hydraulic motor serves to move the crane along the rails, which are about 13 feet above the tunnel floor.

ASPHALT SPREADING

The asphalting of small areas is difficult to rationalise. Hand-shovelling is costly and slow, but it's the only way—unless you use the HIAB Method. With this 173, which has a rotator and a 10½-cubic-foot gravel bucket, the truck driver can discharge the asphalt on his own and deposit it in suitable runs. The system drastically cuts the cost of asphalting.

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COVER PICTURES

The night scene on the front cover was photographed while METHOD was preparing its feature article on shortwood loading by a new HIAB system, which appears on pages 8-11.
The back cover carries a picture from the construction site of Stockholm's new sewage-works and shows concrete being placed with the help of a HIAB loader. See pages 3-5. Colour photography: Roland Andersson.


HIAB