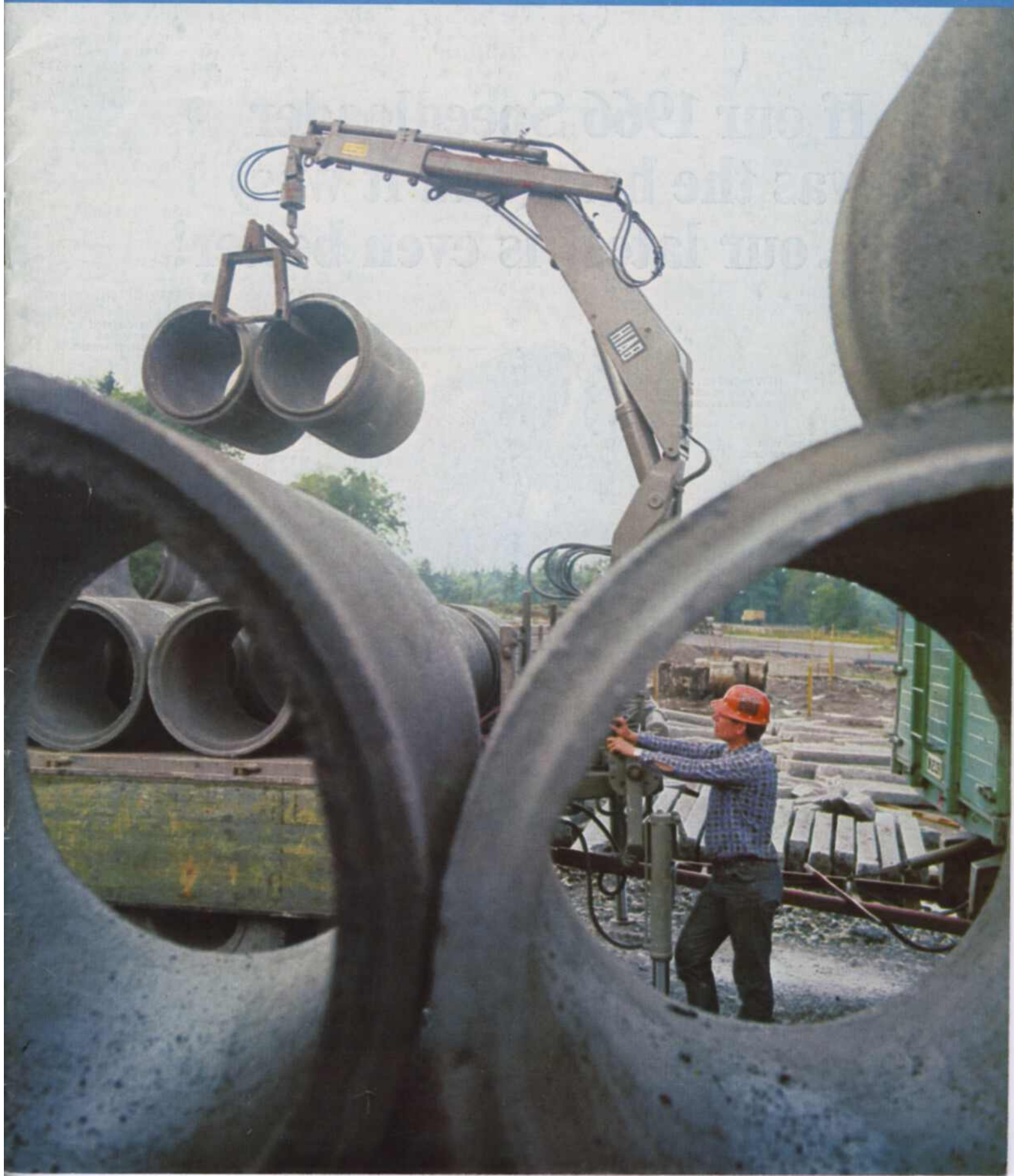


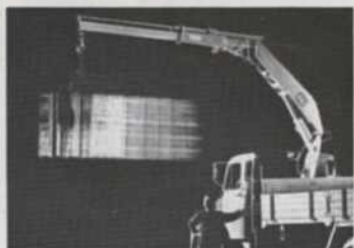
# HIAB



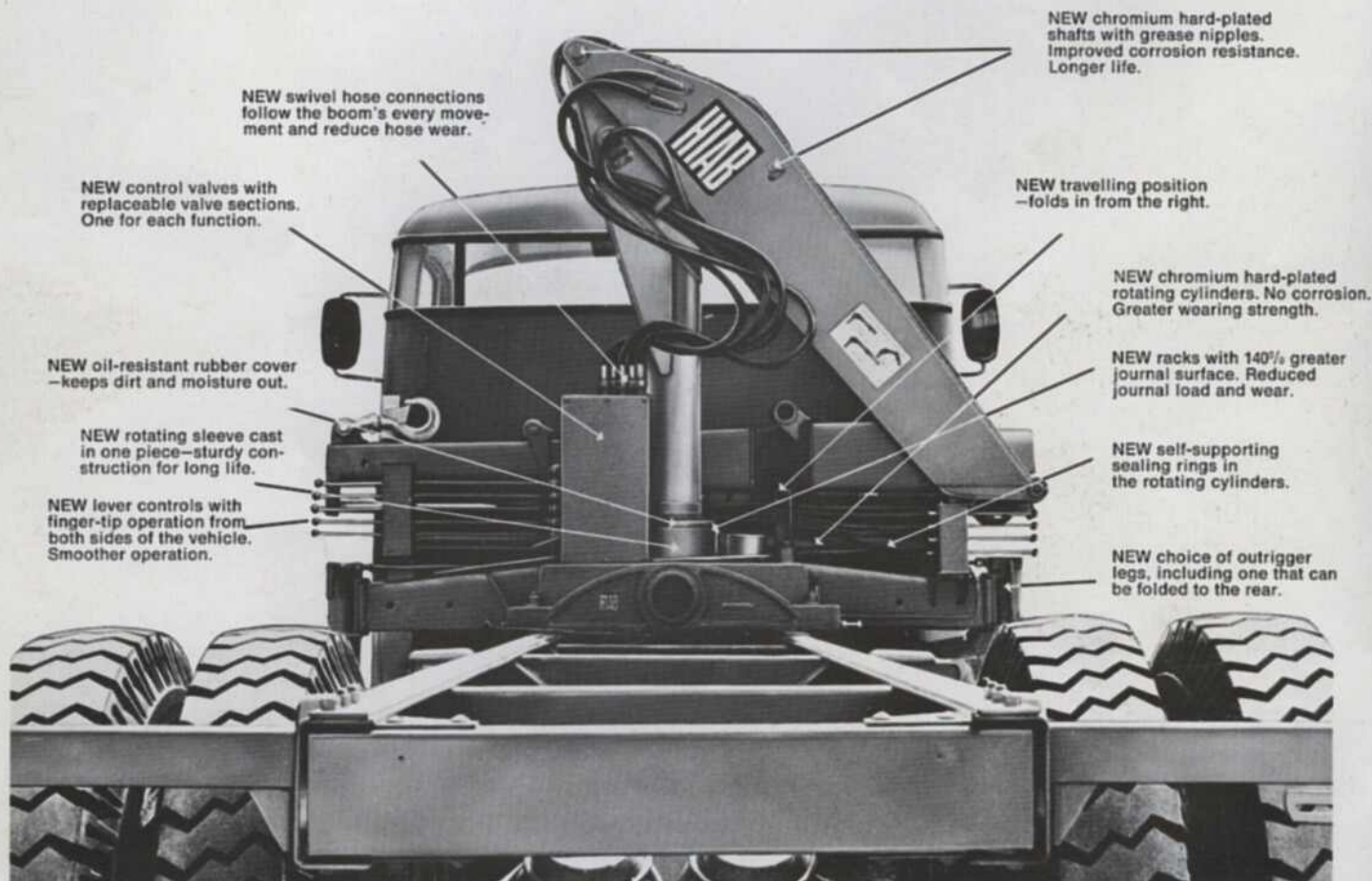
# METHOD

No. 8





# If our 1966 Speedloader was the best (and it was) ...our latest is even better!



NEW swivel hose connections follow the boom's every movement and reduce hose wear.

NEW control valves with replaceable valve sections. One for each function.

NEW oil-resistant rubber cover—keeps dirt and moisture out.

NEW rotating sleeve cast in one piece—sturdy construction for long life.

NEW lever controls with finger-tip operation from both sides of the vehicle. Smoother operation.

NEW chromium hard-plated shafts with grease nipples. Improved corrosion resistance. Longer life.

NEW travelling position—folds in from the right.

NEW chromium hard-plated rotating cylinders. No corrosion. Greater wearing strength.

NEW racks with 140% greater journal surface. Reduced journal load and wear.

NEW self-supporting sealing rings in the rotating cylinders.

NEW choice of outrigger legs, including one that can be folded to the rear.

We thought our Hiab 174 Speedloader was just about perfect. So did our customers. But not so the HIAB engineers. They ended up making more than ten major improvements. The most apparent is the new travelling position—the boom folds in from the right, and fits in between the post and the cab. Thus there is less space between the cab and the bed and a better rear view for the driver. The control valve unit is entirely new. It features replaceable valve sections—one for every loader function. This means that you can

easily convert a 4-valve unit into a 6-function one, to use the loader with rotators, winches or hydraulic grabs. Each valve section is separately pressure controlled and incorporates built-in overflow, constant pressure, anti-cavitation and safety valves. The new valves mean smoother and effortless operation. Try for yourself. Hiab 174 Speedloader can be supplied with telescopic outrigger support legs. The legs can be folded 45° to the rear—useful for providing stable support with forward cabs.

# HIAB

HUDIKSVALL, SWEDEN

# A New "Right-handed" HIAB 174 Speedloader

Early in 1966, the latest member of the HIAB Speedloader family—the 174—was presented. As was to be expected of a loader design that in many respects was superior to those that had gone before, the 174 was a great success both in Sweden and in other countries.

But HIAB's designers, though they had every reason to be satisfied with their brainchild, did not take this immediate success as a signal to put their feet up on their drawing-boards and take things easy. No sooner was the 174 finished than they at once got going on the further development of the design.

## A "Right-hand-drive" Loader

In point of appearance there's not much to distinguish the improved 174 from the earlier model. Indeed, it's the same loader in all essentials. It works in the same way, with all-hydraulic stowage and a 5 ft. 3 in. extension. But if you get down to the details you find a lot of significant changes.

The thing that strikes you first is that the new model stows away to the right for travelling. So the driver has the best view of the crane during erection and stowage when he's standing on the right-hand side of this truck—the "right" place for kerbside loading in all countries with right-of-the-road traffic.

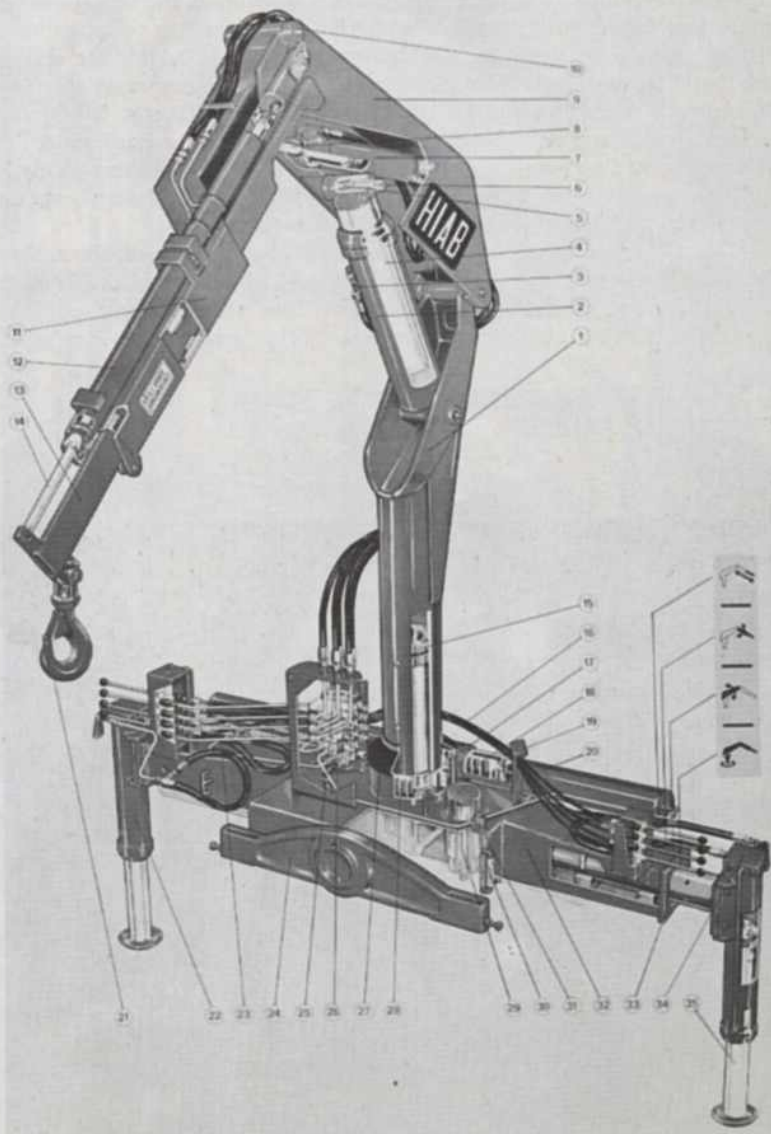
It follows from this that the driver now has a better rear view from behind the wheel in a left-hand-drive truck.

Another important advance is that the control-valve unit now consists of replaceable sections. This is a big help in the event of a defective valve, since only the section that is damaged need be changed. A further gain is that a crane delivered as standard with a valve unit for four functions can easily be modified for five, six or more valve functions so as to cope with a grapple, rotator or other hydraulic attachments and special tackle. This is done by adding the necessary sections to the valve unit—which can be effected without interfering with the existing installation.

On page 7, the eleven innovations on the new HIAB 174 Speedloader are all described in detail. The great reach—normally 16 ft. 5 in. and up to 28 ft. with a special jib section, the 5 ft. 3 in. hydraulic extension, the lifting capacity of around 36,000 lb.-ft.,\* the double-acting jib cylinder and all the other advantages that made the HIAB 174 Speedloader a success right from the start have of course been retained on the new improved version.

\* Which means about 1 short ton at a radius of 18 ft., 3 short tons at 6 ft. and 1200 lb. at 30 ft.

- |                        |                                     |
|------------------------|-------------------------------------|
| 1. Loader body         | 19. Boom support                    |
| 2. Inner boom cylinder | 20. Slewing cylinder                |
| 3. Check valve         | 21. Load hook                       |
| 4. Lifting piston      | 22. Outrigger leg                   |
| 5. Bushing             | 23. Control rods                    |
| 6. Spindle             | 24. Three-point support             |
| 7. Outer boom cylinder | 25. Swivel connections              |
| 8. Piston              | 26. Control valve                   |
| 9. Inner boom          | 27. Protective cover                |
| 10. Spindle            | 28. Ring gear                       |
| 11. Outer boom         | 29. Filter                          |
| 12. Extension cylinder | 30. Level scale                     |
| 13. Extension boom     | 31. Oil filler                      |
| 14. Piston             | 32. Base                            |
| 15. Upper bushing      | 33. Outrigger leg support extension |
| 16. Control cable      | 34. Valve for outrigger legs        |
| 17. Lower bushing      | 35. Piston tube                     |
| 18. Slewing piston     |                                     |



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; FRANCE, S.D.I.M., Champs-Élysées, Paris; GERMANY, HIAB-Hydraulische Industrie G.m.b.H., 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 Ingeniería y Comercial 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.

# Ytong Doing Time-studies on the HIAB Method in Housebuilding

Many firms in the building industry have turned to HIAB for help in handling materials faster, more efficiently and with less labour. In earlier issues of *METHOD*, for example, we described the tremendous advantages gained by applying the HIAB Method to the erection of prefabricated wooden houses. During the past summer the Ytong Companies of Sweden have improved their method of putting up houses with the aid of a HIAB loader mounted on the truck that delivers the building materials. The pictures on this spread show how the HIAB loader makes a quick and easy job of depositing the wall units in place.

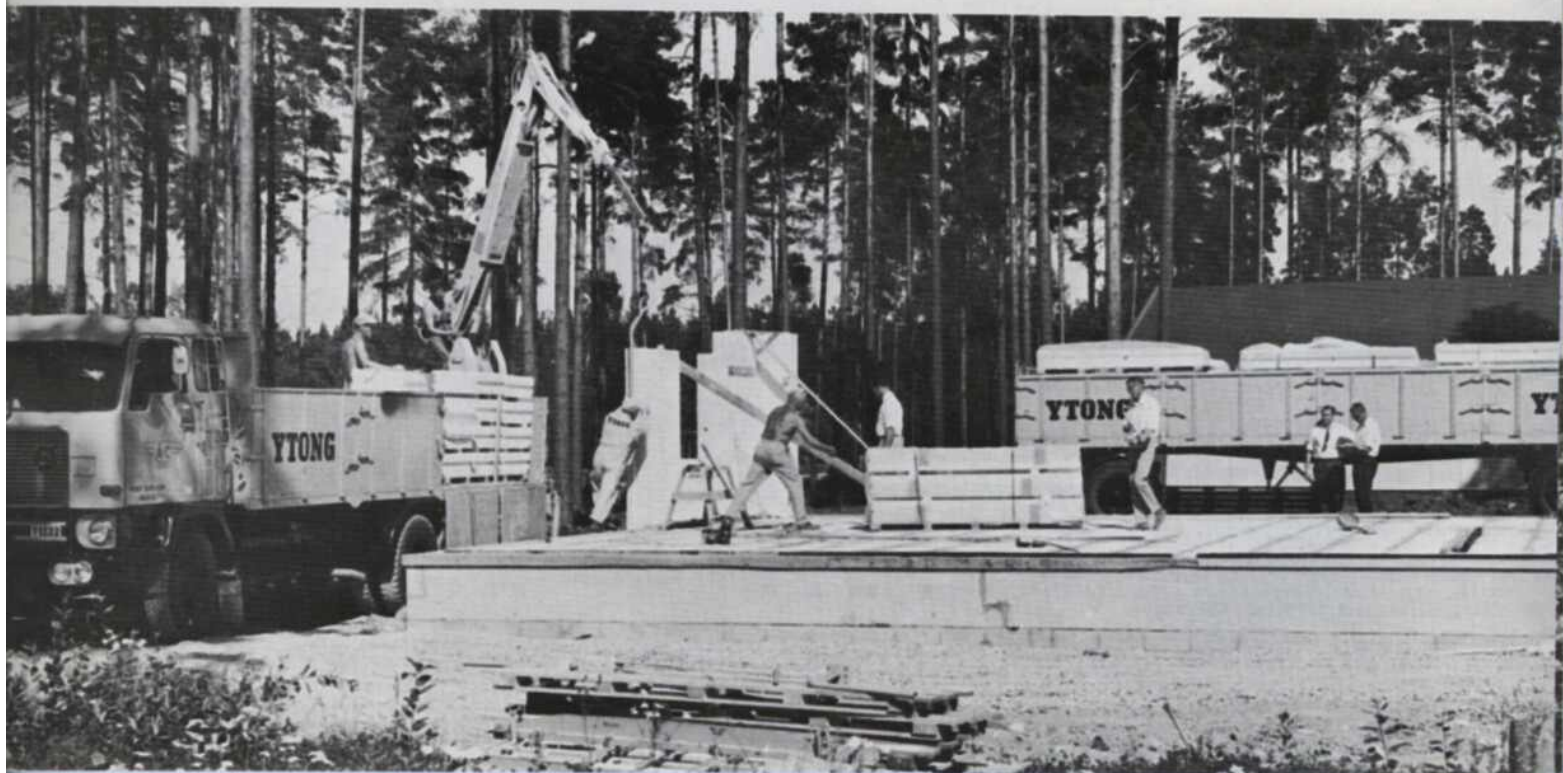
The foundation has to be ready by the time the actual house is delivered to the site. If the house has a basement, as in the case illustrated, the surrounding fill should also be finished so that the truck can drive right up alongside the founda-

tion. Apart from the truck-driver, who operates the loader, no more than two men are really needed on site. Our pictures show more than three people, but when they were taken Ytong was not only building the house but also doing a time-study on the operation, and the "onlookers" are in fact time-study engineers and other technicians engaged on developing the actual method of erection. The data they collected have not yet been processed, so for the time being we cannot give any exact details of savings in time and labour. We hope to be able to include these particulars in a later issue. The HIAB loader quickly lays down the floor slab and then goes on to erect the wall units.

As the pictures show, the wall units are lifted with a special hook which is fitted into a hole near the C. G. of the unit. This arrangement has a decided advant-

age in that it enables the wall units to be supplied with the exterior surfaces all ready and finished. This used to be impossible, because of the risk of damaging the vulnerable plaster with tongs or other items of lifting tackle that came into contact with the sides of the unit. Floor slabs and the lintels of windows are lifted into place using soft slings. On houses that are roofed with lightweight concrete the roof units, too, are positioned with the HIAB crane.

The lightweight concrete units for a house of around 1100 sq.ft. generally weigh less than 20 tons and can therefore be transported without difficulty by an outfit like the one pictured here. The skill of the loader operator is of course a major factor in erection time. With a reasonably experienced operator a normal-sized house can be put up in one working day.





Clearly shown in this picture is the specially designed lifting hook, inserted in the hole near the middle of the unit. With the lifting force thus applied close to the C. G. the man on the truck deck need only steady the unit at one end to prevent it from suffering damage by striking against the truck flaps or against other units.



The wall unit is here being swung across to the foundation and tongued into the preceding unit to form an impervious wall. With the rear-mounted crane it is just as easy to lift the units off the trailer as off the tractor truck.



The lifting hook is replaced by a soft sling for handling the window lintels.



The loader takes the weight of the lintel while it is being positioned above the window opening.

◀ The floor slab has already been laid out and jointed. Erection now begins at one corner, where three or four wall units have been put in position and buttressed with struts.

The window lintel is here being finally fixed with the neighbouring wall unit. ▶



# HIAB BL7 Bogie Lift

The bogie lift is an item of truck equipment that has been growing in importance in Sweden with the trend to increasingly heavy outfits. In many countries bogie lifts are pretty well unknown, one reason being that six-wheelers with single-axle drive are relatively rare. In Sweden, such trucks are taking a growing share of the market, and practically all of them are equipped with bogie lifts. By raising the trailing wheels of the bogie from the ground the bogie lift reduces tyre wear when the truck is running *unladen*, while at the same time the weight is concentrated on the driving wheels with improved traction in consequence. The reduction in tyre wear yields an economic saving that soon pays for the cost of the bogie lift. The improved traction is also important—in fact there are times when the unladen truck simply could not keep going without a bogie lift.

The basic requirements applying to a bogie lift are self-evident:

1. It should be simple in design and operation.
2. It must be easy to fit and simple to adapt to various chassis.
3. It must not get in the way and must not otherwise obstruct the fitting of other superstructures and items of equipment.

4. It must not affect or impede the normal resilience or load-bearing function of the bogie.
5. It must be easy to operate and effectively safeguarded against incorrect operation.
6. It must have adequate lifting height and must be so stoutly dimensioned that it is amply capable of withstanding the stresses it will be subjected to on a modern heavy truck operating under the toughest conceivable conditions.
7. It must function quickly, so as to save time.
8. It must be light, so as not to waste any valuable payload.

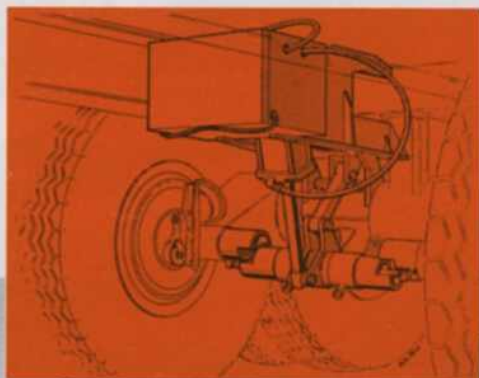
With these aims in mind, HIAB's designers have created their new hydraulic bogie lift, the BL 7.

The HIAB BL 7 works on an entirely new direct system, using a double-acting hydraulic cylinder which both raises and lowers the trailing wheels of the bogie. Neither the weight nor the springing of the bogie is utilised for this purpose. The stresses on the chassis frame are reduced by a new patent link system which gives minimal forces at the points of attachment. Strength and sure functioning are provided by a stoutly dimensioned lift shaft which acts directly on the axles of the trailing wheels to produce a

powerful parallel lift even under an off-centre load. The piston rod of the hydraulic cylinder is hard-chromium-plated and is therefore largely immune to wear or to damage by flying stones.

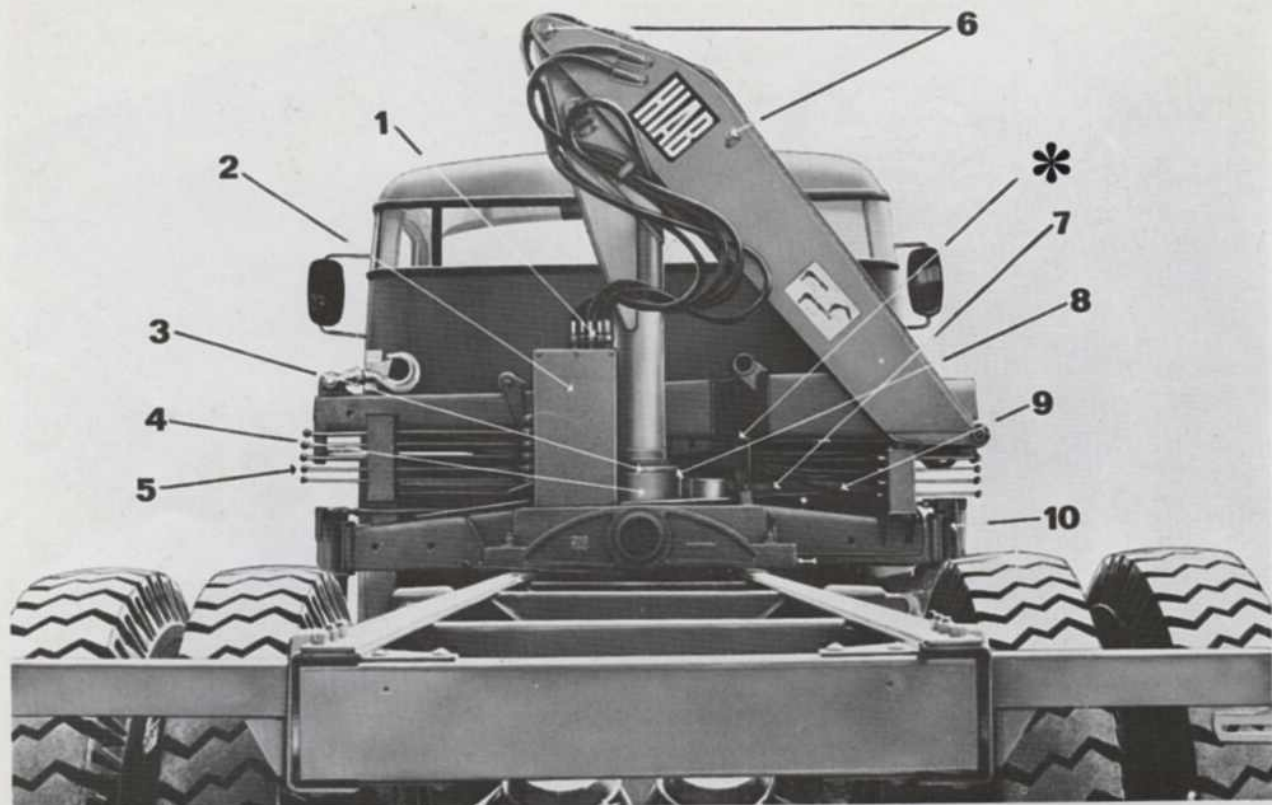
The bogie lift is driven by a hydraulic system in which the pressurised oil is supplied by an electrically powered hydraulic pump. The pump is controlled from the dashboard, on which a warning lamp is also mounted. The entire hydraulic unit, comprising the electric motor, pump, valves, etc., is completely enclosed in a protective casing which also contains the oil tank. Limit switches automatically stop the bogie lift at the top and bottom of its travel. At the top the lift shaft brings up against a rubber stop; at the bottom the trailing wheels are suspended freely by their springs.

Since the bogie lift is delivered as a unit all ready for mounting with a simple retaining bracket, and does not call for any modifications to the chassis, a competent fitter can do the whole job in a few hours, irrespective of the frame design. A further merit of the compact design is that at no point does the unit project above the frame members. Consequently it is never in the way during the fitting of a tipper unit and deck or other items of equipment.



A compact design with nothing that projects above the frame, simple functioning and quick fitting are among the advantages of the HIAB BL 7.





# We've Switched the 174 Round and Made Ten Improvements

The loader in this picture isn't really a new one. In all essentials it's our 1966 winner—mounted the other way round for greater convenience in right-hand traffic. But's that not all. It's been modified in no less than ten different respects, though they're not so easy to spot at a casual glance. However, anyone using the crane will soon notice that the changes are all very much to the point—each one helping to simplify work with the crane and adding to its dependability and length of life. Here's a list of all the alterations on the new HIAB 174 Speedloader.

\* The loader folds away to the right, giving a better view and greater safety both during loading and during erection and stowing of the jib. Turning the loader round can also save some valuable inches in the space it needs between deck and cab.

1. The hydraulic hoses are connected to the valve unit with swivel couplings; the

hoses are free to rotate in these couplings so that they can easily follow the crane as it slews. The new couplings are a big help in reducing wear on the hydraulic hoses.

2. A new valve unit with readily replaceable valve sections. This means simpler service and repair work and also enables the loader to be quickly and easily modified by the addition of further valve functions for such items as grapples, rotators and other hydraulic attachments.
3. An oil-resistant rubber boot covers the joint between the column and the base of the crane. The elastic boot provides effective protection against wind and weather.
4. The kingpost is a one-piece casting, giving greater strength and resistance.
5. The new valves are so designed that the pressure on the valve pistons is less, making the lever movements still easier. Now there's every justification for speak-

ing of fingertip control from both sides of the loader. The new easy-acting levers give gentler jib movements and make it easier to operate the crane with smoothness and precision.

6. Hard-chromium-plated shafts with lubricating nipples give better rust protection and longer life.
7. The slewing cylinders, too, are hard-chromium-plated, which makes for reduced rusting and greater wear resistance.
8. 140% greater bearing surface on the rack locating guide results in lower surface pressure and less wear.
9. Self-supporting rubber-Delrin sealing rings in the slewing cylinder give more effective sealing and longer life.
10. More support-leg options and a new support-leg fitting enable the support legs to be extended 45° to the rear. This is important if the loader is mounted on a forward-control truck or on a bracket.



Valve unit with replaceable valve sections; can easily be augmented with additional valve functions.



Oil-resistant rubber boot over the base of the crane.



The hydraulic hoses can rotate freely, thanks to swivel couplings.



Output and product range grow year by year at the Enstaberga Cementgjuteri south of Stockholm. In 1966, employing 14 persons, the plant turned out 6000 tons.

## 193—173—174 Keeping Capacity Abreast of Demand

"I've been driving for the company for more than fifteen years now. When I began I didn't have any crane at all on my truck. We had to load everything by hand—and unload it the same way, most of the time. It could take all morning to put a load on board the truck, and it often took almost as long to get it off again at the other end. Occasionally, of course, we were able to tip it off, but that wasn't often, and there was always a risk of breaking pipes. Nowadays, neither loading nor unloading takes more than half an hour."

Truck-driver Rune Eriksson drew the contrast between Then and Now as METHOD rode along with him on a run with a load of concrete pipes from the Enstaberga Cementgjuteri, a precast-concrete works south of Stockholm. He went on:

"Loading up at the works wasn't too bad. Helping hands were available, and since the stores had a raised floor we were able to use a loading bank alongside the road. And in time, of course, we got some fork lift trucks.

### Unloading by Hand

"It was when you came to unload at the point of delivery that things began to get really awkward. You could handle the small sizes manually of course, and if there was

anybody around to help on the site the job went well enough. But if you were alone, or had only one helper, then it was a slow business and no mistake.

"When I had big pipes on the back we nearly always had trouble. We used to roll them off to the rear down stout planks, but it needed a lot of men to handle the biggest pipes, which can weigh half a ton or more. As a rule we had to ease them down using ropes secured to the front wall of the truck deck. Sometimes we might try tipping the deck just a bit, so as to roll them off one by one, but we had to be really careful not

to roll them on top of one another and break them.

### The First Crane

"When we got our first HIAB, a Model 193 wire-rope crane, it put an end once and for all to unloading by hand. It made the work much lighter, and you could discharge a load pretty quickly even if you were alone. But you had to take things very gingerly even with the wire-rope crane. It had a free-swinging jib, you'll remember, and the load swung wildly to and fro, especially if the truck was not standing quite level.

The brothers Georg and Sivert Karlsson started the business in 1945. They're seen here demonstrating the loading method that was standard in those "pre-HIAB" days.





Not every item made at the works can be cast in a mould. These branch pipes are being put together by hand, using ordinary pipes.



Rune Eriksson has been driving for the works for more than 15 years and knows only too well what loading and unloading were like before the trucks had HIAB cranes.



The moulds are assembled on vibrating tables—very noisy affairs, but necessary to ensure that the concrete is properly compacted.



With a fork like this one, some 15 pipes can be off-loaded at a time. At this delivery site a man has been detailed to help Eriksson, which of course makes things easier. Normally he discharges the load himself using the crane, without any trouble, whatever the pipe size.

Loading and above all unloading with HIAB cranes is dependent on appropriate tackle. This fork has movable prongs and can be adjusted to suit various pipe sizes.



"Then along came the 173 Speedloader, which is mounted on this truck. With the right forks you can use the full lifting capacity and discharge nearly a ton at a time. The new 174, which is mounted on our other truck, is also equipped with a rotator, which prevents the load from twisting this way and that during the lift. Along with the hydraulic extension it makes it a simple matter to position the pipes exactly and to lay up high piles.

"I'm not exaggerating when I say that with the new crane I can deliver about three times as many pipes in a day as I could before we had cranes on the trucks,

at least if I'm not doing exceptionally long runs, where the actual road time becomes a major factor."

#### 6000 Tons of Concrete

The precast-concrete works is owned by the brothers Georg and Sivert Karlsson, who started the business in 1945. Both of them are still active in the firm, which now provides jobs for 14 people in all. In 1966 the business had a turnover of 1.2 million Swedish crowns and produced about 6000 tons of concrete, which was cast into more than 200 different shapes.

"Even though the business is growing year by year we're managing so far with two trucks," says Georg Karlsson. "Most of our hauls are of course local, and we get through several round trips a day. So it's important not to spend too long over loading and unloading. Here at the works, one of our three fork lift trucks can as a rule be spared for loading, and at the other end HIAB unloading has greatly increased the capacity of our trucks. The smoother functioning of the new crane has cut unloading time down still further, with the rotator playing an important part. Forks and other tackle which we design ourselves also help to make handling

easier. The truck equipped with our new 174 also pulls a trailer on the longer hauls.

"For the most part our own trucks also find time to bring in the 5000 tons or so of sand and aggregates which we use each year. Our gravel comes from only two miles away, but to get shingle, which we need just as much as gravel, we have to go 15 miles.

"The main point is that by putting more efficient equipment on our trucks we can increase their capacity so that we don't have to invest in additional vehicles and drivers."

Roine Johansson drives the firm's other truck. In this picture he's preparing to unload.



The hydraulic extension of the 174 makes it easy to stack up high piles, and the rotator permits precise positioning, which prevents impact damage to pipes.



## HIAB 177 Slews Through 410°

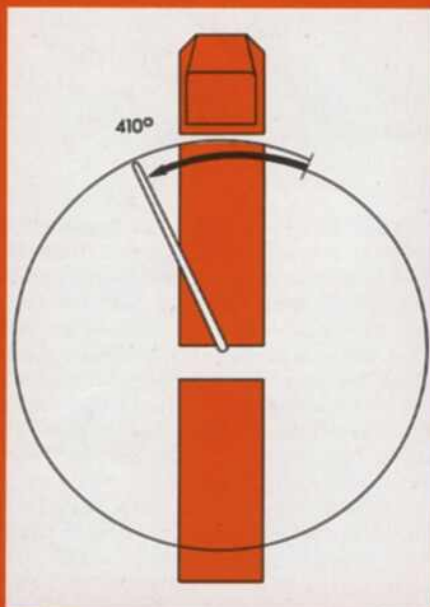
The HIAB 177 Speedloader has been improved, too. Not so long ago the 177 was modified at a number of points and now there's been another development. By increasing the stroke of the slewing cylinders the slewing angle of the loader has been increased by no less than 50°—from 360° to 410°.

A loader with a 360° slewing angle has a stop position at one point of the circle at which it can be slewed no farther. To get on the other side of the stop position the loader has to be slewed back through a full circle. The stop can be positioned at any point of the circle, but the normal thing is to mount the loader so that it is directly ahead along the length of the truck.

On a loader mounted behind the cab the stop position doesn't cause any bother, but if, for example, it is mounted on a rear bracket on a roundwood haulage outfit then

it's often a limiting factor. For instance, if you're loading timber from a pile on the right, then in order to deposit it on the left-hand edge of the tractor truck you have to slew the crane to the rear through more than half a turn, while to put it on the right-hand edge you may only need to slew the crane about 60°.

The increased slewing angle eliminates this drawback. The loader no longer has a stop position in a certain direction; it has two stop positions, 50° apart. The loader can reach into this 50° sector from both sides. If the sector is arranged centrally over the truck, as in the sketch on the right, the loader can therefore be slewed 25° beyond the centreline so that any part of the truck can be reached by the shortest path, irrespective of what side the timber is on. That means faster loading, shorter turnaround time and higher transport capacity—by no means an insignificant development.



# 300%

## More Efficient With The HIAB Method

Under current circumstances, human labour is the biggest problem in the British scrap trade. In due course as the economic restrictions are lifted, the situation seems likely to get still worse as other and more attractive industries begin to compete for labour.

However, the problem is far from new, and the trade is rapidly solving it by resorting to mechanisation. The capital expenditure of the business is in fact above the average for the country's industry, and the emphasis is on new machines that will increase productivity and reduce dependence on manual labour. The aim is to eliminate heavy physical labour from the scrap trade as far as possible, so that the men employed in the scrapyards can be offered working conditions comparable with those in other industries. In these efforts, the HIAB Method is playing a big part.

Typical examples of the many fields of application for the HIAB Method in the

scrap trade are provided by the two HIAB 177 Speedloaders now in service in the scrapyards of W. F. & J. R. Shepherd at Newcastle-on-Tyne. Both are on stationary mountings; one feeds a swarf crusher and the other handles small-sized mixed scrap as an ancillary to a hydraulic press.

Shepherds used to keep five men busy tearing at the tangled piles of swarf with pitchforks and feeding the crusher. They seldom got through more than 40 tons a week.

With a HIAB 177 Speedloader only three men are needed to cope with over 100 tons a week. One man operates the crane, which is equipped with a polygrip grapple, and

deposits the swarf next to the infeed. The other two then pitchfork it into the crusher. The actual feeding has to be done by hand, since large pieces of scrap capable of wrecking the crusher might otherwise get in along with the swarf.

The other HIAB loader has stepped up production at the hydraulic press by 300% and at the same time cut the labour requirements by a third. Two men can manage the whole job. One works the loader and the other works the press, which produces a bale measuring 12x12x10 in. Between them they can deal with eight tons of mixed scrap in less than an hour. It used to take three men three hours to dispose of that much.

In this connection the HIAB Method has also yielded another very telling gain. Before Shepherds installed the loader the trucks that delivered the scrap had to off-load as close to the press as possible, out of consideration for the workmen feeding it in with pitchforks. This created a bottleneck in the movement of the stock. When the area next to the press was full the trucks had to wait, sometimes for hours, before they could dump their load.

Nowadays the trucks can discharge anywhere within the long reach of the loader, and their turnaround time at the scrapyards is a matter of minutes. Think that over!—a stationary HIAB loader has increased truck performance—besides making the work of the scrapyards easier and faster.

Shepherds of Newcastle-on-Tyne, England, solved their labour problem by installing two HIAB 177 Speedloaders in their scrapyards—and got faster handling as a bonus!



# HIAB 174

## Cuts the Cost of Roundwood Haulage by 50 Per Cent

Forestry in Austria, as in many other Central European countries, differs in certain respects from that of the wood-producing areas in Northern Europe and North America, particularly as regards transportation. The trend towards concentrated fellings involving big cuts is not so pronounced, which means that there is not the same scope for such advanced mechanisation, either in harvesting or in haulage. Neither the quantities of timber, nor the length of the hauls, nor the nature of the forest road system would justify the use of big outfits or investments in costly loading machines.

F. M. Tarbuk & Co., of Vienna, have developed a roundwood outfit to meet the specific needs of Central European forestry. Based on a six-wheeler truck, it has a gross weight of 22 tons. It combines economy with a degree of flexibility well suited to the many different classes of product it will routinely pick up from Austrian fellings. The truck has an outstanding off-highway performance, thanks to its tandem-drive bogie plus facilities for clutching the drive to the front wheels as well.



With difficult terrain and small cuts of timber, the roundwood hauliers of Austria are faced with a task differing significantly from corresponding operations in Sweden. Among these hills it's hard to find space for landings.



The roads through the forests of this near-Alpine terrain pose big problems for heavy rigs. This six-wheeler is operated without a trailer, and both axes of the bogie are powered. In a tight spot the drive can be clutched to the front wheels as well.

The outfit is loaded by a HIAB 174 Speedloader equipped with a winch capable of a 750-kg pull. The winch is needed to cope with the landing conditions in the Austrian forests. The reach of the 174, adequate in Swedish forests with high piles on well-planned landings, doesn't go far enough in Austria. The steep slopes seldom leave sufficient space for a landing alongside the road or anywhere else a truck can go. Consequently, it is almost always necessary for some of the timber to be winched in to the truck.

In this context the HIAB 174 Speedloader has amplified justified its name. In careful time studies with the outfit described above it was found that two men needed an average of 3.5 minutes to load 1 cubic metre solid measure, while with the former method it took three men 4.7 minutes. In other words, 1 cubic metre is loaded in 7 man-minutes with the 174 and a winch, against 14 man-minutes when the job was done in the old way. Loading was of course done by HIAB before, but the loader used was the HIAB 193 Wire-rope Crane.

# Lift-dumper Truckers Can Charge Less – But Earn More

The Lift-dumper is a transportation system with a lot of potential. Ask Trucker Folke Pettersson, of Örebro in Central Sweden. He bought his first Lift-dumper in July 1966. Just a year later, he was taking delivery of his third!

"The Lift-dumper system is profitable both for us and for our customers," says Folke Pettersson. "It takes only one minute now to put down an empty dumper bin at the loading-point, and when we collect the full bin it's done in three minutes. So the truck's total turnround time is four minutes. The same job used to take several hours as a rule."

## Plenty of Jobs

The firm's three trucks are employed on a very mixed bag of hauls. In the early days it was mostly industrial refuse, but now they do a variety of jobs: clearing sand off the streets at winter's end, running spent grains from breweries out to the country as animal feed, disposing of building-material waste, hauling away excavated rock and earth from building sites, and so on.

Folke Pettersson points out that the dumper can quite well be used for transporting single heavy items as well. Some time ago the firm used a lift-dumper to move machines which were considered to be

too heavy for an ordinary loader-equipped truck. On another occasion a Lift-dumper carted off a wrecked car from the scene of the accident.

"So now we have three Lift-dumpers," Pettersson goes on, "and so far there's been no lack of jobs for them. As of today we have a hundred bins in position at various workplaces, looked after by our three trucks. No time is wasted—the trucks carry two-way radio and as soon as one job is done they're directed straight to the next.

"We make use of all five standard types of bin—open and closed, so as to be able to tackle any job the customers may hand us."

## The Customers Benefit As Well

The adoption of the Lift-dumper system has of course shortened transport times for the truckers. But handling time for the customers has been reduced as well.

When this kind of work is done with a conventional truck, both trucker and customer are often irritated by the heavy loss of time and the costs. For example, one run may be over by 10 a.m., while the next isn't booked until some time in the afternoon. With the longer loading times there's no chance of squeezing in an extra job in the interval. The result is down time and poor

earnings for the trucker. In the last resort it's the customer who foots the bill, since the trucker has to charge more per haul. The combination of Lift-dumpers with two-way radio has licked that problem.

## One Truck Worth Two

The efficiency and transport capacity are also impressive.

"When we're trucking earth from building sites we reckon that each Lift-dumper does the work of two ordinary trucks," says Folke Pettersson. "As a rule we run a shuttle service with two bins to each truck. But at other times we may have up to six or seven bins per truck."

One innovation on the latest-model Lift-dumpers, which Folke Pettersson is very pleased about, is that they have outside controls.

## 70,000 Trouble-free Kilometres

Another advantage which the firm particularly stresses is that the Lift-dumpers have never given them the slightest cause for complaint. All three have done everything expected of them. Although the equipment has been worked very hard—the first truck has completed about 50,000 kilometres by now and the second some 25,000—they've never given the least trouble.

A Lift-dumper reduces loading and unloading times from hours to minutes.







the job. Several Swedish scrap-car merchants have made that discovery, and the British firm of S.R. Hughes-Roberts would certainly confirm it. A HIAB 174 Speedloader equipped with a polygrip grapple does a quick job of relieving the countryside round Hanwell from the forlorn

remains of discarded cars and hoisting them onto the deck of the firm's truck. Back at the yard the HIAB loader again comes in useful for stacking the wrecks in high, space-saving piles while they're waiting to be reduced to compact bales and dispatched to the ironworks.

## Speedloader Beets A Bottleneck

This is a stationary HIAB 174 Speedloader with a very specialised function. It's used to lift a single sack off the trucks that deliver beets to a sugar mill in the south of Sweden. The sack contains the sample of the beet load that is to be put through quality tests in the lab.

Before it was installed the truck-driver had to stop his vehicle, climb up onto the load, throw off the sack and then, with or without a helper, heft it up onto a loading bank. That took some minutes all told, but now, with the crane whisking the sack off almost before the truck has stopped, it's a matter of seconds.

Installing a HIAB Speedloader

just to lift off a single sack from each load and save a few minutes may seem to be pushing efficiency a bit too far. But when the beet harvest is at its height the trucks arrive at the mill almost bumper to bumper and the loader does about 300 such lifts a day. And the minutes it saves at such times eliminate hours of waiting.

The sample sacks are deposited onto pallets, which are then loaded aboard another truck by the crane. The specially designed sack gripper doesn't have to be detached for this operation since both it and the rotator can be swung aside to make way for the pallet fork which is put onto the lifting hook.



## A HIAB 174 on an Industrial Tractor

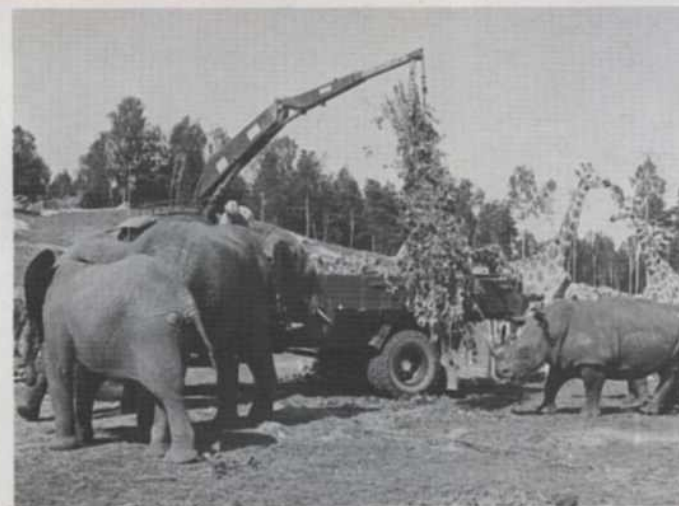
The T 675, BM-Volvo's industrial tractor, is a machine which has been reinforced and specially equipped for use on factory sites and in civil engineering. The one shown here is intended for combination with a trailer and should be particularly suitable for municipal works departments and road boards, etc. For the loading and unloading of the trailer the tractor is equipped with the new HIAB 174 Speedloader, rear-mounted and fitted with specially designed support legs. The crane comes in useful not only for loading but also in handling material of various kinds, such as putting concrete pipes straight into position in a trench, as in our picture. The

laying of the pipeline is greatly facilitated when the heavy pipes no longer have to be lifted and positioned by hand. The 174 is especially at home in this kind of work, since its double-acting luffing cylinder enables it to be used for precision lifts even below ground level. In addition, the tractor is fitted with a bucket-type front loader. Particular attention has been paid to the driver's comfort; the tractor has power steering, a swivelling driver's seat and first-class heating, besides which one set of loader controls has been moved into the cab. The loader is detachable and can be replaced by another unit such as an excavator attachment.



on board. It only remains to get them on and off the aircraft at minimum cost in effort and time

—a job for the HIAB Method, performed by a HIAB "Roll-Loader" at the airport.



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