



KATO

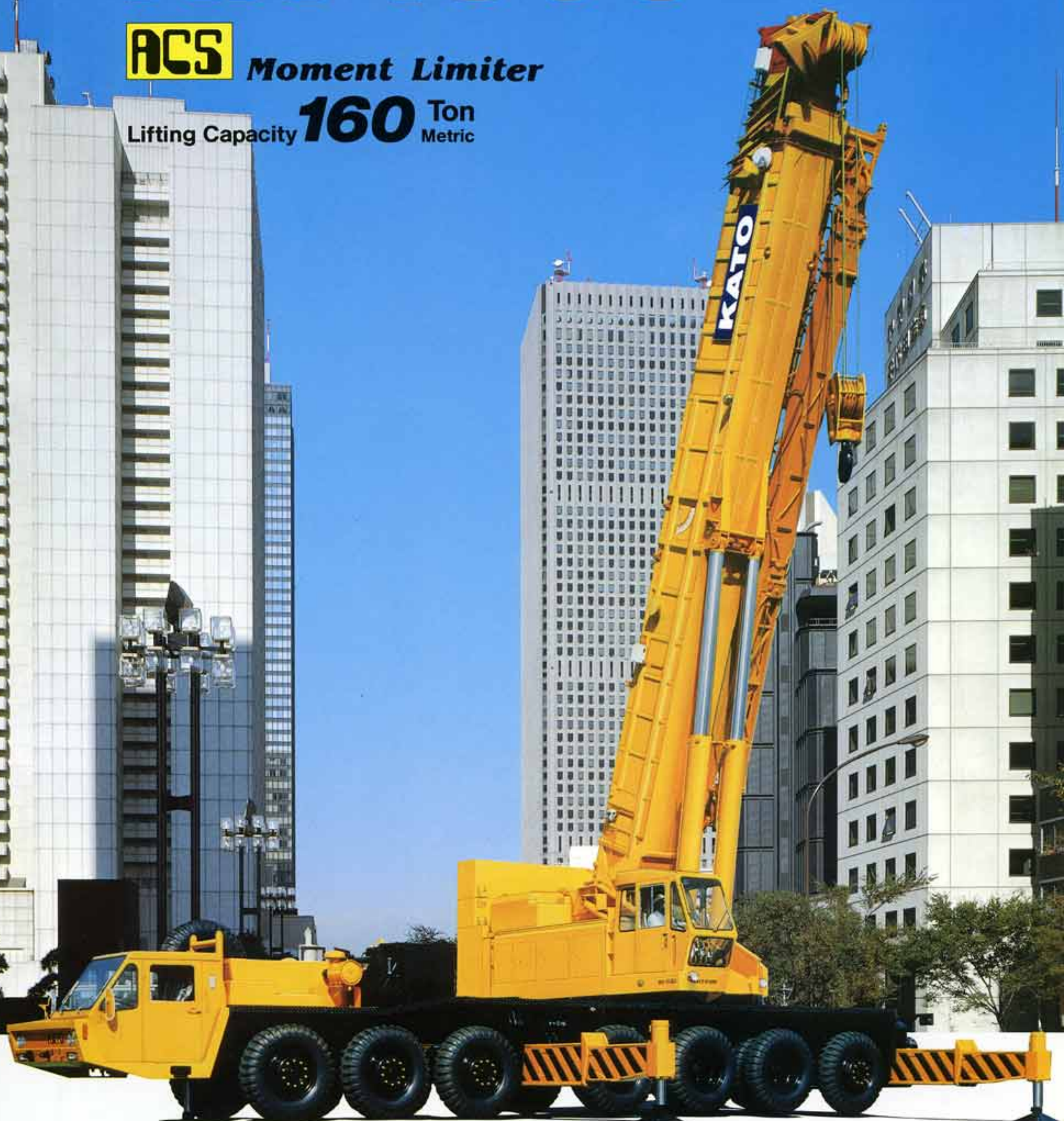
**FULLY HYDRAULIC
TRUCK CRANE**

NK-1600

ACS

Moment Limiter

Lifting Capacity **160** Ton
Metric



KATO WORKS CO.,LTD.



NK-1600 Fully Hydraulic Truck Crane

Maximum lifting capacity: 160 metric ton

Maximum boom length: 50.0 m



Excellent capacity

Kato's advanced technology has been concentrated in a search to devise characteristics appropriate to large-capacity machines. The result is the Kato NK-1600 with a 160 ton lifting capacity.

Designed to provide an answer to diverse on-site needs, this crane is ideally suited to heavy lifting jobs and other work entailed in the construction of increasingly large-scale and high-rise buildings, harbor, bridges, industrial plants, etc.

We at Kato Works Co., Ltd. are confident that the NK-1600 will prove to be a powerful workhorse for large-scale projects.



LONG BOOM FOR GREATER REACH AND PERFORMANCE WHEN WORKING AT HEIGHT, OVER OBSTRUCTIONS OR AT SHORT RADIUS.

The 50-meter boom permits rated lifting capacities of 30 tons at 11m radius and 21 tons at 16m radius.

The fully powered boom is designed to reduce vertical and lateral deflection during operation, and provides high speed telescopic extension from 13.6m to 50m.

The derricking system combines main boom actuated by forward-acting derrick cylinder for wider derricking angle, with luffing jib or heavy-lift jib continuously offsetable by means of pendant rope. These innovations enable the NK-1600 to do easily things which mechanical cranes have never achieved in the past, particularly when working at height, at short radius and in cramped sites.





achieved by a combination of high lifting performance



MICROCOMPUTER-CONTROLLED ACS MOMENT LIMITER

The ACS moment limiter is an automatic overload prevention device incorporating calculation functions based on state-of-the-art electronics technology to monitor all safety factors. It provides accurate information on up to 8 safety factors: namely safety levels, luffing jib angle, boom angle, working radius, boom length, critical load, actual load, and maximum hook lift.

Information on jib angle, actual load during jib operation and back stopper angle is transmitted via optical fiber from the boom head to a computer housed in the cab. The use of optical fiber has made it possible not only to increase the various kinds of information involving each function but also to eliminate radio wave interference.

The optional voice alarm will remind the operator to make preliminary checks or give warning of overloads and other operational instructions.



SPACIOUS DELUXE CAB

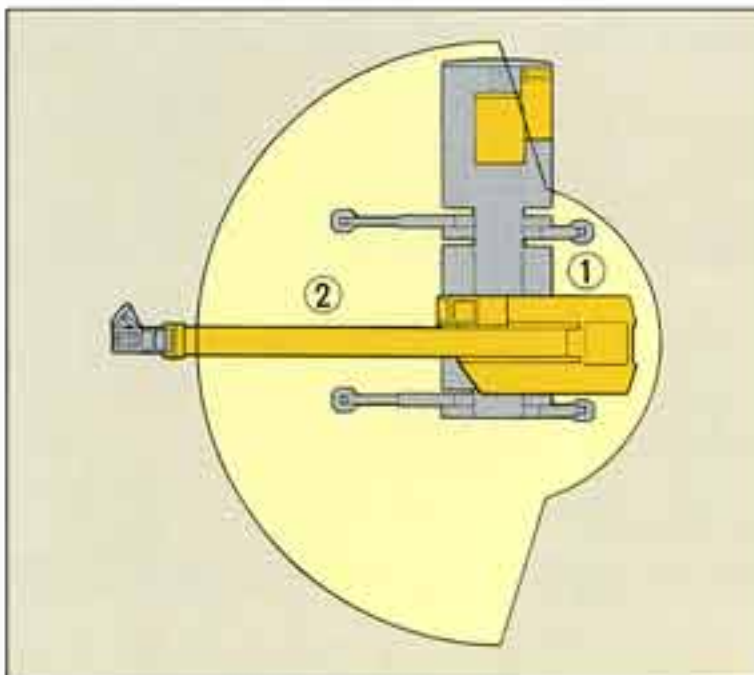
The roomy 900 mm wide cab was designed and built with full sound-proofing and vibration insulation for vastly improved operator comfort and includes sliding cab door, reclining seat, ACS moment limiter, and other instruments.



ACS MONITORS EXTENSION OF OUTRIGGERS

The outriggers, which can be extended to either 8.6 or 5.75 meters, depending on operating needs and site conditions, are linked by optical fiber to a microcomputer that responds to various operating conditions in order to guarantee safe operation at all times. This takes the danger out of heavy lift operations and high-lift work.

Even when left and right outriggers are extended to different lengths, The ACS moment limiter automatically compensates for the varying safe working loads.



① Working range at intermittent stroke

② Working range at maximum stroke



DUAL WINCH OPERATION

The two independently driven winches are equipped with automatic brakes. The main and auxiliary winches are operated by separate control levers and hoisting and lowering operations can be carried out simultaneously.

The use of large diameter winch drums with winding regulators ensures less stress on ropes and prevents ropes interwinding and tangling. This reduces wear and boosts rope life.



SLEWING SYSTEM WITH FREE LOCK SWITCHING

The operator can select a free slewing stop for normal repeat work, or lock slewing stop for high-lift operations or heavy work. A hydraulic slew-brake is also provided for safety.



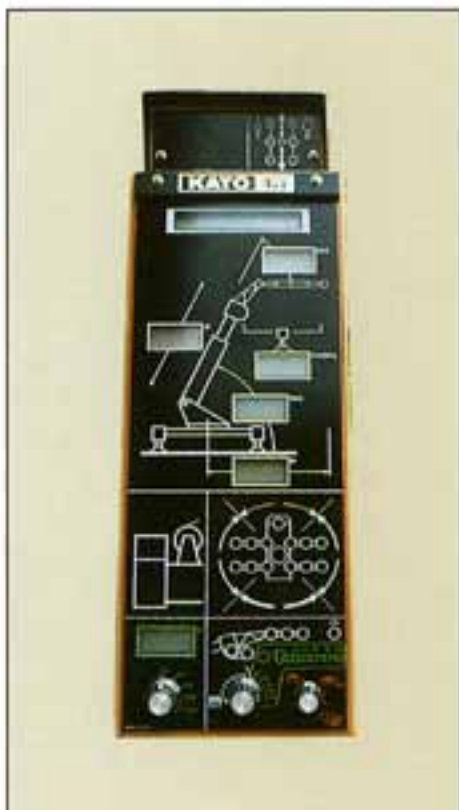
Performance and wide range of applications.



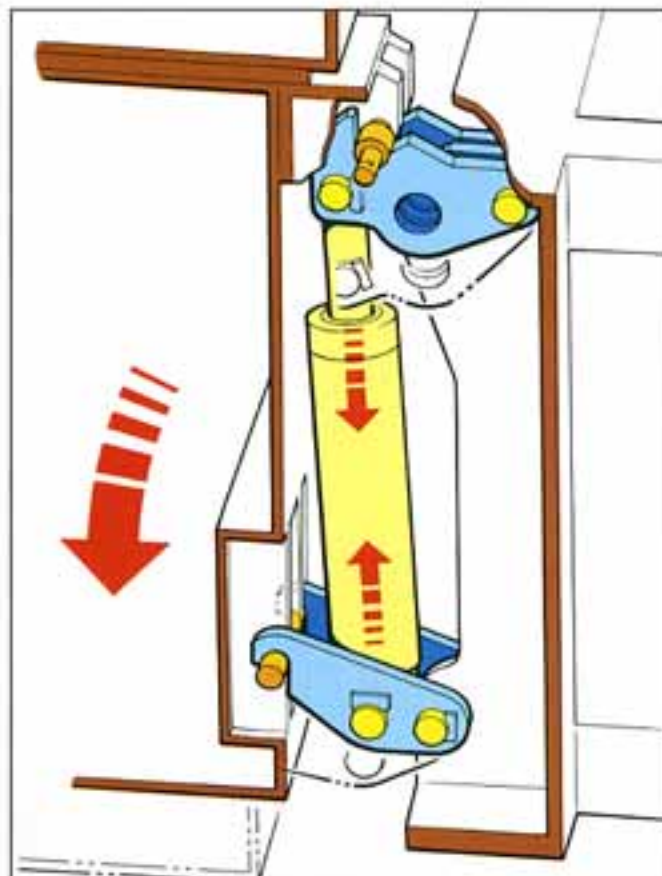
Operator's cab



Linkage-type counterweight removal device



Microcomputer controlled
ACS moment limiter



Widespread outriggers



Front jack



COUNTERWEIGHT THAT CAN BE EASILY ATTACHED/DETACHED

The counterweight can be easily removed or attached in its working position by linkage-type actuation and pin-lock for safe operation.

MINIMIZED TAIL-SWING

Since the tail swing of the superstructure is only 5.21m from slewing center (with counterweight). The crane can slew easily and efficiently in restricted working areas and congested places.



CAREFULLY DESIGNED SAFETY DEVICES

The most important hydraulic and hoisting systems are equipped with safety devices such as over-hoist prevention system, drum lock and drum hold safety devices, automatic winch brake, hydraulic safety valves, outrigger locks, and slewing locks.



The installation of extra large load using the main boom and heavy lift jib.
(Domestic model)



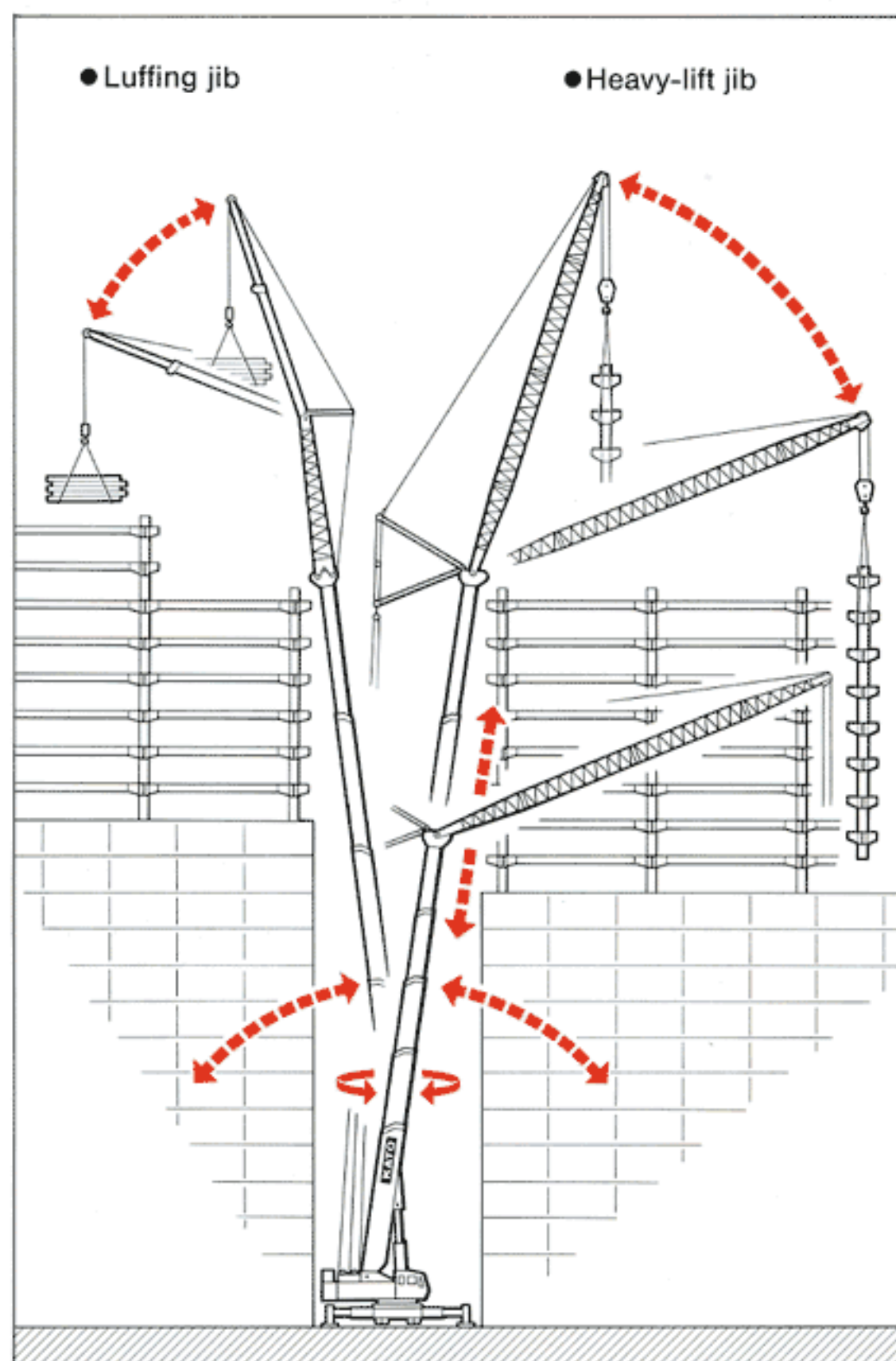
NEW TECHNOLOGY FOR LUFFING SYSTEM

The unique luffing and heavy – lift jib arrangement makes it possible to luff at infinitely variable positions between 10 degrees and 60 degrees, whilst derricking basic boom at the same time. This facilitates work at close quarters on restricted sites, as well as giving height and remote operation capabilities.

The ACS moment limiter automatically compensates for the angle and length of boom and the angle of jib, and computes back to the digital readout to advise of lifting capability.

EXTREMELY HEAVY LOADS CAN BE LIFTED HIGHER AND FURTHER.

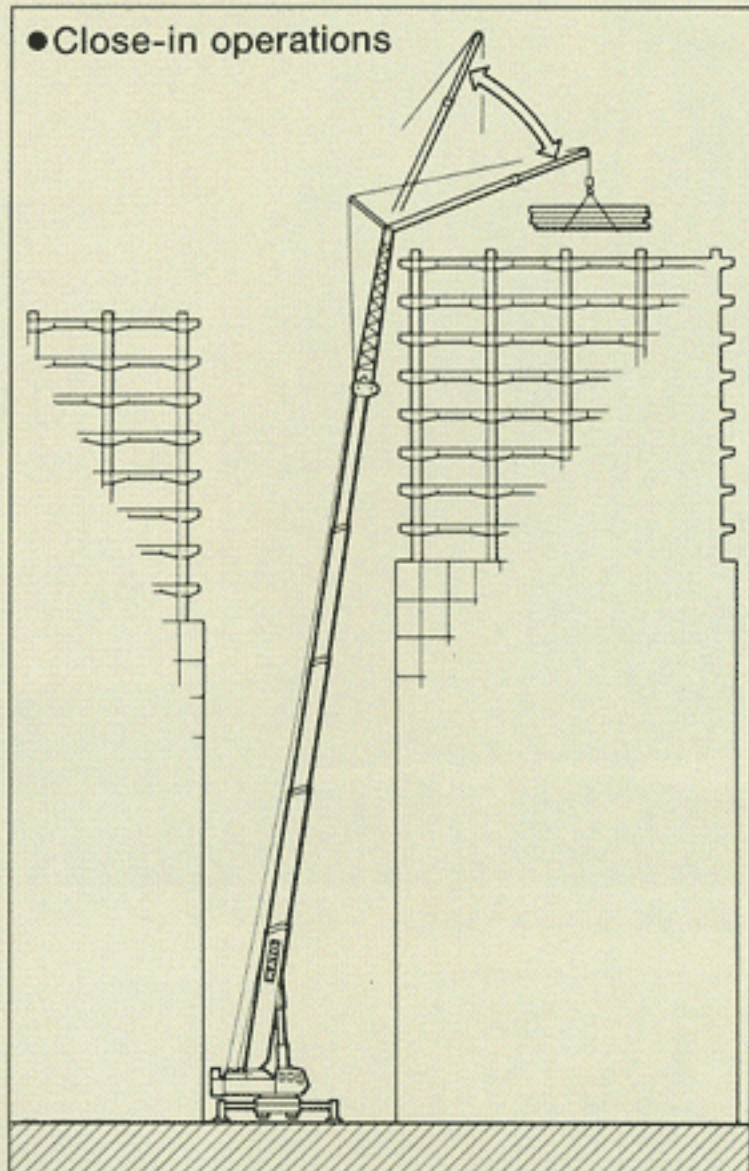
The optional heavy-lift jib is extendable in lengths of 12m, 21m, and 30m, with lifting capacities of 75 tons at 7m radius, and 2 tons at 55m radius. This jib also features a continuous offset giving greater working capabilities, and gives the full amount of lifting capacity for heavy duty lifts, such as the construction of bridges, industrial plant and high-rise buildings as well as for high-lift, close-in and remote-lift operations on rooftops and over buildings and factories.



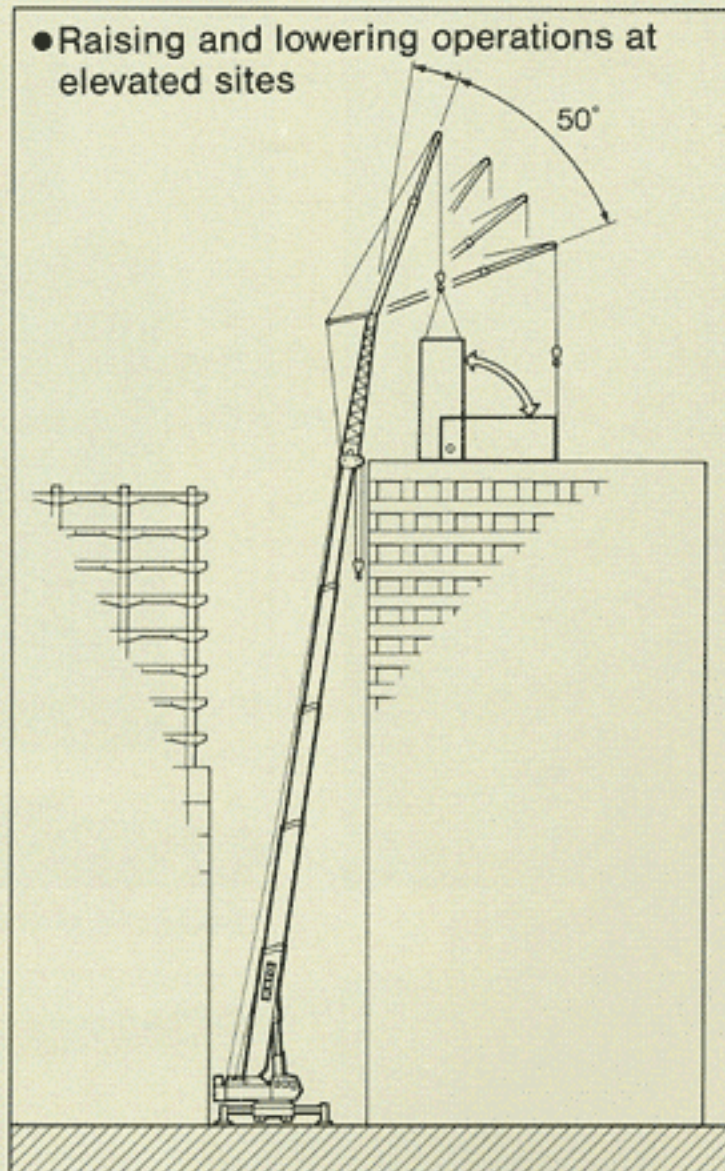


LUFFING JIB

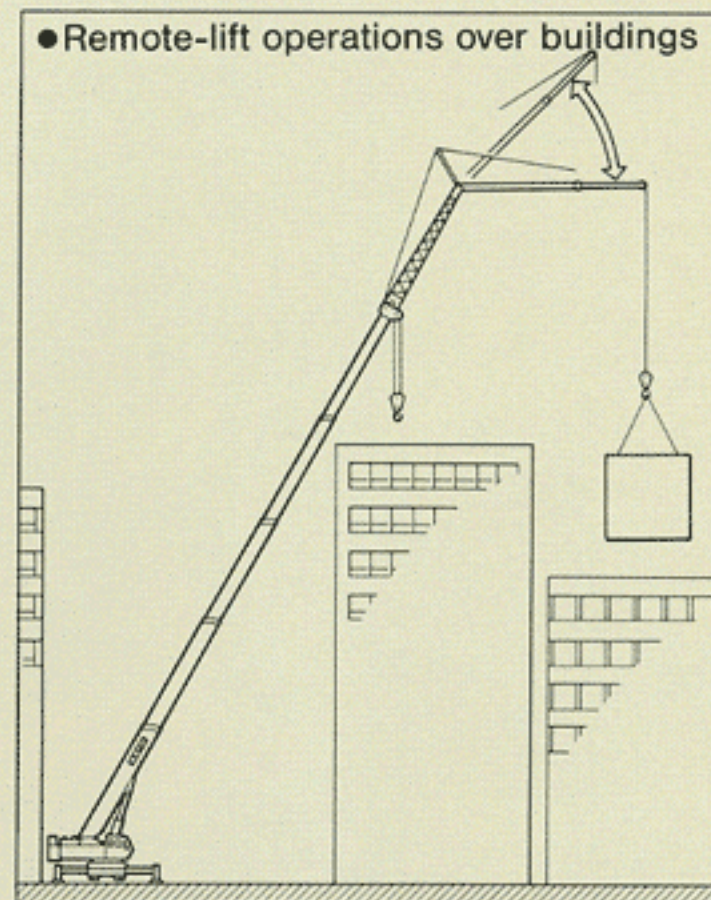
- Close-in operations



- Raising and lowering operations at elevated sites

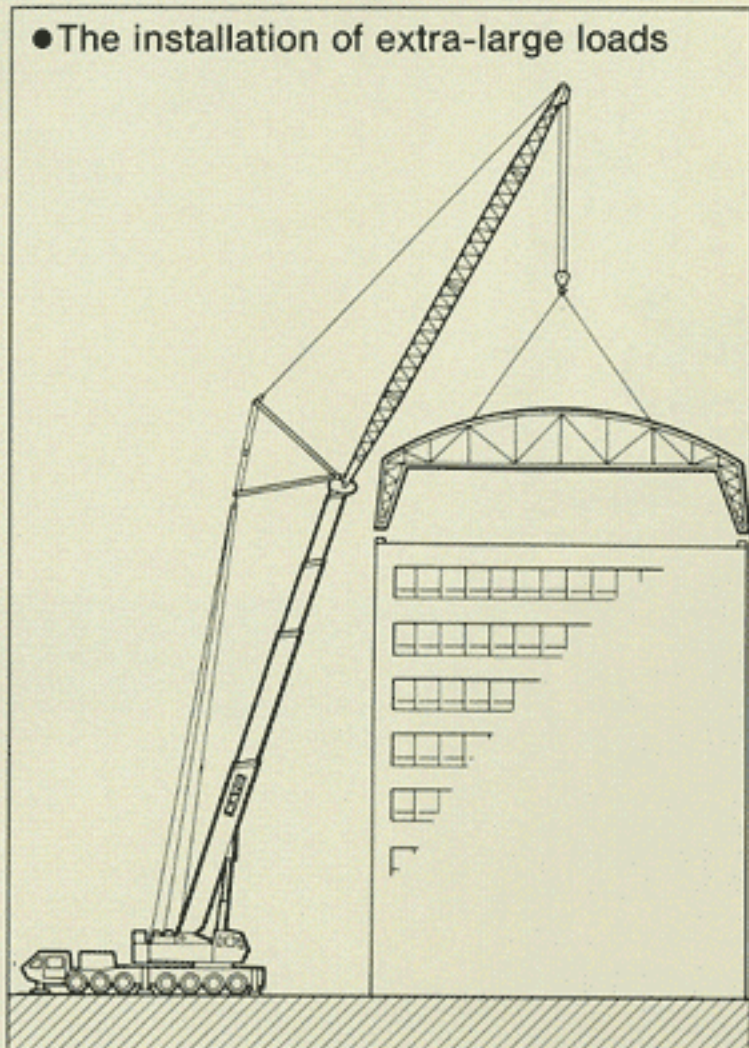


- Remote-lift operations over buildings

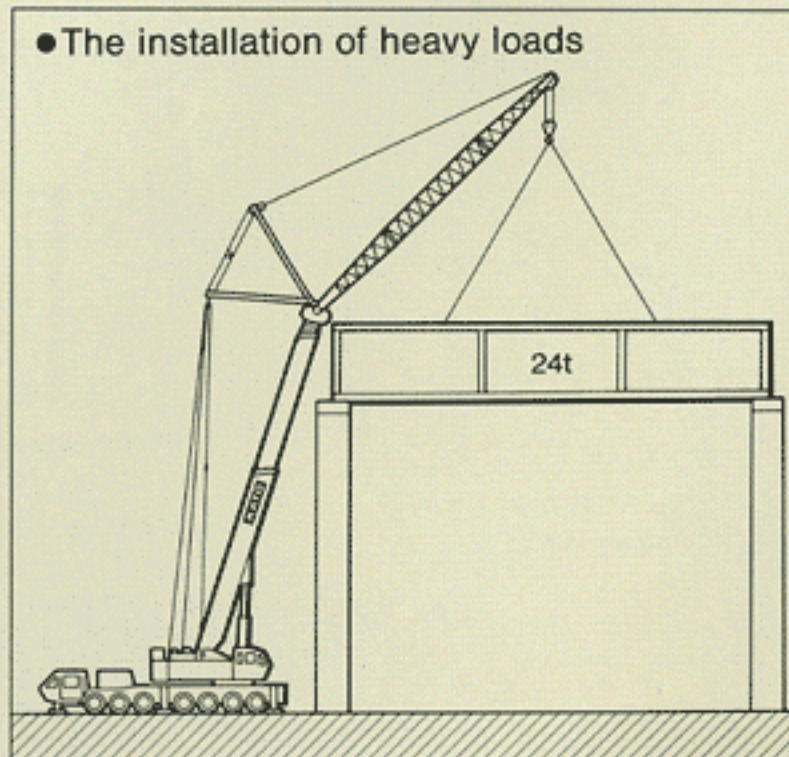


HEAVY-LIFT JIB

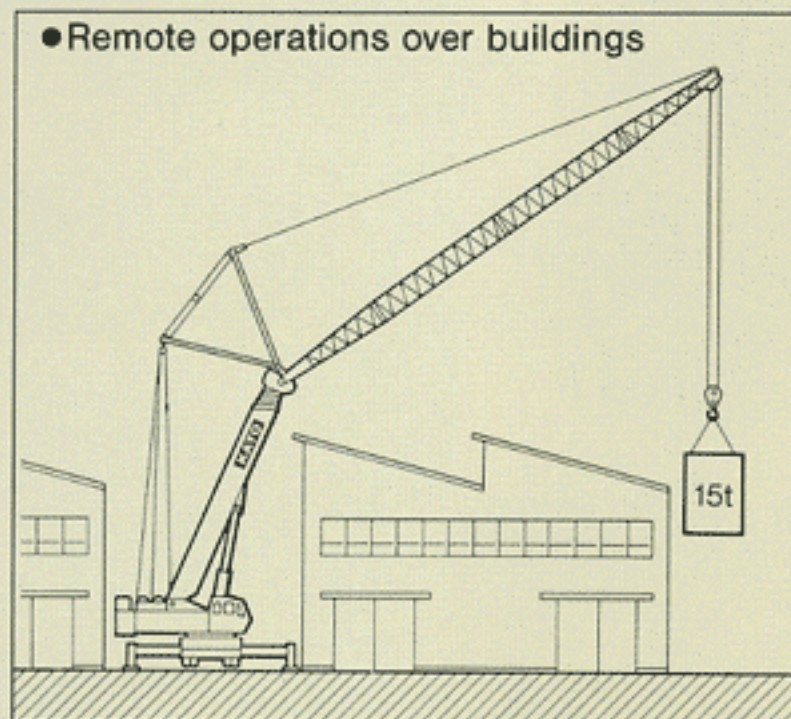
- The installation of extra-large loads



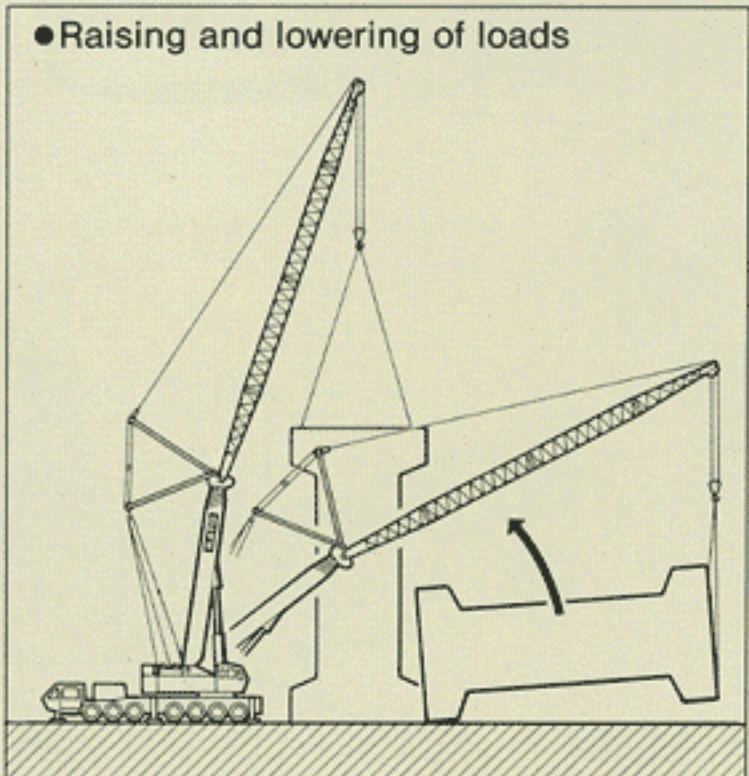
- The installation of heavy loads



- Remote operations over buildings

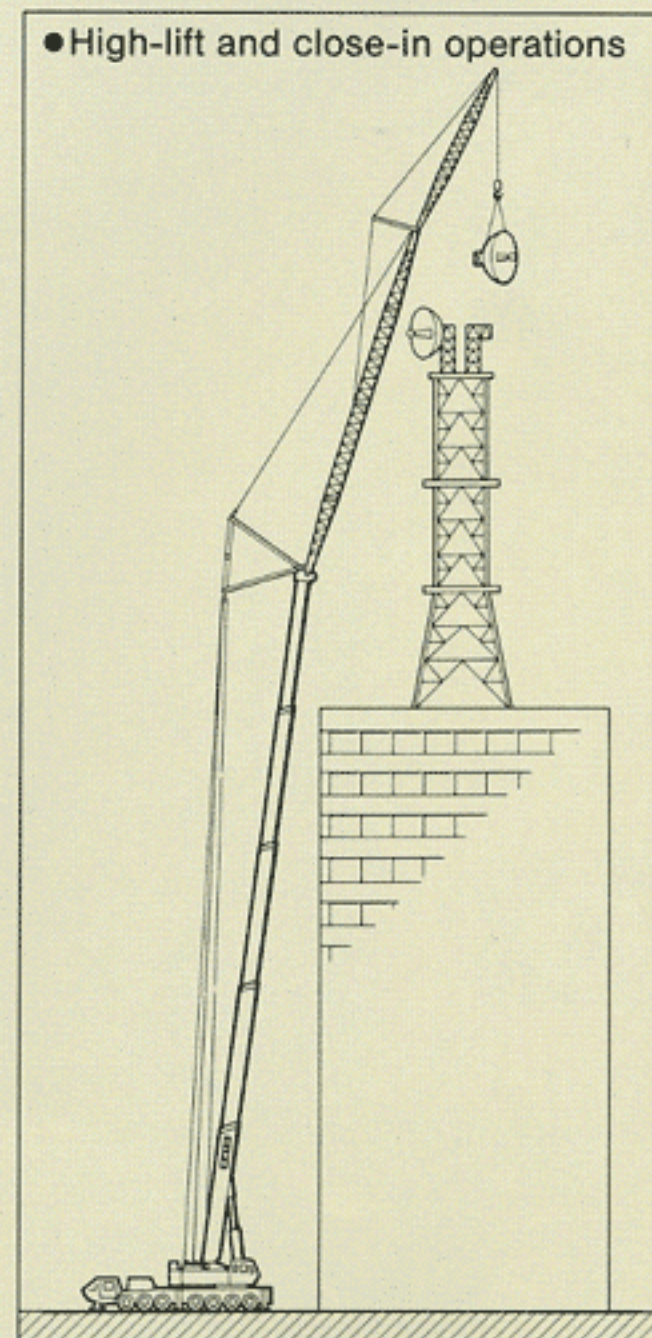


- Raising and lowering of loads



HEAVY-LIFT JIB + EXTENSION JIB

- High-lift and close-in operations





NK-1600

FULLY HYDRAULIC TRUCK CRANE



NOTE: KATO PRODUCTS AND SPECIFICATIONS ARE SUBJECT TO IMPROVEMENTS AND CHANGES WITHOUT NOTICE.



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