

DTI
DEMAG TECH INSIDE

GTC-1800EX

PIONEERING. ECONOMICAL. RELIABLE.

EU STAGE V



AT A GLANCE

PIONEERING. ECONOMICAL. RELIABLE.

GTC-1800EX

Max. lifting capacity:
156 t

Main boom:
12.9 m – 60 m

Boom extension:
5 m / 11 m / 17 m / 23 m

Max. sheave height:
85 m

Maximum radius:
62 m

Number of engines:
1



Efficient transportation

SHARING THE LOAD IS BETTER

Page 6

Easy, time-saving self-assembly

THE CRANE THAT SETS ITSELF UP

Page 8

Powerful drivetrain

WHAT OBSTACLES?

Page 10

Flexible counterweight

ALWAYS THE RIGHT AMOUNT

Page 12

Peak performance

COMES OUT ON TOP

Page 14

Innovative Demag crane control

TAKES EVERYTHING INTO ACCOUNT

Page 16

IC-1 Remote for efficient work

MAXIMIZES VALUE GENERATION

Page 18

Comprehensive concept for comfort

COMFORTABLE WORK AT ALL LEVELS

Page 20

Our Tadano services for your success

ALWAYS THERE WHEN YOU NEED IT

Page 22

Why your investment in Tadano cranes is worthwhile

INVESTMENT OR SAFETY? WHY DON'T YOU JUST TAKE BOTH!

Page 24

Product overview

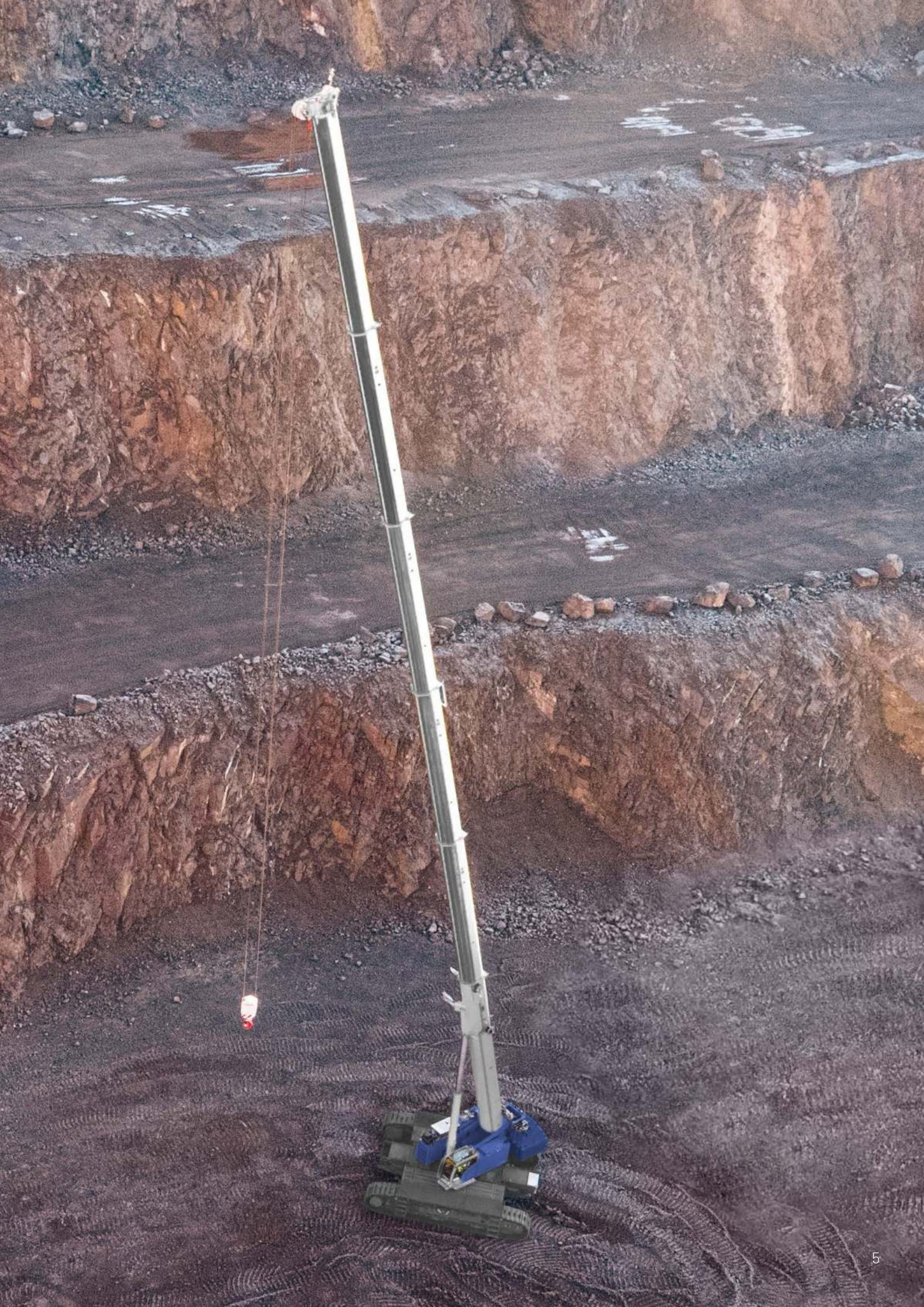
WITH OUR EXTENSIVE PRODUCT RANGE, THE HARDEST PART IS MAKING A CHOICE

Page 26

The GTC-1800EX is an all-rounder with unique qualities. Take the enormous lifting capacity of the 60-meter main boom, for example, even on slopes of up to 4°. Or the GTC-1800EX's efficiency when it comes to transportation and setup, thanks to the remote-controlled self-assembly. The agile carrier, with a traction force of 1450 kN and variably adjustable tracks, can handle all kinds of terrain. Last but not least, the comprehensive access concept – simply exemplary for high occupational safety.



**THE GTC-1800EX.
AT HOME IN
EVERY TERRAIN.**



EFFICIENT TRANSPORTATION

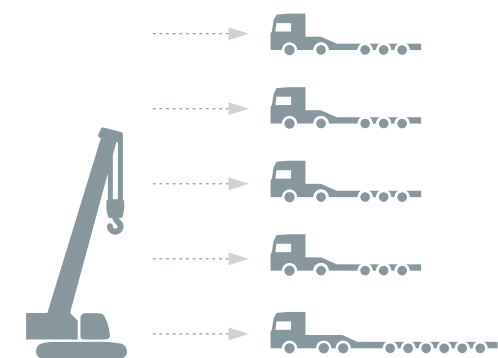
SHARING THE LOAD IS BETTER

INSIGHT



The hydraulically operated outriggers on the GTC-1800EX raise the base crane to a height of 1 meter – with a distance of around 4 meters between the outriggers themselves. This means that low-bed trucks with a wide variety of geometries can simply drive under the base crane and carry it to and from the worksite.

The GTC-1800EX is optimized for transport. The base crane is transported to the site on a low-bed truck, the crane components separately on several standard trucks. This means that separate driving permits are not required in most cases. This also means that the GTC-1800EX can get to the worksite faster – and get to work on lifts that would not be feasible otherwise.



Depending on the application, 1 low-bed truck and 4 standard trucks can carry the base crane and all crane components

OPTIMAL WEIGHT DISTRIBUTION

The 47 t base crane has compact dimensions. These dimensions – 3 meters wide, 3 meters high – make it easy to transport. In addition, it is possible to reduce the weight of the base crane from 47 t to 42 t. The crane components are carried on standard trucks, independent of the base crane. The separately transported components include: both crawler carriers, 2 central ballast elements, and the counterweights with base plate. Thus, the maximum dead weight of around 150 t can be optimally distributed. And thanks to the flexible transport concept, separate driving permits are unnecessary in most cases. The 5-meter jib can also be folded to the main boom making transport even easier.

Of course, the GTC-1800EX's flexible transport concept also makes it easier to get back from the worksite.

SUMMARY

47 tonnes weight

and can be reduced to 42 tonnes

3 meters wide, 3 meters high

Base crane dimensions

150 tonnes

maximum dead weight

EASY, TIME-SAVING SELF-ASSEMBLY

THE CRANE THAT SETS ITSELF UP

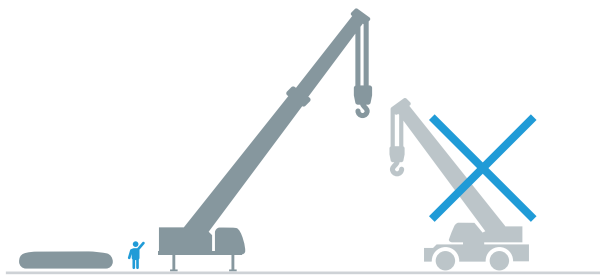
The GTC-1800EX sets up in a jiffy – completely on its own, without the need for an assist crane. This makes the process quick and simple. Highly efficient self-assembly, accelerated through the use of hydraulic or electrical quick couplings, optimally controlled via remote.

A COMPREHENSIVE YET SIMPLE PROCESS

The self-assembly includes all essential crane components: the two 7.5 t central ballasts, both 18.5 t crawler frames each with 1 meter wide double-grouser track shoes, 4 counterweights of 10 t each plus a base plate of 5 t as well as the second hoist. As a result, no work at height is necessary, not when attaching the crawler carriers or during the hydraulic locking of the counterweights.

MINIMAL MANUAL LABOR

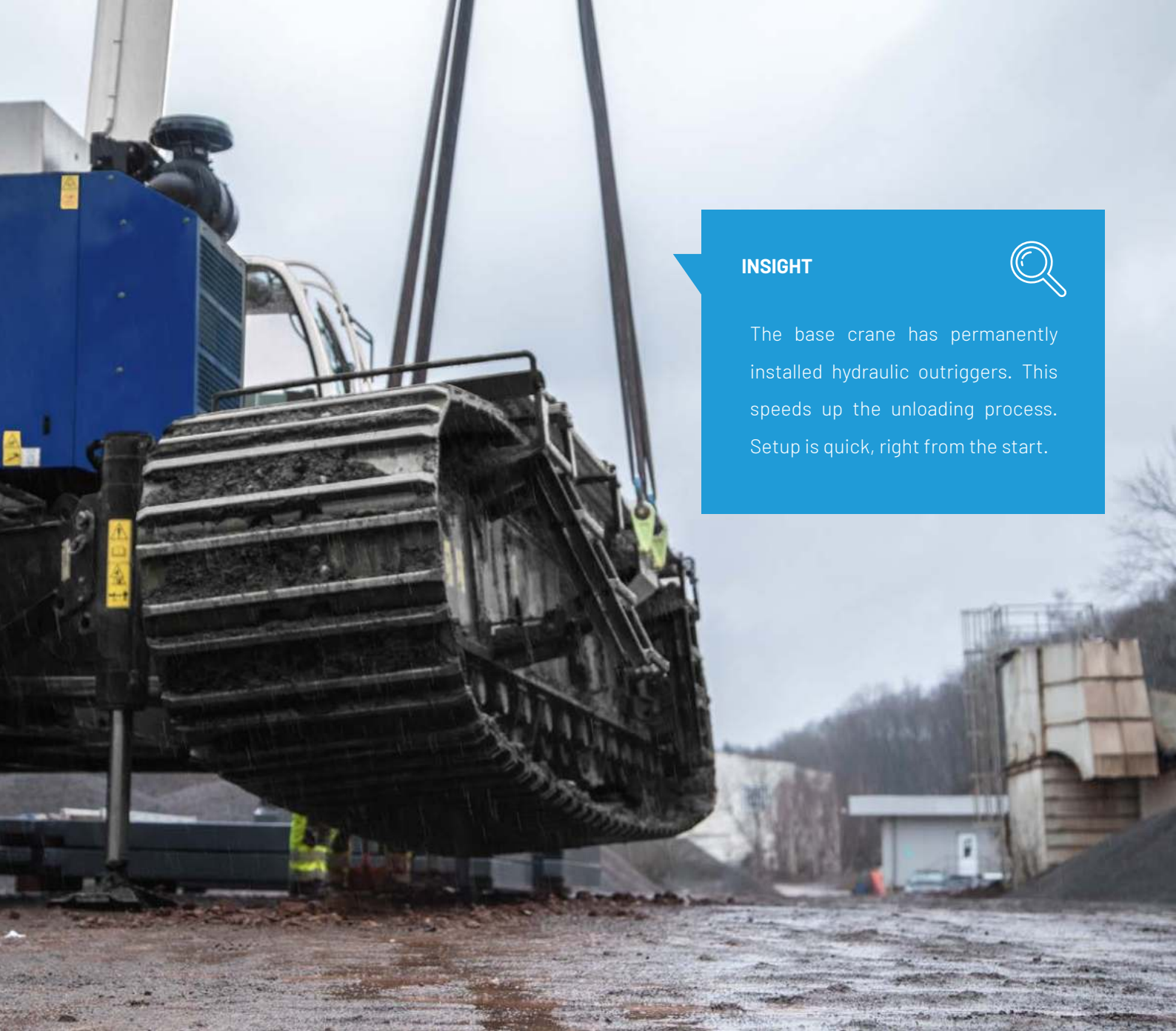
The operator and setup team only have to take care of a very limited set of tasks, since manual work is required only for some separate fastening and securing components. The controlled self-assembly of the GTC-1800EX replaces almost all manual labor and makes setup as ergonomic as possible.



Self-assembly | 1 rigger | no assist crane

The end result: more efficiency instead of more effort





INSIGHT



The base crane has permanently installed hydraulic outriggers. This speeds up the unloading process. Setup is quick, right from the start.

EFFICIENCY UP, COSTS DOWN

3 hours

setup time

1 rigger

on the ground

100 percent self-assembly

no assist crane required

INSIGHT



No matter which track widths the crane operator chooses, no matter whether they are asymmetrical: The Demag IC-1 Plus crane control system always ensures that the crane can utilize its optimal lifting capacity.



POWERFUL DRIVE TRAIN

WHAT OBSTACLES?

Performing well in rough terrain is a core quality of excellent crawler cranes. This requires three things: high traction force, robust track design and extreme maneuverability. The GTC-1800EX combines all three – and adds significant ground clearance, excavator-like driving characteristics, extremely flexible track widths and high lifting capacities on uneven ground.



ON THE MOVE WITH A LOAD

The GTC-1800EX can not only lift high loads, but also move them. Even on slopes of up to 4°, it can still move 50 to 52 t from A to B.

STANDS OUT ABOVE THE REST

The ground clearance of 420 mm in operation, even with installed outrigger pads, expands the potential applications. Uneven construction sites or hall foundations that protrude above the ground are no obstacle.

IMMEDIATE TRACK WIDTH ADJUSTMENT

If the terrain changes, the crane operator can change the track width – immediately, easily, flexibly. The track widths can be adapted to the requirements of the terrain – continuously variable – as easily while driving as when stationary. In addition, the track widths can be adjusted symmetrically or asymmetrically.

Asymmetrical configuration



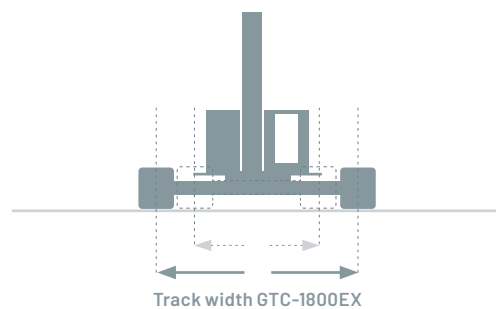
SETS NEW STANDARDS

Thanks to its powerful drive, including a 230 kW MTU EU Stage V engine, the GTC-1800EX has exceptional traction force: 1450 kN, clearly outperforming the competition. No less impressive are the other values, including gradeability of up to 50 percent and a maximum travel speed of 2.3 km/h.

EXCEPTIONAL ALL-TERRAIN OPERATION

Whether with travel pedals or the joysticks, the GTC-1800EX is very easy and agile to operate. The track design is correspondingly robust, durable and low-maintenance. Quality class B9HD applies to the rollers and idlers as well as for the track links and the bolt-on double grouser shoes or flat shoes.

Schematic diagram



The track width is continuously variable, symmetrical and asymmetrical, within the range of 3.5 to 6 meters

FLEXIBLE COUNTERWEIGHT

ALWAYS THE RIGHT AMOUNT

No matter what loads need to be lifted or moved and how strong the main booms are: There is no way around a balanced concept for central ballast and counterweight stack. Especially if the setup is reliable and a mis-configuration is immediately detected.



INSIGHT



The division into separate counterweight slabs allows only as much counterweight to be carried as is necessary for the given lift. This saves on transportation costs.

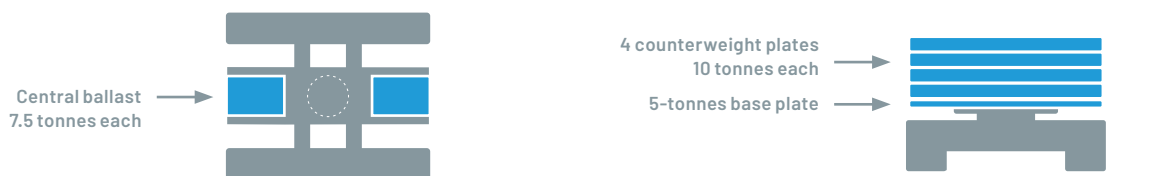
CENTRAL BALLAST

The crane operator can assemble the two 7.5-tonne central ballasts for the carrier from the cab using the crane or, optionally, entirely by remote. As per the poka-yoke principle – which avoids the incorrect installation of individual parts through their geometric properties and dimensions – the two central ballasts are mechanically designed so as to prevent mix-up during setup. A sensor confirms the installation.

COUNTERWEIGHT STACK

The two options also apply to setting up the counterweight stacks on the central ballast: the crane operator takes this into his own hands with the crane, or controls the process via remote control. In any case, there is no additional work at height. Because the operator or the riggers do not have to secure the counterweights on the superstructure. The counterweights are mechanically locked on the crane superstructure using automatic hydraulic cylinders. This connection enables the reliable, robust operation of the GTC-1800EX, even in rough terrain. The counterweight of 45 tonnes is stacked with the help of slings – in one lift or in a total of 5 lifts. The amount of counterweight is automatically measured to ensure this process also runs without errors.

Schematic diagram



Central ballast (from above) and counterweight stack (reverse side)

THAT CARRIES WEIGHT

1 lift

for setting up the complete counterweight

4 identical counterweights

at 10 t

Plausibility check

Checks the correlation of mounted counterweights to lifting capacity

PEAK PERFORMANCE

COMES OUT ON TOP

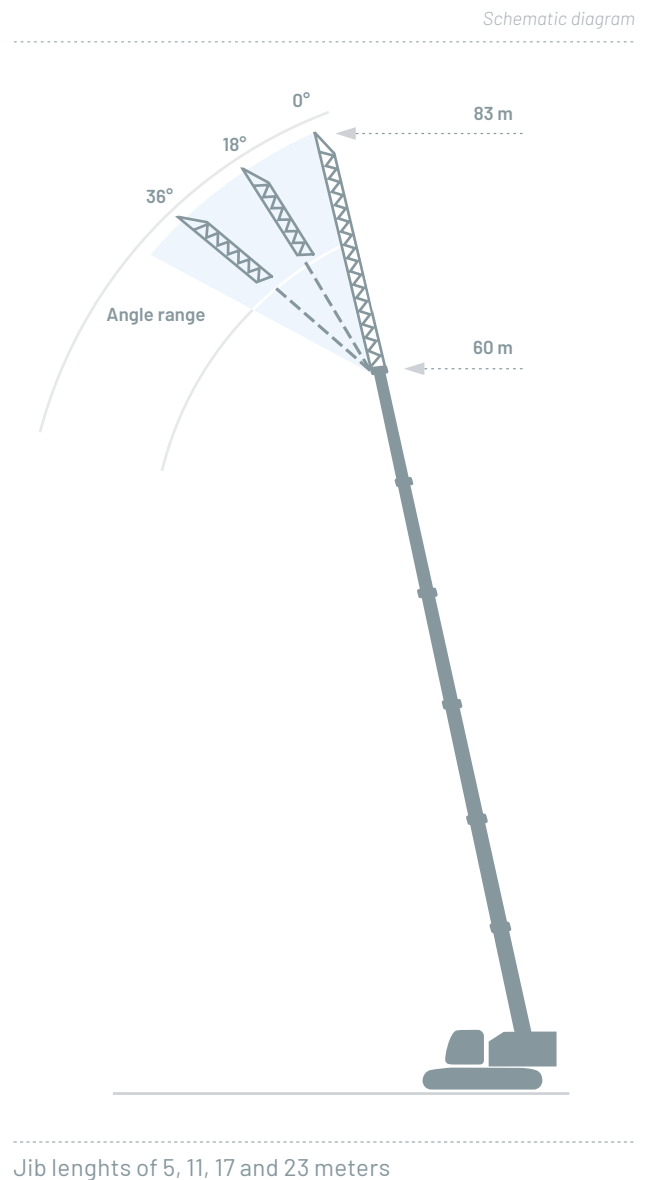
Which crane can take over which lifts? And which of these can the crane easily handle? Capacity utilization and successful work are a question of reach and power. And that's where the GTC-1800EX leads the way.

4 MAIN BOOM EXTENSIONS

Main boom length: 60 meters. The GTC-1800EX has the longest reach in its class. But that's not all: The extensions of 5, 11, 17 and 23 meters enable a system length of up to 83 meters and can be offset – either mechanically with offset angles of 0°, 18° and 36°, or hydraulically – even under load – from 0° to 36° (stepless). Extremely practical for work on site: With the jib luffed down and the main boom retracted, nothing stops the crane from driving under structures like bridges, for example.

VERSATILE USES FOR DOUBLE HOOKS

The 5 meter jib can be used as a runner. Using a double hook expands the potential applications. If you combine both hooks, loads, such as concrete panels can be tilted and accurately positioned. If the crane operator uses the hooks separately, he uses the single-line second hook, which runs over the rooster sheave, for quick lifts up to 13.9 t and the first hook for all heavier loads.





INSIGHT



The 5 meter jib can be folded onto the main boom for optimized transport.

INNOVATIVE DEMAG CRANE CONTROL

TAKES EVERYTHING INTO ACCOUNT

Picking up, lifting and setting down loads is a complex process. In other words: sophisticated physics. Numerous forces must be taken into account. Under these conditions, it's great to have an intelligent assistant at your side to process relevant data and constantly monitor the operating status: the innovative Demag IC-1 Plus crane control system.

FULL UTILIZATION OF LIFTING CAPACITIES AT ALL TIMES

IC-1 Plus determines the lifting capacity of the crane for every position based on the superstructure's slewing angle and the inclination of the ground. This lets the crane operator take full advantage of the maximum available lifting capacity. If the tracks are not fully extended and the counterweight is reduced, the benefit of the control system is even greater. This real-time process determines the lifting capacity for a given radius. And is no longer limited to the lowest value of a pre-calculated 360° load chart. The result: the GTC-1800EX can confidently take on tasks that were previously only possible with larger cranes.

EFFICIENT OPERATION

Additional information on the lifting capacity based on the boom position is displayed to the operator in a colored visual graphic format that provides excellent situational awareness. This includes the information on the max. lifting capacity for +/- 30° slewing angle and radius range on the control screen. And of course, it is also possible to operate the Demag IC-1 Plus using the intuitive touchscreen.

INCREASED REACTION SPEED

One decisive added value of IC-1 Plus is the rapid reaction via automation. This includes, among other things, slowing down the crane movements before the automatic shutdown and preventing overload situations by switching off in good time.

MORE UTILIZATION, MORE COST-EFFECTIVENESS

IC-1 Plus enables lifts with asymmetrical track widths. This means the GTC-1800EX can also carry out lifts with very limited space. And thanks to the dynamic and precise lifting capacity determination, less counterweight is required than with classic 360° capacities. This results in reduced transport costs.



Small component, huge performance:
The Demag IC-Plus 1 crane control system is
the technological basis for lifts of all kinds.



IC-1 PLUS


Lift capacity radar IC-1 Plus

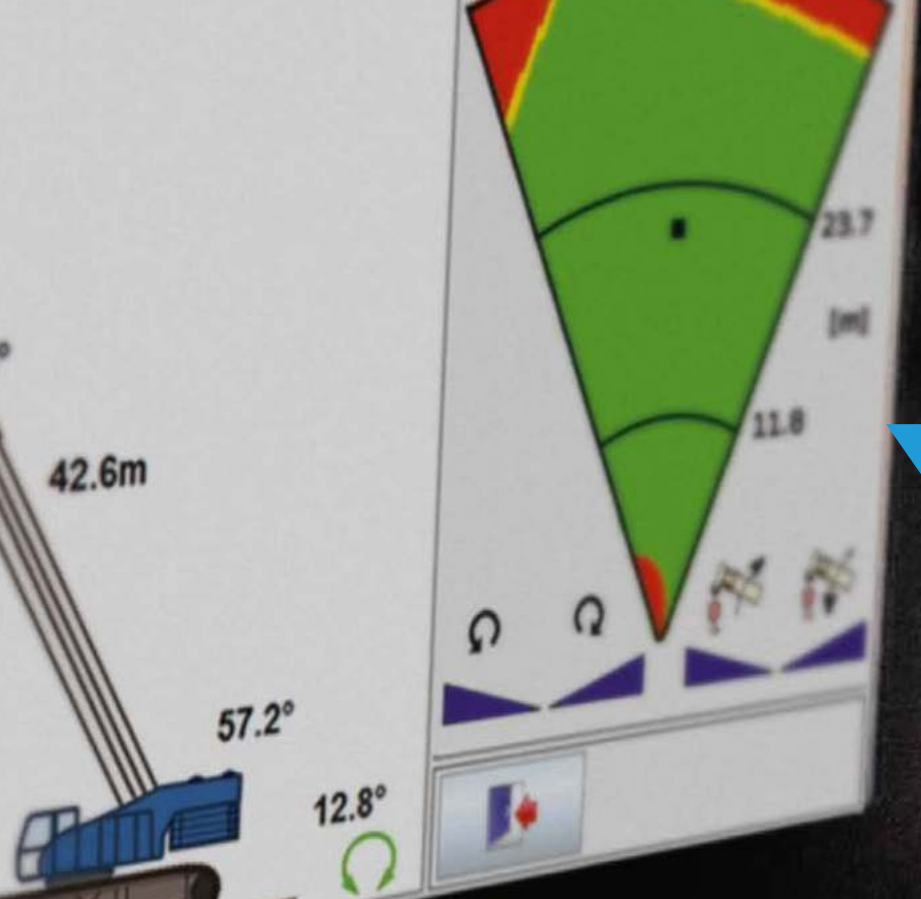



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Load (kip)	RAD (m)	MAX (m)
2.6	22.0	-

 23%
Slewing Angle Related Capacities

 0m/s



42.6m
57.2°
12.8° 

INSIGHT



The Demag IC-1 Plus crane control precisely determines the available lifting capacity based on the measured ground slope and the selected track setting.

INSIGHT



Compact technology for complex tasks. The innovative telematics solution is primarily based on a radio unit with a SIM card that is connected to a central cloud server. This server stores all the data that is important for you, ensuring your access at any time.



IC-1 REMOTE FOR EFFICIENT WORK

MAXIMIZES VALUE GENERATION

Choosing a Tadano crane is choosing more than just a crane. It is choosing worldwide service, highly qualified contact people, and smart solutions that maximize the value generated by every product. The best example of this is the new IC-1 Remote telematics solution.



- ▶ Counterweight configuration
- ▶ Jib length
- ▶ Hook load
- ▶ Main boom length
- ▶ Operating hours
- ▶ Working radius
- ▶ Outrigger area
- ▶ Wind speed



SECURE AND RELIABLE ACCESS TO IMPORTANT DATA

Demag® IC-1 Remote is the perfect way to efficiently connect your office to your work site. You can access all important crane operating data from your computer or your mobile device at any time. Meanwhile, the data will be consolidated and securely stored on a cloud server. IC-1 Remote can work as a standalone service or export data to your existing telematics service using the corresponding API. No matter how you choose to use it, your processes are sure to become more efficient.

The system consists of a radio unit with a SIM card that establishes a connection to a central cloud server. Authorized users will be able to access stored data anywhere where there is an Internet connection, provided they have the appropriate password. An optimal starting position for perfect planning.

IC-1 Remote is available for nearly all Demag all-terrain cranes, most Demag crawler cranes, and the GTC-1800EX. And regardless of the specific crane, this expanded machine connectivity helps increase profitability.

DATA ANALYSIS FOR INFORMED DECISIONS

Boom lengths, counterweight configurations, outrigger spreads, working radii, wind speeds – IC-1 Remote will record 188 crane operating data points and use them to provide you with all relevant information. Dashboards will show the position and status of all connected cranes for a quick overview of your entire fleet. In addition, operating data can be easily converted into various reports, ensuring that key personnel can be provided with the data that is relevant only. IC-1 Remote improves efficiency along the entire crane operation sequence and beyond: Analyzing a completed project and the configuration history of a crane will provide you with the information you need in order to make informed data-based investment decisions. In other words, IC-1 Remote will enable you to invest in the right equipment for your fleet.

HIGHER AVAILABILITY. MORE EFFECTIVE REMOTE SUPPORT

The state-of-the-art Demag telematics solution is designed to help you improve your cranes' availability. Service technicians can see error codes and immediately take care of small problems. Moreover, certain parameters such as crane operating hours and fluid levels can be defined in the system so that they will generate automatic messages.

With IC-1 Remote, you will be able to better monitor and manage your service plans, including scheduling routine maintenance such that it does not interfere with job site procedures. In contrast to comparable systems, IC-1 Remote offers the one-of-a-kind option of taking care of crane malfunctions remotely. Service team members can read the corresponding data from their desks and run error analyses to quickly diagnose and fix problems.



Demag Tech inside! Telematics reimagined – an innovation by the mobile crane experts at our subsidiary.





COMPREHENSIVE CONCEPT FOR COMFORT

WORK COMFORTABLY AT ALL LEVELS

Safety is paramount. However, this is no reason to forego comfort. On the contrary – the GTC-1800EX perfectly combines the two. So the crane operators can enjoy working in comfort at all times.

EVERYTHING ACCESSIBLE

Ascend, descend, stay on one level. Unrestricted and regardless of the position of the superstructure, e.g. during setup, operation, or maintenance – even the track adjustment is no exception: The permanently installed grating platforms move in or out automatically with the crawler frames. The carrier is also fully accessible, regardless of the track width.

The access elements are permanently installed on the crane, along with inclinable ladders. In addition, the positions to attach the included loose ladder and personal fall arrest system are clearly marked on the cab and tanks. This ensures the highest possible ergonomics at every turn.

EVERYTHING COMFORTABLY EQUIPPED

The cab, which tilts by up to 15°, has been designed based on the latest in ergonomics: the crane operator can adjust the dashboard, including the tilting display with programmable touchscreen. 2 foot pedals or 2 joysticks control the tracks. The electropneumatically adjustable driver's seat, air conditioning, the engine-independent, powerful heating system and radio with CD player and blue tooth function provide additional comfort. Should the operator ever want to exit the cab, the integrated, tilting armrest makes getting in and out easier.



Sufficient space: the lockable aluminum box with a volume of 250 liters is intended for tools and personal items. Chain slings are kept in another large, open box.

EVERYTHING IN VIEW AT ALL TIMES

Reacting carefully and quickly from the cab. This requires monitoring all areas of the crane, at any time of day. The camera and lighting concept of the GTC-1800EX are perfectly coordinated for this reason.

Cameras are installed on the rear, on the right side of the crane, on the hoists on the main boom head to enable the observation of the loads and hooks. In combination with the mirror on the left side of the cab, a 360° view is provided. The crane operator can watch the images from 4 different cameras simultaneously on the separate, high-resolution camera display.

When working at night or with restricted visibility due to the weather, headlights illuminate the areas recorded by the cameras as well as the surroundings. This includes 1 powerful LED headlight for the front work area and 3 manually adjustable LED headlights on the cab roof: 2 support the front headlamp, one is directed towards the hoists. There is also 1 headlight on the load hook camera, and 2 headlights at the front of the main boom base section, both adjustable directly via a control button in the cab.

CONVENIENTLY KEEP EVERYTHING IN ORDER

Easy inspection and maintenance: only possible if inspection points and maintenance areas are easily accessible and work can take place even in unfavorable weather conditions. The ergonomic inspection points located at working height take care of the former, while large covers as well as motor, hydraulic and electrical cabinets ensure the latter.



Together, the camera and light concept enable the best view

PROFESSIONAL. QUICK.
UNCOMPLICATED.

OUR TADANO SERVICES
FOR YOUR SUCCESS

ALWAYS AVAILABLE IN CASE YOU NEED IT

You don't know the Tadano Service yet? Thank you, we are happy about this compliment for the robust technology and high reliability of our products. The GTC-1800EX has been designed for a long service life outside of the service workshop.



OUR SERVICE TO CUSTOMERS

The Tadano Customer Service is available to you by telephone on a 24/7 basis, either directly at the factory or at one of our numerous service subsidiaries around the world. If your problem cannot be solved by consultation, we will be with you as soon as possible, bringing the right spare part with us or sending it to you. We always have 22,000 high-quality spare parts in stock in order to keep you and your crane operational at all times.

We will help you in any case
Standard case:



The service offers may vary depending on the country.

The Tadano Service provides you with ongoing training.



TECHNICAL TRAINING



We show crane operators and service personnel how to perform maintenance work and remedy minor technical faults themselves. This makes them independent of third parties. The certified training usually lasts five days, with clear learning content in the training center and practical exercises directly on the crane.



MOBILE CRANE DRIVING LICENSE



The stronger, more modern and more versatile mobile cranes are today, the more important it is for crane operators to receive thorough training. Our training program comprises ten working days of theoretical and practical training by qualified personnel. At the end there is a qualified examination by the employers' liability insurance association and a certificate of qualification as a mobile crane operator.

WHY YOUR INVESTMENT IN TADANO
CRANES IS WORTHWHILE

INVESTMENT OR SAFETY? WHY DON'T YOU JUST TAKE BOTH?

A reliable partner for all the ups and downs of lifting is invaluable. With us you have an economically sound and reliable business partner at your side – around the world, around the clock, around your crane. Over 5,100 Tadano employees pursue a common target on a daily basis: **Lifting your dreams.**



Tadano worldwide



By integrating the Tadano and Demag brands into the Tadano Group, we have combined German engineering talent and innovation with Japanese quality, and these are characteristics that we are continuously and consistently developing. Average annual revenue of 1.2 billion euros over the last ten years and more than 500,000 manufactured and successfully delivered lifting equipment units speak for themselves. Based on high compliance standards, our contribution to your success focuses on **three pillars**:



SAFETY. THIS IS WHAT YOU INVEST IN

Safety is the top priority in the design, the construction, and the operation of our cranes. All other values are based on this, because safety always matters: whether the crane is traveling, lifting or undergoing service. All components and functions are only available from us if they can be safely used and operated.



QUALITY. THIS IS WHAT WE LIVE

Absolute reliability and durability will convince you in the day-to-day operation of your Tadano crane: for example, carefully laid cables without chafing points, powder-coated, permanent paintwork, as well as continuously optimized business processes and services.



EFFICIENCY. THIS IS WHAT YOU CAN EXPECT

Tadano is present worldwide with 11 production sites, more than 29 branches and almost 100 international sales and service companies. Our outstanding reputation for robustness, quality and reliability is your advantage, which pays off in high resale potential and values.



COMPLIANCE. THAT IS SOMETHING YOU CAN RELY ON

Compliance with legal requirements and high moral standards make up the foundation of our business. Because only uncompromising compliance standards enable the well-known safety, quality and efficiency of our products.

WITH OUR EXTENSIVE PRODUCT RANGE, THE HARDEST PART IS MAKING A CHOICE



From 40 to 400 tonnes, from 2 tracks to 6 axles, from light to long: Tadano provides you with cranes for many well-known terrain types, application scenarios, and load variants. And for just as many unknown ones.





A complete **overview of our products** can be found at www.tadanofaun.de/en/products



GTC-1800EX

THAT'S WHY!

The GTC-1800EX. Pioneering because it is extremely powerful. Economical because it optimizes transportation and setup. And reliable because it can be driven confidently in any situation.

- › GREATEST REACH IN ITS CLASS
- › STRONGEST TRACTION FORCE IN ITS CLASS
- › INNOVATIVE CRANE CONTROL
- › SHORT SETUP TIMES
- › SIMPLIFIED TRANSPORT LOGISTICS



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