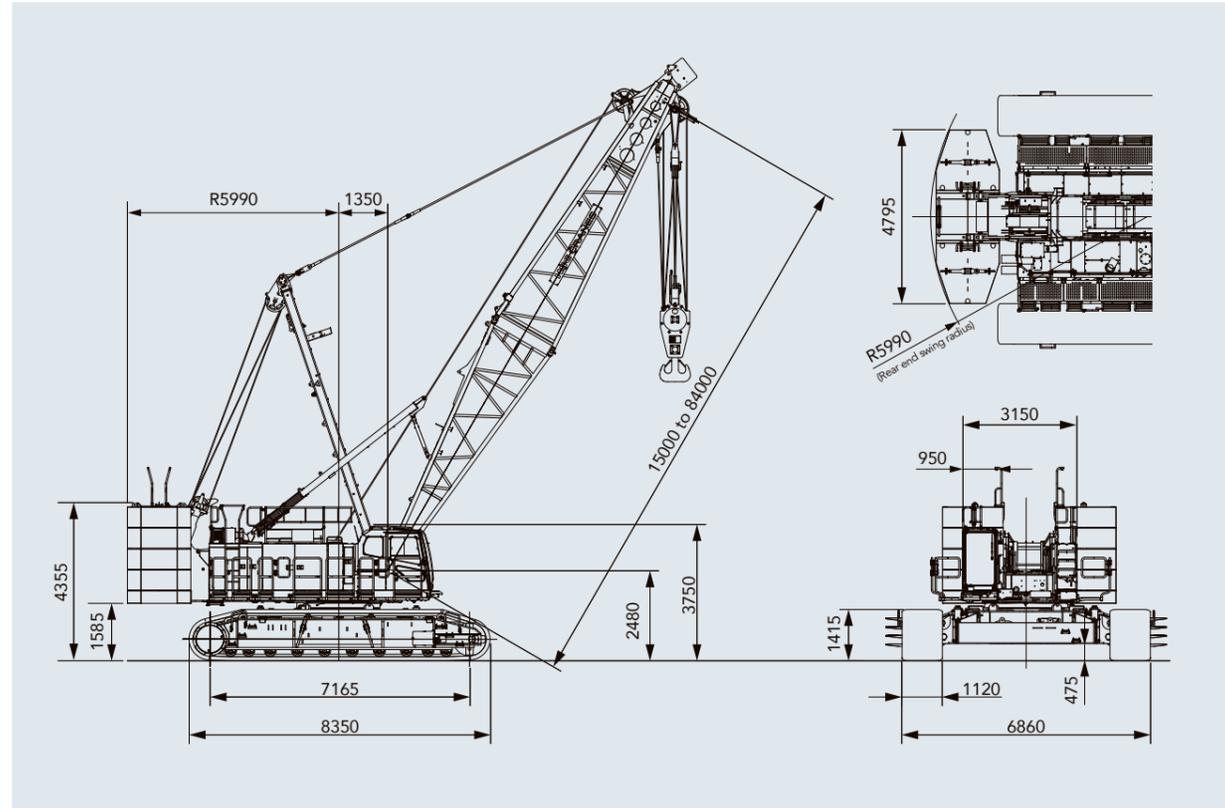


General dimensions

Units: mm



Specifications

Model		SCX1800A-3	
Application		Liftcrane	
		With Heavy Duty Top	With STD Top
Max. lifting capacity	t × m	175 / 180 x 4.1 *1	160 x 4.5
Basic boom length (with heavy duty top)	m	12	—
Basic boom length (with STD top)	m	—	15 (21with auxiliary sheave)
Max. boom length	m	—	84 (78 with auxiliary sheave)
Crane jib length	m	—	13~31
Max. boom + crane jib length	m	—	75 + 31
Rope line speeds *2	Front/rear main drum (rated with 12 t load) Boom hoist drum	m/min m/min	110 (45) 44
Swing speed	min ⁻¹ (rpm)	1.8 (1.8)	1.8 (1.8)
Travel speed high/low *3	km/h	1.1 / 0.6	1.1 / 0.6
Gradeability	% (°)	30 (17)	30 (17)
Engine Make & model		Cummins QSB6.7 (Stage III A / Tier 3)	
Max. output	kW/min ¹ (PS/rpm)	201/2,000 (273/2,000)	
Ground contact pressure *4	kPa (kgf/cm ²)	103 (1.05) w/basic boom, 175 t hook block	102 (1.04) w/basic boom, 160 t hook block
Operating weight *4	t	169 w/basic boom, 175 t hook block	167 w/basic boom, 160 t hook block

Notes: 1. 180 t lifting capacity is limited edition, and requires special equipment (*1). 2. Rope line speeds vary under load and operating conditions (*2). 3. Travel speed is based on flat, level and firm supporting surface with no load and basic boom (*3). 4. Handrail (folding type), with catwalk (*4).

- We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.
- Units in this catalog are shown under International System of Units (SI). The figures in parenthesis are under the older British Gravitational System of Units.
- Illustrations may include optional equipment and accessories, and may not include all standard equipment.
- Standard equipment and accessories may vary by country and region.

Sumitomo Heavy Industries Construction Cranes Co., Ltd. has been abbreviated as "HSC" throughout this catalog. "HSC CRANES" is a brand of Sumitomo Heavy Industries Construction Cranes Co., Ltd.

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Printed in Japan
 2410©01H.EA399

SCX
1800A-3



Innovative features to brighten tomorrow.

The long-awaited 175 t class crawler crane SCX1800A-3 is finally here to cater to the surge in social infrastructure projects and construction sites around the world. And it comes packed with the wealth of knowledge that HSC has developed over the years as experts of crawler cranes. In addition to outstanding performance and ease-of-use as a new-generation model, the SCX1800A-3 excels in all aspects—from safety, transportability, energy efficiency and so much more. The true value of such innovation will shine through the more it is used on tougher worksites. SCX1800A-3...created to build the world of tomorrow. Discover the immense value the crane is capable of across a broader range of applications.

SCX 1800A-3





SCX1800A-3 PERFORMANCE

Exceptional capabilities to streamline worksites.

The SCX1800A-3 provides exceptional lifting capabilities with a compact body.

The main boom and crane jib combination has a reach of up to 75 m + 31 m, covering a wide working area to further streamline operations on worksites. An auxiliary sheave (2 sheaves) option is also now available to provide greater lifting performance, catering to increasingly diverse customer requirements.

Broad range of attachments

To make the SCX1800A-3 suited to various crane operations, a broad range of attachments are available to suit different types of work. Specifications can be tailored to suit customer requirements, including a HD boom for heavy duty lifting, the highly versatile standard boom, or crane jib for working over a wider area.

Auxiliary sheave (2 sheaves) OPTION

Lifting capabilities can be doubled over one auxiliary sheave by selecting the two-auxiliary sheave option, to suit a broad range of work requirements (set with standard boom, boom length at 21 to 78 m).

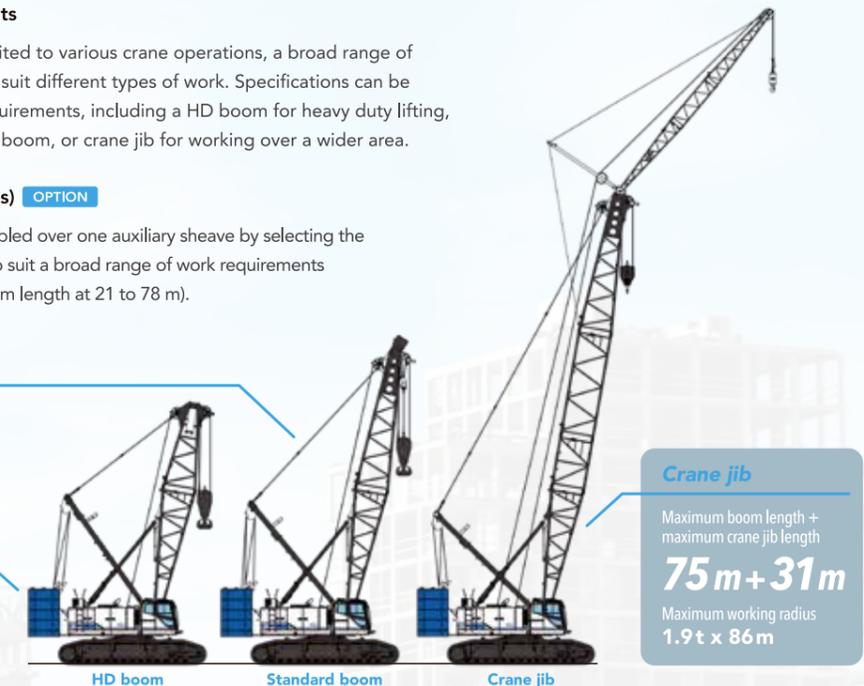
Standard boom

Maximum lifting load (rated)
160 t x 4.5 m
Maximum boom length
84 m

HD boom

Maximum lifting load (rated)
175 t / 180 t* x 4.1 m

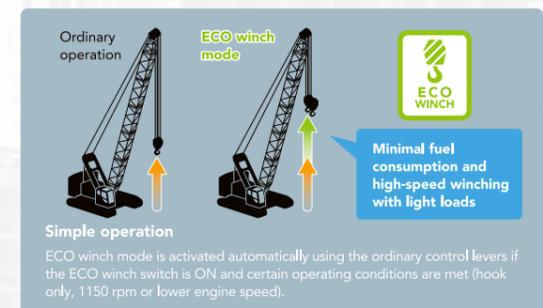
*180 t lifting capacity is limited edition, and requires special equipment.



Powerful winch

A 12 t rated line pull winch is included, providing a 45 m/min line speed with a rated 12 t load for ample performance during heavy duty work or simultaneous movements. And when accompanied with the optional brake that provides a better operating feel, the result is superior workability. A winch with free fall function is also available as an option.

A 13.5 t rated line pull winch (rope ϕ 28 mm) is optionally available.



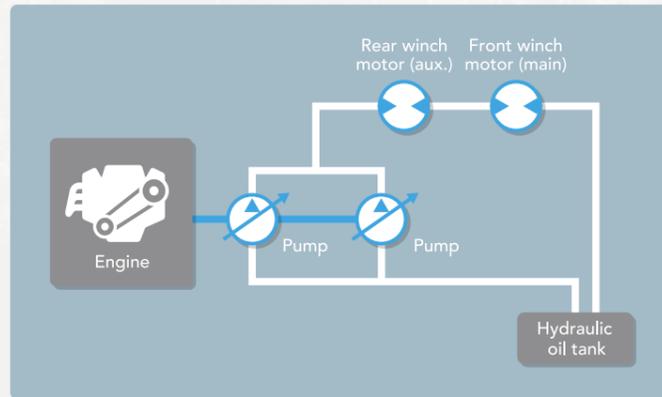
Eco winch mode with high-speed winching and low-fuel consumption

Also included is a new Eco winch mode, which allows high line speeds under light loads without having to increase the engine speed (low rpm). This mode delivers outstanding workability in situations such as high-elevation construction sites and multiple rope hanging operations and also limits fuel consumption and noise as engine speed can be kept at a minimum.

SCX1800A-3 CONTROL

High-precision, exactly as intended. A level of control available to all.

Flexible operation and performance makes the crane truly shine during heavy lifting or precision jobs. The crane has been designed so that it can be operated by anyone, exactly as they intend to, instead of relying on the operator's level of experience or skill. Outstanding usability has been the key behind development, and can be experienced at your work site, wherever in the world that may be.



Combined hydraulic circuits

The hydraulic system uses HSC's own unique combined hydraulic circuit. By increasing and optimizing the pump pressure through the use of a mixed circuit to control the hydraulic oil from two hydraulic pumps, the sense of operability in travelling, hoisting/lowering, swing and boom hoisting can be enhanced. Even for multiplex operations, the latest hydraulic control system is able to support all tasks efficiently through priority control matching the needs. This helps to achieve a sense of operability that matches the intent of the operator.



New multiple wet-disc type brake with improved control feel **OPTION**

The optional brake uses a new multiple wet-disc type that offers better control. A hanging brake pedal gives the operator smooth and precise response. Reliable braking performance is now a reality even under high loads, all while minimizing disc temperature. The system can even be used for heavy digging and foundation work that utilizes free-fall operation*.

*Free-fall function is an optional extra for models equipped with the 12 t rated line pull winch. See the Spec. catalog for more details.



Control dials

Fine speed control dials for operations such as hoisting, lowering, swinging and boom hoisting are positioned in a central location on the left side console. Operations can be adjusted at will to suit the particular job.

Swing neutral brake **OPTION**

Switches for swing free/swing brake when the control lever is in the neutral position have been installed. When the swing lever is in the neutral position, the operator may choose between free or brake depending on the work and personal preferences.



Swing brake operation pedal **OPTION**

A swing brake operation pedal has been employed to ensure precise swing control under strong-wind situations. This maintains a high level of control when swinging the cab around, even on the harshest of work sites.



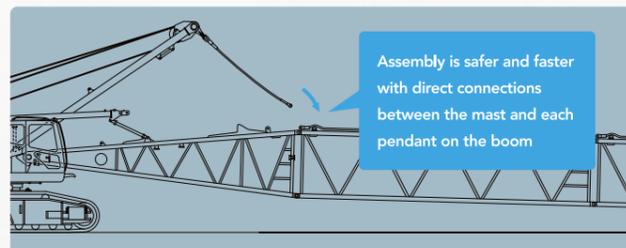


Photos may differ to the specifications of available products.

SCX1800A-3 TRANSPORTABILITY

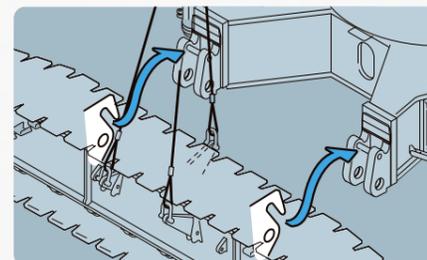
Speedy and smart. Exceptional transportability and assembly guarantees better results.

The crane represents exceptional value when transporting it between sites. Performance has been retained while offering a design that allows efficient transportation, assembly and disassembly. This level of transportation and assembly combine to drastically improve efficiency on any work site.



Redefining the assembly and disassembly process with the mast system

The use of a mast system that allows the entire mast to be lowered with the upper spreader structure drastically improves pendant joint work and the boom assembly process. Other features such as similarly shaped counter weight make assembly and disassembly processes easier, while labor-saving hydraulic hose connections and safe operation mean the crane is an all-round winner when it comes to assembly.



Hook-on and joint pin design for crawler side frame assembling

A detachable crawler side frame system designed for easy attachment and removal has been used. Simple structure, quick-release cylinders are designed to make assemble/disassembly easier, with a priority placed on safety during assembly.



Counter weights and boom can be transported together

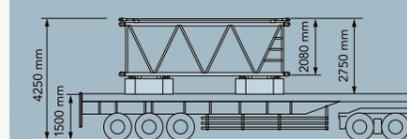
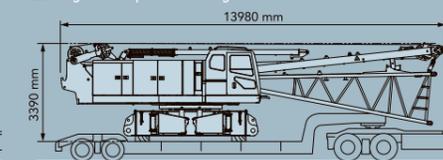


Image of transportation configuration



Identical counter weight shapes

The counter weights are of identical shapes (excluding the base weights) for the left and right sides, to help ease the assembly process. The weights can be stacked on either side and in any order, ensuring assembly can be completed quicker. This symmetrical design also enhances efficiency during transportation—the height of individual weights has been made lower so that they can be transported together with the boom insert (transportation must comply with the relevant regulations of each country).

Transportation weight of just 40.8 t

The total weight during transportation—including the lower boom, winch rope and mast—has been kept to 40.8 t (crane body itself at 27.6 t), while also remaining within a 3.2 m transportation width.

Reduction counter weight specification **OPTION**

Reduction counter weight specification are available as an optional extra to provide added flexibility for a diverse range of worksites, including high locations and within tight internal areas where operating weight is limited or restricted (with counter weight detector).

Counter weight	Std	-1 layer	-2 layers	-3 layers
Total operating weight	169 / 167 t	153 t	139 t	126 t
Ground contact pressure	103 / 102 kPa	93.2 kPa	85.3 kPa	76.5 kPa

Note: Reduction counter weight specifications are configured to suit crane specifications excluding the crane jib.

Designed for ease of transportation and assembly

[Transportation]

- Crane can be loaded directly on the trailer without wooden blocks
- Lashing lugs during transportation
- Storage lugs for hydraulic hoses of traveling device
- Lugs for boom lifting

[Assembly]

- Multi-assembly stage monitoring system
- Boom foot pin positioning guide
- Boom foot pin removal/installation cylinder **OPTION**
- Hydraulic shoe tension unit **OPTION**
- Boom connect pin storage compartment

[Other]

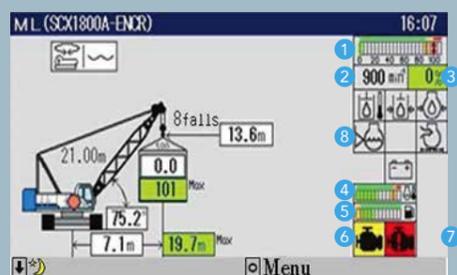
- Remote control box storage for jack with car body

SCX1800A-3 SAFETY

Reliable and precise lifting with advanced safety features

Improving safety should come first and foremost. A simple, easy-to-view interface has been designed to ensure that information is provided to the operator in the most reliable way possible. Various accident prevention measures and multiple redundant safety devices have also been included to provide comfort for the operator. Rest assured that your work is safe, backed with a full complement of advanced safety equipment.

Moment limiter display



- | | |
|--------------------------------------|---------------------------------|
| 1 Load ratio indicator (%) | 6 Blower condition |
| 2 Engine speed | 7 Air-conditioner setting state |
| 3 Load ratio (%) | 8 Warning icons |
| 4 Water temperature (engine coolant) | |
| 5 Fuel gauge | |

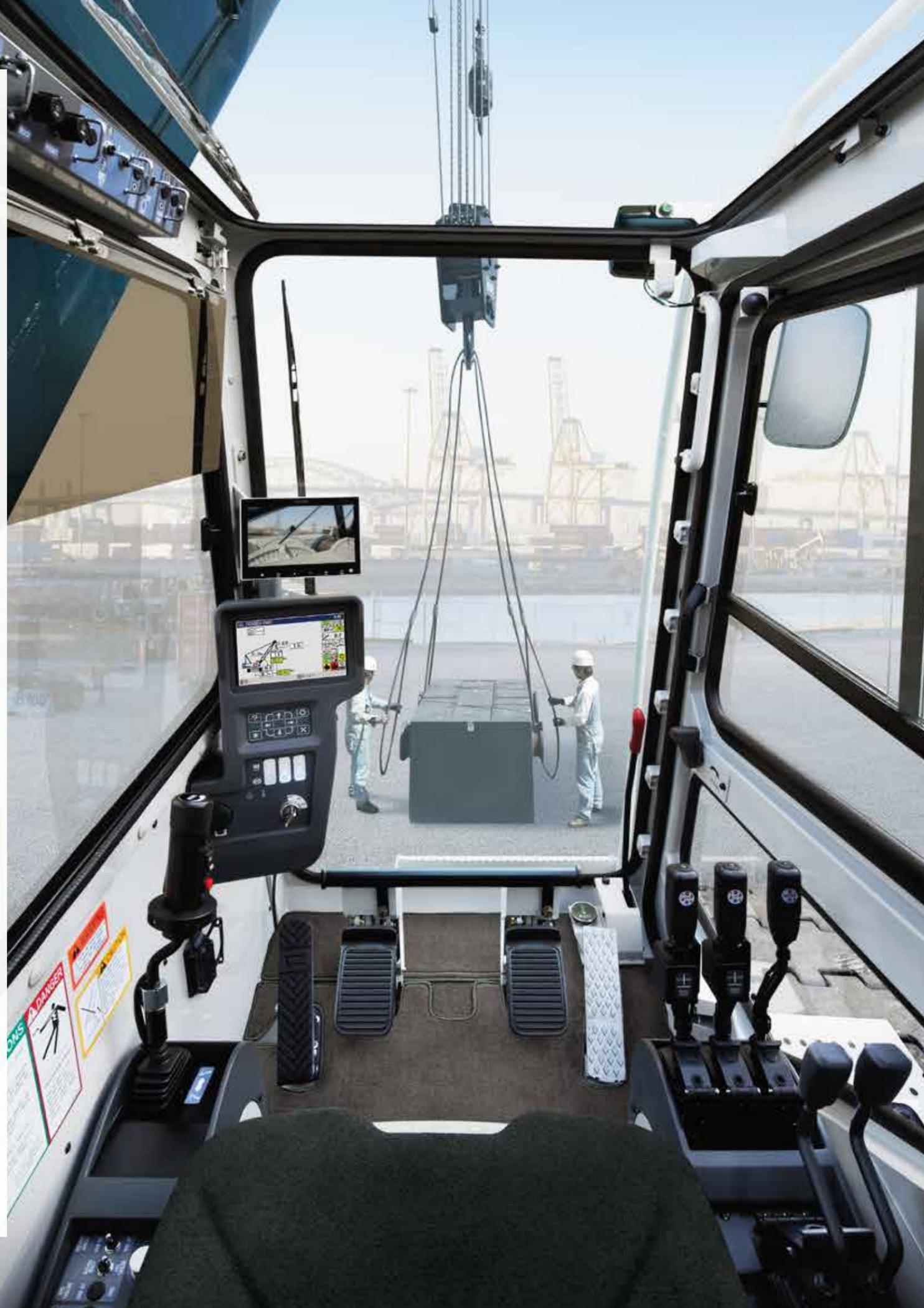
Moment limiter with large screen display

A large screen display has been used offering excellent visibility and field of view of any job. A host of items can be shown, while a simple display layout ensures that information is provided to the operator properly. The display has also been designed with an interactive interface to follow any movement of the crane from a safety perspective, which helps to limit unintended operations and maintain utmost safety.

ML Anti-two block

A new anti-two block using a lifting height indication device is offered as a standard equipment. When a height restriction is set in advance in the lifting height meter, the slowdown function will kick in as the restricted height is approached to prevent hook overhoist. Together with the anti-two block switch, the lifting height moment limiter provides a redundant level of safety against hook overhoist, leading to improved safety.

Note) This function plays a supplementary role to the existing moment limiter and use of this equipment alone is prohibited by laws and regulations.



Swing restriction unit OPTION

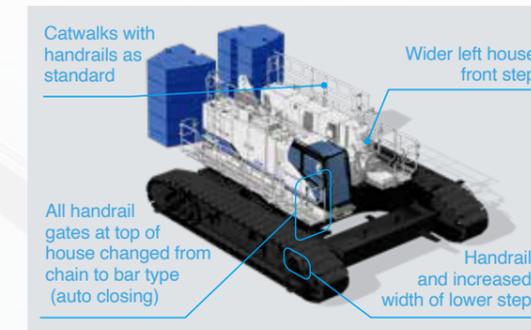
This device prevents the crane from swinging into objects and causing damage, by notifying the operator of the swinging range and automatically stopping the crane when required. The result is an added level of safety when working in tight areas.



Drum and rear view monitor system OPTION

A drum and rear view monitor system is available to help check winching and conditions behind the crane. The wide screen has been designed for

ease of viewing, and can switch between cameras to make checking the operation of each section easier.



Safer and smoother access

Catwalks with handrails are now included as standard. Other changes to further enhance accessibility include a handrail added to the lower step, wider front step on the left of the house, and the use of bar type gates. Better accessibility ensures the utmost safety for all personnel working on job sites.

Note) Catwalks with no handrails are also available.

Other safety functions and devices

- Winch drum lock (front, rear)
- Individual winch operation lever locks
- Three color percentage indicator OPTION
- Anti-two block
- Gate lock lever
- Firewall
- Emergency engine stop switch
- Wider skywalk (made by FRP) OPTION

Enhanced visibility and smooth operations for greater comfort peace of mind.

Designed to make the stressful job of operators, more stress-free and more comfortable. Excellent visibility is just the start, and with easy-to-use accessories and an ergonomic control layout, the SCX1800A-3 is designed to make things smooth. These all help to reduce operator fatigue, while at the same time increasing comfort and functionality for maximum performance, day-in, day-out.



Better visibility in all directions

The cab has extra-wide windows to improve visibility in all directions. Green tinted safety glass has been used all round to protect the operator from UV rays and objects that may have come free during operation. The wipers now sweep a greater area to make work easier, even when working in rain.

Photos may differ to the specifications of available products.



Wide range of seat adjustments

More comfortable operator seat

The operator's seat provides superior comfort—the lower headrest caters to operators wearing helmets, while a new seat heater further increases comfort during work.



Insulated roof window glass

New insulating glass has been used for the roof window to shut out more than 90% of UV and mid-infrared light. This helps to prevent sunburn and ensure a more comfortable working space by limiting the rise in temperature.

Various items for more comfortable work



Cross operation lever **OPTION**



Sunshade



Front operation lever (with lever lock) **OPTION**



Cab roof window guard **OPTION**
Note) The photo is a different color to the standard color (black).



Control levers with drum rotation sensor

Control levers are designed for better operation with optimization made to the pitch, and a winch drum rotation sensor is also included. Any rotation in the winch is conveyed to the operator via the levers, for full control required for precision hoisting jobs. The result is smooth winching where accuracy is vital, such as positioning bolts with the crane.



Upper cabin controller

Controllers for the wipers, work lights, drum lock and other functions have been installed higher up near frequently used controls for a more natural layout.

Useful and functional interior accessories



Outside-air intake air-conditioner



Cup holder



Radio with Bluetooth®

* European specification only.

* The Bluetooth® work mark and logos are registered trademarks owned by Bluetooth SIG, Inc.



Storage shelf

SCX1800A-3 ECOLOGY

Clean-running and energy-efficient. Eco-friendly performance transforming society.

Machinery creating tomorrow's foundations are built on the leading technology available today. At the heart of the SCX1800A-3 is a clean-running engine fine-tuned to be eco-friendly working together with a sophisticated, energy-efficient control system. The result is lower fuel consumption linked to reduced running costs, and operations backed with outstanding usability.



Clean-running engine

The SCX1800A-3 is powered with a clean-running Cummins engine developed with high-pressure fuel injection and other features for lower emissions to comply with EU Stage III A and U.S. Tier 3 emissions regulations. Remarkably low exhaust emissions and excellent fuel economy work in tandem to produce lower CO₂ emissions, for a truly eco-friendly powerhouse.

Clean performance (JPN)

NOx+HC (g/kWh)	PM (g/kWh)
0	0.17
4	0.17

Stage III A, Tier 3

Excellent fuel economy for low-cost operations

Powered by the latest high-efficiency engine, and equipped with an advanced ECO winch and auto idle stop function to perform operations using less fuel. Unnecessary fuel consumption has been reduced significantly so that there is less impact on the environment, while low-cost operations ensure greater earning potential for customers.



Compatible with biodiesel
The engine can also run on biodiesel and other BDF or HVO.

Note: Use HVO that meets European specification EN15940. BDF: Bio Diesel Fuel HVO: Hydrotreated Vegetable Oil Contact our distributor for more details.

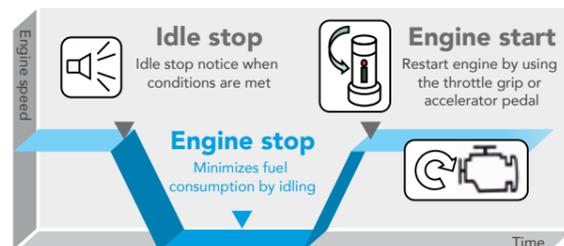
Other fuel efficiency technology



Minimizes excess fuel consumption during work
Auto idle stop function



Greater work efficiency by minimizing unnecessary movement with light load work
ECO winch mode (refer to P. 5 for details)



REMOTE SENSING

Greater safety and stability for machines working non-stop.



REMOTE SENSING as a watchful eye on the machine

Information on operating machines can be viewed at any time over the internet. Accurate data on operating conditions and parts replacement status help to reduce downtime and boost operating efficiency. The system also helps to cut maintenance time and costs with comprehensive machine management.



Map view

Maintenance data

Photos are for illustration purposes and may differ to actual products.



*Photos may differ to the specifications of available products.