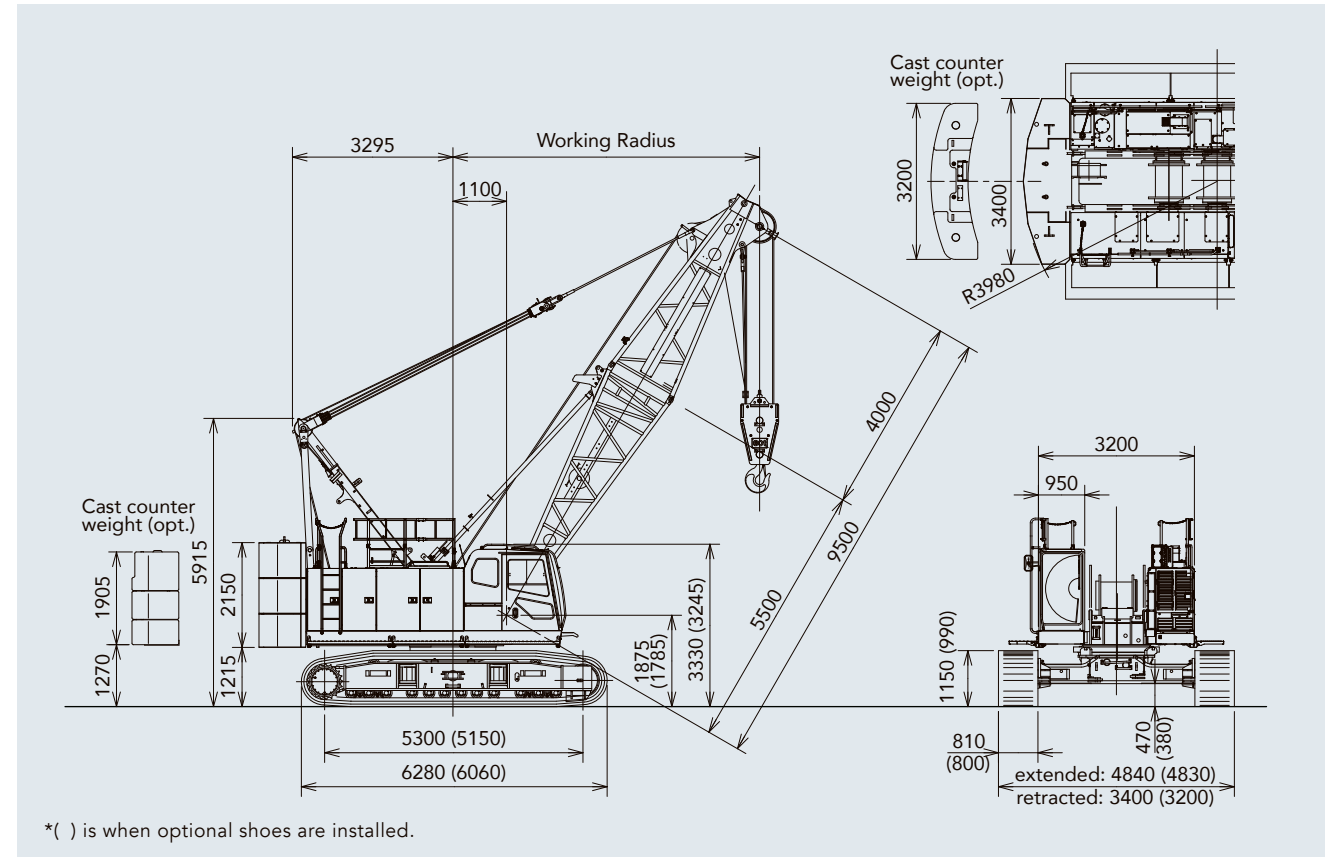


SCX800A-3

General dimensions

Units: mm



Specifications

Model		SCX800A-3	
Application		Liftcrane	Clamshell
Max. lifting capacity	t x m	80 x 3.3	—
Basic boom length	m	9.5	9.5
Max. boom length	m	54.5	21.5
Crane jib length	m	9~18	—
Boom + crane jib length	m	45.5 + 18	—
Rope line speeds (*1)	Front/rear main drum (rated with 7 t load)	m/min	105 (80)
	3 rd winch (rated with 7 t load)	m/min	90 (40)
	Boom hoist drum	m/min	67
Swing speed	min ⁻¹ (rpm)	5.0 (5.0)	
Travel speed high/low (*2)	km/h	1.8 / 1.2	
Gradeability	% (°)	30 (17)	
Bucket capacity	m ³	—	1.2
Allowable gross weight	t	—	6.5
Max. digging depth	m	—	36
Engine	Make & model	Cummins B6.7 (Stage V)	
	Max output	kW/min ⁻¹ (PS/rpm)	
Ground contact pressure	kPa (kgf/cm ²)	87 (0.88) w/basic boom, 80 t hook block	90 (0.93) w/basic boom, 1.2 m ³ bucket
Operating weight	t	76 w/basic boom, 80 t hook block	80 w/basic boom, 1.2 m ³ bucket

Notes: 1. Rope line speeds vary under load and operating conditions (*1). 2. Travel speed is based on flat, level and firm supporting surface with no load and 9.5 m basic boom (*2).

- 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.

Address inquiries to :

 Sumitomo Heavy Industries Construction Cranes Co., Ltd.
 9-3, Higashi-Ueno 6-chome, Taito-ku, Tokyo 110-0015, Japan
 Phone: 81-3-3845-1387 Facsimile: 81-3-3845-1394
<https://www.hsc-cranes.com>

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**SCX
 800A-3**

Meets European Stage V
 Non-Road Emission Standards



Setting Out for New Heights.

Leading the way to the future, for any type of work, on any worksite. The SCX800A-3 was developed for greater eco-friendly operation and work efficiency. Now powered with an engine that clears the world's toughest EU Stage V emission regulations, it is even more capable on worksites as its clean performance is easy on both the environment and society alike. Featuring the same compact style that is suited to any location, the SCX800A-3 controls have been fine-tuned immensely for excellent work efficiency and outstanding running costs. A machine that truly revolutionizes any workplace it is operating on. Designed to take your business to new heights; sophistication and maneuverability under your control.

- Clean engine Stage V
- Rear end radius less than 4m
- Increased operability

SCX 800A-3

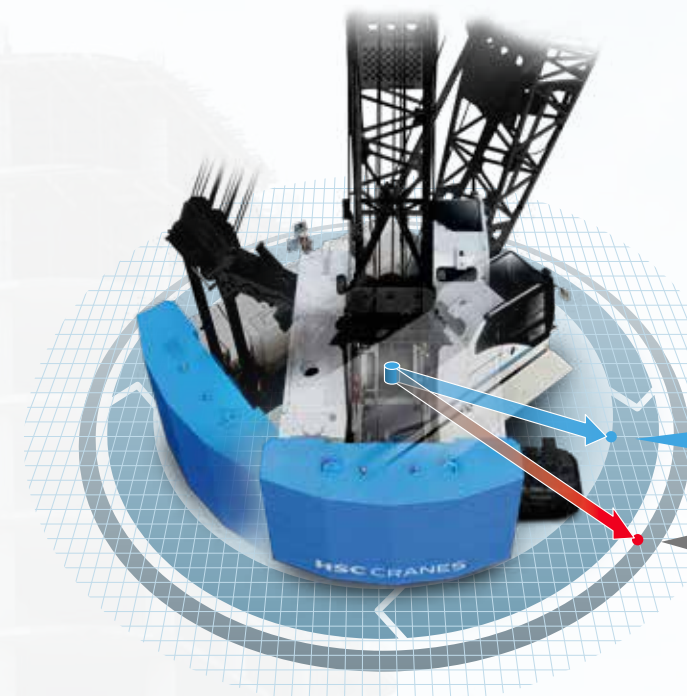




SCX800A-3 PERFORMANCE

High performance and compact. Operating capabilities to suit any worksite.

As a new generation of crane, the goal was to develop operating performance to meet any worksite, and comply with any requirement there. The SCX800A-3 has been designed with even better work efficiency and outstanding mobility. Its optimal power and performance are designed to suit a wide range of worksites, making it even more versatile wherever it goes.



Compact body for tight worksites

The SCX800A-3 has the smallest rear end radius in the 80 t crawler crane class. Powered with the latest clean-running engine, it retains the same compact body size as its predecessor, with a design to suit operations on tight worksites under outstanding levels of safety. Suitable for operating almost anywhere, the SCX800A-3 is engineered to expand on any business opportunity.

Rear end radius
SCX800A-3 3980 mm

The smallest rear end radius in its class* at less than 4 m means it can slot into any worksite!

Rear end radius (100 t class)
SCX1000A-3 4300 mm

* 80 t class crawler crane



New model winch designed for efficient and stable work

Both the front and rear winches use a new 7 t rated line pull winch (free-fall function is an optional extra). The same 23-winding wide drum that is easy on ropes has been used as with the previous model, with a 37 m line length available in the first winding layer. The drum is designed to prevent ropes tangling when working with the bucket.

An 11 t rated line pull winch (rope ϕ 26 mm) is optionally available.

3rd winch **OPTION**

A 3rd winch with free-fall function is available as an optional extra. Featuring the same 7 t rated line pull as the front and rear winches, it comes with a large winding capacity 180 m long rope. This allows the entire casing driver to be hoisted.

Multi-use reduction counter weight specification **OPTION**

Reduction counter weight specifications are available as an optional extra to provide added flexibility for a diverse range of worksites, including platforms and piers where weight restrictions apply (with counter weight detector). Fewer counter weights and a lighter design mean the crane is capable on even more sites.

Counter weight (piece)	(3)	(2)	(1)	(-)
Total operating weight	76 t	66 t	57 t	48 t
Ground contact pressure	87 kPa	76 kPa	65 kPa	54 kPa

* Figures in the chart above are when the standard counter weight is installed.

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



Cast counter weights **OPTION**

Cast counter weights that are more compact than the standard type are available as an optional extra. Being made from cast iron, they offer excellent recycling potential.



SCX800A-3 CONTROL

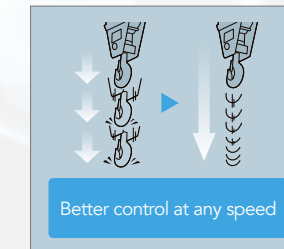
Reliable control for perfect commands, exactly as required.

The crane has been designed to respond exactly as the operator intends, which really shines through when working with heavy loads or jobs requiring precise movements. Now anybody can operate the crane exactly as they intend, regardless of their operating experience or skill level. Exceptionally smooth and succinct movements equate to more reliable work. Advancements made for ease-of-use are right here.

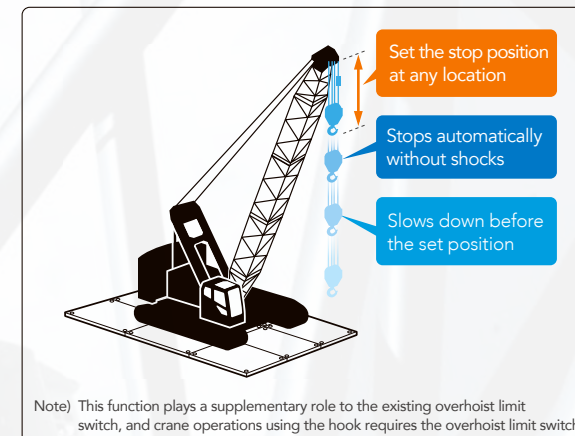


Brake with better control and operability OPTION

The winch brake uses an innovative hanging pedal that is much easier to control than the previous step-on pedal. Reviews to the link structure limit changes in control feedback caused by the weight of hoisted items, in one way that provides the operator with a positive brake feeling under various working conditions. Smooth and precise braking operation now requires less effort, making it easier to keep the brake applied.



Hanging pedal for smooth brake feeling and better control



Better swing feel

The use of new hydraulic devices provides smoother swing operations that are easier to control. The swing neutral brake and swing brake pedal (optional extra) are also designed to ensure the crane responds exactly as the operator intends.



Swing neutral brake standardization

During work requiring the cab to swing (when the swing lever is in the neutral position), the operator may choose between free or brake mode depending on the work and personal preferences, making operations so much smoother.

Swing mode selector switch

ML Anti-two block

An anti-two block using a lifting height indication device with a lifting height meter is installed as standard. 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. More than making for safer work, the system is useful when working at heights or with minimal visibility, and makes excavation work using a hammer grab much easier. The system also eliminates incorrect operation caused by vibrations, which is a common occurrence in ordinary overhoist devices.



Swing brake operation pedal OPTION

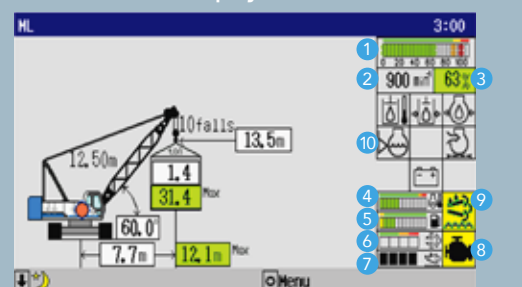
A swing brake operation pedal is available to ensure precise swing control under strong-wind situations. This allows brake control to be applied when swinging the cab around, resulting in precise swing control even on the harshest of worksites.

SCX800A-3 SAFETY

Reliable and precise. Advanced safety features for the unexpected.

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 functions and multiple redundant safety devices have also been installed for protection against the unexpected. Work is covered by the utmost safety and reliability with a full complement of advanced safety equipment.

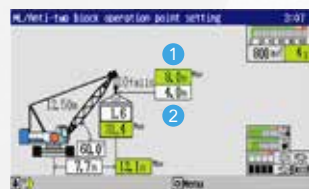
Moment limiter display



- | | |
|--------------------------------------|--|
| 1 Load ratio indicator (%) | 6 Soot level gauge |
| 2 Engine speed | 7 Urea fluid gauge |
| 3 Load ratio (%) | 8 Engine trouble alarm (yellow or red) |
| 4 Water temperature (engine coolant) | 9 Urea SCR system display |
| 5 Fuel gauge | 10 Warning icons |

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.



Lifting height meter

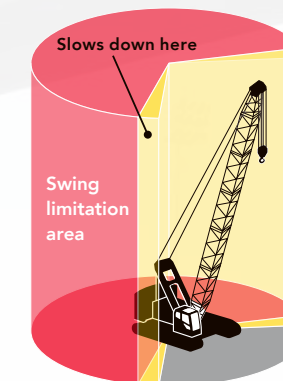
A lifting height meter with drum counter function is available as standard, making work safer, even if the job site is not directly visible.

- 1 Maximum lifting height restriction set for the hook
- 2 Actual hook lifting height



Swing restriction unit OPTION

The swing restriction unit prevents the crane from swinging into objects by allowing the swing range to be preset, and notifying the operator of the swinging range and automatically stopping the crane when required. Together with the restricted swing range function, the result is an added level of safety when working in tight area.



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.



Designed for safe work

An auto drum lock is installed as standard, which detects boom hoisting operations and automatically applies the lock when the lever is in the neutral position. Various warning alarms and information are conveyed to the operator to help reduce the number of careless accidents. A catwalk and handrails (folding type) are now installed as standard, in addition to the optional skywalk. All these combine to ensure work is conducted as safely as possible.

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

Enhanced visibility and functionality for greater comfort.

To provide operators with greater comfort over a longer work span, HSC has designed the crane to be easy to use from the ground up. Design elements such as excellent visibility and an optimum working position help to reduce operator fatigue, while at the same time increasing comfort and functionality to ensure 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.



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



Up/down steps



Wipers with greater sweep area



Sunshade



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



Optimized lever and switch layout

The pitch of the armchair levers can be optimized to improve operation with an intelligent and ergonomic switch layout.



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 venting AC



Cup holder



Radio with Bluetooth®




Storage shelf

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

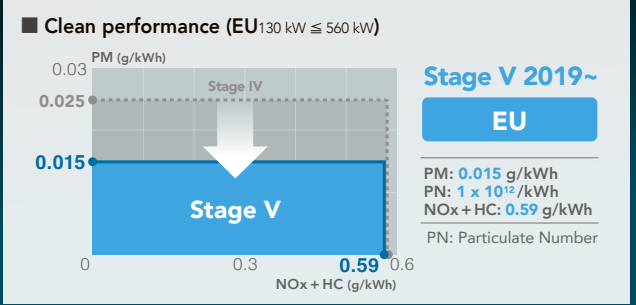
**The highest level of clean performance.
Environmentally friendly design to redefine mankind and society.**

It is fitting that the most advanced technology is installed in a machine designed to redefine the future of society. The SCX800A-3 brings together a new cleaner running engine and advanced control system (ECO winch mode, auto idle stop function) for energy-efficient operation. This combination clears EU Stage V exhaust gas emission regulations, thereby boosting the capabilities of the SCX800A-3 over a broader range of jobsites, while also bringing exceptional fuel efficiency and outstanding operation and control.



Engine specifications	
Emissions regulation	EU Stage V
Engine manufacturer/model	Cummins / B6.7
Displacement	6.7 L
Rated power output	209 kW (285 PS) / 2000 min ⁻¹
EGR System	N/A
Exhaust gas aftertreatment device	Muffler filter + urea SCR

Clean performance (EU_{130 kW ≤ 560 kW})



Stage V 2019- EU

PM: 0.015 g/kWh
 PN: 1×10^{12} /kWh
 NOx + HC: 0.59 g/kWh
 PN: Particulate Number

Stage V includes newly proposed limits on particle number.

New clean engine

Powered with a new-generation Cummins engine that meets EU Stage V emission standards for the highest level of clean running performance. With an ideal balance between ultra-low exhaust emissions and superb fuel efficiency, the crane is now a seamless fit for any job site and social environment.

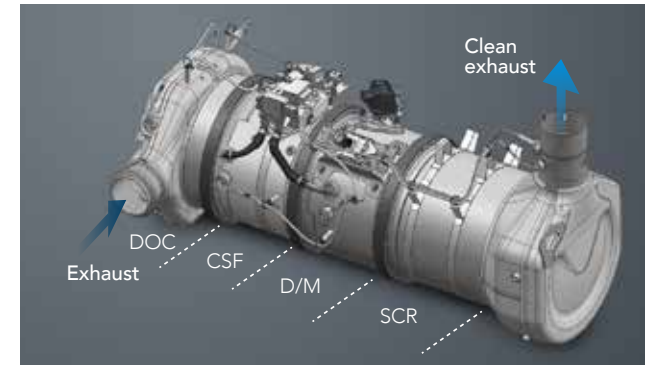
Fuel efficiency and work efficiency evolved

The combination of a new clean engine and enhanced control systems (ECO winch mode, auto idle stop function) bring drastic improvements to fuel economy, as the SCX800A-3 is 15%* more efficient than the previous model (SCX800-2) under the same work situations.

Compared to previous model (SCX800-2) with the same work
15% reduction in fuel consumption

Systems designed for efficient work

* In-house test figures (SCX800A-3 using ECO winch mode and auto idle stop function). This reduction in fuel consumption is just one example, and may differ depending on the type of work, environment and conditions.



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.

Muffler filter + Urea SCR

Exhaust post-processing systems consist of a muffler filter and urea SCR. The preliminary stage muffler filter reduces PM, while the subsequent stage urea SCR cuts down on NOx emissions. The urea SCR device sprays AdBlue® (urea solution) to decompose NOx into harmless water and nitrogen through chemical reaction.

AdBlue® is a registered trademark of the German Association of the Automotive Industry.

Precautions with the new clean engine

- Always use diesel for the fuel, specified lower ash oil (E6, E9 (ACEA) class) for the engine oil, and specified engine coolant. The CSF + Urea SCR System may undergo automatic regeneration (cleaning) to maintain its performance level.

Outline of EU Emissions Standards

The new Stage V emission standards came into effect in the European market from 2019. In addition to standards for existing emissions such as PM and NOx, Stage V also introduces restrictions for the PN (Particulate Number). Even more advanced exhaust post-processing systems are required to meet the toughest emission standards in the world.

Enhanced engine performance

In addition to running cleaner, the system also improves rated power output and medium-range torque of the engine (compared to Stage IV engine specifications).

Single-module design

The exhaust post-processing system features a compact, single-module design for greater performance and ease-of-installation.

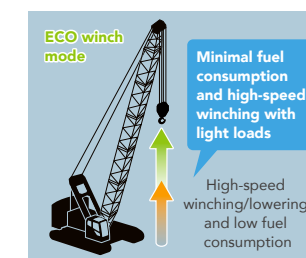
High-capacity urea tank

The use of a high-capacity urea tank (85 L) helps to enhance convenience.

Other fuel efficiency technology



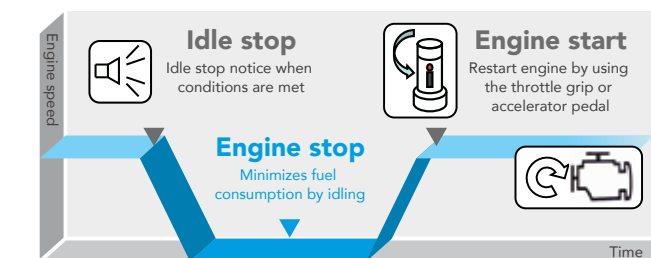
Greater work efficiency by minimizing unnecessary movement with light load work
ECO winch mode



ECO winch mode has been newly installed, offering high-speed lifting and lowering of light loads without having to increase the engine speed. This delivers excellent efficiency on high-elevation construction sites or multiple rope hanging operations, as well as limiting fuel consumption and noise as engine speed can be kept at a minimum.



Minimizes excess fuel consumption during work
Auto idle stop function

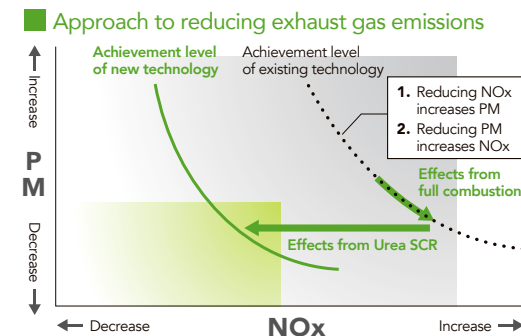


A new auto idle stop function is available for energy-efficient operation and minimal exhaust gas emissions. This prevents unnecessary idling during work to help reduce fuel consumption and limit the level of wear throughout various components. There is no impact on work, as the function stops the engine if the switch is ON and the required conditions are met, and restarts the engine when the accelerator is used.

Exceptional peace of mind and convenience for worksites.

Advanced eco technology "Urea SCR System"

The SCX800A-3 uses the advanced eco technology "Urea SCR System" to meet the latest exhaust gas emission regulations. The Urea SCR System offers the benefits of low-emission gas and low fuel consumption, while better fuel efficiency also helps to prevent global warming (by reducing CO₂ emissions).



Urea SCR System design

- 1 Reduces fuel consumption and limits PM generation with high-efficiency engine combustion
- 2 Oxidizes HC (hydrocarbons) and CO (carbon monoxide) from the engine with an oxidation catalyst
- 3 Injects AdBlue® into the exhaust gas. Breaks down NOx to harmless water and nitrogen



This image is to highlight the effects of the system, and has been exaggerated for illustration purposes.

What is AdBlue®?

The trademark of a high-quality urea aqueous solution standardized in Europe for using the Urea SCR System.



AdBlue® is a registered trademark of the German Association of the Automotive Industry.

Refilling frequency
Once per two refuelings

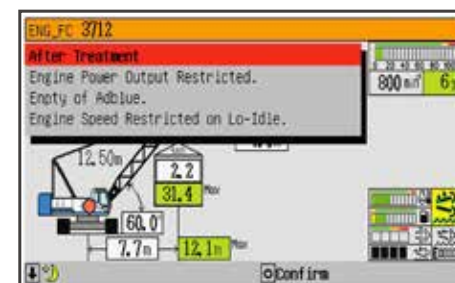
The SCX800A-3 requires AdBlue® to be refilled once every two times the machine is refueled. (AdBlue® consumption may vary slightly depending on operating conditions)



Precautions with machines installed with the Urea SCR System

To ensure that the machine can be used safely and smoothly, use AdBlue® aqueous solution (or a urea aqueous solution that complies with JIS or ISO standards). Using a non-standard aqueous solution or diluting the solution before use may cause mechanical problems. Malfunctions arising from the use of non-standard aqueous solutions are not covered by the HSC warranty service.

- The remaining AdBlue® level can be checked during work on the monitor display (Moment Limiter) in the cab. A warning is displayed on the monitor when the remaining level becomes low or there is an issue with quality.
- The engine power output will be limited if the remaining AdBlue® level falls below the minimum level or there is an issue with quality, so be sure to plan refills in advance.
- The Urea SCR System is designed exclusively for the machine, and must not be used for any other purpose.
- Rinse with water any solution that comes in contact with skin.
- When storing the solution, always use sealed containers and store at room temperature in a well-ventilated location out of direct sunlight. When carrying the solution, always use the container that the solution was purchased in, or other specified container.
- The Urea SCR System includes a heater function, however sufficient care must be taken to prevent freezing when the solution is stored in cold regions (freezing temperature: -11°C)
- Read the instruction manual for more details.



Example monitor warning display

REMOTE SENSING



REMOTE SENSING as a watchful eye on the machine

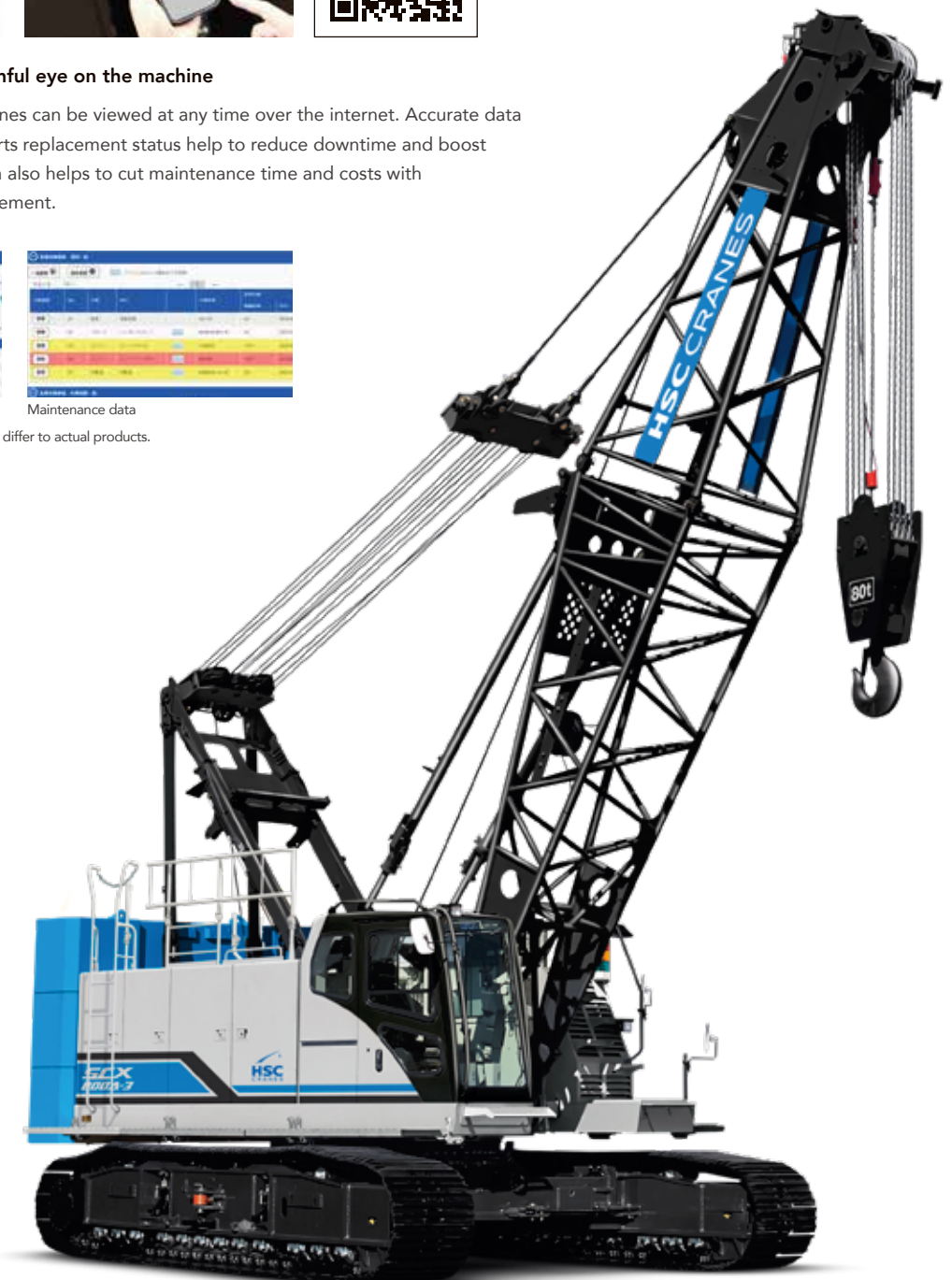
Information on operating machines can be viewed at any time over the internet. Accurate data on operating conditions and parts replacement status help to reduce downtime and boost operating efficiency. The system also helps to cut maintenance time and costs with comprehensive machine management.



Map view

Maintenance data

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



*Photos may differ to the specifications of available products.