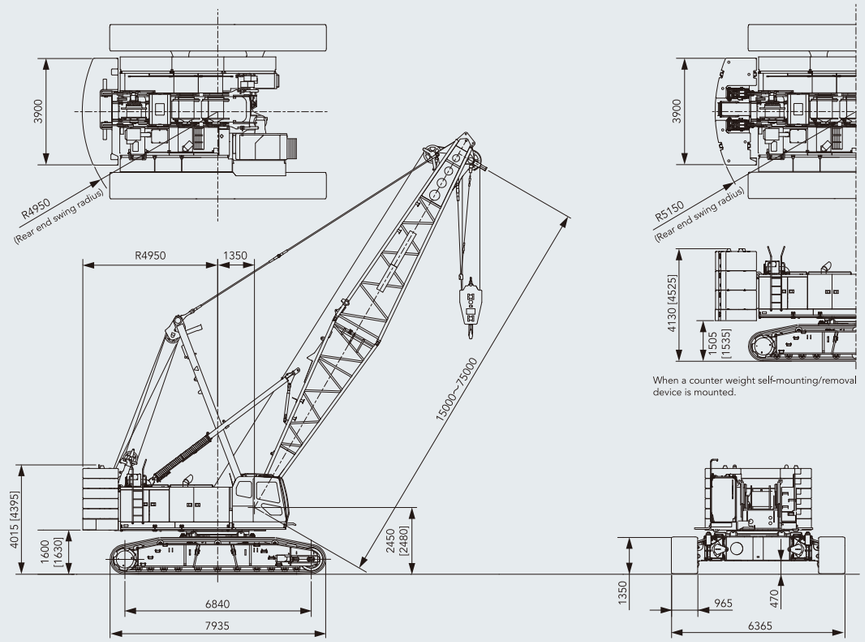
General dimensions

Units: mm

Drawings below are for the SCX1200-3. Figures in [ ] are for the SCX1500A-3.



When a counter weight self-mounting/removal device is mounted.

Specifications

Model			SCX1200-3			SCX1500A-3	
Application			Liftcrane	Luffing towercrane	Clamshell	Liftcrane	Clamshell
Max. lifting capacity		t × m	120 × 5.0	20 × 14.0	—	150 × 4.5	—
Basic boom length		m	15	—	15	15	15
Max. boom length		m	75	—	27	75	27
Crane jib length		m	10~28	—	—	10~28	—
Boom + crane jib length		m	63 + 28	—	—	63 + 28	—
Tower length		m	—	30.35~51.35	—	—	—
Tower jib length		m	—	24~45	—	—	—
Tower + jib length		m	—	51.35 + 45	—	—	—
Rope line speeds (*1)	Front/rear main drum (rated with 12 t load)	m / min	110 (45)	110 (45)	64 Support and opening/ closing wire rope speed	110 (45)	64 Support and opening/ closing wire rope speed
	3rd winch (Rated with 12 t load)	m / min	95 (30)	—	—	95 (30)	—
	Tower jib hoist drum	m / min	—	55	—	—	—
	Boom hoist drum	m / min	44			44	
Slewing speed		min^{-1}(rpm)	1.7			1.7	
Travel speed high/low(*2)		km/h	1.5 / 0.9			1.5 / 0.9	
Gradeability		% (°)	30 (17)			30 (17)	
Bucket capacity		m^3	—	—	2.5	—	2.5
Allowable gross weight		t	—	—	10	—	10
Max. digging depth		m	—	—	36	—	36
Engine	Make & model		Isuzu 6HK1 (Stage IIIB)			Isuzu 6HK1 (Stage IIIB)	
	Rated output	kW/min^{-1} (PS/rpm)	210/1,900 (285/1,900)			210/1,900 (285/1,900)	
Ground contact pressure		kPa (kgf/cm^2)	88 (0.9) w/basic boom,120 t hook block	99 (1.01) Max. tower + tower jib length	90 (0.92) w/basic boom, 2.5 m^3 bucket	103 (1.06) w/basic boom,150 t hook block	91 (0.93) w/basic boom, 2.5 m^3 bucket
Operating weight		t	Approx. 122 w/basic boom,120 t hook block	Approx. 137 Max. tower + tower jib length	Approx. 125 w/basic boom, 2.5 m^3 bucket	Approx. 139 w/basic boom,150 t hook block	Approx. 126 w/basic boom, 2.5 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 15 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.

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Printed in Japan
1208ⓧ01T.EA207

HITACHI SUMITOMO

SCX1200-3
SCX1500A-3

SCX 1200-3

SCX 1500A-3

LIFT THE WORLD.

The goal was to make valuable contributions in various fields around the world.

To achieve this, HSC created a whole new benchmark for crawler cranes.

With outstanding workability and high-precision operation,

these cranes have the potential to increase efficiency of transportation and assembly.

The new benchmark has been widely improved – from an environmentally-friendly design and

great fuel economy, through to the latest in safety and reliability.

Performance that provides comfortable operation to generate value in the lifting world.

Behold the “SCX1200-3 and SCX1500A-3” making their global mark for a new generation.

This new benchmark is set to take the world, business, and even the future, to all new highs.

SCX 1200-3 SCX 1500A-3

*The picture is for the SCX1500A-3.

＊The picture is for the SCX1200-3.

Precision and workability to transform any work site.

Introducing a new generation of crane that for ideal workability and performance to suit any work site. The SCX1200-3 and SCX1500A-3 both offer users unprecedented work precision and efficiency, and more than ample power for any job. Be in control of a crane that takes performance to new levels, with an uncompromised approach to work.

A high-rigidity boom for the toughest jobs

Both the boom foot width and boom width, as well as the bracing strength, have been increased to improve the strength of the boom itself. This helps to deliver advanced stability during work, to reduce side deflection and twisting throughout the front of the crane, and to make positioning loads quicker. A live-mast system has been employed to improve operating response.

	SCX1200-3 SCX1500A-3		Current model
Boom foot width (mm)	1350	+250	1100
Boom width (mm)	2000	+150	1850
Bracing section area (mm²)	+9%		Base
Boom tip deflection*	▲17%		Base

* Test values obtained with in-house assessments

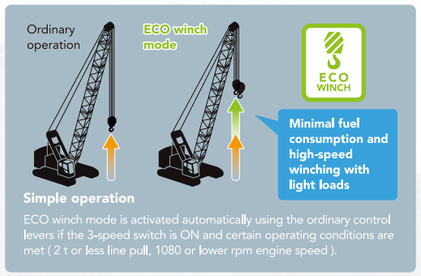
All-new powerful winch

The power of the 12 t-rated line pull winch has been increased by 8% to increase scope for lifting heavy loads with line-speed 45m/min, and provide better capability for simultaneous movements. Combined with a new brake* that offers better operating feel, the crane delivers simply outstanding workability.

* Optional extra

3rd winch OPTION

The 3rd winch has a new multiple wet-disc type brake with a 12 t-rated line pull winch and large winding capacity 220 m long rope. A φ3000 class casing driver can also be handled.



Simple operation

ECO winch mode is activated automatically using the ordinary control levers if the 3-speed switch is ON and certain operating conditions are met (2 t or less line pull, 1080 or lower rpm engine speed).

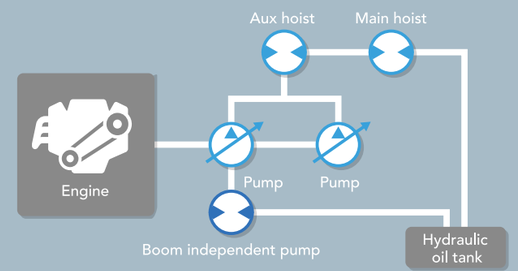
Eco winch mode with high-speed winching and low-fuel consumption

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

LIFT THE 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 increase in winch power reduces interference in hydraulic oil circuits when working with simultaneous movements. Combined hydraulic circuits for bucket use help to match the speeds of the front and rear winches.

Combined hydraulic circuits for increasingly multiple operations

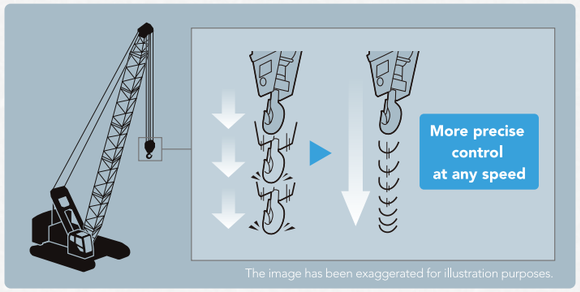
Hydraulic oil from two hydraulic oil pumps is controlled in a combined manner. Optimization of the pump pressure helps to improve all operations of the crane – traveling, hoisting and lowering, swinging, and boom hoisting. When more simultaneous operations are required, work is controlled in an efficient manner, which means the crane moves and operates exactly as the operator intends.

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.

Relief valve between winch ports

The oil pressure can be stabilized by releasing the surge pressure when lowering loads. The system reduces the high load placed on the motor to enable smoother control. This increases coordination between each motor for both smooth movement and outstanding workability.



The image has been exaggerated for illustration purposes.

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

The optional brake uses a new multiple wet-disc type. This improves control further while giving the operator smooth and precise response. Reliable braking performance is now a reality even under high loads. The system can even be used for heavy digging and foundation work that utilizes free-fall operation.

Swing brake operation pedal OPTION

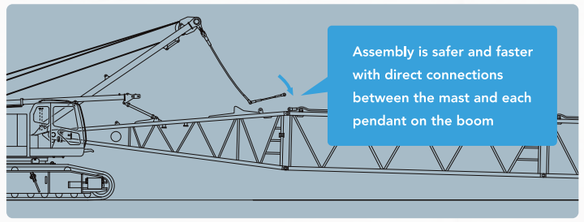
A swing brake operation pedal has been employed to ensure precise swing control under strong-wind situations. This maintains a high level of control when swinging the cab around, even on the harshest of work sites.

＊The picture is for the SCX1200-3.

LIFT THE TRANSPORTABILITY

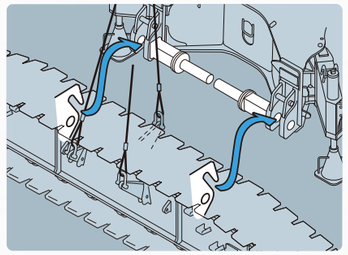
Speedy and smart. Exceptional transportability and assembly guarantees better results.

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.



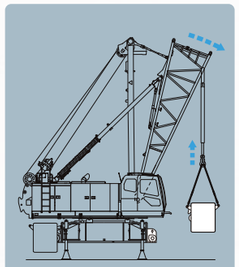
Redefining the assembly and disassembly process with the live-mast system.

The use of a live-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 the crawler side frame assembling

The crawler side frame can be mounted with a side frame joint pin removal cylinder that improve assembly and disassembly immensely. The design also ensures safer work.



Easier and faster assembly/ disassembly of the crawler side frame with the quick draw feature

Quick draw for efficient assembly and disassembly OPTION

Quick draw is available that allows self-installing/removal of heavy crawler side frames. This feature allows assembly with smaller helper cranes handling the counter weights (up to 9 t). Other assembly procedures can be conducted at the same time, which further increases assembly efficiency.

Counter weight self-assembly device OPTION

A counter weight self-assembly device has also been installed to make self-assembly easier, and to save time.

Note) When the counter weight self-mounting/removal device has been installed, the shape of the counter weight differs to the standard specification. The rear end swing radius of the crane also increases, so extra care must be taken when operating the crane.

A width suited to trailers results in transportation cost savings

The crane is less than 3 m wide and weighs less than 30 t, which makes it easier to load on to trailers. This in turn helps to reduce costs related to transportation. A swing cab mechanism has also been employed to reduce the boom foot width further, for more reliable crane operation and exceptional ease of transportation.

Designed for ease of transportation and assembly

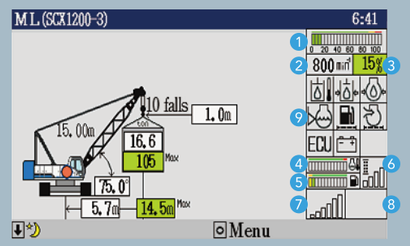
[Transportation]	● Center of gravity mark ● Crane can be loaded directly on the trailer without wooden blocks. ● Lashing lugs during transportation ● Storage lugs for hydraulic hoses of traveling device ● Lugs for boom lifting
[Assembly]	● Multi-assembly stage monitoring system ● Boom foot pin positioning guide ● Target-type back stop ● Boom foot pin removal/installation cylinder OPTION ● Hydraulic shoe tension unit OPTION
[Other]	● Remote control box storage for jack with car body

LIFT THE 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.

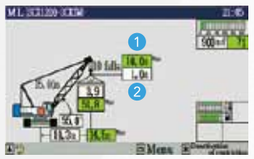
Moment limiter display



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

Moment limiter with large screen display

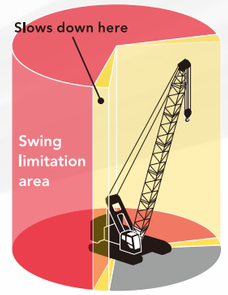
A large screen display has been used offering excellent visibility and field of view of any job. A host of items can be shown, while a simple display layout ensures that information is provided to the operator properly. The display has also been designed with an interactive interface to follow any movement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



1. Maximum limit value for the set lifting hook height
2. Actual hook height

Lifting height indication device

Comes equipped as standard with a drum rotation counter function by calculating accurate hook position. This ensures safe operation even when the operator has difficulty seeing the actual job.



Swing restriction device (virtual wall) 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.

Monitoring camera OPTION

Four monitoring cameras have been installed to make it easier to oversee the condition of the front /rear drum, boom hoist drum, back and left-rear. For added safety, checks of each stage of operation are also easier as the wide screen is connected to switchable cameras.

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. The width of the skywalk (optional extra) has been increased to make assembly easier. All these combine to ensure work is conducted as safely as possible.

Wider skywalk (made by FRP) OPTION

Folding type upper house handrails OPTION

Other safety functions and devices

- Winch drum lock (front, rear)
- Individual winch operation lever locks
- Three color percentage indicator OPTION
- Auto drum lock (boom hoist)
- Anti-two block
- Gate lock lever
- Firewall
- Emergency engine stop switch

* Illustrations may include optional equipment and accessories, and may not include all standard equipment.

LIFT THE COMFORT

Enhanced visibility and functionality with 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.

Major improvements to operating field of view

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.
A new wiper provides a greater area of visibility under when working in rain.

High-functionality seat for providing the best operating position

A high-functionality seat that allows the seat height to be adjusted to the optimum position has been installed to provide any operator with the best possible posture. This wide range of seat adjustment creates a truly relaxing cab.

New large sliding door

A sliding door and wide platform have been implemented to reduce the amount of space required when opening and closing the door, which makes getting in and out of the cab a breeze.
Four steps on the side of the crawler side frame have been used for even better access.

Optimized lever and switch layout

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

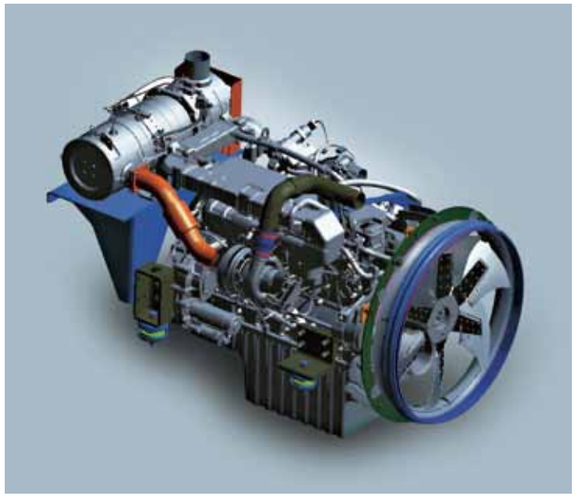
Cross operation lever OPTION

Cross operation lever is provided for a good, easy and comfortable operation for two main operating drums, boom hoist drum and swinging. For travel motion, two armchair levers are provided behind right-hand cross operation lever for operator comfort.

LIFT THE ECOLOGY

Clean and economical. Environmentally-friendly for mankind and society.

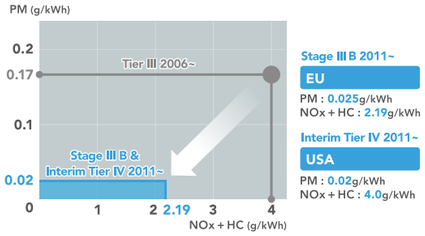
A new greener engine delivers clean power required for HSC's new generation of cranes.
This advanced, environmentally-friendly technology ensures a more pleasant experience for everyone, surrounding towns, well into the future. Fuel consumption has been fine-tuned for more economic operation, which also presents major benefits from a management perspective.



Powered with a new-generation of clean engine

The crane is powered with a new-generation of clean engine that complies with tougher new emissions regulations enforced in Japan, North America and Europe. A major reduction in exhaust gas emissions and a reduction in fuel consumption help to decrease CO_2 emissions. The new engine and power train have been engineered to be even more environmentally-friendly.

■ Clean performance (JPN)



Technologies to improve fuel efficiency

In addition to improvements to the engine combustion efficiency, paired with enhanced hydraulic controls, idling stop functions and Eco winch mode have also been used to comply with more stringent exhaust gas regulations as well as improve fuel economy.

ECO WINCH

IDLING STOP

Improved cooling

The radiator, oil cooler, and air-conditioner heat exchanger have been combined into a single panel. This increases the cooling efficiency of the heat exchangers and improves maintenance accessibility and reliability.

Muffler filter to reduce PM emissions

A muffler filter for removing PM has been used as a new exhaust gas post-treatment device.
The filter offers great practicality with automatic regeneration control every 8 to 10 hours.

Display of muffler filter conditions (moment limiter display)

Precautions when using the muffler filter

- Always use diesel as fuel. Ensure that the designated low ash oil (JASO DH-2, and ACEA E6. E9) is used for engine oil.
- The muffler filter will become hot when it is being regenerated. Check for safety by ensuring that there are no flammable objects nearby.
- The exhaust gas temperature will rise during regeneration. This may have a slight impact on operating performance.

Utmost reliability on work sites. Today, and decades into the future.

There are numerous ways to measure quality.
Reliability that ensures peace of mind during daily operations is just one.
HSC has designed the SCX1200-3 and SCX1500A-3 from early on in the development stage to deliver enhanced durability and ease of maintenance.
Engineered with a safe design for improving operating capabilities and reducing running costs, HSC cranes have evolved to deliver more benefits than ever before.

High-durability box construction track shoes

Four upper rollers

Lower rollers with 20% greater contact width

Hydraulic shoe tension device OPTION

Measures for improving durability

Increasing the strength of each part essential for operations is the first step. Reliability has also been fine-tuned to maximize work capabilities. Only the most stringent quality standards have been employed by HSC, from the start of development to production, all the way through to durability testing. Every aspect has been honed to ensure reliability, including a stronger lower frame, and greater precision load cells and angle detectors. HSC has developed a truly environmentally-friendly crane for all, built on strict eco-management standards.

Even easier maintenance

A central layout has been used for inspection equipment, combined with more gauge ports and a host of other useful functions. Maintenance has been made so much easier with improvements to engine servicing, and a layout that makes each filter and fan belt a breeze to replace.

＊The picture is for the SCX1500A-3.