

Construction Machinery



1 ZX75US-5B (top) and ZX75UR-5B (bottom) hydraulic excavators

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Hydraulic Excavators ZX75US-5B and ZX75UR-5B

The ZX75US-5B and ZX75UR-5B are hydraulic excavators that comply with Japan's 2014 Act on Regulation, Etc. of Emissions from Non-road Special Motor Vehicles. Features include an automatic idling stop function that shuts down the engine if the machine remains idle, and functions for reducing carbon dioxide (CO₂) emissions to help the global environment.

Compared to previous models, improvements to the efficiency of the hydraulics have reduced the amount of fuel consumed to perform a given amount of work by approximately 15% on the ZX75US-5B and 20% on the ZX75UR-5B, combining energy efficiency with a high level of work performance.

Safety features include a cab that complies with the International Organization for Standardization (ISO) standard for roll-over protective structures (ROPSs) that protect the operator in the event that the hydraulic excavator overturns, and a rear

view monitor (included as a standard feature) that improves peripheral visibility by displaying the view from behind the machine that the operator would otherwise have trouble seeing. The machines are also fitted with a delay function that keeps the working lights turned on for 60 s after the engine is turned off to ensure safety at the end of nighttime operation.

(Hitachi Construction Machinery Co., Ltd.)

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Rotary Mini Excavators ZX30UR-5B, ZX40UR-5B, and ZX55UR-5B

The ZX30UR-5B, ZX40UR-5B, and ZX55UR-5B are mini excavators that comply with either the Ministry of Land, Infrastructure, Transport and Tourism criteria for construction machinery with emission controls (level 3) (ZX30UR-5B and ZX40UR-5B) or Japan's 2014 Act on Regulation, Etc. of Emissions from Non-road Special Motor Vehicles (ZX55UR-5B), and feature electronically-governed engines and improvements to hydraulics efficiency to significantly reduce fuel consumption compared to previous models (ZX30UR-5B: 16%, ZX40UR-5B: 14%, and ZX55UR-5B: 16%).



2 Canopy models of new ZX55UR-5B (top) and ZX30UR-5B (bottom) mini excavators

The main features are as follows.

(1) Excellent operation and work performance

A boom height limiter system is provided as a standard feature to help avoid power lines and other obstacles. The speed can be adjusted smoothly when using the blade thanks to the inclusion of a switch on the blade lever for selecting the travel speed.

(2) Comfortable workspace

Multiple liquid crystal display (LCD) monitors with bright and clear display make it easy to view the current machine status. Modifications to the shape of the right-side canopy panel have improved visibility on the right side of the machine.

(3) Easy maintenance

An engine cover that slides vertically and a front radiator cover with a wide opening make routine inspections easier to perform. Easier access to important components is provided via a floor that tilts upward.

(Hitachi Construction Machinery Co., Ltd.)

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Wheel Loader ZW80-5B

The ZW80-5B is a wheel loader that complies with Japan's 2014 Act on Regulation, Etc. of Emissions from Non-road Special Motor Vehicles. To reduce the need for operator maintenance, it is fitted with a muffler that does not use a ceramic filter. It is also fitted with controllers for the engine and driving operation that improve driving and other operations, resulting in a 6% increase in productivity compared to previous models. Another standard feature improves product attractiveness by providing a switch for



3 ZW80-5B wheel loader

reducing the engine speed to lower noise when needed for operating conditions such as those associated with snow clearing, livestock, or industrial waste.

The main features are as follows.

(1) Muffler does not use a ceramic filter.

(2) A throttle limiter switch for minimizing noise is included as a standard feature.

(3) A hi-lo selector switch for limiting speed in confined work-spaces is included as a standard feature.

(4) Reminders for replacing filters are displayed on the monitor (standard feature).

(5) Sliding windows on both sides and a sun visor are standard features on the optional cab design.

(Hitachi Construction Machinery Co., Ltd.)

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Vibratory Rollers ZC35C-5, ZC50C-5, ZC35T-5, and ZC50T-5

Vibratory rollers are used for compaction in road construction and at various other work sites. The ZC35C-5, ZC50C-5, ZC35T-5, and ZC50T-5 are a new range of models designed to be better for the environment and feature improvements to maintenance, safety, and operation.

The main features are as follows.

(1) Better for the environment

Fitted with an 18.2-kW direct injection engine that complies with the Ministry of Land, Infrastructure, Transport and Tourism criteria for construction machinery with emission controls (level 3), the ZC35C-5 and ZC50C-5 achieve approximately 11% lower fuel consumption than previous models when performing the same work. They also comply with the ministry's criteria for ultra-quiet construction machinery.

(2) Ease of maintenance



4 ZC50C-5 (top) and ZC35C-5 (bottom) vibratory rollers

The rollers are designed to be easy to maintain, with fully opening engine covers and water spray and fluid nozzles that can be inserted or removed at a single touch.

(3) Safety

The rollers have a low floor and stair to make them easy to get on and off. New hazard lights have been added as a standard feature.

(4) Ease of operation

In addition to the existing hi-lo mode, the ZC50C-5 and ZC50T-5 have a super-low mode for hill climbing, providing equal or better performance on slopes than previous models.

(Hitachi Construction Machinery Co., Ltd.)

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ZX250LC-6 Hydraulic Excavator Compliant with European Emission Standards Stage IV

Emission standards for construction machinery have been tightened internationally in recent years along with other initiatives aimed at reducing the load on the environment that have been undertaken on a variety of fronts. It is based on this background that Hitachi developed the ZX250LC-6 hydraulic excavator to comply with new emission standards.

In addition to complying with engine emission standards, the systems for the ZX250LC-6 have also been designed to achieve lower fuel consumption. One of the new technologies adopted to make the engine compliant with emission standards is selective catalytic reduction (SCR) using urea. The system works by spraying an aqueous urea solution into the hot exhaust gases inside the catalytic converter to form ammonia. With the aid of the catalyst, this ammonia then reacts with nitrogen oxides (NOx) to break them down into harmless nitrogen and water.

Hitachi has also made improvements to the existing new hydraulic system to further reduce fuel consumption, by approximately 10% compared to the previous model (ZX250LC-5B) when performing equivalent work. Furthermore, for greater safety during maintenance, handrails at the top of the cab have been provided as a standard feature. Hitachi has also set out to



5 ZX250LC-6 hydraulic excavator compliant with European emission standards Stage IV

make the most of information technologies, including enhanced functions for monitoring machine condition and functional improvements to the Global e-Service to shorten the time it takes to respond to faults.

(Hitachi Construction Machinery Co., Ltd.)

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Dump Trucks EH3500AC-3 and EH4000AC-3

The EH5000AC-3 dump truck went on sale in March 2013. Drawing on technologies used on the EH3500AC II and EH4000AC II, its standard features include Hitachi Drive Control System (a stability control system) and an alternating current (AC) drive system developed jointly by calling on the comprehensive capabilities of Hitachi. These same functions were also deployed in the EH3500AC-3 and EH4000AC-3, both of which went on sale in December 2014.

While retaining the same highly-regarded acceleration and electrical braking performance, the EH-3 series delivers even better driving stability than previous models thanks to its stability control system. Hitachi has also made the dump truck more competitive by offering a choice of engines to suit customer requirements, with the same truck frame able to be fitted with either the standard Cummins Inc. engine or an optional MTU engine. Furthermore, it has an augmented vision system extending all around the truck that is designed to help reduce worksite collisions.

(Hitachi Construction Machinery Co., Ltd.)



6 EH3500AC-3 (top) and EH4000AC-3 (bottom) dump trucks