STANDARD EQUIPMENT

ENGINE
- Engine, HINO J05E-TA, Diesel engine with turbocharger and intercooler
- Automatic engine deceleration
- Auto Idle Stop (AIS)
- Batteries (2 x 12V - 96Ah)
- Starting motor (24V - 5kW), 50 amp alternator
- Removable clean-out screen for radiator
- Automatic engine shut-down for low engine oil pressure
- Engine oil pan drain cock
- Double element air cleaner

CONTROL
- Working mode selector (H-mode and S-mode)
- Power Boost

SWING SYSTEM & TRAVEL SYSTEM
- Swing rebound prevention system
- Straight propel system
- Two-speed travel with automatic shift down
- Sealed & lubricated track links
- Grease-type track adjusters

HYDRAULIC
- Automatic swing brake
- Arm regeneration system
- Auto warm up system
- Aluminum hydraulic oil cooler
- Two rearview mirrors
- Two front working lights
- Swing flashers

CAB & CONTROL
- Two control levers, pilot-operated
- Tow eyes
- Horn, electric
- Integrated left-right slide-type control box
- Cab, all-weather sound suppressed type
- Ashtray
- Cigarette lighter
- Cab light (interior)
- Coat hook
- Luggage tray
- Large cup holder
- Detachable two-piece floor mat
- 7-way adjustable suspension seat
- Retractable seatbelt
- Headrest
- Handrails
- Heater and defroster
- Intermittent windshield wiper with double-spray washer
- Skylight
- Tinted safety glass
- Pull-type front window and removable lower front window
- Easy-to-read multi-display monitor
- Automatic air conditioner
- Emergency escape hammer
- Radio, AM/FM Stereo with speakers
- Travel alarm (optional for NZ)
- Level indicator (optional for NZ)

OPTIONAL EQUIPMENT

- Wide range of buckets
- Various optional arms
- Wide range of shoes
- Boom safety valve
- Arm safety valve
- Front-guard protective structures
- Additional hydraulic circuit
- Pre-air cleaner
- Top guard

Note: This catalog may contain attachments and optional equipment that are not available in your area. And it may contain photographs of machines with specifications that differ from those of machines sold in your areas. Please consult your nearest KOBELCO distributor for those items you require. Due to our policy of continuous product improvements all designs and specifications are subject to change without advance notice. Copyright by KOBELCO CONSTRUCTION MACHINERY CO., LTD. No part of this catalog may be reproduced in any manner without notice.

KOBELCO CONSTRUCTION MACHINERY CO., LTD.
17-1, Higashigotanda 2-chome, Shinagawa-ku, Tokyo 141-8626 JAPAN
Tel: +81 (0) 3-5789-2146 Fax: +81 (0) 3-5789-2135
www.kobelco-kenki.co.jp/english_index.html

Inquiries To:

ACERA GEOSPEC SK200/210LC-ROPS-ANZ-201-140703IF
Announcing ACERA GEOSPEC and the Concept of Beautiful Performance.

When we set out to design our new hydraulic excavators, we kept our eyes on the big picture. Of course we wanted machines with greater digging capacity. But they also had to be fuel-efficient and economical, while imposing less of a burden on the local and global environments. Applying our advanced technologies, we developed KOBELCO’s new ACERA GEOSPEC series, an entirely new kind of excavator that beautifully balances all the demands of today’s construction industry. Lean and efficient with capacity to spare, these sleek powerhouses bring a whole new style to the worksite while setting new standards for environmental responsibility.

Pursuing the “Three E’s”
The Perfection of Next-Generation, Network Performance Enhancement
Greater Performance Capacity
- New hydraulic circuitry minimized pressure loss
- High-efficiency, electronically controlled Common Rail Fuel Injection Engine
- Powerful travel and arm/bucket digging force

Economy
Improved Cost Efficiency
- Advanced power plant that reduces fuel consumption
- Easy maintenance that reduces upkeep costs
- High structural durability and reliability that retain machine value longer

Environment
Features That Go Easy on the Earth
- Meets the latest exhaust emission standards
- Auto Idle Stop as standard equipment
- Noise reduction measures (with improvement of the sound quality) minimize noise and vibration

The “GEO” in GEOSPEC expresses our deep respect for our planet, and for the solid ground where excavators are in their element. This is accompanied by SPEC, which refers to the performance specifications needed to get the job done efficiently as we carry on the tradition of the urban-friendly ACERA series.
The GEOSPEC Difference:

Efficient Performance!

Amazing Productivity with a 20% Decrease in Fuel Consumption and "Top-Class" Cost-Performance

Fuel Consumption: 20% decrease in fuel consumption even when performing more work volume. (S-Mode)

Work Volume: increase in work volume using the same amount of fuel. (H-Mode)

"Top-Class" Powerful Digging

Max. arm crowding force: 102 kN (10.4 tf)
Max. arm crowding force with power boost: 112 kN (11.4 tf)
Max. bucket digging force: 143 kN (14.6 tf)
Max. bucket digging force with power boost: 157 kN (16.0 tf)

Powerful Travel

Travel torque: increased by 16%
Drawbar pulling force: 229 kN (23.3 tf)

Greater Swing Power, Shorter Cycle Times

Swing torque: increased by 10%
Swing speed: faster (12.5 min⁻¹)

Significant Extension of Continuous Working Hours

The combination of a large-capacity fuel tank and excellent fuel efficiency delivers an impressive 30% increase in continuous operation hours.**

Light Lever Operation

It takes 10% less effort to move the control levers, so that operators can work longer hours with less fatigue.

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NEXT-3E Technology New Hydraulic System

Rigorous inspections for pressure loss are performed on all components of the hydraulic piping, from the spool of the control valve to the connectors. This regimen, combined with the use of a new, high-efficiency pump, cuts energy loss to a minimum.

NEXT-3E Technology Next-Generation Electronic Engine Control

The high-pressure, common-rail fuel-injection engine features a cooled EGR (Exhaust Gas Recirculation) device that lowers the air intake temperature to keep the oxygen concentration down. The multiple injection system features adjustable control to maximize fuel efficiency and provide powerful medium/low-speed torque. The result is a highly fuel-efficient engine that greatly reduces emissions of PM (particulate matter) and NOx in the atmosphere.

Powerful Torque at Low-Speed

The next-generation engine control is governed by a new version of ITCS, which responds quickly to sudden changes in hydraulic load to ensure that the engine runs as efficiently as possible with a minimum of wasted output.

NEXT-3E Technology Total Tuning Through Advanced ITCS Control

The next-generation engine control is governed by a new version of ITCS, which responds quickly to sudden changes in hydraulic load to ensure that the engine runs as efficiently as possible with a minimum of wasted output.

Simple Select: Two Digging Modes

For heavy duty when a higher performance level is required.
For normal operations with lower fuel consumption.

Attachment Mode Selector Switch (Optional)

There’s a choice of three different hydraulic circuits, to accommodate bucket, crusher or breaker, and the desired attachment mode can be selected with a switch, which automatically configures the selector valve. All attachment modes can be used in either S-mode or H-mode.

Seamless, Smooth Combined Operations

The GEOSPEC machines have inherited the various systems that make inching and combined operations easy and accurate, with further refinements that make a good thing even better. Leveling and other combined operations can be carried out with graceful ease.

- Electronic Active Control System
- Arm regeneration system
- Boom lowering system
- Variable swing priority system
- Swing rebound prevention system

ITCS (Intelligent Total Control System) is an advanced, computerized system that provides comprehensive control of all machine functions.

The value shows results from actual measurements taken by KOBELCO when compared with previous KOBELCO models.

The value shows results from actual measurements taken by KOBELCO for continuous operation in S Mode, compared with previous models.

Results vary depending on the method of operation and load conditions.
The GEOSPEC Difference:
The Value and Quality of Sturdy Construction!

Stable Attachment Strength
Forged and cast components are used throughout. The arm tip’s cross-sectional coefficient is 15% higher than previous models, giving the arm the same strength as the 3-faced reinforced arm that was offered only as an option before. The strength of the boom foot has also been increased by 18%.

Pre-air Cleaner (optional)
The optional pre-air cleaner prolongs a replacement cycle of main air cleaner.

Enhanced Upper Carbody Strength
The structure of the lower portion of the upper frame has been reassessed and the undercover area has been minimized. Also, the side deck’s cross-sectional strength has been boosted by 50%.

Emergency Acceleration (Dial) Permits Continued Operation in the Unlikely Event of Malfunction
If unexpected trouble is experienced with the ITCS mechatronic control system, the machine can still be operated using the emergency acceleration system. Digging modes are also automatically relayed to an emergency system so that digging can continue temporarily until a service person arrives to repair the primary system.

Countermesures Against Electrical System Failure
All elements of the electrical system, including controller, have been designed for enhanced reliability.

Newly designed MCU
- Vertical alignment and sealed cover gives better protection from water and dust
- Integration in base plate boosts assembly quality
- Reliable fixture to base plate

Engine throttle
Mechatronica controller
ENGINE ECU
Emergency acceleration

Emergency Acceleration (Dial) Permits Continued Operation in the Unlikely Event of Malfunction

Auto Idle Stop Provided as Standard Equipment
This function saves fuel and cuts emissions by shutting down the engine automatically when the machine is on stand by. It also stops the hourmeter, which helps to retain the machine’s asset value.

Automatic Acceleration/Deceleration Function Reduces Engine Speed
Engine speed is automatically reduced when the control lever is placed in neutral, effectively saving fuel and reducing noise and exhaust emissions. The engine quickly returns to full speed when the lever is moved out of neutral.

Low Noise Level and Mild Sound Quality
The electronically controlled common-rail engine has a unique fuel injection system that runs quietly. Also, the hydraulic pumps have been redesigned to produce a more pleasant sound during pressure relief. In short, the GEOSPEC series meets all requirements cited in latest EU stage II.

Meets EMC (Electromagnetic Compatibility) Standards in Europe.
Measures have been taken to ensure that the GEOSPEC machines do not cause electro-magnetic interference.

The GEOSPEC Difference:
Designed for the Environment and the Future!
Meets Standard Values Set by Emissions Regulations
The engine used in the GEOSPEC machines represents the crystallization of various cutting-edge technologies that minimize the emission of PM (Particulate Matter), NOx, black smoke, and other emissions, thus meeting all internationally recognized environmental regulations, including US EPA Tier III, NRMM (Europe) Stage IIIA, and act on regulation, etc. of emission from non-road special motor vehicles (Japan).
The GEOSPEC Difference: “On the Ground” Maintenance!

Comfortable “On the Ground” Maintenance

The machine layout was designed with easy inspection and maintenance in mind.

Access through the left side cover

The fuel filter with built-in water separator functions in two ways by removing large contaminants and separating out water.

Quick Oil Drain Valves for Quick Maintenance

A quick drain valve, which requires no tools, is provided as standard equipment.

More Efficient Maintenance Inside the Cab

To facilitate fuel tank cleaning, the fuel drain valve was made larger and fitted with a flange on the bottom.

Long-Life Hydraulic Oil Reduces Replacement Costs

The long-life hydraulic oil features a base oil with excellent demulsification, with optimized wear-resistant additives and antioxidants that help to boost the service life to 5,000 hours and greatly reduce the number of changes necessary.

Access through the right side cover

The fuel filter with built-in water separator functions in two ways by removing large contaminants and separating out water.

Parallel Cooling Units Are Easy to Clean

Double-Element Air Cleaner as Standard

The large-capacity element features a double-filter structure that keeps the engine running clean even in dusty environments.

New-Design Fuel Filter Catches 95% of Dust and Impurities

The large-capacity fuel filter is designed specifically for common rail engines. With an increased filtering performance to 2-micron precision, this high-grade filter catches 95% of all dust particles and other impurities in the fuel.

Choose 16 Languages for Monitor Display

With messages including those requiring urgent action displayed in the local language, users in all parts of the world can work with greater peace of mind.

GEOSCAN

GEOSCAN allows you to use the Internet to manage information from your office for machines operating in all areas. This provides a wide range of support for your business operations.

Choice of 16 Languages for Monitor Display

Monitor Display with Essential Information for Accurate Maintenance Checks

 Displays only the maintenance information that’s needed, when it’s needed.

 Self-diagnostic function that provides early-warning detection and display of electrical system malfunctions.

 Records previous breakdowns, including irregular and transient malfunctions.

Direct Access to Operational Status

Location Data

Accurate location data can be obtained even from sites where communications are difficult.

Operating Hours

A comparison of operating times of machines at multiple locations shows which locations are busier and more profitable. Operating hours on site can be accurately recorded, for running time calculations needed for rental machines, etc.

Fuel Consumption Data

Data on fuel consumption and idling times can be used to indicate improvements in fuel consumption.

Graph of Machine Duty Cycles

This provides a wide range of support for your business operations.

GEOSCAN

GEOSCAN allows you to use the Internet to manage information from your office for machines operating in all areas. This provides a wide range of support for your business operations.

Security System

The system can set an alarm if the machine is operated outside designated hours.

Area Alarm

It can also be set so that an alarm is raised if the machine is moved out of its designated area to another location.

Maintenance Data and Warning Alerts

Machine Maintenance Data

Provides maintenance status of separate machines operating at multiple sites. Maintenance data is also relayed to KOBELCO service personnel, for more efficient planning of periodic servicing.

Maintenance

Highly Durable Super-fine Filter

The high-capacity hydraulic oil filter incorporates glass fiber with superior cleaning power and durability. With a replacement cycle of 1,000 hours and a construction that allows replacement of the filter element only, it’s both highly effective and highly economical.

Double-Element Air Cleaner as Standard

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The GEOSPEC Difference:
Designed from the Operator’s Point of View

Newly Designed “Big Cab”
The new “Big Cab” provides a roomy operating space with plenty of legroom, and the door opens wide for easy entry and exit. As well as giving a wide, open view to the front, the cab has increased window areas on both sides and to the rear, for improved visibility in all directions.

Wide-Access Cab Aids Smooth Entry and Exit
Easy entry and exit assured with wider cab entry and safety lock lever integrated with mounting for control lever.

Excellent Visibility
The wide open view to the front combines with minimized blind spots around the machine for greater onsite safety.

In-Cab Noise is Reduced by 3dB
Compared with previous models.

Newly Designed Information Display Prioritizes Visual Recognition
The analog gauge provides information that’s easy to read regardless of the operating environment. The information display screen has been enlarged, and a visor is attached to further enhance visibility.

Creating a Comfortable Operating Environment
- Double slide seat
- Powerful automatic air conditioner
- Two-speaker FM radio with station select
- One-touch lock release simplifies opening and closing the front window
- Large cup holder
- Spacious luggage tray
- Swing flashers/rear working lights
- Level indicator that shows degree of machine tilt
- Thermal guard prevents contact with hot components during engine inspections
- Hand rails meet European standards
- Retractable seatbelt requires no manual adjustment

Safety Features That Take Various Scenarios into Consideration
- Fire guard (Level 2 FOPS: ISO 10262) is available as option.
- To fit vandalism guard, please contact your KOBELCO dealer.

ROPS Cab
The newly developed, ROPS (Roll-Over Protective Structure)-compliant cab clears ISO standards (ISO-12117-2:2008) and ensures greater safety for the operator should the machine tip over.

Top guard (Level 2 FOPS: ISO 10262) is available as option.
To fit vandalism guard, please contact your KOBELCO dealer.

The GEOSPEC Difference:
Imagining Possible Scenarios and Preparing in Advance

In-cab noise 3dB
**Specifications**

### Engine
- **Model**: HINO-867T
- **Type**: Direct injection, water-cooled, 4-cycle diesel engine with turbocharger, intercooler
- **Compliance**: with EU (NMM) Stage IIIA, US EPA Tier III, and all on regulation, etc. of emission from non-road special motor vehicles (Japan)

### Backhoe System
- **Travel motors**: 2 x axial-piston, two-step motors
- **Travel brakes**: Hydraulic disc brake
- **Parking brakes**: Oil disc brake per motor
- **Travel shoes**:
  - 46 each side (SK200)
  - 49 each side (SK210L)
- **Travel speed**: 0.03 3.5 km/h
- **Drawbar pulling force**: 229 kN (3.5 t) (ISO7464)
- **Gradiability**: 70% (135°)
- **Ground clearance**: 450 mm

### Cab & Control
- **All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, insulated floor mat**

### Refilling Capacities & Lubrications
- **Fuel tank**: 270 L
- **Cooling system**: 22 L
- **Engine oil**: 22 L
- **Booster oil**: 120 mm
- **Arm cylinder**: 135 mm
- **Boom cylinders**: 120 mm

### Swing System
- **Swing motors**: Axial-piston motor
- **Power Boost**: 37.8 MPa (385 kgf/cm²)
- **Swing circuit**: 29.0 MPa (296 kgf/cm²)
- **Travel circuit**: 34.3 MPa (350 kgf/cm²)
- **Power Boost**: 37.8 MPa (385 kgf/cm²)
- **Main control valves**: 8-spool
- **Pilot control pump**: Gear type
- **Control circuit**: 5.0 MPa (50 kgf/cm²)
- **Swing reduction gear**: 3.0 L
- **Travel reduction gear**: 2
- **Engine oil**: 22 L
- **Cooling system**: 22 L
- **Fuel tank**: 370 L

### Hydraulic System
- **Main control valves**: 8-spool
- **Pump**: Two variable displacement pumps + 1 gear pump
- **Max. discharge flow**: 2 x 220 L/min, 1 x 20 L/min

### Attachments
- **Backhoe bucket and arm combination**
- **Backhoe bucket**
  - **Use**
  - **Normal digging**
  - **Light-duty**
  - **Heavy digging**
  - **Shape finishing bucket**
- **Bucket capacity**: Heaped (ISO4651) m³
- **Struck (ISO4651) m³**:
  - 0.51
  - 0.8
- **Opening width**:
  - With side cutters mm
  - Without side cutters mm
  - 870 mm
  - 770 mm
- **No. of bucket teeth**: 3
- **Bucket weight**: kg
- **Combination**:
  - 2.40 m short arm
  - 2.36 m standard arm
  - 3.50 m long arm

### Working Ranges
- **Boom**:
  - Short
  - Standard
  - Long
- **Arm**:
  - Short
  - Standard
  - Long
- **Digging Force (ISO6015)**
- **Dimensions**
- **Operating Weight & Ground Pressure**
- **Operating Weight**
  - SK200
  - SK210L
- **Ground pressure (kgf/cm²)**
- **Operating weight kg**
  - SK200
  - SK210L

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**Recommendation**
- Recommended
- Loading only
- Not recommended
### SK200 Lifting Capacities

<table>
<thead>
<tr>
<th>Radius</th>
<th>Max. Reach</th>
<th>B - Bucket hook height above/below ground</th>
<th>A - Reach from swing centerline to bucket hook</th>
<th>C - Lifting capacities in kilograms</th>
<th>Rating over front</th>
<th>Rating over side or 360 degrees</th>
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**Notes:**
1. Do not attempt to lift or hold any load that is greater than those lift capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
2. Lift capacities are based on machine standing on level, firm, and uniform ground. Use must make allowance for bad conditions such as uneven or uneven ground, out of level conditions, side-slopes, unstable footing, resound conditions, experience of personnel, etc.
3. Lift capacities defined as lift point.
4. The above lifting capacities are in compliance with ISO 10567. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Lifting capacities marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.
5. Operation should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine. Rules for safe operation of equipment should be adhered to at all times.
6. Lift capacities apply to only machine as originally manufactured and normally equipped by Kobelco Construction Machinery Co., Ltd.