



SITE WASTE MANAGEMENT PLAN

Pinewood Campus, Wokingham
Dandara



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THIS ISSUE

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Accepted By				

ISSUE HISTORY

Issue Number	Issue Date	Author	Amendments
1.0	Dec 25	L Memari	

All revisions to the method statement and risk assessment will be recorded on this page.

The author of the amendment(s), or other authorised person, must explain the details of the amendment (s) to the Site Manager/Site Supervisor. The author must ensure that the Site Manager/Site Supervisor signs off the amendment to confirm that he has received and understood it, and that the Site Manager/Site Supervisor returns the signed off front page so that the author can file it in the project office file.

The Site Manager/Site Supervisor must sign off and return the copy of this Amendment page, as explained above, and carefully insert this page and the amendments into the project site file. He must also clearly line through the existing pages to indicate they have been superseded.

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The Pinewood Campus



In Wokingham, Berkshire, was occupied by Johnson & Johnson Medical, but the company's lease is ending and the site is being redeveloped into flats. The property has a longer history, beginning as a sanatorium in the early 20th century.

Campus history

Early 1900s: The site was originally a sanatorium called the London Open Air Sanatorium at Pinewood. It specialized in treating patients with tuberculosis and focused on exercise and fresh air for recovery. The sanatorium closed around 1965.

Johnson & Johnson era: After the sanatorium was later demolished, Hewlett Packard acquired the site and built their offices. The campus, located on Nine Mile Ride, became the headquarters for Johnson & Johnson Medical Ltd. and the location for the Johnson & Johnson Institute.

2024: Johnson & Johnson announced plans to relocate its offices in the Thames Valley area to a new headquarters in Maidenhead. This move included the Pinewood Campus employees, marking the end of the company's occupancy there.

2024–2025: Legal & General Assurance, the site's owner, submitted plans to convert the former office block into more than 100 flats. The plans were approved by the Wokingham Borough Council in October 2024

1. PURPOSE OF PLAN

The purpose of the Site Waste and Resource Management plan is to provide effective guidance on the identification, handling, transportation, storage and disposal of wastes generated on site during the project lifecycle.

The plan may require amendments to reflect changes to legislation or client requirements and standards. This plan is owned by Hughes and Salvidge's project team who are responsible for keeping the plan current and updated as necessary, including a formal review every 30 days. Waste documents will be retained for 6 years post transaction as an electronic copy.

This document describes the waste management methodology employed on the project, covering the following:

- Identification of wastes and definition of waste classifications.
- The collection, segregation, handling, temporary storage, transport and disposal of wastes in order to protect health and to minimise the impact on the environment in accordance with all applicable legislation and standards.
- Details regarding documentation supporting waste streams.
- Methods of mitigation to ensure appropriate waste handling and disposal when necessary.
- Concrete testing in line with the WRAP procedure.

2. WASTE MANAGEMENT

During the project, Hughes and Salvidge shall manage the entire lifecycle of produced waste in order to minimise the amounts generated and hierarchically follow the practices of reuse, recycling, recovery, treatment and final disposal in approved disposal sites.

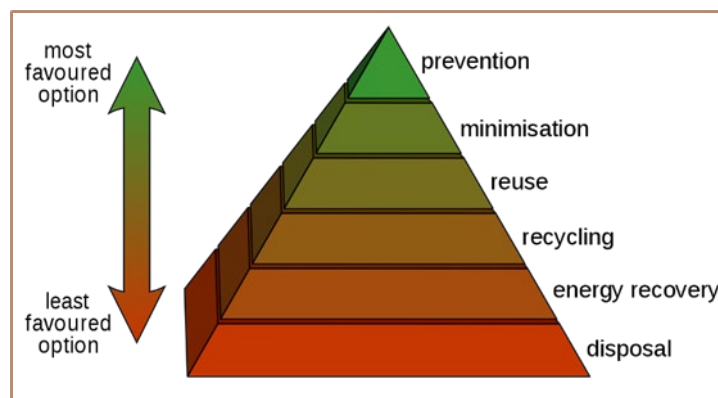
The 8 steps of waste management are detailed below:

- Identifying and quantifying waste streams
- Classification of waste streams as hazardous or non-hazardous
- Identifying temporary on-site waste storage strategies and movements
- Identifying waste disposal suppliers and disposal sites
- Disposing or recycling-reuse of wastes

- Transportation of wastes off-site
- Waste measurement and record keeping
- Monitoring of the waste management plan and updating as necessary.

3. PLANNING AND DESIGN

Hughes and Salvidge are committed to following the waste hierarchy when possible.



3.1. Reuse of Materials

- Clean concrete and masonry arising from the demolition will be crushed for reuse on site (see page 5 for concrete crushing information).
- On-site COSHH (*Control of Substances Hazardous to Health*) store utilised during demolition phases.

3.2. Upcycling

- Records of re-use certifications will be collated (Appendix 1).
- Kitchen appliances upcycled off-site for further use.
- Desks/chairs within the building utilised in the site offices.

3.3. Recycling of Materials

- Metal materials will be 100% recycled off-site.
- Tree green waste will be chipped on site and will be reused off-site.
- Fire extinguishers from site will be moved from site to be recharged for use by Hughes and Salvidge.

3.4. Carbon Footprint

When possible, local waste suppliers will be used throughout the project to ensure the project's carbon footprint is minimised.

4. WASTE HANDLING

In the events of waste handling, operatives shall comply with the following minimum requirements:

- Appropriate PPE (defined in the associated RAMS) shall be worn by operatives when handling waste at all time.
- In the event of PPE becoming contaminated with hazardous waste, the PPE equipment will be disposed of correctly to the same type of waste contaminating it (e.g., gloves drenched with hydraulic oil will be disposed with oily rags).
- Waste handling equipment shall be adequate for the quantity of waste handled and provided with safety devices (close-boarded platforms, fasteners) to prevent any potential roll-over of the containers.
- No waste will be burnt.
- General waste - All materials unable to be recycled will be loaded into 35-yard roll on/off containers and moved off site to licensed recycling facility. Each bin will be conveyed with netting to prevent dust.
- Polystyrene – Polystyrene will be segregated from other waste streams and placed in a dedicated polystyrene 35 yard roll on/off containers and removed off site to a licensed recycling facility. Each bin will be conveyed with netting to prevent escape of polystyrene.
- Plastics - Plastics will be segregated from other waste streams and placed in a dedicated plastics 35 yard roll on/off containers and removed off site to a licensed recycling facility for further processing and recycling/disposal. Each bin will be conveyed with netting to prevent escape of plastics.
- Fibreglass - fibreglass will be segregated from other waste streams and placed in a dedicated polystyrene 35 yard roll on/off containers and removed off site to a licensed recycling facility. Each bin will be conveyed with netting to prevent escape of fibreglass.
- Glass - glass will be segregated from other waste streams and placed in a dedicated 35 yard roll on/off containers and removed off site to a licensed recycling facility.
- Green Waste - All green waste will be segregated and loaded into a 35-yard roll on/off bin ready for transported to a waste transfer station for recycling.
- Plasterboard – plasterboard will be segregated from other waste streams and placed in a dedicated plasterboard 35 yard roll on/off containers and moved off site to recycling facility. Each bin will be conveyed with netting to prevent dust.
- Timber - All timber waste will be segregated and loaded into a 35-yard roll on/off bin ready for transported to a waste transfer station for recycling.
- Scrap Metals - All scrap metal will be segregated into various grades/types and loaded into scrap trailers or roll on/off containers and removed from site to licensed scrap processing plant.
- Fluorescent tubes- fluorescent tubes will be segregated and placed in designated waste containers/coffins for collection and disposal to a licensed waste facility.

- Concrete / Brick / Masonry (Hard Inert Arisings)- All concrete arising from the works are to be crushed down to 6F2 type with materials used as part of the compaction and backfilling works following slab removal. All surplus 6F2 material will be exported from site as a useable material.
- Asbestos- All asbestos waste will be removed from site and will be disposed of at a licensed landfill. Other Hazardous Materials Any hazardous materials identified will be disposed of at a licensed landfill All waste will be weighed before leaving site. The weights will be written on to the waste tickets. Records of all tickets and waste will be kept on site.

5. PLANT AND MACHINE EXPECTATIONS

Within the attached appendix 2 files, details and specs on the following plant used in demolition on site:

- Hitachi Zaxis-7 890
- Hitachi Zaxis-7 490

6. WASTE SEGREGATION, MOVEMENT AND STORAGE

Segregating waste materials according to their general physical and chemical nature will occur on sites. All of the waste produced on site shall be segregated at source and stored appropriately. Most waste will be stored in containers or skips after a prompt identification. The following measures will be adhered to regarding waste segregation:

- Suitable containers shall be used to collect the waste (E.g., skips, bins, or drums).
- Containers shall be closed when necessary and clearly labelled.
- The containers shall be regularly emptied, and suitable housekeeping measures shall be adopted to prevent nuisance from insects, vermin, or scavenging.
- An adequate frequency of collection shall be ensured to avoid any noxious odours nor any disturbance to wildlife and the environment.
- All waste produced on site shall be segregated at source and stored in appropriate skips or other containers.
- Any stockpiled waste will remain until management control and management will determine safe heights/widths of stockpiled materials. Granular materials (crushed concrete) will be battered in accordance with the temporary works. Excavations are to be CAT 0, and stockpiles will be minimum 1:1 from excavations (excluding battering/stepping).
- If necessary, stockpiled concrete will be dampened to prevent generation of dust pollution.
- All vehicles transporting waste off-site for disposal shall be covered with appropriate materials to avoid ejections onto the public highway.

- Vehicles will be washed down when necessary to avoid tracking out mud off site and road sweepers will be deployed if required and will be under supervision of a marshal.

Storage locations of waste material will move throughout the duration of the project. The location of waste material storage (containers or stockpiles) will be determined by site management. Site management will ensure to store waste materials away from sensitive receptors such as waterbody, drains and waterways to prevent pollution risks.

Site management perform regular site walk around and consciously check for any escaped waste. In the unusual event of waste material escaping from the storage areas, operatives will rectify this promptly by collecting and returning the waste.

7. HAZARDOUS WASTE

Hazardous waste shall be segregated from Non-Hazardous waste at all times and the following measures will be followed to ensure correct storage and handling:

- Liquid wastes shall be kept in a bunded area and clearly labelled.
- Wastes from different sources (including hazardous and/or non-hazardous) shall not be mixed.
- Separate skips/containers shall be provided for each recyclable and non-recyclable waste.
- All skips and containers on site shall be clearly labelled to identify the contents of each skip/container and EWC codes.
- Waste shall be stored in skips/containers that are appropriate for the type of waste and account for the hazardous characteristics of the waste to prevent loss of contaminant, fires and explosions. Firefighting and spill deployment kits will be close to hand and all staff will be trained to use the equipment.
- The waste storage area shall be segregated from services, offices and other storage areas.
- Storage will be >10m from surface water drains or features.
- If IBCs are required, prior to any use the IBC will be inspected to determine the age and condition. IBCs over 5 years of age or with any visual damage (e.g., dents, cracks) shall not be used.
- Liquid wastes including chemicals, cleaning agents, solvents and solvents containing products will be properly sealed in containers and in bunded areas.

8. CONCRETE

Concrete arisings will be stored on site in designated areas for crushing, re-use and site removal. The hardcore material will be stockpiled away from surface water drains and water features, and the location of concrete stockpiles will vary throughout the project at the site managements discretion. Concrete will be transferred across site via dump truck and the stockpiles of hardcore and crushed concrete will be dampened down when required to avoid windblown dust. Concrete will be crushed to 6F2 and testing of this material will be performed by ACS. After concrete has been crushed, this material will be stored in a separate pile. Placards will be issued for stockpile material with information on the testing type and date of testing.

9. CRUSHER PERMIT AND APPROVAL

Please see appendix 3 for the LAPPC for crushing activity. Approval response shall be reflected here when the crusher is due to arrive on site. Crusher arrival date to be confirmed.

10. WASTE TRANSPORT

Any materials than cannot be re-used on-site shall be transported off-site as waste for treatment or recycling after temporary storage on-site. Hughes and Salvidge shall ensure that any supplier who transports, stores or disposes of wastes are licensed, competent and executes their activities in compliance with regulatory requirements and standards. These will have been pre-approved under duty of care.

The following waste transportation standards will comply:

- All vehicles shall be covered/sheeted prior to exiting the site.
- A jet vehicle wash will be deployed on site if required to deal with wheel and axle mud build-up. Vehicles will be inspected by marshal before leaving site to ensure no track-out mud will leave site.
- Liquid hazardous wastes shall be transported in trucks or tankers with sealed barrels and the contents of which (including date of production, hazardous classification, and handling precautions in the event of loss of containment) shall be clearly indicated on each barrel/tank.
- Vehicles shall be in a sound condition and capable of containing any leakages.
- Vehicles shall have sufficient capacity to carry the waste without overloading.
- Drivers shall be suitably trained and aware of potential dangers of their cargoes and shall be made aware of emergency response procedures.

All waste transported off-site shall be done under the cover of a Waste Transfer Note or Consignment Note for Hazardous Waste. Waste transfer or consignment notes will only be signed by a qualified member of Hughes and Salvidge staff. Waste will be transferred using the waste transfer's organisations vehicles. Vehicles will be loaded mechanically via on-site plant (selector) or using a RORO.

At a minimum, the Waste Transfer Note shall carry the following information:

- Waste Transfer Note identification number
- EWC – European Waste Transfer Classification/Code
- SIC Codes
- A description of the waste
- Quantity of the waste
- Number of waste containers and a description of the container type
- Time and date of transfer
- Address of waste's termination point
- Waste generator's details

- Waste transporter's details, their Declaration of Acceptance of Waste and Waste Carriers Licence number
- Waste Receivers details and their Declaration of Acceptance of Waste

11. TRAINING AND COMMUNICATION

In order to ensure that everyone working on the project is aware of the SWMP and aware of their roles and responsibilities in relation to waste management, a number of communication methods will be used. These methods are described below:

- Meetings: Project team will attend the bi-weekly progress meetings and the SWMP will be discussed along with waste management.
- Briefing: Daily activity briefings will be held to discuss compliance with the SWMP and to ensure waste is being managed correctly.
- Toolbox Talks: Tool box talks on waste management will be carried out as waste streams change or appropriate waste issues.
- Posters: Posters explaining and encouraging waste minimisation, waste segregation and legal compliance will be displayed around site and on notice boards in the site office and welfare facilities.
- Training: Training sessions will be held for all key personnel involved with the management of the plan to ensure full compliance.

12. WASTE WATER

Waste water the run off from dust control is to be contained within the demolition area during works. Due to accurately targeting the dust suppression, it is likely there will be minimal run off. Any run off that occurs will evaporate from the hard standing. It is unlikely water testing and treatment will be required and water will not build up enough to need to be discharged from the area. Spill kits will be local to areas high risk to water pollution (fuel bowzers, plant) to contain spillages and prevent them from entering waterways or filtering into the ground.

13. ADDITIONAL MEASURES

NA

14. WASTE MANAGEMENT CONTRACTORS

The selection of waste management contractors for this project was based on the following: legal compliance, waste recovery performance, service delivery, provision of suitable equipment and advice, flexibility, reliability and cost effectiveness. It is the responsibility of the waste management contractors to provide suitable waste containers, equipment and personnel as necessary to meet the requirements set out in this SWMP.

Within our annual review of sub-contractors, Hughes and Salvidge check the waste management contractors previous HSE, EA and LA prohibitions, prosecutions or enforcements.

15. RESPONSIBILITIES

Site security measures are in place to prevent the illegal disposal and theft of waste from site. Hughes and Salvidge will appoint a person to handle waste tickets, to ensure that the correct information is being collected on all waste tickets. Hughes and Salvidge will provide in-house training to the appointed person so they can carry out their duties. Staff are provided with crib cards for guidance. If the appointed person is on leave, there will always be another competent member of staff on site to perform these responsibilities.

When any waste is removed from site, Hughes and Salvidge will keep a record on the Waste Summary Sheet and will populate a waste report to record all information of waste removal including the recycling percentage on site. This will be within an excel live document and will be updated by Hughes and Salvidge's environmental advisor. This will be updated regularly in accordance to the waste generation.

Hughes and Salvidge will keep hard and electronic copies of waste tickets and online copies of the waste contractors waste carrier licences and EA permits. This information will be retained for 6 years in line with HMRC and EA waste compliance guidelines. Hughes and Salvidge will perform internal audits to ensure full compliancy regarding waste management on site.

16. UPDATING THE SWMP

The SWMP will be updated when necessary to accurately reflect the progress of the project and, in any event, not less than every six months, the plan will be reviewed. In addition to the SWMP, the waste report that will be regularly updated will record the type and quantities of waste produced. Records of the waste that has been reused (on or off site), recycled (on or off site), sent for another form of recovery (on or off site), sent to landfill or otherwise disposed of, will be recorded in this waste report.

17. SWMP WASTE REPORT

Attached to the written SWMP is a live waste report that is updated regularly and will be distributed out across the project team in the first week of the following month. Within the waste report, a summary of waste generated over the entire project and monthly will be created. The waste summary breaks down the results into the following categories:

- Waste Avoidance
- Soil Reuse
- Reuse on site
- Reuse off site
- Recycling/Treatment
- Recovered (Energy)
- Non-Haz Landfill
- Haz Landfill

- Asbestos

Over the duration of the project, a recycling rate will be generated (excluding asbestos). The waste report will also include the following information:

- Date of waste movement
- Waste management contractor/supplier
- Waste description
- Waste EWC Code
- Where the waste is from
- Waste ticket number
- Destination of waste
- Type of container

18. MONITORING

Monitoring of the SWMP will be carried out throughout the project lifecycle. The following, details checks and responsibilities:

Monitoring Method	Person Responsible	Frequency of Monitoring
Visual inspections - Housekeeping	Site Manager HSL Operatives	Daily
Visual inspections – Site and documentation audits	Contracts Manager Health and Safety Advisor Environmental Manager/Advisor Quality Manager	Fortnightly rotation
Document reviews: SWMP Compliance Waste Transfer Notes Consignment Notes Waste Carriers License Waste Management License Waste Management Contractors	Contracts Manager Health and Safety Advisor Environmental Manager/Advisor Quality Manager	Weekly
Following waste to disposal point	Quality Manager	Randomly

19. WASTE CARRIER INFORMATION

Waste Type	Waste Carrier Name	Waste Carrier Licence Number	Waste Carriers Licence Expiry Date	Disposal Site Name and Address	Type of site (e.g. landfill, transfer station, exemption site)	Environmental permit/exemption number and reason for exemption
Mixed construction/ General waste	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	DP3492LV
Metal	EMR	CBDU188448	12/08/2026	EMR London Brentford, 4 Transport Ave, Brentford TW8 9HF	Scrap Metal Recycling Yard	EPR/EP3228SB/A001
Hardcore arising						
Timber	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	DP3492LV
Asbestos material	Windsor Waste	CBDU63545	18/10/2027	Parkgate Farm Mopes Lane Purton, Swindon Wiltshire SN5 4HG	Hazardous Landfill Site	EPR/NP3934LH

COSHH substances	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	DP3492LV
Green waste	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	DP3492LV
Polystyrene	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	DP3492LV
Glass	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	DP3492LV
Plastic	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	DP3492LV
Soil and stones	Chambers	CBDU82698	28/02/2028	Chambers House North Moors Guildford Surrey GU1 1SE	Transfer station/ Recycling yard	FP3235PA

Hazardous waste						
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20. FORECASTING AND PLANNING THE REDUCTION, REUSE AND RECYCLING OF WASTE

Waste Type	Waste Materials	Forecast estimated quantity (tonnes or m ³)	Trade contractor package	Waste minimisation opportunities	On site reuse/recycling	Recovery	Disposal
Inert	Hardcore	6000m ³	Demolition	Segregation at source	6000m ³	100%	NA
	Soils	NA	Investigation works	Re-used on site as backfill	NA	NA	NA
Non-Hazardous	Mixed waste	50T	Strip out and demolition	Waste sent to transfer station for segregation and recycling	Recycled	98%	2%
	Metal	200t	Strip out and demolition	Segregated from other waste streams and send to metal recycler	Recycled	100%	

	Timber	60t	Strip out and demolition	Segregated from other waste streams and send to transfer station	Recycled	100%	
	Plasterboard	100t	Strip out and demolition	Segregated from other waste streams and send to transfer station	Recycled	100%	
	Glass	40t	Strip out and demolition	Segregated from other waste streams and send to transfer station	Recycled	100%	
	Carpet & carpet tiles	18t	Strip out	Segregated from other waste streams and send to transfer station	Re-use	75%	25%
	Computer flooring	30t	Strip out and demolition	Segregated from other waste streams and send for reuse and to transfer station	Re-use	98%	2%
Hazardous	Asbestos contaminated materials	NA	Asbestos removal				

APPENDIX 1 – CERTIFICATE OF RE-USE TEMPLATE

Certificate of Re-use

Project (origin of item/material reused)		
Project number		
Date of re-use		
Item/material to be reused		
Re-used by		
Purpose of re-use		
Electrical item? (circle)	Yes	No
Item tested before re-use? (circle)	Yes	No
Item fit for intended use at this date? (circle)	Yes	No

The above item(s) have been properly, safely and compliantly diverted from landfill in an environmentally safe and secure manner in accordance with current UK legislation.

I certify that the items / materials listed in the above transaction were diverted from landfill and the above mentioned are released from all liability for the above items.

I also understand that once the item / material is no longer of use and to be discarded, the above hierarchy will be applied and understand that this item / material may once more, become waste under current UK regulations.

Print.....

Sign.....

Date.....

(Copy provided to re-user and copy for project files)

APPENDIX 2

ZAXIS-7 series

HITACHI

Reliable solutions

ZAXIS690/890



HYDRAULIC EXCAVATOR

Model code : ZX890LCH-7 / LCR-7
 Engine rated power : 348 kW (ISO14396)
 Operating weight : 63 400 – 71 400 kg
 Bucket ISO heaped : 2.9 – 4.0 m³

Model code : ZX890LCH-7 / LCR-7
 Engine rated power : 382 kW (ISO14396)
 Operating weight : 64 800 – 67 500 kg
 Bucket ISO heaped : 3.5 – 5.0 m³

SPECIFICATIONS

ENGINE

ZX690LCH / ZX690LCR

Model	Isuzu 6WG1
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Variable geometry turbocharged, intercooled, cooled EGR
Aftertreatment	DOC + CSF and SCR system
No. of cylinders	6
Rated power	
ISO 14396	348 kW at 1 800 min ⁻¹
ISO 9249, net	347 kW at 1 800 min ⁻¹
SAE J1349, net	347 kW at 1 800 min ⁻¹
Maximum torque	2 050 Nm at 1 300 min ⁻¹
Piston displacement	15.681 L
Bore and stroke	147 mm x 154 mm
Batteries	2 x 12 V / 170 Ah

ZX890LCH / ZX890LCR

Model	Isuzu 6WG1
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Variable geometry turbocharged, intercooled, cooled EGR
Aftertreatment	DOC+CSF and SCR system
No. of cylinders	6
Rated power	
ISO 14396	382 kW at 1 800 min ⁻¹
ISO 9249, net	380 kW at 1 800 min ⁻¹
SAE J1349, net	380 kW at 1 800 min ⁻¹
Maximum torque	2 250 Nm at 1 300 min ⁻¹
Piston displacement	15.681 L
Bore and stroke	147 mm x 154 mm
Batteries	2 x 12 V / 170 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	2 variable displacement axial piston pumps	
Maximum oil flow	ZX690LCH / ZX690LCR	2 x 489 L/min
	ZX890LCH / ZX890LCR	2 x 556 L/min
Pilot pump	1 gear pump	
Maximum oil flow	50 L/min	

Hydraulic Motors

Travel	ZX690LCH / ZX690LCR	2 axial piston motors with parking brake
	ZX890LCH / ZX890LCR	2 variable displacement axial piston motors
Swing	2 axial piston motors	

Relief Valve Settings

	Unit: Mpa	
	ZX690LCH / ZX690LCR	ZX890LCH / ZX890LCR
Implement circuit	31.9	31.9
Swing circuit	29.4	28.4
Travel circuit	34.3	34.3
Pilot circuit	3.9	3.9
Power boost	34.3	34.3

Hydraulic Cylinders

ZX690LCH / ZX690LCR

Unit: mm

	Quantity	Bore	Rod diameter
Boom	2	190	130
Arm	1	200	140
Bucket	1	180	130
Bucket (BE)	1	190	130

ZX890LCH / ZX890LCR

Unit: mm

	Quantity	Bore	Rod diameter
Boom	2	215	150
Arm	1	225	160
Bucket	1	200	140
Bucket (BE)	1	215	150

UPPERSTRUCTURE

Revolving Frame

D-section frame for resistance to deformation.

Swing Device

Axial piston motor with planetary reduction gear is bathed in oil.
Swing parking brake is spring-set/hydraulic-released disc type.

ZX690LCH / ZX690LCR

Swing speed	9.0 min ⁻¹
Swing torque	194 kNm

ZX890LCH / ZX890LCR

Swing speed	7.8 min ⁻¹
Swing torque	267 kNm

UNDERCARRIAGE

Tracks

Track shoes with double grousers made of induction-hardened rolled alloy.
Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers and Shoes on Each Side

	ZX690LCH / ZX690LCR	ZX890LCH / ZX890LCR
Upper rollers	3	3
Lower rollers	8	9
Track shoes	47	51
Track guard	1	1

Travel Device

Each track driven by axial piston motor through reduction gear for counterrotation of the tracks.
Parking brake is spring-set/hydraulic-released disc type.
Automatic transmission system: High-Low.

Travel speeds	ZX690LCH / ZX690LCR	High : 0 to 5.0 km/h Low : 0 to 3.4 km/h
	ZX890LCH / ZX890LCR	High : 0 to 4.7 km/h Low : 0 to 3.2 km/h

Maximum traction force	ZX690LCH / ZX690LCR	483 kN
	ZX890LCH / ZX890LCR	560 kN

Gradeability 70% (35 degree) continuous

ENVIRONMENT

Engine Emissions

EU Stage V

Sound Level

ZX690LCH / ZX690LCR

Sound level in cab according to ISO 6396	LpA 74 dB(A)
External sound level according to ISO 6395 and EU Directive 2000/14/EC	LwA 108 dB(A)

ZX890LCH / ZX890LCR

Sound level in cab according to ISO 6396	LpA 74 dB(A)
External sound level according to ISO 6395 and EU Directive 2000/14/EC	LwA 108 dB(A)

Air Conditioning System

The air conditioning system contains fluorinated greenhouse gas.
Refrigerant type: HFC-134a, GWP: 1430, Amount: 1.05 kg, CO₂e: 1.50 ton.

SERVICE REFILL CAPACITIES

Unit: L

	ZX690LCH / ZX690LCR	ZX890LCH / ZX890LCR
Fuel tank	900.0	1 110.0
Engine coolant	76.0	124.0
Engine oil	62.0	62.0
Pump drive	6.2	6.2
Swing device (each side)	10.5	15.7
Travel device (each side)	13.5	19.0
Hydraulic system	750.0	1 042.0
Hydraulic oil tank	380.0	500.0
DEF/AdBlue® tank	95.0	95.0

ZAXIS-7 series

HITACHI

Reliable solutions

ZAXIS490/530



HYDRAULIC EXCAVATOR

Model code :	Zx490LGH-7	Zx530LGH-7
Engine rated power :	296 kW (ISO14396)	296 kW (ISO14396)
Operating weight :	49 500 - 51 200 kg	52 700 - 54 600 kg
Bucket ISO heaped :	2.10 - 2.50 m ³	2.10 - 2.50 m ³

SPECIFICATIONS

ENGINE

Model	Isuzu 6WG1
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Variable geometry turbocharged, intercooled, cooled EGR
Aftertreatment	DOC, DPF and SCR system
No. of cylinders	6
Rated power	
ISO 14396	226 kW at 1 800 min ⁻¹
ISO 9249, net	226 kW at 1 800 min ⁻¹
SAE J1349, net	226 kW at 1 800 min ⁻¹
Maximum torque	2 050 Nm at 1 300 min ⁻¹
Piston displacement	15.681 L
Bore and stroke	147 mm x 154 mm
Batteries	2 x 12 V / 170 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	2 variable displacement axial piston pumps
Maximum oil flow	2 x 385 L/min
Pilot pump	1 gear pump
Maximum oil flow	30 L/min

Hydraulic Motors

Travel	2 variable displacement axial piston motors
Swing	2 axial piston motors

Relief Valve Settings

Implement circuit	31.9 Mpa
Swing circuit	28.4 Mpa
Travel circuit	35.3 Mpa
Pilot circuit	3.9 Mpa
Power boost	35.3 Mpa

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Unit: mm			
Boom	2	170	115
Arm	1	190	130
Bucket	1	170	120

UPPERSTRUCTURE

Revolving Frame

D-section frame for resistance to deformation.

Swing Device

Axial piston motor with planetary reduction gear is bathed in oil. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed 9.6 min⁻¹

Swing torque 148 kNm

UNDERCARRIAGE

Tracks

Track shoes with triple grousers made of induction-hardened rolled alloy. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

Numbers of Rollers and Shoes on Each Side

	ZX490LCH	ZX530LCH
Upper rollers	3	3
Lower rollers	9	8
Track shoes	53	49
Track guards	2	Full

Travel Device

Each track driven by axial piston motor through reduction gear for counterrotation of the tracks.

Parking brake is spring-set/hydraulic-released disc type.

Automatic transmission system: High-Low.

Travel speeds	ZX490LCH	High : 0 to 5.5 km/h Low : 0 to 3.7 km/h
	ZX530LCH	High : 0 to 4.3 km/h Low : 0 to 3.1 km/h
Maximum traction force	ZX490LCH	329 kN
	ZX530LCH	411 kN

Gradeability 70% (35 degree) continuous

ENVIRONMENT

Engine Emissions

EU Stage V

Sound Level

Sound level in cab according to ISO 6396 LpA 70 dB(A)

External sound level according to ISO 6395 and EU Directive 2000/14/EC LwA 107 dB(A)

Air Conditioning System

The air conditioning system contains fluorinated greenhouse gas.

Refrigerant type : HFC-134a, GWP: 1430, Amount: 1.10 kg, CO₂e: 1.57 ton.

SERVICE REFILL CAPACITIES

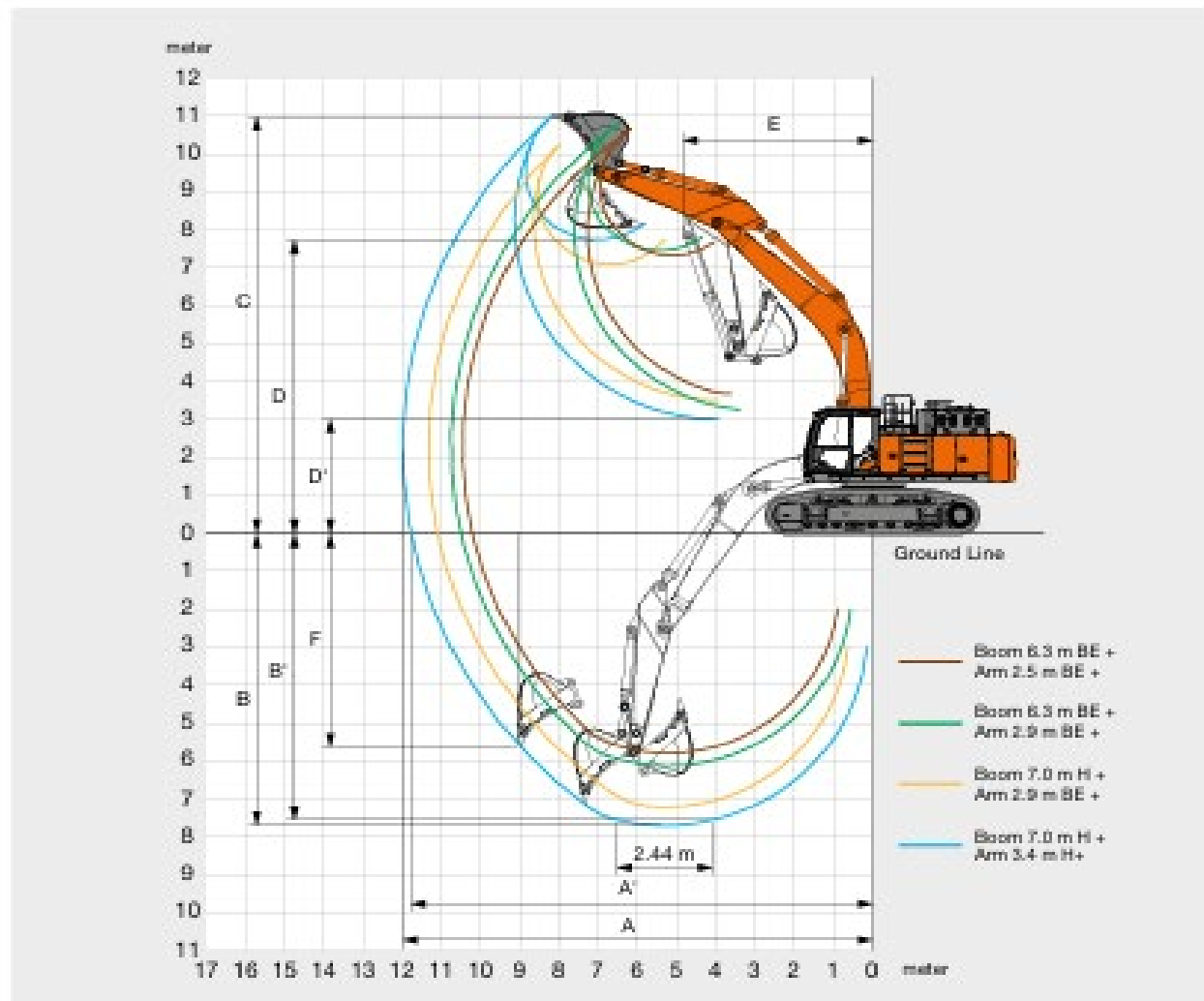
	Unit: L	
	ZX490LCH	ZX530LCH
Fuel tank	675.0	675.0
Engine coolant	70.0	70.0
Engine oil	62.0	55.0
Swing device (each side)	6.5	14.0
Travel device (each side)	11.0	11.0
Hydraulic system	510.0	510.0
Hydraulic oil tank	310.0	310.0
DEF/AdBlue® tank	95.0	95.0

4 | ZX490LCH-7 / ZX530LCH-7

SPECIFICATIONS

ZX490LCH

WORKING RANGES



Unit: mm

Arm length	ZX490LCH			
	Boom 6.3 m BE		Boom 7.0 m H	
	Arm 2.5 m BE	Arm 2.9 m BE	Arm 2.9 m BE	Arm 3.4 m H
A. Max. digging reach	10 460	10 750	11 330	11 660
A'. Max. digging reach (on ground)	10 210	10 500	11 100	11 770
B. Max. digging depth	5 790	6 130	7 200	7 700
B'. Max. digging depth for 2.44 m level	5 620	5 960	6 960	7 550
C. Max. cutting height	10 660	10 790	10 170	10 660
D. Max. dumping height	7 320	7 440	7 100	7 720
D'. Min. dumping height	3 670	3 250	3 520	3 010
E. Min. swing radius	6 070	3 600	5 020	4 840
F. Max. vertical wall	4 260	4 650	4 270	5 630

Excluding track shoe lug

APPENDIX 3

Please see attached folders.



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