050218/SK21226/MAK/EGGLESCLIFFE
BY EMAIL

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Greg Archer
Major Projects Officer
Planning Services
Municipal Buildings
Church Road
Stockton on Tees
TS18 1LD

5th February 2018

Dear Mr Archer

RE: PLANNING APPLICATIONS 17/2942/FUL & 17/2948/FUL – ERECTION OF WOODEN FOOTBRIDGE (FOR SCHOOL USE ONLY) AND THE FORMATION OF GRASS PLAYING PITCHES WITH ASSOCIATED ACCESS

You may recall that SK Transport Planning Limited (SKTP) has previously represented the Egglescliffe Area Residents Association (EARA) on traffic engineering and transport planning matters on planning applications in the Egglescliffe Village area. This includes the technical assessment of the following planning applications:

- Application Reference 12/1595/EIS – application for playing pitches, emergency/maintenance access and pedestrian footbridge over the River Tees, creation of public greenspace, enhancement of footpath network and creation of public car park facility – withdrawn by the applicant in October 2012
- Application Reference 12/2568/EIS – formation of new footbridge over the River Tees – refused in 2013
- Application Reference 16/1904/FUL – application for wooden pedestrian and cycle bridge – refused in August 2017

It is relevant that the near identical planning application (12/2568/EIS) was refused by the Council's Planning Committee on four reasonable and valid material planning considerations. These were:

1) *in the opinion of the Local Planning Authority, the proposed access to the site by construction work traffic and machinery via Egglescliffe Village was unsatisfactory due to the restricted width of the access and proximity to a listed building and, the absence of control over the land, or likelihood of gaining control, over which the vehicles would be required to pass, therefore the development could not take place.*
2) *In the opinion of the Local Planning Authority, the proposed development will adversely affect the openness and amenity value of the Green Wedge by the introduction of maintained playing fields and the associated paraphernalia and associated noise - Contrary to Core Strategy Policy CS10(3).*

3) *In the opinion of the Local Planning Authority, the development is contrary to Saved Policy EN7 and Saved Policy EN24 of the Adopted Stockton on Tees Local Plan, in that it is considered by virtue of the nature of the development it would harm the landscape value of the special landscape area of the Tees Valley, which will not be permitted, and harms the character and appearance of the Egglescliffe and Yarm Conservation Areas.*
4) *In the opinion of the Local Planning Authority, the proposed development is contrary to Adopted Core Strategy CS6(3), in that it will adversely affect the quantity and quality of open space*

You will be aware that these new applications (17/2942/FUL and 17/2948/FUL) are almost identical to 12/2568/EIS, and therefore the four reasons for refusal remain valid for this latest planning application.

You will also recall that as part of our previous representations we made detailed representations on all the applications. As part of our response to planning application 12/1595/EIS we carefully considered the applicant's proposals regarding construction access relating to the proposed new pitches, pavilion and footbridge.

As part of our responses to planning applications 12/2568/EIS and 16/1904/FUL we again produced technical evidence challenging what was clearly a scaled down version of the original application, which concentrated on the delivery of the foot and cycle bridge over the River Tees.

At the time we stated that it would be easy to arrive at the conclusion that the 2012 and 2016 planning applications were simply the first strand of the wider development strategy by Yarm School for the land to the east of the river, and with this in mind the EARA were pleased that the Council arrived at decision to refuse the 2016 bridge application on the following grounds:

1. *In the opinion of the Local Planning Authority the proposed bridge would result in an unnecessary intrusion into the landscape/riverscape along the banks of the River Tees adversely affecting the character of the surrounding area contrary to policy CS3 (8) of the Core Strategy and saved policy EN7 of the adopted Stockton on Tees Local Plan.*
2. *In the opinion of the Local Planning Authority the proposed development would result in a significant increase in pedestrian movements thereby adversely impacting on the amenity of the existing residents through additional noise and general disturbance contrary to paragraph 17 of the National Planning Policy Framework*

It is noted that the applicant has decided not to appeal against the Council's decision to refuse planning permission for the bridge on these two grounds.

Somewhat predictably we see that the latest planning applications submitted by the school (reference 17/2942/FUL and 17/2948/FUL) are an amalgamation of the 2012 and 2016 refused applications for the bridge and the withdrawn 2012 application for the sports pitches and bridge. Subtle changes to the use of the bridge, by taking away public access and confirming use by the school have been made with this latest planning application.

In addition, when comparing the latest application to the 2012 scheme reference to a school pavilion has been deleted from the latest application, along with a revised construction management plan that is more akin to the methodology presented as part of the 2016 application.

You have on file our previous detailed comments on the traffic and transport matters relating to the 2012 bridge and playing pitch development proposals, and nothing has materially changed to require us to alter our position of objection on this. Our position regarding the construction traffic movements associated with the delivery of the new bridge and construction of the sports pitches also mirror our responses made to the 2012 and 2016 planning applications for the new bridge.

Our previous submissions on the 2012 and 2016 applications confirmed that any proposed construction access through Egglescliffe village would need to route through this compact hamlet which benefits from being within a Conservation Area. We highlighted that the village has 30 listed buildings, including the Grade 1 listed church.

We confirmed in our submissions that as would be expected in such a historic location access by vehicular traffic is constrained by the street pattern and carriageway widths, and motorists have to carefully negotiate their way through the village and around the village green to minimise their impact on the surrounding area.

In their previous submissions the school has stated in their Design & Access Statements and Construction Management Plans that:

'Access onto the site, both vehicular and pedestrian is severely constrained due to its location adjacent to the River Tees"[1]

and;

'Parts of Butts Lane within Egglescliffe are of sub-standard width'[2]

Our previous submissions have acknowledged and agreed with the school's comments that access to the site is severely constrained and their access routes within Egglescliffe are of sub-standard width.

As with the school's previous submissions we note from the applicant's latest "CLS Sports" Report (issue 4, Revision D) that all construction traffic associated with the planning application for the new bridge will have to route through Egglescliffe village and negotiate parked vehicles, narrow carriageways, the village green and overhanging trees (which would be expected to be protected by Tree Preservation Orders as they are located within the Conservation Area).

In line with previous planning submission documents the latest CLS report is somewhat hazy in terms of the construction of the proposed overbridge and pitches. The document states:

"There will be circa 20 delivery movements required for construction plant and equipment for the pitch installation works.

A design specification or soil analysis has not yet been carried out so vehicular movements for the delivery of amelioration sand and quantities cannot be determined at this stage."

This statement confirms that over three planning applications the applicant has still not fully appreciated the potential impact that the construction works will have on Egglescliffe village or on the land to the east of the river. The 20-delivery movement figure clearly just relates to the construction plant deliveries, but the application is silent on any vehicular movements related to materials required to construct the pitches.

[1] Nathaniel Lichfield & Partners, June 2012, Page 5, Land North of the River Tees, Yarm D&A Statement
[2] Nathaniel Lichfield & Partners, October 2012, Page 4, Living Draft Construction Management Plan

In such as sensitive location, it is completely unrealistic to expect the Local Planning Authority to form a judgment on the potential impact of the development without providing any quantified evidence on the pitch and bridge material movements.

The CLS report goes on to confirm the type of construction vehicles that will be required to undertake the engineering works. We have sourced the technical specifications for the three vehicles referenced in the CLS report (CAT D6 Dozer, 21T Excavators and 20T Hydrema Dump Trucks) and these are provided in **appendix a**.

The technical summaries confirm that these vehicles are of a scale that would normally be brought to site on low loaders. The CLS report states that the plant:

'will be delivered to the farm and then driven down the existing farm tracks as described.'

It is noted that all these plant vehicles are circa 3m in width, and no swept path analysis has been provided in the CLS reports demonstrating how these vehicles will be delivered to the farm, and in particular how they will pass through the defined pinch point between the Grade 2 Listed stable building (which forms part of Village Farm) and the wall and driveway that forms part of Grade 2 Listed property known as St Anne's House.

The measurements shown below confirm that access width has a minimum width of **3.37m** between the third party wall owned by the occupiers of St Anne's House and the outer face of the listed stable building.

Figure 1 – Proposed Vehicular Access Dimensions

The proposed vehicular access route is shown in **photograph 1**.

Photograph 1 – Looking South towards Proposed Vehicular Access (Shown Between Two Yellow Arrows)

Previously submitted swept path analysis in earlier applications has confirmed that construction traffic routing through the village will have an unacceptable impact on the Conservation Area. The combination of narrow streets, limited access width between the listed buildings and third party land, as well as the need to negotiate other listed structures (including the telephone box adjacent to the Village Farm curtilage) leads to vehicles overrunning footways, the Village Green and third party land adjacent to the private access past Village Farm.

Based on the size of the plant specifically referenced in the applicant's submission documentation we request that swept path analysis is provided showing how these vehicles will be delivered to site without impacting on the village, listed buildings and third party land.

Clearly the EARA supports in principle the applicant's efforts to reduce and mitigate the impacts of construction traffic through the village. However, their approach presented in their submission appears to contradict the scale of the development proposals they are seeking permission for. Their submission states that once materials are delivered to the farm site or Aislaby Road playing field they will then:

"…be reloaded into agricultural tractor and trailer and delivered to site to minimise disruption."

As mentioned earlier in this submission the applicant has not quantified the volume of imported material that may be required to construct the pitches, and if HGV deliveries are required to the farm for transfer to tractor and trailer then then these will still need to route through the village. The CLS report is silent on these HGV trips, and the report provides no technical information on the impact of these vehicle movements.

The CLS report has attempted to quantify the number of tractor and trailer movements through the village associated with the construction of the bridge. Interestingly the number of vehicle movements has increased to 20-25 vehicle movements from the previous estimations made as part of the 2016 bridge planning application. As a reminder the 2016 planning application stated:

"By using this method of construction we would estimate around 10–15 vehicle movements through the village using agricultural tractor and trailer in order to deliver materials and allow construction."

At the time we highlighted that the applicant had confirmed that the build programme (including civil engineering works) was estimated to take 14 to 18 weeks, and that the suggestion of a single tractor and trailer delivery on average less than once a week with all construction materials sounds a significant under-estimation when the works proposed are a significant engineering project. We also highlighted that the estimation of vehicle movements did not make any reference to contractor vehicles, parking areas, storage compounds or other associated construction works.

This latest application, which in engineering terms will be a significant increase in works based on the need to construct the bridge and the pitches also appears to significantly underestimate the number of material trips. Notwithstanding the applicant not including any form of estimation on the trips required for any imported material, a total of 20 to 25 construction vehicle movements over a 16 to 20 week period for the bridge, and an 8 to 12 week period for the pitches sounds exceptionally optimistic. Assuming the bridge and pitch works run concurrently this would still equate to just a single tractor and trailer delivery each week. One questions whether such a limited number of deliveries would actually meet the timescale to complete the work.

As with the 2016 planning application the latest submission does make reference to the need to create build areas and access upgrades to the access at a later stage of the project. The applicant has stated:

"There will be a requirement to construct a build area and upgrade the access at the later stage of the project to allow access for a crane to lift the (bridge) structure into place."

We draw your attention to the tightly drawn red line boundary for the planning application, provided in **appendix b** for ease of reference. This includes what appears to be the existing track from the village down to the playing pitches, but it is unclear if this covers the full extent of any access upgrades required as part of the development.

We request that further information should be provided to ensure all works can be delivered within the red line boundary, as well as the scale of the upgrade works confirmed so that the Council and interested parties are aware of the impact of the proposed development. We would be grateful if you could request this information from the applicant as soon as practically possible.

With the applicant confirming that a crane will be required to lift the bridge section from the eastern side of the river into position we remind you that all our previous technical submissions confirmed that large construction traffic (including a crane) cannot negotiate the vehicular access past Village Farm (to the west of the access route) and St Anne's House (to the east of the access route) without conflicting with third party land. We note that the CLS report states:

"The crane to be used to carry out the (bridge) lift will be a standard road going sized crane which will be less than the 2.45m wide limit. Although longer it would be no wider than a standard refuge wagon which accesses the village."

With no swept path analysis provided with this planning application we have to rely on previously submitted documentation. This showed that if a large crane is required to lift the pedestrian bridge into position the vehicle had to overrun the Village Green, potentially impacting on existing mature trees.

Based on previously submitted information presented to the Council on the school's

development proposals this latest planning application still has not clearly and appropriately addressed matters relating to construction access, the number of frequency of vehicle movements and access for construction vehicles (including cranes) as part of the proposals.

It is noted that with regard to car parking access to the sports pitches by visitors the school will implement a Car Park Management Plan that will describe how parking for the use of the sports pitches will be managed, including any large sporting events that may be head at the school. If there is to be a reliance on this Plan then the car parking area at the school should be included in the red line application boundary, to allow it to be conditioned. Currently the parking area is outside of the red line planning application boundary.

The final matter that we wish to raise is the applicant's decision for the new bridge to remain for use by the school only, and not to be available for use by the general public. This is an interesting decision by the applicant, and is one that will no doubt be carefully considered by your highways colleagues. You will recall from their formal comments to you in the 2016 planning application they stated:

"The proposed development is for the erection of wooden pedestrian and cycle bridge. Whilst there would be an impact on the local highway network during the construction phase this impact can be managed through the agreement of a construction management plan. Post construction the bridge would positively contribute to the existing sustainable travel network of Yarm and Egglescliffe."

With the applicant now restricting access to the bridge to those associated with the school the 'positive contribution' that your highways officers identified with the previous bridge scheme has been eradicated. If the general public cannot use the bridge then the structure offers no benefits whatsoever to contribute to the sustainable travel network of Yarm and Egglescliffe.

In conclusion many of the technical points presented in this letter have been previously submitted to the Council as part of previous technical reviews. We request the Council considers all the factual evidence contained within this letter when considering the planning application put before them.

We are of the opinion that this latest planning application has done little to respond to the two previous reasons for refusal attached to the 2016 planning application, and it not materially different to the 2012 bridge application that was refused on four planning grounds.

The scheme currently under consideration still proposes a new bridge across the River Tees, which by its very nature will result in the same 'unnecessary intrusion into the landscape/riverscape along the banks of the River Tees'.

In addition, as before the bridge proposals will still result in a significant increase in school pedestrian movements which will adversely impact on the amenity of the existing residents, but with the added dis-benefit that the bridge will offer no benefits towards sustainable travel for anyone other than school pupils, staff and their visitors.

We hope the applicant will take the opportunity to provide more detailed information than currently presented in their submission regarding construction traffic matters. Until this information is presented the EARA will maintain its formal position of objecting to the development proposals.

We would be pleased to discuss the content of this letter with Council Officers, and hope to have the opportunity to speak at the planning committee when the application is

considered. We look forward to your comments on the points made in this letter.

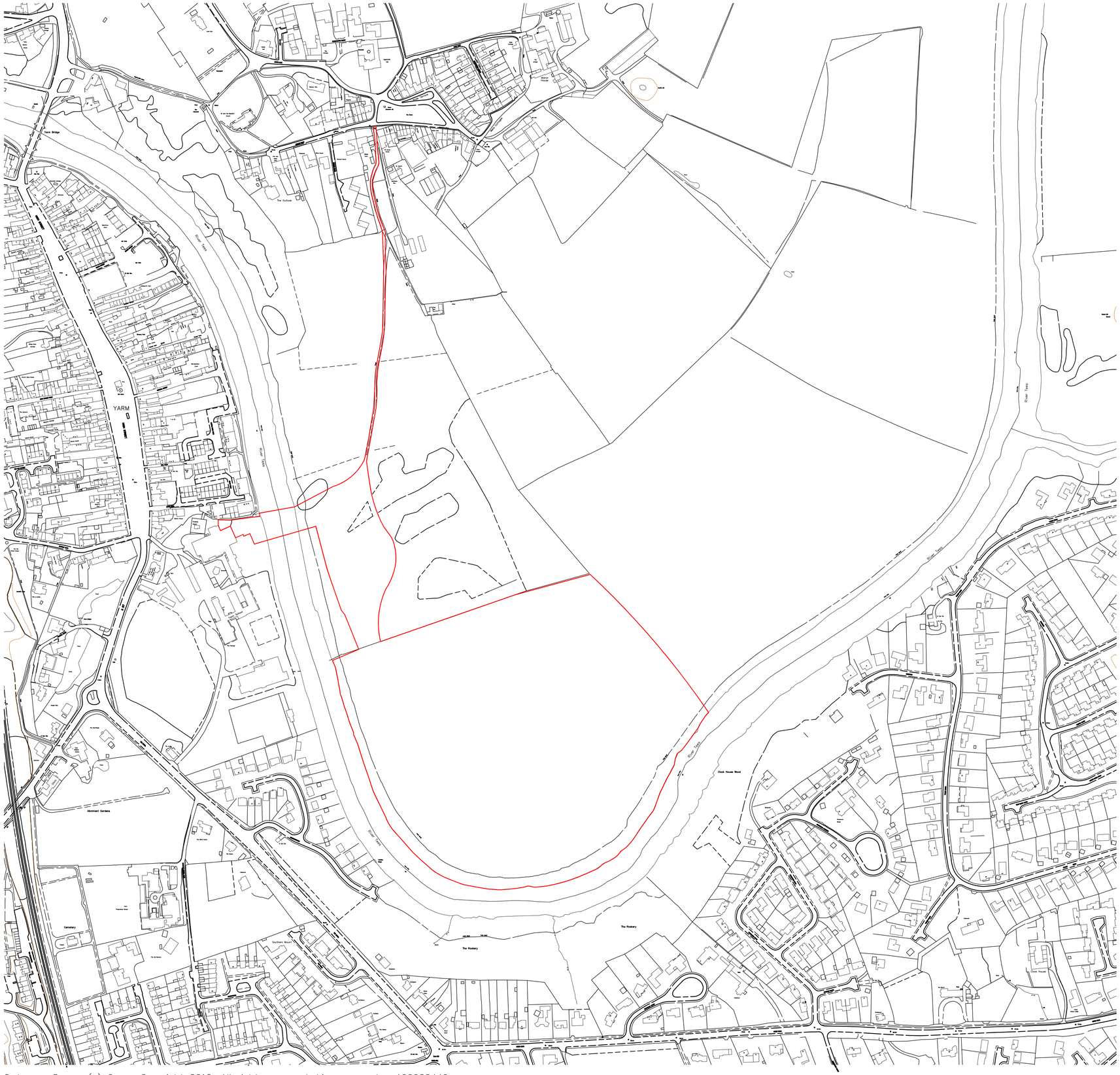
Please do not hesitate to contact me if you would like to discuss any element of this letter, or if you have any questions or queries.

Yours sincerely,

Michael Kitching

SK Transport Planning Ltd

APPENDIX A



REV	BY	DATE	NOTE

KEY:

Planning Application Boundary

N

TOFFEE FACTORY | NEWCASTLE-UPON-TYNE | NE1 2DF | 0191 495 7700 | INFO@PODNEWCASTLE.CO.UK

PROJECT:
Playing Pitches, Yarm School

DRAWING TITLE:
OS Location Plan

CLIENT:	STATUS:
Yarm School	Planning

SCALE:	SHEET SIZE:	DATE:	DWN BY:	CHECKED BY:
1:2500	A1	11:17	RE	CVB

PROJECT NO:	DRAWING NO:	REVISION:
990-YAR	SD-00.01	-

APPENDIX B

DOZERS

D6K

< Back

REQUEST A QUOTE

FINANCING & INSURANCE
See our Offers

FIND YOUR DEALER

COMPARE MODELS

USED MEDIUM DOZERS

VIEW PRODUCT DOWNLOADS

D6K Dozer

PHOTO VIDEOS 360 VIEW

1 of 2

SPECIFICATIONS BENEFITS & FEATURES

OVERVIEW

The new Cat® D6K dozer combines best-in-class fuel efficiency with the power and precision to excel in a wide range of jobs. This versatile bulldozer features a reliable power train and an overall design that is optimized for finish grading. And to boost your grading productivity even more, choose technology options like new Cat GRADE with Slope Assist™ that help you get more quality work done in less time.

ENGINE

UNITS: **US** **METRIC**

Engine Model	C7.1 ACERT
Flywheel Power	97.0 kg/mm
Emissions	China Nonroad Stage III and equivalent to U.S. EPA Tier 3/EU Stage IIIA emission standards
Engine Power - 2,000 rpm - ISO 14396	117.0 kg/mm
Engine Power - 2,000 rpm - ISO 14396 (DIN)	117.0 kg/mm
Engine Power - 2,000 rpm - SAE J1995 (Gross)	119.0 kg/mm
Net Power - 2,200 rpm - ISO 9249	97.0 kg/mm

Net Power - 2,200 rpm - SAE J1349	95.0 kg/mm
Net Power - 2,200 rpm - ISO 9249 (DIN)	97.0 kg/mm

SERVICE REFILL CAPACITIES

Fuel Tank	260.0 l
Cooling System	30.0 l
Engine Crankcase	18.0 l
Hydraulic Tank	64.0 l
Final Drive - Each - XL/LGP	18.5 l

WEIGHTS

Operating Weight	14350.0 null
Note	Weights with Heavy Duty Track
Operating Weight - LGP	14350.0 null
Operating Weight - XL	13500.0 null

BLADES - VPAT/FOLDABLE VPAT BLADE: CAPACITY*

LGP	3.81 m³
Note	*ISO 9246
XL	3.26 m³

BLADES - VPAT/FOLDABLE VPAT BLADE: WIDTH OVER END BITS

LGP	3682.0 mm
XL	3196.0 mm

DIMENSIONS - LGP

Ground Pressure (ISO 16754)	31.0 kPa
Length - Basic Tractor - With C-Frame and Drawbar	4618.0 mm
Length - Track on Ground	2645.0 mm
Machine Height - Grouser Tip - ROPS Cab	2965.0 mm
Note	Dimensions with Heavy Duty Track
Width - Standard Track - Heavy Duty	760.0 mm
Width - Tractor - Standard Shoes - With Foldable Blade in Transport Position	2850.0 mm

Width - Tractor - Standard Shoes - With VPAT Blade Angled 25°	3337.0 mm
Width - Tractor - Standard Shoes - Without Blade	2760.0 mm
With the Following Attachment, Add to Basic Tractor Length: Ground Clearance from Ground Face of Shoe (per SAE J1234)	360.0 mm
With the Following Attachment, Add to Basic Tractor Length: VPAT Blade, Angled 25° (Standard and Foldable)	1012.0 mm
With the Following Attachment, Add to Basic Tractor Length: VPAT Blade, Straight	382.0 mm

DIMENSIONS - XL

Ground Pressure (ISO 16754)	40.0 kPa
Length - Basic Tractor - With C-Frame and Drawbar	4618.0 mm
Length - Track on Ground	2645.0 mm
Machine Height - Grouser Tip - ROPS Cab	2965.0 mm
Note	Dimensions with Heavy Duty Track
Width - Standard Track - Heavy Duty	560.0 mm
Width - Tractor - Standard Shoes - With Foldable Blade in Transport Position	2364.0 mm

Width - Tractor - Standard Shoes - With VPAT Blade Angled 25°	2896.0 mm
Width - Tractor - Standard Shoes - Without Blade	2330.0 mm
With the Following Attachment, Add to Basic Tractor Length: Ground Clearance from Ground Face of Shoe (per SAE J1234)	360.0 mm
With the Following Attachment, Add to Basic Tractor Length: VPAT Blade, Angled 25° (Standard and Foldable)	1012.0 mm
With the Following Attachment, Add to Basic Tractor Length: VPAT Blade, Straight	382.0 mm

TRANSMISSION - TRAVEL SPEED

Forward	0-10 km/h (0-6.2 mph)
Reverse	0-10 km/h (0-6.2 mph)
Transmission Type	Hydrostatic

922 Series dumptruck.

922F 922F 2.55

The obvious choice for earth-moving in soft terrain and areas demanding the lowest possible ground pressure.

Road version: 922F 2.55 - only 2.55 m wide.

Key features

- 20 tonne, three axle, articulated dumptruck.
- Bogie with wide pendulum angle.
- Lowest possible ground pressure.
- Lowest unladen weight on the market.
- Highest power to weight ratio on the market.
- Unmatched stability.
- Extremely low fuel consumption - Idle-Stop.

Hydrema (UK) Ltd
Barker Business Park
Melmerby Green Road, Melmerby
North Yorkshire, HG4 5NB
Phone: 01765 641940
Email: info@hydrema.co.uk

HYDREMA

Technical data.

Chassis
Articulated chassis with pendulum bar and double hydraulic stabilizers in the center pivot. Gives a high degree of stability both when driving and dumping. Fabricated in high tensile steel in order to obtain the highest possible strength and the lowest possible unladen weight. Fuel tank 300 L. Ad Blue-tank: 19 L. Oscillation: +/- 12º.

Axles
Front: Rigid axle with electronically controlled suspension and level control. Individual level control on each side aligns the machine when driving fast in curves. The front axle has a differential lock with 75% locking action. **Rear:** Heavy Duty boogie axle with reduction gear in the hubs. Simple and maintenance-free design. Large pendulum angle. The Bogie design gives constant wheels contact to all wheels and excellent off road performance.

Hydraulic system
Consists of 4 hydraulic pumps: **Pump 1:** 26 l / min constant flow pump for brakes, stabilizer, differential lock and suspension. **Pump 2:** 150 l / min variable pump for articulated steering. **Pump 3:** 170 l / min constant flow pump for tipping function and retarder. **Pump 4:** 64 l / min variable flow pump for emergency steering.

Transmission
ZF ERGOPOWER 6 WG 210 aut. transmission with 6 gear forward og 3 rewerse. The transmission is equipped with 100% lock-up in all gears and manual activated differential lock between the front and rear. Automatic or manual gearshift. Max speed: Forward: 50 km - Reverse: 31 km. Max. tractive effort: 207 KN / 45,200 lbf.

Engine
Cummins QSB 6.7 liter 6 cyl. Stage 4 engine with DOC and SCR catalyst with Ad-Blue additive. 24-valve common rail turbodiesel with intercooler, electronic variable turbocharger and EGR with cooling.
Max. Power. 218 kW / 296 HP at 2100 rpm.
Max. Torque 1044 Nm at 1500 rpm.

Brakes / Retarder
Full dual-circuit brake system with oil-immersed disc brakes on all 6 wheels. Fail-Safe parking brake on the front axle. Maintenance-free brakes. Manually operated retarder with engine brake.

Electrical system
Standard 24V system with 70 Amp. alternator. Batteries: 2x 12V, 100Ah.

Steering
Servo activated hydrostatic steering. Separate variable pump for steering function. Max. steering angle: +/- 38º

Dumptruck body
Robot-welded dumptruck body in high tensile Hardox 450 steel without side ribs. The double action tipping cylinders are located under the body for maximum protection. Option: exhaust heatet body and automatically functioning Tail Gate. Tipping time: 7,5 sec. up / 5,5 sec. down. Tipping angle: 70º.

Cab
Spacious ROPS / FOPS approved cab with viscous mounts and excellent view. Air suspended seat. Adjustable steering wheel and multi-joystick control.

Dimensions

		922F	922F 2.55	922F
Standard tyres		600/60-30.5	EM 20.5R25	800/45-30.5
Machine weight	kg	15.900	16.600	16.400
Carrying capacity	kg	20.000	20.000	20.000
Width over tyres	mm	2930	2550	3180
Height (cabin)	mm	3440	3440	3440
Ground clearance	mm	480	480	480
Wheelbase, bogie	mm	1636	1636	1636
Wheelbase, front/rear	mm	3720	3720	3720
Total length	mm	9140	9140	9140
Body volume	m^3	12	12	12
Turning radius	m	8,37	8,18	8,52
Ground pressure (full load)	kPa	131	146	98

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Barker Business Park
Melmerby Green Road, Melmerby
North Yorkshire, HG4 5NB
Phone: 01765 641940
Email: info@hydrema.co.uk

HYDREMA

ZAXIS | DASH-5 UTILITY-CLASS EXCAVATORS

ZX210/210LC-5

119 kW (159 hp)

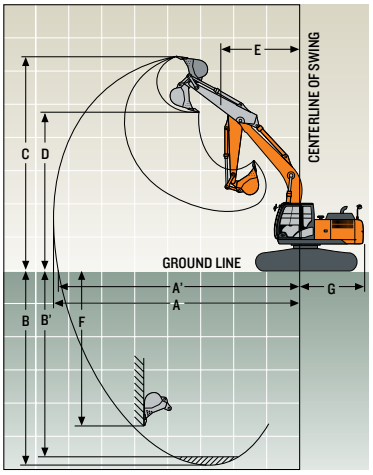
ZX210LC

HITACHI

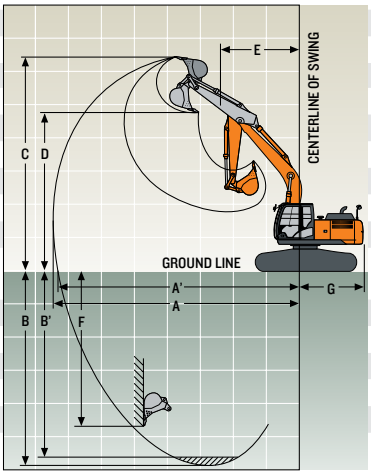
Engine	**ZX210LC-5**		
Manufacturer and Model	Isuzu 4HKI		
Non-Road Emissions Standards	Certified to IT4 / Stage IIIB emissions		
Net Rated Power (ISO 9249)	119 kW (159 hp) @ 2,000 rpm		
Cylinders	4		
Displacement	5.2L (317 cu in.)		
Off Level Capacity	70% (35 deg.)		
Aspiration	Turbocharged, air-to-air charge-air cooler		
Cooling			
Direct-driven, high-efficiency, low-noise, suction-type fan			
Powertrain			
2-speed propel with automatic shift			
Maximum Travel Speed			
Low	3.5 km/h (2.2 mph)		
High	5.5 km/h (3.4 mph)		
Drawbar Pull	20 700 kg (45,636 lb.)		
Hydraulics			
Open center, load sensing			
Main Pumps	2 variable-displacement axial-piston pumps		
Maximum Rated Flow	212 L/m (56 gpm) x 2		
Pilot Pump	One gear		
Maximum Rated Flow	30.0 L/m (7.9 gpm)		
Pressure Setting	3999 kPa (580 psi)		
System Operating Pressure			
Implement Circuits	34 336 kPa (4,980 psi)		
Travel Circuits	34 336 kPa (4,980 psi)		
Swing Circuits	34 336 kPa (4,980 psi)		
Power Boost	38 000 kPa (5,511 psi)		
Controls	Pilot levers, short stroke, low-effort hydraulic pilot controls with shutoff lever		
Cylinders			
	Bore	Rod Diameter	Stroke
Boom (2)	120 mm (4.72 in.)	85 mm (3.35 in.)	1260 mm (49.61 in.)
Arm (1)	135 mm (5.31 in.)	95 mm (3.74 in.)	1475 mm (58.07 in.)
Bucket (1)	115 mm (4.53 in.)	80 mm (3.15 in.)	1060 mm (41.73 in.)
Electrical			
Number of Batteries (12 volt)	2		
Battery Capacity	1,400 CCA		
Alternator Rating	50 amp		
Work Lights	2 halogen (one mounted on boom, one on frame)		
Undercarriage	**ZX210-5**	**ZX210LC-5**	
Rollers (each side)			
Carrier Rollers	2	2	
Track Rollers	7	8	
Shoes (each side)	46	49	
Track			
Adjustment	Hydraulic	Hydraulic	
Guides	Center	Center	
Chain	Sealed and lubricated	Sealed and lubricated	
Ground Pressure	**ZX210-5**	**ZX210LC-5**	
600-mm (24 in.) Triple Semi-Grouser Shoes	45 kPa (6.53 psi)	47.9 kPa (6.95 psi)	
700-mm (28 in.) Triple Semi-Grouser Shoes	39 kPa (5.66 psi)	41.7 kPa (6.05 psi)	
800-mm (32 in.) Triple Semi-Grouser Shoes	34 kPa (4.93 psi)	36.9 kPa (5.35 psi)	
Swing Mechanism			
Swing Speed	13.3 rpm		
Swing Torque	68 900 Nm (50,662 lb.-ft.)		

DASH-5

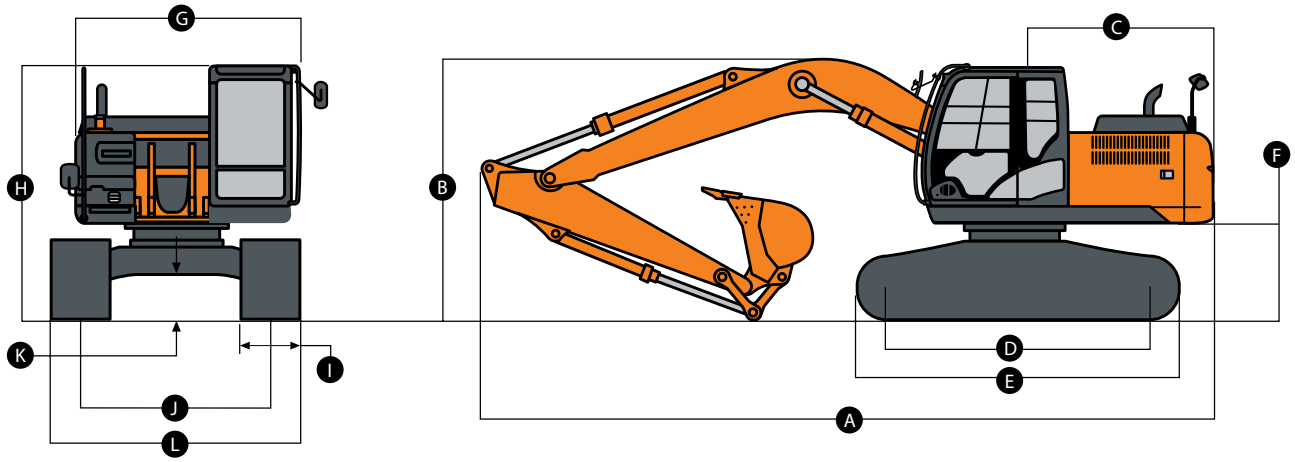
Serviceability		
Refill Capacities		
Fuel Tank	403L (106.5 gal.)	
Cooling System	25L (26.4 qt.)	
Engine Oil with Filter	23L (24 qt.)	
Hydraulic Tank	135L (35.7 gal.)	
Hydraulic System	240L (63.4 gal.)	
Swing Gearbox	6.2L (6.6 qt.)	
Propel Gearbox (each)	7.8L (8.2 qt.)	
Pump Drive Gearbox	1L (1.1 qt.)	
Operating Weights	**ZX210-5**	**ZX210LC-5**
With full fuel tank; 79-kg (175 lb.) operator; 666-kg (1,468 lb.) general-purpose bucket; 2.91-m (9 ft. 7 in.) arm; 4250-kg (9,370 lb.) counterweight, and 800-mm (32 in.) triple semi-grouser shoes.		
Operating Weight	20 800 kg (45,815 lb.)	21 400 kg (47,137 lb.)
Optional Components		
Undercarriage w/ Triple Semi-Grouser Shoes		
600-mm (24 in.)	6752 kg (14,873 lb.)	7353 kg (16,196 lb.)
700-mm (28 in.)	7143 kg (15,733 lb.)	7743 kg (17,055 lb.)
800-mm (32 in.)	7437 kg (16,381 lb.)	8038 kg (17,705 lb.)
One-Piece Boom (with arm cylinder)	1732 kg (3,815 lb.)	1732 kg (3,815 lb.)
Arm with Bucket Cylinder and Linkage		
2.22 m (7 ft. 3 in.)	928 kg (2,044 lb.)	928 kg (2,044 lb.)
2.91 m (9 ft. 7 in.)	990 kg (2,181 lb.)	990 kg (2,181 lb.)
Boom Lift Cylinders (2) Total Weight	341 kg (751 lb.)	341 kg (751 lb.)
1065-mm (42 in.), 0.91-m^3 (1.19 cu. yd.) Bucket	886 kg (1,952 lb.)	886 kg (1,952 lb.)
Counterweight Standard	4250 kg (9,361 lb.)	4250 kg (9,361 lb.)
Operating Dimensions - ZX210-5		
Arm Length	**2.42 m (7 ft. 11 in.)**	**2.91 m (9 ft. 7 in.)**
Arm Digging Force		
SAE	133 kN (29,901 lb.)	110 kN (24,730 lb.)
ISO	140 kN (31,475 lb.)	114 kN (25,629 lb.)
Bucket Digging Force		
SAE	141 kN (31,700 lb.)	141 kN (31,700 lb.)
ISO	158 kN (35,552 lb.)	158 kN (35,522 lb.)
A Maximum Reach	9.43 m (30 ft. 11 in.)	9.92 m (32 ft. 7 in.)
A' Maximum Reach at Ground Level	9.25 m (30 ft. 4 in.)	9.75 m (31 ft. 12 in.)
B Maximum Digging Depth	6.18 m (20 ft. 3 in.)	6.68 m (21 ft. 11 in.)
B' Maximum Digging Depth at 2.44-m (8 ft.) Flat Bottom	5.95 m (19 ft. 6 in.)	6.50 m (21 ft. 4 in.)
C Maximum Cutting Height	9.67 m (31 ft. 9 in.)	10.04 m (32 ft. 11 in.)
D Maximum Dumping Height	6.83 m (22 ft. 5 in.)	7.18 m (23 ft. 7 in.)
E Minimum Swing Radius	3.28 m (10 ft. 9 in.)	3.18 m (10 ft. 5 in.)
F Maximum Vertical Wall	5.3 m (17 ft. 5 in.)	5.99 m (19 ft. 8 in.)
G Tail-Swing Radius	2.89 m (9 ft. 6 in.)	2.89 m (9 ft. 6 in.)



Operating Dimensions - ZX210LC-5		
Arm Length	**2.42 m (7 ft. 11 in.)**	**2.91 m (9 ft. 7 in.)**
Arm Digging Force		
SAE	133 kN (29,901 lb.)	110 kN (24,730 lb.)
ISO	140 kN (31,475 lb.)	114 kN (25,629 lb.)
Bucket Digging Force		
SAE	141 kN (31,700 lb.)	141 kN (31,700 lb.)
ISO	158 kN (35,522 lb.)	158 kN (35,522 lb.)
A Maximum Reach	9.43 m (30 ft. 11 in.)	9.92 m (32 ft. 7 in.)
A' Maximum Reach at Ground Level	9.25 m (30 ft. 4 in.)	9.75 m (31 ft. 12 in.)
B Maximum Digging Depth	6.18 m (20 ft. 3 in.)	6.68 m (21 ft. 11 in.)
B' Maximum Digging Depth at 2.44-m (8 ft.) Flat Bottom	5.95 m (19 ft. 6 in.)	6.50 m (21 ft. 4 in.)
C Maximum Cutting Height	9.67 m (31 ft. 9 in.)	10.04 m (32 ft. 11 in.)
D Maximum Dumping Height	6.83 m (22 ft. 5 in.)	7.18 m (23 ft. 7 in.)
E Minimum Swing Radius	3.28 m (10 ft. 9 in.)	3.18 m (10 ft. 5 in.)
F Maximum Vertical Wall	5.3 m (17 ft. 5 in.)	5.99 m (19 ft. 8 in.)
G Tail-Swing Radius	2.89 m (9 ft. 6 in.)	2.89 m (9 ft. 6 in.)



Machine Dimensions	ZX210-5	ZX210LC-5
A Overall Length		
2.42-m (7 ft. 11 in.) arm	9.75 m (31 ft. 12 in.)	9.75 m (31 ft. 12 in.)
2.91-m (9 ft. 7 in.) arm	9.53 m (31 ft. 3 in.)	9.53 m (31 ft. 3 in.)
B Overall Height		
2.42-m (7 ft. 11 in.) arm	3.18 m (10 ft. 5 in.)	3.18 m (10 ft. 5 in.)
2.91-m (9 ft. 7 in.) arm	3.01 m (9 ft. 11 in.)	3.01 m (9 ft. 11 in.)
C Rear-End Length/Swing Radius	2.89 m (9 ft. 6 in.)	2.89 m (9 ft. 6 in.)
D Distance Between Idler/ Sprocket Centerline	3.35 m (10 ft. 12 in.)	3.67 m (12 ft.)
E Undercarriage Length	4.17 m (13 ft. 8 in.)	4.46 m (14 ft. 8 in.)
F Counterweight Clearance	1030 mm (3 ft. 5 in.)	1030 mm (3 ft. 5 in.)
G Upperstructure Width	2.71 m (8 ft. 11 in.)	2.71 m (8 ft. 11 in.)
H Cab Height	2.95 m (9 ft. 8 in.)	2.95 m (9 ft. 8 in.)
I Track Width	600 mm (24 in.)	600 mm (24 in.)
w/ Triple Semi-Grouser Shoes	700 mm (28 in.)	700 mm (28 in.)
	800 mm (32 in.)	800 mm (32 in.)
J Gauge Width	2.39 m (7 ft. 10 in.)	2.39 m (7 ft. 10 in.)
K Ground Clearance	450 mm (18 in.)	450 mm (18 in.)
L Overall Width with Triple Semi-Grouser Shoes		
600 mm (24 in.)	2.99 m (9 ft. 10 in.)	2.99 m (9 ft. 10 in.)
700 mm (28 in.)	3.09 m (10 ft. 2 in.)	3.09 m (10 ft. 2 in.)
800 mm (32 in.)	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)



Lift Charts - ZX210-5

Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 666-kg (1,468 lb.) bucket; standard gauge; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.
All lift capacities are based on ISO 10567 (with power boost).

Load Point Height	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)	
Horizontal Distance from Centerline of Rotation	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With 2.91-m (9 ft. 7 in.) arm and 700-mm (28 in.) shoes										
6.0 m (20 ft.)							**4700 (10,300)**	4450 (9,500)		
4.5 m (15 ft.)					**6150 (13,250)**	**6150 (13,250)**	**5250 (11,450)**	4300 (9,250)	4500 (9,600)	2850 (6,150)
3.0 m (10 ft.)					**8050 (17,350)**	6400 (13,800)	6150 (13,350)	4050 (8,750)	4400 (9,450)	2800 (5,950)
1.5 m (5 ft.)					**9800** (21,100)	5950 (12,800)	6150 (13,200)	3850 (8,250)	4300 (9,200)	2700 (5,750)
Ground Line			**4150 (9,650)**	**4150 (9,650)**	9500 (20,400)	5650 (12,200)	5950 (12,800)	3700 (7,900)	4200 (9,000)	2600 (5,600)
–1.5 m (–5 ft.)	**4800 (10,750)**	**4800 (10,750)**	**8400 (19,100)**	**8400 (19,100)**	9400 (20,200)	5600 (12,050)	5850 (12,650)	3600 (7,750)	4150 (8,950)	2550 (5,550)
–3.0 m (–10 ft.)	**9250 (20,850)**	**9250 (20,850)**	**13 950 (30,250)**	11 150 (23,950)	9500 (20,350)	5650 (12,150)	5900 (12,750)	3650 (7,850)		
–4.5 m (–15 ft.)			**10 850 (23,150)**	**10 850 (23,150)**	**7650 (16,250)**	5850 (12,650)				
With 2.91-m (9 ft. 7 in.) arm and 800-mm (32 in.) shoes										
6.0 m (20 ft.)							**4700 (10,300)**	4500 (9,650)		
4.5 m (15 ft.)					**6150 (13,250)**	**6150 (13,250)**	**5250 (11,450)**	4350 (9,400)	4600 (9,800)	2950 (6,250)
3.0 m (10 ft.)					**8050 (17,350)**	6500 (14,050)	**6150 (13,350)**	4150 (8,950)	4500 (9,650)	2850 (6,100)
1.5 m (5 ft.)					**9800 (21,100)**	6050 (13,000)	6250 (13,450)	3900 (8,450)	4350 (9,400)	2750 (5,850)
Ground Line			**4150 (9,650)**	**4150 (9,650)**	9700 (20,800)	5750 (12,450)	6050 (13,050)	3750 (8,050)	4300 (9,200)	2650 (5,700)
–1.5 m (–5 ft.)	**4800 (10,750)**	**4800 (10,750)**	**8400 (19,100)**	**8400 (19,100)**	9600 (20,600)	5700 (12,250)	6000 (12,900)	3700 (7,900)	4250 (9,150)	2650 (5,650)
–3.0 m (–10 ft.)	**9250 (20,850)**	**9250 (20,850)**	**13 950 (30,250)**	11 350 (24,350)	9650 (20,750)	5750 (12,400)	6050 (13,000)	3700 (8,000)		
–4.5 m (–15 ft.)			**10 850 (23,150)**	**10 850 (23,150)**	**7650 (16,250)**	5950 (12,850)				

Lift Charts - ZX210LC-5

Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 666-kg (1,468 lb.) bucket; standard gauge; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.
All lift capacities are based on ISO 10567 (with power boost).

Load Point Height	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)	
Horizontal Distance from Centerline of Rotation	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With 2.42-m (7 ft. 11 in.) arm and 800-mm (32 in.) shoes										
6.0 m (20 ft.)							**5200 (11,450)**	4950 (10,600)		
4.5 m (15 ft.)			**(20,650)**	**(20,650)**	**6850 (14,800)**	**6850 (14,800)**	**5750 (12,450)**	4850 (10,400)		
3.0 m (10 ft.)					**8750 (18,800)**	7200 (15,550)	**6550 (14,150)**	4600 (9,950)	5150 (11,000)	3200 (6,850)
1.5 m (5 ft.)					**10 250 (22,100)**	6750 (14,550)	7200 (15,450)	4400 (9,500)	5050 (10,800)	3100 (6,700)
Ground Line					**10 750 (23,300)**	6550 (14,150)	7050 (15,100)	4250 (9,200)	4950 (10,650)	3050 (6,550)
–1.5 m (–5 ft.)			**9150 (21,050)**	**9150 (21,050)**	**10 450 (22,600)**	6550 (14,100)	7000 (15,050)	4250 (9,100)		
–3.0 m (–10 ft.)			**12 800 (27,750)**	**12 800 (27,750)**	**9250 (20,000)**	6650 (14,300)	**6650 (14,200)**	4300 (9,300)		
–4.5 m (–15 ft.)					**6400 (13,250)**	**6400 (13,250)**				
With 2.91-m (9 ft. 7 in.) arm and 600-mm (24 in.) shoes										
6.0 m (20 ft.)							**4700 (10,300)**	**4700 (10,300)**		
4.5 m (15 ft.)					**6150 (13,250)**	**6150 (13,250)**	**5250 (11,450)**	4700 (10,150)	**4850 (10,650)**	3150 (6,750)
3.0 m (10 ft.)					**8050 (17,350)**	7100 (15,250)	**6150 (13,350)**	4500 (9,650)	4950 (10,600)	3100 (6,600)
1.5 m (5 ft.)					**9800 (21,100)**	6600 (14,200)	6900 (14,900)	4250 (9,150)	4800 (10,350)	2950 (6,400)
Ground Line			**4150 (9,650)**	**4150 (9,650)**	**10 650 (23,050)**	6300 (13,600)	6750 (14,500)	4100 (8,800)	4700 (10,150)	2900 (6,200)
–1.5 m (–5 ft.)	**4800 (10,750)**	**4800 (10,750)**	**8400 (19,100)**	**8400 (19,100)**	**10 600 (23,000)**	6250 (13,400)	6650 (14,300)	4000 (8,600)	4700 (10,100)	2850 (6,150)
–3.0 m (–10 ft.)	**9250 (20,850)**	**9250 (20,850)**	**13 950 (30,250)**	12 700 (27,150)	**9750 (21,050)**	6300 (13,550)	6700 (14,400)	4050 (8,700)		
–4.5 m (–15 ft.)			**10 850 (23,150)**	**10 850 (23,150)**	**7650 (16,250)**	6500 (14,050)				
With 2.91-m (9 ft. 7 in.) arm and 700-mm (28 in.) shoes										
6.0 m (20 ft.)							**4700 (10,300)**	**4700 (10,300)**		
4.5 m (15 ft.)					**6150 (13,250)**	**6150 (13,250)**	**5250 (11,450)**	4800 (10,350)	**4850 (10,650)**	3250 (6,950)
3.0 m (10 ft.)					**8050 (17,350)**	7250 (15,600)	**6150 (13,350)**	4600 (9,850)	5050 (10,850)	3150 (6,750)
1.5 m (5 ft.)					**9800 (21,100)**	6750 (9,350)	**7050 (15,200)**	4350 (9,350)	4950 (10,600)	3050 (6,550)
Ground Line			**4150 (9,650)**	**4150 (9,650)**	**10 650 (23,050)**	6450 (13,900)	6900 (14,850)	4200 (9,000)	4850 (10,400)	2950 (6,350)
–1.5 m (–5 ft.)	**4800 (10,750)**	**4800 (10,750)**	**8400 (19,100)**	**8400 (19,100)**	**10 600 (23,000)**	6400 (13,750)	6800 (14,650)	4100 (8,850)	4800 (10,350)	2950 (6,350)
–3.0 m (–10 ft.)	**9250 (20,850)**	**9250 (20,850)**	**13 950 (30,250)**	12 950 (27,750)	**9750 (21,050)**	6450 (13,900)	6850 (14,750)	4150 (8,950)		
–4.5 m (–15 ft.)			**10 850 (23,150)**	**10 850 (23,150)**	**7650 (16,250)**	6650 (14,350)				

Lift Charts - ZX210LC-5 (Continued)

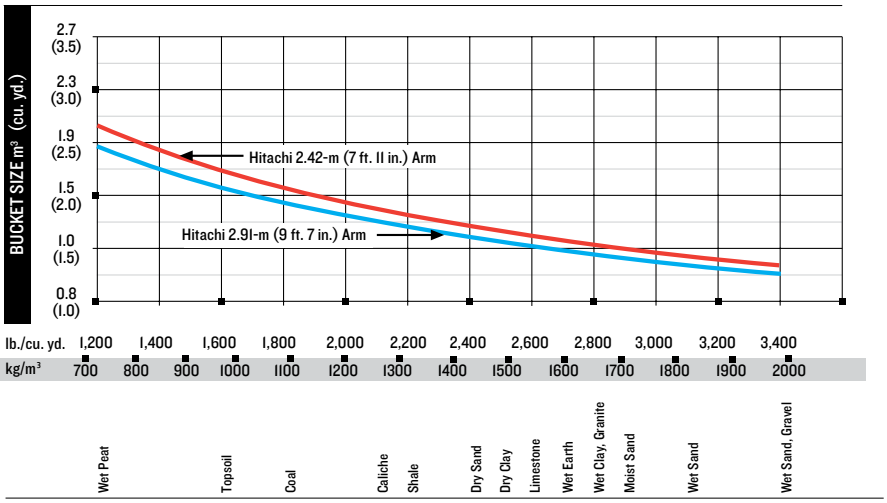
Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 666-kg (1,468 lb.) bucket; standard gauge; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.
All lift capacities are based on ISO 10567 (with power boost).

Load Point Height	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)	
Horizontal Distance from Centerline of Rotation	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With 2.91-m (9 ft. 7 in.) arm and 800-mm (32 in.) shoes										
6.0 m (20 ft.)							**4700 (10,300)**	**4700 (10,300)**		
4.5 m (15 ft.)					**6150 (13,250)**	**6150 (13,250)**	**5250 (11,450)**	4900 (10,500)	**4850 (10,650)**	3300 (7,050)
3.0 m (10 ft.)					**8050 (17,350)**	7350 (15,850)	**6150 (13,350)**	4650 (10,050)	5150 (11,050)	3200 (6,900)
1.5 m (5 ft.)					**9800 (21,100)**	6850 (14,750)	**7050 (15,200)**	4450 (9,550)	5050 (10,800)	3100 (6,700)
Ground Line			**4150 (9,650)**	**4150 (9,650)**	**10 650 (23,050)**	6600 (14,150)	7050 (15,100)	4250 (9,150)	4950 (10,650)	3000 (6,500)
–1.5 m (–5 ft.)	**4800 (10,750)**	**4800 (10,750)**	**8400 (19,100)**	**8400 (19,100)**	**10 600 (23,000)**	6500 (14,000)	6950 (14,950)	4200 (9,000)	4900 (10,600)	3000 (6,450)
–3.0 m (–10 ft.)	**9250 (20,850)**	**9250 (20,850)**	**13 950 (30,250)**	13 200 (28,200)	**9750 (21,050)**	6550 (14,150)	7000 (15,050)	4200 (9,100)		
–4.5 m (–15 ft.)			**10 850 (23,150)**	**10 850 (23,150)**	**7650 (16,250)**	6800 (14,600)				

Bucket Selection Guide*

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Buckets are equipped with ESCO teeth standard. Replaceable cutting edges and a variety of teeth are available through Hitachi parts. Optional side cutters add 150 mm (6 in.) to bucket widths. Capacities are SAE heaped ratings.

Type Bucket	Bucket Width		Bucket Capacity		Bucket Weight		Bucket Dig Force		Arm Dig Force 2.42 m (7 ft. 11 in.)		Arm Dig Force 2.91 m (9 ft. 7 in.)		Bucket Tip Radius		Number of Teeth
	mm	in.	m^3	cu. yd.	kg	lb.	kN	lb.	kN	lb.	kN	lb.	mm	in.	
Heavy Duty	915	36	0.69	0.9	708	1,559	135.9	30,554	130.2	29,271	107.1	24,071	1463	57.61	5
Heavy Duty	1065	42	0.83	1.09	786	1,731	135.9	30,554	130.2	29,271	107.1	24,071	1463	57.61	5
Heavy Duty	1220	48	0.99	1.29	872	1,921	135.9	30,554	130.2	29,271	107.1	24,071	1463	57.61	6
Heavy Duty High Capacity	610	24	0.43	0.56	646	1,424	135.0	30,349	129.9	29,197	106.8	24,016	1473	58	4
Heavy Duty High Capacity	760	30	0.58	0.76	723	1,593	135.0	30,349	129.9	29,197	106.8	24,016	1473	58	4
Heavy Duty High Capacity	915	36	0.74	0.97	809	1,782	135.0	30,349	129.9	29,197	106.8	24,016	1473	58	5
Heavy Duty High Capacity	1065	42	0.91	1.19	886	1,951	135.0	30,349	129.9	29,197	106.8	24,016	1473	58	5



*Contact your Hitachi dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Does not include optional equipment such as thumbs or couplers. Larger buckets may be possible when using light materials, for flat and level operations, less compacted materials, and volume loading applications such as mass-excavation applications in ideal conditions. Smaller buckets are recommended for adverse conditions such as off-level applications, rocks, and uneven surfaces. Bucket capacity indicated is SAE heaped.

DASH-5

ADDITIONAL EQUIPMENT

Key: ● Standard ▲ Optional or special

	Engine
●	Auto-idle system
●	Batteries (2 – 12 volt)
●	Coolant recovery tank
●	Dual-element dry-type air filter
●	Electronic engine control
●	Enclosed fan guard (conforms to SAE J1308)
●	Engine coolant to –37 deg. C (–34 deg. F)
●	Fuel filter with water separator
●	Full-flow oil filter
●	Turbocharger with charge air cooler
●	500-hour engine-oil-change interval
●	70% (35 deg.) off-level capability
●	Engine-oil-sampling valve
●	Programmable auto shutdown
	Hydraulic System
●	Reduced-drift valve for boom down, arm in
●	Auxiliary hydraulic valve section
●	Spring-applied, hydraulically released automatic swing brake
●	Auxiliary hydraulic-flow adjustments through monitor
●	Auto power lift
●	5,000-hour hydraulic-oil-change interval
●	Hydraulic-oil-sampling valve
▲	Auxiliary hydraulic lines
▲	Auxiliary pilot and electric controls
▲	Hydraulic filter restriction indicator kit
▲	Load-lowering control device
▲	Single-pedal propel control
▲	Control pattern change valve
	Undercarriage
●	Planetary drive with axial piston motors
●	Propel motor shields
●	Spring-applied, hydraulically released automatic propel brake
●	Track guides, front idler and center
●	2-speed propel with automatic shift
●	Upper carrier rollers (2)
●	Sealed and lubricated track chain
▲	Triple semi-grouser shoes, 600 mm (24 in.)
▲	Triple semi-grouser shoes, 700 mm (28 in.)
▲	Triple semi-grouser shoes, 800 mm (32 in.)

	Upperstructure
●	Right-hand, left-hand, and counterweight mirrors
●	Vandal locks with ignition key: Cab door / Service doors / Toolbox
●	Debris screen
●	Remote-mounted engine oil and fuel filters
	Front Attachments
●	Centralized lubrication system
●	Dirt seals on all bucket pins
●	Less boom and arm
●	HN bushings
●	Reinforced resin thrust plates
●	Tungsten carbide thermal coating on arm-to-bucket joint
▲	Arm, 2.42 m (7 ft. 11 in.)
▲	Arm, 2.91 m (9 ft. 7 in.)
▲	Attachment quick-couplers
▲	Boom cylinder with plumbing to mainframe less boom and arm
▲	Buckets: Ditching / Heavy duty / Heavy-duty high capacity / Side cutters and teeth
▲	Material clamps
▲	Super-long fronts
	Operator's Station
●	Meets ISO 12117-2 for ROPS
●	Adjustable independent-control positions (levers-to-seat, seat-to-pedals)
●	AM/FM radio
●	Auto climate control/air conditioner/heater/ pressurizer
●	Built-in Operator's Manual storage compartment and manual
●	Cell-phone power outlet, 12 volt, 60 watt, 5 amp
●	Coat hook
●	Deluxe suspension cloth seat with 100-mm (4 in.) adjustable armrests
●	Floor mat
●	Front windshield wiper with intermittent speeds
●	Gauges (illuminated): Engine coolant / Fuel
●	Horn, electric
●	Hour meter, electric
●	Hydraulic shutoff lever, all controls
●	Hydraulic warm-up control
●	Interior light
●	Large cup holder
●	Machine Information Center (MIC)

	Operator's Station (Continued)
●	Mode selectors (illuminated): Power modes (3) / Travel modes (2 with automatic shift) / Work mode (1)
●	Multifunction, color LCD monitor with: Diagnostic capability / Multiple-language capabilities / Maintenance tracking / Clock / System monitoring with alarm features: Auto-idle indicator, engine air cleaner restriction indicator light, engine check, engine coolant temperature indicator light with audible alarm, engine oil pressure indicator light with audible alarm, low-alternator-charge indicator light, low-fuel indicator light, fault code alert indicator, fuel-rate display, wiper-mode indicator, work-lights-on indicator, and work-mode indicator
●	Motion alarm with cancel switch (conforms to SAE J994)
●	Power-boost switch on right console lever
●	Auxiliary hydraulic control switches in right console lever
●	SAE 2-lever control pattern
●	Seat belt, 51 mm (2 in.), retractable
●	Tinted glass
●	Transparent tinted overhead hatch
●	Hot/cold beverage compartment
▲	Air-suspension heated seat
▲	Hydraulic oil filter restriction indicator light
▲	Protection screens for cab front, rear, and side
▲	Seat belt, 76 mm (3 in.), non-retractable
▲	Window vandal-protection covers
	Electrical
●	50-amp alternator
●	Blade-type multi-fused circuits
●	Positive-terminal battery covers
●	ZXLink™ wireless communication system (available in specific countries; see your dealer for details)
▲	Rearview camera
▲	Cab extension wiring harness
	Lights
●	Work lights: Halogen / One mounted on boom / One mounted on frame
▲	2 lights mounted on cab / One mounted on right side of boom

See your Hitachi dealer for further information.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at test conditions specified per ISO 9249. No derating is required up to 2000-m (6,560 ft.) altitude. Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on units with 2.9l-m (9 ft. 7 in.) arms; 1065-mm (42 in.), 0.9l-m³ (1.19 cu. yd.), 886-kg (1,951 lb.) heavy-duty buckets; 4250-kg (9,361 lb.) counterweights; full fuel tanks; and 79-kg (175 lb.) operators; and a 210LC-5 unit with 800-mm (32 in.) triple semi-grouser shoes.

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DKA210HT5 Litho in U.S.A. (13-06)

Hitachi Construction and Mining Products
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