

HILL PILING

**Wheatley Winton Hayes Ltd
High Street
Arlesey
Bedfordshire
SG15 6TA**

Job No. Rwp3901

- 1. Method Statements**
- 2. Risk Assessments**
- 3. COSHH Assessments**
- 4. Rig Certificate & Inspection records**
- 5. WPC, Rig Specification & Bearing Pressures**
- 6. Insurance Details**

This document must be read and understood and signed as acknowledgement before any works commence on site.

**R W Hill Piling Ltd.
1 Springfield Industrial Estate
Springfield Road
Burnham on Crouch
Essex CM0 8UA
Tel : 01621 785 954
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Prepared by : S C Thornton(Contracts Director)

Signed : 

Date : 20th July 2018



Section 1 - Method Statements



HILL PILING

Method Statement / Safe System of Work

Client Wheatley Winton Hayes Ltd

Contract High Street, Arlesey, Bedfordshire, SG15 6TA

Site Foreman Mick Barker 07768 718205 **Rig No.** Casagrande 105NG

Visiting Supervisor Ian Aldred 07770 816577 / Steve Jepson 07779 652069

Contracts Director Stuart Thornton 07747 607459 **Job No.** Rwp3901

General

- All lifting and piling operations are governed by a system of hand signals.
- Signallers usually the (steel fixer) should be prepared to give the STOP signal at any moment and in an emergency a STOP signal may be given by anyone. No operation for which a signal is agreed should be carried out until the signal is given.
- Any signal which is not understood should be treated as a STOP signal.
- Piling rig drivers and steel fixers should ensure there is a clear unobstructed line of sight between them during any lifting operation.
- Prior to giving the signal to start lifting the signallers should ensure that the work area is clear of unauthorised persons. They should ensure that they themselves are in a safe area away from the machine movements, falling objects etc. and with a clear view of the whole work area.
- Should any one enter the work area whilst work is being carried out, the signaller should signal the rig driver to STOP as soon as it is safe to do so.
- Casing and steel being hoisted by the rig should be slung so that they do not have to be swung round through any distance greater than is absolutely necessary.
- When materials are being hoisted, persons not involved in the lift should keep a safe distance.
- Boreholes should not be left unfilled over night under any circumstances.
- All machines should be immobilised and left in a safe and stable position when unattended.
- Rig driver to visually inspect all items of plant and machinery for obvious defects - report all such defects to the Piling Manager and await further instructions.
- Our operatives on site will consist of: - Foreman / Rig driver, Steel fixer / Banksman & a labourer subject to programme.

Method Statement / Safe System of Work(continued)

1. A **Safety Zone** is employed at each pile position and is defined as an area within a 2m radius of the centre of the auger.
2. No person is permitted within the **Safety zone** whilst the auger is turning.
3. Only authorised personnel are permitted to enter the **Safety Zone** and must have been properly instructed / trained on the risks associated with the Piling operations.
4. The operation of this type of rig involves the body of the rig to periodically slew to one side to discharge spoil from the borehole. At no time should any person enter the **Safety Zone** during this phase of the piling operation.
5. At no time should any person enter the **Safety Zone** out of view of the Rig Driver.
6. **Wheatley Winton Hayes Ltd** are to make sure that all/any operatives working in the vicinity of our machine understand that there is a **Safety Zone** employed around each pile position and must adhere to our Safe working Practices.

The working platform certificate must be signed off by the Wheatley Winton Hayes Ltd / Piling Mat Installer and a copy returned to R W Hill Piling Ltd before the commencement of any piling works, in addition any alterations to the piling mat must be logged on the Working Platform log.

Scope of Works

- To supply and install 501 No.300mm diameter open bored rotary piles filled with C28/35 concrete to class DC2 sulphate conditions. Average pile length 13.14m
- Supply, fabricate and install 501No.reinforcement cages, consisting of 5H12 x 6.0 metres and R6 helical
- To supply and install 43 No.350mm diameter open bored rotary piles filled with C28/35 concrete to class DC2 sulphate conditions. Average pile length 14.60m
- Supply, fabricate and install 43No.reinforcement cages, consisting of 5H12 x 6.0 metres and R6 helical
- Debonding for the top 1 metre of the reinforcement cage.
- Setting out based on a minimum of 50No.piles being set out per visit for our engineer and the coordinated pile positions and setting out stations being provided.

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- **100% integrity testing based on a minimum of 20No. piles being tested per visit.**
 - **To take and test one set of 4 cubes in each days work**
1. **Wheatley Winton Hayes Ltd** to ensure the section of road adjacent to the site entrance is clear of parked vehicles prior to our arrival on site.
 2. The low loader should be backed or driven onto the site before off loading. Should this not be possible the low loader will temporarily park as close to site as possible, positioned in such a way to minimise the distance the Piling rig has to track.
 3. However, should the rig need to cross a section of curb that has not been dropped the Client is to provide necessary materials to enable crossing without damage. (sleepers / ply etc).
 4. The delivery and offloading of all other ancillary equipment and materials will be done on site using a Hiab and stored in a designated area in addition when necessary the attendance machine may be used instead. All delivery vehicles will have edge protection and when possible, loads will be pre-slung to avoid working at height.
 5. All delivery drivers must report to **Wheatley Winton Hayes Ltd** security before entering site and must wear full PPE at all times. In addition, where there is a need for operatives to climb on the lorry, to facilitate off-loading, suitable edge-protection must be provided.
 6. The delivery and off loading of all other ancillary equipment and materials will be done on site using a Hiab and stored in a designated area.
 7. Setting out will be carried out and maintained by Hill Piling based on control stations and piling coordinates provided by Wheatley Winton Hayes Ltd.
 8. All services are to be clearly marked above ground by **Wheatley Winton Homes Ltd**. R W Hill Piling Ltd can take no responsibility for services damaged during piling that have not been clearly marked above ground or deviate from the markings provided.
 9. Before starting work the piling rig driver should survey the work area and check that the ground markings set out by the engineer correspond to the site information (site plans, drawing etc.) that have been supplied.
 10. Rig driver to establish the position of any trial bore ensuring position is clear of drainage and services beforehand with the Client. **(Trial bores only to be carried out on pile positions)**
 11. Trail bore to confirm that ground conditions are as per site investigation. The strata depths should be compared with the design and any variations should be notified to the Piling Manager immediately and await further instructions. **(Trial bores only to be carried out on pile positions)**

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12. Backfill trial bore if ground conditions are found to be different from the site investigation.
13. Piling rig sets up on each individual pile position and drills to a depth noted on the construction schedule.
14. Place and centralise reinforcement in bore. Safety end caps will be used on all rebar protruding from each bore if required.
15. Move on to next pile position (It is envisaged that 5-7 no. piles will be constructed from one load of concrete 6-8m³).
16. Prior to placing concrete ensure bore is dry.
17. If the bore is not dry the reinforcement should be removed and the bore re-drilled, logging the final depth.
18. If the reinforcement cage is not placed in the bore once it has been constructed the open bores need to be temporarily covered with ply or steel grids and clearly marked above ground.
19. Where possible the readymix concrete will be discharged directly into the bore, however where access does not permit the concrete will be placed using a dumper with a fluted shoot.
20. The piles are to be filled with concrete to piling mat level unless otherwise informed. Note where possible bearing pile cages and concrete will be left below ground level as noted on the construction schedule and the bores will be backfilled by **Wheatley Winton Homes Ltd** with pea shingle or similar. If there is water ingress the bores may have to be filled with concrete to maintain the integrity of the pile.
21. Centralise the reinforcement and leave at mat level unless instructed otherwise by site or noted on the construction schedule.
22. Once completed each pile will be covered with a pile cover to prevent anyone falling into the filled bore, if the top section of the pile is left as an empty bore. Otherwise unless instructed otherwise piles will be filled with concrete to ground level.
23. On contiguous wall piles depending on ground conditions every other pile or every 3rd pile will be constructed on the same day with the intermediate piles constructed on the subsequent days.
24. Repeat process on next pile position.
25. Immobilise the machine and leave in a safe stable position at the end of each day.

If casings are required due to the ingress of water into the bore the following method will be employed from point 11 of the Method Statement.

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- Piling rig to ream out through made ground to underlying London Clay, spinning off spoil over adjacent area. Main contractor to have a machine in attendance to remove spoil as required by the rig driver.
- Once the underlying clays have been reached the piling rig will slew away from the pile position pick up, pitch and place a casing in the bore, checking both position and verticality.
- The casing will be rotated and pushed into the underlying clay until a seal in the bore is achieved, it is not expected from the site investigation supplied that casing any greater than 4.0m in length will be required.
- Piling rig drill to the depth as specified in the design calculations again checking casing has actually sealed the bore.

Notes

- **Sequence of works is expected to be agreed on site.**
- The position of underground services must be clearly marked above ground by temporary fencing or the services should be exposed to identify their exact location. R W Hill Piling Ltd can take no responsibility for services damaged during piling that have not been clearly marked above ground or deviate from the markings provided.
- Site welfare / first aid provided by **Wheatley Winton Hayes Ltd**
- Wheel / road cleaning by **Wheatley Winton Hayes Ltd**
- Maintenance and installation of the piling platforms and haul roads by client to provide a well drained stable working platforms and access to Plots at all times. Note **Wheatley Winton Hayes Ltd** are responsible for the removal of surface water from the work area.
- Installed piles must be left a minimum of 7 days before being broken down to the required level. Please note "curing time" will vary depending on both weather conditions and grade of concrete used.
- A safe and stable working platform is required over the whole of the building footprint plus 1m, in addition any areas where the rig has to cross should also be prepared.
- Care should be taken with on site plant not to damage recently installed piles as R W Hill Piling will accept no responsibility for piles damaged either by the Main Contractor's excavator or during breaking down.
- Attendance Machine drivers should be made aware by the Main Contractor of our Safe Working Practices and must sign below as acknowledgement that they have done so.

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- Please note that the debonding of piles significantly reduces both noise and the amount of time required to break a pile down to Cut Off Level, however a tolerance of + / - 150mm should be allowed for as this method relies on the piling mat levels being accurate and some localised trimming of pile heads may be required.
- All soft spots/excavated areas to be filled with cohesive material(Clay) and well compacted to mitigate the use of temporary casings.
- A minimum of 2 days notice is required by R W Hill Piling to arrange integrity testing, piles must have been broken down and no reinforcement placed prior to testing. 100% integrity testing(Bearing piles only) **call Jason at Hill Piling office 01621 785954**

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Open Auger Bored Piling

WE HAVE READ AND UNDERSTOOD THE FOLLOWING DOCUMENTATION:

- o Method Statement
- o Risk Assessment
- o COSHH Assessment

Attendance Machine drivers should sign below as acknowledgement that they understand their role within the piling works.

	Date	Sign	Print
Supervisor (SMSTS, Gold CSCS & CPCS)			
Rig Driver (SSSTS, Gold CSCS & CPCS)			
Banksman / Slinger(CSCS)			
Concrete pump operator(CPCS)			
Piling operative(CSCS)			
Piling operative(CSCS)			
Piling operative(CSCS)			
Attendance Machine operator			
Attendance Machine operator			
Rig Driver (SSSTS, Gold CSCS & CPCS)			
Banksman / Slinger(CSCS)			

To be read and signed before the start of each project and emailed to the office or as and when any new staff are sent to site.

HILL PILING

METHOD STATEMENT

Activities / Subject covered by this assessment:

On site Reinforcement Cage Fabrication

CLIENT	Wheatley Winton Homes Ltd	JOB NO.	Rwp3901
SITE ADDRESS	High Street Arlesey, Bedfordshire SG15 6TA		

Area / Location:

- Working area

Persons exposed:

- Steel fixers
- Other site personnel

Safe Method Of Work

1. The loose bar reinforcement will be placed on site by hiab in a location away from the main piling area that is level and clear of obstructions.
2. The cages will be made on a pair of trestles with the loose bar reinforcement lifted manually into position.
3. Helical will then be placed over the end of the bars and stretched, once stretched the reinforcement bars will be lifted individually and tied to the helical in turn.
4. Once the reinforcement bars have been tied to the helical at one end the helical will be pulled and stretched over the length of the bars.
5. The helical will then be tied to the bars throughout the length of the cage at 200mm centres unless specified otherwise.
6. It is not necessary to tie each turn of helical, however the ties should form a uniform pattern with complete 'rings' of ties at regular intervals.
7. Once the cage is complete it will be lifted from the trestles by hand depending on the weight and placed on the ground away from the trestles. 20kg is a guideline for lifting by hand, however it is possible to lift heavier loads by lowering one end of the cage at a time to the floor or getting another person to help.
8. Should the fabricated cages prove too heavy for manual handling they will be lifted off the trestles using the attendance machine and a designated set of lifting chains and similarly placed away from the fabrication area. Cages will be slung horizontally see lift plan.
9. Completed cages will be stored in a designated area and moved as necessary to the piling area either individually by hand or using the attendance machine and a designated set of lifting chains.

General Notes

Debonding may be placed from the top pile cage to pile cut off level to facilitate the breaking down of piles in which case helical will not be placed over the length of cage that is debonded unless it is required to keep the cage rigid.

Section 2 - Risk Assessments



HILL PILING

Activities / Subject covered by this assessment:

Open Auger Bored Piling Risk Assessment

Client:

Wheatley Winton Hayes Ltd

Job No. Rwp3901

Site Address:

High Street, Arlesey, Bedfordshire, SG15 6TA

Area / Location:

- § Working area
- § Areas surrounding the piling rigs

Persons exposed:

- § Piling rig drivers
- § Steel fixers / operatives
- § Other site personnel
- § Members of the public

Hazards:

Risk Ratings

	Without controls	With controls
· Underground services	High	Low
· Overhead power cables	High	Low
· Moving parts of machinery	High	Low
· Falls, slips trips of persons	Medium	Low
· Displacement of spoil from augers	Medium	Low
· Exposure to concrete / additives	High	Low
· Exposure to second action noise levels	Low	Low
· Overturning of rig	High	Low

Control Measures:

- Suitable guarding is provided to enclose all dangerous zones of the plant and equipment. This guarding is visually inspected at the start of each day and maintained as appropriate. (Temporary fencing may be used to guard the auger at certain times)
- Use of piling rig and associated plant is restricted to trained authorised persons only. Operators are aware of the way in which the machinery should be operated and the safety precautions to be observed when doing so.
- Visiting Supervisors hold current CSCS Plant Operator cards, SMSTS and Supervisor Gold cards.
- All piling rig drivers hold current CSCS Plant Operator cards, SSSTS and Supervisor Gold cards.
- All operatives hold current the appropriate CSCS cards.

Lifting operations

- The piling rig is inspected weekly by a competent person as required by the Construction (Lifting Operations) Regulations 1998. Records of these inspections are recorded in the F91 type Register.
- The rig and lifting tackle are thoroughly inspected by a competent person in accordance with statutory requirements every 6 months for lifting tackle and 12 monthly for piling rigs. Records of these inspections are kept; these records show when the examination was carried out, who carried it out, their findings and any remedial action necessary / completed.

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- The working platform certificate must be signed off by The Client / Piling Mat Installer before the commencement of any piling work (See WPC) in addition any alterations to the piling mat must be logged on the Working Platform log.
- The area immediately surrounding the front of each piling rig will be cordoned off using a steel pedestrian barrier system or similar. These barriers will be moved around / repositioned as the work proceeds and are to prevent unauthorised people entering the **Safety Zone**. These barriers will clearly display signs stating this is a safety zone no unauthorised access.
- A Banksman will be in attendance at all times when the rig is manoeuvring and setting up on piles positions. When the rig is setup the only movement other than the kelly bars and auger being lifted and lowered into the ground during the drilling process is the periodic slewing of the upper structure of the rig to discharge spoil from the auger. During this period the banksman will not be required as the area has been physically barriered off to exclude all personnel and NO ONE is permitted within this Zone whilst the auger is turning.
- Pedestrian barrier fencing or similar will be used to separate the piling area from non piling personnel with pedestrian walkways in place as and where required.

- The maximum safe working load is clearly marked in view of the rig driver. The driver has been instructed not to exceed these loads.
- All items of lifting tackle and equipment are carefully stored when not in use in order to prevent damage and are regularly inspected at 6 monthly intervals.
- A safe system of work has been developed for this activity and is in operation. This safe system of work includes:
- Evaluation of the work area to include; the location of overhead power lines and underground services by means of reviewing the client supplied site information.
- An effective communication / signalling system between the piling rig driver and the operatives on the ground.
- The sling and manoeuvring of loads (i.e. casings and pre-formed steelwork etc.) is restricted to trained authorised persons only. Employees are fully instructed in the hazards involved, the safe system of work in place and the safety precautions to be observed.

Material storage

- Storage arrangements on site are arranged in such a way as to prevent either the casings or steelwork from falling / rolling a designated storage area is to be provided by the principal contractor. Rebar will be stored in the vicinity of the piling area usually where the reinforcement cages are being fabricated, stock rebar lengths will be lifted onto the trestles for fabrication using the attendance machine.

Noise

- A specific risk assessment as required by the Noise at Work Regulations 2005 has been carried out and all corrective / preventive measures identified have been implemented.
- A record of this risk assessment is available which includes:
 - A plan showing the various noise levels around the piling rig,
 - A description of who is exposed to the noise and for how long,
 - A record of the noise levels generated, the users and their exposures to which their normal use is expected.
- Suitable hearing protection is supplied to, and used by, all operators as required. The use of hearing protection is monitored regularly.
- The area surrounding the piling rig is clearly identified as a HEARING PROTECTION ZONE with the appropriate warning notices being displayed prominently.

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PPE

- Personal Protective Equipment (PPE) is used by all operatives. The PPE used consists of; Hard Hats, Safety Boots, Protective Gloves and HV Jackets.
- Respiratory protective equipment will be supplied if required eg Gases, odours
- Safety harness for CFA rigs only.
- All operatives have been instructed in the correct use of their PPE, its care and maintenance and are aware how to request repairs and/or replacement items.
- A specific risk assessment as required by the Control Of Substances Hazardous to Health Regulations 2002 (COSHH) has been carried out and all corrective / preventive measures identified have been implemented – SEE COSHH ASSESSMENTS
- At the end of each working day all machines are electrically immobilised in a safe and stable position.

Fuel Storage & refuelling

- All fuels and oils are stored in bunded bowsters where appropriate or in drip trays as necessary principal contractor to provide suitable area for refuelling and storage.
- Spill kits are provided for any spillages.
- Site fuel storage area to be provided with fire precautions as necessary by principal contractor.

Plant and traffic movement

Piling rig movements will be supervised by the banksman under the control of the Rig driver only on suitable piling mats and access ramps provided by the Principal contractor. The Principal contractor is to provide suitable hard standing on all areas the rig is likely or required to traverse a must sign the working platform certificate and return a copy to R W Hill Piling Ltd prior to any works commencing.

Vehicle movements including concrete deliveries relevant to Hill Piling will be escorted to the relevant area of site with a banksman following the traffic arrangements in place on site.

Principal contractor to provide details of the site traffic plan including any special arrangements during the site induction of Hill Piling operatives.

Residual Risk:

If the activity of open bore auger piling were considered without any of the above controls in place a risk assessment rating of high would have been required. The above control measures are such that the level of risk for this activity has been reduced dramatically to a rating of LOW.

Because there is still risk associated with the activity it is vital that the above control measures be implemented effectively with sufficient monitoring and supervision to ensure compliance with the standards laid out above.

Information, instruction and training

- Operators should be briefed each day on the conditions and progress of the work
- Training for piling contractors and plant operators is available under the voluntary Plant Operators Registration Scheme and the Construction Skills Certification Scheme.
- Training in the safe use of piling solutions should be carried out by contractors along with general safety training and an introduction to the site-specific hazards.
- The safety method statement should be specific about project training requirements.

Other:

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Emergency procedures

- Provisions should be made for on-site maintenance.
- Emergency arrangements should be made for the recovery of components that fall into a bore under construction.
- A trained first aider should always be in attendance.
- Emergency arrangements should be made for the recovery of plant or machinery overturning.

Other:

Monitoring procedures

- Work activities should be regularly monitored against the safety method statement by the contractor's safety adviser and should identify activities where controls need to be refined or expanded.
- Day to day monitoring and recording is the responsibility of the piling supervisor.
- All equipment and machinery should be thoroughly and regularly checked, in some cases daily, eg hoist ropes.
- The principal contract / project manager has responsibility for any activities which overlap with piling operations, and the monitoring of the control arrangements.

Other:

Prepared by: SCT

Date: 20th July 2018

Signature:


Contracts Director

HILL PILING

RISK ASSESSMENT

Activities / Subject covered by this assessment:

Minor repairs and working at height

CLIENT	Wheatley Winton Homes Ltd	JOB NO.	Rwp3901
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SITE ADDRESS	High Street Arlesey, Bedfordshire SG15 6TA
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Area / Location: - Working area - Areas surrounding the piling rigs - Delivery lorries	Persons exposed: - Piling rig drivers - Steel fixers / operatives - Other site personnel - Members of the public
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HAZARDS	Risk Ratings	
	Without controls	With controls
Falls from height	High	Low
Slips/trips	High	Low

Control Measures :

- The rig and lifting tackle are thoroughly inspected by a competent person in accordance with statutory requirements every 12 months and 6 months respectively. Records of these inspections are kept; these records show when the examination was carried out, who carried it out, their findings and any remedial action necessary / completed.
- All operatives are suitably trained and possess the relevant CSCS cards / certificates.
- Plan your route, move any obstacles. Ensure safe access and egress to and from all work areas and adequate lighting. Maintain high standards of housekeeping.
- All items of lifting tackle and equipment are visually inspected and recorded on a weekly basis.
- All items of lifting tackle and equipment are carefully stored when not in use in order to prevent damage and are regularly inspected at 6 monthly intervals.
- All delivery lorries will have edge protection
- All loads will be preslung wherever possible to restrict the need to work at height.
- The ladder along the side of the mast is regularly inspected and any defects rectified.
- A toolbox talk and instruction of how to carry out the work should be undertaken prior to any works commencing.

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Residual Risk :

If this activity were considered without any of the above controls in place a risk assessment rating of high would have been required. The above control measures are such that the level of risk for this activity has been reduced dramatically to a rating of LOW.

Because there is still risk associated with the activity it is vital that the above control measures be implemented effectively with sufficient monitoring and supervision to ensure compliance with the standards laid out above.

Monitoring procedures

Work activities should be regularly monitored against the safety method statement by the contractor's safety adviser, and should identify activities where controls need to be refined or expanded.

- Day to day monitoring and recording is the responsibility of the piling supervisor.
- All equipment and machinery should be thoroughly and regularly checked, in some cases daily, eg hoist ropes.
- The principal contractor / project manager has responsibility for any activities which overlap with piling operations, and the monitoring of the control arrangements.

Prepared by : S. C. Thornton

Signature :



Contracts Director

Date : 26 July 2018



HILL PILING

MANUAL HANDLING

Activities / Subject covered by this assessment:

OPEN AUGER BORED PILING

CLIENT	Wheatley Winton Homes Ltd	JOB NO.	Rwp3901
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SITE ADDRESS	High Street Arlesey, Bedfordshire SG15 6TA
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Area / Location:

- Working area
- Areas surrounding the piling rigs

Persons exposed:

- Piling rig drivers
- Steel fixers
- Pump operators
- Other site personnel

HAZARDS

Risk Ratings

	Without controls	With controls
Lifting/pulling/pushing heavy loads	High	Low
Slips/trips/falls	High	Low
Cuts from sharp edges	High	Low
Trapped fingers & hands	High	Low
Sprains & strains	High	Low
Muscular/skeletal disorders	High	Low

Control Measures :

- Information about hazards identified in the induction and risk assessment.
- Regular supervisor audits/checks of manual handling activities to be undertaken.
- All operatives are suitably trained and possess the relevant CSCS cards.
- Use mechanical aids where possible i.e. pallet truck, rollers, hoists etc. If this is not necessary or practicable and the load is within your capabilities, lift the load with your back straight and your knees bent looking straight ahead, taking the strain on your legs. If the load is too heavy or awkward seek assistance – Do not attempt to lift it on your own.
- Attendance machine operators must be competent & suitably qualified to carry out their duties.
- Plan your route, move any obstacles. Ensure safe access and egress to and from all work areas and adequate lighting. Maintain high standards of housekeeping.

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Control Measures :

- Wear gloves for manual handling operations to protect hands.
- Always try to keep hands away from load edges especially in tight areas and use handles where provided.
- Avoid twisting, stooping, reaching and carrying long distances.
- Ensure an even floor and sufficient rest/recovery time. Maintain a good posture: if the task is repetitive a separate risk assessment may be required.
- A toolbox talk and instruction of how to carry out the work should be undertaken prior to any works

Monitoring procedures

Work activities should be regularly monitored against the safety method statement by the contractor's safety adviser, and should identify activities where controls need to be refined or expanded.

- Day to day monitoring and recording is the responsibility of the piling supervisor.
- All equipment and machinery should be thoroughly and regularly checked, in some cases daily, eg hoist ropes.
- The principal contract / project manager has responsibility for any activities which overlap with piling operations, and the monitoring of the control arrangements.

Prepared by : S. C. Thornton

Signature :



Date : 26 July 2018

Contracts Director

Section 3 - COSHH Assessments



HILL PILING

COSHH ASSESSMENT

Activities / Subject covered by this assessment:

OPEN AUGER BORED PILING

CLIENT	Wheatley Winton Homes Ltd	JOB NO.	Rwp3901
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SITE ADDRESS	High Street Arlesey, Bedfordshire SG15 6TA
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Area / Location:

- Working area
- Areas surrounding the piling rigs

Persons exposed:

- Piling rig drivers
- Steel fixers / operatives
- Other site personnel
- Members of the public

Control of Substances Hazardous to Health Policy Statement

The control of substances hazardous to Health requires R.W. Hill Piling Limited to keep up to date and relevant information about any substances that are used, stored or handled on the premises or on site by their employees

It is our intention, so far as is reasonably practical to:

- Use safer substances in preference to more hazardous alternatives wherever possible.
- Give sufficient training to all users of hazardous substances about risks involved and the safety precautions to be observed.
- Supply the appropriate personal protective equipment.
- Provide all employees involved with hazardous substances with all details regarding these substances.

Materials in use

1. Cementitious material (primarily as concrete but also in the powder form)
2. Red Diesel (Gas oil)
3. Hydraulic Oil
4. Engine Oil
5. Concrete pump primer (Prime@pump)
6. Linemarker(spray paint)

All relevant Health & Safety Product Data sheets are available in our offices but all necessary information has been summarised in this assessment in order to inform of the specific actions required should an operative come into contact with any of the above mentioned materials during our day to day working practices. Should it be necessary to undertake emergency actions these are detailed on each COSHH assessment under the appropriate heading.

HILL PILING

COSHH ASSESSMENT: CONCRETE

Persons exposed : Rig driver, Steel fixers/ Operatives

Physical and Chemical Characteristics

Concrete is a mix of aggregate , cement and water. Admixtures may be included to improve product handling characteristics or the properties of the hardened concrete.

Main Hazards

Contact with wet cement mixes such as concrete can cause skin disease.

- Irritant contact dermatitis caused mainly by combination of wetness, alkalinity and abrasiveness of the cement mixture.
- Allergic contact dermatitis is mainly caused by individual sensitivity to chromium compounds that may occur in cement.
- Cement burn, a form of skin ulceration, may result from contact with freshly mixed concrete.
- The surface treatment and cutting of hardened concrete can create dust which may contain quartz, if inhaled over a prolonged period of time could constitute a long term health hazard.

Precautions

- Direct skin contact with wet cement should be avoided. It is important not to kneel or sit on wet material as harmful contact can occur through saturated clothing.
- Protective clothing should be worn when handling wet concrete, particularly on the arms, hands, legs and feet.
- Respiratory protective equipment should be worn for dust generated from hardened concrete.

Emergency Action

- Where skin contact occurs, either directly or indirectly through clothing the concrete must be washed off immediately.
- If eye contact occurs the area should be thoroughly rinsed with water for a prolonged period.
- In all cases of doubt, or where symptoms persist obtain medical advice.

Details of the equipment supplied to all our operatives on site for their personal protection is as follows:

- Personal Protective Equipment (PPE) is used by all operatives.

The PPE used consists of :

Hard Hats, Safety Boots, Protective rubber Gloves and HV Jackets or vests and overalls(optional).

- All operatives have been instructed in the correct use of their PPE, its care and maintenance and are aware how to request repairs and/or replacement items.

This document should be read in conjunction with our risk assessment which details the control measures in place for the use of concrete.

HILL PILING

COSHH Assessment: Hydraulic Oil

Low Product Hazard

Composition: Gear Lubricant based on highly refined mineral oil with organo sulphur / phosphorus and other additives.

- Suitable storage materials: Most common metals
- Unsuitable materials: May soften some rubbers
- Stability: Stable
- Reaction with water: None
- Dangerous reactions: None
- Storage: No special requirements avoid elevated temperatures
- Materials to avoid: Strong oxidising agents

Spillage Precautions

- Soak liquid in absorbent material and wash away residue.

Fire Precautions

- Foam, Dry chemical powder, carbon dioxide.

Nature of hazards

- Low
- May cause slight temporary irritation in the eye
- May cause slight skin irritation if contact is prolonged or frequent

Emergency Action

- Wash any areas of the skin that come into contact immediately

Control measures are in place for general piling operations and can be found in our specific Risk Assessment.

HILL PILING

COSHH Assessment: Gas Oil (Red Diesel/Derv)

Low Product Hazard

Composition: Gas Oil hydrocarbon based product derived from Crude Oil and other additives.

- Suitable storage materials: Most common metals
- Unsuitable materials: May soften some rubbers
- Stability: Stable
- Reaction with water: None
- Dangerous reactions: None
- Storage: No special requirements avoid elevated temperatures
- Materials to avoid: Strong oxidising agents
- Conditions to avoid: Sources of ignition

Spillage Precautions

- Soak liquid in absorbent material and wash away residue.

Fire Precautions

- Foam, Dry chemical powder, carbon dioxide.

First Aid Measures

Inhalation

- Remove affected person to fresh air
- Seek medical assistance

Skin

- Flush contaminated skin with water use soap if available
- Contaminated clothing should be soaked with water and removed

Eyes

- Flush eye with copious quantities of water, if irritation persists consult doctor

Chronic Health hazard Advice

Main Hazards arise from prolonged skin contact and inhalation mists

HILL PILING

COSHH Assessment: Concrete Pump Primer

Low Product Hazard

Composition : A mixture of lubricant, thickener, sequestrant and buffer and other additives.

- Suitable storage materials: Most plastics
- Unsuitable materials: None
- Stability: Stable in ambient temperatures
- Reaction with water: None
- Dangerous reactions: None
- Storage: No special requirements avoid elevated temperatures and keep dry
- Materials to avoid: Strong acids
- Conditions to avoid: High temperatures

Spillage Precautions

- Wash with water avoid dust in eyes

Fire Precautions

- Use extinguisher suitable to cause of fire

First Aid Measures

Ingestion

- Rinse and gently irrigate with clean water
- Seek medical assistance

Skin

- Wash with plenty of water
- Contaminated clothing should be soaked with water and removed

Eyes

- Immediately irrigate with clean water for 15 mins
- Seek medical

Chronic Health hazard Advice

Main Hazards arise from prolonged skin contact and inhalation mists

HILL PILING

COSHH Assessment: Line marker(Spray paint)

Description : Line Marker based on synthetic resin binder, solvent and pigments.

- Extremely flammable aerosol
- Pressurised container: May burst if heated.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Do not pierce or burn, even after use.
- Toxic to aquatic life with long lasting effects.
- Do not allow uncontrolled leakage of product into the environment.
- Do not discharge into the drains or bodies of water

Information pertaining to special dangers for human and environment

In extensive use, formation of flammable / explosive vapour-air mixture is possible.

Conditions to avoid

- Keep away from heat.
- Formation of explosive gas/air mixtures.

Information pertaining to special dangers for human and environment

In extensive use, formation of flammable / explosive vapour-air mixture is possible.

General protective measures

- Avoid contact with eyes and skin
- Do not inhale gases/vapours/aerosols.

first aid measures

- Remove contaminated soaked clothing immediately.

inhalation

- Remove the casualty into fresh air and keep him immobile.
- Seek medical advice

skin contact

- In case of contact with skin wash off with soap and water.
- Consult a doctor if skin irritation persists.

eye contact

- Contact with eyes rinse thoroughly with plenty of water and seek medical advice.

ingestion

Do not induce vomiting and seek medical advice.

Fire Precautions

- Alcohol-resistant foam, carbon dioxide or dry sand.

Unsuitable extinguishing media - water

Section 4 - Rig Certificate & Inspection Forms





Certificate of Thorough Examination

Customer/Equipment owner: **Hill Piling LTD**

- *Springfield Road
Burnham On Crouch,
Essex.*

• Location of examination: <i>Wembley Job Site</i>
• Description of equipment: Casagrande B80
• Identification number: B80ZS0134
• Year of manufacture: <i>2006</i>
• Machine Hours: <i>N/W</i>
• Nature of examination: <i>12 Monthly Thorough Examination</i>
• Reportable defects: <i>None</i>
• Other observations and notes: <i>none</i>

• Date Inspection was carried out: <i>30/04/2018</i>
• Date by which next Inspection is due: 30/04/2019

The Equipment detailed above has been examined by the person detailed below and subject to any items requiring remedial action as stated on the detailed inspection sheet of this report is deemed free from defects and is safe to operate. This certificate only denotes that the above machine has passed a thorough examination conforming to the below regulations

... The Management of Health & Safety at Work Regulations 1999 ...

... Provision and use of Work Equipment Regulations 1998 (PUWER) Regulation 6 ...

... Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) Regulations 9, 10 & 11 ...

Name of Inspector: <i>Malcom Handley</i>	Signed: <i>P Christopher</i>	Director
Certificate No: RS/ 0588		

Certificate of Installation	
NRMM Company No. CN-1502 Cert No. CCERT26	
Customer Details:	
Name	Hill Piling
Street	Unit 1, Springfield Ind. Estate
Town	Burnham on Crouch
County	Essex
Postcode	CM0 8UA

Equipment Details:			
Make	Casa Grande	Fleet Number	B80ZS0134
Model	B80 Bored Piling Rig	Hours Worked	unknown
Engine	Cummins QSB 5.9Ltr number 21690668	Engine Power	117Kw
Exhaust System Part Number	Ecotrap Plus GU-ASSY- FIL-078	Exhaust System Serial Number	5187
Exhaust Filter Part Number	FIL-C30	Exhaust Filter Serial Number	1901
Emission Reduction Details:			
Pre Smoke Test Opacity (l/m)	1.34	Post Smoke Test Opacity (l/m)	0.07
Particulate Standard Achieved		Stage 3b	

Installation Details:	
Installed By	A Southward of GreenUrban Technologies Ltd
Installation Date	13/03/2017

HILL PILING

1 Springfield Industrial Estate, Springfield Road, Burnham-On-Crouch, Essex CM0 8UA

Telephone: 01621 785954

Facsimile: 01621 786135

SITE SAFETY CHECK SHEET

To be carried out before the start of each project and emailed to the office
or as and when any new staff are sent to the project

CLIENT Wheatley Winton Homes Ltd
SITE High Street Arlesey, Bedfordshire SG15 6TA

JOB NO. Rwp3901

All operatives (including sub-contractors) to print, sign and date to acknowledge that they have been inducted by the Main Contractor and that they have read and understood the RAMS prior to commencement of piling works

Date		Induction (Y/N)	RAMS (Y/N)	Print Name	Sign Name
All new staff on project must be inducted by the Main Contractor and must have read and signed Hill Piling RAMS prior to commencing work on site and are to be added to this check sheet					
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				
	Induction/RAMS read & understood				

Foreman / Supervisor to complete Safety Inspections at the start of each project
and email to office, thereafter complete weekly Records of Inspection and Toolbox Talks

Date	Safety Inspections	In Good Order (Y/N)	Print Name	Sign Name
	Rig			
	Concrete Pipes (Rig)	n/a		
	Concrete Pipes (Ground)	n/a		
	Concrete Pump	n/a		
	Dumper			
	Bowser			
	Chains in Date			
	Toolbox Talk			
	WPC signed by client			
	(send signed front page)			

COMMENTS

WEEKLY

JOB NO. Rwp3901

[illegible]

WEEKLY

JOB NO : Rwp3901

This record is to certify that the equipment listed below has been inspected on a weekly basis and appears in good working order with any apparent defects being reported immediately and noted on the sheet below

RIG NO : B80

[illegible]

Printed.....

HILL PILING

RECORD OF INSPECTION

WEEKLY
CLIENT : Wheatley Winton Homes Ltd

SITE : High Street Arlesey, Bedfordshire SG15 6TA

JOB NO : Rwp3901

Chains, Harnesses & Shackles

This record is to certify that the equipment listed below has been inspected on a weekly basis and appears in good working order with any apparent defects being reported immediately and noted on the sheet below

OPERATORS NAME (PRINT) Dan Moore

RIG NO : B80

Date	Site Address	Description of Equipment	Print	Signed

Signed on behalf of R W Hill Piling.....

Signed on behalf of the main contractor or MC representative.....

Position.....

Printed.....

WEEKLY

JOB NO : Rwp3901

**Aerial Cableways, Aerial Ropeways, Crabs, Draglines, Excavators, Gin Wheels, Hoists
Overhead Runways, Piling Frames, Piling Rigs, Puley Blocks, Sheer Legs & Winches**

RIG NO : B80

Printed.....

HILL PILING

RECORD OF STANDING TIME

CLIENT : Wheatley Winton Homes Ltd
 SITE : High Street Arlesey, Bedfordshire SG15 6TA

JOB NO : Rwp3901

This record is to certify standing time and the cause of delay to the piling works
 Standing time will only be charge if there is no other piles / work areas available

OPERATORS NAME (PRINT) Dan Moore

RIG NO : B80

Date	Cause of Delay	Start of Delay	End of Delay	Total Hours
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

Signed on behalf of R W Hill Piling.....

Total

Signed on behalf of the main contractor or MC representative.....

Position.....

Printed.....

Section 5 - Rig Specifications & Bearing Pressures



HILL PILING

WORKING PLATFORM CERTIFICATE

This form must be completed and signed off prior to any works commencing, in addition where the site involves multiple platforms which are prepared as the piling continues they must be signed for on the inspection log noting the Block/area.

Project Name	High Street Arlesey, Bedfordshire SG15 6TA
Work area covered by this certificate	Piling layout plus 1.5m minimum run off area with links/haul roads between piling areas

(A sketch or marked up pile layout drawing may be attached to this certificate. Include haul roads and gridlines.)

Part 1 – WORKING PLATFORM DESIGN

Equipment to be used on site.	Casagrande B80(Rotary mode)
Maximum plant loading	BRE LOAD CASE 1 $q_{1k} = 180\text{kPa}$ $L1 = 1.750\text{m}$, $W1 = 0.6\text{m}$ BRE LOAD CASE 2: $q_{2k} = 206\text{kPa}$ $L2 = 1.40\text{m}$, $W2 = 0.6\text{m}$

(Note: BR470 'Working Platforms for Tracked Plant: Good practice guide to the design, installation, maintenance and repair of ground-supported platforms' is available from IHS BRE Press – Tel 01344 328 038)

Designer Name		Position	
Designer Organisation		Tel no.	
Is Testing Specified?	Yes / No	If 'Yes' Give Details:	

Part 2 – VERIFICATION BY PRINCIPAL CONTRACTOR

The working platform detailed above has been designed, installed to the design and, if specified, tested to safely support the equipment detailed in Part 1 above. The limits of the platform have been clearly identified on site as necessary.

The working platform will be REGULARLY INSPECTED, MAINTAINED, MODIFIED, REPAIRED, and REINSTATED to the as-designed condition after any excavation or damage, throughout the period when the equipment is on the site. A completed copy of this certificate signed by an authorised person from the Principal Contractor shall be given to each user of the working platform prior to commencement of any works on site.

Name & Position		Date	
Organisation		Signature	

Copy must be emailed to the office before works commence

The HSE has worked closely with the FPS to develop this initiative and supports the principle of reducing accidents by the certification of properly designed, prepared and maintained working platforms



Working Platform Regular Inspection Log

HILL PILING

The working platform has been inspected. All necessary maintenance, modification, repair or re-instatement of the working platform is to the as-designed installed condition if necessary, a revised Working Platform Layout Drawing has been issued to the specialist contractor.

Date	Company	Name & Position	Signature	Comments (include key details of alteration, modification, maintenance, repair, date of next inspection, and whether or not revised drawing issued etc. as appropriate)	Work Complete (Piling mat has been reinstated or installed as per Mat design / specification and is safe to use) (Yes/No)	Details (to be completed by Hill Piling) (include details of why piling mat needs to be signed off again ie obstructions have been removed, new area of work etc...

Working Platform Regular Inspection Log

HILL PILING

The working platform has been inspected. All necessary maintenance, modification, repair or re-instatement of the working platform is to the as-designed installed condition if necessary, a revised Working Platform Layout Drawing has been issued to the specialist contractor.

Date	Company	Name & Position	Signature	Comments (include key details of alteration, modification, maintenance, repair, date of next inspection, and whether or not revised drawing issued etc. as appropriate)	Work Complete (Piling mat has been reinstated or installed as per Mat design / specification and is safe to use) (Yes/No)	Details (to be completed by Hill Piling) (include details of why piling mat needs to be signed off again ie obstructions have been removed, new area of work etc...

HILL PILING

Guidance on working platforms for tracked plant

1. Design

- 1.1. The HSWA 1974 and CDM Regulations 2007 require the Principal Contractor to appoint competent Designers in respect of Working Platform design. This legislation explains how competence can be assessed by reference to professional qualifications or professional memberships and by reference to practical experience of the design of working platforms. Principal Contractors must be satisfied that a competent Designer has been appointed by them in accordance with the relevant legislation before they complete and sign the WPC.
- 1.2. The stability of tracked plant is fundamentally dependent upon the provision of a suitable and sufficient working platform. It must be properly designed and installed to a recognised standard. Whilst the same type of rig may be operated by different companies, the design bearing pressures may differ due to the specific operating configuration of the rig and/or any modifications. Details of the plant to be used and bearing pressures will be provided by the specialist contractor in advance of work commencing.
- 1.3. Working platform design is extremely sensitive to the bearing pressure and type of fill used in the platform. (For example, changing the angle of friction of the fill from 35 degrees to 45 degrees can halve the platform thickness.) It is therefore advised that the Designer may have to adopt conservative/cautious estimates of platform shear strength unless higher values can be demonstrated by testing or with reference to appropriate published data.
- 1.4. The working platform must be free draining to prevent the build up of water and slurry. In the case of fine-grained sub-grades, a separation/filter membrane should be installed beneath the platform material to inhibit 'pumping' and infiltration of the fine-grained soils up into the platform material during wet weather (which can impair platform performance and increase maintenance costs).
- 1.5. Proof testing of the platform can be carried out with a suitably sized circular plate subjected to the maximum design loading. Such testing, as part of an appropriately designed testing regime, should highlight any gross inconsistencies in platform performance. Potentially, significant savings in platform thickness and cost may be realised by adopting a more detailed testing strategy.
- 1.6. The working platform must have a specified design life which starts before delivery of the piling equipment and ends on completion of all piling works. This includes load testing, integrity testing, investigation of non conformances and any remedial works.
- 1.7. The specialist contractor is to advise the Principal Contractor at the earliest practicable opportunity should the specialist contractor become aware of any circumstances relating to the working platform that renders it unsafe.

2. Installation

- 2.1. The FPS Working Platform Certificate is mandatory for all sites where a rig or attendant plant operates. It must be signed by an authorised representative of the Principal Contractor. This signature confirms that the legal duties required under CDM have been carried out.
- 2.2. If the working platform is to be constructed or removed in phases while piling works are ongoing, then the extent of the platform must be clearly defined on the certificate and, in accordance with good practice, physically on site. This is particularly important where the platform material is removed from an area previously made available to the specialist contractor.
- 2.3. The working platform provides access for all plant deliveries, sub-contractors and personnel associated with the specialist operations. Properly designed and installed the working platform could also provide suitable and safe access for following trades for the whole project.
- 2.4. Poor definition of the edge of the working platform is a major cause of tracked plant instability. It is good practice that the working platform should extend at least 2m beyond the pile position/edge of the building to ensure sufficient safe working area for the specialists personnel and attendant plant. Where having to work within this 2m zone is unavoidable the Designer is to be informed of the requirement to design the platform for working up to its edge.
- 2.5. Where access ramps are used to move between working levels these must be of sufficient gradient and width to allow the plant to move safely with the stability constraints of the machine. Ramps must be in a straight line between working areas. Rigs and cranes cannot change direction on ramps. Where a change in direction is required, this must be on a flat level platform.

3. Maintenance, modification, repair and reinstatement

- 3.1. The working platform must be kept free draining. Water and slurry which is allowed to build up on the working platform can hide such hazards as recently constructed piles, trip hazards, uneven or unstable ground, services and excavations. Slurry can be transferred to work equipment which increases the risk of slips on steps as well as difficult handling of work tools.
- 3.2. Obstructions encountered during installation of the piling works will generally require excavation to remove them. This can create a 'soft spot' which can result in the rig overturning. It is essential, therefore, that any excavations made in the working platform are reinstated to the designed standard, including any reinforcement and separation filter/membrane.
- 3.3. The working platform shall be subject to regular inspection by a competent individual appointed by the Principal Contractor (e.g. the Temporary Works Co-ordinator) throughout its design life and after any reinstatement or any works which might have modified it. Any damaged or inadequate areas identified must be reinstated to the designed standard. Following the regular inspection, the Working Platform Regular Inspection Log shall be signed by an authorised representative of the Principal Contractor and issued to the specialist contractor with a layout drawing of the working platform amended as appropriate.

4. Working Platform Layout

- 4.1. Items that must be included and properly located on the working platform layout drawing and be notified by the Principal Contractor to the specialist contractor would include: detail of platform edges and 2m delineation, trial pits, services or voids, areas of backfilling, known underground basements; areas that are covered by the certificate or permit, test locations (if specified by the Designer of the platform) and any other feature that may affect the safety of operations.



B80

Hydraulic piling rig

Attrezzatura idraulica per pali



Technical data

Dati tecnici

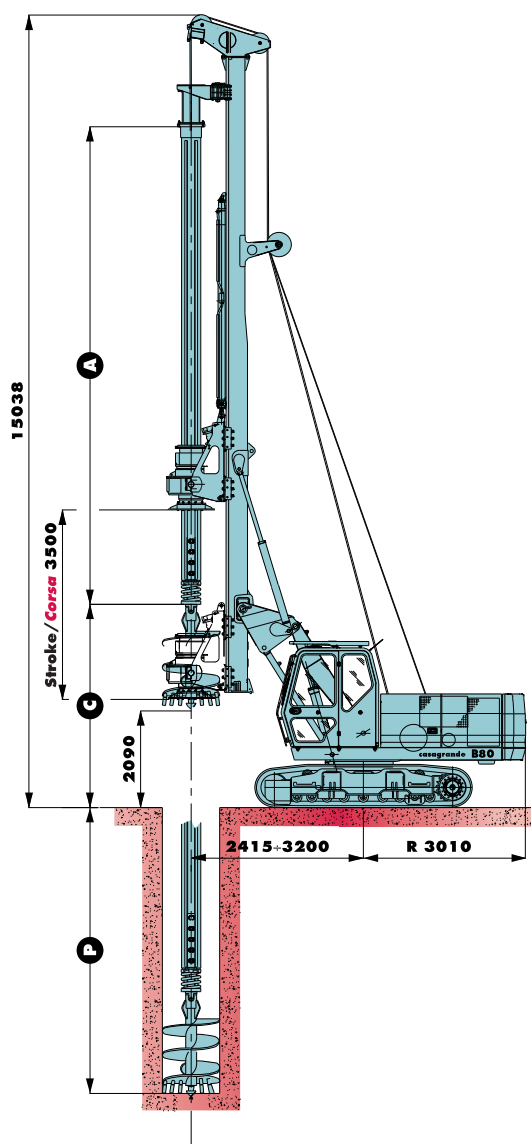
B80

Borehole dimensions	Dimensioni di scavo		
Max. depth	Profondità max.	128 ft	38 m
Max. diameter	Diametro max.	51 in	1300 mm
Undercarriage	Carro		
Width with retracted tracks	Larghezza cingoli chiusi	8.2 ft	2500 mm
Width with extended tracks	Larghezza cingoli aperti	11.8 ft	3600 mm
Tracks length	Lunghezza cingoli	13.3 ft	4040 mm
Shoes width	Larghezza pattini	24 in	600 mm
Travelling speed	Velocità di traslazione	0 ÷ 1.2 mph	0 ÷ 2 km/h
Swing speed	Velocità rotazione torretta	0 ÷ 3.2 rpm	0 ÷ 3,2 rpm
Engine	Motore	Cummins QSB 5.9-30-T	
Type	Tipo	Turbo	Turbo
Power at 2200 rpm	Potenza a 2200 rpm	155 HP	116 kW
Fuel tank capacity	Capacità serbatoio gasolio	58 US gal	220 l
Hydraulic oil tank capacity	Capacità serbatoio olio idraulico	53 US gal	200 l
Main winch	Argano principale		
Max. line pull	Tiro max.	23,605 lbs	105 kN
Max. line speed	Velocità max. fune	259 ft/min	79 m/min
Rope diameter	Diametro fune	0.87 in	22 mm
Rope capacity	Capacità fune	220 ft	67 m
Auxiliary winch	Argano ausiliario		
Max. line pull	Tiro max.	10,116 lbs	45 kN
Max. line speed	Velocità max. fune	187 ft/min	57 m/min
Rope diameter	Diametro fune	0.5 in	13 mm
Rope capacity	Capacità fune	269 ft	82 m
Pull-down	Pull-down		
Max. extraction force	Tiro max.	31,473 lbs	140 kN
Max. crowd	Spinta max.	20,233 lbs	90 kN
Stroke	Corsa	11.5 ft	3500 mm
Rotary head	Testa rotary	H10.20	H10.20
Max. torque	Coppia max.	73,756 lb ft	100 kNm
Max. drilling speed	Velocità max. lavoro	42 rpm	42 rpm
Discharge speed	Velocità di scarico	130 rpm	130 rpm
Weight	Peso		
Weight in working condition	Attrezzatura in condizioni di lavoro	~59,525 lbs	~27000 kg

General arrangement and dimensions

Composizione generale e dimensioni

B80



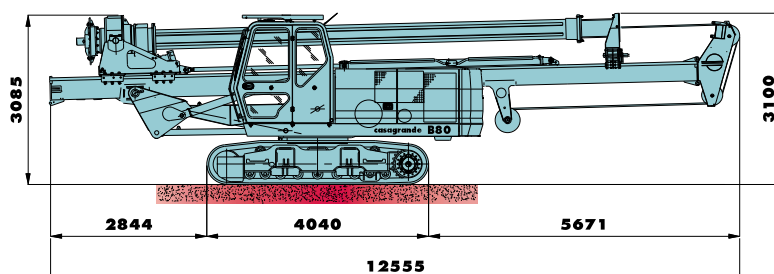
Crowd ram

Martinetto pull-down

Max. extraction force	31,473 lbs
<i>Tiro max.</i>	<i>140 kN</i>
Max. crowd	20,233 lbs
<i>Spinta max.</i>	<i>90 kN</i>
Stroke	11.5 ft
<i>Corsa</i>	<i>3500 mm</i>

Arrangement with crowd cilinder

Versione con martinetto pull-down



Weight ~ 59,525 lbs
Peso ~ 27000 kg

Friction type kelly bar

Aste a frizione

	A ft / mm	C ft / mm	P ft / mm
5 x 7000	23 / 7000	13 / 4090	99 / 30300
5 x 8500	28 / 8500	13 / 4090	124 / 37800

Interlocking type kelly bar

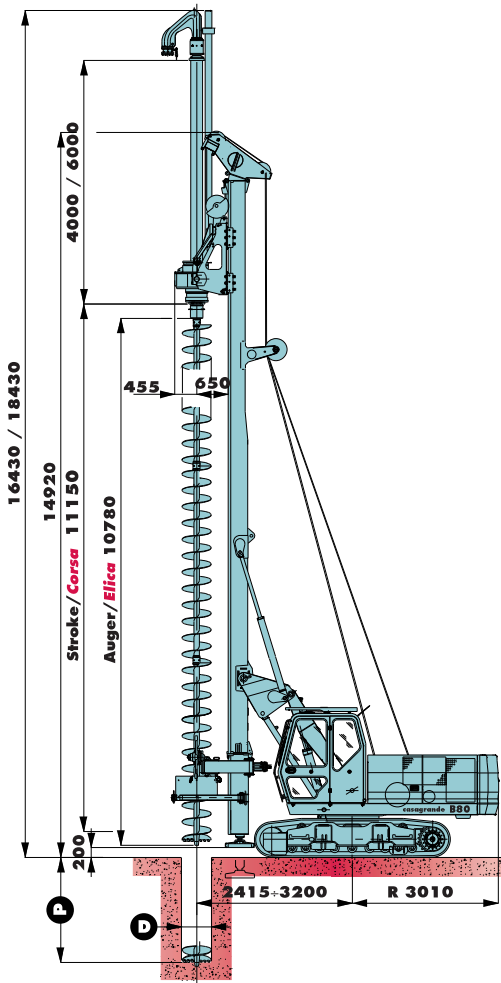
Aste a bloccaggio

	A ft / mm	C ft / mm	P ft / mm
4 x 7000	23 / 7000	13 / 4090	80 / 24300
4 x 8500	28 / 8500	13 / 4090	99 / 30300

General arrangement and dimensions

Composizione generale e dimensioni

B80

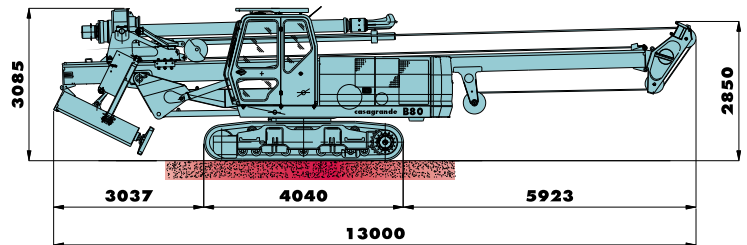


Arrangement with continuous flight auger

Composizione con elica continua

Arrangement for CFA

Versione CFA



Weight ~ 57,320 lbs
Peso ~ 26000 kg

Borehole dimensions C.F.A.

Dimensioni di scavo C.F.A.

Diameter Ø	in	D	24
Diametro Ø	mm	D	600
Max. depth	ft	P	33 + 19.7
Profondità max.	mm	P	10000 + 6000
Max. depth with auger cleaner	ft	P	29.5 + 19.7
Profondità max. con pulitore elica	mm	P	9000 + 6000
Max. extraction force	lbs		47,210
Forza max. di estrazione	kN		210
* Max. extraction force on a 4-part line	lbs		67,440
* Forza max. di estrazione con tiro in 4°	kN		300

* OPTIONAL

Section 6 - Insurance Details



To Whom it May Concern

Insured	-	The Hill Group (1985) Limited and/or R W Hill (Piling) Limited and/or Hill Piling Limited
Date of Issue	-	1st March 2018

Employers Liability

Insurer	-	Aspen Insurance UK Limited
Policy Number	-	B1903174181001
Period of Insurance	-	12 months from 6 th March 2018
Business Description	-	Supply, design and installation of board, CFA and steel case driven piling. Specialists in CFA, rotary, open bore, mini cased driven, geothermal, secant and continuous wall piling. Plant hire.
Limit of Indemnity	-	GBP 10,000,000 any one occurrence inclusive of legal costs and expenses, other than Terrorism which is restricted to GBP 5,000,000
Indemnity to Principal	-	Yes

This section provides cover for the Insured's Legal Liability for their employees for death, injury or disease sustained during the course of their employment in the business and is require by law.

Public Liability

Insurer	-	Aspen Insurance UK Limited
Policy Number	-	NOA3VVR18A0A & B1903174181002
Period of Insurance	-	12 months from 6 th March 2018
Business Description	-	Supply, design and installation of board, CFA and steel case driven piling. Specialists in CFA, rotary, open bore, mini cased driven, geothermal, secant and continuous wall piling. Plant hire.
Limit of Indemnity	-	GBP 10,000,000 any one occurrence and unlimited in the period of Insurance.
Indemnity to Principal	-	Yes
Excess	-	GBP 1,000 Each and every Third Party Property Damage occurrence GBP 2,500 Each and every occurrence in respect of Underground Services
Extensions	-	Damage to Superstructures included

This section provides cover for the Insured's legal Liability to members of the public for accidental bodily injury or accidental damage to property arising out of the business as per the policy wording.

Products Liability

Insurer	-	Aspen Insurance UK Limited
Policy Number	-	NOA3VVR18A0A & B1903174181002
Period of Insurance	-	12 months from 6 th March 2018
Business Description	-	Supply, design and installation of board, CFA and steel case driven piling. Specialists in CFA, rotary, open bore, mini cased driven, geothermal, secant and continuous wall piling. Plant hire.
Limit of Indemnity	-	GBP 10,000,000 any one occurrence and in all in the Period of Insurance
Excess	-	GBP 1,000 Each and every Third Party Property Damage occurrence GBP 2,500 Each and every occurrence in respect of Underground Services
Extensions	-	Damage to Superstructures included

This section provides cover for the Insured's Legal Liability to members of the public for accidental bodily injury or accidental damage arising out of goods or products designed, manufactured, constructed, installed, altered, repaired, serviced, processed, treated, sold, leased, supplied or distributed by the Insured as per the policy wording.

Contractors All Risks

Insurer	-	Aspen Insurance UK Limited
Policy Number	-	NOA3VVR18A0A
Period of Insurance	-	12 months from 6 th March 2018
Business Description	-	Supply, design and installation of board, CFA and steel case driven piling. Specialists in CFA, rotary, open bore, mini cased driven, geothermal, secant and continuous wall piling. Plant hire.
Sum Insured	-	GBP 5,000,000 Maximum contract value
Period	-	24 Months Maximum contract period
Owned Plant	-	GBP 1,000,000 Any one site
Hired Plant	-	GBP 500,000 Any one item
Hired out Plant	-	GBP 50,000 Any one item
Excess	-	GBP 2,500 Each and every claim in respect of Theft and Malicious Damage GBP 1,000 Each and every other claim

This section provides cover for the "All Risks" of Loss or Damage to the permanent and temporary works carried out by or on behalf of the Insured at the Site of a Contract.

Professional Indemnity

Insurer	-	Dual Corporate Risks/International General Insurance Company (UK) Ltd
Policy Number	-	PC-26732717I0
Period of Insurance	-	12 months from 6 th March 2018
Business Description	-	Supply, design and installation of board, CFA and steel case driven piling. Specialists in CFA, rotary, open bore, mini cased driven, geothermal, secant and continuous wall piling. Plant hire.
Limit of Indemnity	-	GBP 10,000,000 in the aggregate with round the clock reinstatements including costs and expenses
Excess	-	GBP 10,000 Each and every Claim applicable to Costs
Jurisdictional Limits	-	Worldwide Excluding USA & Canada
Geographical Limits	-	Worldwide Excluding USA & Canada
Law & Jurisdiction	-	England and Wales
Retroactive Date	-	11.01.1999

This section provides cover for the Insured's legal liability incurred following professional negligent acts or omissions as per the policy wording.

All Subject to the policy terms, conditions, limitations, exclusions and cancellation provisions and may also be subject to warranties. The limits shown may have been reduced by paid claims.

We express no view and assume no liability with respect to the solvency or future ability to pay of any of the insurance companies which have issued the insurance(s). All details are subject at all times to the individual policy wordings. This document is issued as a matter of information only and confers no rights upon the document holder other than those provided by the policy. This document does not amend, extend or alter the coverage afforded by the policies described herein.

Should the above mentioned contract of insurance be cancelled, re-assigned or changed during the above policy period in such manner as to affect this document, no obligation to inform the holder of this document is accepted by Lorica Insurance Brokers.

This letter is given on the condition that you forever waive any liability against us based on the placement of the insurance(s) and/or the statements made herein with the exception of wilful default, recklessness or fraud.

This letter may not be reproduced by you or used for any other purpose without our prior written consent.

This letter shall be governed by and shall be construed in accordance with English law.