Foundation Safety

- **Project Logistics Permitting and QA QC**
  Project Logistics Permitting and QA QC Steps to Secure a Municipal Foundation Repair Permit Coordinating Utility Markouts Before Pier Drilling Developing a Work Sequence to Minimize Downtime Creating a Safety Plan That Meets OSHA Guidelines Scheduling Third Party Inspections for Key Milestones Preparing As Built Elevation Logs for Engineer Review Managing Material Deliveries on Confined Job Sites Using Checklists to Track QA QC Tasks in Real Time Budget Control Methods for Foundation Projects Communication Strategies With Homeowners During Repairs Document Storage Solutions for Project Records Closing Out a Permit After Final Inspection Approval
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When embarking on a project that involves pier drilling, one of the critical initial steps is coordinating utility markouts to ensure safety and efficiency. The relationship between water and your foundation is like that toxic ex who keeps coming back to cause more damage **basement foundation repair Naperville** Philadelphia. This process is streamlined through the use of a Scheduling Utility Markout Appointments system, which plays an indispensable role in the pre-drilling phase.

The essence of this scheduling utility lies in its ability to organize and manage appointments with utility companies responsible for marking out underground lines. These lines could include electrical cables, gas pipes, water mains, and communication wires, all of which are invisible beneath the surface but crucial to avoid during drilling operations. The app or software acts as a liaison between construction teams and utility providers, setting up precise times for these markouts to occur.

In practice, once a site has been identified for pier drilling, project managers input the location details into the scheduling utility. This triggers notifications to relevant utility companies who then schedule their technicians to visit the site at a mutually agreed-upon time. The beauty of this system is its precision; it ensures that each utility company arrives when they can perform their job without conflicts from other ongoing activities or overlapping with another service provider.

This coordination not only enhances safety by preventing accidental damage to utilities but also saves time and reduces costs associated with potential delays or repairs due to unforeseen strikes on these lines. Moreover, it provides peace of mind to all stakeholders involved-contractors know precisely when they can proceed with their drilling without risking legal liabilities or safety hazards.

Furthermore, modern scheduling utilities often come equipped with features like real-time updates, reminders, and direct communication channels between parties. This means if theres a change in schedule or an issue arises, everyone involved is promptly informed, allowing for quick adjustments without significant disruption.

In conclusion, integrating a Scheduling Utility Markout Appointments system into the coordination process before pier drilling is not just about adhering to regulations; its about embracing efficiency and foresight in construction practices. It represents a proactive approach where technology aids in minimizing risks while maximizing productivity, ensuring that projects move forward smoothly from planning through execution.

Geotechnical Investigation and Site Assessment for QA/QC Planning —

Okay, so were talking about drilling piers, right? Big, important stuff. And before we even *think* about firing up those drills, weve got to make sure all the utility companies have done their job and marked out where their stuff is buried. Were talking gas lines, water pipes, fiber optic cables – the whole shebang. Thats where "Verifying Utility Company Compliance" comes in. Its not just a fancy phrase; its about safety, avoiding huge messes, and keeping projects on time and on budget.

Think about it: youre about to sink a massive drill into the ground. If a utility company hasnt accurately marked a gas line, BOOM. Disaster. Or you hit a water main? Instant geyser, flooding the site, delaying everything. The costs, both financial and in terms of potential injuries, can be astronomical.

So, what does verifying compliance actually look like? Its not just blindly trusting that the utility companies did their job correctly. It's about a systematic process. Did they respond to the "one call" request within the required timeframe? Were the markings clear, accurate, and physically present on the ground? Did they use the correct color-coding for each type of utility? Are the markings consistent with existing records and maps? We need to double-check, cross-reference, and maybe even do some visual confirmation with ground-penetrating radar or other technologies in tricky areas.

Ultimately, verifying utility company compliance is about taking responsibility. Its about understanding that while we rely on these companies to do their part, the ultimate responsibility for safety and project success rests with us. Its a critical step that can prevent a lot of headaches, heartaches, and costly mistakes down the line. It's not just paperwork; it's about making sure everyone goes home safe at the end of the day.

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Moisture: Silent Threat

How to reach us:

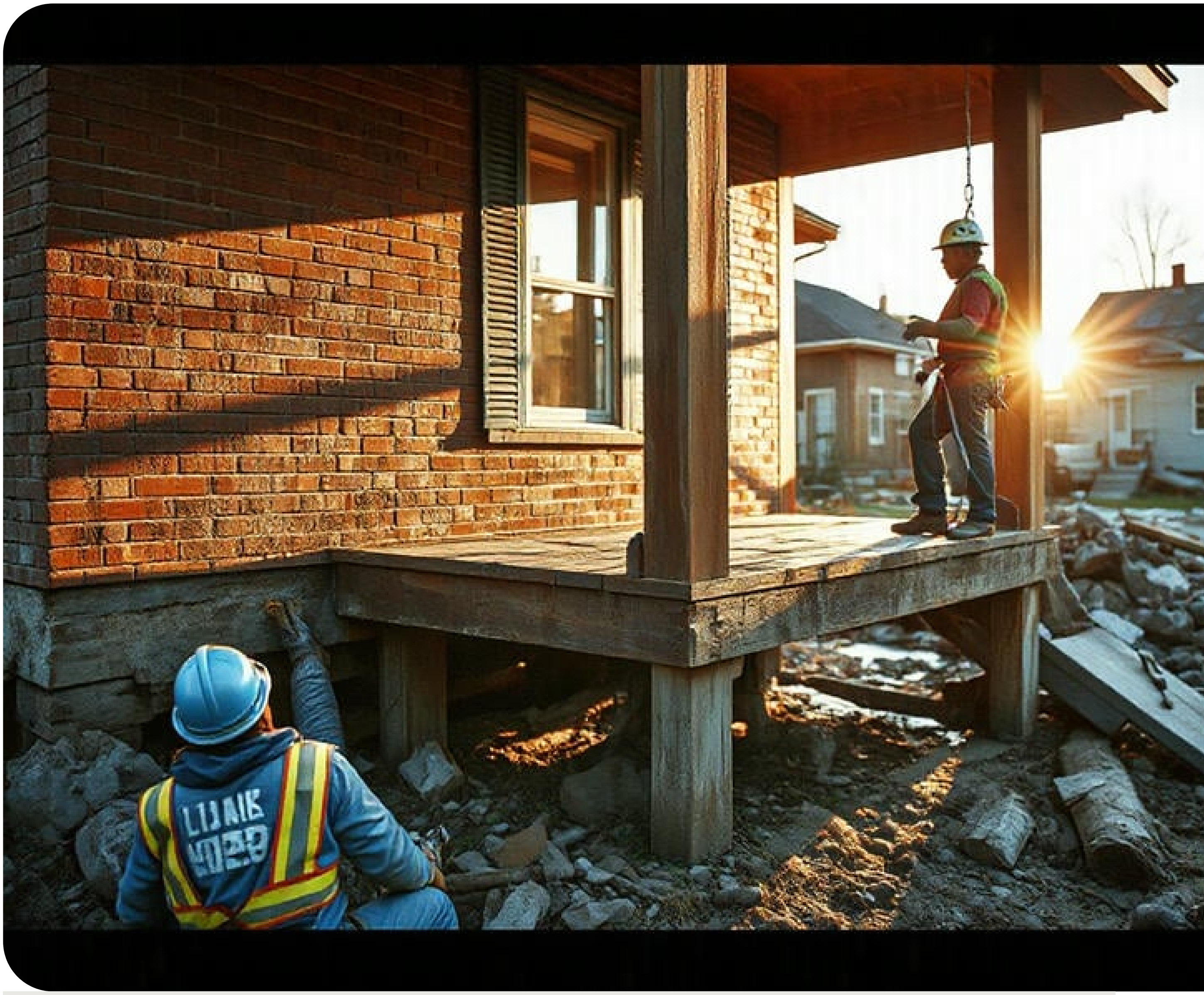
Material Procurement and Quality Control Procedures

Okay, so weve got all these utility lines marked before we even think about sticking a pier drilling rig anywhere near them. Thats step one, obviously. But what good are those little flags and paint marks if nobody actually *documents* what they mean? Like, seriously, Bobs been marking gas lines for 30 years, and he swears he remembers every squiggle, but Bob also forgets where he parked his truck half the time. We gotta have something more reliable.

Documenting markout results isnt just about covering our butts, though it certainly helps with that. Its about clear communication. The drilling crew needs to know *exactly* whats down there, where it is, and how deep it is. A quick photo with a scale showing distances is golden. A simple sketch with measurements? Even better. Think of it like a treasure map, but instead of buried gold, its a buried fiber optic cable thatll shut down the internet for the whole county if you nick it.

And its not just about location, either. What *kind* of utility is it? Gas? Water? Electricity? Knowing the type of utility helps the drilling crew understand the potential hazards and adjust their drilling plan accordingly. A high-pressure gas line is a whole different ballgame than a PVC water pipe.

Finally, and this is key, the documentation needs to be accessible. It cant just live on Bobs clipboard in the cab of his truck. It needs to be somewhere everyone on the crew can easily find and understand it. Maybe a shared online folder, or a laminated printout kept on site. The point is, clear, concise, and accessible documentation of utility markout results is absolutely vital for safe and efficient pier drilling. Its the difference between a successful project and a very expensive, possibly dangerous, mess. And nobody wants that.



Inspection and Testing Protocols During Foundation Repair

Adjusting drilling plans based on markouts is a critical step in the process of coordinating utility markouts before pier drilling. When embarking on a construction project that involves drilling piers, one must first ensure that all underground utilities are accurately located and marked. This initial coordination prevents potential hazards such as damaging gas lines, electrical cables, or water pipes, which could lead to dangerous situations, costly repairs, and project delays.

Once the utility companies have completed their markouts, typically using color-coded paints or flags to indicate the presence of various utilities (e.g., red for electrical lines, yellow for gas lines), its time to adjust the drilling plans accordingly. The first task is to review these markouts in relation to the proposed pier locations. Often, this requires a detailed site visit where engineers or construction managers can physically see how close the planned pier locations are to these marked utilities.

If a pier is planned too close to a marked utility line, adjustments are necessary. This might mean shifting the location of the pier slightly or redesigning parts of the structure to accommodate these changes without compromising structural integrity. For instance, if a pier was intended directly over a water main, we might decide to move it a few feet away or choose an alternative foundation design that can span over or around the utility without direct contact.

This adjustment phase also involves re-evaluating safety protocols. Workers need clear instructions on how to proceed with drilling near utilities, often requiring specialized equipment or techniques like hand digging or using vacuum excavation near sensitive areas. Communication with all team members is crucial here; everyone from the drill operators to site supervisors must understand the new plan and any deviations from standard procedures.

Moreover, documentation plays a significant role during this phase. All changes must be recorded in updated blueprints and shared with all relevant parties-including city inspectors who might need to approve modifications before work continues. This ensures transparency and compliance with local regulations.

In summary, adjusting drilling plans based on markouts isnt just about moving some lines on a map; its about ensuring safety, compliance, and project efficiency. It demands precision, foresight, and collaboration among various stakeholders. By carefully integrating this step into the pre-drilling process, construction teams can mitigate risks while maintaining progress towards their structural goals.

About Foundation (engineering)

In engineering, a structure is the aspect of a framework which links it to the ground or more seldom, water (just like floating frameworks), transferring loads from the framework to the ground. Foundations are typically thought about either superficial or deep. Structure engineering is the application of dirt technicians and rock mechanics (geotechnical design) in the design of foundation aspects of structures.
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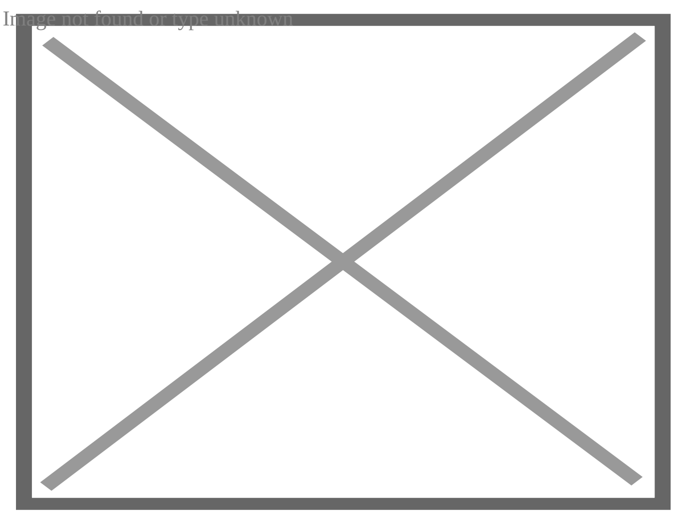
About Pile driver

This article is about the mechanical device used in construction. For other uses, see Pile driver (disambiguation).



Tracked vehicle configured as a dedicated pile driver

A **pile driver** is a heavy-duty tool used to drive piles into soil to build piers, bridges, cofferdams, and other "pole" supported structures, and patterns of pilings as part of permanent deep foundations for buildings or other structures. Pilings may be made of wood, solid steel, or tubular steel (often later filled with concrete), and may be driven entirely underwater/underground, or remain partially aboveground as elements of a finished structure.

The term "pile driver" is also used to describe members of the construction crew associated with the task,[1] also colloquially known as "pile bucks".[2]

The most common form of pile driver uses a heavy weight situated between vertical guides placed above a pile. The weight is raised by some motive power (which may include hydraulics, steam, diesel, electrical motor, or manual labor). At its apex the weight is released, impacting the pile and driving it into the ground.[1][3]

History

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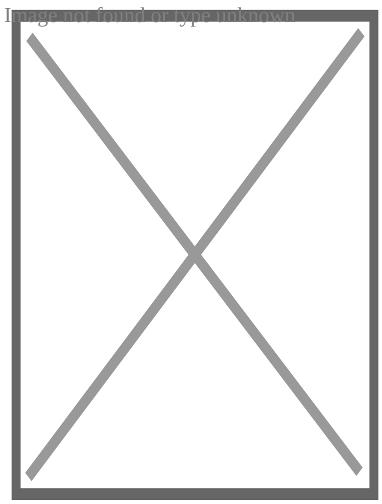
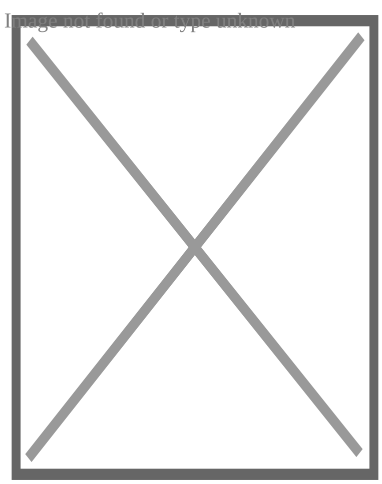


Replica of Ancient Roman pile driver used at the construction of Caesar's Rhine bridges (55 BC)



18th-century Pile driver, from *Abhandlung vom Wasserbau an Strömen*, 1769

There are a number of claims to the invention of the pile driver. A mechanically sound drawing of a pile driver appeared as early as 1475 in Francesco di Giorgio Martini's treatise *Trattato di Architectura*.[4] Also, several other prominent inventors—James Nasmyth (son of Alexander Nasmyth), who invented a steam-powered pile driver in 1845,[5] watchmaker James Valoué,[6] Count Giovan Battista Gazzola,[7] and Leonardo da Vinci[8]—have all been credited with inventing the device. However, there is evidence that a comparable device was used in the construction of Crannogs at Oakbank and Loch Tay in Scotland as early as 5000 years ago.[9] In 1801 John Rennie came up with a steam pile driver in Britain.[10] Otis Tufts is credited with inventing the steam pile driver in the United States.[11]

Types

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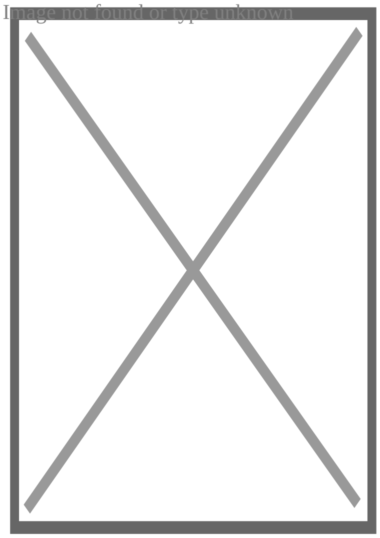

Pile driver, 1917

Ancient pile driving equipment used human or animal labor to lift weights, usually by means of pulleys, then dropping the weight onto the upper end of the pile. Modern piledriving equipment variously uses hydraulics, steam, diesel, or electric power to raise the weight and guide the pile.

Diesel hammer

[edit]

Concrete spun pile driving using diesel hammer in Patimban Deep Sea Port, Indonesia

A modern diesel pile hammer is a large two-stroke diesel engine. The weight is the piston, and the apparatus which connects to the top of the pile is the cylinder. Piledriving is started by raising the weight; usually a cable from the crane holding the pile driver — This draws air into the cylinder. Diesel fuel is injected into the cylinder. The weight is dropped, using a quick-release. The weight of the piston compresses the air/fuel mixture, heating it to the ignition point of diesel fuel. The mixture ignites, transferring the energy of the falling weight to the pile head, and driving the weight up. The rising weight draws in fresh air, and the cycle continues until the fuel is depleted or is halted by the crew.[12]

From an army manual on pile driving hammers: The initial start-up of the hammer requires that the piston (ram) be raised to a point where the trip automatically releases the piston, allowing it to fall. As the piston falls, it activates the fuel pump, which discharges a metered amount of fuel into the ball pan of the impact block. The falling piston blocks the exhaust ports, and compression of fuel trapped in the cylinder begins. The compressed air exerts a pre-load force to hold the impact block firmly against the drive cap and pile. At the bottom of the compression stroke, the piston strikes the impact block, atomizing the fuel and starting the pile on its downward movement. In the instant after the piston strikes, the atomized fuel ignites, and the resulting explosion exerts a greater force on the already moving pile, driving it further into the ground. The reaction of the explosion rebounding from the resistance of the pile drives the piston upward. As the piston rises, the exhaust ports open, releasing the exhaust gases to the atmosphere. After the piston stops its upward movement, it again falls by gravity to start another cycle.

Vertical travel lead systems

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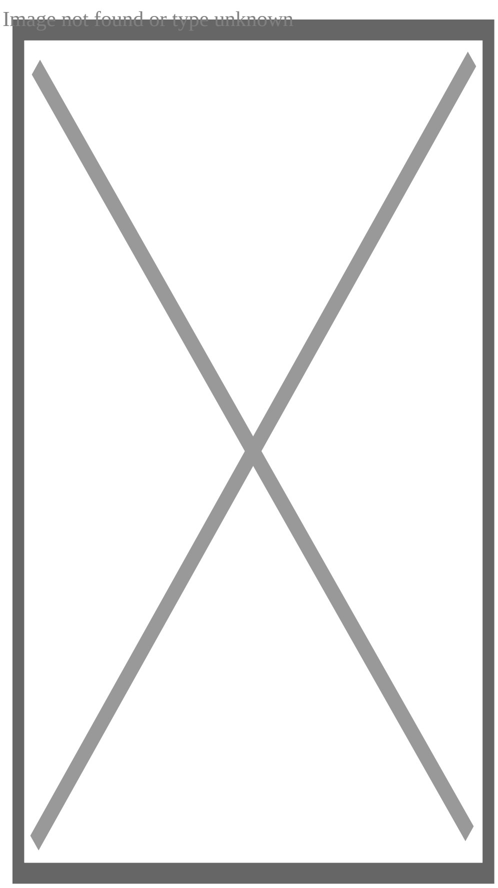
Berminghammer vertical travel leads in use



Military building mobile unit on "Army-2021" exhibition

Vertical travel leads come in two main forms: spud and box lead types. Box leads are very common in the Southern United States and spud leads are common in the Northern United States, Canada and Europe.

Hydraulic hammer

[edit]

A hydraulic hammer is a modern type of piling hammer used instead of diesel and air hammers for driving steel pipe, precast concrete, and timber piles. Hydraulic hammers are more environmentally acceptable than older, less efficient hammers as they generate less noise and pollutants. In many cases the dominant noise is caused by the impact of the hammer on the pile, or the impacts between components of the hammer, so that the resulting noise level can be similar to diesel hammers.[12]

Hydraulic press-in

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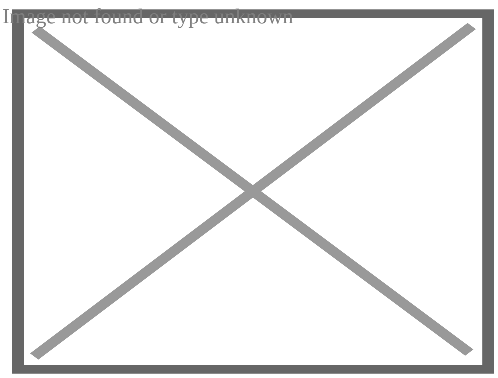

A steel sheet pile being hydraulically pressed

Hydraulic press-in equipment installs piles using hydraulic rams to press piles into the ground. This system is preferred where vibration is a concern. There are press attachments that can adapt to conventional pile driving rigs to press 2 pairs of sheet piles simultaneously. Other types of press equipment sit atop existing sheet piles and grip previously driven piles. This system allows for greater press-in and extraction force to be used since more reaction force is developed.[12] The reaction-based machines operate at only 69 dB at 23 ft allowing for installation and extraction of piles in close proximity to sensitive areas where traditional methods may threaten the stability of existing structures.

Such equipment and methods are specified in portions of the internal drainage system in the New Orleans area after Hurricane Katrina, as well as projects where noise, vibration and access are a concern.

Vibratory pile driver/extractor

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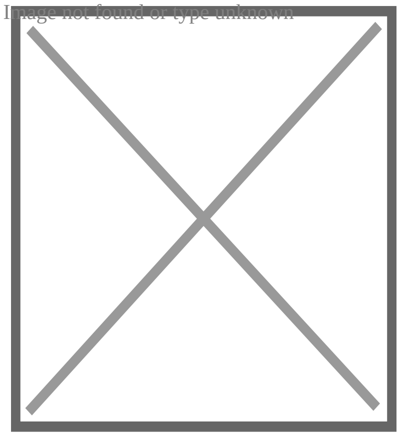

A diesel-powered vibratory pile driver on a steel I-beam

Vibratory pile hammers contain a system of counter-rotating eccentric weights, powered by hydraulic motors, and designed so that horizontal vibrations cancel out, while vertical vibrations are transmitted into the pile. The pile driving machine positioned over the pile with an excavator or crane, and is fastened to the pile by a clamp and/or bolts. Vibratory hammers can drive or extract a pile. Extraction is commonly used to recover steel I-beams used in temporary foundation shoring. Hydraulic fluid is supplied to the driver by a diesel engine-powered pump mounted in a trailer or van, and connected to the driver head via hoses. When the pile driver is connected to a dragline excavator, it is powered by the excavator's diesel engine. Vibratory pile drivers are often chosen to mitigate noise, as when the construction is near residences or office buildings, or when there is insufficient vertical clearance to permit use of a conventional pile hammer (for example when retrofitting additional piles to a bridge column or abutment footing). Hammers are available with several different vibration rates, ranging from 1200 vibrations per minute to 2400 VPM. The vibration rate chosen is influenced by soil conditions and other factors, such as power requirements and equipment cost.

Piling rig

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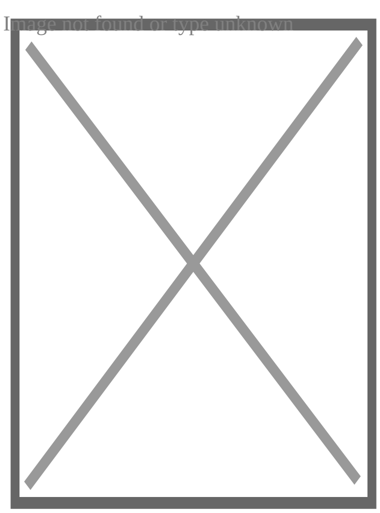

A Junttan purpose-built piledriving rig in Jyväskylä, Finland

A piling rig is a large track-mounted drill used in foundation projects which require drilling into sandy soil, clay, silty clay, and similar environments. Such rigs are similar in function to oil drilling rigs, and can be equipped with a short screw (for dry soil), rotary bucket (for wet soil) or core drill (for rock), along with other options. Expressways, bridges, industrial and civil buildings, diaphragm walls, water conservancy projects, slope protection, and seismic retrofitting are all projects which may require piling rigs.

Environmental effects

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The underwater sound pressure caused by pile-driving may be deleterious to nearby fish.[13][14] State and local regulatory agencies manage environment issues associated with pile-driving.[15] Mitigation methods include bubble curtains, balloons, internal combustion water hammers.[16]

See also

[edit]

- Auger (drill)
- Deep foundation
- Post pounder
- Drilling rig

References

[edit]

1. ^ ***a b*** Piles and Pile Foundations. C.Viggiani, A.Mandolini, G.Russo. 296 pag, ISBN 978-0367865443, ISBN 0367865440
2. **^** Glossary of Pile-driving Terms, americanpiledriving.com
3. **^** Pile Foundations. R.D. Chellis (1961) 704 pag, ISBN 0070107513 ISBN 978-0070107519
4. **^** Ladislao Reti, "Francesco di Giorgio Martini's Treatise on Engineering and Its Plagiarists", *Technology and Culture*, Vol. 4, No. 3. (Summer, 1963), pp. 287–298 (297f.)
5. **^** *Hart-Davis, Adam (3 April 2017). Engineers. Dorling Kindersley Limited. ISBN 9781409322245 – via Google Books.*
6. **^** Science & Society Picture Library Image of Valoué's design
7. **^** Pile-driver Information on Gazzola's design
8. **^** Leonardo da Vinci — Pile Driver Information at Italy's *National Museum of Science and Technology*
9. **^** History Trails: Ancient Crannogs from BBC's *Mysterious Ancestors* series
10. **^** *Fleming, Ken; Weltman, Austin; Randolph, Mark; Elson, Keith (25 September 2008). Piling Engineering, Third Edition. CRC Press. ISBN 9780203937648 – via*

Google Books.
11. **^** *Hevesi, Dennis (July 3, 2008). "R. C. Seamans Jr., NASA Figure, Dies at 89". New York Times. Retrieved 2008-07-03.*
12. ^ ***a b c*** Pile Foundation: Design and Construction. Satyender Mittal (2017) 296 pag. ISBN 9386478374, ISBN 978-9386478375
13. **^** Halvorsen, M. B., Casper, B. M., Woodley, C. M., Carlson, T. J., & Popper, A. N. (2012). Threshold for onset of injury in Chinook salmon from exposure to impulsive pile driving sounds. PLoS ONE, 7(6), e38968.
14. **^** Halvorsen, M. B., Casper, B. M., Matthews, F., Carlson, T. J., & Popper, A. N. (2012). Effects of exposure to pile-driving sounds on the lake sturgeon, Nile tilapia and hogchoker. Proceedings of the Royal Society of London B: Biological Sciences, 279(1748), 4705-4714.
15. **^** *"Fisheries – Bioacoustics". Caltrans. Retrieved 2011-02-03.*
16. **^** *"Noise mitigation for the construction of increasingly large offshore wind turbines" (PDF). Federal Agency for Nature Conservation. November 2018.*

External links

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Wikimedia Commons has media related to ***Pile drivers***.

- Website about Vulcan Iron Works, which produced pile drivers from the 1870s through the 1990s

About Pier

For other uses, see Pier (disambiguation).

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A wooden pier in Corfu, Greece

A **pier** is a raised structure that rises above a body of water and usually juts out from its shore, typically supported by piles or pillars, and provides above-water access to offshore areas. Frequent pier uses include fishing, boat docking and access for both passengers and cargo, and oceanside recreation. Bridges, buildings, and walkways may all be supported by architectural piers. Their open structure allows tides and currents to flow relatively unhindered, whereas the more solid foundations of a quay or the closely spaced piles of a wharf can act as a breakwater, and are consequently more liable to silting. Piers can range in size and complexity from a simple lightweight wooden structure to major structures extended over 1,600 m (5,200 ft). In American English, a pier may be synonymous with a dock.

Piers have been built for several purposes, and because these different purposes have distinct regional variances, the term *pier* tends to have different nuances of meaning in different parts of the world. Thus in North America and Australia, where many ports were, until recently, built on the multiple pier model, the term tends to imply a current or former cargo-handling facility. In contrast, in Europe, where ports more often use basins and river-side quays than piers, the term is principally associated with the image of a Victorian cast iron pleasure pier which emerged in Great Britain during the early 19th century. However, the earliest piers pre-date the Victorian age.

Types

[edit]

Piers can be categorized into different groupings according to the principal purpose.[1] However, there is considerable overlap between these categories. For example, pleasure piers often also allow for the docking of pleasure steamers and other similar craft, while working piers have often been converted to leisure use after being rendered obsolete by advanced developments in cargo-handling technology. Many piers are floating piers, to ensure that the piers raise and lower with the tide along with the boats tied to them. This prevents a situation where lines become overly taut or loose by rising or lowering tides. An overly taut or loose tie-line can damage boats by pulling them out of the water or allowing them so much leeway that they bang forcefully against the sides of the pier.

Working piers

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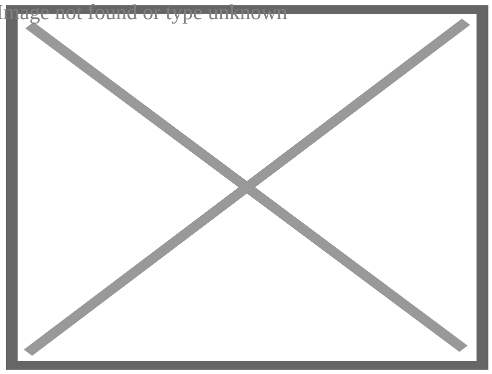

Out-of-use industrial bulk cargo Pier, Cook Inlet, Alaska.

Working piers were built for the handling of passengers and cargo onto and off ships or (as at Wigan Pier) canal boats. Working piers themselves fall into two different groups. Longer individual piers are often found at ports with large tidal ranges, with the pier stretching far enough off shore to reach deep water at low tide. Such piers provided an economical alternative to impounded docks where cargo volumes were low, or where specialist bulk cargo was handled, such as at coal piers. The other form of working pier, often called the finger pier, was built at ports with smaller tidal ranges. Here the principal advantage was to give a greater available quay length for ships to berth against compared to a linear littoral quayside, and such piers are usually much shorter. Typically each pier would carry a single transit shed the length of the pier, with ships berthing bow or stern in to the shore. Some major ports consisted of large numbers of such piers lining the foreshore, classic examples being the Hudson River frontage of New York, or the Embarcadero in San Francisco.

The advent of container shipping, with its need for large container handling spaces adjacent to the shipping berths, has made working piers obsolete for the handling of general cargo, although some still survive for the handling of passenger ships or bulk cargos. One example, is in use in Progreso, Yucatán, where a pier extends more than 4 miles into the Gulf of Mexico, making it the longest pier in the world. The Progreso Pier supplies much of the peninsula with transportation for the fishing and cargo industries and serves as a port for large cruise ships in the area. Many other working piers have been demolished, or remain derelict, but some have been recycled as pleasure piers. The best known example of this is Pier 39 in San Francisco.

At Southport and the Tweed River on the Gold Coast in Australia, there are piers that support equipment for a sand bypassing system that maintains the health of sandy beaches and navigation channels.

Pleasure piers

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Print of a Victorian pier in Margate in the English county of Kent, 1897

Pleasure piers were first built in Britain during the early 19th century.[2] The earliest structures were Ryde Pier, built in 1813/4, Trinity Chain Pier near Leith, built in 1821, Brighton Chain Pier, built in 1823.[2] and Margate Jetty 1823/24 originally a timber built pier.

Only the oldest of these piers still remains. At that time, the introduction of steamships and railways for the first time permitted mass tourism to dedicated seaside resorts. The large tidal ranges at many such resorts meant that passengers arriving by pleasure steamer could use a pier to disembark safely.[3] Also, for much of the day, the sea was not visible from the shore and the pleasure pier permitted holidaymakers to promenade over and alongside the sea at all times.[4] The world's longest pleasure pier is at Southend-on-Sea, Essex, and extends 1.3 miles (2.1 km) into the Thames Estuary.[2] The longest pier on the West Coast of the US is the Santa Cruz Wharf, with a length of 2,745 feet (837 m).[5]

Providing a walkway out to sea, pleasure piers often include amusements and theatres as part of their attractions.[4] Such a pier may be unroofed, closed, or partly open and partly closed. Sometimes a pier has two decks. Galveston Island Historic Pleasure Pier in Galveston, Texas has a roller coaster, 15 rides, carnival games and souvenir shops.[6]

Early pleasure piers were of complete timber construction, as was with Margate which opened in 1824. The first iron and timber built pleasure pier Margate Jetty, opened in 1855.[7] Margate pier was wrecked by a storm in January 1978 and not repaired.[8][7] The longest iron pleasure pier still remaining is the one at Southend. First opened as a wooden pier in 1829, it was reconstructed in iron and completed in 1889. In a 2006 UK poll, the public voted the seaside pier onto the list of icons of England.[9]

Fishing piers

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Many piers are built for the purpose of providing boatless anglers access to fishing grounds that are otherwise inaccessible.[10] Many "Free Piers" are available in larger harbors which differ from private piers. Free Piers are often primarily used for fishing. Fishing from a pier presents a set of different circumstances to fishing from the shore or beach, as you do not need to cast out into the deeper water. This being the case there are specific fishing rigs that have been created specifically for pier fishing[11] which allow for the direct access to deeper water.

Piers of the world

[edit]
Main article: List of piers

Belgium

[edit]

In Blankenberge a first pleasure pier was built in 1894. After its destruction in the World War I, a new pier was built in 1933. It remained till the present day, but was partially transformed and modernized in 1999–2004.

In Nieuwpoort, Belgium there is a pleasure pier on both sides of the river IJzer.

Netherlands

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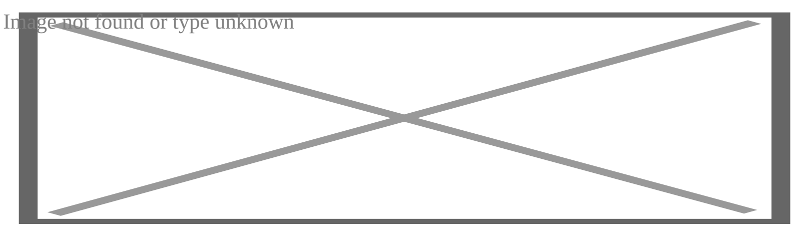


The Scheveningen Pier

Scheveningen, the coastal resort town of The Hague, boasts the largest pier in the Netherlands, completed in 1961. A crane, built on top of the pier's panorama tower, provides the opportunity to make a 60-metre (200 ft) high bungee jump over the North Sea waves. The present pier is a successor of an earlier pier, which was completed in 1901 but in 1943 destroyed by the German occupation forces.

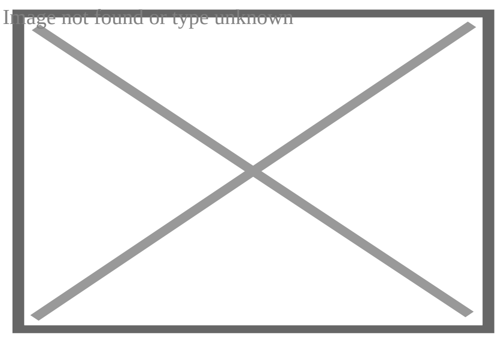
United Kingdom

[edit]

England and Wales

[edit]

The first recorded pier in England was Ryde Pier, opened in 1814 on the Isle of Wight, as a landing stage to allow ferries to and from the mainland to berth. It is still used for this purpose today.[12] It also had a leisure function in the past, with the pier head once containing a pavilion, and there are still refreshment facilities today. The oldest cast iron pier in the world is Town Pier, Gravesend, in Kent, which opened in 1834. However, it is not recognised by the National Piers Society as being a seaside pier.[13]



Brighton Palace Pier (pictured in 2011), opened in 1899

Following the building of the world's first seaside pier at Ryde, the pier became fashionable at seaside resorts in England and Wales during the Victorian era, peaking in the 1860s with 22 being built in that decade.[14] A symbol of the typical British seaside holiday, by 1914, more than 100 pleasure piers were located around the UK coast.[2] Regarded as being among the finest Victorian architecture, there are still a significant number of seaside piers of architectural merit still standing, although some have been lost, including Margate, two at Brighton in East Sussex, one at New Brighton in the Wirral and three at Blackpool in Lancashire.[4] Two piers, Brighton's now derelict West Pier and Clevedon Pier, were Grade 1 listed. The Birnbeck Pier in Weston-super-Mare is the only pier in the world linked to an island. The National Piers Society gives a figure of 55 surviving seaside piers in England and Wales.[1] In 2017, Brighton Palace Pier was said to be the most visited tourist attraction outside London, with over 4.5 million visitors the previous year.[15]

See also

[edit]

- Boardwalk
- Breakwater
- Dock
- Jetty
- List of piers
- Seaside resort
- Wharf

References

[edit]

1. ^ ***a b*** *"Piers". National Piers Society. 2006. Archived from the original on September 29, 2008. Retrieved February 24, 2012.*
2. ^ ***a b c d*** *"The expert selection: British seaside piers". No. 1 August 2014. Financial Times. 15 June 2015. Archived from the original on 2022-12-10.*
3. **^** *Gladwell, Andrew (2015). "Introduction". London's Pleasure Steamers. Amberley Publishing. ISBN 978-1445641584.*
4. ^ ***a b c*** *"A very British affair - the fall and rise of the seaside pier". BBC News. 16 June 2015.*
5. **^** *"California Pier Statistics, Longest Piers". seecalifornia.com. Retrieved 2014-02-10.*
6. **^** *Aulds, T.J. (January 28, 2012). "Landry's Corp. is close to revealing plans". News Article. Galveston Daily News. Archived from the original on January 31, 2012.*
7. ^ ***a b*** "200 years of historic British piers: in pictures". The Telegraph. Retrieved 15 June 2015
8. **^** *"The destruction of Margate jetty in the great storm of January 1978". 13 January 2018.*
9. **^** *"ICONS of England - the 100 ICONS as voted by the public". Culture 24 News. 15 June 2015.*
10. **^** *"Landscape Design Book" (PDF). University of Wisconsin-Stevens Point. 2013. Retrieved January 6, 2015.*[*permanent dead link*]
11. **^** *VS, Marco (2021-03-21). "Pier Fishing Rigs: 6 Common Types of Rigs for fishing from a Pier". Pro Fishing Reviews. Retrieved 2021-10-10.*
12. **^** "Britain's best seaside piers". The Telegraph. Retrieved 15 June 2015
13. **^** *"The oldest surviving cast iron pier in the world". BBC. February 9, 2006. Retrieved March 26, 2006.*
14. **^** *Dobraszczyk, Paul (2014). Iron, Ornament and Architecture in Victorian Britain: Myth and Modernity, Excess and Enchantment. Ashgate Publishing. p. 143. ISBN 978-1-472-41898-2.*
15. **^** *"Brighton Palace Pier named as Britain's most visited tourist attraction outside London". Brighton and Hove News. 2 August 2017. Retrieved 23 January 2025.*

Further reading

[edit]

- Turner, K., (1999), *Pier Railways and Tramways of the British Isles*, The Oakwood Press, No. LP60, ISBN 0-85361-541-1.
- *Wills, Anthony; Phillips, Tim (2014). British Seaside Piers. London: English Heritage. ISBN 9781848022645.*

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