

100 OSHA INVESTIGATED OVERHEAD CRANE ACCIDENTS

Accident 000800052 - Crane Operator Killed When Struck By Falling Girder

Employee #1, a crane operator, was using a 20-ton overhead crane to move a 24 ft steel girder. The crane was equipped with two hoists, one holding each end of the 1,800 lb girder. Employee #1 was standing underneath the crane and using a remote radio control to move it. One end of the girder slipped out of the chain sling and struck Employee #1. He was killed.

Accident 014258487 - Employee Crushed and Killed By Overhead Crane

Employee #1 was using a remote-controlled overhead crane to move a stack of steel plates from a stockpile to a position where trucks were located. He became caught between the crane's lifting device with the load of steel and another stockpile of steel plates. Employee #1 was crushed and killed.

Accident 170123947 - Employee Killed When Crushed Between Paper Rolls

An overhead crane was used to align a 16,000 lb full roll of paper with the drive mechanism. The crane overpowered the reel lock down system and the full roll of paper ejected from the saddle. Employee #1 became caught between the full roll of paper and a 2,600 lb empty paper reel. He suffered a chest injury and was killed. The full reel had a worn journal that caused the drive mechanism to fail.

000800052 - Crane Operator Killed When Struck By Falling Girder
Employee #1 was performing maintenance on the overhead crane. He was standing on a platform when the crane's hook and cables fell on him. He was killed. The next morning, Employee #1 was found on the catwalk. He died as a result of a head injury.

Accident 170388458 - Employee Killed When Crushed By Overhead Load

Employee #1 was on the floor using a 32-ton remote-controlled Zenak overhead crane to move approximately 70 in. long rolls of coiled steel, each weighing 40,000 lb. He was standing with his back to a 56 in. tall work platform when the back of the hook supporting the load hit the platform. The load rotated and crushed Employee #1 against the platform. He was killed. The remote control had a switch on the side that had to be held in to function properly. **At the time of the accident, the button was being held in only by a rubber band. In addition, Employee #1's training had not been performed according to the employer's guidelines.**

Accident 171055262 - Employee Killed When Run Over By Cab of Bridge Crane

Employee #1 went onto the cab access landing of a traveling bridge crane. The crane was being operated by a remote control device, and the operator could not see Employee #1. The crane's movement warning horn was sounded but Employee #1 could not get clear in time. He became caught between the bottom of the cab of the crane and the railing and was run over by the cab. Employee #1 died in the hospital six days later.

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Accident 171055205 - Employee Killed in Fall From Overhead Crane Rail

Employee #1 was using a grizzly bar to pry up the railing of an overhead crane when he lost his balance and fell 27 ft. He was killed. Employee #1 was wearing a harness and lanyard, but was not tied off.

Accident 201750189 - Employee Killed When Struck By Falling Iron Casting

Employee #1 was using a 2-ton overhead air hoist to position a 2,022 lb iron casting. The casting came off the sling hooks and landed on him. Employee #1 was killed.

Accident 170382444 - Employee's Leg Fractured in Fall From Column Ladder

On April 18, 1997, Employee #1 was working on the north bridge at the east end of the Fabrication Shop Building at the Visco Steel facility, a fabricator of structural steel products. He was directed by his supervisor to check out a noise coming from a drive unit on bridge crane #2, one of the four 5-ton, pendant-controlled, Frontier overhead bridge cranes at the site. Employee #1 had climbed a 20 ft column ladder to access the drive motor when crane #3, operating on the south bridge, moved into his work area. Employee #1 fell approximately 18 ft to the floor and suffered a broken left femur and other injuries. He was transported to Loma Linda University Medical Center where he was admitted for treatment. Employee #1 was not wearing a fall protection harness, safety belt and lanyard, despite the work elevation; the column ladder was not secured to the crane in accordance with standards; and Employee #1 did not use the proper procedure to prevent other cranes from entering his work area prior to starting work. The OSHA citation also noted that the employer was cited for several violations related to the use of cranes, including 29 CFR 321.101, 29 CFR 3277.101, and 29 CFR 5034(b)(4), before work is started on cranes, fall protection barriers and warnings shall be in place. A general violation of 29 CFR 5021(a)(2), employer could not provide current certification documents for the cranes in use.

Accident 200120103 - Employee's Leg Injured in Fall Into Furnace Floor Opening

Employee #1 and a coworker were positioning a 33 in. by 36 in. by 7 in. deep rectangular dross pan on the pouring platform next to the electric induction furnace opening. The pan was suspended by a three-legged chain sling from an underhung crane. The crane bridge stop would not permit the pan to be centered vertically to the desired location on the pouring platform for Employee #1 to skim off the dross. As a result, he pulled on the chain sling while his coworker positioned 55 in. below on the floor, pushed the sling with one hand and operated the crane pendant control with the other. The dross pan twisted, and Employee #1 lost his balance. He either stepped or slipped into the 18 in. diameter floor furnace opening above the molten bronze, which was at a temperature of approximately 2,400 degrees F. Employee #1 sustained second- and third-degree burns to his left leg below the knee. The regular overhead crane permitted the desired vertical positioning by allowing an additional 18 in. of horizontal travel. At the time of the

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accident, it was down for repairs. No violations were addressable because minimal side pull and swinging is tolerable for monorails and underhung cranes.

Accident 170571186 - Employee's Leg Caught Between Trolley and Bridge Motor

Employee #1 was repairing an overhead crane, which was part of his normal job responsibilities. He was working from the bridge of the crane when a coworker accidentally bumped the trolley control lever, causing the trolley to move. Employee #1 sustained bruises to his right leg when it became caught between the trolley and the bridge motor.

Accident 201270238 - Employee Killed When Crushed By Casting

Employee #1, a machine operator, was standing on a tabletop to attach an overhead crane chain. He directed a coworker to energize the spindle top to rotate the machine part. When the machine energized, he was thrown to the floor and the casting fell on top of him. Employee #1 was killed.

Accident 200540086 - Employee Killed in Fall From Crane Runway

Employee #1 was helping to remove old crane rails and install new on a section of crane rail struck his leg. He fell 30 ft from the crane runway and was killed. Employee #1 was not tied off.

Accident 200540086 - Employee Killed in Fall From Crane Runway

At approximately 1:40 p.m. on 3/1/99, an employee was repairing a metal floor of a scraper/... No... 3/1/99... employee... metal floor of a... scraper/... the... over... h... or... as... g held u... ve... head crane that was ho... n e... d... n... de... on... metal floor (plate). Employee #1 was welding the... l... th... ve... k... ff and the plate fell on his right foot. He suffered m... le... ce... nes.

Accident 171020688 - Employee Killed When Crushed By Falling Steel Plate

Employee #1 was using a steel alloy chain sling connected to an overhead hoist to lift a steel plate. The plate became disengaged from the hooks on the chain and fell, crushing Employee #1. He was killed. The employer was cited for serious violations of T8CCR 4081, T8CCR 4921, T8CCR 4911(f), and T8CCR 4911(i).

Accident 201270253 - Employee Killed When Crushed Between Crane and Building

Employee #1 was working on top of a 300-ton bridge crane when he was crushed between a wire rope support structure and a building support. Employee #1 was killed.

Accident 170632749 - Employee's Finger Amputated Between Hostler and Mobile Crane

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Employee #1 worked for Parsec, Inc., a company with 2,300 employees who load and unload train cargo in containers known as IBCs. On September 21, 1996, he was assigned to remove the ties between two rail containers from the track. As was customary, he used a hostler tractor to get from one location to the other to complete the job more quickly. Employee #1 was removing the ties when he noticed a mobile overhead crane moving toward his parked yard tractor. He immediately went toward the crane but it did not stop until it hit the tractor. His left hand became caught between the wheel guard and the tractor, amputating his left index finger. The employer reported the accident to the Division on September 23, 1996, and an inspection and accident investigation was made on October 3, 1996. Violations were found in relation to the accident. The employer was cited for a serious violation of T8CCR 3203(a) for failure to provide (1) instruction, training, and enforcement in the proper procedure of removing and taking off IBC ties; (2) clear communication between the crane operator and ground man; and (3) appropriate training in stopping the crane and checking blind spots.

Accident 171017684 - Employee Injured When Struck By Falling Metal Frame

Employee #1 was using a pendant control to retrieve an overhead crane. The pendant control allowed him to stack the crane's chain and unhook it from a large metal frame that it had just raised. As he was working, the metal frame began to teeter and fell. Employee #1 tried to scramble out of the way, but he was struck by the frame and suffered a fractured pelvis. The standard practice is to anchor the crane's crusses using the overhead crane while securing the frames with large steel cables and iron pins. Employee #1 could not verify that the metal frame had been properly secured.

Accident 10136 - Employee Injured When Struck By Falling Metal Frame

On July 30, 1996, Employee #1 was working as a rigger for one of the construction department's huge material handling cranes. The crane was used to move pre-stressed concrete beams and other materials to the respective product storage yards. His duties required him to walk along beside his assigned crane to hook and unhook loads and to perform other tasks, as needed. On the day of the accident, Employee #1 was rigging for the operator of Mi-jack travelift crane #4. After retrieving the twenty 4-by-4s needed for cribbing on which to set the beams, the operator of crane #4 headed for the south storage yard. Employee #1 rode with him back to the east end of bed #5. At this point, Employee #1 climbed down and went to get something to drink. He told the operator he would meet him at the south product storage yard. Just before getting to the north end of the aisle at which crane #4 would turn, Employee #1 met the operator in the east-west road, south of bed #6. Employee #1 walked under the load, across the front of the travelift crane, and was just inside crane #4's right front tire as the operator began to make his left-hand turn into the south storage yard aisle. The crane #4 operator blew his horn and motioned for Employee #1 to get back out of the way. The operator said Employee #1 walked to his right, back across and in front of the right front tire and was continuing to walk outside the crane wheel toward the south. Meanwhile, the operator focused his attention on getting the giant crane centered in the north-south aisle. The next time the operator looked to his right (toward the west), he saw Employee #1's body lying

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crushed on the ground, in between the right front and rear wheels. He stopped the crane, left the engine running, and went to the office to alert the management.

Accident 200900033 - Employee Killed When Caught Between Box and Walkway

At approximately 8:55 a.m. on June 7, 1996, Employee #1 was up on the walkway along the north side of the bridge of a 45-ton overhead, pendant-controlled, bridge crane. An electrical crew foreman who was at the pendant control moved the crane north by several feet. The lower portion of an open web steel roof truss caught Employee #1 across the lower back, pinning him against a controller box mounted along the south side of the walkway. The foreman climbed up to the walkway and halted the crane's movement. Employee #1 told him to move the crane, but the foreman said he couldn't and went for help. Employee #1 died within minutes, before rescuers arrived.

Accident 170571764 - Employee's Leg Amputated After Being Crushed By Steel Load

Employee #1 was using a 10-ton overhead crane, serial #81240, to move pallets of coiled steel. He was lifting a 5,000 lb load of steel when it fell on his right lower leg. He suffered massive injuries to the leg, which had to be surgically amputated at the knee.

Accident 200200020 - Employee Killed in Fall From Crane Inspection Platform

Employee #1 and a coworker were inspecting the bolts on the oil system of an overhead crane. They were working off a metal load platform which was crane inspection platform that was attached to the crane. The platform was approximately 3 ft above the ground and extended out on one side. The crane had a handrail on the outside of the platform to loosen a tight bolt. He was using the handrail to gain leverage to loosen the bolt when it broke loose and he fell backward approximately 40 ft, striking the ground when he landed on the floor. He was killed. No form of personal fall arrest system was being used.

Accident 014419345 - Employee Killed in Fall From Overhead Crane

Employee #1 was performing maintenance work on a 25-ton Northern Engineering Corporation bridge crane when he stepped from the catwalk onto the trolley rail and fell off the inside portion of the rail. Employee #1 fell 23 ft 8 in., sustaining severe internal and head injuries that resulted in his death. Employee #1 was not wearing the provided fall protection equipment, as was required by his employer for any work involving heights.

Accident 170340707 - Employee Killed When Crushed By Steel Coil on Crane Trolley

Employee #1 used a radio-controlled overhead bridge crane to raise a 7,280 lb coil of stainless steel. He apparently activated the wrong switch on the radio control, which caused the crane trolley to travel toward him. Employee #1 was struck by the suspended

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load and crushed him against a second coil of steel that was sitting on the floor. He was killed.

Accident 170683684 - Two Employees Injured in Fall When Scaffold Knocked Over

Employees #1 and #2 were working on a scissor lift scaffold with the lift raised. The lift was in the path of a traveling bridge crane operated by a pendant control in the middle of the bay. As the operator, who was about 50 ft from the lift, moved a panel, the end of the crane trolley struck the railing on the lift and knocked the lift over. Employees #1 and #2 fell approximately 25 ft.

Accident 170812556 - Employee Crushes Thumb When Caught Between Sling and Load

Employee #1, a warehouse worker for Castle Metals, was loading bundled metal into a van using an overhead crane with two 5-ton hoists. He was using pendant controls to move the elevated load west and then south into the van when the load started to swing. When Employee #1 grabbed the back chain either the load shifted or a kinked chain became unkinked, causing it to tighten about the load and his thumb, inflicting a crushing amputation injury.

Accident 170804330 - Employee Caught Between Truck and Cast Ring

Employee #1, a grinder at Castle Metals, was rolling a cast ring onto a truck. He hooked a four-ton hook through the cast ring and the head of the truck. Employee #1 was standing on the lower side of the truck. When the cast ring shifted, it caught between the horses and the truck. Employee #1 was killed by the cast ring between the horses and Employee #1, crushing his head and killing him.

Accident 17051176 - Electric Shock - Direct Contact With Energized Conductor

A painter was painting from a 30-ton overhead crane (Model No. 30TON KDBET, Serial No. 4302). The overhead crane was designed with a platform from which employees could work while operating the crane. Although fall protection was needed while an employee was working from the crane platform, the employee was not wearing personal fall arrest equipment. He left the work platform and accessed the I-beam trolley track of another overhead crane. He reached over the track and contacted a 277-volt runway conductor for the crane. He received an electric shock, which knocked him off the structure. He fell 10 feet, 3 inches, struck his head on the corner of the crane's lifting hatch, and fell through the hatch 42 feet, 2 inches to the first floor. He died from his injuries. Investigation revealed that the employee had been trained in and provided with fall protection; however, he had been working without supervision. No worksite inspection had been conducted, and the employee had not been trained in electrical safety-related work practices related to working around crane runway conductors. (The company had a two-page, written safety program consisting of 19 work rules.) The

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employee had been provided with only 0.5 foot-candles of illumination while he was working from the crane and the track.

Accident 170804652 - Employee's Leg Injured When Struck By Chipper Head

At approximately 9:15 a.m. on June 21, 1995, Employee #1 was using an overhead crane with a chain sling to move a 4 ft diameter chipper head (metal disk). He was positioning the chipper head onto the hub of a 10HC milling machine when the chain broke, causing the chipper head metal disk to fall and hit his leg. Employee #1 sustained a broken leg that required surgery.

Accident 014407233 - Electric Shock - Direct Contact With Energized Parts

An employee (a fitter) was working from a self-propelled aerial platform, securing rails for an overhead crane. As he was welding and grinding steel bolts for a rail, he contacted one of the 480-volt runway conductors for the crane. The employee was electrocuted.

Accident 014228100 - Employee Killed in Unprotected Fall From Elevated Crane

Employee #1 was removing and replacing trolley rails on an elevated overhead charge crane. While he was straddling the rails, attempting to remove rail c sledgehammer, a trolley rail broke free and threw Employee #1 over edge of the crane. He fell at least 50 ft to the metal run Employee #1 was wearing personal protective equipment, as safety net and anyard.

Employee #1 was using a scissor lift to install a glue-lamination plant. He was in the rafter area of the plant when the manlift was struck by an overhead crane. The manlift tipped over and Employee #1 sustained a large laceration and a fractured leg during the fall.

Accident 014319941 - Employee Killed When Caught Between Scissor Lift Components

Employee #1 was operating a scissor lift on which the safety latches had been broken off from the control levers. He leaned over the front of the lift platform, inadvertently contacting the control levers and raising the platform. His upper body was crushed between the lift railing and an overhead crane rail. Employee #1 died.

Accident 000700310 - Employee Is Knocked Off A Ladder By Crane

Employee #1 was removing a track from a sliding door. While working from a ladder at a height of 18 feet, he was struck by the bridge of an overload crane and was knocked off the ladder.

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Accident 000688507 - Employee Struck and Killed By Flying Steel Bar

Employee #1 was operating a pneumatic spinner attached to an overhead crane. Parts on an open rack were first dipped in a molten zinc bath, then craned to an enclosure, and then spun to remove excess zinc. Both the rack and the enclosure were open on top. A steel bar flew out of the rack and the enclosure and struck Employee #1, killing him.

Accident 170132724 - Employee Injured When Struck By Rigging

Employee #1 removed his hard hat so he could wear the goggles required for using the cutting torch and proceeded to remove the footing of a raceway from the metal plate on the floor. He turned to a coworker and asked him to wiggle the raceway with the 3-ton overhead crane. Employee #1 stood up and stepped back as the coworker pushed the UP button to the overhead crane. The chain they were using to move the raceway broke, sending the rigging (block and hook) upward. When the rigging came down, it struck Employee #1 on top of the head. He fell backward and struck his head on the concrete floor. Coworkers came to his aid and contacted emergency help. Employee #1 was transported to Sacred Heart Hospital and admitted for a fracture to the skull.

Accident 170738827 - Welder Injured By Traversing Boom and Hoist

At about 9:30 a.m. on June 11, 1994, Employee #1 of Alameda Foundry Co., was welding one of the tracks of an overhead crane in a capacity 10 ft above the floor of the foundry. He was on the twenty-second floor of the foundry shop, working with only the facial protection of a mask. The mask was not properly positioned, allowing the welding light to shine through its track. Due to noise, the employee was not aware of the hoist's movement. The hoist was moving across the track and struck the left side of the welder's head. The welder was wearing a hard hat which was struck and thrown off. The welder suffered a laceration on the forehead and a fracture of the skull. His supervisor was not present at the time of the accident. The supervisor was notified of the accident by a welder on the ground floor of the foundry shop. The supervisor was not aware of the welding work. Employee #1 was transported to a hospital and died.

Accident 170568190 - Employee Killed When Crushed Between Structure and Trailer

At approximately 7:35 a.m. on May 24, 1994, Employee #1 was loading beans from an overhead elevator to the back trailer of a semi-truck. Employee #1 was using the window sill of the wall as a platform from which to see inside the trailer and open and close the chutes. After the trailer was loaded, he was found crushed between the trailer and the structural wall. Although the platform was approximately 64 in. from the ground, no fall protection was being used. Employee #1 was rescued by a customer and resuscitation was administered en route to a hospital, where Employee #1 died.

Accident 170710198 - Employee's Foot Crushed By Falling 1,000 Lb Load

Employee #1, of a paper products company, was moving a roll of paper that weighed approximately 1,000 lb with an overhead stracker crane. The employee raised the roll to approximately 5 ft, then he proceeded to move the bridge. When he stopped, the load

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came off the crane and bounced onto his right foot, crushing it. A portion of his foot was amputated at the hospital.

Accident 170052427 - Employee Killed, Another Hurt, When Struck By Falling I-Beam

On March 24, 1994, Employees #1 and #2 were using a 3 ton overhead crane to lift a 45 ft long modular building wall into place on the side of a frame. One of three lifting chains slipped, causing the attachment devices (brackets) at the other two lifting points to fail. The wall fell 4 ft to 5 ft to the concrete floor, missing the employees. The 40 ft long I-beam used to yoke the wall at three points was bounced free of the crane hook that held it, and fell, striking both employees. Employee #1 was dead at the scene from massive head and neck injuries. Employee #2 sustained head injuries and a broken foot.

Accident 014289532 - Employee Killed When Crushed Between Crane and Building

While testing an emergency stop sensor, Employee #1 bent over and was caught between the moving frame of a 100-ton P & H crane and a support pillar of the building. Employee #1 sustained crushing injuries to his lower body and died.

Accident 000812396 - Crane Operator Killed When Truck Lifting Load

Employee #1, who had been on the job for 10 years, was operating a 1-ton capacity overhead top running bridge crane with a speed of 10 ft per minute. The crane was operated by floor-operated pendant controls. The crane was suspended from a 30-foot high ceiling by two cables. Employee #1 was standing on a 1/2 ft wide aisle between two rows of equipment. He was holding a railroad switch panel when he tripped on the floor. The crane's cables were slack and a railroad switch panel fell from a flat position up to a 30-degree angle where it struck Employee #1, killing him.

Accident 170719330 - Worker's Finger Pinched By Falling Wire Bobbin

At about 4:00 p.m. on December 14, 1993, Employee #1 was using a 1-ton overhead crane to place a 500-pound bobbin that contained aluminum wire into a machine that makes wire cable. The bobbin was hanging from two hooks situated on both sides of the bobbin's 3/4-inch rounded lip. To place the bobbin in the machine, Employee #1 had to align the two dog pins on the brake wheel with the two holes in the bobbin. To move the brake wheel, Employee #1 placed his left middle finger in an approximately 1 1/2-inch space between the bobbin and the brake wheel. The bobbin fell off the hooks and pinched his finger between it and the brake wheel. No tool was available to move the brake wheel so that Employee #1 could keep his fingers out of the danger zone.

Accident 170218044 - Employee Suffers Burns and Dies

On November 20, 1993, Employee #1 lowered himself using an overhead crane and boatswain's chair into the confined space of the firm's foundry cupola that he was going to repair. Employee #1's clothes caught on fire from a unknown source and he later died.

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from the burns. Allied Signal Brake, the employer, did not enforce, and Employee #1 did not follow, the firm's confined space entry procedure. Neither Employee #1 nor his employer tested the confined space, locked all hazardous energy sources, or had rescue equipment available.

Accident 000668434 - Employee Killed in Fall From Fixed Ladder on Crane

Employee #1, who was estimating the removal of an outside overhead crane, climbed up on the crane's 32 ft fixed ladder to inspect the manner in which it was put together. He fell approximately 30 ft off the ladder and was killed.

Accident 000774406 - Employee Falls From Ladder and Dies

Employee #1 was found at the base of a ladder. He had just finished operating an overhead crane and had fallen from the ladder. Employee #1 died.

Accident 170248868 - Two Employees Injured When Lift Is Knocked Over

The employees work with wing skins and other very long airplane parts in an area called the forming corridor. The corridor has an automated overhead material handling device and is made up of two sides. One side is made up of fixed rails, mud beams, spaced at various intervals. Some rails are used for drag holding parts, and others are in line with machines used to process the parts. The other side is a scissor crane, with a rail, that moves back and forth up and down the fixed rails. The crane is attached to a hanging fixture that carries the material and is used to move the part from the crane to a fixed crane for further processing. The crane can be moved either to the left or the right in a scissor lift. The crane is inspected by another machine every 2 weeks. The crane is approximately 14 feet high. The crane is a scissor lift to attempt to move the part into the machine as it was up and down the lift perpendicular to the part being worked on. While the crane was in the carrier to engage, another part was being moved onto the rail next to the one they were working on. When they noticed the part coming, Employee #2 tried to start the lift to get out of the way but could not. The part struck the side of the lift and continued on its path down the rail, pushing over the lift. Employees #1 and #2 were thrown to the concrete floor. Both workers were given emergency care, were back boarded with C-collars, and transported to Good Samaritan Hospital by District 9 medical units. Employee #1 was airlifted from Good Samaritan Hospital to Harbor View Trauma Center for emergency surgery on a broken right knee, femur, and trochanter (the ball that joins with the pelvic girdle). According to a nurse at Good Samaritan Hospital's emergency room, some of his bones were shattered and would require extensive surgery. Employee #2 was treated for bumps and bruises and released.

Accident 000602805 - Employee Killed When Crushed By 2 Coils of Steel

At approximately 8:00 a.m. on June 21, 1993, Employee #1 was discovered, pinned, in a semi-upright position between two coils of rolled steel weighing 9,560 lb each. Employee #1 had been removing a third roll of coiled steel from the storage area by means of a