

Branch of Training Description: Construction Equipment Operator

The equipment operator may operate a variety of power construction equipment, such as shovels, tractors, scrapers, or motor graders, to excavate, move, and grade earth, erect structural and reinforcing steel, and pour concrete or other hard surface paving materials: Adjusts levers and depresses pedals to operate machines and control attachments, such as blades, buckets, scrapers, and swing booms. In addition to operating machines, an equipment operator may be required to perform the work tasks of Lubrication Technician and/or Grade Checker.

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Branch of Training Description: Construction Equipment Mechanic

A Construction Equipment Mechanic analyzes malfunctions and repairs, rebuilds, and maintains construction equipment, such as cranes, power shovels, scrapers, paving machines, motor graders, trench-digging machines, conveyors, bulldozers, dredges, pumps, compressors and pneumatic tools: Operates and inspects machines or equipment to diagnose defects. Dismantles and reassembles equipment, using hoists and handtools. Examines parts for damage or excessive wear, using micrometers and gauges. Replaces defective engines and subassemblies, such as transmissions. Tests overhauled equipment to ensure operating efficiency. Welds broken parts and structural members. May direct workers engaged in cleaning parts and assisting with assembly and disassembly of equipment.

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Branch of Training Description: Grade Checker/Setter

Sets grade stakes to guide earth moving equipment operators in sloping highways and fill embankments, using measuring instruments and handtools: Reads survey stakes along highway right-of-way to determine grade specification for embankment. Measures horizontally and vertically, in specified ratio, from survey stake to juncture of embankment and initial excavation, using survey rod and eye level. Sets grade stakes, using hatchet, and chalk-marks excavation reference points on stake. Repeats measuring and staking at specified intervals to form horizontal stakeline along embankment. Observes excavating activities to verify conformance to stake references and notifies equipment operators or supervisor of deviations.

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Branch of Training Description: Horizontal-Earth-Boring Machine Operator

Operator sets up and operates boring machine to drill horizontal holes through earth banks for installation of pipelines under highways, railroads, canals, and other obstructions: Assembles and positions machine, augers, and casing pipes. Signals operator of crane to lower boring equipment into previously dug starter hole. Verifies depth and level of boring position, using surveyor's level and spirit level. Starts engine and moves levers to rotate and feed auger into earth, and simultaneously activates hydraulic ram that forces casing into hole. Retracts auger and forces earth cuttings back through casing to permit coupling additional sections of casing and auger. May operate machine which flushes and pumps earth cuttings from hole. May operate boring machine that drives pilot hole through earth bank and pulls auger bit back through bank to cut hole of required diameter.

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Branch of Training Description: Plant Operator

Operates concrete, asphalt, or sand and gravel plant to batch, crush, or segregate materials used in construction: Moves controls on panelboard or control board to heat, dry, and mix ingredients, such as asphalt, sand, stone, and naphtha, to produce asphalt paving materials; to weigh and mix aggregate, cement, and water to produce concrete; or to control feeding, crushing, and sifting machinery in sand and gravel plant. Observes gauges, dials, and operation of machinery to ensure conformance to processing specifications. May repair machinery, using handtools, power tools, and welding equipment. May be designated according to type of plant operated as Asphalt-Plant Operator (construction); Concrete-Batch-Plant Operator (concrete prod.; construction); Sand-And-Gravel-Plant Operator (construction); or according to machine function as Crusher Operator (concrete prod.; construction). May be required to work on conveyor belts.

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Branch of Training Description: Concrete Pump Tender

Tends one or more machines that pump concrete, grout, or dry mixtures of sand and cement through hoses to fill forms and crevices or to coat surfaces: Positions hose or temporary pipeline and snaps couplings together. Shovels materials into hopper, moves lever to discharge materials from skip into hopper, or signals Concrete-Mixing Truck Driver (construction) to fill hopper with concrete. Moves controls to start and operate mixer. Starts pump or compressor and turns valves to regulate air pressure and flow of materials through hose. May aim hose nozzle into space to be filled or at surface to be coated. May lubricate and repair machinery. Cleans machine after pours. May be designated according to type of machine tended as Cement-Gun Operator (concrete prod.; construction); Concrete-Gun Operator (construction); Concrete-Pump Operator (construction); Grout-Pump Operator (construction).

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Branch of Training Description: Crane Operator

Operator, ground control; traveling-crane operator operates traveling or stationary overhead crane (cab- or ground controlled) to lift, move, and position loads, such as machinery, equipment, products, and solid or bulk materials, using hoisting attachments, such as hook, sling, electromagnet, or bucket: Observes load hookup and determines safety of load. Manipulates or depresses crane controls, such as pedals, levers, and buttons, to regulate speed and direction of crane and hoist movement according to written, verbal, or signal instructions. Cleans and maintains crane and hoisting mechanism. Inspects crane for defective parts and notifies supervisor of defects or malfunctions. May attach load to hook or other crane accessory prior to operating crane, and may be designated by type of crane operated: Mobile Crane Operator, Tower Crane Operator, Piledriver Operator, Clambucket Operator, Dragline Operator, Derrick Barge Operator.

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Branch of Training Description: Dredge Operator

Operates power-driven dredge to excavate and maintain navigable channels in waterways and to mine sand and gravel at bottom of lakes, rivers, and streams: Directs workers engaged in placing shore anchors and cables, laying additional lengths of pipes from dredge to shore, and in pumping water from pontoons. Starts and stops engines to operate equipment. Moves levers to place dredge in position for excavation, engage hydraulic pump, raise and lower suction boom, and control rotation of cutterhead. Lowers anchor pole to verify depth of excavation, using winch, or scans depth gauge to determine depth of excavation. Starts power winch that draws in or lets out cable to change position of dredge, or pulls in and lets out cable manually.

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Branch of Training Description: Lubrication Technician

Maintains construction equipment in accordance with the manufacturer's requirements and/or company policies for an active preventative maintenance program. Checks oil levels, fuels equipment and greases equipment as required. Changes oils and filters on an hourly or mileage bases. Operates equipment to facilitate maintenance needs. May schedule required services and order fuels, oils, filters and other supplies. Inspects equipment for defects that could lead to more severe failure and reports them to mechanics. Makes minor repairs and adjustments to equipment.