

**General Specifications -  
Factory Truck Service Lift – Below the Floor Type – 60” Rise**

Model 208 FTDO EPB – 22,000# Capacity  
Model 210 FTDO EPB – 35,000# Capacity

*Design Criteria:* Maintain 5-to-1 safety factor relative to ultimate material strength on all lifting equipment.

*General Descriptions:* The unit consists of essentially (2) cross bolsters, (2) drive-on runways, (2) heavy duty hydraulic cylinders, (1) set of rack and pinion equalizers, and (1) electric hydraulic pumping unit with appropriate valving and controls.

*Bolsters:* The bolsters shall be constructed of heavy structural members and plates adequately welded and reinforced to handle the rated load. Each bolster shall be covered with non-skid floor plate, and a suitable support shall be provided to permit the side adjustment of the runways.

*Runways:* The runways shall be of the drive-on type, constructed of heavy structural members covered with non-skid floor plate, and each shall have a curb running the full length. Each runway shall be adjustable sideways, the full width of the bolsters. A stop shall be provided to prevent the runways from sliding off the bolster. Each runway shall be designed to be capable of supporting 40% of the rated load applied at the midway point of the runway when the lift is raised. Each runway shall be equipped with a removable wheel chock spanning its full width.

*Hydraulic Cylinders:* The hydraulic power cylinders shall be of the heavy duty single acting type, specifically designed for industrial service. The ram shall be machined and polished to an extremely smooth finish and shall be equipped with a permanent stop to positively prevent it from leaving the casing. The cylinder casing shall be equipped with close fitting bronze bearings which are spaced at least 2.5 times the ram diameter. The cylinder assembly shall be equipped with an adjustable packing gland, suitable seals to assure against leaks, and an effective wiper. In addition, the cylinder assembly shall be constructed to automatically bleed entrapped air with each operation of the ram. A manual bleed may be provided, but not as a substitute for the automatic bleed device. The assembled cylinder shall be factory tested at not less than 600 PSI.

*Equalizers:* A heavy duty rack and pinion equalizer shall be provided to coordinate the vertical movement of the hydraulic cylinders. Each rack bar shall have adequate column strength and have teeth of adequate strength and size to withstand the loading involved. There shall be an attachment between the rack bar and the bolster to permit field adjustment and alignment. The rack bars shall be guided and supported by bronze bearings in steel housings which shall be attached to the hydraulic cylinders with welded brackets and shall be properly aligned at the factory. The gear drive shafts shall be connected with a substantial torque tube assembly which is arranged with slip couplings at each end to permit modest misalignment without binding.

*Hydraulic Pumping Unit:* The hydraulic pumping unit shall be designed for heavy duty industrial service. The pump shall be directly connected to a standard NEMA frame open drip proof motor with a flexible coupling complete with coupling guard. System will include a cleanable suction strainer, an adjustable pressure relief valve, a pressure gauge, a check valve, and a lowering solenoid, completely piped and mounted on a rectangular oil reservoir of ample capacity to properly operate the system, plus reserve oil. The oil reservoir shall be equipped with an oil sight gauge and a drain. The hydraulic system shall be capable of raising and lowering the lift with full rated load at not less than 5 FPM. A means shall be provided at the power unit for lowering the lift manually in the event of electrical power failure.

**General Specifications – (Continued)**  
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*Controls:* The hydraulic lift shall be controlled with a NEMA-12 pushbutton station. Constant pressure on the button will cause the lift to move. Release of the button will cause the lift to stop regardless of the direction of travel. A NEMA-1 across-the-line magnetic motor starter with control transformer shall be provided.

*Fixed Stop:* A permanent stop on one bolster, being constructed of at least ½” steel plate, the full width of the bolster and 6” above the surface of the bolster, adequately welded and supported to withstand the loading involved.

*Automatic Counterweighted Stop:* An automatic counterweighted stop installed in the bolster at the “drive-on” end of the lift, extending the full width of the bolster. This stop mechanism shall be hinged to tilt to approximately 45° and shall be a minimum of 4” high above the surface of the bolster when in the raised position. The stop shall actuate within 6” of the floor and shall positively lock to prevent the vehicle from rolling off the lift.

**Equipment Options**

*Automatic Safety Latch:* An automatic solenoid controlled safety pawl device on one rack bar which will automatically lock the rack bar and the rack and pinion equalizer device to prevent the lift from accidentally lowering. The pawl shall be released to permit lowering through the action of a heavy duty direct acting electric solenoid. A time delay shall prevent the locking pawl from engaging during the normal lowering cycle until the lowering solenoid valve shall have closed. A second automatic safety latch can be supplied, if required, for the other rack bar.

*Safety Flow Control Valves:* Hydraulic “slow-down” valves for attachment at each hydraulic cylinder to restrict the flow of oil from the cylinder to prevent the lift from lowering at a rate in excess of 20 FPM, regardless of load, in the event of loss of hydraulic pressure.

*Additional Options:* The following options are available as desired:

- NEMA-12 Starter and transformer
- Combination NEMA-1 motor starter with fused disconnect and control transformer
- Combination NEMA-12 motor starter with fused disconnect and control transformer
- “T” Frame TEFC motor
- 66” Rise
- Wheel Locator

*JIC Optional Equipment*

- “U” Frame TEFC motor
- 7E Spec TEFC motor – Single voltage
- “JIC” Oil reservoir
- Inlet Mechanical indicating filter (with magnets)