

Adjustable Work Station Lifts for Lawn Mower Assembly



The Challenge

John Deere challenged themselves to reduce floor space consumption and improve overall productivity of their assembly lines producing riding lawn mowers. The current method of driving the mower up a ramp to a fixed-height assembly table consumed too much valuable floor space and failed to place the assembly work at optimum ergonomic work heights for all employees. Autoquip was challenged to provide a material handling solution that would improve work station ergonomics and factory throughput in less square footage.

The Autoquip Solution

Assembly stations are benefited from a solution that provides any given operator the means to make incremental adjustments in elevation to the product being assembled. A hydraulic lift was recommended as the most cost-efficient method of providing adjustments in elevation in order to keep the welded product at an optimum, ergonomic work height. In addition, Autoquip also recommended that the lift be mounted in a recessed pit in order for the top of the lift platform to be level with the production floor when completely lowered. This way the mowers can be rolled from the previous assembly station onto this final assembly lift without the necessity of an added floor space required for an approach ramp. The customer is completely satisfied with this workstation improvement, and worker productivity has improved as a result of keeping the work more nearly within the ergonomic “power zone” of each of the assemblers.

Lift Specifications for this Application:



Lift/Turn Capacity: 2,500 lbs.

Vertical Travel: 50"

Platform: 54" x 88" with beveled toe guards

Actuation: Hydraulic

The Solution Benefits

Through the addition of a pit-mounted hydraulic lift, the final assembly workstation has been cost-efficiently updated to include a vital worker productivity improvement, and a reduction in consumption of valuable factory floor space.