2021A12 (PROPORTIONS, RATES)

Level 1: We start by determining the height the bottom rim of the Lower Mid needs to reach.

$$Base\ height\ (ft) + Additional\ Clearance\ (ft) = Necessary\ Height\ (ft)$$

$$39.5\ ft + 5\ ft = 44.5\ ft$$

Because we know that the Lower Mid still has to be lifted ¾ of this distance, it is already ¼ of the distance off the ground.

$$Necessary\ Height\ (ft) * \frac{1}{4} = Current\ Height\ (ft)$$

$$44.5\ ft * \frac{1}{4} = 11.125\ ft$$

Level 2: First, determine how many feet the Lower Mid still needs to be raised.

$$Necessary\ Height\ (ft) * \frac{3}{4} = Remaining\ Height\ (ft)$$

$$44.5\ ft * \frac{3}{4} = 33.375\ ft$$

Then divide by the rate of movement to determine the time the lift will take.

$$\frac{Remaining\ Height\ (ft)}{Lift\ Rate\ ft/min} = Time\ (min)$$

$$\frac{33.375\ ft}{2.5\ ft/min} = 13.35\ min$$

A Base section being installed.