

Example 1.4

Result

(a) Potential energy of the elevator in its Initial Position

245000.

J

(b) Work Done in Raising the Elevator

2205000.

J

(c) Potential energy of the elevator in its Highest Position

2450000.

J

(d) Velocity of the Elevator

44.27

m/s

(d) Kinetic Energy of the Elevator

2450000.

J

(e) Potential energy of compressed spring

2450000.

J

(f) Total Energy of the System

2450000.

J