

## Abstract

### Tension Member for an Elevator

5        A tension member for an elevator system has an aspect ratio of greater  
than one, where aspect ratio is defined as the ratio of tension member width  $w$  to  
thickness  $t$  ( $w/t$ ). The increase in aspect ratio results in a reduction in the  
maximum rope pressure and an increased flexibility as compared to conventional  
elevator ropes. As a result, smaller sheaves may be used with this type of tension  
member. In a particular embodiment, the tension member includes a plurality of  
10 individual load carrying ropes encased within a common layer of coating. The  
coating layer separates the individual ropes and defines an engagement surface for  
engaging a traction sheave.