

## **METHOD FOR CONDITION MONITORING OF ELEVATOR ROPES AND ARRANGEMENT FOR THE SAME**

### **(57) Abstract**

The invention relates to a method for condition monitoring of a rope (1) of an elevator comprising an elevator car (2) and a rope wheel arrangement (M), which rope (1) is connected to the elevator car (2) and passes around at least one rope wheel (3) comprised in the rope wheel arrangement (M). The method comprises obtaining travel data of the elevator car (2), the travel data including information describing occurrence(s) of car start(s) and/or bypass(es); and determining based on the travel data a total number (N) of car visits at a predetermined landing ( $L_0$ ) in the path of the elevator car (2), which total number (N) is the sum of the number of starts of the elevator car (2) away from said predetermined landing ( $L_0$ ) so as to travel to any other landing ( $L_{-1}, L_{+1}, L_{+2}, \dots, L_{+n}$ ) irrespective of the traveling direction, and the number of times the elevator car has bypassed said predetermined landing ( $L_0$ ) without stopping irrespective of the traveling direction; and comparing the total number (N) or a multifold of the total number (N) with a first predetermined limit value, wherein said multifold equals to the total number (N) multiplied with factor n wherein n equals the number of said at least one rope wheel; and performing one or more predetermined action if said total number (N) or the multifold of the total number (N) meets the first predetermined limit value, said one or more action including one or more of indicating a weakened rope condition, indicating a need for maintenance or replacement of elevator rope(s) (1), calculating an estimated moment of maintenance or replacement of elevator rope(s) (1), sending a specific or general warning signal, sending a fault signal, sending a signal to a service center the signal indicating weakened rope condition or a need for maintenance or a need for replacement of elevator rope(s) (1). The invention relates also to an arrangement implementing the method.

Figure 1