Claims

1、An improved lifting mechanism for the elevator according to the present invention consists of a supporting beam, a traction machine, a traction rope, a cage and a counterweight. Said traction machine is fixed on the supporting beam and provided with a traction sheave on its power take-off shaft, said cage is provided with cage frames on the top, outside and under the bottom, and said counterweight is provided with counterweight deflector sheaves on its top. Wherein said cage frame which is set on the top of said cage is provided with two cage deflector sheaves on its top. The rotating planes of said cage deflector sheaves are both positioned in the direction of the cage depth and in the eudipleural center plane of the cage. The two cage deflector sheaves are fore-and-aft spaced. One end of said traction rope is fixed to the supporting beam through a first rope hitch plate, while the other end of the traction rope wraps around the two cage deflector sheaves and said traction sheave, then wraps around said counterweight deflector sheaves and finally is fixed to the supporting beam through a second rope hitch plate.

2、The improved lifting mechanism for the elevator as said in claim 1, wherein said counterweight is positioned under the supporting beam and provided with two counterweight deflector sheaves on its top. The supporting beam is provided with a first deflector sheave, which is on the top of the counterweight, and a second deflector sheave and a third deflector sheave, which are on the top of the cage deflector sheaves. One end of said traction rope is fixed to the supporting beam through a first rope hitch plate, while the other end of the traction rope wraps around a cage deflector sheave downward and the second deflector sheave and the third deflector sheave upward, then wraps around another cage deflector sheave downward and the traction sheave upward, then wraps around a counterweight deflector sheave downward and the first deflector sheave upward, then warps around another counterweight deflector sheave downward and finally is fixed to the supporting beam upward through said second rope hitch plate.

3、The improved lifting mechanism for the elevator as said in claim 1, wherein each left and right side of said cage is provided with a guide rail.

Claims

1. An improved lifting mechanism for the elevator according to the present invention consists of a supporting beam, a traction machine, a traction rope, a cage and a counterweight, said traction machine is fixed on the supporting beam and provided with a traction sheave on its power take-off shaft, said cage is provided with cage frames on the top, outside and under the bottom, and said counterweight is provided with counterweight deflector sheaves on its top;

wherein said cage frame which is set on the top of said cage is provided with two cage deflector sheaves on its top, the rotating planes of said cage deflector sheaves are both positioned in the direction of the cage depth and in the eudipleural center plane of the cage, the two cage deflector sheaves are fore-and-aft spaced;

wherein one end of said traction rope is fixed to the supporting beam through a first rope hitch plate, while the other end of the traction rope wraps around the two cage deflector sheaves and said traction sheave, then wraps around said counterweight deflector sheaves and finally is fixed to the supporting beam through a second rope hitch plate.

2. The improved lifting mechanism for the elevator as said in claim 1, wherein said counterweight is positioned under the supporting beam and provided with two counterweight deflector sheaves on its top, the supporting beam is provided with a first deflector sheave, which is on the top of the counterweight, and a second deflector sheave and a third deflector sheave, which are on the top of the cage deflector sheaves;

wherein one end of said traction rope is fixed to the supporting beam through a first rope hitch plate, while the other end of the traction rope wraps around a cage deflector sheave downward and the second deflector sheave and the third deflector sheave upward, then wraps around another cage deflector sheave downward and the traction sheave upward, then wraps around a counterweight deflector sheave downward and the first deflector sheave upward, then warps

around another counterweight deflector sheave downward and finally is fixed to the supporting beam upward through said second rope hitch plate.

3. The improved lifting mechanism for the elevator as said in claim 1, wherein each left and right side of said cage is provided with a guide rail.