

## ERGONOMIC ASSESSMENT

By **Andrew Wilson**  
Osteopath & Ergonomist

### **Ergocare Rockford Powerlift**

#### *Chair*

#### **Seat Profile**

A square seat profile 560mm x 600mm. It has a 150 mm deep sprung seat with a separately upholstered 30mm foam overlay. It has soft/medium density feel with no pressure points. It is comfortable to sit on and very spacious with no pressure points. Smaller people will require cushions to reduce the length of the seat.

#### **Back Rest Profile**

The backrest is tall and square in profile. It is about 700mm wide. The height is about 430mm for the trunk support and a second section of about 300 for head, neck and shoulder support. The foam depth is about 220mm on the trunk portion, reducing to 180 at the top, and about 160mm on the upper section. The foam being softer than the seat. **It is unusual to have less depth for head/neck support and I feel it would benefit from more foam depth to provide effective head and neck support.** The back section is fairly flat, with minimal contour. There is one central pinch point in the fabric and foam. It is generous in proportion and comfortable for sitting with no pressure points.

#### **Armrests**

There are full length fixed armrests 720 x 140mm, tapered at both ends, and 120-180mm above the seat, sloping slightly up from front to back. They are spaced at 560mm - either side of the seat. They are covered in about 40mm of soft foam on top of a firm base and allow for full weight support when getting up and down from chair.

#### **Storage**

There are two loose pockets - one on either side of the seat, which start at the base of the side panel with a 40mm wide entrance that opens about 300mm below the armrest.

#### **Controls**

There are 2 main controls which operate from a portable wired handpiece:

1. The left-hand control operates the footrest and takes it from flat to fully extended, in line with the seat profile. Continued operation of this button raises the rear of the seat progressing up to a forward sloping angle of 45 degrees. This neatly facilitates getting up and down from the chair. The action is slow, smooth and continuous, taking about 15 seconds for the footrest and about 30 seconds for the seat inclination.
2. The right-hand control operates the backrest angle. At its most upright it is about 15 degrees declined from vertical. It reclines through a range of 45 degrees over 23 seconds to about 30 degrees above horizontal.
3. There is as facility to use both controls at once using a central control where the seat can go from fully reclined with footrest up to fully erect with footrest down and vice versa. This would facilitate moving from standing to recumbent in one action and from recumbent to standing in one smooth process.

#### **Summary**

The sitting position is very comfortable, and it is easy to adjust the angle of the seat and backrest according to the purpose – upright for meals, more reclined for relaxing or watching TV or fully reclined for naps. The fully reclined sleeping position at about 150 degrees is a very good neutral spine and hip angle, though I would recommend an extra pillow for head and neck support. The fully-reclined 30-degree angle between backrest and seat does preclude side-lying sleeping positions. It is easy to go from the most reclined position to the assisted exit position using the dual control. This would be very valuable in a rest home or nursing or hospital environment where there are mobility issues. It could be expected to improve the mobility of the users of the chair and reduce the workload and strain on the carers.

**Andrew Wilson - Osteopath and Ergonomist**

19 November 2018