[0027]

Second handle 53 is integrally provided on the front surface of support main body 511 of torso support member 51. Second handle 53 is U-shaped elongated in the horizontal direction. Second handle 53 includes a base shaft fixed to the lower end of support main body 511 and extending in a left-right direction, and a gripping portion extending from both ends of the base shaft toward first handle 43.

[0028]

As shown in fig. 2, loading detecting device 6 is attached to torso support member 51 and is for detecting a load applied by the upper body of care receiver M. Load detecting device 6 is attached to an upper surface of support main body 511 and is sandwiched between support main body 511 and cushion 512. Load detecting device 6 includes first load detecting apparatus 61 and second load detecting apparatus 62.

[0029]

First load detecting apparatus 61 is provided near a central position in the up-down direction (front-rear direction) of support main body 511. First load detecting apparatus 61 corresponds to a first portion (for example, near the chest) of the upper body of care receiver M. First load detecting apparatus 61 detects first load a applied by care receiver M. First load detecting apparatus 61 continuously acquires first load a during a specified sampling time while the power to assistance device 1 is turned on. There are two first load detecting apparatuses 61 arranged separated on the left and right.

[0030]

Second load detecting apparatus 62 is provided below and to the rear of first load detecting apparatus 61. Second load detecting apparatus 62 corresponds

Claims

1. An assistance device for supporting an upper body of a care receiver and performing standing assistance for the care receiver, the assistance device comprising:

a base;

a body supporting member provided on the base in a manner capable of being raised and lowered, and configured to support the upper body of the care receiver;

a first load detecting apparatus provided on the body supporting member, and configured to detect a first load applied by the care receiver;

a second load detecting apparatus provided on the body supporting member at a position rearwards of the first load detecting apparatus, and configured to detect a second load applied by the care receiver; and

an effort level calculating device configured to calculate an effort level representing to what extent the care receiver is using their own leg power during the standing assistance based on a relationship between the first load and the second load.

2. The assistance device according to claim 1, wherein

the relationship between the first load and the second load is a difference between the first load and the second load.

3. The assistance device according to claim 2, wherein

the relationship between the first load and the second load is the difference

between the first load and the second load and a sum of the first load and the second load.

4. The assistance device according to any one of the claims 1 to 3, wherein

the effort level calculating device is configured to calculate, during an entire period from starting the standing assistance to ending the standing assistance, effort level reference data representing to what extent the care receiver is using their own leg power, and

to determine a maximum value of the effort level reference data during one or multiple cases of the standing assistance as the effort level.

5. The assistance device according to any one of the claims 1 to 3, wherein

the effort level calculating device is configured to calculate, during an entire period from starting the standing assistance to ending the standing assistance, effort level reference data representing to what extent the care receiver is using their own leg power, and

to determine an average value of the effort level reference data during one or multiple cases of the standing assistance as the effort level.

6. The assistance device according to any one of the claims 1 to 3, wherein

the effort level calculating device is configured to determine effort level reference data representing to what extent the care receiver is using their own leg power during an entire period from starting the standing assistance to ending the standing assistance as the effort level.

7. The assistance device according to any one of the claims 1 to 6, further comprising

a display device for displaying the effort level.

8. The assistance device according to any one of the claims 1 to 7, further comprising

a raising and lowering member provided on the base in a manner capable of being raised and lowered,

wherein

the body supporting member is provided on the raising and lowering member in a manner capable of tilting forwards and backwards, and supports the upper body of the care receiver.

9. The assistance device according to any one of the claims 1 to 8, further comprising

a control device configured to stop the standing assistance in a case in which the effort level is equal to or less than a threshold value during the standing assistance.

10. The assistance device according to claim 1, wherein:

the effort level calculating device is configured to calculate effort level reference data for a specified period representing to what extent the care receiver is using

their own leg power during the standing assistance based on the first load and the second load, and calculate a maximum value of the effort level reference data as the effort level.

11. The assistance device according to claim 10, wherein

the effort level calculating device is configured to calculate the effort level reference data during an entire period from starting the standing assistance to ending the standing assistance based on the first load and the second load during the standing assistance, and

calculate the maximum value of the effort level reference data during one or multiple cases of the standing assistance as the effort level.

12. An assistance device for performing standing assistance, the assistance device comprising:

a base;

a body supporting member provided on the base in a manner capable of being raised and lowered;

a first load detecting apparatus configured to detect a first load, the first load detecting apparatus being provided near a central position of the body supporting member;

a second load detecting apparatus configured to detect a second load, the second load detecting apparatus being provided on the body supporting member to a rear of the first load detecting apparatus; and

an effort level calculating device configured to calculate at least one effort level based on a relationship between the first load and the second load.

13. The assistance device according to claim 12, wherein the assistance device comprises two first load detecting apparatuses arranged separated on a left and a right of the body supporting member respectively.

14. The assistance device according to claim 13, wherein the assistance device comprises two second load detecting apparatuses arranged separated on the left and the right of the body supporting member respectively.

15. The assistance device according to claim 12, wherein the first load detecting apparatus is configured to continuously acquire the first load for a specified sampling time; and wherein the second load is configured to continuously acquire the second load for the specified sampling time.

16. The assistance device according to claim 15, wherein the effort level calculating device is configured to calculate the at least one effort level throughout the specified sampling time.

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