

# HD motion

► Prescriber Information | English



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## WE MANUFACTURE QUALITY OF LIFE

**HD Rehab helps people achieve an improved quality of life. Our products help make the lives of users, their families, and caregivers easier, safer, and more comfortable.**

HD Rehab offers assistive products for people living with disability. Our primary product is wheelchairs, which we have been designing, developing, and manufacturing for over 40 years. We accept no compromises in quality. Precision, safety for user and caregiver, function, and design are our guiding principles. We are confident that you will feel the difference compared to any other wheelchair.

## GLAD TO BE FLEXIBLE

Whether you are a user, a family member, or a caregiver we welcome your requests and opinions. Our designers and developers work closely with the production team at our facility on the island of Lidingö in Stockholm. Our creative employees use their specialist knowledge, experience, and inventiveness to find solutions for the unique needs of each individual.

## 1. GENERAL

### 1.1 Target group / Areas of use

This document is intended for those who want some general information about HD Motion and the possibilities it provides prior to prescribing the product. This *Prescriber Information* is just one part of the documentation that is available for HD Motion and should be complemented with the *User Manual* (doc.nr. 96701-1), the Info Sheets (doc nr 95930-1-959\*\*) and the *Measurement Table* (doc.nr. 95719-1). The latest versions of all documents are available at [hdrehab.com](http://hdrehab.com).

HD Motion is a manual comfort wheelchair intended for use by children and youth in need of more support and stability than is possible with active and all-round wheelchairs. The multitude of possible settings gives the user an individually customised sitting position that is well balanced and that allows for good flexibility and freedom of movement.

HD Motion can also be used in some cases by small adults. Some limitations exist however, for example the possibility of 180° leg rest angle.

A complete user manual is always delivered with the wheelchair. Make sure that the user manual is always available when the wheelchair is used. The *Condensed User Manual* supplied in the plastic sleeve on the backrest is only a complement.

Functions such as the seat tilt and backrest recline provide good possibilities to create variation between a stable and active sitting position and a relaxed resting position. Be aware that sitting in the same position for a long time without changing position can lead to discomfort and harmful pressure. Symptoms of harmful pressure could be pain and redness of the skin that could eventually give rise to pressure-related sores. Space for a varied position should be given in both the sitting and reclined positions.

HD Motion is intended for use in everyday situations, both indoors and outdoors, and it can be propelled by the user or the caregiver. The wheelchair is very well balanced and easy to manoeuvre. A well-placed point of Motion and a short wheelbase contribute to these characteristics.

The maximum allowable user weight is stated in the *Measurement Table* (doc nr 95719-1), the *User Manual* (doc nr 96701-1), and is also indicated on each wheelchair.

### 1.2 Testing and adjusting the wheelchair

Prescription for the individual user should always be done before beginning to use HD Motion. This applies both to a new wheelchair as well as when a wheelchair changes users. Also be aware that a new prescription may be required if the disability of the user changes or as new requirements arise. All prescriptions and adaptations of the wheelchair must be carried out by authorised personnel.

HD Motion should be tested and the settings should be adjusted by trained personnel (Prescribers). An assessment of the user's safety should be carried out together with this process.

Instructions regarding how the wheelchair is to be used should be given to users, family members, assistants, or caregivers at the time the wheelchair is put into use. Daily functional checks are recommended; see *User Manual* (doc nr 96701-1).

## 2. CHASSIS

More information about measurements and dimensions, how to adjust settings, and how accessories should be assembled is provided in the *User Manual* (doc nr 96701-1), the *Assembly Instructions* (doc nr 96801-1-968\*\*), and the *Info Sheets* (doc nr 96901-1-969\*\*). The latest versions of these documents are available at [hdrehab.com](http://hdrehab.com).

### 2.1 Choice of model

HD Motion is available in two models; HD Motion 22, with 22" drive wheels, and HD Motion 16, with 16" drive wheels, Figure 1.

HD Motion 22, with hand rims on the drive wheels, is for users who can fully or partially drive the wheelchair independently. This model also passes somewhat more easily over obstacles such as curbs. HD Motion 16 is a transportation model for users who do not drive independently. The 16" wheels make it easier to transfer out of the wheelchair sideways, and the caregiver can come closer in care situations.



Figure 1. HD Motion 22 and HD Motion 16

### 2.2 Choice of seat width

HD Motion is available in two chassis widths, 30 and 34. The seat width for chassis width 30 can be set to 3 fixed positions, 28/30/32 cm. The seat width for chassis width 34 can be set to 32/34/36 cm. Adjusting the seat width is done by moving the arm rest mounts, Figure 2.

### 2.3 Choice of seat depth

HD Motion is available in two chassis lengths; Short chassis (K) with an adjustable seat depth of 33,5 - 40 cm, and Long chassis (L) with an adjustable seat depth of 42,5 - 49 cm (measured with a Solid back, without cushions). If the wheelchair is equipped with a Flexi-back the seat depth varies depending on the setting of the straps.

Seat depth is set by adjusting the seat plate, see **3.1 Seat**, and the leg rest depth, see **3.3 Leg rests**.

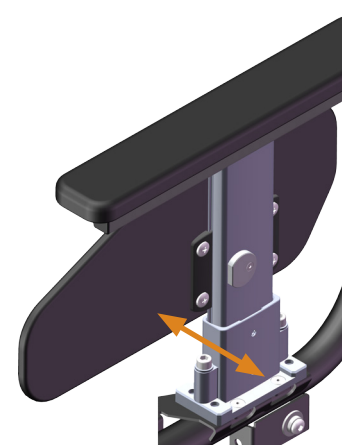


Figure 2. Adjusting seat width

### 2.4 Choice of seat height

HD Motion has a standard seat height of 42 cm, measured from floor to seat plate. The seat height for both 22 and 16 models can be raised 3 or 5 cm with adapters. The 22 model can also be raised or lowered by changing drive wheels. 20" drive wheels are used to lower the wheelchair 2 cm, and 24" drive wheels are used to raise the wheelchair 3 cm.

## 2.5 Drive wheel position

The drive wheels can be mounted in three different positions, Figure 3. As standard HD Motion is delivered with the drive wheels in the mid position. This makes for an easily manoeuvred wheelchair with sufficiently good stability backward in normal situations. If even better manoeuvrability is desired the wheels can be mounted in the forward position. For increased stability backward the wheels can be mounted in the back position.

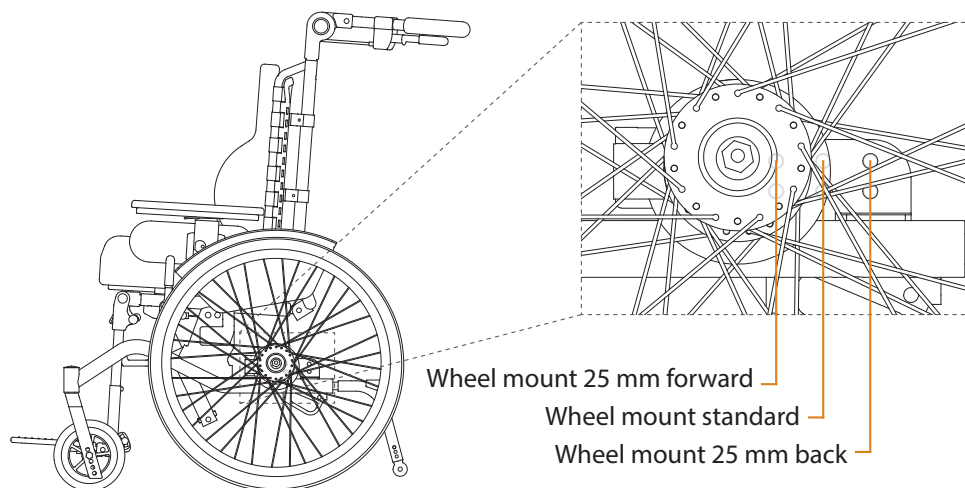


Figure 3. Drive wheel position

## 2.6 Seat tilt and back recline

### SEAT TILT

The seating unit of HD Motion is tilted with the help of a gas cylinder, 0-30°, Figure 4. The gas cylinder assists when tilting backward. Note that tilting forward can feel heavy if no one is seated in the wheelchair. It is possible to change the seat tilt range to approximately -5 - 25°.

Note that an individual risk assessment must be done by the prescriber in each case. Different body types and weight of the user affect the wheelchair balance to varying degrees.

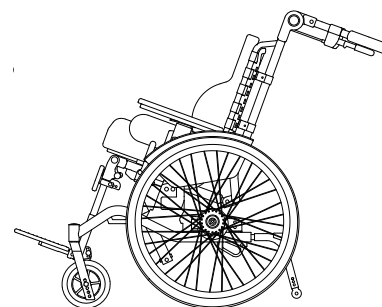


Figure 4. Seat tilt

### BACK RECLINE

The backrest can be reclined continuously from 90-120°, Figure 5. Back recline is assisted by a gas cylinder mounted under the seat. The gas cylinder provides a lifting force that helps with raising the back from a reclined position. Note that tilting the backrest back can feel heavy if no one is seated in the wheelchair.

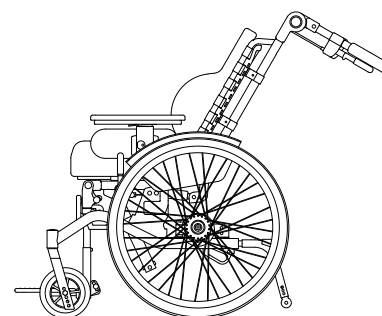


Figure 5. Back recline

### CONTROLS

The seat tilt control is green and is placed on the right hand side of the push bar, and the back recline is grey and is placed on the left hand side of the push bar, Figure 6. The controls are operated one at a time, never together.



Figure 6. Controls on push bar

## 2.7 Wheels

HD Motion 22 is equipped with 22" drive wheels. 20" and 24" drive wheels are available as alternatives. In standard configuration the drive wheels are cambered 6°. It is possible to choose straight wheel mounts, with no camber.

HD Motion 16 has 16" drive wheels and straight wheel mounts.

Both models are equipped with 150 mm castors. 125 mm castors are available as an alternative.

Drive wheels and castors as standard have solid, puncture-proof PUR tyres. It is possible to choose pneumatic tyres for the drive wheels. Drive wheels for both models are removable (quick-release).



Figure 7. Hand rims

## 2.8 Hand rims

HD Motion has hand rims in two versions, stainless steel or plastic-coated for better grip, Figure 7. Hand rims are not to be removed as they contribute to the strength of the wheel. It is possible to move the hand rims inward.

## 2.9 Brakes

HD Motion is equipped with combined service- and parking disc brakes. The 22-model also comes with user/parking brakes, Figure 8.

### COMBINED SERVICE- AND PARKING BRAKES

The brake handles are located under the push bar and are operated from the behind the wheelchair. Parking brakes are activated by a sleeve on the handle that locks the brakes when slid forward.

### USER BRAKES / PARKING BRAKES

For HD Motion 22 there are a separate parking brake handles to be operated by the user. These can also be added to HD Motion 16 as needed.

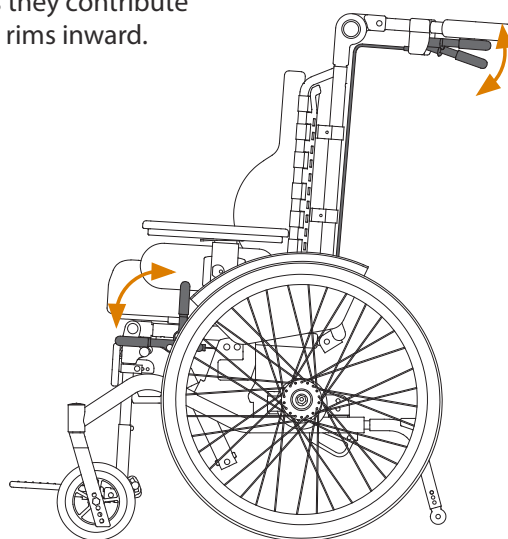


Figure 8. Brakes

## 2.10 Push bar

HD Motion is equipped with an angle adjustable push bar with integrated caregiver brakes. The push bar can be folded down to be out of the way, or angled up to be in a comfortable position for the caregiver when the wheelchair is significantly tilted or reclined, Figure 9.

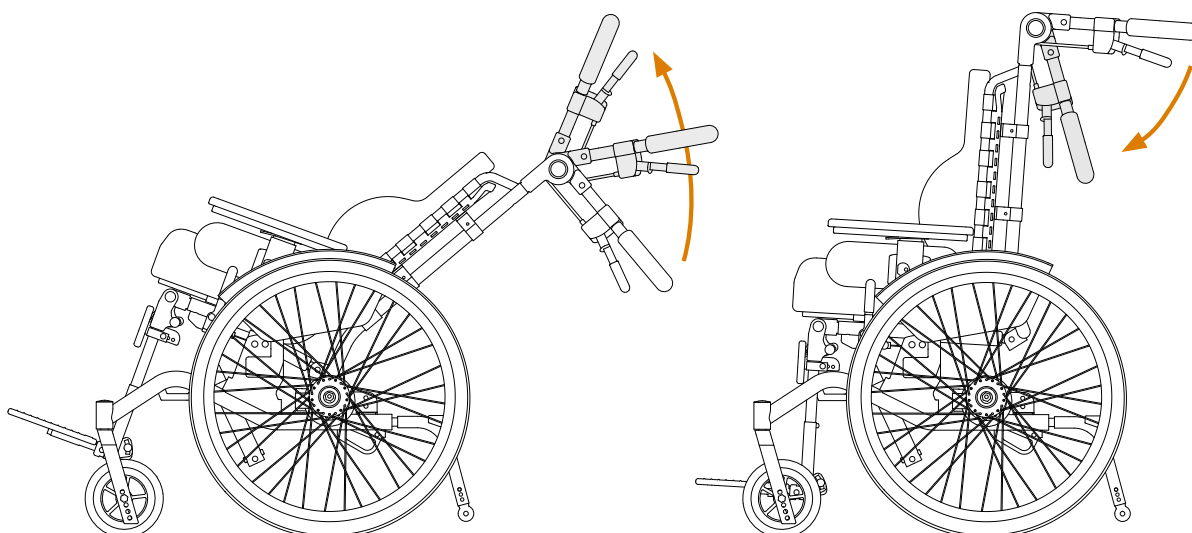


Figure 9. Push bar angle adjustment



## 2.11 Tip protectors

HD Motion is equipped with tip protectors that can be set to three height positions, Figure 10. They can also be turned up to rest in an inactive position, for example when passing over a curb or threshold. This is done by pushing the plug of the tip protector with hand or foot, which releases the tip protector and turns it slightly inward. It can then be turned up to the inactive position, Figure 12.

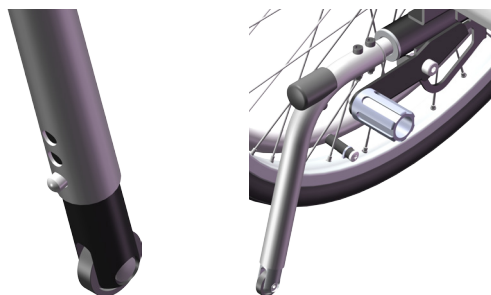


Figure 10. Tip protector Figure 11. Tip pedal

Always have the tip protectors fully extended in the active position when there is a risk of tipping backward. Remember to turn the tip protectors back down and ensure they are locked if they have been turned up.

**Note:** Tip risk can vary depending on the weight of the user, body type, movements, and positioning in the wheelchair. Other relevant factors are the degree of seat tilt, back recline, leg rest angle, drive wheel position, and anything attached to the backrest. The tip risk should always be checked in the actual use situation and the tip protectors set accordingly. **Note** that the wheelchair can never be used without tip protectors.

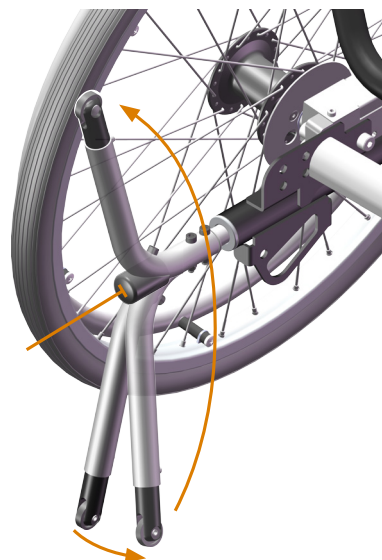


Figure 12. Turning up tip protector

HD Motion can be equipped with tip pedals, Figure 11. The tip pedal is used as a steadying point for the foot when the wheelchair is tipped up on the drive wheels.

## 3. SEAT UNIT

### 3.1 Seat

HD Motion is equipped with a depth-adjustable seat plate to give the user a good support surface and distribute pressure. The depth is adjusted by loosening two knobs under the seat plate and then pushing it to the desired position, Figure 13.

The seat plate has velcro strips to secure the seat cushion. Note that the leg rest mount can also be adjusted in depth, see section 3.3 **Leg rests**. To help with adjustment and record keeping there is a scale to indicate the seat plate depth.



Figure 13. Seat plate knobs

### SEAT CUSHION

HD Motion is equipped with a formed seat cushion with seat depression, thigh support, and a gentle hump at the front to separate the user's legs, Figure 14. The seat cushion attaches to the seat plate with velcro.

Covers with incontinence protection are also available.



Figure 14. Seat cushion

## 3.2 Backrest

HD Motion has two alternate backrest systems, Flexi-back and Solid back, Figure 15. Both Flexi-back and Solid back are available in 3 different lengths.

### FLEXI-BACK

Flexi-back consists of a backrest frame with adjustable straps. The straps can be set to give the user good pelvic and lumbar support. See User Manual (doc nr 96701-1) for instructions on setting the Flexi-back straps. If further support for the trunk is needed thoracic supports are available, see **4. Accessories**.

### SOLID BACK

Solid back is available as an alternative to Flexi-back. It is a gently formed back plate made of aluminium. Solid back is used to provide a firmer base for the back cushion.

### HEIGHT ADJUSTMENT OF BACKREST

Both backrest systems have slots that allow continuous height adjustment, Figure 16.

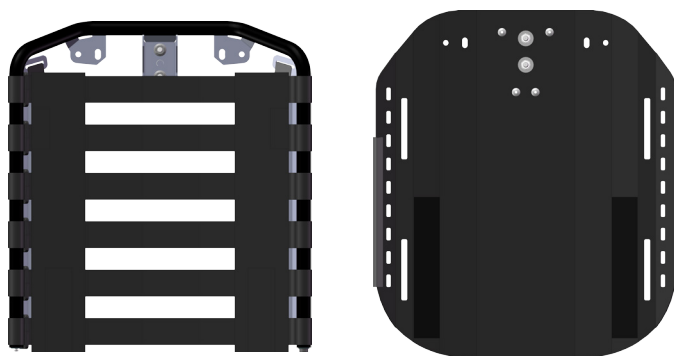


Figure 15. Flexi-back and Solid back

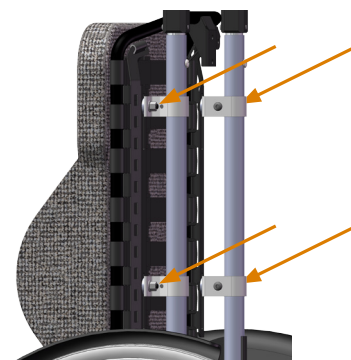


Figure 16. Nuts for height adjustment

### BACK CUSHION

Back cushions for HD Motion are available in two versions, with side support wings and flat, Figure 17. The side support wings provide a firm but soft lateral support for the user. Flat cushions are available as an alternative. Both types of back cushion can be used with either Flexi-back or Solid back.



Figure 17. Ryggdyna Med vingar och Plan

### 3.3 Leg rests

Leg rests are available in two versions; Centre and Separate, Figure 19. Both types can be angled back to 80° without coming into conflict with the castors. The 80° position can be useful, for example, to break stretches of spasticity in the legs or if the user has knee joint contracture. Leg rests are available in different lengths; see Info Sheets *Centre Leg Rest*, doc nr 96901-1, and *Separate Leg Rests*, doc nr 96902-1.

The leg rest mounting position for both types of leg rest is adjustable, Figure 17. Adjustment is done together with setting of seat depth, see 3.1 **Seat**.



Figure 18. Leg rest mounting position

#### LEG REST CENTRE

Leg Rest Centre consists of an angle adjustable centre-supported leg rest tubes, and a one-piece footrest. It can also be equipped with separate calf supports as needed. Leg Rest Centre is adjustable between 80° and 140°.

#### SEPARATE LEG RESTS

Separate Leg Rests consist of angle adjustable mounts, side supported leg rest tubes, and separate foot rests. They can also be equipped with separate calf supports as needed. Separate Leg Rests are adjustable between 80° and 140°.

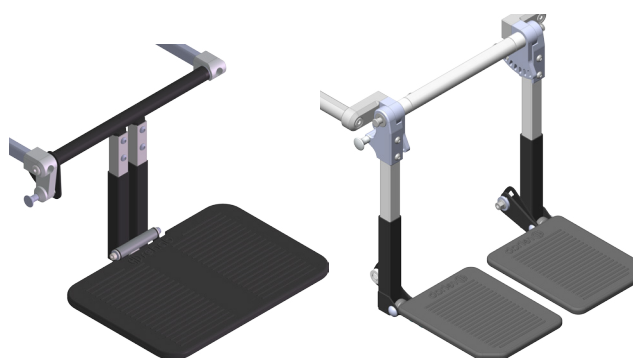


Figure 19. Leg Rest Centre and Separate Leg Rests

### 3.4 Calf Supports

HD Motion can be equipped with calf supports for both Centre Leg Rest and Separate Leg Rests, Figure 20. Calf supports are available in two sizes and can be adjusted in height, depth, and laterally.

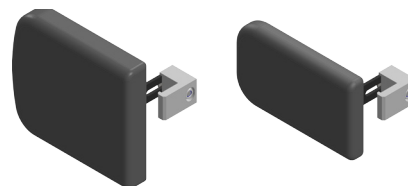


Figure 20. Calf support large and small

### 3.5 Footrests

There are two standard footrests for HD Motion, depending on which leg rest type is chosen, Figure 19. Centre Leg Rest is paired with one-piece footrest, and Separate Leg Rests are paired with separate footrests. Both types of footrest can be adjusted in height and angle. They can also be equipped with foot straps and ankle holders.

Foot box is available as an alternative for users who need protection from involuntary foot and leg movements, Figure 21. The foot box consists of a one-piece footrest equipped with side padding and a calf support. The foot box is mounted on Leg Rest Centre.

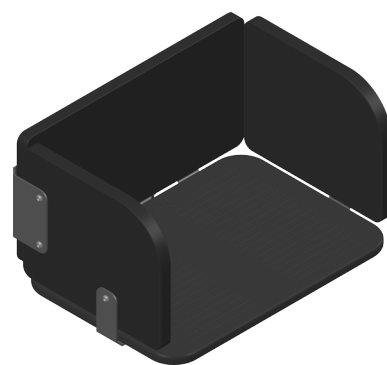


Figure 21. Foot box

### 3.6 Armrests

Armrests are available in two variants, with or without angle adjustable armrest pad, Figure 22. Both variants consist of height- and depth- adjustable armrest pads and padded side supports.

For height adjustment there is a graded scale on the armrest post so that both armrests can easily be set to the same height. All adjustments are done without tools.

#### ARMREST

Armrest comes in two heights, Standard and Low. The armrest pads are adjusted in depth to give support to the elbows and to suit different activities. For example the armrest pads can be moved forward to be used as supports when rising out of the wheelchair.

#### ARMREST ANGLE ADJUSTABLE

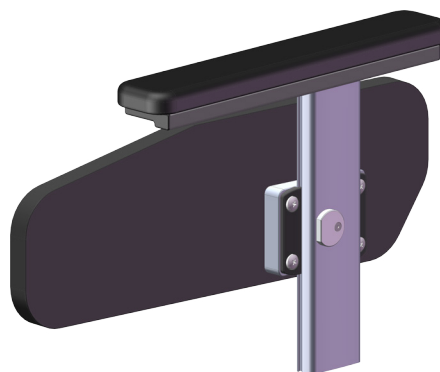
Armrest Angle Adjustable is only available in standard height. The armrest pads, in addition to height and depth adjustments, can be angled upward or downward. This allows for a tray table to be used e.g. as a book support, or to be kept horizontal when eating with the wheelchair tilted back.



Figure 22. Armrest Standard, Low, and Angle Adjustable

#### WEDGE SIDE SUPPORT

The armrests can optionally be fitted with Wedge Side Supports 5°, Figure 23. With outwardly rotated hip joints these supports help hold the user's femurs parallel. Wedge Side Supports are available for all armrest types and are longer than standard supports.



Figur 23. Wedge side support

## 4. ACCESSORIES

This section lists accessories that are available for HD Motion. It is important to read the respective Info Sheets before selecting and using any accessories. The Info Sheets are available at [hdrehab.com](http://hdrehab.com).

Before choosing any accessories always assess the possibility of increased risk for the user and for nearby people. This could be for example pinching risks, risk of getting caught between the accessory and the wheelchair, or increased tip risk. This applies particularly to users with involuntary movements.

### 4.1 Headrest

Headrests (Figure 24) are available in two sizes and are height-, depth-, and angle-adjustable. They can also be adjusted laterally to suit the position of the user's head, and can rotate slightly up and down.

Headrests are available with mounts for side supports. Side supports can be used on one or both sides to support the user's head. They can be adjusted in height, angle up and down, and angle inward to the user's head.



Figure 24. Headrest Large and Small, Side support for headrest

### 4.2 Thoracic support

Thoracic support is available in three versions: Straight (Figure 25), Form (Figure 26), and Adjustable (Figure 26). These are used to give the user more stability when seated and prevent leaning to the side or diagonally forward. Both versions can be adjusted in height and depth.

Most thoracic supports are available in two positions (narrow and wide) and two mount types, Fixed and with Swing-away. The Swing-away mount allows the thoracic support to be swung away, for example when transferring in and out of the wheelchair.

All types of thoracic support can be adjusted in height and depth. Thoracic support Form and Adjustable can be formed or shaped to suit the user.

Thoracic support mounting brackets are ordered separately.



Figure 25. Thoracic support Straight with Fixed mount

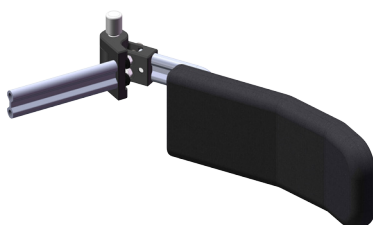


Figure 26. Thoracic support Form with Swing mount

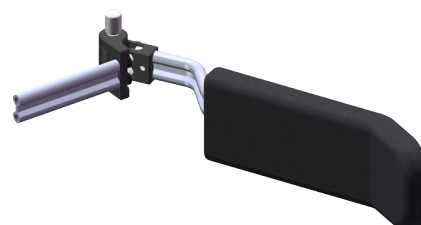


Figure 27. Thoracic support Adjustable with Swing mount

### 4.3 Pommels

Pommels are available in two versions, Knee divider and Leg divider, Figure 28. Both are used to give support to, or to separate, the user's legs. They can be adjusted in height and depth. The Knee divider is placed between the knees while the Leg divider sits further in, between the thighs. The spacer mount attaches to the seat plate.

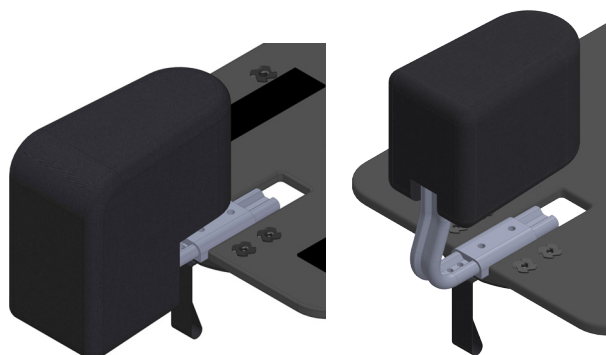


Figure 28. Knee divider and Leg divider

### 4.4 Back spacers

Back spacers move the backrest forward to create a shorter seat depth than can be achieved by adjusting the seat plate, Figure 29.

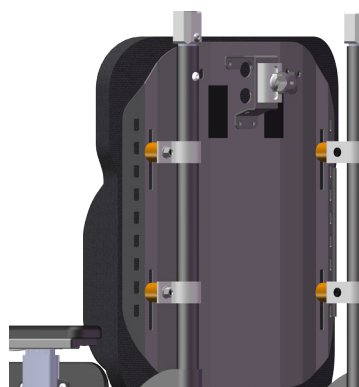


Figure 29. Back spacers

### 4.5 Side pads

Extra side padding is available to further adapt the seat width to suit the user, Figure 30. These attach to the insides of the side supports and reduce the seat width by 2 cm (1 cm per side).

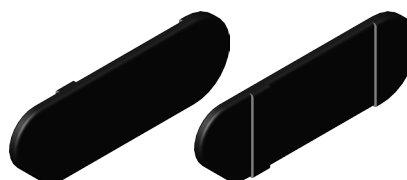


Figure 30. Side pads

### 4.6 Lockable back recline angle

It is possible to lock the back recline at a particular angle with a lock which is mounted at the controls, Figure 31.

Wheelchairs already in service can be equipped with this back recline lock.

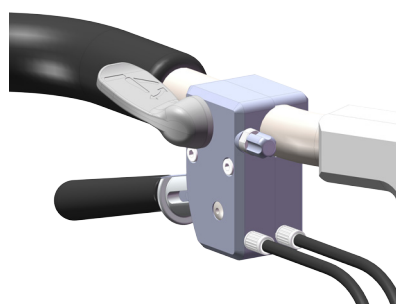


Figure 31. Back recline lock

#### 4.7 Tray table

Tray table is intended as a countertop and in some cases as a positioning support. The tray table is made of plastic or wood and has coaming to prevent objects from sliding off. The support table is padded and gives a soft support, Figure 32. All versions can lock in place on the wheelchair.

Table tray mounts are ordered separately. These attach under the armrest pads and can be adjusted in depth, Figure 33. The mounts can be folded in when the tray table is not in use, Figure 34.



Figure 32. Tray table plexiglass, Tray table wood, Support table

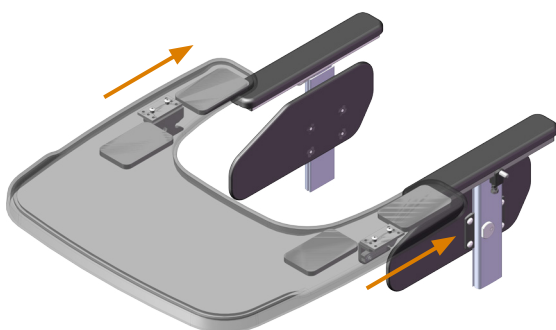


Figure 33. Mounting tray table

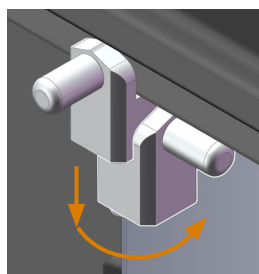


Figure 34. Turning in mounting pin

#### 4.8 Spoke protectors

Spoke protectors can be mounted on 20", 22", and 24" drive wheels, Figure 35. The spokes are covered by a transparent plastic shield that eliminates the risk of injury to hands or fingers.



Figure 35. Spoke protector

#### 4.9 Wheel covers 16" wheels

Wheel covers are available for HD Motion with 16" drive wheels, to prevent the user from putting fingers in the wheel, Figure 36.

The covers consist of mounting brackets on the wheel frame and caps which are screwed in place.

The covers can be easily removed when necessary by loosening the two screws that hold them in place.



Figure 36. Wheel cover

#### 4.10 Positioning belts

HD Motion can be equipped with a positioning belt, Figure 37. These are available with two mounting points, known as 2-point belts, and with four mounting points, 4-point belts. Belts are adjusted in length with two draw straps that are pulled from the middle. A clasp with buttons on the sides is used to fasten the belt.



Figure 37. 2-point belt and 4-point belt

#### 4.11 Mounts for positioning belt

Mounts for belts, forward and back, are used to attach a positioning belt to the seat frame of the wheelchair, Figure 38. The forward mount can be adjusted in depth to give the user a good position. See also *User Manual* (doc nr 96701-1) section 4.5.

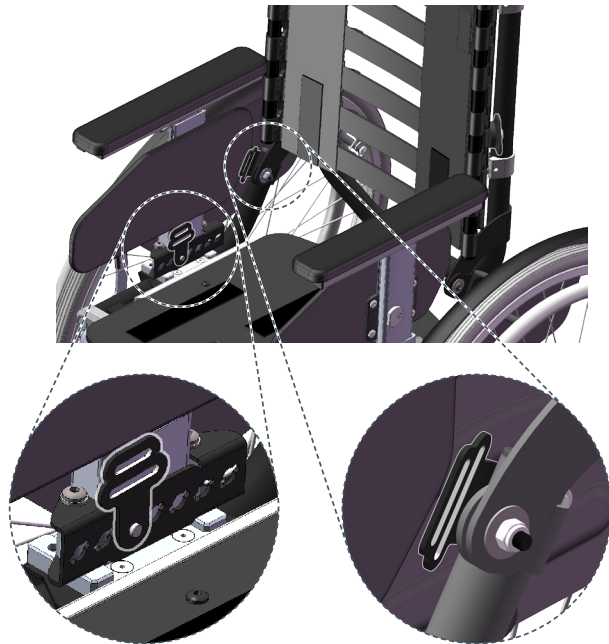


Figure 38. Mounts for belts

#### 4.12 Chest harness mount

Chest harness mount consists of 2 upper and 2 lower mounts, Figure 39. These are attached to the backrest system and are intended as fixed mounting points for different chest harnesses and similar products.

The upper chest harness mounts are individually adjustable in height and angle.

A chest harness must always be used in combination with a positioning belt.

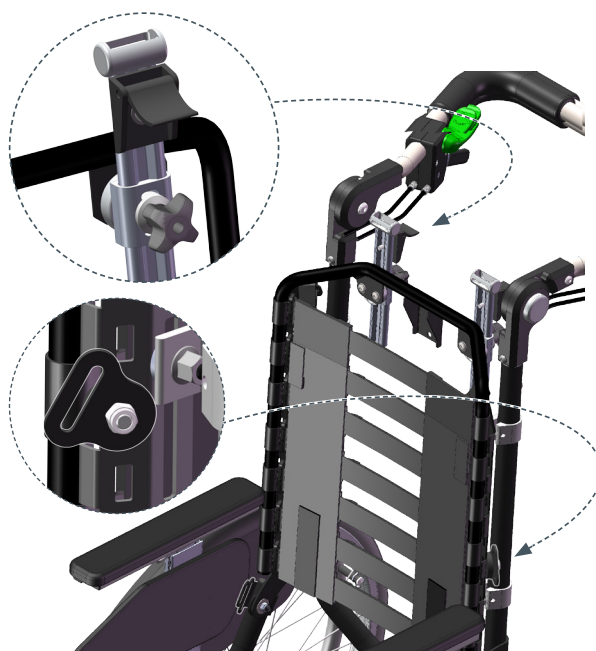


Figure 39. Chest harness mount



#### 4.13 Bag hooks

Bag hooks are mounted on the tubes of the back frame for use with light handbags and similar items, Figure 40. Keep in mind that tipping risk increases with added weight, and if the wheelchair seat or back is tilted backward.

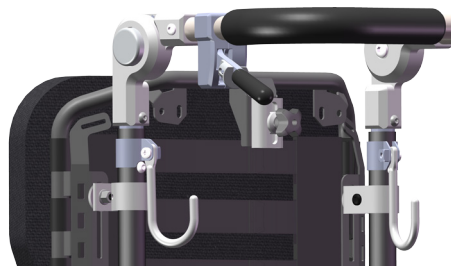


Figure 40. Bag hooks

#### 4.14 IV pole

HD Motion can be equipped with an IV pole, Figure 41. This can make it easier for the user to be more mobile for some types of treatments and examinations.

The construction is sturdy and consists of a mount attached to the back frame of the wheelchair and a lightweight aluminium pole with two hooks.



Figure 41. IV pole and mount

#### 4.15 Oxygen tank holder

When supplemental oxygen is needed HD Motion can be equipped with an oxygen tank holder.

The oxygen tank holder is held in place via a mount attached to the back frame of the wheelchair. The oxygen tank is then safely and easily secured in the holder with velcro straps. The oxygen tank holder with tank can be removed from the wheelchair to remain with the user when transferring out.



Figure 42. Oxygen tank holder

#### 4.16 Canopy

HD Motion can be equipped with a canopy that folds down to provide protection from rain or sunshine, Figure 43. The canopy can be complemented with a back piece if more protection from behind is desired, for example to prevent sunlight coming in. The back piece is held in place with velcro.



Figure 43. Canopy

### 5. TOOLS / ASSEMBLY

Most adjustments for HD Motion are done without using tools.

The settings that the prescriber does when setting up a new wheelchair sometimes require tools. Most of these require a 10mm spanner, which is included with the wheelchair, placed on the rear crossbar. Assembly and adjustment of some accessories requires hex keys or Phillips screwdriver.

## 6. ADDITIONAL INFORMATION

### 6.1 Care and Maintenance

In order to achieve the best safety and a long product life, the wheelchair should be kept clean and in good condition, see *Maintenance Instructions* (doc nr 96730-1). Any faults that arise should be rectified immediately. How the wheelchair is used affects the need for maintenance. In situations of strenuous use more regular maintenance of the wheelchair is required and the life of the product is reduced. Strenuous use can for example result from a user with a high degree of hypertonia or particular movement patterns, or extensive outdoor use. The estimated life of the product when used normally by one user is 10 years. This assumes that the wheelchair is cared for and maintained per the instructions provided in the user manual.

All upholstery for the cushions and accessories is washable at 60°C, washing instructions can be found on the inside of the upholstery.

### 6.2 Vehicle transport

HD Motion is tested and approved, per ISO 7176-19 section 5.2, for transport of a user in a vehicle. Headrest must be used when travelling in a vehicle. Instructions in the user manual must be followed carefully. At the back of the wheel frame are integrated anchor points. Forward anchor points are marked on the front part of the wheel frame.

HD Motion can easily be collapsed for transport without a user, see the document *Measurement Table* (doc nr 96719-1) for transport measurements.

### 6.3 Permitted changes & Combination agreements

The use of products from other suppliers together with HD Motion is regulated by combination agreements. Instructions and recommendations from HD Rehab must be followed in order for the CE marking to remain valid. The document *Changes Permitted While Maintaining CE Marking* (doc nr 96724-1) specifies which changes are permitted to be made to HD Motion while still retaining the validity of the CE marking. The document *List of Combination Agreements* (doc nr 95232) specifies the combination agreements that are in place. These documents are available at [hdrehab.com](http://hdrehab.com), and are updated on an ongoing basis.

### 6.4 Special adaptation

If a user requires further adaptation of the wheelchair beyond the alternatives provided for in the standard HD Motion product range, HD Rehab can produce specially adapted products. More information about this is found in the documents *Information about custom-made products* (doc nr 95431-1) and *Workflow for Special adaptations* (doc nr 95433-1). These documents are available at [hdrehab.com](http://hdrehab.com), and are updated on an ongoing basis.

### 6.5 Further documentation

Further documentation regarding HD Motion includes:

96701-1 User Manual	96725-1 Reconditioning Instructions
96710-1 Condensed User Manual	96730-1 Maintenance Instructions
96719-1 Measurement Table	96764-1 Labelling
96735-1 Technical Information	96801-1 - Assembly Instructions
96724-1 Changes Permitted	96901-1 - Info Sheets

The latest revisions of all documents are available at [hdrehab.com](http://hdrehab.com). Other relevant documentation is also available there.

## 7. OVERVIEW OF OPTIONS

Tables 1, 2, and 3 give an overview of the options and settings available for HD Motion. Note that some options affect the possible settings or restrict how they can be used. Refer to the respective Info Sheets before choosing a configuration.

**Table 1** - Options when ordering a wheelchair (cannot be changed)

Model	16	22
Seat width*	30	34
Seat frame length	Short (K)	Long (L)

\* Seat width 30 has 3 settings, 28/30/32 cm. Seat width 34 has 3 settings, 32/34/36 cm.

**Table 2** - Options when ordering a wheelchair that can be replaced/changed by technical personnel

Drive wheel (model 22)	Standard 22"	20" (seat height 40 cm)	24" (seat height 45 cm)
Seat height	Standard 42 cm	45 cm (adapter 3 cm)	47 cm (adapter 5 cm)
Drive wheel position	Standard position	Rear position	Forward position
Seat tilt	Standard 0 - 30°	-5 - 25°	
Back recline	Standard 90 - 120°	Fixed (between 90 - 105°)	
Brakes	Caregiver brakes std	User brakes 16 (std for 22)	
Push bar	Angle adj. push bar		
Seat cushion	Sw 30 Short/ Sw 30 Long	Sw 34 Short/ Sw 34 Long	No seat cushion
Backrest system	Flexi-back	Extra-short	Short
	Solid back	Extra-short	Short
Back cushion*	With wings	Flat	
Leg rests**	Centre	Standard	Short
	Separate	Standard	Short
Calf supports separate	Small	Large	No calf supports
Armrests	Standard	Low	Angle adjustable
Tyres	Puncture-free PU	Pneumatic	
Hand rims	Stainless steel	Soft grip (plastic coated)	
Camber angle	6° (n/a for model 16)	0°	

\* Length of back cushion matches with the backrest system, Extra-short / Short / Long.

\*\* Centre Leg rest is complemented with One-piece footrest or Foot box, Separate Leg rests with Separate Footrests. Further information is found in the Info Sheets 96901-1 and 96902-1.

**Table 3** - Settings that can be adjusted by the prescriber when testing the wheelchair

Seat	Width (fixed positions)	Depth*	
Back height	Via backrest system		
Back form (Flexi-back)	Adjusted to suit user		
Armrests	Height	Depth	Angle (only angle adjustable)
Leg rests Centre/Separate	Angle	Position*	
Calf supports	Height	Depth	Lateral position
Footrests One-piece/Sep.	Height	Angle	
Push bar	Angle		

\* Adjustment of seat depth is always done together with adjustment of the leg rest position.

## Further reading

**User Manual**  
doc nr 96701-1



**Measurement Table**  
doc nr 96719-1

**HD motion Measurement Table** Doc. nr 96719-1 Rev. B 2021-05-08 Page 1 (1)

All measurement apply to both HD Motion 22 and HD Motion 16.

Measurement to be taken, otherwise stated	Seat width 22"		Seat width 16"		Seat width 14"		Seat width 12"	
	Seat forward	Seat forward	Seat forward	Seat forward	Seat forward	Seat forward	Seat forward	Seat forward
Measurement to be taken:								
Seat width	517-521 (22)	492-500 (22)	433-443 (16)	413-419 (16)	357-366 (14)	341-349 (14)	311-319 (12)	297-304 (12)
Clear depth (with backrest)	210-214	186-193	158-162	142-146	144-148	130-134	122-126	108-112
Seat depth (with backrest)	513-519	493-500	433-440	413-420	357-364	341-348	311-318	297-304
Shoulder-to-shoulder width	462	462	424	424	386	386	348	348
Shoulder-to-elbow width	415	415	377	377	339	339	301	301
Shoulder-to-hip width	368	368	330	330	292	292	254	254
Shoulder-to-knee width	221	221	183	183	145	145	107	107
Shoulder-to-ankle width	174	174	136	136	98	98	60	60
Arms length (with backrest)	102	102	86	86	70	70	54	54
Arms length (without backrest)	128	128	112	112	96	96	80	80
Arms length (with backrest and plate)	102	102	86	86	70	70	54	54
Arms length (without backrest and plate)	128	128	112	112	96	96	80	80
Arms length (with backrest and plate)	102	102	86	86	70	70	54	54
Arms length (without backrest and plate)	128	128	112	112	96	96	80	80
Clear depth (with backrest)	131	131	115	115	99	99	83	83
Clear depth (without backrest)	157	157	141	141	125	125	109	109
Clear depth (with backrest and plate)	131	131	115	115	99	99	83	83
Clear depth (without backrest and plate)	157	157	141	141	125	125	109	109
Clear depth (with backrest and plate)	131	131	115	115	99	99	83	83
Clear depth (without backrest and plate)	157	157	141	141	125	125	109	109
Clear depth (with backrest)	131	131	115	115	99	99	83	83
Clear depth (without backrest)	157	157	141	141	125	125	109	109
Clear depth (with backrest and plate)	131	131	115	115	99	99	83	83
Clear depth (without backrest and plate)	157	157	141	141	125	125	109	109
Clear depth (with backrest)	131	131	115	115	99	99	83	83
Clear depth (without backrest)	157	157	141	141	125	125	109	109
Clear depth (with backrest and plate)	131	131	115	115	99	99	83	83
Clear depth (without backrest and plate)	157	157	141	141	125	125	109	109
Clear depth (with backrest)	131	131	115	115	99	99	83	83
Clear depth (without backrest)	157	157	141	141	125	125	109	109
Clear depth (with backrest and plate)	131	131	115	115	99	99	83	83
Clear depth (without backrest and plate)	157	157	141	141	125	125	109	109

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**Info Sheets**  
doc nr 96901-1 -



**Product Brochure**



**Prescription Form**  
doc nr 96750-1

**HD motion Prescription Form** Doc. nr 96750-1 Rev. B 2021-05-08 Page 1 (3)

**1. CHASSIS** Info Sheet 96719-1 (Chair)

**HD Motion 22 Manual wheelchair**

Seat width 22" Seat depth 20"

Qty available	Qty available	Change	Green
90 (20-20-20)	X Chair (20-20-20)	90619-1	90619-1
90 (20-20-20)	X Long (20-20-20)	90620-1	90620-1
90 (20-20-20)	X Chair (20-20-20)	90621-1	90621-1
90 (20-20-20)	X Long (20-20-20)	90622-1	90622-1

**HD Motion 16 Transport model**

Seat width 16" Seat depth 20"

Qty available	Qty available	Change	Green
90 (20-20-20)	X Chair (20-20-20)	90619-1	90619-1
90 (20-20-20)	X Long (20-20-20)	90620-1	90620-1
90 (20-20-20)	X Chair (20-20-20)	90621-1	90621-1
90 (20-20-20)	X Long (20-20-20)	90622-1	90622-1

**2. WHEELS** Info Sheet 96719-1 (Wheel)

Wheel width 16" Wheel depth 16" Wheel height 16"

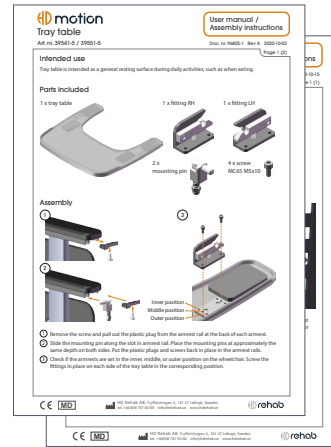
Qty available	Qty available	Change	Green
16 (16-16-16)	X Back	90619-1	90619-1
16 (16-16-16)	X Front	90620-1	90620-1
16 (16-16-16)	X Back	90621-1	90621-1
16 (16-16-16)	X Front	90622-1	90622-1

**3. ACCESSORIES** Info Sheet 96719-1 (Accessory)

Accessory 16" Accessory depth 16" Accessory height 16"

Qty available	Qty available	Change	Green
16 (16-16-16)	X Back	90619-1	90619-1
16 (16-16-16)	X Front	90620-1	90620-1
16 (16-16-16)	X Back	90621-1	90621-1
16 (16-16-16)	X Front	90622-1	90622-1

**Assembly Instructions**  
doc nr 96801-1 -



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