



Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

# User instruction for estimation of CABAS Caravan, Caravan Sweden in English

---



## Contents

1 General .....	3
1.1 About Repair Times.....	3
1.2 Setup times .....	3
1.3. Example of calculation of total calculation time .....	4
1.4 Appearance and designations of the parts.....	5
2 Body parts.....	9
2.1 Panel cladding.....	9
2.2 Panel cladding – Sandwich body.....	10
2.3 Doors.....	11
2.4 Windows and hatches.....	12
2.5 Mouldings and profile rails .....	12
2.6 Storage lockers.....	13
2.7 Externally mounted parts .....	13
2.8 External electrical installation.....	14
2.9 Floor plate.....	14
2.10 Chassis.....	15
3 Interior.....	17
4 Repair of textured panel using the HBC method .....	20
4.1 Included work stages .....	20
4.2 Timing .....	20
5 Change log .....	22



# 1 General

## 1.1 About Repair Times

The repair times in CABAS Caravan have been developed by the following organisations:

- Allianz-Zentrum Für Technik (AZT) der Allianz Versicherungs-AG
- Caravaning Industrie Verband e. V. (CIVD)
- Deutscher Caravan Handelsverband e. V. (DCHV)

The above organisations consider the system to be geared to reality and, in particular, suitable for price calculations in the event of repairs to damaged caravans. AZT has calculated and evaluated all information in accordance with REFA methods. These times are calculated averages and apply for the methods and materials currently employed in the renovation of caravan constructions.

The specified times are net times. This means that the complementary activities that are necessary for the work must be added separately unless it is explicitly stated that they are already included.

The times in the supporting data for CABAS Caravan have been carefully calculated, yet despite this the actual time taken may differ. This is particularly true when it comes to interior details, as there are so many different types of caravans.

If you discover extremely significant differences, please submit a Hotline to CAB Group AB, giving a brief description of the repair method and the actual repair time.

All times are specified in periods. 100 periods is 60 minutes.

## 1.2 Setup times

The table below shows the setup time per assignment (calculation) in periods.

Repair time	Setup time
0-243	50
244-610	100
611->	167

The setup time is for preparations (once per assignment) for the additional work that arises when repairing caravans due to the use of special platforms, press fixtures, etc.



Document name

User instruction for estimation of CABAS Caravan, Caravan Sweden in English

### 1.3. Example of calculation of total calculation time

Action: Replacement of rear wall after collision, 3 m<sup>2</sup>, sandwich body.

### Position 4 – Cladding, rear wall

REPLACEMENT – Rear panel, glued, supplied with foam – 3 m <sup>2</sup>	3 m <sup>2</sup> x 177 = 531
--	------------------------------

### Position 15 – Windows/Hatches

Dismantling/Installation – Window, opening, complete with rubber strip, 1 pcs	1 pcs x 98	= 98
---	------------	------

## Position 20 – Mouldings and profile rails

Dismantling/Installation – Moulding and profile rail with one screw channel – 4 m    4 m x 20    = 80

Cleaning – 4 m 4 m x 10 = 40

### Position 50 – Externally mounted parts

Dismantling/Installation – Ranging handle – 2 pcs 2 pcs x 17 = 34

Dismantling/Installation – Holder, number plate – 1 pcs	1 pcs x 15 = 15
---	-----------------

### Position 55 – External electrical installation

Dismantling/Installation – Tail lamp, external – 2 pcs 2 pcs x 17 = 34

**Repair time** = 832

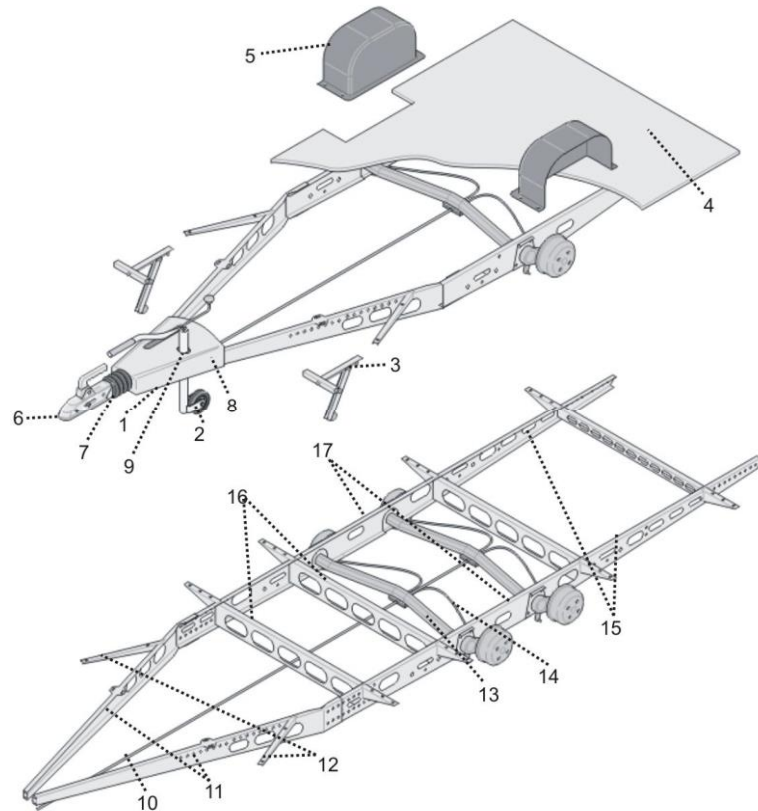
**Setup time according to setup time table (611->) = 167**

**Total working time for the repair job = 999**

## 1.4 Appearance and designations of the parts

### Chassis

- 1 Support wheel, complete
- 2 Support wheel
- 3 Support leg
- 4 Floor
- 5 Wheel arch
- 6 Ball coupling
- 7 Rubber boot
- 8 Overrun brake, complete
- 9 Holder for support wheel
- 10 Brake linkage
- 11 Draw gear
- 12 Body side support
- 13 Axle
- 14 Brake cable
- 15 Rear frame section
- 16 Cross member
- 17 Longitudinal member

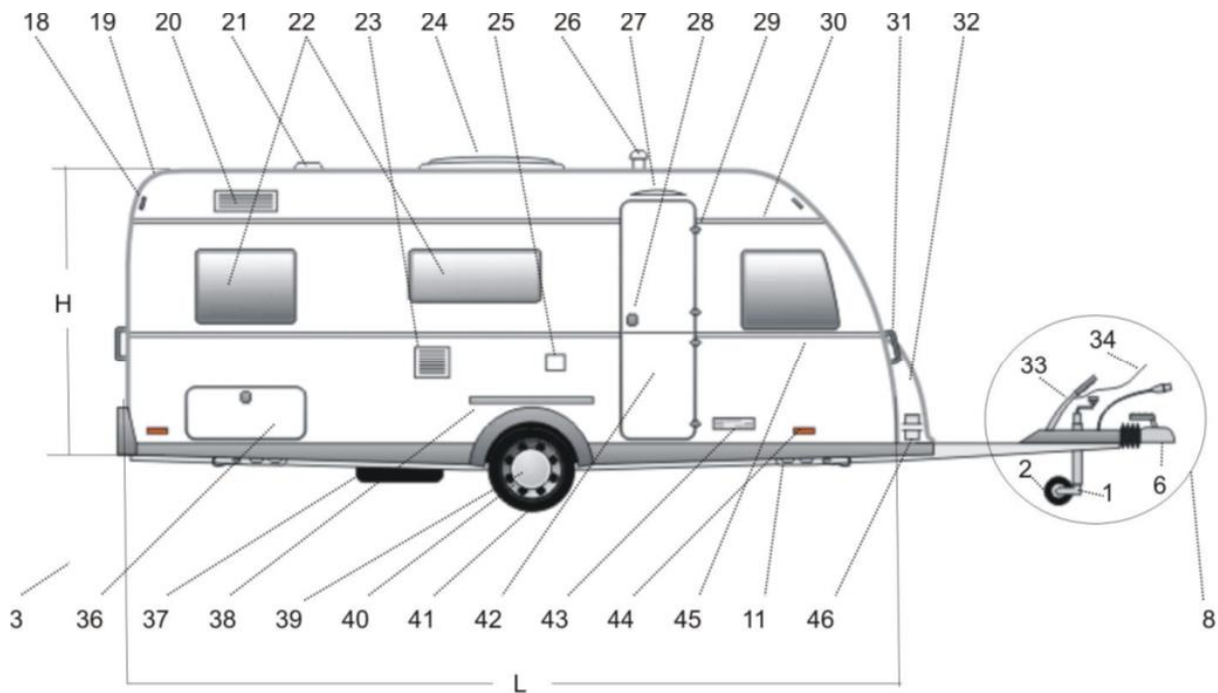


Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## External parts of the body

L = body length

H = body height

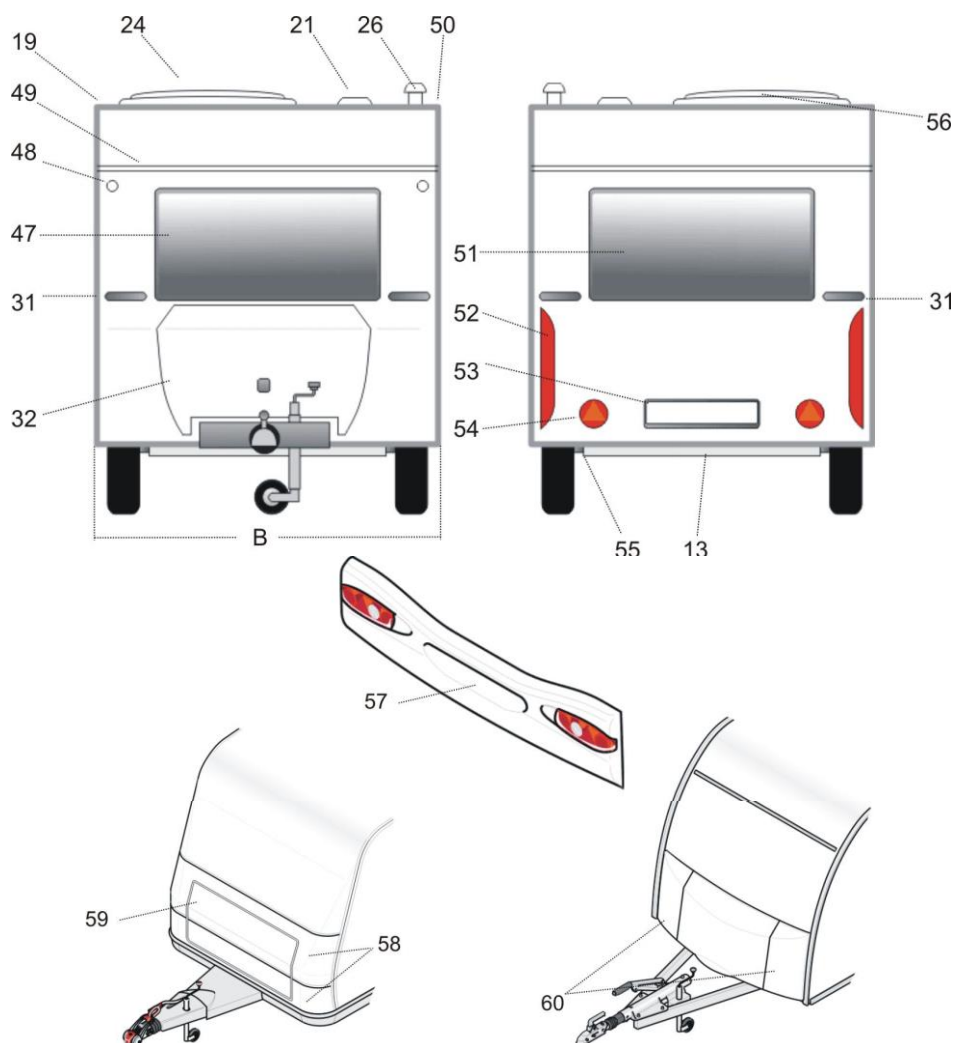


- |                            |   |
|----------------------------|---|
| 1 Support wheel, complete  | 30 Fastener rail for awning                       |
| 2 Support wheel            | 31 Ranging handle                                 |
| 3 Support leg              | 32 LPG box, separately installed                  |
| 6 Ball coupling            | 33 Parking brake                                  |
| 8 Overrun brake, complete  | 34 Safety line                                    |
| 11 Draw gear               | 35 Multipole connector                            |
| 18 Binding loop for awning | 36 Internal storage locker with service hatch     |
| 19 Awning rail             | 37 Spare wheel with holder                        |
| 20 Ventilation opening     | 38 Awning skirt moulding                          |
| 21 Roof valve              | 39 Hub cap  |
| 22 Side window             | 40 Steel rim                                      |
| 23 Air conditioning valve  | 41 Tyre   |
| 24 Roof hatch              | 42 Door, two-part: stable door or two-leaved door |
| 25 External power outlet   | 43 Manufacturer's plate                           |
| 26 Chimney                 | 44 Side reflector                                 |
| 27 Awning lighting         | 45 Moulding                                       |
| 28 Door lock               | 46 Chock  |
| 29 Door hinge              |   |

Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## External parts of the body

B = body width



13 Axle  
19 Awning rail

21 Roof valve  
24 Roof hatch  
26 Chimney  
31 Ranging handle  
32 LPG box, separately installed  
47 Front window

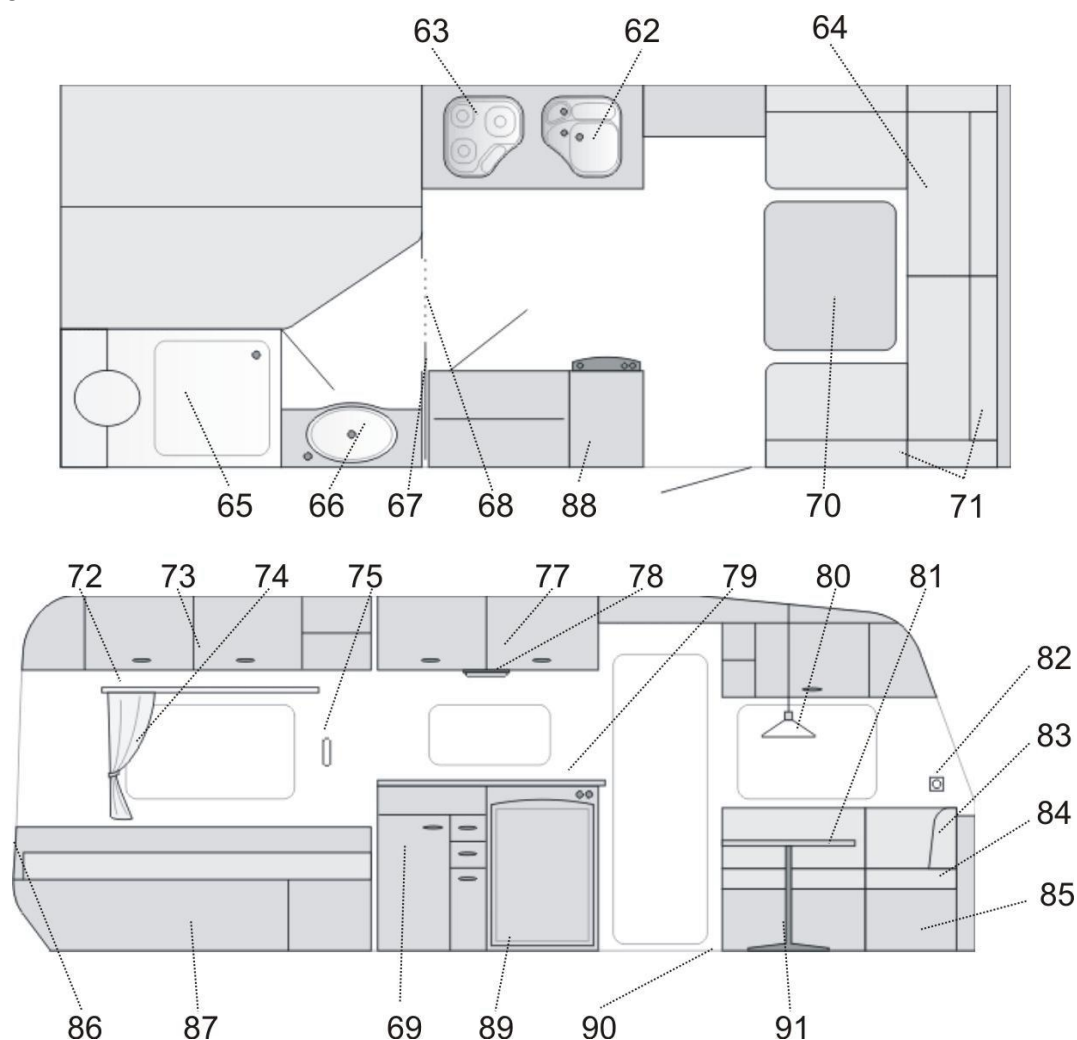
48 Position light  
49 Fastener rail for awning

50 Moulding

51 Rear window  
52 Rear lights: tail lamp, stop lamp, indicator, as well as number plate lighting (separate version allowed)  
53 Number plate holder  
54 Triangular reflector  
55 Shock absorber  
56 Mosquito net  
57 Rear lights  
58 Front wall with integrated LPG box (integrated up to the eaves)  
59 LPG box lid  
60 LPG box corner (integrated up to lower edge of the window)

Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## Interior



- |                               |   |
|-------------------------------|---|
| 62 Sink                       | 78 Wall/roof lamp                       |
| 63 Cooker                     | 79 Kitchen counter                      |
| 64 Seating group              | 80 Roof lamp                            |
| 65 WC area                    | 81 Tabletop                             |
| 66 Sink                       | 82 Wall outlet                          |
| 67 Inner wall                 | 83 Backrest                             |
| 68 Sliding door               | 84 Cushions                             |
| 69 Low level cabinet          | 85 Storage locker in bed                |
| 70 Table, complete            | 86 Circulation cover or winter backrest |
| 71 Trim                       | 87 Front of bed frame                   |
| 72 Curtain strip              | 88 Heating                              |
| 73 Storage locker in ceiling  | 89 Refrigerator                         |
| 74 Curtain                    | 90 Floor mat                            |
| 75 LPG lamp                   | 91 Table support                        |
| 77 Kitchen high-level cabinet |   |





## 2 Body parts

### 2.1 Panel cladding

#### Cladding, front wall – Position 1

The times only apply to replacing front walls.

	Time for replacement (periods)
Front panel, glued or supplied with foam, smooth or textured, time/m <sup>2</sup>	177
Front panel, not glued or supplied with foam, smooth or textured, time/m <sup>2</sup>	123

#### Cladding, roof – Position 2

The times only apply to replacing roof panels. The times are based on an average roof width and a rounded roof (front and rear).

##### Glued or supplied with foam, smooth or textured panel

	Time for replacement (periods)
Roof panel, glued or supplied with foam, 2-3 m	725
Roof panel, glued or supplied with foam, 3-4 m	1017
Roof panel, glued or supplied with foam, 4-5 m	1307
Roof panel, glued or supplied with foam, 5-6 m	1598
Roof panel, glued or supplied with foam, 6-7 m	1888
Roof panel, glued or supplied with foam, 7-8 m	2180
Roof panel, glued or supplied with foam, 8-9 m	2470

##### Not glued or supplied with foam, smooth or textured panel

	Time for replacement (periods)
Roof panel, not glued or supplied with foam, 2-3 m	515
Roof panel, not glued or supplied with foam, 3-4 m	720
Roof panel, not glued or supplied with foam, 4-5 m	925
Roof panel, not glued or supplied with foam, 5-6 m	1130
Roof panel, not glued or supplied with foam, 6-7 m	1337
Roof panel, not glued or supplied with foam, 7-8 m	1543
Roof panel, not glued or supplied with foam, 8-9 m	1748



### Cladding, side wall – Position 3

The times only apply to replacing side walls.

	Time for replacement (periods)
Side panel, glued or supplied with foam, smooth or textured, time/m <sup>2</sup>	177
Side panel, not glued or supplied with foam, smooth or textured, time/m <sup>2</sup>	123

### Cladding, rear wall – Position 4

The times only apply to replacing rear walls.

	Time for replacement (periods)
Rear panel, glued or supplied with foam, smooth or textured, time/m <sup>2</sup>	177
Rear panel, not glued or supplied with foam, smooth or textured, time/m <sup>2</sup>	123

## 2.2 Panel cladding – Sandwich body

### Front wall, sandwich body – Position 10

The principal work includes dismantling the wall, preparing a new wall, alignment and installation. Excluding dismantling/installation of parts on the inside and outside.

	Time for replacement (periods)
Front wall, sandwich	250
Front wall, sandwich, in conjunction with replacing a side wall	188

### Roof, sandwich body – Position 11

The principal work includes dismantling the roof, preparing a new roof, alignment and installation. Excluding dismantling/installation of parts on the inside and outside.

	Time for replacement (periods)
Roof, sandwich, 2-3 m	843
Roof, sandwich, 3-4 m	880
Roof, sandwich, 4-5 m	917
Roof, sandwich, 5-6 m	953
Roof, sandwich, 6-7 m	990
Roof, sandwich, 7-8 m	1027
Roof, sandwich, 8-9 m	1063



## Side wall, sandwich body – Position 12

The principal work includes dismantling the wall, preparing a new wall, alignment and installation.  
Excluding dismantling/installation of parts on the inside and outside.

	Time for replacement (periods)
Side wall, sandwich, 2-3 m	745
Side wall, sandwich, 3-4 m	777
Side wall, sandwich, 4-5 m	817
Side wall, sandwich, 5-6 m	853
Side wall, sandwich, 6-7 m	890
Side wall, sandwich, 7-8 m	927
Side wall, sandwich, 8-9 m	963

The specified times for body lengths measuring 4-6 m have been produced by timing in accordance with REFA guidelines. The times for longer or shorter bodies are estimated on the basis of these times. There are several different construction solutions at the joint between the side wall and the roof. In the case of a conventional roof construction (loosely placed panel), the side wall's brackets/screws are located under the roof panel. In this case, the roof panel and associated mouldings, hatches and windows must be dismantled before the side wall can be dismantled. In the case of sandwich constructions (glued panel), the side wall is screwed solely through the roof panel.

## Rear wall, sandwich body – Position 13

The principal work includes dismantling the wall, preparing a new wall, alignment and installation. Excluding dismantling/installation of parts on the inside and outside.

	Time for replacement (periods)
Rear wall, sandwich	250
Rear wall, sandwich, in conjunction with replacing a side wall	188

## 2.3 Doors

### Doors – Position 14

	Time for dismantling/installation (periods)	Time for replacement (periods)
Door, split	7	7
Door frame	127	183
Lock, door	12	12
Door stop, door	8	8
Moulding and profile rail – clean, time/m	10	10



Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## 2.4 Windows and hatches

### Windows/Hatches – Position 15

	Time for dismantling/installation (periods)	Time for replacement (periods)
Window, fixed, complete with rubber strip, up to 1 m	57	57
Window, fixed, complete with rubber strip, from 1 m	68	68
Window, opening, complete with rubber strip, up to 1 m	98	98
Window, opening, complete with rubber strip, from 1 m	163	163
Window, opening, complete with frame, up to 1 m	135	135
Window, opening, complete with frame, from 1 m	202	202
Window, opening, window only	20	20
Weatherstrip, window, opening, up to 1 m	58	58
Weatherstrip, window, opening, from 1 m	75	75
Roof hatch, opening, up to 500x500 mm	52	52
Roof hatch, opening, from 500x500 mm	62	62
Roof hatch, crank operated, up to 500x500 mm	52	52
Roof hatch, crank operated, from 500x500 mm	160	160
Sunroof	12	12
Locking fitting, roof hatch	7	7
Opening device, roof hatch	7	7
Moulding and profile rail – clean, time/m	10	10

## 2.5 Mouldings and profile rails

### Mouldings and profile rails – Position 20

	Time for dismantling/installation (periods)	Time for replacement (periods)
Moulding and profile rail, with 1 screw channel, time/m	20	30
Moulding and profile rail, with 2 screw channels, time/m	30	40
Moulding and profile rail, with 3 screw channels, time/m	40	57
Moulding and profile rail – clean, time/m	10	10
Moulding and profile rail, glued, time/m	58	67



Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## 2.6 Storage lockers

### Storage lockers – Position 21

	Time for dismantling/installation (periods)	Time for replacement (periods)
LPG box, separately installed	44	44
LPG box, side or bottom section, integrated up to the lower edge of the window. Excluding mouldings and installed parts.	120	178
LPG box, with integrated front wall up to eaves. Excluding mouldings and installed parts.	278	417
Floor, LPG box, permanently integrated	90	135
Lid, LPG box, integrated with hinges	20	20
Grille, LPG box, integrated	18	18
Bottle holder	12	12
Frame, storage locker, internal	65	98
Hatch, storage locker (service hatch)	17	17
Lock, LPG box	10	10
Lock, storage locker (service hatch)	10	10

## 2.7 Externally mounted parts

### Externally mounted parts – Position 50

	Time for dismantling/installation (periods)	Time for replacement (periods)
Ranging handle	17	17
Binding loop for awning	3	3
Grating plate	17	17
Reflector	7	7
Reflector, triangular	7	7
Reflector, triangular, with holder	3	3
Holder, number plate	15	15
Number plate	6	6
Number plate lighting, 1 pcs	8	8
Hub cap, metal rim, single axle, all	22	22
Hub cap, metal rim, tandem axle, all	35	35
Roof valve	25	25
Roof valve, with fan	38	38
Exhaust pipe	20	20
Antenna, radio	27	27
TV antenna, internal, including function control	62	62
TV antenna, external, including function control	50	50
Covers, side wall, time/m	75	75
Bumper with tail lamps	217	217
Cover strip, corner pillar	75	75
Holder cover, extra stop lamp	67	67



## 2.8 External electrical installation

### External electrical installation – Position 55

	Time for dismantling/installation (periods)	Time for replacement (periods)
Tail lamp, external	17	25
Tail lamp, recessed	7	10
Tail lamps with rear lights, without mouldings	68	68
Position lamp	12	12
Lighting, external, for awning	30	30
External power outlet, Euro standard 230V	37	37

## 2.9 Floor plate

### Floor plate – Position 70

#### Complete floor plate

The principal work includes dismantling the floor plate, preparing a new floor plate, alignment and installation, replacing the floor mat. Excluding dismantling/installation of parts on the inside and outside.

	Time for replacement (periods)
Floor plate, complete, 2-3 m	890
Floor plate, complete, 3-4 m	927
Floor plate, complete, 4-5 m	963
Floor plate, complete, 5-6 m	1000
Floor plate, complete, 6-7 m	1037
Floor plate, complete, 7-8 m	1073
Floor plate, complete, 8-9 m	1110



## Part of floor plate

The work includes cutting off the floor plate, preparing a new replacement section, alignment and installation, partial replacement of the floor mat. Excluding dismantling/installation of parts on the inside and outside.

	Time for replacement (periods)
Floor plate, partial, time/m <sup>2</sup>	392

## Wheel arch

	Time for replacement (periods)
Wheel arch, single axle	138
Wheel arch, tandem axle	210

## 2.10 Chassis

### Chassis parts – Position 75

#### Chassis installed

	Time for dismantling/installation (periods)	Time for replacement (periods)
Support wheel, complete	3	3
Holder, support wheel, screwed	17	17
Holder, support wheel, welded	52	52
Support wheel	8	8
Wheel	13	
Ball coupling	12	12
Rubber boot, ball coupling	12	12
Brake linkage, complete, time/axle	48	48
Overrun damper	45	45
Overrun brake, complete	110	110
Support leg, screwed	17	17
Support leg, welded	52	52
Support leg – raising or lowering	3	3
Bracket, support leg	12	12
Draw gear, left or right section	65	65
Draw gear, including right and left frame section	140	140
Frame, rear section	92	92
Wheel axle, time/pcs	117	117
Brake cable, brake linkage, undo, time/pcs	22	
Brakes, adjust	32	
Chassis, complete (from the caravan)	298	298



Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

### Chassis, dismantled

	Time for dismantling/installation (periods)	Time for replacement (periods)
Draw gear, left or right section	20	20
Frame section, left or right, axle mounted	48	48
Wheel axle, time/pcs	43	43
Brake cable, brake linkage, undo, time/pcs	22	
Body support	7	7
Holder, chock	8	8
Brake pads, time/wheel	45	45
Shock absorber	8	8





Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## 3 Interior

### Kitchen area – Position 30

	Time for dismantling/installation (periods)	Time for replacement (periods)
Kitchen counter, 2-part	20	30
Sink with cooker	77	117
Cooker burner, time/pcs	28	38
Refrigerator	83	123
Cooker hood	40	68
Cooker fan	28	38
Kitchen side	18	28
Kitchen module, lower section, wooden parts only, approx. 100 cm wide	95	147
Kitchen high-level cabinet, wooden parts only, approx. 100 cm wide	55	82
Kitchen module, complete, approx. 100 cm wide	437	655
Cable harness, kitchen area	77	117

### WC area – Position 34

	Time for dismantling/installation (periods)	Time for replacement (periods)
WC door, 3 hinges	17	25
Glass, WC lamp	7	7
Socket, WC lamp	38	57
WC mirror	17	25
Mirror cabinet, WC, 2-part	55	82
Mirror cabinet, WC, 3-part	80	118
Mirror cabinet, WC, with lighting	108	160
Sink, folding, with tap	57	85
Shower cubicle, loose	55	82
Shower cubicle, fixed	92	137
Interior, WC, complete	303	453
Wall, WC area, side	53	80
Wall, WC area, front	52	75
Supply line, water & electricity	38	57

### Sliding doors – Position 38

	Time for dismantling/installation (periods)	Time for replacement (periods)
Sliding door	28	43
Rail, sliding door	28	43



Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## Textiles – Position 40

	Time for dismantling/installation (periods)	Time for replacement (periods)
Cassette roller blind, up to 1 m	10	15
Cassette roller blind, over 1 m	17	25
Roller blind, in cassette, up to 1 m	30	30
Roller blind, in cassette, over 1 m	37	37
Roller blind, with angle brackets	10	15
Roller blind, without angle brackets	3	3
Cushions, seating group (front and rear)	8	8
Curtain, time/m	13	25
Curtain, time/m	13	25

## Interior, other – Position 45

	Time for dismantling/installation (periods)	Time for replacement (periods)
Shelf, general, time/m	18	28
Storage locker in bed, time/m	33	48
Storage locker in sofa, time/m	33	48
Storage locker in ceiling, time/m	45	67
Interior trim in rounded roof	40	62
Corner cabinet for TV, complete	102	153
Bed, single bed (bed frame including bed base)	18	27
Bed, fold-out	83	127
Bed base for single bed (including dismantling/installation of bed)	36	54
Wardrobe, complete, approx. 60 cm wide	157	233
Wardrobe door, 2 hinges	8	12
Wardrobe wall	15	20
Bedside table	22	33
Snap lock, door/hatch	10	15
Mirror	7	10
Inner wall	40	62
Curtain rail	15	22
Circulation cover, winter backrest, time/m	10	17



Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## Internal electrical installation – Position 56

	Time for dismantling/installation (periods)	Time for replacement (periods)
Roof lamp, suspended	3	7
Roof lamp, outside position	17	25
Bed lamp, standalone	18	28
Gas lamp	18	28

## Heating system – Position 65

	Time for dismantling/installation (periods)	Time for replacement (periods)
Heating system, complete	98	147
Chimney	12	18
LPG system – control	62	



## 4 Repair of textured panel using the HBC method

Dents and holes in the panel cladding can be repaired in a professional manner using the HBC method, without the need to replace the panel. The repair makes use of the fact that the textured pattern can be copied, as it repeats itself every approx. 20-35 cm.

### 4.1 Included work stages

- Sand and remove the paint from the damaged area
- Sand the area around the damage
- Tap in projecting sections around the damage
- Seal any holes that go right through
- Fill the damage with putty
- Locate an undamaged area with the same textured pattern
- Make an imprint of the undamaged textured pattern
- Transfer the textured pattern imprint to the damaged section
- Apply liquid putty under the imprint with a vacuum
- Remove the surplus liquid putty and sand the edges
- Apply primer to the repair site
- Paint (not included in the timing)

### 4.2 Timing

#### Preconditions

- The timing assumes that the repair site is easily accessible. Any dismantling and reassembly must be timed separately.
- The repair time includes the work stages up to and including the application of primer. Painting work must be timed separately.
- Moving vehicles in the workshop or transport costs are not included.
- Multiple instances of damage to the same part are counted as separate instances of damage.

#### Repair time

##### Dents

Repair time in periods:  $t = 100 + (\text{diameter of damage in cm} \times 10)$

##### Rips/Scratches

Repair time in periods:  $t = 100 + (\text{length of damage in cm} \times 10)$



## Calculation examples

### Dent, 2 cm in diameter

Repair time:  $100 + (2 \text{ cm} \times 10) = 120$  periods

### Rip, 28 cm long

Repair time:  $100 + (28 \text{ cm} \times 10) = 380$  periods



Document name  
User instruction for estimation of CABAS Caravan, Caravan Sweden in  
English

## 5 Change log

Document	Version	Date	Change	Issued by
CABNET-904420094-1110	1.0	06/03/2023	Translated from Swedish instruction CABNET-904420094-200 (version 2.0)	Jonas Hultman