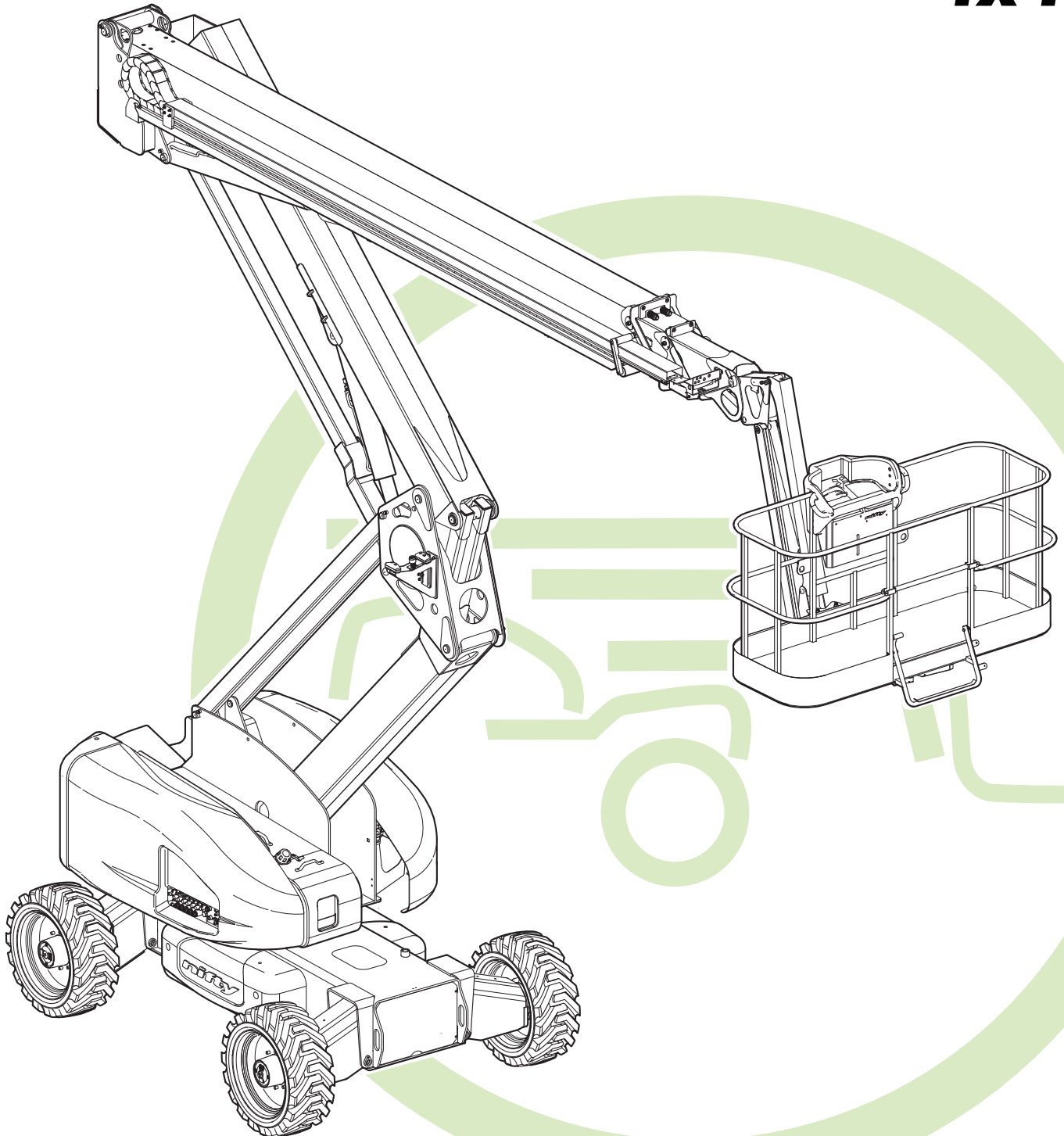




nifty

HR28 SP85 **4x4**



niftylift.com

M50440/04



Issue 4
(March 2016)

illustrated parts manual

Manuel illustré de pièces détachées

Illustrierte Stückliste

Manual de piezas ilustrado

Please Note, at the time of going to press, all information, illustrations details and descriptions contained herein are valid. Niftylift reserves the right to change, alter, modify or improve its products without any obligation to install them on previously manufactured machines.

Readers of this manual requiring further information should contact us at:

Niftylift Ltd.
Fingle Drive
Stonebridge
Milton Keynes
MK13 OER
United Kingdom

Niftylift Inc.
1525 S.Buncombe Road
Greer
SC 29651
USA

Tel +44 (0)1908 857899
Fax +44 (0)1908 227460

1 864 968 8881
1 864 968 8836

Ordering of Parts

When ordering a replacement part for your Niftylift product, please state the following:

- Machine Model and Serial number Niftylift Part number
- Full description of the part Quantity required
- Purchase Order number Destination address

Machine Information

Model number. Date of Purchase

Serial number

Veuillez noter qu'au moment de la mise sous presse, l'ensemble des informations, illustrations, détails et descriptions, contenus dans le présent document, sont valides. Niftylift se réserve le droit de changer ou d'améliorer ses produits sans obligation de montage sur les anciennes machines.

Pour toutes informations supplémentaires, veuillez nous contacter à:

Niftylift Ltd.
Fingle Drive
Stonebridge
Milton Keynes
MK13 OER
United Kingdom

Niftylift Inc.
1525 S.Buncombe Road
Greer
SC 29651
USA

Tel +44 (0)1908 857899
Fax +44 (0)1908 227460

1 864 968 8881
1 864 968 8836

Commande de pièces

Lors de la commande de pièces de rechange pour votre machine Niftylift, veuillez indiquer ce qui suit:

- Modèle et numéro de série de la machine Référence de la pièce Niftylift
- Description complète de la pièce Quantité requise
- Numéro de commande Adresse de destination

Informations relatives à la machine

Numéro de modèle Date d'achat

Numéro de série



Bitte nehmen Sie zur Kenntnis, dass alle hierin enthaltenen Informationen, Illustrationen und Beschreibungen zum Zeitpunkt des Drucks gültig sind. Niftylift behält sich das Recht vor, Produkte zu wechseln, ändern, modifizieren und zu verbessern, ohne verpflichtet zu sein, sie an früher gefertigten Maschinen zu installieren.

Wenn Leser dieser Anleitung weitere Informationen benötigen, wenden sie sich bitte an uns unter:

Niftylift Ltd.
Fingle Drive
Stonebridge
Milton Keynes
MK13 OER
Großbritannien

Niftylift Inc.
1525 S.Buncombe Road
Greer
SC 29651
USA

Tel +44 (0)1908 857899
 Fax +44 (0)1908 227460

1 864 968 8881
 1 864 968 8836

Bestellen von Ersatzteilen

Bei der Bestellung eines Ersatzteils für Ihr Produkt von Niftylift geben Sie bitte folgende Einzelheiten an:

- | | |
|---------------------------------------|---------------------|
| • Maschinenmodell und Seriennummer | Niftylift Art.-Nr. |
| • Ausführliche Beschreibung des Teils | Erforderliche Menge |
| • Bestellnummer | Bestimmungsadresse |

Maschineninformationen

Modellnummer Kaufdatum.
 Seriennummer.

Por favor, observe que en el momento de pasar a imprenta, toda la información, ilustraciones y descripciones contenidas en el presente documento eran válidas. Niftylift se reserva el derecho de cambiar, alterar, modificar o mejorar sus productos, sin obligación alguna de instalar dichos cambios en máquinas fabricadas anteriormente.

Los usuarios de este manual que requieran más información, deberán ponerse en contacto con nosotros en:

Niftylift Ltd.
Fingle Drive
Stonebridge
Milton Keynes
MK13 OER
United Kingdom

Niftylift Inc.
1525 S.Buncombe Road
Greer
SC 29651
USA

Tel +44 (0)1908 857899
 Fax +44 (0)1908 227460

1 864 968 8881
 1 864 968 8836

Pedido de piezas

Al realizar el pedido de una pieza de recambio para su producto Niftylift, sírvase especificar lo siguiente:

- | | |
|--|---------------------------|
| • Modelo y número de serie de la máquina | Número de pieza Niftylift |
| • Descripción completa de la pieza | Cantidad requerida |
| • Número de orden de compra | Dirección de destino |

Información de la máquina

Número de modelo Fecha de compra
 Número de serie



Parts Order Form (make copies for use)

niftylift**Bon de commande de pièces** (Faire des photocopies pour vos commandes ultérieures)

tel +44 (0)1908 857899

Bestellformular für Ersatzteile (bitte Kopien zur zukünftigen Verwendung machen)

fax +44 (0)1908 227460

Impreso de pedido de piezas (haga copias para el uso)

www.niftylift.com

name nom name nombre**date** date datum fecha**address** adresse adresse dirección

delivery address

adresse de livraison

lieferadresse

dirección de entrega

telephone téléphone tel.-Nr. teléfono**fax** fax-Nr.**email** e-mail**purchase order number**

numéro de commande

bestellnummer

número de orden de compra

Part Number Référence pièce Art.-Nr. Número de pieza	description description beschreibung descripción	quantity quantité menge cantidad	price prix preis precio
P			
P			
P			
P			
P			
P			
P			
P			

Note: If items have decals/labels attached, these are **not included** (unless stated otherwise), they must be ordered separately using the part (P) number printed on the decal.

Remarque : si les composants sont dotés d'autocollants/étiquettes, ceux-ci **ne sont pas inclus** (sauf avis contraire). Ils doivent être commandés séparément en indiquant le numéro de référence (P) imprimé sur l'autocollant.

Anmerkung: Wenn an Gegenständen Klebebilder/Etiketten angebracht sind, sind diese (sofern nicht anders angegeben) **nicht enthalten** und müssen separat mit Hilfe der auf den Klebebildern abgedruckten Teilenummern (P) bestellt werden.

Nota: Si los artículos llevan acopladas calcomanías/etiquetas, éstas **no se incluirán** (a menos que se indique lo contrario); deberán pedirse por separado utilizando el número de pieza (P) impreso en la calcomanía.

Alternatively, details of your order can be emailed to **service@niftylift.com**

Alternativement, le détail de votre commande peut nous être envoyé par email à **service@niftylift.com**

Als Alternative können Sie Ihre Bestellung auch an **service@niftylift.com** senden

Alternativamente, los detalles de su pedido pueden enviarse por e-mail a **service@niftylift.com**

1

chassis

page

1.1	base assembly	1-2
1.2	axle assembly (rear)	1-8
1.3	valve block - suspension	1-10

2

superstructure

page

2.1	superstructure assembly - hybrid (control side)	2-2
2.2	superstructure assembly - diesel (control side)	2-8
2.3	superstructure assembly - hybrid (engine side)	2-12
2.4	superstructure assembly - diesel (engine side)	2-14
2.5	diesel engine assembly (hybrid)	2-18
2.6	diesel engine assembly (diesel)	2-20
2.7	base controls assembly	2-22
2.8	engine box assembly (hybrid)	2-26
2.9	engine box assembly (diesel)	2-28
2.10	charger inlet assembly (hybrid)	2-30
2.11	generator assembly (option)	2-32

3

boom assemblies

page

3.1	links assembly	3-2
3.2	telescope assembly (part 1)	3-6
3.3	telescope assembly (part 2)	3-10
3.4	lift and luffing cylinders	3-14
3.5	levelling cylinder	3-16
3.6	energy chain	3-18

4

cage and flyboom

page

4.1	cage assembly	4-2
4.2	cage console assembly	4-4
4.3	SiOPS™ assembly	4-6
4.4	cage rotate assembly	4-8
4.5	flyboom assembly	4-10
4.6	flyboom cylinder	4-12
4.7	control panel assembly	4-14

5

labelling

page

5.1	label locations	5-2
-----	-----------------------	-----

Figures

page

1.1	base assembly	1-3
1.2	axle assembly (rear)	1-9
1.3	suspension valve block	1-21
2.1	superstructure assembly - hybrid (control)	2-3
2.2	superstructure assembly - diesel (control)	2-9
2.3	superstructure assembly - hybrid (engine)	2-13
2.4	superstructure assembly - diesel (engine)	2-15
2.5	diesel engine (hybrid)	2-19
2.6	diesel engine (diesel)	2-21
2.7	base controls assembly	2-23
2.8	engine box assembly (hybrid)	2-27
2.9	engine box assembly (diesel)	2-29
2.10	charger inlet assembly	2-31
2.11	generator assembly	2-33
3.1	links assembly	3-3
3.2	telescope assembly (part 1)	3-7
3.3	telescope assembly (part 2)	3-11
3.4	lift and luffing cylinders	3-15
3.5	levelling cylinder	3-17
3.6	energy chain	3-19
4.1	cage assembly	4-3
4.2	cage console assembly	4-5
4.3	SiOPS™ assembly	4-7
4.4	cage rotate assembly	4-9
4.5	flyboom assembly	4-11
4.6	flyboom cylinder	4-13
4.7	control panel assembly	4-15
5.1	label locations	5-10
5.2	labels (1-31)	5-11
5.3	labels (32-44)	5-12

table des matières
inhaltsverzeichnis
tabla del contenido

contents

vii

Issue Records

Chapter	Pages	Issue	Date	Comments/Changes
Introduction	8	4	03/2016	Fourth issue
1	12	2	02/2015	Revision on pages 1-2/3
2	34	4	03/2016	Revisions on pages 2-2 to 2-16
3	20	3	03/2016	Third issue
4	16	3	02/2015	Revisions on pages 4-2/3
5	12	2	02/2015	Second issue

* When ordering parts for machines other than the stated serial number, it is advisable to contact the Parts Department;

	United Kingdom	USA
<i>tel</i>	+44 (0)1908 857899	1 864 968 8881
<i>fax</i>	+44 (0)1908 227460	1 864 968 8836
<i>email</i>	service@nifylift.com	niftyusa@niftylift.com



nifty



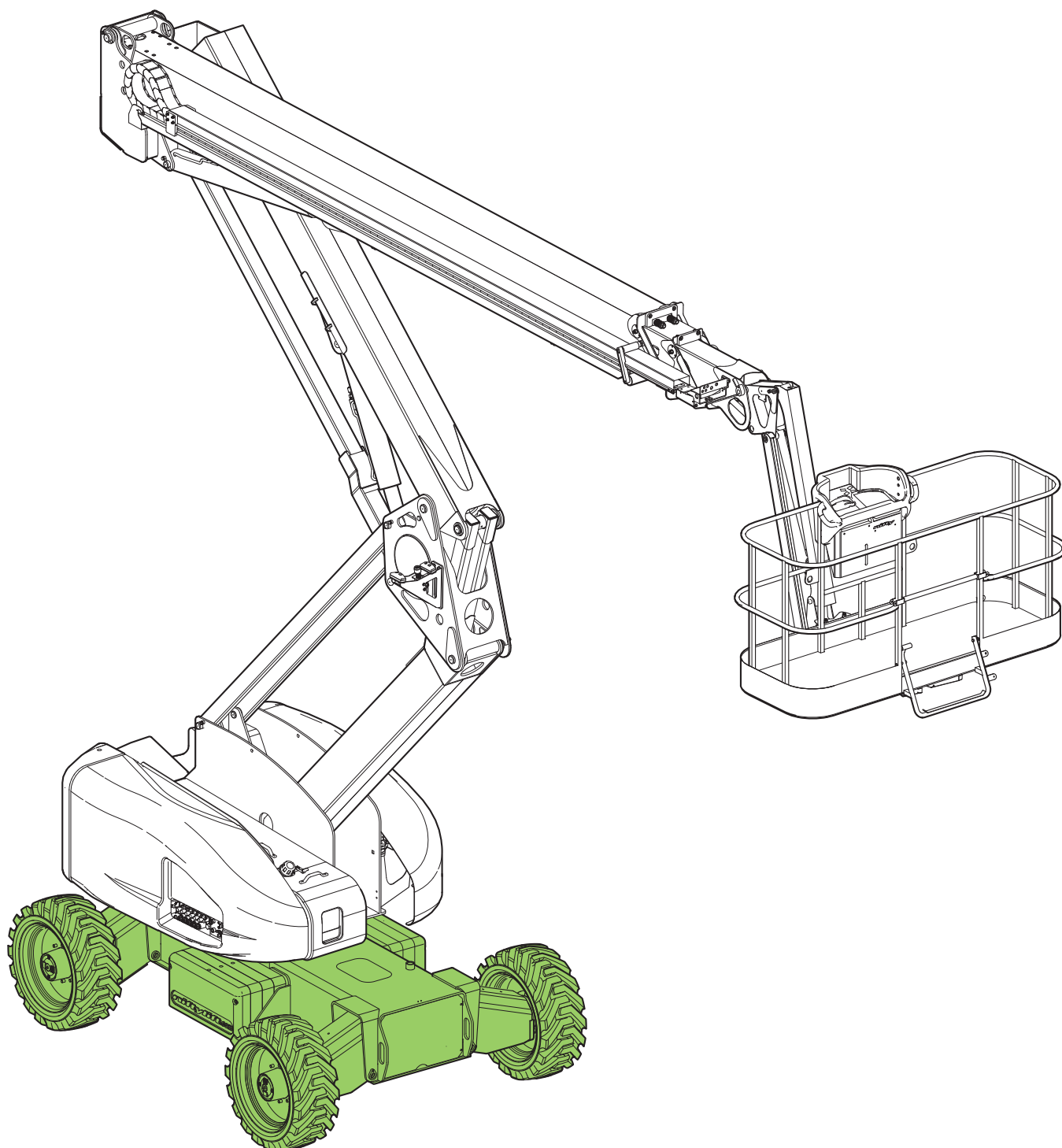
HR28 (SP85)

illustrated parts manual

Manuel illustré de pièces détachées

Illustrierte Stückliste

Manual de piezas ilustrado



1

chassis assembly

french
german
spanish

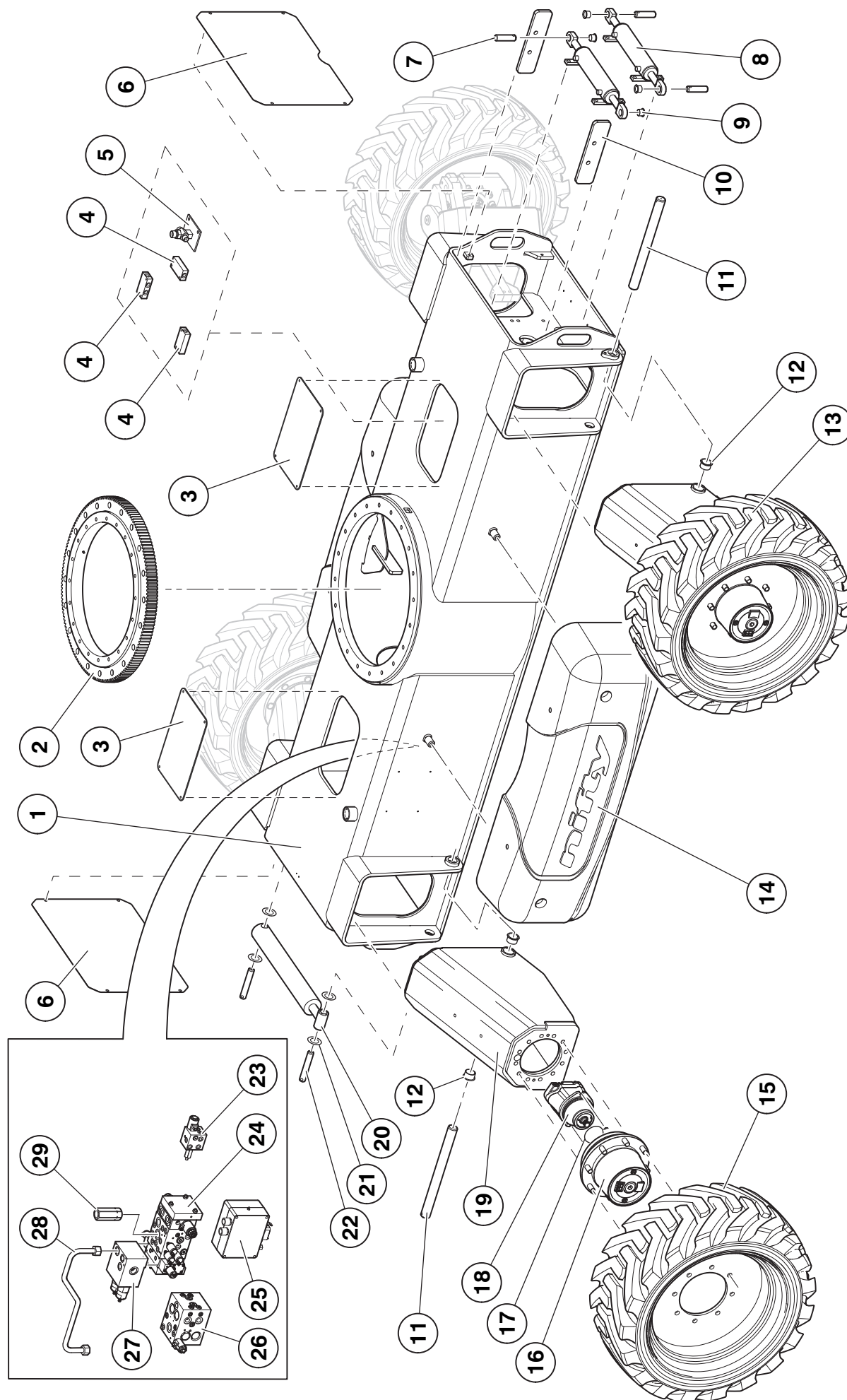
1.1 base assembly

Item	Description	Part Number			
1	Base fabrication				P20345
2	Slew ring				P22247
3	Access cover				P22010
4	Manifold - 4 way				P24950
5	T-Piece				P25951
6	Cover, Base end				P26080
7	Pin - 94mm				P12953
8	Cylinder				P12167
9	Bush				P12250
10	Retaining plate				P24649
11	Pin - 455mm				P23002
12	Buah				P12528
13	Front axle assembly See "axle assembly (front)" on page 1-6.				N/A
14	Ballast weight				P25782
15	Wheel & tyre Non-marking				P24751 P25214
16	Gearbox				P22524
17	Seal Seal - Brake port *				P24120 P24119
18	Motor (Rear)				P24813
19	Axle (Rear)				P24607
20	Suspension cylinder Seal kit *				P25005 P26182
21	Washer				P10035
22	Pin - 158mm				P17424

* Not illustrated

french
german
spanish

chassis assembly



french
german
spanish

chassis assembly

1-3

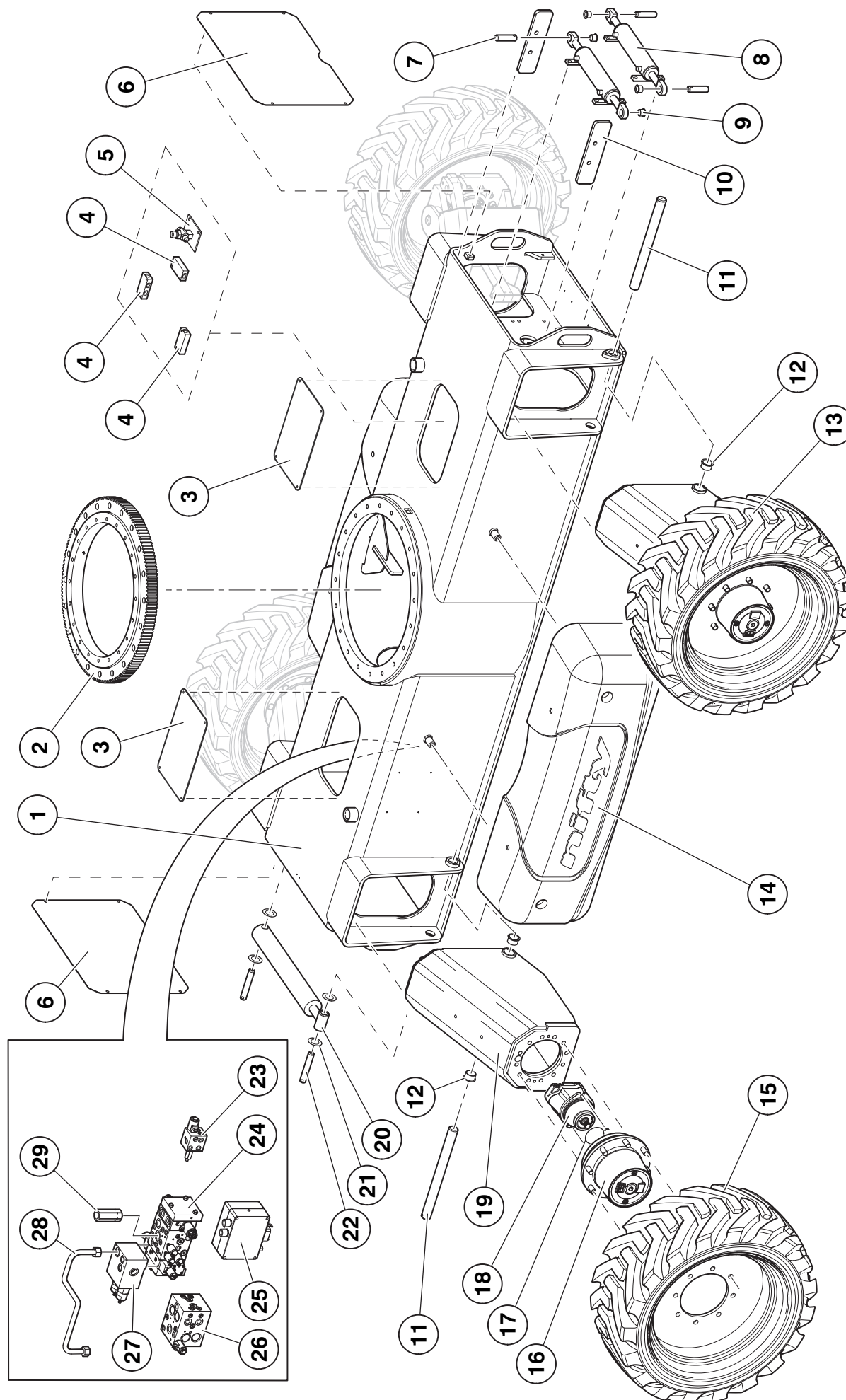
Figure 1.1 Base assembly

1.1 continued

Item	Description				Part Number
23	Valve - Suspension See "suspension valve block" on page 1-8.				P23447
24	Main Drive Valve				P28571
25	Chassis box assy.				P24499
26	Valve - 4WD				P22538
27	Valve - Motion control				P24946
28	Tube - Diff lock				P26014
29	Non-return valve (1")				P24987

french
german
spanish

chassis assembly



french
german
spanish

chassis assembly

1-5

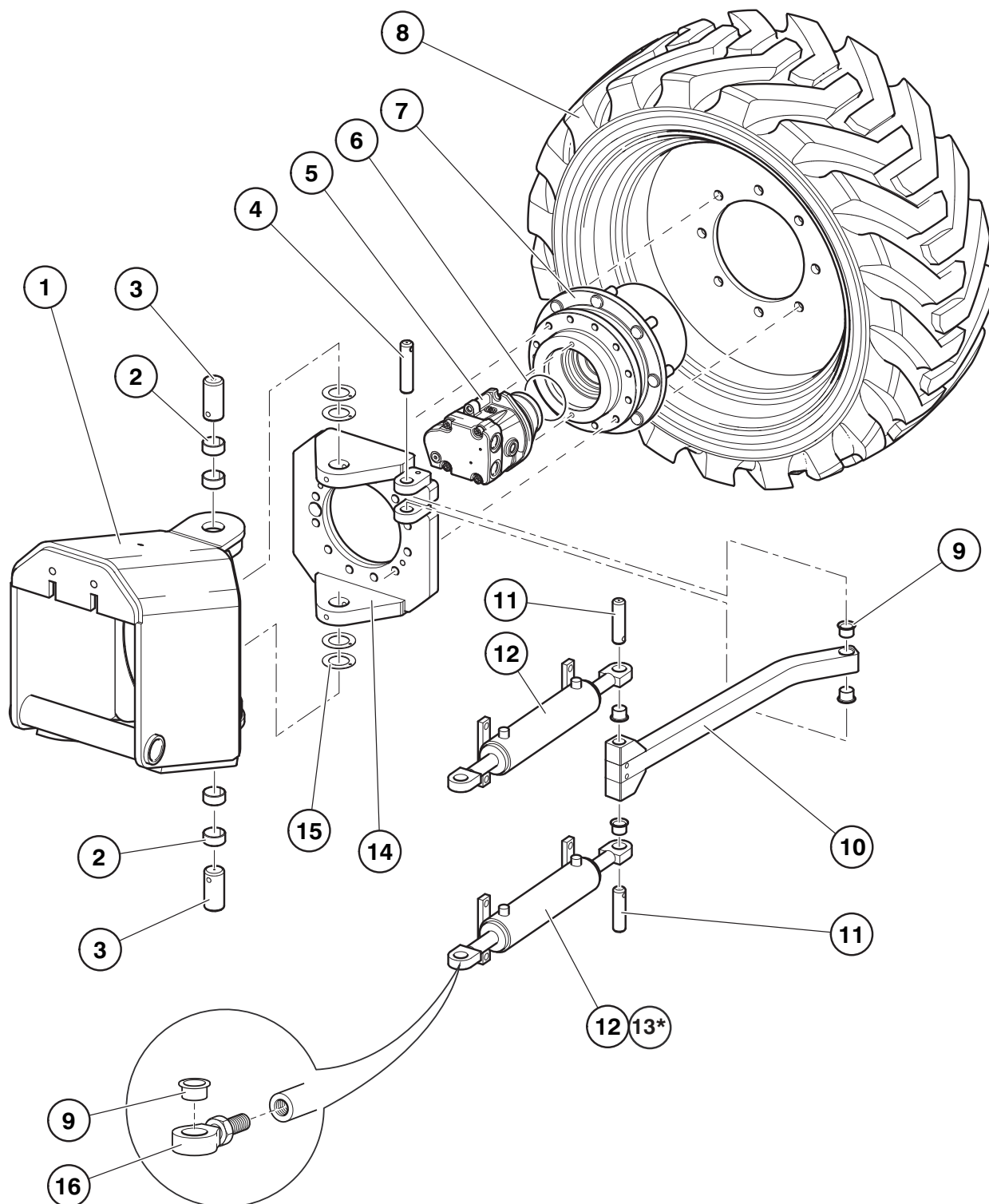
1.2 axle assembly (front)

Item	Description	Part Number			
1	Axle, Steer				P25259
2	Bush				P19648
3	Pin - 85mm				P25446
4	Pin - 110mm				P13157
5	Motor				P22261
6	Seal Seal - Brake port *				P24120 P24119
7	Gearbox				P22524
8	Wheel & tyre Non-marking *				P24751 P25214
9	Bush				P12250
10	Track rod				P22918
11	Pin - 94mm				P12953
12	Cylinder				P12167
13 *	Seal kit for item 12				P13268
14	Steer plate LH *RH				P22262 P22263
15	Thrust washer				P14994
16	Eyelet				P18876

* Not illustrated

french
german
spanish

chassis assembly



french
german
spanish

chassis assembly

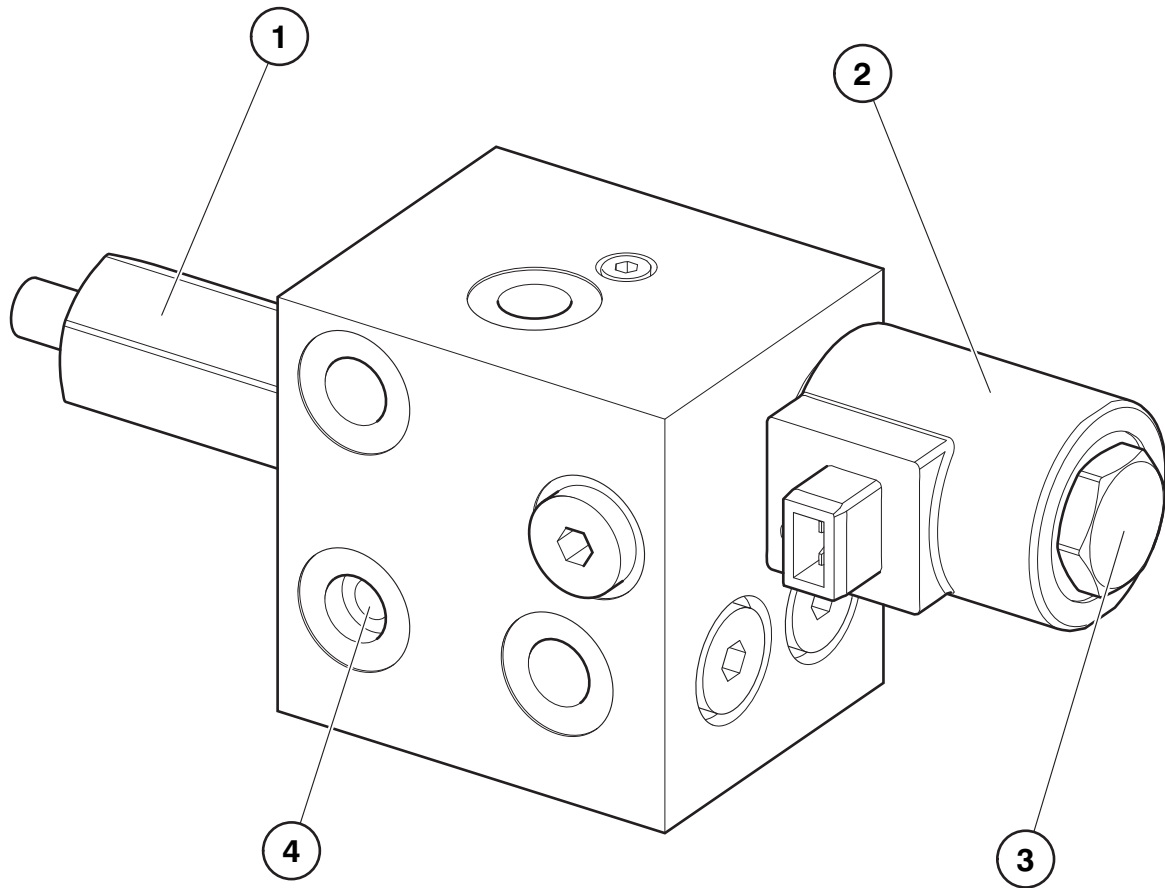
1.3 suspension valve block

Item	Description				Part Number
	Complete assembly				P23447
1	Pressure reducing cartridge - CT1				P25804
2	Coil - 12v				P25806
3	Solenoid cartridge CT2				P25805
4	Check valve - CT3				P25807

* Not illustrated

french
german
spanish

chassis assembly



french
german
spanish

chassis assembly

1-9



nifty



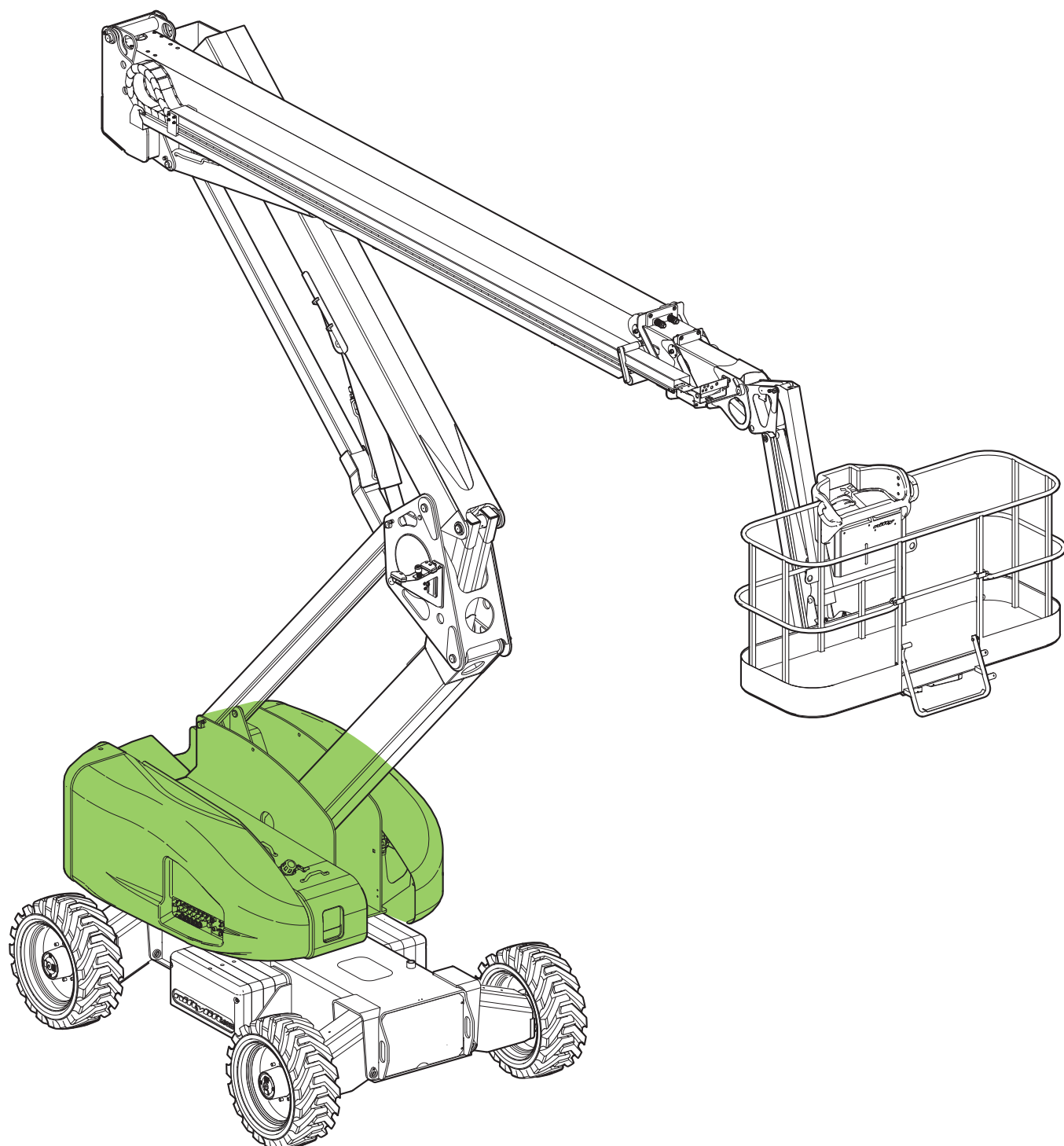
HR28 (SP85)

illustrated parts manual

Manuel illustré de pièces détachées

Illustrierte Stückliste

Manual de piezas ilustrado



2



superstructure

french
german
spanish

2.1 superstructure assembly - hybrid (control side)

Item Description

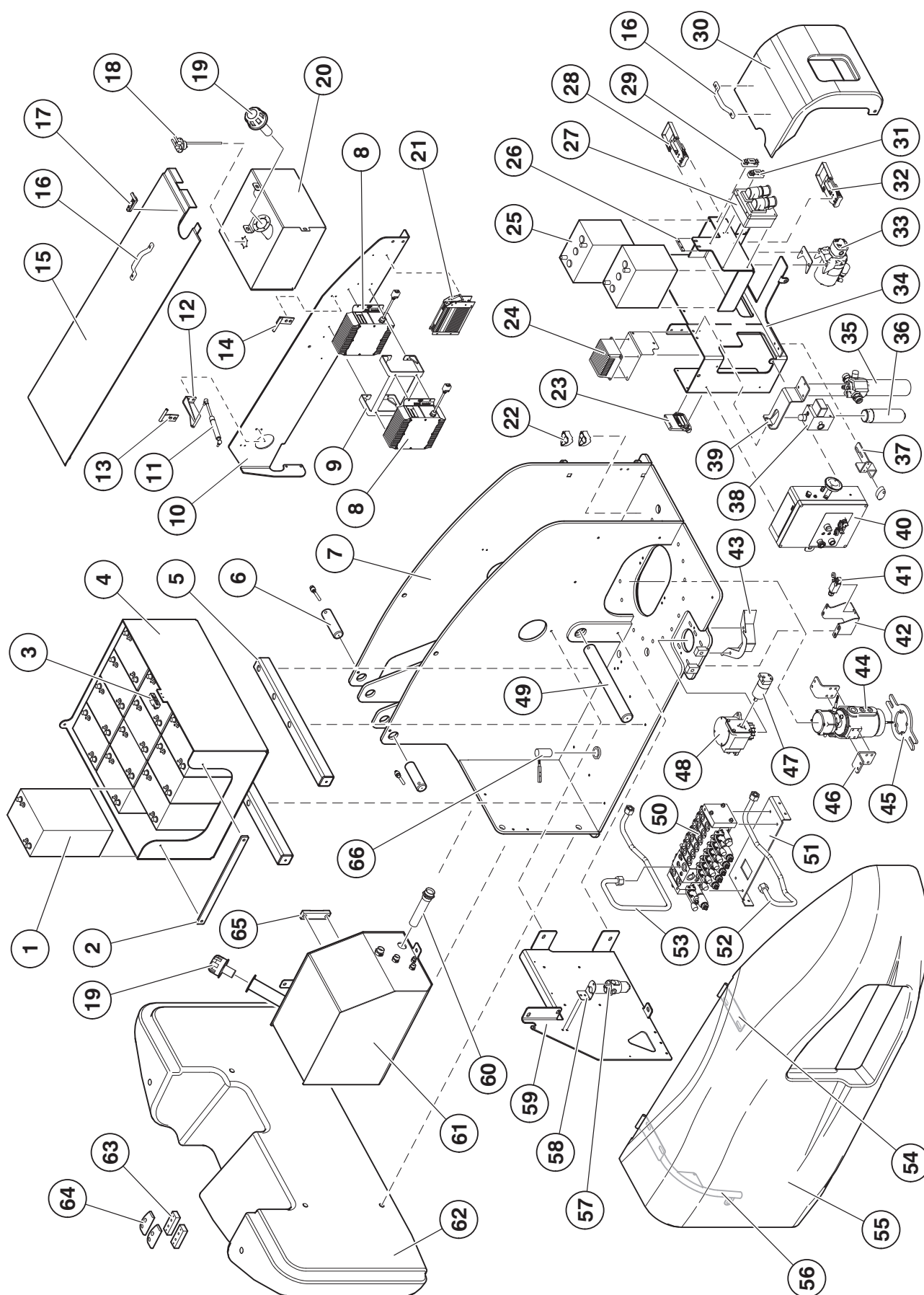
Part Number

1	Battery				P29009
2	Retaining bar				P25526
3	Fuse - 325A Fuse holder				P19924 P11976
4	Battery tray				P23043
5	Support				P24611
6	Pin - 165mm				P24056
7	Superstructure				P25375
8	Battery charger				P26827
9	Bracket				P24588
10	Rear Bracket				P25100
11	Gas strut				P16953
12	Bracket - Gas strut				P24565
13	Hinge - Canopy				P13361
14	Hinge - Canopy				P18264
15	Canopy - Central				P25404
16	Handle				P10241
17	Catch				P14454
18	Sender				P24626
19	Filler breather				P21130
20	Diesel tank - 40 litre				P26156
21	Controller (Unprogrammed)				P23305
22	Tilt sensor				P26079
23	Valve controller				P27215
24	Step down unit Bracket				P23888 P26492
25	Battery				P27917
26	Spacer				P15899
27	Charger inlet unit *230V 110V/230V				P26961 P26960

* Not illustrated

french
german
spanish

superstructure



french
german
spanish

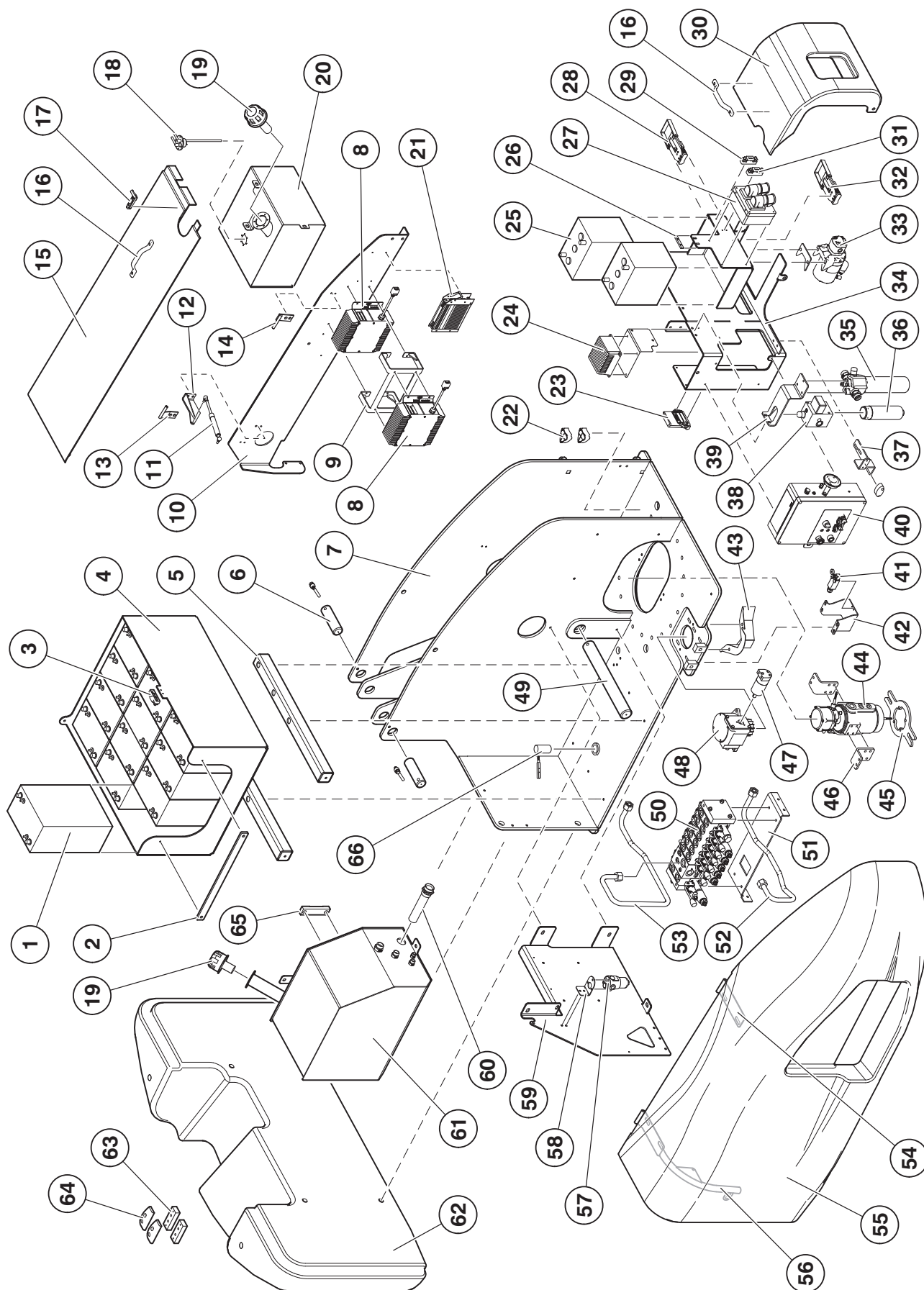
superstructure

2.1 continued

Item	Description				Part Number
28	Handle bracket Connector (Green) Contact (50mm)				P24688 P24676 P24677
29	Fuse - 125A Fuse holder				P12696 P11976
30	Canopy				P25427
31	Fuse - 225A Fuse holder				P11977 P11976
32	Handle bracket Connector (Red) Contact (50mm)				P24688 P24687 P24677
33	Emergency pump Starter switch ONLY				P22641 P29361
34	Bracket - Main control				P25154
35	Filter - Inline return Element - ONLY Indicator - 2 bar				P24922 P24923 P24924
36	Pressure filter bowl Element ONLY				P23276 P24944
37	Bracket - Canopy stop Rubber buffer				P27904 P16982
38	Boom enable valve				P24881
39	Bracket				P25197
40	Base control assembly				P26058
41	Microswitch				P19118
42	Bracket				P25611
43	Guard - Slew				P23395
44	Swivel joint				P28539
45	Plate				P22924
46	Foot - for item 43				P22923
47	Motor				P15686
48	Gearbox				P15672
49	Pin - 500mm				P24054
50	Valve - Main controls				P22411

french
german
spanish

superstructure



french
german
spanish

superstructure

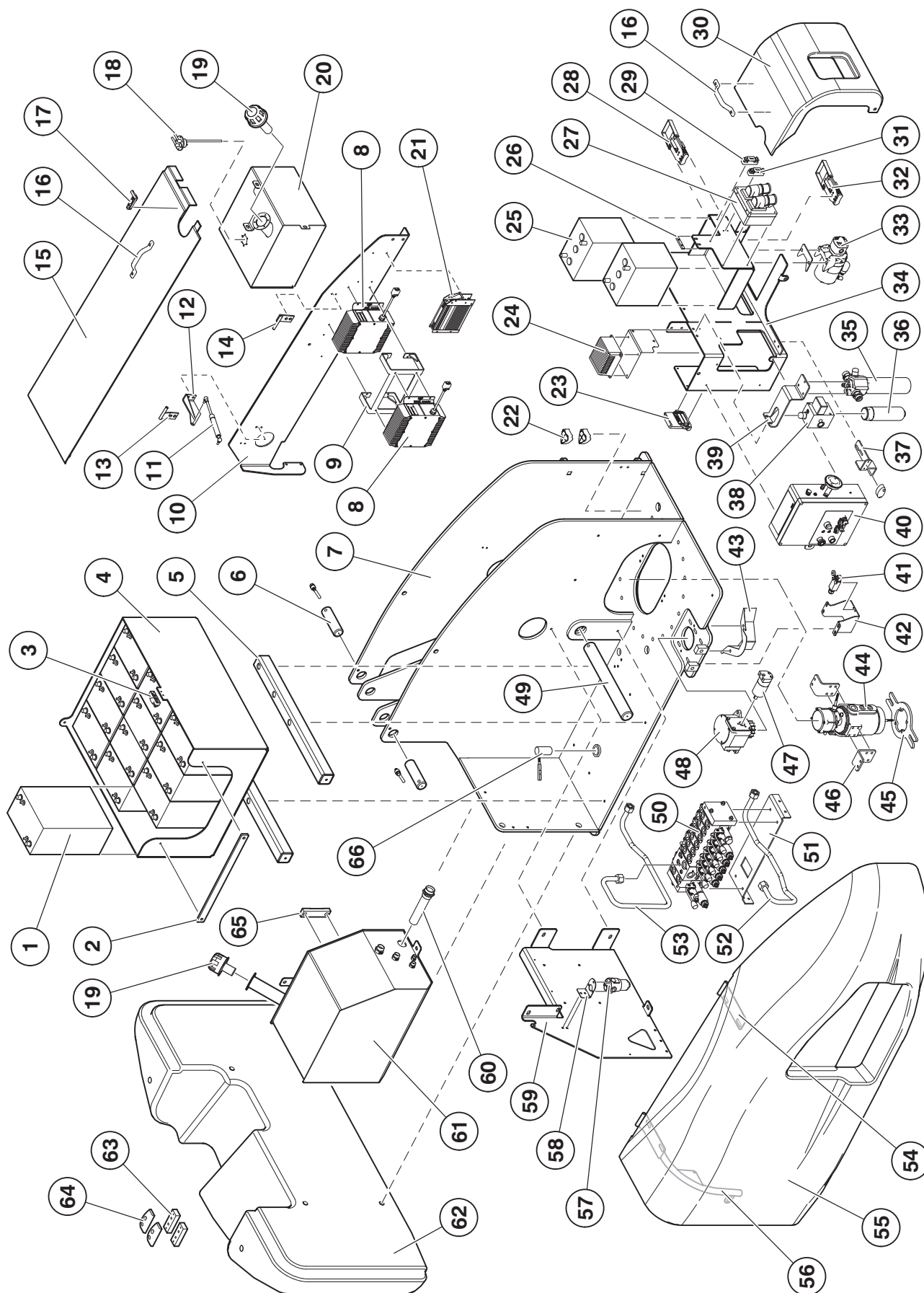
2.1 continued

Item	Description	Part Number			
51	Bracket				P25201
52	Tube - Pressure				P26015
53	Tube - Return				P26016
54	Support bracket				P27925
55	Canopy - LH				P23032
56	Support frame				P27924
57	Pressure filter Element * 10 micron				P26267 P26273
58	Bracket				P26326
59	Bracket - Main side				P25202
60	Suction strainer				P20994
61	Hydraulic tank				P25152
62	Counter weight				P21297
63	Spacer				P16883
64	Rubber pad				P16877
65	Gauge				P13253
66	Locking pin - Slew Handle				P25587 P22253

* Not illustrated

french
german
spanish

superstructure



french
german
spanish

superstructure

2.2 superstructure assembly - diesel (control side)

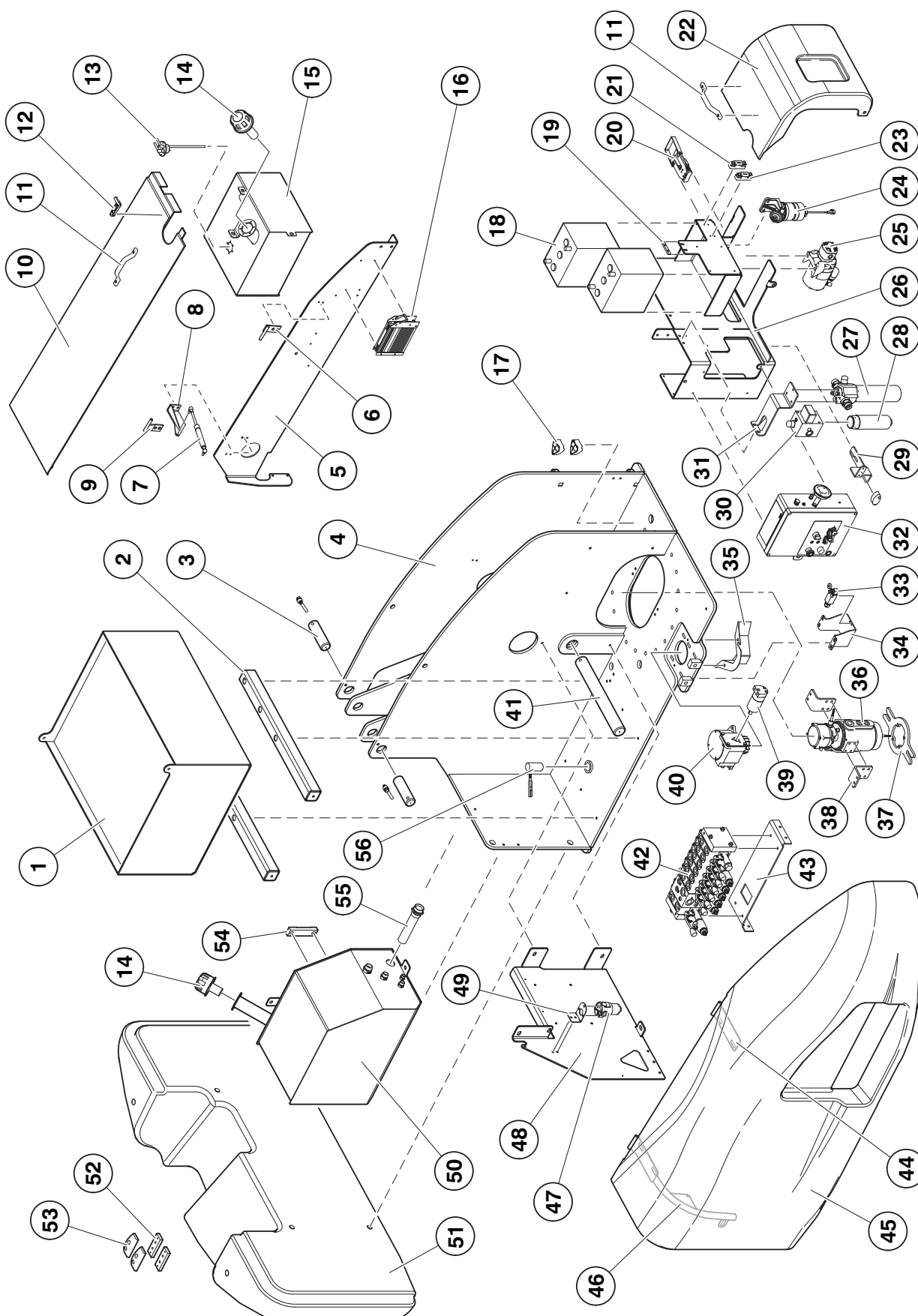
Item	Description	Part Number
------	-------------	-------------

1	Filled ballast carrier	P26929
2	Support	P24611
3	Pin - 165mm	P24056
4	Superstructure	P25375
5	Rear Bracket	P25100
6	Hinge - Canopy	P18264
7	Gas strut	P16953
8	Bracket - Gas strut	P24565
9	Hinge - Canopy	P13361
10	Canopy - Central	P25404
11	Handle	P10241
12	Catch	P14454
13	Sender	P24626
14	Filler breather	P21130
15	Diesel tank - 40 litre	P26156
16	Safety Controller (Not programmed)	P23305
17	Tilt sensor	P26079
18	Battery	P27917
19	Spacer	P15899
20	Handle bracket Connector (Red)	P24688 P24687
21	Fuse - 325A Fuse holder	P19924 P11976
22	Canopy	P25478
23	Fuse - 225A Fuse holder	P11977 P11976
24	Fuel filter & pump Filter ONLY	P25006 P27132
25	Emergency pump Starter switch ONLY	P22641 P29361
26	Bracket - Main control	P25154

french
german
spanish

superstructure

27	Filter - Inline return Element ONLY Indicator - 2 bar			P24922 P24923 P24924
----	---	--	--	----------------------------



french
german
spanish

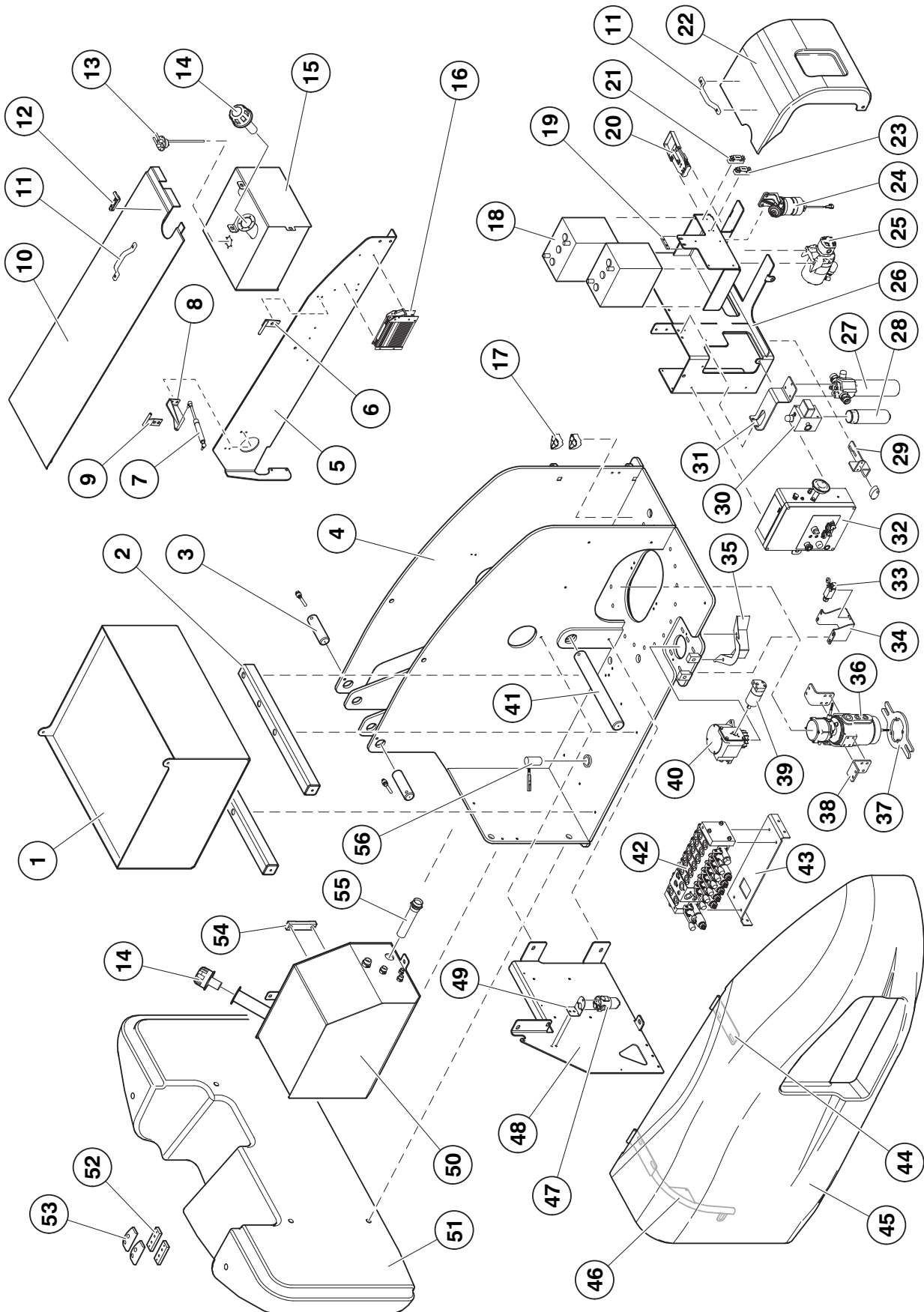
superstructure

2.2 continued

Item	Description				Part Number
28	Pressure filter bowl Element ONLY				P23276 P24944
29	Bracket - Canopy stop Rubber buffer				P27904 P16982
30	Boom enable valve Indicator - 5 bar				P24881 P24945
31	Bracket				P25197
32	Base control assembly				P25162
33	Microswitch				P19118
34	Bracket				P25611
35	Guard - Slew				P23395
36	Swivel joint				P28539
37	Plate				P22924
38	Foot - for item 36				P22923
39	Motor				P15686
40	Gearbox				P15672
41	Pin - 500mm				P24054
42	Valve - Main controls				P22411
43	Bracket				P25201
44	Support bracket				P27925
45	Canopy - LH				P23032
46	Support frame				P27924
47	Pressure filter Element * 10 micron				P26267 P26273
48	Bracket - Main side				P25202
49	Bracket				P26326
50	Hydraulic tank				P25152
51	Counter weight				P21297
52	Spacer				P16883
53	Rubber pad				P16877
54	Gauge				P13253
55	Suction strainer				P20994

* Not illustrated

56	Locking pin - Slew Handle				P25587 P23809
-----------	---------------------------	--	--	--	--------------------------------



french
german
spanish

superstructure

2.3 superstructure assembly - hybrid (engine side)

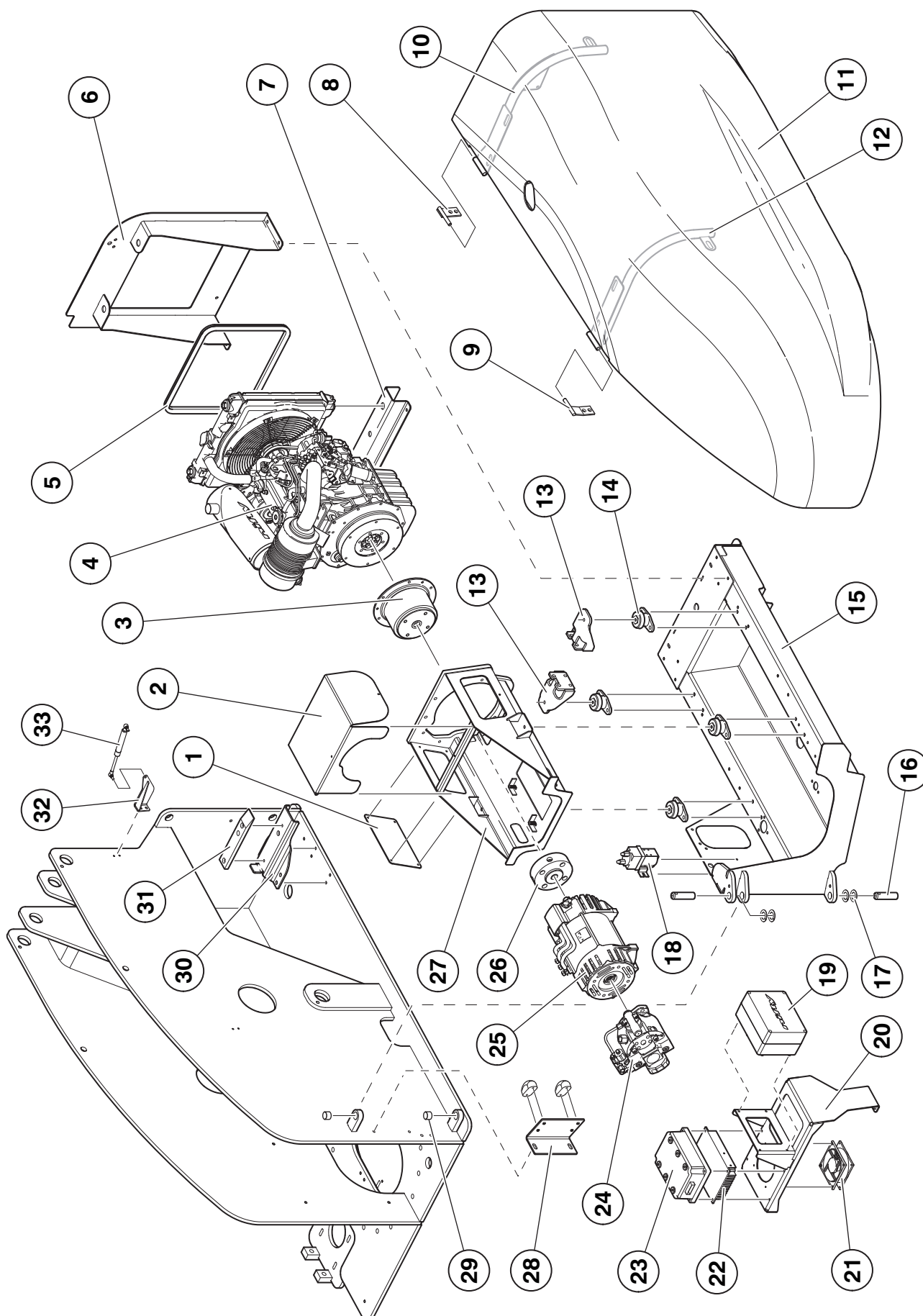
Item	Description	Part Number
------	-------------	-------------

1	Guard - Rear	P25598
2	Guard	P24531
3	Centrifugal clutch	P24354
4	Diesel engine	P24288
5	Foam	P25665
6	Baffle - Radiator	P24470
7	Support - Radiator	P25443
8	Hinge - Canopy	P18264
9	Hinge - Front	P13361
10	Support frame - Front	P27986
11	Canopy - RH	P26243
12	Support frame - Rear	P27987
13	Bracket - Engine mount	P24481
14	Engine mount	P24466
15	Engine tray	P25002
16	Pin - 91 mm	P12954
17	Washer	P10594
18	Contactor, 72v	P23926
19	Engine box assy.	P26536
20	Support Bracket - Motor controller	P25444
21	Fan assembly	P23157
22	Heatsink	P20490
23	Motor controller	P27959
24	Pump	P23453
25	Electric motor	P22187
26	Coupling - clutch	P24919
27	Cradle - Motor	P24920
28	Stop bracket Rubber buffer	P26683 P16982
29	Bush	P10032
30	Support	P25157
31	Wear pad	P25158

french
german
spanish

superstructure

32	Bracket - Gas strut				P25723
33	Gas strut				P16953



french
german
spanish

superstructure

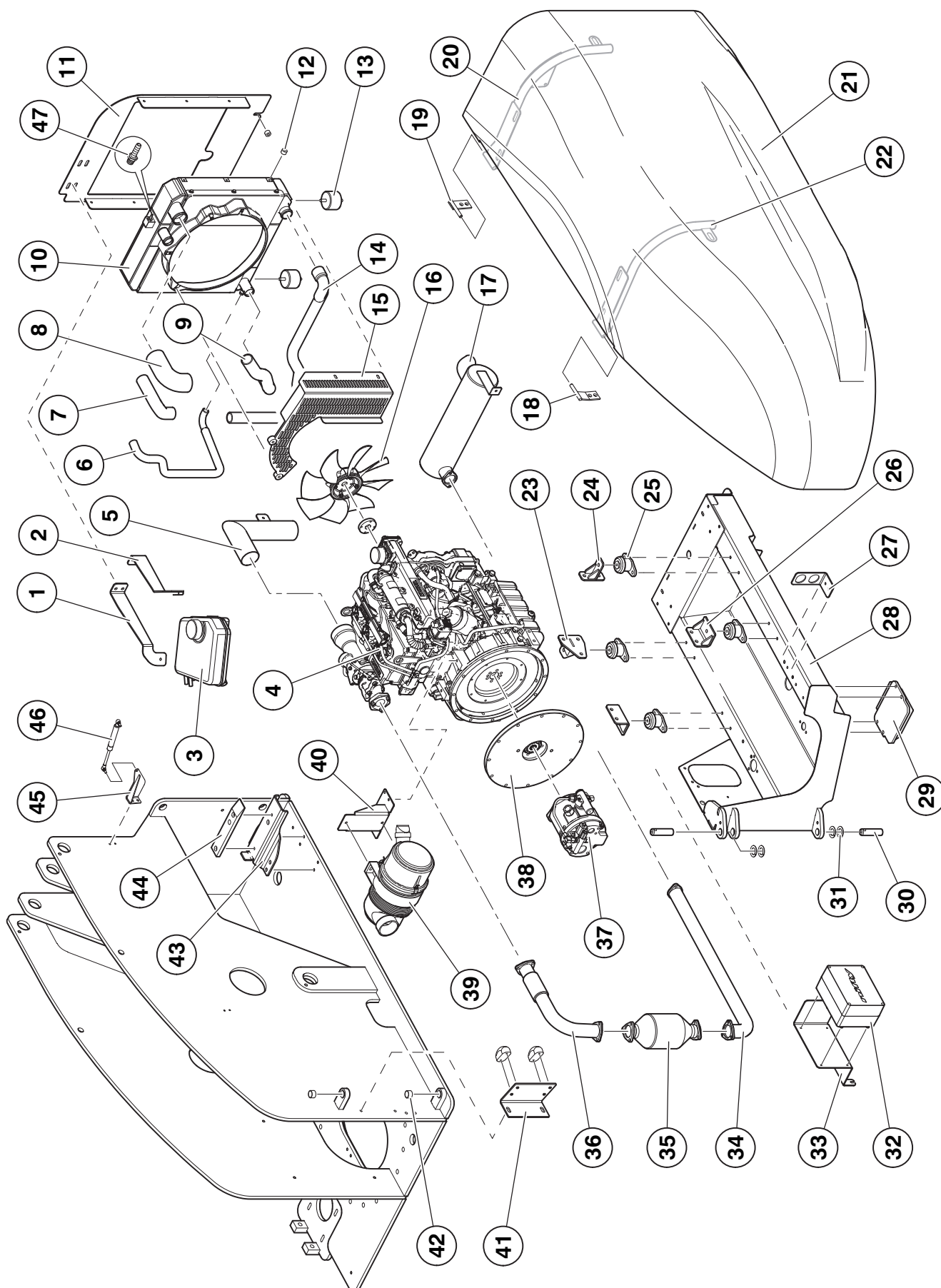
2.4 superstructure assembly - diesel (engine side)

Item	Description	Part Number
------	-------------	-------------

1	Bracket LH	P27343
2	Bracket RH	P27344
3	Expansion tank	P27347
4	Diesel engine See "Diesel engine (Diesel)" on page 2-20.	P24860
5	Air intake tube	P25728
6	Fill hose - Radiator	P27717
7	Top hose	P25092
8	Air inlet hose - Top	P25094
9	Bottom hose	P25093
10	Radiator assembly	P25000
11	Baffle	P25159
12	Mount - Baffle	P25414
13	Mount - Radiator	P25413
14	Air outlet hose - Bottom	P25095
15	Guard - Fan	P25939
16	Fan assembly Spacer	P25233 P25893
17	Silencer	P25001
18	Hinge - Front	P13361
19	Hinge - Canopy	P18264
20	Support frame - Front	P27986
21	Canopy - RH	P27310
22	Support frame - Rear	P27987
23	Bracket - inner front	P25910
24	Bracket - Front	P25004
25	Engine mount	P14484
26	Bracket - Rear	P25007
27	Bracket - Electrics	P25377

french
german
spanish

superstructure

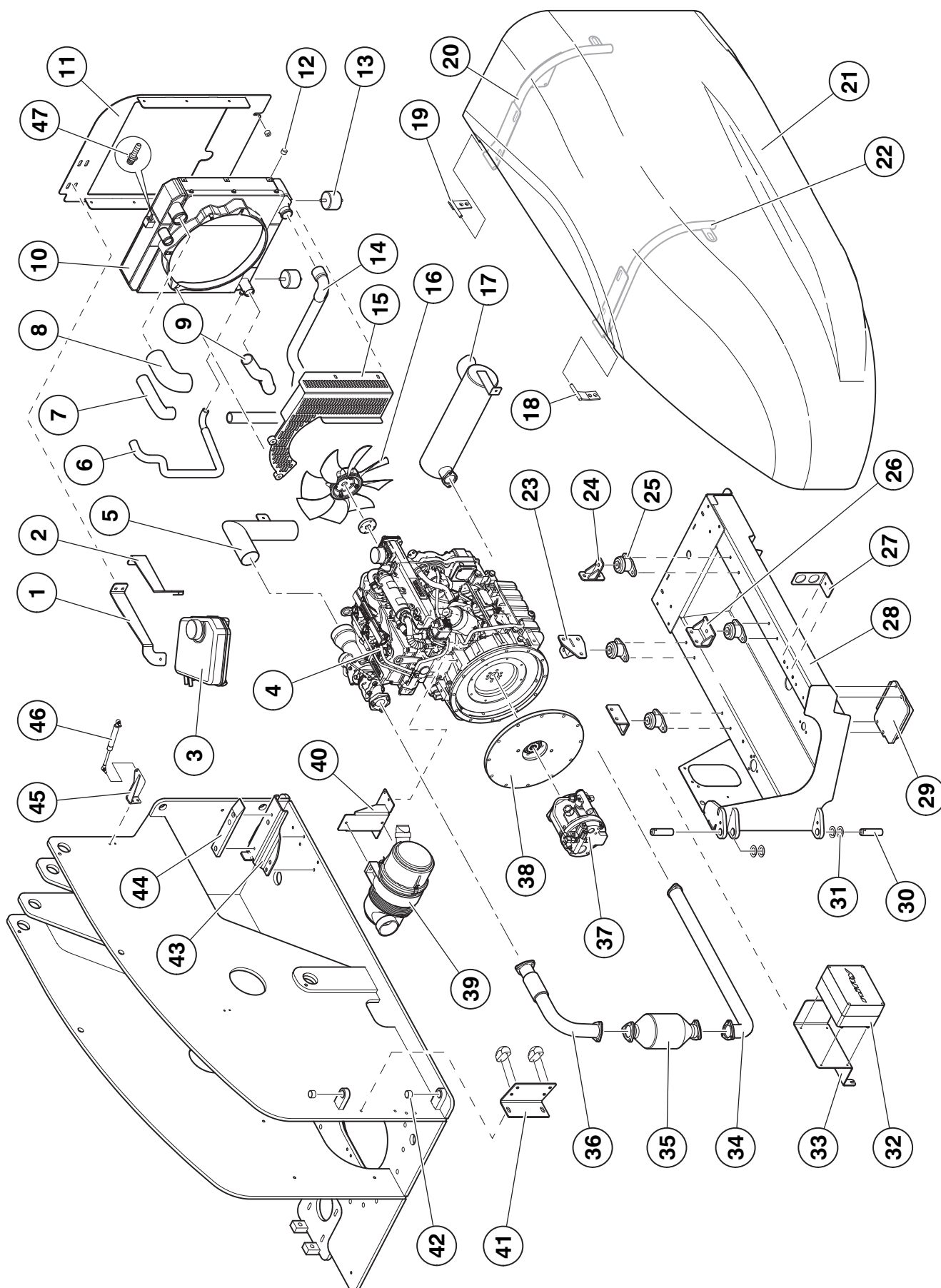


french
german
spanish

superstructure

2.4 continued

Item	Description				Part Number
28	Engine tray				P25002
29	ECU				P25022
30	Pin - 91 mm				P12954
31	Washer				P10594
32	Engine box				P25313
33	Bracket				P25368
34	Exhaust - Section 3				P25062
35	Catalytic converter				P24999
36	Exhaust - Section 2				P25060
37	Pump				P24849
38	Bell housing plate/ coupling				P25016
39	Air cleaner Filter - Outer Filter - Inner				P25083 P27136 P27137
40	Bracket - Air cleaner				P25081
41	Stop bracket Rubber buffer				P26683 P16982
42	Bush				P10032
43	Support				P25157
44	Wear pad				P25158
45	Bracket - Gas strut				P25723
46	Gas strut				P16953
47	Adaptor				P27789



french
german
spanish

superstructure

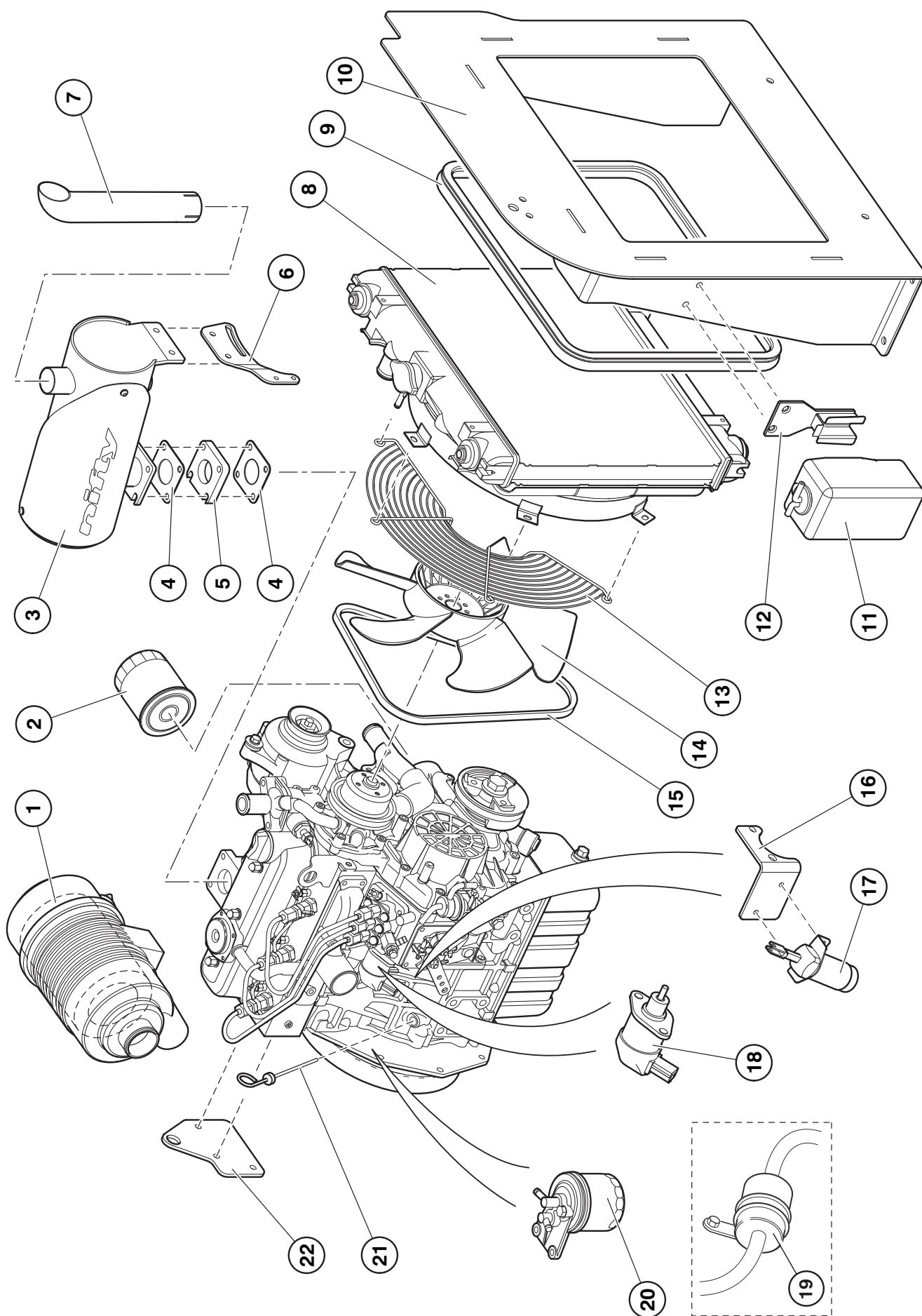
2.5 Diesel engine (Hybrid)

Item	Description	Part Number			
	D1105 engine				P24288
1	Air filter element				P25599
2	Oil Filter				P26602
3	Exhaust assembly Heat shield ONLY				P21357 P22339
4	Gasket				P13282
5	Spacer				P24479
6	Bracket				P24570
7	Exhaust pipe				P25620
8	Radiator assembly				P25337
9	Foam				P25665
10	Engine baffle				P24470
11	Expansion bottle Filler cap ONLY				P19270 P24941
12	Bracket for item 11				P19258
13	Fan guard				P25335
14	Fan assembly (6 blade)				P25338
15	V-belt				P13281
16	Bracket for item 17				P24802
17	Throttle solenoid Clevis end *				P18796 P14284
18	Stop solenoid				P26442
19	In-line fuel filter				P24963
20	Fuel filter cartridge				P15251
21	Dip stick				P25336
22	Bracket				P25008

* Not illustrated

french
german
spanish

superstructure



french
german
spanish

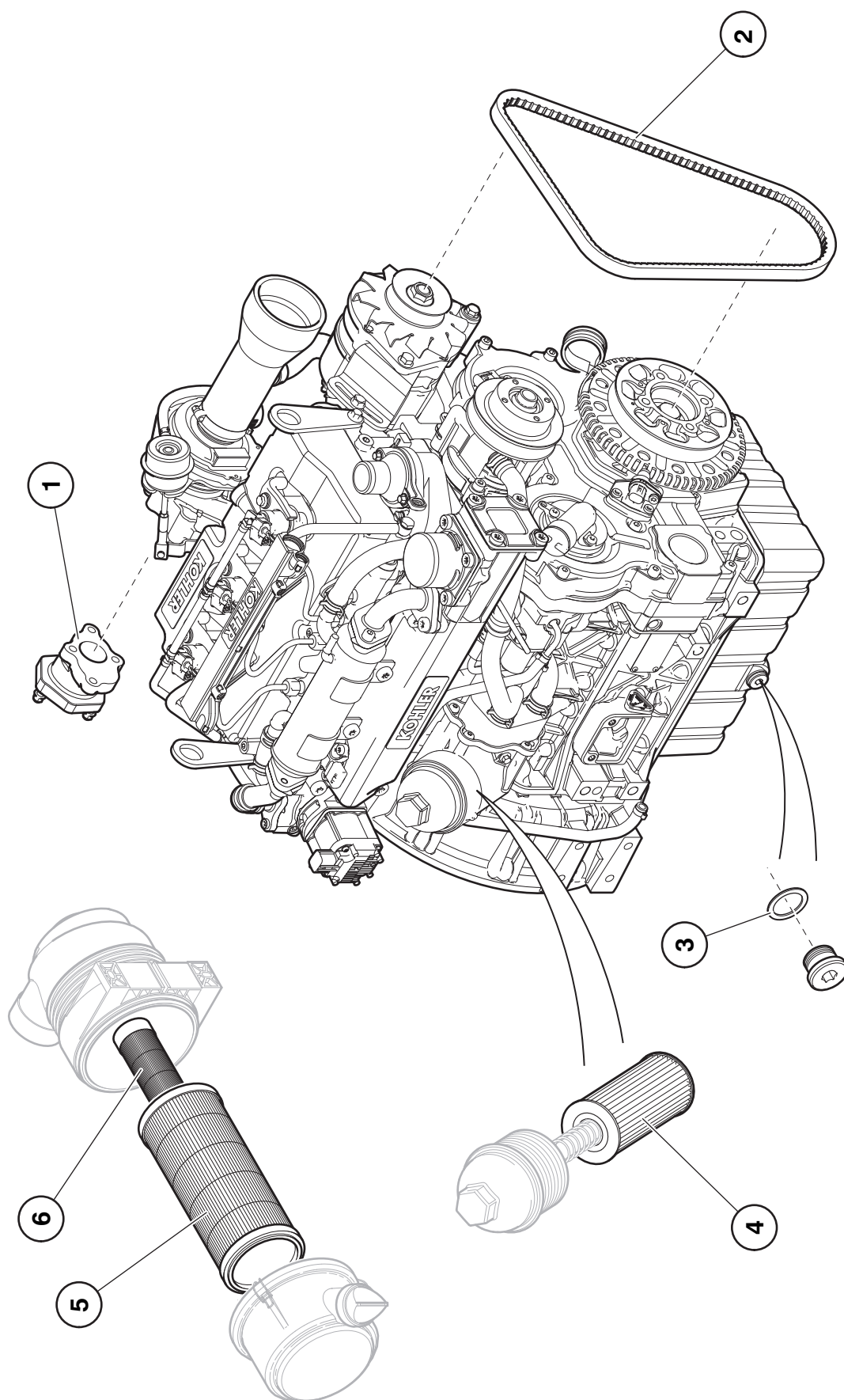
superstructure

2.6 Diesel engine (Diesel)

Item	Description				Part Number
	Kohler engine				P24860
1	Flange - Exhaust				P27138
2	Fan belt				P27135
3	Washer - sump plug				P27134
4	Oil filter				P27131
5	Air filter - Outer				P27136
6	Air filter - Inner				P27137

french
german
spanish

superstructure



french
german
spanish

superstructure

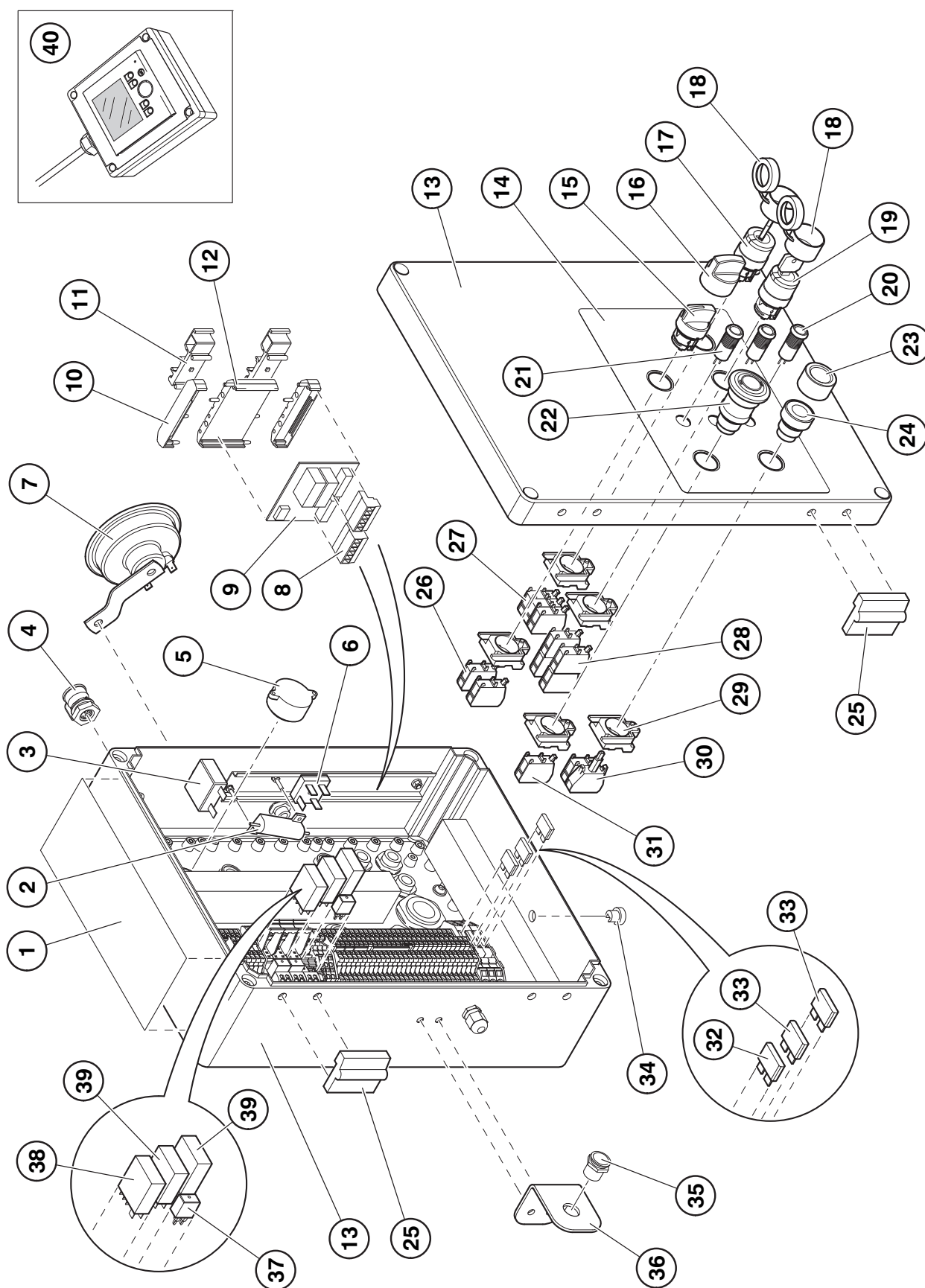
2.7 Base control assembly

Item Description Part Number

1	Label				P24822
2	Resistor 1R 50W				P13533
3	Circuit breaker 15A				P11050
4	Plug - 7 way Nut Wire Seal				P21928 P23461 P21931
5	Sounder				P26854
6	Bridge rectifier				P13527
7	Horn				P14359
8	Connector				P12942
9	PCB - Safety				P25819
10	Side Carrier - PCB				P21914
11	Carrier foot				P21917
12	Base Carrier - PCB				P21916
13	Box - Machined				P24494
14	Label				P25155
15	Selector switch				P24327
16	Waterproof cover				P24319
17	Keyswitch (2 position)				P24337
18	Waterproof cover				P24321
19	Keyswitch (3 position)				P24320
20	LED - Green				P24424
21	LED - Red				P24426
22	E-Stop button USA Only				P24317 P28564
23	Waterproof cover				P24332
24	Green button (Includes item 23)				P24333
25	Hinges (Pair)				P24998

french
german
spanish

superstructure



french
german
spanish

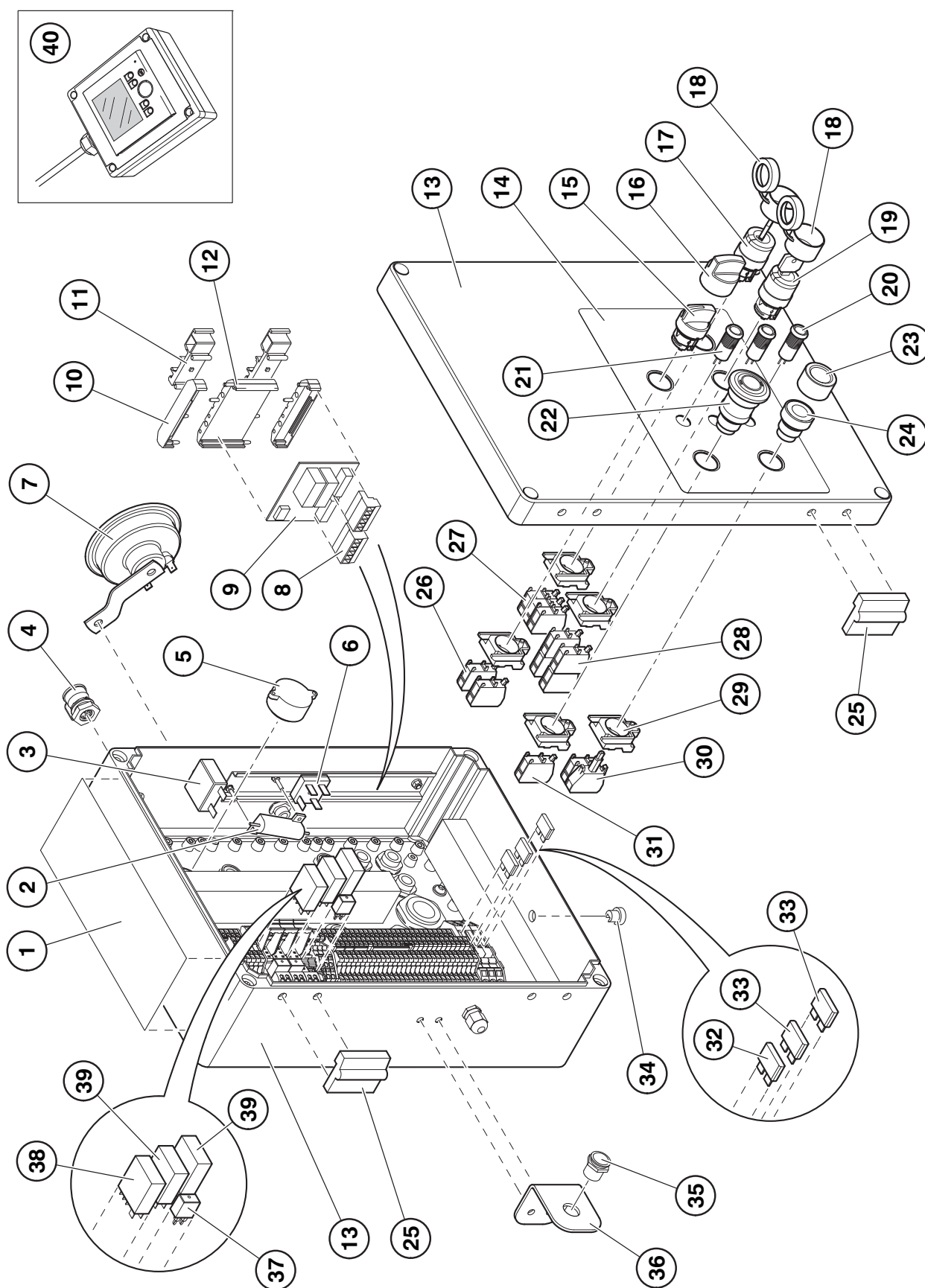
superstructure

2.6 continued

Item	Description				Part Number
26	Contact - NO (2 off)				P24323
27	Contact - NO (2 off) NC (1 off)				P24323 P24324
28	Contact - NO (2 off) NC (2 off)				P24323 P24324
29	Base mount				P24322
30	Contact - NO (1 off) LED block - green				P24323 P24338
31	Contact - NC				P24324
32	Fuse, Blade - 2A				P22192
33	Fuse, Blade - 15A				P22193
34	Drain plug				P23737
35	Button - Powered descent				P25210
36	Bracket				P22002
37	Indicator - Relay				P25857
38	Relay - 8A				P24604
39	Relay - 16A				P21158
40	Diagnostic unit (Option)				P24122

french
german
spanish

superstructure

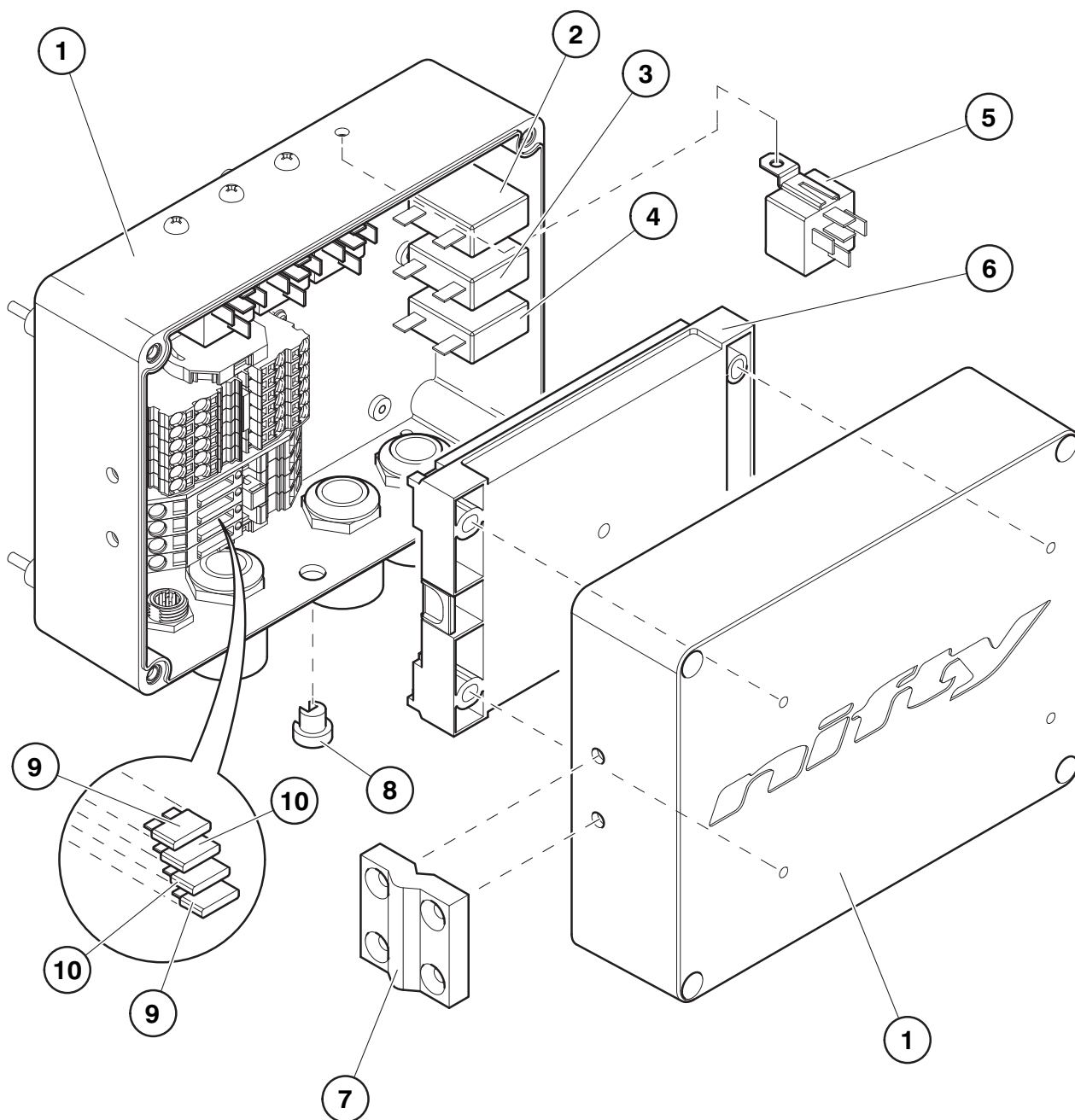


french
german
spanish

superstructure

2.8 Engine box assembly (Hybrid)

Item	Description				Part Number
	Complete assembly				P26536
1	Box and lid				P26534
2	Circuit breaker 35A				P13529
3	Circuit breaker 15A				P11050
4	Circuit breaker 10A				P11719
5	Relay				P10340
6	Controller				P24789
7	Hinge				P23377
8	Drain plug				P23737
9	Fuse, Blade - 3A				P24876
10	Fuse, Blade - 15A				P22193



french
german
spanish

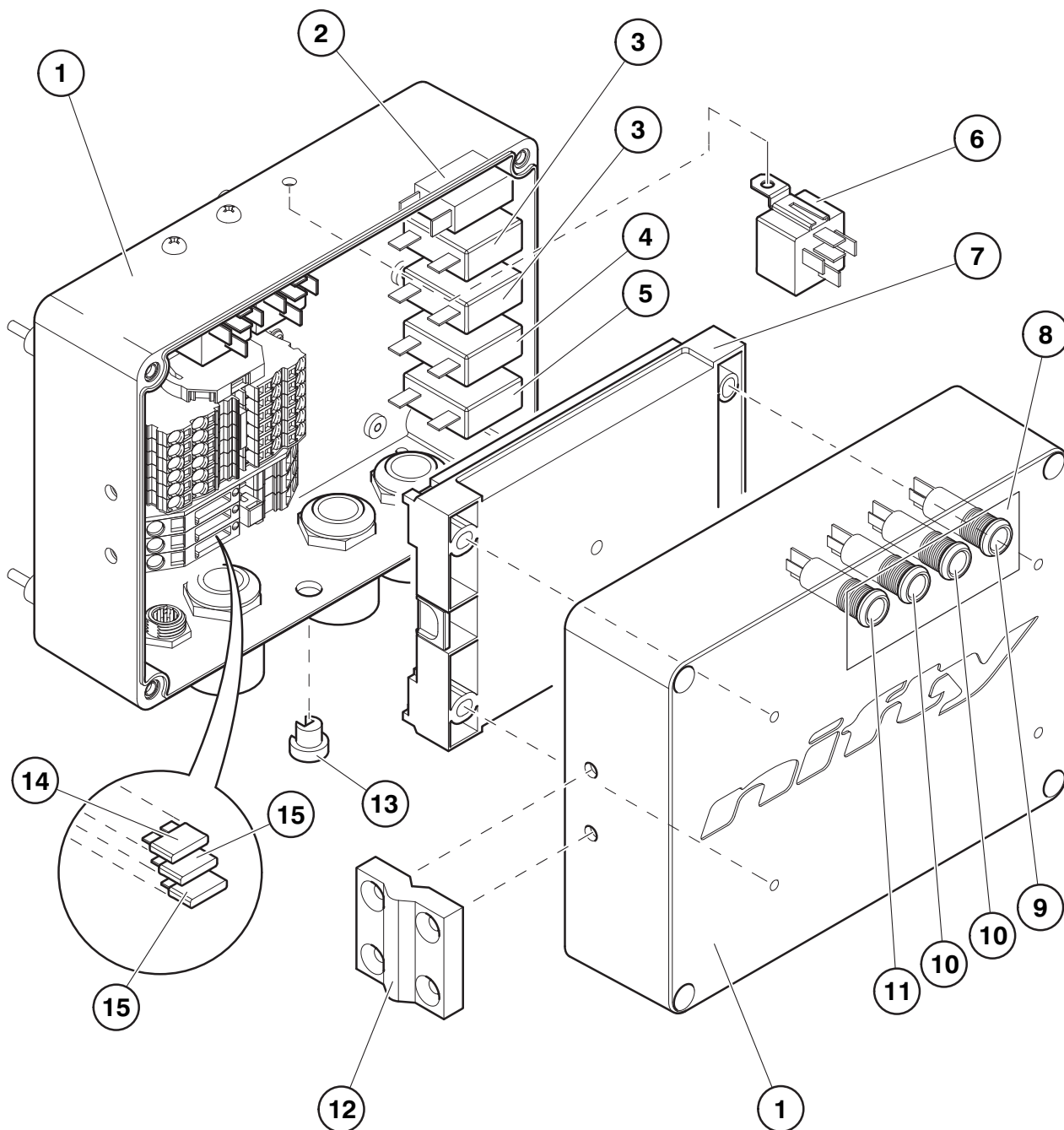
superstructure

2.9 Engine box assembly (Diesel)

Item	Description				Part Number
	Complete assembly				P25313
1	Box and lid				P25311
2	Circuit breaker 3A				P25219
3	Circuit breaker 5A				P23167
4	Circuit breaker 15A				P11050
5	Circuit breaker 20A				P25320
6	Relay				P10340
7	Controller				P24789
8	Label - LED's				P26491
9	LED - Red				P24426
10	LED - Yellow				P24425
11	LED - Green				P24424
12	Hinge				P23377
13	Drain plug				P23737
14	Fuse, Blade - 3A				P24876
15	Fuse, Blade - 15A				P22193

french
german
spanish

superstructure



french
german
spanish

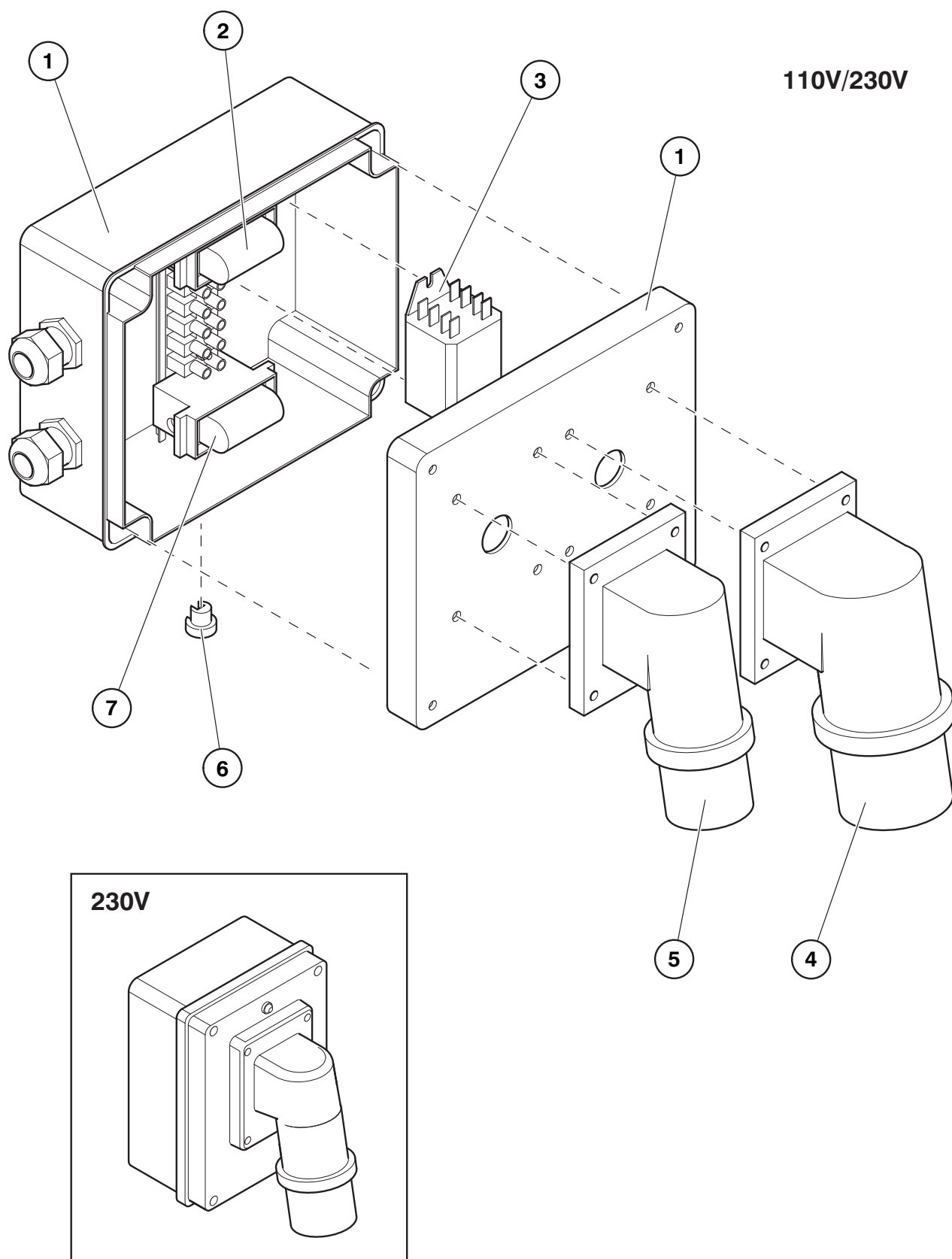
superstructure

2.10 Charger inlet assembly (Hybrid)

Item	Description	Part Number			
	Complete assembly 110V/230V 230V				P26960 P26961
1	Box and lid				P26258
2	Fuse 16A Fuse holder				P26262 P26159
3	Relay				P20767
4	Inlet socket 32A				P24702
5	Inlet socket 16A				P23870
6	Drain plug				P23737
7	Fuse 25A Fuse holder				P26261 P26159

french
german
spanish

superstructure

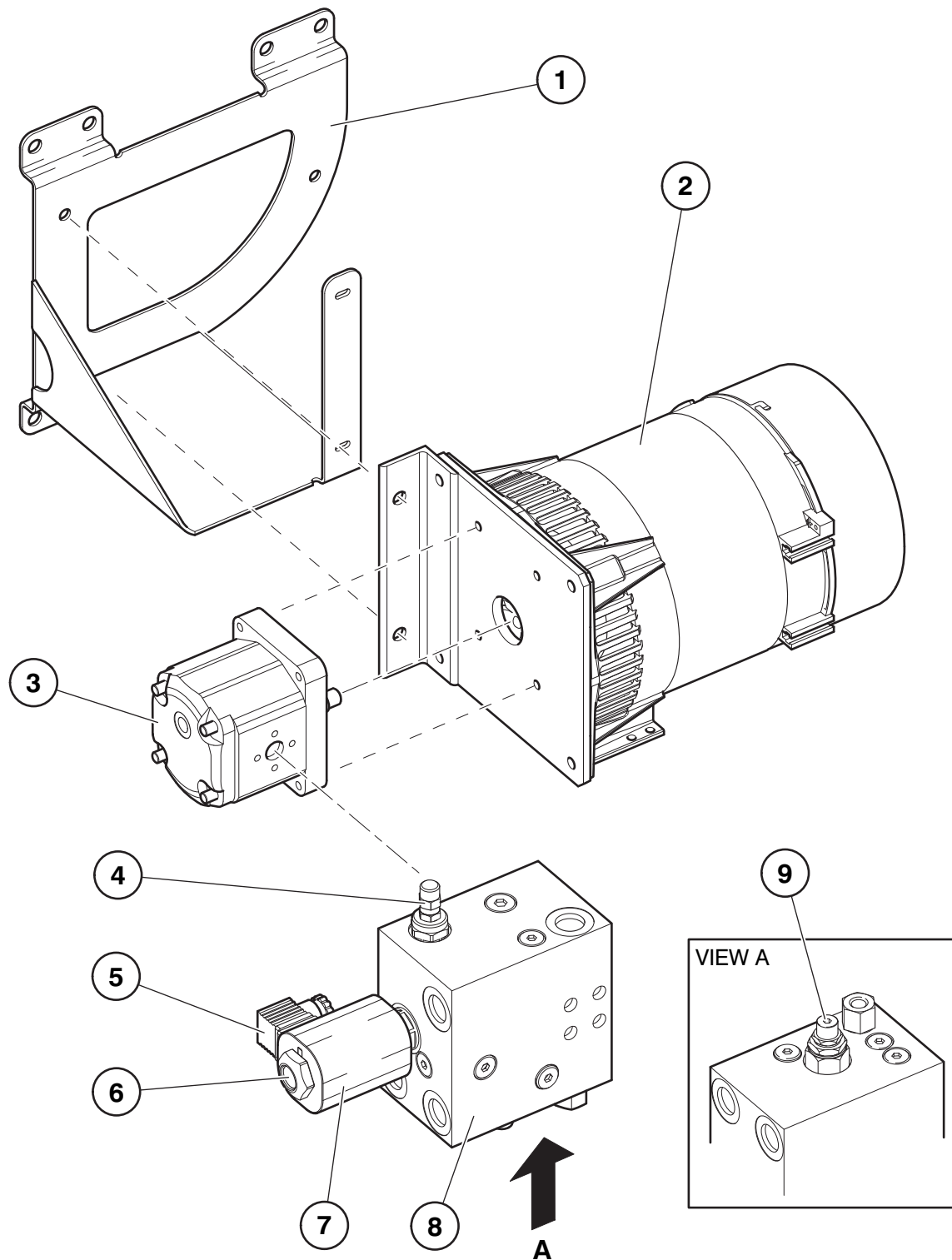


french
german
spanish

superstructure

2.11 Generator assembly (Option)

Item	Description				Part Number
	Complete assembly (Items 2 to 9)				P22711
1	Mounting bracket				P26502
2	Generator - 3.5 kW				P27611
3	Pump				P27613
4	Flow control valve Cap				P27618 P27009
5	Connector plug				P27616
6	Solenoid valve				P27614
7	Coil				P27615
8	Valve block				P27612
9	Pressure relief valve				P27617



french
german
spanish

superstructure



nifty



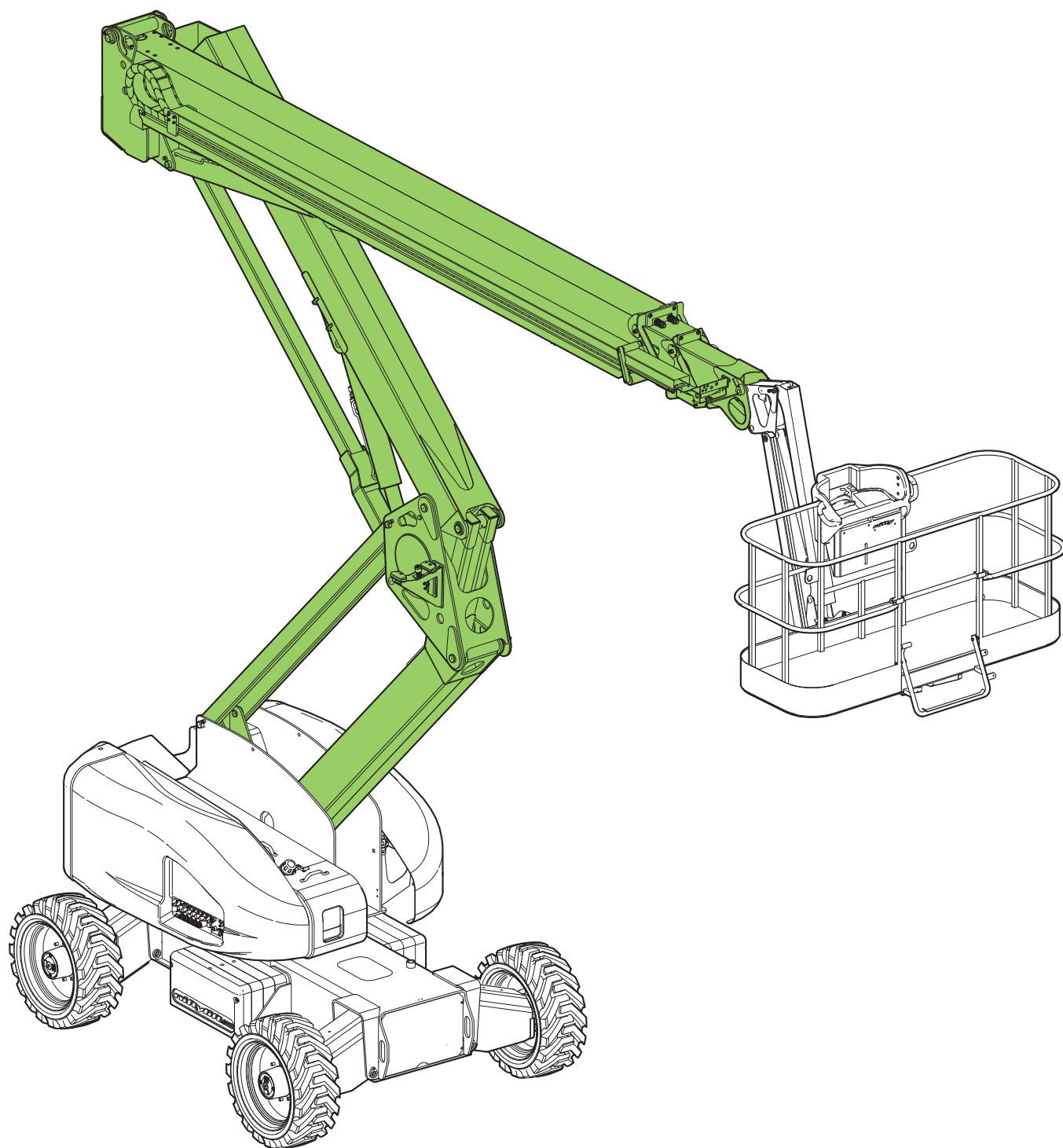
HR28 (SP85)

illustrated parts manual

Manuel illustré de pièces détachées

Illustrierte Stückliste

Manual de piezas ilustrado



3

boom assemblies

french
german
spanish

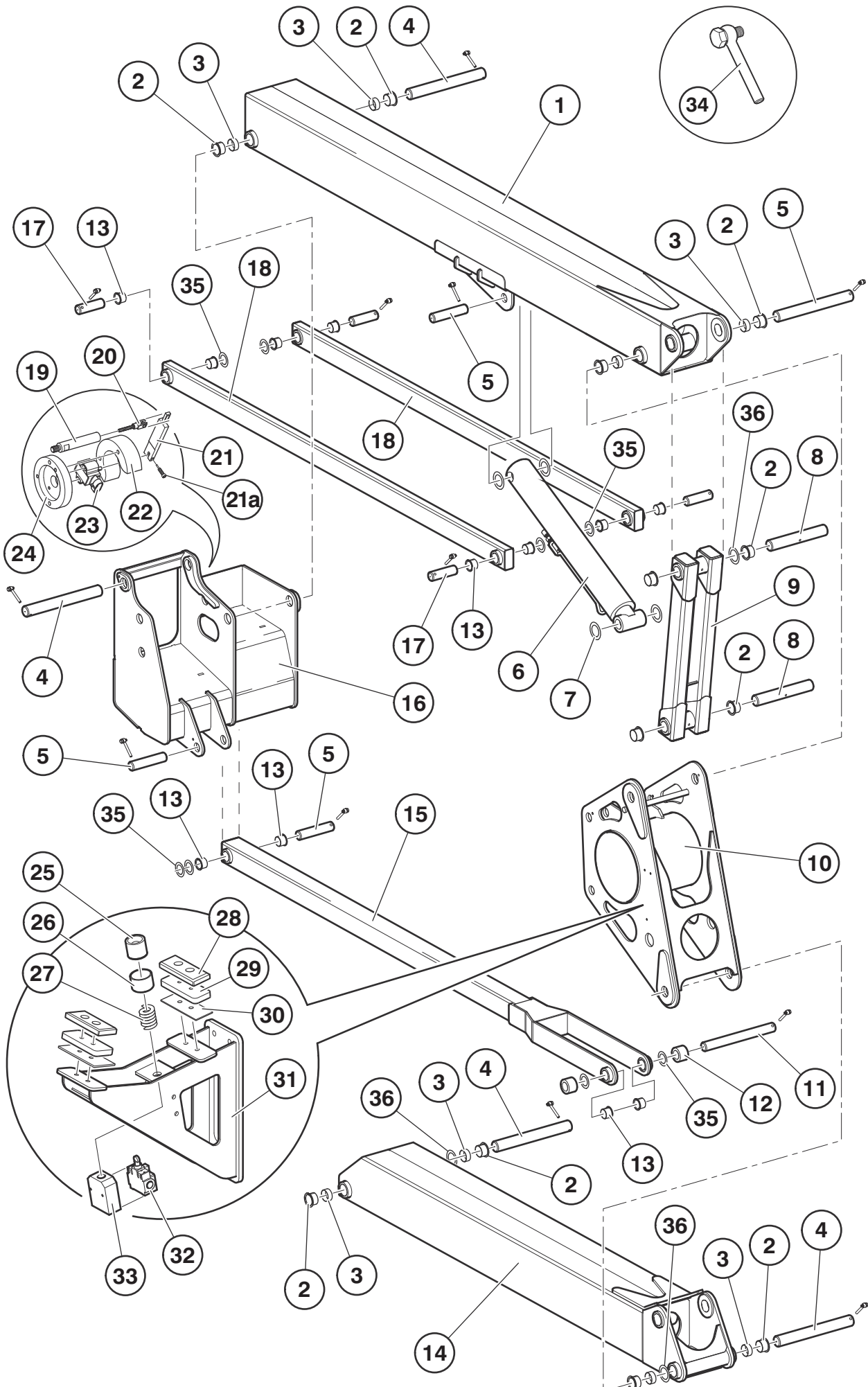
3.1 links assembly

Item	Description	Part Number			
1	Link 4				P26556
2	Bush				P24063
3	Bush				P25641
4	Pin - 500 mm				P24054
5	Pin - 227 mm				P24058
6	Cylinder - Lift Seal kit * <i>See "Lift/Luffing cylinder" on page 3-14.</i>				P25955 P26181
7	Washer				P25838
8	Pin - 375 mm				P24055
9	Push rod				P22952
10	Knuckle				P22950
11	Pin - 470 mm				P24057
12	Spacer				P24061
13	Bush				P24062
14	Link 1				P22946
15	Link 3				P28128
16	Tele-knuckle				P23031
17	Pin - 165 mm				P24056
18	Link 2				P22947
19	Extension bar				P25533
20	Clevis end				P14284
21	Arm - Level switch a) Retaining pin				P25532 P24874
22	Cover				P25531
23	Sensor				P26064
24	Mounting plate				P25546

* Not illustrated

french
german
spanish

boom assemblies



french
german
spanish

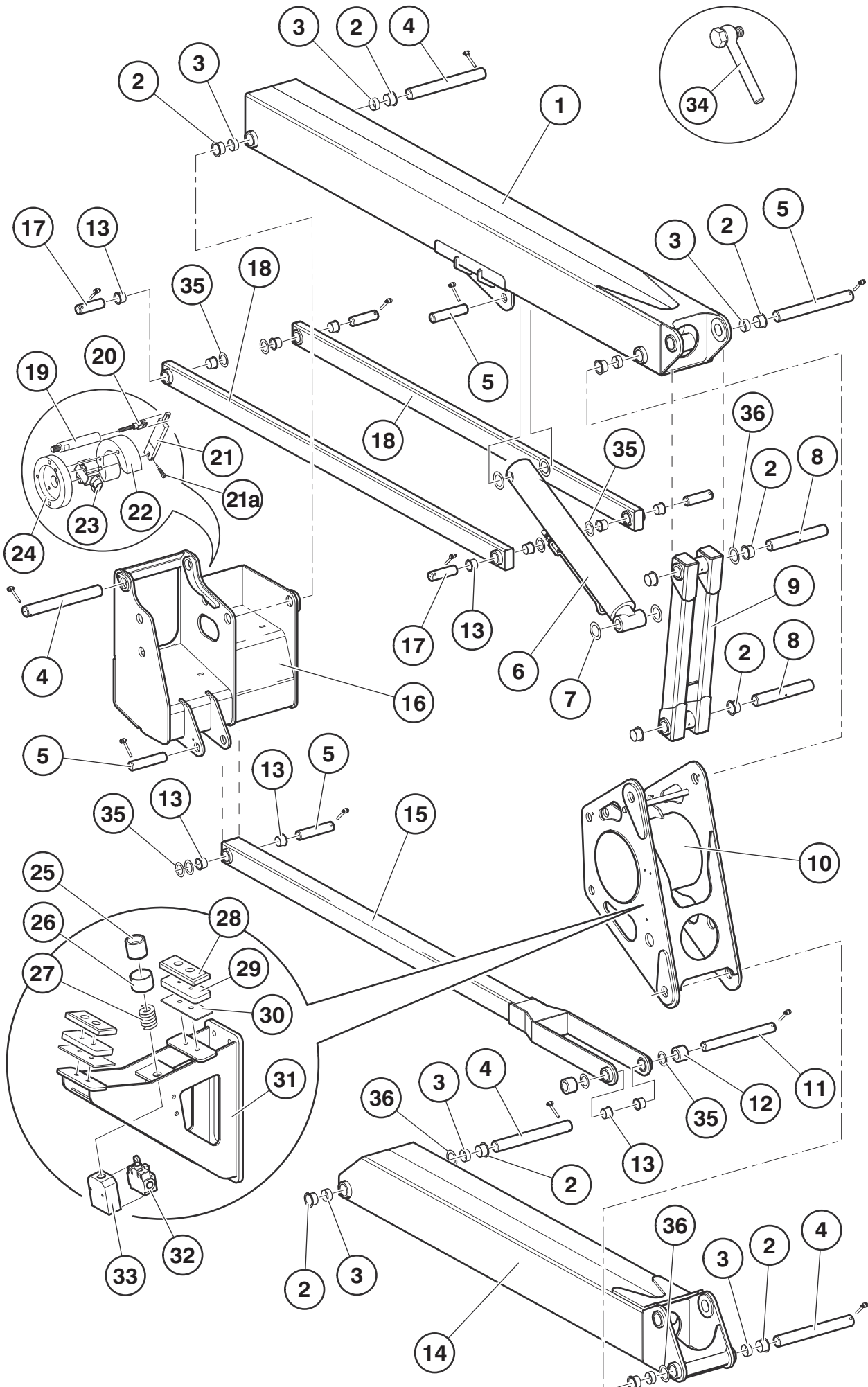
boom assemblies

3.1 continued

Item	Description				Part Number
25	Rubber cap				P18554
26	Nylon spacer				P11607
27	Spring				P13372
28	Pad - Boom rest				P27526
29	Spacer				P16883
30	Pad - 2mm				P28613
31	Bracket - Boom rest				P24712
32	Microswitch				P18937
33	Block				P13309
34	Swing bolt				P25215
35	Thrust washer				P27475
36	Thrust washer				P27025

french
german
spanish

boom assemblies



french
german
spanish

boom assemblies

3.2 telescope assembly (part 1)

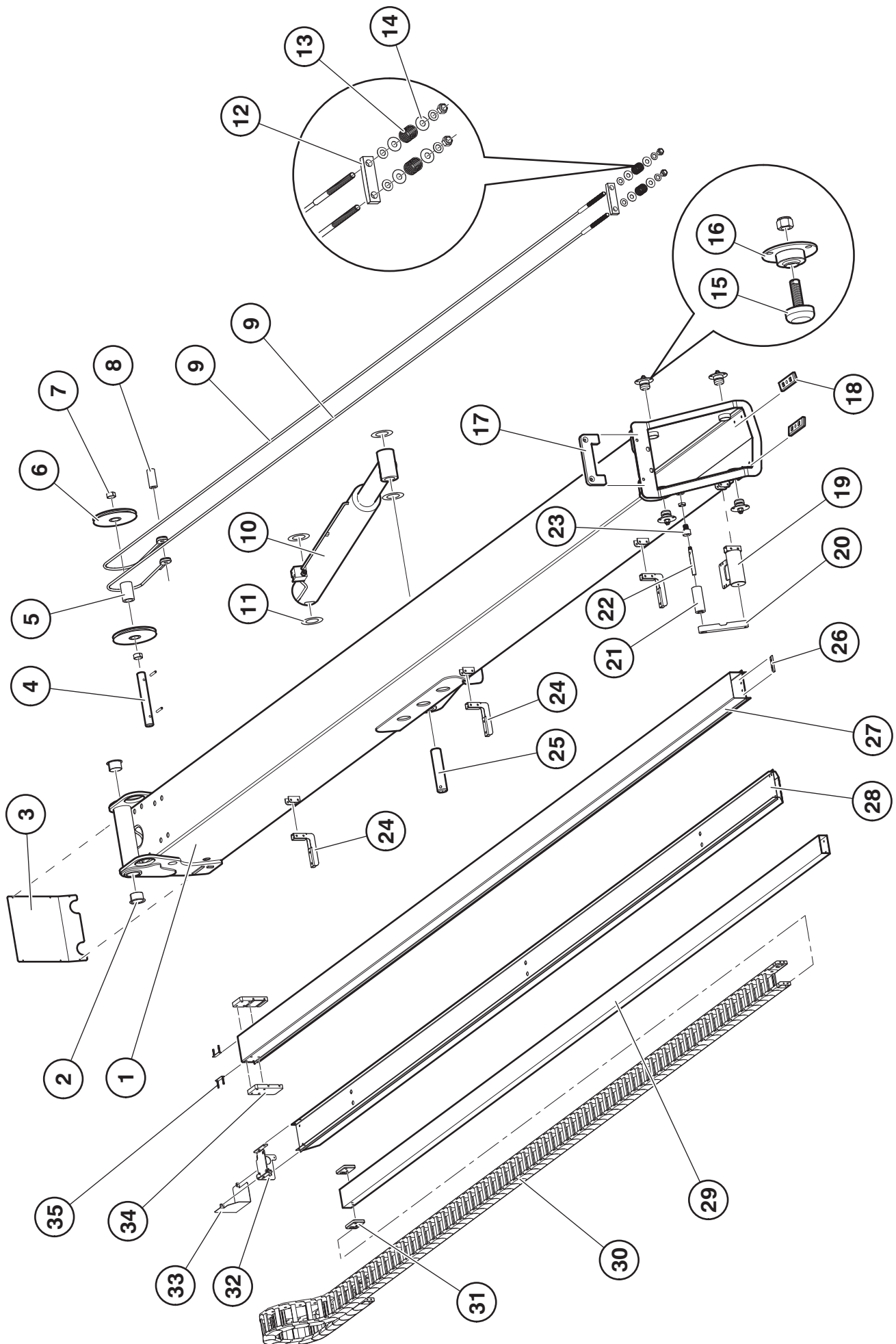
Item	Description	Part Number
------	-------------	-------------

1	Section 4	P28495
2	Bush	P24063
3	Cover	P24603
4	Pin - 286 mm	P22164
5	Spacer	P22225
6	Pulley	P22408
7	Bush	P19648
8	Spacer	P22226
9	Wire rope kit -- Return	P22158
10	Cylinder - Luffing Seal kit * <i>See "Lift/Luffing cylinder" on page 3-14.</i>	P21443 P26181
11	Washer	P25838
12	Tension block	P27305
13	Spring	P24988
14	Washer, Cup	P26594
15	Wear screw	P24833
16	Capping plate	P24870
17	Wear pad	P22231
18	Wear pad	P16176
19	Bracket - Bulkhead	P23619
20	Guide plate	P24917
21	Roller - Long	P24678
22	Shoulder - Shaft	P24745
23	Eccentric cam	P24673
24	Support - Trunking	P24940
25	Pin - 227 mm	P24058

* Not illustrated

french
german
spanish

boom assemblies



french
german
spanish

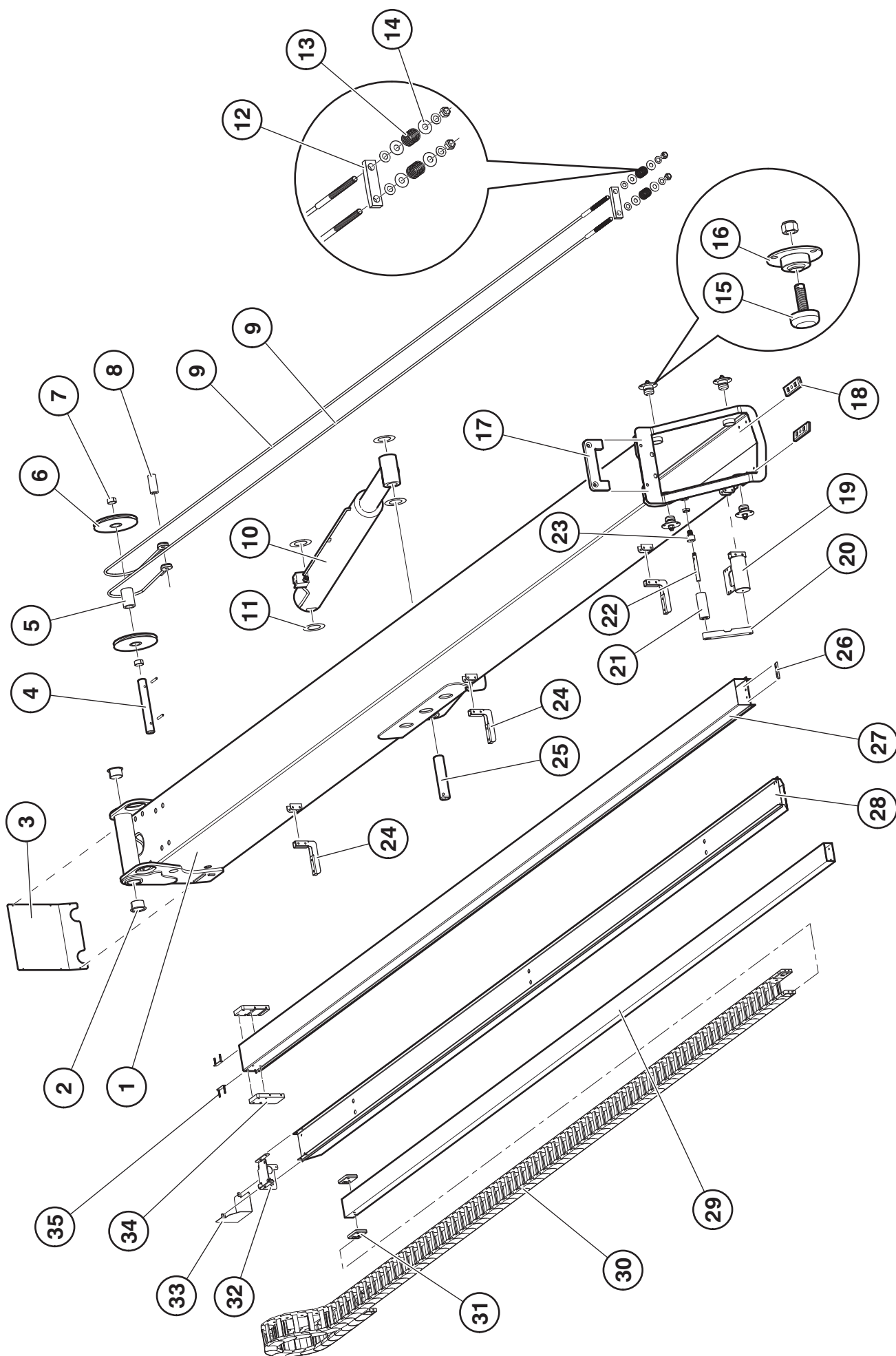
boom assemblies

3.2 continued

Item	Description				Part Number
26	Wear pad				P15899
27	Trunking - Middle				P24879
28	Trunking - Lower				P24878
29	Trunking - Top				P23614
30	Energy chain See "Energy chain" on page 3-18.				P23913
31	Guide bracket				P24956
32	Bracket - Bulkhead				P24699
33	Cover, Hose burst				P26480
34	Guide bracket				P24913
35	Stud plate				P24613

french
german
spanish

boom assemblies



french
german
spanish

boom assemblies

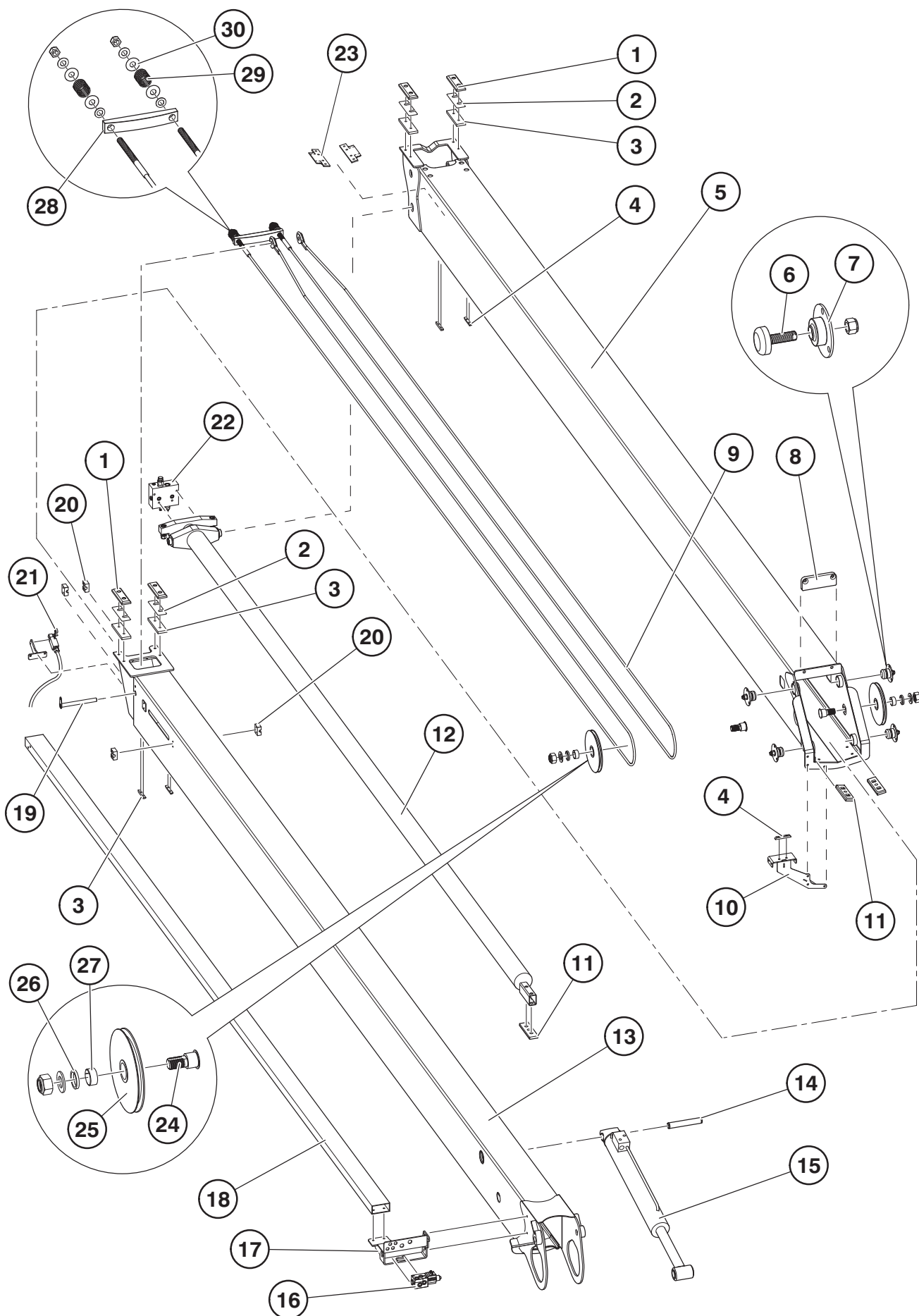
3.3 telescope assembly (part 2)

Item	Description	Part Number			
1	Wear pad				P22265
2	Shim				P14174
3	Spacer				P22266
4	Wear pad				P15899
5	Section 3				P23543
6	Wear screw				P24833
7	Capping plate				P24870
8	Wear pad				P22234
9	Wire rope kit - Outward				P22115
10	Support - trunking				P24015
11	Wear pad				P16176
12	Tele cylinder Seal Kit *				P21722 P26180
13	Section 2				P23542
14	Pin - 188 mm				P24059
15	Level cylinder Seal kit * See "Levelling cylinder" on page 3-16.				P24955 P18466
16	Valve Coil ONLY				P21456 P26518
17	Bulkhead bracket				P24704
18	Trunking - Top				P23614
19	Pin - 201 mm				P22227
20	Guide block - Rope				P22477
21	Microswitch Mounting bracket				P19118 P24912
22	Valve - Regen				P22513
23	Wear pad				P27222

* Not illustrated

french
german
spanish

boom assemblies



french
german
spanish

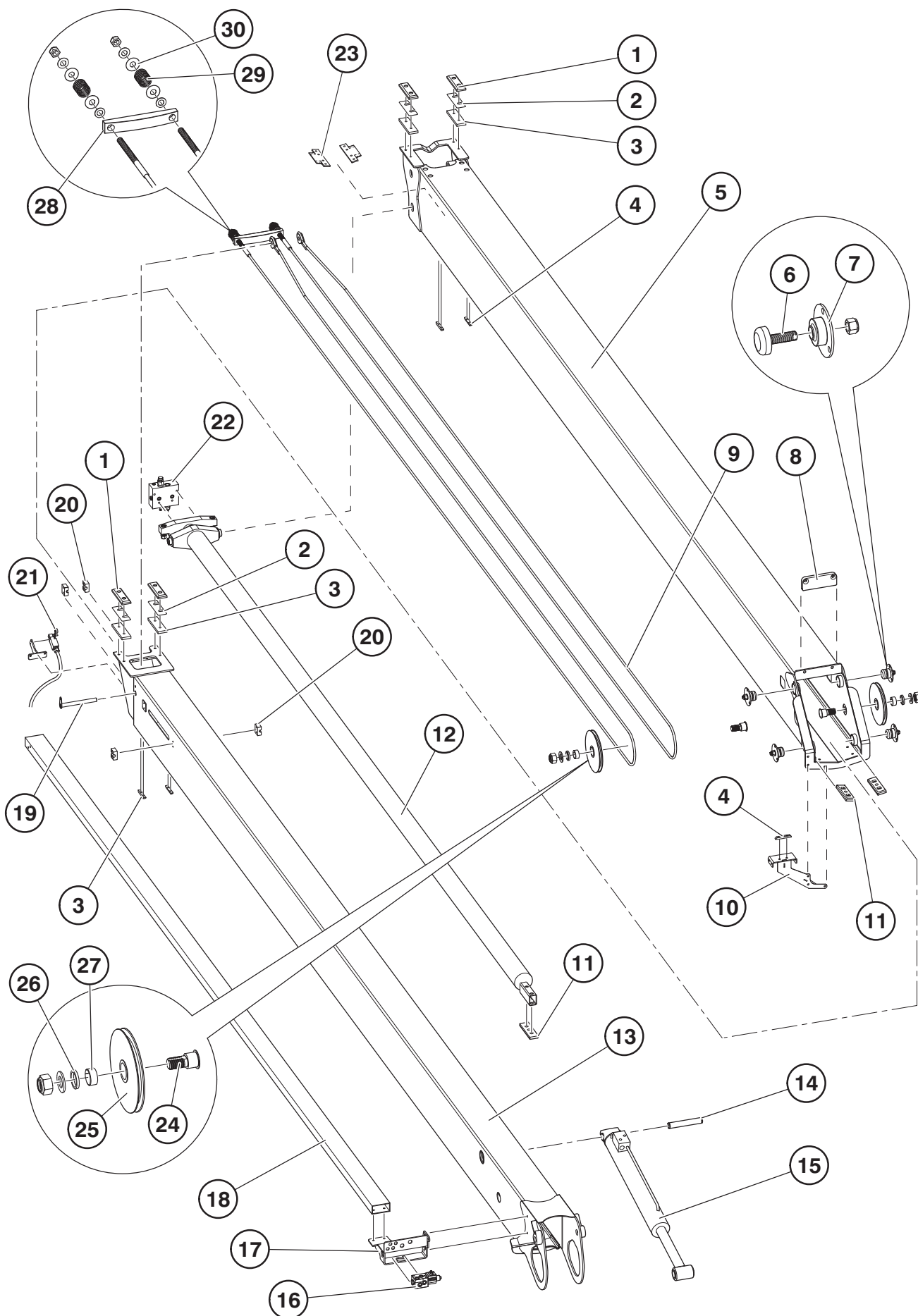
boom assemblies

3.3 continued

Item	Description				Part Number
24	Axle - Pulley				P22406
25	Pulley				P22408
26	Collar				P22407
27	Bush				P19648
28	Tension block				P28474
29	Spring				P24988
30	Washer, Cup				P26594

french
german
spanish

boom assemblies



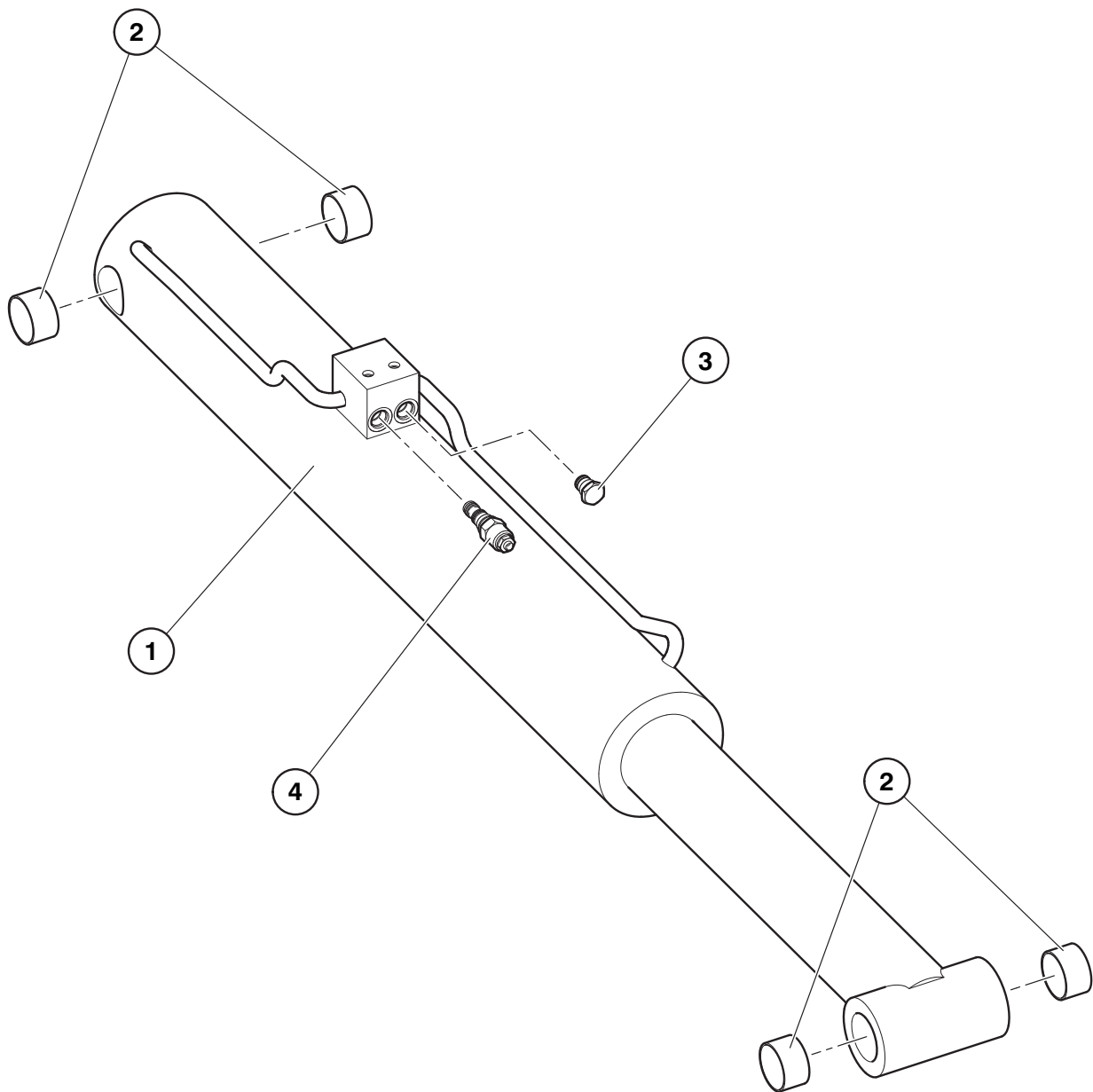
french
german
spanish

boom assemblies

3.4 Lift/Luffing cylinder

Item	Description	Part Number			
1	Cylinder Seal Kit * Lift Luffing				P25955 P21443 P26181
2	Bush				P17907
3	Cavity plug				P18324
4	Overcentre valve Lift Luffing				P24892 P24891

* Not illustrated



french
german
spanish

boom assemblies

3-15

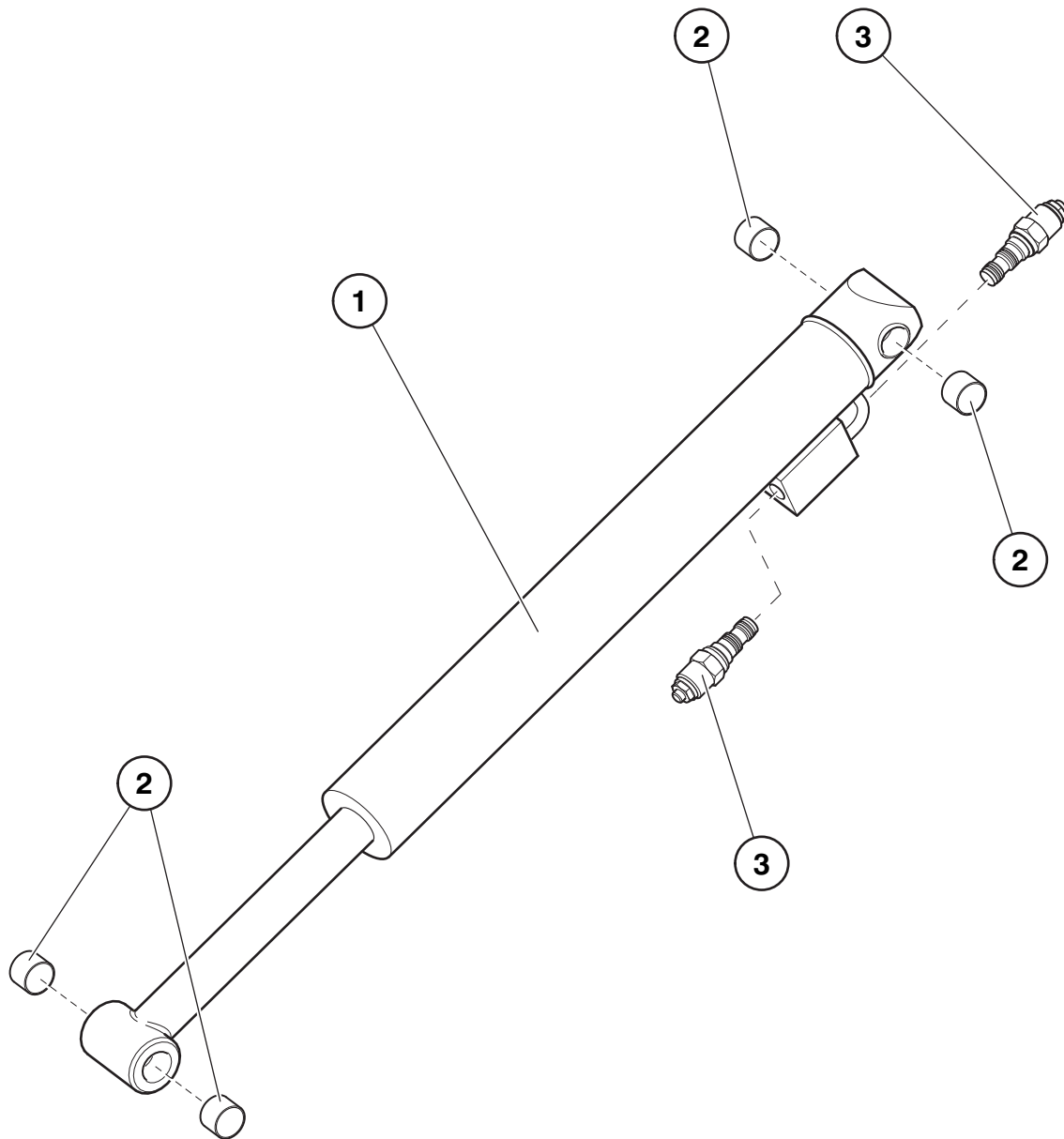
3.5 Levelling cylinder

Item	Description				Part Number
1	Cylinder Seal kit *				P24955 P18466
2	Bush DU3025				P10509
3	Overcentre valve				P11956

* Not illustrated

french
german
spanish

boom assemblies



french
german
spanish

boom assemblies

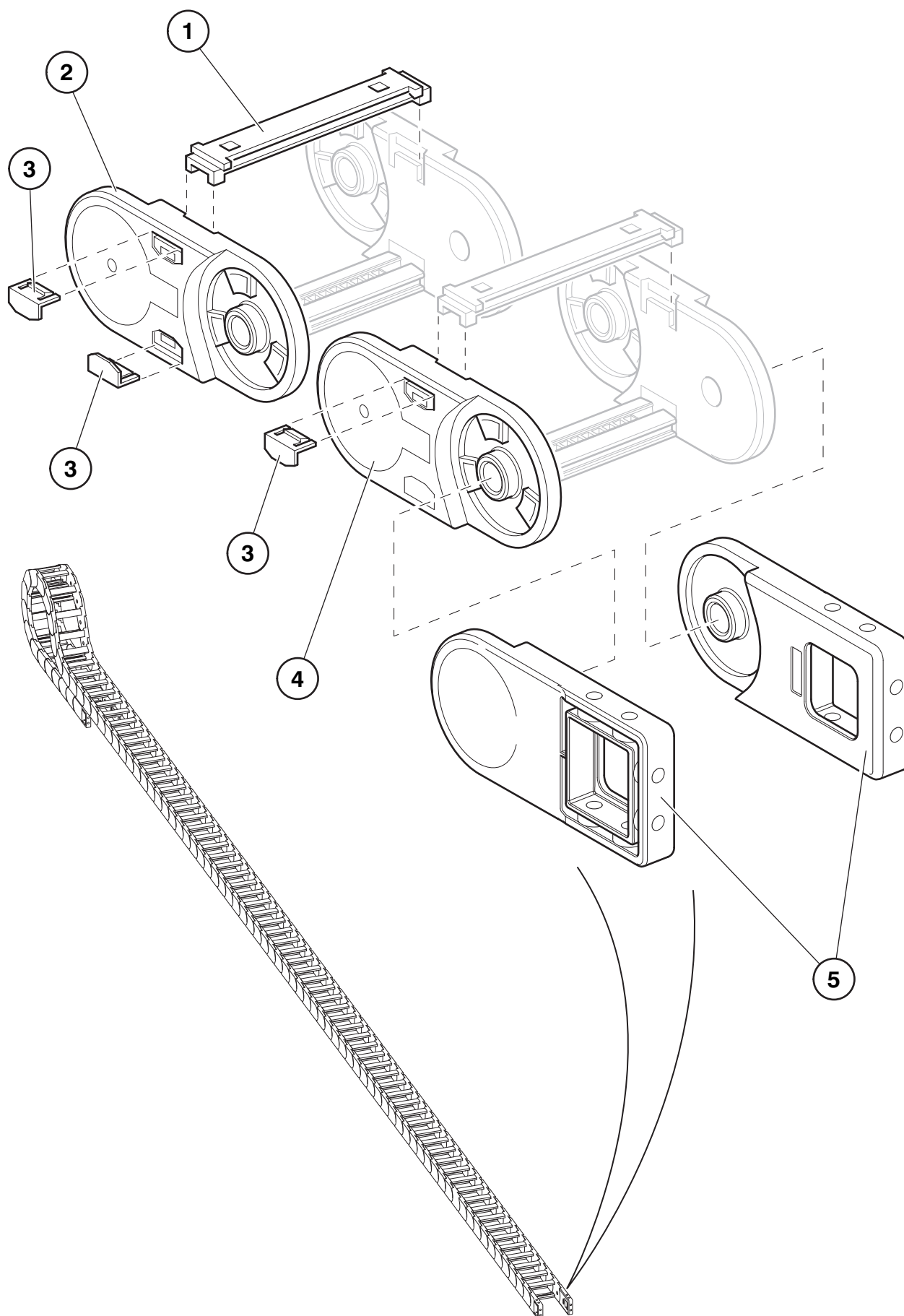
3-17

3.6 Energy chain

Item	Description				Part Number
	Complete assembly				P23913
1	Bridge				P27302
2	Open side piece				P24027
3	Locking insert (Red)				P27300
4	Locking side piece				P27301
5	End link (2 items)				P24026

french
german
spanish

boom assemblies



french
german
spanish

boom assemblies

3-19



nifty



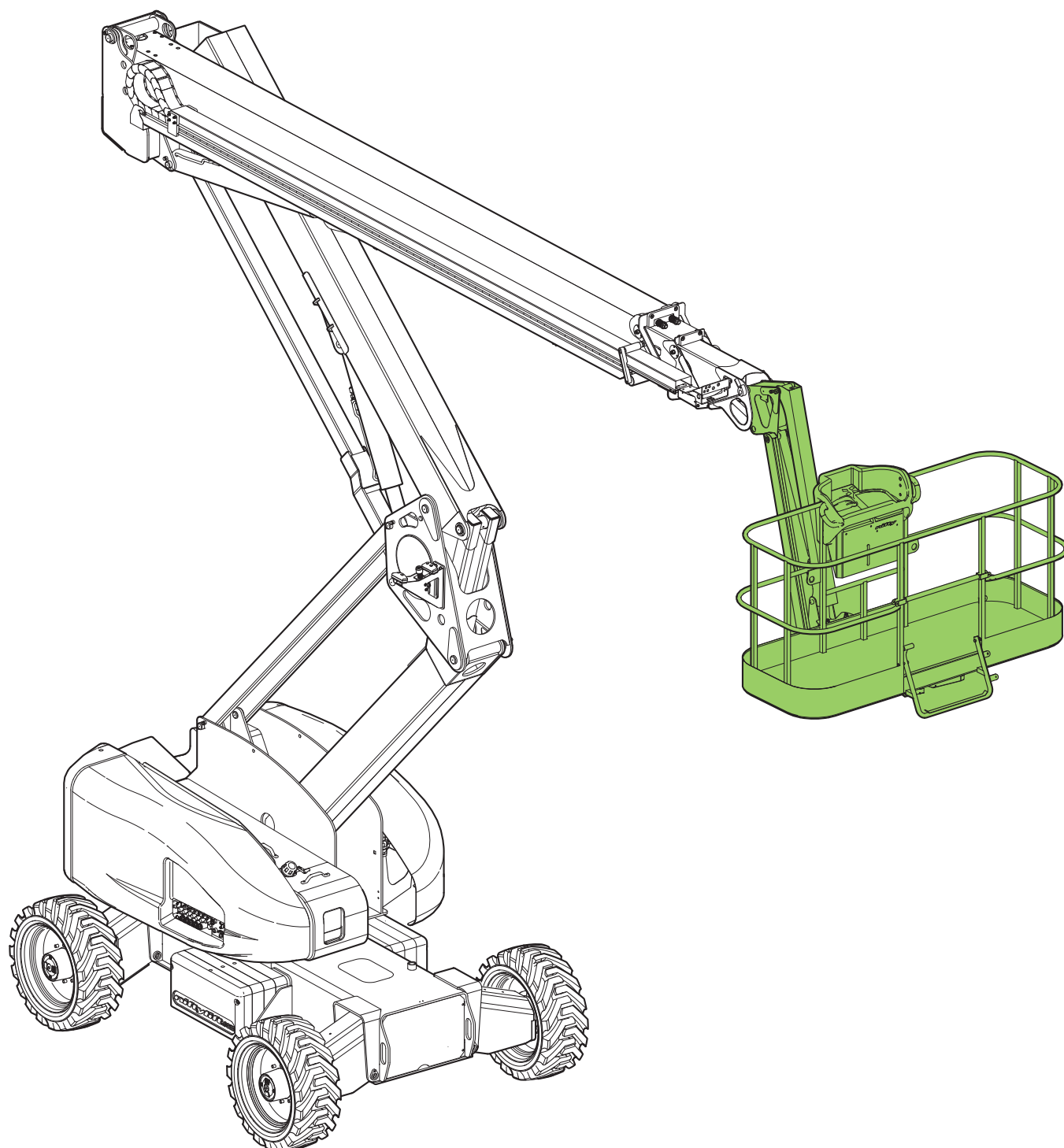
HR28 (SP85)

illustrated parts manual

Manuel illustré de pièces détachées

Illustrierte Stückliste

Manual de piezas ilustrado



4

cage and flyboom

**french
german
spanish**



4.1 cage assembly

Item Description

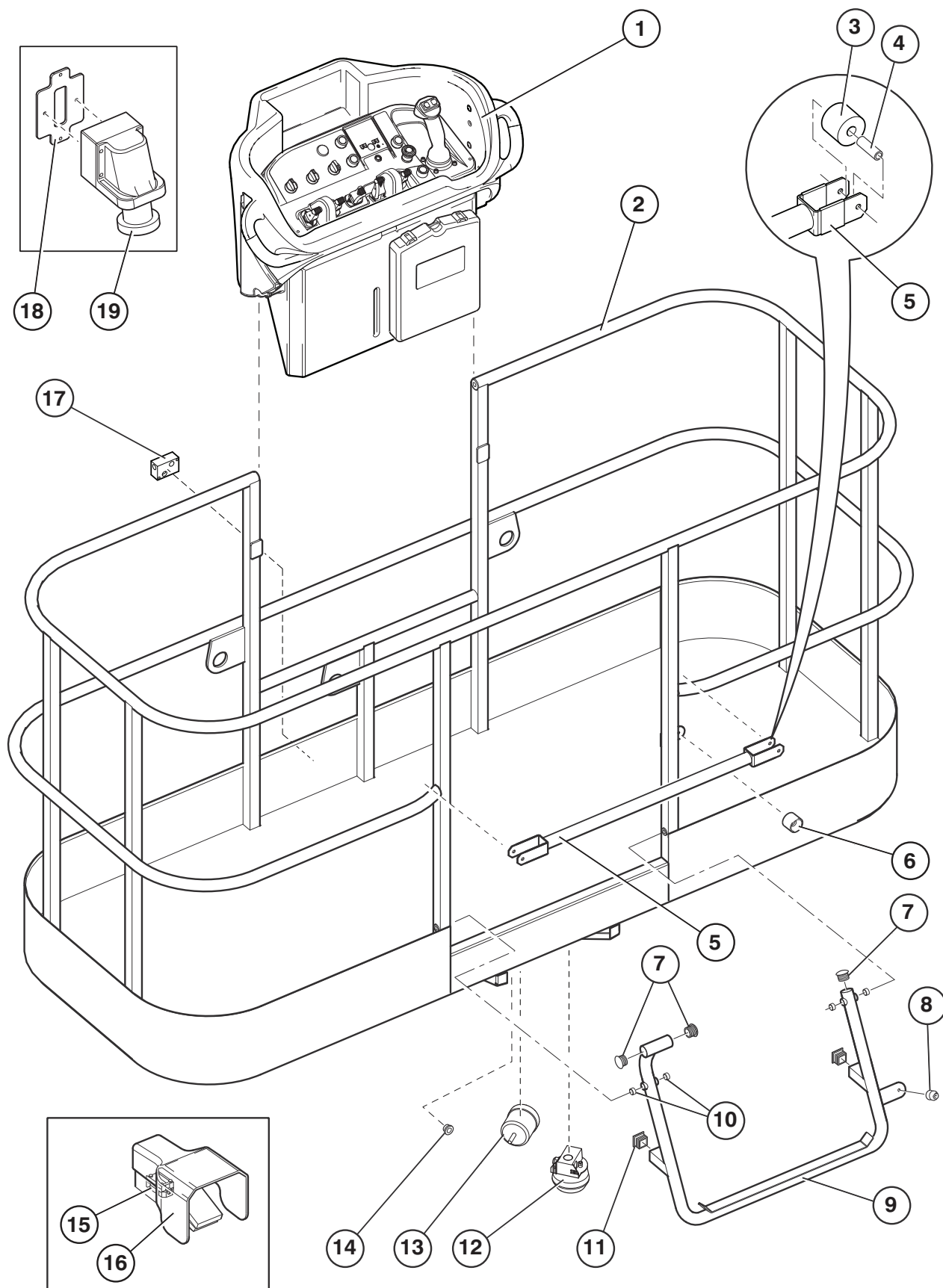
Part Number

1	Cage console USA See "cage console assembly" on page 4- 4.				P29194 P28106
2	Cage 3 person * 2 person * 1 person (Lighting)				P21394 P25218 P30223
3	Nylon roller				P19973
4	Spacer				P18648
5	Cage gate				P13652
6	Latch - female				P13815
7	End cap				P13379
8	Latch - male				P13814
9	Cage step				P18731
10	Bush				P10840
11	End cap				P10841
12	Beacon - Blue				P27950
13	Annunciator				P27951
14	Rubber bush				P21960
15	Contact switch				P26751
16	Footswitch assy Cover ONLY				P26601 P26752
17	Pressure valve				P26368
18	Mounting bracket				P26853
19	Socket 110v 230v (OPTIONAL)				P26843 P26842
20 *	Pan handle (OPTIONAL)				P29099

* Not illustrated

french
german
spanish

cage and flyboom



french
german
spanish

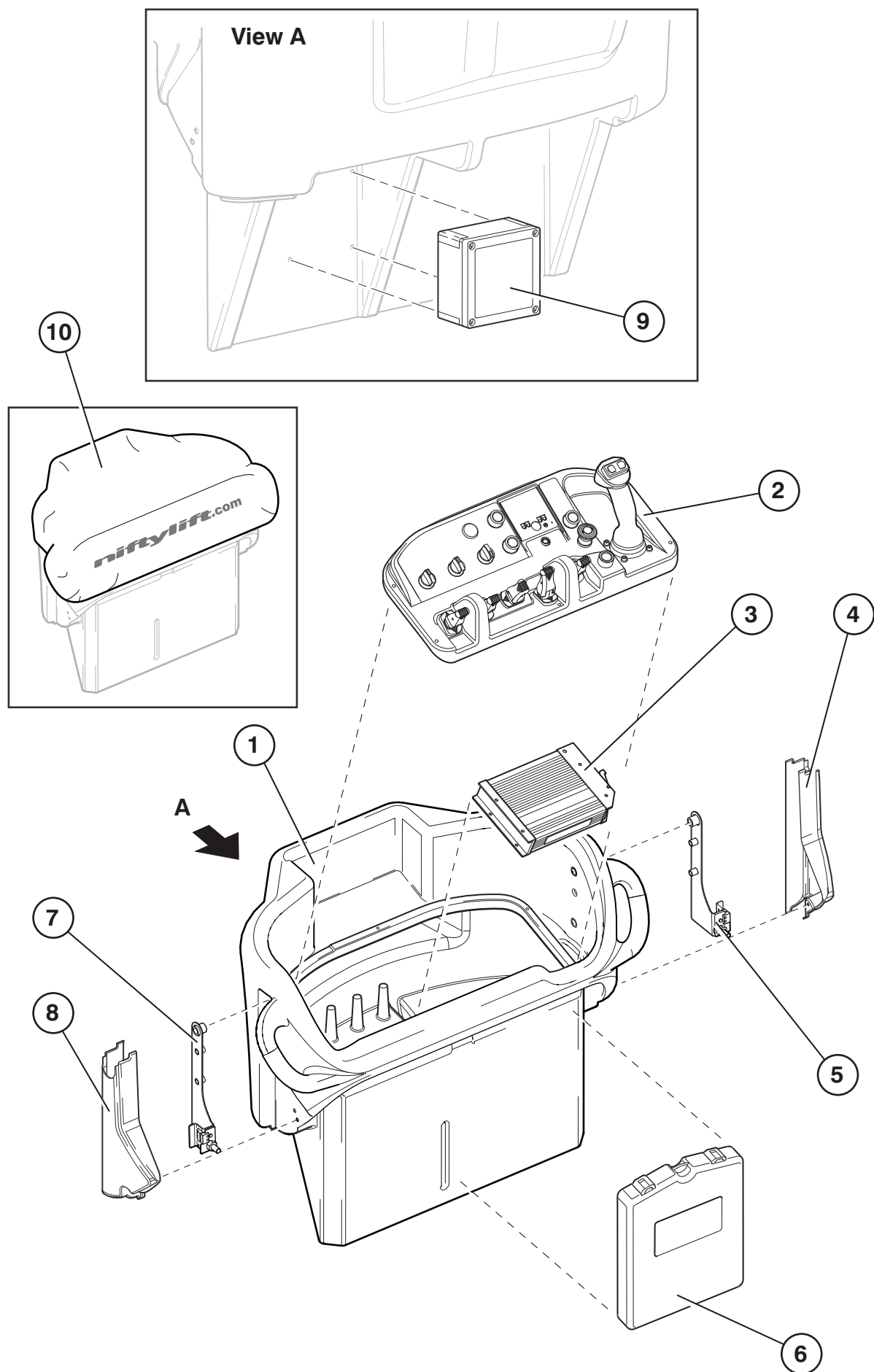
cage and flyboom

4.2 cage console assembly

Item	Description				Part Number
1	Console				P22070
2	Control panel assy. <i>See "control panel assembly" on page 4-14.</i>				P27005
3	Safety controller (Not programmed)				P23305
4	Cover RH				P21416
5	SiOPS Bracket RH assembly <i>See "SiOPSTM assembly" on page 4-6.</i>				P26150
6	Instruction manual box				P11618
7	SiOPS Bracket LH assembly <i>See "SiOPSTM assembly" on page 4-6.</i>				P26149
8	Cover LH				P21417
9	Cage weigh box assembly				P25879
10	Protective cover (Option)				P24020

french
german
spanish

cage and flyboom



french
german
spanish

cage and flyboom

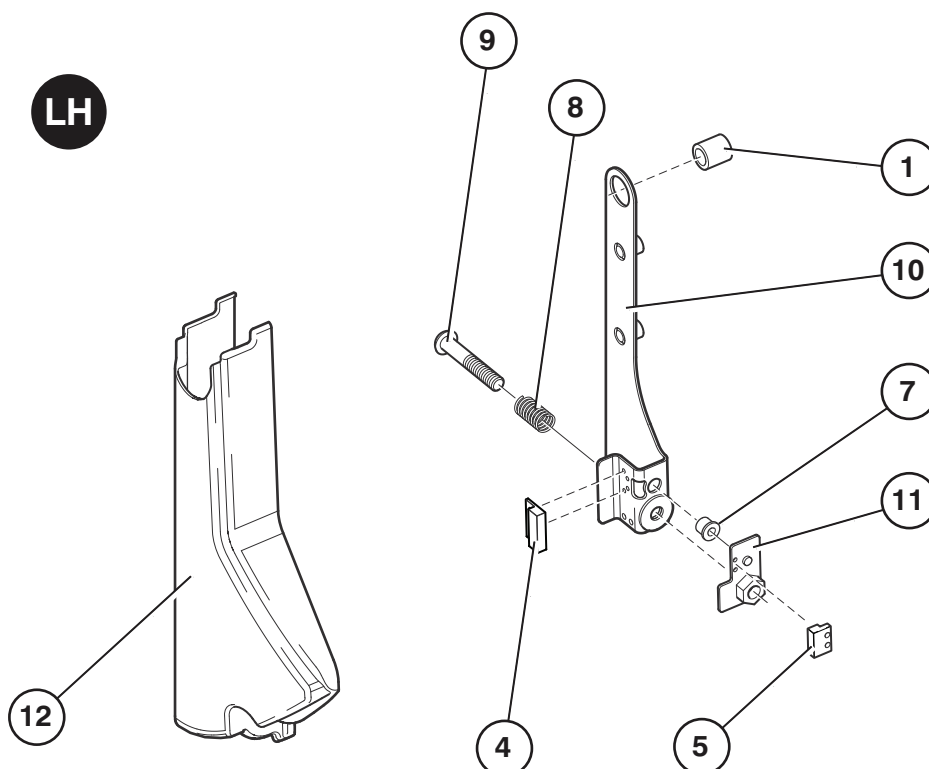
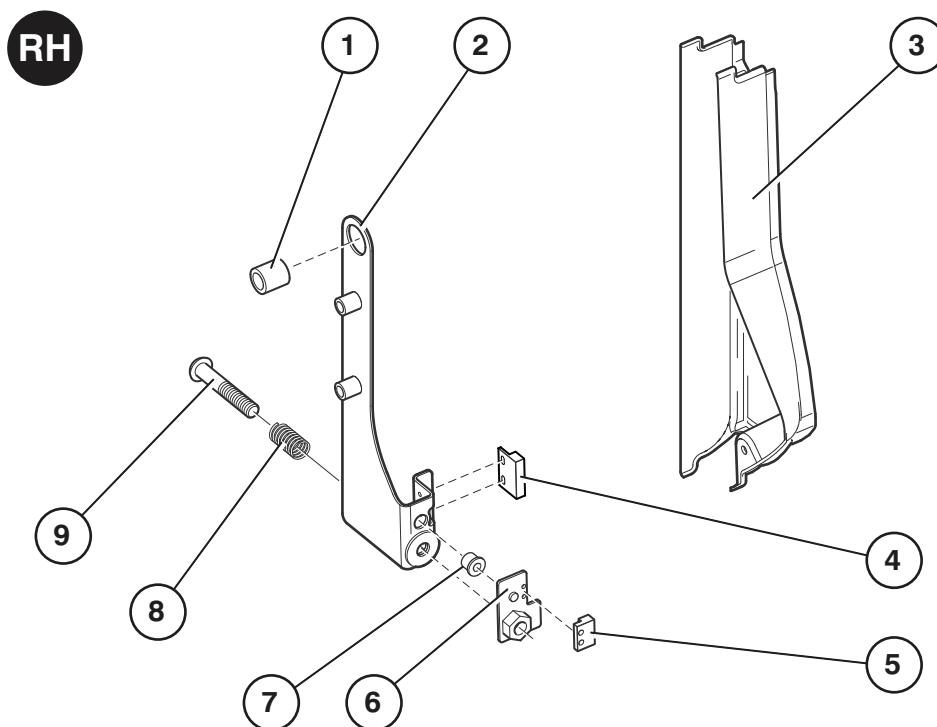
4-5

4.3 SiOPS™ assembly

Item	Description				Part Number
	Assembly RH LH (Items 3 and 12 not included)				P26150 P26149
1	Boss				P21526
2	Console bracket RH				P21641
3	Cover RH				P21416
4	Proximity switch				P22061
5	Magnet				P22062
6	Magnet bracket RH				P21643
7	Plastic boss				P21645
8	Spring				P22298
9	Button socket screw (M10 x 60)				N/A
10	Console bracket LH				P21640
11	Magnet bracket LH				P21642
12	Cover LH				P21417

french
german
spanish

cage and flyboom



french
german
spanish

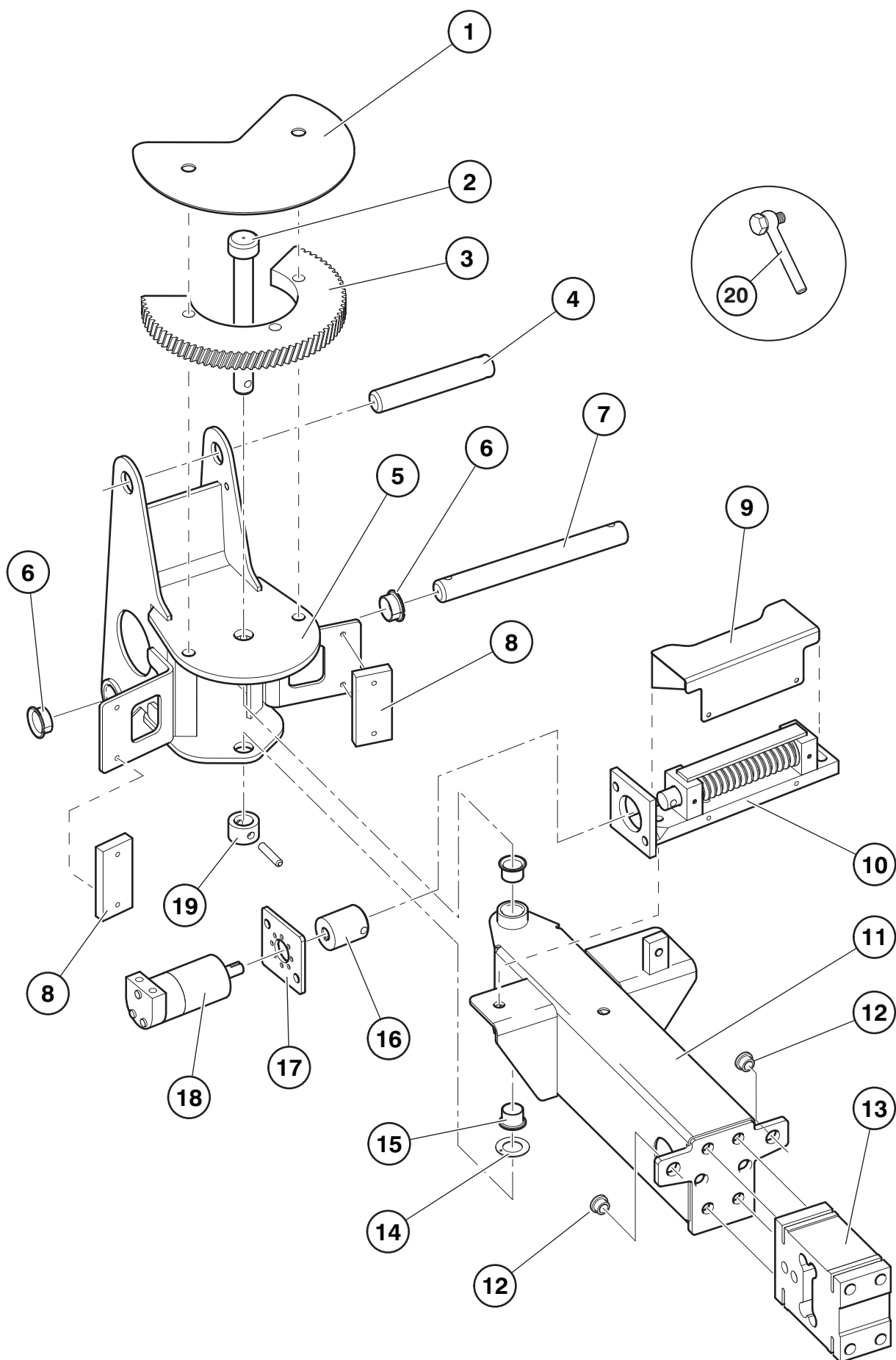
cage and flyboom

4.4 cage rotate assembly

Item	Description				Part Number
1	Guard				P18441
2	Pin - Cage rotate				P17544
3	Gear wheel				P17752
4	Pin - 175mm				P15953
5	Bracket				P24631
6	Bush 3016DU				P16337
7	Pin - 280mm				P15649
8	Rubber pad				P18347
9	Guard - Worm				P17800
10	Worm gear assembly				P17812
11	Extender bracket				P22651
12	Rubber bush				P21960
13	Load cell				P23420
14	Thrust washer				P10594
15	Bush				P12250
16	Drive coupling				P17735
17	Adaptor plate				P17747
18	Motor				P15686
19	Retaining collar				P16504

french
german
spanish

cage and flyboom



french
german
spanish

cage and flyboom

4-9

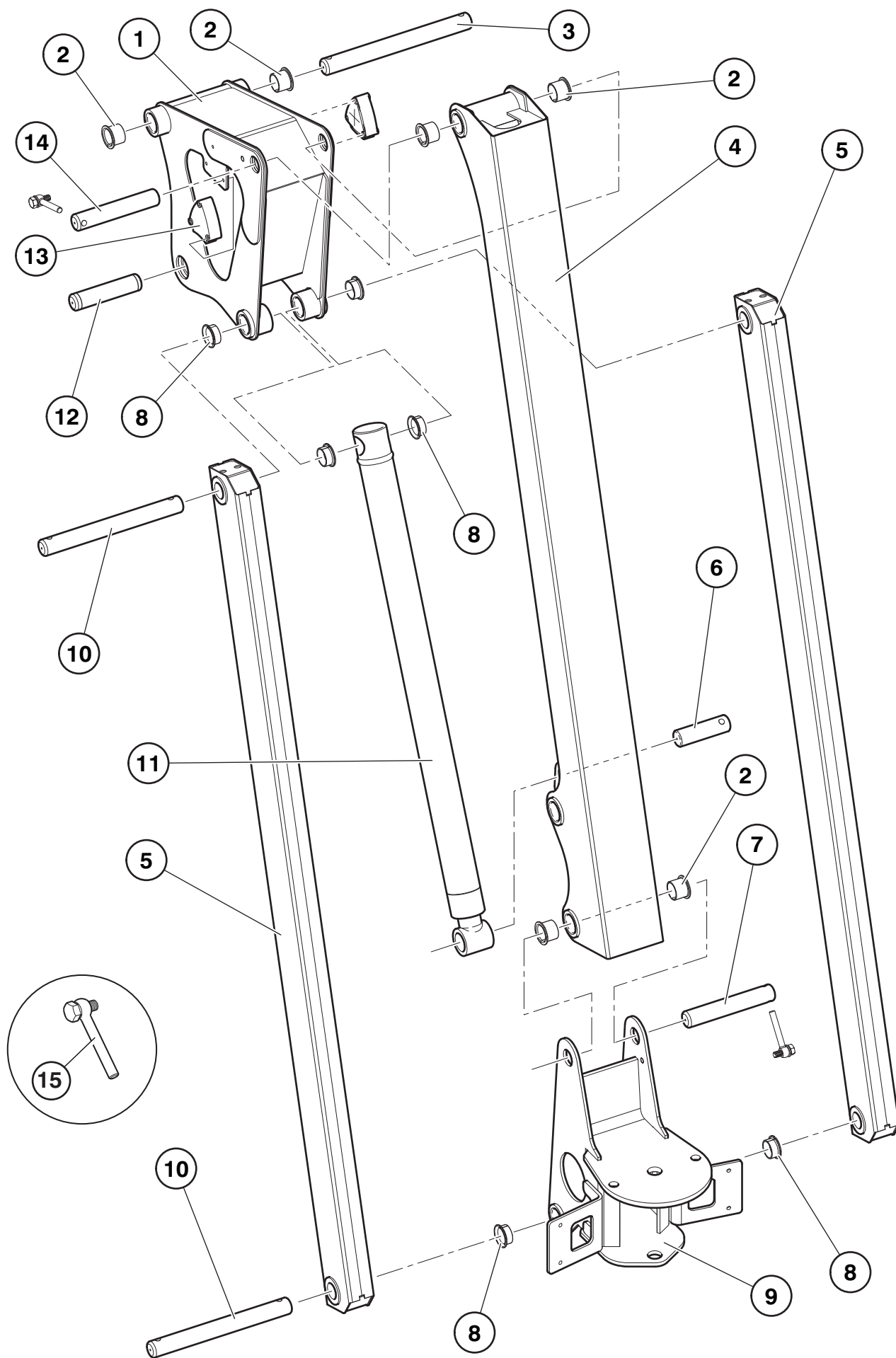
4.5 flyboom assembly

Item	Description				Part Number
1	Fly knuckle				P24434
2	Bush				P12651
3	Pin - 294mm				P17706
4	Flyboom - Upper				P29354
5	Flyboom - Lower				P24530
6	Pin - 101mm				P15391
7	Pin - 175mm				P15953
8	Bush				P16337
9	Cage bracket				P24631
10	Pin - 280mm				P15649
11	Cylinder Seal kit *				P19413 P13267
12	Pin - 133mm				P24060
13	Tilt sensor				P24635
14	Pin - 165mm				P12633
15	Swing bolt				P15966

* Not illustrated

french
german
spanish

cage and flyboom



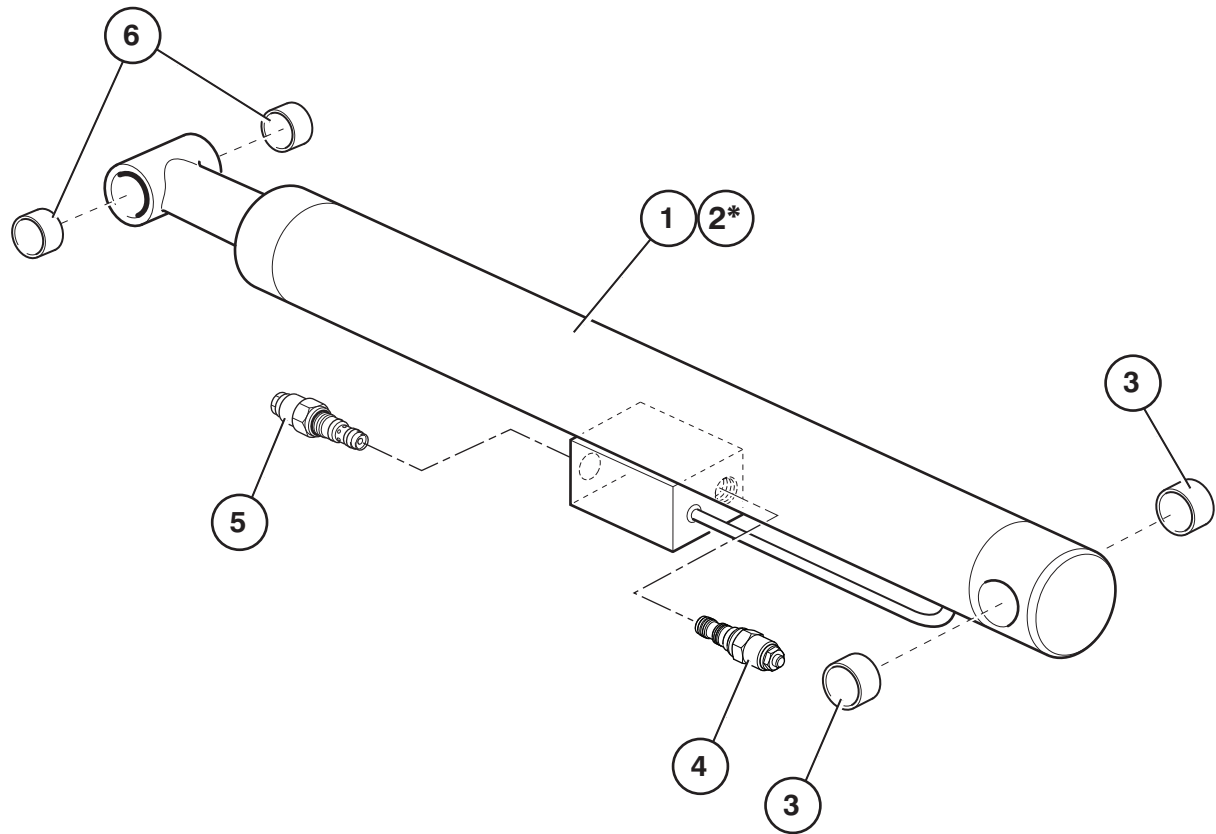
french
german
spanish

cage and flyboom

4.6 flyboom cylinder

Item	Description				Part Number
1	Cylinder				P19413
2 *	Seal kit for item 1				P13267
3	Bush				P10034
4	Load valve				P11956
5	Over centre valve				P15706
6	Bush				P10509

* Not illustrated



french
german
spanish

cage and flyboom

4-13

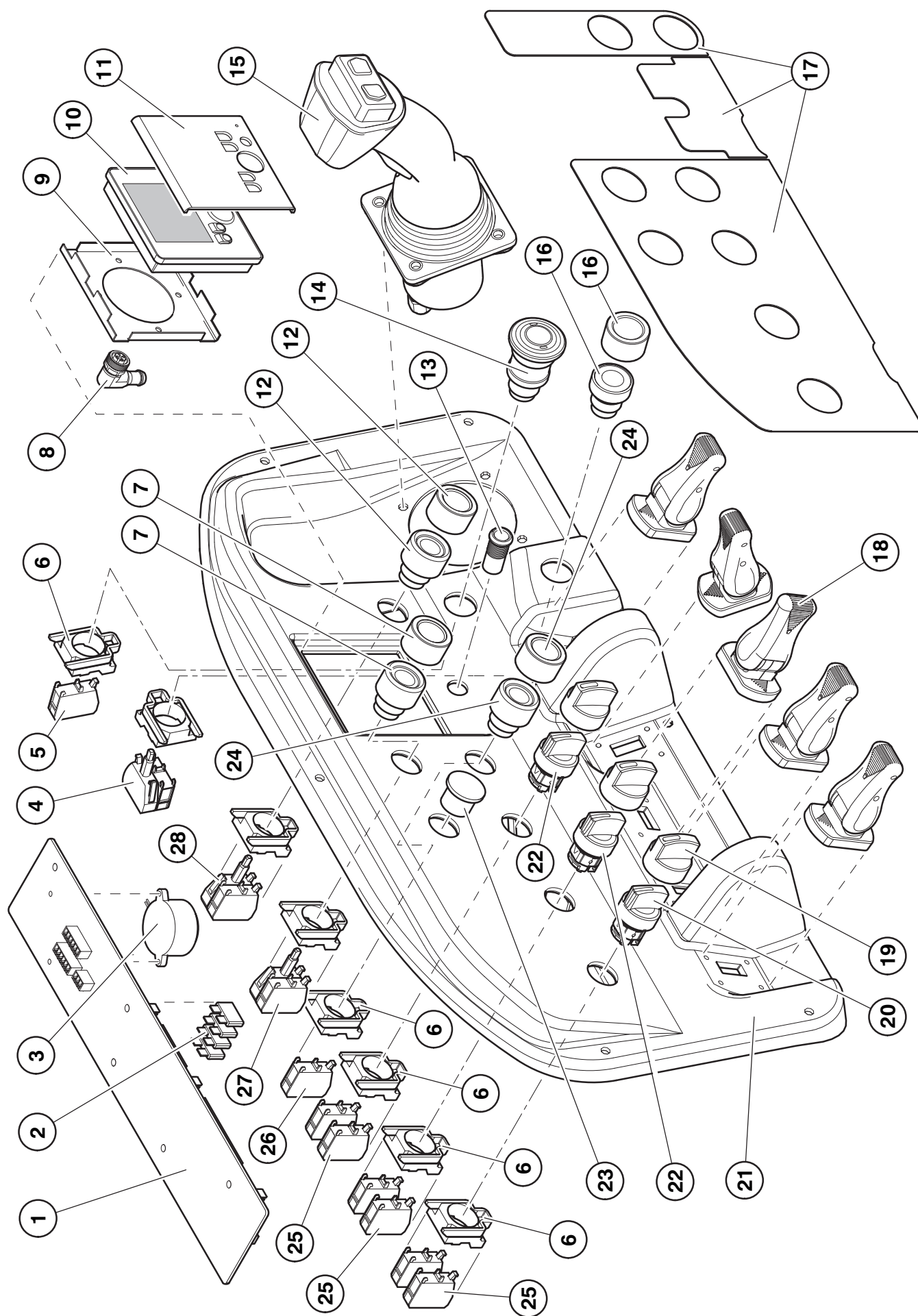
4.7 control panel assembly

Item Description Part Number

	Complete assembly Standard				P27005
1	PCB - Cage console				P26487
2	Fuse - Blade 15A Fuse - Blade 2A				P22193 P22192
3	Alarm sounder				P11112
4	Contact NO LED block Green				P24323 P24338
5	Contact NC				P24324
6	Base, switch				P24322
7	Button - Yellow (with boot)				P24343
8	Plug, 5 way				P24230
9	Backing plate				P27142
10	Digital display unit (Not programmed)				P24104
11	Screen protector				P24586
12	Button - White (with boot)				P24342
13	LED, Red				P24426
14	E-Stop button USA Only				P24317 P28564
15	Joystick				P26589
16	Button - Green (with boot)				P24333
17	Label - Switches				P27368
18	Paddle switch				P26554
19	Rubber cover				P24319
20	Selector switch				P24327
21	Console lid				P25995
22	Selector switch (sprung)				P24327
23	Blanking plug				P24344

french
german
spanish

cage and flyboom



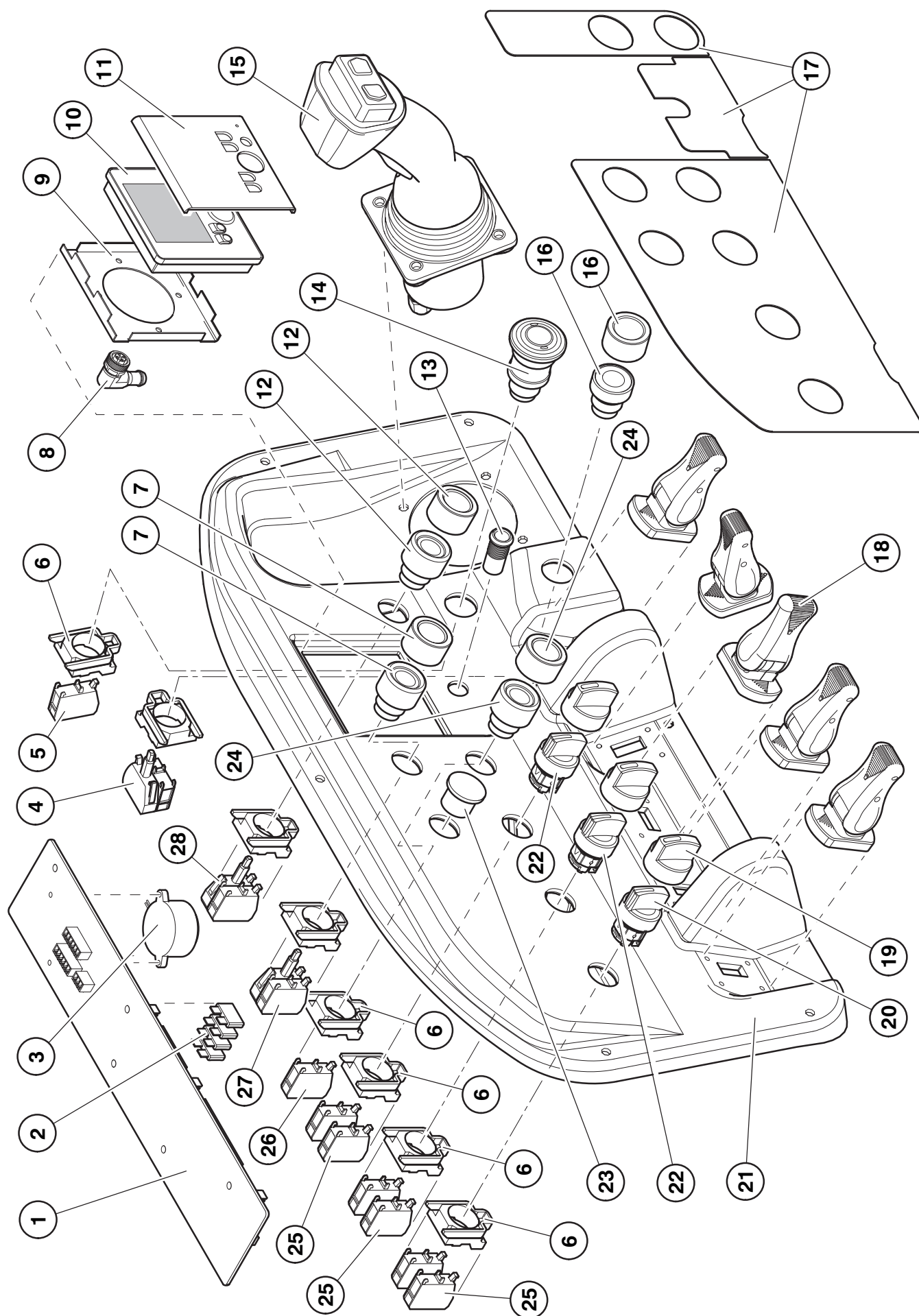
french
german
spanish

cage and flyboom

4.7 continued

Item	Description				Part Number
24	Button - Blue (with boot)				P24345
25	Contact NO (2 off)				P24323
26	Contact NO (1 off)				P24323
27	Contact NO LED block Orange				P24323 P24341
28	Contact NO LED block White				P24323 P24336

french
german
spanish



french
german
spanish

cage and flyboom

4-17



nifty



HR28 (SP85)

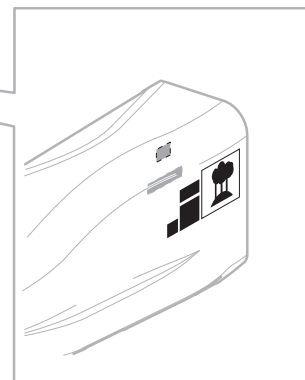
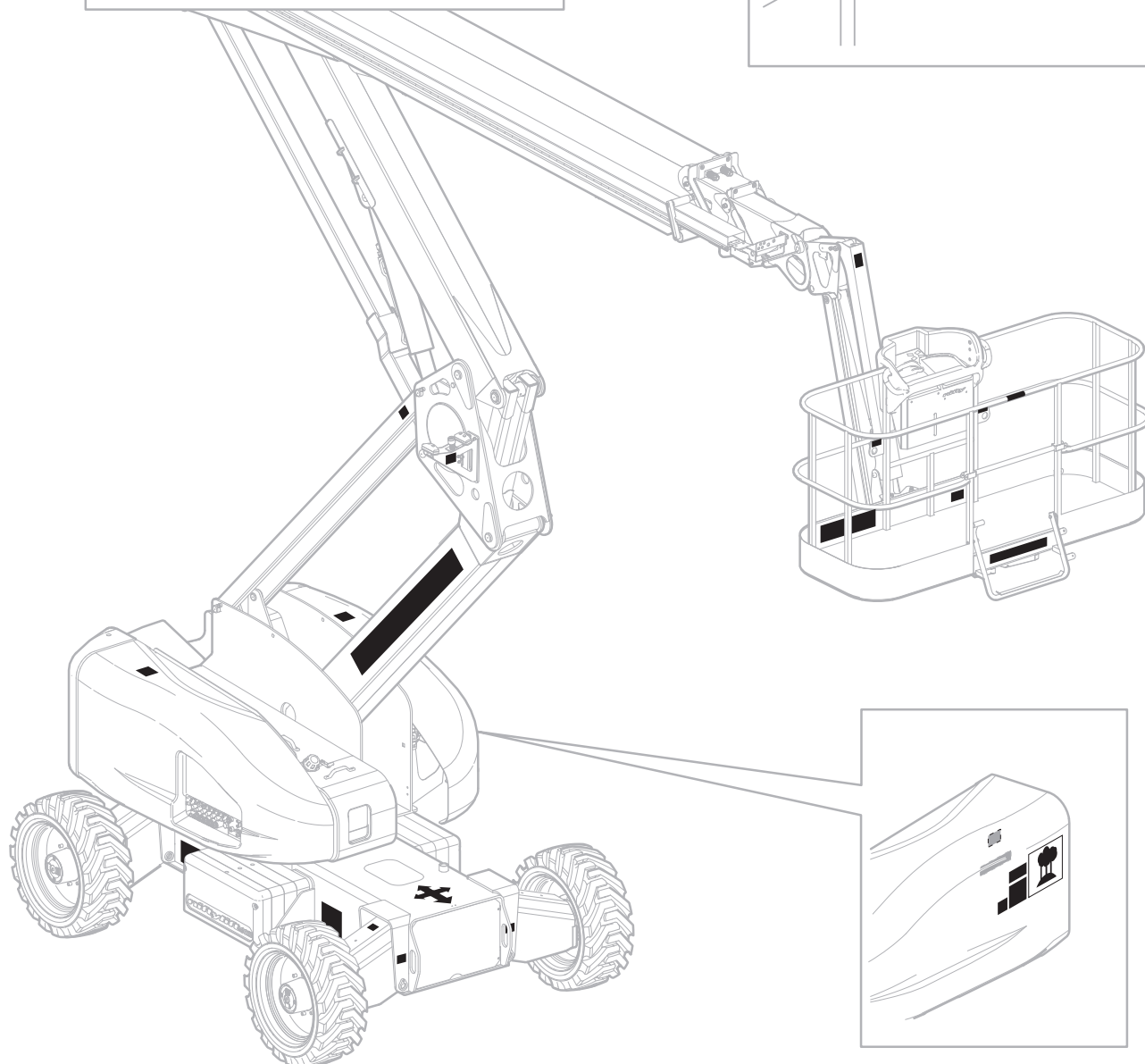
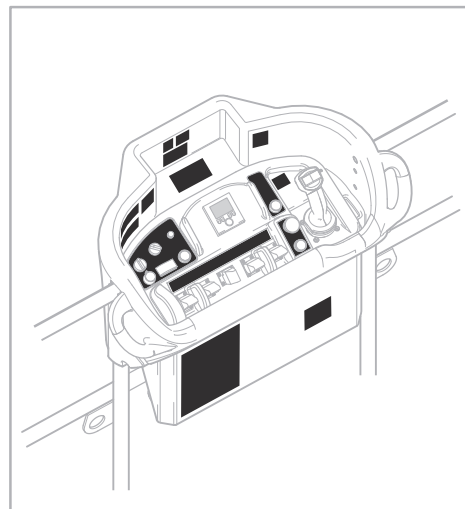
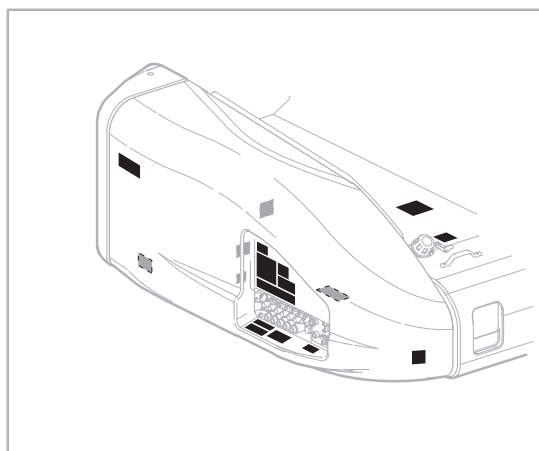


illustrated parts manual

Manuel illustré de pièces détachées

Illustrierte Stückliste

Manual de piezas ilustrado



5



labelling
french
german
spanish

5.1 Label locations

Item	Description	Part Number
1	Overload warning	P18848
	french	P18849
	german	P18850
	spanish	P18851
	dutch	P18852
	swedish	P19638
2	Tilt alarm sounds	P14868
	french	P14869
	german	P14870
	spanish	P14871
	dutch	P16398
	swedish	P19719
3	IPAF - Training	P22055
	french	P22055
	german	P22055
	spanish	P22055
	dutch	P22055
	swedish	P22055
4	Clunk Click	P19961
	french	P19961
	german	P19961
	spanish	P19961
	dutch	P19961
	swedish	P19961
5	Fitted with SiOPS	P22820
	french	P22821
	german	P22822
	spanish	P22823
	dutch	P22824
	swedish	P22826
6	Emergency stop switch warning	P14864
	french	P14865
	german	P14866
	spanish	P14867
	dutch	P16628
	swedish	P19625

french
german
spanish

labelling

Item	Description	Part Number
7	Danger - Do not place objects...	P21511
	french	P21511
	german	P21511
	spanish	P21511
	dutch	P21511
	swedish	P21511
8	Cage controls	P27368
	french	P27368
	german	P27368
	spanish	P27368
	dutch	P27368
	swedish	P27368
9	Operating instructions	P14892
	french	P14892
	german	P14892
	spanish	P14892
	dutch	P14892
	swedish	P14892
10	General warning	P24900
	french	P21971
	german	P21972
	spanish	P21973
	dutch	P21974
	swedish	P21976
11	Raise flyboom	P19442
	french	P19442
	german	P19442
	spanish	P19442
	dutch	P19442
	swedish	P19442
12	Cage gate warning	P18335
	french	P18335
	german	P18335
	spanish	P18335
	dutch	P18335
	swedish	P18335

french
german
spanish

labelling

5.1 continued

Item	Description	Part Number
13	Harness point	P14883
	french	P14883
	german	P14883
	spanish	P14883
	dutch	P14883
	swedish	P14883

14	Warning - SWL 280kg	2 man cage 3 man cage	P24820 P24841
	french		P24820
	german		P24841
	spanish		P24820
	dutch		P24820
	swedish		P24820

15	Cage tie-down warning		P21404
	french		P21404
	german		P21404
	spanish		P21404
	dutch		P21404
	swedish		P21404

16	Footswitch		P14884
	french		P14885
	german		P14886
	spanish		P14887
	dutch		P16629
	swedish		P19626

17	Niftylift.com		P14390
	french		P14390
	german		P14390
	spanish		P14390
	dutch		P14390
	swedish		P14390

18	Tank pressure - Warning		P16365
	french		P17094
	german		P17039
	spanish		P17041
	dutch		P16903
	swedish		P19954

See Figure 5.1, Page 5-10

Item	Description	Part Number
19	Hydraulic oil	P17226
	Low Temperature Bio Oil	P23622
	french	P17226
	german	P17226
	spanish	P17226
	dutch	P17226
	swedish	P17226
20	Noise warning	P17124
	french	P17124
	german	P17124
	spanish	P17124
	dutch	P17124
	swedish	P17124
21	'Green Machine'	P22804
	french	P22804
	german	P22804
	spanish	P22804
	dutch	P22804
	swedish	P22804
22	Rotating Machinery (USA only)	P15010
	french	P15010
	german	P15010
	spanish	P15010
	dutch	P15010
	swedish	P15010
23	Hand crush	P14782
	french	P14782
	german	P14782
	spanish	P14782
	dutch	P14782
	swedish	P14782
24	Logo	HR28 Hybrid HR28 P24781 P25690
	Logo - USA	SP85 Hybrid SP85 P27898 P27897

french
german
spanish

labelling

5.1 continued

Item	Description	Part Number
25	No step	P14785
	french	P14785
	german	P14785
	spanish	P14785
	dutch	P14785
	swedish	P14785

26	Travel direction	P27048
	french	P27048
	german	P27048
	spanish	P27048
	dutch	P27048
	swedish	P27048

27	Tie down point	P14958
	french	P14958
	german	P14958
	spanish	P14958
	dutch	P14958
	swedish	P14958

28	Point load - 87.8 kN	P25068
	French	P25068
	german	P25068
	spanish	P25068
	dutch	P25068
	swedish	P25068

29	Gearbox disengage	P26280
	french	P26281
	german	P26282
	spanish	P26283
	dutch	P26284
	swedish	P26286

30	Daily safety check list	P14908
	french	P14909
	german	P14910
	spanish	P14911
	dutch	P16630
	swedish	P19629

See Figure 5.1, Page 5-10

issue 02

niftylift.com

french
german
spanish

labelling

Item	Description	Part Number
31	Diesel ONLY	P14414
	french	P14414
	german	P14414
	spanish	P14414
	dutch	P14414
	swedish	P14414
32	Battery isolator	P18600
	french	P18600
	german	P18600
	spanish	P18600
	dutch	P18600
	swedish	P18600
33	Battery drain	P19850
	french	P19851
	german	P19852
	spanish	P19853
	dutch	P19854
	swedish	P19856
34	Charger socket	240V 110V P26425
	french	P26424
	german	P26425
	spanish	P26425
	dutch	P26425
	swedish	P26425
35	Auxilliary descent	P24822
	french	P24822
	german	P24822
	spanish	P24822
	dutch	P24822
	swedish	P24822
36	Base Controls	P25155
	french	P25155
	german	P25155
	spanish	P25155
	dutch	P25155
	swedish	P25155

french
german
spanish

labelling

5-7

5.1 continued

Item	Description	Part Number
37	Auxilliary descent	P25067
	french	P25067
	german	P25067
	spanish	P25067
	dutch	P25067
	swedish	P25067

38	Hydraulic Levers - Base	P24821
	french	P24821
	german	P24821
	spanish	P24821
	dutch	P24821
	swedish	P24821

39	Emergency Controls	P21700
	french	P21701
	german	P21702
	spanish	P21703
	dutch	P21704
	swedish	P21706

40	Base lever - Cage level	P24823
	french	P24823
	german	P24823
	spanish	P24823
	dutch	P24823
	swedish	P24823

41	Maintenance free batteries (Hybrid)	P27750
	french	P27751
	german	P27752
	spanish	P27753
	danish	P27756
	swedish	P27755

42	Tier 4/EU Emmisions	P25407
	french	P25407
	german	P25407
	spanish	P25407
	dutch	P25407
	swedish	P25407

french
german
spanish

labelling

Item	Description	Part Number
43	Power to cage socket	240V 110V
	french	P26427
	german	P26427
	spanish	P26427
	dutch	P26427
	swedish	P26427
44	Power to cage socket	P24787
	french	P24787
	german	P24787
	spanish	P24787
	dutch	P24787
	swedish	P24787

See Figure 5.1, Page 5-10

french
german
spanish

labeling
5-9

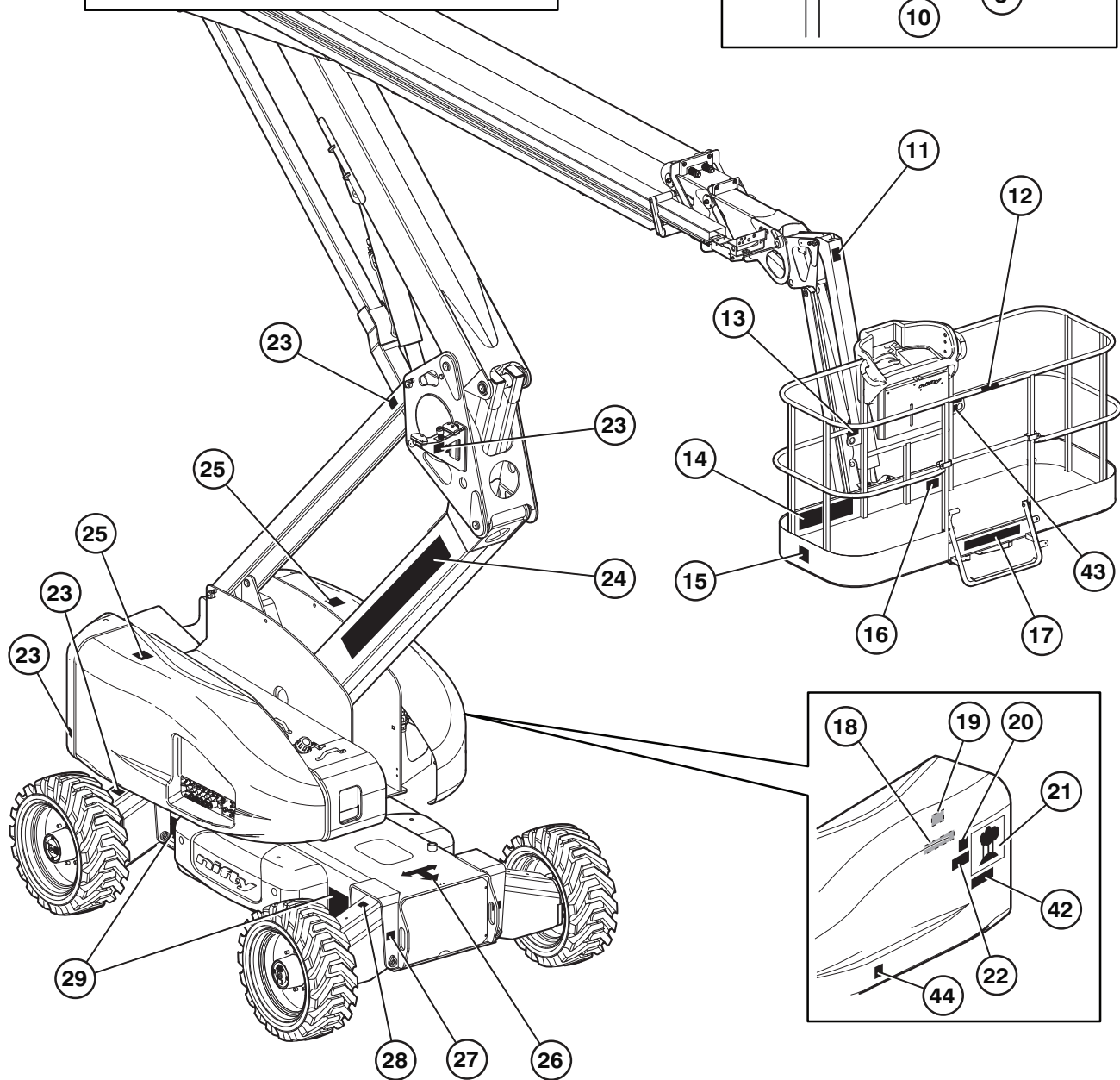
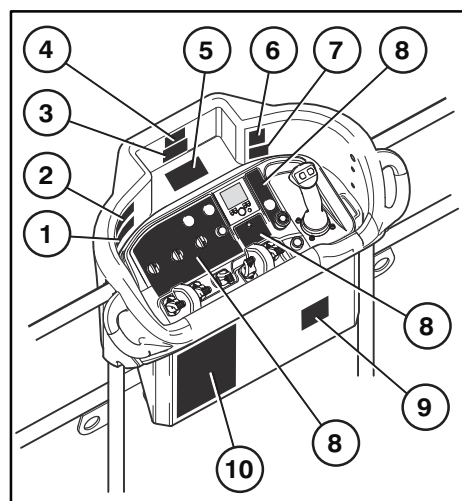
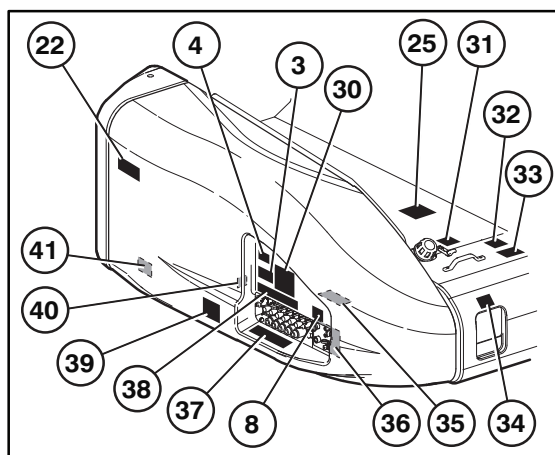
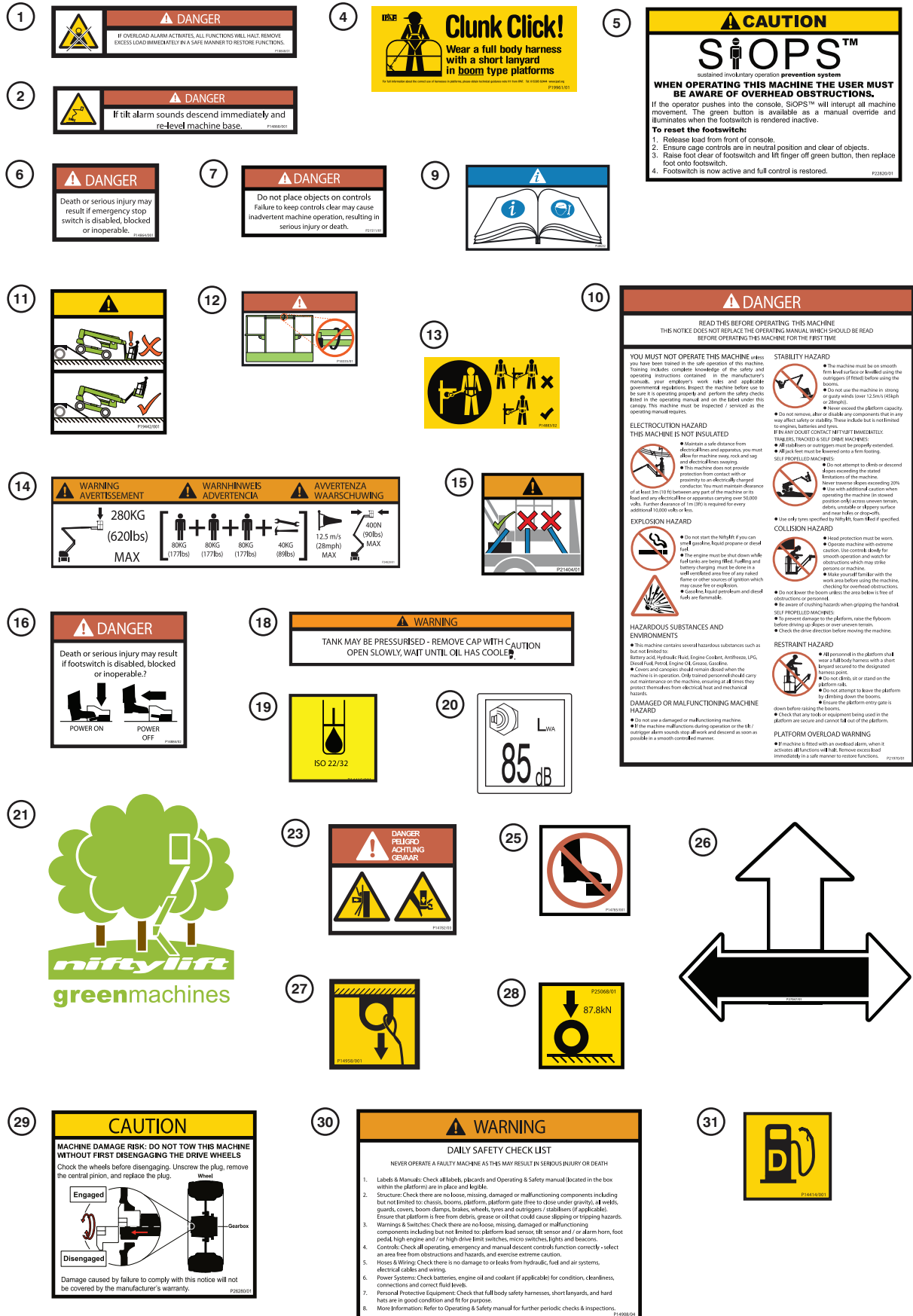


Figure 5.1 Label locations



french
german
spanish

labelling

