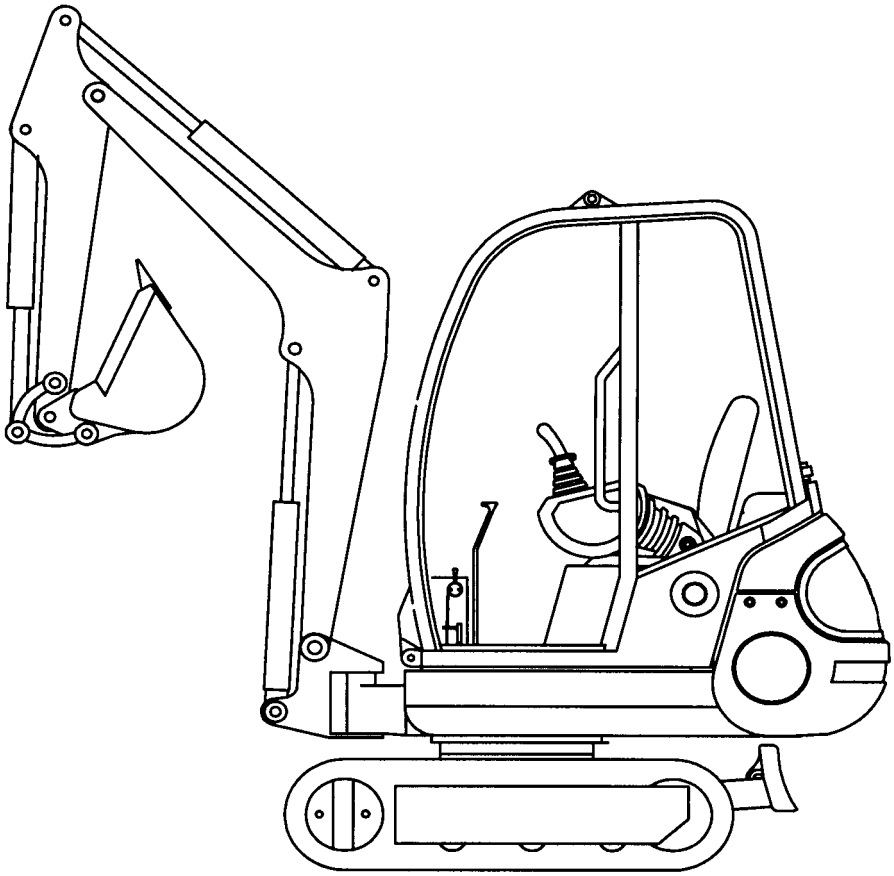
192-222

Mini-excavator



PARTS MANUAL

Form No.
908539

GEHL CONSTRUCTION

Introduction

When ordering service parts, specify the correct part number, full description, quantity required, the unit model number and serial number.

The Mini-excavator model and serial numbers are on a plate located on the lower left front outer side of the cabin (from the driver's perspective).

OUR Company reserves the right to make changes or improvements in the design or construction of any part of the unit without incurring the obligation to install such changes on any previously delivered units.

To ensure continued safe operation, replace damaged or worn-out parts with genuine Factory service parts, BEFORE attempting to operate this equipment.

Refer to the abbreviations table located on this page for the various fastener descriptions.

In the exploded view parts list, Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in that section. Refer to the Table of Contents for locations of specific assemblies.

NOTE: *The following abbreviations may be used herein:*

AR	– As Required
ASSD	– Assembled
ASSY	– Assembly
CB	– Carriage Bolt
CCW	– Counterclockwise
CP	– Cotter Pin
CS	– Cap Screw (Hexagon Head)
CTR	– Center
CW	– Clockwise
DEG	– Degree
DIA	– Diameter
FCHC	
FCS	– Flanged Cap Screw
FHMS	– Flat Head Machine Screw
FL	– Flanged
FLN	– Flanged Lock Nut (Hexagon)
FLS	– Flanged Lock Screw (Hexagon)
FW	– Flat Washer
GA	– Gauge
GR	– Grade
HD	– Hard or Head
HLN	– Hex Lock Nut
HJN	– Hex Jam Nut
HN	– Hex Nut
HS	
INCL	– Includes
INS	
JT	– Joint
LG	– Large
LH	– Left Hand
LN	– Lock Nut
LW	– Lock Washer
M	– Metric
MM/mm	– Millimeter
NF	– National Fine
PB	– Plow Bolt
PTO	– Power Take Off
RH	– Right Hand
RHMS	– Round Head Machine Screw
RPM	– Revolutions Per Minute
RT	– Right
SERR	– Serrated
SHCS	– Socket Head Cap Screw
SHSS	– Socket Head Set Screw
SN	– Serial Number or Slotted Nut
SQ	– Square
SQSS	– Square Head Set Screw
T	– Tooth or Teeth
TFS	– Thread Forming Screw
THMS	– Truss Head Machine Screw
THRD	– Thread
WLDMT	– Weldment
ZO	– Zinc Oxide Plating
#	– Number

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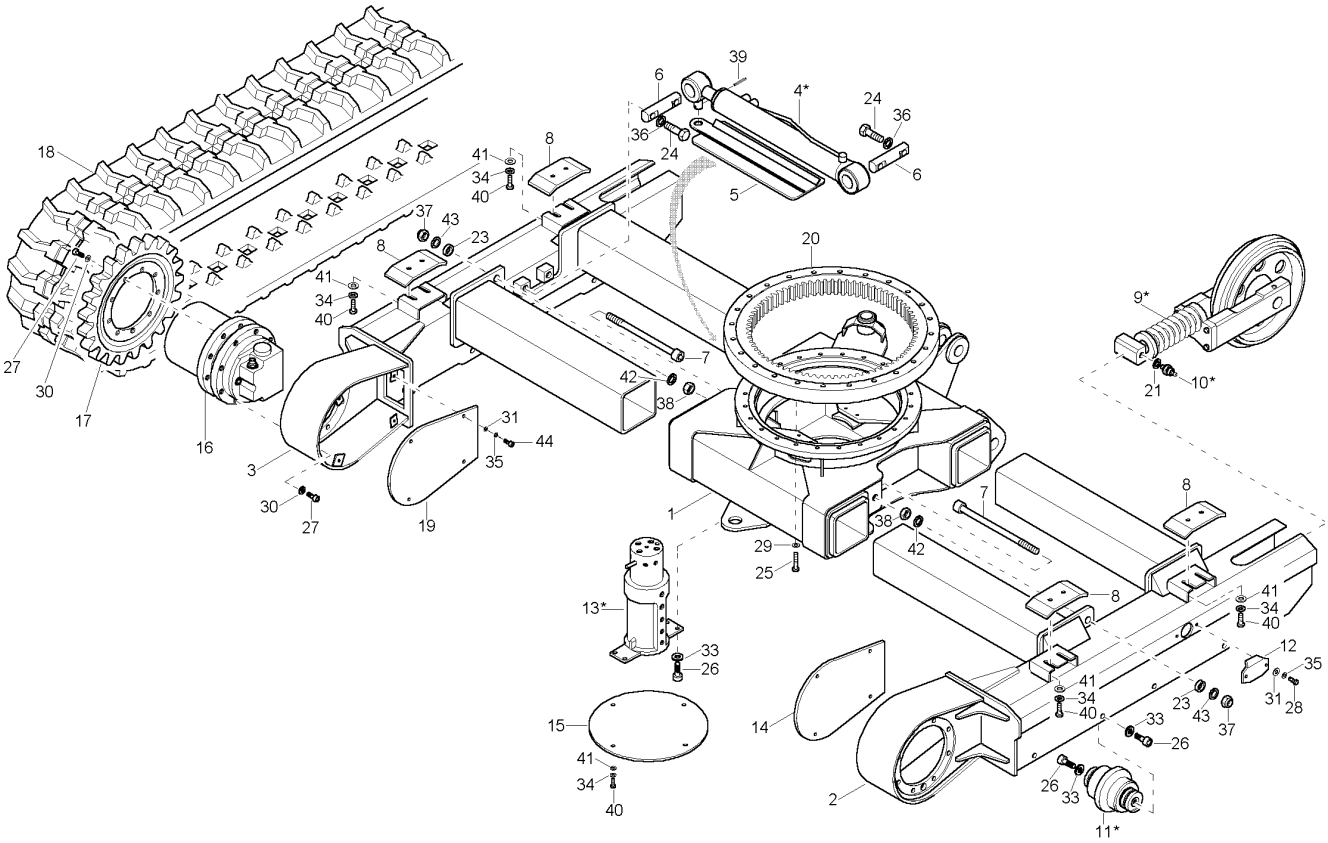
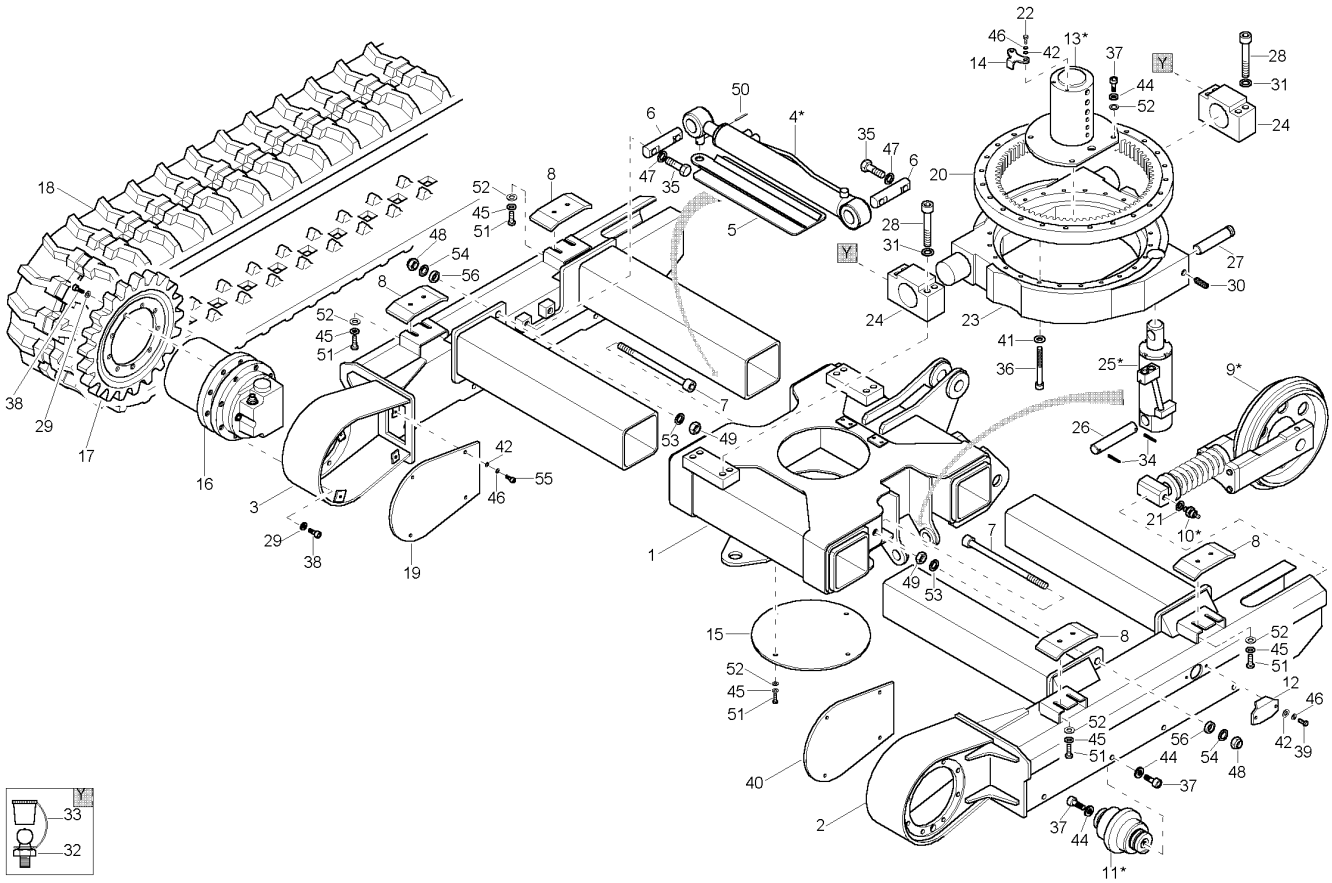


ET1920100

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
REF	162098	UNDERCARRIAGE ASSEMBLY	1
1	162097	BRACKET	1
2	162095	FRAME	1
3	162096	FRAME	1
4	160679	TELESCOPIC CYLINDER	1
5	160616	COVER	1
6	160622	PIN	2
7	161399	SCREW	2
8	161918	PLATE	4
9	160516	TRACK TENSION	2
10	160638	NON RETURN VALVE	2
11	160517	ROLLER	8
12	161930	COVER	2
13	161920	SWIVEL JOINT	1
14	161917	COVER	1
15	162094	COVER	1
16	160633	TRAVELING GEAR	2
17	160634	SPROCKET	2
18	160624	RUBBER TRACK	2
19	161916	COVER	1
20	161724	TURNTABLE	1
21	160865	SCREW SEAL	2
23	161915	TUBE	2
24	651412	CS M14-2.0 X 50 C 10.9 ZO	4
25	651408	CS M12-1.7 X 40 C 10.9 ZO	24
26	651474	SHCS HS M10-1.2 X 25 10.9 ZO D912	20
27	162022	SCREW	34
28	656093	CS M8-1.2 X 16 C 8.8 ZO	4
29	161643	WASHER/ROUND HI-TENS DIN6916	24
30	161623	LW SPRING B10 DIN7981	34
31	161661	WASHER/GR A 8.4 ZO	12
33	161635	WASHER/NORD-LOCK NL 10 STUCK	20
34	161669	LOCKWASHER S10	16
35	161676	LOCKWASHER S8	12
36	161671	LOCKWASHER S14	4
37	651451	HLN INS M16-2.0 ZO	2
38	656052	HN M16-2.0 ZO	2
39	651468	PIN/SPRING M8 X 70 D1481	1
40	651391	CS M10-1.5 X 20 C 8.8 ZO	12
41	161640	WASHER/GR A 10.5 ZO	12
42	161647	WASHER/ROUND HI-TENS 17	2
43	161649	WASHER/GR A 18 ZO DIN7989	2
44	651515	SHCS HS M8-1.2 X 20 8.8 ZO D912	8

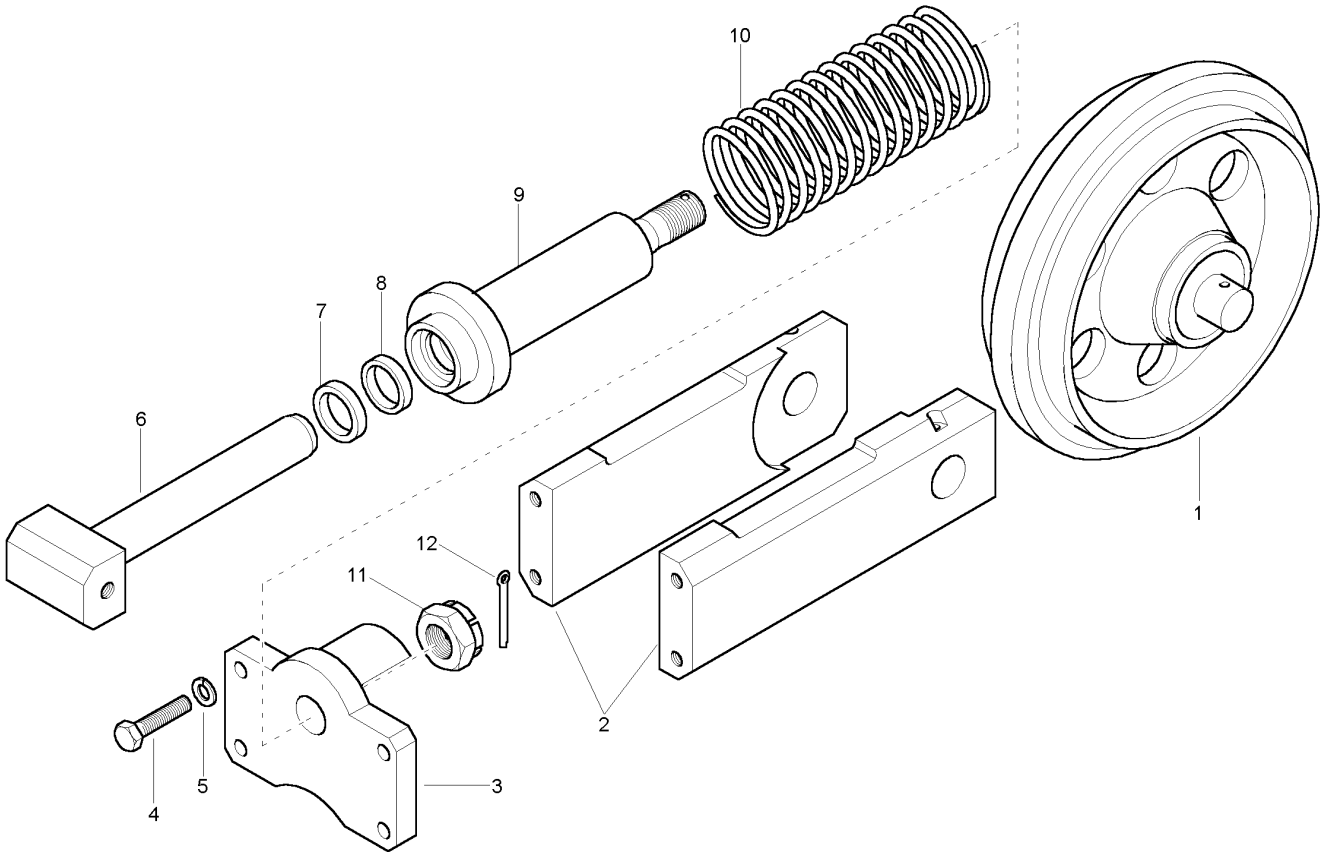


ET1920105

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

MODEL 222 — UNDERCARRIAGE

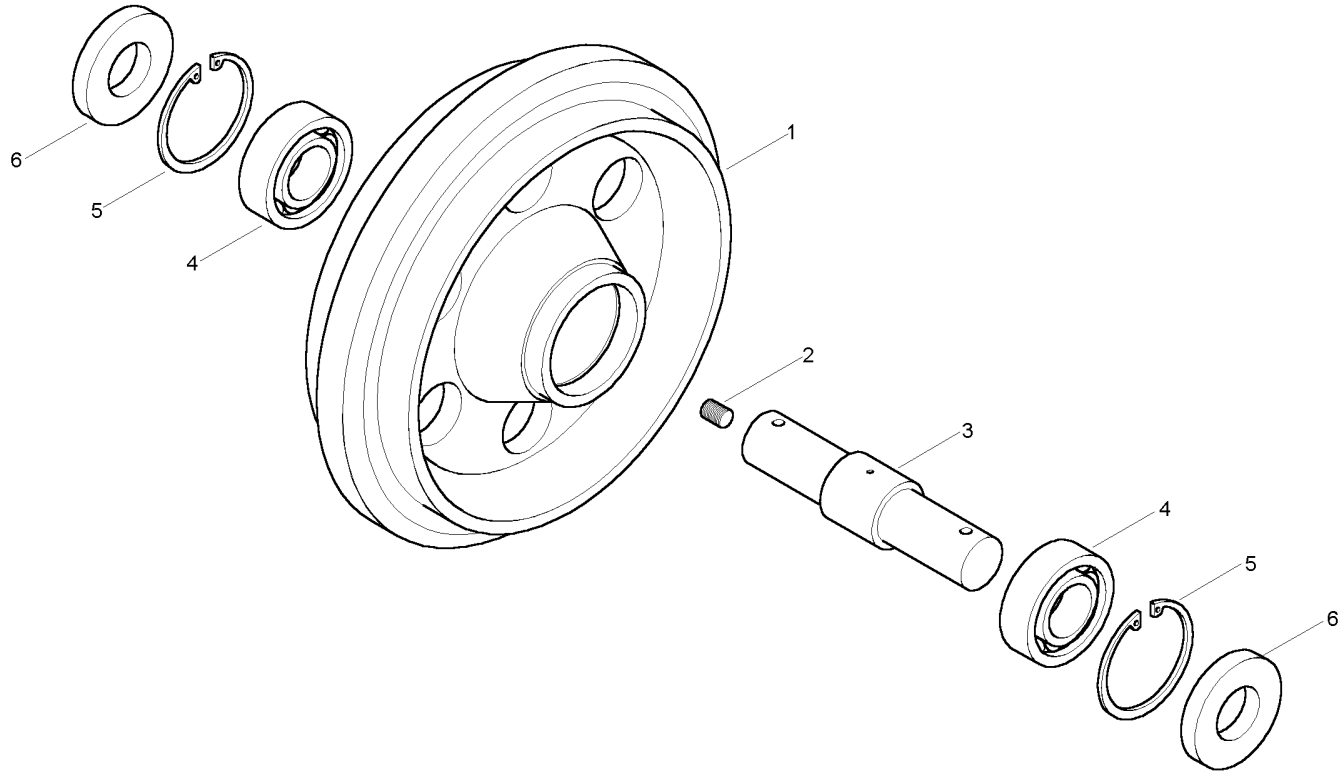
Ref. No.	Part No.	Description	Qty. Req.
REF	162106	UNDERCARRIAGE ASSEMBLY	1
1	162105	BRACKET	1
2	162095	RIGHT SIDE FRAME ASSEMBLY	1
3	162096	LEFT SIDE FRAME ASSEMBLY	1
4	160679	TELESCOPIC CYLINDER	1
5	160616	COVER	1
6	160622	PIN	2
7	161399	SCREW	2
8	161918	PLATE	4
9	160516	TRACK TENSION	2
10	160638	NON RETURN VALVE	2
11	160517	ROLLER	8
12	161930	COVER	2
13	162115	SWIVEL JOINT	1
14	162102	BRACKET	1
15	162094	COVER	1
16	160633	TRAVELING GEAR	2
17	160634	SPROCKET	2
18	160624	RUBBER TRACK	2
19	161916	COVER	1
20	161724	TURNTABLE	1
21	160865	SCREW SEAL	2
22	656001	CS M8-1.2 X 20 C 8.8 ZO	2
23	162103	BRACKET	1
24	162104	BRACKET	2
25	160668	TILT CYLINDER	1
26	160779	PIN	1
27	160780	PIN	1
28	651500	SHCS HS M16-1.5 X 80 12.9 ZO D912	8
29	161623	LW SPRING B10 DIN7981	34
30	651445	SHSS M10 X 16 45H DP	1
31	161672	LOCKWASHER S16	8
32	161412	LUBRICATION NIPPLE	2
33	161416	PROTECTION CAP	2
34	162124	COTTER PIN	2
35	651412	CS M14-2.0 X 50 C 10.9 ZO	4
36	162122	SCREW	23
37	651474	SHCS HS M10-1.2 X 25 10.9 ZO D912	20
38	162022	SCREW	34
39	656093	CS M8-1.2 X 16 C 8.8 ZO	14
40	161917	COVER	1
41	161643	WASHER/ROUND HI-TENS DIN6916	23
42	161661	WASHER/GR A 8.4 ZO	12
44	161635	WASHER/NORD-LOCK NL 10 STUCK	20
45	161669	LOCKWASHER S10	12
46	161676	LOCKWASHER S8	12
47	161671	LOCKWASHER S14	4
48	651451	HLN INS M16-2.0 ZO	2
49	656052	HN M16-2.0 ZO	2
50	651468	PIN/SPRING M8 X 70 D1481	1
51	651391	CS M10-1.5 X 20 C 8.8 ZO	12
52	161640	WASHER/GR A 10.5 ZO	16
53	161647	WASHER/ROUND HI-TENS 17	2
54	161649	WASHER/GR A 18 ZO DIN7989	2
55	651515	SHCS HS M8-1.2 X 20 8.8 ZO D912	8
56	161915	TUBE	2



ET1920110

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

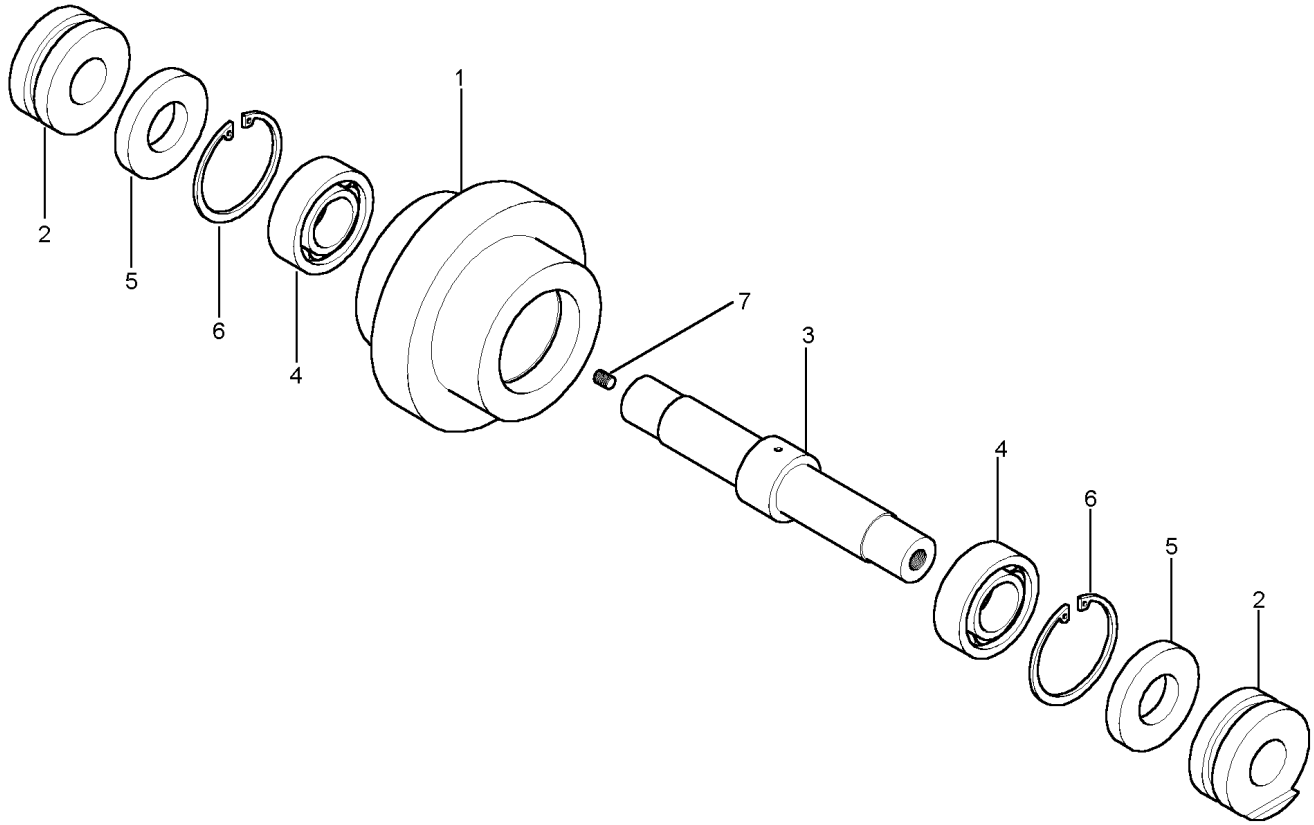
Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	160635	ROLLER	1	7	161564	SEAL	1
2	160518	GUIDANCE	2	8	161561	SEAL	1
3	161829	BRACKET	1	9	160521	CYLINDER	1
4	651398	CS M10-1.5 X 35 C 10.9 ZO	4	10	160523	SPRING	1
5	161623	LW SPRING B10 DIN7981	4	11	162049	NUT	1
6	160520	PISTON	1	12	162053	COTTER PIN	1



ET1920115

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160635	ROLLER	1
2	161421	PLUG	1
3	160522	SHAFT	1
4	161559	BEARING	2
5	162055	RETAINING RING	2
6	161575	SEAL	2



ET1920120

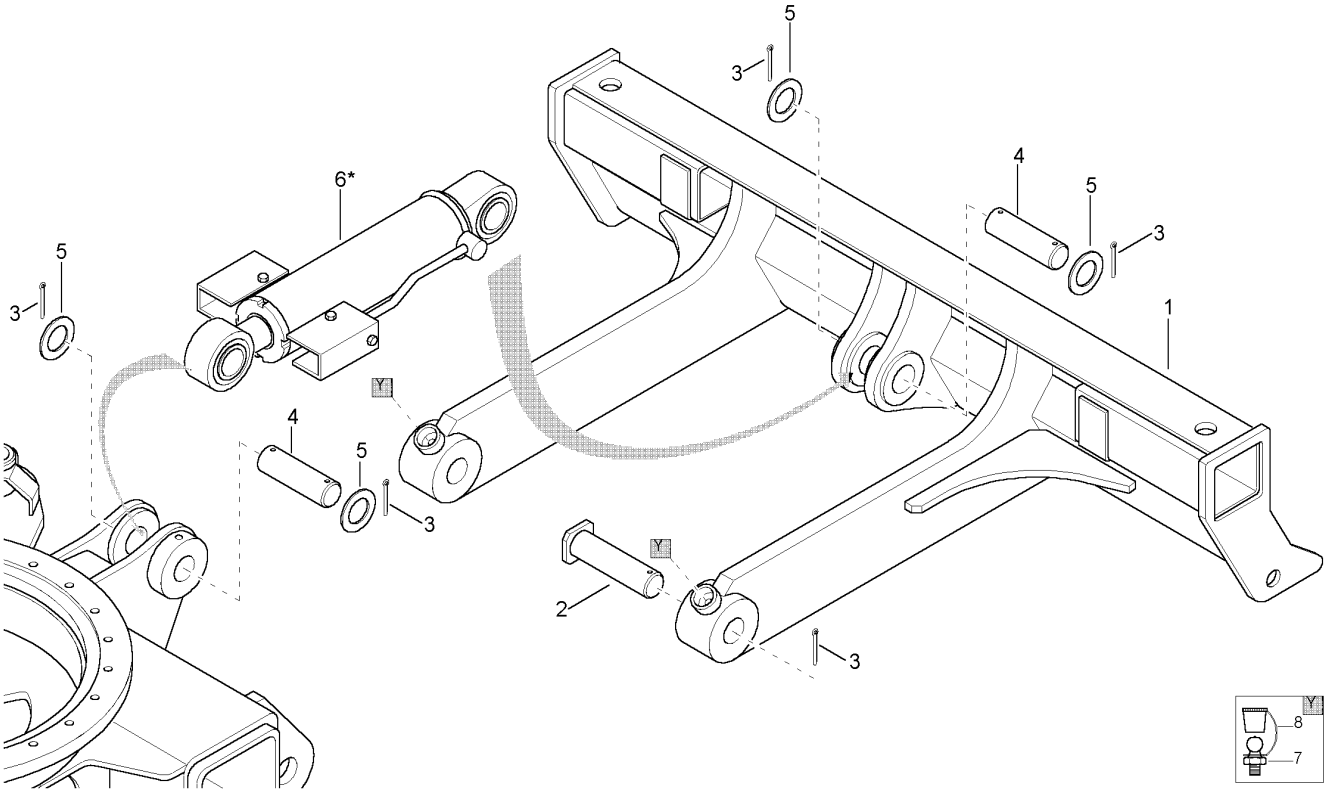
* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161919	ROLLER	1
2	161828	BRACKET	2
3	161827	SHAFT	1
4	162075	BEARING	2
5	162076	SEAL	2
6	162054	RETAINING RING	2
7	162043	SCREW	1

SECTION B: DOZER BLADE

DOZER BLADE 14
MODELS 192-222 — DOZER BLADE 14
MODELS 192-222 — DOZER BLADE EXTENSION 15

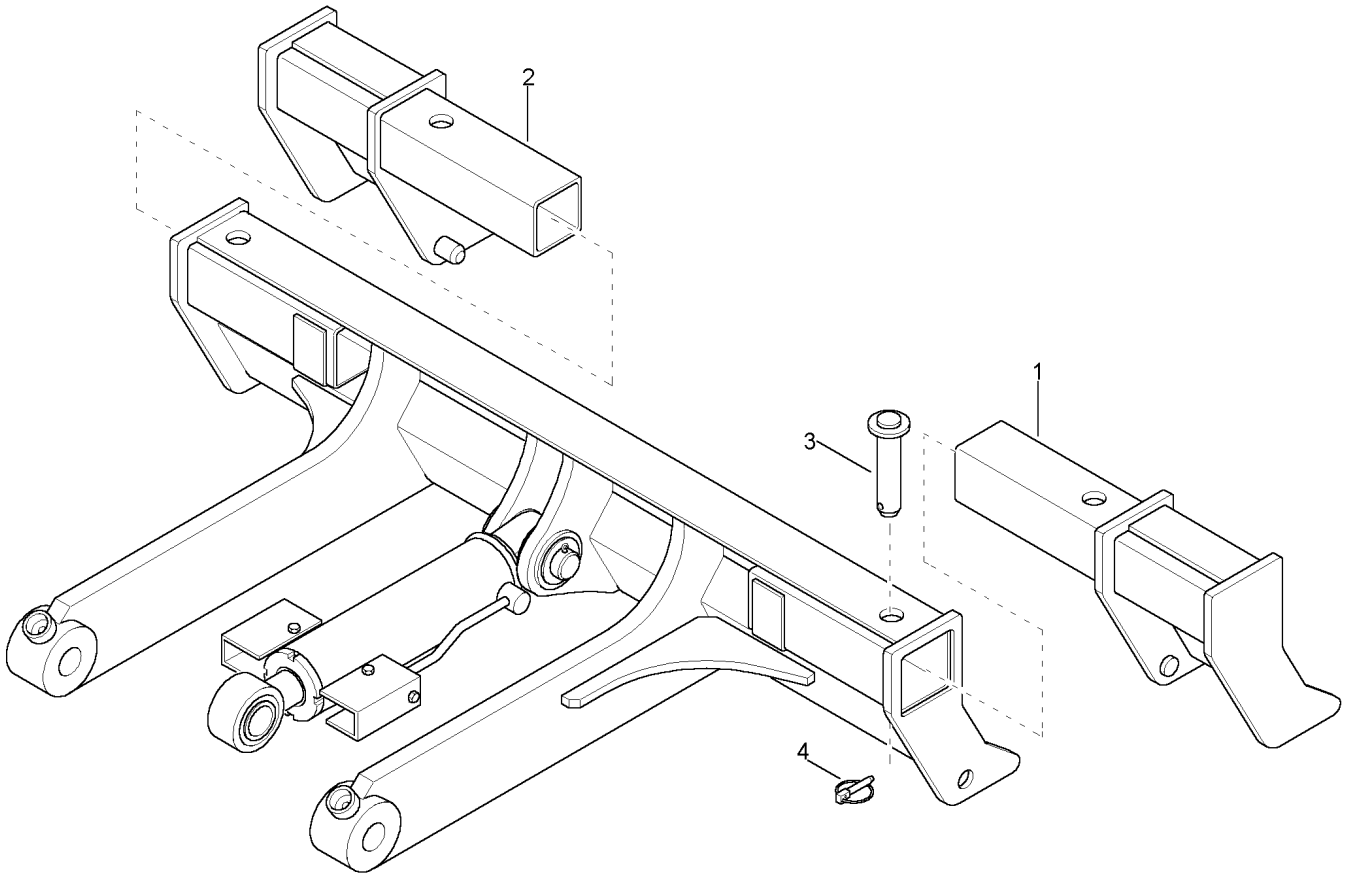
MODELS 192-222 — DOZER BLADE



ET1920125

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161931	DOZER BLADE	1
2	160654	PIN	2
3	161681	PIN/SPLIT 6.3 X 50 ZO D94	6
4	160655	PIN	2
5	161657	WASHER/GR A 34 ZO DIN125	4
6	160672	DOZER BLADE CYLINDER	1
7	161411	LUBRICATION FITTING	2
8	161416	PROTECTION CAP	2



ET1920130

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161932	BLADE EXTENSION R	1
2	161933	BLADE EXTENSION L	1
3	160656	PIN	2
4	161405	COTTER PIN	2

SECTION C: CHASSIS

CHASSIS 18
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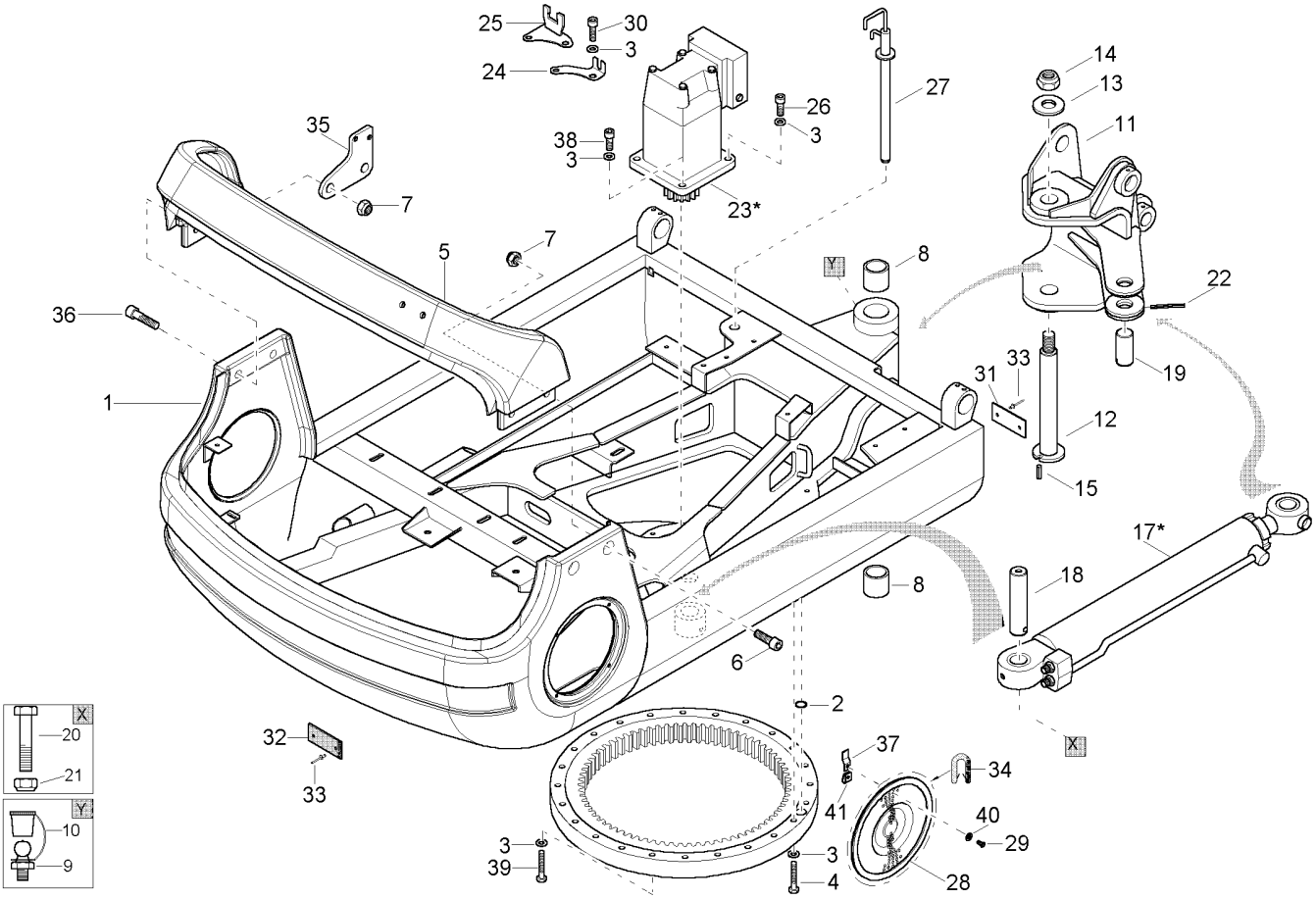
MODELS 192-222 — CHASSIS COVERS 20
MODELS 192-222 — CHASSIS LUBRICATION 21
MODELS 192-222 — VALVE BRACKET 22
MODELS 192-222 — HOOD 23

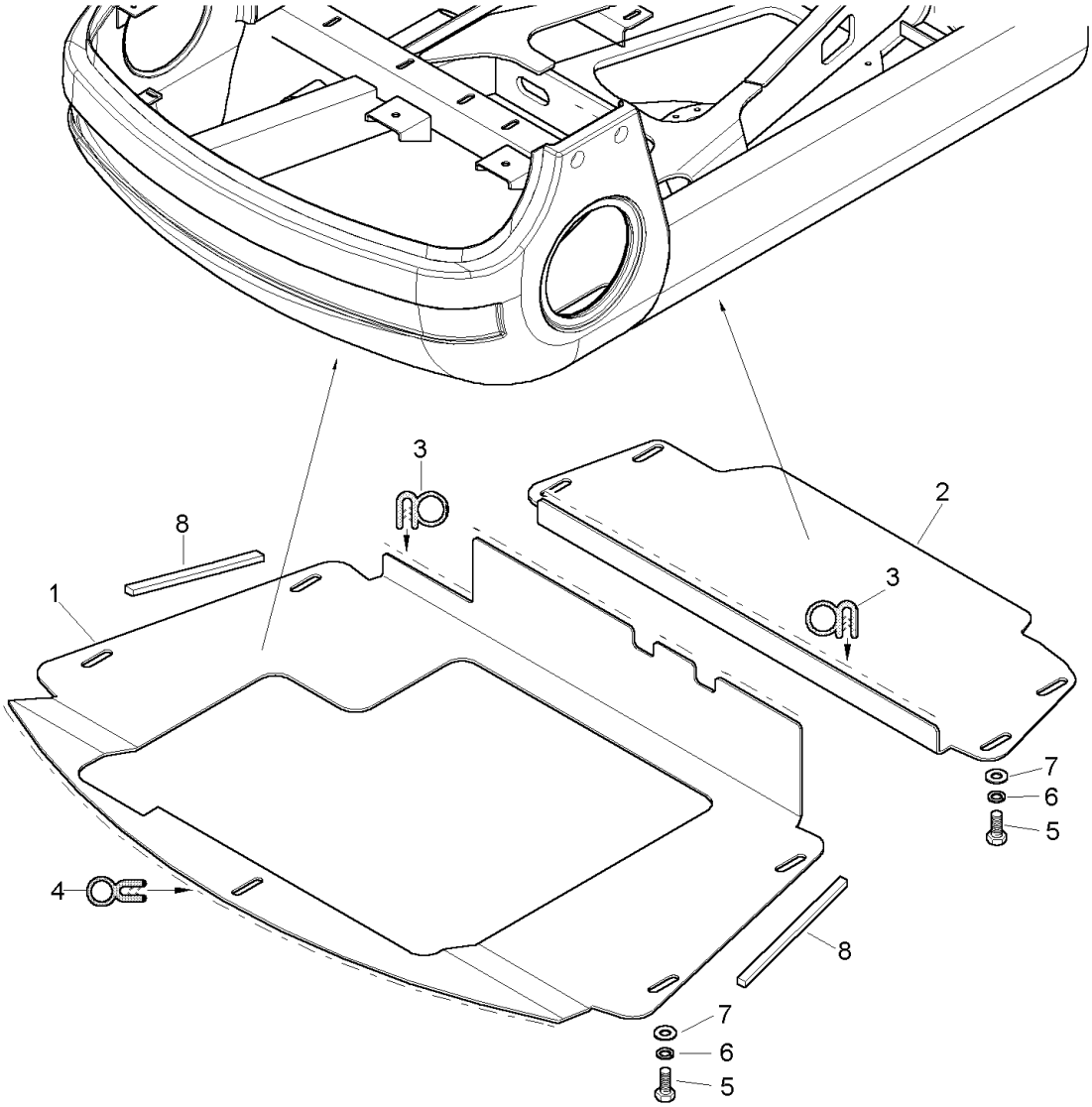


ET1920200

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161818	CHASSIS	1
2	161570	O-RING	1
3	161643	WASHER/ROUND HI-TENS DIN6916	28
4	651411	HB M12-1.7X 60 C 10.9 ZO	23
5	161810	COUNTERWEIGHT	1
6	651496	SHCS HS M16-1.5 X 45 10.9 ZO D912	2
7	651447	HN M16-2.00 ZO	4
8	161541	BUSHING	2
9	161411	LUBRICATION FITTING	1
10	161422	PROTECTION CAP	1
11	162109	SWING BRACKET	1
12	160697	PIN	1
13	161656	WASHER/ROUND HI-TENS 28 DIN6916	1
14	651454	HLN INS M27-3 ZO	1
15	162052	COTTER PIN	1
17	160680	BOOM OFFSET CYLINDER	1
18	160601	PIN	1
19	160691	PIN	1
20	651438	HB M8-1.2 X 70 C 8.8 ZO	1
21	651458	HLN INS M8-1.2 8 ZO	1
22	651469	PIN/SPRING M8 X 70 D1481	1
23	160595	HYDRAULIC MOTOR	1
24	162093	BRACKET	1
25	162101	BRACKET	1
26	656148	SHCS HS 12-1.75X40 10.9 ZO	1
27	160515	BAR LOCK	1
28	161803	COVER	2
29	162023	SCREW	4
30	651485	SHCS HS M12-1.7 X 45 10.9 ZO D912	2
31	160409	REFLECTOR	2
32	160644	REFLECTOR	2
33	161627	RIVET/BLIND A4 X 12 DIN7337	8
34	162019	RUBBER PROTECTOR	1
35	161812	PLATE	1
36	651498	SHCS HS M16-1.5 X 55 10.9 ZO D912	2
37	161811	BRACKET	4
38	651482	SHCS HS M12-1.7 X 35 12.9 ZO D912	1
39	651410	HB M12-1.7X 55 C 10.9 ZO	1
40	161666	WASHER/GR A 6.4 ZO DIN9021	4
41	162048	NUT	4

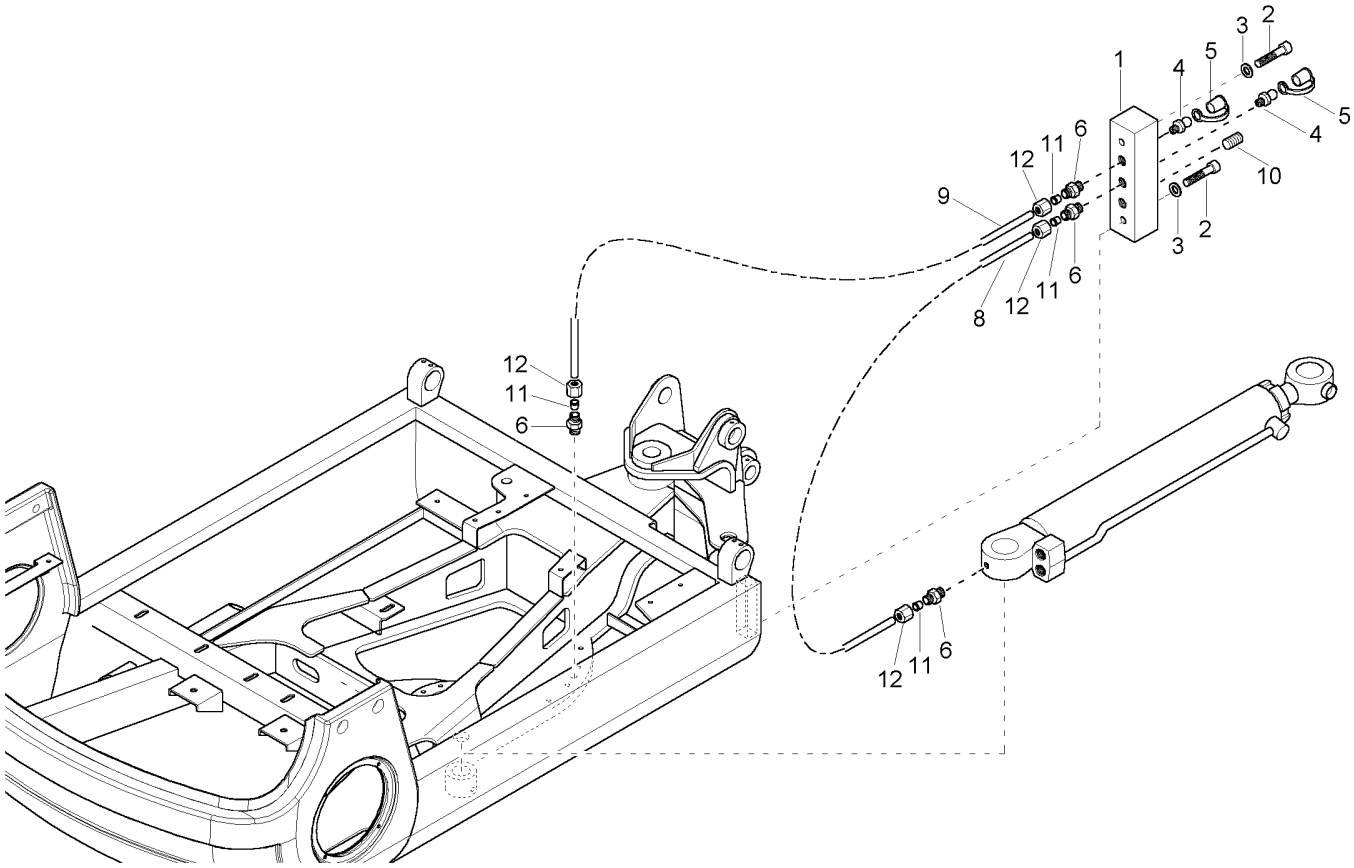
MODELS 192-222 — CHASSIS COVERS



ET1920205

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161822	COVER	1
2	161802	COVER	1
3	162016	RUBBER PROTECTOR (90 cm)	1
4	162020	RUBBER PROTECTOR (70 cm)	1
5	656001	CS M8-1.2 X 20 C 8.8 ZO	9
6	161676	LOCKWASHER S8	9
7	161667	WASHER/GR A 8.4 ZO	9
8	162015	RUBBER SEAL (35 cm)	1

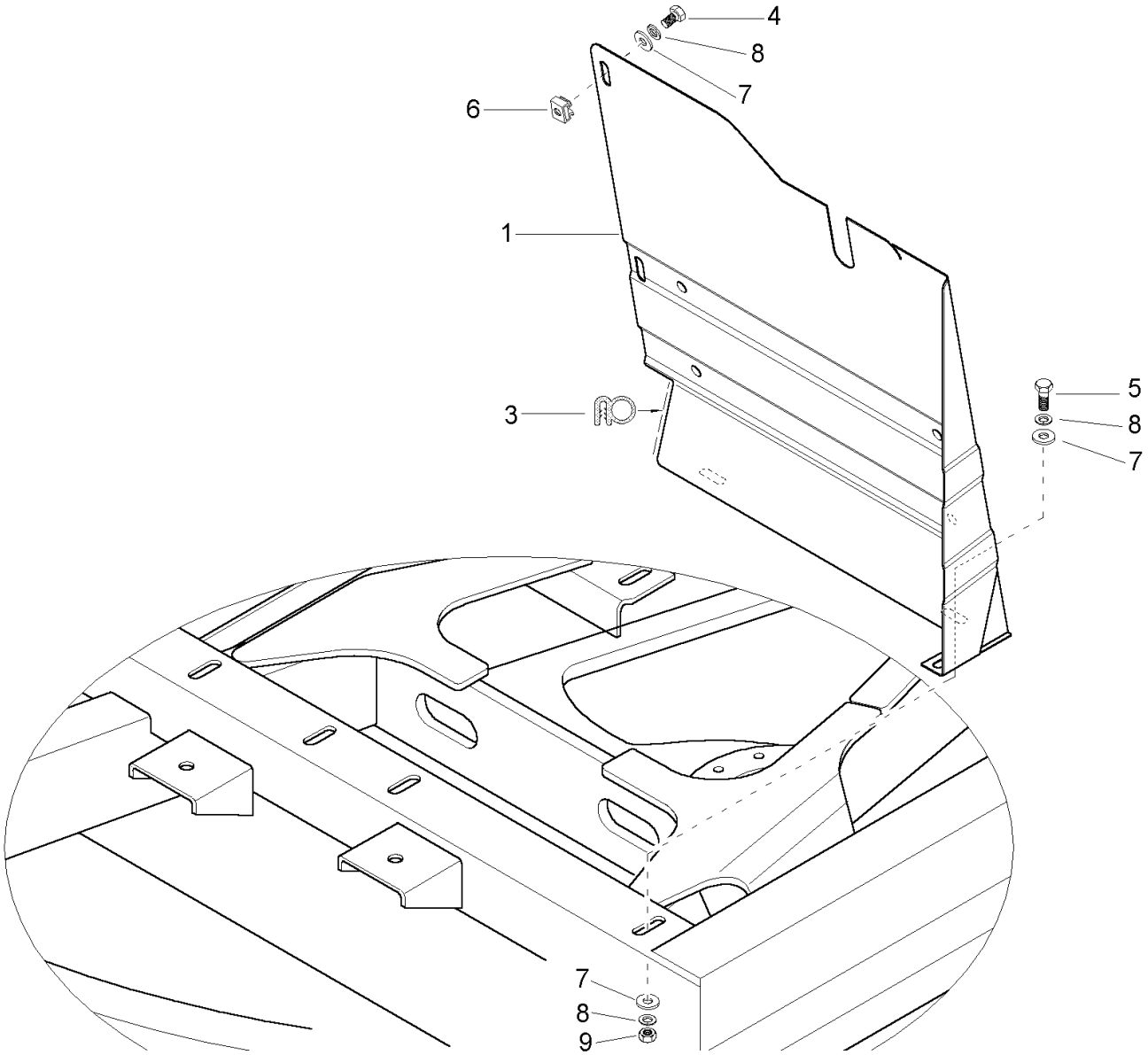


ET1920210

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161722	LUBRICATION BLOCK	1
2	651507	SHCS HS M6-1 X 20 8.8 ZO D912	2
3	161675	LOCKWASHER S6	2
4	161411	LUBRICATION FITTING	2
5	161416	PROTECTION CAP	2
6	161461	FITTING	4
8	161392	LUBRICATION TUBE (92 cm)	1
9	161392	LUBRICATION TUBE (80 cm)	1
10	161400	SET SCREW	1
11	161469	WASHER	4
12	161468	NUT	4

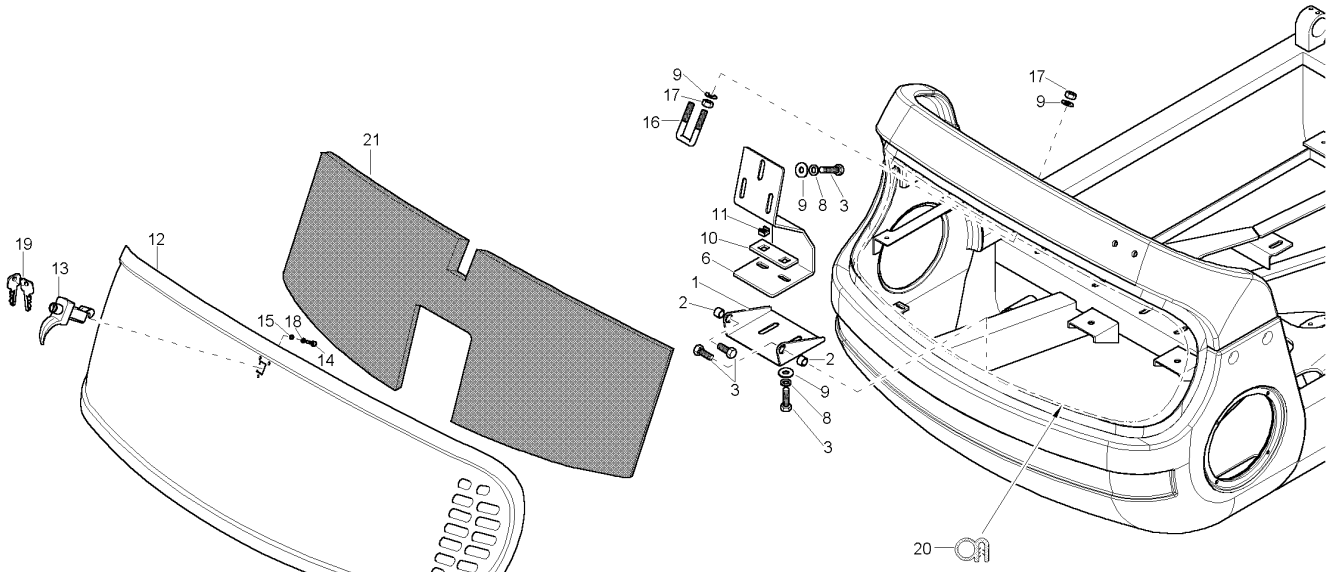
MODELS 192-222 — VALVE BRACKET



ET1920215

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161800	VALVE BRACKET	1
3	161948	RUBBER PROTECTOR	1
4	656001	CS M8-1.2 X 20 C 8.8 ZO	3
5	656105	CS M8-1.2 X 25 C 8.8 ZO	3
6	161615	NUT/CAGE M8	3
7	161667	WASHER/GR A 8.4 ZO	9
8	161676	LOCKWASHER S8	9
9	651458	HLN INS M8-1.2 8 ZO	3



ET1920230

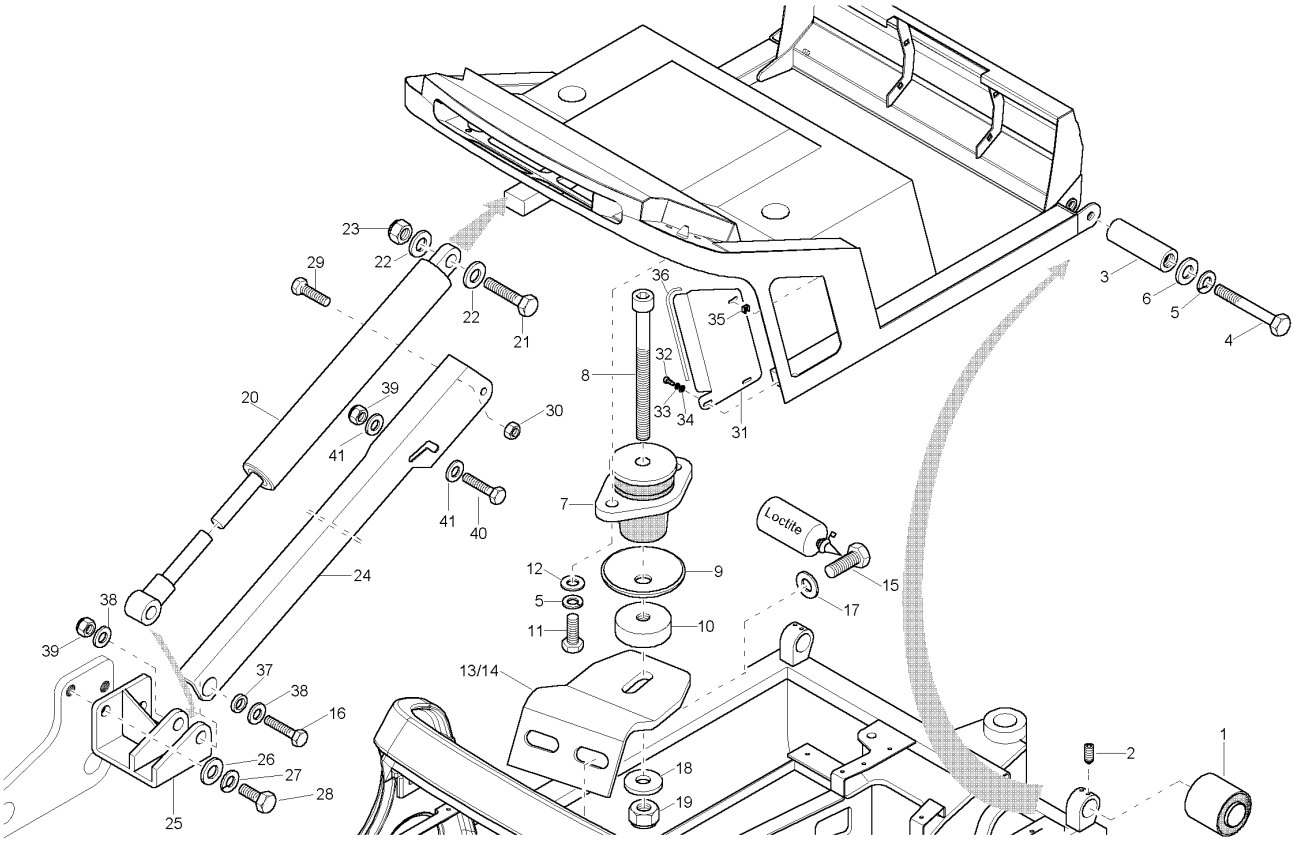
* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161804	COVER	1
2	161805	TUBE	2
3	651393	CS M10-1.5 X 25 C 8.8 ZO	7
6	161816	HINGE	1
8	161669	LOCKWASHER S10	5
9	161640	WASHER/GR A 10.5 ZO	9
10	161817	PLATE	1
11	161610	NUT/CAGE M10	2
12	161820	HOOD	1
13	160402	LOCK	1
14	651503	SHCS HS M5-0.8 X 12 8.8 ZO D912	3
15	161659	WASHER/GR A 5.3 ZO DIN125	3
16	160400	LOCK	1
17	162047	NUT	2
18	161674	LOCKWASHER S5	3
19	160643	KEY	1
20	162016	RUBBER PROTECTOR	3
21	161902	ISOLATION MAT	1

SECTION D: TILT FRAME

TILT FRAME 26
MODELS 192-222 — TILT FRAME 26
MODELS 192-222 — ISOLATION MATS 28
MODELS 192-222 — TOOL BOX. 29

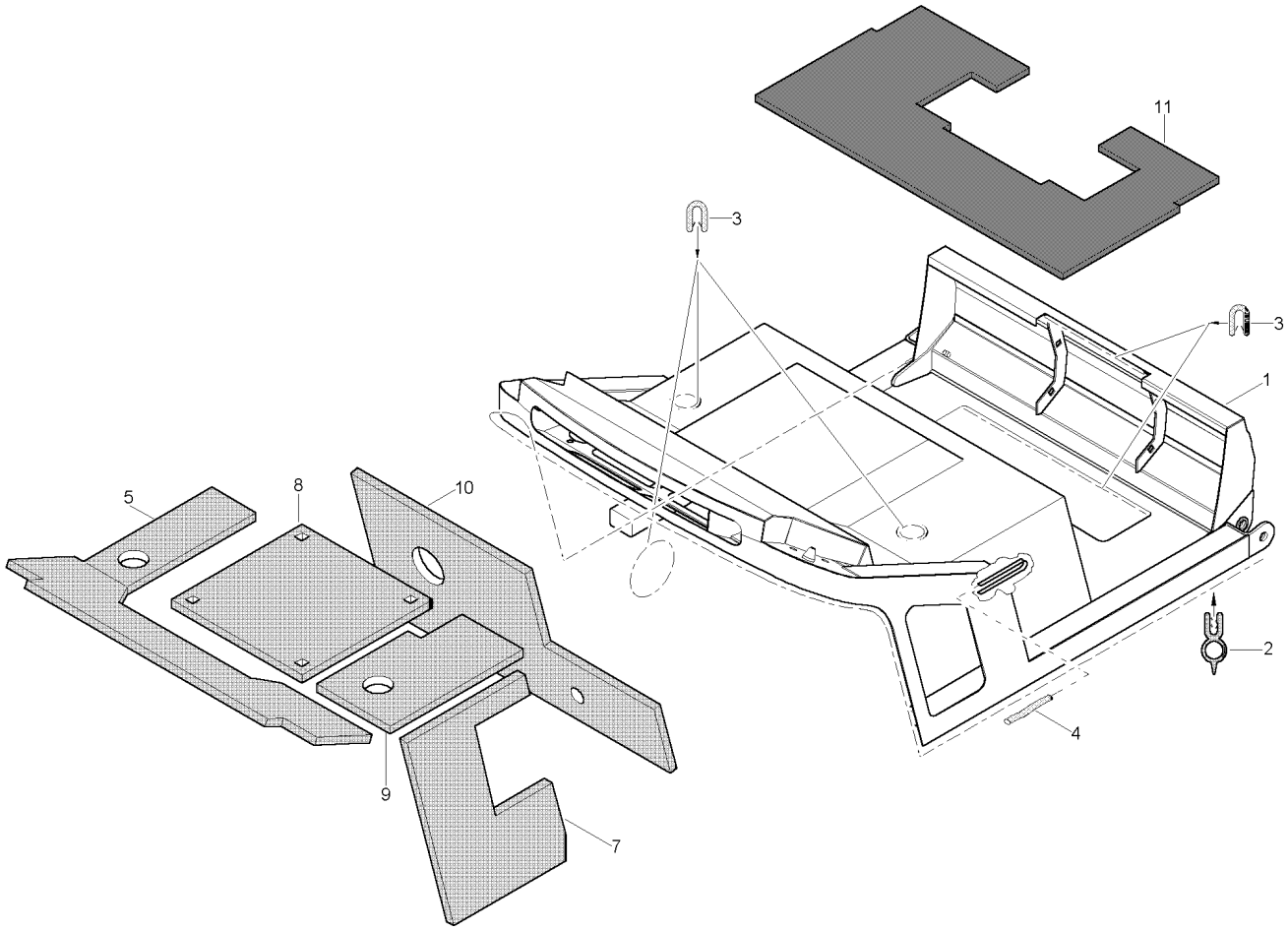
MODELS 192-222 — TILT FRAME



ET1920220

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

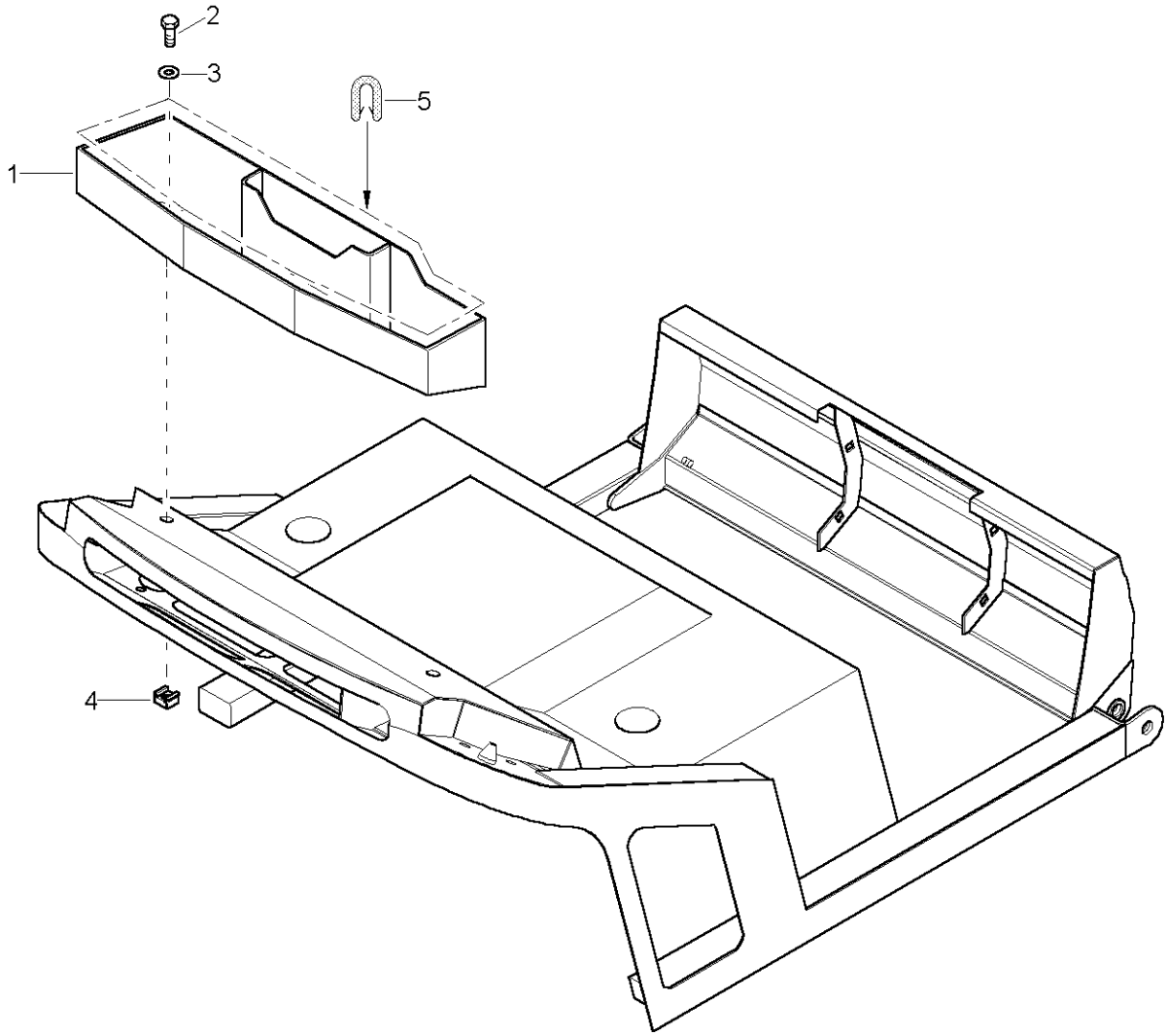
Ref. No.	Part No.	Description	Qty. Req.
1	160653	BUSHING	2
2	651446	SHSS M8 X 12 45H CP	4
3	160596	BUSHING	2
4	162034	SCREW	2
5	161669	LOCKWASHER S10	6
6	161663	WASHER/GR A 10.5 ZO DIN9021	2
7	160711	CUSHION	2
8	651477	SHCS HS M12-1.7 X 110 10.9 ZO D912	2
9	161936	WASHER	2
10	161875	WASHER	2
11	651395	CS M10-1.5 X 30 C 10.9 ZO	4
12	161642	WASHER/GR A 13 ZO	2
13	161808	CAB MOUNT L	1
14	161807	CAB MOUNT R	1
15	162026	SCREW	4
16	651434	HB M8-1.2 X 45 C 8.8 ZO	1
17	161643	WASHER/ROUND HI-TENS DIN6916	4
18	161642	WASHER/GR A 13 ZO	2
19	162046	NUT	2
20	160612	PNEUMATIC SPRING	1
21	651399	CS M10-1.5 X 40 C 8.8 ZO	1
22	161641	WASHER/GR 10.5 ZO	2
23	651448	HLN INS M10-1.5 ZO	1
24	161945	BRACKET	1
25	161813	BRACKET	1
26	161661	WASHER/GR A 8.4 ZO	2
27	161676	LOCKWASHER S8	2
28	656093	CS M8-1.2 X 16 C 8.8 ZO	2
29	651426	CS M6-1.0 X 35 C 8.8 ZO	1
30	651457	HLN INS M6-1.0 8 Z0	1
31	161854	BRACKET	1
32	656149	CS M6-1.0 X 16 C 8.8 ZO	3
33	161675	LOCKWASHER S6	3
34	161666	WASHER/GR A 6.4 ZO DIN9021	3
35	161613	NUT/CAGE M6	1
36	161943	PVC-EDGE PROTECTION (30 cm)	1
37	161946	SPACER	1
38	161661	WASHER/GR A 8.4 ZO	2
39	651458	HLN INS M8-1.2 8 ZO	2
40	656004	HB M8-1.2 X 55 C 8.8 ZO	1
41	161667	WASHER/GR A 8.4 ZO	2



ET1920225

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	161876	TILTABLE FRAME	1	7	161897	ISOLATION MAT	1
2	161948	RUBBER PROTECTOR (450 cm)	1	8	161896	ISOLATION MAT	1
3	161943	PVC-EDGE PROTECTION (88 cm)	1	9	161898	ISOLATION MAT	1
4	162010	HOSE (80 cm)	1	10	161901	ISOLATION MAT	1
5	161899	ISOLATION MAT	1	11	160602	FLOOR MAT	1



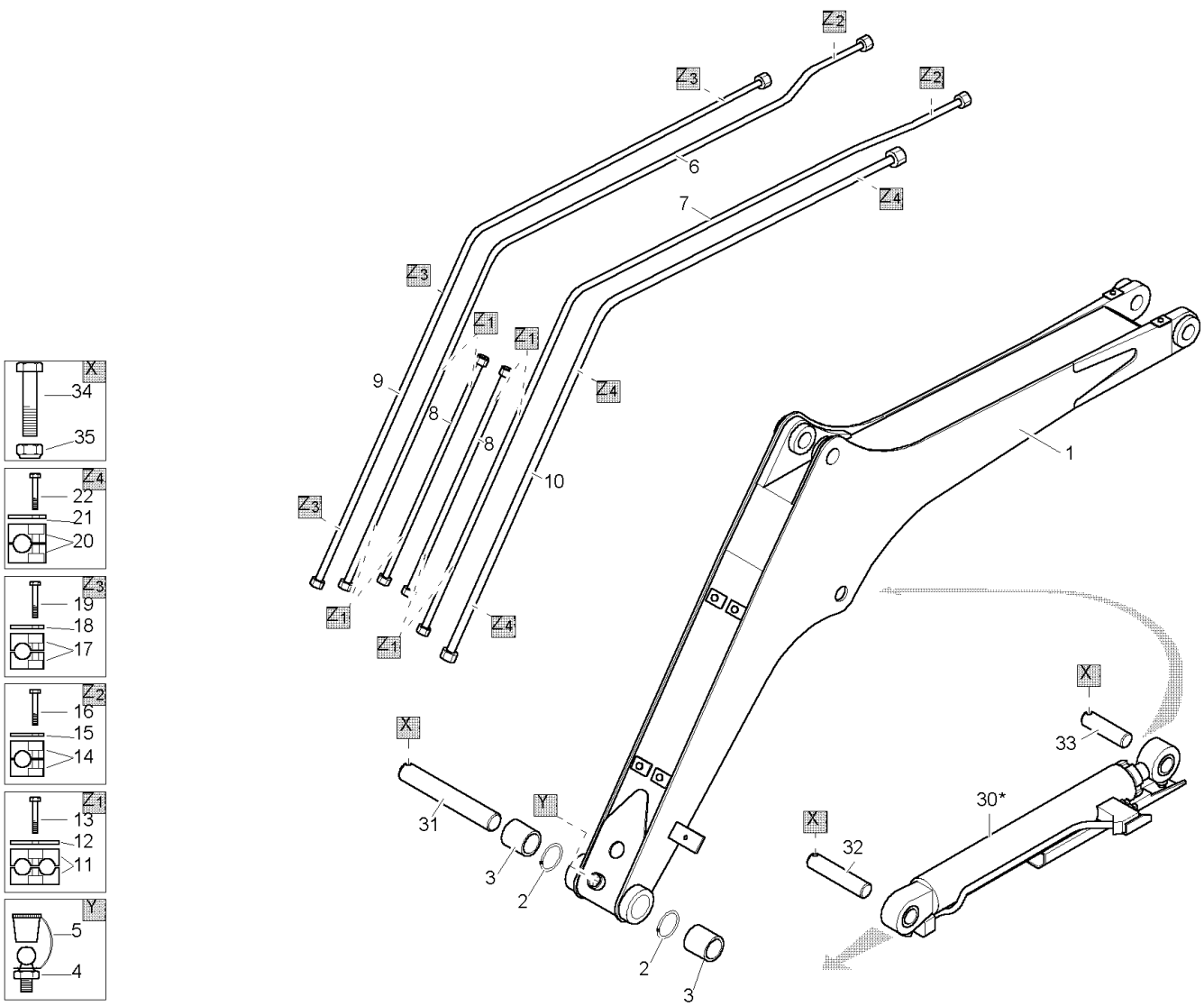
ET1920235

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161879	TOOL BOX	1
2	656149	CS M6-1.0 X 16 C 8.8 ZO	2
3	161675	LOCKWASHER S6	2
4	161614	NUT/CAGE M6	2
5	161943	PVC-EDGE PROTECTION (150 cm)	1

SECTION E: BOOM

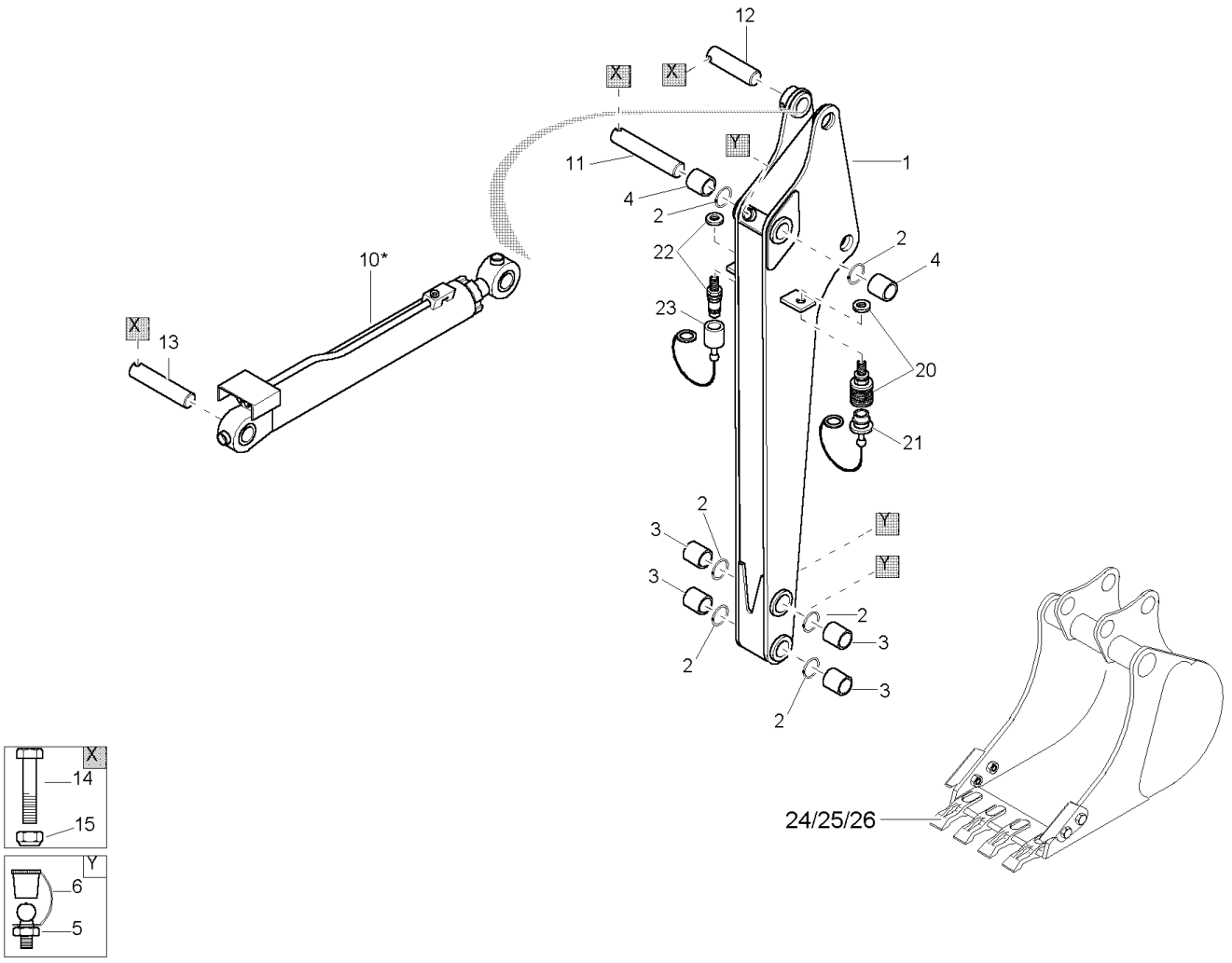
BOOM 32
MODELS 192-222 — BOOM 32
MODELS 192-222 — STICK 34



ET1920300

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

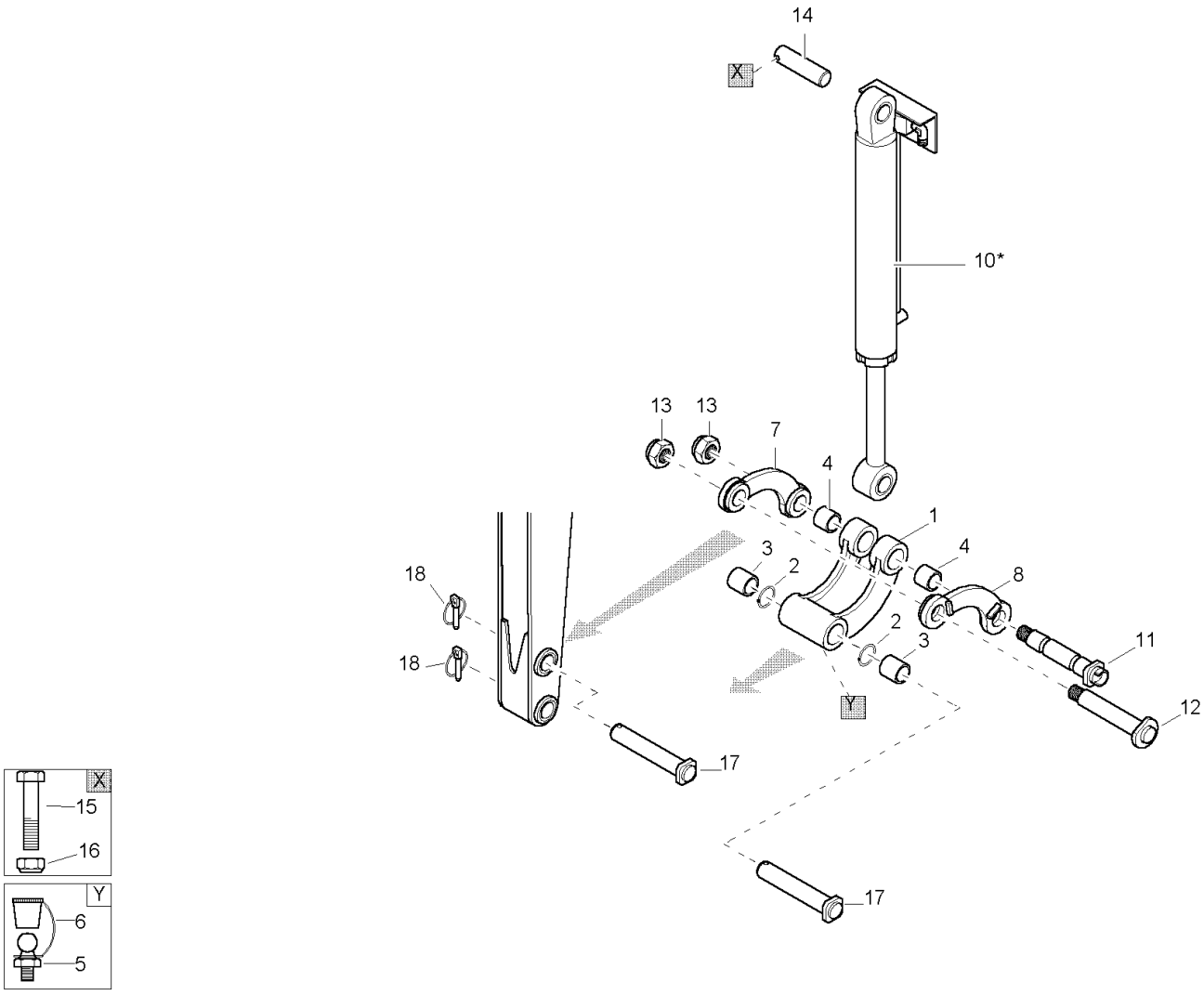
Ref. No.	Part No.	Description	Qty. Req.
1	162108	BOOM	1
2	161407	WASHER	2
3	161539	BUSHING	2
4	161411	LUBRICATION FITTING	1
5	161422	PROTECTION CAP	1
6	160630	TUBE	1
7	160628	TUBE	1
8	160629	TUBE	2
9	160631	TUBE	1
10	160632	TUBE	1
11	161552	HOSE CLAMP	4
12	162070	COVER	4
13	651427	HB M6-1.0 X 35 C 8.8 ZO	4
14	161553	HOSE CLAMP	2
15	162068	COVER	2
16	162025	SCREW	2
17	161555	HOSE CLAMP	3
18	162067	COVER	3
19	651425	CS M6-1.0 X 30 C 8.8 ZO	6
20	161557	HOSE CLAMP	3
21	162066	COVER	3
22	651426	CS M6-1.0 X 35 C 8.8 ZO	6
30	160669	BOOM CYLINDER	1
31	160690	PIN	1
32	160693	PIN	1
33	160692	PIN	1
34	651438	HB M8-1.2 X 70 C 8.8 ZO	3
35	651458	HLN INS M8-1.2 8 ZO	3



ET1920305

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	162107	STICK	1
2	161406	WASHER	6
3	161543	BUSHING	4
4	161539	BUSHING	2
5	161411	LUBRICATION FITTING	3
6	161422	PROTECTION CAP	3
10	160671	HANDLE CYLINDER	1
11	160689	PIN	1
12	160688	PIN	1
13	160692	PIN	1
14	651438	HB M8-1.2 X 70 C 8.8 ZO	3
15	651458	HLN INS M8-1.2 8 ZO	3
20	160862	QUICK COUPLER	1
21	160458	DUST PLUG	1
22	161353	QUICK COUPLER	1
23	160459	DUST CAP	1
24		REFER TO FACTORY	
25		REFER TO FACTORY	
26		REFER TO FACTORY	



ET1920310

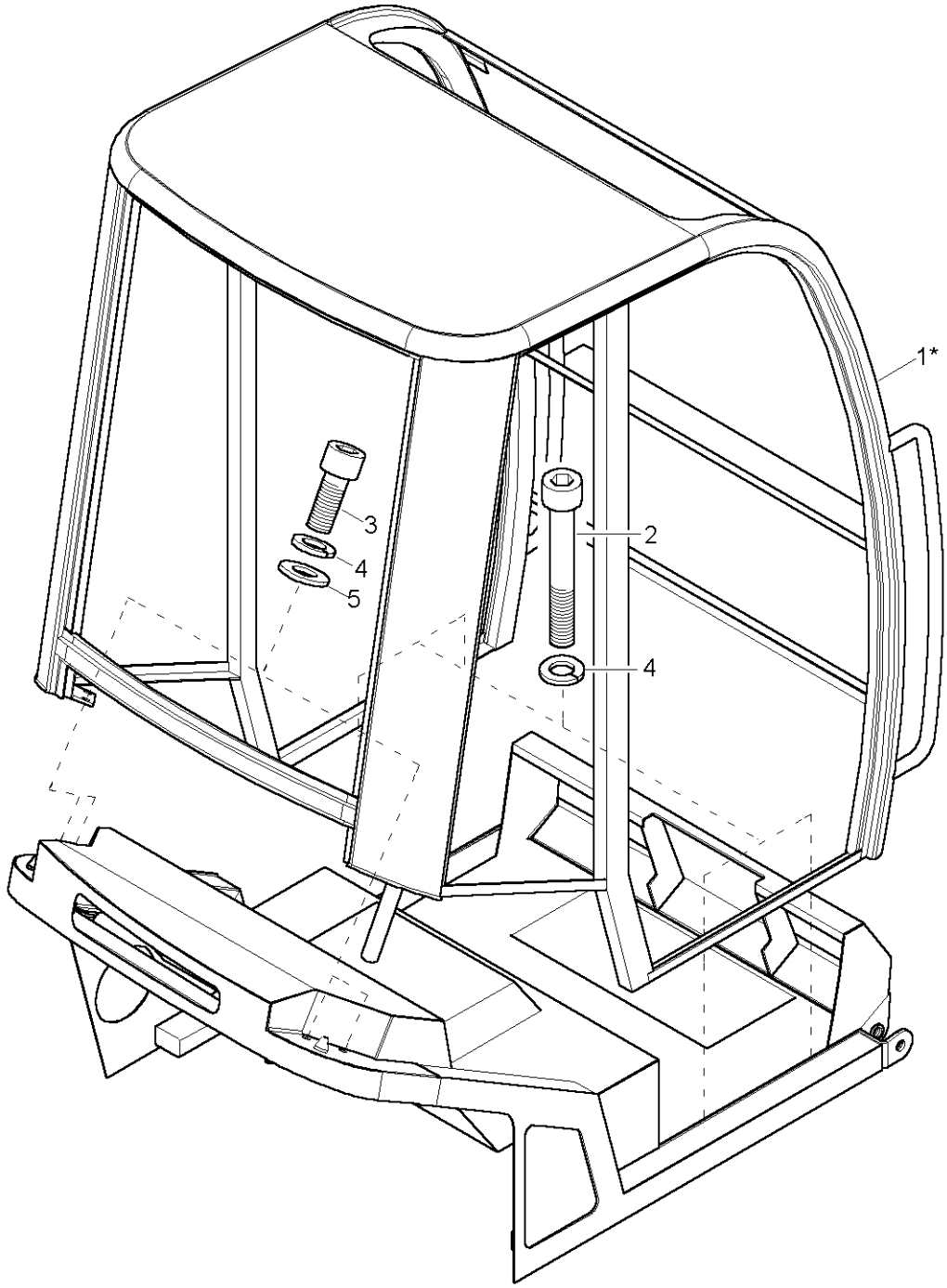
* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160661	CONNECTING LINK	1
2	161406	WASHER	2
3	161543	BUSHING	2
4	161540	BUSHING	2
5	161411	LUBRICATION FITTING	1
6	161422	PROTECTION CAP	1
7	160662	CONNECTING LINK	1
8	160663	CONNECTING LINK	1
10	160670	BUCKET CYLINDER	1
11	160696	PIN	1
12	160695	PIN	1
13	651454	HLN INS M27-3 ZO	2
14	160688	PIN	1
15	651438	HB M8-1.2 X 70 C 8.8 ZO	1
16	651458	HLN INS M8-1.2 8 ZO	1
17	160694	PIN	2
18	161405	COTTER PIN	2

SECTION F: CABIN

CABIN 38
MODELS 192-222 — CABIN 38
MODELS 192-222 — CABIN FRAME 40
MODELS 192-222 — RADIO KIT 42
MODELS 192-222 — CABIN CABLES 43
MODELS 192-222 — WINDSHIELD 44
MODELS 192-222 — LOWER FRONT WINDSHIELD 46
MODELS 192-222 — UPPER FRONT WINDSHIELD 47
MODELS 192-222 — SIDE WINDOW 48
MODELS 192-222 — REAR WINDOW 49
MODELS 192-222 — CABIN DOOR 50
MODELS 192-222 — WINDSHIELD WASHER 52
MODELS 192-222 — DRIVERS SEAT 53
MODELS 192-222 — CAB HEATING 54

MODELS 192-222 — CABIN

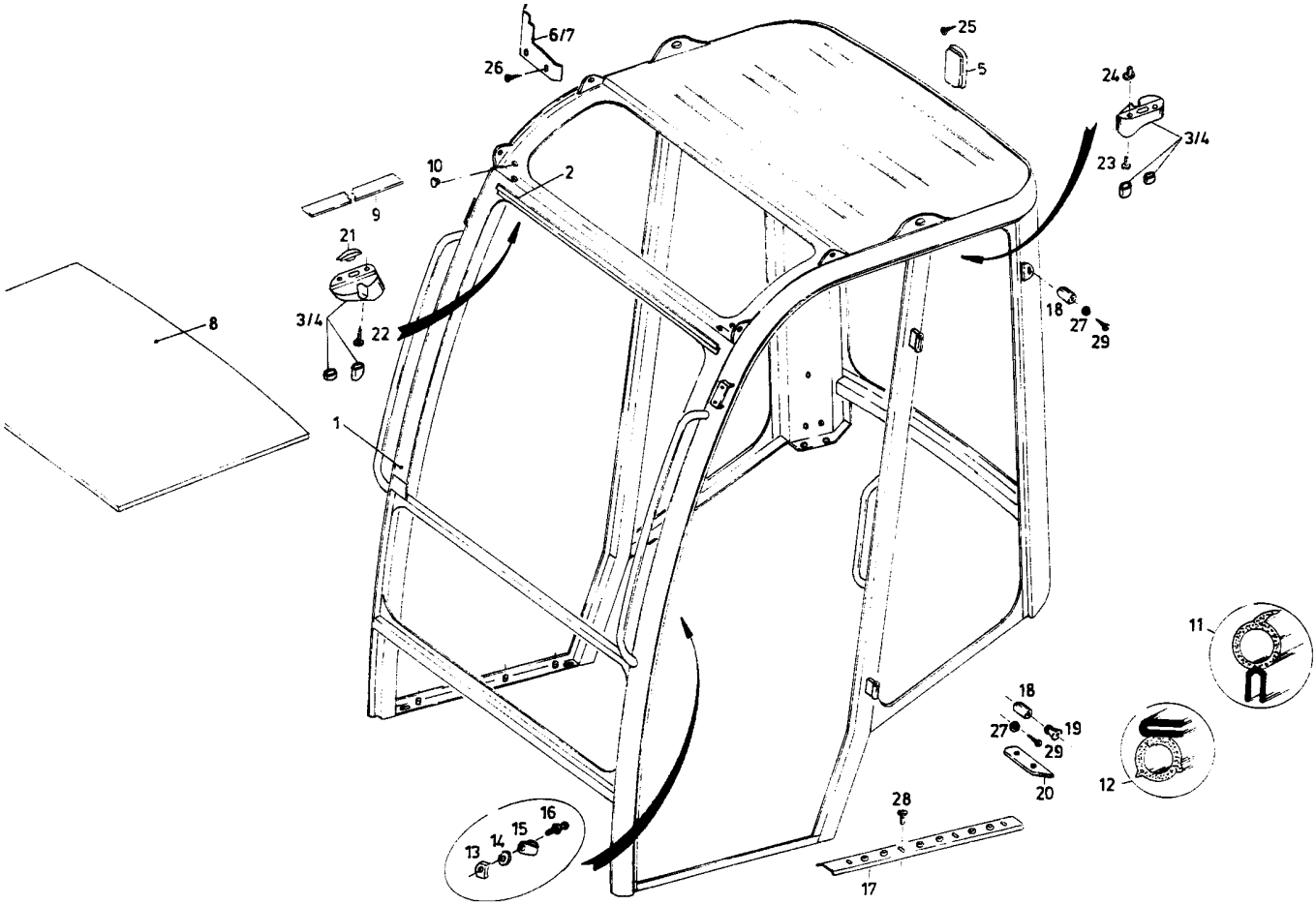


ET1920400

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	162014	CABIN	1
2	651489	SHCS HS M12-1.7 X 65 10.9 ZO D912	4
3	651483	SHCS HS M12-1.7 X 35 10.9 ZO D912	4
4	161670	LOCKWASHER S12	8
5	161645	WASHER/GR. A 13 DIN7349 ZO	4

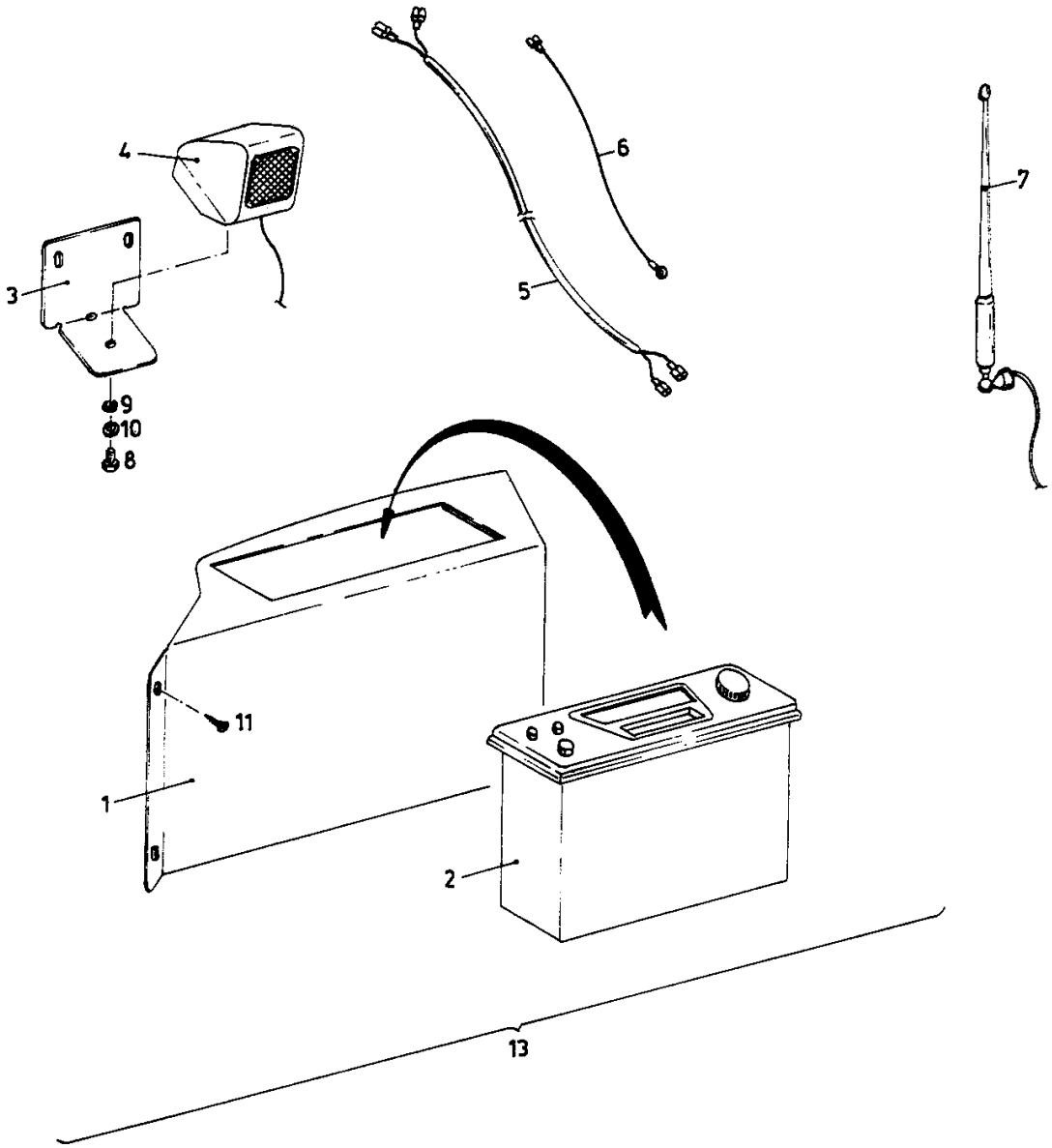
MODELS 192-222 — CABIN FRAME



ET1920405

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

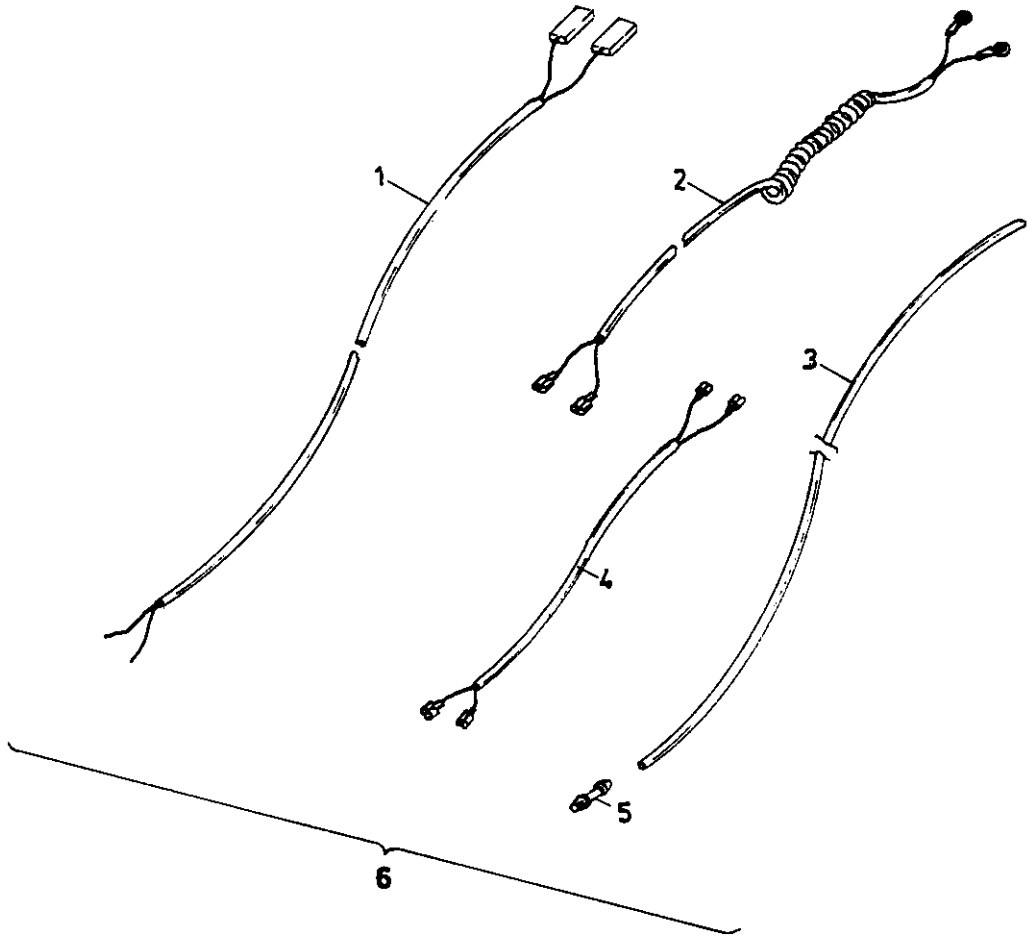
Ref. No.	Part No.	Description	Qty. Req.
1	161835	CABIN FRAME	1
2	161844	GUTTER	1
3	160526	LOCK	2
4	160527	LOCK	2
5	160488	ILLUMINATION	1
6	161782	COVER	1
7	161783	COVER	1
8	161769	ROOF ISOLATION	1
9	161937	FIXING STRIP (240 cm)	1
10	161770	LOCK	11
11	161949	RUBBER PROTECTOR (220 cm)	1
12	161950	RUBBER PROTECTOR	1
13	161924	PLATE	2
14	161923	WASHER	2
15	161922	BRACKET	2
16	161921	PIN	2
17	161780	STEP	2
18	161776	LOCK	4
19	161779	LOCK	2
20	161781	BRACKET	2
21	161784	SPACER	2
22	162029	SCREW	4
23	161634	SCREW/C'SUNK HD M5 X 16 DIN966 ZO	4
24	161843	NUT	4
25	162035	SCREW	2
26	162036	SCREW	4
27	161660	WASHER/GR A 6.4 ZO DIN125	2
28	162037	SCREW	8
29	162031	SCREW	2



ET1920410

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

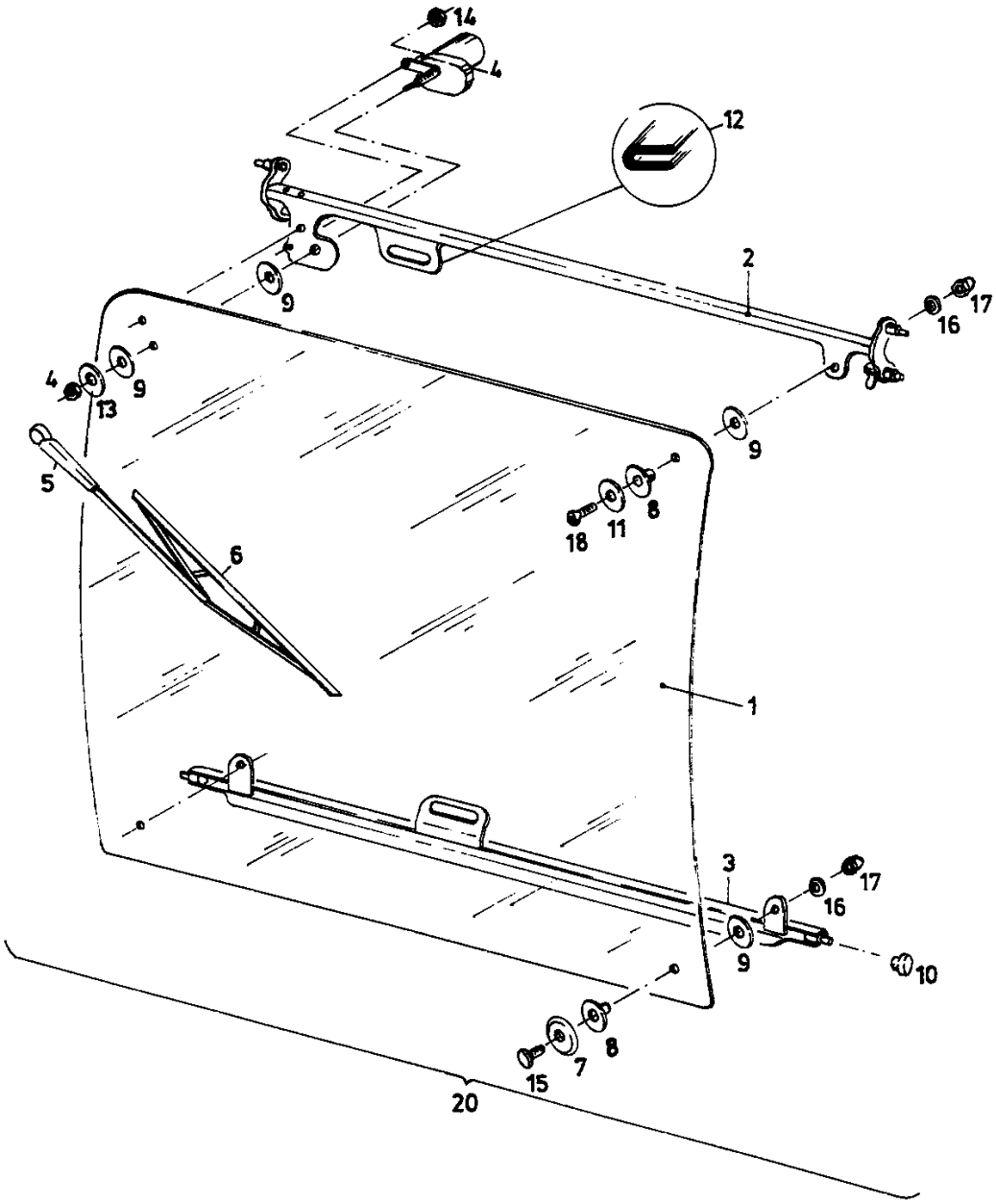
Ref. No.	Part No.	Description	Qty. Req.
1	161845	RADIO CONSOLE	1
2	162006	RADIO	1
3	161944	BRACKET	2
4	162005	SPEAKERS	2
5	161838	HARNESS WIRING	1
6	161839	CABLE	1
7	162007	RUBBER ANTENNA	1
8	656163	CS M5-0.8 X 10 C 8.8 ZO	2
9	161659	WASHER/GR A 5.3 ZO DIN125	2
10	162050	WASHER	2
11	162044	SCREW	3
12	162030	SCREW	1
13	161846	RADIO KIT	1



ET1920415

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161846	CABLE	1
2	161841	CABLE	1
3	162012	PLASTIC HOSE (350 cm)	1
4	161842	HARNESS WIRING	1
5	161847	CONNECTION	1
6	160529	HARNESS WIRING KIT	1

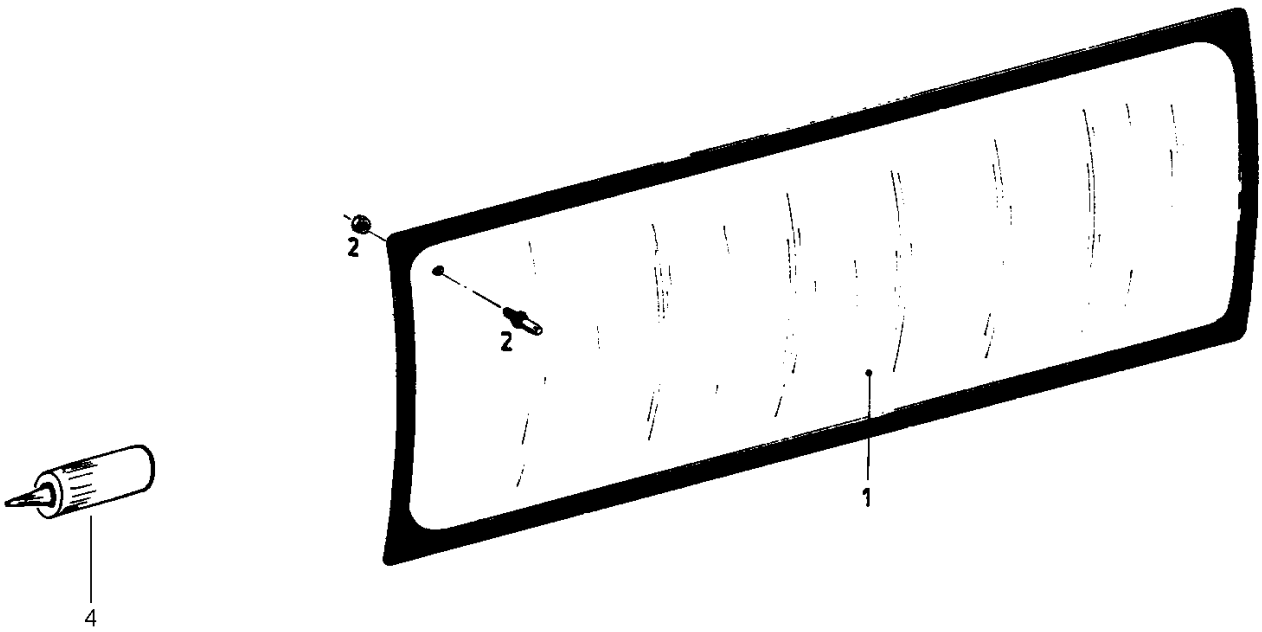


ET1920420

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160495	FRONT WINDSHIELD	1
2	161785	BRACKET	1
3	161786	BRACKET	1
4	161938	WIPER MOTOR ASSEMBLY	1
5	161939	WIPER BLADE HOLDER	1
6	161940	WIPER BLADE	1
7	160641	PVC-WASHER	2
8	160640	RUBBER WASHER	4
9	160639	RUBBER WASHER	6
10	160494	PLUG	4
11	161941	WASHER	2
12	161951	EDGE PROTECTION	1
13	161957	WASHER	1
14	656048	HN M8-1.2 ZO	2
15	162033	SCREW	2
16	161661	WASHER/GR A 8.4 ZO	4
17	161618	NUT/HEX DOMED CAP M8	4
18	651466	SCREW FCHC HS M8-1.2 X 20 8.8 ZO D7991	2
20	160497	WINDSHIELD KIT	1

MODELS 192-222 — LOWER FRONT WINDSHIELD

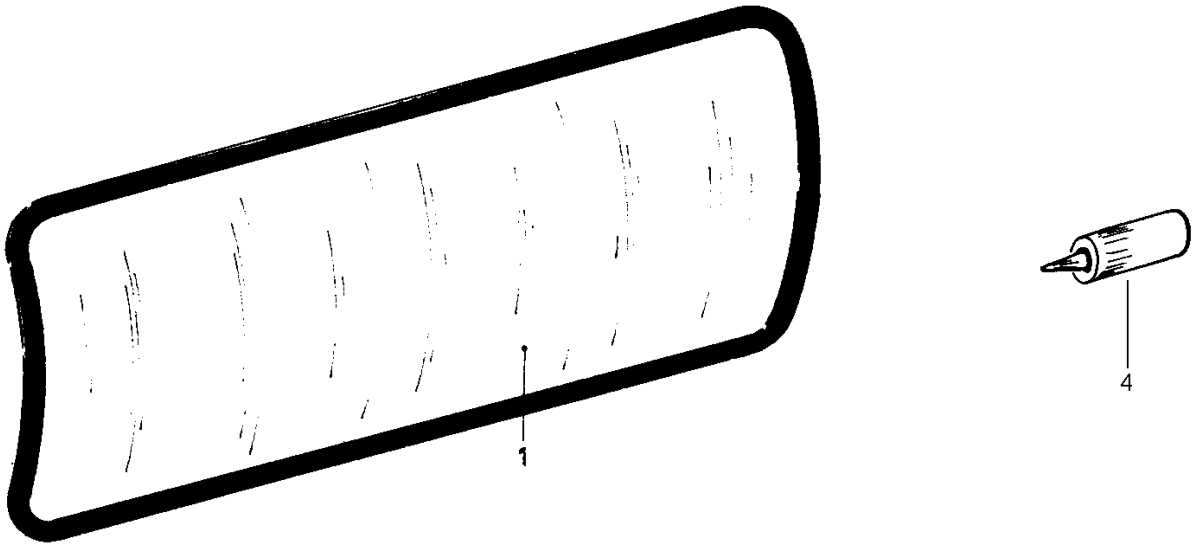


ET1920425

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161772	FRONT WINDSHIELD	1
2	161771	NOZZLE	1
4	161964	SILICON GLUE	1

MODELS 192-222 — UPPER FRONT WINDSHIELD

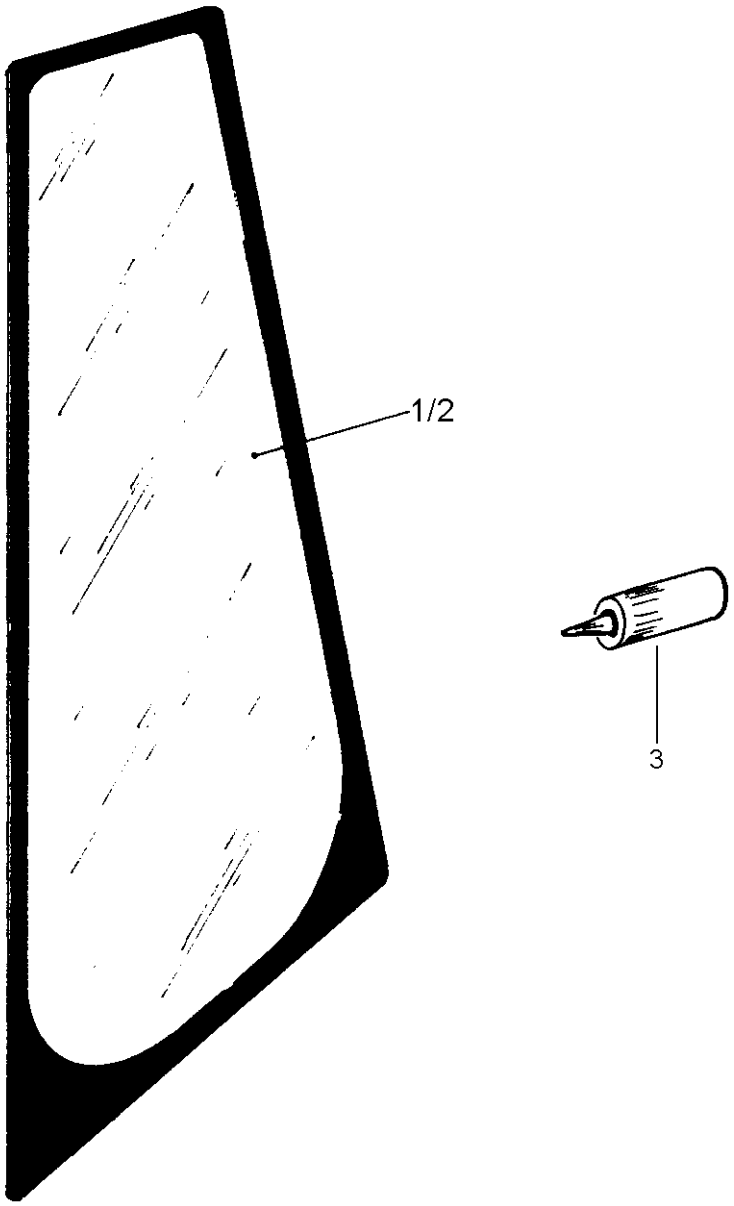


ET1920430

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160489	UPPER FRONT WINDSHIELD	1
4	161964	SILICON GLUE	1

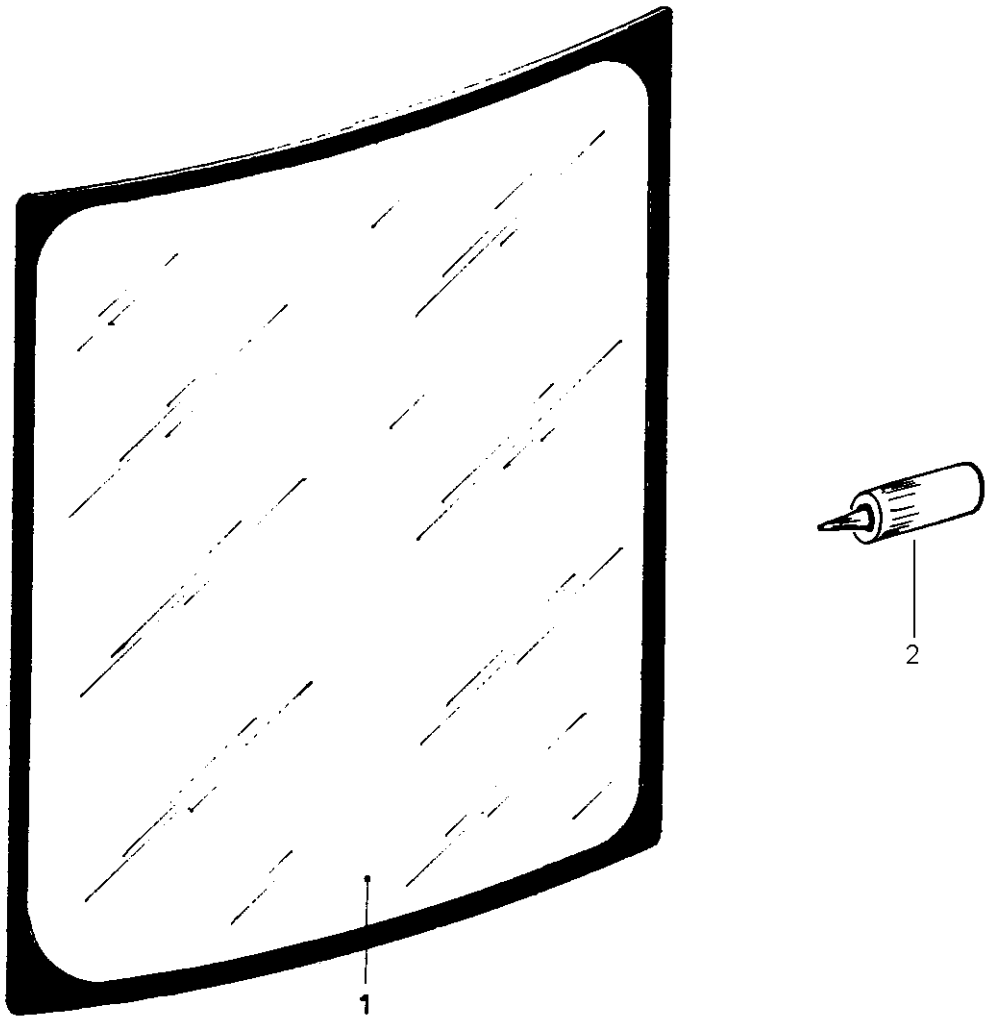
MODELS 192-222 — SIDE WINDOW



ET1920435

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

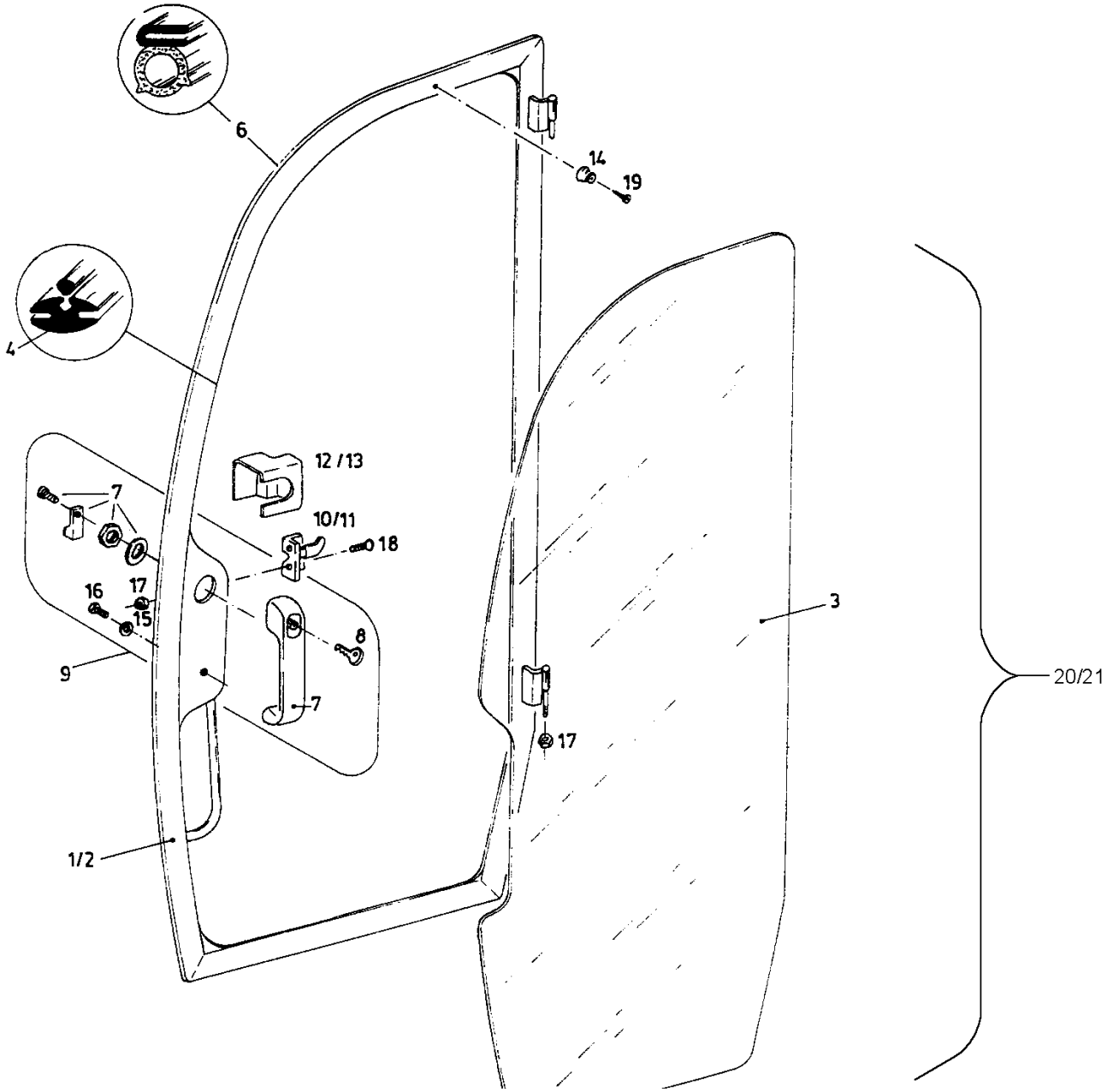
Ref. No.	Part No.	Description	Qty. Req.
1	161774	SIDE WINDOW, COMPLETE	1
2	161775	SIDE WINDOW	1
3	161964	SILICON GLUE	1



ET1920440

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

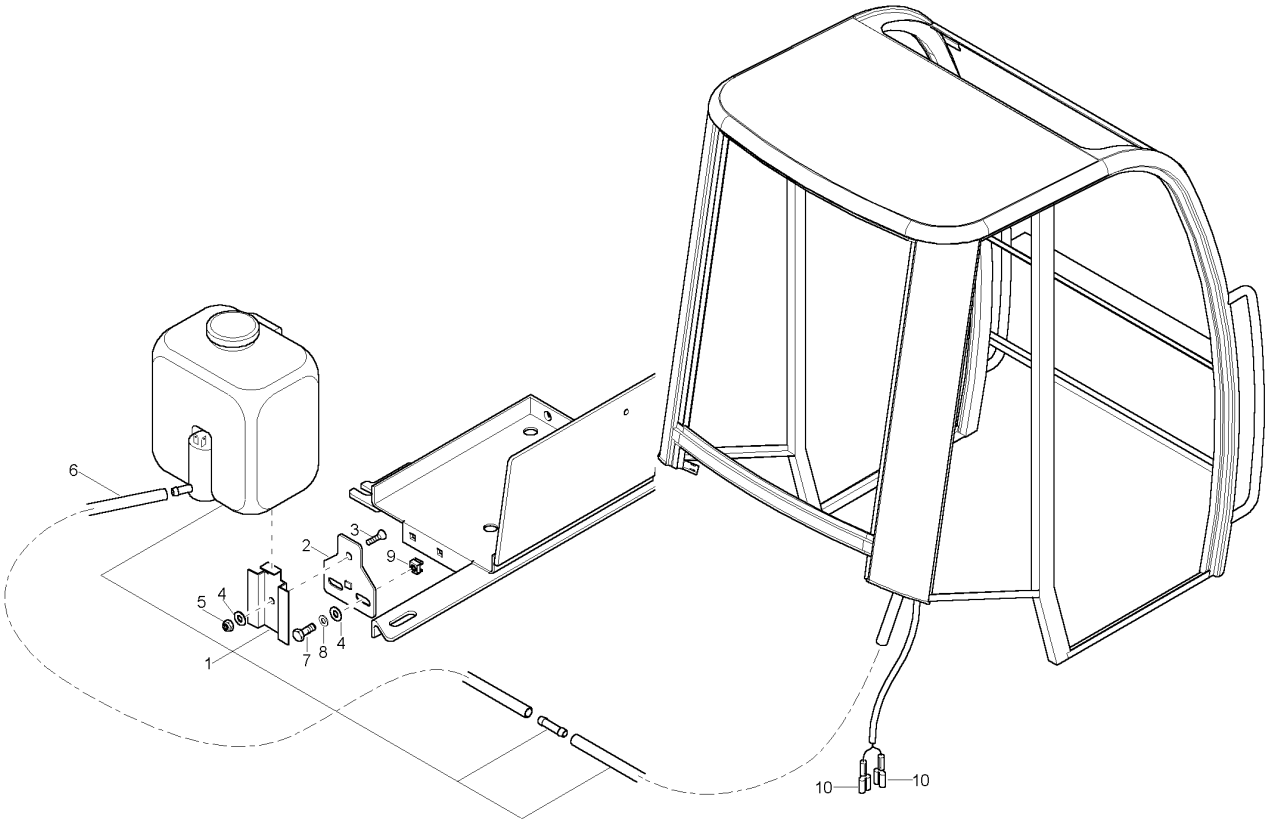
Ref. No.	Part No.	Description	Qty. Req.
1	161773	REAR WINDOW	1
2	161964	SILICON GLUE	1



ET1920445

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

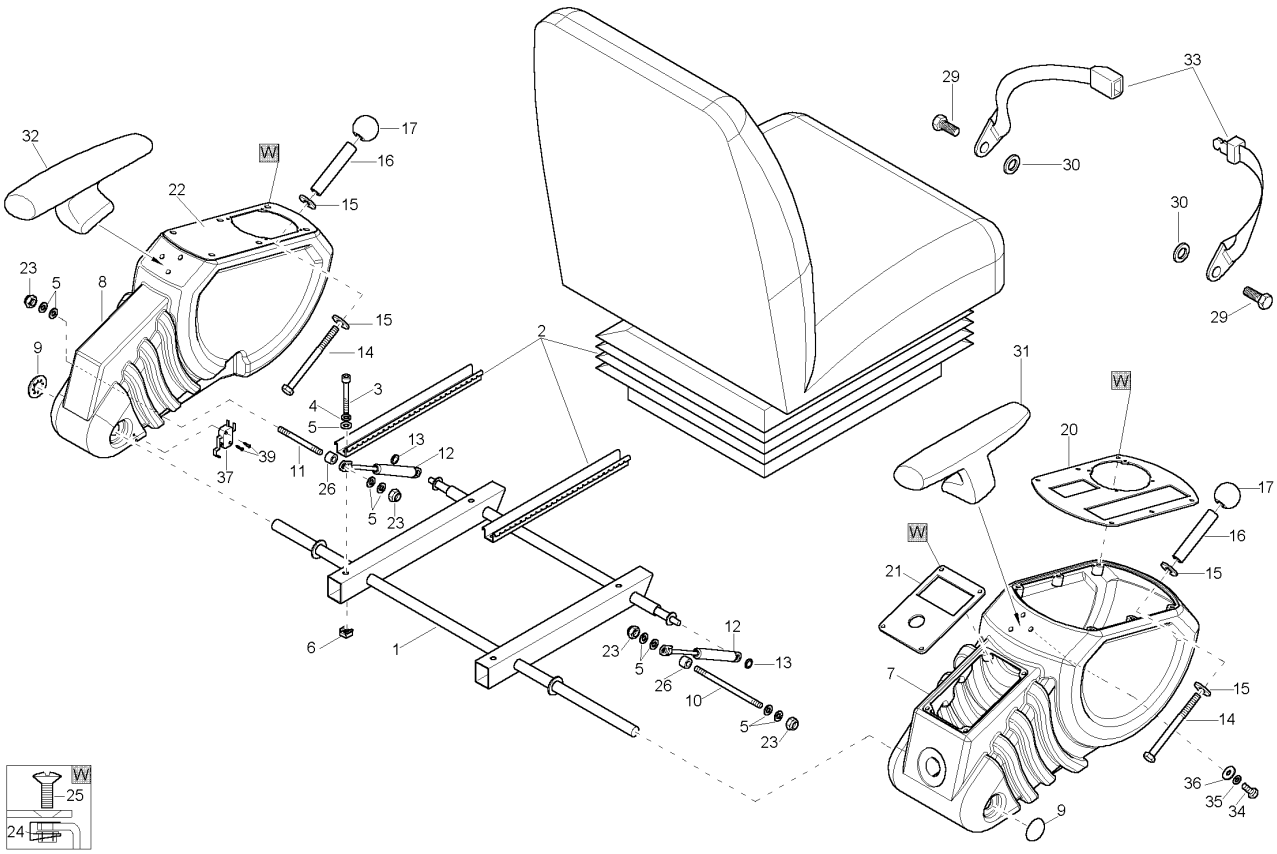
Ref. No.	Part No.	Description	Qty. Req.
1	161777	DOOR FRAME	1
2	161836	DOOR FRAME	1
3	161778	DOOR WINDOW	1
4	161396	RUBBER PROTECTOR	4
6	162018	RUBBER PROTECTOR	4
7	160492	DOOR HANDLE	2
8	161788	KEY	2
9	161942	DOOR HANDLE KIT	2
10	160525	LOCK L	2
11	160490	TRAP LOCK/RT	2
12	160491	DOOR LOCK COVER/RT	2
13	160712	COVER L	2
14	161779	LOCK	1
15	161925	SQUARE NUT	1
16	656092	CS M6-1.0 X 12 C 8.8 ZO	1
17	162045	NUT	3
18	162042	SCREW	4
19	162031	SCREW	1
20	160493	CABIN DOOR, COMPLETE	1
21	161837	CABIN DOOR, COMPLETE	1



ET1920447

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

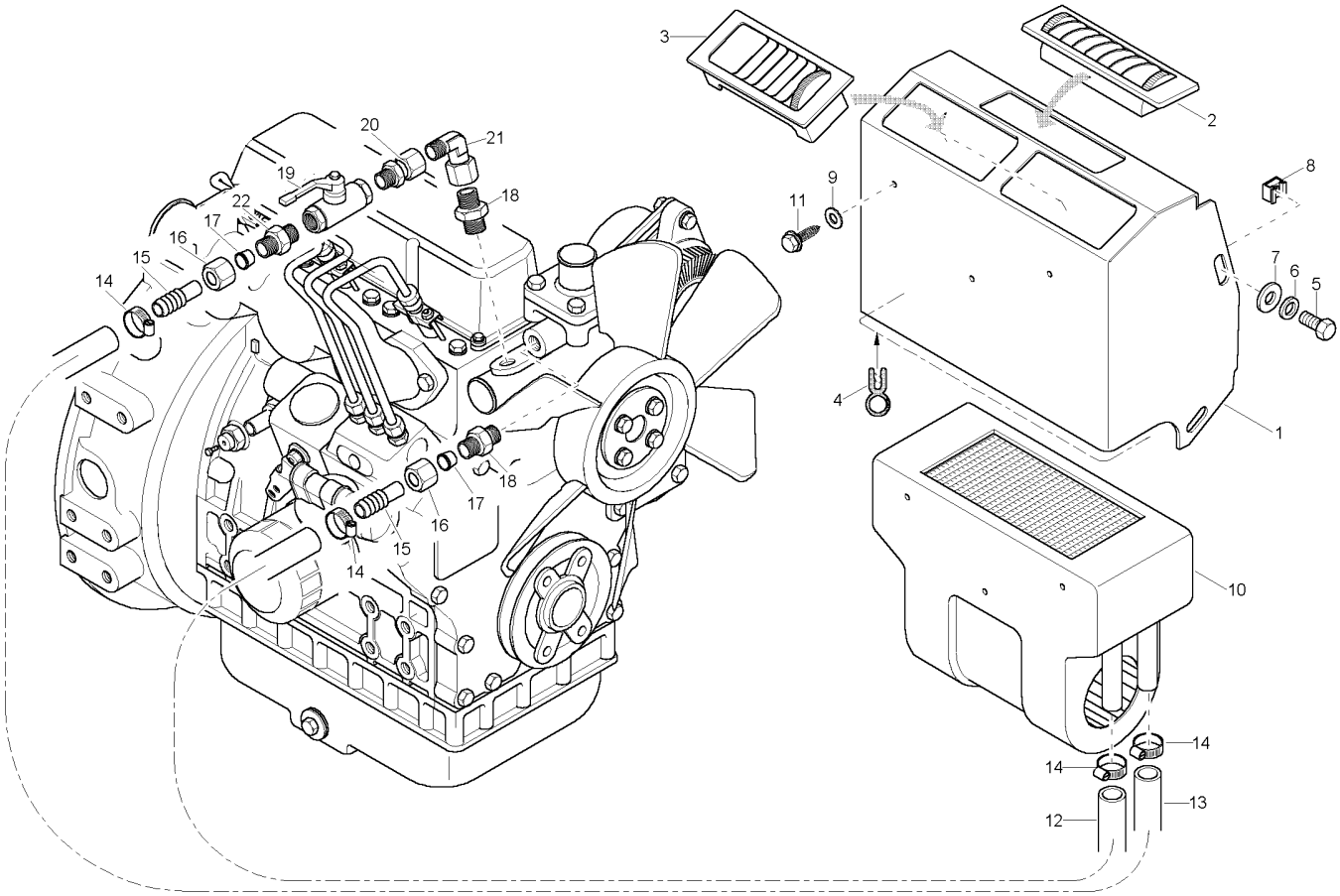
Ref. No.	Part No.	Description	Qty. Req.
1	160716	WINDSHIELD WASHER	1
2	161814	BRACKET	1
3	651462	FCHC HS M6-1.0 X 16 8.8 ZO D7991	1
4	161666	WASHER/GR A 6.4 ZO DIN9021	3
5	651457	HLN INS M6-1.0 8 Z0	1
6	162012	PLASTIC HOSE (250 cm)	1
7	656149	CS M6-1.0 X 16 C 8.8 ZO	2
8	161676	LOCKWASHER	2
9	161613	NUT/CAGE M6	2
10	161995	SLIDE TERMINAL	2



ET1920450

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161874	CONTROL LEVER CONSOLE	1
2	161726	DRIVER SEAT	1
3	651518	SHCS HS M8-1.2 X 55 8.8 ZO D912	4
4	161676	LOCKWASHER S8	4
5	161661	WASHER/GR A 8.4 ZO	12
6	161615	NUT/CAGE M8	4
7	160407	CONSOLE/CONTROL LEVERS	1
8	160408	CONSOLE/CONTROL LEVERS	8
9	161730	PLUG	2
10	161832	PIN	1
11	161831	PIN	1
12	160611	PNEUMATIC SPRING	2
13	161848	QUICK FIX	2
14	651390	HB M10-1.5 X 120 C 8.8 ZO	2
15	161651	WASHER 20	4
16	161868	TUBE	2
17	161403	BALL KNOB	2
20	161947	COVER	1
21	161833	COVER	1
22	161834	COVER	1
23	161618	NUT/HEX DOMED CAP M8	4
24	162048	NUT	16
25	161634	SCREW/C'SUNK HD M5 X 16 DIN966 ZO	16
26	161805	TUBE	2
29	162026	SCREW	2
30	161642	WASHER/GR A 13 ZO	2
31	160532	ARMREST	1
32	160533	ARMREST	1
33	161728	SEAT BELT	1
34	651424	CS M6-1.0 X 20 C 8.8 ZO	6
35	161675	LOCKWASHER S6	6
36	161666	WASHER/GR A 6.4 ZO DIN9021	6
37	161362	MICRO SWITCH	1
39	161628	SCREW/PAN HEAD TAP	2



ET1920455

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	161873	BRACKET	1	12	161389	HOSE (220 cm)	1
2	160531	HEATER SPINDLE	1	13	161389	HOSE (220 cm)	1
3	160530	AIR NOZZLE	2	14	162064	HOSE CLAMP	4
4	162017	RUBBER PROTECTOR (50 cm)	1	15	160860	HOSE COVER	2
5	656001	CS M8-1.2 X 20 C 8.8 ZO	4	16	161423	NUT	2
6	161676	LOCKWASHER S8	4	17	161424	WASHER	2
7	161667	WASHER/GR A 8.4 ZO	4	18	161436	FITTING	2
8	161615	NUT/CAGE M8	4	19	160950	BALL VALVE	1
9	161666	WASHER/GR A 6.4 ZO DIN9021	3	20	161477	FITTING	1
10	160406	CAB HEATER	1	21	161445	ELBOW	1
11	161630	SCREW/HEX HD TAP B5.5X19 DIN7976	3	22	161476	FITTING	1

SECTION G: DIESEL ENGINE

DIESEL ENGINE 56
MODELS 192-222 — DIESEL ENGINE 56
MODELS 192-222 — ENGINE SUSPENSION 57
MODELS 192-222 — COOLING WATER RADIATOR 58
MODELS 192-222 — AIR INTAKE 59
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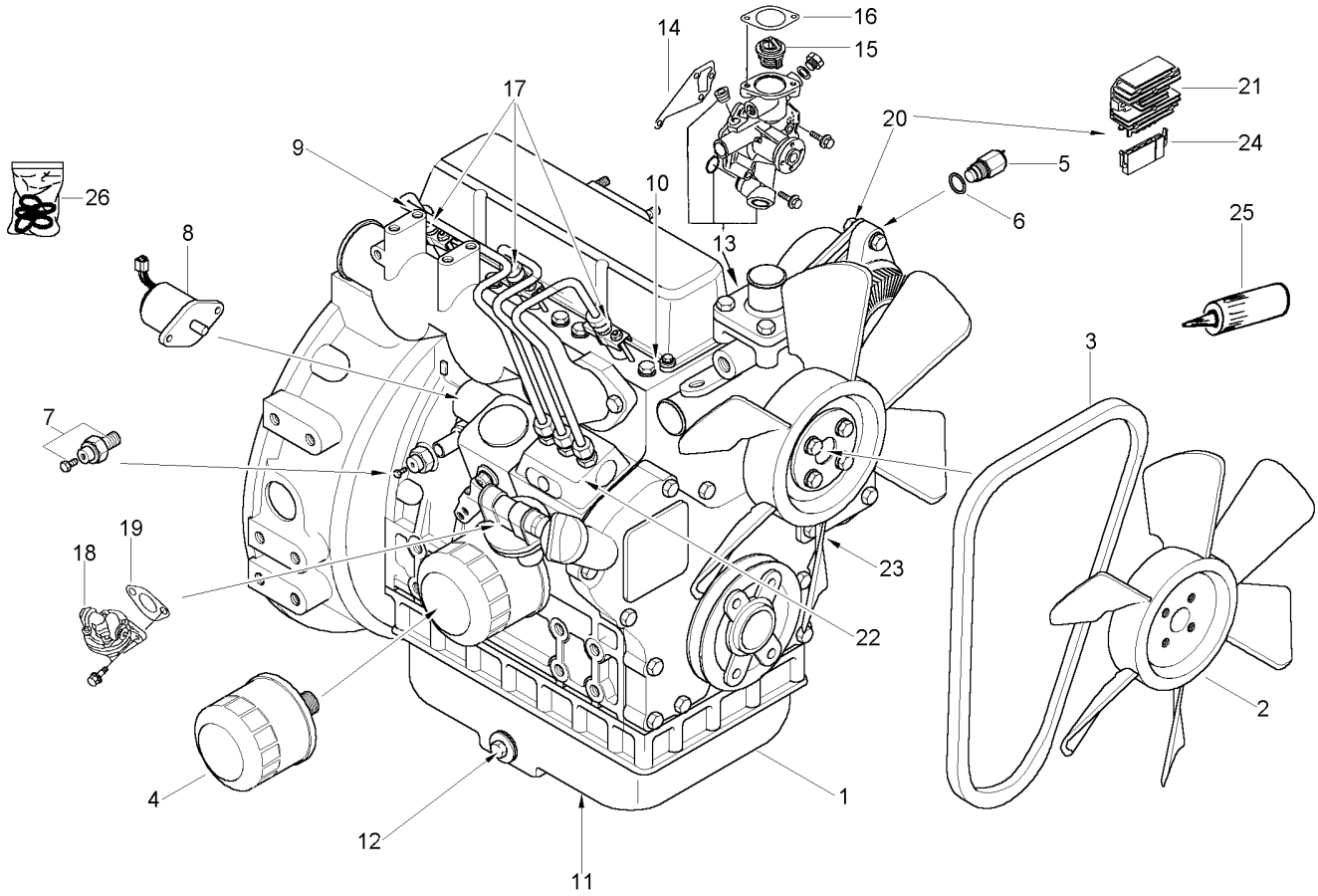
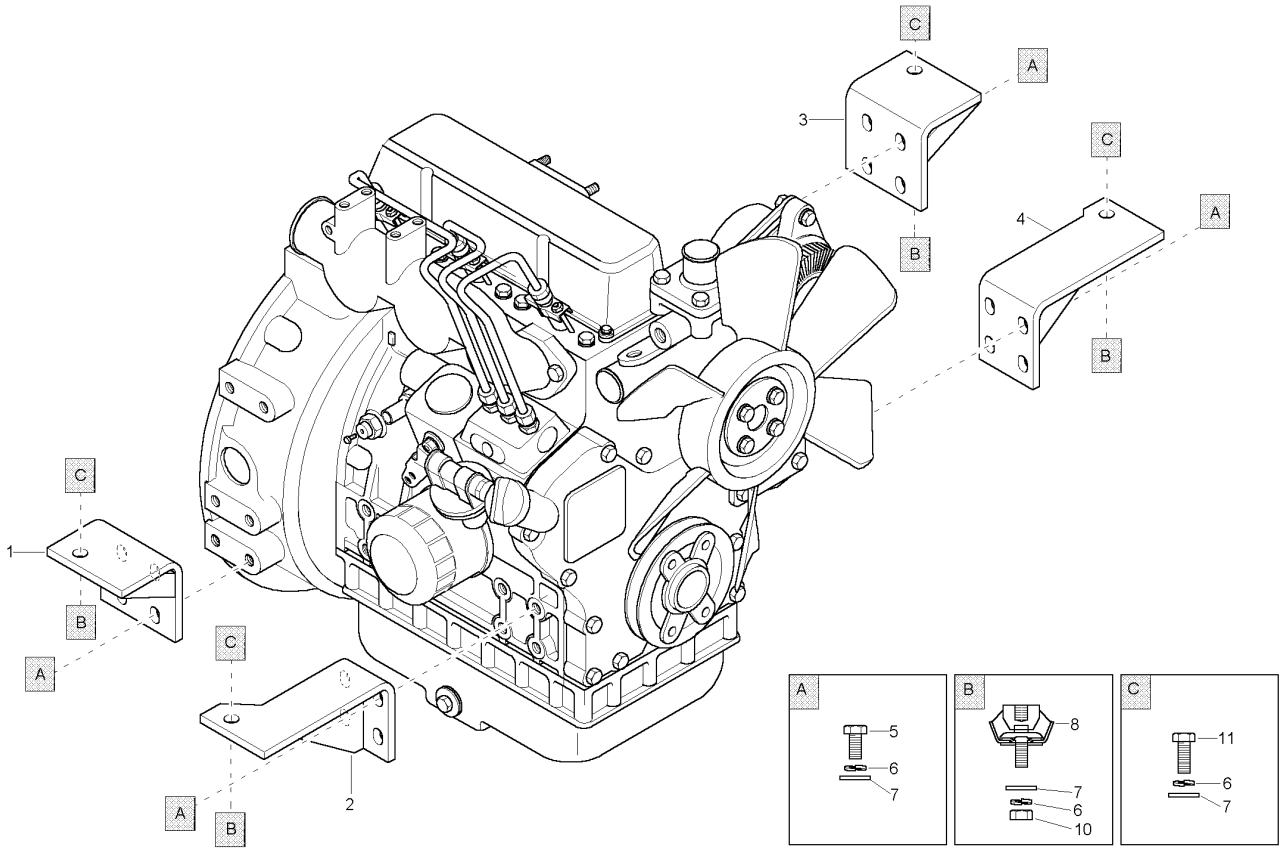
MODELS 192-222 — ACCELERATOR 62
MODELS 192-222 — DIESEL TANK 63



ET1920500

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

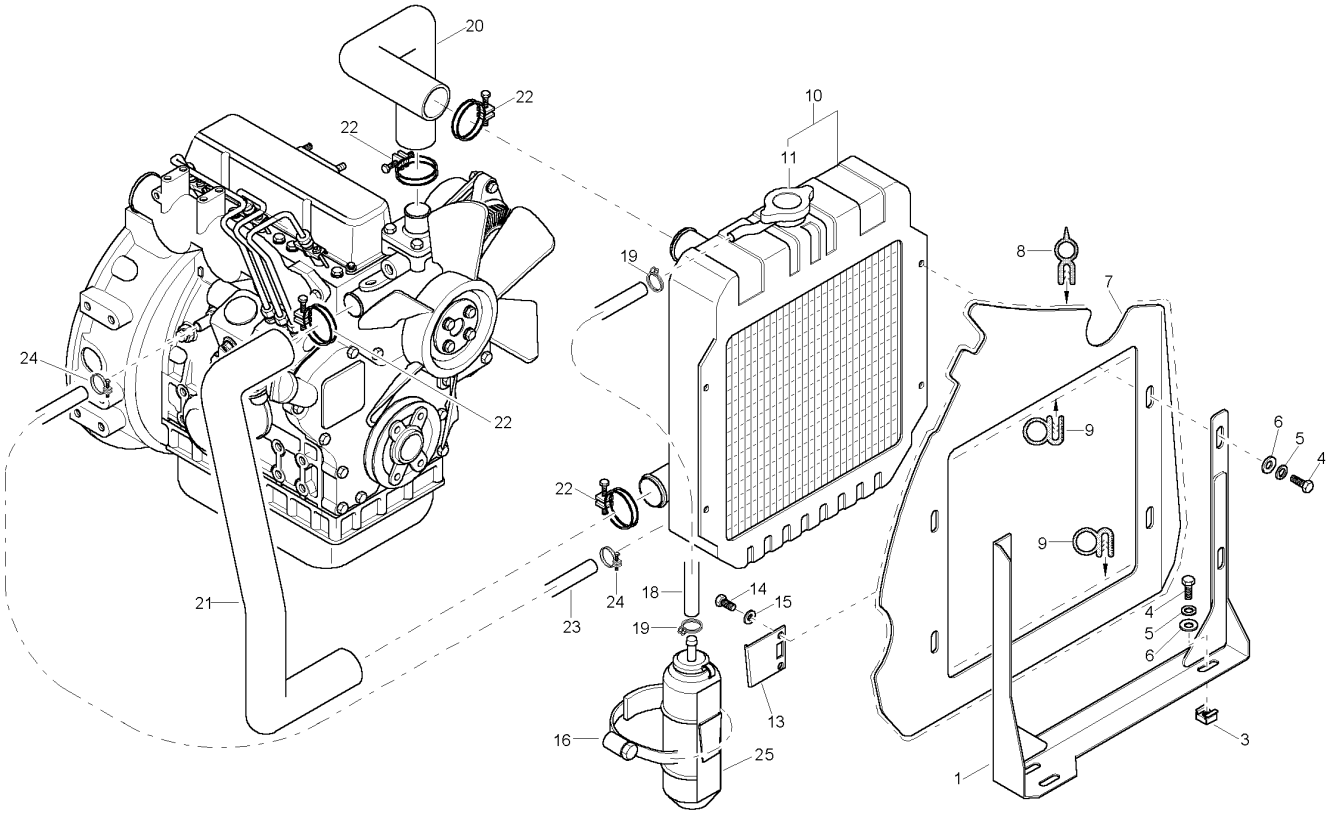
Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	162085	DIESEL ENGINE	1	14	425-35265	SEAL	1
2	425-36140	VENTILATOR	1	15	425-35269	THERMO SWITCH	1
3	425-36141	BELT	1	16	425-36142	SEAL	1
4	425-35259	OIL FILTER	1	17	425-36146	INJECTION VALVE	3
5	425-34683	THERMO SWITCH	1	18	425-35318	FUEL PUMP	1
6	425-34707	SEAL	1	19	425-35317	SEAL	1
7	425-36085	OIL PRESSURE SWITCH	1	20	425-36147	GENERATOR	1
8	425-35925	STOP SOLENOID	1	21	425-36148	REGULATOR	1
9	425-36144	CYLINDER HEAD SEAL	1	22	425-35274	INJECTION PUMP	1
10	425-35207	VALVE COVER SEAL	1	23	425-35376	STARTER	1
11	425-36145	OIL PAN	1	24	425-36149	PLUG	1
12	425-34753	OIL PLUG	1	25	161737	SEALANT	1
13	425-35264	WATER PUMP	1	26	160607	ENGINE SEAL KIT, COMPLETE	1



ET1920505

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

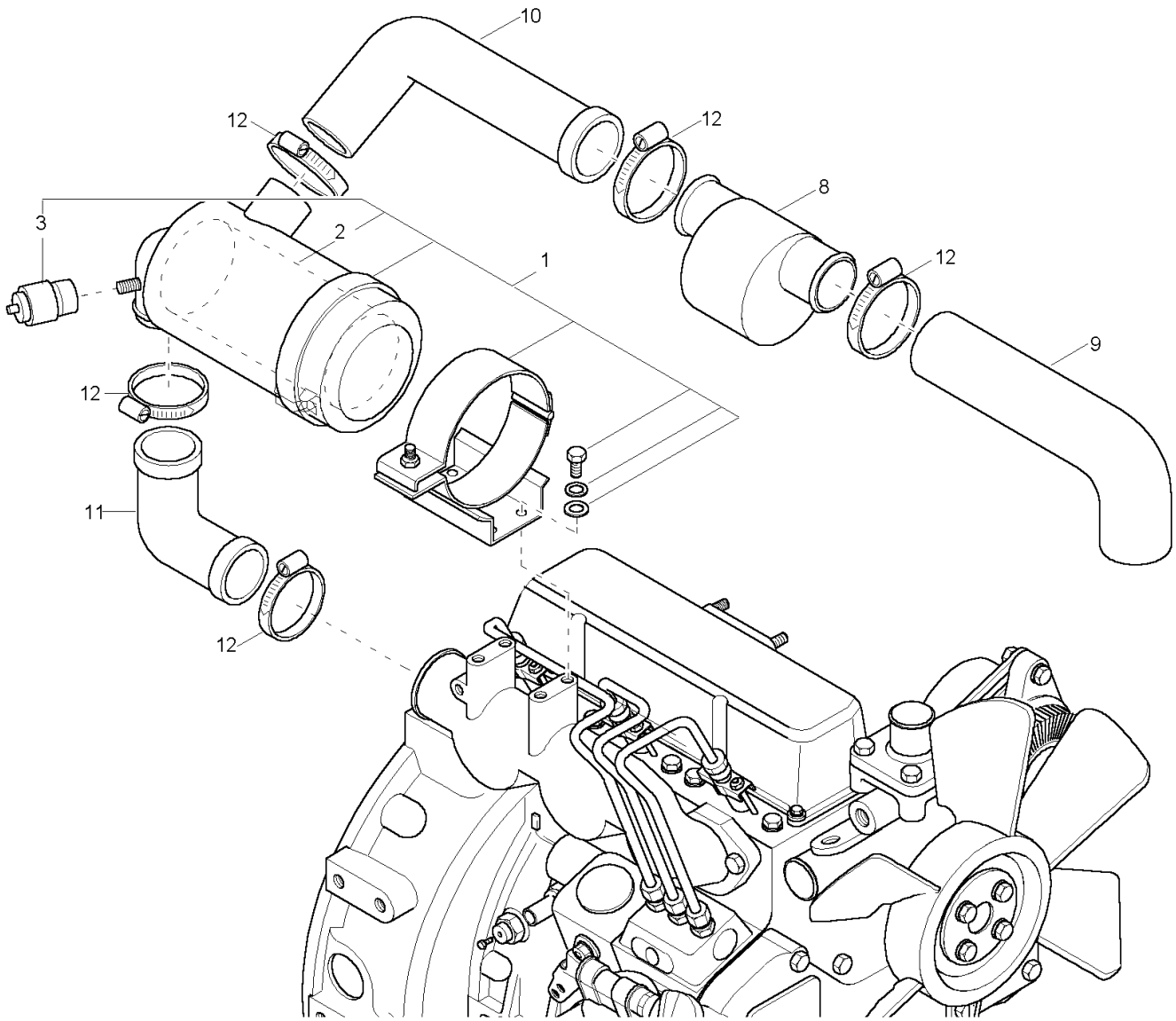
Ref. No.	Part No.	Description	Qty. Req.
1	162081	ENGINE CARRIER	1
2	162082	ENGINE CARRIER	1
3	162080	ENGINE CARRIER	1
4	162083	ENGINE CARRIER	1
5	651393	CS M10-1.5 X 25 C 8.8 ZO	16
6	161669	LOCKWASHER S10	24
7	161641	WASHER/GR 10.5 ZO	24
8	160410	RUBBER BEARING	4
10	656102	HN M10-1.2 ZO	4
11	651395	CS M10-1.5 X 30 C 10.9 ZO	4



ET1920510

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

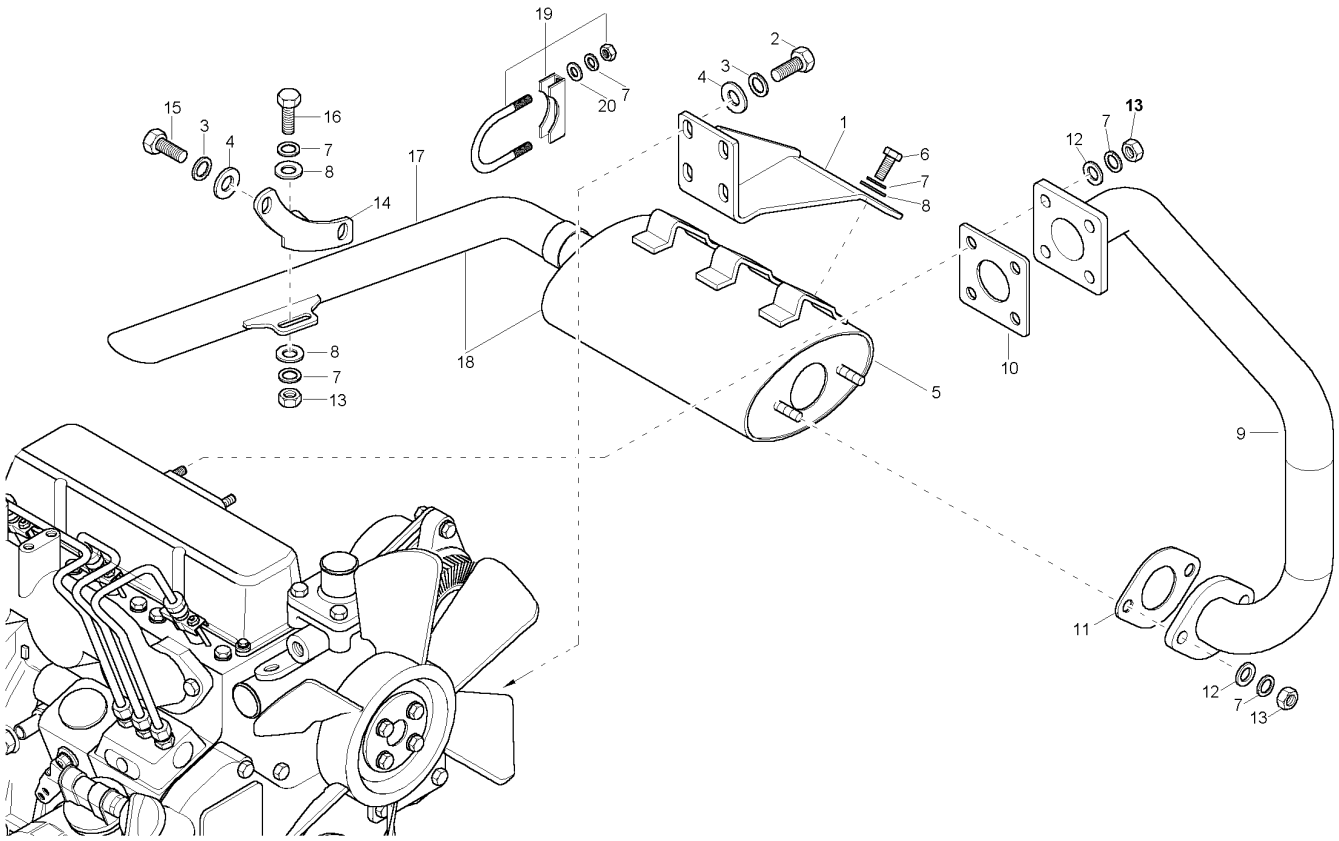
Ref. No.	Part No.	Description	Qty. Req.
1	161853	BRACKET	1
3	161615	NUT/CAGE M8	1
4	656001	CS M8-1.2 X 20 C 8.8 ZO	7
5	161676	LOCKWASHER S8	7
6	161667	WASHER/GR A 8.4 ZO	7
7	161963	BRACKET	1
8	161949	RUBBER PROTECTOR	2
9	162016	RUBBER PROTECTOR (60 cm)	1
10	425-36150	WATER COOLER	1
11	160424	COVER	1
13	425-36152	BRACKET	1
14	656149	CS M6-1.0 X 16 C 8.8 ZO	2
15	161675	LOCKWASHER S6	2
16	161856	HOSE CLAMP	1
18		HOSE	1
19	161857	HOSE CLAMP	2
20	425-35271	COOLING WATER HOSE	1
21	425-35272	COOLING WATER HOSE	1
22	425-34853	HOSE CLAMP	4
23		HOSE	1
24		HOSE CLAMP	2
25			



EET1920515

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

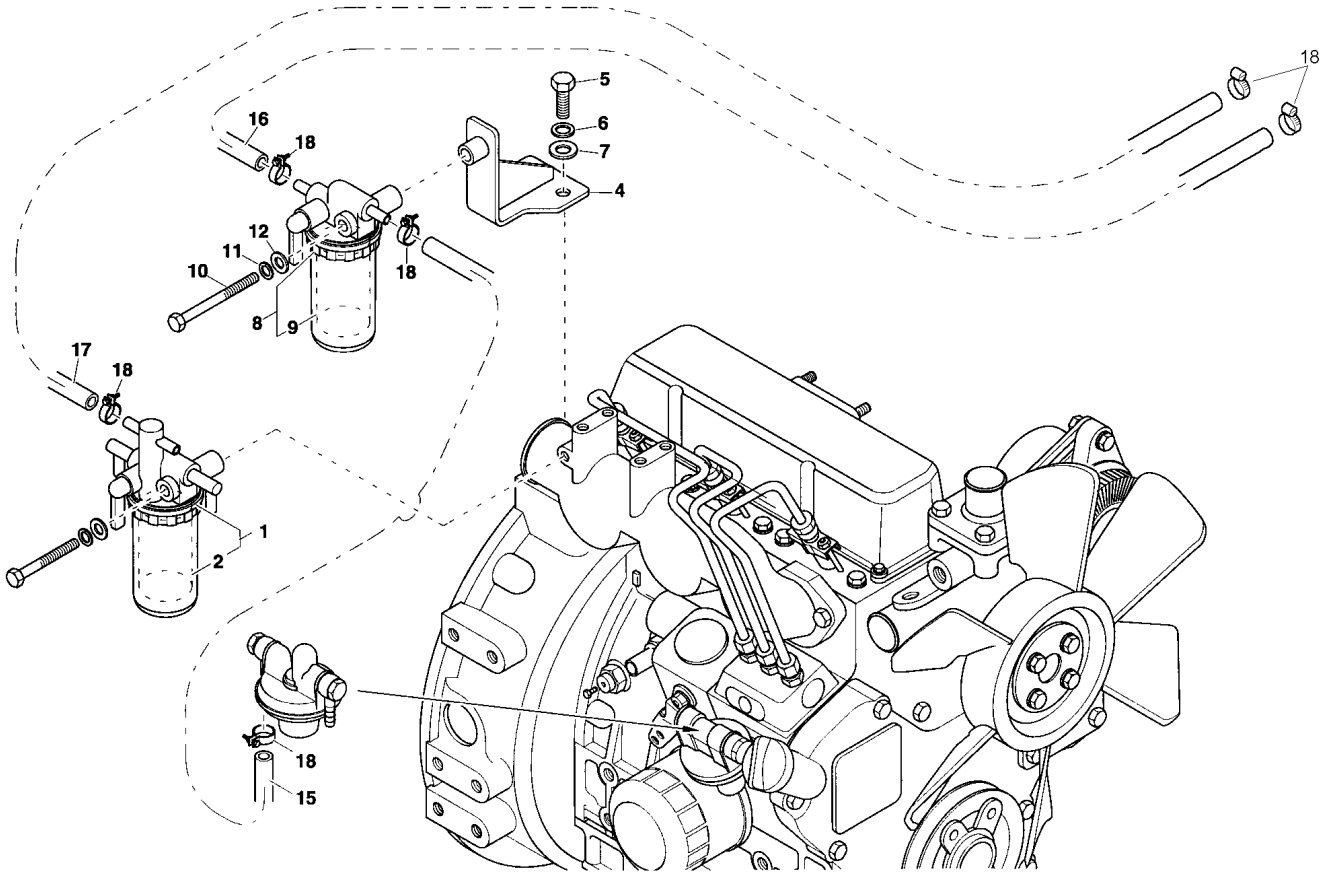
Ref. No.	Part No.	Description	Qty. Req.
1	425-36153	AIR FILTER KIT	1
2	425-36154	AIR FILTER	1
3	425-36155	DUST INDICATOR	1
8	425-36101	MUFFLER	1
9	425-36156	SUCTION HOSE	1
10	425-36157	SUCTION HOSE	1
11	425-36158	HOSE	1
12	425-36159	HOSE CLAMP	5



ET1920520

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

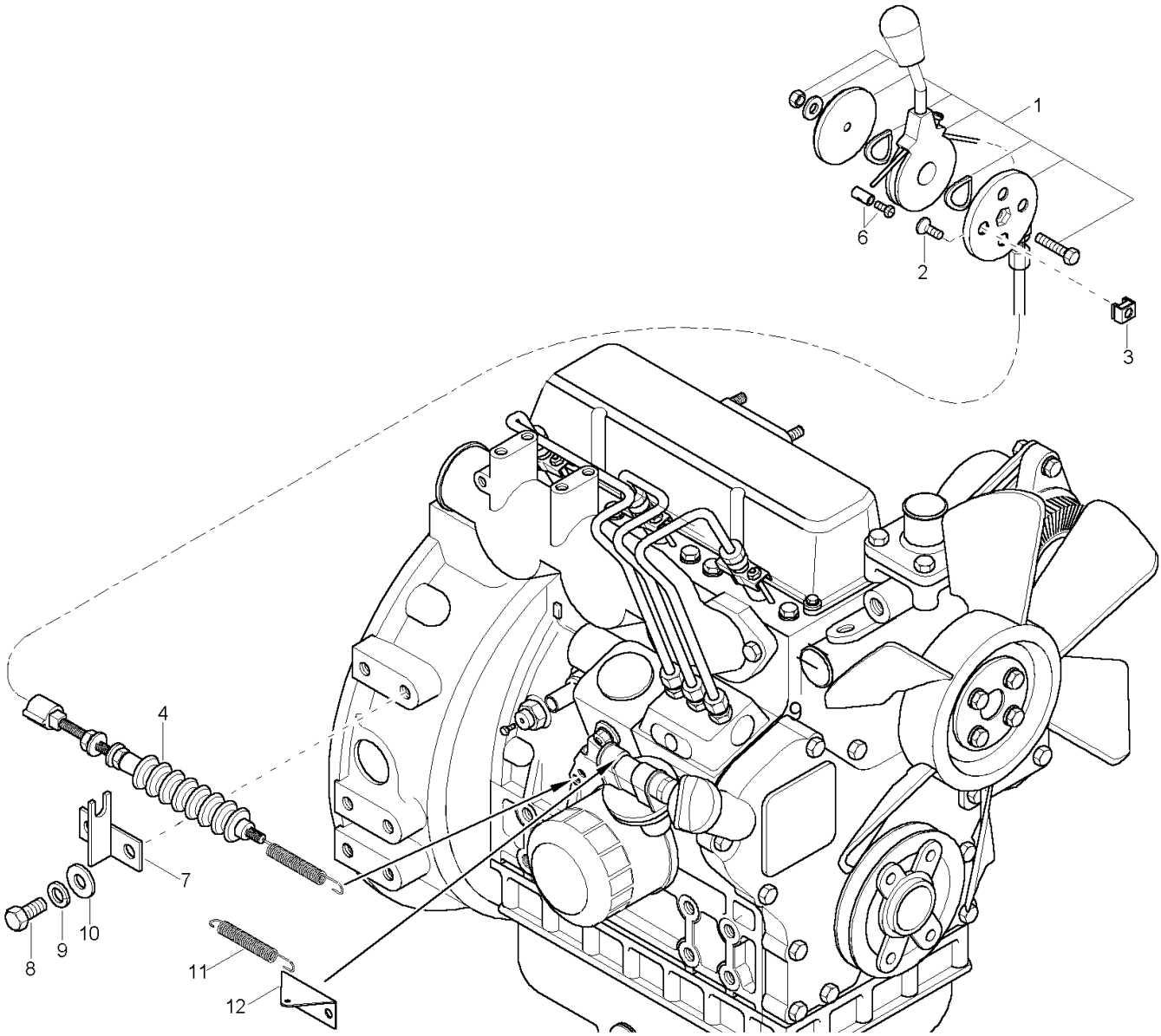
Ref. No.	Part No.	Description	Qty. Req.
1	162079	BRACKET	1
2	651393	CS M10-1.5 X 25 C 8.8 ZO	3
3	161669	LOCKWASHER S10	5
4	161640	WASHER/GR A 10.5 ZO	5
5	425-36160	MUFFLER	1
6	656105	CS M8-1.2 X 25 C 8.8 ZO	3
7	161676	LOCKWASHER S8	11
8	161667	WASHER/GR A 8.4 ZO	5
9	160538	EXHAUST TUBE	1
10	160646	SEAL	1
11	425-36161	SEAL	1
12	161661	WASHER/GR A 8.4 ZO	6
13	656048	HN M8-1.2 ZO	7
14	162084	BRACKET	1
15	651397	CS M10-1.5 X 35 C 8.8 ZO	2
16	656094	CS M8-1.2 X 30 C 8.8 ZO	1
17	160540	EXHAUST PIPE	1
18	160542	MUFFLER AND EXHAUST PIPE	1
19	161953	PIPE CLAMP ASSEMBLY	1
20	161661	WASHER/GR A 8.4 ZO	2



ET1920525

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

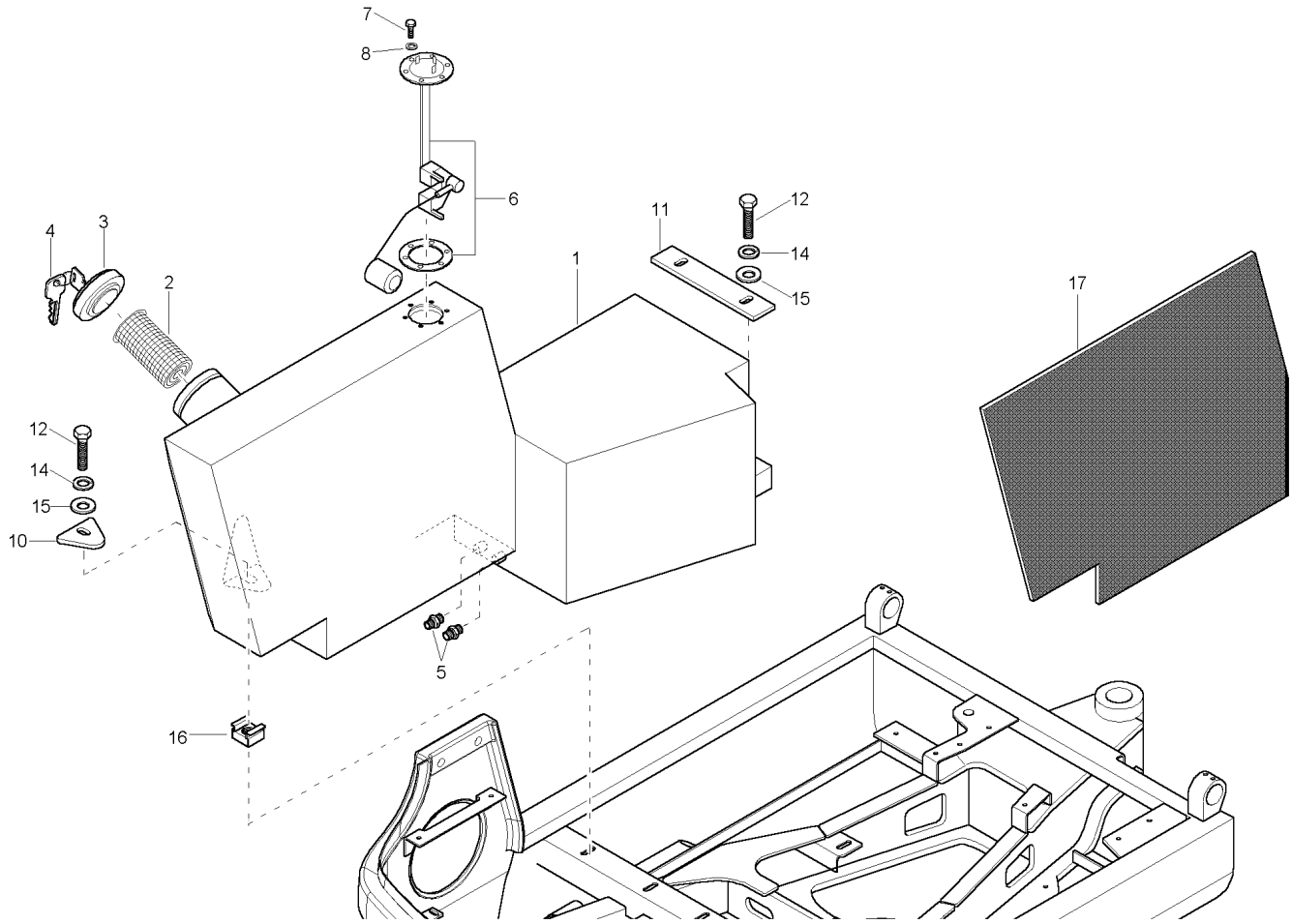
Ref. No.	Part No.	Description	Qty. Req.
1	162077	FILTER HOUSING	1
2	425-35326	FUEL FILTER	1
4	161852	BRACKET	1
5	651391	CS M10-1.5 X 20 C 8.8 ZO	2
6	161669	LOCKWASHER S10	2
7	161640	WASHER/GR A 10.5 ZO	2
8	425-35973	FUEL FILTER ASSEMBLY	1
9	425-36091	FUEL FILTER	1
10	651440	HB M8-1.2 X 90 C 8.8 ZO	1
11	161676	LOCKWASHER S8	1
12	161661	WASHER/GR A 8.4 ZO	1
15	161391	HOSE (42 cm)	1
16	161391	HOSE (140 cm)	1
17	161391	HOSE (170 cm)	1
18	162065	HOSE CLAMP	6



ET1920530

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161928	THROTTLE CONTROL ASSEMBLY (INCLUDES PART NOS. 2, 3 AND 6)	1
2	651461	FCHC HS M6-1.0 X 12 8.8 ZO D7991	4
3	161613	NUT/CAGE M6.	4
4	160600	CABLE	1
6	161929	NIPPLE	1
7	161733	BRACKET	1
8	656001	CS M8-1.2 X 20 C 8.8 ZO	2
9	161676	LOCKWASHER S8	2
10	161667	WASHER/GR A 8.4 ZO	2
11	160480	SPRING.	1
12	161734	BRACKET	1



ET1920535

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160513	GAS-OIL STORAGE TANK	1
2	160436	STRAINER	1
3	160401	TANK COVER	1
4	160403	KEY	1
5	161867	FITTING	2
6	160536	TRANSMITTER	1
7	162040	SCREW	6
8	161659	WASHER/GR A 5.3 ZO DIN125	6
10	161799	BRACKET	1
11	161798	BRACKET	1
12	651436	CS M8-1.2 X 50 C 8.8 ZO	3
14	161676	LOCKWASHER S8	3
15	161661	WASHER/GR A 8.4 ZO	3
16	161615	NUT/CAGE M8	1
17	161900	ISOLATION MAT	1

SECTION H: HYDRAULIC SYSTEM

HYDRAULIC SYSTEM 66
MODELS 192-222 — HYDRAULIC PUMP 66
MODELS 192-222 — HYDRAULIC OIL TANK 67
MODELS 192-222 — HYDRAULIC PUMP 68
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MODELS 192-222 — CONTROL VALVE 74
MODELS 192-222 — PILOT OIL SUPPLY UNIT 76
MODEL 192 — SWIVEL JOINT 77
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MODELS 192-222 — STICK CYLINDER 89
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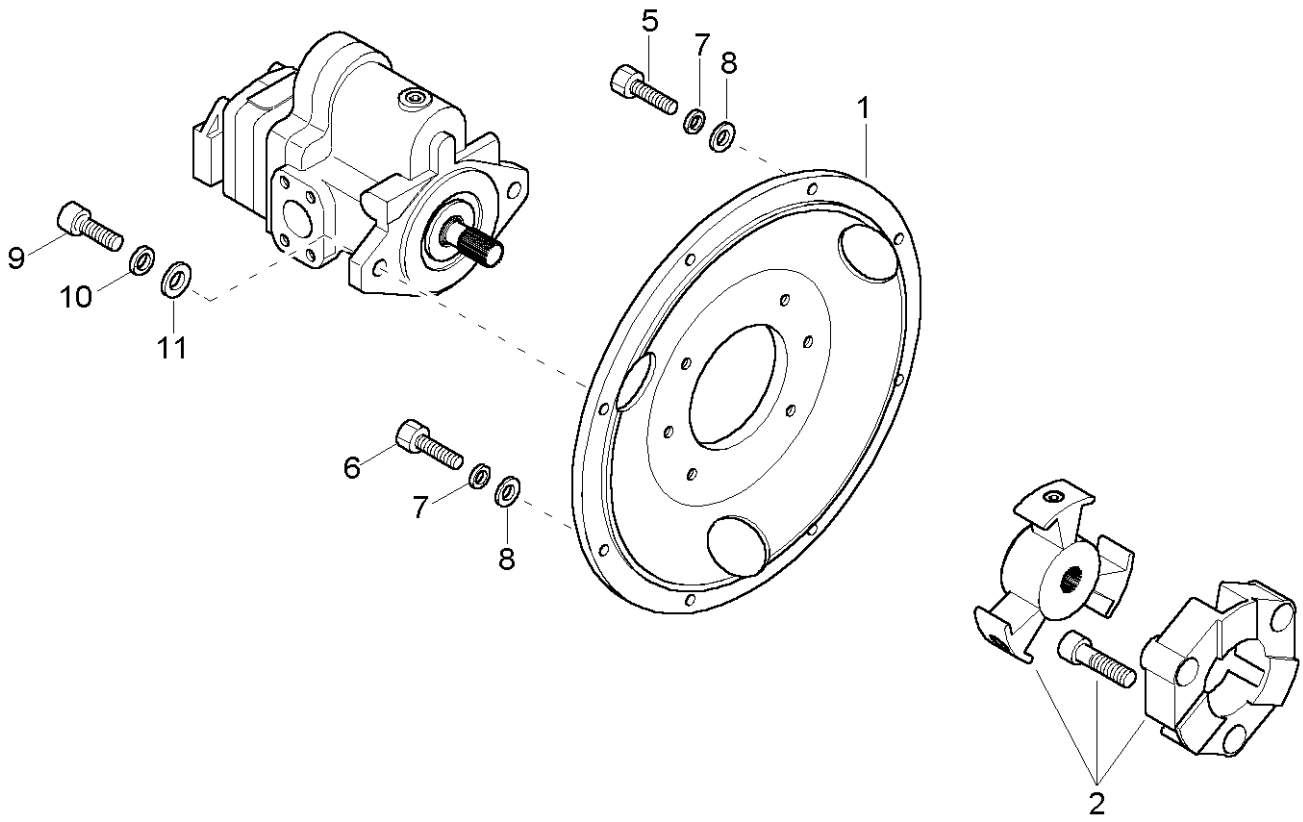
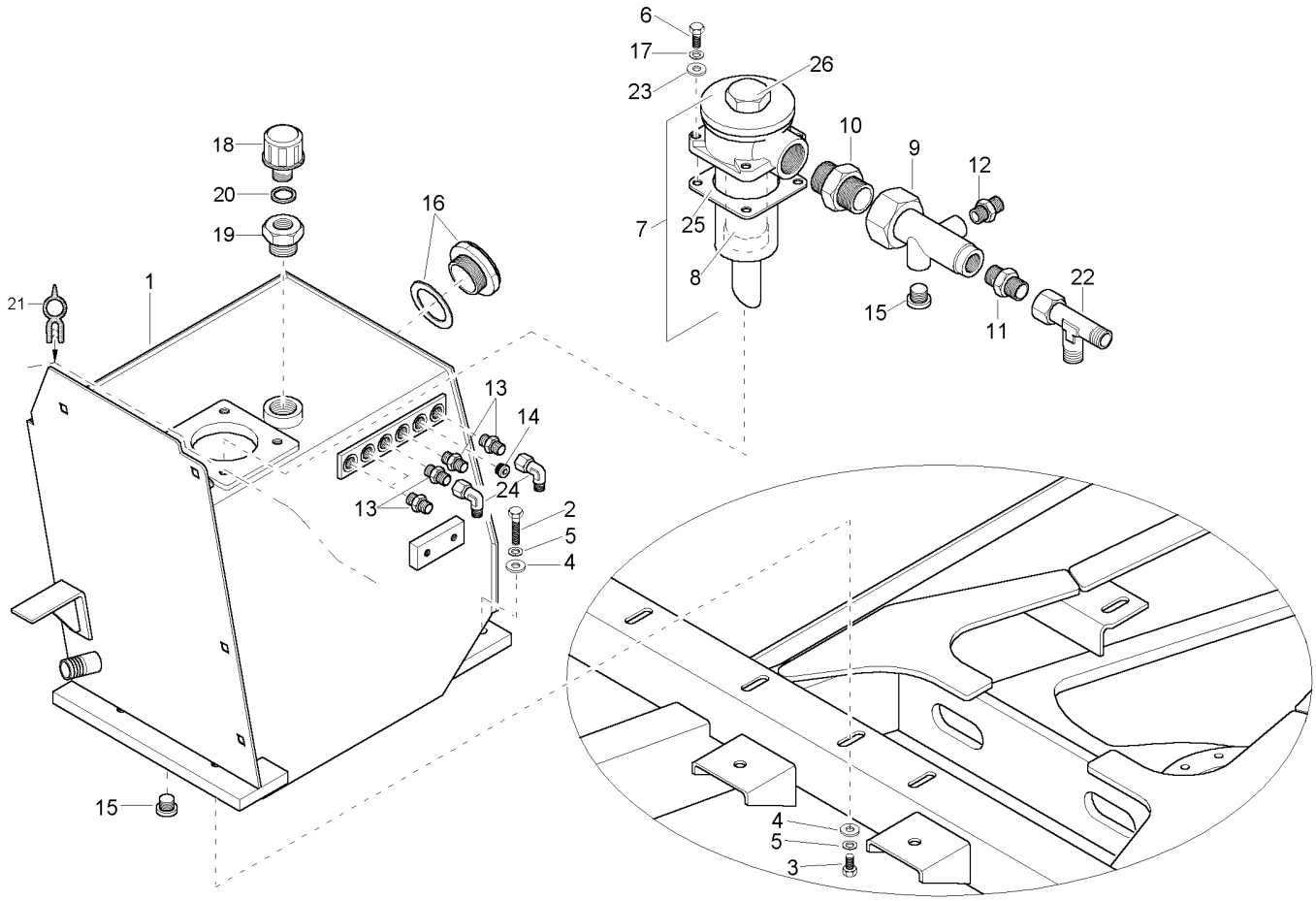
MODELS 192-222 — HYDRAULIC PUMP



ET1920540

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161954	PUMP BRACKET	1
2	160660	COUPLER	1
5	651396	CS M10-1.5 X 30 C 8.8 ZO	6
6	651397	CS M10-1.5 X 35 C 8.8 ZO	2
7	161669	LOCKWASHER S10	8
8	161640	WASHER/GR A 10.5 ZO	8
9	651480	SHCS HS M12-1.7 X 30 10.9 ZO D912	2
10	161670	LOCKWASHER S12	2
11	161642	WASHER/GR A 13 ZO	2

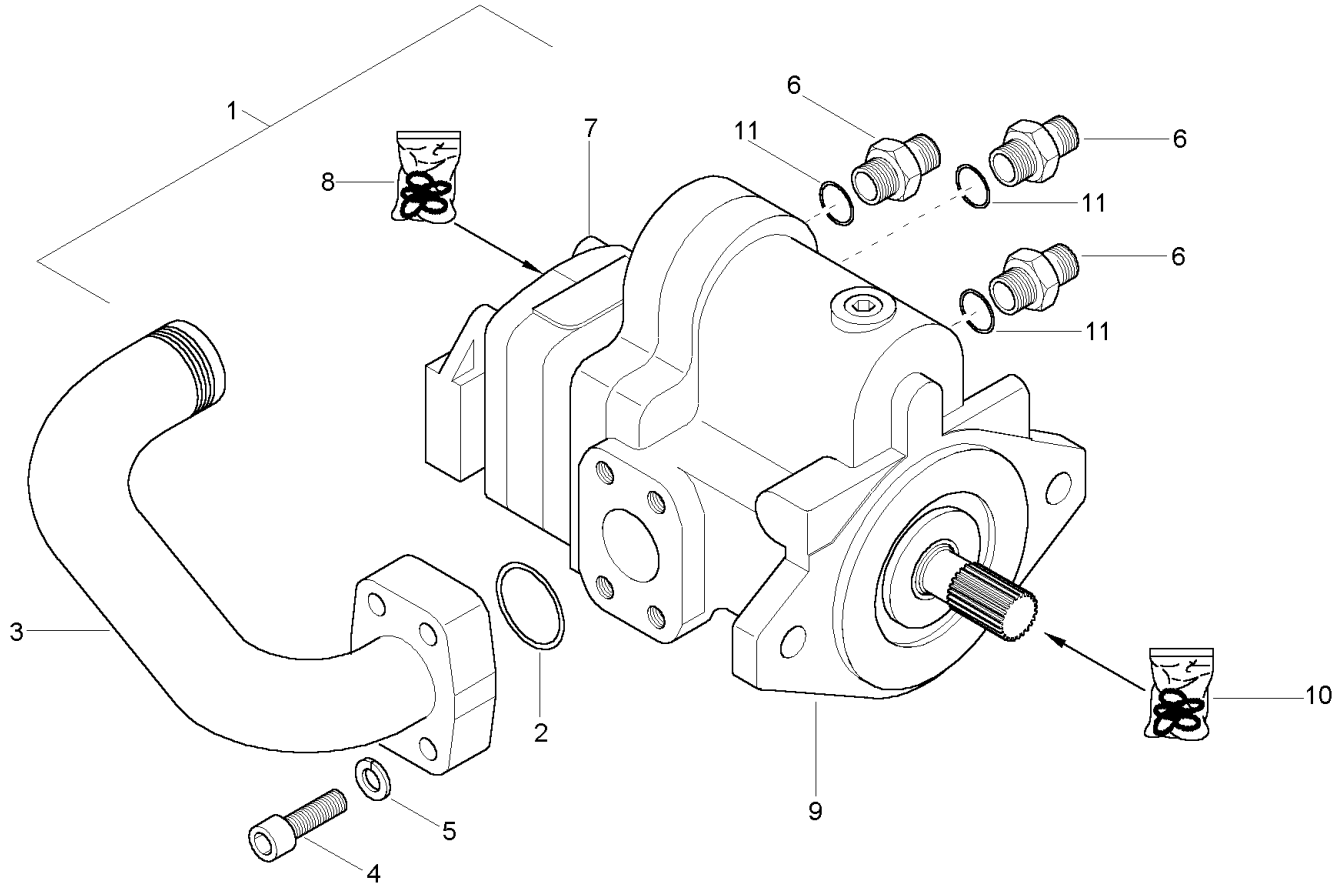


ET1920600

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	161819	HYDRAULIC OIL TANK	1	14	161414	PLUG	1
2	651399	CS M10-1.5 X 40 C 8.8 ZO	1	15	161415	PLUG	2
3	651393	CS M10-1.5 X 25 C 8.8 ZO	2	16	160439	OIL LEVEL GLASS	1
4	161660	WASHER/GR A 6.4 ZO DIN125	3	17	161676	LOCKWASHER S8	4
5	161669	LOCKWASHER S10	3	18	160949	AIR FILTER	1
6	656105	CS M8-1.2 X 25 C 8.8 ZO	4	19	161485	REDUCER BUSHING	1
7	160404	HYDRAULIC OIL FILTER ASSEMBLY	1	20	161579	SEAL	1
8	160485	HYDRAULIC OIL FILTER ELEMENT	1	21	161948	RUBBER PROTECTOR (72 cm)	1
9	160559	TUBE	1	22	161449	TEE	1
10	161490	FITTING	1	23	161661	WASHER/GR A 8.4 ZO	4
11	161432	FITTING	1	24	161443	ELBOW	2
12	161429	FITTING	1	25	160429	SEAL	1
13	161426	FITTING	5	26	160405	COVER	1

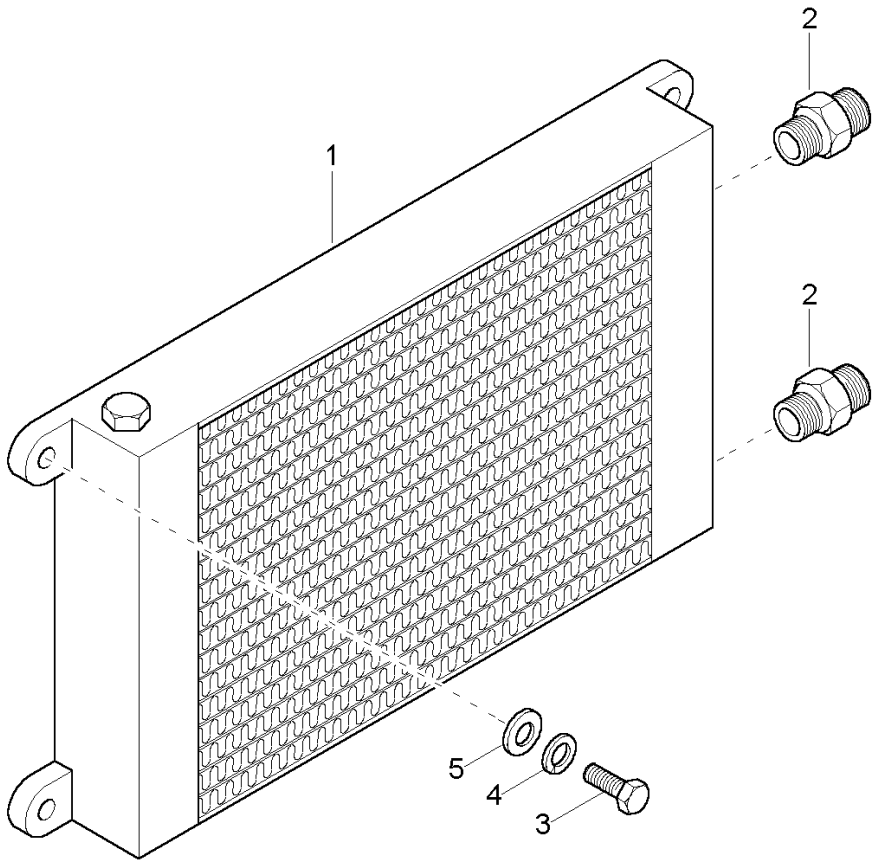
MODELS 192-222 — HYDRAULIC PUMP



ET1920605

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

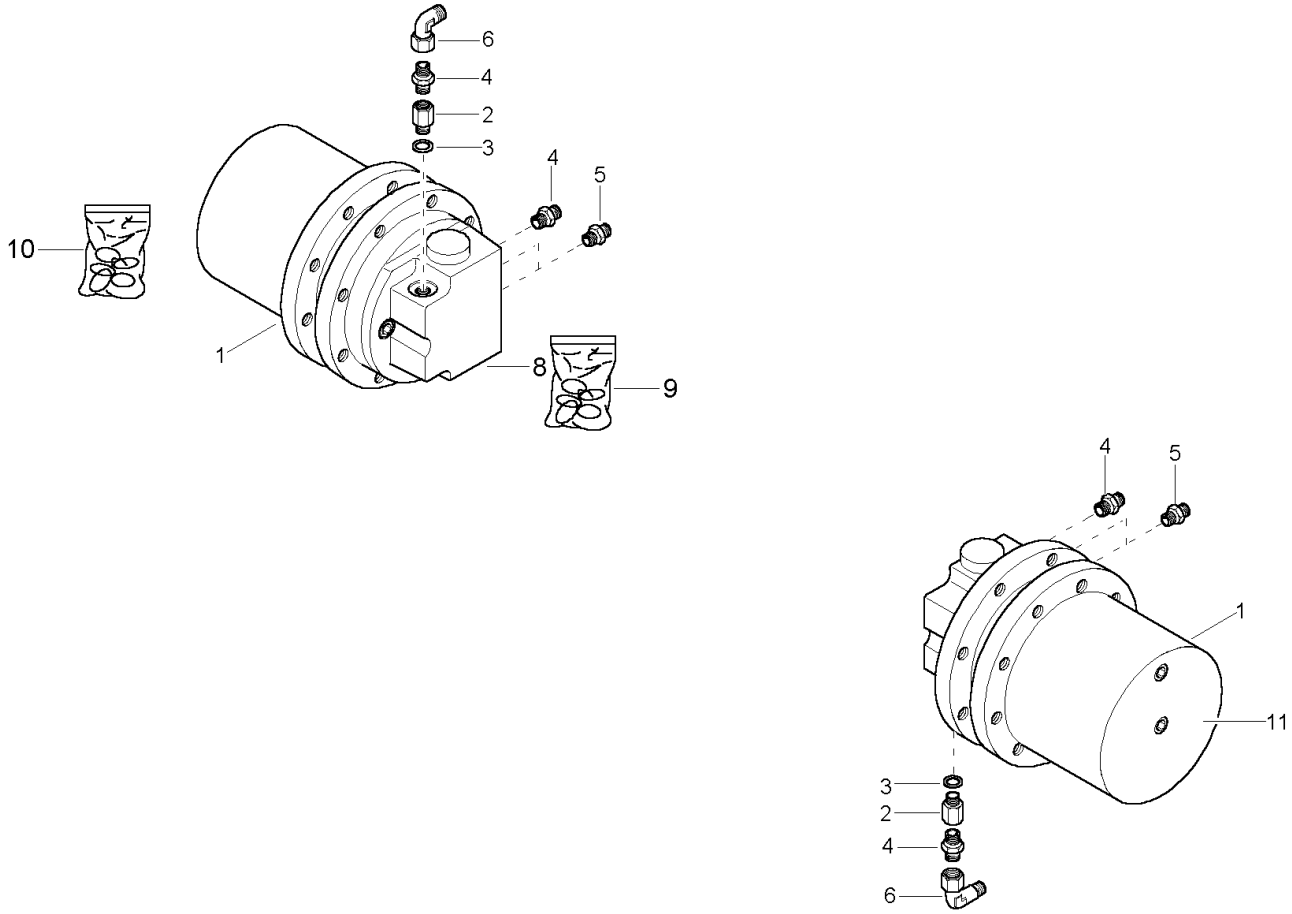
Ref. No.	Part No.	Description	Qty. Req.
1	160592	HYDRAULIC PUMP ASSEMBLY	1
2	161565	O-RING	2
3	161866	FLANGE	1
4	651475	SHCS HS M10-1.2 X 30 8.8 ZO D912	4
5	161669	LOCKWASHER S10	4
6	161431	FITTING	3
7	160588	GEAR PUMP	1
8	160608	SEAL KIT	1
9	162099	HYDRAULIC PUMP	1
10	160609	SEAL KIT	1
11	161585	O-RING	3



ET1920610

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

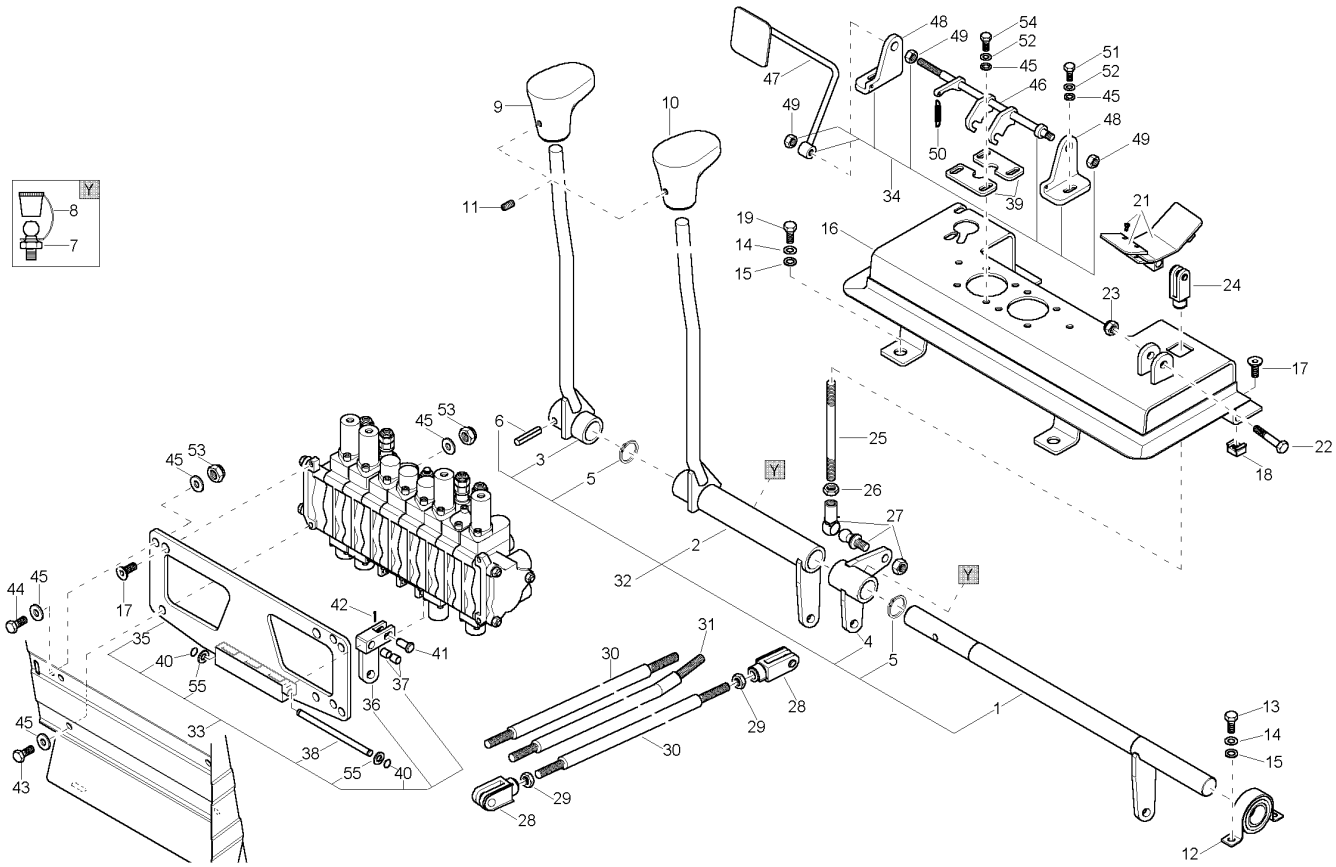
Ref. No.	Part No.	Description	Qty. Req.
1	160543	HYDRAULIC OIL COOLER	1
2	161432	FITTING	2
3	656001	CS M8-1.2 X 20 C 8.8 ZO	2
4	161676	LOCKWASHER S8	2
5	161667	WASHER/GR A 8.4 ZO	2



ET1920615

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

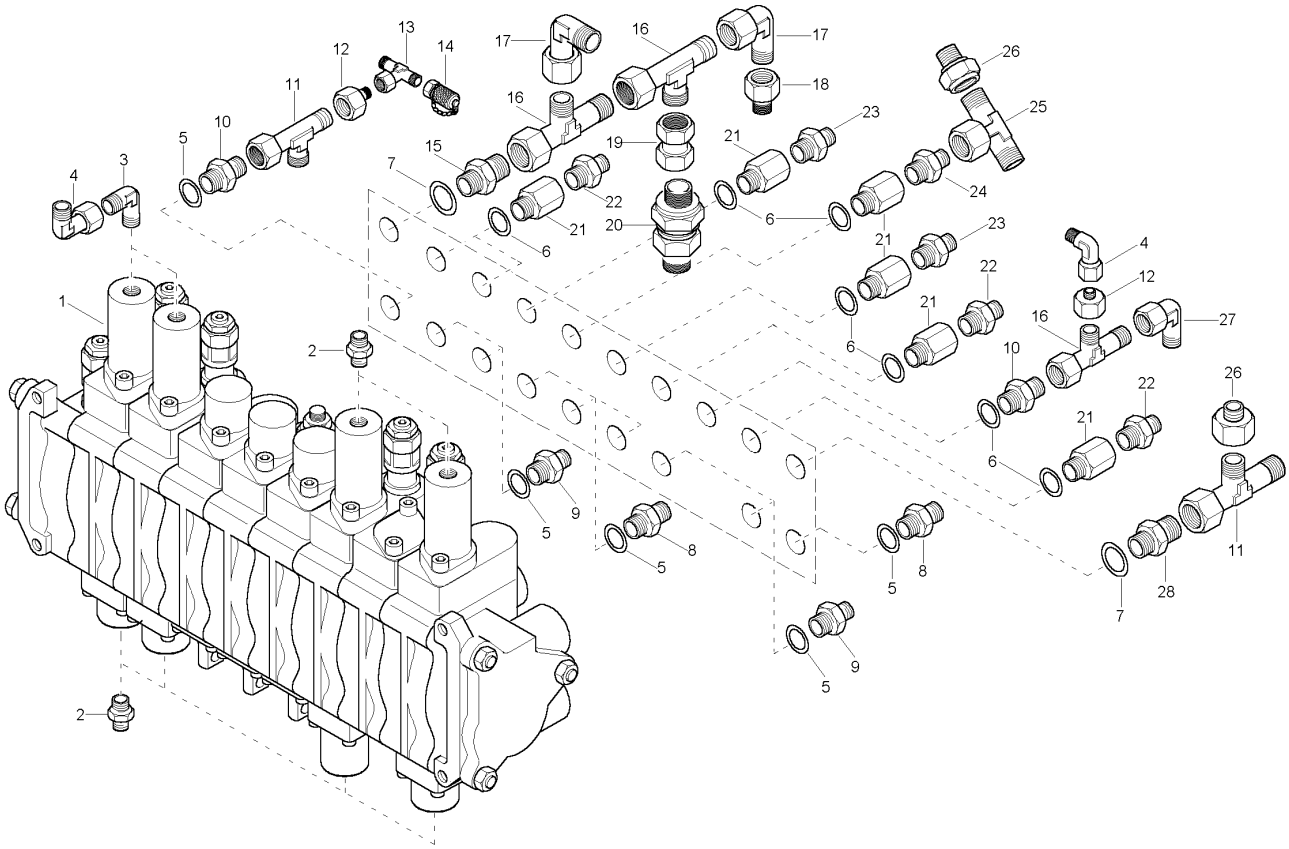
Ref. No.	Part No.	Description	Qty. Req.
1	160633	TRAVELING GEAR	2
2	160971	FITTING	2
3	161574	O-RING	2
4	161426	FITTING	4
5	161429	FITTING	2
6	161443	ELBOW	2
8	162092	HYDRAULIC MOTOR	1
9	162091	SEAL KIT HYDRAULIC MOTOR	1
10	162090	SEAL KIT TRAVEL GEAR	1
11	162088	COVER TRAVEL GEAR	1



ET1920620

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

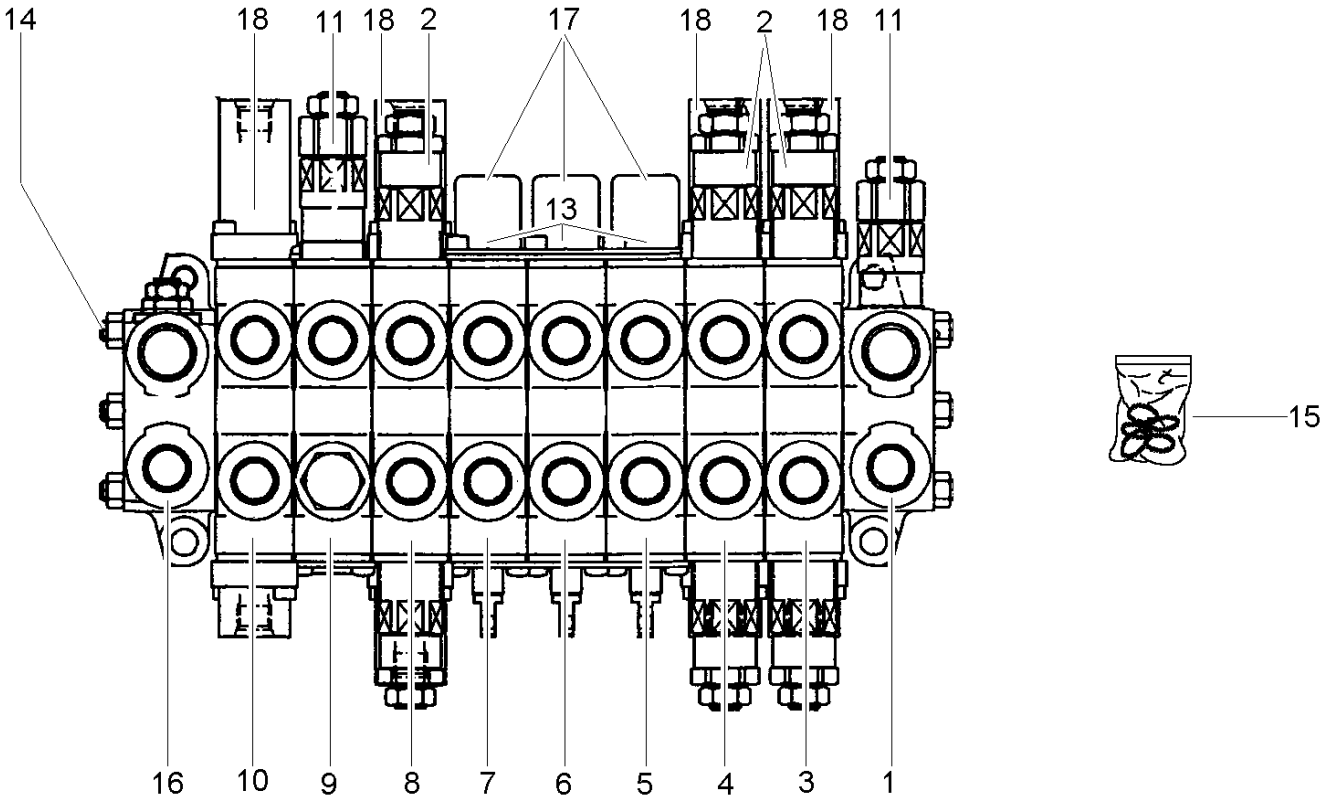
Ref. No.	Part No.	Description	Qty. Req.
1	161882	SHAFT	1
2	161881	HAND LEVER, TRAVELING	1
3	161880	HAND LEVER, TRAVELING	1
4	161883	LEVER	1
5	162056	RETAINING RING	2
6	162051	ROLL PIN	1
7	161411	LUBRICATION FITTING	2
8	161422	PROTECTION CAP	2
9	160658	KNOB WITH RED SWITCH	1
10	161764	KNOB	1
11	162027	SET SCREW	1
12	161560	BEARING	2
13	651391	CS M10-1.5 X 20 C 8.8 ZO	4
14	161669	LOCKWASHER S10	6
15	161640	WASHER/GR A 10.5 ZO	6
16	161890	BRACKET	1
17	162041	SCREW	4
18	161610	NUT/CAGE M10	2
19	651393	CS M10-1.5 X 25 C 8.8 ZO	2
21	161797	AUXILIARY HYDRAULICS PEDAL	1
22	161639	HEX/FIT BT W/SHT THD M8X50 ZO DIN610	1
23	651458	HLN INS M8-1.2 8 ZO	4
24	162073	YOKE	1
25	161887	LINKAGE	1
26	656048	HN M8-1.2 ZO	2
27	162072	BALL AND SOCKET	1
28	162074	YOKE	6
29	656102	HN M10-1.2 ZO	6
30	161884	LINKAGE	2
31	161886	LINKAGE	1
32	160597	HANDLE ASSEMBLY	1
33	160598	BRACKET ASSEMBLY	1
34	160599	LOCK	1
35	161889	BRACKET	1
36	161888	LEVER	3
37	161763	PLASTIC BUSHING	6
38	161885	SHAFT	1
39	161894	BRACKET	4
40	162058	WASHER	2
41	161895	PIN	3
42	161680	PIN/SPLIT 1.6 X 16 ZO D94	3
43	651397	CS M10-1.5 X 35 C 8.8 ZO	2
44	651393	CS M10-1.5 X 25 C 8.8 ZO	3
45	161667	WASHER/GR A 8.4 ZO	20
46	161893	BAR	1
47	161892	LEVER	1
48	161891	BRACKET	2
49	656102	HN M10-1.2 ZO	3
50	160603	SPRING	1
51	656001	CS M8-1.2 X 20 C 8.8 ZO	2
52	161676	LOCKWASHER S8	10
53	651448	HLN INS M10-1.5 ZO	5
54	656093	CS M8-1.2 X 16 C 8.8 ZO	8
55		WASHER	2



ET1920625

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

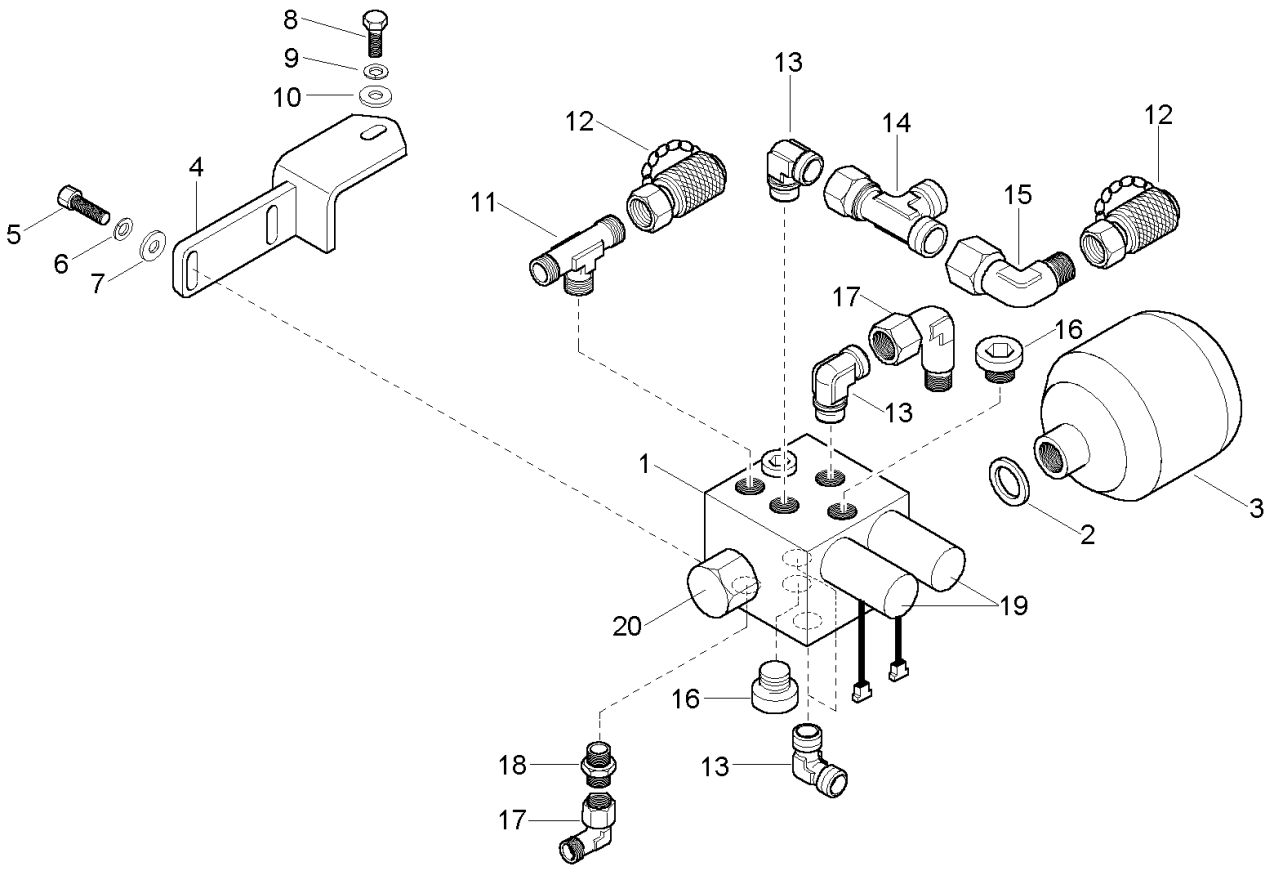
Ref. No.	Part No.	Description	Qty. Req.
1	160565	CONTROL VALVE	1
2	161501	FITTING	6
3	161439	ELBOW	2
4	161443	ELBOW	3
5	161571	O-RING	9
6	161590	O-RING	8
7	161585	O-RING	2
8	161496	FITTING	4
9	161486	FITTING	4
10	161509	FITTING	2
11	161471	TEE	2
12	161493	REDUCTION JOINT	2
13	161450	TEE	1
14	161514	MEASURE JOINT	1
15	161498	FITTING	1
16	161449	TEE	3
17	161447	ELBOW	2
18	161441	REDUCTION JOINT	1
19	161497	FITTING	1
20	161510	NON RETURN VALVE	1
21	160560	FITTING	7
22	161428	FITTING	4
23	161429	FITTING	2
24	161463	FITTING	1
25	161467	TEE	1
26	161470	REDUCTION JOINT	2
27	161446	ELBOW	1
28	161508	FITTING	1



ET1920627

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

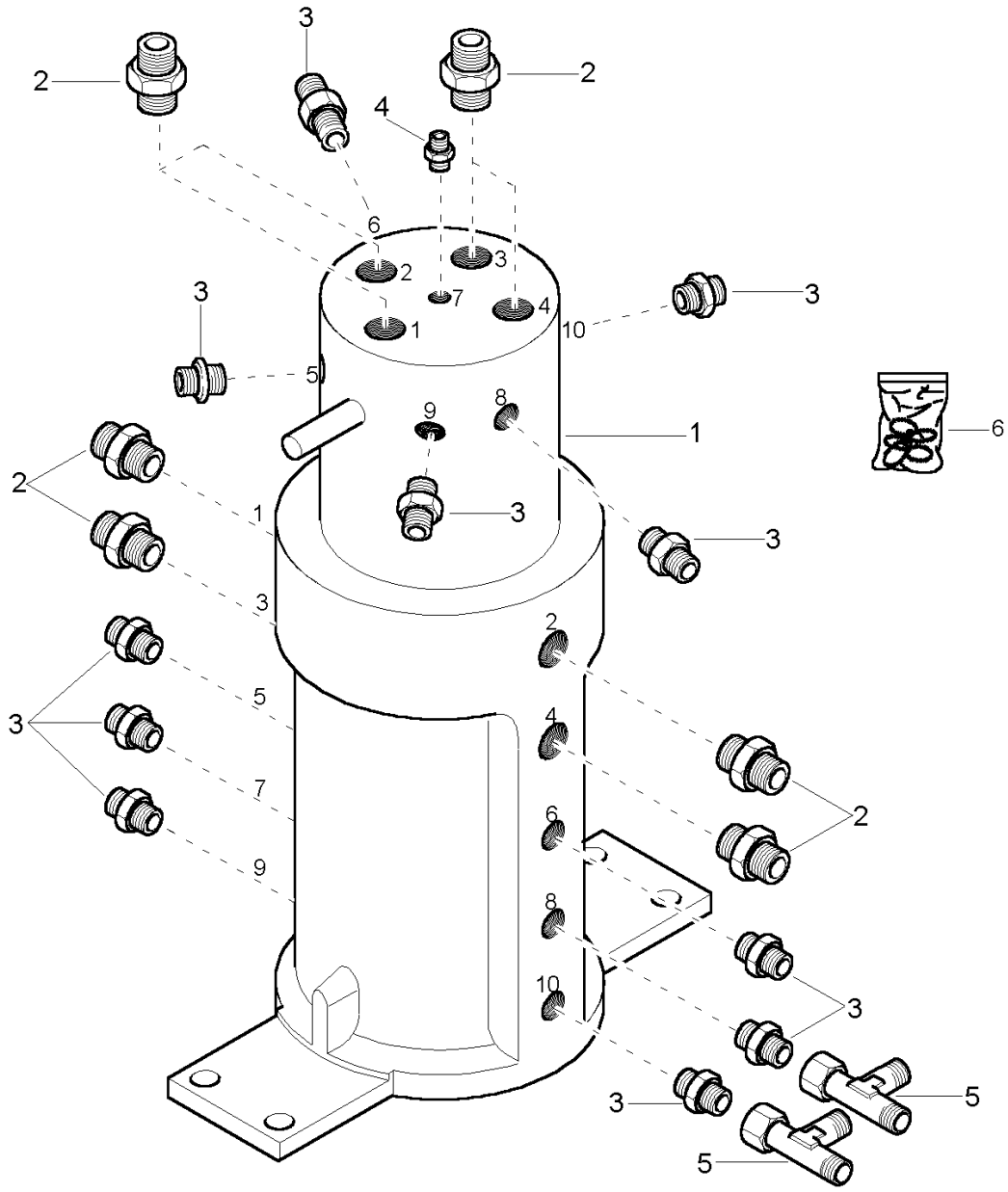
Ref. No.	Part No.	Description	Qty. Req.
1	160573	SECTION/CONTROL VALVE	1
2	161360	PRESSURE RELIEF VALVE, SECONDARY	3
3	160574	SECTION/CONTROL VALVE	1
4	160575	SECTION/CONTROL VALVE	1
5	160576	SECTION/CONTROL VALVE	1
6	160577	SECTION/CONTROL VALVE	1
7	160578	SECTION/CONTROL VALVE	1
8	160579	SECTION/CONTROL VALVE	1
9	160580	SECTION/CONTROL VALVE	1
10	160581	SECTION/CONTROL VALVE	1
11	161359	PRESSURE RELIEF VALVE, PRIMARY	2
13	160582	SPRING DISC	3
14	160583	SCREW MOUNT	3
15	160586	SEAL KIT	1
16	160584	SECTION/CONTROL VALVE	1
17	161871	CAP	3
18	160585	SPRING DISC	4



ET1920630

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

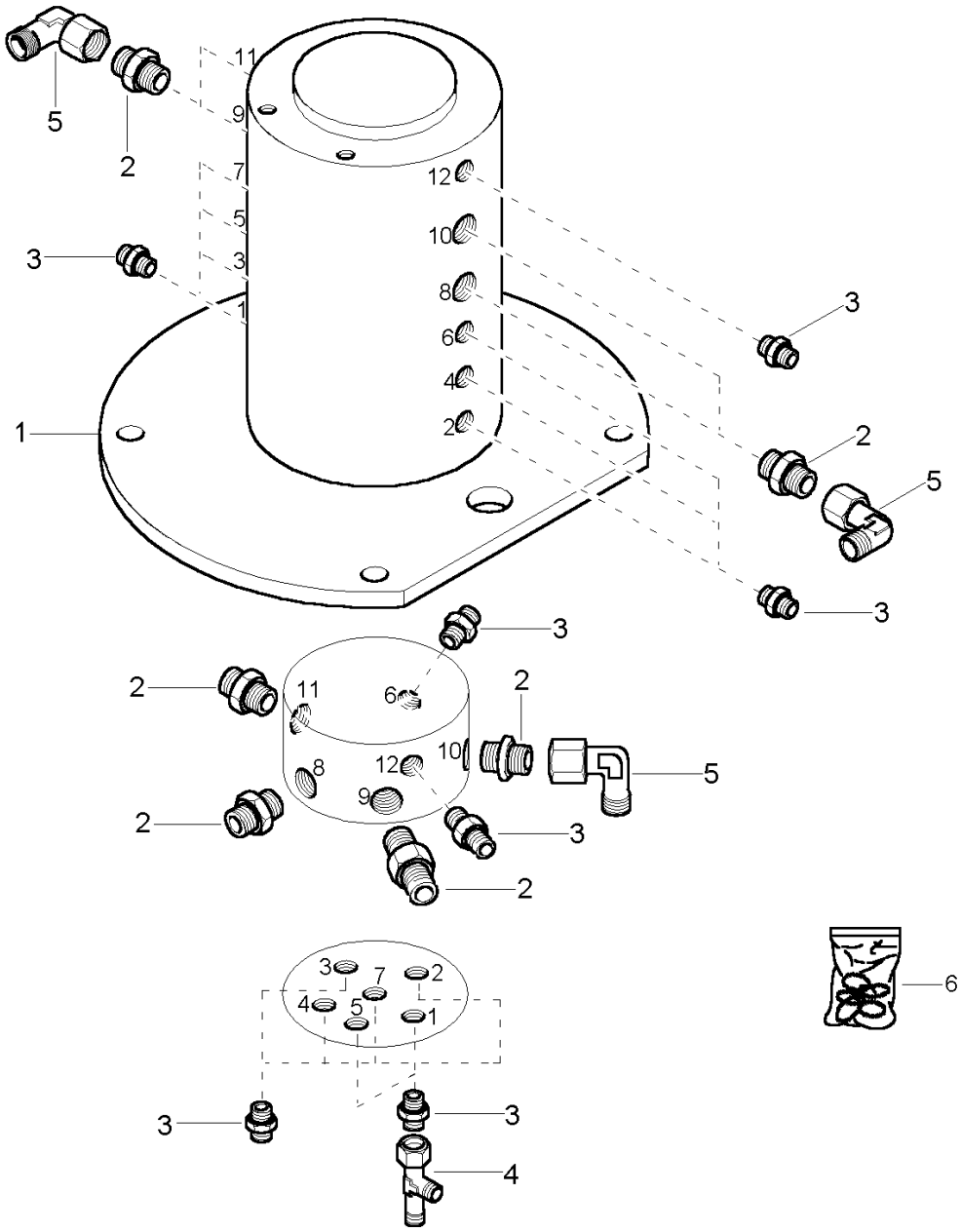
Ref. No.	Part No.	Description	Qty. Req.
1	160594	PILOT OIL SUPPLY UNIT	1
2	161567	SEAL	1
3	160437	ACCUMULATOR	1
4	161824	BRACKET	1
5	656001	CS M8-1.2 X 20 C 8.8 ZO	2
6	161676	LOCKWASHER S8	2
7	161667	WASHER/GR A 8.4 ZO	2
8	651395	CS M10-1.5 X 30 C 10.9 ZO	1
9	161669	LOCKWASHER S10	1
10	161641	WASHER/GR 10.5 ZO	1
11	161462	TEE	1
12	161514	MEASURE JOINT	2
13	161438	ELBOW	3
14	161448	TEE	1
15	161443	ELBOW	1
16	161414	PLUG	2
17	161443	ELBOW	2
18	161426	FITTING	1
19	160571	SOLENOID SWITCH	2
20	160572	PLUG	1



ET1920635

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

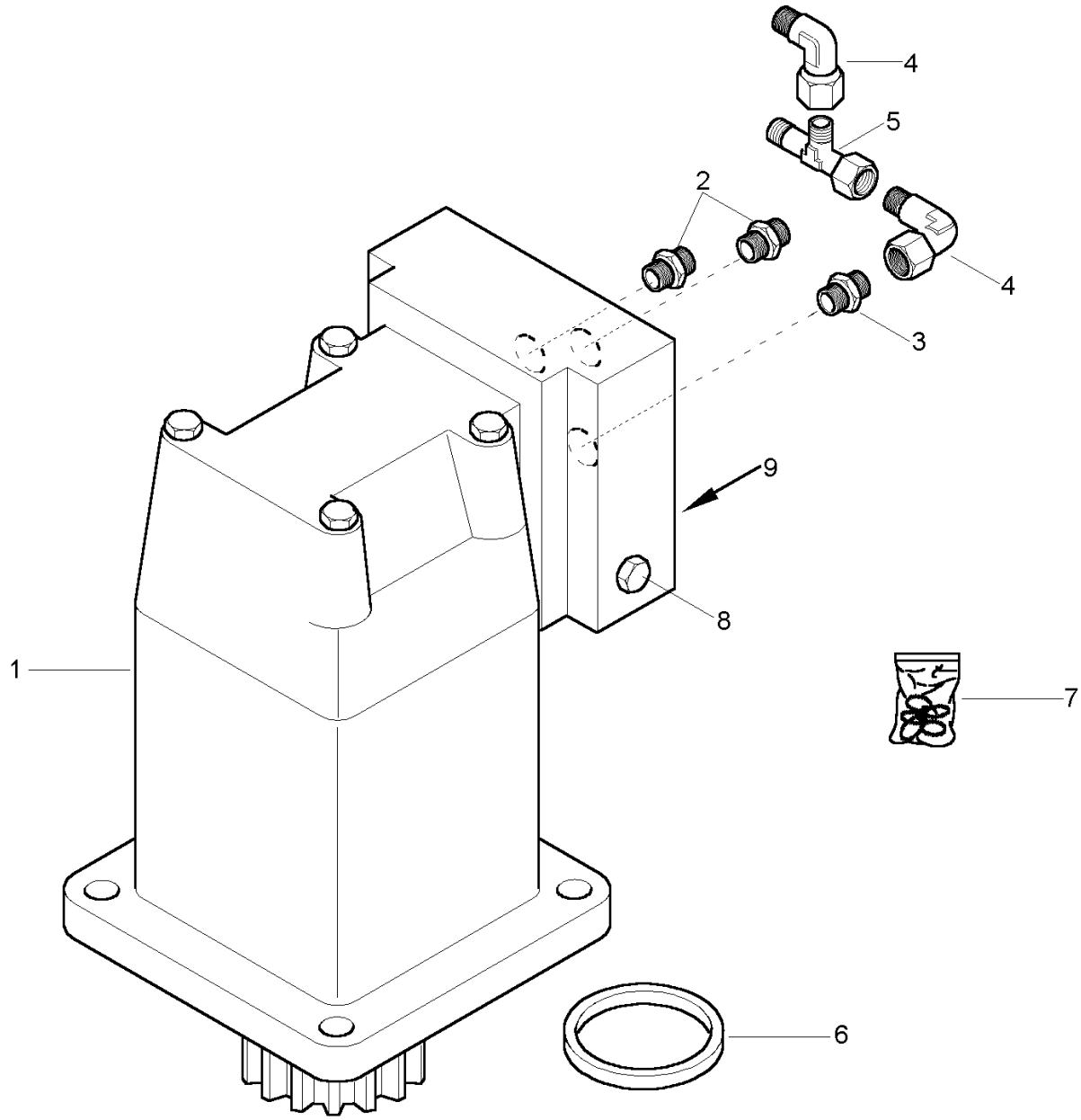
Ref. No.	Part No.	Description	Qty. Req.
1	161920	SWIVEL JOINT	1
2	161429	FITTING	8
3	161426	FITTING	11
4	161458	FITTING	1
5	161448	TEE	2
6	160637	SEAL KIT	1



ET1920640

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	162115	SWIVEL JOINT	1
2	161429	FITTING	8
3	161426	FITTING	16
4	161448	TEE	2
5	161445	ELBOW	5
6	160698	SWIVEL DRIVE GASKETS	1

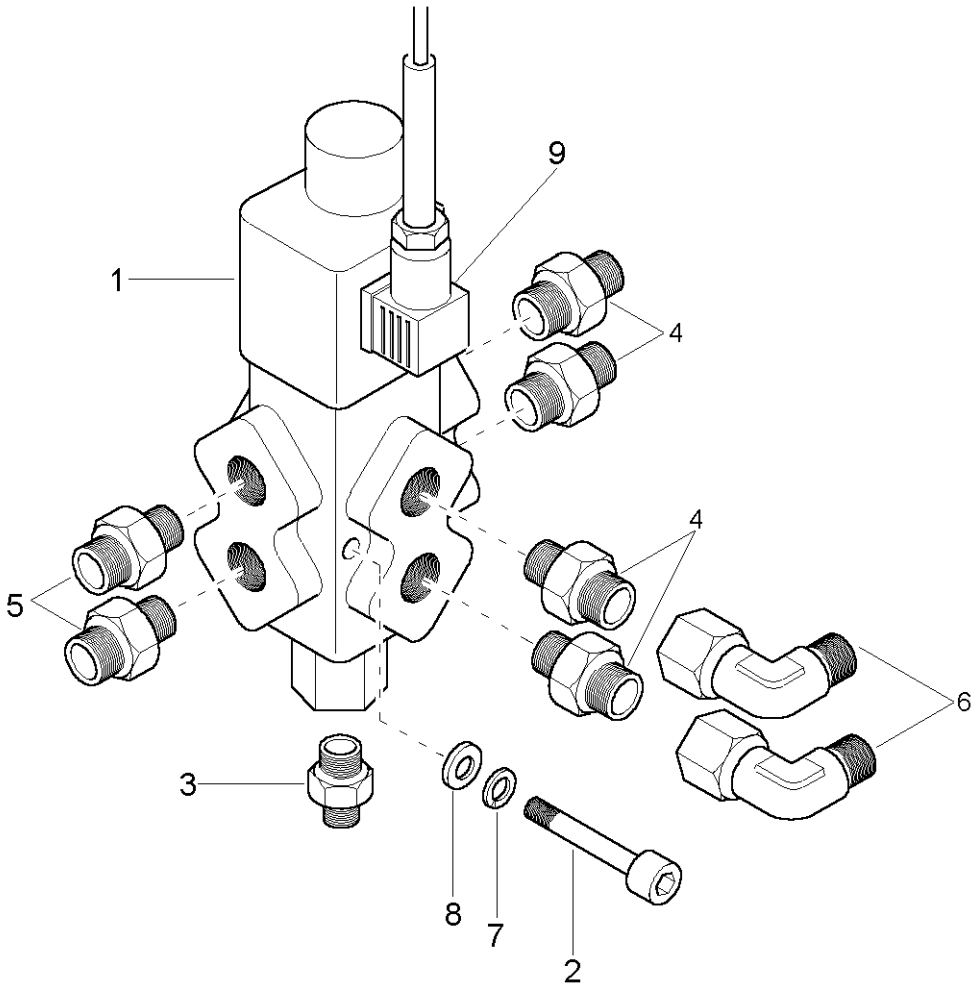


ET1920645

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160595	HYDRAULIC MOTOR	1
2	161428	FITTING	2
3	161463	FITTING	1
4	161446	ELBOW	2
5	161471	TEE	1
6	160570	SEAL	1
7	160604	SEAL KIT	1
8	160569	PRESSURE LIMITING VALVE	1
9	160567	SHOCK VALVE	1

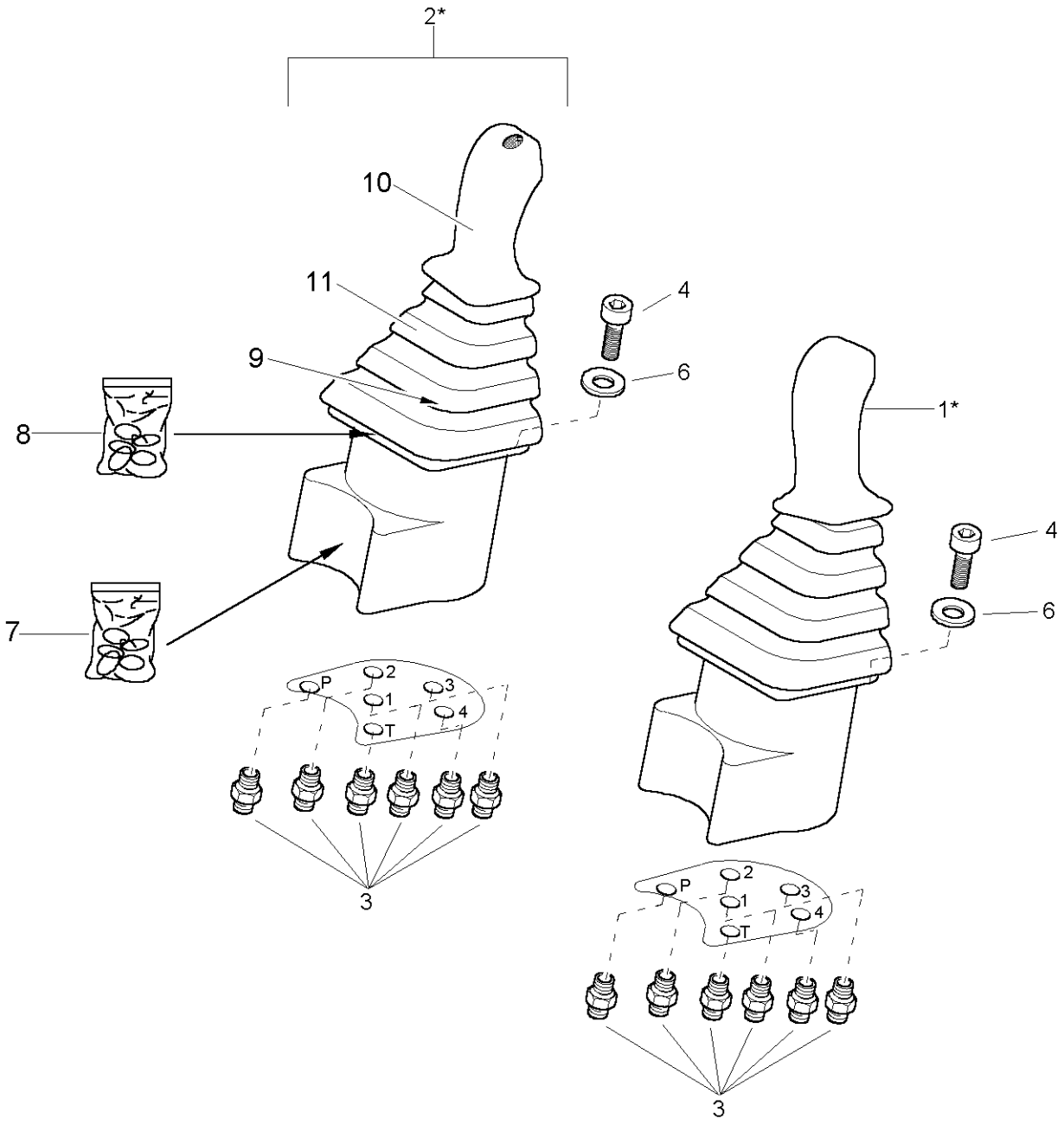
MODELS 192-222 — SELECTION VALVE



ET1920650

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160568	SELECTION VALVE	1
2	162028	SCREW	2
3	161426	FITTING	1
4	161428	FITTING	4
5	161427	FITTING	2
6	161444	ELBOW	2
7	161675	LOCKWASHER S6	2
8	161660	WASHER/GR A 6.4 ZO DIN125	2
9	160438	PLUG	1



ET1920655

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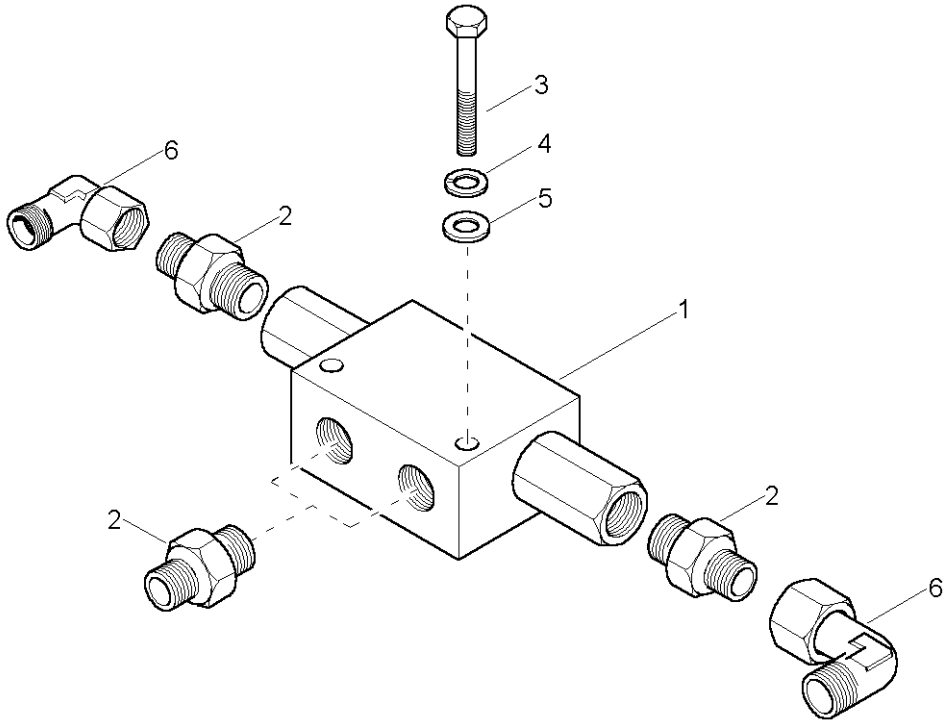
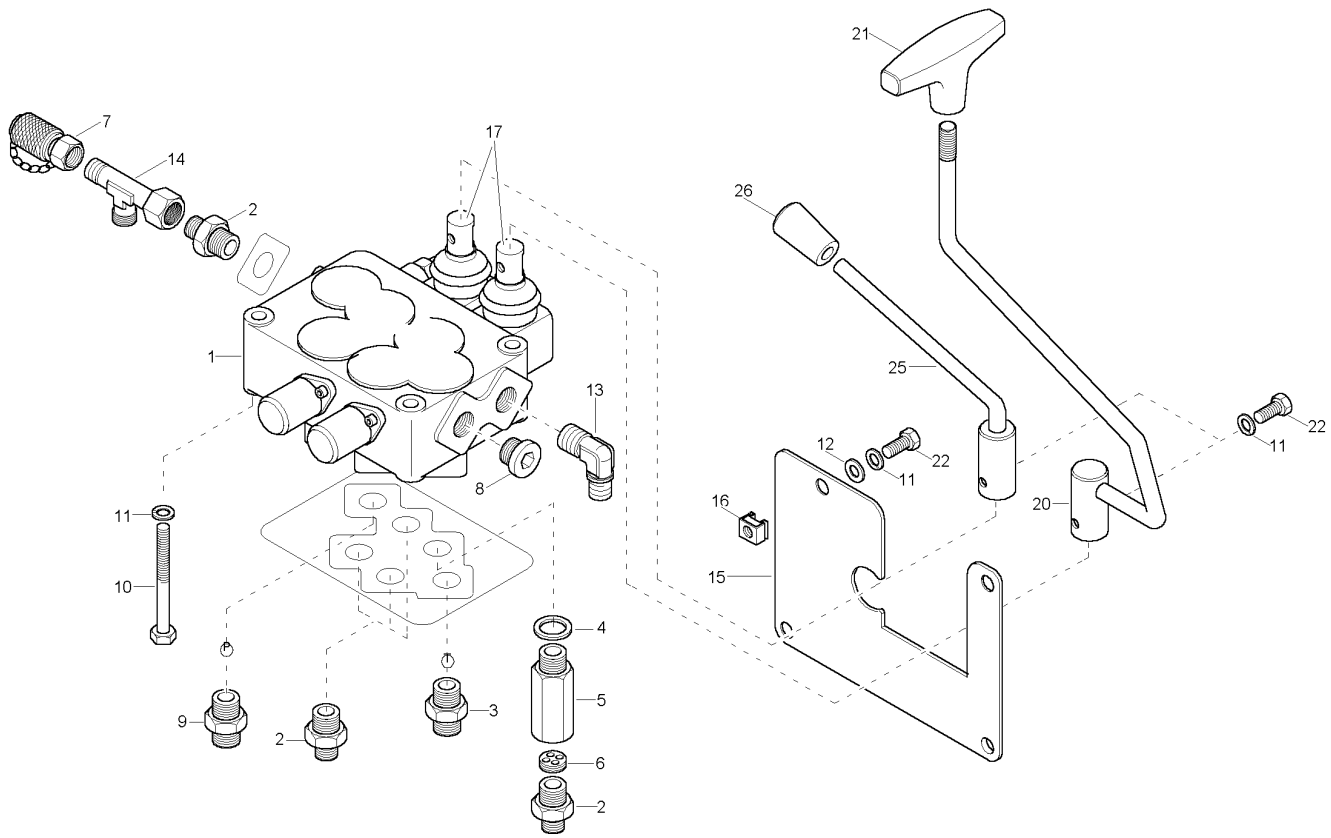
Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	161180	CONTROL LEVER	1	7	160487	SEAL KIT	1
2	160590	CHECK VALVE LEFT	1	8	160486	SEAL KIT	1
3	161426	FITTING	12	9	160463	JOYSTICK	1
4	651507	SHCS HS M6-1 X 20 8.8 ZO D912	8	10	160469	HANDLE	1
6	161660	WASHER/GR A 6.4 ZO DIN125	8	11	160470	BELLOWS	1



ET1920660

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160667	NON RETURN VALVE	1
2	161426	FITTING	4
3	162123	SCREW	2
4	161674	LOCKWASHER S5	2
5	161665	WASHER/GR A 5.3 ZO DIN9021	2
6	161438	ELBOW	2



ET1920665

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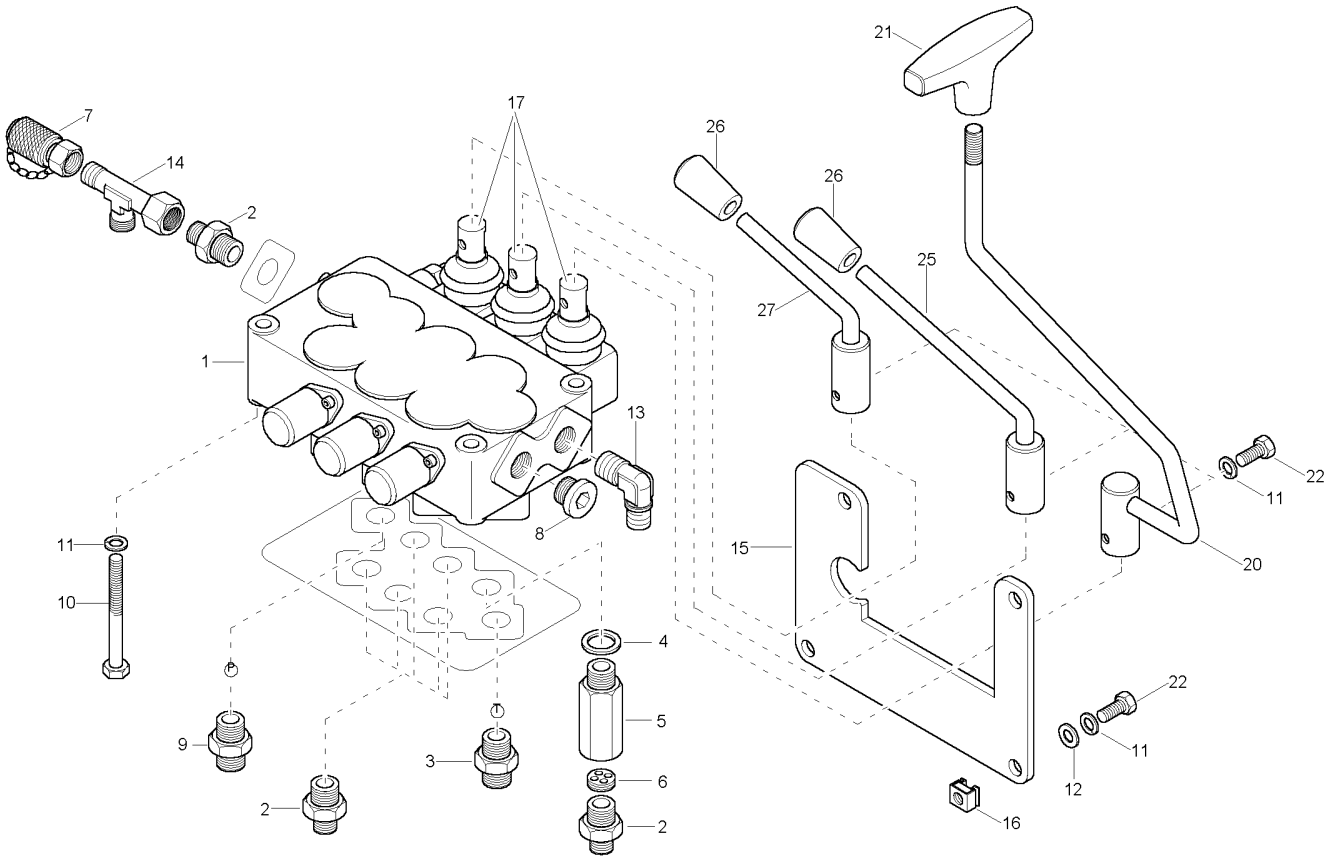
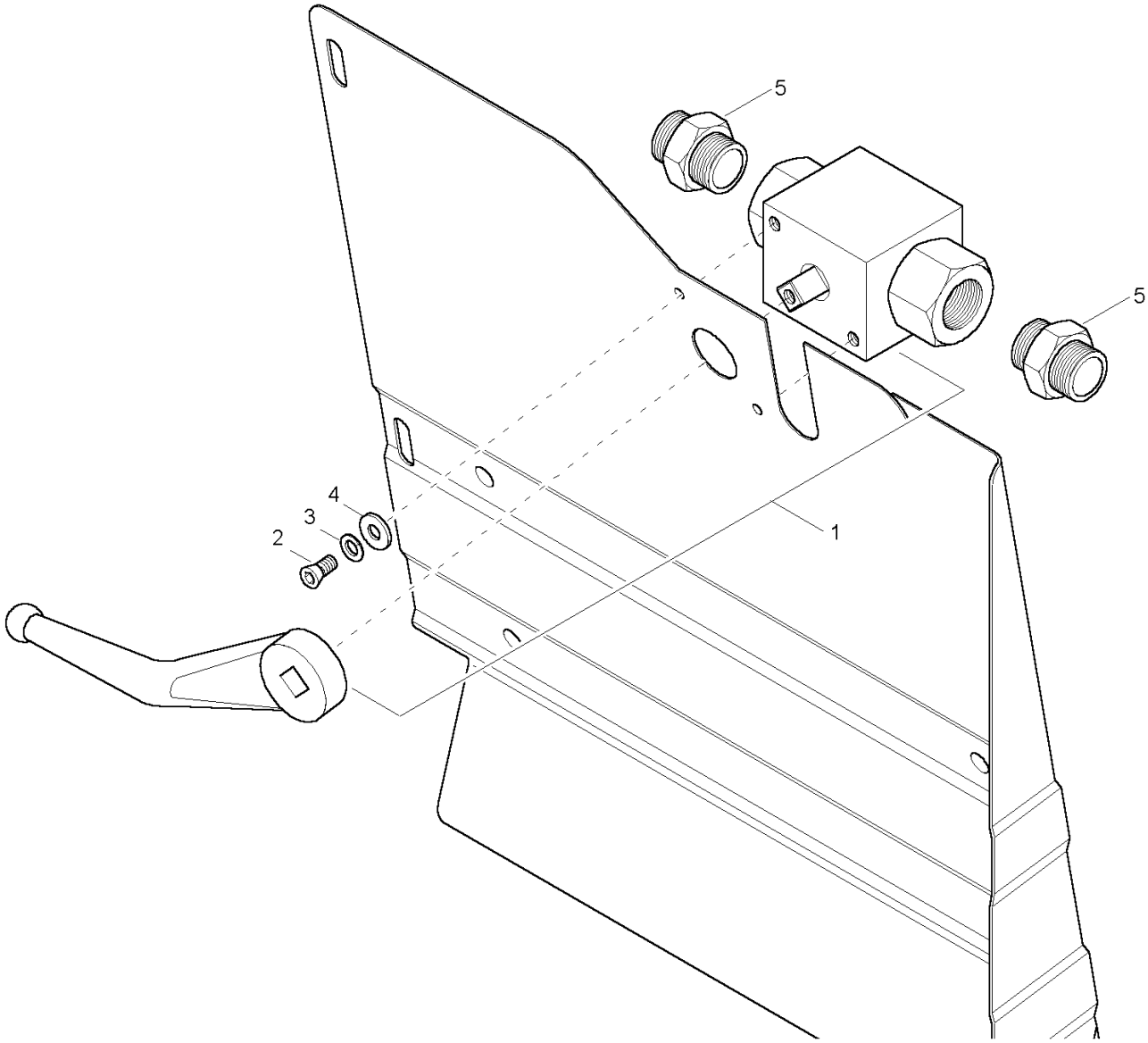
Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	160621	VALVE DOZER BLADE	1	12	161667	WASHER/GR A 8.4 ZO	4
2	161427	FITTING	5	13	161466	ELBOW	1
3	161429	FITTING	1	14	161448	TEE	1
4	161566	SEAL	1	15	161877	COVER	1
5	161357	CONNECTOR	1	16	161615	NUT/CAGE M8	4
6	160651	THROTTLE	1	17	160397	ACTIVATOR COMPLETE	2
7	161514	MEASURE JOINT	1	20	161821	LEVER	1
8	161415	PLUG	1	21	161955	T-HANDLE	1
9	161463	FITTING	1	22	656001	CS M8-1.2 X 20 C 8.8 ZO	6
10	651437	HB M8-1.2 X 60 C 8.8 ZO	4	25	161806	LEVER	1
11	161676	LOCKWASHER S8	10	26	161903	HANDLE	1



ET1920670

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

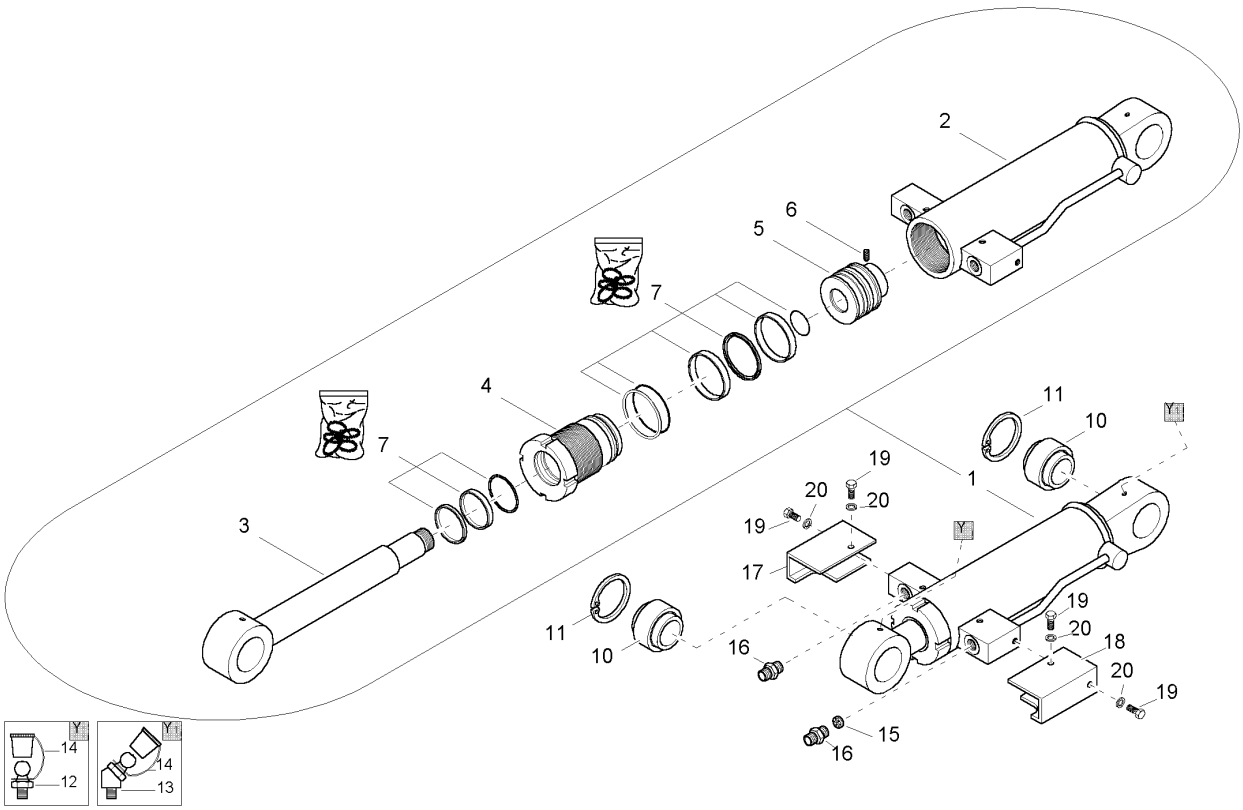
Ref. No.	Part No.	Description	Qty. Req.
1	160687	DOZER BLADE VALVE	1
2	161427	FITTING	7
3	161429	FITTING	1
4	161566	SEAL	1
5	161357	CONNECTOR	1
6	160651	THROTTLE	1
7	161514	MEASURE JOINT	1
8	161415	PLUG	1
9	161463	FITTING	1
10	651437	HB M8-1.2 X 60 C 8.8 ZO	4
11	161676	LOCKWASHER S8	11
12	161667	WASHER/GR A 8.4 ZO	4
13	161466	ELBOW	1
14	161448	TEE	1
15	162086	COVER	1
16	161615	NUT/CAGE M8	4
17	160397	ACTIVATOR COMPLETE	3
20	161821	LEVER	1
21	161955	T-HANDLE	1
22	656001	CS M8-1.2 X 20 C 8.8 ZO	7
25	161806	LEVER	1
26	161903	HANDLE	2
27	162078	LEVER	1



ET1920675

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

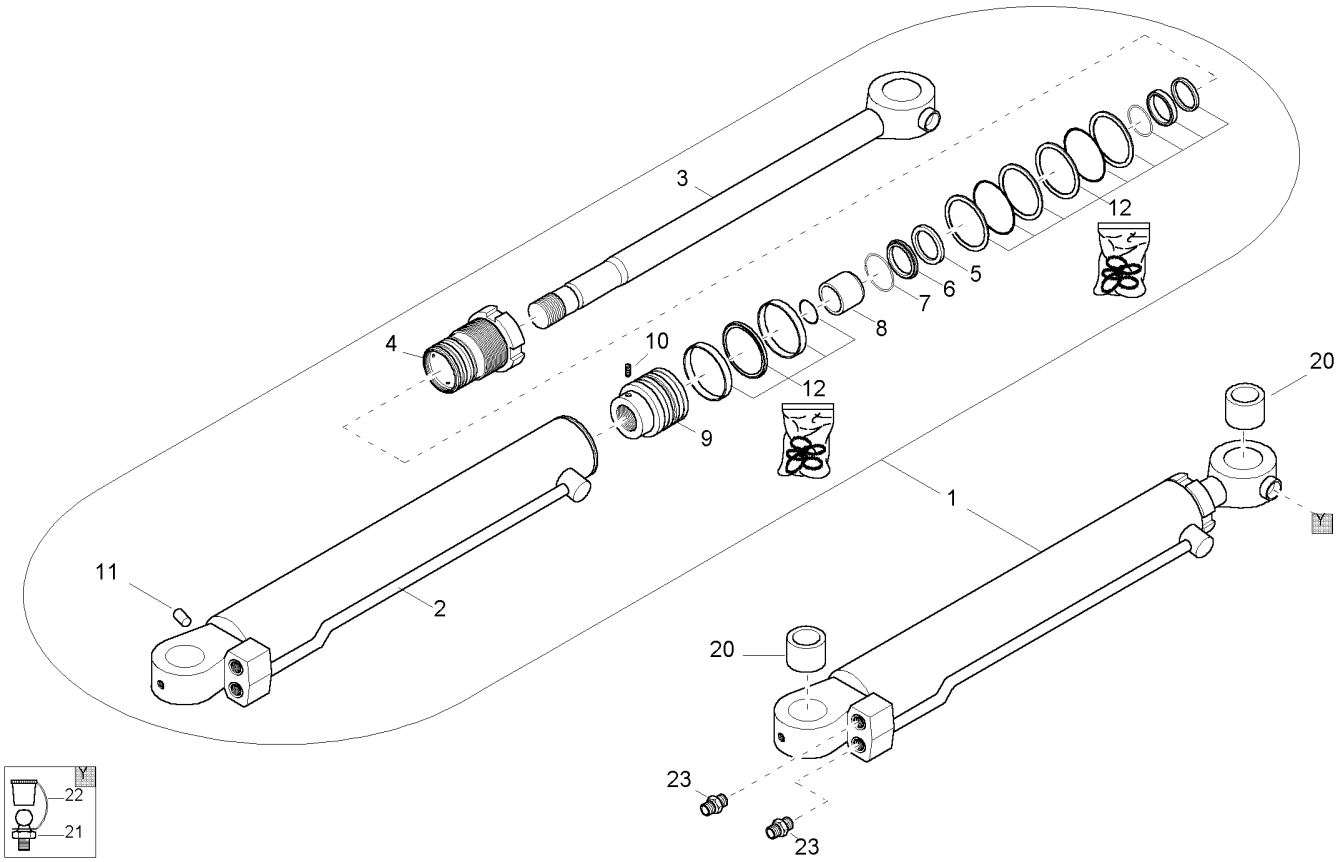
Ref. No.	Part No.	Description	Qty. Req.
1	160972	BALL VALVE	1
2	651461	FCHC HS M6-1.0 X 12 8.8 ZO D7991	2
3	161675	LOCKWASHER S6	2
4	161666	WASHER/GR A 6.4 ZO DIN9021	2
5	161430	FITTING	2



ET1920700

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160672	DOZER BLADE CYLINDER	1
2	161934	CYLINDER TUBE	1
3	160666	PISTON ROD	1
4	160558	GLAND	1
5	160556	PISTON	1
6	161400	SET SCREW	1
7	160703	SEAL KIT	1
10	161558	BEARING	2
11	162059	RETAINING RING	2
12	161411	LUBRICATION FITTING	1
13	161413	LUBRICATION FITTING	1
14	161416	PROTECTION CAP	2
15	160471	TUBE BURST COVER	1
16	161427	FITTING	2
17	161756	COVER	1
18	161757	COVER	1
19	651430	CS M8-1.2 X 12 C 8.8 ZO	4
20	656110	LW REG M8 ZO	4



ET1920705

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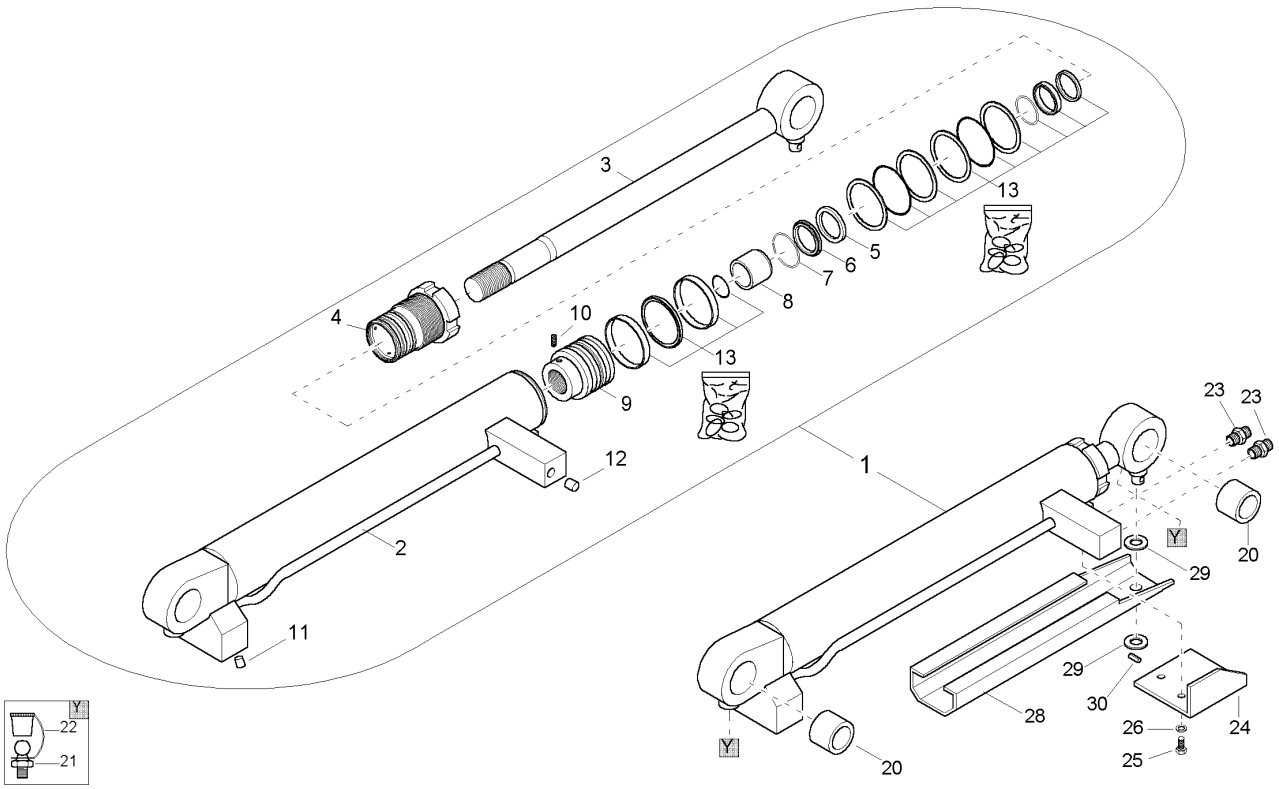
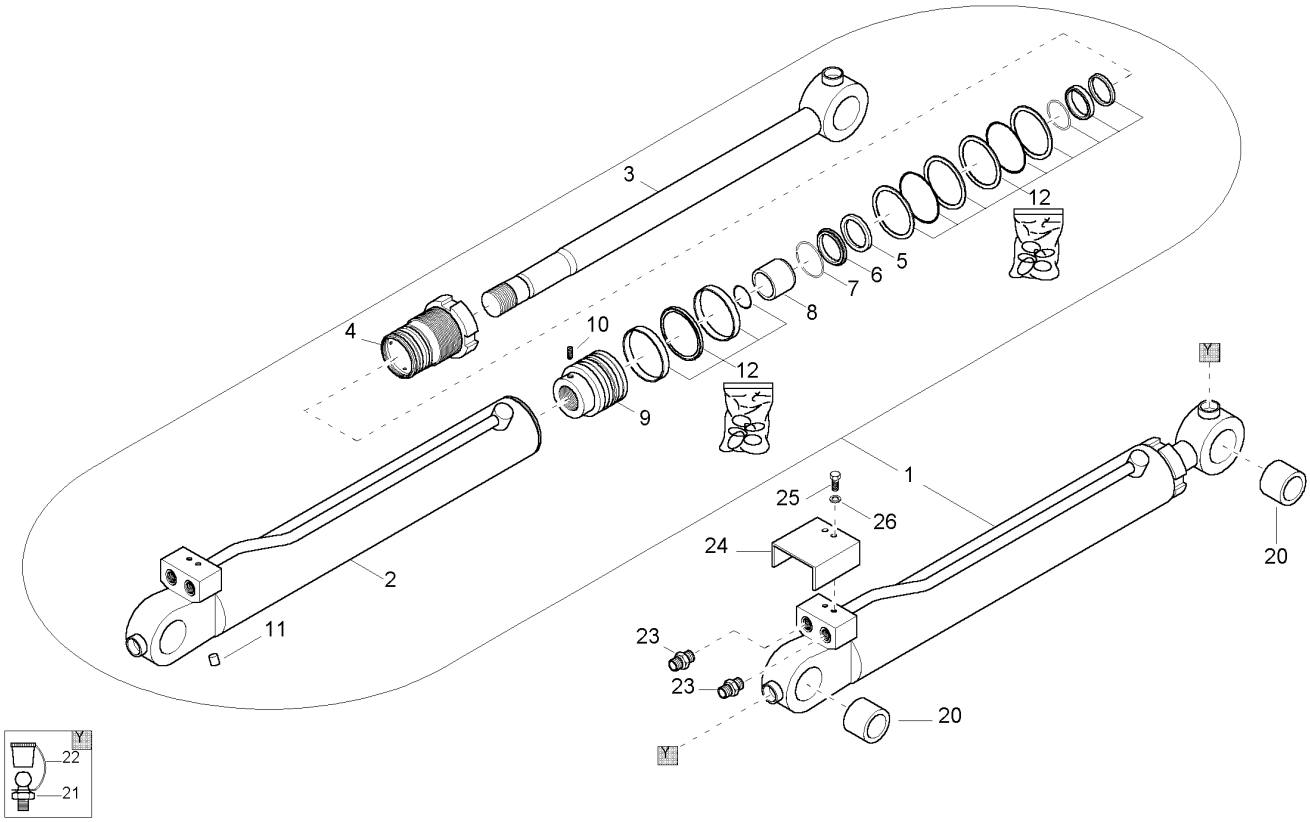
Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	160680	BOOM OFFSET CYLINDER	1	9	160684	PISTON	1
2	161935	CYLINDER TUBE	1	10	161400	SET SCREW	1
3	160686	PISTON ROD	1	11	162061	BALL EXPANDER	1
4	160681	GLAND	1	12	160705	SEAL KIT	1
5	160683	RING	1	20	161545	BUSHING	2
6	160682	RING	1	21	161411	LUBRICATION FITTING	1
7	161410	WASHER	1	22	161416	PROTECTION CAP	1
8	160685	BUSHING	1	23	161427	FITTING	2



ET1920710

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

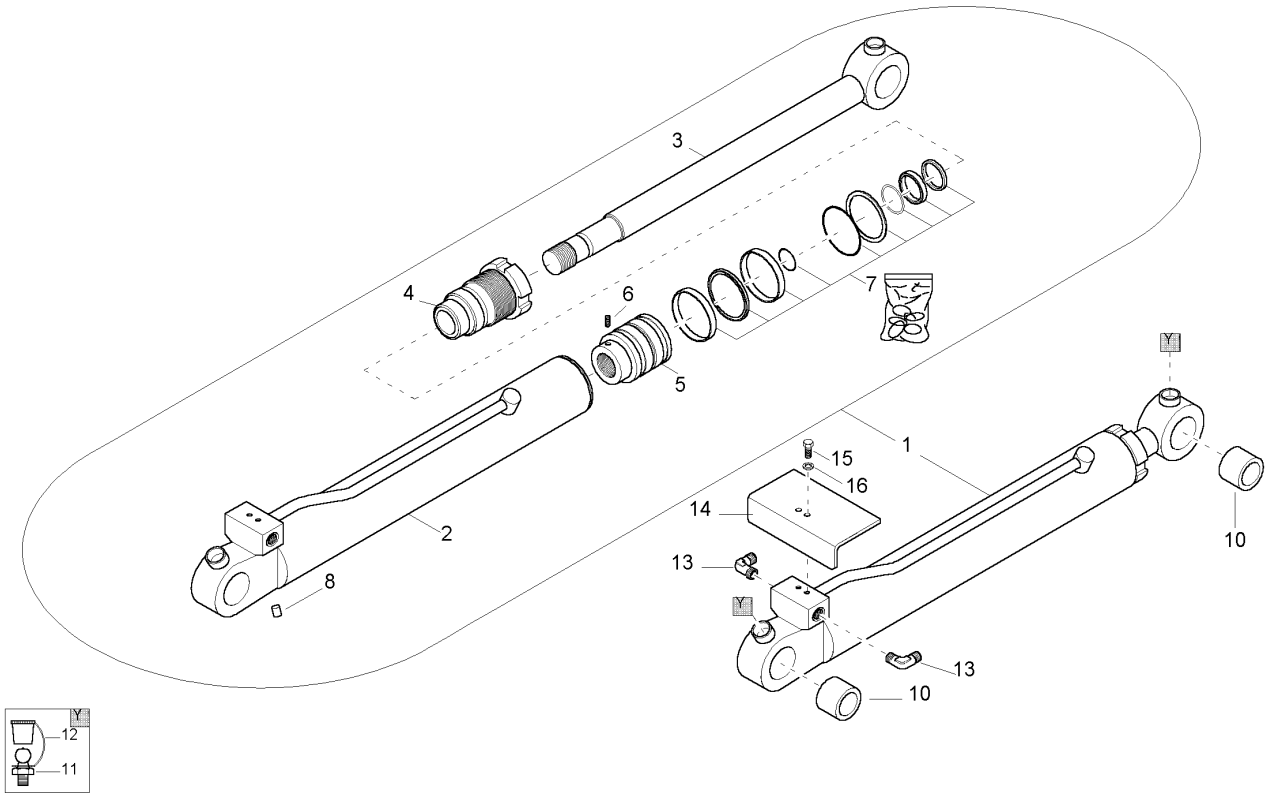
Ref. No.	Part No.	Description	Qty. Req.
1	160669	BOOM CYLINDER	1
2	162114	CYLINDER HOUSING	1
3	160627	PISTON ROD	1
4	160678	GLAND	1
5	160464	RING	1
6	160465	RING	1
7	161408	WASHER	1
8	160466	BUSHING	1
9	160673	PISTON	1
10	161400	SET SCREW	1
11	162061	BALL EXPANDER	1
12	162060	BALL EXPANDER	1
13	160700	SEAL KIT	1
20	161544	BUSHING	2
21	161411	LUBRICATION FITTING	2
22	161422	PROTECTION CAP	2
23	161429	FITTING	2
24	161754	COVER	1
25	656001	CS M8-1.2 X 20 C 8.8 ZO	2
26	656110	LW REG M8 ZO	2
28	162087	GLIDE	1
29	161650	WASHER/GR A 19 ZO DIN125	2
30	651468	PIN/SPRING M8 X 70 D1481	1



ET1920715

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

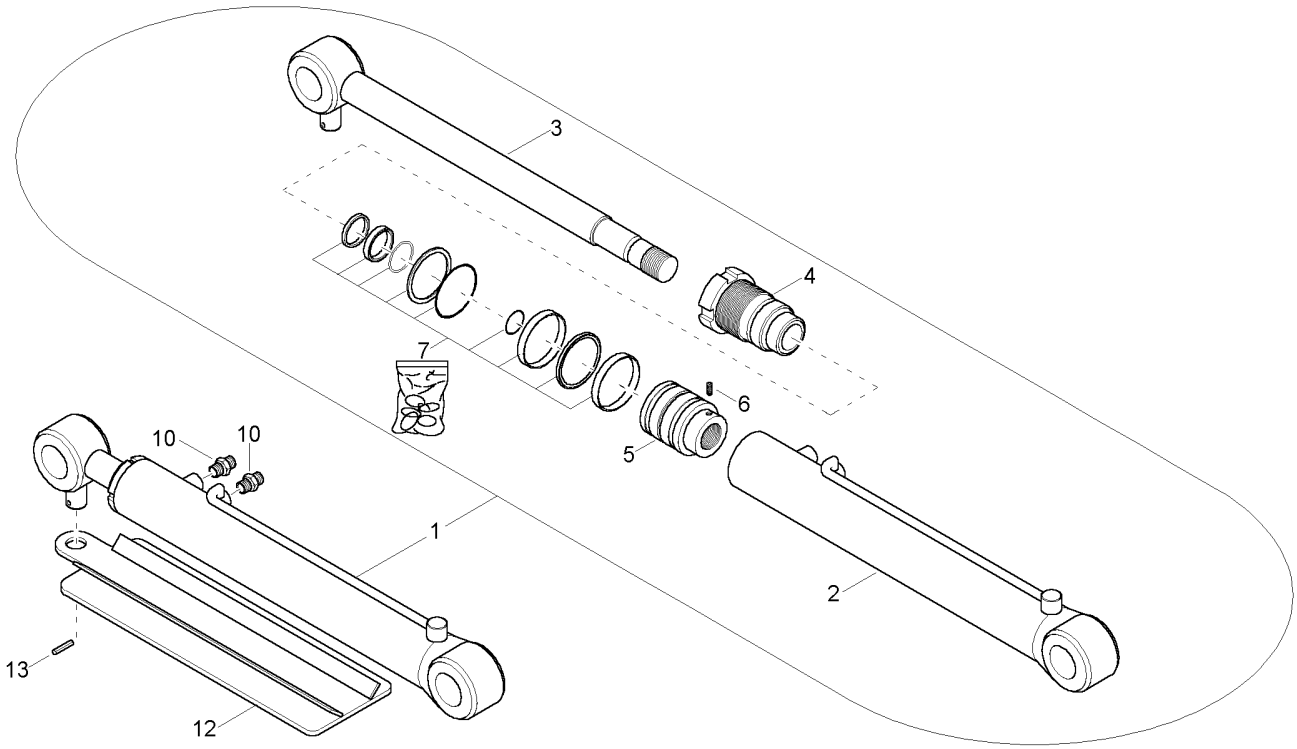
Ref. No.	Part No.	Description	Qty. Req.
1	160671	HANDLE CYLINDER	1
2	162113	CYLINDER HOUSING	1
3	160625	PISTON ROD	1
4	160676	GLAND	1
5	160464	RING	1
6	160465	RING	1
7	161408	WASHER	1
8	160466	BUSHING	1
9	160675	PISTON	1
10	161400	SET SCREW	1
11	162061	BALL EXPANDER	1
12	160702	SEAL KIT	1
20	161544	BUSHING	2
21	161411	LUBRICATION FITTING	2
22	161422	PROTECTION CAP	2
23	161429	FITTING	2
24	161863	COVER	1
25	656001	CS M8-1.2 X 20 C 8.8 ZO	2
26	656110	LW REG M8 ZO	2



ET1920720

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

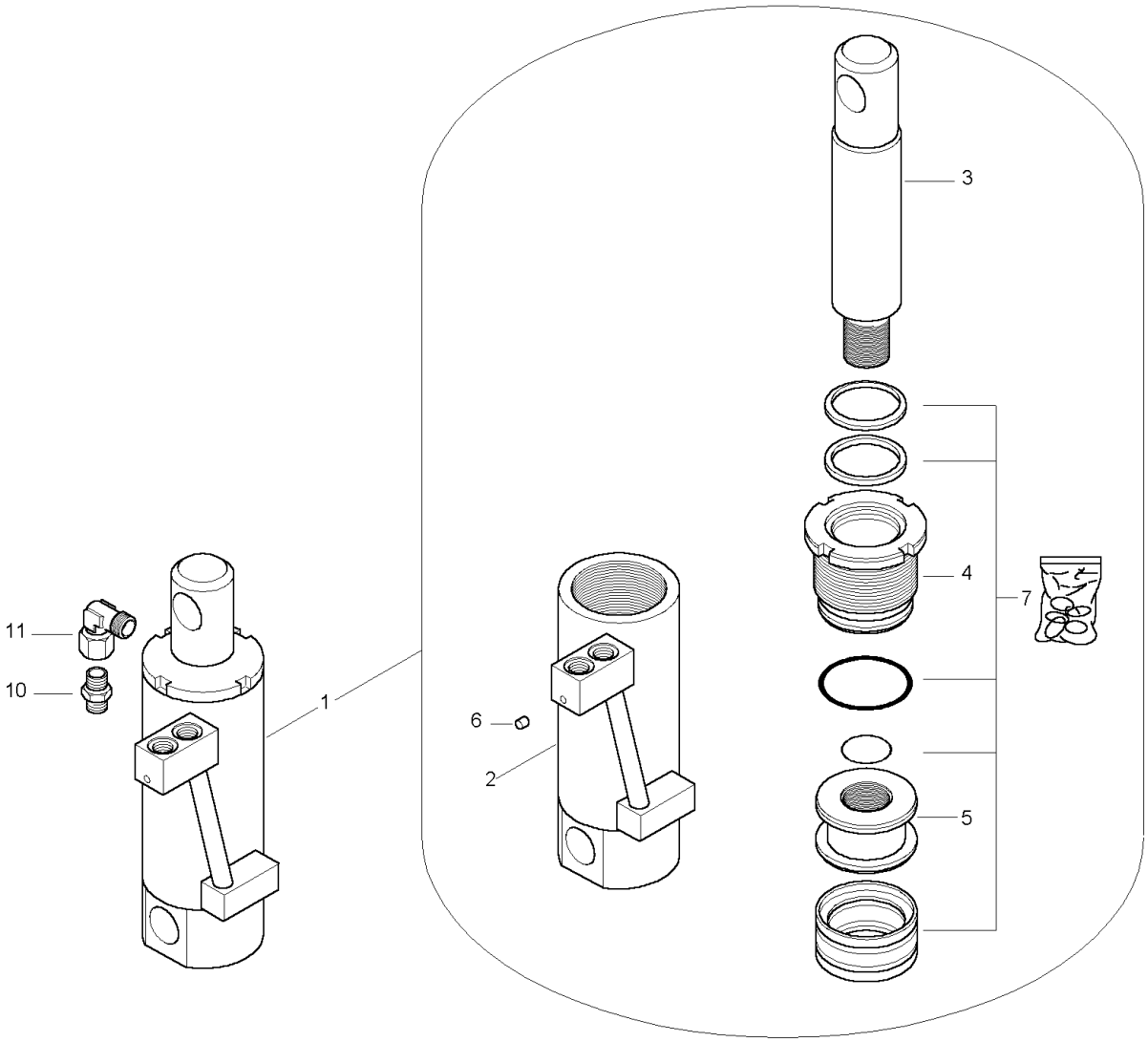
Ref. No.	Part No.	Description	Qty. Req.
1	160670	BUCKET CYLINDER	1
2	162112	CYLINDER HOUSING	1
3	160626	PISTON ROD	1
4	160677	GLAND	1
5	160674	PISTON	1
6	161400	SET SCREW	1
7	160701	SEAL KIT	1
8	162061	BALL EXPANDER	1
10	161544	BUSHING	2
11	161411	LUBRICATION FITTING	2
12	161422	PROTECTION CAP	2
13	161440	ELBOW	2
14	161864	COVER	1
15	656001	CS M8-1.2 X 20 C 8.8 ZO	2
16	656110	LW REG M8 ZO	2



ET1920725

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

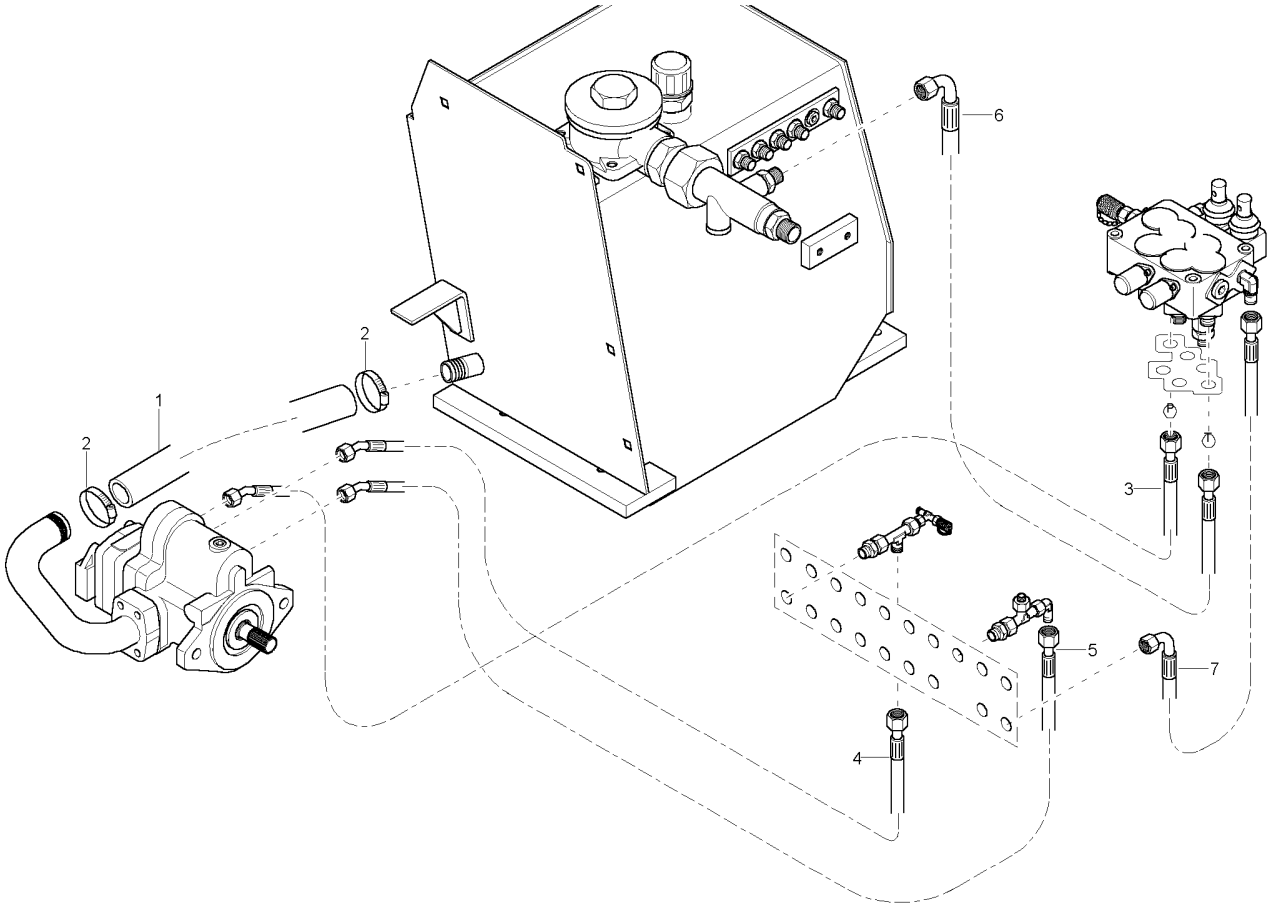
Ref. No.	Part No.	Description	Qty. Req.
1	160679	TELESCOPIC CYLINDER	1
2	162111	CYLINDER HOUSING	1
3	160618	PISTON ROD	1
4	160617	GLAND	1
5	160620	PISTON	1
6	161401	SET SCREW	1
7	160704	SEAL KIT	1
10	161427	FITTING	2
12	160616	COVER	1
13	651468	PIN/SPRING M8 X 70 D1481	1



ET1920730

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160668	TILT CYLINDER	1
2	162110	CYLINDER HOUSING	1
3	160664	PISTON ROD	1
4	160665	GLAND	1
5	160787	PISTON	1
6	162060	BALL EXPANDER	1
7	160699	SEAL KIT	1
10	161426	FITTING	2
11	161443	ELBOW	2

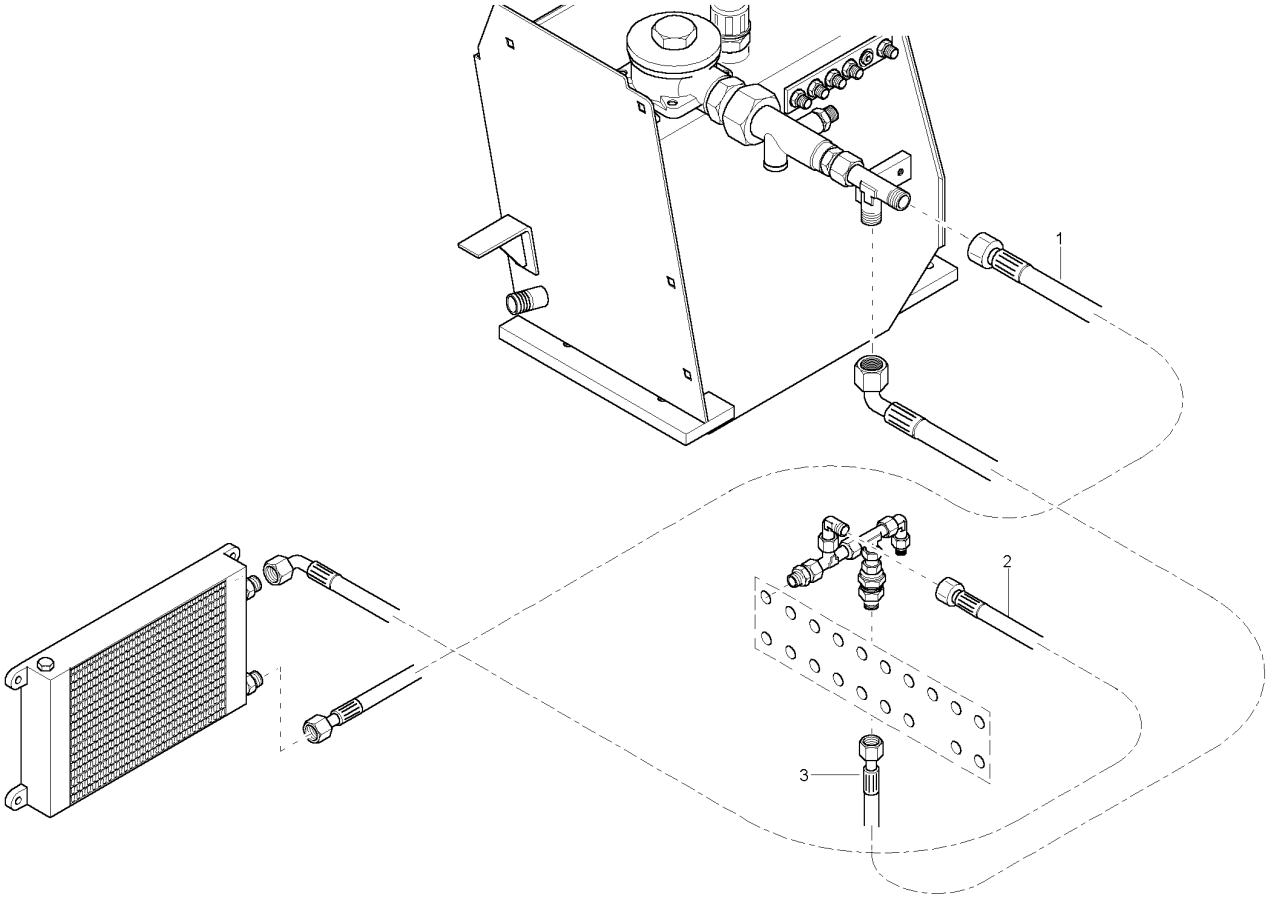


ET1920800

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160566	HOSE	1
2	162071	HOSE CLAMP	2
3	161318	HIGH PRESSURE HOSE	1
4	161316	HIGH PRESSURE HOSE	1
5	161317	HIGH PRESSURE HOSE	1
6	161309	HIGH PRESSURE HOSE	1
7	161298	HIGH PRESSURE HOSE	1

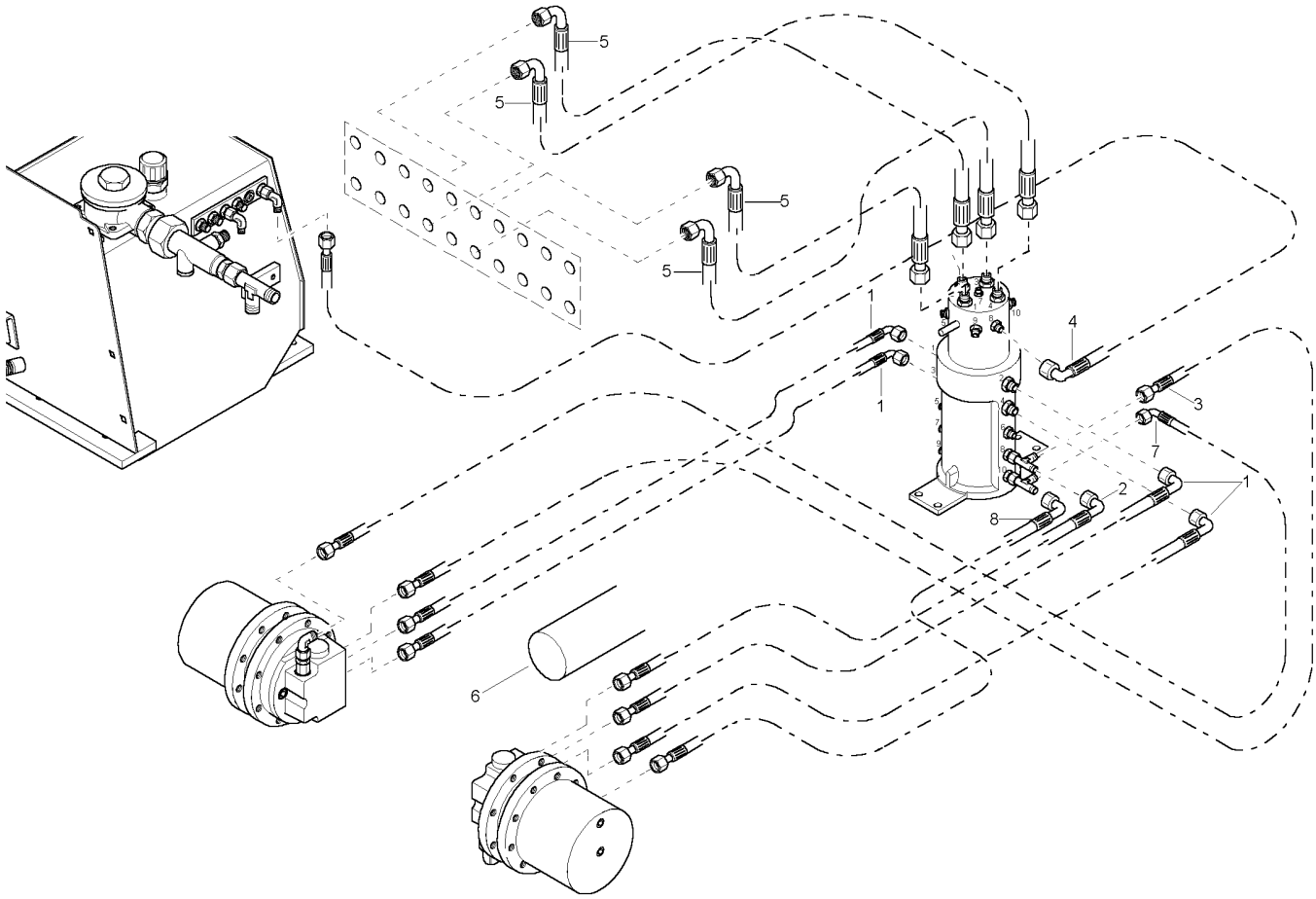
MODELS 192-222 — HYDRAULIC OIL COOLER INSTALLATION



ET1920805

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

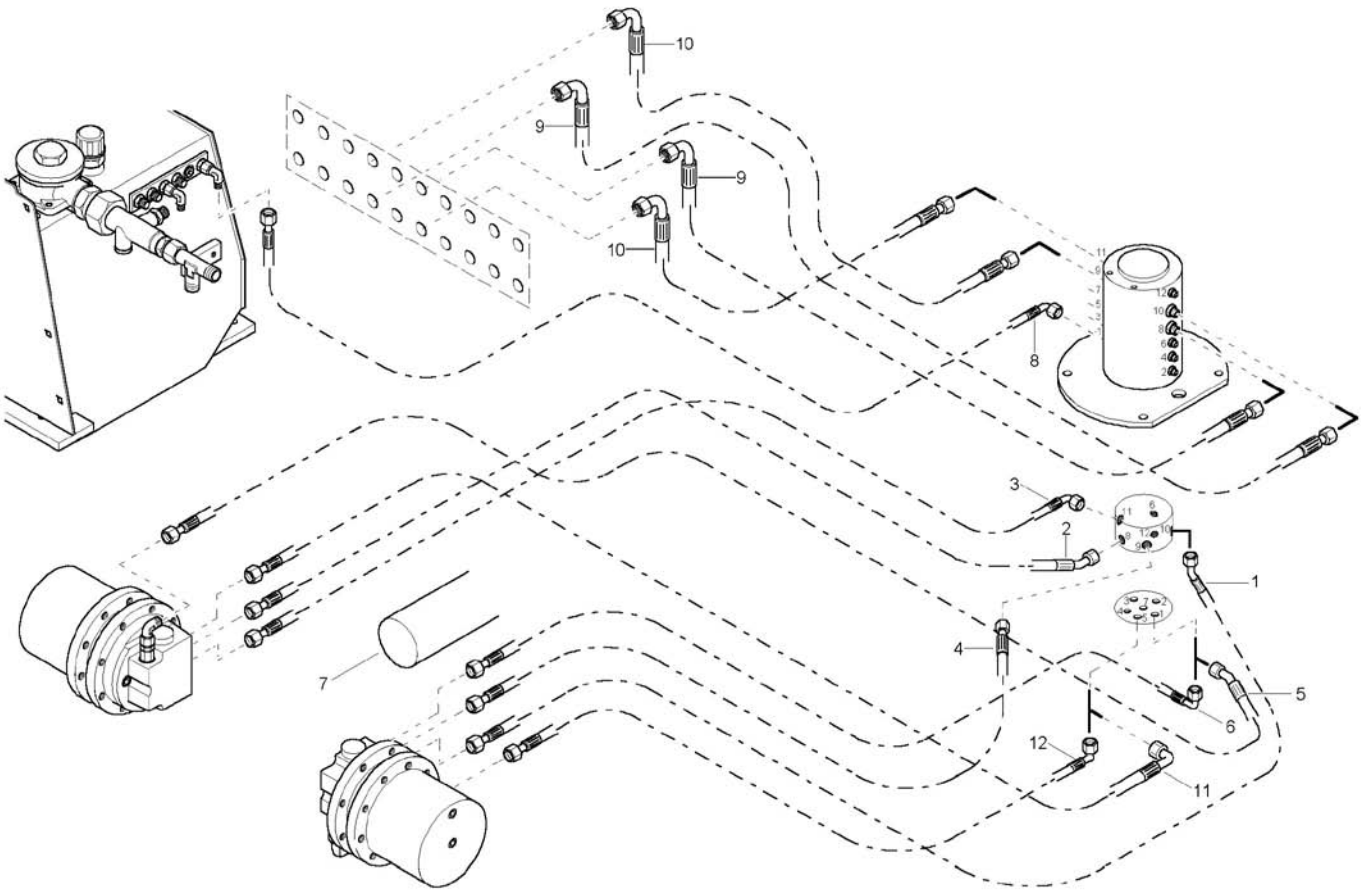
Ref. No.	Part No.	Description	Qty. Req.
1	161326	HIGH PRESSURE HOSE	1
2	161327	HIGH PRESSURE HOSE	1
3	161325	HIGH PRESSURE HOSE	1



ET1920810

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

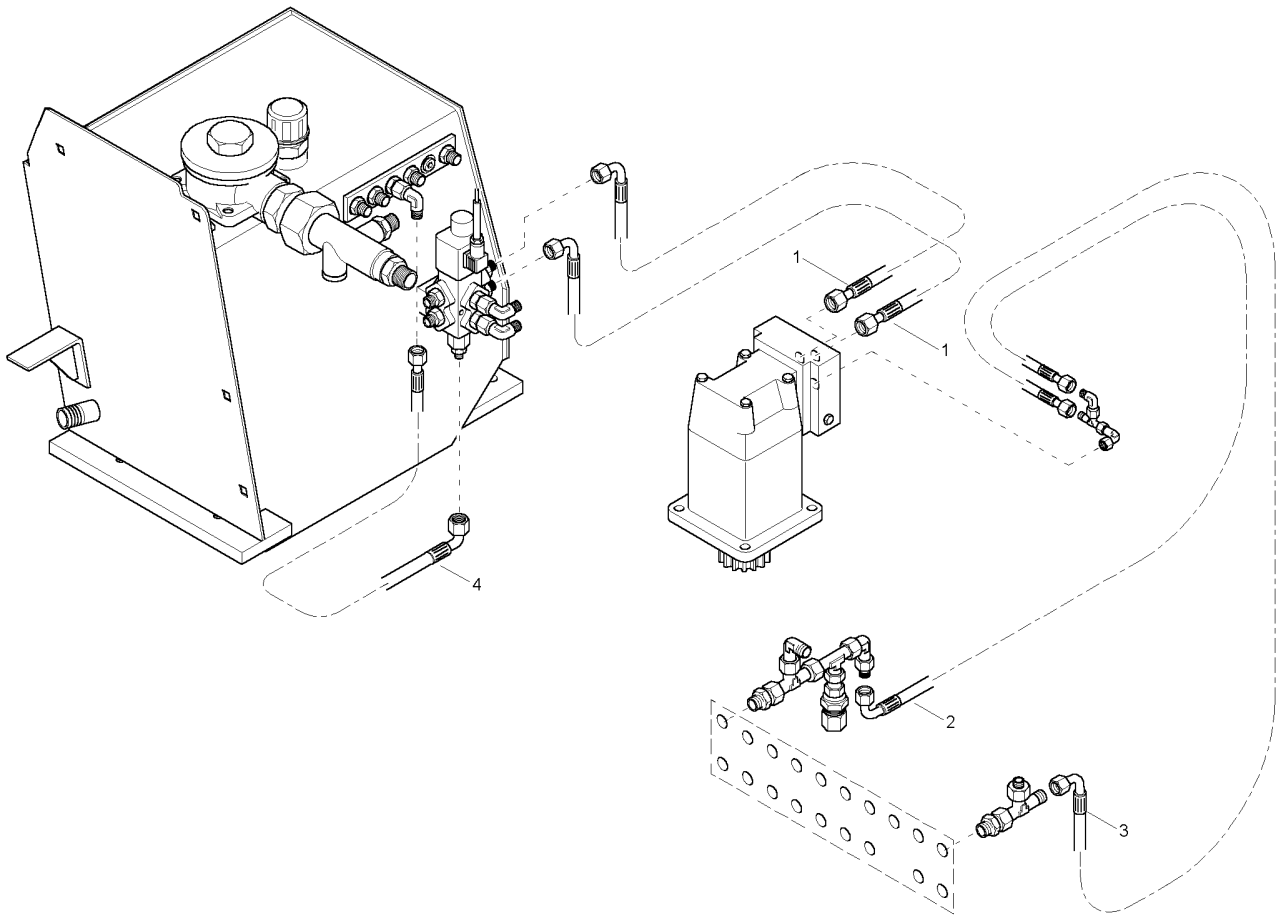
Ref. No.	Part No.	Description	Qty. Req.
1	161307	HIGH PRESSURE HOSE	4
2	161251	HIGH PRESSURE HOSE	1
3	161263	HIGH PRESSURE HOSE	1
4	161259	HIGH PRESSURE HOSE	1
5	161295	HIGH PRESSURE HOSE	4
6	162009	HOSE COVERING (140 cm)	1
7	161229	HIGH PRESSURE HOSE	1
8	161245	HIGH PRESSURE HOSE	1



ET1920815

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

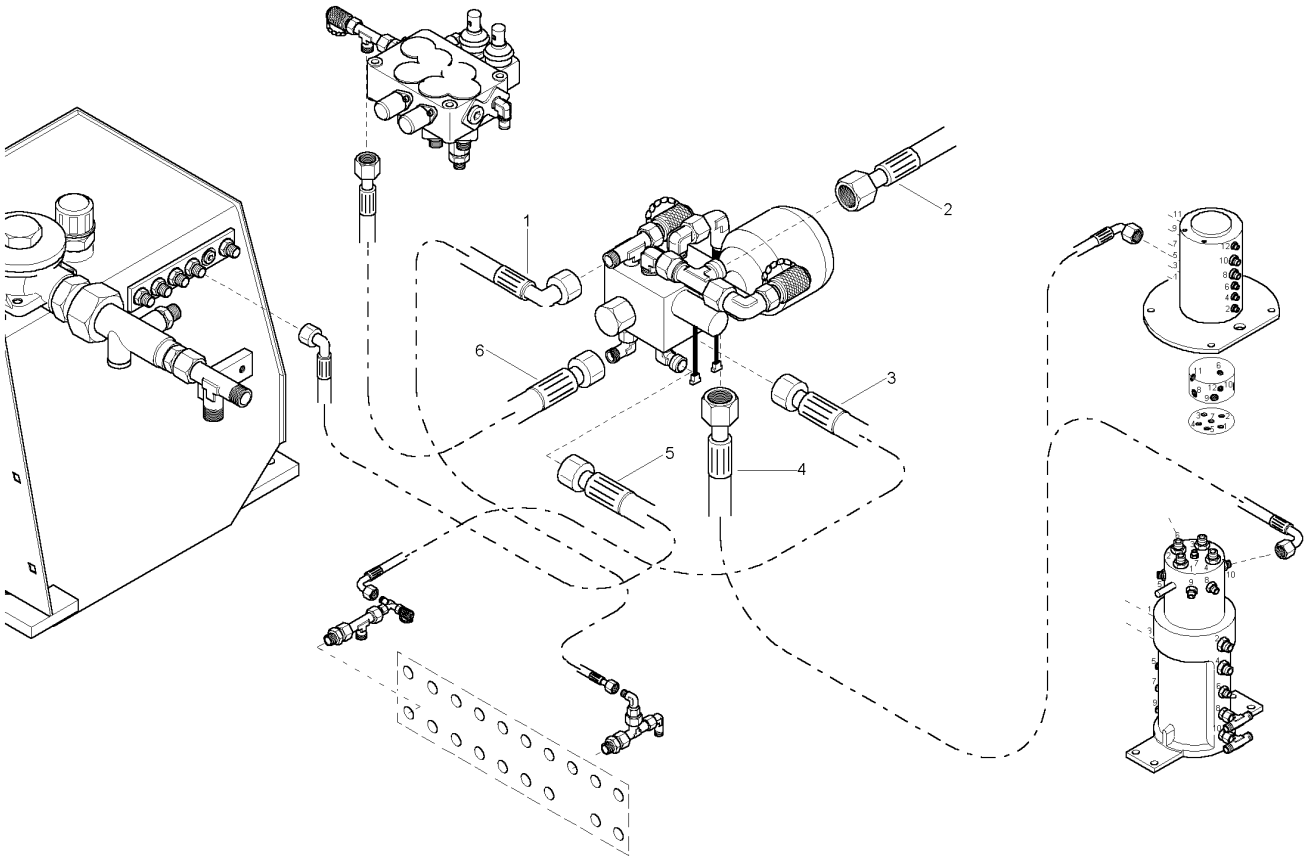
Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	161296	HIGH PRESSURE HOSE	1	7	162009	HOSE COVERING (140 cm)	1
2	161306	HIGH PRESSURE HOSE	1	8	161259	HIGH PRESSURE HOSE	1
3	161301	HIGH PRESSURE HOSE	1	9	161297	HIGH PRESSURE HOSE	2
4	161308	HIGH PRESSURE HOSE	1	10	161295	HIGH PRESSURE HOSE	2
5	161245	HIGH PRESSURE HOSE	1	11	161289	HIGH PRESSURE HOSE	1
6	161288	HIGH PRESSURE HOSE	1	12	161245	HIGH PRESSURE HOSE	1



ET1920820

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

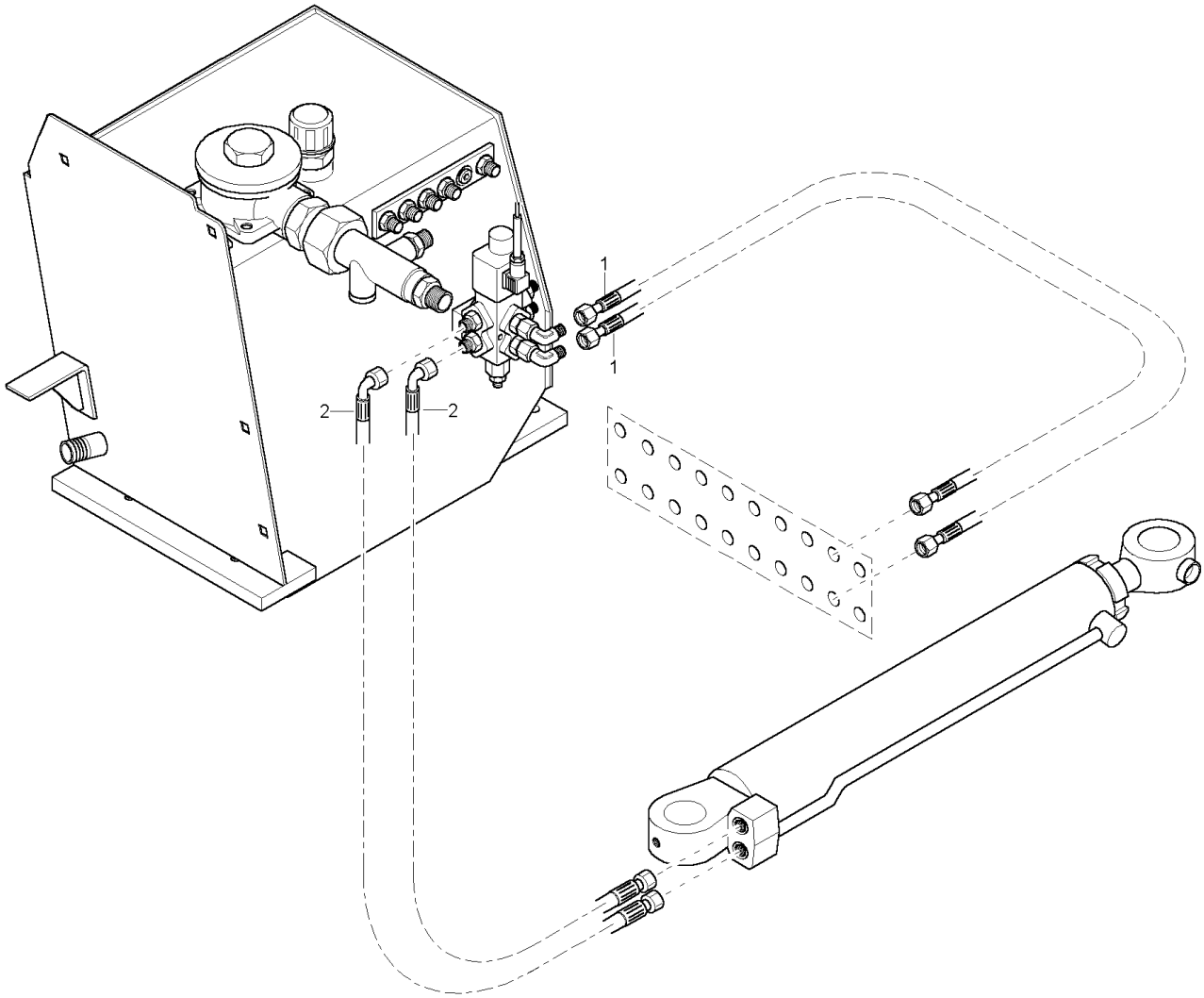
Ref. No.	Part No.	Description	Qty. Req.
1	161293	HIGH PRESSURE HOSE	2
2	161312	HIGH PRESSURE HOSE	1
3	161321	HIGH PRESSURE HOSE	1
4	161237	HIGH PRESSURE HOSE	1



ET1920825

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

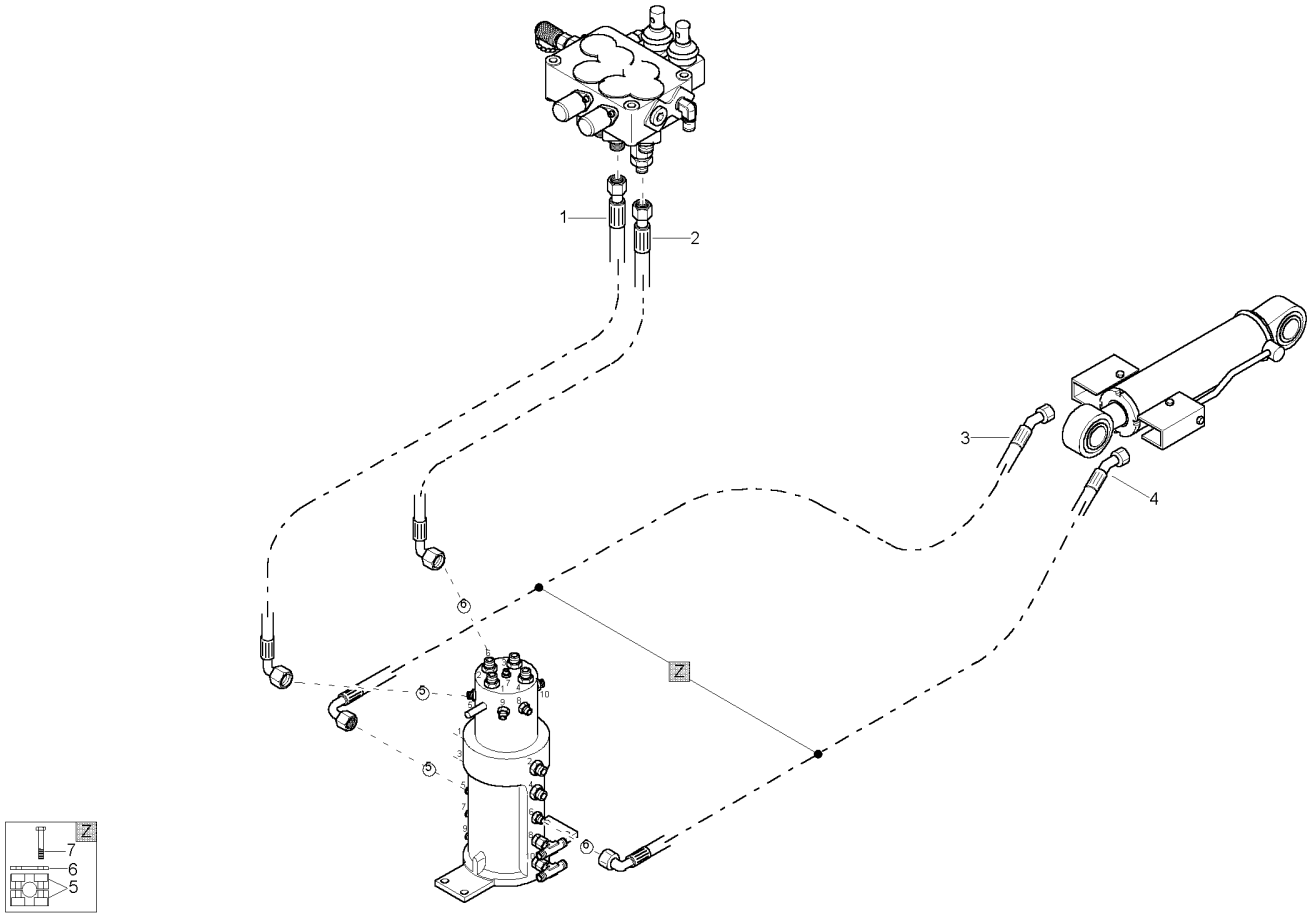
Ref. No.	Part No.	Description	Qty. Req.
1	161231	HIGH PRESSURE HOSE	1
2	161262	HIGH PRESSURE HOSE	1
3	161233	HIGH PRESSURE HOSE	1
4	161240	HIGH PRESSURE HOSE	1
5	161258	HIGH PRESSURE HOSE	1
6	161244	HIGH PRESSURE HOSE	1



ET1920830

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

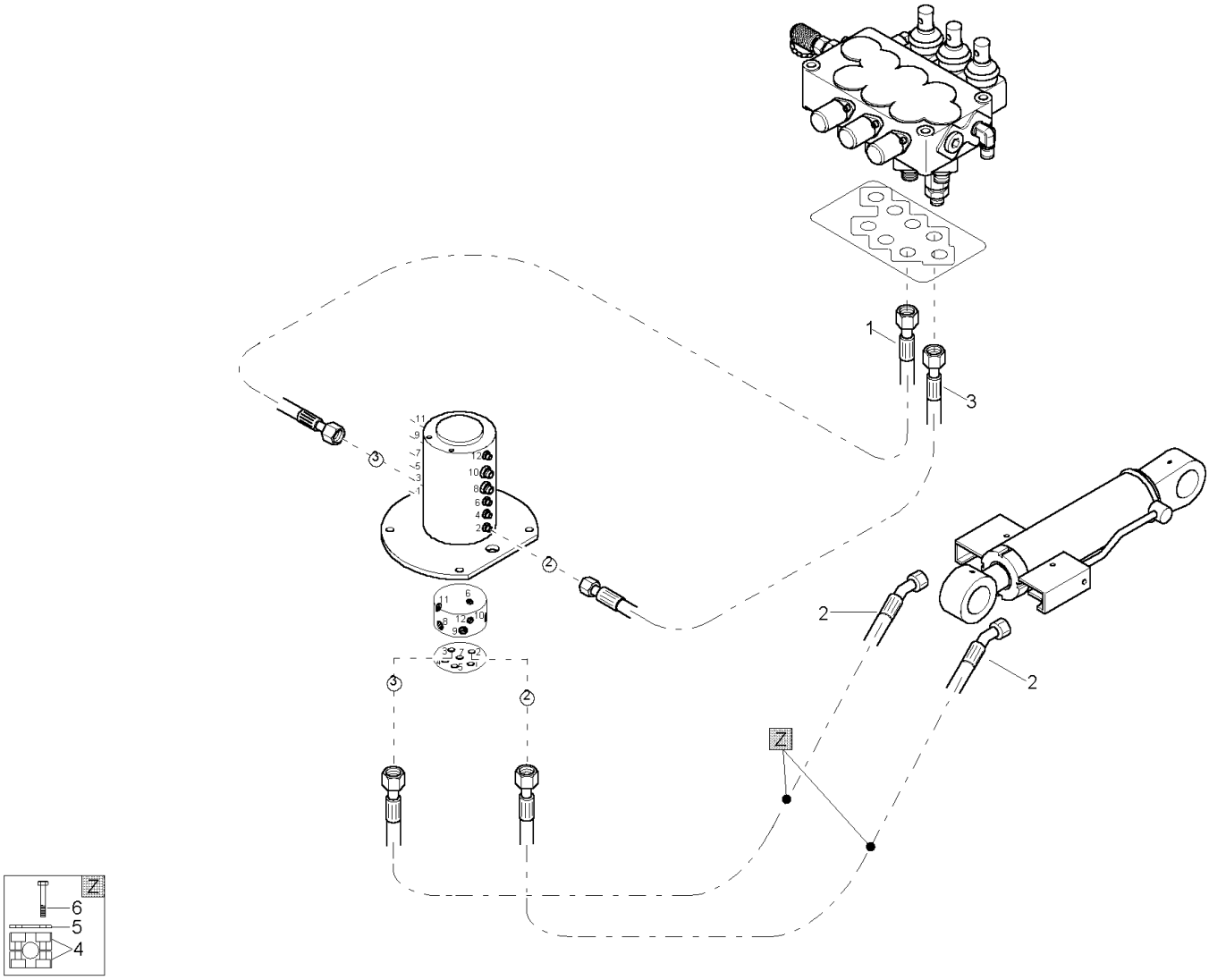
Ref. No.	Part No.	Description	Qty. Req.
1	161290	HIGH PRESSURE HOSE	2
2	161231	HIGH PRESSURE HOSE	2



ET1920835

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161248	HIGH PRESSURE HOSE	1
2	161260	HIGH PRESSURE HOSE	1
3	161242	HIGH PRESSURE HOSE	1
4	161241	HIGH PRESSURE HOSE	1
5	162515	HOSE CLAMP	2
6	162066	COVER	2
7	651508	SHCS HS M6-1 X 25 8.8 ZO D912	4

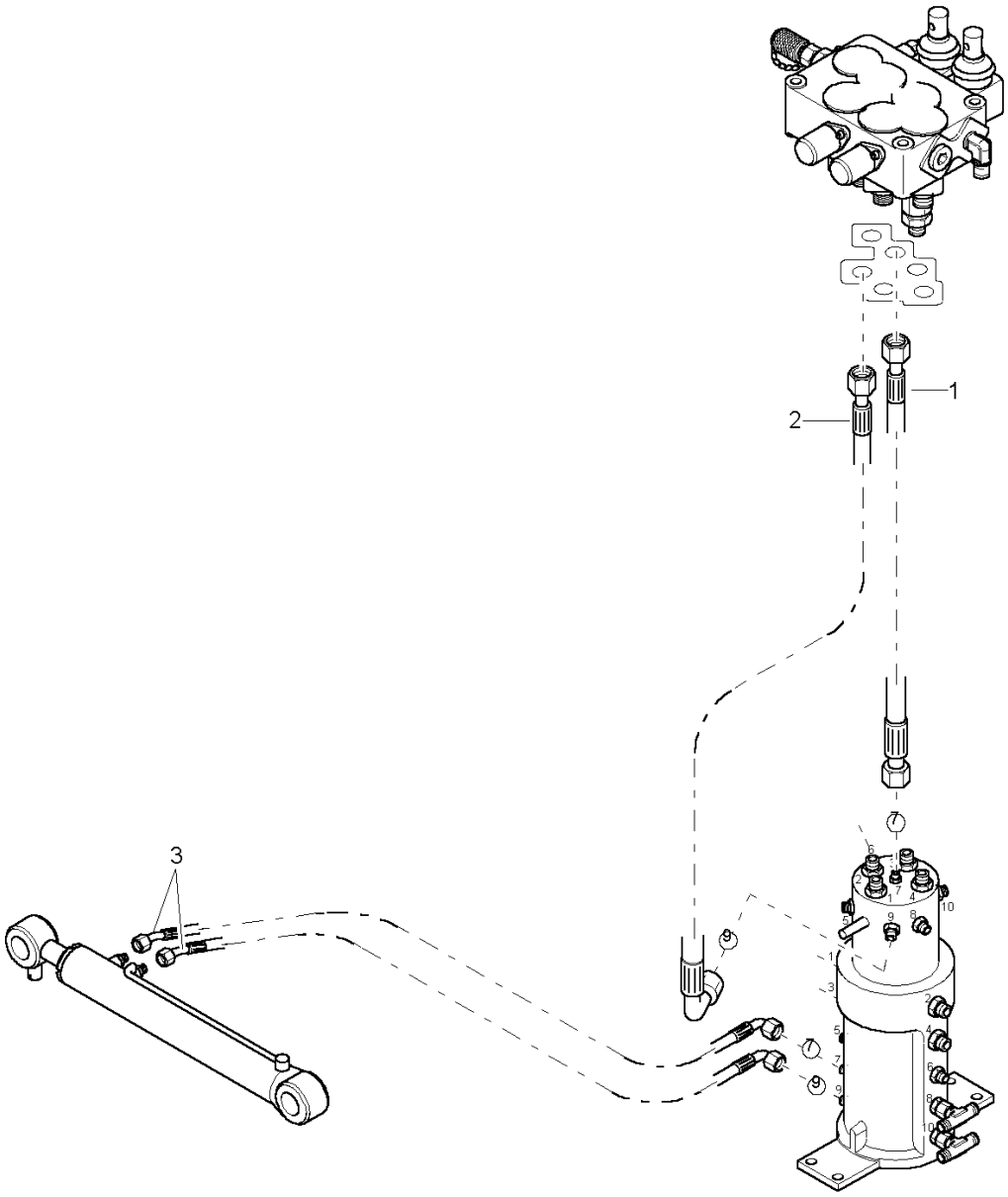


ET1920840

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161268	HIGH PRESSURE HOSE	1
2	161249	HIGH PRESSURE HOSE	2
3	161246	HIGH PRESSURE HOSE	1
4	162515	HOSE CLAMP	2
5	162066	COVER	2
6	651508	SHCS HS M6-1 X 25 8.8 ZO D912	4

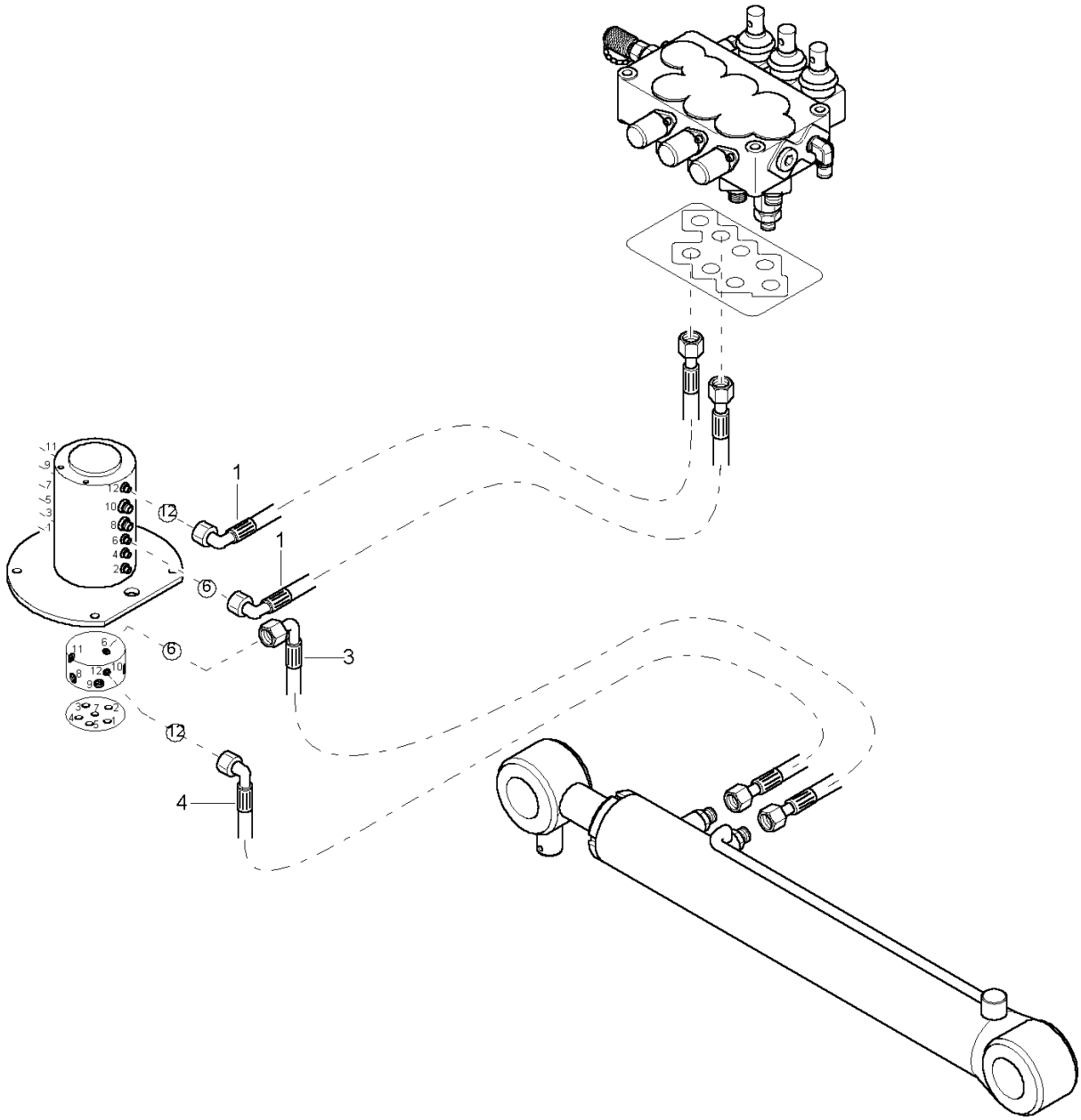
MODEL 192 — TELESCOPIC CYLINDER INSTALLATION



ET1920845

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

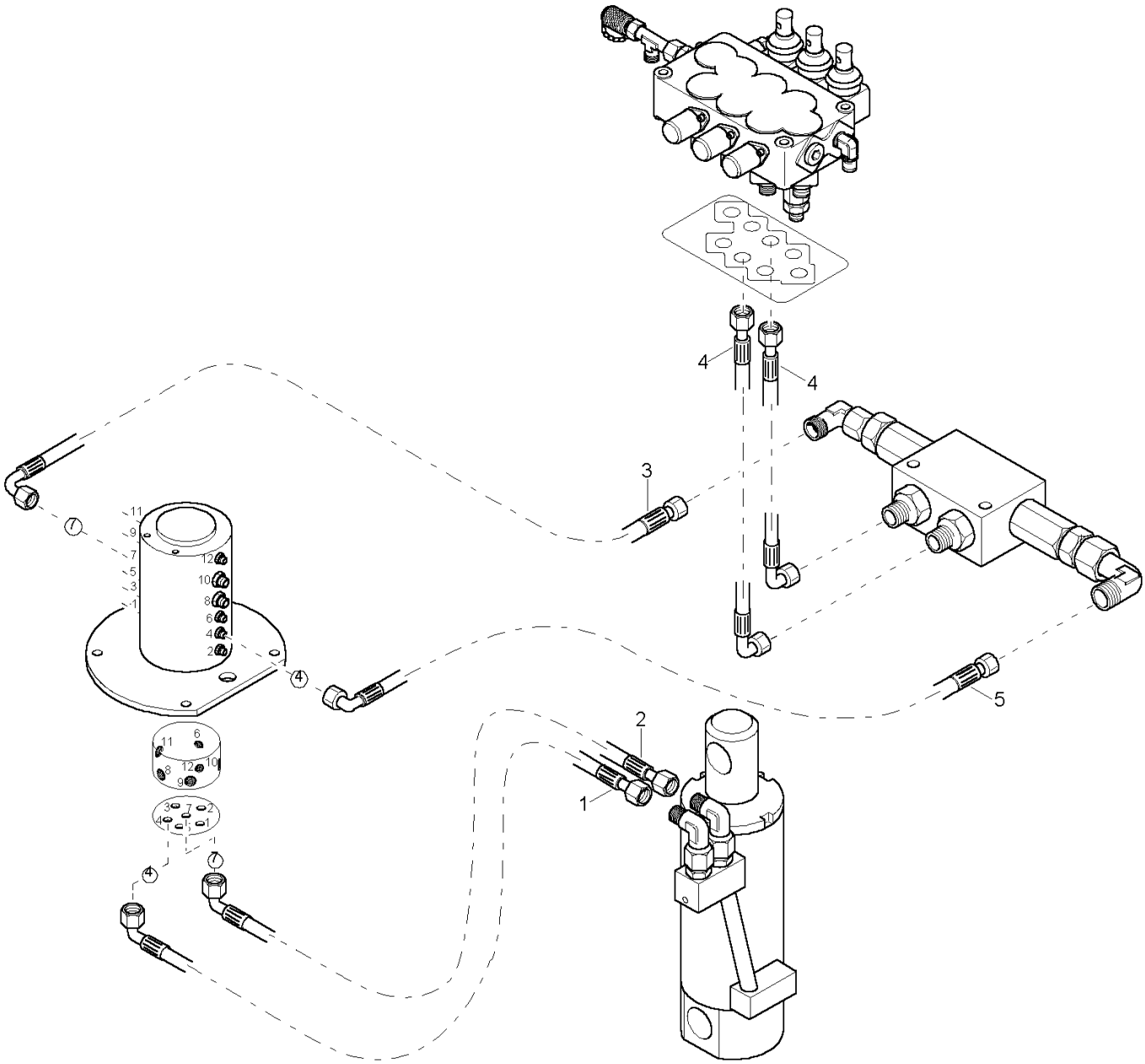
Ref. No.	Part No.	Description	Qty. Req.
1	161250	HIGH PRESSURE HOSE	1
2	161257	HIGH PRESSURE HOSE	1
3	161243	HIGH PRESSURE HOSE	2



ET1920850

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

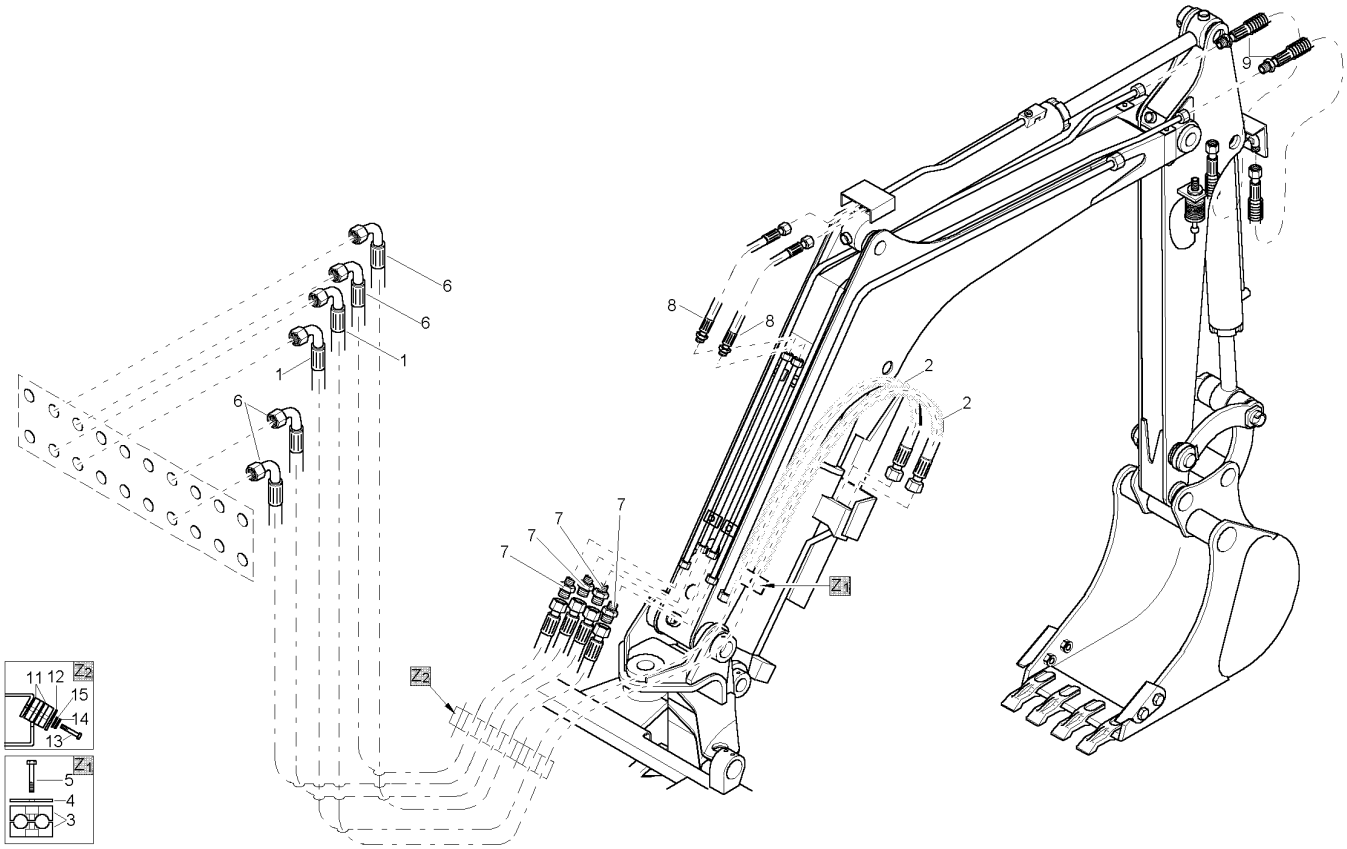
Ref. No.	Part No.	Description	Qty. Req.
1	161261	HIGH PRESSURE HOSE	2
3	161232	HIGH PRESSURE HOSE	1
4	161234	HIGH PRESSURE HOSE	1



ET1920855

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161234	HIGH PRESSURE HOSE	1
2	161247	HIGH PRESSURE HOSE	1
3	161266	HIGH PRESSURE HOSE	1
4	161261	HIGH PRESSURE HOSE	2
5	161267	HIGH PRESSURE HOSE	1

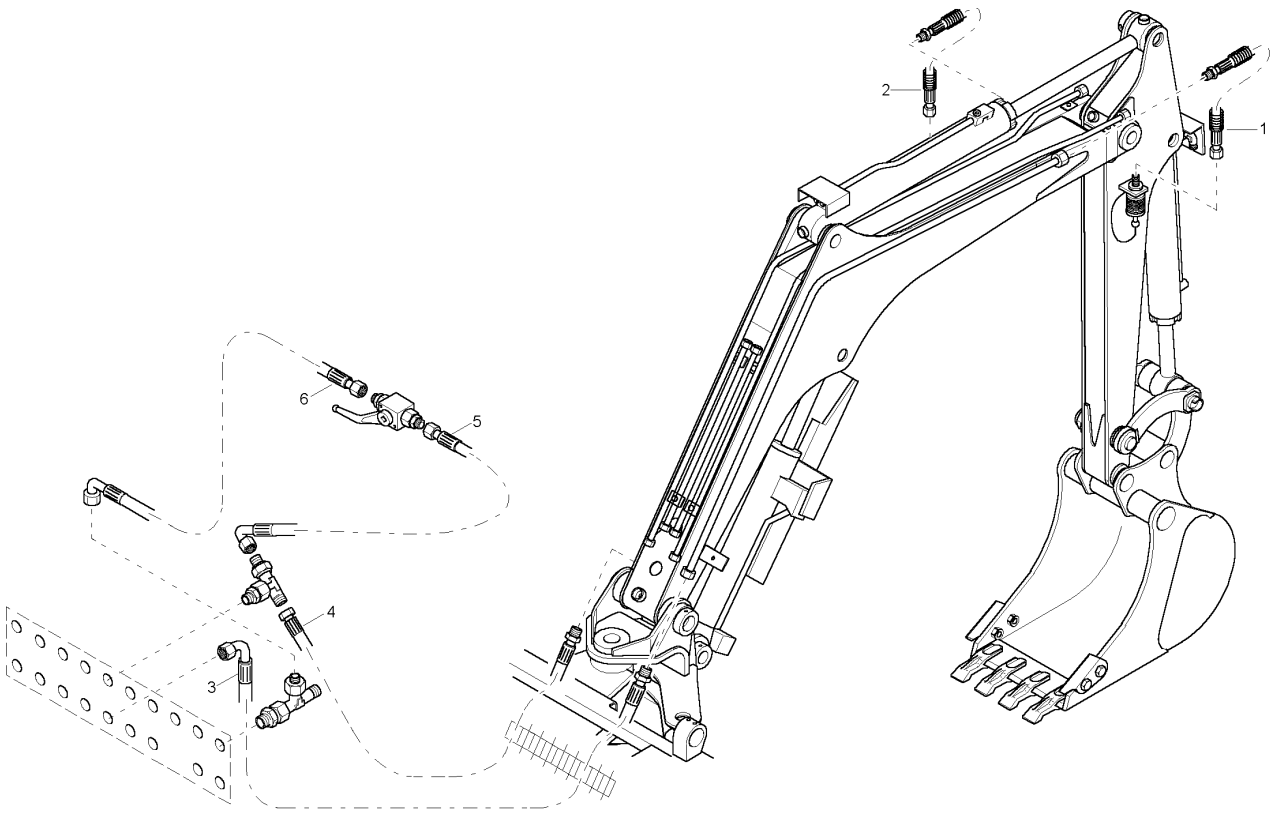


ET1920860

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161291	HIGH PRESSURE HOSE	2
2	161388	HOSE	2
3	161556	HOSE CLAMP	1
4	162069	COVER	1
5	651426	CS M6-1.0 X 35 C 8.8 ZO	1
6	161292	HIGH PRESSURE HOSE	4
7	161442	REDUCTION JOINT	4
8	161299	HIGH PRESSURE HOSE	2
9	161300	HIGH PRESSURE HOSE	2
11	160514	HOSE CLAMP	1
12	161801	COVER	1
13	651428	CS M6-1.0 X 50 C 8.8 ZO	4
14	161675	LOCKWASHER S6	4
15	161660	WASHER/GR A 6.4 ZO DIN125	4

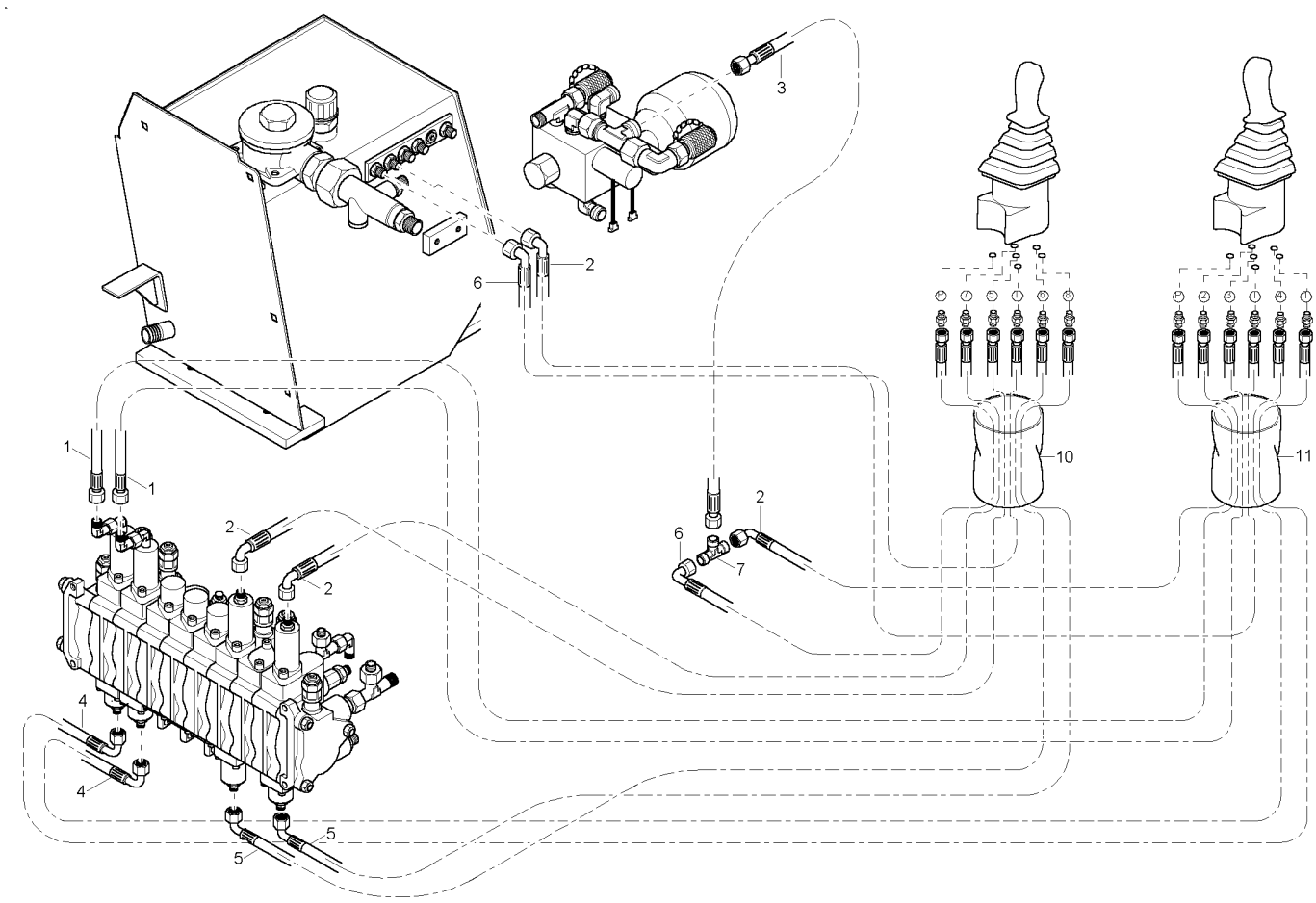
MODELS 192-222 — AUXILIARY HYDRAULICS INSTALLATION



ET1920865

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161319	HIGH PRESSURE HOSE	1
2	161304	HIGH PRESSURE HOSE	1
3	161303	HIGH PRESSURE HOSE	1
4	161320	HIGH PRESSURE HOSE	1
5	161302	HIGH PRESSURE HOSE	1
6	161305	HIGH PRESSURE HOSE	1



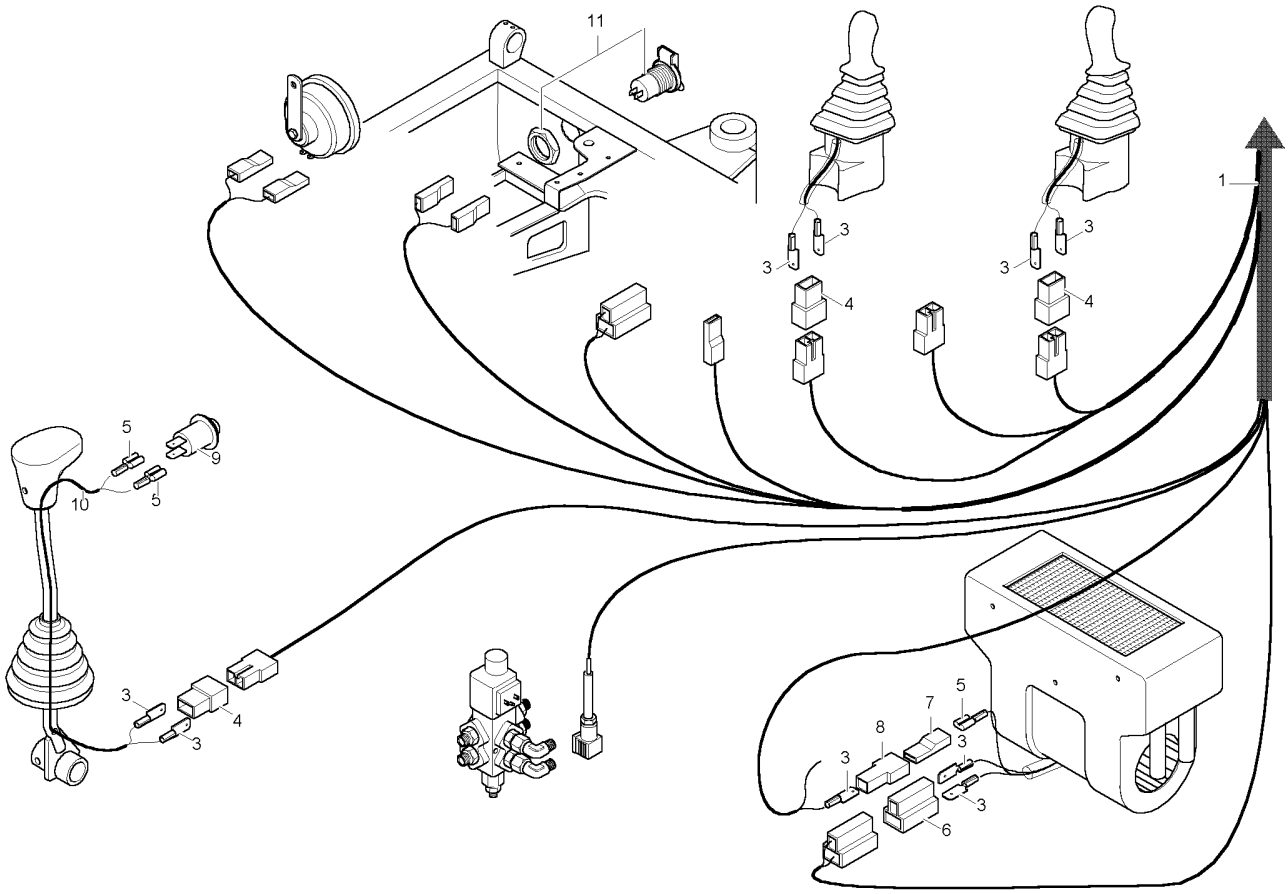
ET1920870

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161222	HIGH PRESSURE HOSE	2
2	161354	HIGH PRESSURE HOSE	4
3	161262	HIGH PRESSURE HOSE	1
4	161219	HIGH PRESSURE HOSE	2
5	161221	HIGH PRESSURE HOSE	2
6	161220	HIGH PRESSURE HOSE	1
7	161465	TEE	1
10	162011	HOSE COVERING (142 cm)	1
11	162011	HOSE COVERING (123 cm)	1

SECTION I: ELECTRICAL SYSTEM

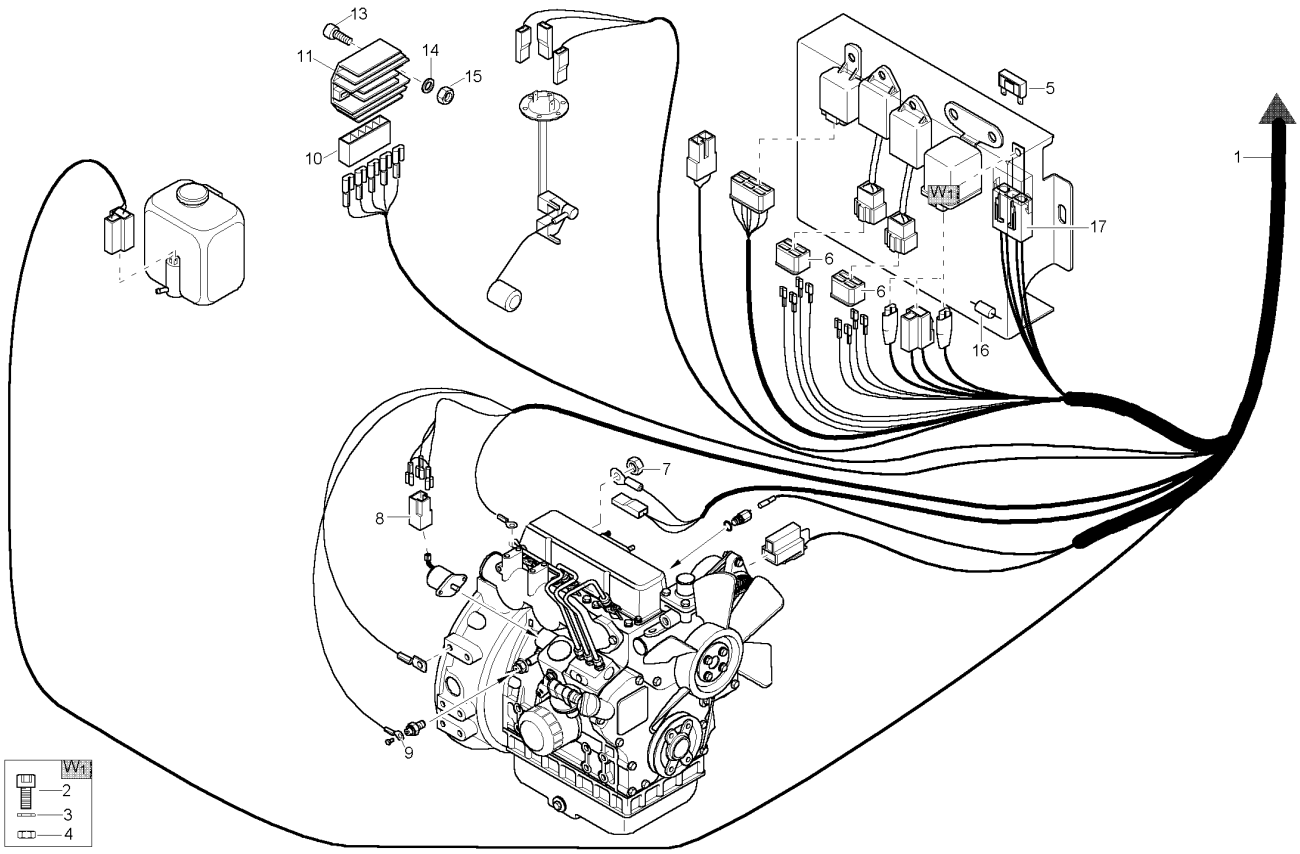
ELECTRICAL SYSTEM 110
MODELS 192-222 — ELECTRICAL INSTALLATION 1 110
MODELS 192-222 — ELECTRICAL INSTALLATION 2 111
MODELS 192-222 — BATTERY INSTALLATION 112
MODELS 192-222 — CONTROL BOARD 113
MODELS 192-222 — RELAY BOX 114
MODELS 192-222 — HEADLIGHTS 115
MODELS 192-222 — HORN 116



ET1920900

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160659	MAIN WIRING HARNESS	1
3	161997	SLIDE TERMINAL	9
4	162002	PLUG	3
5	161995	SLIDE TERMINAL	3
6	162002	PLUG	1
7	161999	PLUG	1
8	162000	PLUG	1
9	161363	SWITCH	1
10	161379	WIRING HARNESS	1
11	161732	SOCKET	1

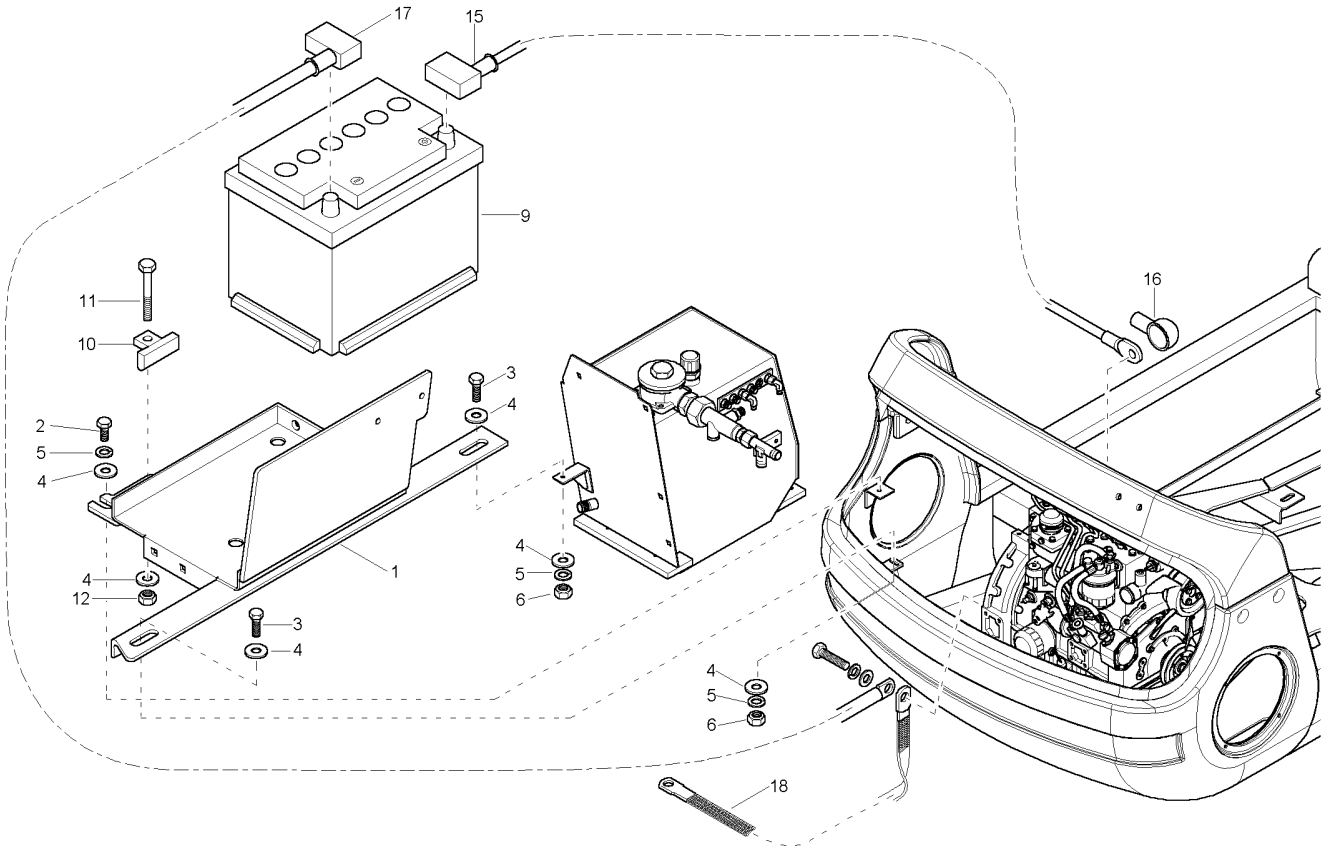


ET1920905

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160659	MAIN WIRING HARNESS	1
2	651505	SHCS HS M5-0.8 X 20 8.8 ZO D912	1
3	161665	WASHER/GR A 5.3 ZO DIN9021	1
4	656100	HN M5-.8 ZO	1
5	161998	FUSE	1
6	162003	PLUG	2
7	656048	HN M8-1.2 ZO	1
8	162001	PLUG	1
9	162004	PLUG	1
10	425-36149	PLUG	1
11	160419	REGULATOR	1
13	162021	SCREW	2
14	161665	WASHER/GR A 5.3 ZO DIN9021	2
15	656100	HN M5-.8 ZO	2
16	161355	RELAY DIODE	1
17	161858	FUSE HOUSING	1

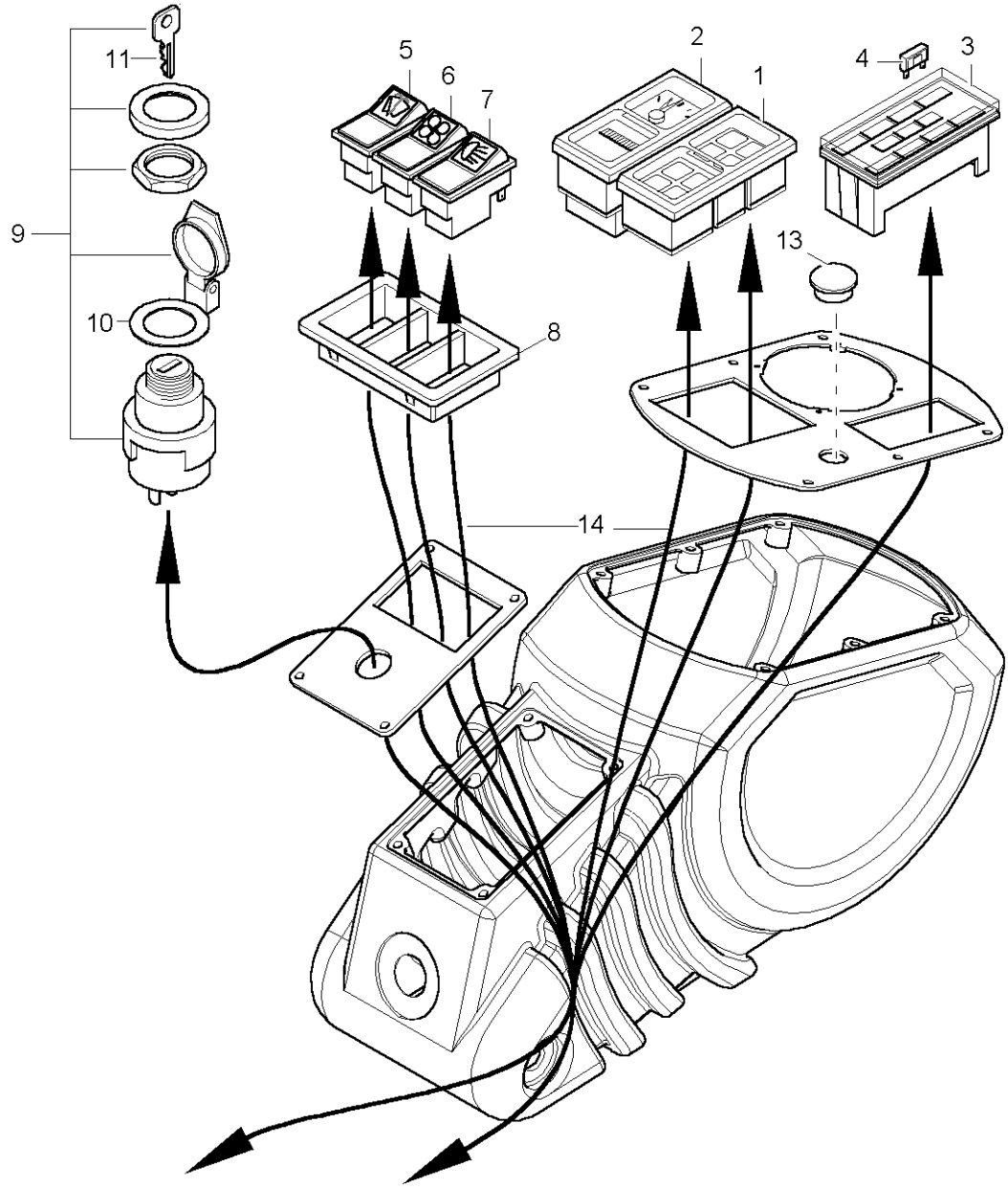
MODELS 192-222 — BATTERY INSTALLATION



ET1920910

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

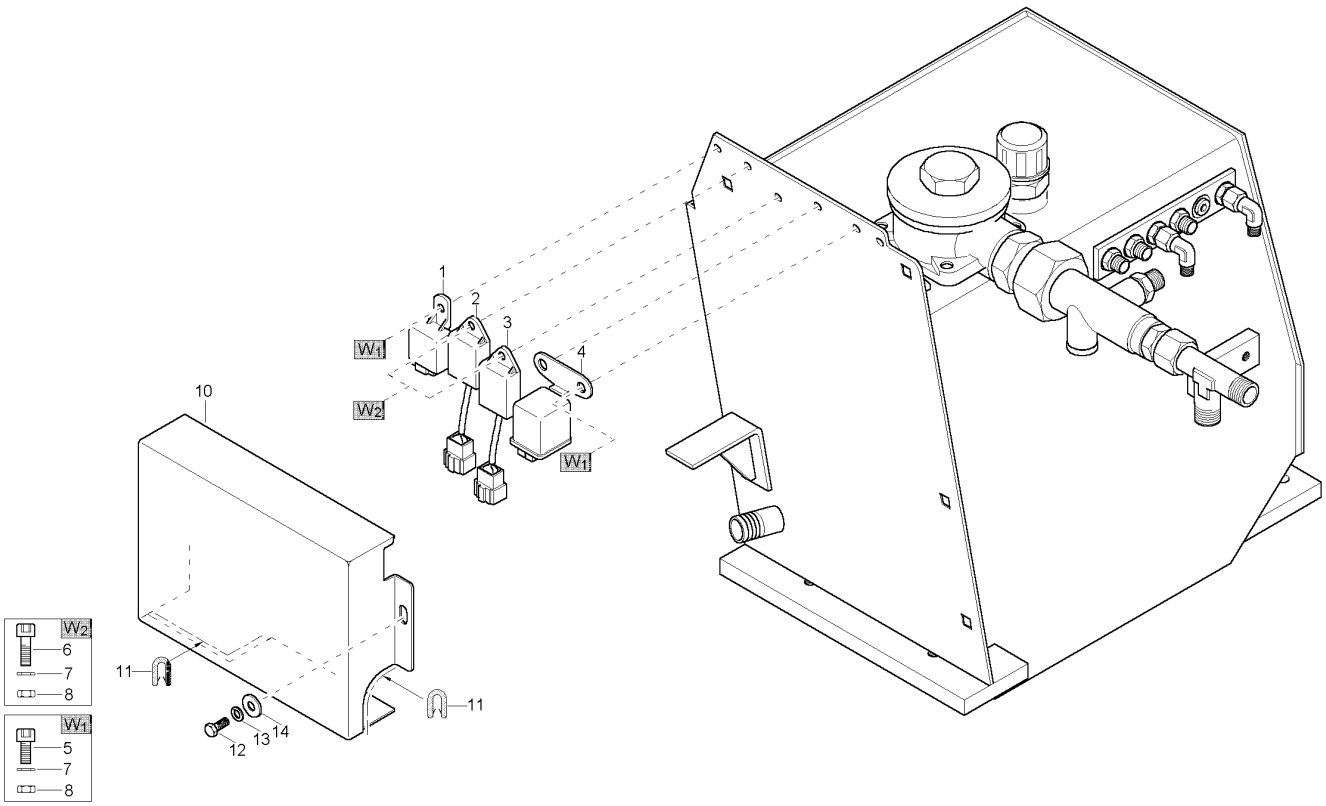
Ref. No.	Part No.	Description	Qty. Req.	Ref. No.	Part No.	Description	Qty. Req.
1	161815	BATTERY CARRIER	1	10	161720	CLAMP	1
2	656001	CS M8-1.2 X 20 C 8.8 ZO	1	11	656004	HB M8-1.2 X 55 C 8.8 ZO	1
3	656094	CS M8-1.2 X 30 C 8.8 ZO	2	12	651458	HLN INS M8-1.2 8 ZO	1
4	161667	WASHER/GR A 8.4 ZO	6	15	161850	CABLE, POSITIVE	1
5	161676	LOCKWASHER S8	3	16	161994	PROTECTION CAP	1
6	656048	HN M8-1.2 ZO	2	17	161851	CABLE, NEGATIVE	1
9	161993	BATTERY	1	18	162008	CABLE, GROUND	1



ET1920915

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

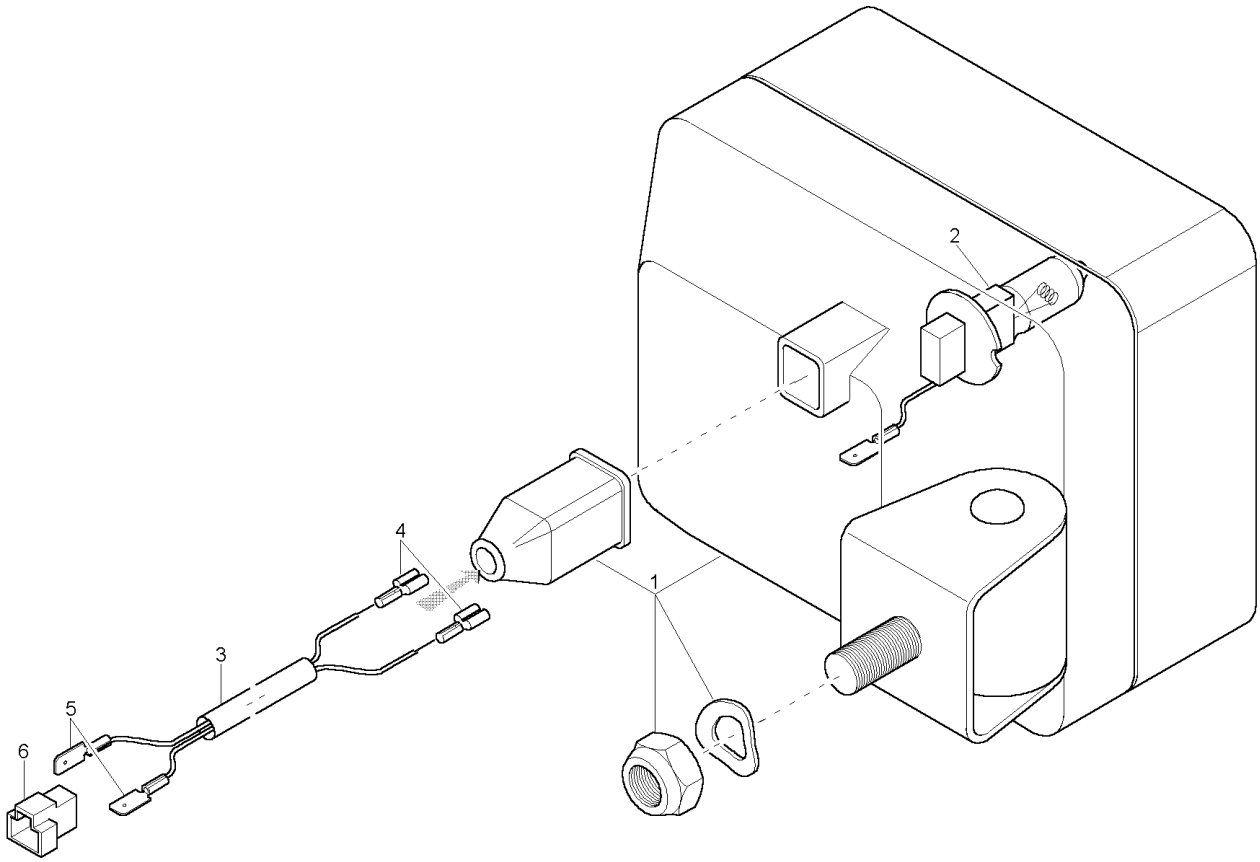
Ref. No.	Part No.	Description	Qty. Req.
1	160534	CONTROL BOARD	1
2	160535	CONTROL BOARD	1
3	161364	FUSE BOX	1
4	161374	FUSE	1
5	161369	SWITCH	1
6	161370	SWITCH	1
7	161372	SWITCH	1
8	161996	FRAME	1
9	161380	IGNITION SWITCH ASSEMBLY	1
10	161368	COVER	1
11	160713	KEY	1
13	161398	PLUG	1
14	161849	WIRING HARNESS	1



ET1920920

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

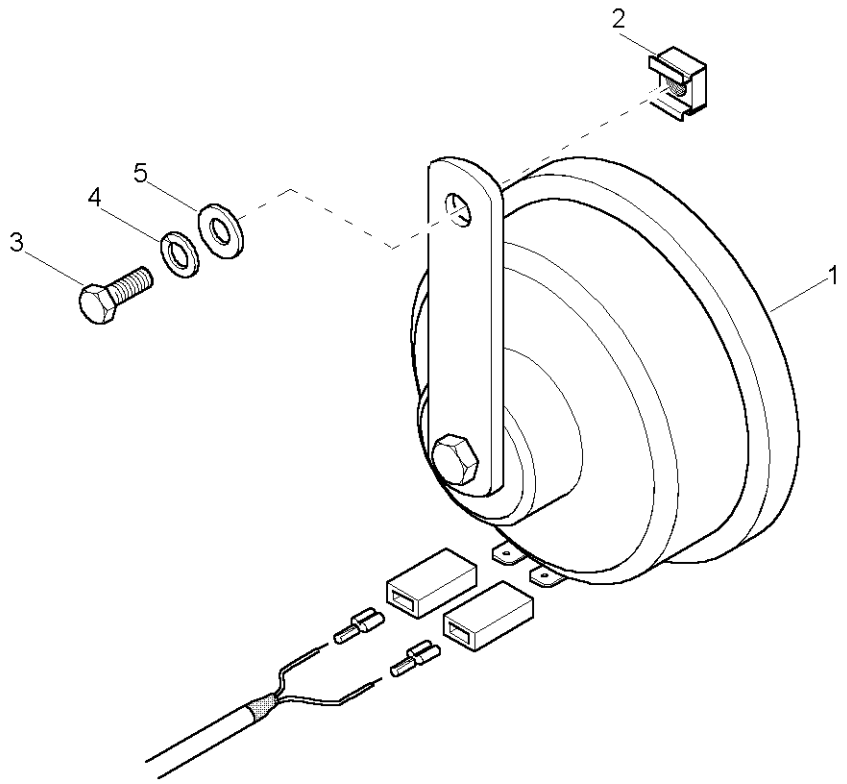
Ref. No.	Part No.	Description	Qty. Req.
1	160890	RELAY	1
2	160821	RELAY	1
3	160891	RELAY	1
4	160889	RELAY	1
5	651505	SHCS HS M5-0.8 X 20 8.8 ZO D912	3
6	162021	SCREW	2
7	161665	WASHER/GR A 5.3 ZO DIN9021	5
8	656100	HN M5-.8 ZO	5
10	161809	RELAY COVER	1
11	161943	PVC-EDGE PROTECTION (25 cm)	1
12	651424	CS M6-1.0 X 20 C 8.8 ZO	2
13	161675	LOCKWASHER S6	2
14	161666	WASHER/GR A 6.4 ZO DIN9021	2



ET1920925

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	160537	HEADLIGHT HOUSING	1
2	161367	HALOGEN LAMP	1
3	161379	WIRING HARNESS	2
4	161995	SLIDE TERMINAL	2
5	161997	SLIDE TERMINAL	2
6	162002	PLUG	1



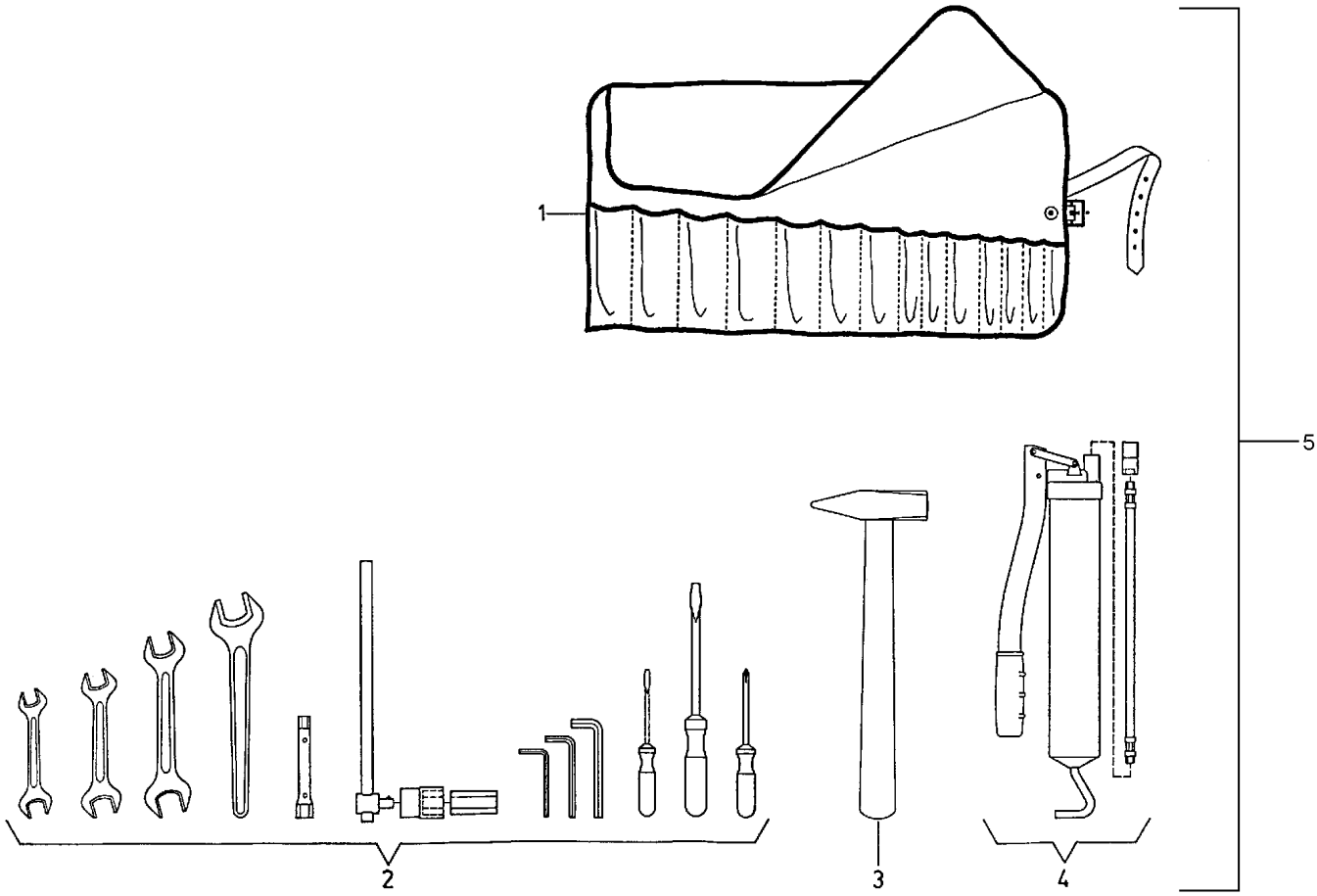
ET1920930

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161366	HORN	1
2	161616	NUT/CAGE M8	1
3	656001	CS M8-1.2 X 20 C 8.8 ZO	1
4	161676	LOCKWASHER S8	1
5	161661	WASHER/GR A 8.4 ZO	1

SECTION J: TOOLS

TOOLS 118
MODELS 192-222 — TOOLS 118



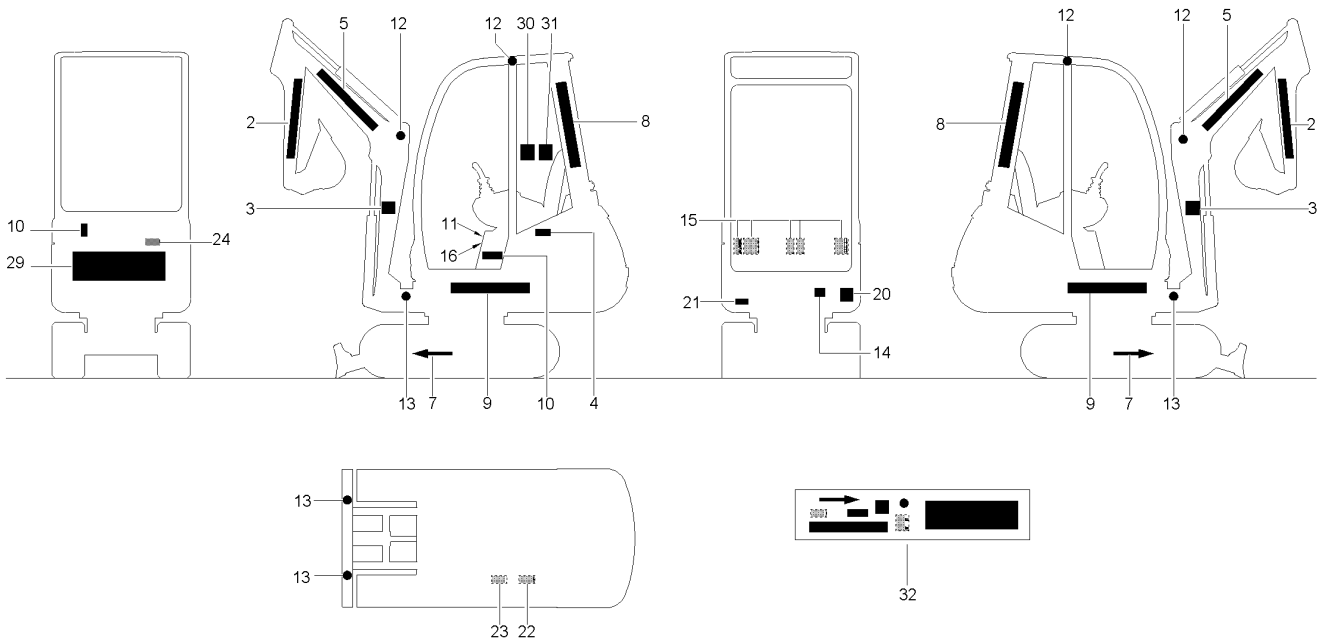
ET1921010

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
1	161989	TOOL ORGANIZER	1
2	161990	SCREW DRIVERS AND WRENCHES	1
3	161991	HAMMER	1
4	161992	GREASE GUN	1
5	161988	TOOL KIT	1

SECTION K: DECALS

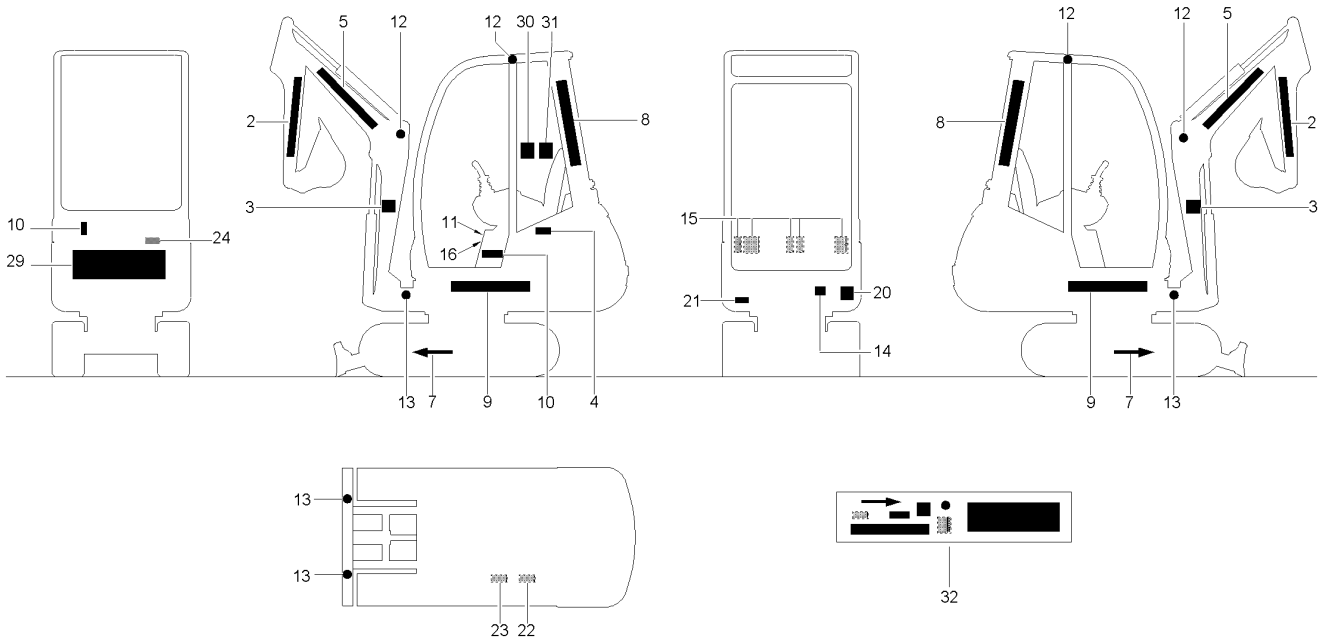
DECALS 120
MODEL 192 — DECALS. 120
MODEL 222 — DECALS. 121



ET1921000

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
2	161976	DECAL	2
3	161985	DECAL	2
4	161965	DECAL	1
5	162119	DECAL	2
7	161970	DECAL	2
8	161974	DECAL	2
9	162121	DECAL	2
10	161987	DECAL	2
11	161986	DECAL	1
12	161981	DECAL	4
13	161982	DECAL	4
14	161983	DECAL	1
15	161973	DECAL	1
16	161984	DECAL	1
20	162013	ID-PLATE (BIG)	1
21	161967	DECAL	1
22	161966	DECAL	1
23	161969	DECAL	1
24	161968	DECAL	1
29	161972	DECAL	1
30	162117	DECAL	1
31	162118	DECAL	1
32	162100	DECAL SET	1



ET1921005

* Reference numbers marked with an asterisk (*) indicate that the individual parts of the assembly are listed later in this section. Refer to the Table of Contents for locations of specific assemblies.

Ref. No.	Part No.	Description	Qty. Req.
2	161976	DECAL	2
3	161985	DECAL	2
4	161965	DECAL	1
5	162120	DECAL	2
7	161970	DECAL	2
8	161974	DECAL	2
9	161970	DECAL	2
10	161987	DECAL	2
11	161986	DECAL	1
12	161981	DECAL	4
13	161982	DECAL	4
14	161983	DECAL	1
15	161973	DECAL	1
16	161984	DECAL	1
20	162013	ID-PLATE (BIG)	1
21	161967	DECAL	1
22	161966	DECAL	1
23	161969	DECAL	1
24	161968	DECAL	1
29	161972	DECAL	1
30	162117	DECAL	1
31	162118	DECAL	1
32	162116	DECAL SET	1

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160400	23	16
160401	63	3
160402	23	13
160403	63	4
160404	67	7
160405	67	26
160406	54	10
160407	53	7
160408	53	8
160409	19	31
160410	57	8
160419	111	11
160424	58	11
160429	67	25
160436	63	2
160437	76	3
160438	80	9
160439	67	16
160458	34	21
160459	34	23
160463	81	9
160464	88	5
	89	5
160465	88	6
	89	6
160466	88	8
	89	8
160469	81	10
160470	81	11
160471	86	15
160480	62	11
160485	67	8
160486	81	8
160487	81	7
160488	41	5
160489	47	1
160490	51	11
160491	51	12
160492	51	7
160493	51	20
160494	45	10
160495	45	1
160497	45	20
160513	63	1
160514	105	11
160515	19	27
160516	7	9
	9	9
160517	7	11
	9	11
160518	10	2
160520	10	6
160521	10	9
160522	11	3
160523	10	10
160525	51	10
160526	41	3
160527	41	4
160529	43	6
160530	54	3
160531	54	2
160532	53	31
160533	53	32
160534	113	1
160535	113	2
160536	63	6
160537	115	1
160538	60	9
160540	60	17
160542	60	18
160543	69	1
160556	86	5
160558	86	4
160559	67	9
160560	74	21
160565	74	1
160566	93	1
160567	79	9
160568	80	1
160569	79	8
160570	79	6
160571	76	19
160572	76	20
160573	75	1
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160576	75	5
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160592	68	1
160594	76	1
160595	19	23
	79	1
160596	27	3
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160598	73	33
160599	73	34
160600	62	4
160601	19	18
160602	28	11
160603	73	50
160604	79	7
160607	56	26
160608	68	8
160609	68	10
160611	53	12
160612	27	20
160616	7	5
	9	5
	91	12
160617	91	4
160618	91	3
160620	91	5
160621	83	1
160622	7	6
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160632	33	10
160633	7	16
	9	16
	71	1
160634	7	17
	9	17
160635	10	1
	11	1
160637	77	6
160638	7	10
	9	10
160639	45	9
160640	45	8
160641	45	7
160643	23	19
160644	19	32
160646	60	10
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	84	6
160653	27	1
160654	14	2
160655	14	4
160656	15	3
160658	73	9
160659	110	1
	111	1
160660	66	2
160661	35	1
160662	35	7
160663	35	8
160664	92	3
160665	92	4
160666	86	3
160667	82	1
160668	9	25
	92	1
160669	33	30
	88	1
160670	35	10
	90	1
160671	34	10
	89	1
160672	14	6
	86	1
160673	88	9
160674	90	5
160675	89	9
160676	89	4
160677	90	4
160678	88	4
160679	7	4
	9	4
	91	1
160680	19	17
	87	1
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160683	87	5
160684	87	9
160685	87	8
160686	87	3
160687	84	1
160688	34	12
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	34	13
160693	33	32
160694	35	17
160695	35	12
160696	35	11
160697	19	12
160698	78	6
160699	92	7
160700	88	13
160701	90	7
160702	89	12
160703	86	7
160704	91	7
160705	87	12
160711	27	7
160712	51	13
160713	113	11
160716	52	1
160779	9	26
160780	9	27
160787	92	5
160821	114	2
160860	54	15
160862	34	20
160865	7	21
	9	21
160889	114	4
160890	114	1
160891	114	3
160949	67	18
160950	54	19
160971	71	2
160972	85	1
161180	81	1
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161220	107	6
161221	107	5
161222	107	1
161229	95	7
161231	98	1
	99	2
161232	103	3
161233	98	3
161234	103	4
	104	1
161237	97	4
161240	98	4
161241	100	4
161242	100	3
161243	102	3
161244	98	6
161245	95	8
	96	5
	96	12
161246	101	3
161247	104	2
161248	100	1
161249	101	2
161250	102	1
161251	95	2
161257	102	2
161258	98	5
161259	95	4
	96	8
161260	100	2
161261	103	1
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161262	98	2
	107	3
161263	95	3
161266	104	3
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161303	106	3
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161305	106	6
161306	96	2
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161308	96	4
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161312	97	2
161316	93	4
161317	93	5
161318	93	3
161319	106	1
161320	106	4
161321	97	3
161325	94	3
161326	94	1
161327	94	2
161353	34	22
161354	107	2
161355	111	16
161357	83	5
	84	5
161359	75	11
161360	75	2
161362	53	37
161363	110	9
161364	113	3
161366	116	1
161367	115	2
161368	113	10
161369	113	5
161370	113	6
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161374	113	4
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	115	3
161380	113	9
161388	105	2
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161391	61	15
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	61	17
161392	21	8
	21	9
161396	51	4
161398	113	13
161399	7	7
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161401	91	6
161403	53	17
161405	15	4
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	35	5
	73	7
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	87	21
	88	21
	89	21
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	33	5
	34	6
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161426	67	13
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	91	10
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	80	4
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	77	2
	78	2
	83	3
	84	3
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	89	23
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161432	67	11
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161443	67	24
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	76	17
	92	11
161444	80	6
161445	54	21
	78	5
161446	74	27
	79	4
161447	74	17
161448	76	14
	77	5
	78	4
	83	14
	84	14
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161458	77	4
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161462	76	11
161463	74	24
	79	3
	83	9
	84	9
161465	107	7
161466	83	13
	84	13
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161469	21	11
161470	74	26
161471	74	11
	79	5
161476	54	22
161477	54	20
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161486	74	9
161490	67	10
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161496	74	8
161497	74	19
161498	74	15
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161514	74	14
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	84	7
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161541	19	8
161543	34	3
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161544	88	20
	89	20
	90	10
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161553	33	14
161555	33	17
161556	105	3
161557	33	20
161558	86	10
161559	11	4
161560	73	12
161561	10	8
161564	10	7
161565	68	2
161566	83	4
	84	4
161567	76	2
161570	19	2
161571	74	5
161574	71	3
161575	11	6
161579	67	20
161585	68	11
	74	7
161590	74	6
161610	23	11
	73	18
161613	27	35
	52	9
	62	3
161614	29	4
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	53	6
	54	8
	58	3
	63	16
	83	16
	84	16
161616	116	2
161618	45	17
	53	23
161623	7	30
	9	29
	10	5
161627	19	33
161628	53	39
161630	54	11
161634	41	23
	53	25
161635	7	33
	9	44
161639	73	22
161640	7	41
	9	52
	23	9
	60	4
	61	7
	66	8
	73	15
161641	27	22
	57	7
	76	10
161642	27	12
	27	18
	53	30
	66	11
161643	7	29
	9	41
	19	3
	27	17
161645	39	5
161647	7	42
	9	53
161649	7	43
	9	54
161650	88	29
161651	53	15
161656	19	13
161657	14	5
161659	23	15
	42	9
	63	8
161660	41	27
	67	4
	80	8
	81	6
	105	15
161661	7	31
	9	42
	27	26
	27	38
	45	16
	53	5
	60	12
	60	20
	61	12
	63	15
	67	23
	116	5
161663	27	6
161665	82	5
	111	3
	111	14
	114	7
161666	19	40
	27	34
	52	4
	53	36
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	85	4
	114	14
161667	20	7
	22	7
	27	41
	54	7
	58	6
	60	8
	62	10
	69	5
	73	45
	76	7
	83	12
	84	12
	112	4
161669	7	34
	9	45
	23	8
	27	5
	57	6
	60	3
	61	6
	66	7
	67	5
	68	5
	73	14
	76	9
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	66	10
161671	7	36
	9	47
161672	9	31
161674	23	18
	82	4
161675	21	3
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	29	3
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	58	15
	80	7
	85	3
	105	14
	114	13
161676	7	35
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	52	8
	53	4
	54	6
	58	5
	60	7
	61	11
	62	9
	63	14
	67	17
	69	4
	73	52
	76	6
	83	11
	84	11
	112	5
	116	4
161680	73	42
161681	14	3
161720	112	10
161722	21	1
161724	7	20
	9	20
161726	53	2
161728	53	33
161730	53	9
161732	110	11
161733	62	7
161734	62	12
161737	56	25
161754	88	24
161756	86	17
161757	86	18
161763	73	37
161764	73	10
161769	41	8
161770	41	10
161771	46	2
161772	46	1
161773	49	1
161774	48	1

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161776	41	18
161777	51	1
161778	51	3
161779	41	19
	51	14
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161781	41	20
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161783	41	7
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161786	45	3
161788	51	8
161797	73	21
161798	63	11
161799	63	10
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161801	105	12
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161804	23	1
161805	23	2
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161828	12	2
161829	10	3
161831	53	11
161832	53	10
161833	53	21
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161839	42	6
161841	43	2
161842	43	4
161843	41	24
161844	41	2
161845	42	1
161846	42	13
	43	1
161847	43	5
161848	53	13
161849	113	14
161850	112	15
161851	112	17
161852	61	4
161853	58	1
161854	27	31
161856	58	16
161857	58	19
161858	111	17
161863	89	24
161864	90	14
161866	68	3
161867	63	5
161868	53	16
161871	75	17
161873	54	1
161874	53	1
161875	27	10
161876	28	1
161877	83	15
161879	29	1
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161883	73	4
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161889	73	35
161890	73	16
161891	73	48
161892	73	47
161893	73	46
161894	73	39
161895	73	41
161896	28	8
161897	28	7
161898	28	9
161899	28	5
161900	63	17
161901	28	10
161902	23	21
161903	83	26
	84	26
161915	7	23
	9	56
161916	7	19
	9	19
161917	7	14
	9	40
161918	7	8
	9	8
161919	12	1
161920	7	13
	77	1
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161922	41	15
161923	41	14
161924	41	13
161925	51	15
161928	62	1
161929	62	6
161930	7	12
	9	12
161931	14	1
161932	15	1
161933	15	2
161934	86	2
161935	87	2
161936	27	9
161937	41	9
161938	45	4
161939	45	5
161940	45	6
161941	45	11
161942	51	9
161943	27	36
	28	3
	29	5
	114	11
161944	42	3
161945	27	24
161946	27	37
161947	53	20
161948	22	3
	28	2
	67	21
161949	41	11
	58	8
161950	41	12
161951	45	12
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161955	83	21
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161957	45	13
161963	58	7
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	121	4
161966	120	22
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161986	120	11
	121	11
161987	120	10
	121	10
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161990	118	2
161991	118	3
161992	118	4
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161994	112	16
161995	52	10
	110	5
	115	4
161996	113	8
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	115	5
161998	111	5
161999	110	7
162000	110	8
162001	111	8
162002	110	4
	110	6
	115	6
162003	111	6
162004	111	9
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162007	42	7
162008	112	18
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	96	7
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	107	11
162012	43	3
	52	6
162013	120	20
	121	20
162014	39	1
162015	20	8
162016	20	3
	23	20
	58	9
162017	54	4
162018	51	6
162019	19	34
162020	20	4
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	114	6
162022	7	27
	9	38
162023	19	29
162025	33	16
162026	27	15
	53	29
162027	73	11
162028	80	2
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162030	42	12
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	51	19
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162036	41	26
162037	41	28
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162044	42	11
162045	51	17
162046	27	19
162047	23	17
162048	19	41
	53	24
162049	10	11
162050	42	10
162051	73	6
162052	19	15
162053	10	12
162054	12	6
162055	11	5
162056	73	5
162058	73	40
162059	86	11
162060	88	12
	92	6
162061	87	11
	88	11
	89	11
	90	8
162064	54	14
162065	61	18
162066	33	21
	100	6
	101	5
162067	33	18
162068	33	15
162069	105	4
162070	33	12
162071	93	2
162072	73	27
162073	73	24
162074	73	28
162075	12	4
162076	12	5
162077	61	1
162078	84	27
162079	60	1
162080	57	3
162081	57	1
162082	57	2
162083	57	4
162084	60	14
162085	56	1
162086	84	15
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162088	71	11
162090	71	10
162091	71	9
162092	71	8
162093	19	24
162094	7	15
	9	15
162095	7	2
	9	2
162096	7	3
	9	3
162097	7	1
162098	7	REF
162099	68	9
162100	120	32
162101	19	25
162102	9	14
162103	9	23
162104	9	24
162105	9	1
162106	9	REF
162107	34	1
162108	33	1
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162110	92	2
162111	91	2
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425-35376	56	23
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425-36085	56	7
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	76	8
651396	66	5
651397	60	15
	66	6
	73	43
651398	10	4
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651410	19	39
651411	19	4
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	33	22
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651428	105	13
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651434	27	16
651436	63	12
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	33	34
	34	14
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	85	2
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651518	53	3
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	20	5
	22	4
	54	5
	58	4
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	69	3
	73	51
	76	5
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	84	22
	88	25
	89	25
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	112	11
656048	45	14
	60	13
	73	26
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	112	6
656052	7	38
	9	49
656092	51	16
656093	7	28
	9	39
	27	28
	73	54
656094	60	16
	112	3
656100	111	4
	111	15
	114	8
656102	57	10
	73	29
	73	49
656105	22	5
	60	6
	67	6
656110	86	20
	88	26
	89	26
	90	16
656148	19	26
656149	27	32
	29	2
	52	7
	58	14
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TORQUE SPECIFICATIONS

NOTE: *Use these torque values when tightening **GEHL** hardware (excluding: Locknuts and Self-tapping, Thread Forming and Sheet Metal Screws) unless specified otherwise.*

All torque values are in Lb-Ft except those marked with an * which are Lb-In
(For metric torque value Nm, multiply Lb-Ft value by 1.355 or Lb-In value by 0.113)
(To convert Nm to Lb–Ft multiply by 0.738)

Unified National Thread	Grade 2		Grade 5		Grade 8	
	Dry	Lubed	Dry	Lubed	Dry	Lubed
8-32 **8-36**	19* 20*	14* 15*	30* 31*	22* 23*	41* 43*	31* 32*
10-24 **10-32**	27* 31*	21* 23*	43* 49*	32* 36*	60* 68*	45* 51*
1/4-20 **1/4-28**	66* 76*	50* 56*	9 10	75* 86*	12 14	9 10
5/16-18 **5/16-24**	11 12	9	17 19	13 14	25	18 20
3/8-16 **3/8-24**	20 23	15 17	30 35	23 25	45 50	35
7/16-14 **7/16-20**	32 36	24 27	50 55	35 40	70 80	55 60
1/2-13 **1/2-20**	50 55	35 40	75 90	55 65	110 120	80 90
9/16-12 **9/16-18**	70 80	55 60	110 120	80 90	150 170	110 130
5/8-11 **5/8-18**	100 110	75 85	150 180	110 130	220 240	170 180
3/4-10 **3/4-16**	175 200	130 150	260 300	200 220	380 420	280 320
7/8-9 **7/8-14**	170 180	125 140	430 470	320 360	600 660	460 500
1-8 **1-14**	250 270	190 210	640 710	480 530	900 1000	680 740
Metric Course Thread	**Grade 8.8**		**Grade 10.9**		**Grade 12.9**	
	Dry	**Lubed**	**Dry**	**Lubed**	**Dry**	**Lubed**
M6-1	8	6	11	8	13.5	10
M8-1.25	19	14	27	20	32.5	24
M10-1.5	37.5	28	53	39	64	47
M12-1.75	65	48	91.5	67.5	111.5	82
M14-2	103.5	76.5	145.5	108	176.5	131
M16-2	158.5	117.5	223.5	165.5	271	200

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