

**GEHL**®

Form No.  
918038  
Revision E  
Oct. 2008

# Model 303

## Compact Excavator

### Serial Number Range

Engine Tier I Models: **AD00001 to AD01819**

Engine Tier II Models: **AD01820 to AE02400**

# Parts Manual



# INTRODUCTION

When ordering service parts, specify the correct part number, full description, quantity required, the unit model number and serial number. For your safety and continued proper operation, use only genuine GEHL service parts.

The model and serial number for this unit are on a tag located on a panel on the front of the cab.

“Right” and “left” are determined from a position sitting on the operator’s seat and facing forward.

GEHL 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.

Refer to the abbreviations table located on this page for special parts descriptions. Standard attaching hardware torque values are also provided near the back of this manual. Metric torque values shown in the illustrations are in Newton-meters and are converted to foot-pounds by multiplying by 0.738.

Specific reference numbers, indicating a complete assembly, are circled in some illustrations. A small bag, pictured in some illustrations, indicates a seal kit (seals, o-rings, etc.). In the exploded view parts list, additional information may follow the Reference Number.

Serial number breaks are indicated as follows:

- (SN 999 and before) - indicates serial numbers up to and including 999.
- (SN 1000 - 2000) - indicates serial numbers between 1000 and 2000.
- (SN 999 and up) - indicates serial numbers including 999 and after.

Serial number exceptions and inclusion are indicated as follows:

- (SN 999 and before except 997) - indicates serial numbers up to and including 999, EXCEPT 997.
- (SN 1000 - 2000 except 1996 including 997) - indicates serial numbers between 1000 and 2000, INCLUDING 997 EXCEPT 1996.
- (SN 2001 and up including 1996) - indicates serial numbers including 2001 and after, INCLUDING 1996.

Unless otherwise specified, all cap screws and bolts are Grade 8.8, cadmium or zinc plated.

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

ASSD .....	Assembled
ASSY .....	Assembly
AR .....	As Required
CB .....	Carriage Bolt
CP .....	Cotter Pin
CS .....	Cap Screw (Hexagon Head)
CYL .....	Cylinder
DIA .....	Diameter
DIN .....	Deutsches Institut für Normung (German Institute for Standardization)
FHCS .....	Flat Head Cap Screw
GR .....	Grade
HB .....	Hexagon Bolt
HLN .....	Hexagon Lock Nut
HN .....	Hexagon Nut
HP .....	High Pressure
HYD .....	Hydraulic
INS .....	Insert
LH .....	Left Hand
LN .....	Lock Nut
LT .....	Left
LW .....	Lock Washer
M .....	Meter or Meters
MM/mm .....	Millimeter
MTG .....	Mounting
NPT .....	National Pipe Threaded
NSS .....	Not Sold Separately
RH .....	Right Hand
RT .....	Right
SHCS .....	Socket Head Cap Screw
SLTD .....	Slotted
SN .....	Serial Number or Slotted Nut
SQ .....	Square
W/ .....	With
W/O .....	Without
ZO .....	Zinc Oxide
ZY .....	Zinc Yellow
.....	Measurement Required

# TABLE OF CONTENTS

Introduction.....	i	Reversing Valve (Dozer Blade) .....	67
Table of Contents.....	1	ISO/SAE Valve.....	68
Decal Locations .....	3	Lock Valve.....	69
Filters, Gaskets and Seals .....	9	Manifold Block .....	70
Diesel Engine (Tier II).....	10	Boom Cylinder.....	71
Diesel Engine (Tier I) .....	11	Dipper Arm Cylinder.....	72
Engine Mounts .....	12	Bucket Cylinder .....	73
Cylinder Head & Valve Cover (Tier II)....	13	Boom Hydraulic Installation.....	74
Cylinder Block (Tier II).....	14	Swivel Cylinder .....	75
Crankshaft Seal (Tier II) .....	15	Swivel Cylinder Installation .....	76
Oil Pan (Tier II) .....	16	Dozer Blade Cylinder .....	77
Camshaft (Tier II) .....	17	Dozer Blade Cylinder Installation .....	78
Crankshaft, Piston (Tier II).....	18	Dozer Blade Lever Installation .....	79
Oil Lubrication System (Tier II).....	19	Auxiliary Hydraulics Pedal Installation....	80
Cooling System (Tier II).....	20	Swivel Bucket Cylinder .....	81
Fuel Injection System (Tier II) .....	21	Battery.....	82
Air Intake System (Tier II) .....	22	Radio (Option) .....	83
Air Intake System (Tier I).....	24	Boom Work Light.....	84
Intake Manifold (Tier II).....	25	Cab/Canopy Work Lights (Option) .....	85
Exhaust Manifold (Tier II).....	26	Rotating Beacon (Option) .....	86
Exhaust System.....	27	Wire Harness, Engine .....	87
Fuel Tank .....	28	Wire Harness, Chassis .....	89
Fuel System.....	32	Wire Harness, Cab .....	90
Throttle Lever .....	35	Wire Harness, Joystick Console (RT) .....	91
Hydraulic Pump Drive .....	37	Dozer Blade .....	93
Radiator.....	38	Undercarriage, Rubber Track .....	94
Oil Cooler & Installation .....	40	Track Tensioner, Rubber Track .....	95
Turntable Drive Unit.....	41	Undercarriage, Steel Track (Option) .....	96
Turntable Drive Unit Installation.....	42	Track Tensioner, Steel Track (Option) .....	97
Drive Unit .....	43	Chassis .....	98
Drive Unit Installation .....	44	Lubrication.....	100
Hydraulic Oil Tank .....	46	Counterweight.....	101
Hydraulic Pump .....	47	Rear Wall and Engine Hood .....	102
Hydraulic Pump Installation .....	48	Control Valve Cover .....	103
Control Valve/Style 1 .....	50	Dipper Arm, Short (Standard) .....	104
Control Valve/Style 2 .....	52	Dipper Arm, Long (Option).....	106
Control Valve/Style 3 .....	53	Boom.....	108
Control Valve/Styles 2 & 3.....	54	Connecting Link .....	109
Control Valve Tubes .....	55	Cab .....	110
Swivel Joint.....	56	Canopy .....	115
Pilot Oil Supply Unit .....	57	Cab Front Window (Windshield) .....	116
Joysticks.....	58	Cab Sliding Window.....	117
Joystick Installation .....	61	Cab Windows.....	118
Travel Pilot Valve .....	63	Cab Door.....	119
Travel Pilot Valve Installation .....	64	Mirrors (Option) .....	120
Selection Valve .....	66	Sun Visor (Option).....	121

## **TABLE OF CONTENTS**

Operator's Seat, Cab .....	122	Cab Heater .....	127
Operator's Seat, Canopy .....	124	Tools .....	130
Cab Floor Trim .....	126		

# DECAL LOCATIONS

## GENERAL INFORMATION

Decal location information is provided to assist in the proper selection and application of new decals, in the event the original decals become damaged or the machine is repainted. The listing includes decal illustration reference number, part number, description and quantity information. Refer to the illustrations for appropriate replacement locations.

To ensure proper selection of the correct replacement decals, compare all of the various closeup location drawings to the machine before starting to

refinish the unit. Then circle each decal shown (applicable to the machine) while checking off its part number in the listing. After verifying all the decals needed for replacement, place any extra unnecessary decals aside for disposal.

**NOTE:** *Refer to the SAFETY chapter of the Operator's Manual for the specific information provided on the various safety decals furnished in the decal kit(s).*

# DECAL LOCATIONS

## NEW DECAL APPLICATION

Surfaces MUST be free from dirt, dust, grease and other foreign material before applying the new decal. To apply, remove the smaller portion of the decal backing paper and apply this part of the exposed adhesive backing to the clean surface while maintaining proper position and alignment. Peel the other portion of the backing paper off slowly while applying hand pressure to smooth out the decal surface.



## CAUTION

**ALWAYS follow safety precautions on decals. Replace the decals if they are damaged, or if the unit is repainted. If repainting, BE SURE all applicable decals are affixed to the unit.**

### PAINT NOTICE

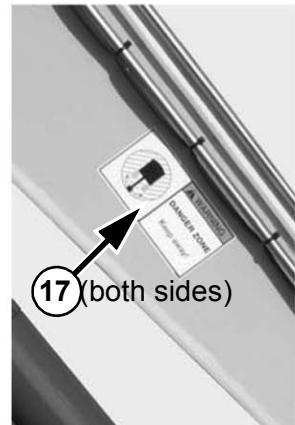
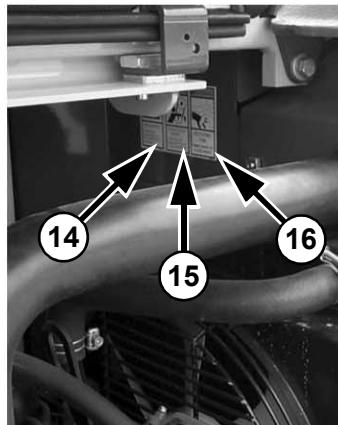
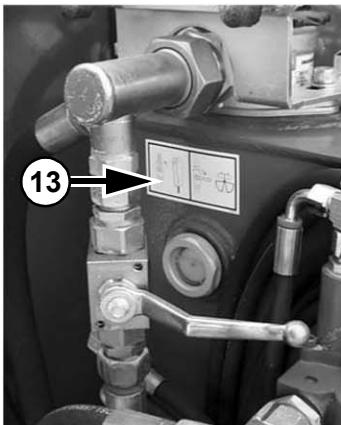
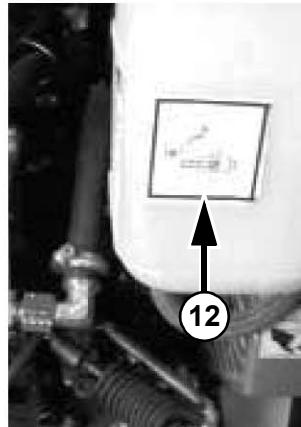
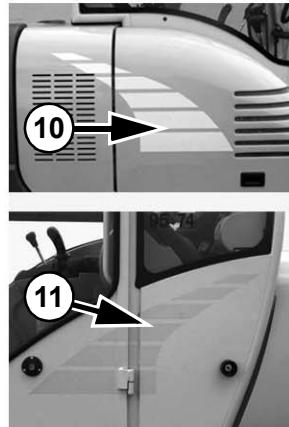
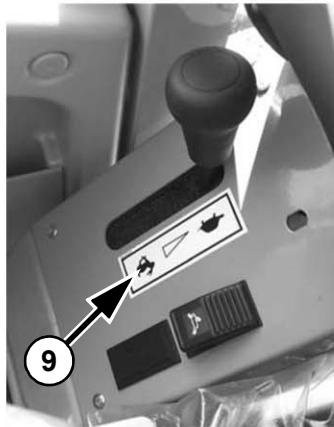
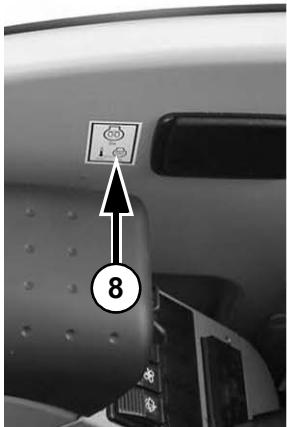
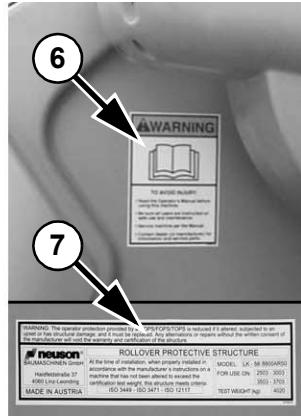
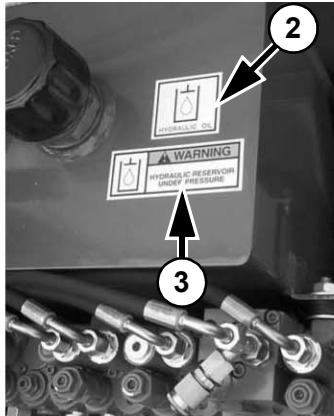
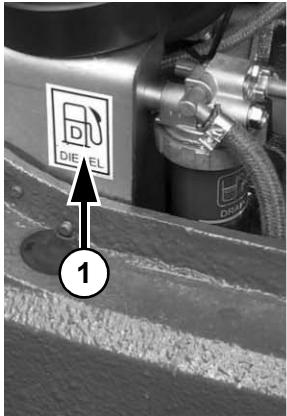
Use this list to order paint for refinishing:

- |        |   |
|--------|---|
| 167788 | 4 qts. Construction Yellow (GEHL)         |
| 167780 | 4 qts. Light Gray (GEHL)                  |
| 167774 | 4 qts. Dark Gray (GEHL)                   |
| 167789 | 6 (12.8 oz. Spray Cans) Yellow (GEHL)     |
| 167775 | 6 (12.8 oz. Spray Cans) Dark Gray (GEHL)  |
| 167781 | 6 (12.8 oz. Spray Cans) Light Gray (GEHL) |

The Compact Excavator decal kit is as follows:

Ref. No.	Part No.	Description	Qty.
	163985	Decal Kit - 303	1
1	161965	Diesel Fuel	1
2	161966	Hydraulic Oil	1
3	161969	WARNING - Hydraulic Reservoir	1
4	164854	WARNING - Avoid Injury	1
5	161967	Lubrication	1
6	161986	WARNING - Read Manual	1
7	165909	WARNING - Rollover Protection	1
8	165906	Glow Plug	1
9	163974	Throttle Speed	1
10	163993	Graphic RT	1
11	165907	Graphic LT	1
12	161968	Heater Valve (cab models only)	1
13	179730	Bypass Ball Valve	1
14	163978	WARNING - Hot Surface	1
15	163977	WARNING - Entanglement Hazard	1
16	161987	WARNING - Rotating Fan	1
17	161985	WARNING - Keep Away	2
18	164853	Engine Compartment Latch	1
19	162832	Hydraulics Compartment Latch	1
20	163979	ISO/SAE Valve Position	1
21	203796	303 Lifting Capacity	1
22	161981	Lift Point	4
23	161982	Tiedown Point	4
24	161970	Arrow	2
25	163975	WARNING - Avoid Injury	2
26	179704	WARNING - Counterweight	2
27	163973	WARNING - Mandatory Shutdown	1
28	163976	WARNING - Avoid Injury	1
29	162452	Joystick Control RT	1
30	162450	Travel LT	1
31	162451	Travel RT	1
32	162453	Joystick Control LT	1
33	179687	Dozer Blade Control	1
34	184306	GEHL (4.75" x 20.16")	1
35	183963	GEHL (3.75" x 16")	2
36	164988	303	2
37	184043	GEHL (white / 3.75" x 16" / cab models)	1
	104833	GEHL (white / 2" x 8.5" / canopy models)	1

# DECAL LOCATIONS



# DECAL LOCATIONS

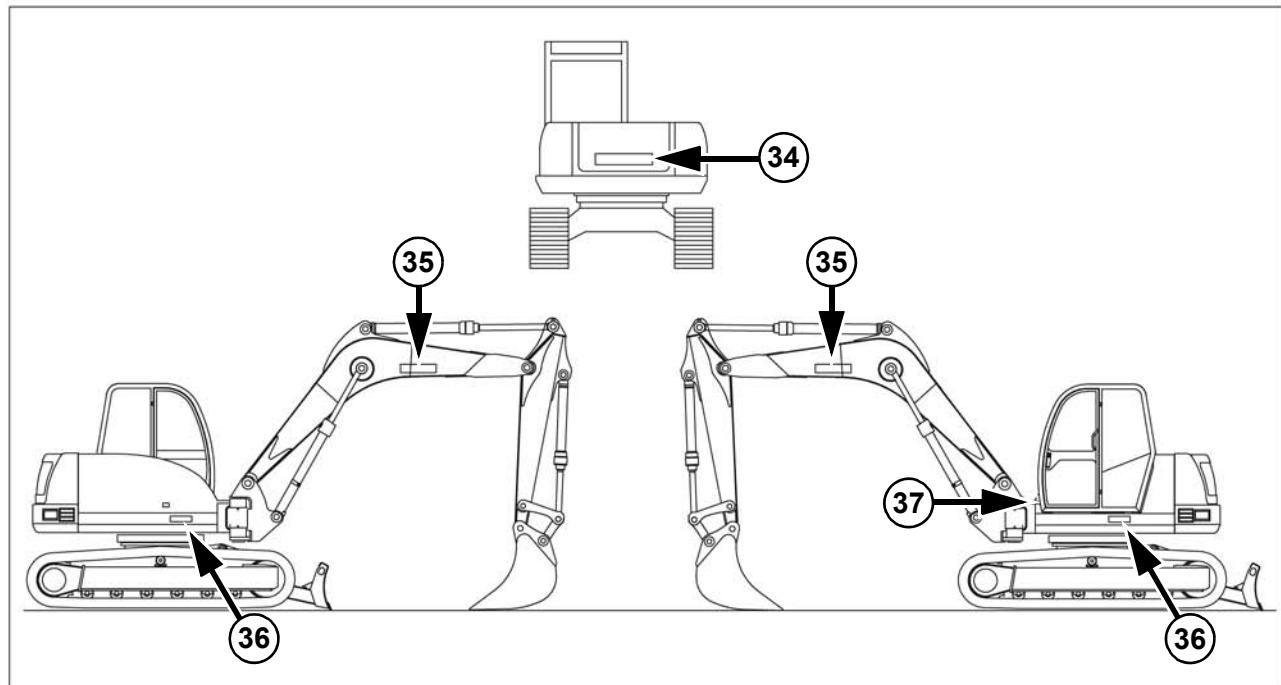
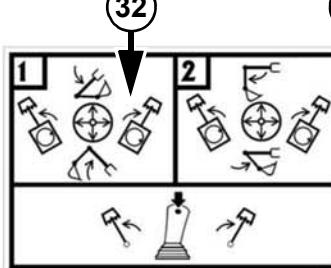
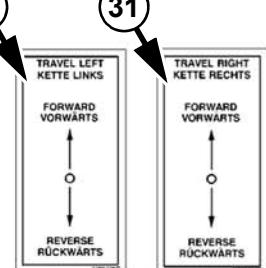
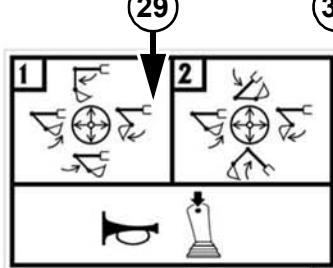
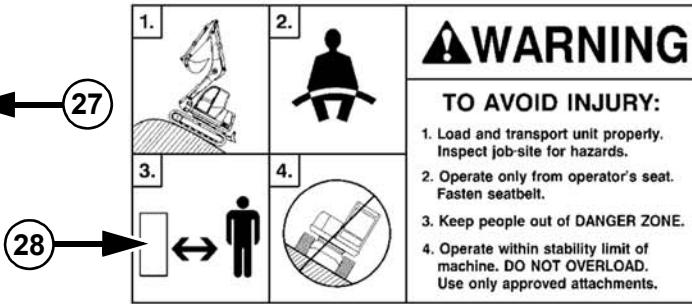
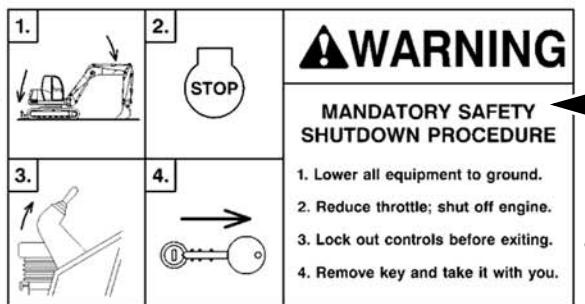
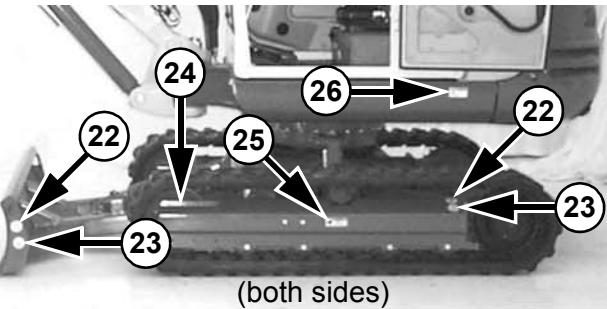
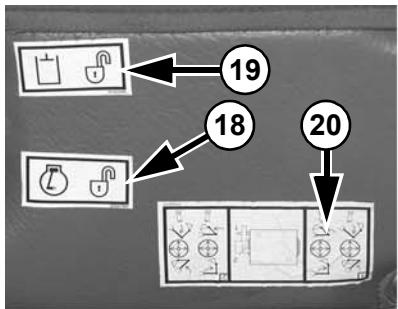
**NOTE:** The following is a duplicate listing from page 4 for conveniently selecting decals from the appropriate illustrations.

The Compact Excavator decal kit is as follows:

Ref. No.	Part No.	Description	Qty.
	163985	Decal Kit - 303	1
1	161965	Diesel Fuel	1
2	161966	Hydraulic Oil	1
3	161969	WARNING - Hydraulic Reservoir	1
4	164854	WARNING - Avoid Injury	1
5	161967	Lubrication	1
6	161986	WARNING - Read Manual	1
7	165909	WARNING - Rollover Protection	1
8	165906	Glow Plug	1
9	163974	Throttle Speed	1
10	163993	Graphic RT	1
11	165907	Graphic LT	1
12	161968	Heater Valve (cab models only)	1
13	179730	Bypass Ball Valve	1
14	163978	WARNING - Hot Surface	1
15	163977	WARNING - Entanglement Hazard	1
16	161987	WARNING - Rotating Fan	1

Ref. No.	Part No.	Description	Qty.
17	161985	WARNING - Keep Away	2
18	164853	Engine Compartment Latch	1
19	162832	Hydraulics Compartment Latch	1
20	163979	ISO/SAE Valve Position	1
21	203796	303 Lifting Capacity	1
22	161981	Lift Point	4
23	161982	Tiedown Point	4
24	161970	Arrow	2
25	163975	WARNING - Avoid Injury	2
26	179704	WARNING - Counterweight	2
27	163973	WARNING - Mandatory Shutdown	1
28	163976	WARNING - Avoid Injury	1
29	162452	Joystick Control RT	1
30	162450	Travel LT	1
31	162451	Travel RT	1
32	162453	Joystick Control LT	1
33	179687	Dozer Blade Control	1
34	184306	GEHL (4.75" x 20.16")	1
35	183963	GEHL (3.75" x 16")	2
36	164988	303	2
37	184043	GEHL (white / 3.75" x 16" / cab models)	1
	104833	GEHL (white / 2" x 8.5" / canopy models)	1

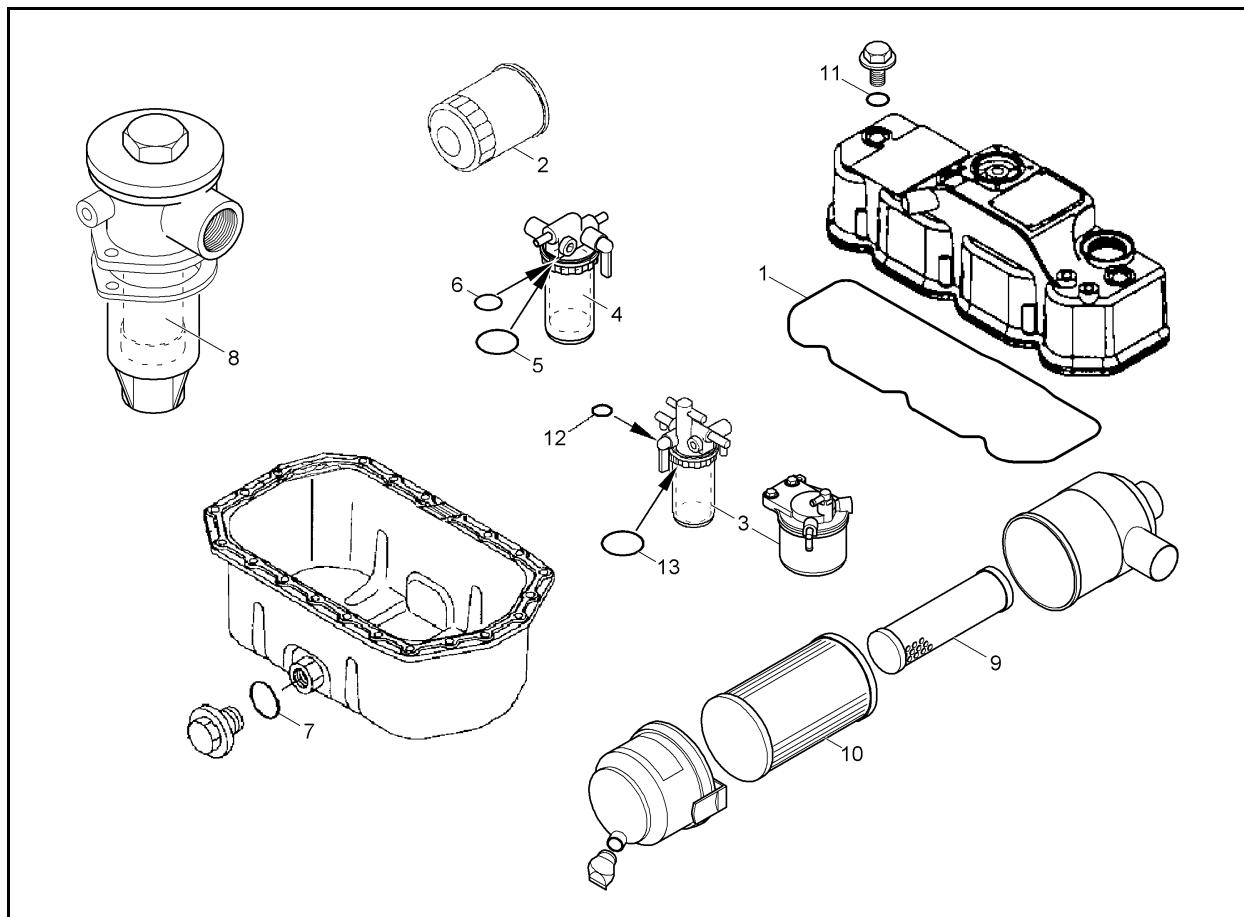
# DECAL LOCATIONS



# **NOTES**

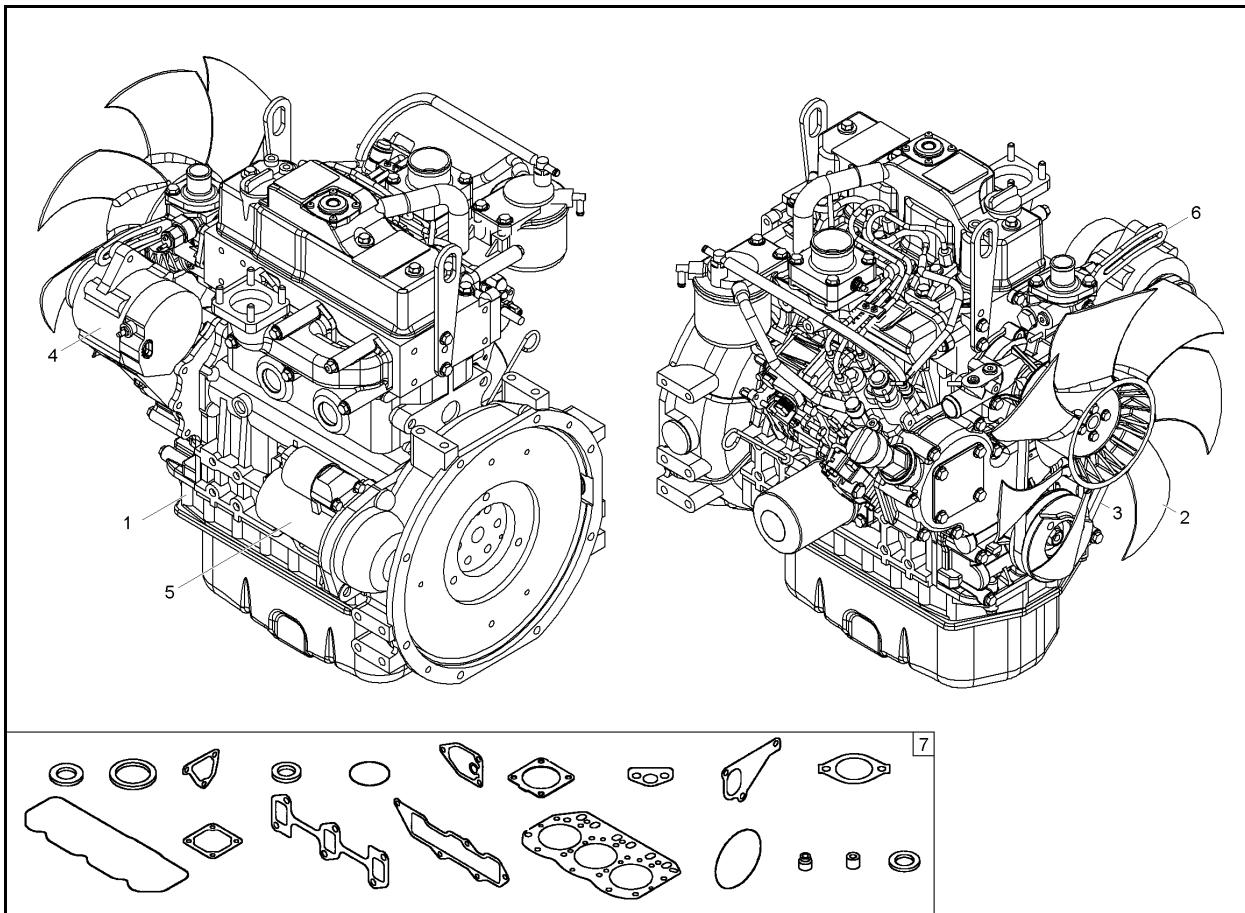
# 303 - FILTERS, GASKETS AND SEALS

1000127598



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.	
1	177417	VALVE COVER GASKET (SN AD01820 - AE02400)	1	6	177659	O-RING (SN AD01820 - AE02400)	1	
*		VALVE COVER GASKET (SN AD00001 - AD01819)	1	7	177665	O-RING/OIL PAN DRAIN PLUG (SN AD01820 - AE02400)	1	
2	179122	ENGINE OIL FILTER (SN AD01820 - AE02400)	1	*		O-RING/OIL PAN DRAIN PLUG (SN AD00001 - AD01819)	1	
	137500	ENGINE OIL FILTER (SN AD00001 - AD01819)	1	8	165111	HYDRAULIC OIL FILTER ELEMENT (ALL SN's)	1	
3	137499	FUEL FILTER (SN AD01820 - AE02400)	1	9	165294	AIR FILTER ELEMENT/INNER (ALL SN's)	1	
	425-34636	FUEL FILTER (SN AD00001 - AD01819)	1	10	165293	AIR FILTER ELEMENT/OUTER (ALL SN's)	1	
4	186340	FILTER/WATER SEPARATOR (SN AD01820 - AE02400)	1	11	164666	O-RING (SN AD01820 - AE02400)	3	
	425-36091	FILTER/WATER SEPARATOR (SN AD00001 - AD01819)	1	12	177659	O-RING (SN AD00001 - AD01819)	1	
5	177664	GASKET/FILTER HOUSING (SN AD01820 - AE02400)	1	13	177664	GASKET/FILTER HOUSING (SN AD00001 - AD01819)	1	
	206912	GASKET/FILTER HOUSING (SN AD00001 - AD01819)	1	* Contact your local Yanmar dealer for engine service parts.				

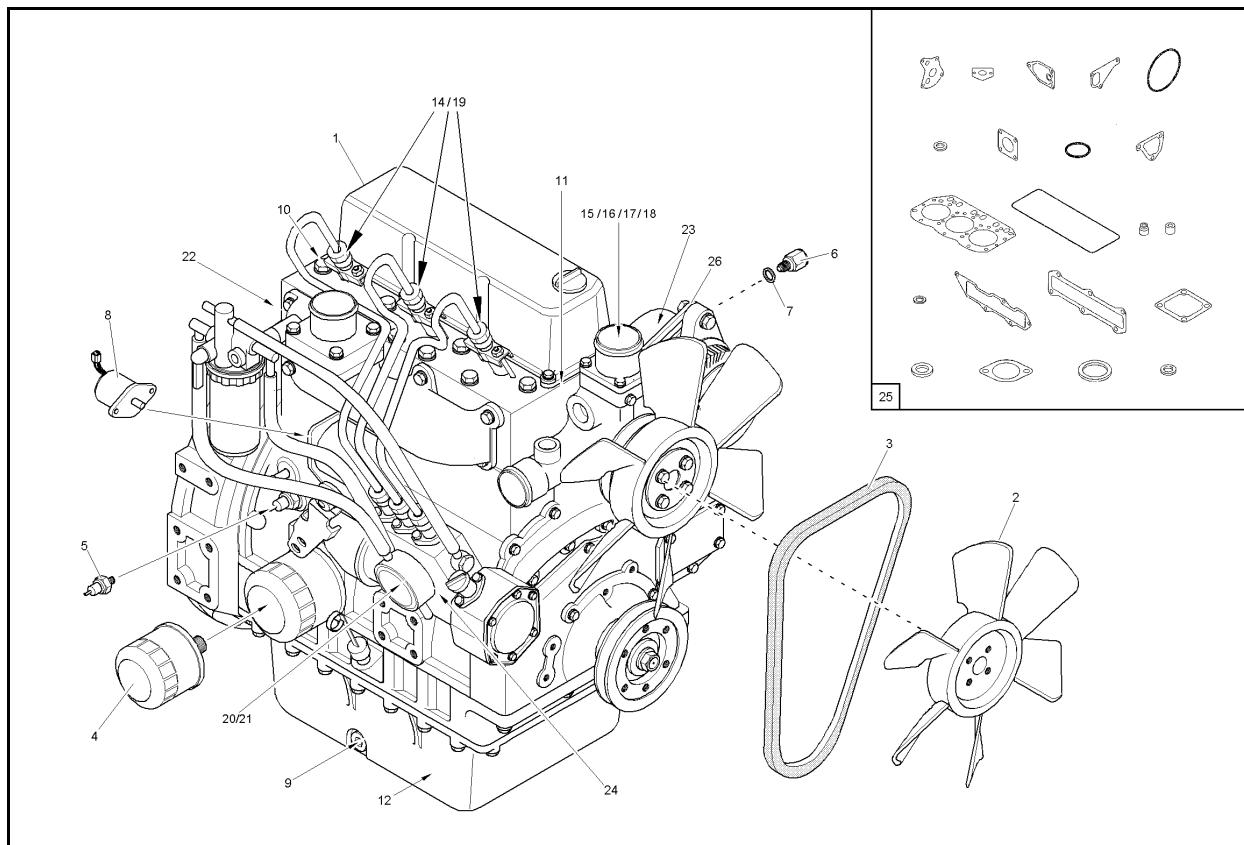
**303 - DIESEL ENGINE (TIER II)**  
**1000127707 - (SN AD01820 - AE02400)**



Ref.	No.	Part No.	Description	Qty.
1	206080	DIESEL ENGINE (YANMAR 3TNV88-BSNS)		1
2	177632	RADIATOR FAN		1
3	177630	V-BELT		1

Ref.	No.	Part No.	Description	Qty.
4	177631	ALTERNATOR		1
5	177430	STARTER		1
6	206017	REPAIR SET/CLAMP		1
7	177431	SEAL KIT		1

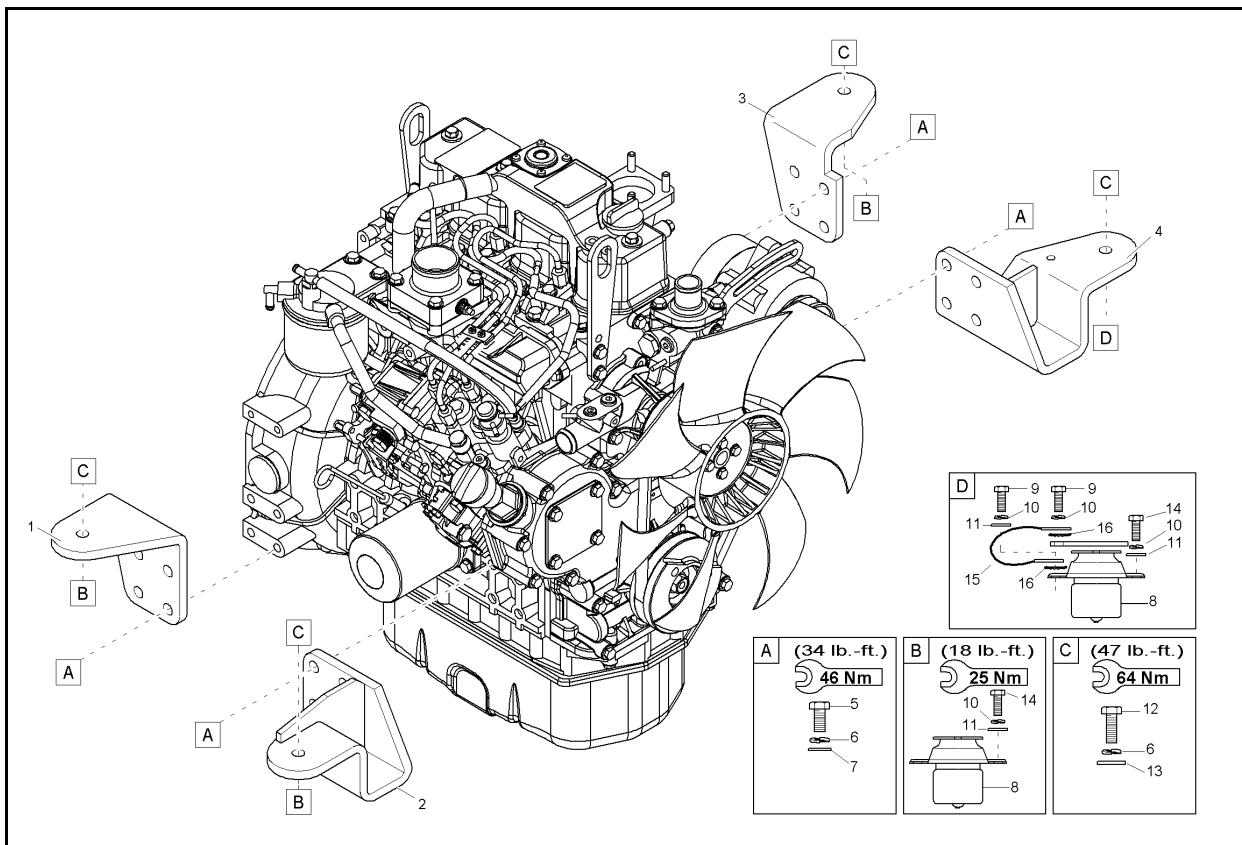
**303 - DIESEL ENGINE (TIER I)**  
**1000115905 - (SN AD00001 - AD01819)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	179006	DIESEL ENGINE (YANMAR 3TNE88-SNS)	1	15	179053	WATER PUMP	1
2	425-36086	RADIATOR FAN	1	16	425-34703	GASKET/WATER PUMP	1
3	425-34688	BELT/FAN	1	17	425-34661	THERMOSTAT	1
4	137500	ENGINE OIL FILTER	1	18	425-34704	GASKET/UPPER	1
5	425-36085	SENDER/OIL PRESSURE	1	19	425-34715	VALVE ASSY/FUEL INJECTION	1
6	425-34683	SWITCH/THERMOSTAT 100°C	1	20	425-34713	PUMP ASSY/FUEL FEED	1
7	160427	SEAL	1	21	425-34714	SEAL	1
8	425-35925	SOLENOID STOP	1	22	179058	STARTER	1
9	425-34753	PLUG/OIL DRAIN	1	23	179057	GENERATOR	1
10	425-36241	GASKET	1	24	160747	INJECTION PUMP	1
11	160750	VALVE COVER SEAL	1	25	178931	SEAL KIT	1
12	160751	SUMP ASSY/LUB OIL SYSTEM	1	26	178173	CLIP CLAMP	1
14	425-35492	HEATER/AIR	3				

# 303 - ENGINE MOUNTS

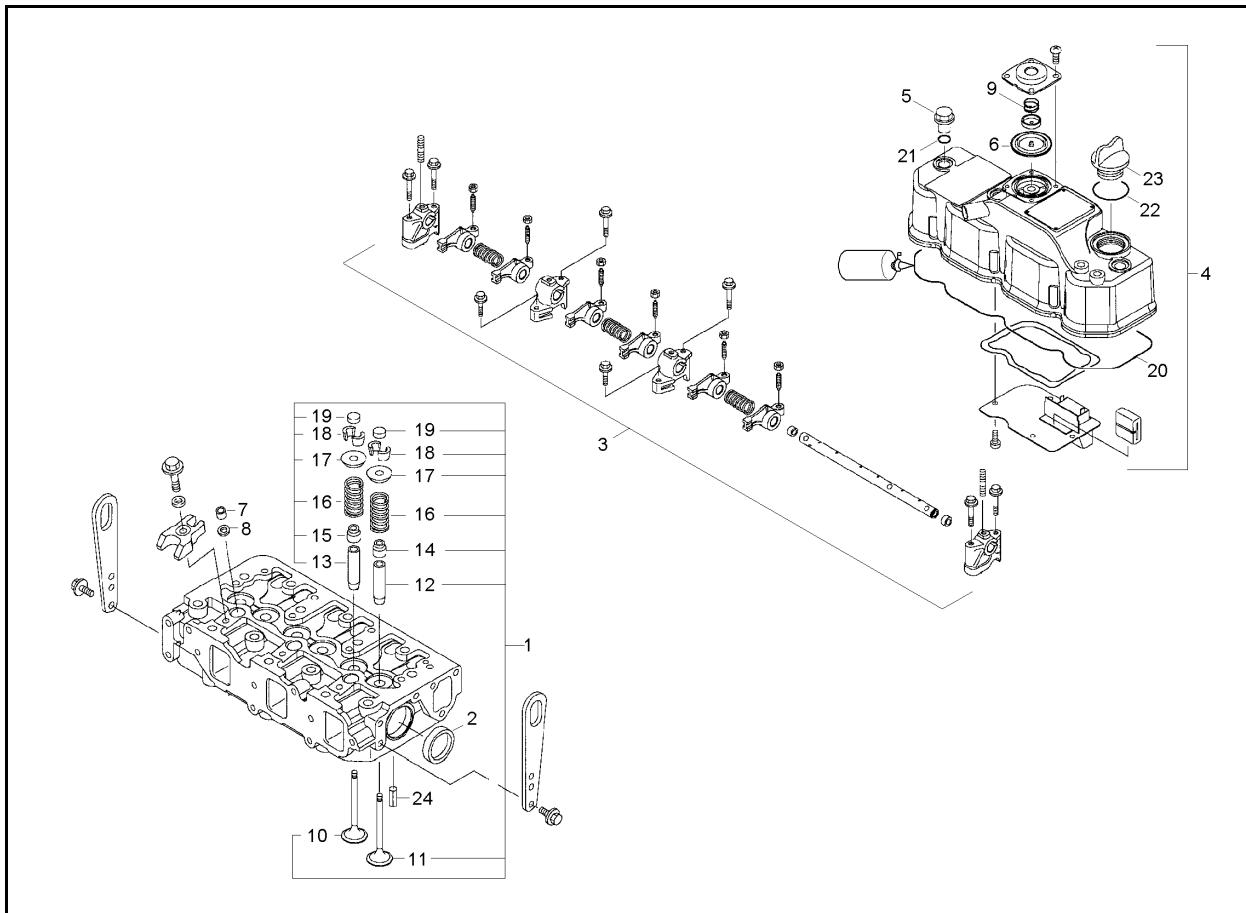
1000115907



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	162394	ENGINE MOUNT	1	9	177648	HEX SCREW	2
2	162392	ENGINE MOUNT	1	10	163670	LOCKWASHER	9
3	162395	ENGINE MOUNT	1	11	163634	WASHER	8
4	162393	ENGINE MOUNT	1	12	651395	CS M10-1.5 X 30 C10.9 ZY DIN931	4
5	651393	CS M10-1.5 X 25 C8.8 ZY	16	13	163642	WASHER	4
6	161669	LOCKWASHER S10	20	14	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	7
7	161640	WASHER/GR A 10.5	16	15	165224	GROUND CABLE	1
8	160645	MOTOR MOUNT	4	16	177461	EXTERNAL TOOTH LOCKWASHER	2

# 303 - CYLINDER HEAD & VALVE COVER (TIER II)

1000127559 - (SN AD01820 - AE02400)



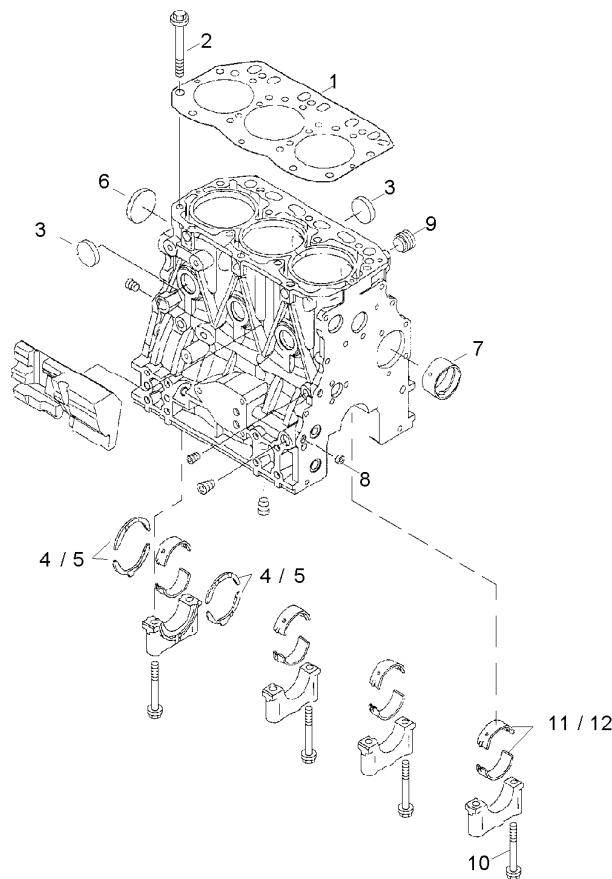
**Ref.**

No.	Part No.	Description	Qty.
1	206066	CYLINDER HEAD	1
2	177236	PLUG	2
3	206071	ROCKER ARM ASSY	1
4	206070	VALVE COVER ASSY	1
5	206385	HEADNUT	3
6	206383	DIAPHRAM	1
7	177350	SHIELD	3
8	206380	SEAL RING	3
9	206382	SPRING	1
10	177291	EXHAUST VALVE	3
11	177292	INTAKE VALVE	3
12	177293	GUIDE	3

**Ref.**

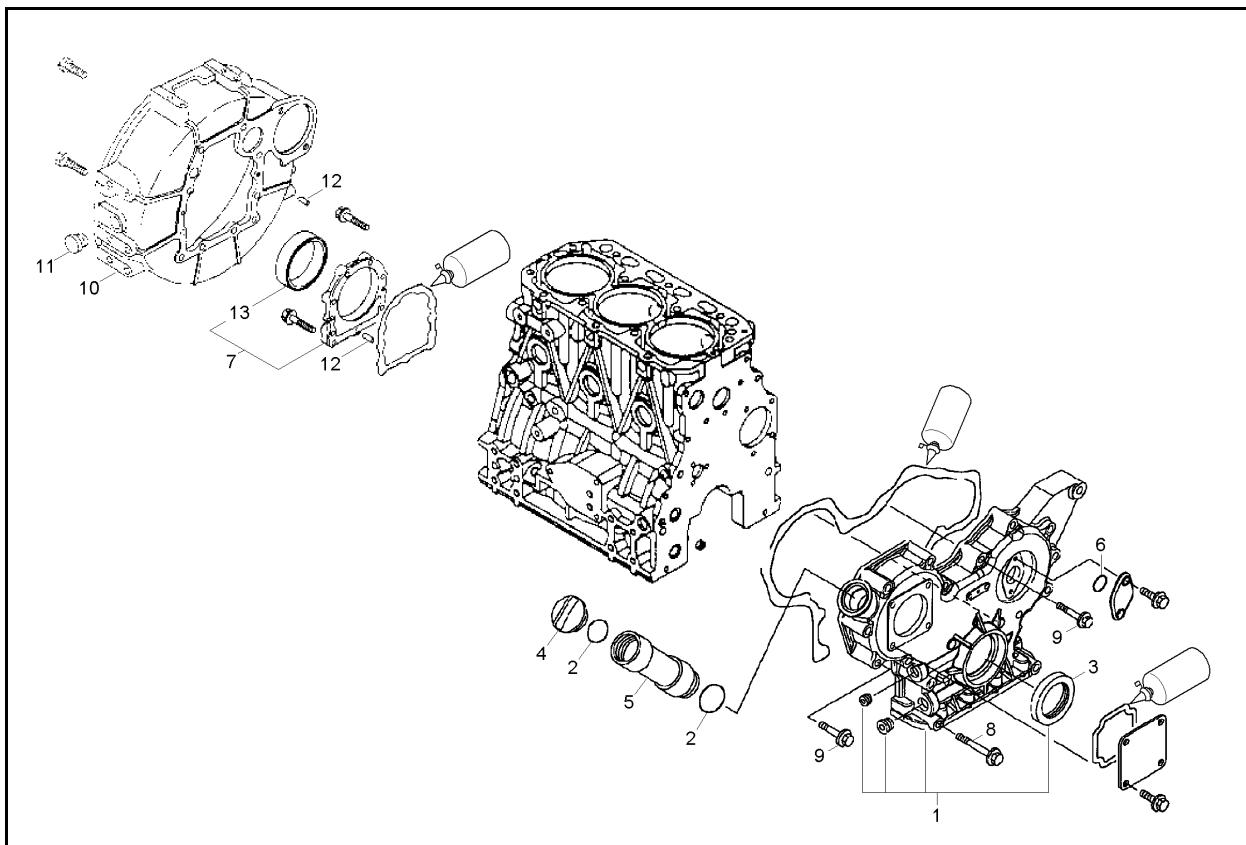
No.	Part No.	Description	Qty.
13	177255	VALVE	3
14	206068	SEAL	3
15	177246	SEAL KIT	3
16	177295	SPRING	6
17	177296	SPACER	6
18	177297	CLAMP	6
19	206069	CAP	6
20	177417	VALVE COVER GASKET	1
21	164666	O-RING	3
22	177242	O-RING	1
23	164662	FILLER CAP	1
24	178497	PIN/DOWEL	2

**303 - CYLINDER BLOCK (TIER II)**  
**1000127575 - (SN AD01820 - AE02400)**



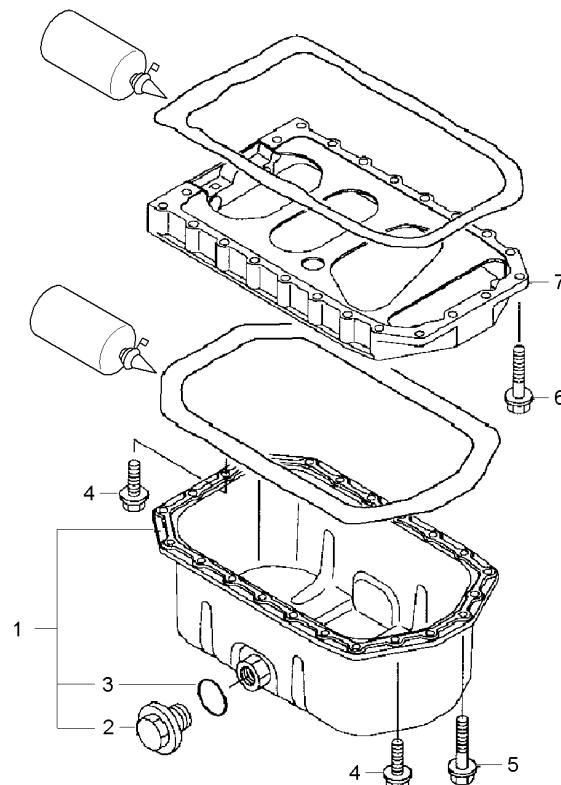
Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	425-36241	GASKET		1	7	177290	BUSHING		1
2	206387	CYLINDER HEAD SCREW		14	8	177260	PLUG		2
3	0210110506	COVER		6	9	206388	PLUG		1
4	177240	AXIAL BEARING		2	10	206389	SCREW		8
5	177362	AXIAL BEARING (OS = 0.25)		2	11	177288	MAIN BEARING SET		4
6	206065	PLUG		1	12	177241	MAIN BEARING SET (US = 0.25)		4

**303 - CRANKSHAFT SEAL (TIER II)**  
**1000127571 - (SN AD01820 - AE02400)**



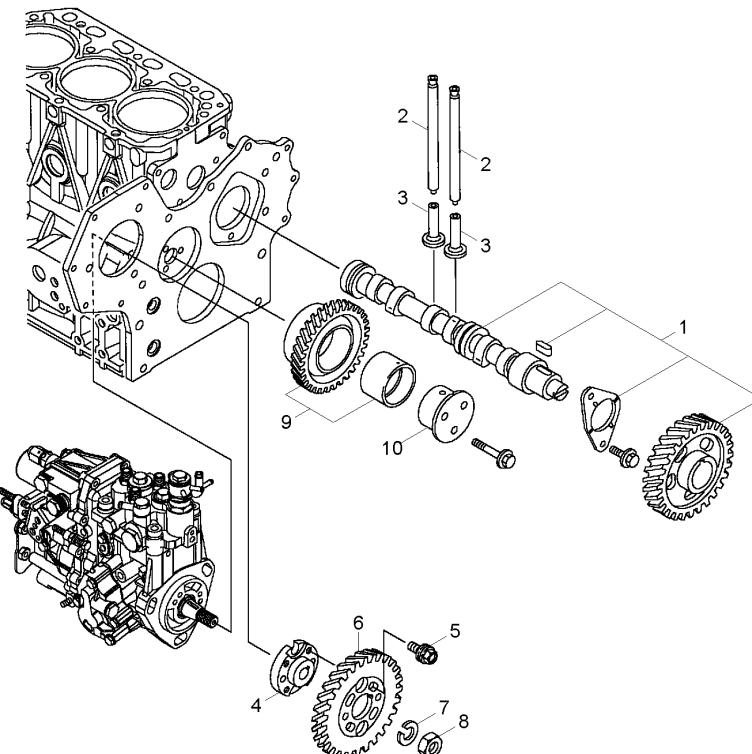
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177321	GEARBOX ASSY W/SHAFT SEAL	1	8	177322	SCREW	3
2	177242	O-RING	2	9	164434	SCREW	12
3	177238	SHAFT SEAL	1	10	177326	FLYWHEEL HOUSING	1
4	164662	FILLER CAP	1	11	177249	RUBBER PLUG	1
5	177250	OIL FILLER PIPE	1	12	208161	FITTING PIN	2
6	164779	O-RING	1	13	177324	SEAL	1
7	177323	COVER	1				

**303 - OIL PAN (TIER II)**  
**1000127597 - (SN AD01820 - AE02400)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	160751	OIL PAN ASSY	1	5	177402	SCREW	20
2	425-34753	PLUG/OIL DRAIN	1	6	164438	SCREW	2
3	177665	O-RING	1	7	203833	SPACER	1
4	164316	SCREW M8 X 16 PLATED	4				

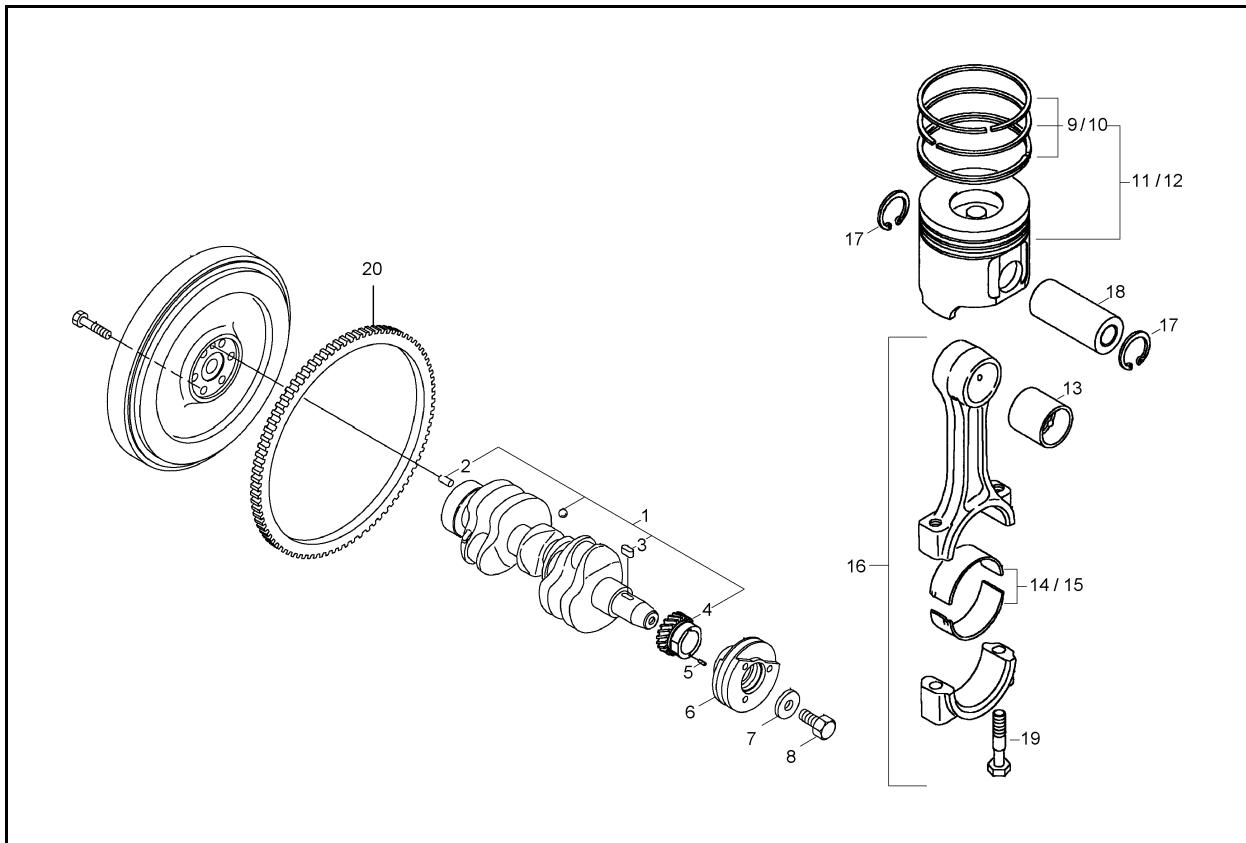
**303 - CAMSHAFT (TIER II)**  
**1000127560 - (SN AD01820 - AE02400)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	206073	CAMSHAFT ASSY	1	6	177300	GEAR	1
2	177270	PUSH ROD	6	7	177365	SPRING RING	1
3	177346	LIFTER	6	8	177366	NUT	1
4	177364	FLANGE	1	9	177303	GEAR	1
5	207036	SCREW	4	10	177302	BRACKET	1

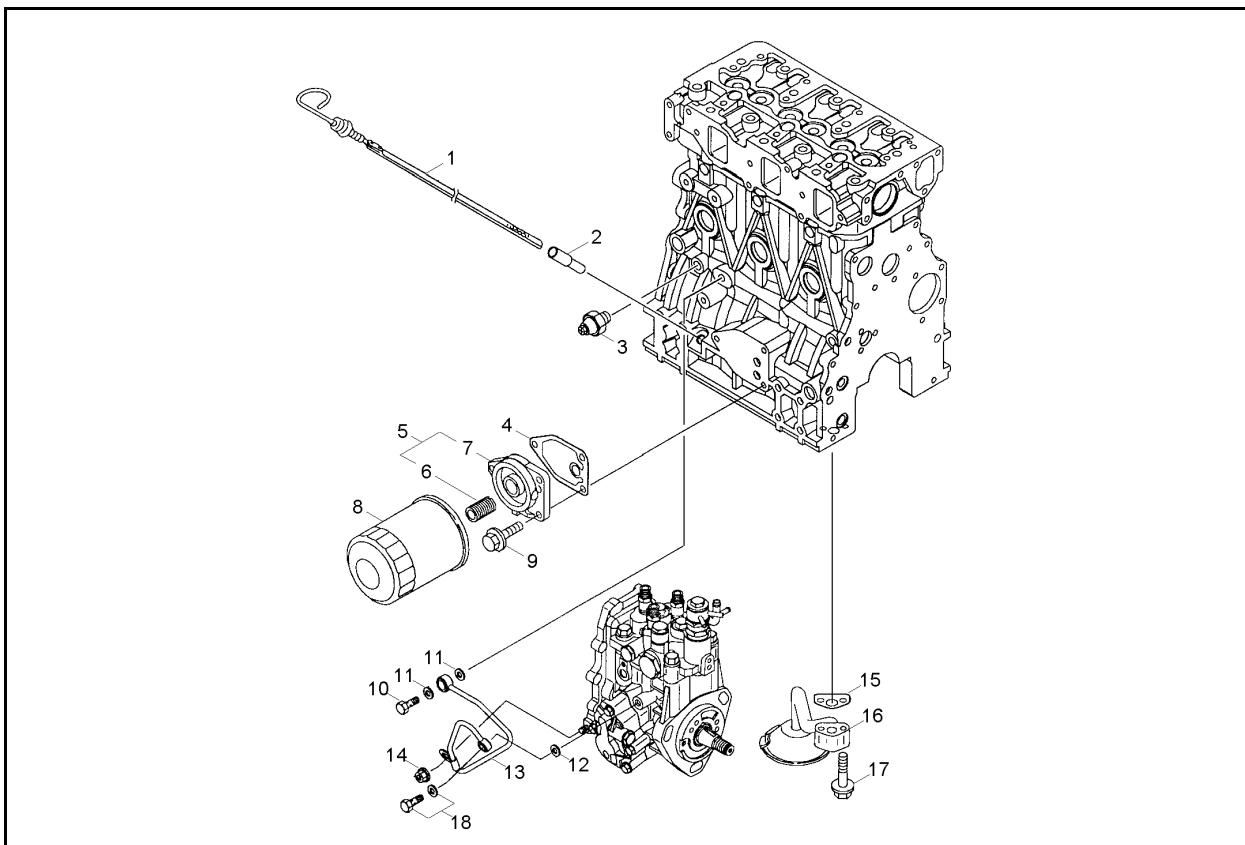
# 303 - CRANKSHAFT, PISTON (TIER II)

1000127558 - (SN AD01820 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	206074	CRANKSHAFT ASSY	1	11	177316	PISTON	3
2	208161	FITTING PIN	1	12	177357	PISTON (OS = 0.25)	3
3	177301	FITTING KEY	1	13	177318	BUSHING	3
4	177354	GEAR	1	14	177319	CONN. ROD BEARING	3
5	177313	SPRING PIN	1	15	177269	CONN. ROD BEARING (US = 0.25)	3
6	206075	BELT PULLEY	1	16	177258	CONNECTING ROD	3
7	206076	SPACER	1	17	177315	LOCK RING	6
8	206077	SCREW	1	18	177317	PIN	3
9	177314	SET/BACKUP RINGS	3	19	206909	SCREW	6
10	177356	SET/BACKUP RINGS (OS = 0.25)	3	20	209482	RING GEAR	1

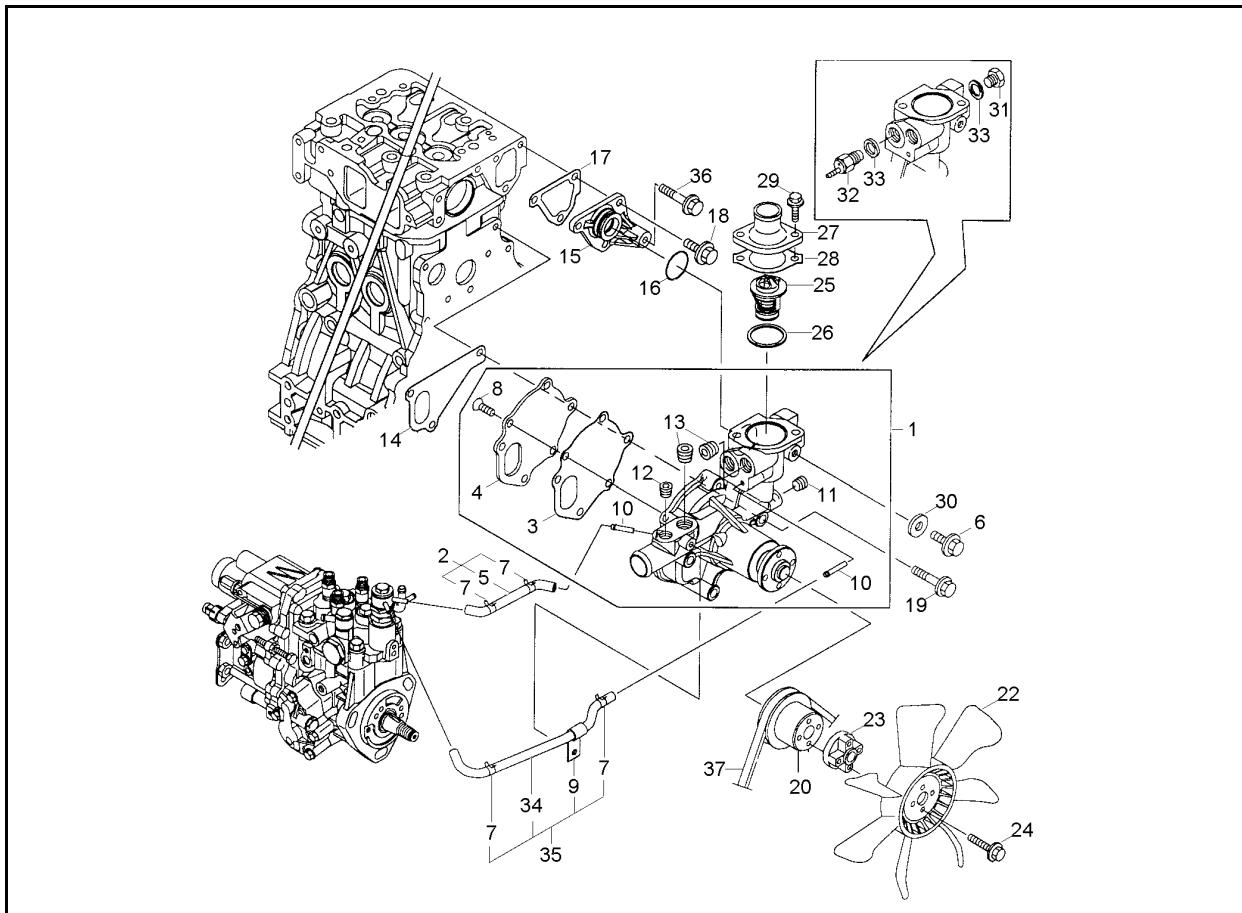
**303 - OIL LUBRICATION SYSTEM (TIER II)**  
**1000127615 - (SN AD01820 - AE02400)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177359	DIPSTICK	1	10	209922	BANJO BOLT	1
2	177234	DIPSTICK TUBE	1	11	209549	SEAL RING	2
3	425-36085	SENDER/OIL PRESSURE	1	12	177462	SEAL RING	1
4	177257	FILTER BASE GASKET	1	13	177328	PIPE LINE	1
5	177360	FILTER HOUSING ASSY	1	14	209970	NUT	1
6	206395	SCREW JOINT	1	15	177251	OIL SUMP GASKET	1
7	206079	FILTER BASE	1	16	206058	OIL SUMP	1
8	179122	ENGINE OIL FILTER	1	17	206067	SCREW	2
9	177256	SCREW	3	18	177100	BANJO BOLT	1

# 303 - COOLING SYSTEM (TIER II)

1000127554 - (SN AD01820 - AE02400)



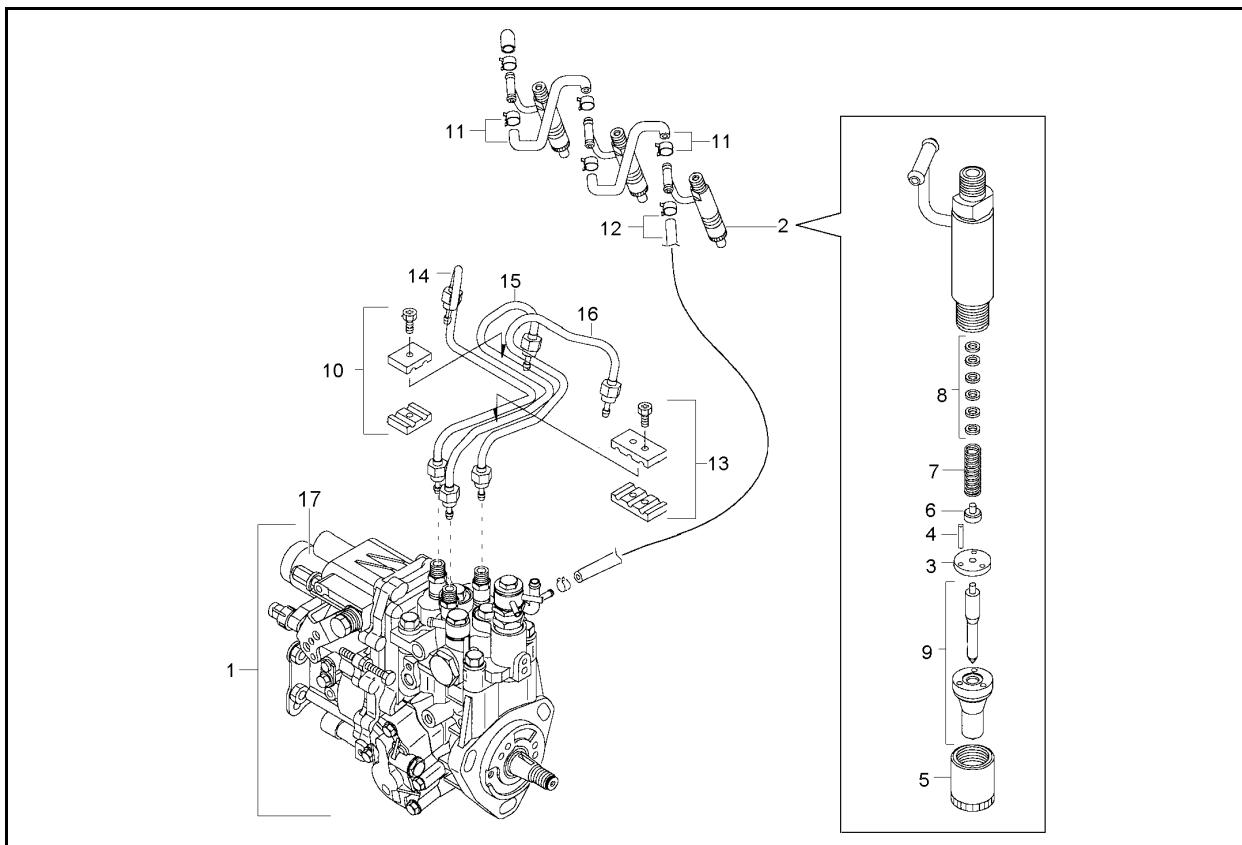
## Ref.

No.	Part No.	Description	Qty.
1	177274	WATER PUMP	1
2	177339	PIPE LINE	1
3	177275	WATER PUMP GASKET	1
4	177330	PLATE	1
5	177340	PIPE LINE	1
6	164315	SCREW M8 X 12 PLATED	1
7	177338	CLAMP	4
8	177331	SCREW	3
9	177337	CLAMP	1
10	177376	PIPE LINE	2
11	177332	PLUG	1
12	177333	PLUG	1
13	177377	PLUG	2
14	177273	WATER PUMP SEAL	1
15	177334	PLATE	1
16	177271	O-RING	1
17	0210111308	SEAL	1
18	164316	SCREW M8 X 16 PLATED	3
19	164435	SCREW	3

## Ref.

No.	Part No.	Description	Qty.
20	209474	BELT PULLEY (SN AE00434 - AE02400)	1
	177248	BELT PULLEY (SN AD01820 - AE00433)	1
22	177632	RADIATOR FAN	1
23	177265	FAN SPACER	1
24	177351	SCREW	4
25	425-34661	THERMOSTAT	1
26	177237	GASKET THERMOSTAT	1
27	177254	THERMOSTAT HOUSING	1
28	425-34704	GASKET/UPPER	1
29	164346	SCREW	2
30	177261	ENGINE GASKET	1
31	164441	PLUG	1
32	425-34683	SENSOR/THERMOSTAT 110°C	1
33	160427	SEAL	2
34	177336	PIPE LINE	1
35	177335	PIPE LINE	1
36	177402	SCREW	1
37	177630	V-BELT	1

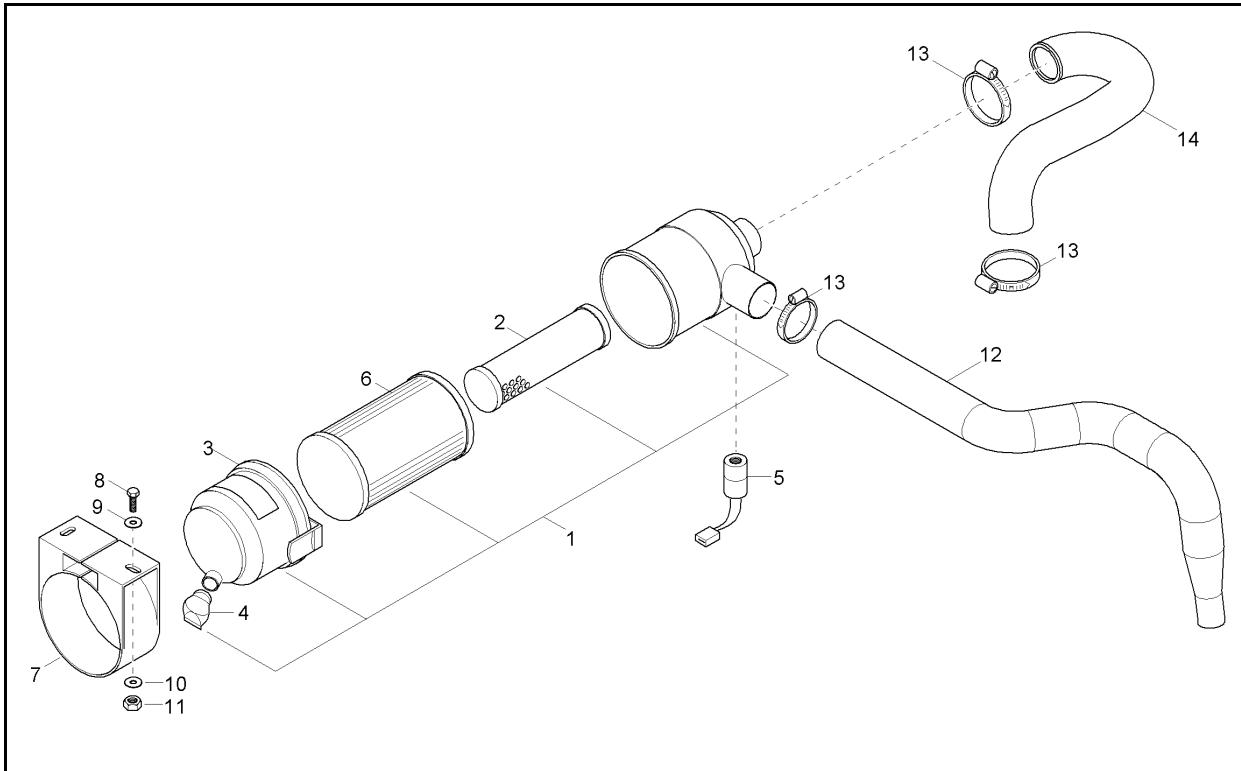
**303 - FUEL INJECTION SYSTEM (TIER II)**  
**1000127705 - (SN AD01820 - AE02400)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177382	INJECTION PUMP	1	10	206363	CLAMP	1
2	177379	INJECTION NOZZLE ASSY	3	11	209933	BLEED LINE	2
3	164372	STOP PLATE	3	12	177358	TUBE	1
4	164373	PIN	6	13	177344	CLAMP	1
5	164368	NUT	3	14	177343	INJECTION LINE	1
6	164371	SEAT/NOZZLE SPRING	3	15	177342	INJECTION LINE	1
7	164370	NOZZLE SPRING	3	16	177341	INJECTION LINE	1
8	164663	ADJUSTING WASHER	AR	17	189575	SOLENOID/STOP	1
9	177380	NOZZLE	3				

# 303 - AIR INTAKE SYSTEM (TIER II)

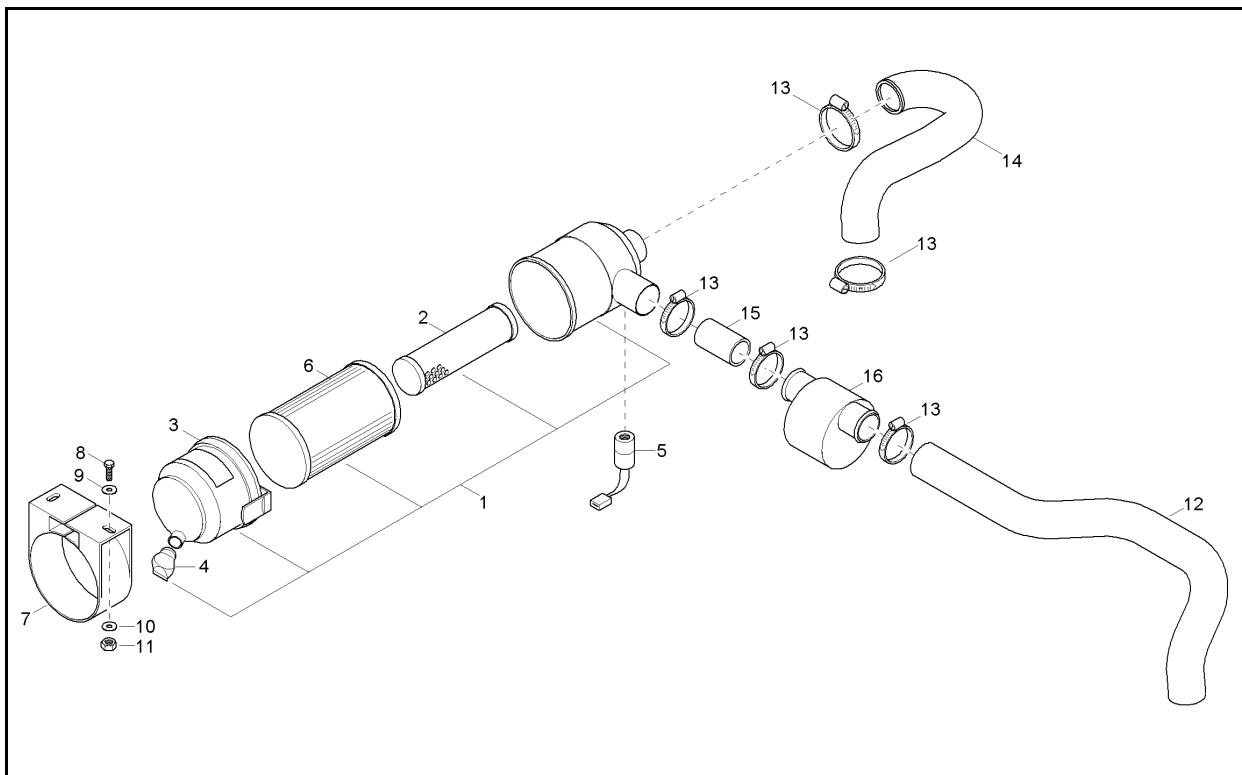
1000156506 - (SN AE00434 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165272	AIR FILTER COMPLETE	1	8	651433	HB M8-1.25 X 40 C8.8 ZY	2
2	165294	AIR FILTER ELEMENT/INNER	1	9	163634	WASHER	2
3	165295	COVER	1	10	7462680011	WASHER 8.4 ST A2C	2
4	165296	DUST VALVE	1	11	651458	LN INS M8-1.25 C8 ZY DIN6924	2
5	164337	DIRT INDICATOR	1	12	203836	SUCTION HOSE	1
6	165293	AIR FILTER ELEMENT/OUTER	1	13	162611	HOSE CLAMP	3
7	165273	COLLAR	1	14	178989	SUCTION HOSE	1

# 303 - AIR INTAKE SYSTEM (TIER II)

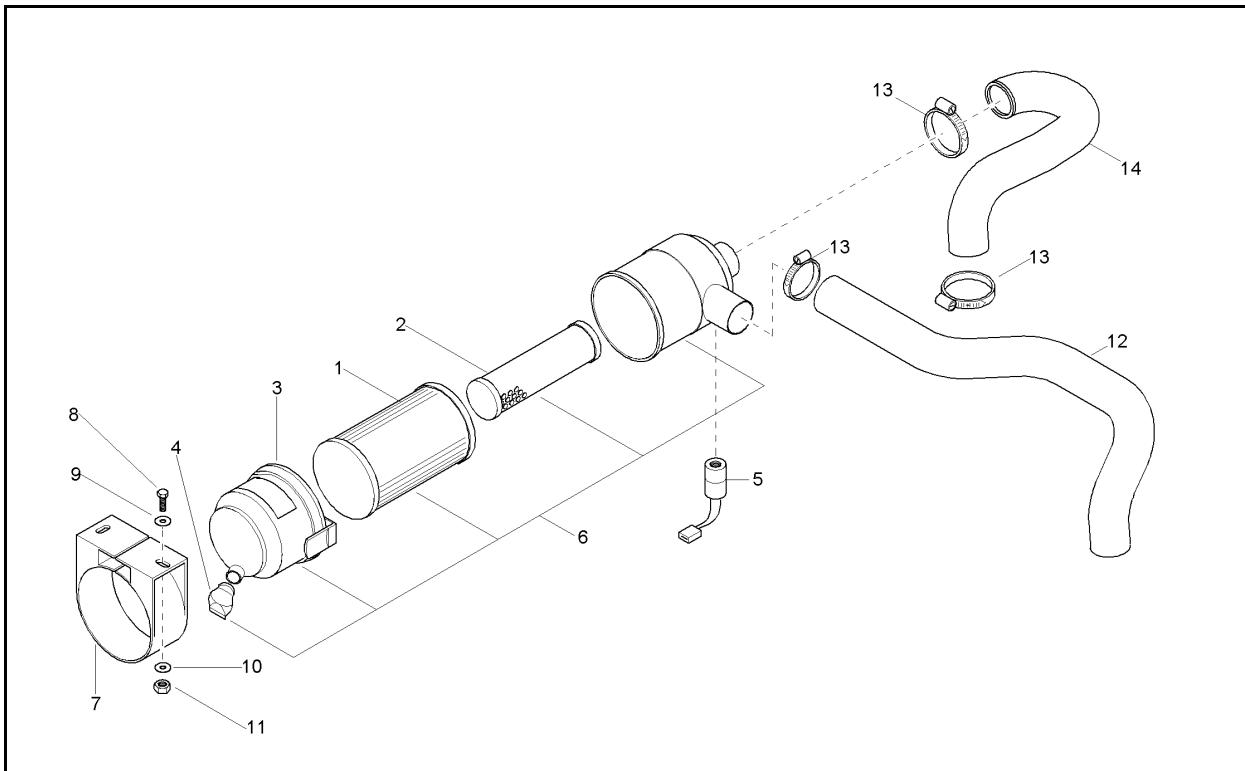
1000127530 - (SN AD01820 - AE00433)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165272	AIR FILTER COMPLETE	1	9	163634	WASHER	2
2	165294	AIR FILTER ELEMENT/INNER	1	10	7462680011	WASHER 8.4 ST A2C	2
3	165295	COVER	1	11	651458	LN INS M8-1.25 C8 ZY DIN6924	2
4	165296	DUST VALVE	1	12	177424	AIR SUCTION HOSE	1
5	164337	DIRT INDICATOR	1	13	162611	HOSE CLAMP	5
6	165293	AIR FILTER ELEMENT/OUTER	1	14	178989	AIR SUCTION HOSE	1
7	165273	COLLAR	1	15	177425	AIR SUCTION HOSE	1
8	651433	HB M8-1.25 X 40 C8.8 ZY	2	16	425-36101	MUFFLER/INLET	1

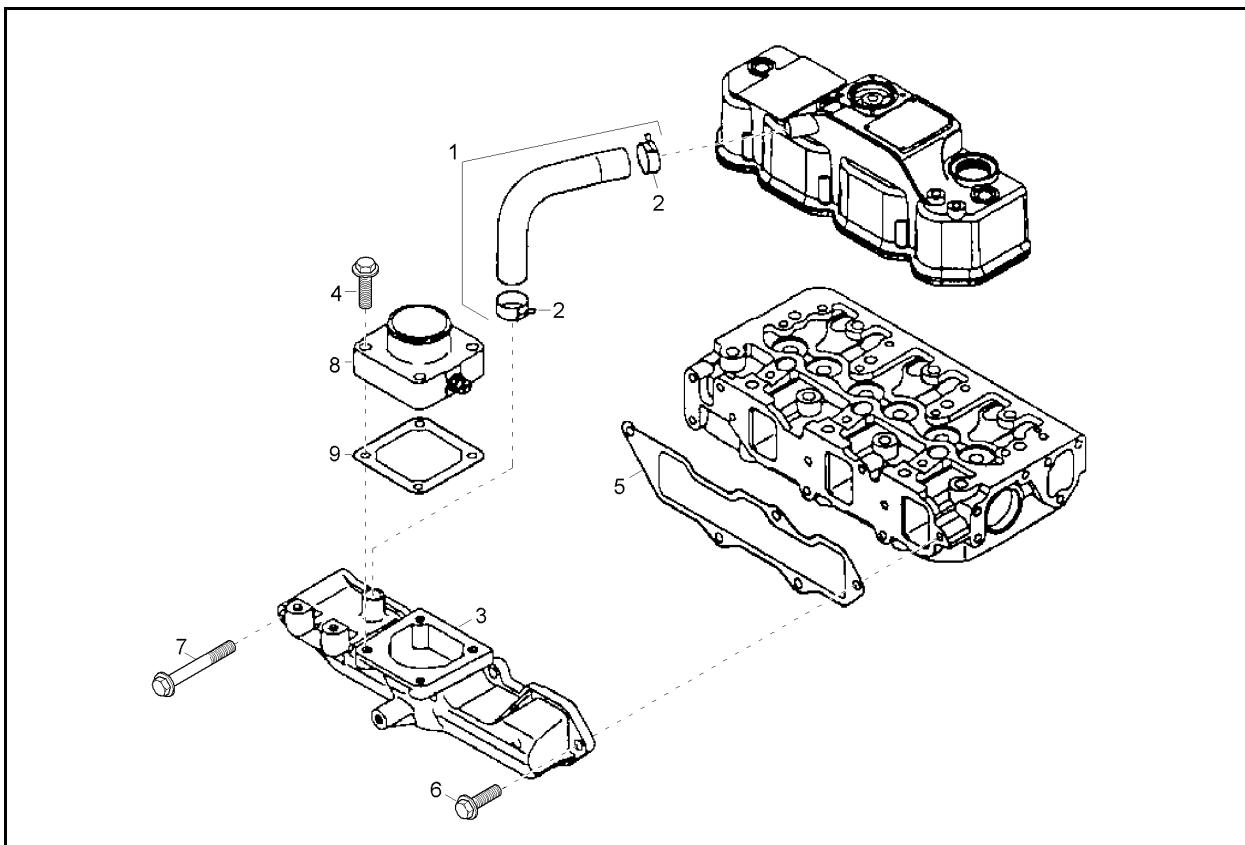
# 303 - AIR INTAKE SYSTEM (TIER I)

1000115910 - (SN AD00001 - AD01819)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165293	AIR FILTER ELEMENT/OUTER	1	8	651433	HB M8-1.25 X 40 C8.8 ZY	2
2	165294	AIR FILTER ELEMENT/INNER	1	9	163634	WASHER	2
3	165295	COVER	1	10	7462680011	WASHER 8.4 ST A2C	2
4	165296	DUST VALVE	1	11	651458	LN INS M8-1.25 C8 ZY DIN6924	2
5	164337	DIRT INDICATOR	1	12	165258	SUCTION HOSE	1
6	165272	AIR FILTER COMPLETE	1	13	162611	HOSE CLAMP	4
7	165273	COLLAR	1	14	178989	SUCTION HOSE	1

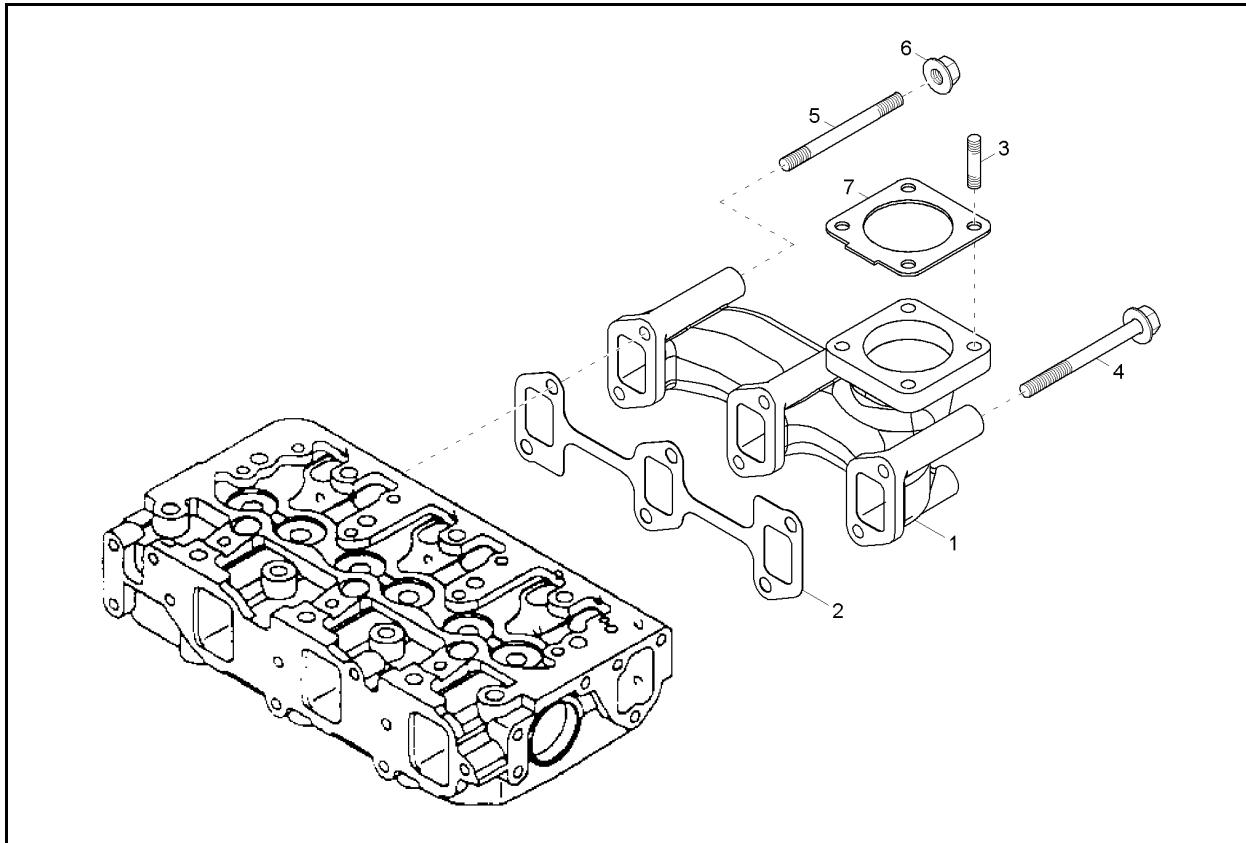
**303 - INTAKE MANIFOLD (TIER II)**  
**1000127573 - (SN AD01820 - AE02400)**



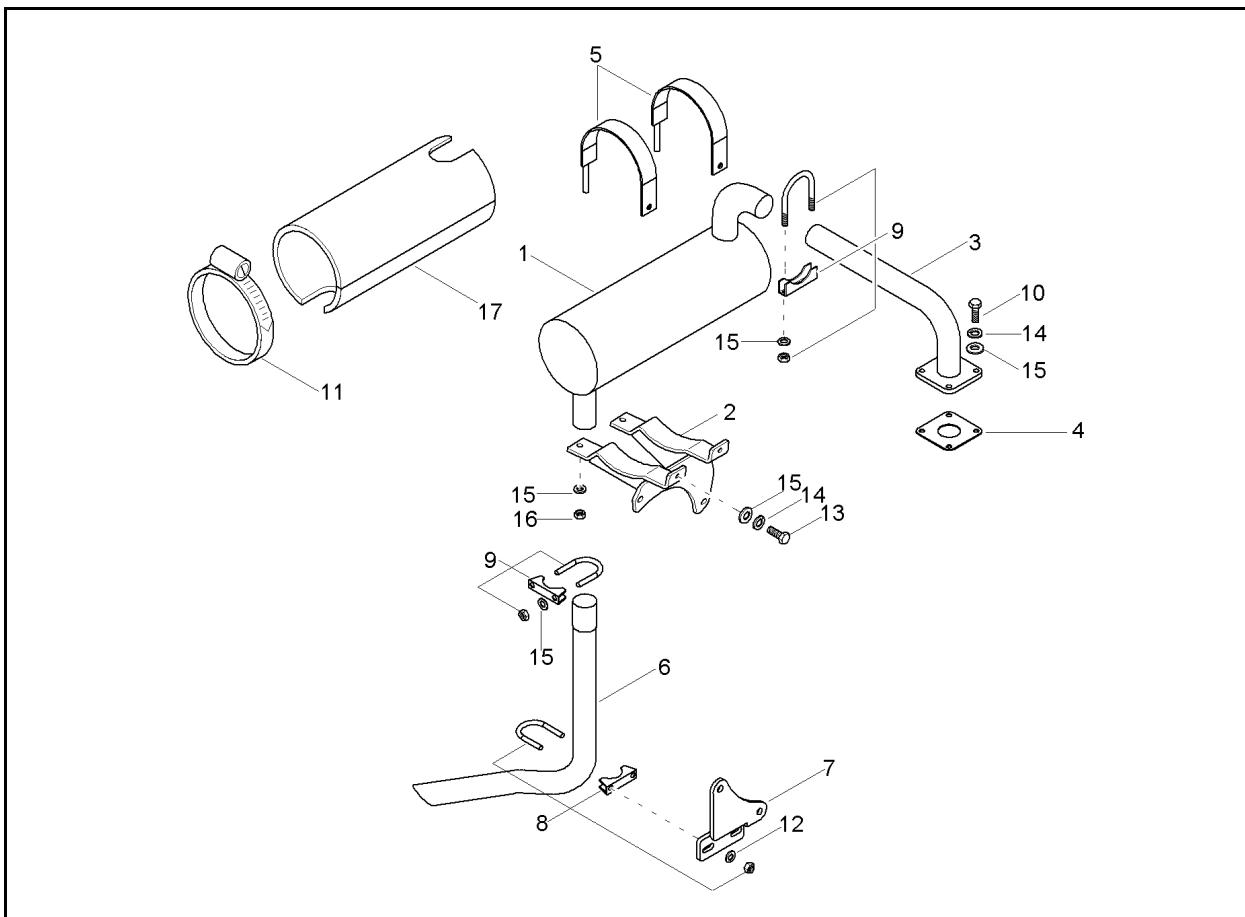
Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	177304	BREATHER		1	6	177256	SCREW		4
2	177305	CLAMP		2	7	177272	SCREW		1
3	201959	INTAKE MANIFOLD		1	8	425-35492	INTAKE FLANGE		1
4	177264	SCREW		4	9	177268	INTAKE FLANGE GASKET		1
5	177235	INTAKE MANIFOLD GASKET		1					

# 303 - EXHAUST MANIFOLD (TIER II)

1000127594 - (SN AD01820 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177381	EXHAUST MANIFOLD	1	5	164350	STUD BOLT	2
2	177307	EXHAUST MANIFOLD GASKET	1	6	177400	HEX NUT	2
3	177401	STUD BOLT	4	7	177311	GASKET	1
4	177205	SCREW	4				



## Ref.

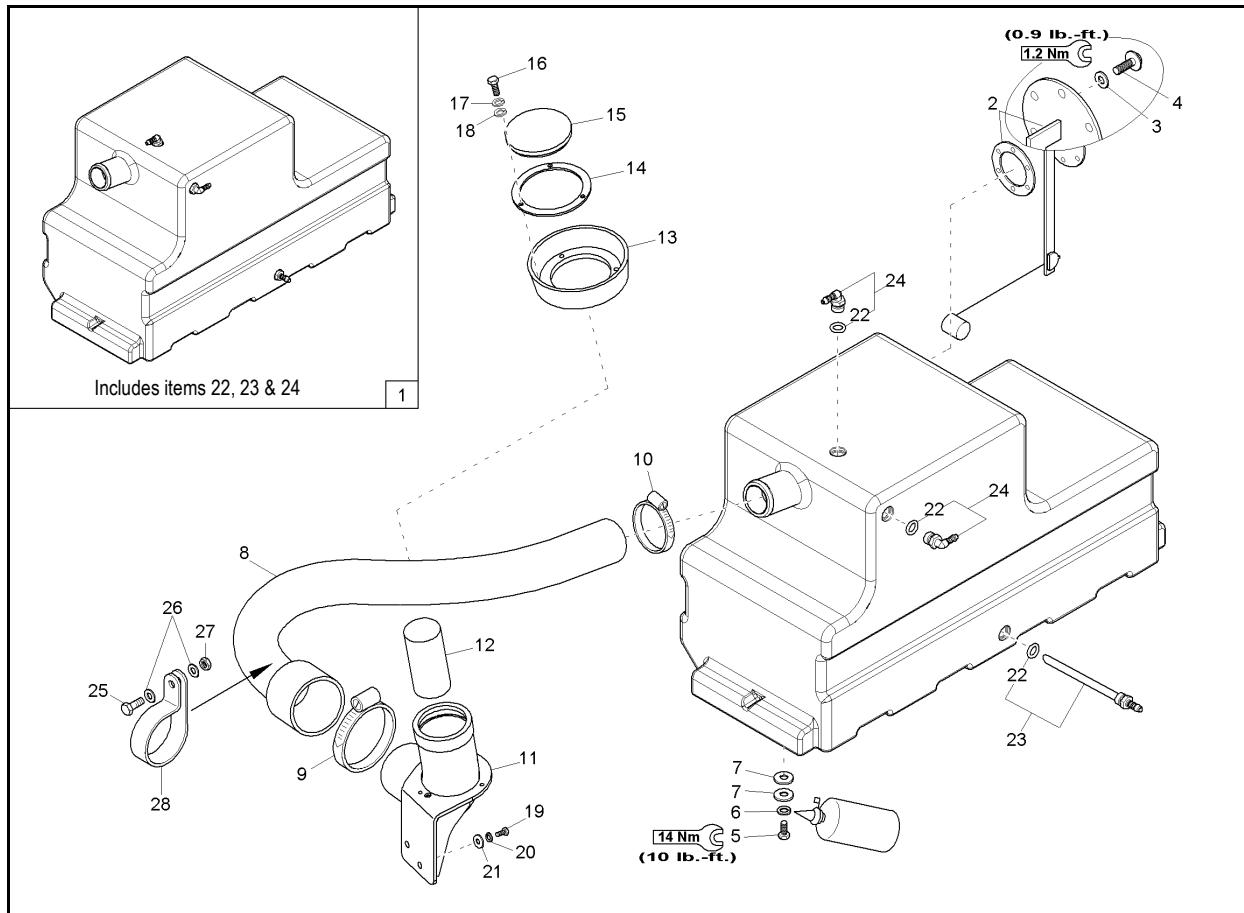
No.	Part No.	Description	Qty.
1	206091	MUFFLER	1
2	178991	BRACKET	1
3	178990	EXHAUST PIPE/MANIFOLD	1
4	425-36251	GASKET	1
5	178992	CLAMP	2
6	165248	EXHAUST PIPE/MUFFLER	1
7	178993	BRACKET	1
8	165822	CLAMP ASSY	1
9	160848	CLAMP ASSY	2

## Ref.

No.	Part No.	Description	Qty.
10	656105	CS M8-1.25 X 25 C8.8 ZY DIN931	4
11	178929	HOSE CLAMP	1
12	7462680011	WASHER 8.4 ST A2C	2
13	177648	HEX SCREW	2
14	163670	LOCKWASHER	6
15	163634	WASHER	10
16	656048	HN M8-1.25 C8 ZY DIN934	2
17	178926	ISOLATION MAT	1

# 303 - FUEL TANK

1000171462 - (SN AE02035 - AE02400)



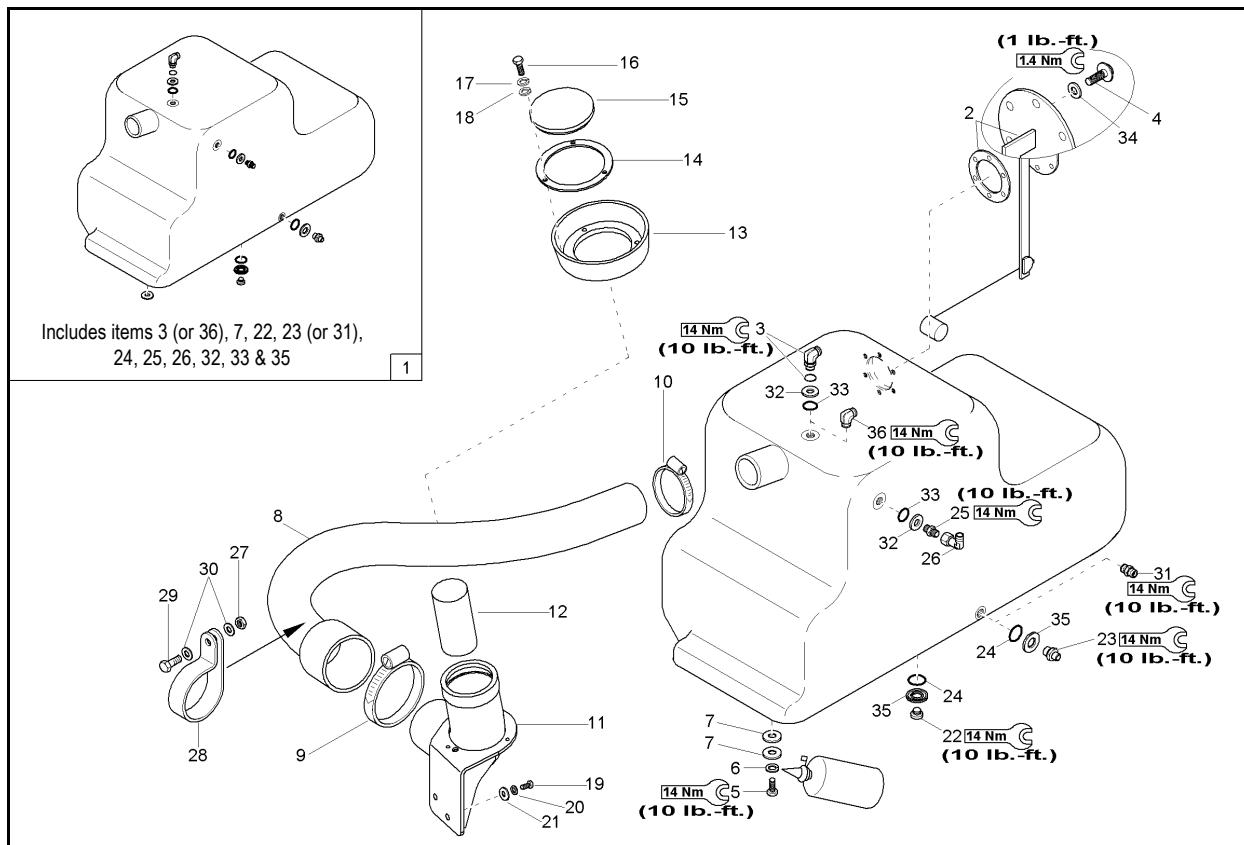
**Ref.**

No.	Part No.	Description	Qty.
1	204881	FUEL TANK	1
2	207037	SENDER	1
3	206809	RUBBER WASHER	6
4	206808	CS M4-0.7 X 16 C8.8 ZY	6
5	651393	CS M10-1.5 X 25 C8.8 ZY	4
6	161669	LOCKWASHER S10	4
7	161663	WASHER/GR A 10.5 ZO	8
8	177427	PRESHAPED HOSE	1
9	165270	HOSE CLAMP	1
10	162611	HOSE CLAMP	1
11	177426	TANK FILLER NECK	1
12	160436	STRAINER/FUEL TANK	1
13	165072	RING	1
14	165073	BRACKET	1

**Ref.**

No.	Part No.	Description	Qty.
15	165110	FUEL CAP	1
16	651505	SHCS M5-0.8 X 20 C8.8 ZY DIN912	3
17	161674	LOCKWASHER S16	3
18	161659	WASHER/GR A 5.3 ZO DIN125	3
19	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	2
20	163670	LOCKWASHER	2
21	163634	WASHER	2
22	203298	O-RING	3
23	203568	FUEL LINE FITTING	1
24	203297	FUEL TANK FITTING	2
25	656149	CS M6-1 X 16 C8.8 ZY DIN931	1
26	7462680008	WASHER	2
27	161678	HN M6-1.00 C8 ZO	1
28	179860	HOSE BAND CLIP	1

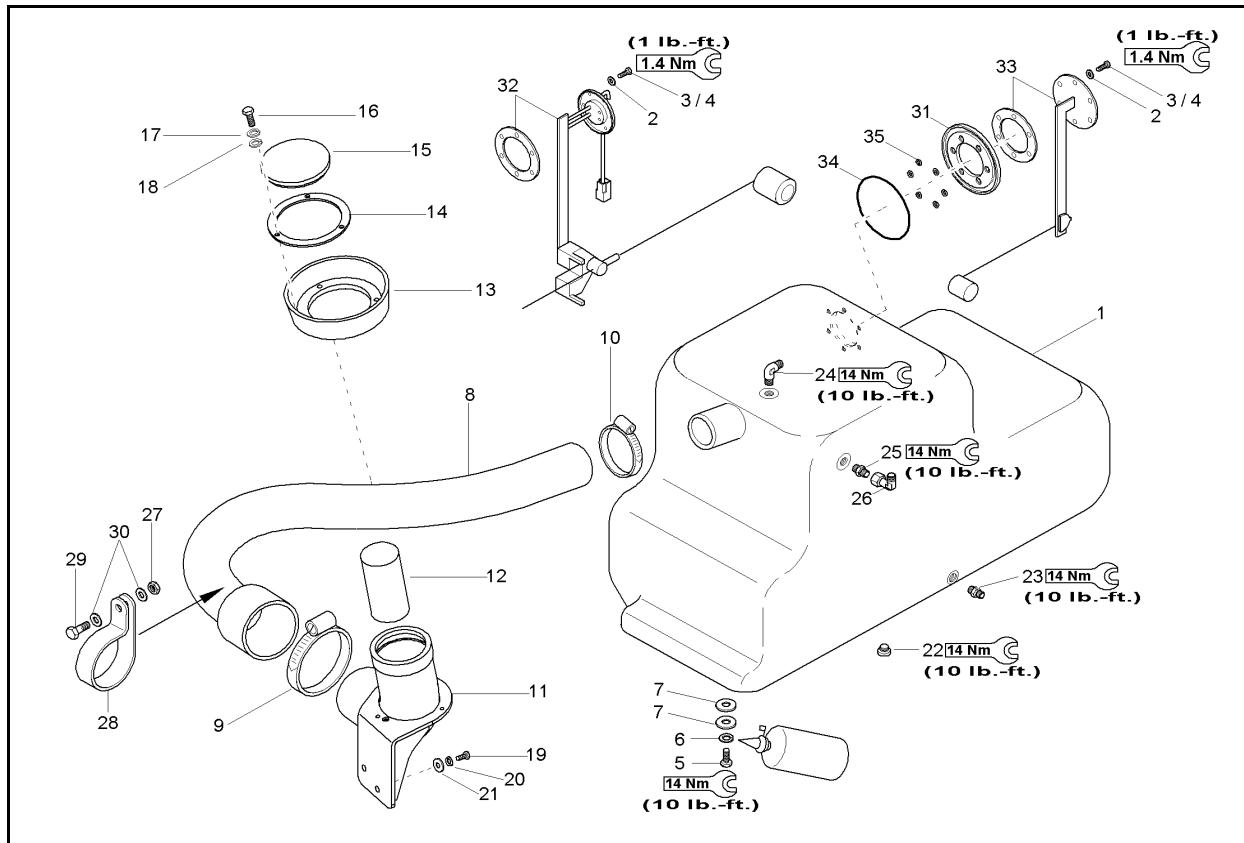
**303 - FUEL TANK**  
**1000151783 - (SN AD04214 - AE02034)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	204879	FUEL TANK KIT	1	21	163634	WASHER	2
2	207037	SENDER	1	22	206896	DRAIN PLUG	1
3	206935	90° FITTING (SN AD04397 - AE02034)	1	23	206936	SCREW JOINT (SN AD04397 - AE02034)	1
4	206808	SCREW M4 X 16	6	24	208346	O-RING (SN AD04397 - AE02034)	2
5	651393	CS M10-1.5 X 25 C8.8 ZY	4	25	161426	SCREW JOINT	1
6	161669	LOCKWASHER S10	4	26	161443	90° FITTING	1
7	161663	WASHER/GR A 10.5 ZO	8	27	161678	HN M6-1.00 C8 ZO	1
8	177427	PRESHAPED HOSE	1	28	179860	HOSE BAND CLIP	1
9	165270	HOSE CLAMP	1	29	656149	CS M6-1 X 16 C8.8 ZY DIN931	1
10	162611	HOSE CLAMP	1	30	7462680008	WASHER	2
11	177426	TANK FILLER NECK	1	31	165970	SCREW JOINT (SN AD04214 - AD04396)	1
12	160436	STRAINER/FUEL TANK	1	32	206933	WASHER (SN AD04397 - AE02034)	2
13	165072	RING	1	33	163379	O-RING (SN AD04397 - AE02034)	2
14	165073	BRACKET	1	34	206809	RUBBER WASHER	6
15	165110	FUEL CAP	1	35	206934	WASHER (SN AD04397 - AE02034)	2
16	651505	SHCS M5-0.8 X 20 C8.8 ZY DIN912	3	36	161438	ELBOW (SN AD04214 - AD04396)	1
17	161674	LOCKWASHER S16	3				
18	161659	WASHER/GR A 5.3 ZO DIN125	3				
19	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	2				
20	163670	LOCKWASHER	2				

# 303 - FUEL TANK

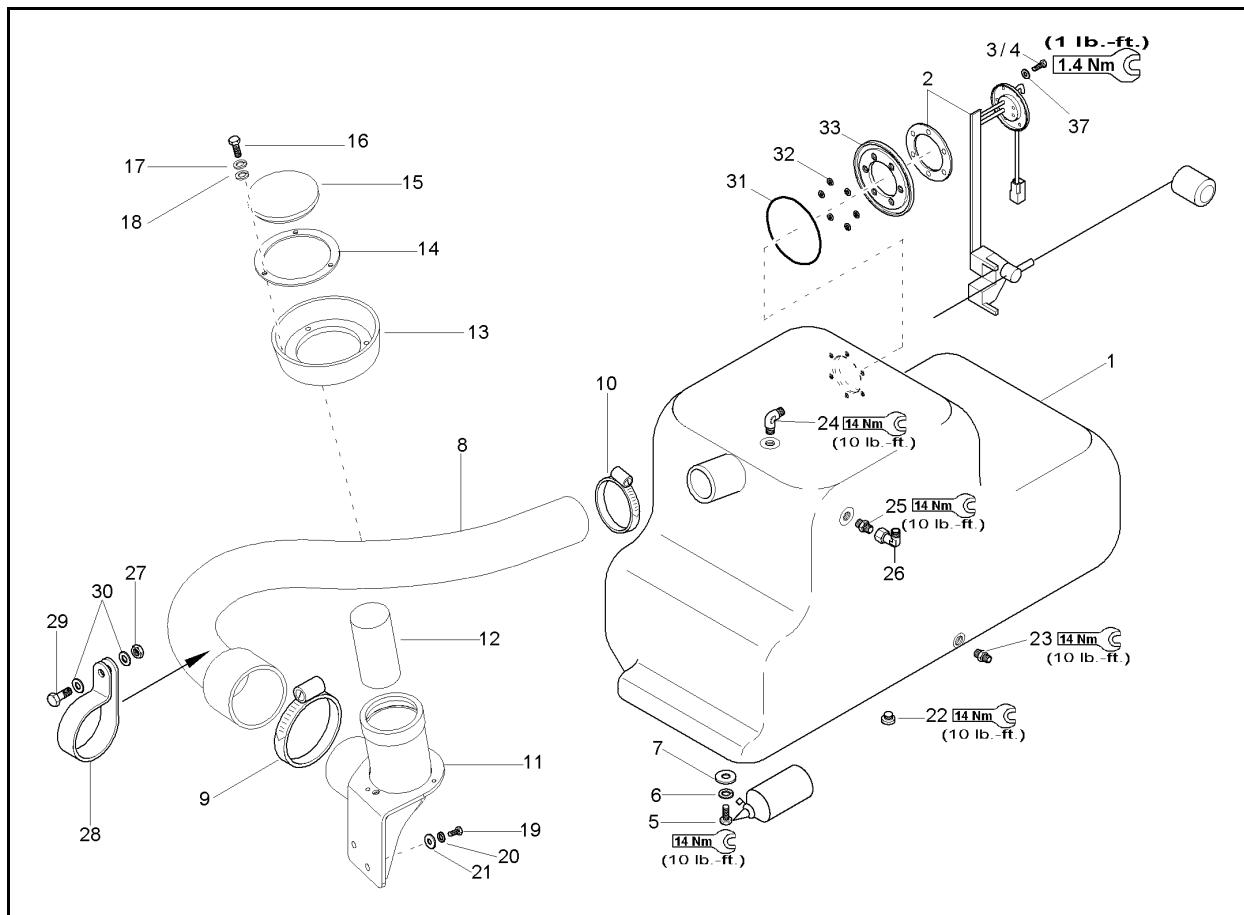
1000127529 - (SN AD01820 - AD04213)



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	204879	FUEL TANK KIT*		1	20	163670	LOCKWASHER		2
2	161658	WASHER/GR A 4.3 ZO DIN125		6	21	163634	WASHER		2
3	163343	CS M4-0.7 X 12 C8.8 ZY		6	22	206896	DRAIN PLUG		1
4	651421	CS M4-0.7 X 16 C8.8 ZY DIN931		6	23	165970	SCREW JOINT		1
5	651393	CS M10-1.5 X 25 C8.8 ZY		4	24	161438	ELBOW		1
6	161669	LOCKWASHER S10		4	25	161426	SCREW JOINT		1
7	161663	WASHER/GR A 10.5 ZO		8	26	161443	90° FITTING		1
8	177427	PRESHAPED HOSE		1	27	161678	HN M6-1.00 C8 ZO		1
9	165270	HOSE CLAMP		1	28	179860	HOSE BAND CLIP		1
10	162611	HOSE CLAMP		1	29	656149	CS M6-1 X 16 C8.8 ZY DIN931		1
11	177426	TANK FILLER NECK		1	30	7462680008	WASHER		2
12	160436	STRAINER/FUEL TANK		1	31	206937	GASKET		1
13	165072	RING		1	32	1424404G	SENDER (SN AD01820 - AD03524)		1
14	165073	BRACKET		1	33	207037	SENDER (SN AD03525 - AD04213)		1
15	165110	FUEL CAP		1	34	206938	O-RING		1
16	651505	SHCS M5-0.8 X 20 C8.8 ZY DIN912		3	35	206939	O-RING		6
17	161674	LOCKWASHER S16		3					
18	161659	WASHER/GR A 5.3 ZO DIN125		3					
19	656093	CS M8-1.25 X 16 C8.8 ZY DIN931		2					

\* See page 29 for components included in tank kit.

**303 - FUEL TANK**  
**1000115912 - (SN AD00001 - AD01819)**



**Ref.**

No.	Part No.	Description	Qty.
1	204879	FUEL TANK KIT*	1
2	1424404G	SENDER	1
3	163343	CS M4-0.7 X 12 C8.8 ZY	6
4	651421	CS M4-0.7 X 16 C8.8 ZY DIN931	6
5	651393	CS M10-1.5 X 25 C8.8 ZY	4
6	161669	LOCKWASHER S10	4
7	161663	WASHER/GR A 10.5 ZO	8
8	165250	DIESEL HOSE	1
9	165270	HOSE CLAMP	1
10	162611	HOSE CLAMP	1
11	165074	TANK FILLER NECK	1
12	160436	STRAINER/FUEL TANK	1
13	165072	RING	1
14	165073	BRACKET	1
15	165110	FUEL CAP	1
16	651505	SHCS M5-0.8 X 20 C8.8 ZY DIN912	3
17	161674	LOCKWASHER S16	3
18	161659	WASHER/GR A 5.3 ZO DIN125	3
19	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	2
20	163670	LOCKWASHER	2

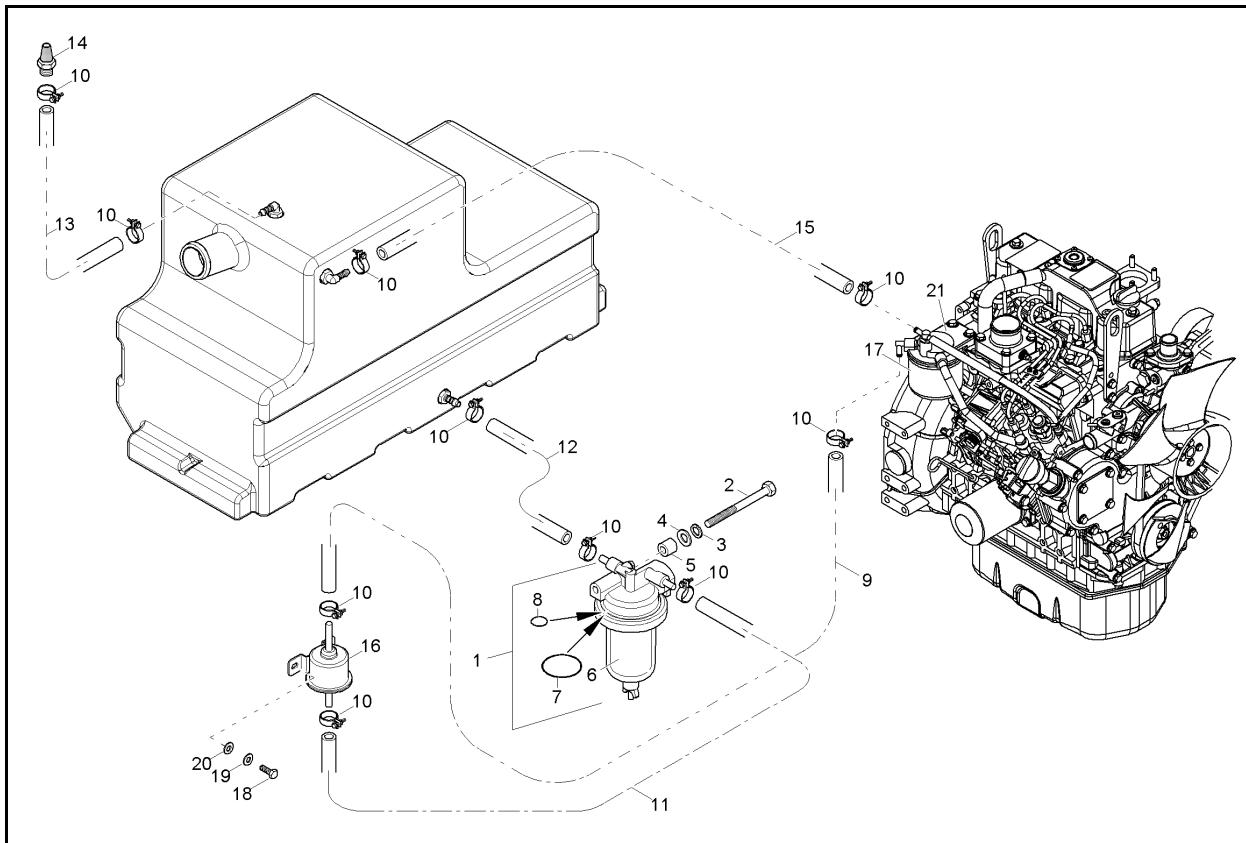
**Ref.**

No.	Part No.	Description	Qty.
21	163634	WASHER	2
22	206896	DRAIN PLUG (SN AD00111 - AD01819)	1
	161415	DRAIN PLUG (SN AD00001 - AD00111)	1
23	165970	SCREW JOINT (SN AD00111 - AD01819)	1
	161427	SCREW JOINT (SN AD00001 - AD00111)	1
24	161438	ELBOW	1
25	161426	SCREW JOINT	1
26	161443	90° FITTING	1
27	161678	HN M6-1.00 C8 ZO	1
28	179860	HOSE BAND CLIP	1
29	656149	CS M6-1 X 16 C8.8 ZY DIN931	1
30	7462680008	WASHER	2
31	206938	O-RING	1
32	206939	O-RING	6
33	206937	GASKET	1

\* See page 29 for components included in tank kit.

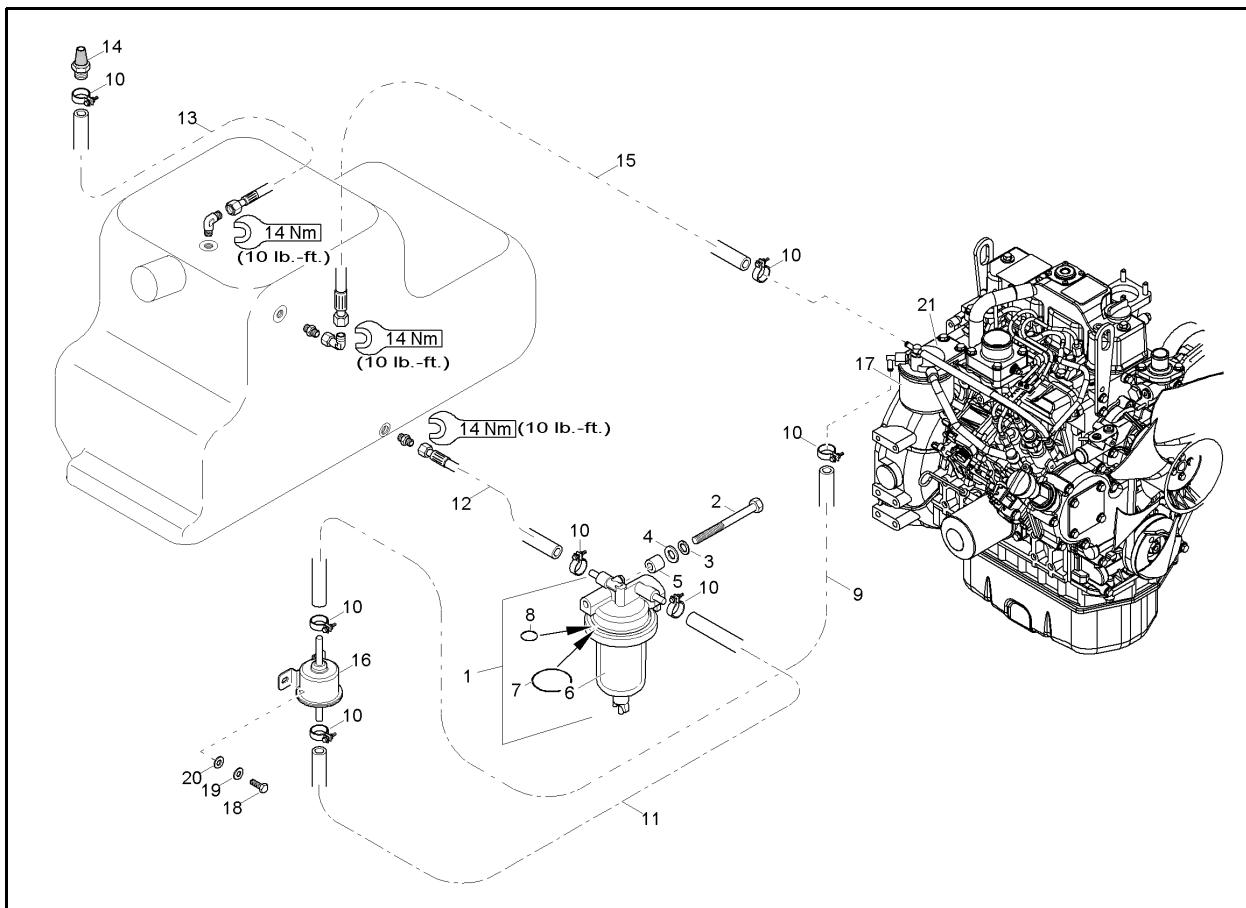
# 303 - FUEL SYSTEM

1000171463 - (SN AE02035 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177679	WATER SEPARATOR COMPLETE	1	12	207271	FUEL LINE (2.2M)	1
2	651440	HB M8-1.25 X 90 C8.8 ZY	1	13	207264	FUEL LINE (0.8M)	1
3	163670	LOCKWASHER	1	14	178965	FILTER	1
4	163634	WASHER	1	15	207270	FUEL LINE (2.0M)	1
5	162661	HOSE CLAMP	1	16	177699	FUEL PUMP	1
6	186340	FILTER/WATER SEPARATOR	1	17	137499	FUEL FILTER	1
7	177664	GASKET/FILTER HOUSING	1	18	9901671G	HEX HEAD SCREW	2
8	177659	O-RING	1	19	161675	LOCKWASHER S6	2
9	207258	FUEL LINE (0.4M)	1	20	7462680008	WASHER	2
10	162065	CLAMP	10	21	177893	BRACKET/FUEL FILTER	1
11	207262	FUEL LINE (0.5M)	1				

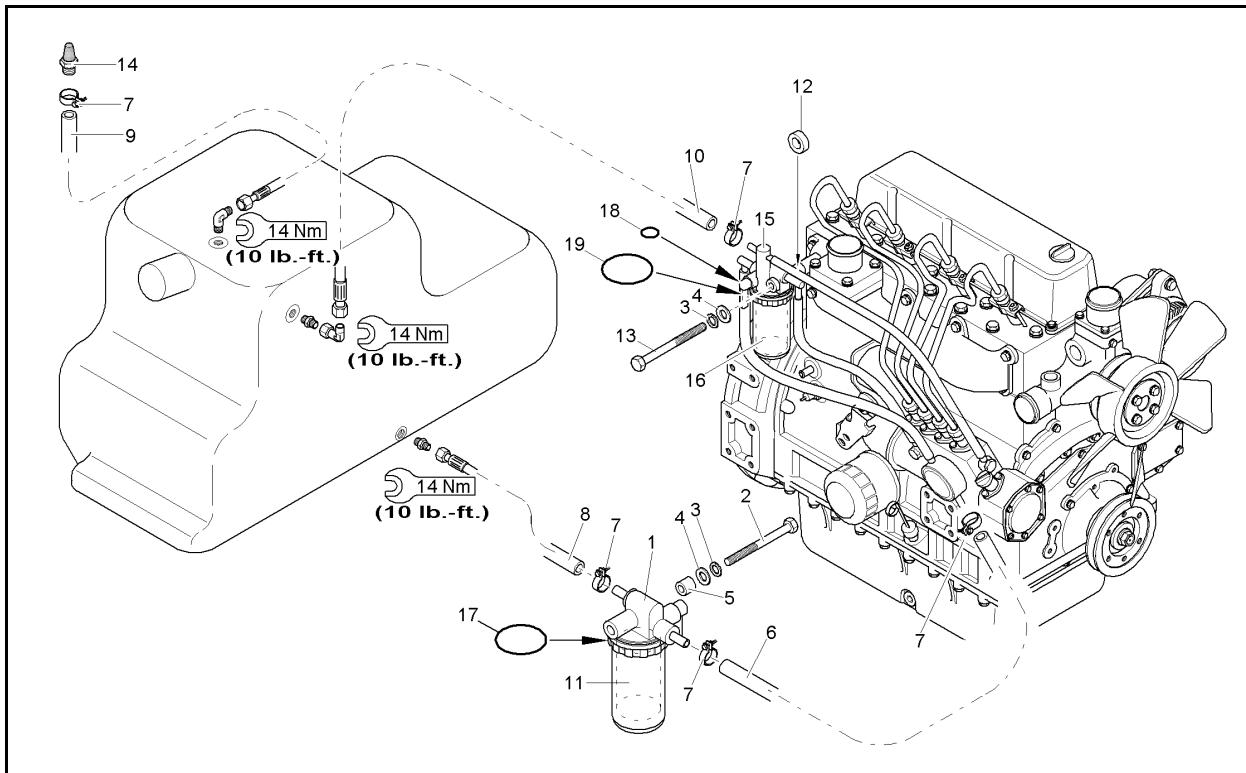
**303 - FUEL SYSTEM**  
**1000127635 - (SN AD01820 - AE02034)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177679	WATER SEPARATOR COMPLETE	1	12	178932	TUBE	1
2	651440	HB M8-1.25 X 90 C8.8 ZY	1	13	165274	TUBE	1
3	163670	LOCKWASHER	1	14	178965	FILTER	1
4	163634	WASHER	1	15	160844	TUBE	1
5	162661	HOSE COLLAR	1	16	177699	FUEL PUMP	1
6	186340	FILTER/WATER SEPARATOR	1	17	137499	FUEL FILTER	1
7	177664	GASKET/FILTER HOUSING	1	18	9901671G	HEX HEAD SCREW	2
8	177659	O-RING	1	19	161675	LOCKWASHER S6	2
9	207258	FUEL LINE (0.4M)	1	20	7462680008	WASHER	2
10	162504	HOSE CLAMP	7	21	177893	BRACKET/FUEL FILTER	1
11	207262	FUEL LINE (0.5M)	1				

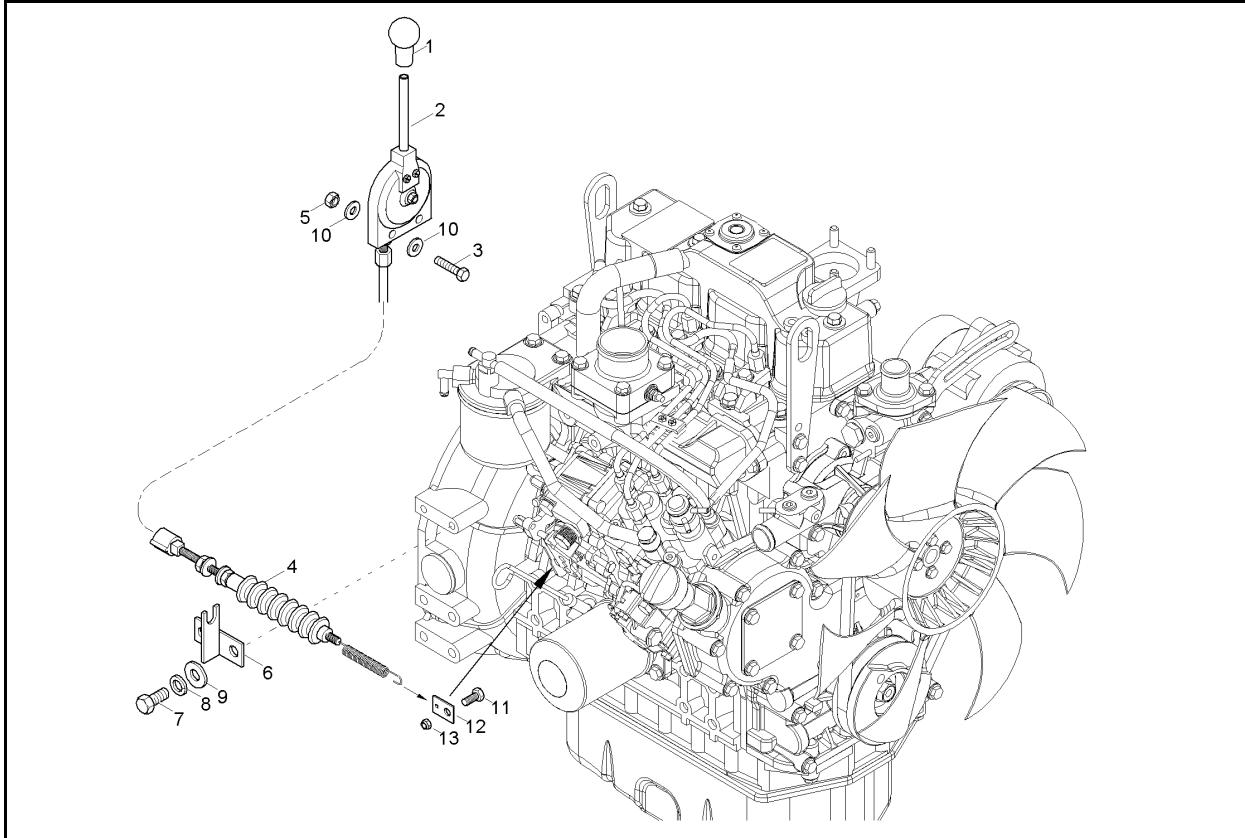
# 303 - FUEL SYSTEM

1000115913 - (SN AD00001 - AD01819)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165268	WATER SEPARATOR ASSY	1	11	425-36091	FILTER/WATER SEPARATOR	1
2	651440	HB M8-1.2 X 90 C 8.8 ZY	1	12	161805	TUBE	1
3	163670	LOCKWASHER	2	13	651439	HB M8-1.2 X 80 C 8.8 ZY	1
4	163634	WASHER	2	14	178965	FILTER	1
5	162661	HOSE COLLAR	1	15	162233	FUEL FILTER COMPLETE	1
6	207260	FUEL LINE (0.45M)	1	16	425-34636	FUEL FILTER ELEMENT	1
7	162504	HOSE CLAMP	5	17	206912	O-RING	1
8	178932	TUBE	1	18	177659	O-RING	1
9	165274	TUBE	1	19	177664	GASKET/FILTER HOUSING	1
10	160844	TUBE	1				

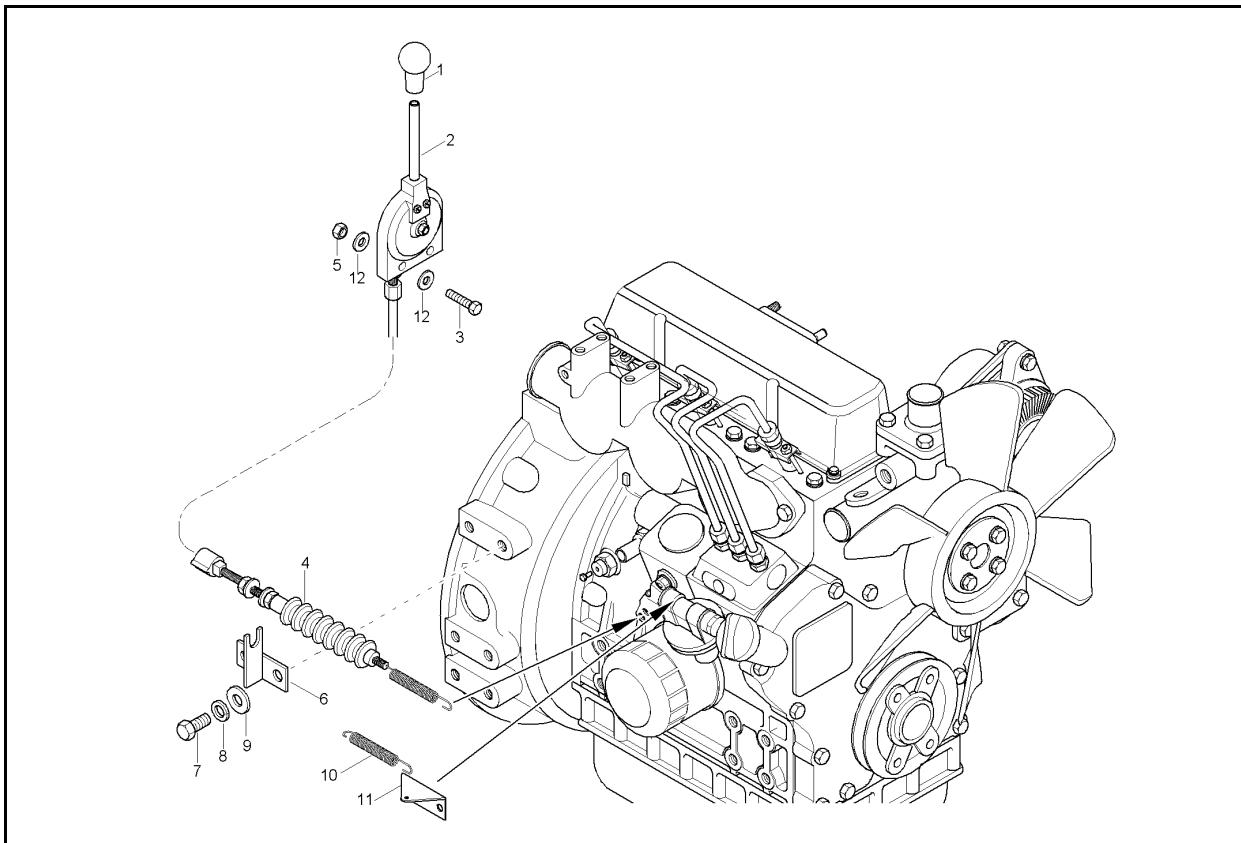
**303 - THROTTLE LEVER**  
**1000127637 - (SN AD01820 - AE02400)**



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	162398	KNOB		1	8	163670	LOCKWASHER		2
2	1410401G	THROTTLE LEVER		1	9	163634	WASHER		2
3	656128	CS M6-1 X 30 C8.8 ZY DIN931		2	10	161660	WASHER GR A6.4 ZO DIN 125		2
4	1420403G	THROTTLE CABLE		1	11	177648	HEX SCREW		1
5	161678	HN M6-1.00 C8 ZO		2	12	162355	BRACKET		1
6	177423	BRACKET/THROTTLE CABLE		1	13	165952	NUT		1
7	177648	HEX SCREW		2					

## 303 - THROTTLE LEVER

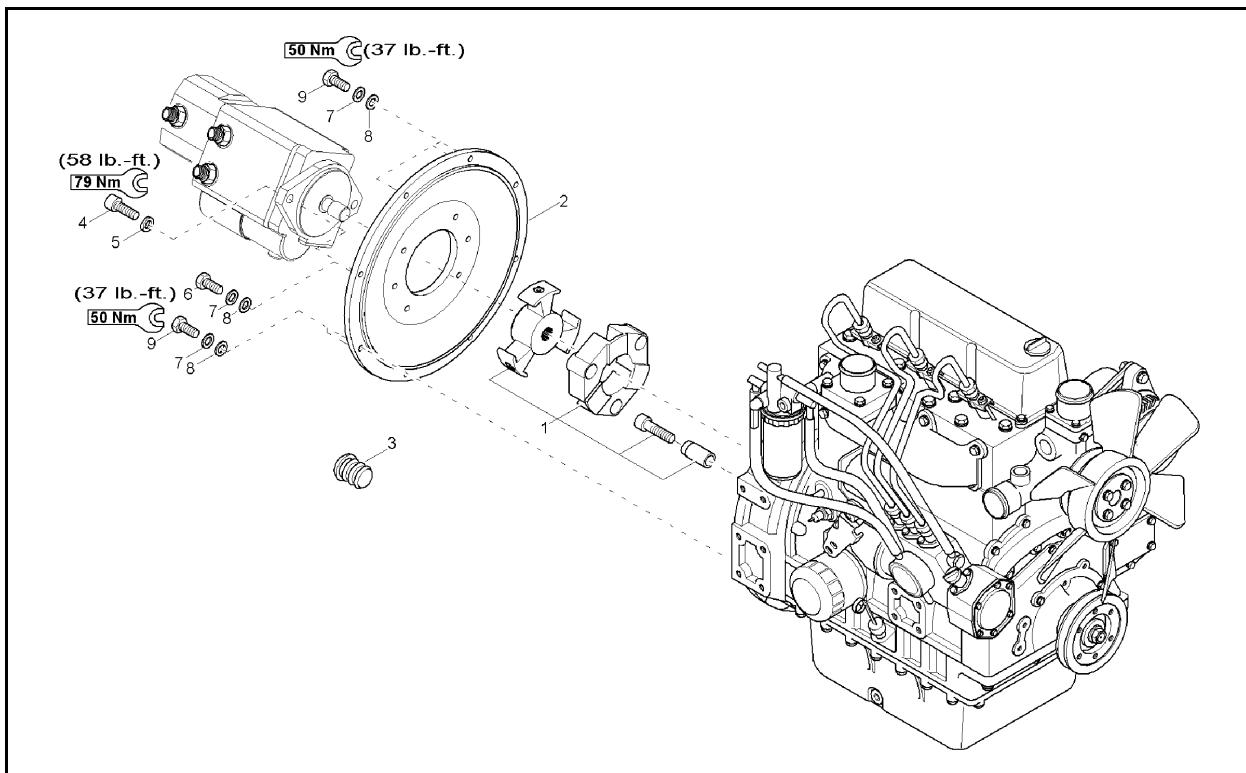
1000115915 - (SN AD00001 - AD01819)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	162398	KNOB	1	7	656001	CS M8-1.25 X 20 C8.8 ZY DIN931	2
2	1410401G	THROTTLE LEVER	1	8	163670	LOCKWASHER	2
3	656128	CS M6-1 X 30 C8.8 ZY DIN931	2	9	163634	WASHER	2
4	1420403G	THROTTLE CABLE	1	10	160480	SPRING	1
5	161678	HN M6-1.00 C8 ZO	2	11	161734	BRACKET	1
6	161733	BRACKET	1	12	161660	WASHER GR A6.4 ZO DIN 125	2

# 303 - HYDRAULIC PUMP DRIVE

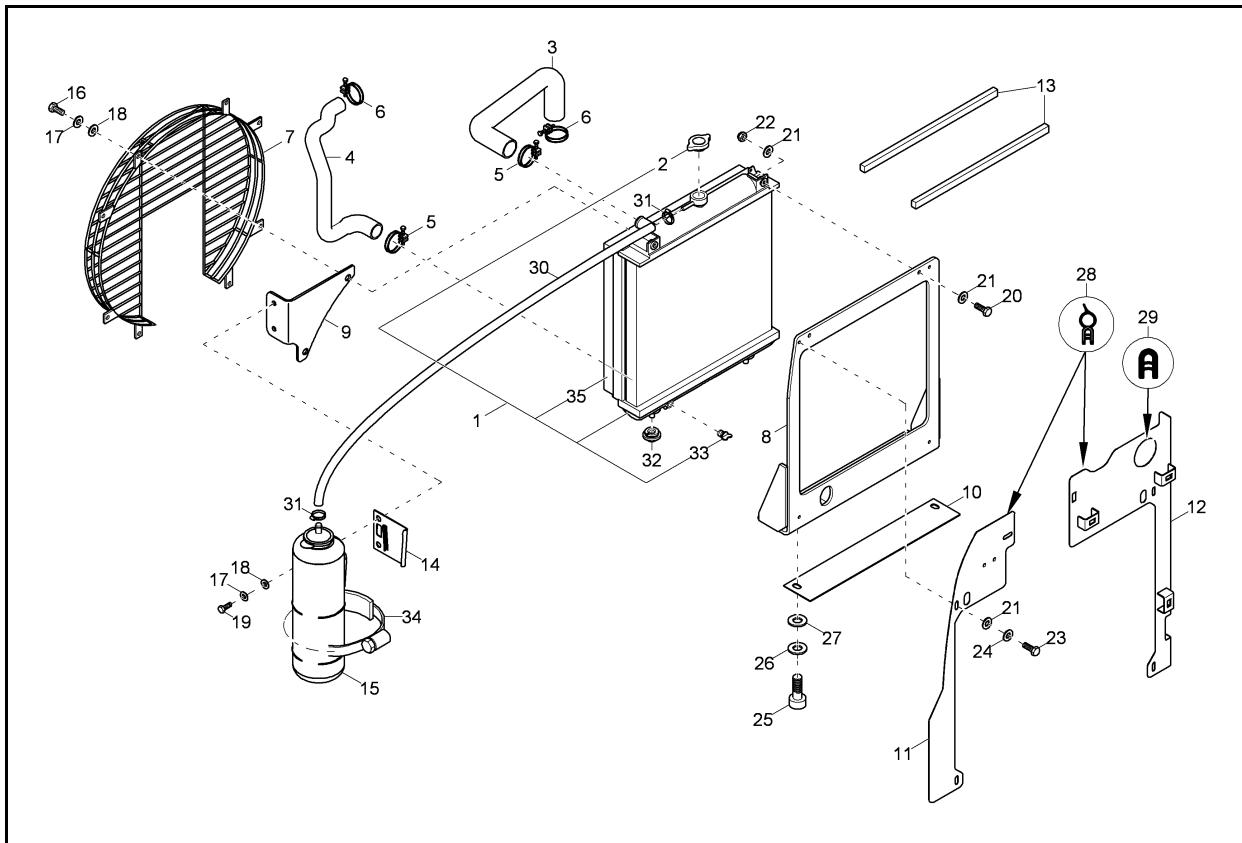
1000115917



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	178934	COUPLER COMPLETE		1	6	656008	CS M10-1.5 X 30 C8.8 ZY DIN931		3
2	178964	PUMP BRACKET		1	7	161669	LOCKWASHER S10		8
3	164928	PLUG		1	8	161640	WASHER/GR A 10.5		8
4	651480	SHCS M12-1.75 X 30 C10.9 ZY DIN912		2	9	651397	CS M10-1.5 X 35 C8.8 ZY		5
5	163651	WASHER		2					

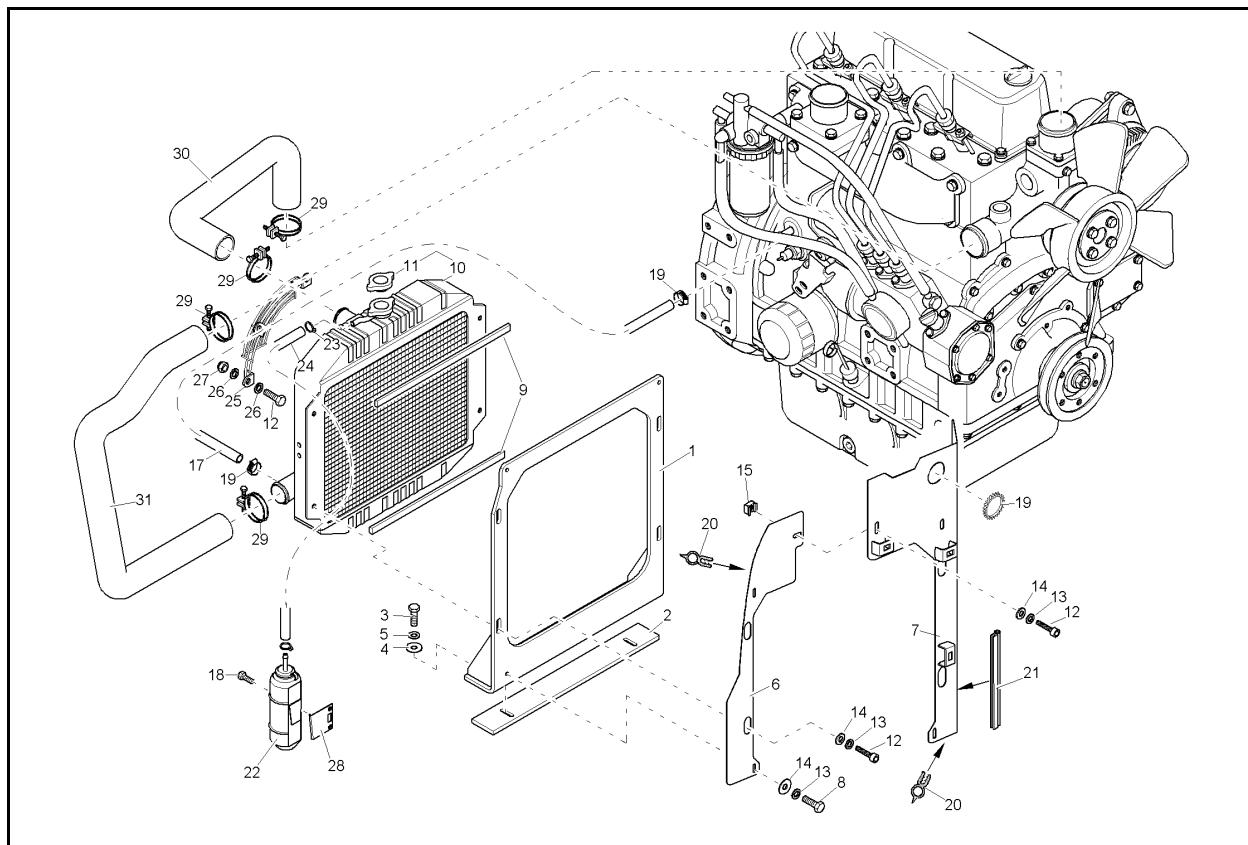
# 303 - RADIATOR

1000127703 - (SN AD01820 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177433	RADIATOR ASSY	1	19	656149	CS M6-1 X 16 C8.8 ZY DIN931	2
2	177996	RADIATOR CAP	1	20	656002	CS M8-1.25 X 35 C8.8 ZY DIN931	2
3	177993	RADIATOR HOSE/UPPER	1	21	7462680011	WASHER 8.4 ST A2C	9
4	177434	RADIATOR HOSE/LOWER	1	22	651458	LN INS M8-1.25 C8 ZY DIN6924	2
5	177991	CLAMP	2	23	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	5
6	425-34853	CLAMP 38	2	24	163670	LOCKWASHER	5
7	207466	FAN GUARD	1	25	651481	SHCS M12-1.75 X 30 C8.8 ZY DIN912	2
8	177421	MTG BRACKET/RADIATOR	1	26	163651	WASHER	2
9	177428	MTG BRACKET/EXP CONTAINER	1	27	161645	WASHER/GR A 13 DIN7349	2
10	177420	SUPPORT BRACKET/RADIATOR	1	28	206924	RUBBER PROFILE (1.40M)	1
11	203837	AIR GUIDE PLATE RT	1	29	206929	RUBBER PROFILE (0.23M)	1
12	177419	AIR GUIDE PLATE LT	1	30	207257	FUEL LINE (0.3M)	1
13	207150	RUBBER EXTRUSION (0.9M)	1	31	162065	CLAMP	2
14	425-36152	BRACKET/EXP CONTAINER	1	32	177710	RUBBER BUFFER	2
15	190845	EXPANSION CONTAINER	1	33	177994	DRAIN SCREW	1
16	651424	CS M6-1 X 20 C8.8 ZY DIN931	8	34	161856	COLLAR	1
17	161675	LOCKWASHER S6	10	35	203811	RADIATOR SHROUD	1
18	7462680008	WASHER	10				

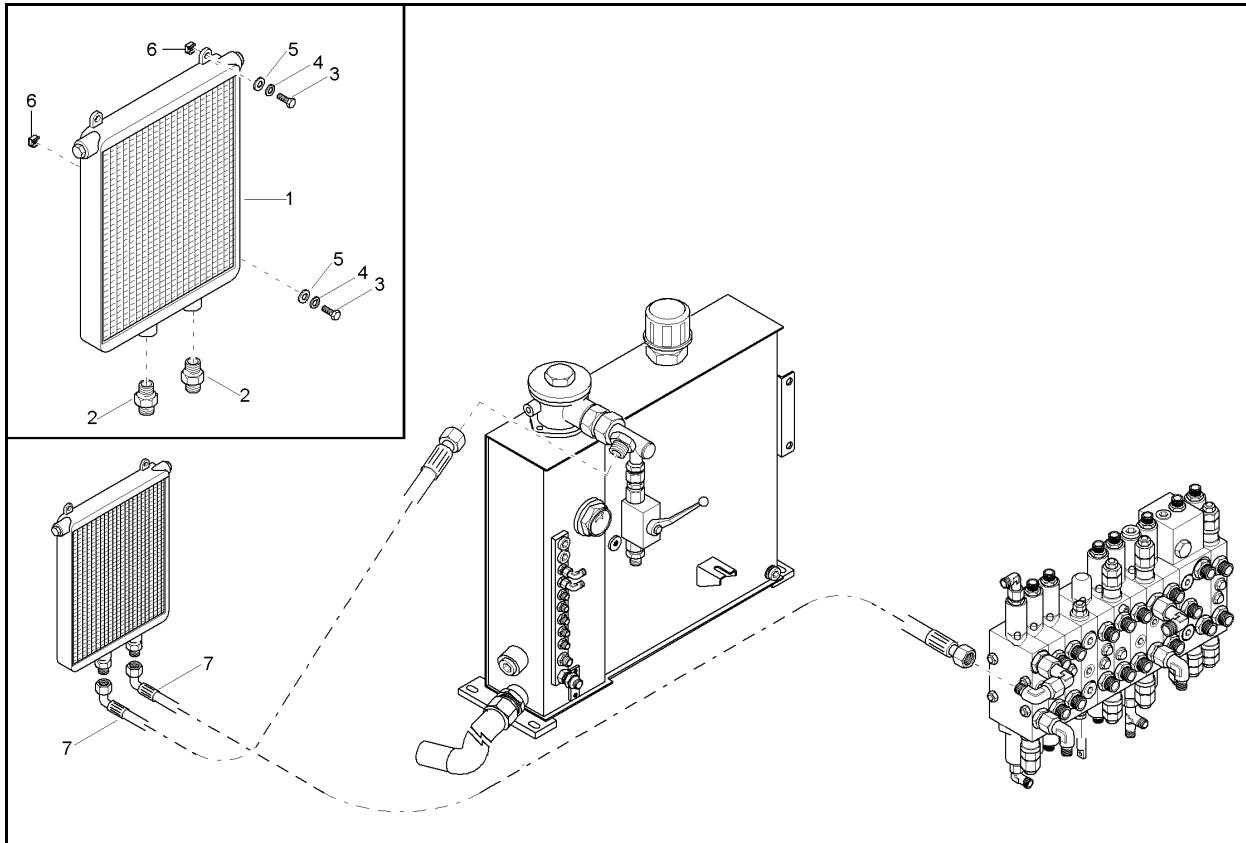
**303 - RADIATOR**  
**1000115909 - (SN AD00001 - AD01819)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	178924	MTG BRACKET/RADIATOR	1	17	207173	BRAIDED HOSE GCN NW8 (1.0M)	1
2	178927	SUPPORT BRACKET/RADIATOR	1	18	161630	SCREW/HEX HD TAP B5.5 X 19	2
3	651480	SHCS M12-1.75 X 30 C10.9 ZY DIN912	2	19	162501	HOSE CLAMP	2
4	161645	WASHER/GR A 13 DIN7349	4	20	207280	RUBBER EXTRUSION (1.6M)	1
5	163651	WASHER	2	21	206035	RUBBER PROFILE (1.30M)	1
6	178988	AIR GUIDE PLATE RT	1	22	190845	EXPANSION CONTAINER	1
7	179005	AIR GUIDE PLATE LT	1	23	162504	HOSE CLAMP	2
8	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	4	24	207262	FUEL LINE (0.5M)	1
9	207157	SEALING TAPE (2.04M)	2	25	425-36092	FAN GUARD	1
10	425-36093	RADIATOR	1	26	163634	WASHER	8
11	160424	RADIATOR CAP	1	27	651458	LN INS M8-1.25 C8 ZY DIN6924	4
12	656001	CS M8-1.25 X 20 C8.8 ZY DIN931	9	28	425-36152	BRACKET/EXP CONTAINER	1
13	163670	LOCKWASHER	9	29	425-34853	CLAMP 38	4
14	7462680011	WASHER 8.4 ST A2C	9	30	425-34687	RADIATOR HOSE/UPPER	1
15	161615	NUT/CAGE M8	2	31	425-34686	RADIATOR HOSE/LOWER	1

# 303 - OIL COOLER & INSTALLATION

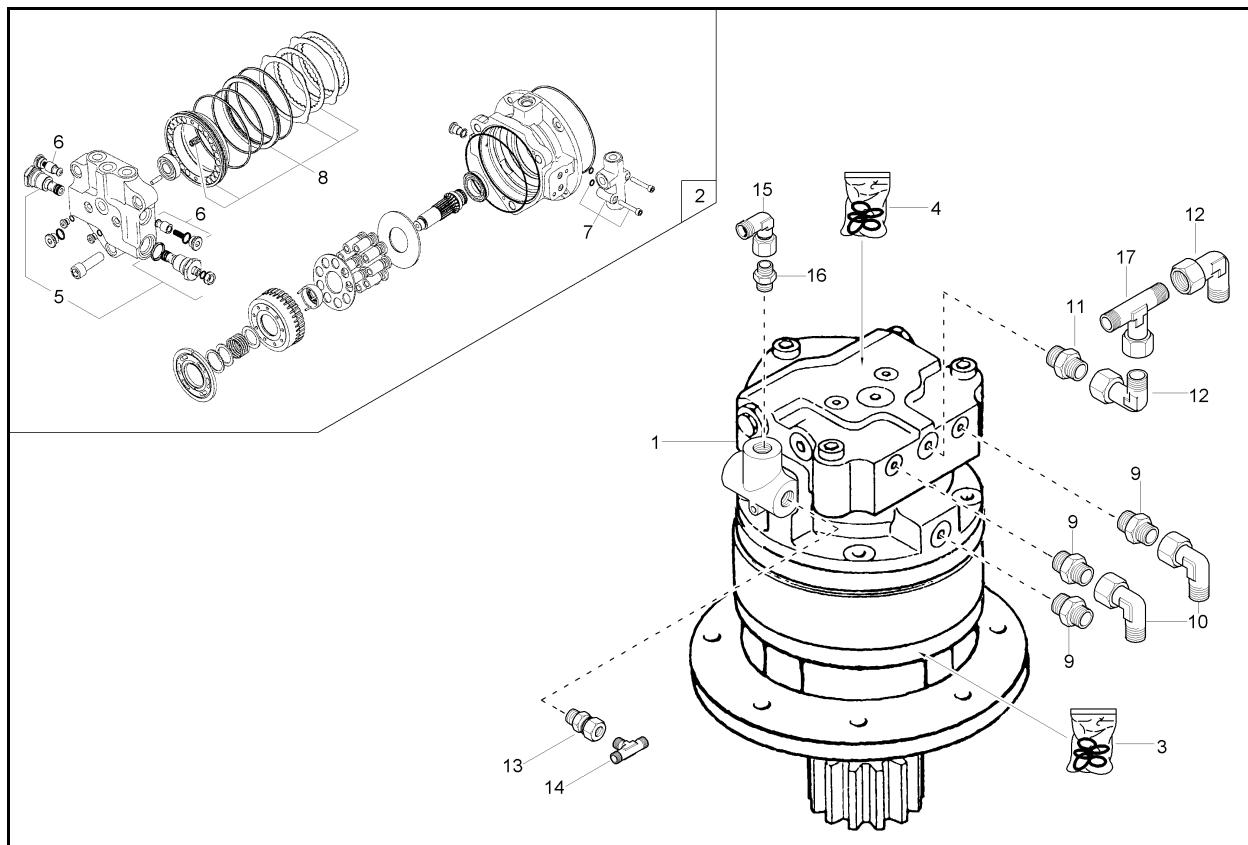
1000115919 & 1000115960



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	206090	OIL COOLER	1	5	163634	WASHER	3
2	161464	SCREW JOINT	2	6	161615	NUT/CAGE M8	3
3	656105	CS M8-1.25 X 25 C8.8 ZY DIN931	3	7	163325	HP HOSE	2
4	163670	LOCKWASHER	3				

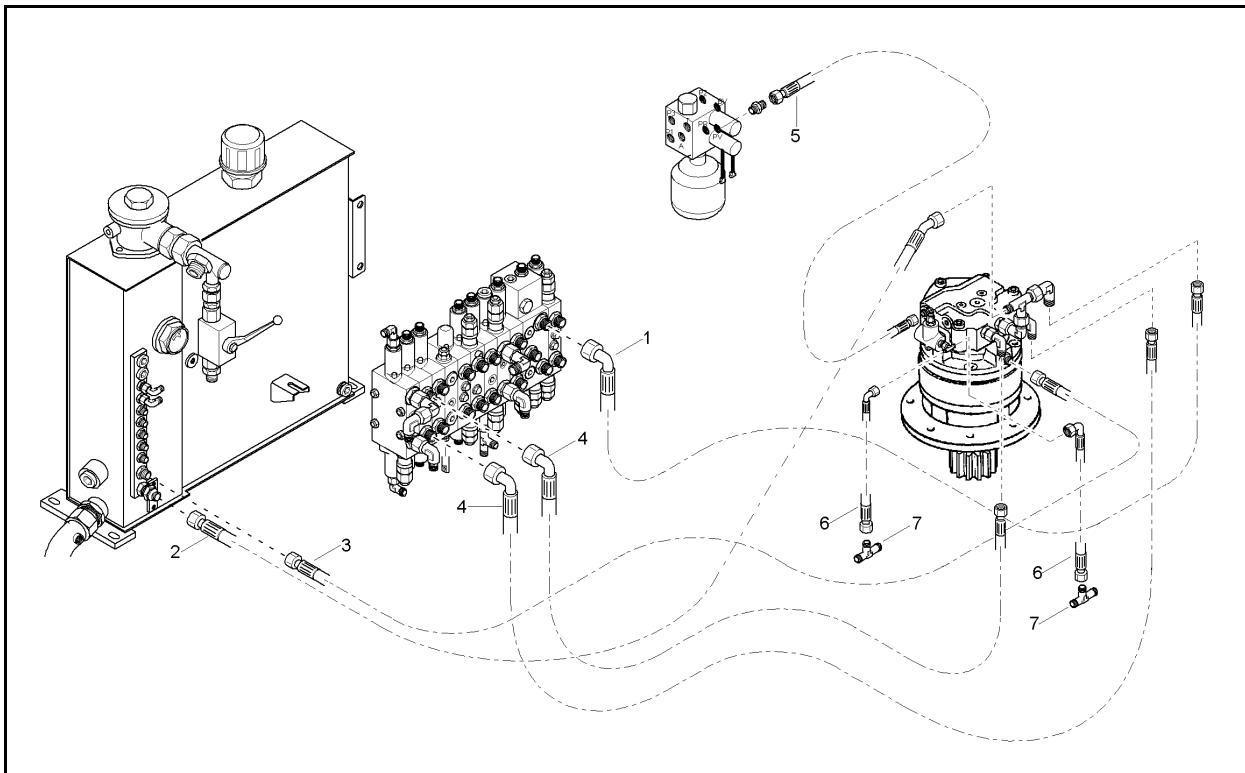
# 303 - TURNTABLE DRIVE UNIT

1000115923

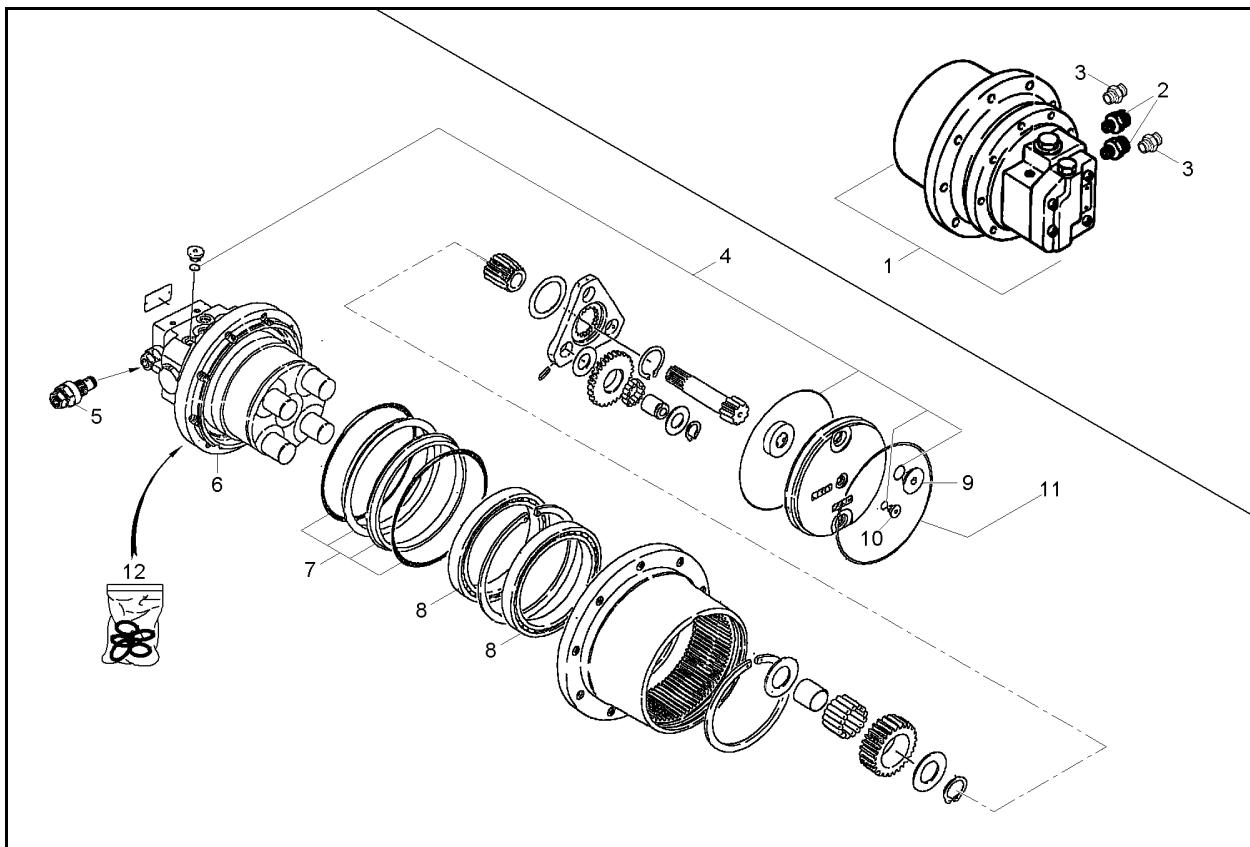


Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	207049	TURNTABLE DRIVE UNIT COMPLETE	1	10	161445	90° FITTING	2
2	179016	TORQUE MOTOR COMPLETE	1	11	165971	SCREW JOINT	1
3	178963	SEAL KIT	1	12	161446	90° FITTING	2
4	162289	SEAL KIT	1	13	165973	SCREW JOINT	1
5	179018	SHOCK VALVE	1	14	161474	VALVE	1
6	162284	ANTICAVITATION VALVE KIT	1	15	161443	90° FITTING	1
7	178959	TIMER VALVE	1	16	164945	SCREW JOINT	1
8	178961	BRAKE ASSY	1	17	161467	TEE	1
9	165966	SCREW JOINT	3				

**303 - TURNTABLE DRIVE UNIT INSTALLATION**  
**1000115966**

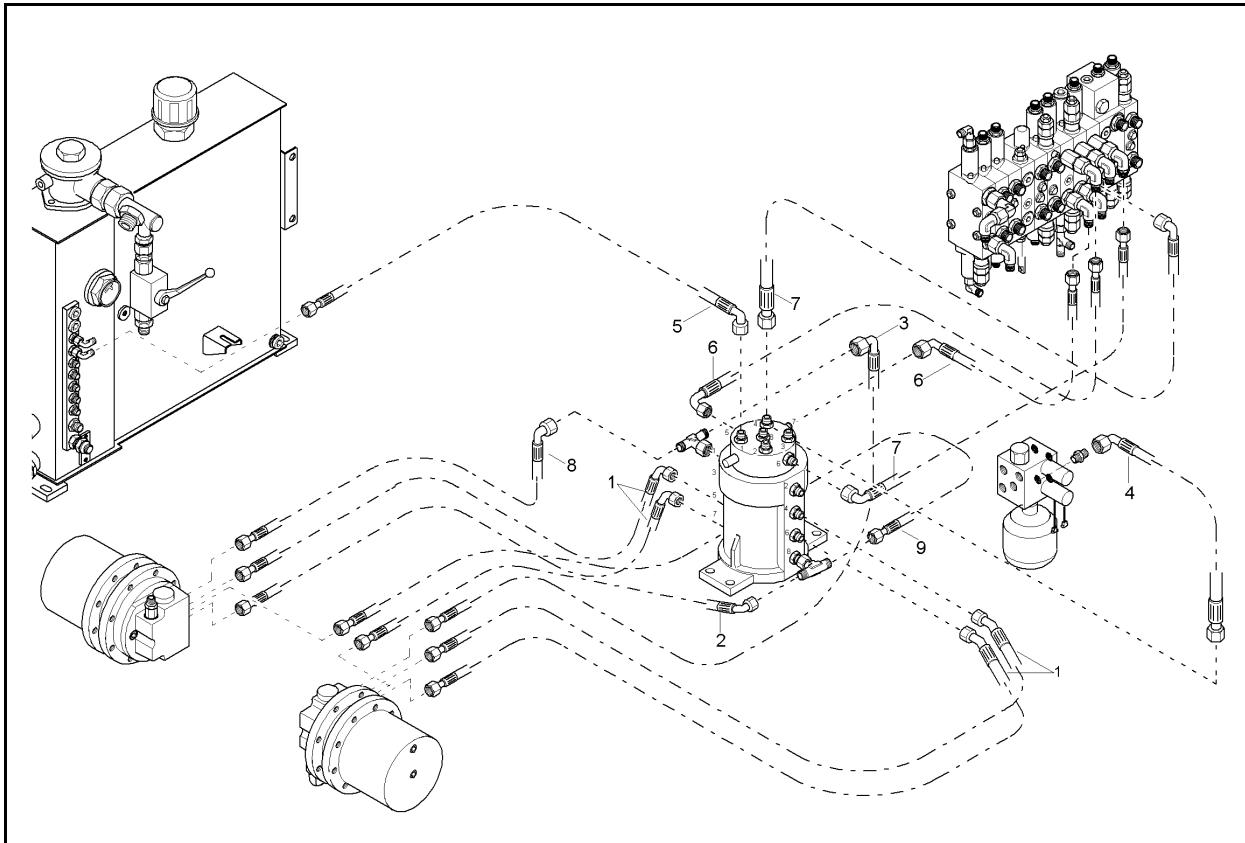


Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	162437	HP HOSE		1	5	161227	HP HOSE		1
2	165866	HP HOSE		1	6	161236	HP HOSE		2
3	165851	HP HOSE		1	7	161465	TEE		2
4	162970	HP HOSE		2					



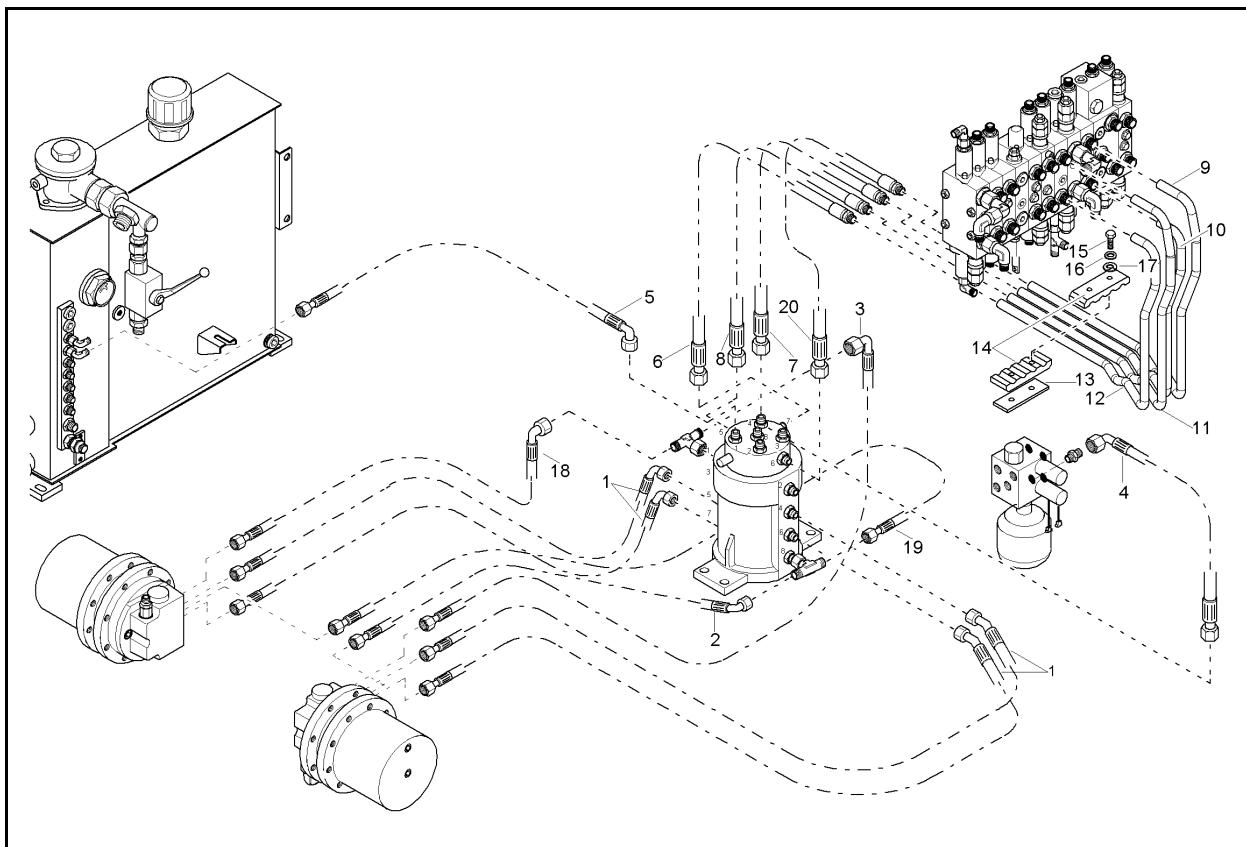
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165662	DRIVE UNIT COMPLETE	2	8	206095	BEARING	4
2	165965	SCREW JOINT	4	9	206006	PLUG	4
3	164945	SCREW JOINT	4	10	206056	PLUG	2
4	201601	O-RING KIT	2	11	206055	LOCK RING	2
5	178954	BRAKE VALVE	2	12	206096	SEAL KIT/DRIVE MOTOR	2
6	165539	MOTOR COMPLETE	2				
7	206053	SEAL KIT	2				

**303 - DRIVE UNIT INSTALLATION**  
**1000115964 - (SN AD00255 - AE02400)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165876	HP HOSE	4	6	179586	HP HOSE	2
2	165839	HP HOSE	1	7	162425	HP HOSE	2
3	162409	HP HOSE	1	8	165838	HP HOSE	1
4	165829	HP HOSE	1	9	165840	HP HOSE	1
5	165832	HP HOSE	1				

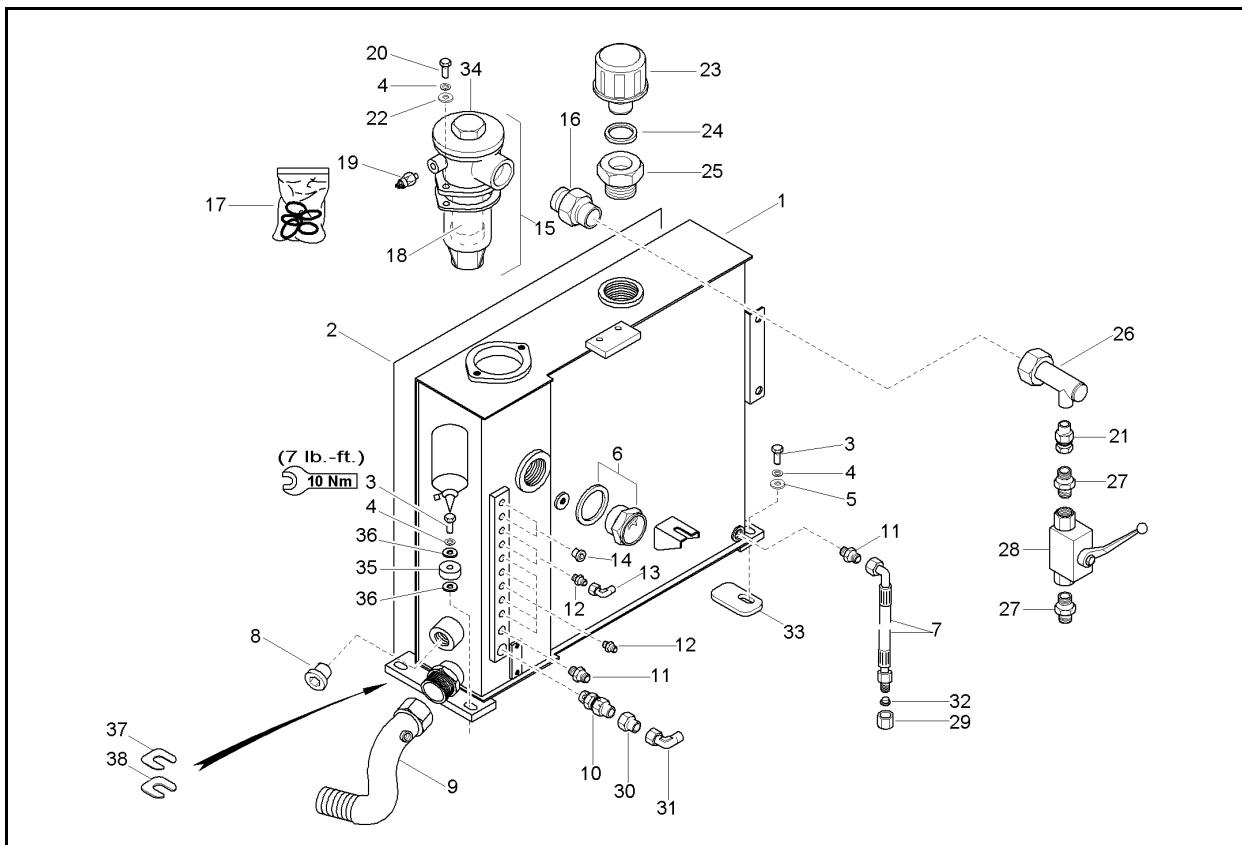
**303 - DRIVE UNIT INSTALLATION**  
**1000115963 - (SN AD00001 - AD00254)**



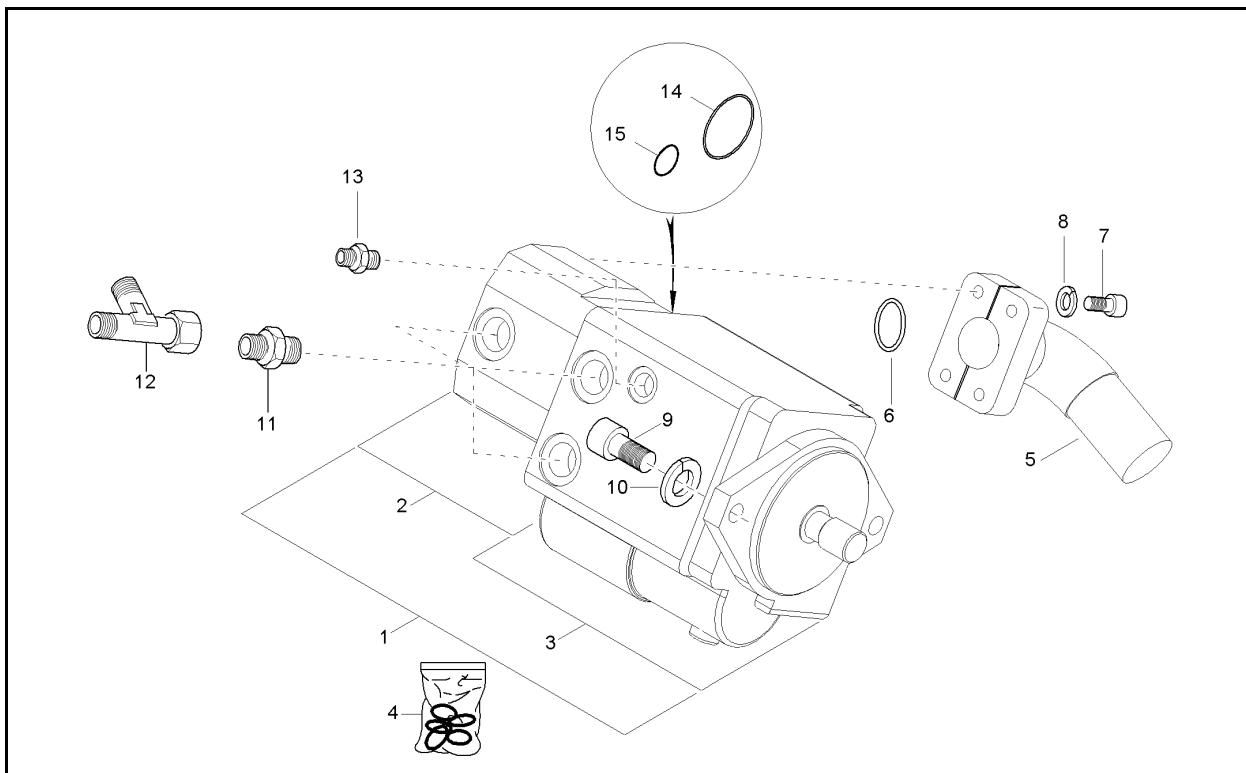
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165876	HP HOSE	4	11	165640	TUBE	1
2	165839	HP HOSE	1	12	165639	TUBE	1
3	162409	HP HOSE	1	13	165633	COVER	1
4	165829	HP HOSE	1	14	165632	COLLAR	1
5	165832	HP HOSE	1	15	656130	CS M8-1.25 X 50 C8.8 ZY DIN931	2
6	165880	HP HOSE	1	16	163670	LOCKWASHER	2
7	165877	HP HOSE	1	17	163634	WASHER	2
8	165879	HP HOSE	1	18	165838	HP HOSE	2
9	165642	TUBE	1	19	165840	HP HOSE	1
10	165641	TUBE	1	20	165878	HP HOSE	1

# 303 - HYDRAULIC OIL TANK

1000115918



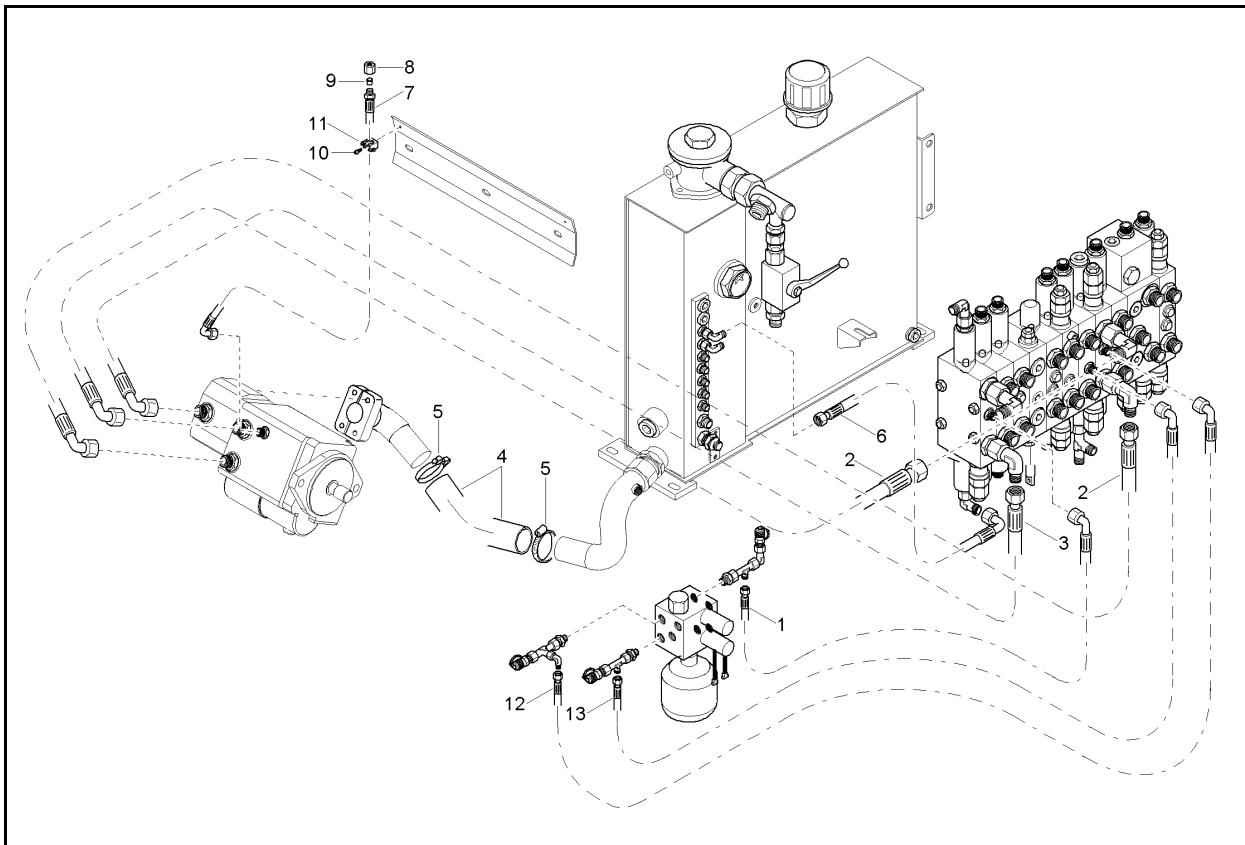
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165063	HYDRAULIC TANK	1	21	162495	SCREW JOINT	2
2	165558	ISOLATION MAT	1	22	161640	WASHER/GR A 10.5	2
3	651399	CS M10-1.5 X 40 C8.8 ZY	4	23	160949	BREATHER	1
4	161669	LOCKWASHER S10	6	24	161579	SEAL	1
5	163642	WASHER	4	25	161485	REDUCTION JOINT	1
6	1428450G	OIL LEVEL GLASS	1	26	165478	REDUCTION JOINT	1
7	165863	HP HOSE	1	27	161431	SCREW JOINT	2
8	164925	SCREW	1	28	206084	BALL VALVE	1
9	178945	HOSE	1	29	7788010663	UNION NUT AL 12 VERZ.	1
10	161511	NON RETURN VALVE	1	30	161441	REDUCTION JOINT	1
11	161429	SCREW JOINT 12L	2	31	161446	90° FITTING	1
12	161426	SCREW JOINT	7	32	161418	PLUG	1
13	161443	90° FITTING	2	33	178174	RUBBER MAT	3
14	165958	SCREW	2	34	178268	COVER	1
15	165108	HYD OIL FILTER COMPLETE	1	35	178967	CORK WASHER (SN AD04169 - AE02400)	1
16	161490	SCREW JOINT	1	36	161663	WASHER/GR A 10.5 ZO (SN AD04169 - AE0240)	2
17	165113	SEAL KIT/HYD FILTER	1	37	206093	SHIM (1 MM)	AR
18	165111	HYD OIL FILTER ELEMENT	1	38	206092	SHIM (2 MM)	AR
19	163001	PRESSURE SWITCH	1				
20	651475	SHCS M10-1.25 X 30 F8.8 ZY DIN912	2				



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165661	HYDRAULIC PUMP COMPLETE	1	9	651480	SHCS M12-1.75 X 30 C10.9 ZY DIN912	2
2	165688	GEAR PUMP	1	10	163651	WASHER	2
3	165689	VARIABLE PUMP	1	11	165965	SCREW JOINT	3
4	165703	SEAL KIT/VARIABLE PUMP	1	12	165499	REDUCTION JOINT (SN AD00001 - AD00189)	3
5	178946	FLANGE	1	13	164945	SCREW JOINT	1
6	161565	O-RING	1	14	179135	O-RING	1
7	651475	SHCS M10-1.25 X 30 F8.8 ZY DIN912	4	15	179873	O-RING	1
8	161669	LOCKWASHER S10	4				

# 303 - HYDRAULIC PUMP INSTALLATION

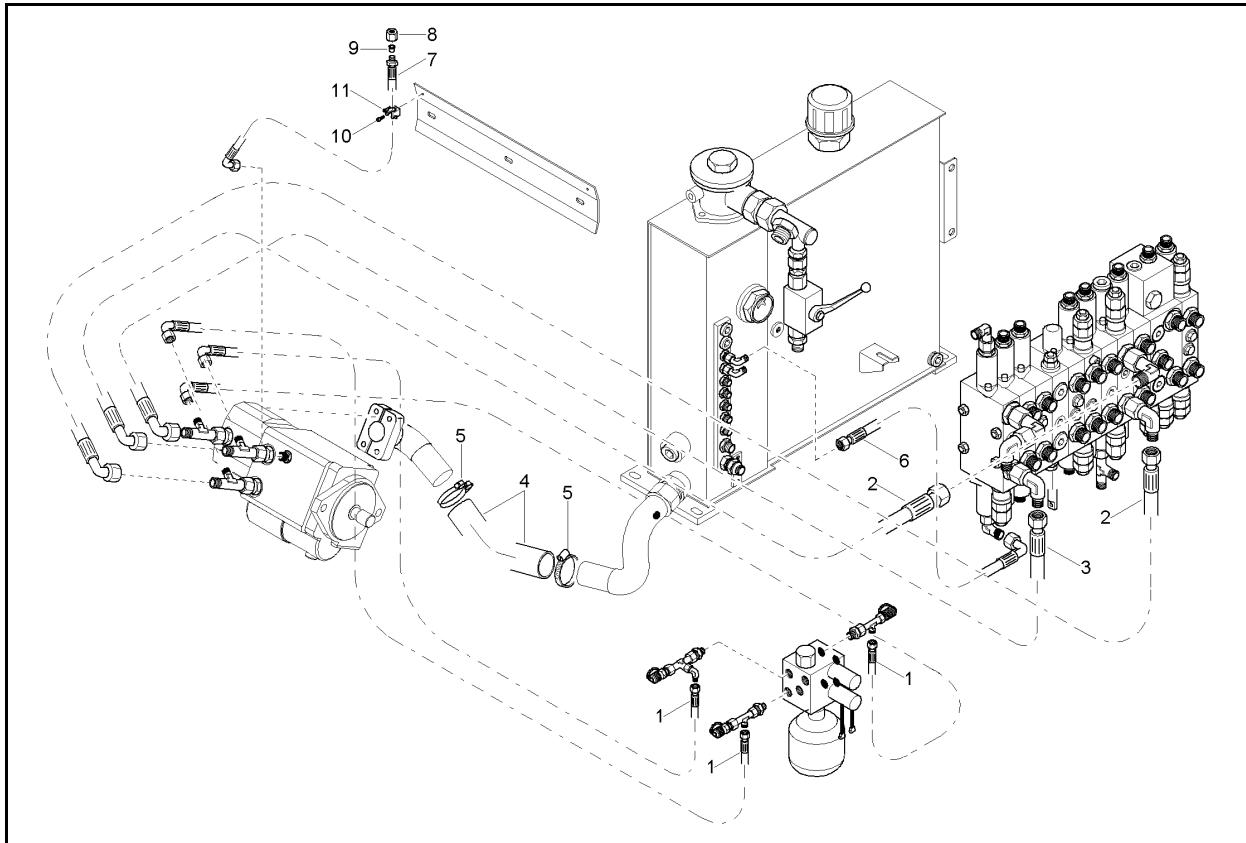
1000115962 - (SN AD00190 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	161267	HP HOSE	1	8	164929	NUT	1
2	165870	HP HOSE	2	9	164927	PLUG	1
3	165871	HP HOSE	1	10	162035	SCREW	1
4	160840	SUCTION HOSE	1	11	162389	CLAMP	1
5	162071	HOSE CLAMP	2	12	207055	HP HOSE	1
6	164804	HP HOSE	1	13	161260	HP HOSE	1
7	203838	HP HOSE	1				

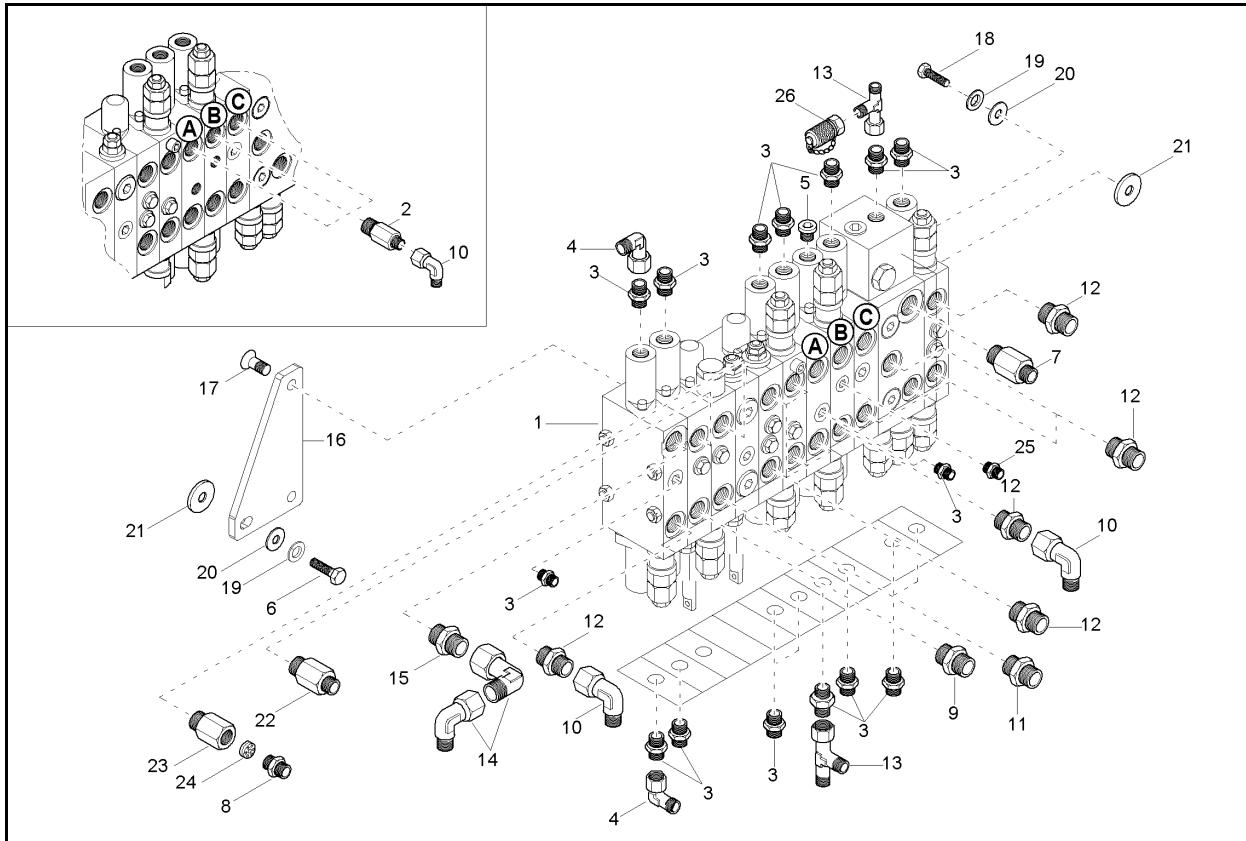
# 303 - HYDRAULIC PUMP INSTALLATION

1000115961 - (SN AD00001 - AD00189)



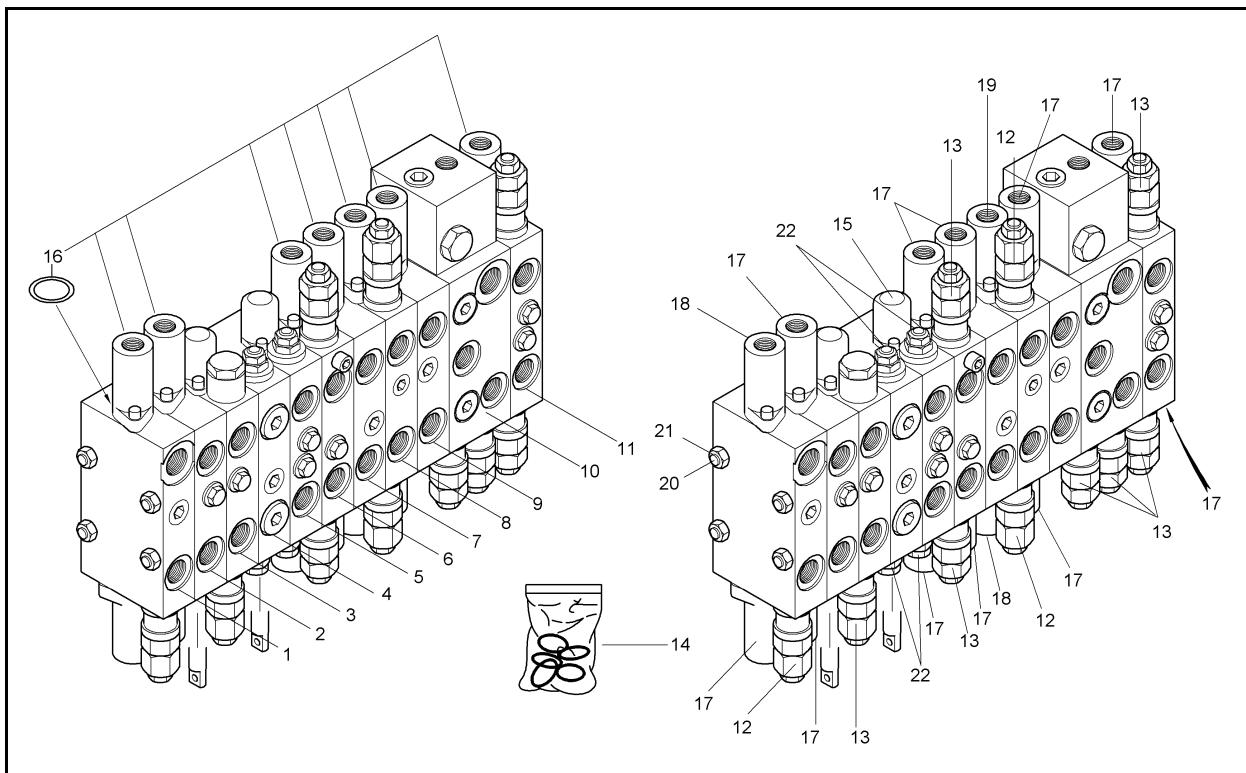
Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	162404	HP HOSE		3	7	8002331G	HP HOSE		1
2	165870	HP HOSE		2	8	164929	NUT		1
3	165871	HP HOSE		1	9	164927	PLUG		1
4	160840	SUCTION HOSE		1	10	162035	SCREW		1
5	162071	HOSE CLAMP		2	11	162389	CLAMP		1
6	164804	HP HOSE		1					

**303 - CONTROL VALVE/STYLE 1**  
**1000139742 - (SN AD02590 - AE02400)**



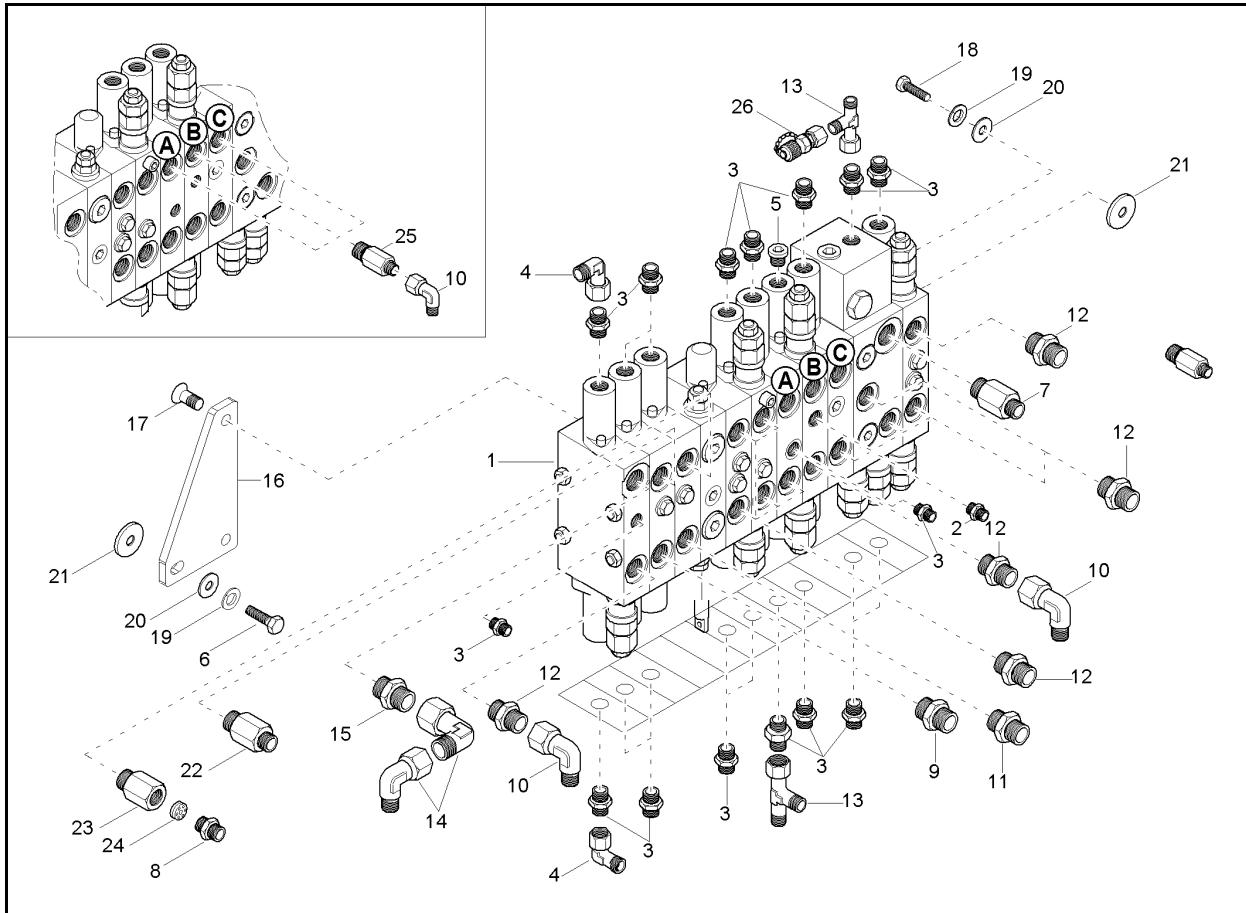
## **303 - CONTROL VALVE/STYLE 1 (CONT'D)**

**1000139743 - (SN AD02590 - AE02400)**



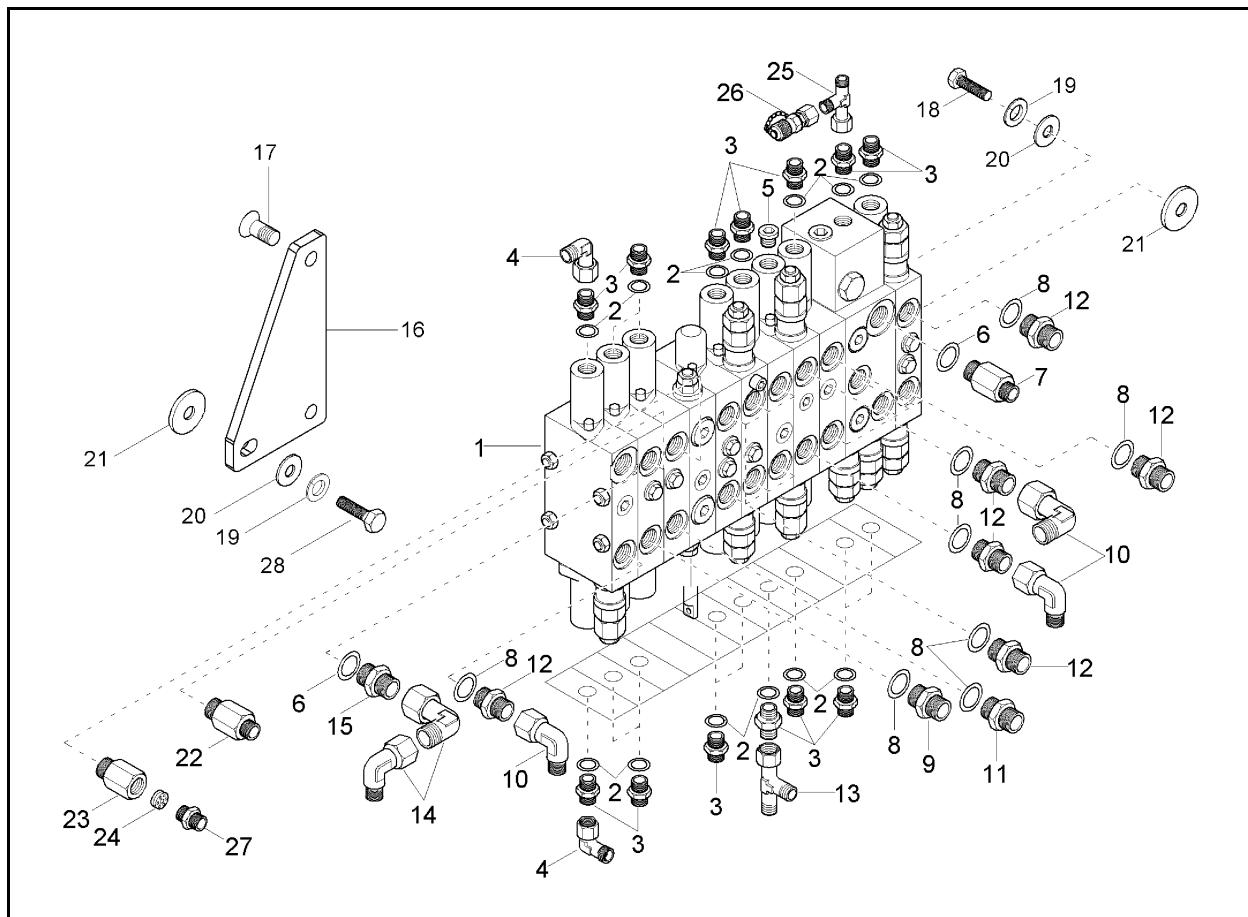
Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	165524	AUXILIARY SEGMENT		1	12	165535	MAIN PRESSURE CONTROL		3
2	165525	SWIVEL SEGMENT		1	13	165536	PRESSURE LIMITING VALVE		7
3	207468	DOZER BLADE SEGMENT		1	14	205976	SEAL KIT/CONTROL VALVE		1
4	165527	AUXILIARY HYDRAULICS SEGMENT		1	15	178971	PILOT CONTROL CAP		1
5	165528	AUXILIARY HYDRAULICS SEGMENT		1	16	165541	SEAL		14
6	165529	DIPPER STICK SEGMENT		1	17	178968	PILOT CONTROL CAP		11
7	165530	DRIVE SEGMENT LT		1	18	178969	PILOT CONTROL CAP		2
8	165531	INPUT SEGMENT		1	19	178970	PILOT CONTROL CAP		1
9	165532	DRIVE SEGMENT RT		1	20	205980	TIE ROD		4
10	165533	BOOM SEGMENT		1	21	178100	NUT		8
11	165534	BUCKET SEGMENT		1	22	205117	SHUT OFF VALVE		4

**303 - CONTROL VALVE/STYLE 2**  
**1000115896 - (SN AD00190 - AD02589)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165663	CONTROL VALVE	1	15	165968	SCREW JOINT	1
2	179814	SCREW JOINT	1	16	165065	PLATE	1
3	164945	SCREW JOINT	19	17	162041	SCREW	2
4	161443	90° FITTING	2	18	656008	CS M10-1.5 X 30 C8.8 ZY DIN931	2
5	161414	SCREW	1	19	161669	LOCKWASHER S10	3
6	651393	CS M10-1.5 X 25 C8.8 ZY	1	20	163642	WASHER	3
7	165504	SCREW JOINT	1	21	178967	CORK WASHER	3
8	161427	SCREW JOINT	1	22	165505	SCREW JOINT	1
9	165966	SCREW JOINT	1	23	206083	CONNECTOR	1
10	161446	90° FITTING	5	24	160651	RESTRICTOR	1
11	165970	SCREW JOINT	1	25	178966	CONNECTOR (SN AD00255 - AD02589)	3
12	165971	SCREW JOINT	12	26	0003638466	TEST CONNECTION 8 L A3C	1
13	161448	TEE	2				
14	161456	90° FITTING	2				

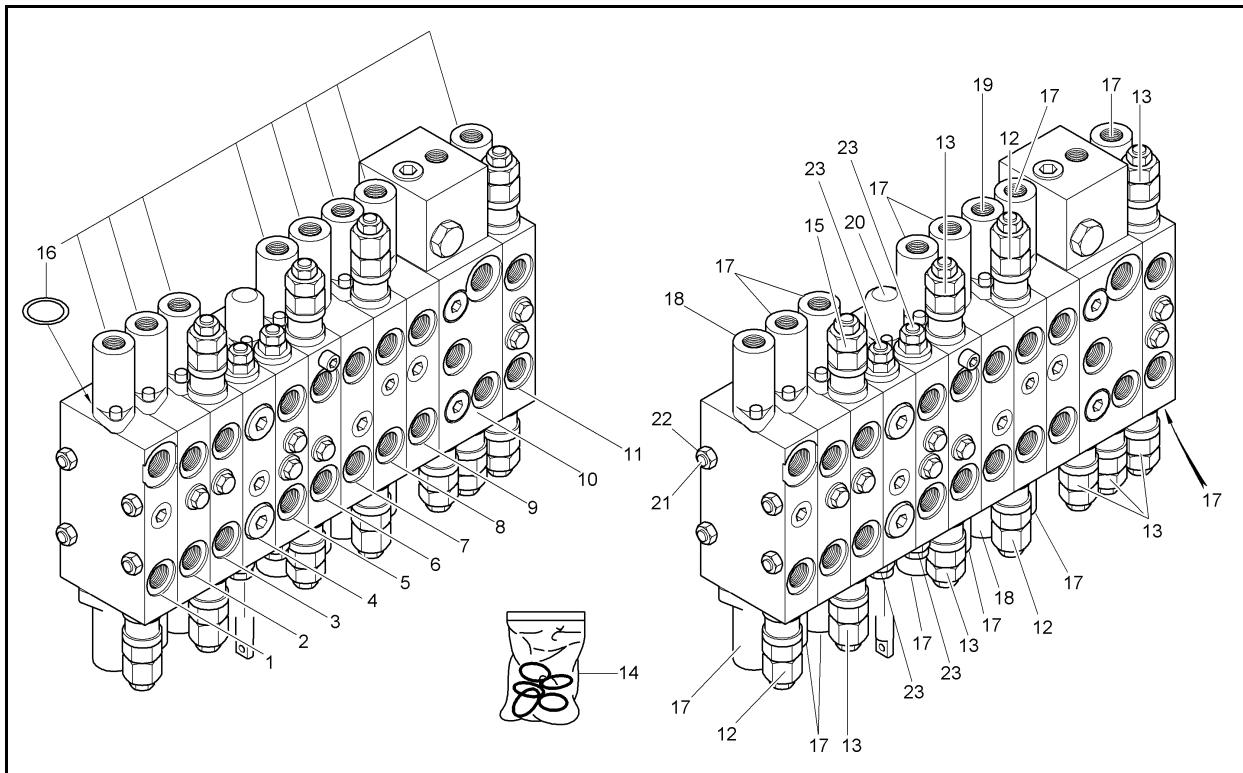
**303 - CONTROL VALVE/STYLE 3**  
**1000115924 - (SN AD00001 - AD00189)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165663	CONTROL VALVE	1	15	165968	SCREW JOINT	1
2	161574	O-RING	17	16	165065	PLATE	1
3	164945	SCREW JOINT	17	17	162041	SCREW	2
4	161443	90° FITTING	2	18	656008	CS M10-1.5 X 30 C8.8 ZY DIN931	2
5	161414	SCREW	1	19	161669	LOCKWASHER S10	3
6	161585	O-RING	2	20	163642	WASHER	3
7	165504	SCREW JOINT	1	21	178967	CORK WASHER	3
8	161590	O-RING	19	22	165505	SCREW JOINT	1
9	165966	SCREW JOINT	1	23	161357	CONNECTOR	1
10	161446	90° FITTING	3	24	160651	RESTRICTOR	1
11	165970	SCREW JOINT	1	25	161448	TEE	1
12	165971	SCREW JOINT	15	26	0003638466	TEST CONNECTION 8 L A3C	1
13	161448	TEE	1	27	161427	SCREW JOINT	1
14	161456	90° FITTING	2	28	651393	CS M10-1.5 X 25 C8.8 ZY	1

# 303 - CONTROL VALVE/STYLES 2 & 3

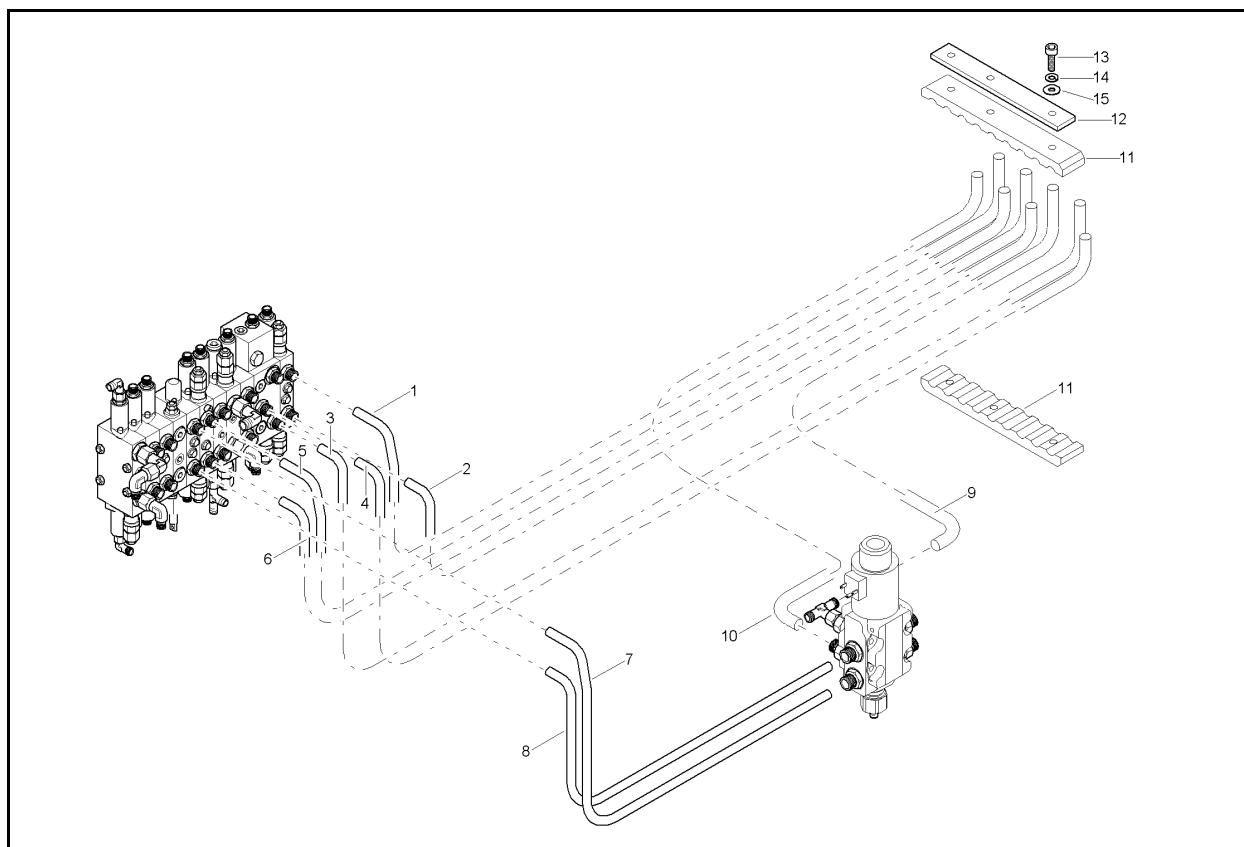
1000115897 - (SN AD00001 - AD02589)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165524	AUXILIARY SEGMENT	1	13	165536	PRESSURE LIMITING VALVE	7
2	165525	SWIVEL SEGMENT	1	14	205976	SEAL KIT/CONTROL VALVE	1
3	165526	SEGMENT	1	15	165543	NON RETURN VALVE	1
4	165527	AUXILIARY HYDRAULICS SEGMENT	1	16	165541	SEAL	16
5	165528	AUXILIARY HYDRAULICS SEGMENT	1	17	178968	PILOT CONTROL CAP	13
6	165529	DIPPER STICK SEGMENT	1	18	178969	PILOT CONTROL CAP	2
7	165530	DRIVE SEGMENT LT	1	19	178970	PILOT CONTROL CAP	1
8	165531	INPUT SEGMENT	1	20	178971	PILOT CONTROL CAP	1
9	165532	DRIVE SEGMENT RT	1	21	205980	TIE ROD	4
10	165533	BOOM SEGMENT	1	22	178100	NUT	8
11	165534	BUCKET SEGMENT	1	23	205117	SHUT OFF VALVE	4
12	165535	MAIN PRESSURE CONTROL	3				

# 303 - CONTROL VALVE TUBES

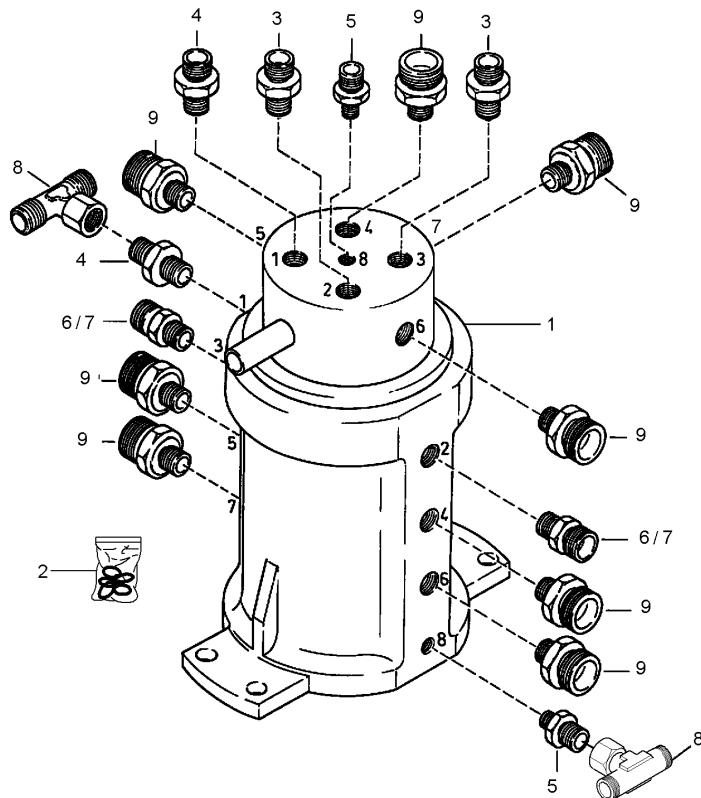
1000115974



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165635	TUBE	1	9	165648	TUBE	1
2	165636	TUBE	1	10	165647	TUBE	1
3	165637	TUBE	1	11	165654	COLLAR	1
4	165638	TUBE	1	12	165655	COVER	1
5	165643	TUBE	1	13	656130	CS M8-1.25 X 50 C8.8 ZY DIN931	3
6	165644	TUBE	1	14	163670	LOCKWASHER	3
7	165646	TUBE	1	15	163634	WASHER	3
8	165645	TUBE	1				

# 303 - SWIVEL JOINT

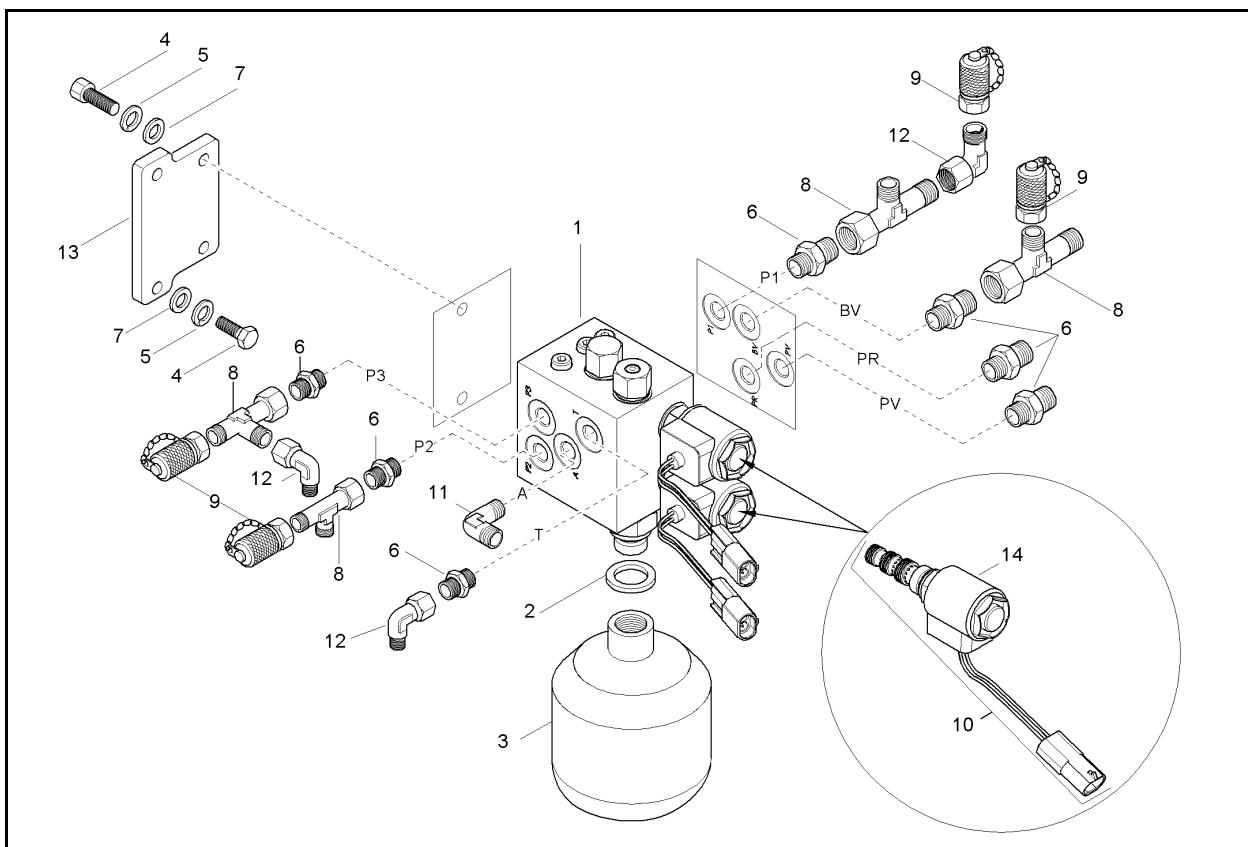
1000115922



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	207053	SWIVEL JOINT (SN AD03467 - AE02400)	1	4	161427	SCREW JOINT	2
	162526	SWIVEL JOINT (SN AD00001 - AD03466)	1	5	161426	SCREW JOINT	2
2	207054	SEAL KIT SWIVEL JOINT (SN AD03467 - AE02400)	1	6	161429	SCREW JOINT 12L	2
	178127	SEAL KIT/SWIVEL JOINT (SN AD00001 - AD03466)	1	7	161428	SCREW JOINT 10L	2
3	161428	SCREW JOINT 10L	2	8	161450	TEE	2
				9	161463	SCREW JOINT	8

# 303 - PILOT OIL SUPPLY UNIT

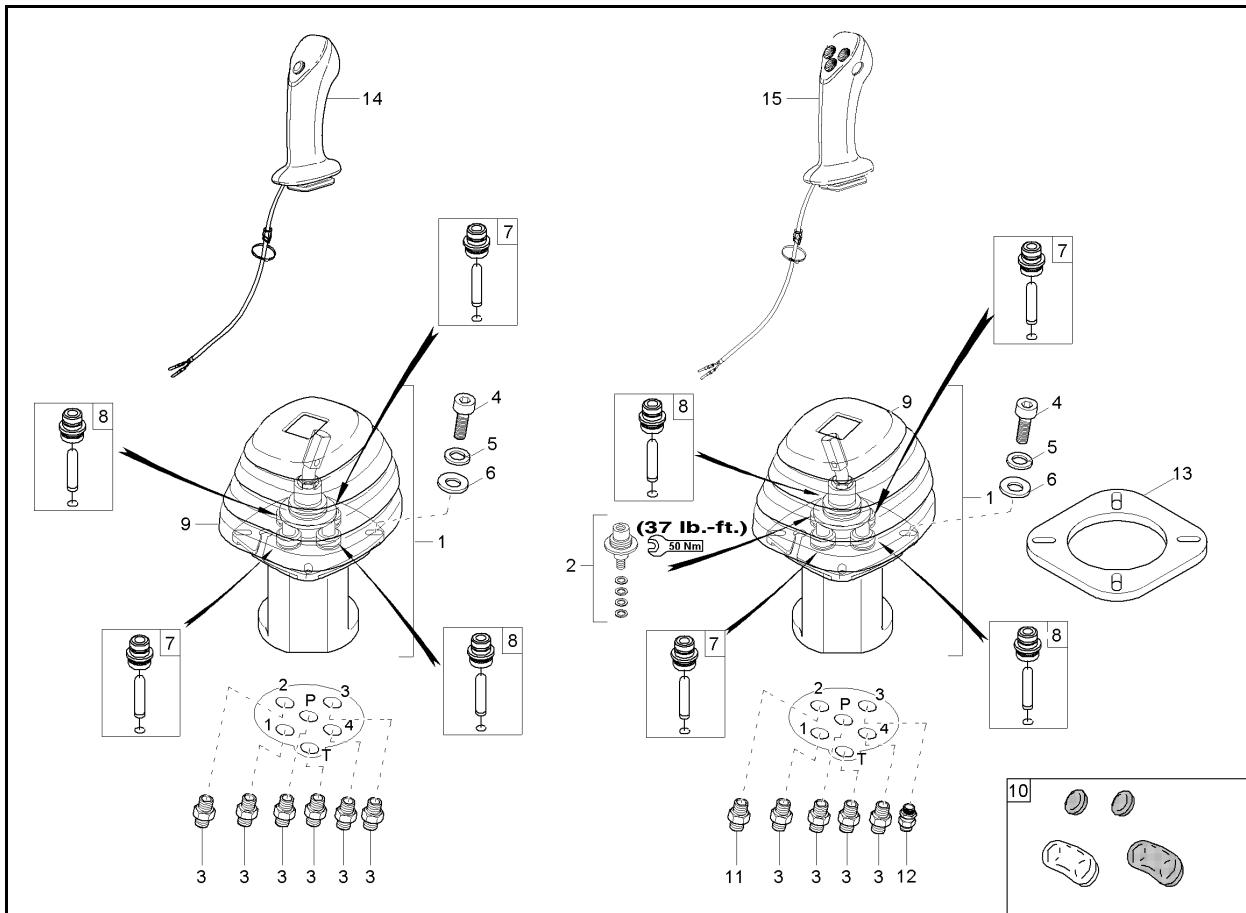
1000115568



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165045	PILOT OIL SUPPLY UNIT	1	8	161448	TEE	4
2	161567	SEAL	1	9	0003638466	TEST CONNECTION 8 L A3C	4
3	160437	ACCUMULATOR	1	10	177412	SOLENOID PILOT VALVE	2
4	177648	HEX SCREW	4	11	161438	ELBOW	1
5	163670	LOCKWASHER	4	12	161443	90° FITTING	3
6	161426	SCREW JOINT	7	13	162790	PLATE	1
7	163634	WASHER	4	14	165043	SOLENOID SWITCH	2

# 303 - JOYSTICKS

1000161740 - (SN AE01152 - AE02400)



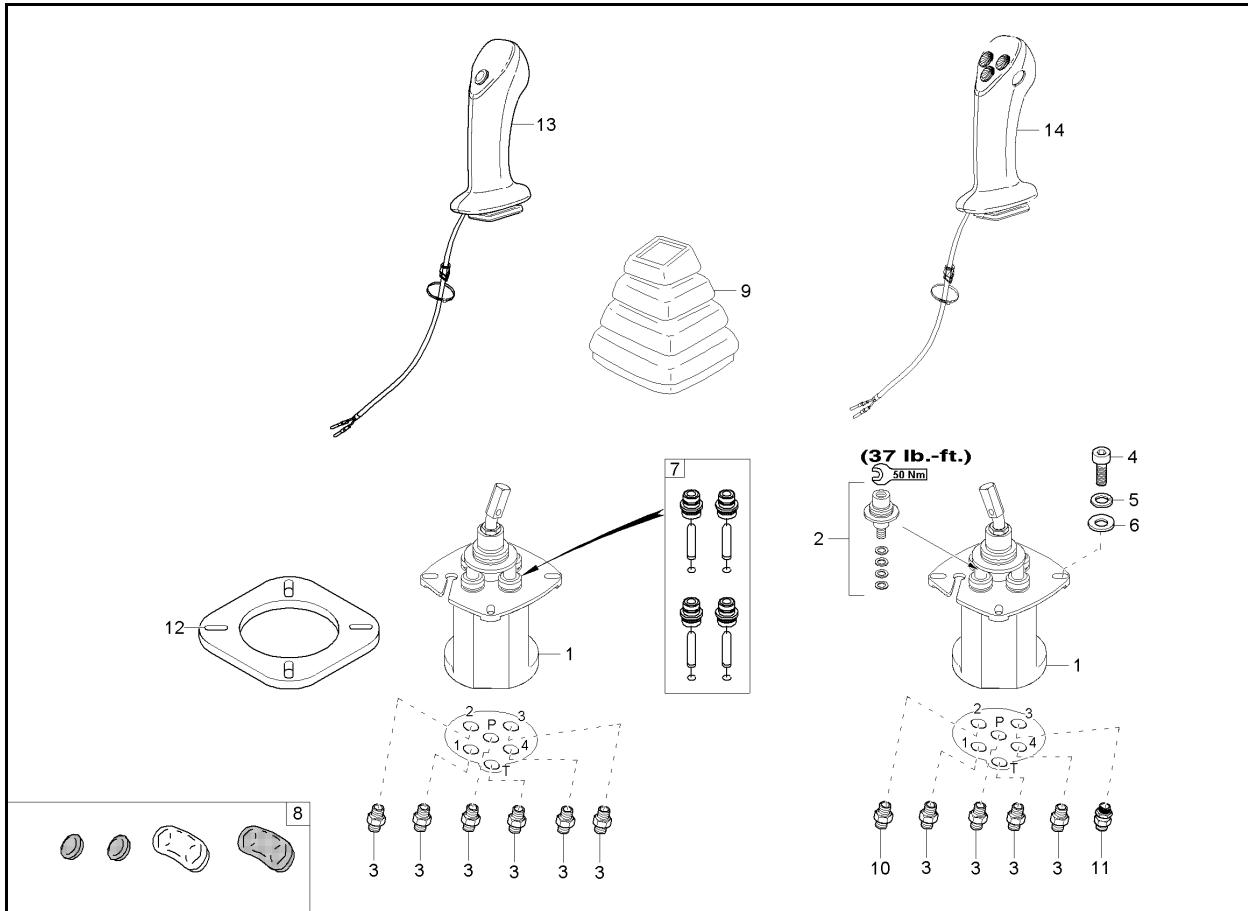
## Ref.

No.	Part No.	Description	Qty.
1	205869	VALVE	2
2	165037	UNIVERSAL JOINT	2
3	161426	SCREW JOINT	10
4	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	8
5	161675	LOCKWASHER S6	8
6	161660	WASHER GR A6.4 ZO DIN 125	8
7	205999	PLUNGER KIT	2
8	205998	PLUNGER KIT	2

## Ref.

No.	Part No.	Description	Qty.
9	206002	BELLOW	2
10	177652	RUBBER CAP	2
11	164535	PILOT CONTROL RESTRICTOR	1
12	165976	RESTRICTOR	1
13	178874	PLATE	2
14	165039	JOYSTICK LT	1
15	165816	JOYSTICK RT	1

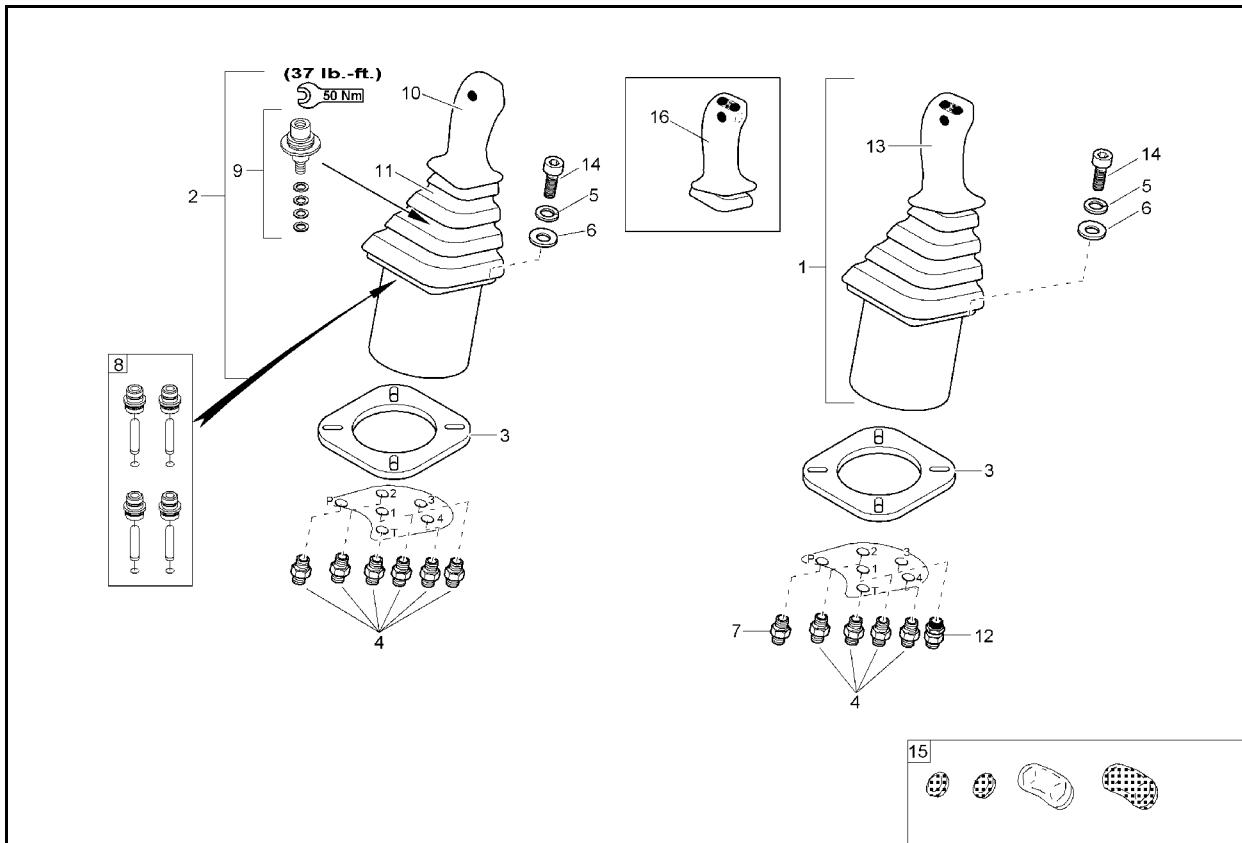
303 - JOYSTICKS  
1000161739 - (SN AD02590 - AE01151)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	205531	VALVE	2	8	177652	RUBBER CAP	2
2	165037	UNIVERSAL JOINT	2	9	165038	BELLOWS	2
3	161426	SCREW JOINT	10	10	164535	PILOT CONTROL RESTRICTOR	1
4	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	8	11	165976	RESTRICTOR	1
5	161675	LOCKWASHER S6	8	12	178874	PLATE	2
6	161660	WASHER GR A6.4 ZO DIN 125	8	13	165039	JOYSTICK LT	1
7	165040	PILOT VALVE SEAL KIT	2	14	165816	JOYSTICK RT	1

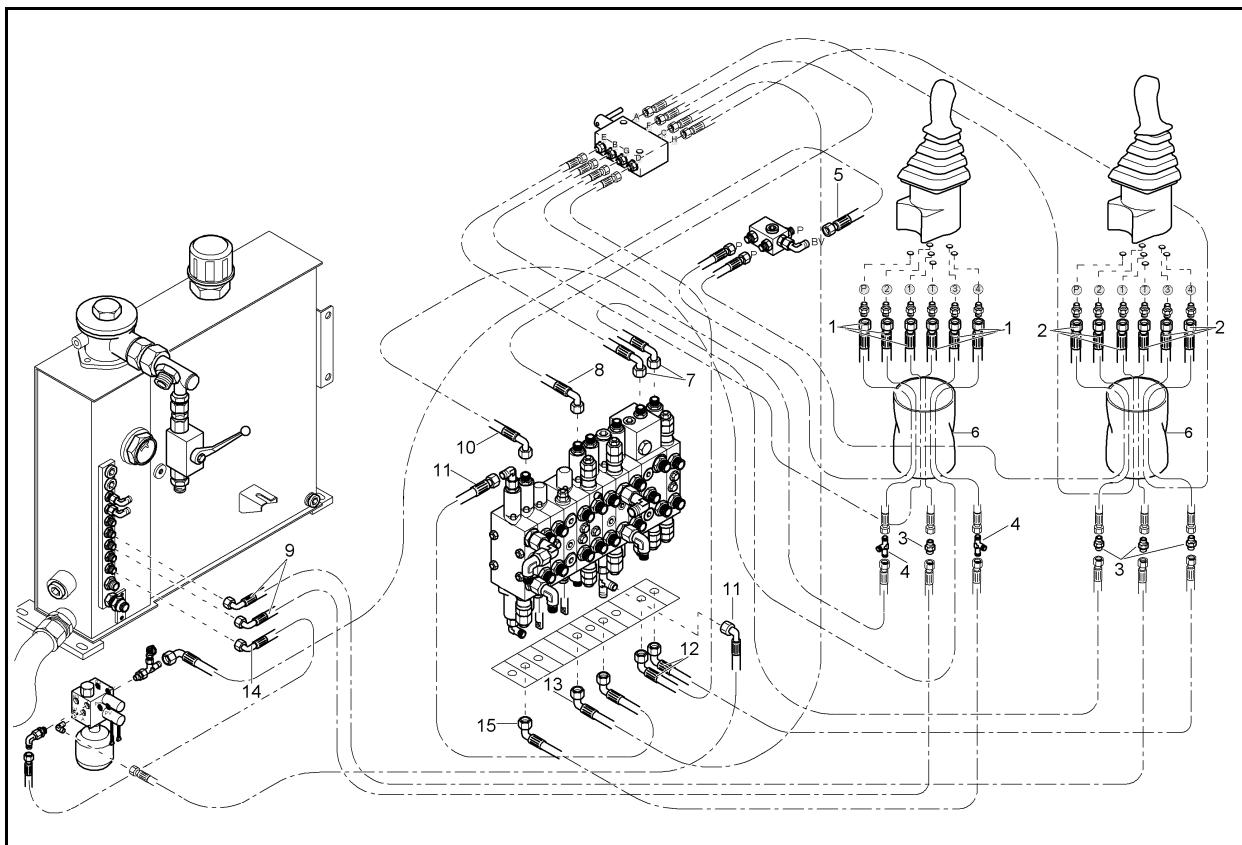
# 303 - JOYSTICKS

1000115584 - (SN AD00001 - AD02589)



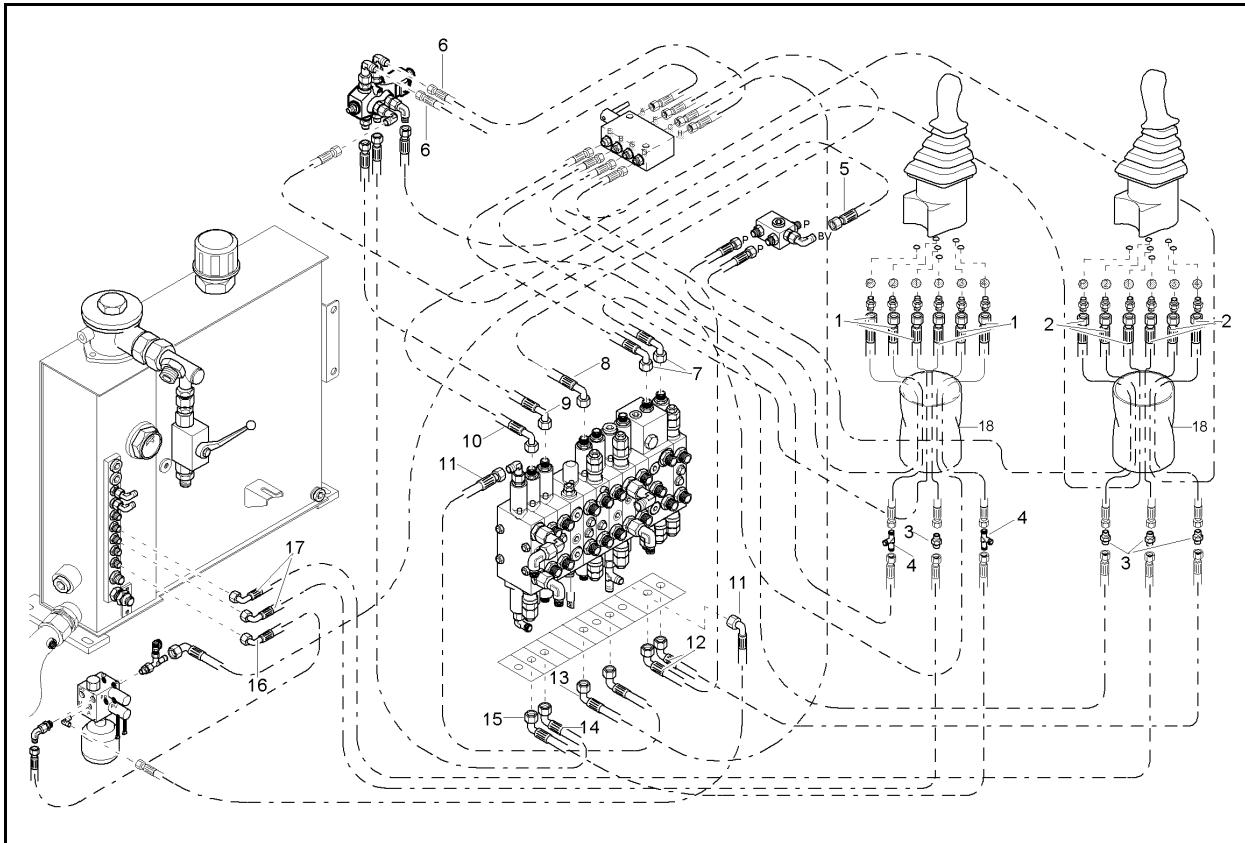
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	178786	JOYSTICK COMPLETE RT (SN AD00199 - AD02589)	1	7	164535	PILOT CONTROL RESTRICTOR	1
	165489	JOYSTICK COMPLETE RT (SN AD00001 - AD00198)	1	8	165040	PILOT VALVE SEAL KIT	2
2	178769	JOYSTICK COMPLETE LT (SN AD00199 - AD02589)	1	9	165037	UNIVERSAL JOINT	2
	160761	JOYSTICK COMPLETE LT (SN AD00001 - AD00198)	1	10	165039	JOYSTICK LT	1
3	178874	PLATE	2	11	165038	BELLOWS	2
4	161426	SCREW JOINT	10	12	165976	RESTRICTOR	1
5	161675	LOCKWASHER S6	8	13	165816	JOYSTICK RT	1
6	161660	WASHER GR A6.4 ZO DIN 125	8	14	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	8
				15	177652	RUBBER CAP	2
				16	165044	JOYSTICK LT/PROPORTIONAL	1

**303 - JOYSTICK INSTALLATION**  
**1000139373 - (SN AD02590 - AE02400)**

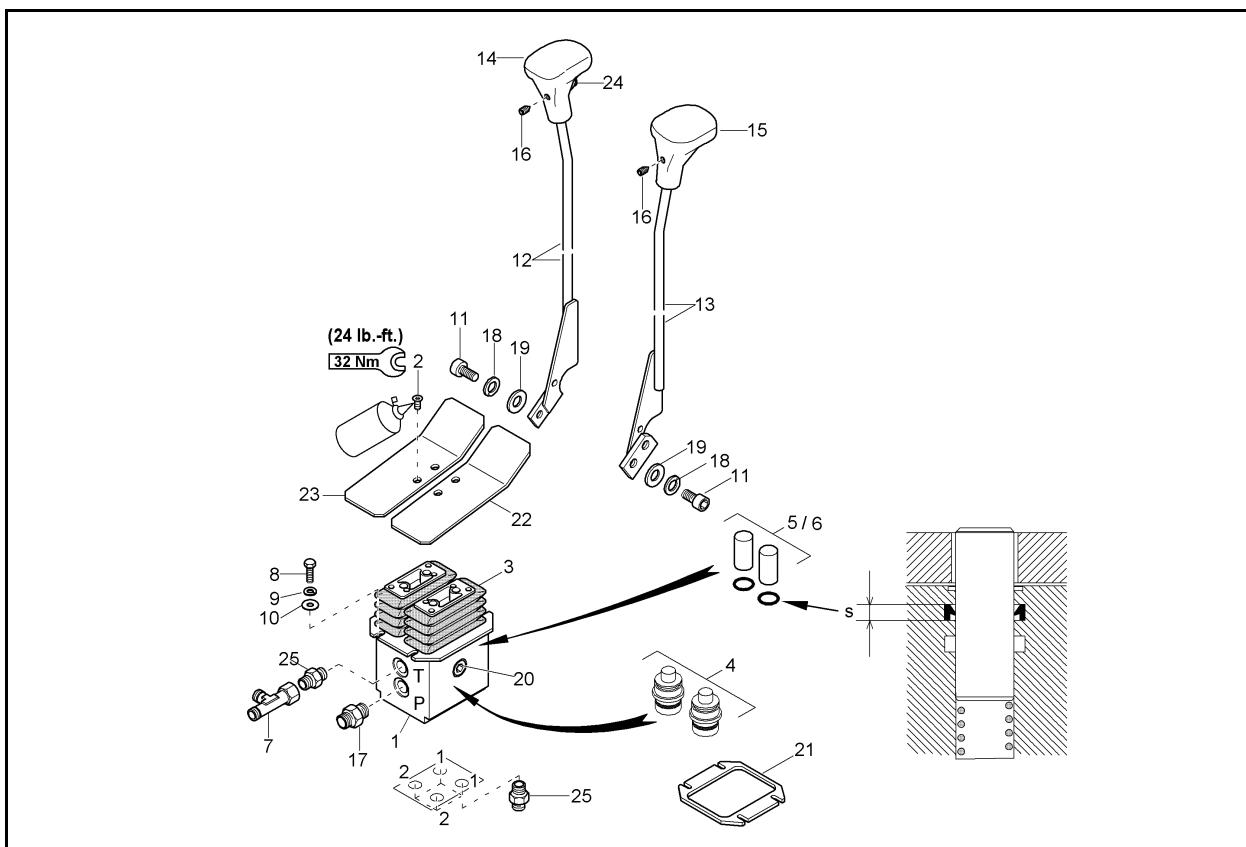


Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	165828		HP HOSE	6	9	161350		HP HOSE	2
2	161224		HP HOSE	6	10	162445		HP HOSE	1
3	161479		SCREW JOINT	4	11	165894		HP HOSE	2
4	161465		TEE	2	12	162956		HP HOSE	2
5	165830		HP HOSE	1	13	163288		HP HOSE	1
6	164892		HOSE PROTECTION SLEEVE	2	14	161351		HP HOSE	1
7	161220		HP HOSE	2	15	163289		HP HOSE	1
8	161276		HP HOSE	1					

**303 - JOYSTICK INSTALLATION**  
**1000115972 - (SN AD0001 - AD02589)**



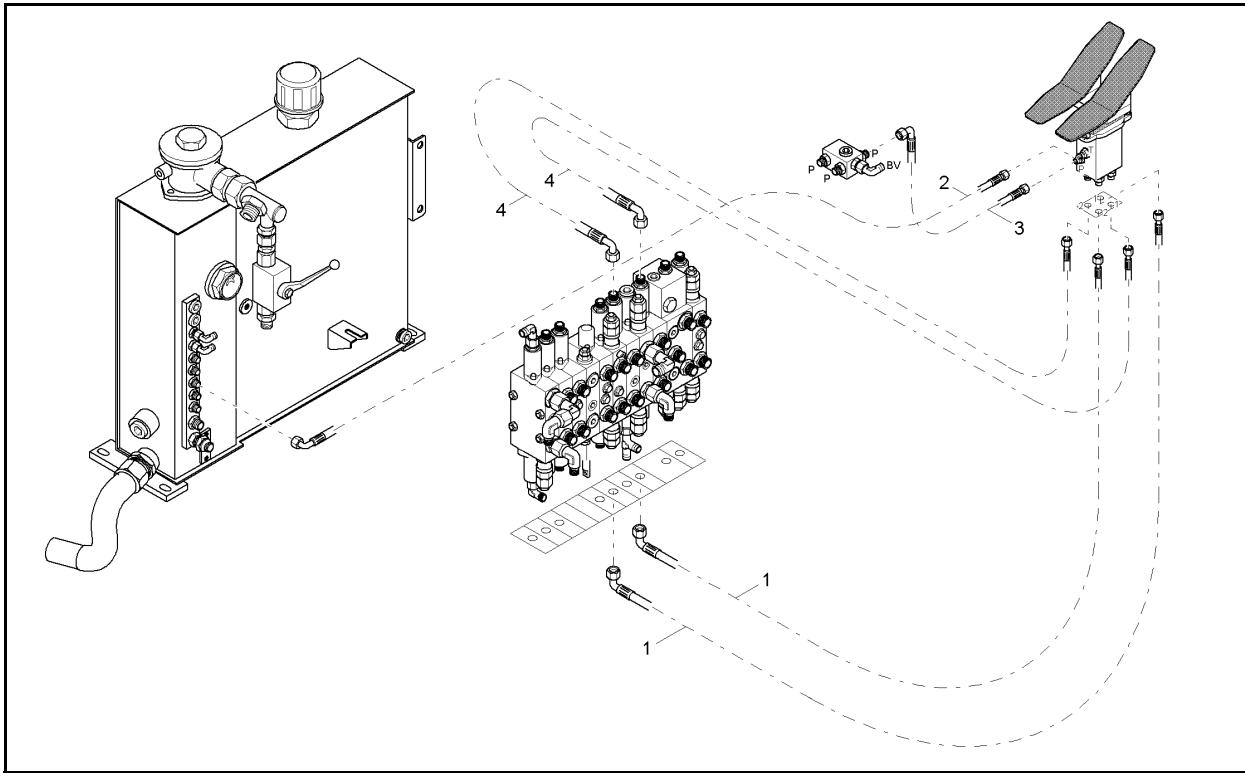
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165828	HP HOSE	6	10	162445	HP HOSE	1
2	161224	HP HOSE	6	11	165894	HP HOSE	2
3	161479	SCREW JOINT	4	12	162956	HP HOSE	2
4	161465	TEE	2	13	163288	HP HOSE	1
5	165830	HP HOSE	1	14	163290	HP HOSE	1
6	161236	HP HOSE	2	15	163289	HP HOSE	1
7	161220	HP HOSE	2	16	161351	HP HOSE	1
8	161276	HP HOSE	1	17	161350	HP HOSE	2
9	163335	HP HOSE	1	18	164892	HOSE PROTECTION SLEEVE	2



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	178947	TRAVEL PILOT VALVE COMPLETE	1	14	160658	KNOB W/RED SWITCH	1
2	179775	SCREW	4	15	161764	KNOB	1
3	165522	BELLOWS	1	16	162027	SET SCREW	2
4	165521	PLUNGER KITS	2	17	164535	PILOT CONTROL RESTRICTOR	1
5	165520	PLUNGERS/4.8MM SEALS	2	18	161669	LOCKWASHER S10	4
6	201838	PLUNGERS/3.7MM SEALS	2	19	161640	WASHER/GR A 10.5	4
7	161448	TEE (SN AD00001 - AD02589)	1	20	165514	SCREW	1
8	656105	CS M8-1.25 X 25 C8.8 ZY DIN931	4	21	165153	PLATE	1
9	163670	LOCKWASHER	4	22	178764	TRAVEL PEDAL RT	1
10	7462680011	WASHER 8.4 ST A2C	4	23	178763	TRAVEL PEDAL LT	1
11	651472	SHCS M10-1.25 X 20 F8.8 ZY DIN912	4	24	161363	SWITCH	1
12	1423029G	TRAVEL LEVER LT	1	25	161426	SCREW JOINT	5
13	1423030G	TRAVEL LEVER RT	1				

# 303 - TRAVEL PILOT VALVE INSTALLATION

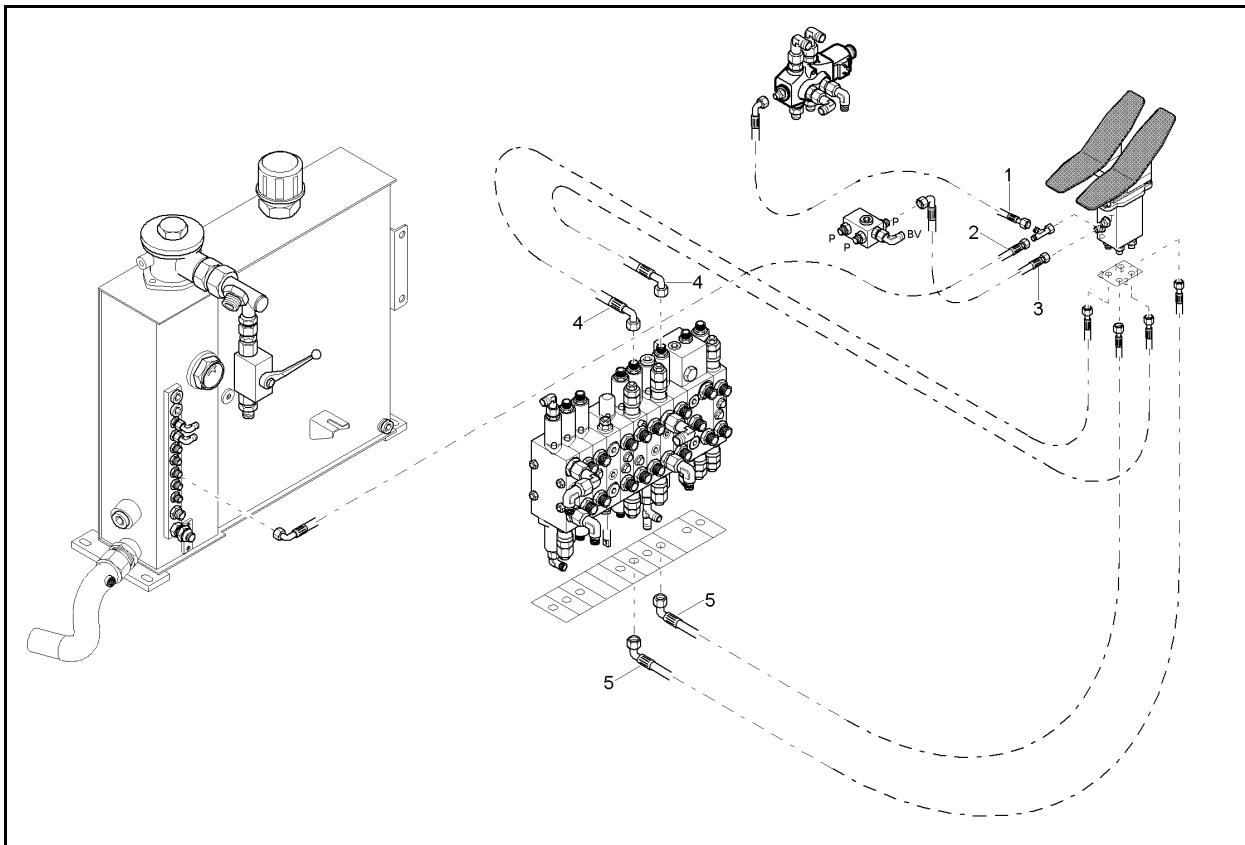
1000139375 - (SN AD02590 - AE02400)



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	161224	HP HOSE		2	3	161236	HP HOSE		1
2	161276	HP HOSE		1	4	163335	HP HOSE		2

# 303 - TRAVEL PILOT VALVE INSTALLATION

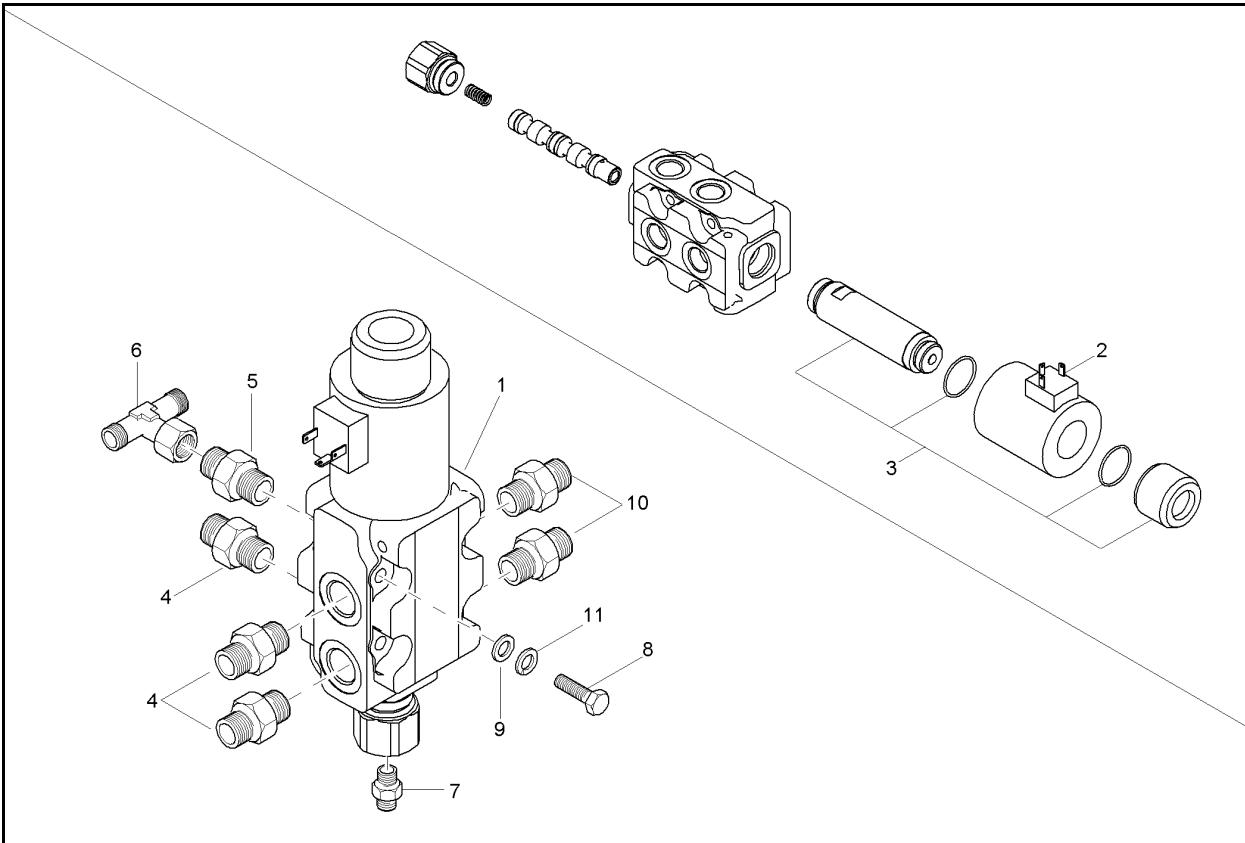
1000115973 - (SN AD00001 - AD02589)



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	164800		HP HOSE	1	4	163335		HP HOSE	2
2	161276		HP HOSE	1	5	161224		HP HOSE	2
3	161236		HP HOSE	1					

# 303 - SELECTION VALVE

1000133290



#### Ref.

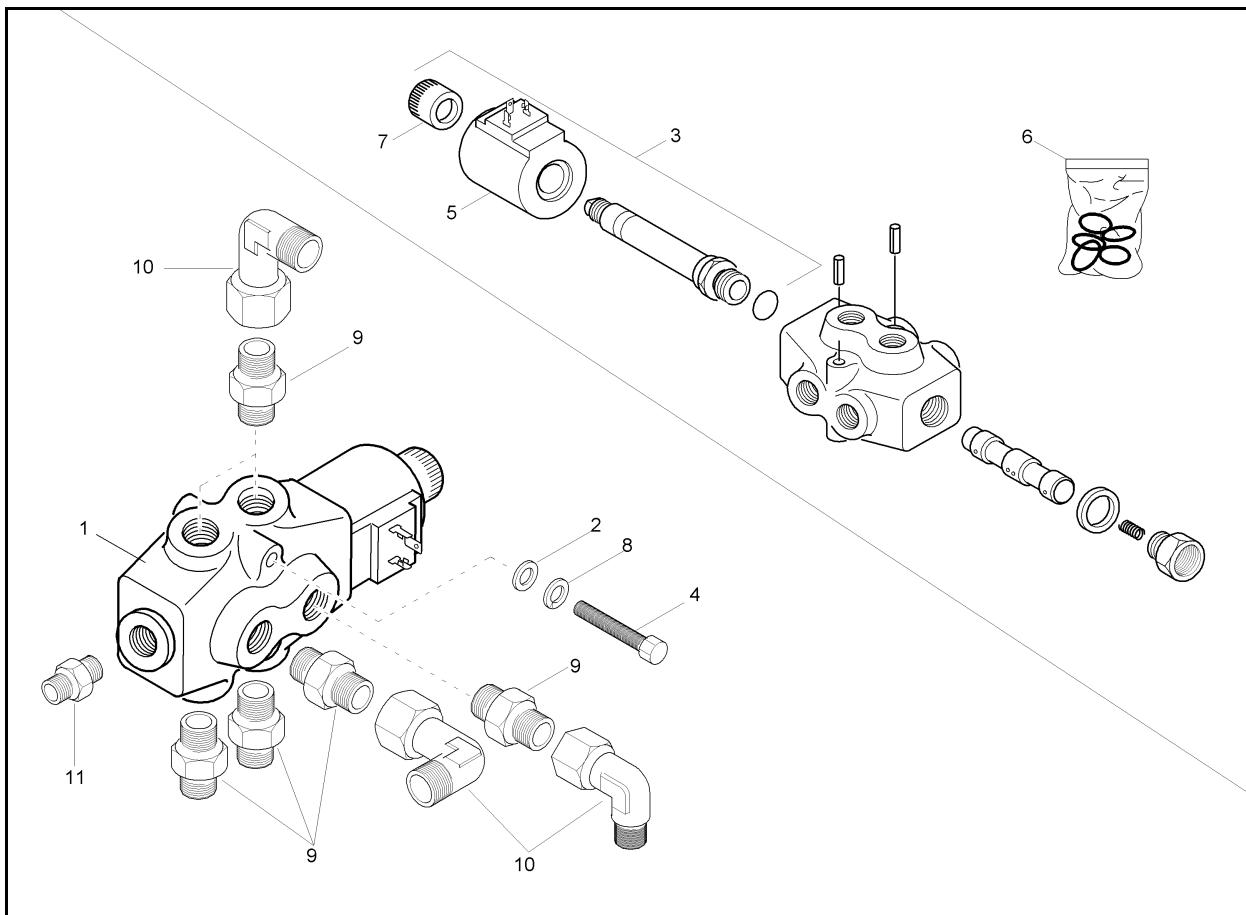
No.	Part No.	Description	Qty.
1	165488	SELECTION VALVE	1
2	165516	COIL	1
3	165517	SOLENOID	1
4	161431	SCREW JOINT	3
5	9910346G	SCREW JOINT	1
6	161451	TEE	1

#### Ref.

No.	Part No.	Description	Qty.
7	161426	SCREW JOINT	1
8	165928	SCREW	2
9	163634	WASHER	2
10	165961	SCREW JOINT	2
11	163670	LOCKWASHER	2

# 303 - REVERSING VALVE (DOZER BLADE)

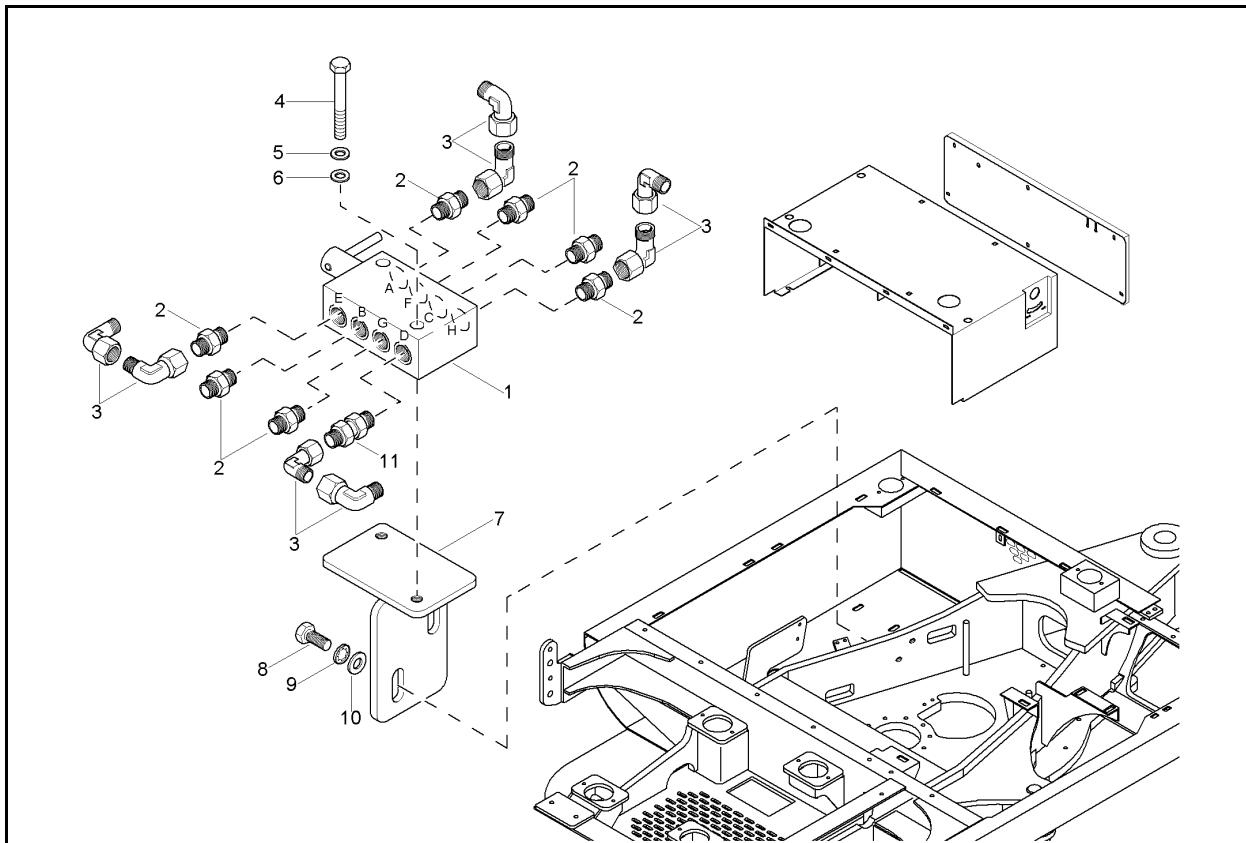
1000155932 - (SN AD00001 - AD02589)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	160763	REVERSING VALVE COMPLETE	1	7	164706	NUT	1
2	161660	WASHER GR A6.4 ZO DIN 125	2	8	161675	LOCKWASHER S6	2
3	162243	SOLENOID ASSY	1	9	161427	SCREW JOINT	6
4	165924	SCREW	2	10	161443	90° FITTING	4
5	162245	COIL	1	11	161426	SCREW JOINT	1
6	162246	SEAL KIT	1				

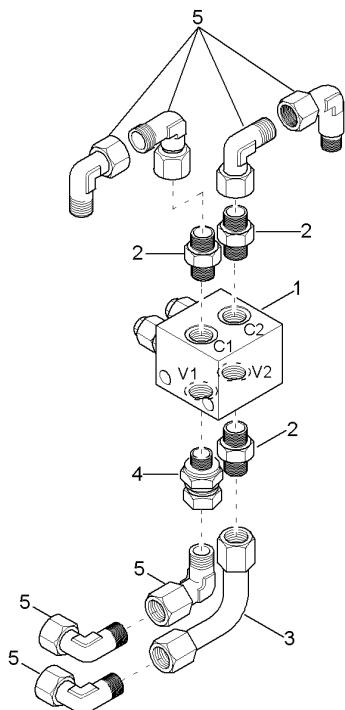
# 303 - ISO/SAE VALVE

1000115941



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	1408450G	ISO/SAE VALVE		1	7	178982	BRACKET		1
2	161426	SCREW JOINT		7	8	177648	HEX SCREW		2
3	161443	90° FITTING		8	9	163670	LOCKWASHER		2
4	651428	CS M6-1 X 50 C8.8 ZY DIN931		2	10	7462680011	WASHER 8.4 ST A2C		2
5	161675	LOCKWASHER S6		2	11	165976	RESTRICTOR		1
6	161660	WASHER GR A6.4 ZO DIN 125		2					

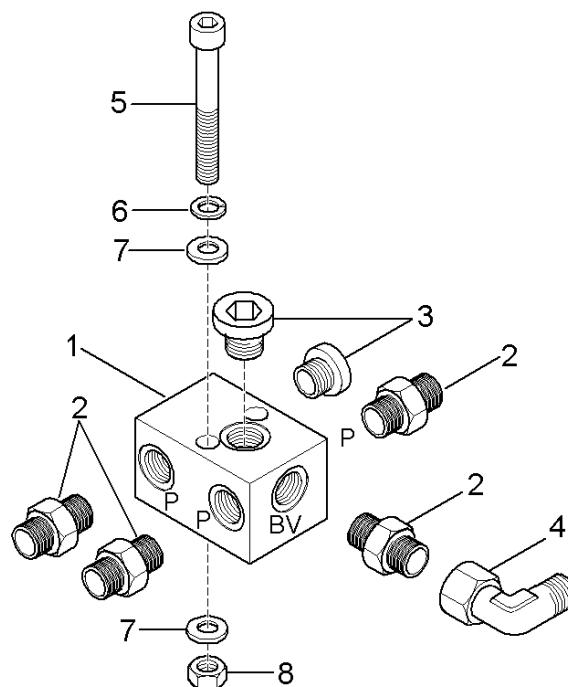
**303 - LOCK VALVE**  
**1000115933**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165490	LOCK VALVE	1	4	165963	SCREW JOINT	1
2	163113	SCREW JOINT	3	5	161444	90° FITTING	7
3	165481	TUBE	1				

# 303 - MANIFOLD BLOCK

1000115934



Ref.

No. Part No.

Description

Qty.

1	165089	MANIFOLD BLOCK	1
2	161426	SCREW JOINT	4
3	161414	SCREW	2
4	161443	90° FITTING	1

Ref.

No. Part No.

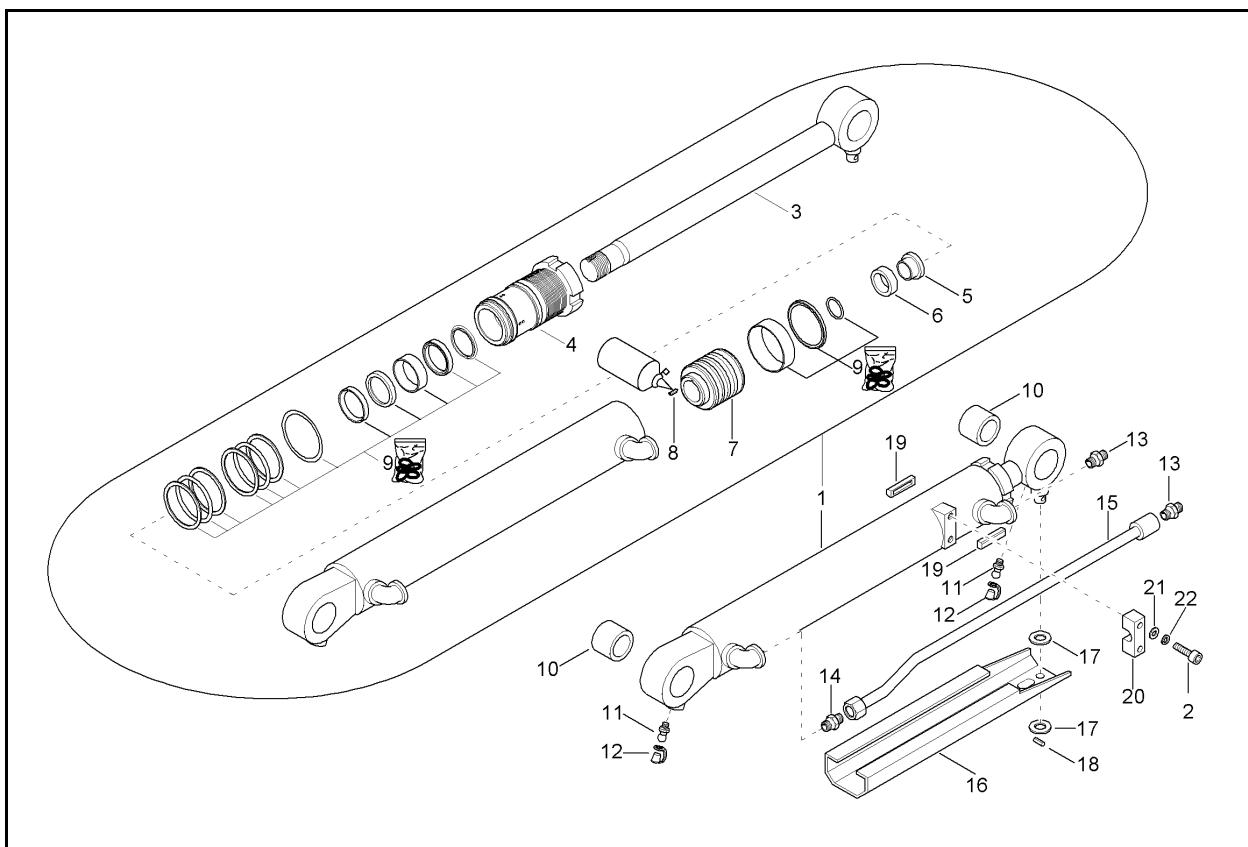
Description

Qty.

5	165924	SCREW	2
6	161675	LOCKWASHER S6	2
7	161660	WASHER GR A6.4 ZO DIN 125	2
8	161678	HN M6-1.00 C8 ZO	2

# 303 - BOOM CYLINDER

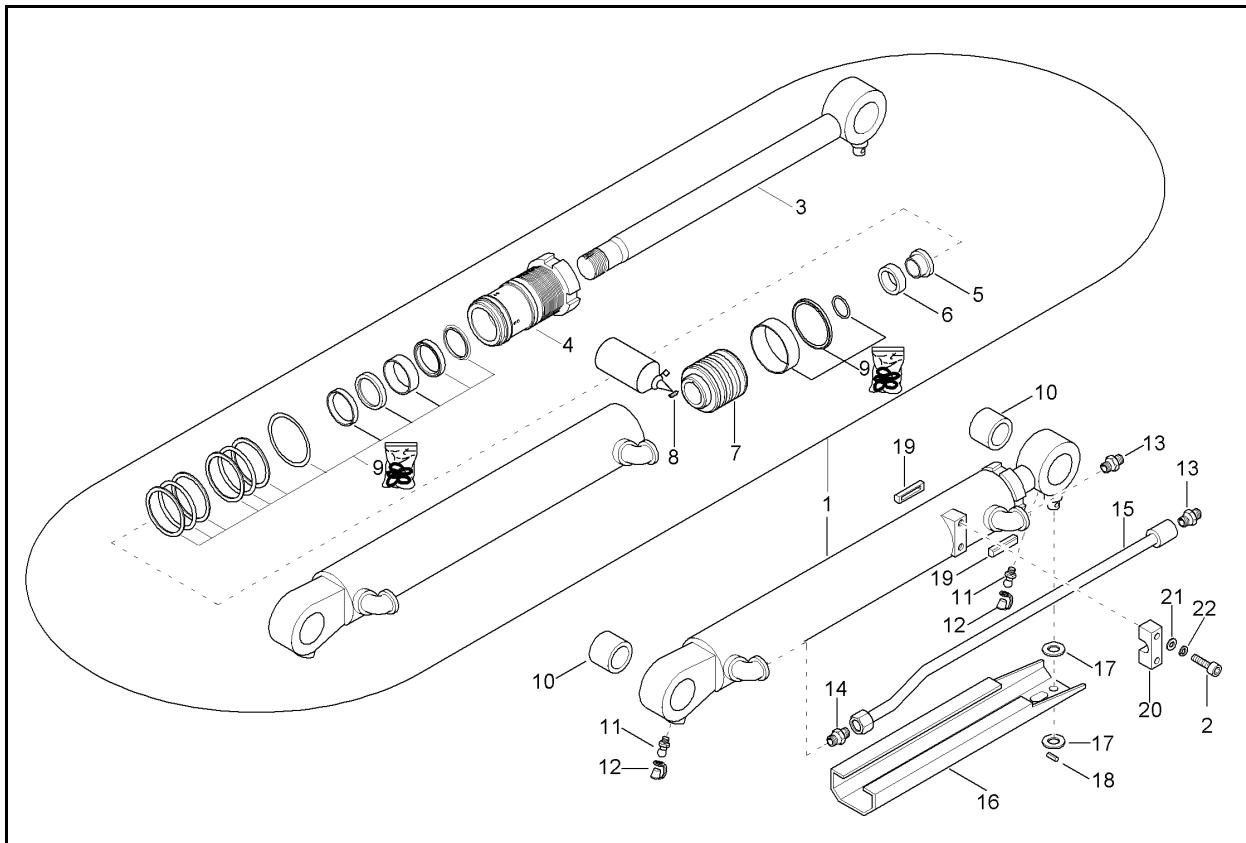
1000115944



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165629	BOOM CYLINDER COMPLETE	1	12	161422	CAP	2
2	656094	CS M8-1.25 X 30 C8.8 ZY DIN931	2	13	161463	SCREW JOINT	2
3	165671	PISTON ROD	1	14	161431	SCREW JOINT	1
4	165673	BUSHING	1	15	165658	TUBES	1
5	165675	BUSHING	1	16	160836	CLUTCH	1
6	165674	BUSHING	1	17	161650	WASHER/GR A 19 ZO DIN125	2
7	165672	PISTON	1	18	651468	PIN/SPRING M5 X 36	1
8	165938	SET SCREW	1	19	161205	GUIDE	2
9	165699	SEAL KIT	1	20	165659	COLLAR	1
10	161538	BUSHING	2	21	163634	WASHER	2
11	165823	GREASE FITTING	2	22	163670	LOCKWASHER	2

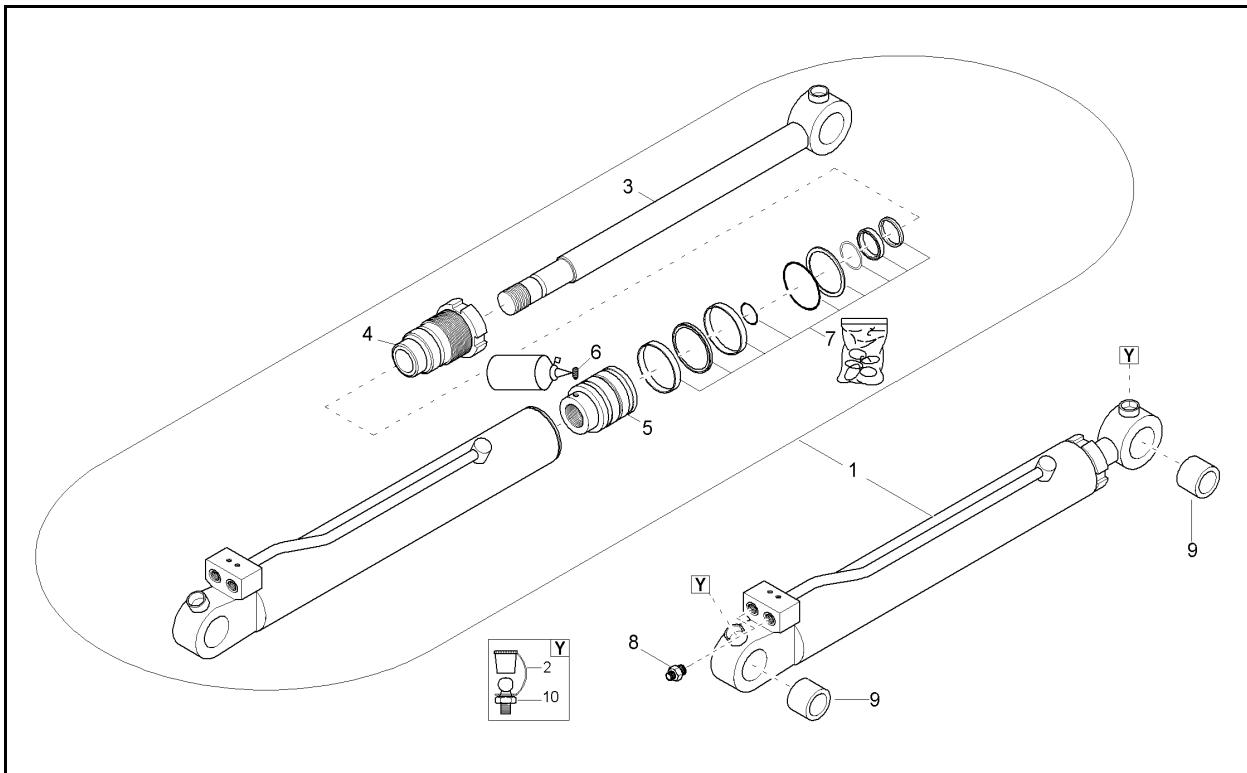
# 303 - DIPPER ARM CYLINDER

1000115945



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165628	DIPPER ARM CYLINDER COMPLETE	1	10	161538	BUSHING	2
2	7462680011	WASHER 8.4 ST A2C	2	11	165823	GREASE FITTING	2
3	165677	PISTON ROD	1	12	161422	CAP	2
4	165679	BUSHING	1	13	161463	SCREW JOINT	3
5	165675	BUSHING	1	14	161431	SCREW JOINT	1
6	165674	BUSHING	1	15	165657	TUBE	1
7	165678	PISTON	1	16	165656	TUBE	1
8	165938	SET SCREW	1	17	656093	CS M8-1.25X16 C8.8 ZY DIN931	2
9	165700	SEAL KIT	1	18	163670	LOCKWASHER	2

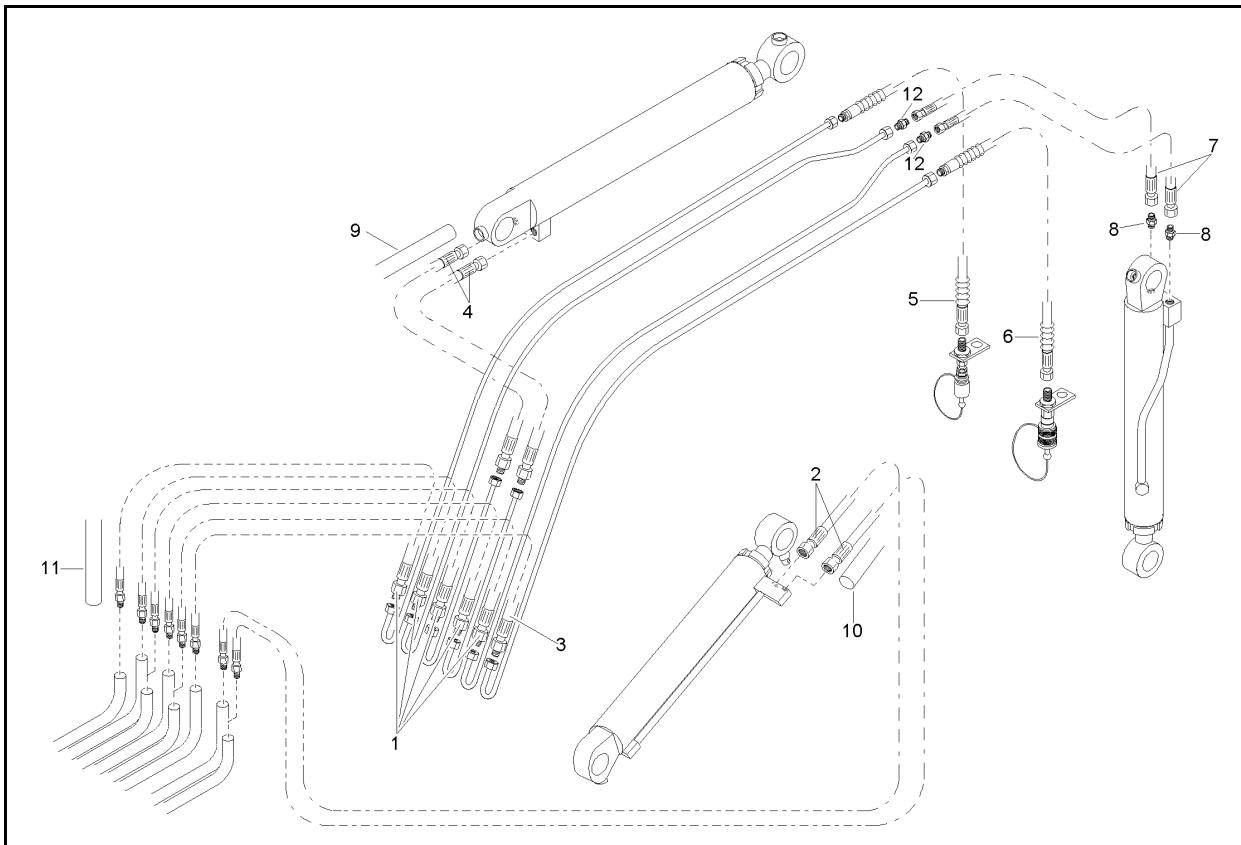
**303 - BUCKET CYLINDER**  
1000115946



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165627	BUCKET CYLINDER COMPLETE	1	6	165938	SET SCREW	1
2	161422	CAP	2	7	165700	SEAL KIT	1
3	165681	PISTON ROD	1	8	161429	SCREW JOINT 12L	2
4	165682	BUSHING	1	9	161538	BUSHING	2
5	165678	PISTON	1	10	165823	GREASE FITTING	2

# 303 - BOOM HYDRAULIC INSTALLATION

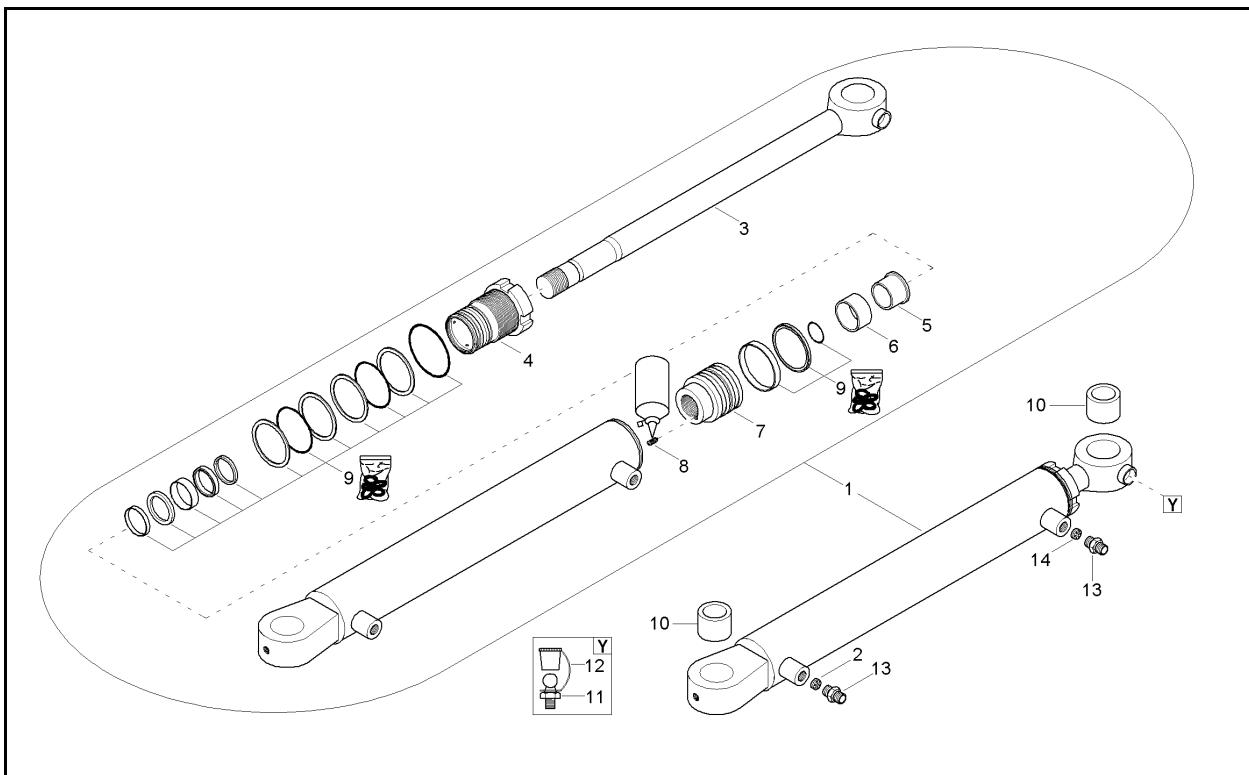
1000115975 & 1000115976



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165860	HP TUBE	5	8	161429	SCREW JOINT 12L	2
2	165861	HP HOSE	2	9	207180	HEAT SHRINK SLEEVE (0.4M)	1
3	165892	HP TUBE	1	10	207191	HEAT SHRINK SLEEVE (2.1M)	1
4	165886	HP HOSE	2	11	207185	HEAT SHRINK SLEEVE (1.1M)	1
5	162419	HP HOSE	1	12	165974	REDUCTION JOINT	2
6	162441	HP HOSE	1				
7	165862 207472	HP HOSE/SHORT DIPPER ARM HP HOSE/LONG DIPPER ARM	2				

# 303 - SWIVEL CYLINDER

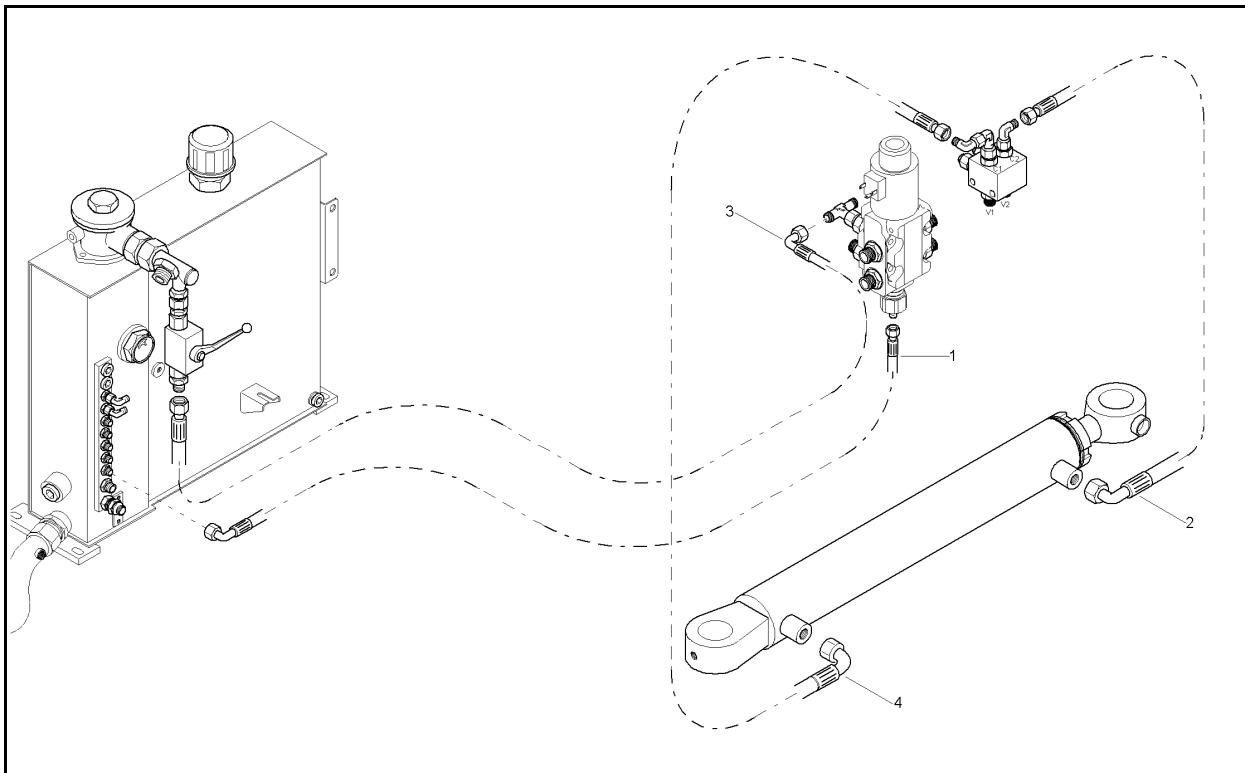
1000115947



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165630	SWIVEL CYLINDER	1	8	165938	SET SCREW	1
2	160651	RESTRICTOR	1	9	165702	SEAL KIT	1
3	165684	PISTON ROD	1	10	161538	BUSHING	2
4	165686	BUSHING	1	11	165823	GREASE FITTING	1
5	165675	BUSHING	1	12	161422	CAP	1
6	165674	BUSHING	1	13	161428	SCREW JOINT 10L	2
7	165685	PISTON	1	14	165896	RESTRICTOR	1

# 303 - SWIVEL CYLINDER INSTALLATION

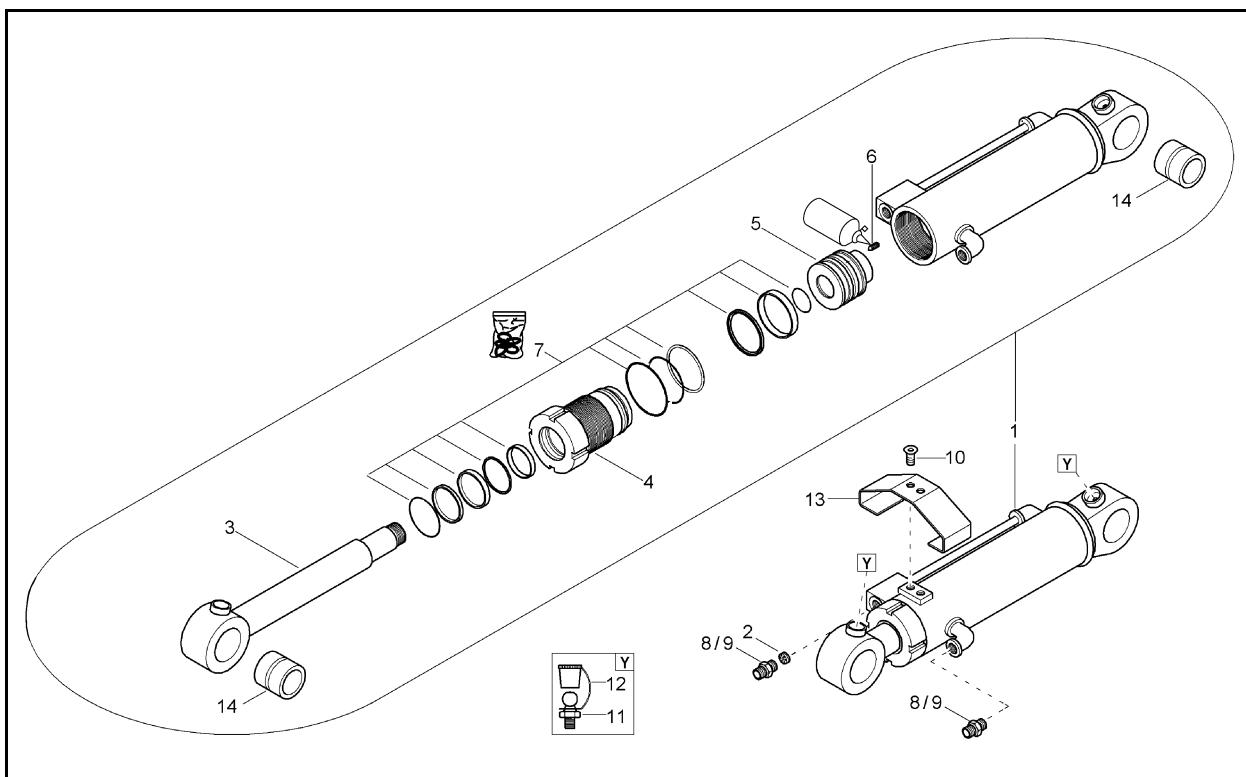
1000115967



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	161245	HP HOSE	1	3	165834	HP HOSE	1
2	165848	HP HOSE	1	4	161290	HP HOSE	1

# 303 - DOZER BLADE CYLINDER

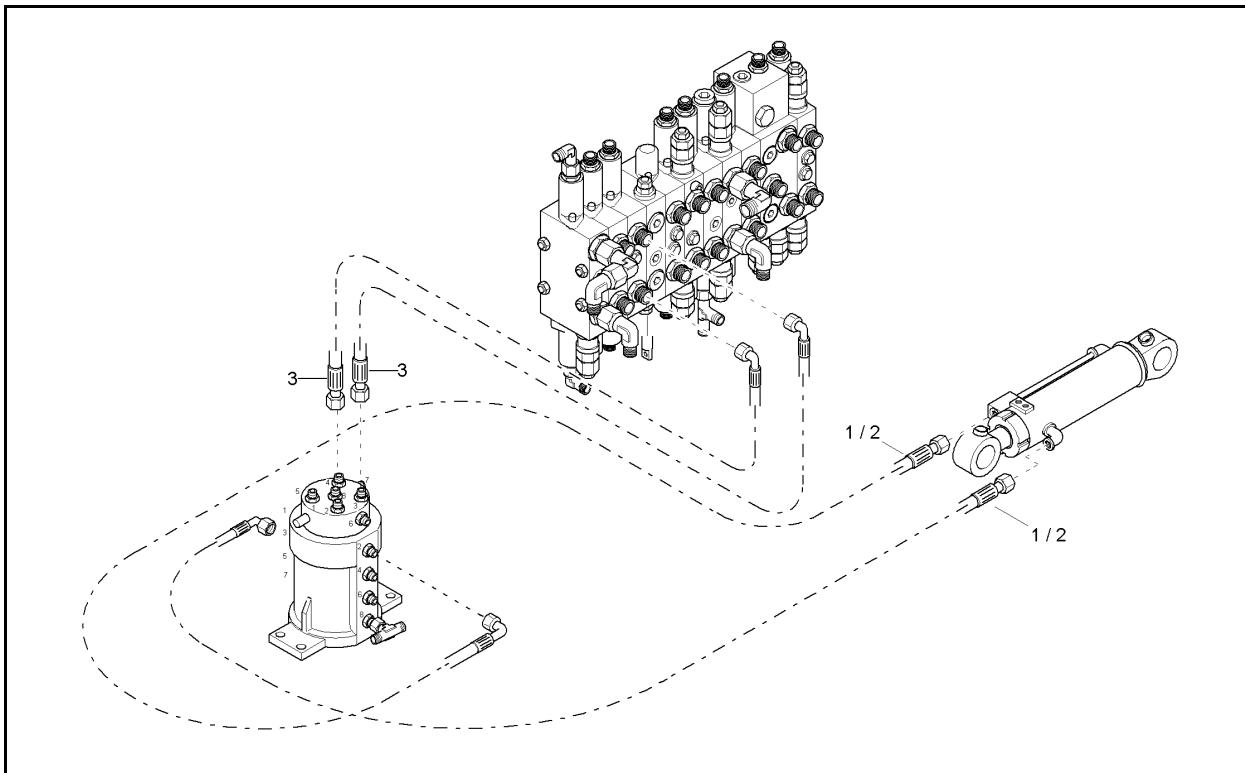
1000115949



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165631	DOZER BLADE CYLINDER COMPLETE	1	8	161429	SCREW JOINT 12L	2
2	165687	TUBE BURST PROTECTION	1	9	161428	SCREW JOINT 10L	2
3	165665	PISTON ROD	1	10	162041	SCREW	2
4	165667	CYLINDER HEAD	1	11	161412	GREASE ZERK-9MM HEX HEAD	2
5	165666	PISTON	1	12	161416	CAP	2
6	161400	SET SCREW	1	13	162360	HOSE BRACKET	1
7	165669	SEAL KIT	1	14	161538	BUSHING	2

# 303 - DOZER BLADE CYLINDER INSTALLATION

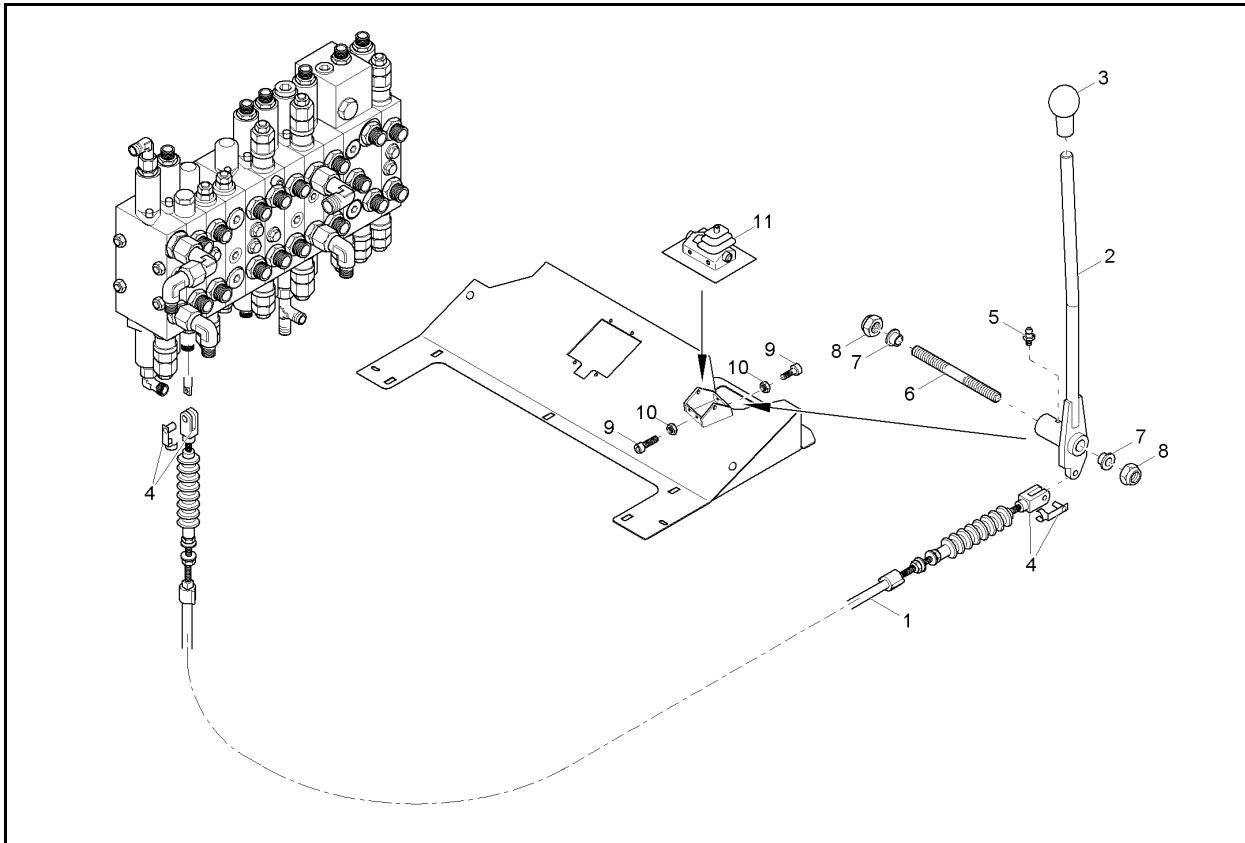
## 1000115968



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165852	HP HOSE (12L FITTINGS)	2	3	165845	HP HOSE	2
2	165849	HP HOSE (10L FITTINGS)	2				

# 303 - DOZER BLADE LEVER INSTALLATION

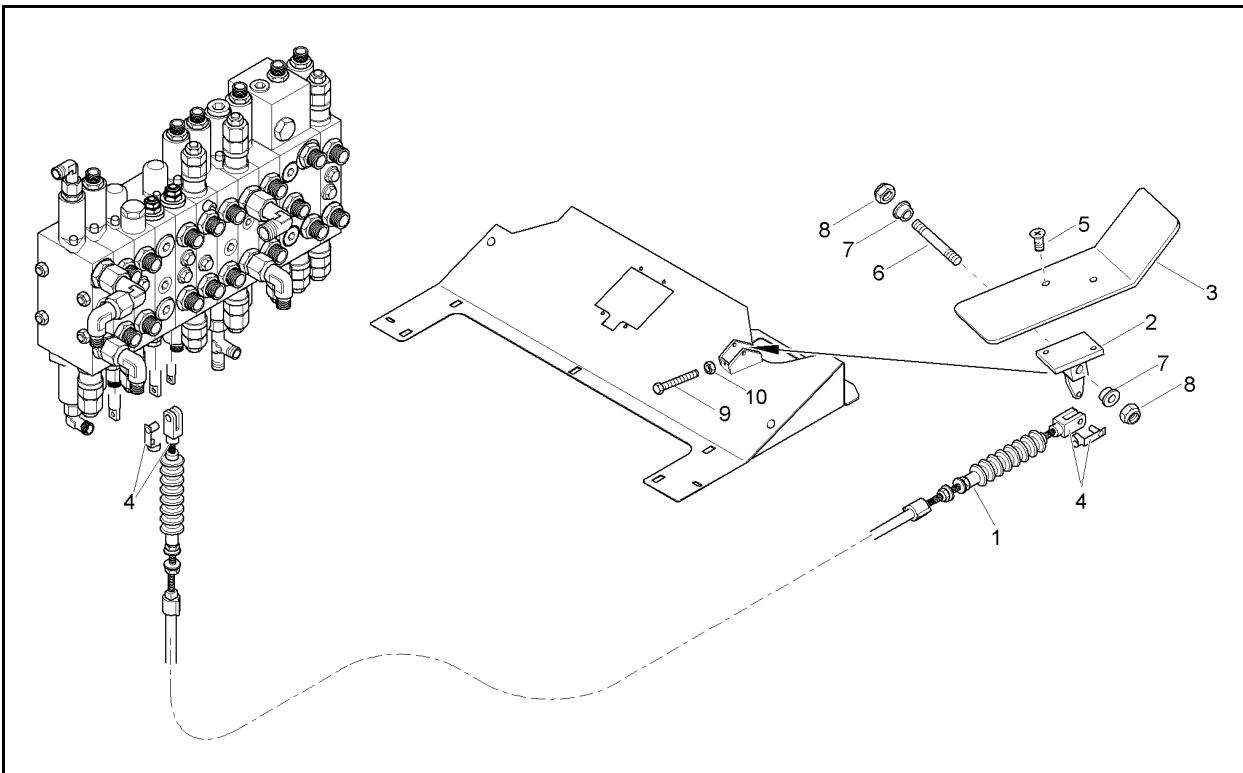
1000139379 - (SN AD02590 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165058	CABLE	1	7	165567	BEARING	2
2	207470	DOZER BLADE LEVER	1	8	179793	NUT	2
3	162398	KNOB	1	9	162021	SCREW	2
4	179862	CLEVIS	2	10	656100	HN M5-0.8 C8 ZY DIN934	2
5	161411	GREASE ZERK-7MM HEX HEAD	1	11	206082	BELLOW (SN AD03862 - AE02400)	1
6	207469	PIN	1				

# 303 - AUXILIARY HYDRAULICS PEDAL INSTALLATION

1000139745



Ref.

No. Part No.

Description

Qty.

1	165058	CABLE	1
2	165548	LEVER	1
3	206346	PEDAL	1
4	179862	CLEVIS	2
5	651465	FHCS M8-1.25 X 16 C8.8 ZY DIN7991	2
6	207469	PIN (SN AD02590 - AE02400)	1
	165550	PIN (SN AD00001 - AD02589)	1

Ref.

No. Part No.

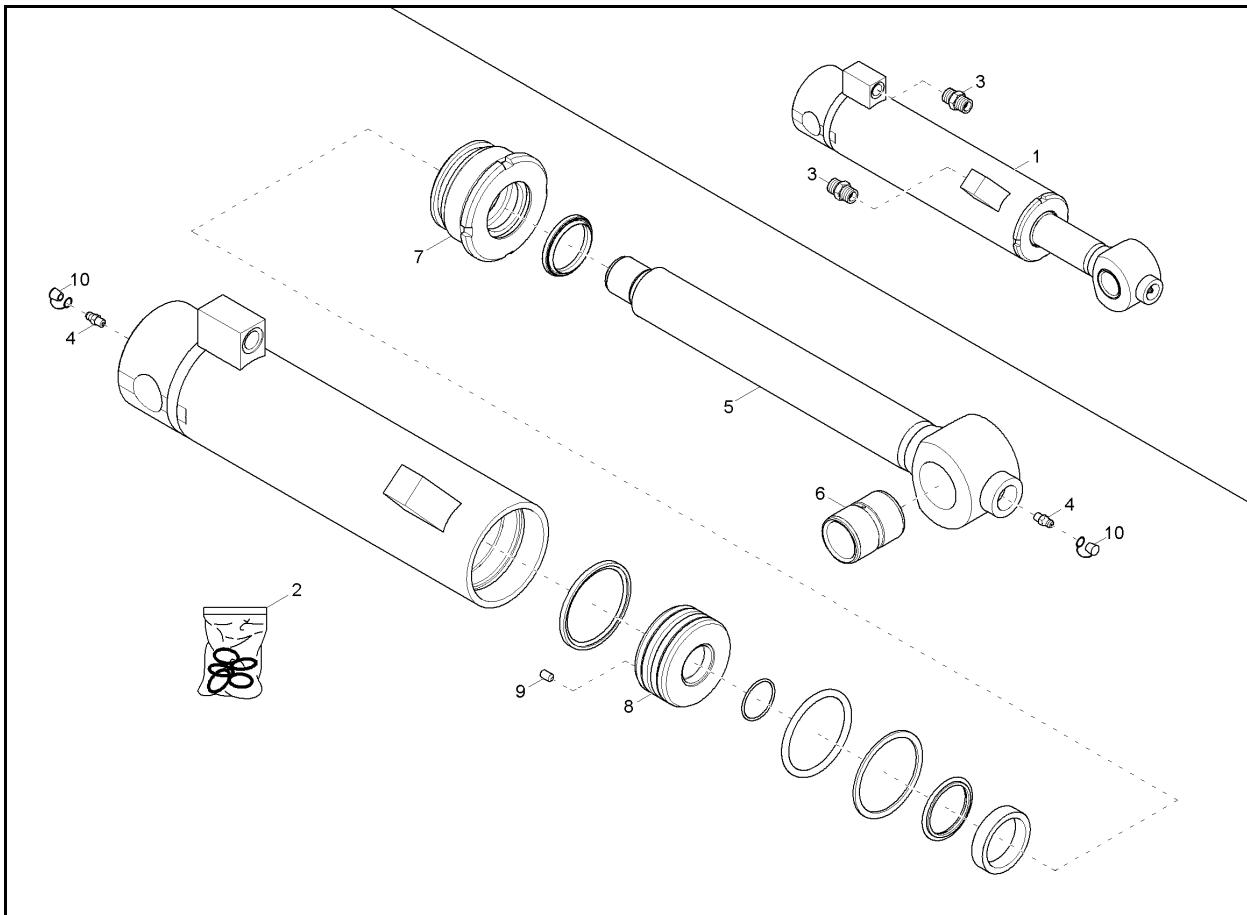
Description

Qty.

7	165567	BEARING	2
8	179793	NUT	2
9	162021	SCREW	2
10	656100	HN M5-0.8 C8 ZY DIN934	2

# 303 - SWIVEL BUCKET CYLINDER

1000143534



**Ref.**

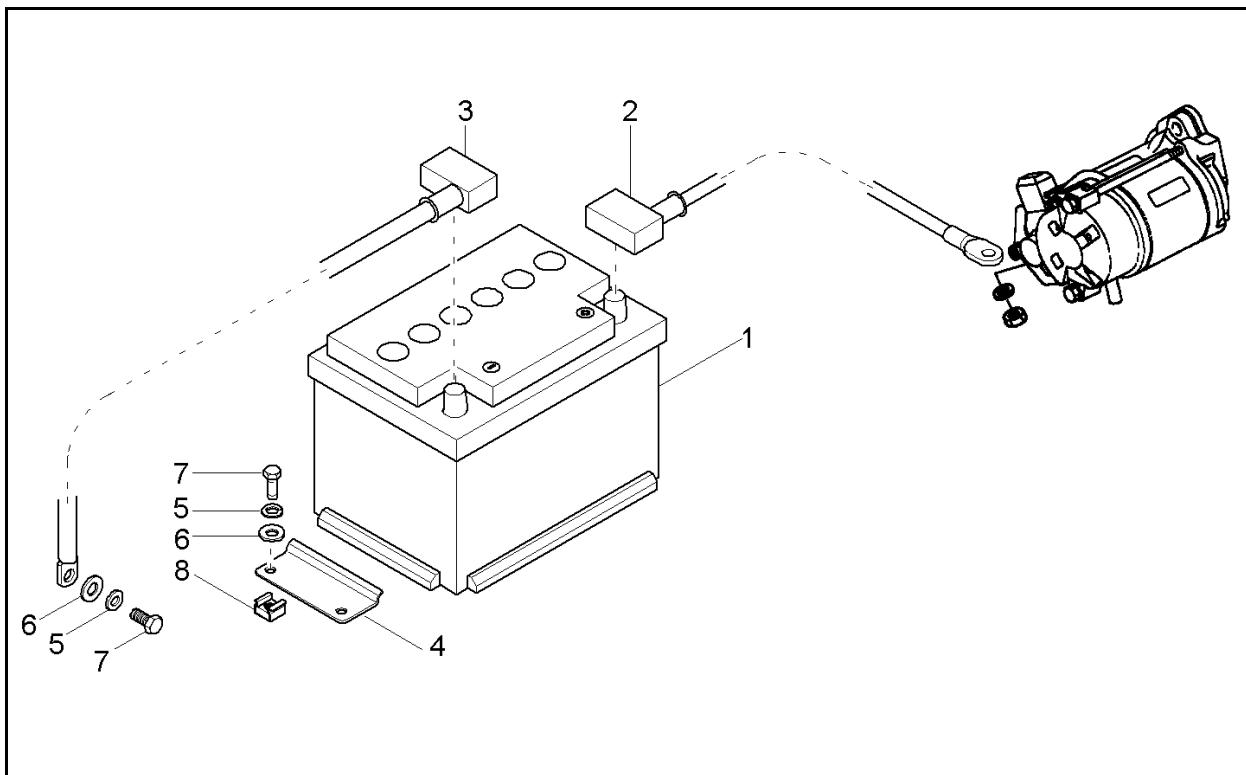
No.	Part No.	Description	Qty.
1	206059	SWIVEL BUCKET CYLINDER COMPLETE	1
2	206050	SEAL KIT/CYLINDER	1
3	161429	SCREW JOINT 12L	2
4	161411	GREASE ZERK-7MM HEX HEAD	2
5	206060	PISTON ROD	1

**Ref.**

No.	Part No.	Description	Qty.
6	177629	STEEL BUSHING	1
7	177641	GUIDE BUSHING	1
8	177640	PISTON	1
9	161400	SET SCREW	1
10	161416	CAP	2

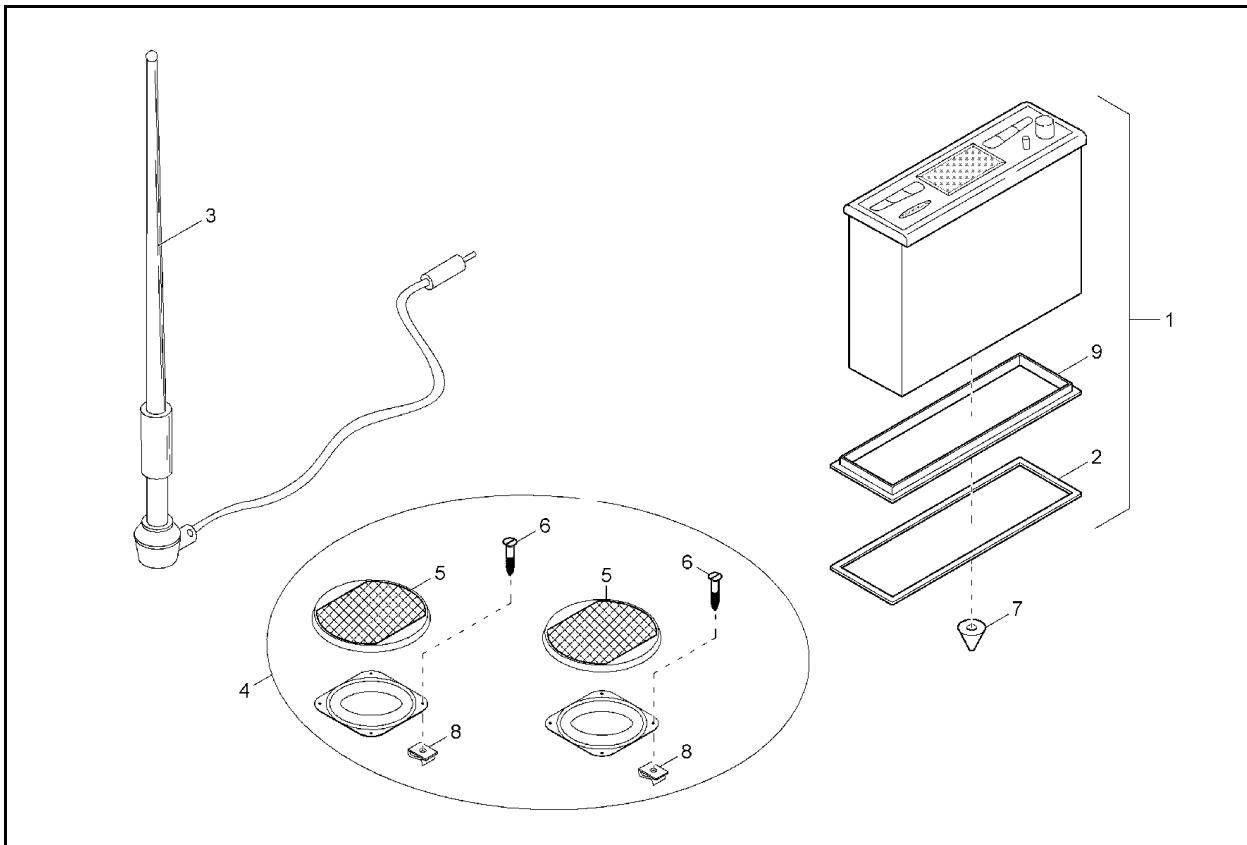
# 303 - BATTERY

1000115986



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	*		BATTERY	1	6	163634		WASHER	3
2	178917		BATTERY CABLE/POS (+)	1	7	177648		HEX SCREW	3
3	178918		BATTERY CABLE/NEG (-)	1	8	161615		NUT/CAGE M8	2
4	165036		BRACKET	1	* Purchase locally; group size 91 (alt. 48), 640 CCA.				
5	163670		LOCKWASHER	3					

**303 - RADIO (OPTION)**  
**1000144767**

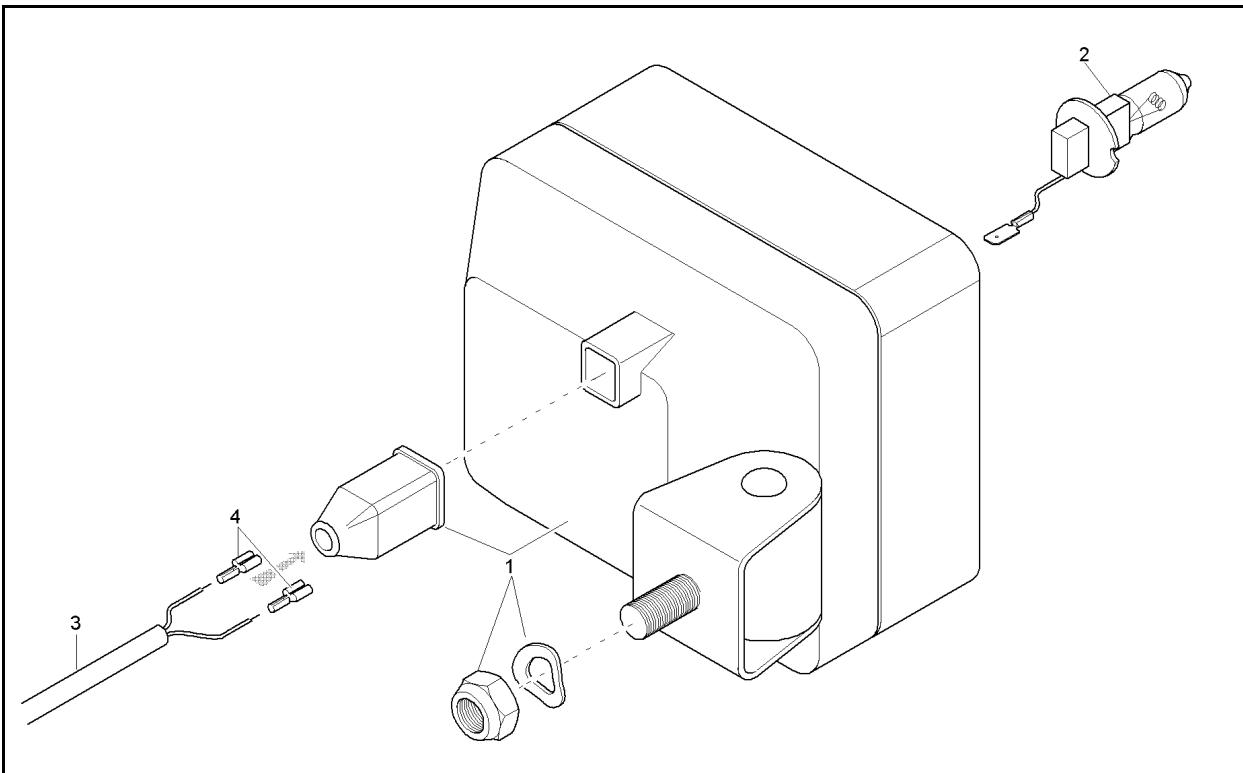


Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	201839	RADIO	1	6	162035	SCREW	8
2	164187	FRAME	2	7	178107	RUBBER BUFFER	1
3	162839	ANTENNA	1	8	164683	NUT	8
4	165204	SPEAKER KIT	1	9	205940	MOUNTING FRAME	1
5	206003	SPEAKER COVER	2				

\* Kit includes two speakers.

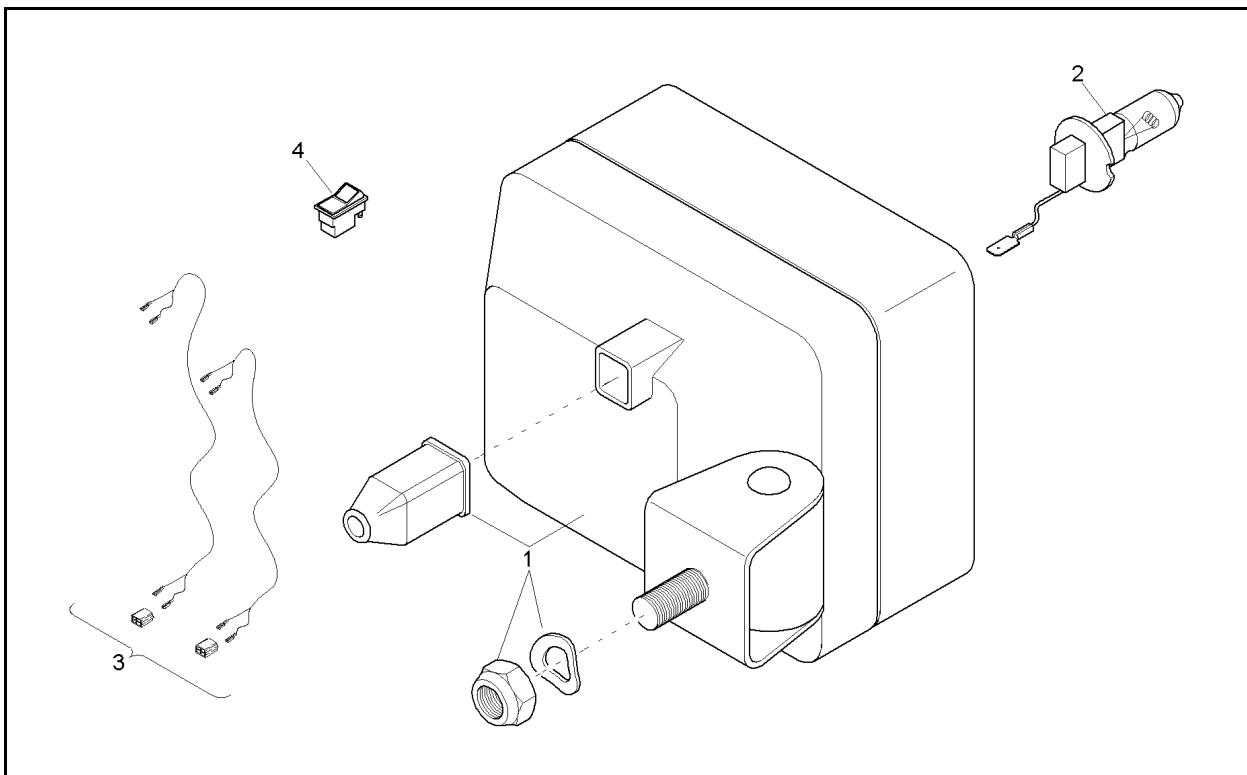
# 303 - BOOM WORK LIGHT

1000115992



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	160537	WORK LIGHT COMPLETE	1	3	165233	WIRE HARNESS	1
2	161367	HALOGEN BULB	1	4	161995	SLIDE TERMINAL	2

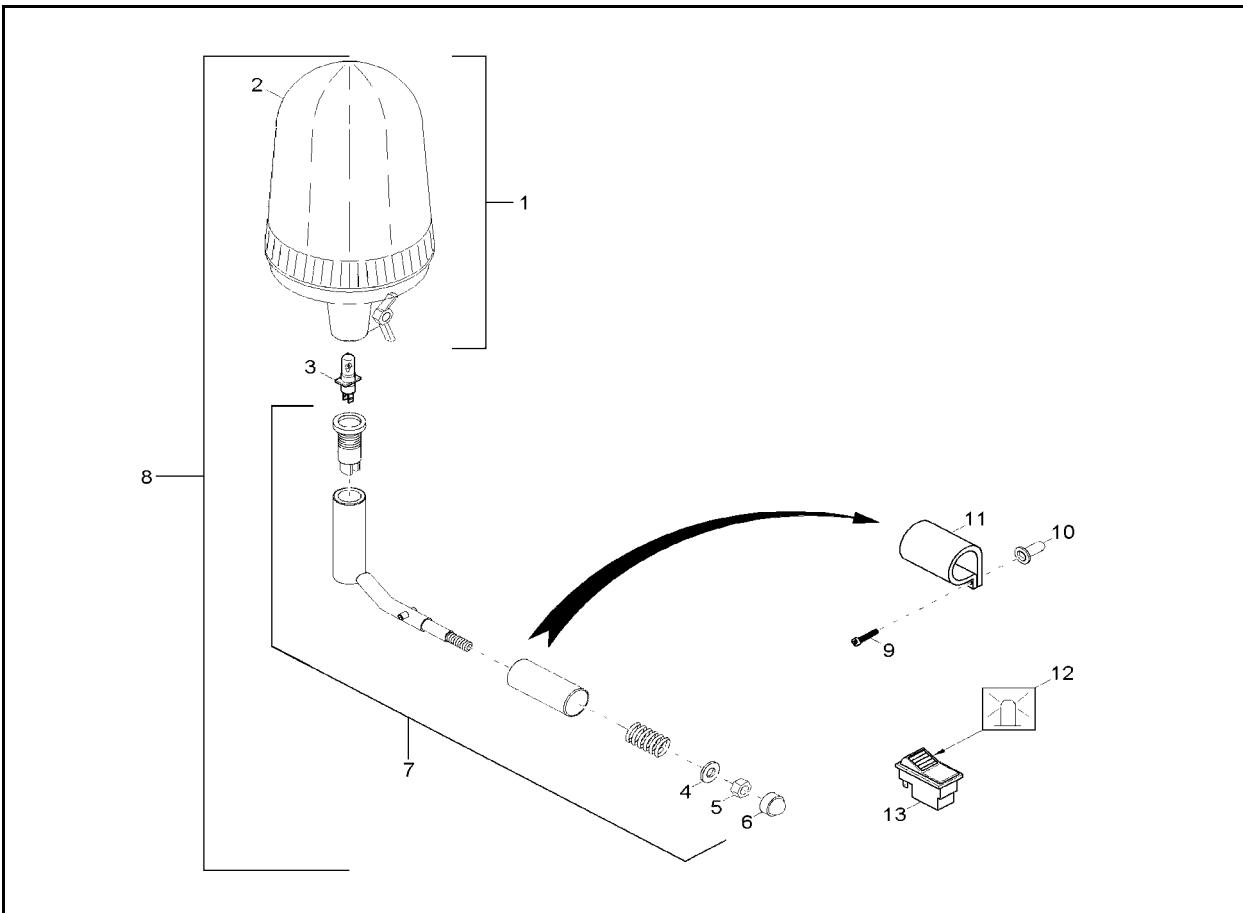
**303 - CAB/CANOPY WORK LIGHTS (OPTION)**  
**1000115994**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	160537	WORK LIGHT COMPLETE	3	3	178708	CABLE	1
2	161367	HALOGEN BULB	3	4	178916	WORK LIGHT SWITCH	1

# 303 - ROTATING BEACON (OPTION)

1000144744



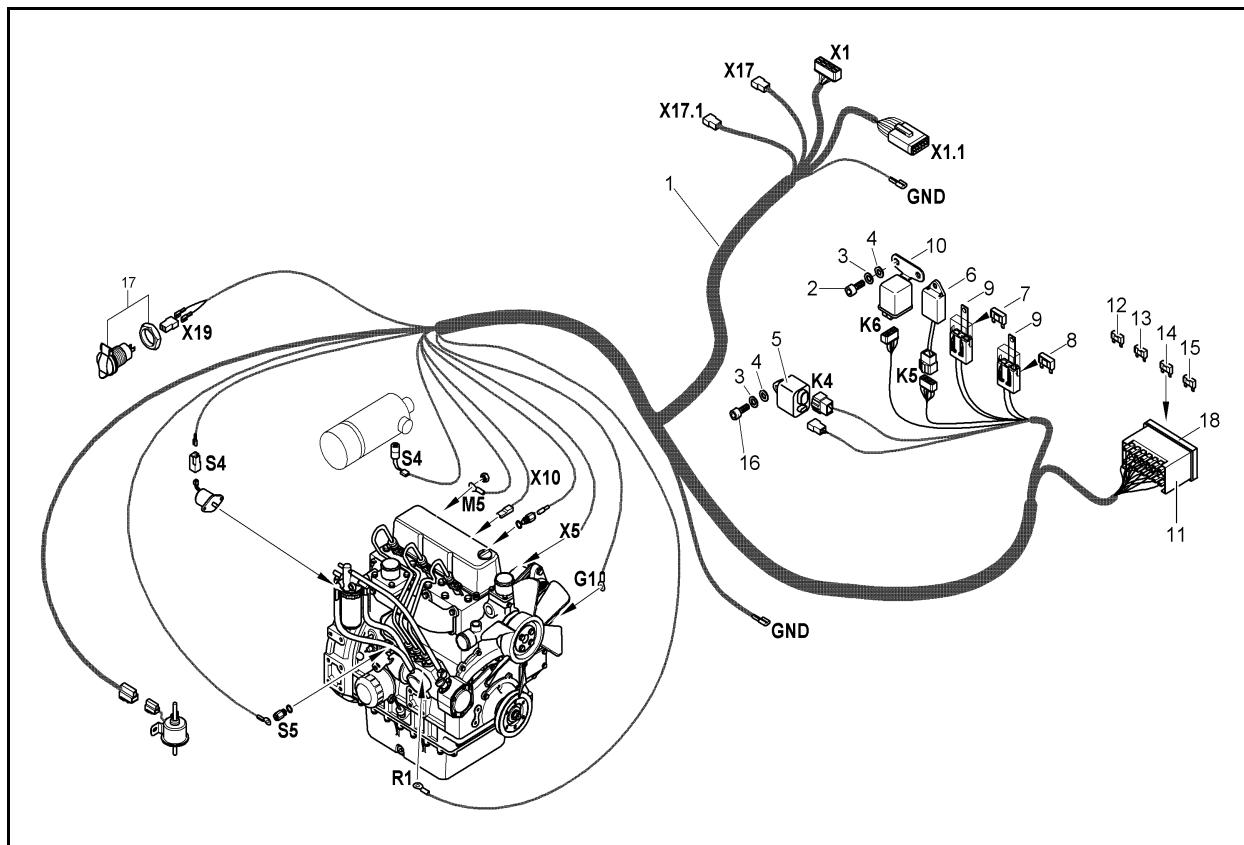
**Ref.**

No.	Part No.	Description	Qty.
1	165199	LAMP COMPLETE	1
2	165207	LENS	1
3	179740	HALOGEN LIGHT BULB	1
4	161668	WASHER/GR A 8.4 ZO DIN134	1
5	651458	LN INS M8-1.25 C8 ZY DIN6924	1
6	165052	COVER	1
7	165208	LAMP ATTACHMENT	1

**Ref.**

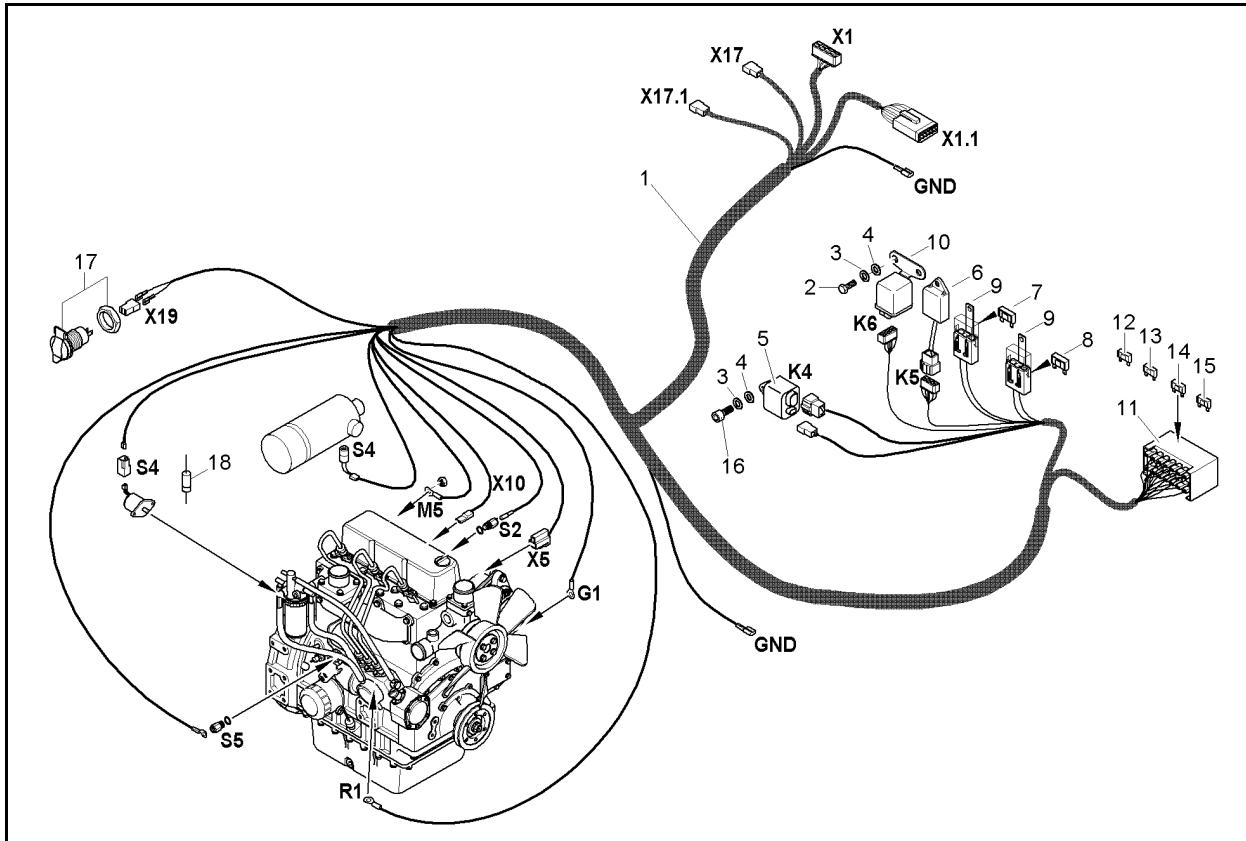
No.	Part No.	Description	Qty.
8	809312	RETROFIT KIT	1
9	165941	SCREW	2
10	204733	BLIND RIVET NUT	2
11	165200	BRACKET	1
12	177666	SYMBOL/TURNING LIGHT	1
13	164883	ROCKER SWITCH	1

**303 - WIRE HARNESS, ENGINE**  
**1000127614 - (SN AD01820 - AE02400)**



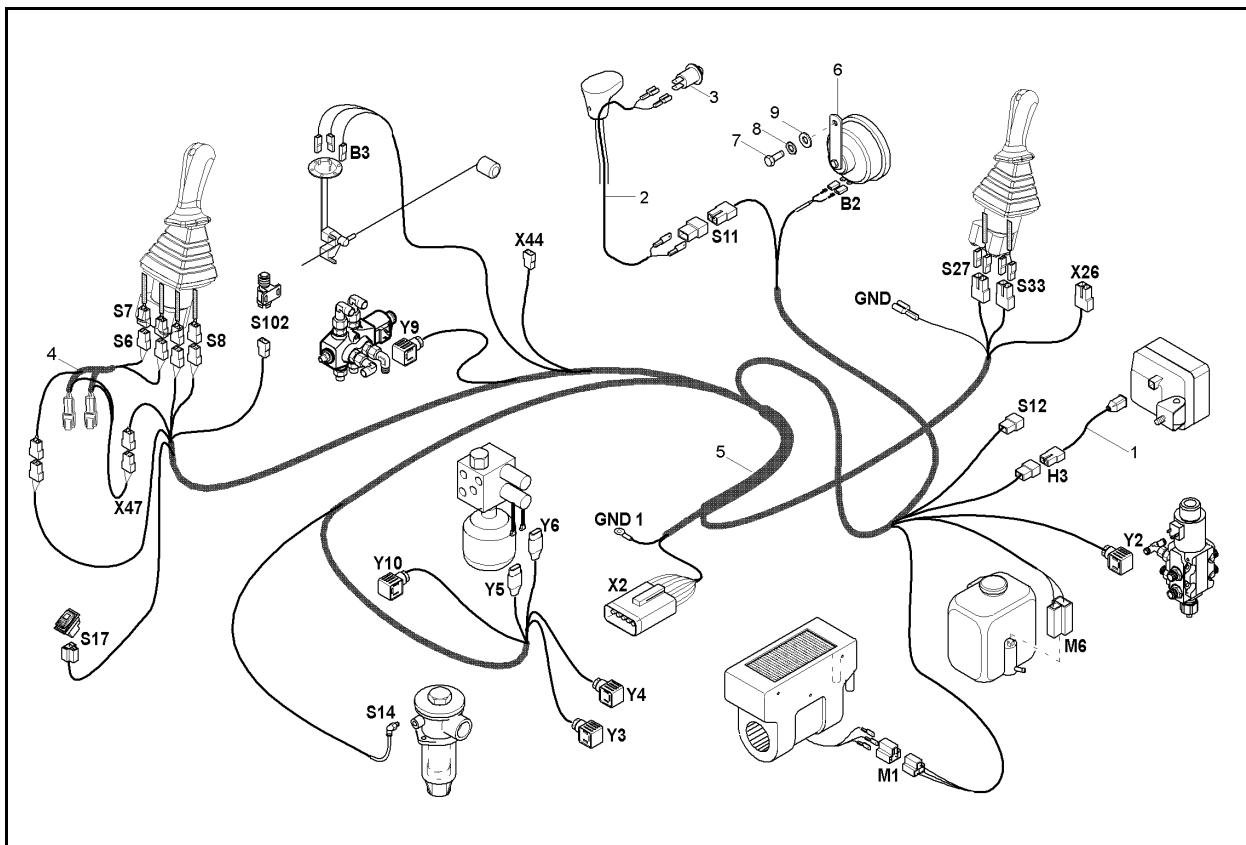
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	177422	ENGINE WIRE HARNESS	1	10	160889	RELAY 40 A	1
2	656149	CS M6-1 X 16 C8.8 ZY DIN931	5	11	161364	FUSE BOX	1
3	161675	LOCKWASHER S6	6	12	161376	FUSE 7.5 A	1
4	161660	WASHER GR A6.4 ZO DIN 125	6	13	161374	FUSE 10 A	1
5	178930	RELAY 15 A	1	14	161375	FUSE 15 A	1
6	160821	RELAY 10 A	1	15	162836	FUSE 30 A	1
7	179741	FUSE 10 A	1	16	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	1
8	162838	FUSE 40 A	1	17	161732	SOCKET	1
9	0003330440	SUPPORT	2	18	205343	COVER/FUSE BOX	1

**303 - WIRE HARNESS, ENGINE**  
**1000115987 - (SN AD00001 - AD01819)**



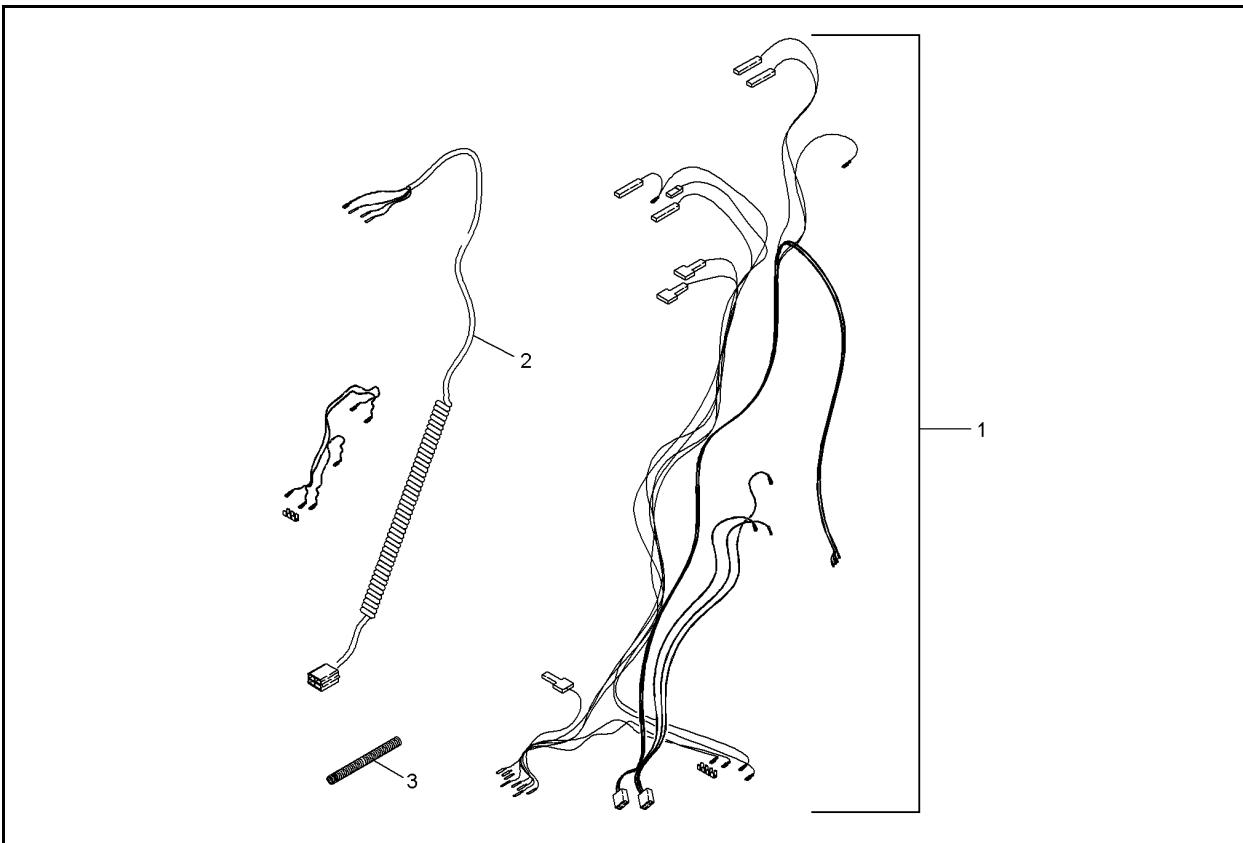
Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	178919		ENGINE WIRE HARNESS	1	10	160889		RELAY 40 A	1
2	656149		CS M6-1 X 16 C8.8 ZY DIN931	5	11	161364		FUSE BOX	1
3	161675		LOCKWASHER S6	6	12	161376		FUSE 7.5 A	1
4	161660		WASHER GR A6.4 ZO DIN 125	6	13	161374		FUSE 10 A	1
5	178930		RELAY 15 A	1	14	161375		FUSE 15 A	1
6	160821		RELAY 10 A	1	15	162836		FUSE 30 A	1
7	179741		FUSE 10 A	1	16	651507		SHCS M6-1 X 20 C8.8 ZY DIN912	1
8	162838		FUSE 40 A	1	17	161732		SOCKET	1
9	0003330440		SUPPORT	2	18	206064		DIODE	1

**303 - WIRE HARNESS, CHASSIS**  
**1000115989 & 1000115990**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165233	WIRE HARNESS (BOOM WORK LIGHT)	1	5	178920	CHASSIS WIRE HARNESS	1
2	165232	WIRE HARNESS (TRAVEL LEVER LT)	1	6	161366	HORN	1
3	161363	SWITCH	1	7	177648	HEX SCREW	1
4	165049	WIRE HARNESS (4/3 VALVE OPTION) (SN AD00001 - AE00560)	1	8	163670	LOCKWASHER	1
				9	7462680011	WASHER 8.4 ST A2C	1

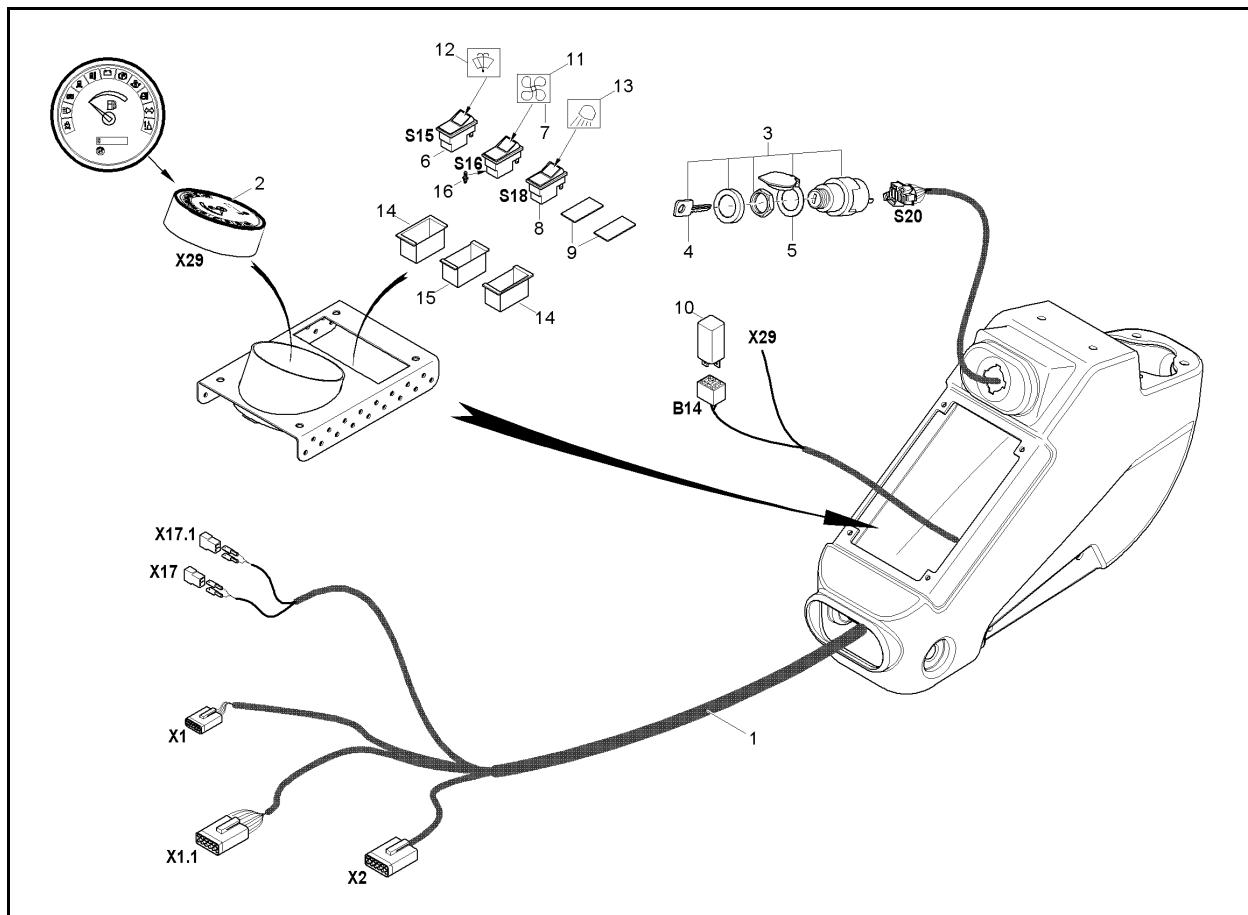
**303 - WIRE HARNESS, CAB**  
**1000115889**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165243	CAB WIRE HARNESS	1	3	207138	TUBING SLIT (0.2M)	1
2	165244	WIRE	1				

# 303 - WIRE HARNESS, JOYSTICK CONSOLE (RT)

1000147801 - (SN AD03525 - AE02400)



**Ref.**

No.	Part No.	Description	Qty.
1	207056	WIRE HARNESS	1
2	177095	INSTRUMENT CLUSTER	1
3	0003331306	PREHEATING START SWITCH W/KEYS	1
4	101792	KEY*	1
5	161368	COVER	1
6	164881	ROCKER SWITCH	1
7	165236	ROCKER SWITCH	1
8	164883	ROCKER SWITCH	1

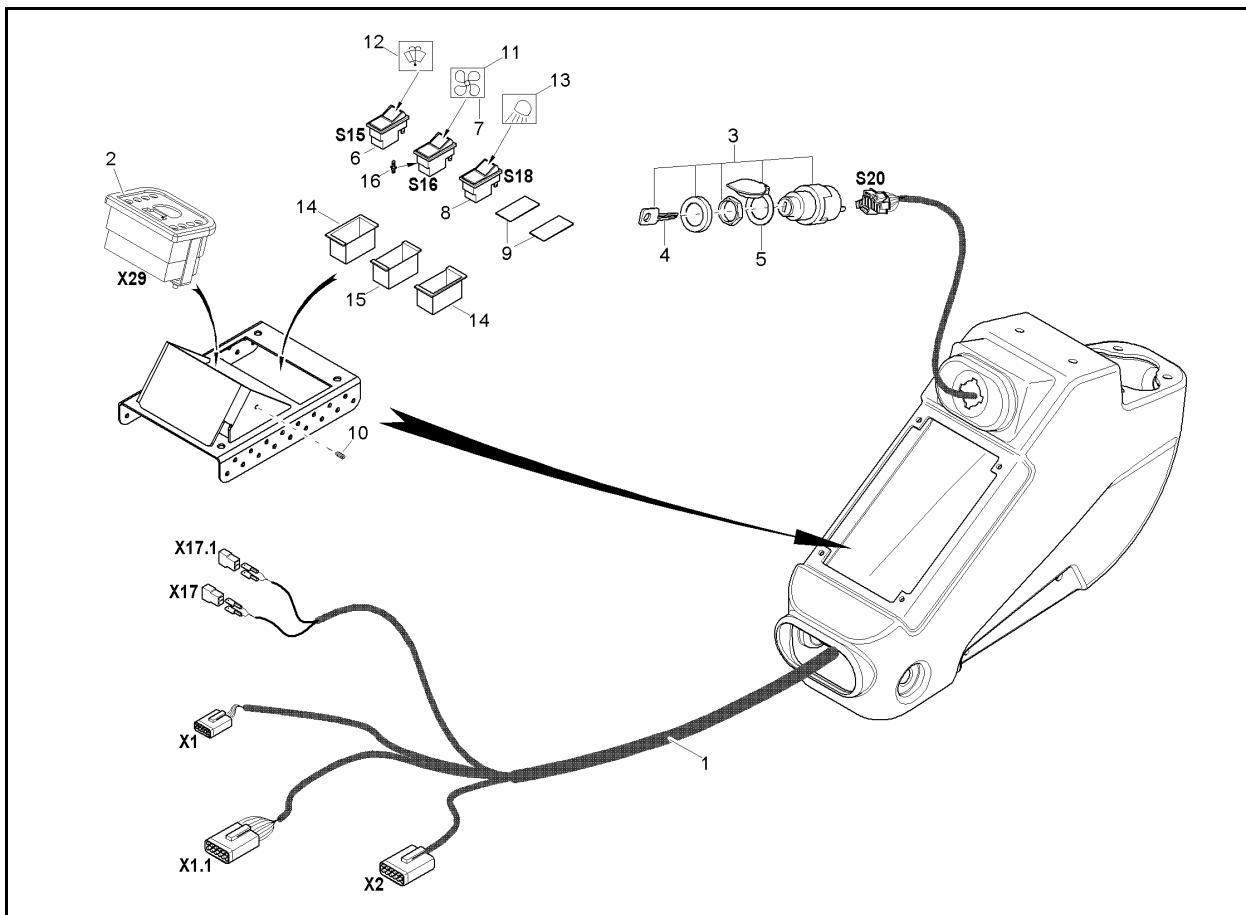
**Ref.**

No.	Part No.	Description	Qty.
9	0003320872	BLANK	2
10	207057	SIGNAL	1
11	164708	VENTILATION FAN SYMBOL	1
12	164709	WIPER SYMBOL	1
13	164879	WORK LIGHT SYMBOL	1
14	209196	FRAME	2
15	209197	FRAME	3
16	177646	BULB	3

\* Same key(s) to start engine and operate all locks on unit.

# 303 - WIRE HARNESS, JOYSTICK CONSOLE (RT)

1000115988 - (SN AD00001 - AD03524)



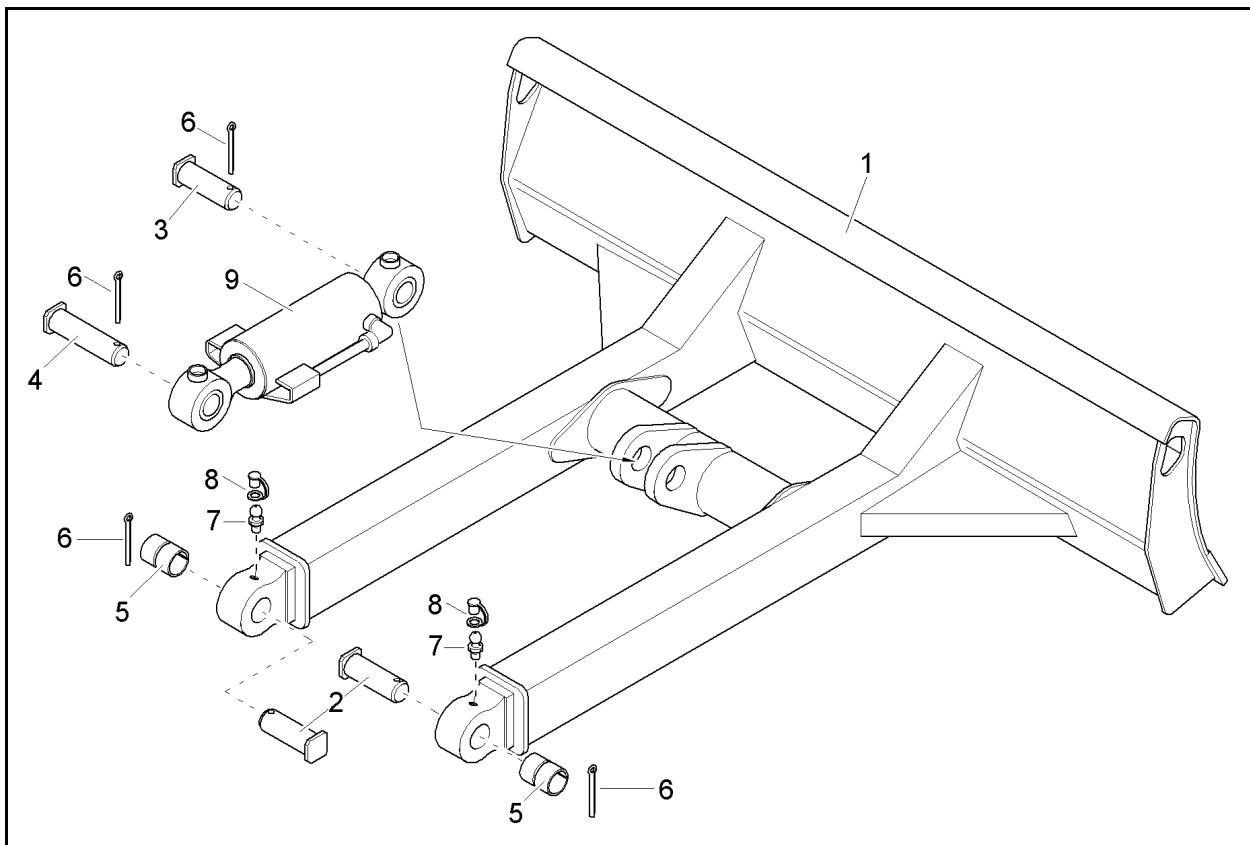
#### Ref.

No.	Part No.	Description	Qty.
1	178921	WIRE HARNESS	1
2	164285	DISPLAY UNIT	1
3	0003331306	PREHEATING START SWITCH W/KEYS	1
4	101792	KEY*	1
5	161368	COVER	1
6	164881	ROCKER SWITCH	1
7	165236	ROCKER SWITCH	1
8	164883	ROCKER SWITCH	1

#### Ref.

No.	Part No.	Description	Qty.
9	0003320872	BLANK	2
10	179777	SET SCREW	2
11	164708	VENTILATION FAN SYMBOL	1
12	164709	WIPER SYMBOL	1
13	164879	WORK LIGHT SYMBOL	1
14	209196	FRAME	2
15	209197	FRAME	3
16	177646	BULB	3

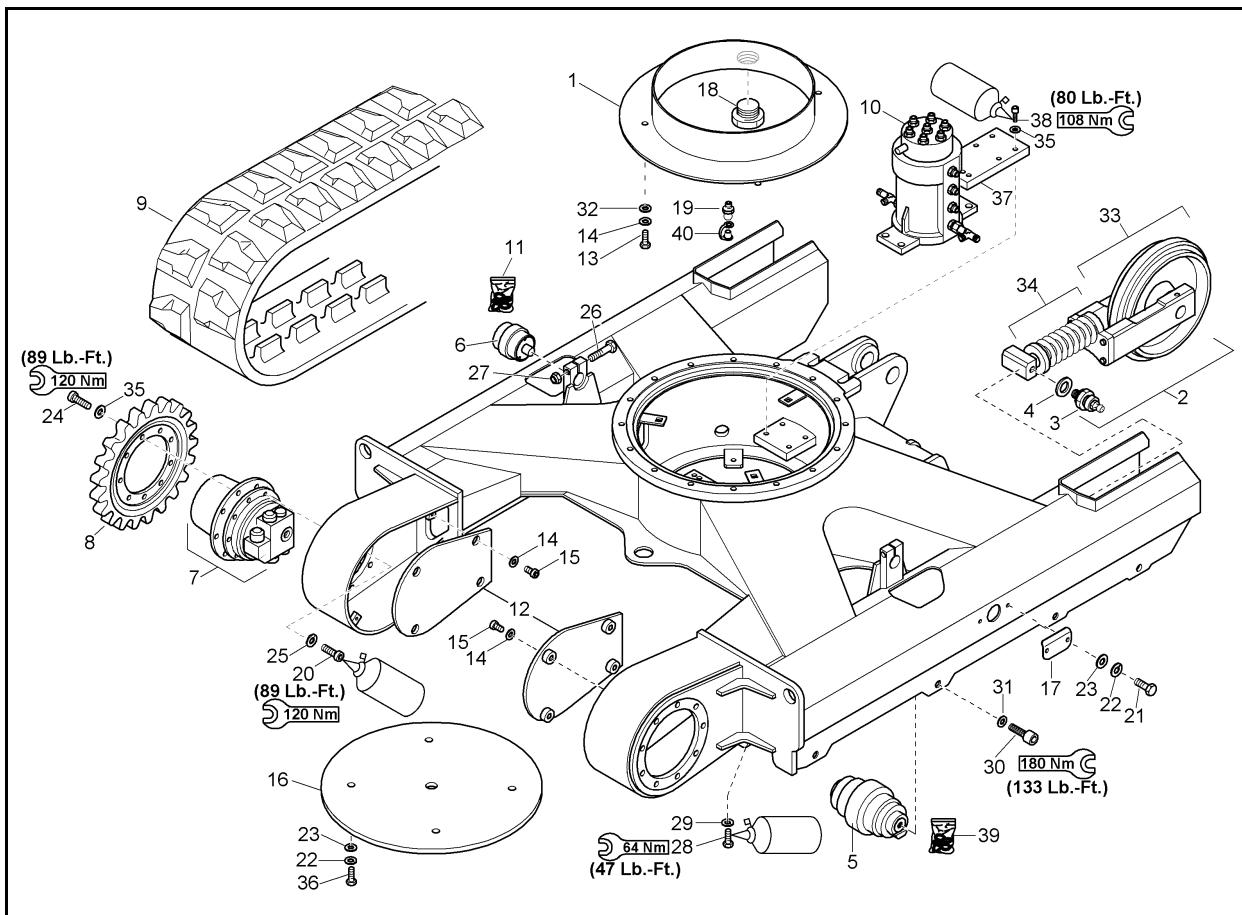
\* Same key(s) to start engine and operate all locks on unit.



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	179002		DOZER BLADE	1	7	161411		GREASE ZERK-7MM HEX HEAD	2
2	160811		PIN	2	8	161416		CAP	2
3	160813		PIN	1	9	165631		DOZER BLADE CYLINDER COMPLETE See page 77 for individual components	1
4	160812		PIN	1					
5	161537		BUSHING	2					
6	161682		PIN/SPRING M6.3 X 63 ZO	4					

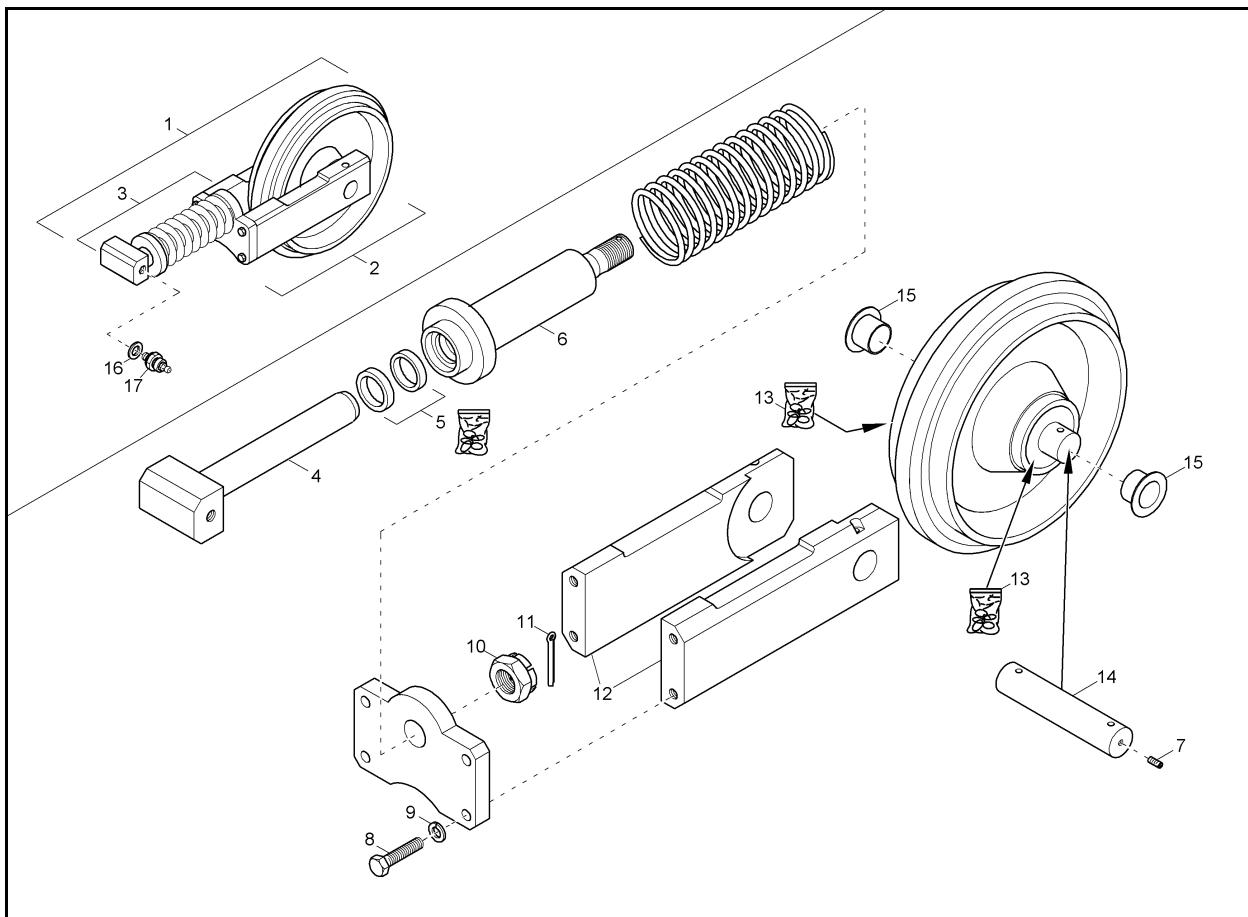
# 303 - UNDERCARRIAGE, RUBBER TRACK

1000115854



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	179045	BRACKET		1	20	656148	FHCS M12-1.75 X 40 C10.9 ZY DIN7991	18	
2	165605	TRACK TENSIONER COMPLETE See page 95 for individual components		2	21	656090	CS M10-1.5 X 16 C8.8 ZY DIN931	4	
3	203913	NON-RETURN VALVE		2	22	161669	LOCKWASHER S10	8	
4	178067	SEALING RING		2	23	161640	WASHER/GR A 10.5	8	
5	202450	BOTTOM ROLLER COMPLETE		8	24	651480	SHCS M12-1.75 X 30 C10.9 ZY DIN912	18	
6	165124	TOP ROLLER COMPLETE		2	25	161624	LW SPRING B12 DIN7982	18	
7	165662	DRIVE UNIT COMPLETE See page 43 for individual components		2	26	651489	SHCS M12-1.75 X 65 C10.9 ZY DIN912	2	
8	165121	SPROCKET		2	27	179793	NUT	2	
9	165603	RUBBER TRACK		2	28	162022	SCREW	4	
10	207053	SWIVEL JOINT (SN AD03467 - AE02400)		1	29	163641	WASHER	4	
	162526	SWIVEL JOINT (SN AD00001 - AD03466)		1	30	165945	SCREW	16	
11	161074	SEAL KIT/TOP ROLLER		2	31	177389	WASHER	16	
12	165117	DRIVE COVER		2	32	161662	WASHER/GR A 8.4 ZO	3	
13	177648	HEX SCREW		3	33	203436	TENSION WHEEL AND SLIDE	2	
14	163670	LOCKWASHER		11	34	165606	SPRING SET	2	
15	651515	SHCS M8-1.25 X 20 C8.8 ZY DIN912		8	35	161636	WASHER/NORD-LOCK NL 12	22	
16	165598	UNDERCARRIAGE COVER		1	36	656006	CS M10-1.5 X 20 C8.8 ZY DIN931	4	
17	162331	COVER		2	37	179046	PLATE	1	
18	165119	PLUG		1	38	651480	SHCS M12-1.75 X 30 C10.9 ZY DIN912	4	
19	161412	GREASE ZERK-9MM HEX HEAD		1	39	165146	SEAL KIT/BOTTOM ROLLER	8	
					40	161422	CAP	1	

**303 - TRACK TENSIONER, RUBBER TRACK**  
**1000127206**

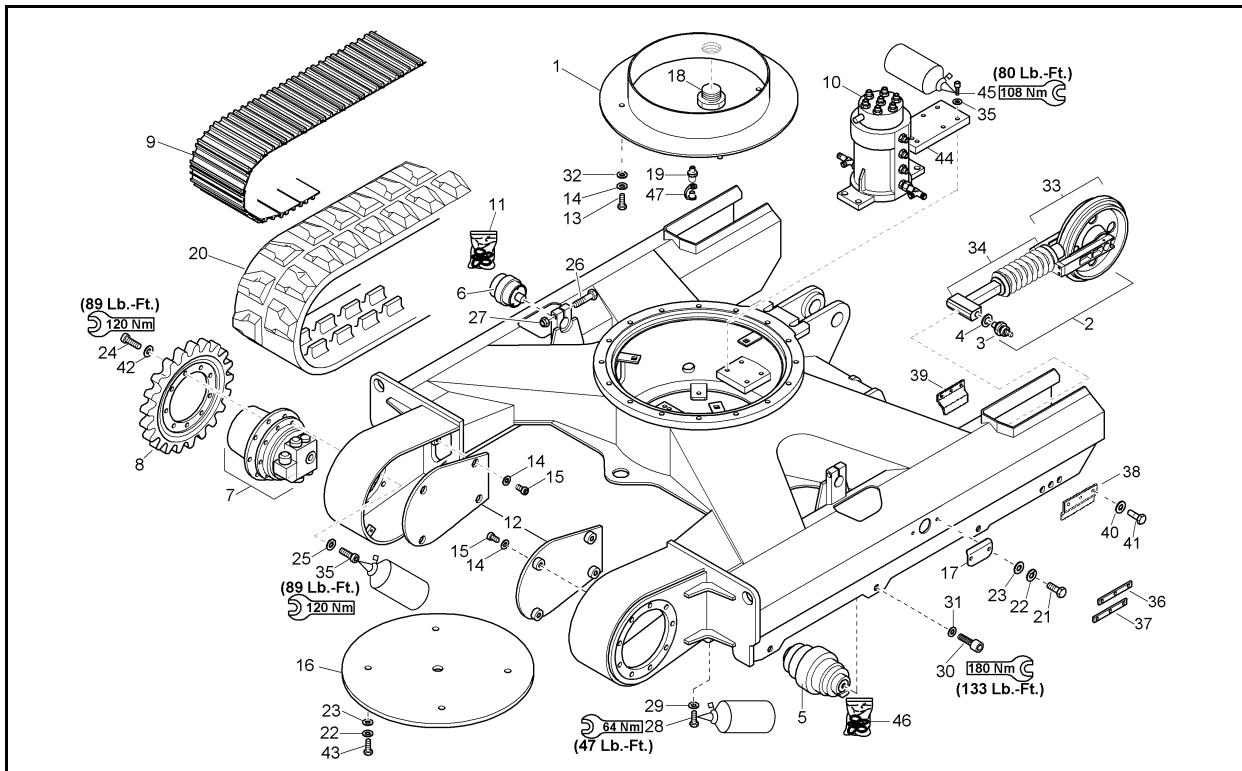


Ref. No.	Part No.	Description	Qty.
1	165605	TRACK TENSIONER COMPLETE	1
2	203436	TENSION WHEEL AND SLIDE	1
3	165606	SPRING SET	1
4	165128	GLAND	1
5	165608	SEAL KIT/TENSION CYLINDER	1
6	165132	TENSION CYLINDER	1
7	162750	PLUG	1
8	651398	CS M10-1.5 X 35 C10.9 ZY DIN931	4
9	161623	LW SPRING B10 DIN7981	4

Ref. No.	Part No.	Description	Qty.
10	162757	NUT	1
11	162758	COTTER PIN	1
12	165139	BRACKET	2
13	160983	SEAL KIT/TENSION WHEEL	2
14	165138	SHAFT	1
15	162754	BUSHING	2
16	178067	SEALING RING	1
17	203913	VALVE	1

# 303 - UNDERCARRIAGE, STEEL TRACK (OPTION)

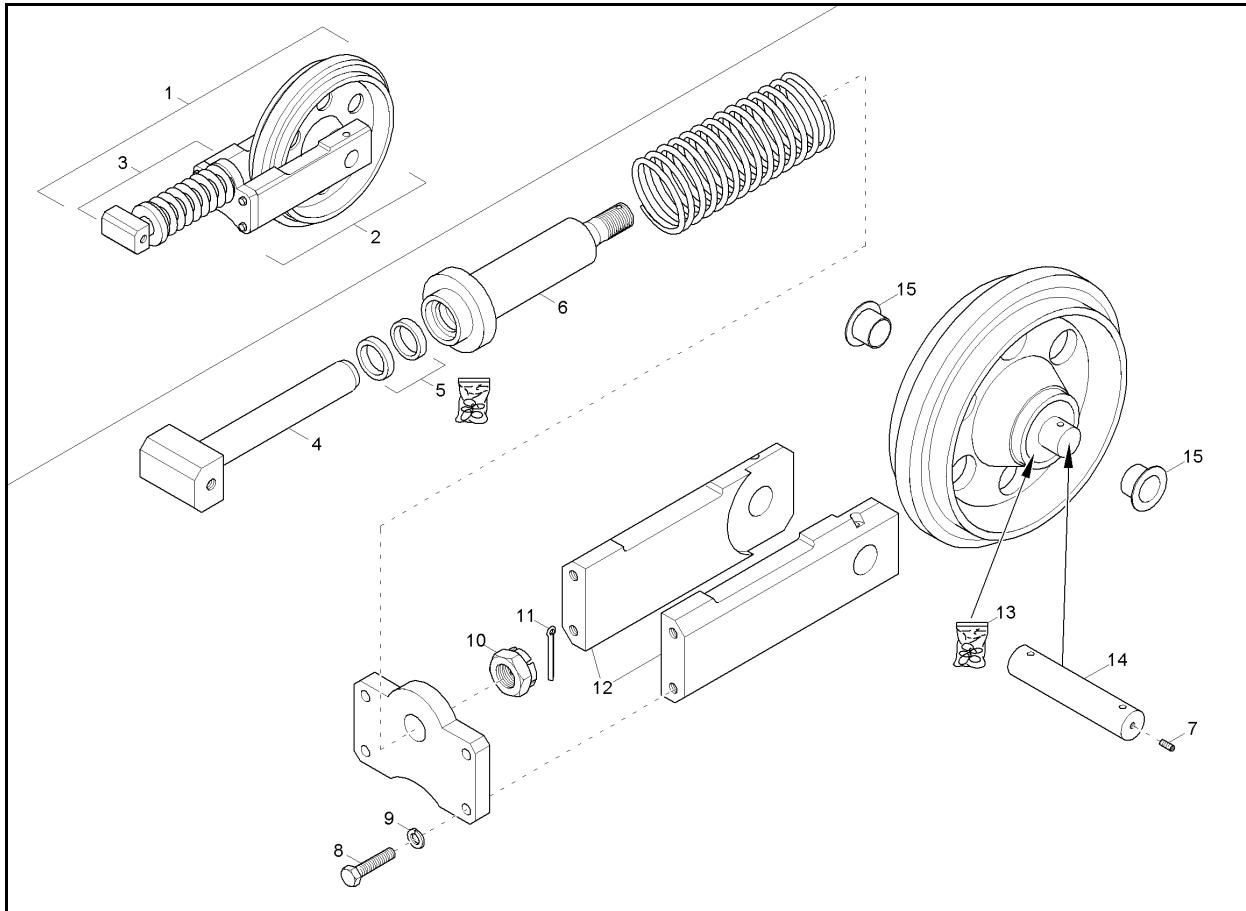
1000115855



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	179045	BRACKET	1	23	161640	WASHER/GR A 10.5	8
2	178867	TRACK TENSIONER COMPLETE See page 97 for individual components	2	24	651480	SHCS M12-1.75 X 30 C10.9 ZY DIN912	18
3	203913	VALVE	2	25	161624	LW SPRING B12 DIN7982	18
4	178067	SEALING RING	2	26	651489	SHCS M12-1.75 X 65 C10.9 ZY DIN912	2
5	203570	BOTTOM ROLLER/STEEL TRACK	8	27	179793	NUT	2
6	165124	TOP ROLLER COMPLETE	2	28	162022	SCREW	4
7	165662	DRIVE UNIT COMPLETE See page 43 for individual components	2	29	163641	WASHER	4
8	165121	SPROCKET	2	30	165945	SCREW	16
9	179003	STEEL TRACK 300MM	2	31	177389	WASHER	16
10	207053	SWIVEL JOINT (SN AD03467 - AE02400)	1	32	161662	WASHER/GR A 8.4 ZO	3
	162526	SWIVEL JOINT (SN AD00001 - AD03466)	1	33	203436	TENSION WHEEL AND SLIDE	2
11	161074	SEAL KIT	2	34	178871	SPRING SET	2
12	165117	DRIVE COVER	2	35	656148	FHCS M12-1.75 X 40 C10.9 ZY DIN7991	18
13	177648	HEX SCREW	3	36	179669	BRACKET	1
14	163670	LOCKWASHER	11	37	179670	BRACKET	1
15	651515	SHCS M8-1.25 X 20 C8.8 ZY DIN912	8	38	178862	TRACK GUARD LT	2
16	165598	COVER	1	39	178863	TRACK GUARD RT	2
17	162331	COVER	2	40	161643	WASHER/ROUND HI-TENS	12
18	165119	PLUG	1	41	651408	CS M12-1.75 X 40 C10.9 ZY DIN931	12
19	161412	GREASE ZERK-9MM HEX HEAD	1	42	161636	WASHER/NORD-LOCK NL 12	22
20	179004	STEEL TRACK/RUBBERIZED	1	43	656006	CS M10-1.5 X 16 C8.8 ZY DIN931	4
21	656090	CS M10-1.5 X 16 C8.8 ZY DIN931	4	44	179046	PLATE	1
22	161669	LOCKWASHER S10	8	45	651480	SHCS M12-1.75 X 30 C10.9 ZY DIN912	4
				46	165146	SEAL KIT/BOTTOM ROLLER	8
				47	161422	CAP	1

# 303 - TRACK TENSIONER, STEEL TRACK (OPTION)

1000127207



**Ref.**

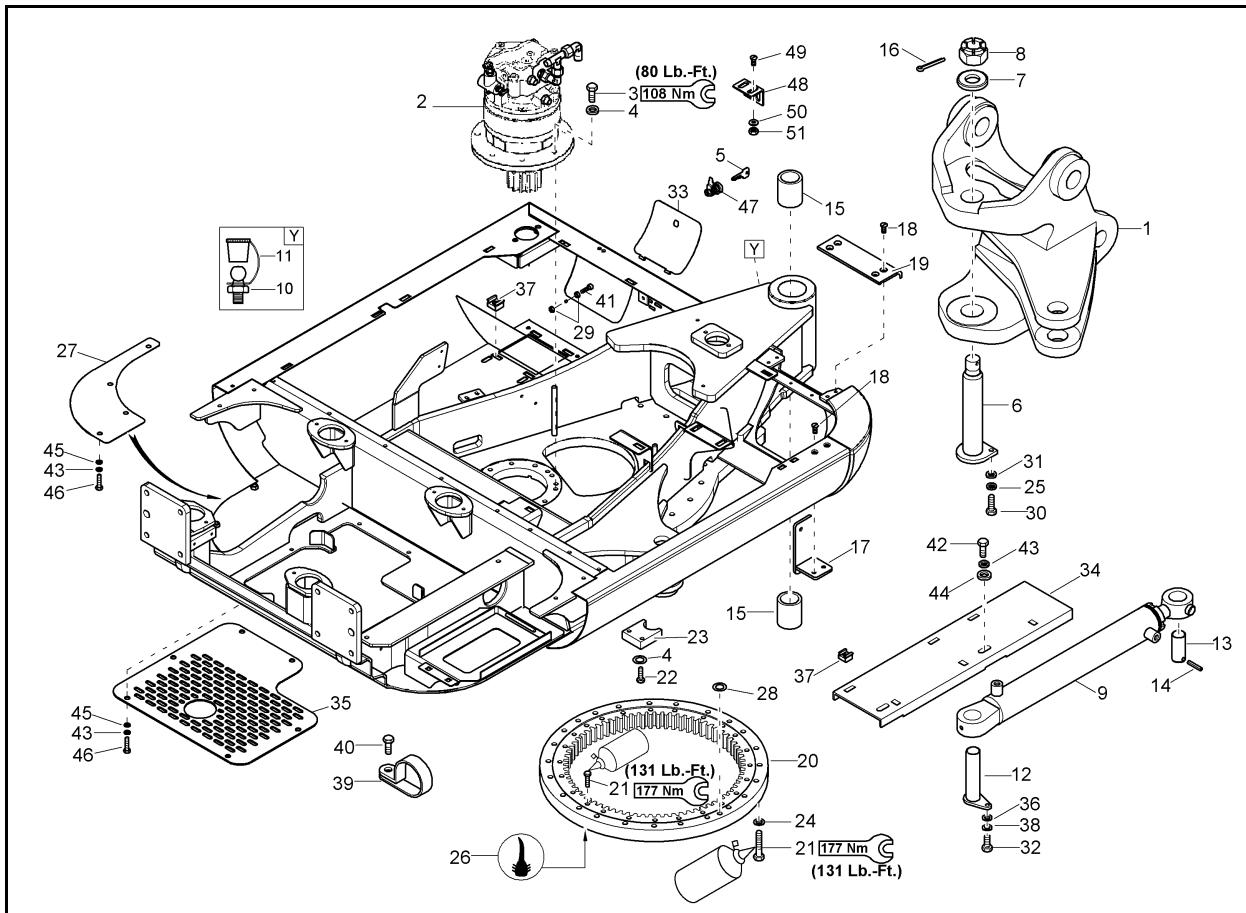
No.	Part No.	Description	Qty.
1	178867	TRACK TENSIONER COMPLETE	1
2	203436	TENSION WHEEL AND SLIDE	1
3	178871	SPRING SET	1
4	165128	GLAND	1
5	165608	SEAL KIT/TENSION CYLINDER	1
6	178870	TENSION CYLINDER	1
7	162750	PLUG	1
8	651398	CS M10-1.5 X 35 C10.9 ZY DIN931	4

**Ref.**

No.	Part No.	Description	Qty.
9	161623	LW SPRING B10 DIN7981	4
10	162757	NUT	1
11	162758	COTTERPIN	1
12	165139	BRACKET	2
13	160983	SEAL KIT/TENSION WHEEL	1
14	165138	SHAFT	1
15	162754	BUSHING	2

**303 - CHASSIS**

1000115860



Ref.	No.	Part No.	Description	Qty.
1	203835		SWING BRACKET	1
2	207049		TURNTABLE DRIVE UNIT COMPLETE See page 41 for individual components	1
3	651406		CS M12-1.75 X 35 C10.9 ZY DIN931	10
4	161636		WASHER/NORD-LOCK NL 12	12
5	101792		KEY*	1
6	160810		PIN	1
7	162345		COVER	1
8	651443		HN SLTD M36-4 C8ZY DIN935	1
9	165630		SWIVEL CYLINDER See page 75 for individual components	1
10	161411		GREASE ZERK-7MM HEX HEAD	1
11	161422		CAP	1
12	160815		PIN	1
13	165803		PIN DM=40 X 115	1
14	610478		PIN/SPRING M8 X 80	1
15	161534		BUSHING	2
16	165956		COTTERPIN	2
17	165090		BRACKET	1
18	651466		FHCS M8-1.25 X 20 C8.8 ZY DIN7991	6
19	165596		COVER	1

Ref.	No.	Part No.	Description	Qty.
20	178983	TURNTABLE		1
21	162485	SCREW		48
22	651408	CS M12-1.75 X 40 C10.9 ZY DIN931		2
23	178985	BRACKET		1
24	165953	WASHER		24
25	163651	WASHER		4
26	205598	SEAL (1.80M)		1
27	203834	EXHAUST COVER (SN AE00434 - AE02400)		1
28	161570	O-RING		1
29	656047	HN M6-1 C8 ZY DIN934		2
29	165557	ISOLATION MAT		1
30	656122	CS M12-1.75 X 25 C8.8 ZY DIN931		2
31	161642	WASHER/GR A 13		2
32	656105	CS M8-1.25 X 25 C8.8 ZY DIN931		1
33	178861	COVER		1
34	165592	PROFILE		1
35	178860	COVER		1
36	163634	WASHER		1
37	161615	NUT/CAGE M8		10
38	163670	LOCKWASHER		1

**303 - CHASSIS**  
**1000115860**

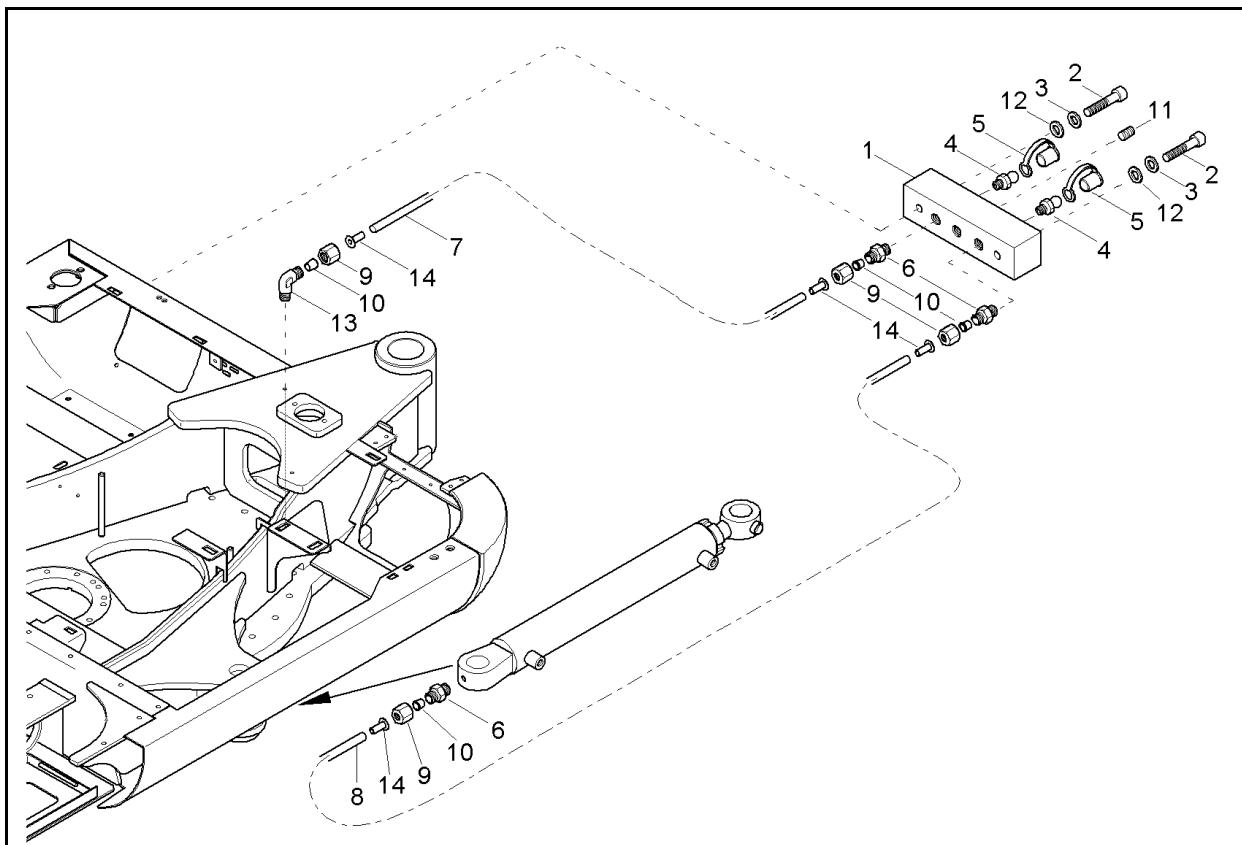
Ref.	No.	Part No.	Description	Qty.
39	165983	PIPE CLAMP		1
40	165943	SCREW		1
41	651507	SHCS M6-1 X 20 C8.8 ZY DIN912		1
42	651393	CS M10-1.5 X 25 C8.8 ZY		2
43	161669	LOCKWASHER S10		12
44	163642	WASHER		2
45	161640	WASHER/GR A 10.5		10
46	656006	CS M10-1.5 X 20 C8.8 ZY DIN931		10

Ref.	No.	Part No.	Description	Qty.
	47	2529457G	LOCK W/O KEYS	1
	48	178853	BRACKET	1
	49	651460	FHCS M5-0.8 X 16 C8.8 ZY DIN7991	2
	50	161659	WASHER/GR A 5.3 ZO DIN125	2
	51	651456	LN INS M5-0.8 C8 ZY DIN6924	2

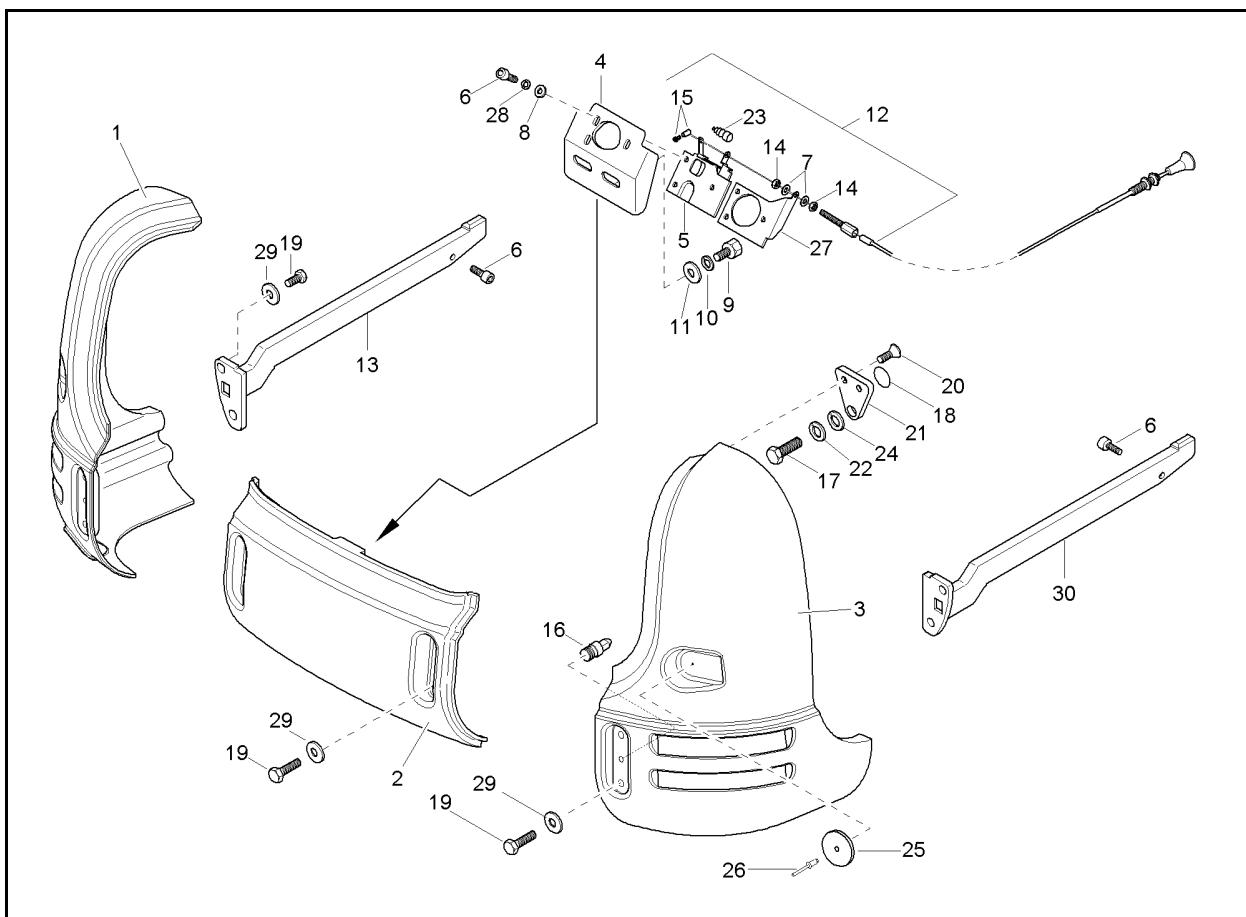
\* Same key(s) to start engine and operate all locks on unit.

# 303 - LUBRICATION

1000115861



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	161722	LUBRICATION ZERK BLOCK	1	9	161468	NUT	4
2	656128	CS M6-1 X 30 C8.8 ZY DIN931	2	10	161469	WASHER	4
3	161675	LOCKWASHER S6	2	11	161401	SET SCREW	1
4	161411	GREASE ZERK-7MM HEX HEAD	2	12	161660	WASHER GR A6.4 ZO DIN 125	2
5	161422	CAP	2	13	161457	ELBOW	1
6	161461	SCREW JOINT	4	14	206094	PLUG SLEEVE (SN AD04570 - AE02400)	4
7	206976	LUBRICATION TUBE (0.4M)	1				
8	206971	LUBRICATION TUBE (1.6M)	1				



## Ref.

## No. Part No.

## Description

## Qty.

1	178855	COUNTERWEIGHT LT	1
2	178856	COUNTERWEIGHT/CENTER	1
3	178854	COUNTERWEIGHT RT	1
4	165078	BRACKET	1
5	161062	BRACKET	1
6	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	5
7	163634	WASHER	2
8	161660	WASHER GR A6.4 ZO DIN 125	3
9	177648	HEX SCREW	2
10	163670	LOCKWASHER	2
11	7462680011	WASHER 8.4 ST A2C	2
12	165059	CABLE ASSY	1
13	206052	EXTENSION ROD LT	1
14	656048	HN M8-1.25 C8 ZY DIN934	2
15	161929	CABLE LOCK	1

## Ref.

## No. Part No.

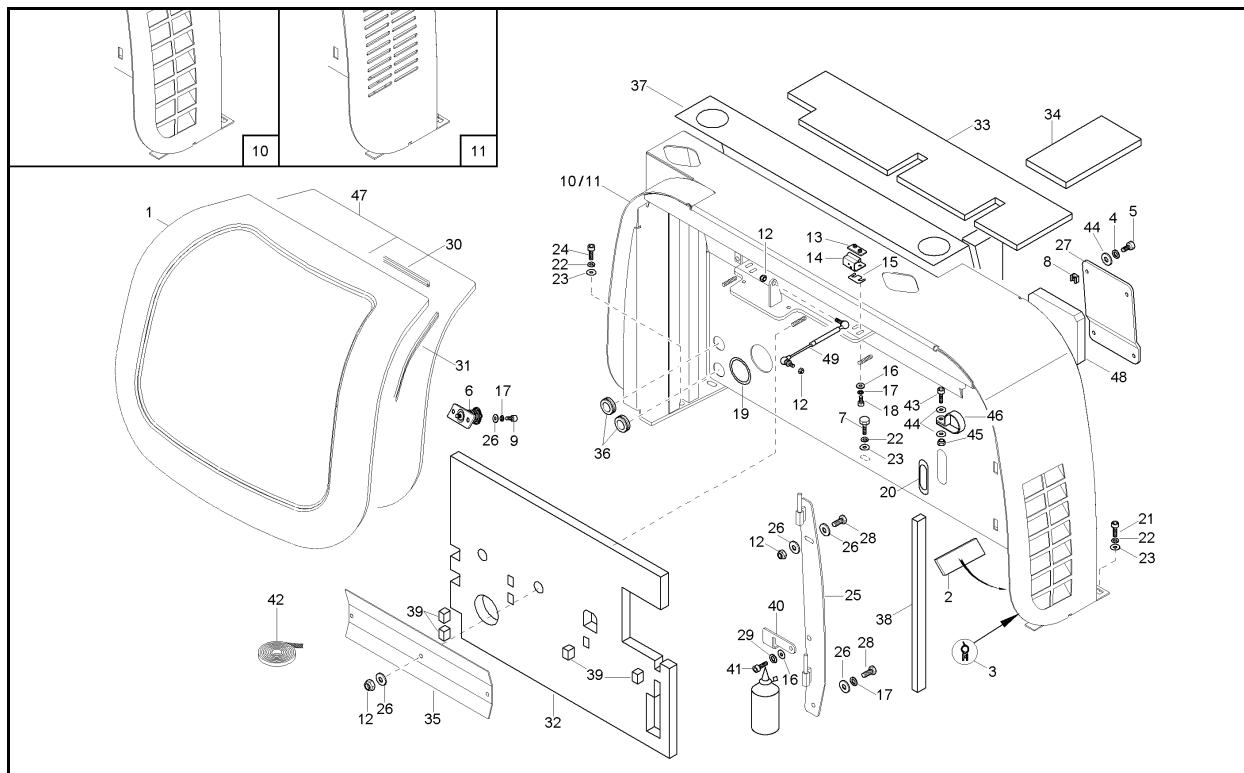
## Description

## Qty.

16	178852	PIN	2
17	651405	CS M12-1.75 X 30 C10.9 ZY DIN931	2
18	165107	COVER	2
19	9901732G	HEX HEAD SCREW	12
20	162041	SCREW	4
21	165106	BRACKET	1
22	163651	WASHER	2
23	164698	BELLOWS	1
24	161645	WASHER/GR A 13 DIN7349	10
25	165222	REFLECTOR	2
26	161627	POP RIVET A4 X 12	2
27	164667	BRACKET	1
28	161675	LOCKWASHER S6	3
29	163645	WASHER	12
30	165098	EXTENSION ROD RT	1

# 303 - REAR WALL AND ENGINE HOOD

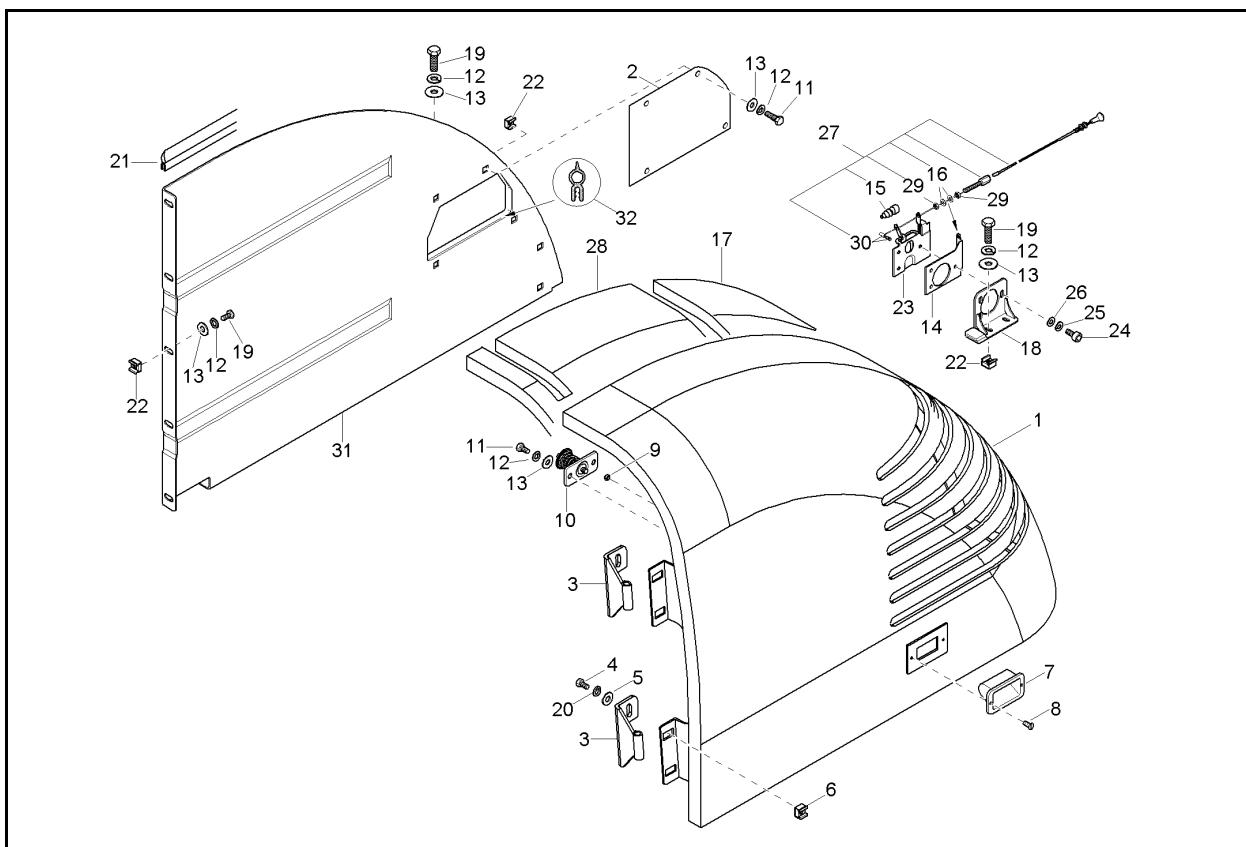
1000115862 & 1000156558



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	165987	ENGINE HOOD		1	24	651473	SHCS M10-1.25 X 25 F8.8 ZY DIN912		4
2	206012	ISOLATION MAT (AE00434 - AE02400)		7	25	165079	PLATE W/HINGES		1
3	206013	RUBBER PROFILE (1.60M) (AE00434 - AE02400)		1	26	7462680011	WASHER 8.4 ST A2C		8
4	161675	LOCKWASHER S6		4	27	165104	COVER		1
5	656149	CS M6-1 X 16 C8.8 ZY DIN931		4	28	656105	CS M8-1.25 X 25 C8.8 ZY DIN931		2
6	161061	LATCH		1	29	162487	WASHER		1
7	651393	CS M10-1.5 X 25 C8.8 ZY		1	30	206929	RUBBER PROFILE (0.07M)		1
8	161613	NUT/CAGE M6		4	31	206929	RUBBER PROFILE (0.23M)		1
9	656093	CS M8-1.25 X 16 C8.8 ZY DIN931		2	32	178972	ISOLATION MAT		1
10	206011	REAR WALL (AE00434 - AE02400)		1	33	165553	ISOLATION MAT		1
11	165988	REAR WALL (SN AD00001 - AE00433)		1	34	165556	ISOLATION MAT		1
12	651458	LN INS M8-1.25 C8 ZY DIN6924		6	35	165068	PLATE		1
13	162716	PLATE		2	36	165913	GROMMET		2
14	160882	HINGE		2	37	179021	ISOLATION MAT		1
15	162675	SHIM (1.0MM)	AR		38	165560	ISOLATION MAT		1
16	163634	WASHER	5		39	165559	ISOLATION MAT		4
17	163670	LOCKWASHER	7		40	165094	BRACKET		1
18	651517	SHCS M8-1.25 X 30 C8.8 ZY DIN912	4		41	651430	CS M8-1.25 X 12 C8.8 ZY DIN931		1
19	207088	HOSE PROFILE (0.15M)		1	42	207143	VELCRO STRAP 25MM (4.0M)		1
20	207089	HOSE PROFILE (0.20M)		1	43	651424	CS M6-1 X 20 C8.8 ZY DIN931		1
21	651475	SHCS M10-1.25 X 30 F8.8 ZY DIN912	7		44	161660	WASHER GR A6.4 ZO DIN 125		6
22	161669	LOCKWASHER S10	12		45	651457	LN INS M6-1 C8 ZY DIN6924		1
23	161663	WASHER/GR A 10.5 ZO	12		46	165114	CLAMP		1
					47	165551	ISOLATION MAT		1
					48	178973	ISOLATION MAT		1
					49	161204	PNEUMATIC SPRING		1

# 303 - CONTROL VALVE COVER

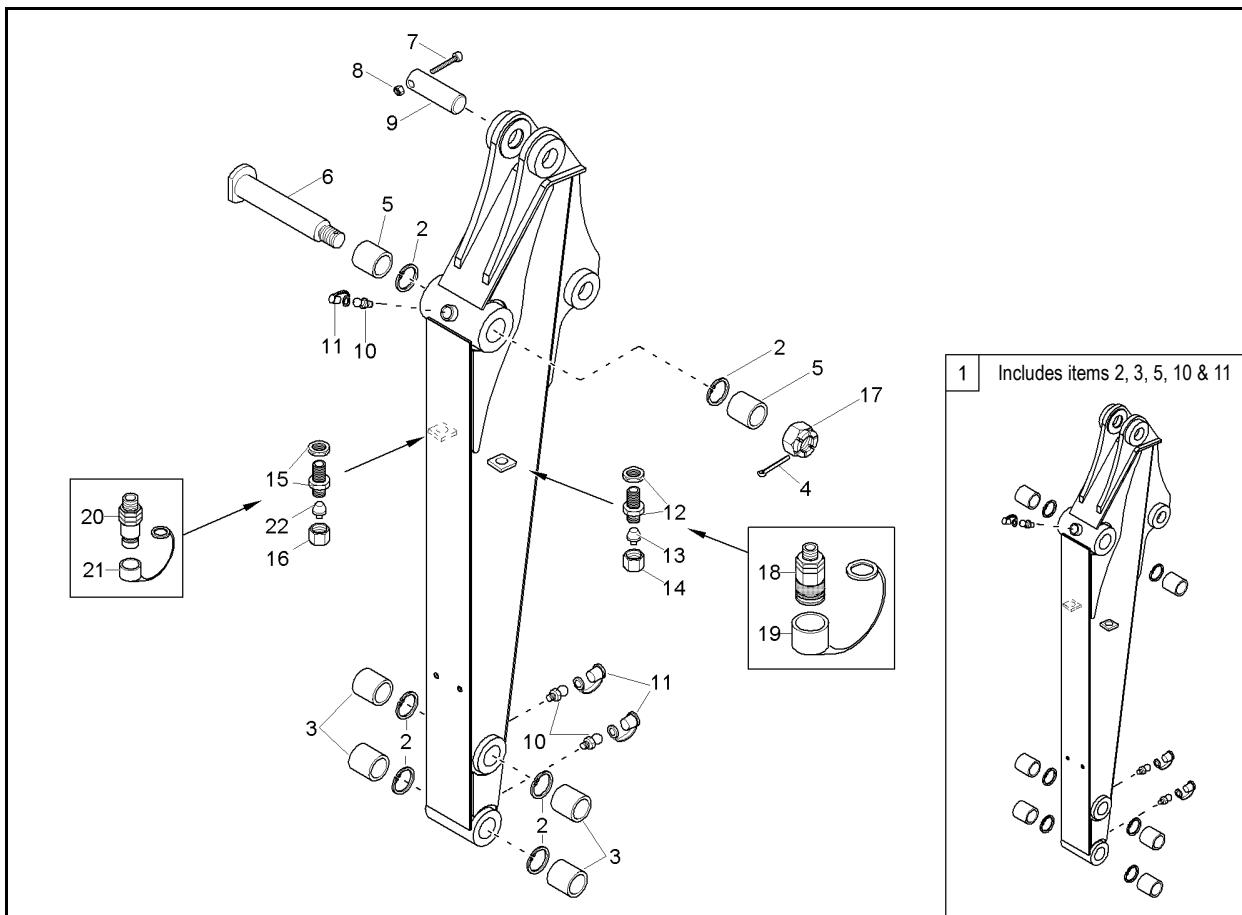
1000115865 & 1000151984



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165989	VALVE COVER	1	19	177648	HEX SCREW	11
2	207034	COVER PLATE (CANOPY MODEL ONLY)	1	20	161669	LOCKWASHER S10	4
3	165080	HINGE	2	21	207161	RUBBER EXTRUSION (1.30M)	1
4	651393	CS M10-1.5 X 25 C8.8 ZY	4	22	161615	NUT/CAGE M8	11
5	161663	WASHER/GR A 10.5 ZO	4	23	161062	BRACKET	1
6	161610	NUT/CAGE M10	4	24	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	3
7	161064	HANDLE	1	25	161675	LOCKWASHER S6	3
8	651459	FHCS M14-2 X 16 C8.8 ZY DIN7991	2	26	161660	WASHER GR A6.4 ZO DIN 125	3
9	656116	HN M4-0.7 C8 ZY DIN934	2	27	165061	CABLE	1
10	161061	LATCH	1	28	165554	ISOLATION MAT	1
11	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	6	29	656048	HN M8-1.25 C8 ZY DIN934	2
12	163670	LOCKWASHER	17	30	161929	CABLE LOCK	1
13	7462680011	WASHER 8.4 ST A2C	17	31	206086	PARTITION WALL (SN AD03790 - AE02400)	1
14	164667	ANGLE	1	207035	PARTITION WALL (SN AD02911 - AD03789)	1	
15	164698	BELLOWS	1	165071	PARTITION WALL (SN AD00001 - AD02910)	1	
16	163634	WASHER	2	32	206036	RUBBER PROFILE (0.60M) (SN AD03790 - AE02400)	1
17	165555	ISOLATION MAT	1				
18	165077	BRACKET	1				

# 303 - DIPPER ARM, SHORT (STANDARD)

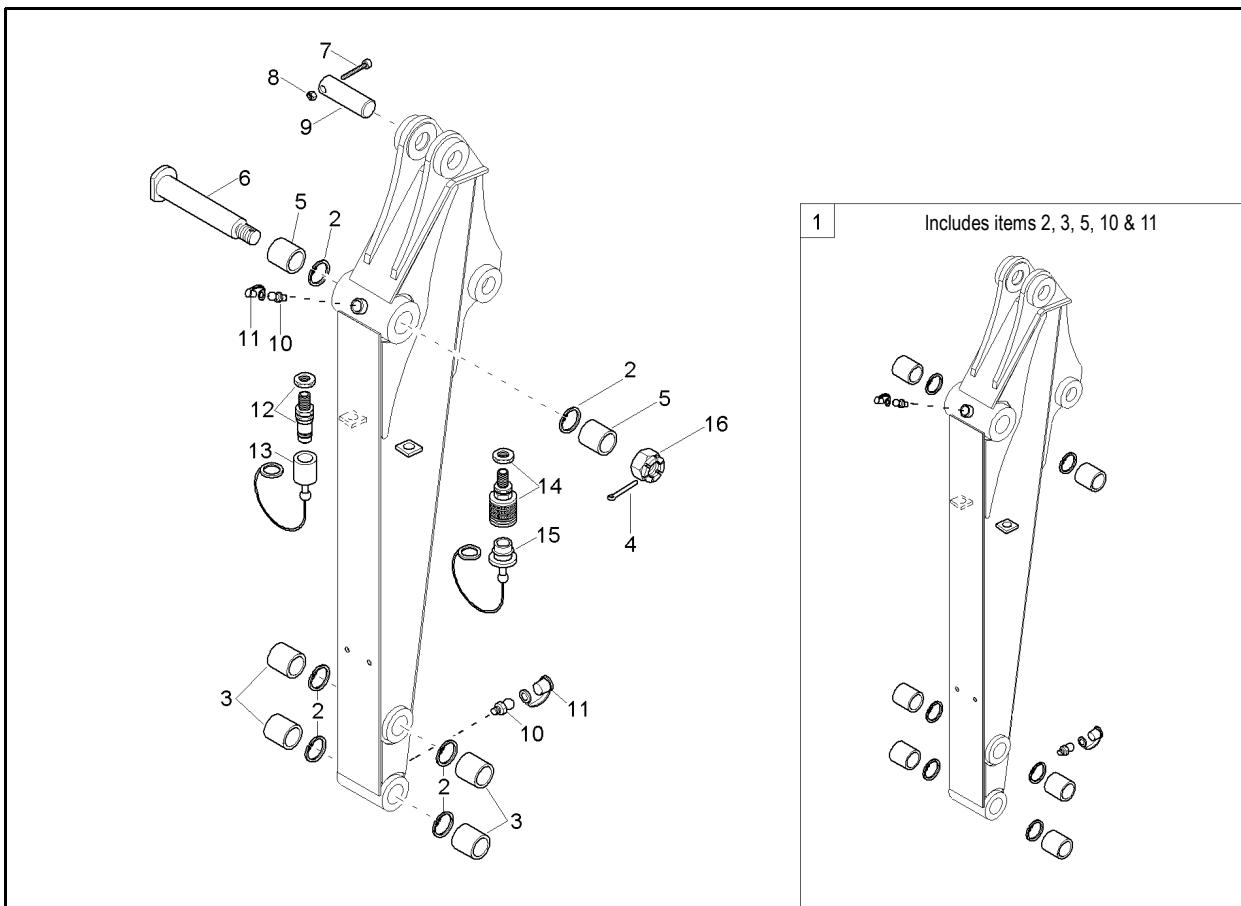
1000144580 - (SN AD02689 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165625	PRE-ASSEMBLED DIPPER ARM SHORT	1	12	161505	SCREW JOINT	1
2	161686	SNAP RING	6	13	207038	FITTING	1
3	161536	BUSHING	4	14	207039	NUT	1
4	161682	PIN/SPRING M6.3 X 63 ZO	1	15	161484	SCREW JOINT	1
5	161536	BUSHING	2	16	207041	NUT	1
6	165692	PIN DM=40 X 265	1	17	651443	HN SLTD M36-4 C8ZY DIN935	1
7	651439	HB M8-1.25 X 80 C8.8 ZY	1	18	178570	COUPLING/FEMALE A13 18L-S BG3	1
8	651458	LN INS M8-1.25 C8 ZY DIN6924	1	19	177804	CAP	1
9	160805	PIN	1	20	178569	COUPLING/MALE A13 15L-S BG3	1
10	161411	GREASE ZERK-7MM HEX HEAD	3	21	177803	CAP	1
11	161422	CAP	3	22	207040	LOCK PLUG	1

# 303 - DIPPER ARM, SHORT (STANDARD)

1000115867 - (SN AD00001 - AD02688)

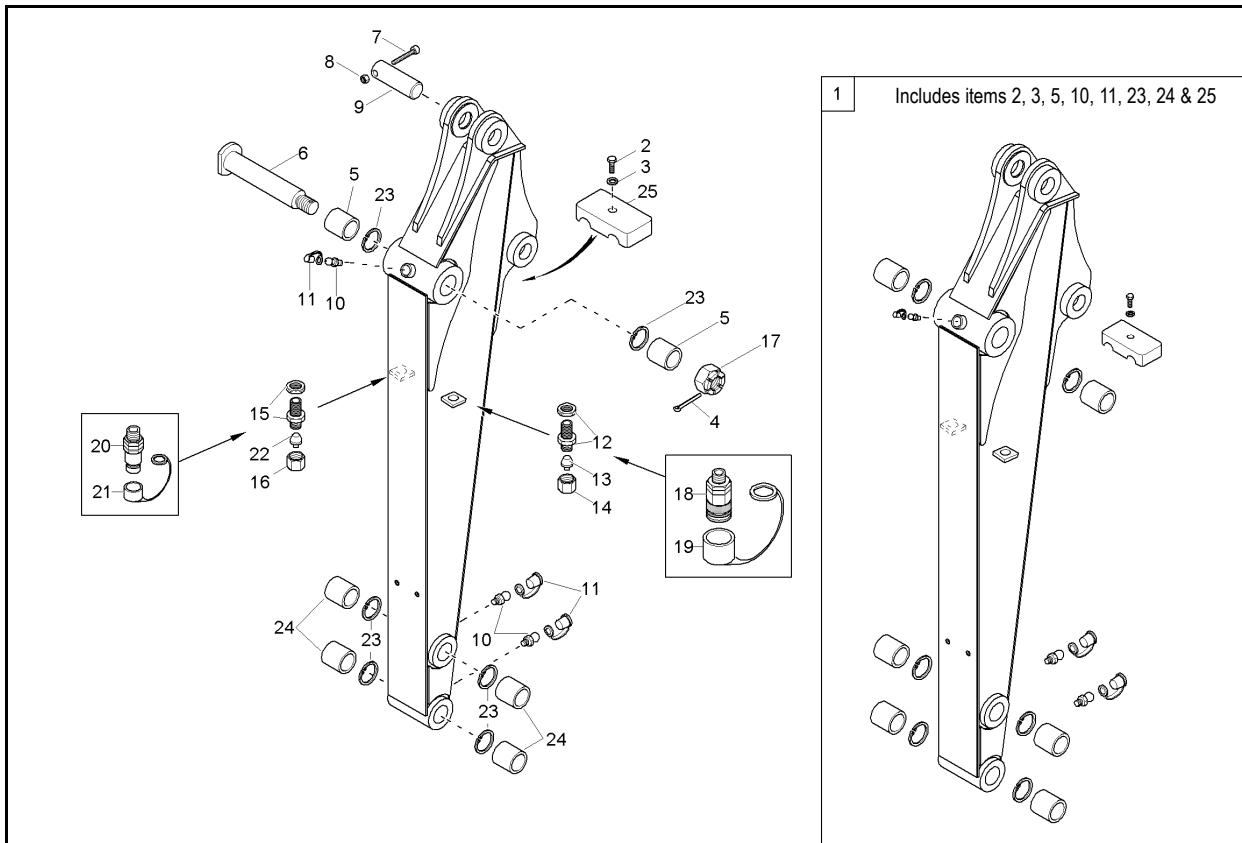


Ref. No.	Part No.	Description	Qty.
1	165625	PRE-ASSEMBLED DIPPER ARM SHORT	1
2	161686	SNAP RING	6
3	161536	BUSHING	4
4	161682	PIN/SPRING M6.3 X 63 ZO	1
5	161536	BUSHING	2
6	165692	PIN DM=40 X 265	1
7	651439	HB M8-1.25 X 80 C8.8 ZY	1
8	651458	LN INS M8-1.25 C8 ZY DIN6924	1

Ref. No.	Part No.	Description	Qty.
9	160805	PIN	1
10	161411	GREASE ZERK-7MM HEX HEAD	2
11	161422	CAP	2
12	160725	QUICK COUPLER-OLD STYLE ONLY	1
13	160459	DUST CAP-OLD STYLE ONLY	1
14	160724	QUICK COUPLER-OLD STYLE ONLY	1
15	160458	DUST PLUG-OLD STYLE ONLY	1
16	651443	HN SLTD M36-4 C8ZY DIN935	1

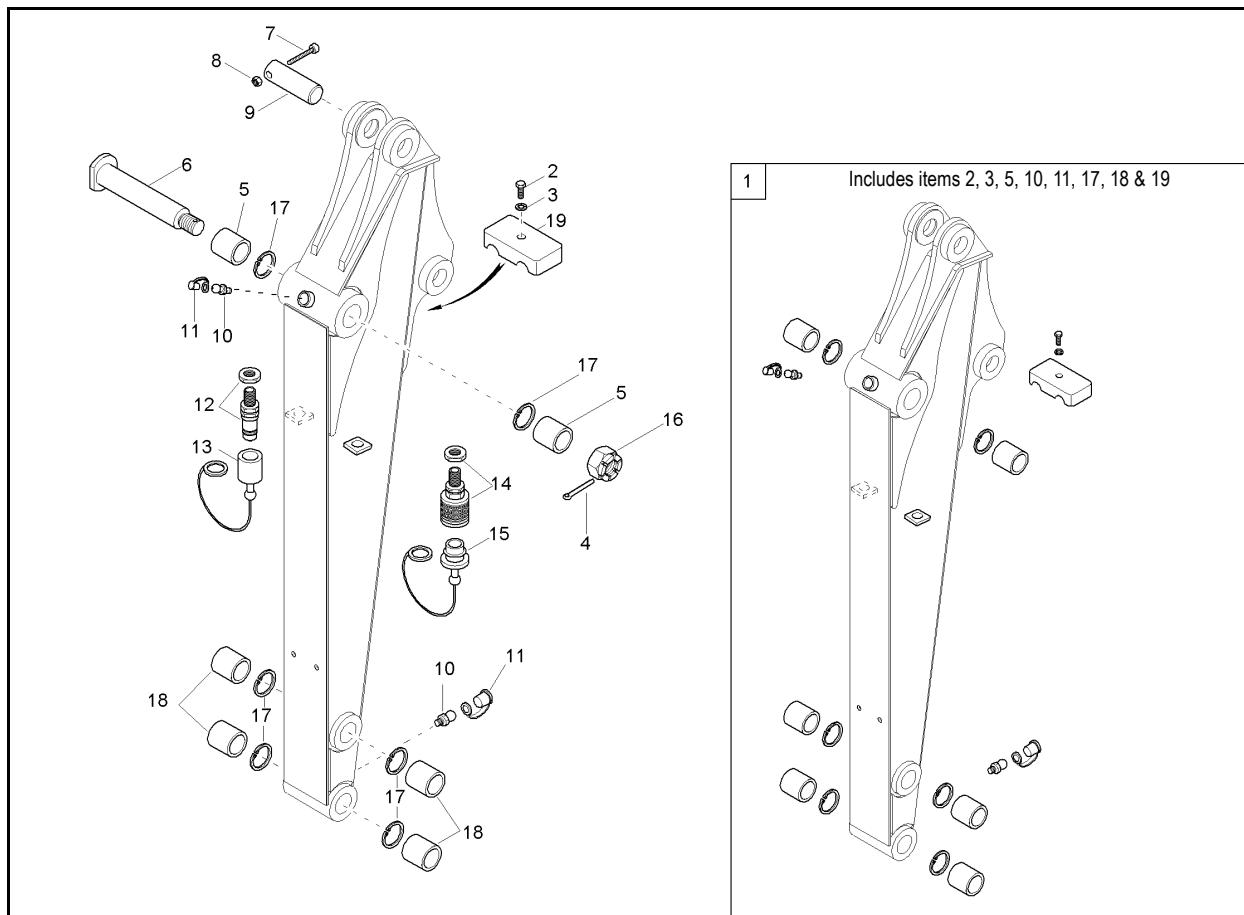
# 303 - DIPPER ARM, LONG (OPTION)

1000144641 - (SN AD02869 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165626	PRE-ASSEMBLED DIPPER ARM LONG	1	13	207038	FITTING	1
2	651397	CS M10-1.5 X 35 C8.8 ZY	1	14	207039	NUT	1
3	161669	LOCKWASHER S10	1	15	161484	SCREW JOINT	1
4	161682	PIN/SPRING M6.3 X 63 ZO	1	16	207041	NUT	1
5	161536	BUSHING	2	17	651443	HN SLTD M36-4 C8ZY DIN935	1
6	165692	PIN DM=40 X 265	1	18	178570	COUPLING/FEMALE A13 18L-S BG3	1
7	651439	HB M8-1.25 X 80 C8.8 ZY	1	19	177804	CAP	1
8	651458	LN INS M8-1.25 C8 ZY DIN6924	1	20	178569	COUPLING/MALE A13 15L-S BG3	1
9	160805	PIN	1	21	177803	CAP	1
10	161411	GREASE ZERK-7MM HEX HEAD	3	22	207040	LOCK PLUG	1
11	161422	CAP	3	23	161686	SNAP RING	6
12	161505	SCREW JOINT	1	24	161536	BUSHING	4
				25	203566	HOSE CLAMP	1

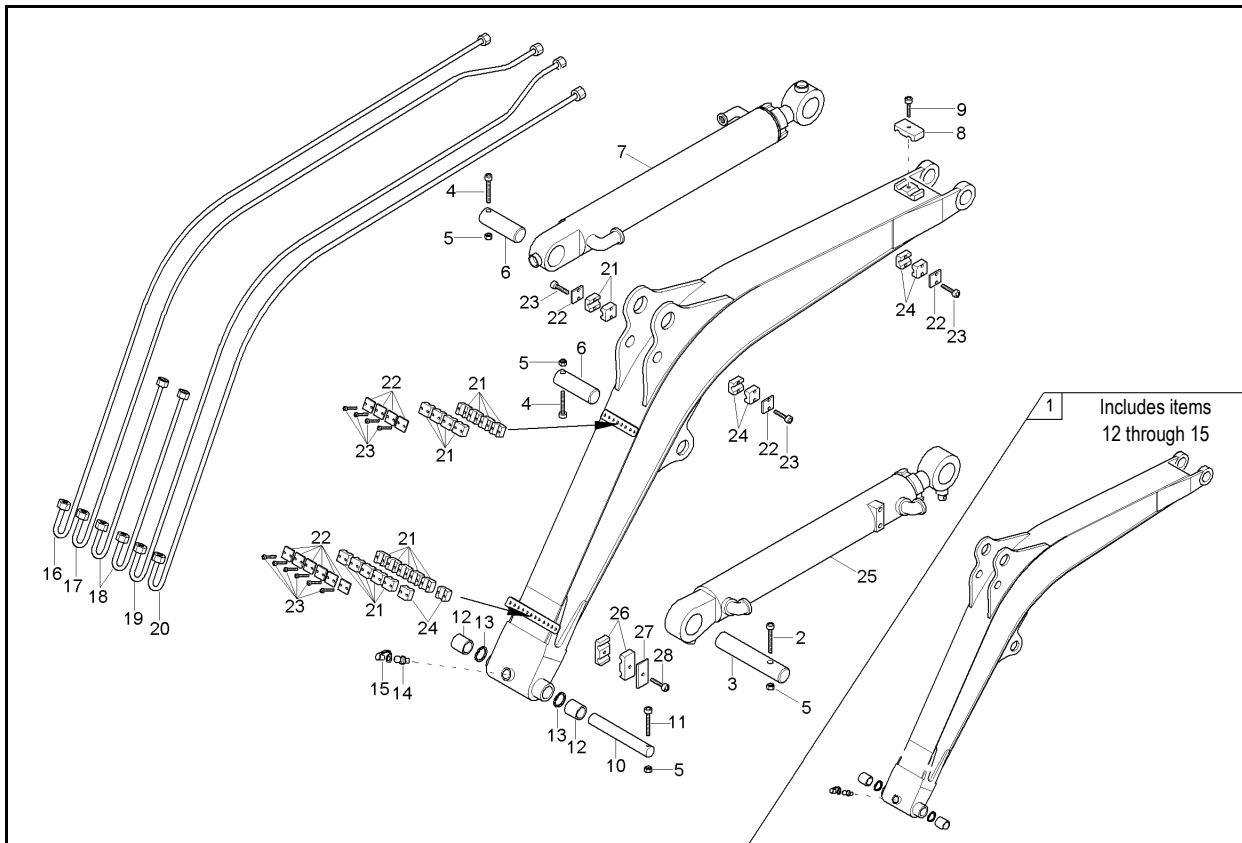
**303 - DIPPER ARM, LONG (OPTION)**  
**1000115868 - (SN AD00001 - AD02688)**



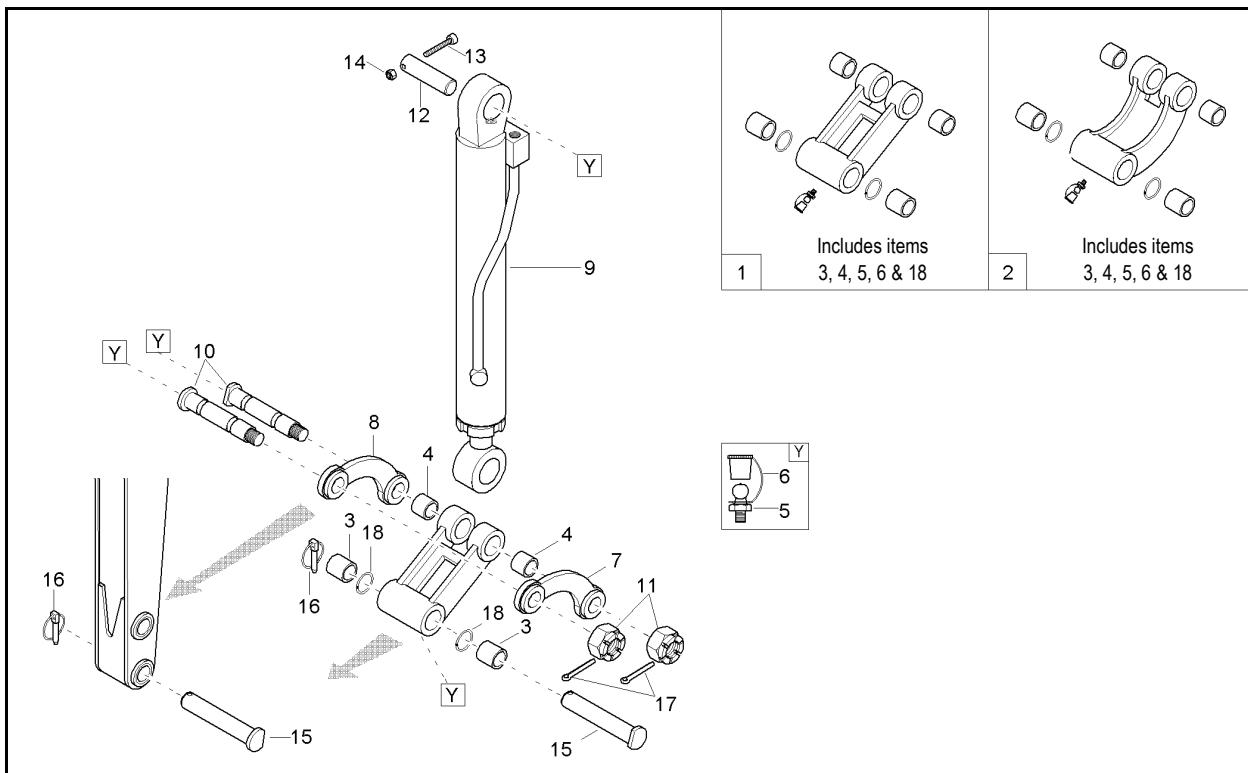
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165626	PRE-ASSEMBLED DIPPER ARM LONG	1	10	161411	GREASE ZERK-7MM HEX HEAD	2
2	651397	CS M10-1.5 X 35 C8.8 ZY	1	11	161422	CAP	2
3	161669	LOCKWASHER S10	1	12	160725	QUICK COUPLER-OLD STYLE ONLY	1
4	161682	PIN/SPRING M6.3 X 63 ZO	1	13	160459	DUST CAP-OLD STYLE ONLY	1
5	161536	BUSHING	2	14	160724	QUICK COUPLER-OLD STYLE ONLY	1
6	165692	PIN DM=40 X 265	1	15	160458	DUST PLUG-OLD STYLE ONLY	1
7	651439	HB M8-1.25 X 80 C8.8 ZY	1	16	651443	HN SLTD M36-4 C8ZY DIN935	1
8	651458	LN INS M8-1.25 C8 ZY DIN6924	1	17	161686	SNAP RING	6
9	160805	PIN	1	18	161536	BUSHING	4
				19	203566	HOSE CLAMP	1

# 303 - BOOM

1000115866



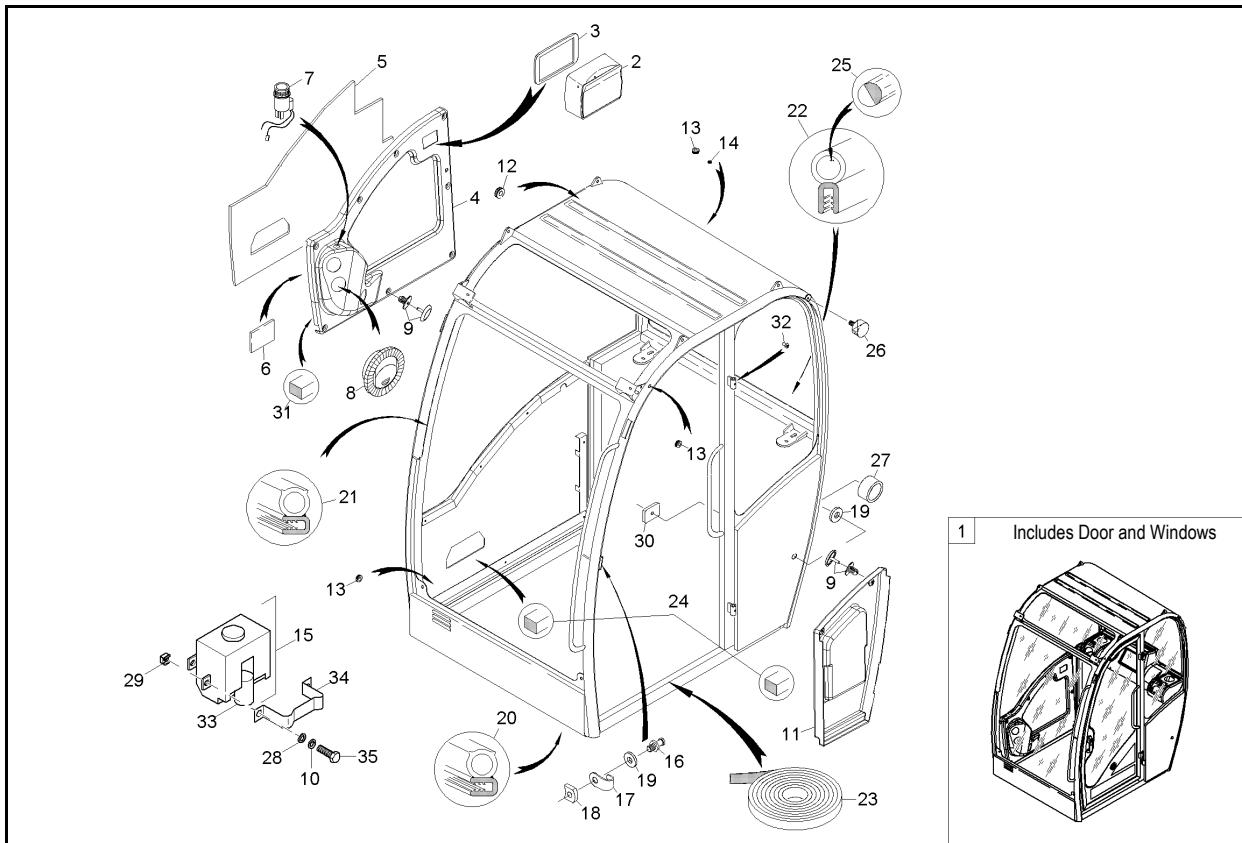
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165624	BOOM PRE-ASSEMBLED	1	15	161422	CAP	1
2	651440	HB M8-1.25 X 90 C8.8 ZY	1	16	165651	TUBE AD15 LEFT	1
3	165694	PIN DM=40 X 182	1	17	165653	TUBE AD15 UPPER LEFT	1
4	651439	HB M8-1.25 X 80 C8.8 ZY	2	18	165649	TUBE AD15	2
5	651458	LN INS M8-1.25 C8 ZY DIN6924	4	19	165652	TUBE AD15 UPPER RIGHT	1
6	160805	PIN	2	20	165650	TUBE AD18 RIGHT	1
7	165628	DIPPER ARM CYLINDER See page 72 for individual components	1	21	161557	COLLAR	22
8	161556	TUBE CLAMP	2	22	162066	COVER	14
9	656008	CS M10-1.5 X 30 C8.8 ZY DIN931	1	23	656139	CS M6-1 X 35 C8.8 ZY DIN931	28
10	165695	PIN DM=50 X 316	1	24	161554	TUBE CLAMP	6
11	163347	SCREW	1	25	165629	BOOM CYLINDER See page 71 for individual components	1
12	161535	BUSHING	2	26	162503	COLLAR	2
13	162599	WASHER	2	27	162502	COVER	1
14	161411	GREASE ZERK-7MM HEX HEAD	1	28	651434	HB M8-1.25 X 45 C8.8 ZY	1



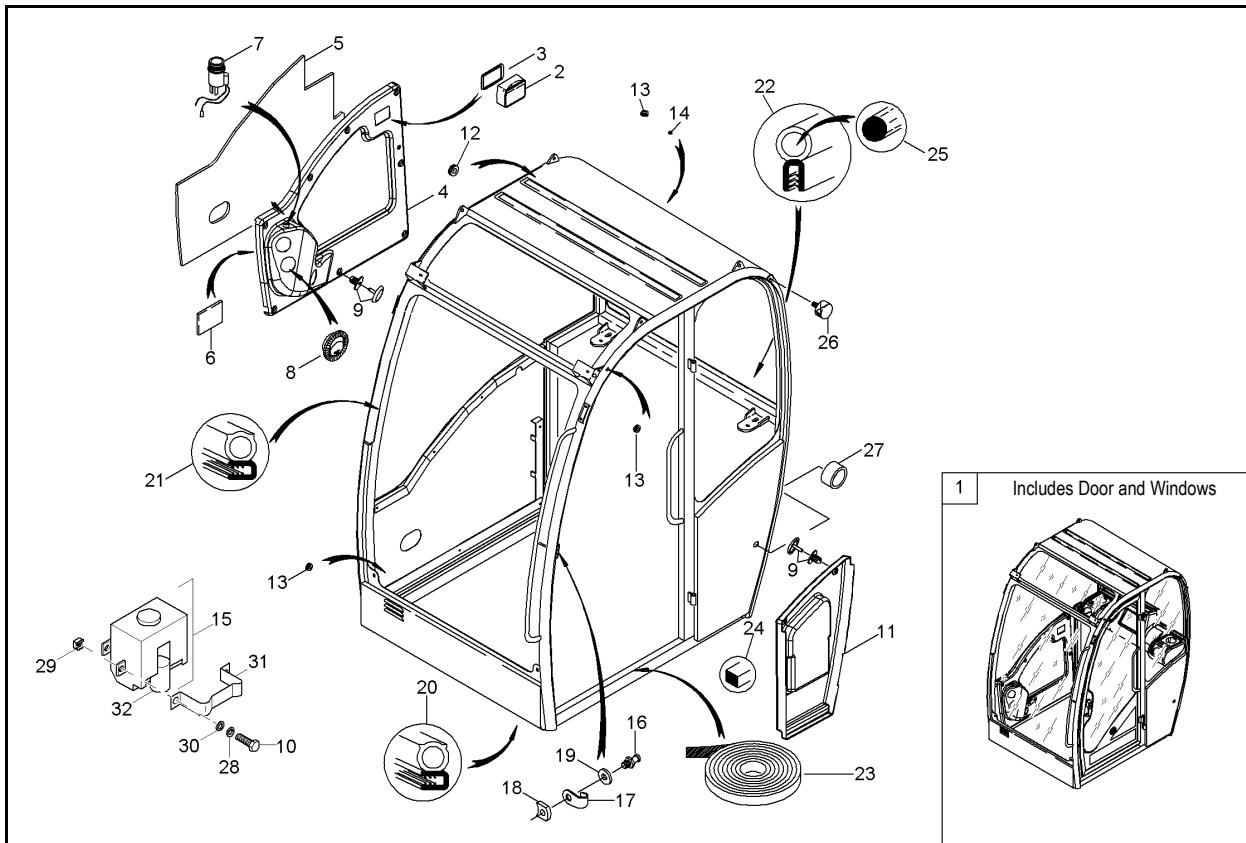
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	165622	CONNECTING LINK ASSY	1	11	651443	HN SLTD M36-4 C8ZY DIN935	2
2	165623	CONNECTING LINK ASSY*	1	12	165693	PIN DM=40 X 126	1
3	161536	BUSHING	2	13	651439	HB M8-1.25 X 80 C8.8 ZY	1
4	161533	BUSHING	2	14	651458	LN INS M8-1.25 C8 ZY DIN6924	1
5	161411	GREASE ZERK-7MM HEX HEAD	4	15	160803	PIN	2
6	161422	CAP	4	16	162489	COTTER PIN	2
7	165617	CONNECTING LINK LT	1	17	161682	PIN/SPRING M6.3 X 63 ZO	2
8	165616	CONNECTING LINK RT	1	18	161686	SNAP RING	2
9	165627	BUCKET CYLINDER See page 73 for individual components	1			* Used only on previous model buckets.	
10	160802	PIN	2				

# 303 - CAB

1000144393 - (SN AD02911 - AE02400)



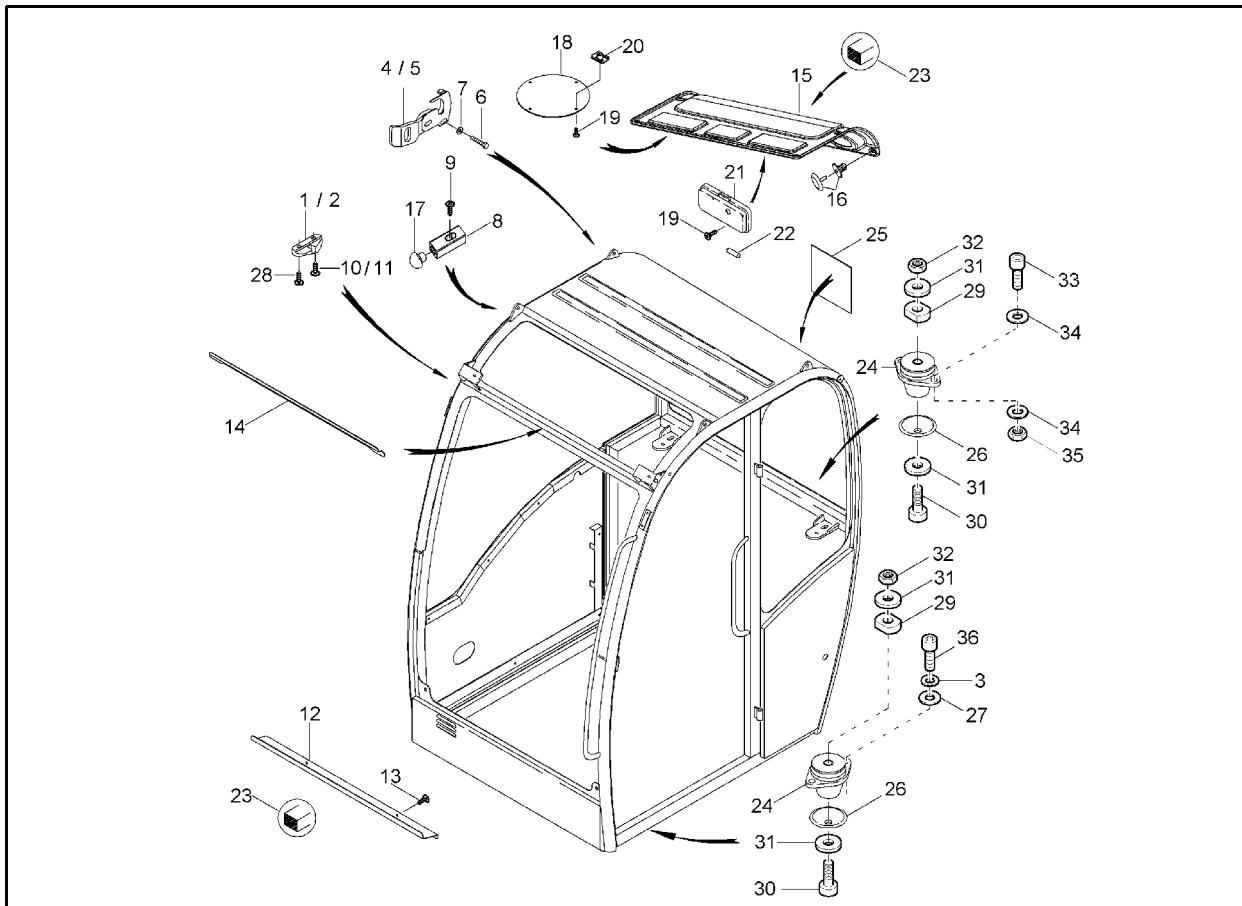
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	207042	CAB COMPLETE	1	19	161923	WASHER	2
2	164676	ASHTRAY	1	20	206921	RUBBER PROFILE (3.0M)	1
3	165182	FRAME	1	21	206922	RUBBER PROFILE (2.4M)	1
4	165155	COVER	1	22	207096	HOSE PROFILE (2.7M)	1
5	207043	ISOLATION MAT	1	23	206039	ANTI-SLIDE STRIP 25MM (0.6M)	1
6	165184	ISOLATION	1	24	207130	ADHESIVE TAPE (0.8M)	1
7	164696	CIGARETTE LIGHTER	1	25	207116	FOAM RUBBER ROUND CORD 10MM (0.12M)	1
8	164670	AIR NOZZLE	3	26	1423449G	RUBBER BUFFER	1
9	164689	RIVET 11MM	10	27	1424446G	DOOR FASTENER	1
10	161675	LOCKWASHER S6	2	28	7462680008	WASHER	2
11	165154	COVER	1	29	161613	NUT/CAGE M6	2
12	165042	PLUG	1	30	178894	PLATE	1
13	162797	PLUG	7	31	206009	COMPRI TAPE (1.2M)	1
14	164677	PLUG	2	32	206088	GREASE ZERK	2
15	164690	WINDSHIELD WASHING TANK W/PUMP	1	33	178891	PUMP	1
16	161921	PIN	1	34	164668	CLAMP	1
17	164771	BRACKET	1	35	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	2
18	164678	PLATE	1				



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	206062	CAB COMPLETE	1	19	161923	WASHER	1
2	164676	ASHTRAY	1	20	206921	RUBBER PROFILE (3.0M)	1
3	165182	FRAME	1	21	206922	RUBBER PROFILE (2.4M)	1
4	165155	COVER	1	22	207096	HOSE PROFILE (2.7M)	1
5	165161	ISOLATION MAT	1	23	206039	ANTI-SLIDE STRIP 25MM (0.6M)	1
6	165184	ISOLATION	1	24	207128	ADHESIVE TAPE (0.3M)	1
7	164696	CIGARETTE LIGHTER	1	25	207116	FOAM RUBBER ROUND CORD 10MM (0.12M)	1
8	164670	AIR NOZZLE	3	26	1423449G	RUBBER BUFFER	1
9	164689	RIVET 11MM	10	27	1424446G	DOOR FASTENER (Cab No. 45077 and before)	1
10	651507	SHCS M6-1 X 20 C8.8 ZY DIN912	2	178893		DOOR FASTENER (Cab No. 45078 and up)	1
11	165154	COVER	1	28	161675	LOCKWASHER S6	2
12	165042	PLUG	1	29	161613	NUT/CAGE M6	2
13	162797	PLUG	7	30	7462680008	WASHER	2
14	164677	PLUG	2	31	164668	CLAMP	1
15	164690	WINDSHIELD WASHING TANK W/PUMP	1	32	178891	PUMP	1
16	161921	PIN	1				
17	164771	BRACKET	1				
18	178894	PLATE (Cab No. 45078 and up)	1				
	164678	PLATE (Cab No. 45077 and before)	1				

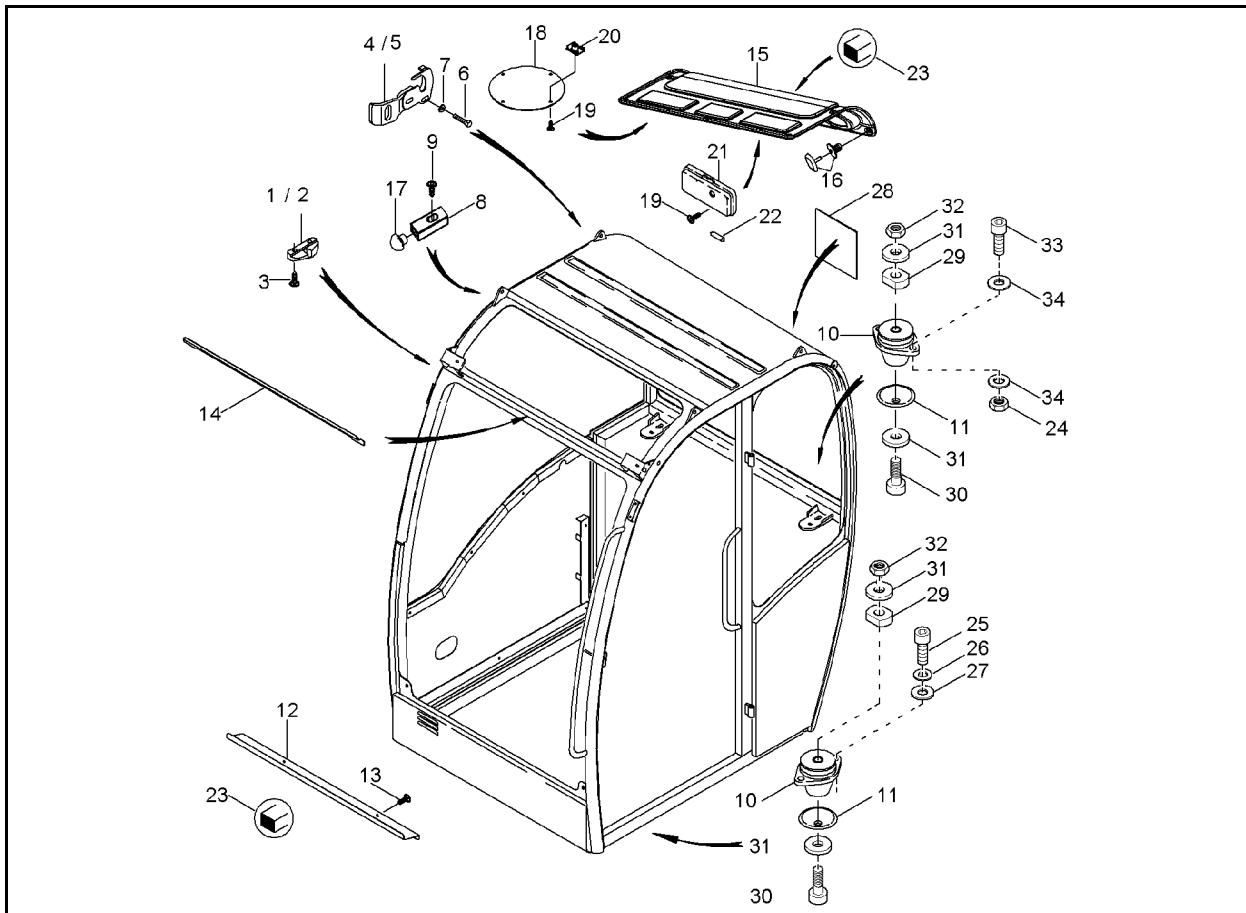
# 303 - CAB (CONT'D)

1000144366 - (SN AD02911 - AE02400)



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	160526	LOCK (FRONT LT/REAR RT)	2	20	164683	NUT	8
2	160527	LOCK (FRONT RT/REAR LT)	2	21	160488	DOME LIGHT	1
3	161669	LOCKWASHER S10	4	22	164182	BULB	1
4	164679	BRACKET LT	1	23	207132	ADHESIVE TAPE (3.7M)	1
5	164680	BRACKET RT	1	24	164682	CUSHION	4
6	656128	CS M6-1 X 30 C8.8 ZY DIN931	4	25	165212	INSULATING PLY	2
7	162924	WASHER	4	26	161936	WASHER	4
8	164681	RESILIENT PAD	2	27	161640	WASHER/GR A 10.5	4
9	164907	SCREW	2	28	207045	SCREW (Cab No. 52263 and up)	2
10	162029	OVAL HEAD SCREW	2		162857	SCREW (Cab No. 52262 and before)	2
11	207044	SCREW	2	29	161875	WASHER	4
12	178880	COVER	1	30	651477	SHCS M12-1.75 X 110 C10.9 ZY DIN912	4
13	179790	SCREW	2	31	161642	WASHER/GR A 13	8
14	179316	GUTTER	1	32	179793	NUT	4
15	165157	COVER	1	33	163344	SCREW	4
16	164689	RIVET 11MM	9	34	163642	WASHER	8
17	164686	RUBBER PLUG	2	35	651448	LN INS M10-1.5 C8 ZY DIN6924	4
18	165187	COVER	2	36	651475	SHCS M10-1.25 X 30 F8.8 ZY DIN912	4
19	162035	SCREW	10				

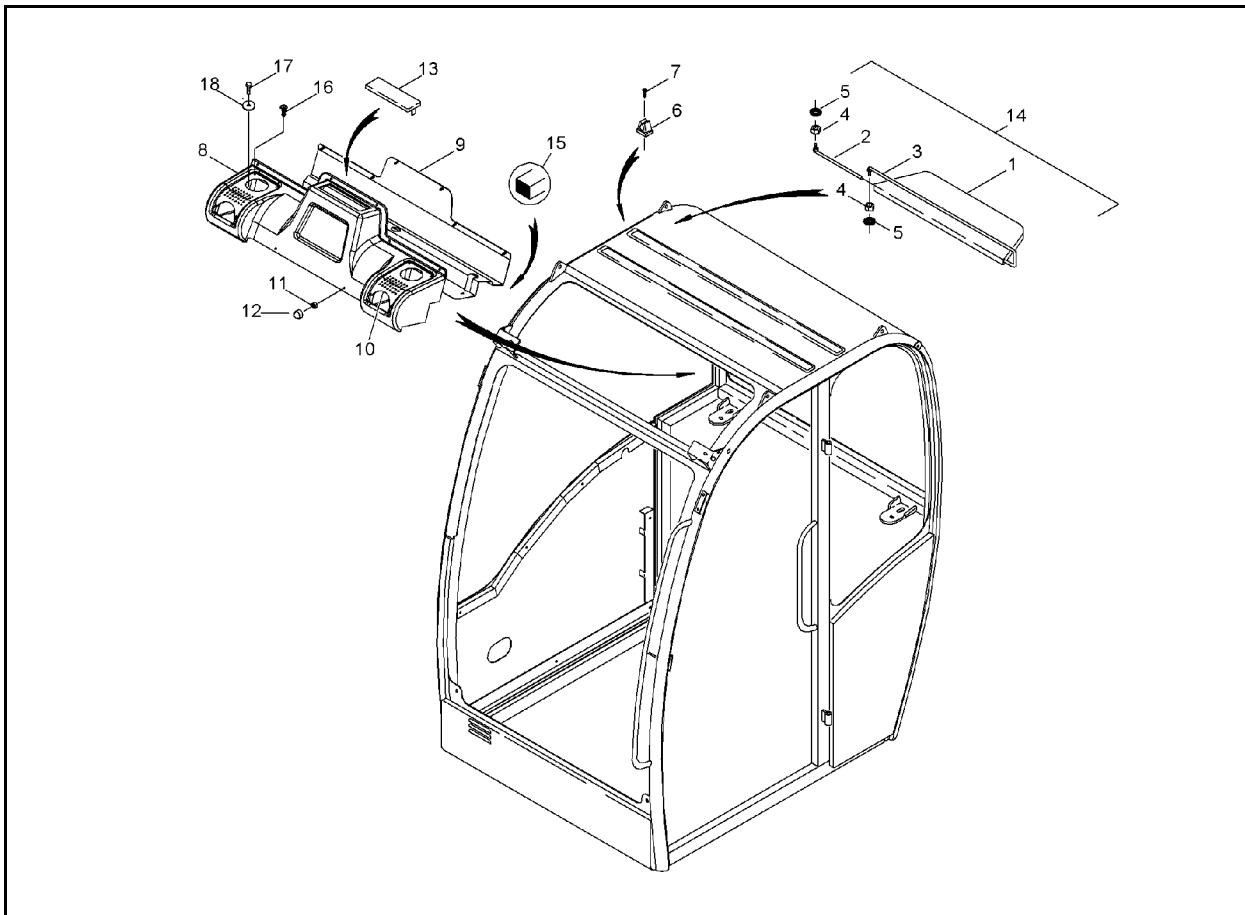
**303 - CAB (CONT'D)**  
**1000115881 - (SN AD00001 - AD02910)**



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	160526	LOCK (FRONT LT/REAR RT)	2	17	164686	RUBBER PLUG	2
2	160527	LOCK (FRONT RT/REAR LT)	2	18	165187	COVER	2
3	162029	SCREW	4	19	162035	SCREW	10
4	164679	BRACKET LT	1	20	164683	NUT	8
5	164680	BRACKET RT	1	21	160488	DOME LIGHT	1
6	656128	CS M6-1 X 30 C8.8 ZY DIN931	4	22	164182	BULB	1
7	162924	WASHER	4	23	207132	ADHESIVE TAPE (3.7M)	1
8	164681	RESILIENT PAD	2	24	651448	LN INS M10-1.5 C8 ZY DIN6924	4
9	164907	SCREW	2	25	651475	SHCS M10-1.25 X 30 F8.8 ZY DIN912	4
10	164682	CUSHION	4	26	161669	LOCKWASHER S10	4
11	161936	WASHER	4	27	161640	WASHER/GR A 10.5	4
12	178880	COVER	1	28	165212	INSULATING PLY	2
13	161629	SCREW/PAN HEAD TAP (Cab No. 41665 and up)	2	29	161875	WASHER	4
	179790	SCREW (Cab No. 41664 and before)	2	30	651477	SHCS M12-1.75 X 110 C10.9 ZY DIN912	4
14	179316	GUTTER	1	31	161642	WASHER/GR A 13	8
15	165157	COVER	1	32	179793	NUT	4
16	164689	RIVET 11MM	9	33	163344	SCREW	4
				34	163642	WASHER	8

# 303 - CAB (CONT'D)

1000115882



**Ref.**

**No. Part No.**

**Description**

**Qty.**

1	178835	SUN VISOR	1
2	165188	ROD	1
3	165189	ROD	1
4	651458	LN INS M8-1.25 C8 ZY DIN6924	2
5	165190	SERRATED LOCK WASHER	2
6	165191	COLLAR	1
7	162869	SCREW	1
8	165158	STORAGE BOX	1
9	165192	COVER	1

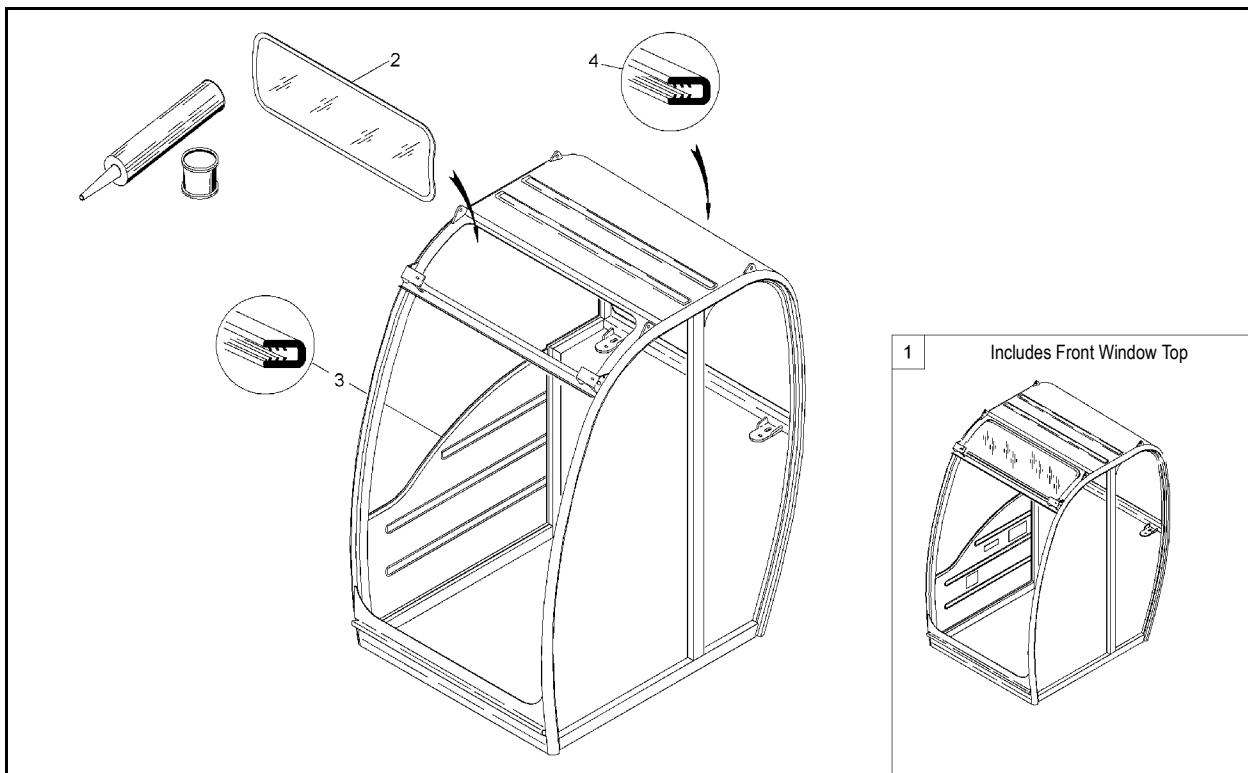
**Ref.**

**No. Part No.**

**Description**

**Qty.**

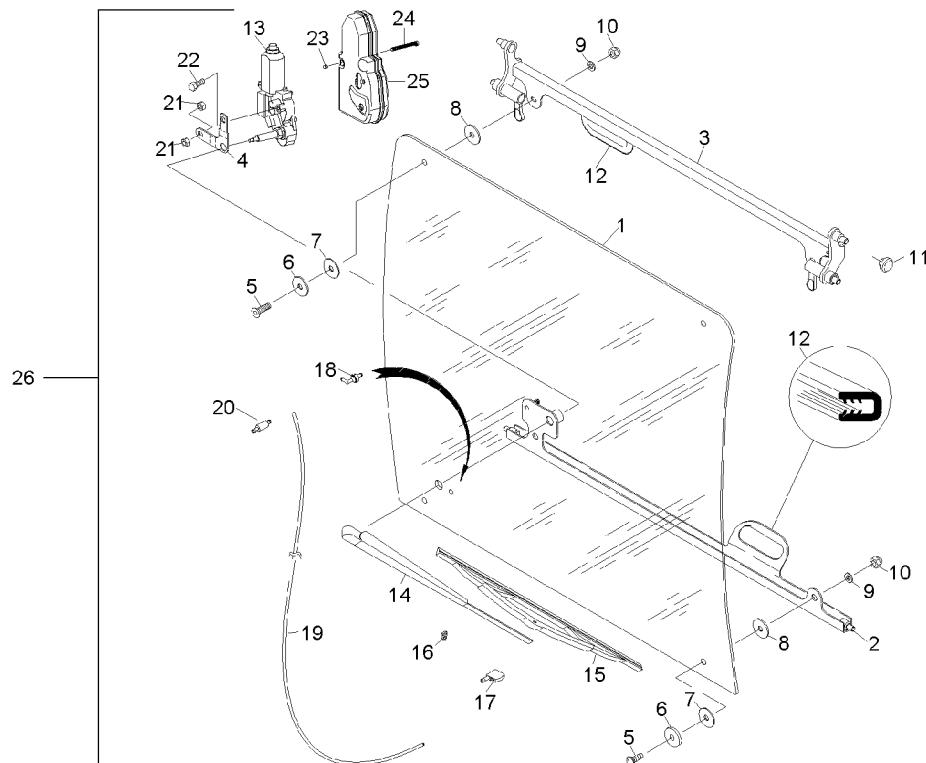
10	178888	COVER	2
11	651456	LN INS M5-0.8 C8 ZY DIN6924	8
12	165214	CAP	8
13	165195	COVER	1
14	164770	SUN VISOR COMPLETE	1
15	207131	ADHESIVE TAPE (0.9M)	1
16	162035	SCREW	8
17	651422	CS M5-0.8 X 20 C8.8 ZY DIN931	2
18	165213	SQUARE NUT 5 X 20	2



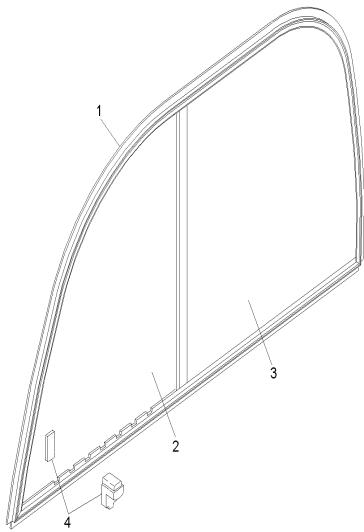
Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	204751	CANOPY COMPLETE		1	3	206040	EDGE GUARD (1.0M)		1
2	160496	FRONT WINDOW TOP		1	4	207133	EDGE PROTECTION (1.0M)		1

# 303 - CAB FRONT WINDOW (WINDSHIELD)

1000115886



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	165165	FRONT WINDOW		1	14	161939	WIPER ARM		1
	178897	FRONT WINDOW TINTED		1	15	161940	WIPER BLADE		1
2	165166	WINDOW FRAME/LOWER		1	16	161086	CLIPS		2
3	165167	WINDOW FRAME/UPPER		1	17	161087	NOZZLE		1
4	165168	BAR LOCK		1	18	165032	BRACKET		1
5	651466	FHCS M8-1.25 X 20 C8.8 ZY DIN7991		4	19	203560	WATER HOSE (3.0M)		1
6	165046	WASHER		4	20	164673	NON-RETURN VALVE		1
7	160640	RUBBER WASHER		4	21	656048	HN M8-1.25 C8 ZY DIN934		2
8	160639	RUBBER WASHER		4	22	651430	CS M8-1.25 X 12 C8.8 ZY DIN931		1
9	161668	WASHER/GR A 8.4 ZO DIN134		4	23	165948	NUT		2
10	161618	HN DOMED CAP M8		4	24	165048	SCREW		2
11	160494	PVC WASHER		4	25	165159	COVER		1
12	207211	EDGE PROTECTION (1.0M)		1	26	165169	FRONT WINDOW COMPLETE		1
13	165206	WIPER MOTOR		1					



## Ref.

## No. Part No.

## Description

## Qty.

1	165196 178902	SLIDING WINDOW COMPLETE SLIDING WINDOW COMPLETE TINTED	1 1
2	178885 178900	WINDOW/SLIDING WINDOW/SLIDING TINTED	1 1

## Ref.

## No. Part No.

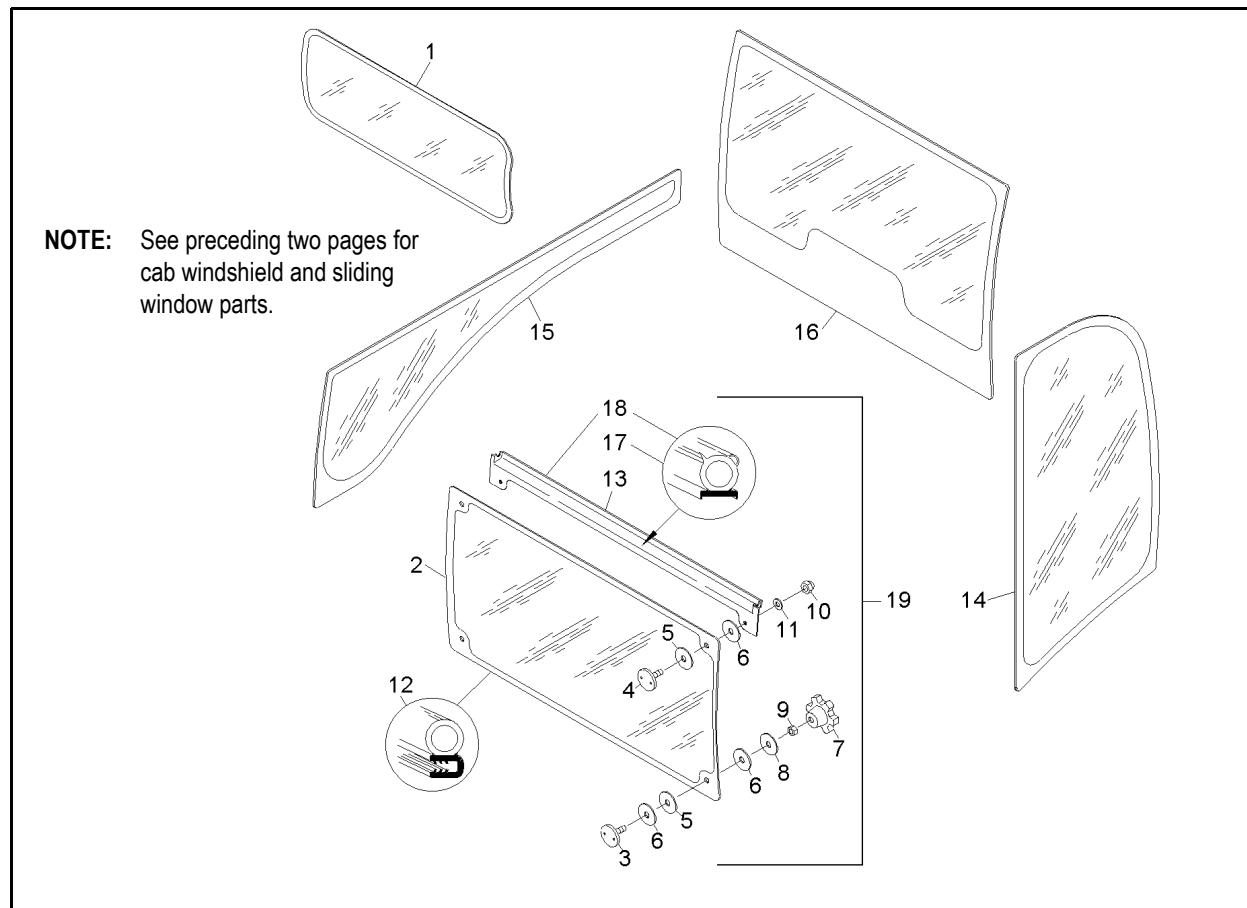
## Description

## Qty.

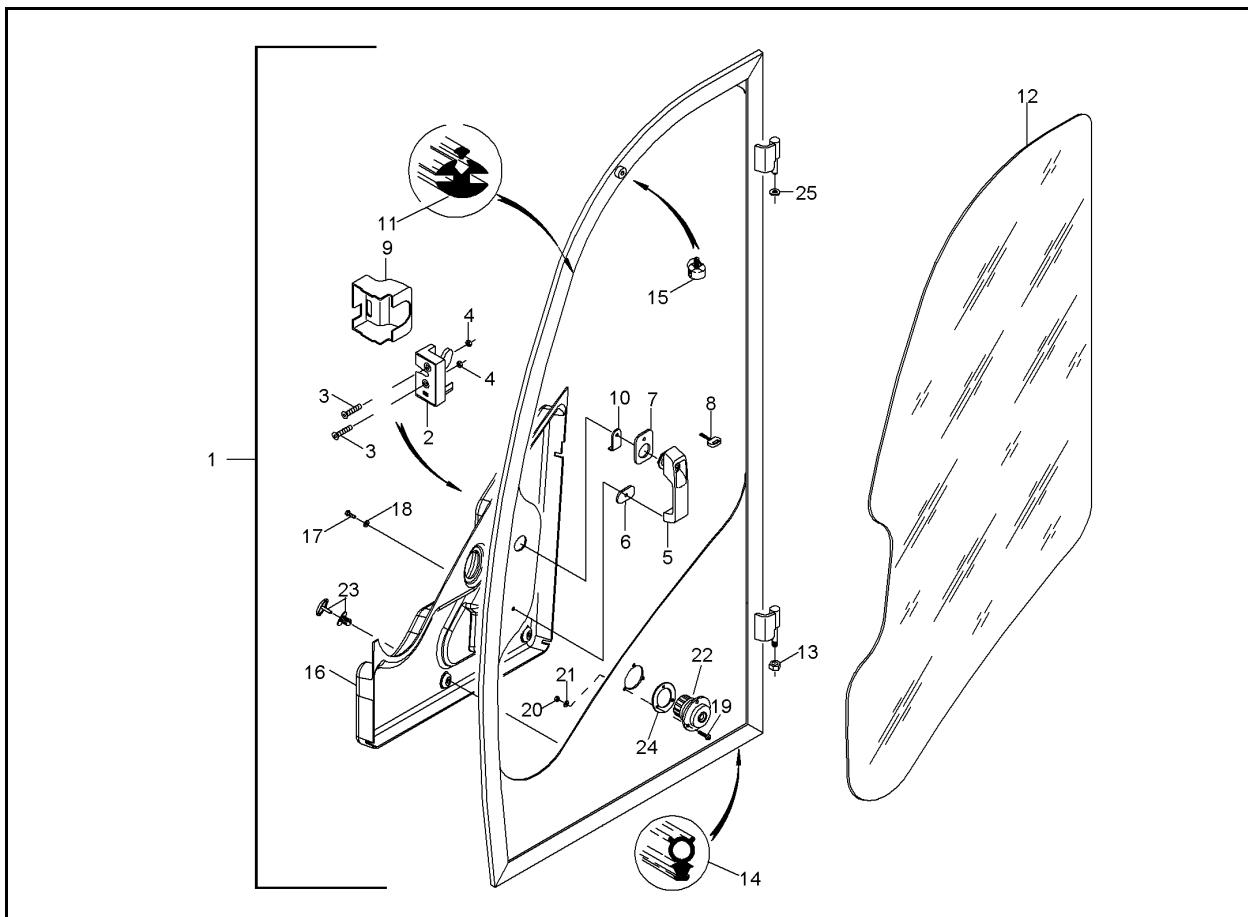
3	178886 178901	WINDOW/STATIONARY WINDOW/STATIONARY TINTED	1 1
4	164684	LOCK	1

# 303 - CAB WINDOWS

1000115885



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	160496	FRONT WINDOW TOP	1	13	178887	SHIELD	1
2	165170	FRONT WINDOW/LOWER	1	14	165164	SIDE PANES LT	1
	178895	FRONT WINDOW/LOWER TINTED	1		178896	SIDE PANES LT TINTED	1
3	164671	PVC WASHER	2	15	165171	SIDE PANES RT	1
4	161091	PVC WASHER	2		178899	SIDE PANES RT TINTED	1
5	160640	RUBBER WASHER	4	16	165172	REAR WINDOW	1
6	160639	RUBBER WASHER	12		177416	REAR WINDOW TINTED	1
7	164672	NUT	2	17	207136	SEALING HOSE PROFILE (0.9M)	1
8	162812	WASHER	2	18	178884	BRACKET W/SEAL (Cab No. 41362 and up)	1
9	656048	HN M8-1.25 C8 ZY DIN934	2	19	165173	FRONT WINDOW COMPLETE/ LOWER	1
10	161618	HN DOMED CAP M8	2		178903	FRONT WINDOW COMPLETE/ LOWER TINTED	1
11	161668	WASHER/GR A 8.4 ZO DIN134	2				
12	207134	HOSE PROFILE (1.9M)	1				

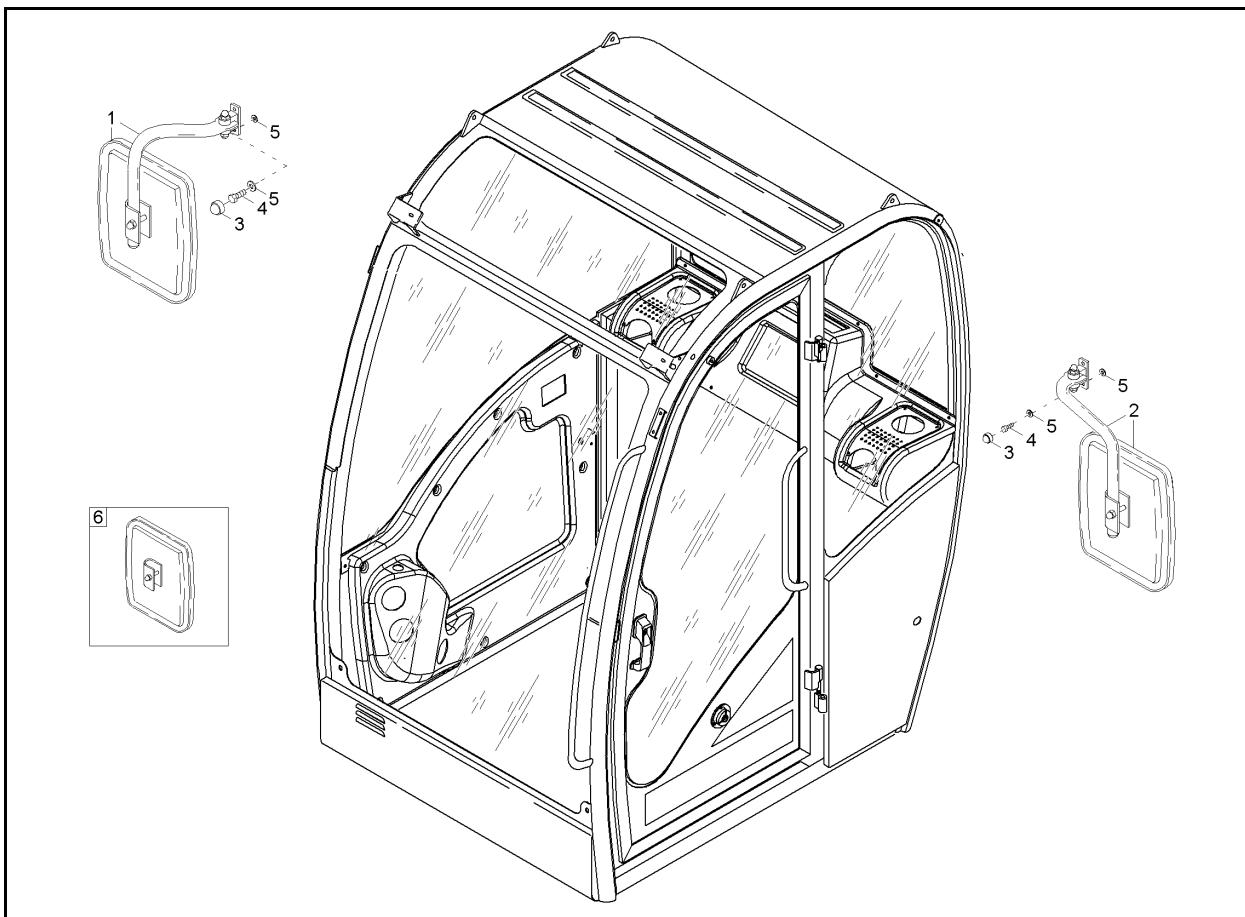


Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	178877	CAB DOOR COMPLETE		1	13	651448	LN INS M10-1.5 C8 ZY DIN6924		1
	177435	CAB DOOR COMPLETE W/WINDOW TINTED		1	14	206923	SEALING PROFILE (3.90M)		1
2	160525	LATCH		1	15	1423449G	RUBBER BUFFER		1
3	162864	SCREW		2	16	165156	COVER		1
4	651458	LN INS M8-1.25 C8 ZY DIN6924		2	17	651424	CS M6-1 X 20 C8.8 ZY DIN931		1
5	161096	HANDLE W/LOCK		1	18	162813	WASHER		1
6	164700	SHIM		1	19	164904	SHCS		3
7	164701	SHIM		1	20	651456	LN INS M5-0.8 C8 ZY DIN6924		3
8	101792	KEY*		2	21	162925	WASHER		3
9	165221	COVER		1	22	1424447G	DOOR LATCH		1
10	165174	CALIPERS		1	23	164689	RIVET 11MM		10
11	206928	RUBBER PROFILE (3.30M)		1	24	1423447G	RUBBER WASHER		1
12	165175	DOOR WINDOW		1	25	164688	WASHER		2
	178898	DOOR WINDOW TINTED		1					

\* Same key(s) to start engine and operate all locks on unit.

# 303 - MIRRORS (OPTION)

1000145936



#### Ref.

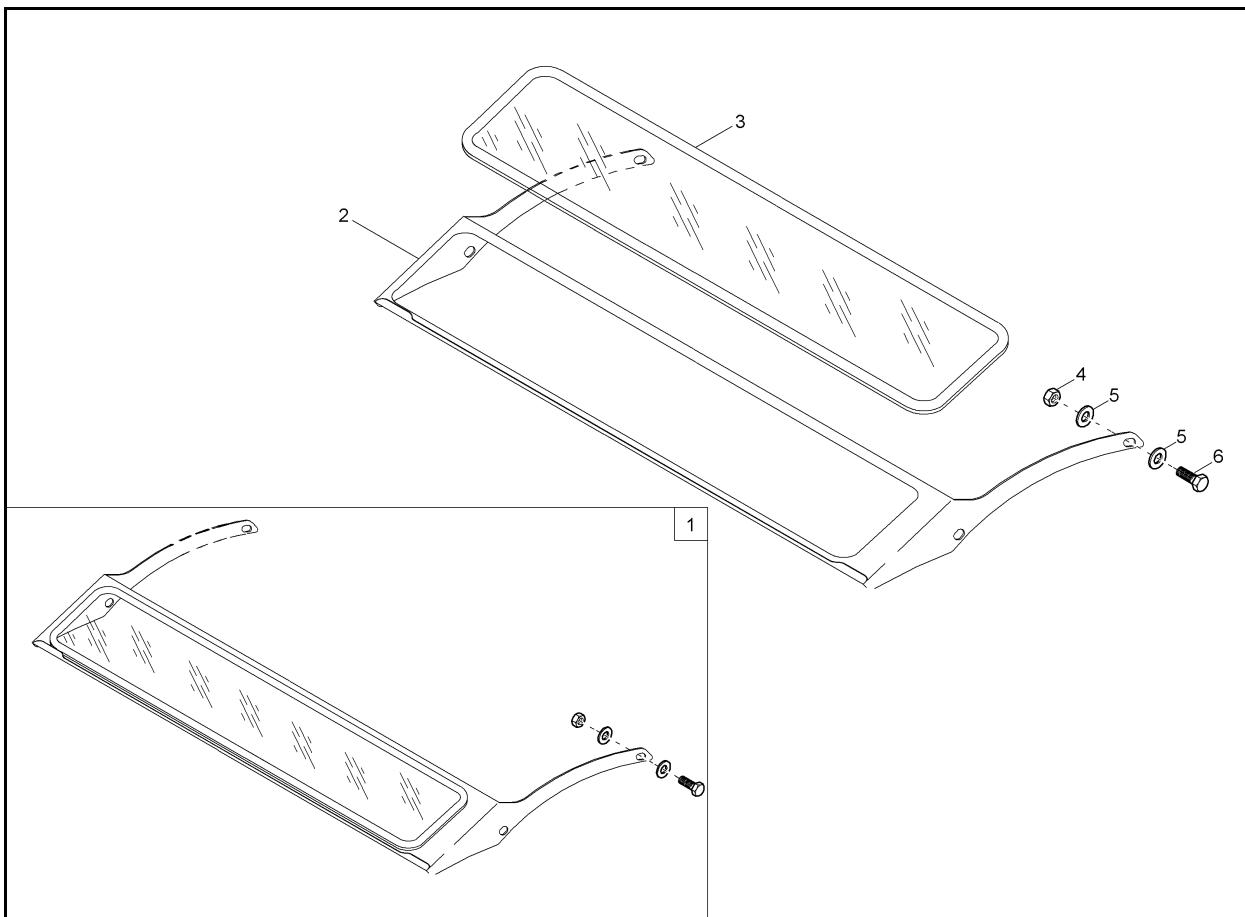
No.	Part No.	Description	Qty.
1	162607	MIRROR LT	1
2	163213	MIRROR RT	1
3	162737	COVER	4

#### Ref.

No.	Part No.	Description	Qty.
4	656149	CS M6-1 X 16 C8.8 ZY DIN931	4
5	162924	WASHER	8
6	178890	MIRROR	2

# 303 - SUN VISOR (OPTION)

1000144766



#### Ref.

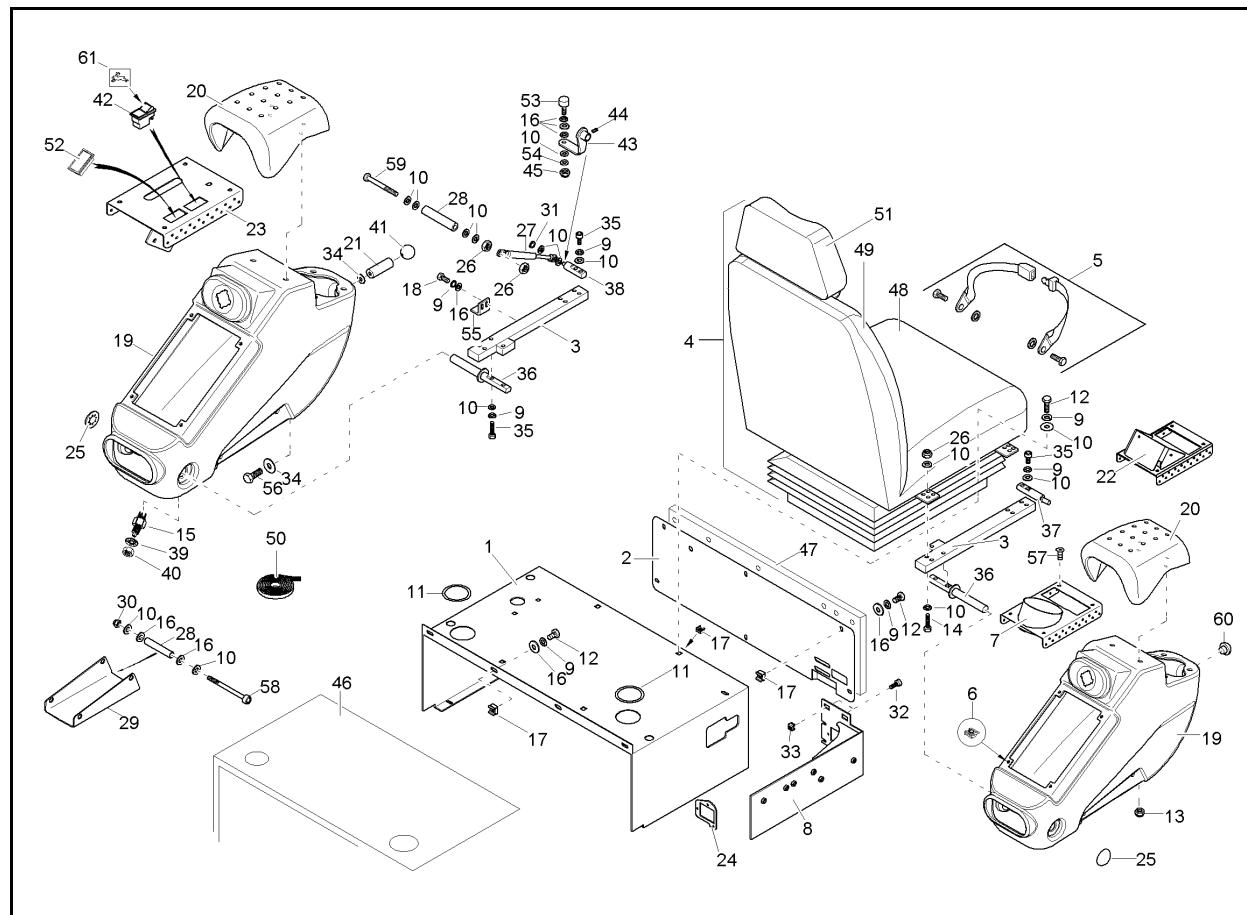
No.	Part No.	Description	Qty.
1	178906	SUN VISOR COMPLETE	1
2	177413	VISOR FRAME	1
3	178974	VISOR WINDOW	1

#### Ref.

No.	Part No.	Description	Qty.
4	651458	LN INS M8-1.25 C8 ZY DIN6924	4
5	7462680011	WASHER 8.4 ST A2C	8
6	177648	HEX SCREW	4

# 303 - OPERATOR'S SEAT, CAB

1000115901



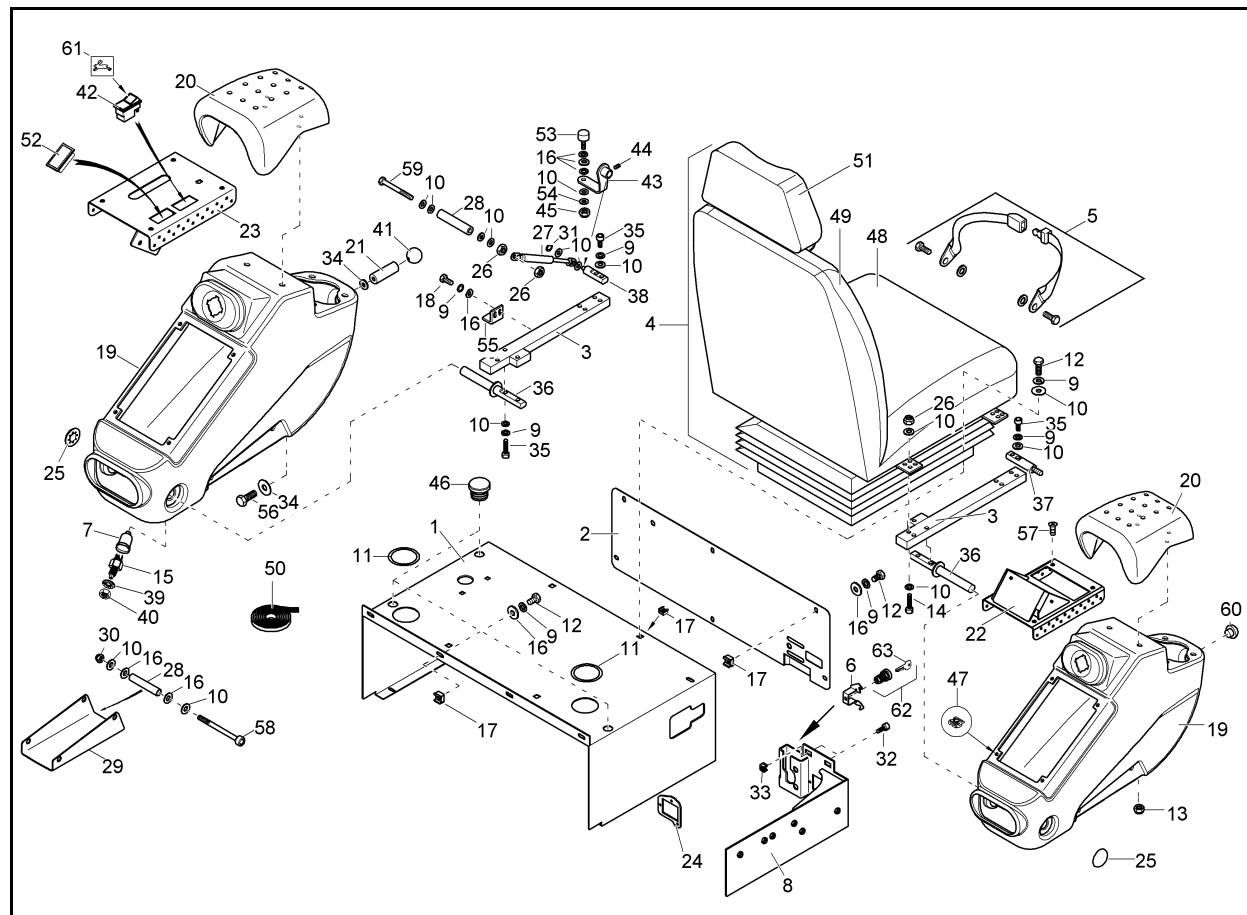
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	178986	SEAT CONSOLE	1	20	178873	ARMREST	2
2	179034	COVER	1	21	161868	TUBE	1
3	164707	FIXING PLATE	2	22	178700	PANEL/JOYSTICK CONSOLE RT (SN AD00001 - AD03524)	1
4	177663	OPERATOR'S SEAT (CLOTH)	1	23	178438	PANEL/JOYSTICK CONSOLE LT	1
	162218	OPERATOR'S SEAT (VINYL)	1	24	178858	BRACKET	1
5	207060	SEAT BELT KIT (2" RETRACTABLE)	1	25	161730	PLUG	2
	809306	SEAT BELT KIT (3" RETRACTABLE)	1	26	651458	LN INS M8-1.25 C8 ZY DIN6924	8
6	162048	CLIP-ON NUT	8	27	160611	SPRING	1
7	207061	PANEL/JOYSTICK CONSOLE RT (SN AD03525 - AE02400)	1	28	178876	TUBE	2
8	178857	BRACKET	1	29	178875	BRACKET	1
9	163670	LOCKWASHER	24	30	161618	HN DOMED CAP M8	1
10	163634	WASHER	37	31	161848	LOCKWASHER	1
11	207219	PVC EDGE PROTECTION (0.30M)	1	32	651463	FHCS M6-1 X2 0 C8.8 ZY DIN7991	7
12	656105	CS M8-1.25 X 25 C8.8 ZY DIN931	14	33	161614	NUT/CAGE M6	4
13	165952	NUT	4	34	161651	WASHER 20	2
14	165932	SCREW	8	35	651517	SHCS M8-1.25 X 30 C8.8 ZY DIN912	8
15	164980	MICROSWITCH	1	36	165610	PIN	2
16	7462680011	WASHER 8.4 ST A2C	17	37	164978	PIN	1
17	161615	NUT/CAGE M8	13	38	164979	PIN	1
18	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	2	39	164982	WASHER	1
19	178872	JOYSTICK CONSOLE	2	40	164981	NUT	1

**303 - OPERATOR'S SEAT, CAB**  
**1000115901**

Ref. No.		Description	Qty.	Ref. No.		Description	Qty.
Part No.				Part No.			
41	161631	KNOB D40MM	1	51	165824	HEADREST (CLOTH)	1
42	164883	ROCKER SWITCH	1		177386	HEADREST (VINYL)	1
43	164669	PROFILE	1	52	0003320872	BLANK	1
44	651446	SHSS CP M8-1.25X12 C 45H	1	53	164699	RUBBER-METAL-BUFFER	1
45	656048	HN M8-1.25 C8 ZY DIN934	1	54	656110	LW M8 ZY DIN127	1
46	179023	ISOLATION MAT	1	55	165612	BRACKET	1
47	179022	ISOLATION MAT	1	56	651390	HB M10-1.5X120 C8.8 ZY	1
48	165589	SEAT BOTTOM (CLOTH)	1	57	161634	SCREW/C'SUNK HD M5X16	8
	177388	SEAT BOTTOM (VINYL)	1	58	651519	SHCS M8-1.25 X 90 C8.8 ZY DIN912	1
49	165588	SEAT BACK (CLOTH)	1	59	179782	SCREW	1
	177387	SEAT BACK (VINYL)	1	60	178883	PLUG	1
50	207143	VELCRO 25MM (4.0M)	1	61	164710	SYMBOL/HIGH SPEED	1

# 303 - OPERATOR'S SEAT, CANOPY

1000147394



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	178986	SEAT CONSOLE	1	20	178873	ARMREST	2
2	207062	COVER	1	21	161868	TUBE	1
3	164707	FIXING PLATE	2	22	178700	PANEL/JOYSTICK CONSOLE RT	1
4	162218	OPERATOR'S SEAT (VINYL)	1	23	178438	PANEL/JOYSTICK CONSOLE LT	1
5	207060	SEAT BELT KIT (2" RETRACTABLE)	1	24	178858	BRACKET	1
	809306	SEAT BELT KIT (3" RETRACTABLE)	1	25	161730	PLUG	2
6	207065	BLOCKING PLATE	1	26	651458	LN INS M8-1.25 C8 ZY DIN6924	8
7	161642	WASHER/GR A 13	2	27	160611	SPRING	1
8	207063	BRACKET	1	28	178876	TUBE	2
9	163670	LOCKWASHER	24	29	178875	SHEET METAL	1
10	163634	WASHER	37	30	161618	HN DOMED CAP M8	1
11	207219	PVC EDGE PROTECTION (0.30M)	1	31	161848	LOCKWASHER	1
12	656105	CS M8-1.25 X 25 C8.8 ZY DIN931	14	32	651463	FHCS M6-1 X 20 C8.8 ZY DIN7991	7
13	165952	NUT	4	33	161614	NUT/CAGE M6	4
14	165932	SCREW	8	34	161651	WASHER 20	2
15	164980	MICROSWITCH	1	35	651517	SHCS M8-1.25 X 30 C8.8 ZY DIN912	8
16	7462680011	WASHER 8.4 ST A2C	19	36	165610	PIN	2
17	161615	NUT/CAGE M8	13	37	164978	PIN	1
18	656093	CS M8-1.25 X 16 C8.8 ZY DIN931	2	38	164979	PIN	1
19	178872	JOYSTICK CONSOLE	2	39	164982	WASHER	1

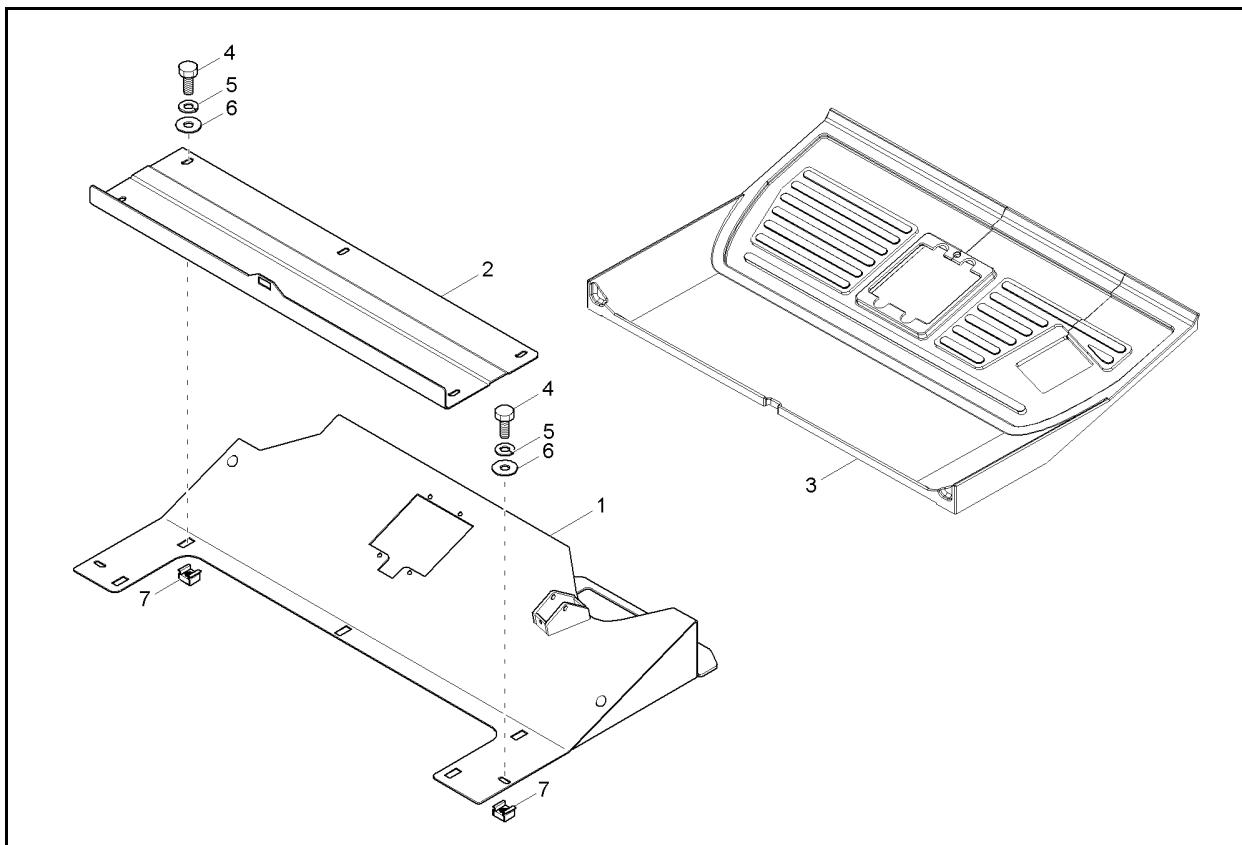
**303 - OPERATOR'S SEAT, CANOPY**  
**1000147394**

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
40	164981	NUT	1	53	164699	RUBBER-METAL-BUFFER	1
41	161631	KNOB D40MM	1	54	656110	LW M8 ZY DIN127	1
42	164883	ROCKER SWITCH	1	55	165612	BRACKET	1
43	164669	PROFILE	1	56	651390	HB M10-1.5 X 120 C8.8 ZY	1
44	651446	SHSS CP M8-1.25 X 12 C 45H	1	57	161634	SCREW/C'SUNK HD M5X16	8
45	656048	HN M8-1.25 C8 ZY DIN934	1	58	651519	SHCS M8-1.25 X 90 C8.8 ZY DIN912	1
46	207064	CLUTCH DISC PLUG	3	59	179782	SCREW	1
47	162048	CLIP-ON NUT	8	60	178883	PLUG	1
48	177388	SEAT BOTTOM (VINYL)	1	61	164710	SYMBOL/HIGH SPEED	1
49	177387	SEAT BACK (VINYL)	1	62	2529457G	LOCK W/O KEYS	1
50	207143	VELCRO 25MM (4.0M)	1	63	101792	KEY*	1
51	177386	HEADREST (VINYL)	1				
52	0003320872	BLANK	1				

\* Same key(s) to start engine and operate all locks on unit.

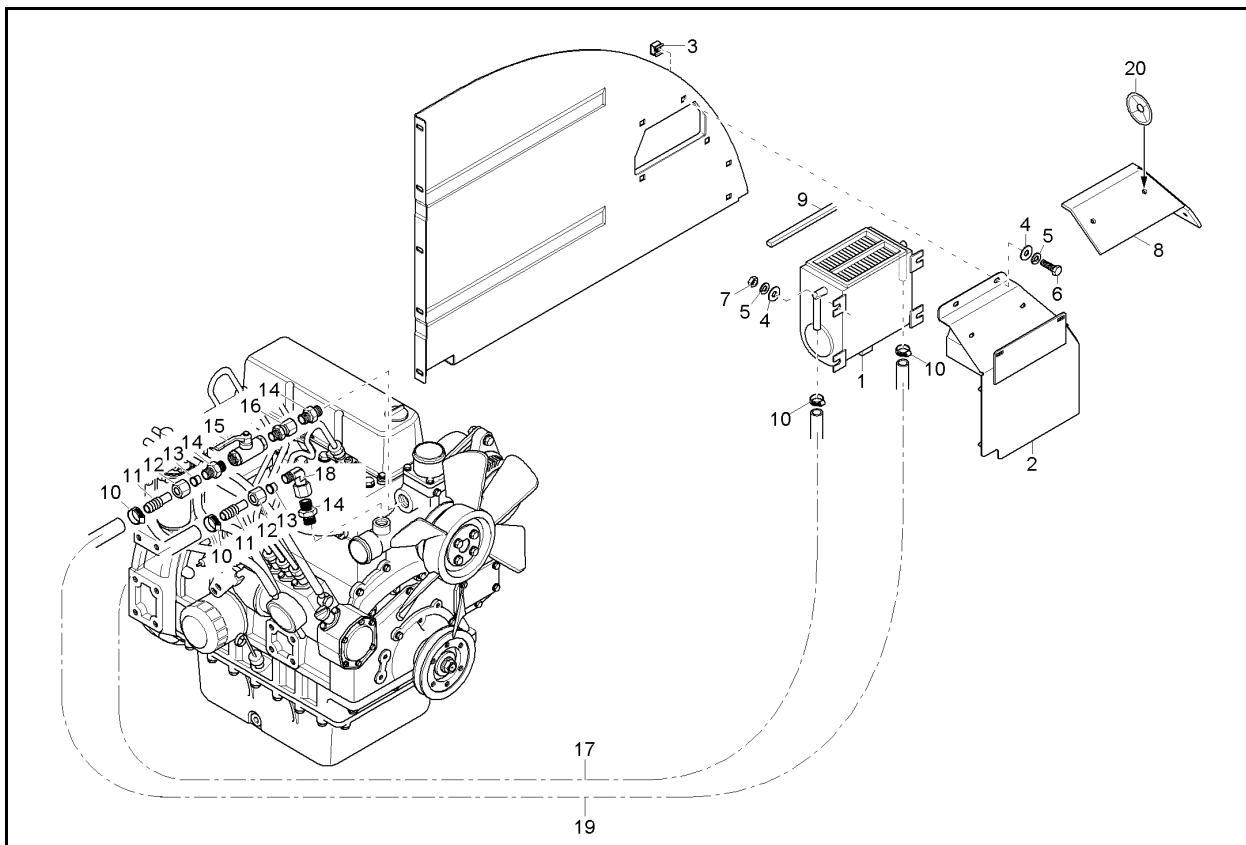
# 303 - CAB FLOOR TRIM

1000115902 & 1000139378



Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	207471	FLOOR PLATE (SN AD02590 - AE02400)	1	3	165564	FOOT MAT	1
	165075	FLOOR PLATE (SN AD00001 - AD02589)	1	4	177648	HEX SCREW	13
2	165076	BRACKET (SN AD02590 - AE02400)	1	5	163670	LOCKWASHER	13
	179031	BRACKET (SN AD00001 - AD02589)	1	6	7462680011	WASHER 8.4 ST A2C	13
				7	161616	NUT/CAGE M8	13

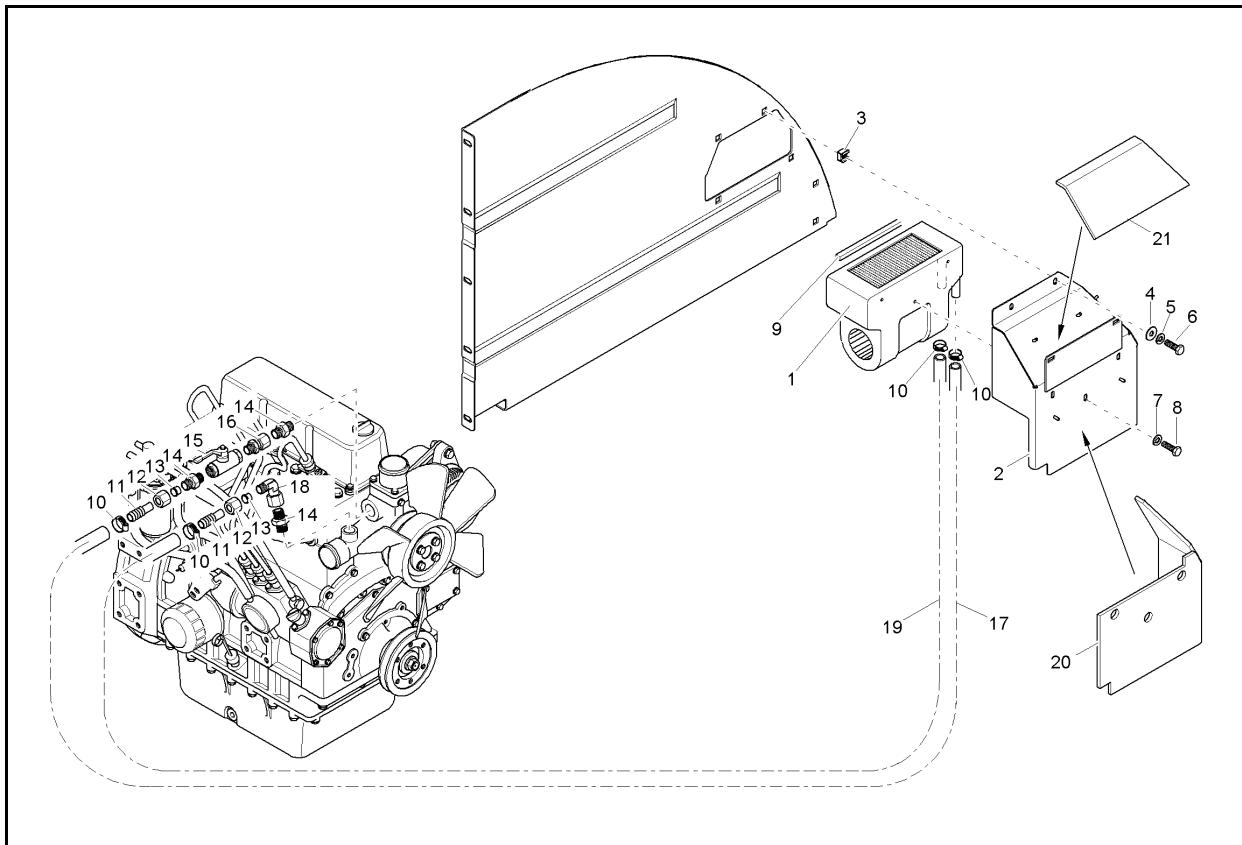
**303 - CAB HEATER**  
**1000151983 - (SN AD03790 - AE02400)**



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	161077	CAB HEATER		1	11	160860	HOSE COVER		2
2	206085	HEATER HOUSING		1	12	7788010663	UNION NUT AL 12 VERZ.		2
3	161615	NUT/CAGE M8		4	13	164929	NUT		2
4	7462680011	WASHER 8.4 ST A2C		8	14	161476	SCREW JOINT		3
5	163670	LOCKWASHER		8	15	160950	BALL VALVE		1
6	656093	CS M8-1.25 X 16 C8.8 ZY DIN931		4	16	161477	SCREW JOINT		1
7	656048	HN M8-1.25 C8 ZY DIN934		4	17	207252	HEATER HOSE (3.0M)		1
8	206087	INSULATING MAT		1	18	161445	90° FITTING		1
9	206034	SEAL STRAP FOAM (7.0M)		1	19	207252	HEATER HOSE (3.0M)		1
10	162064	HOSE CLAMP		4	20	177934	CLAMP		4

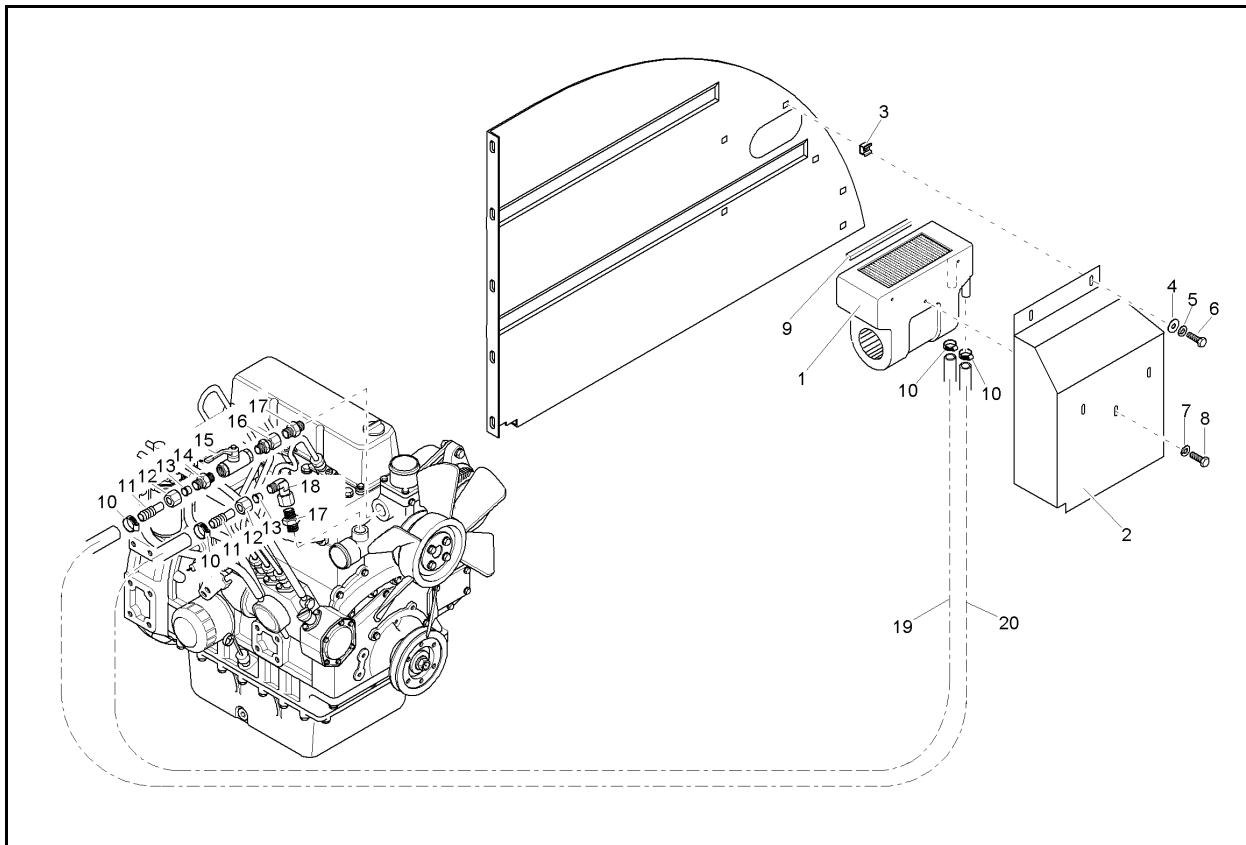
# 303 - CAB HEATER

1000144248 - (SN AD02911 - AD03789)



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	178172	CAB HEATER		1	12	7788010663	UNION NUT AL 12 VERZ.		2
2	207066	HEATER HOUSING		1	13	161424	WASHER		2
3	161615	NUT/CAGE M8		4	14	161476	SCREW JOINT		3
4	7462680011	WASHER 8.4 ST A2C		4	15	160950	BALL VALVE		1
5	163670	LOCKWASHER		4	16	161477	SCREW JOINT		1
6	656093	CS M8-1.25X16 C8.8 ZY DIN931		4	17	207252	HEATER HOSE (3.0M)		1
7	7462680008	WASHER		3	18	161445	90° FITTING		1
8	161630	SCREW/HEX HD TAP B5.5X19		3	19	207252	HEATER HOSE (3.0M)		1
9	206033	SEAL STRAP FOAM (0.60M)		1	20	207067	INSULATING MAT		1
10	162064	HOSE CLAMP		4	21	207068	INSULATING MAT		1
11	160860	HOSE COVER		2					

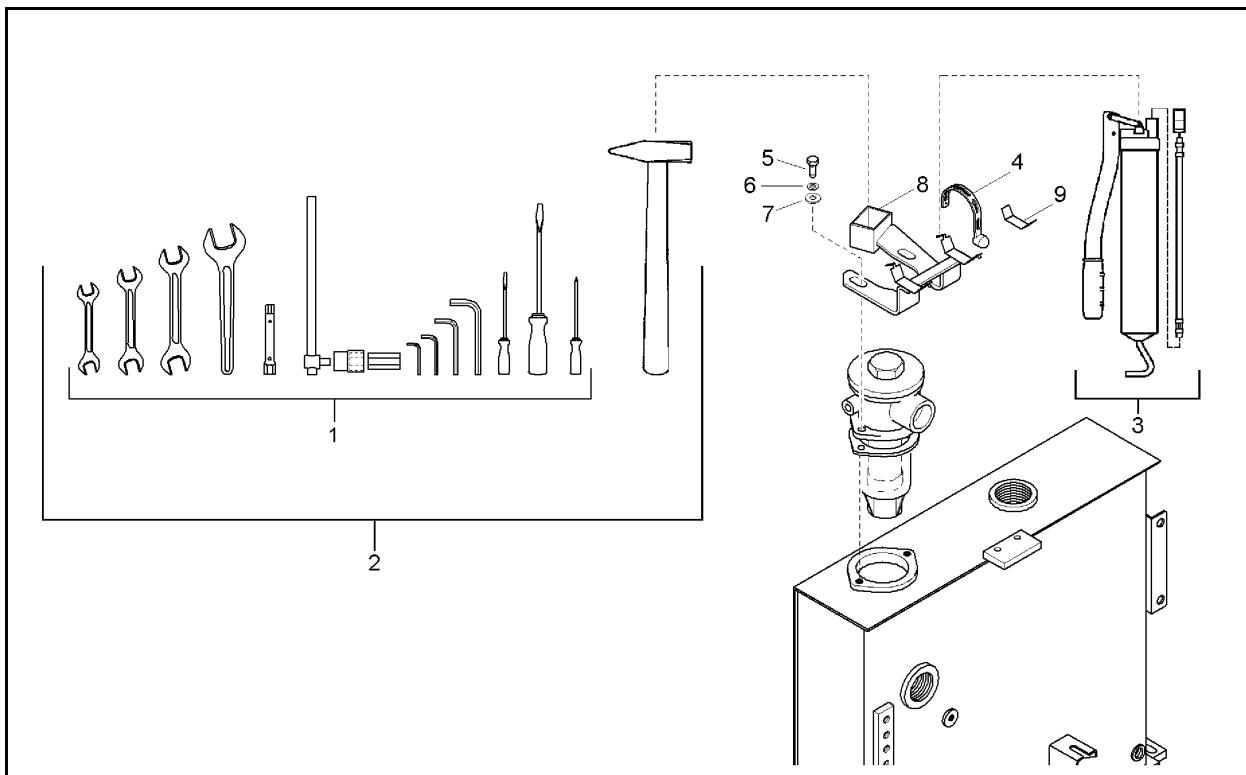
**303 - CAB HEATER**  
**1000115903 - (SN AD00001 - AD02910)**



Ref.	No.	Part No.	Description	Qty.	Ref.	No.	Part No.	Description	Qty.
1	178172	CAB HEATER		1	11	160860	HOSE COVER		2
2	165082	CABIN HEATING CONSOLE		1	12	7788010663	UNION NUT AL 12 VERZ.		2
3	161615	NUT/CAGE M8		4	13	164929	NUT		2
4	7462680011	WASHER 8.4 ST A2C		4	14	161476	SCREW JOINT		1
5	163670	LOCKWASHER		4	15	160950	BALL VALVE		1
6	656093	CS M8-1.25 X 16 C8.8 ZY DIN931		4	16	161477	SCREW JOINT		1
7	7462680008	WASHER		3	17	161429	SCREW JOINT 12L		2
8	161630	SCREW/HEX HD TAP B5.5X19		3	18	161445	90° FITTING		1
9	206927	SEAL STRAP FOAM (0.50M)		1	19	207252	HEATER HOSE (3.0M)		1
10	162064	HOSE CLAMP		4	20	207252	HEATER HOSE (3.0M)		1

# 303 - TOOLS

1000115998



Ref.

No. Part No.

Description

Qty.

1	177855	TOOL KIT W/O HAMMER	1
2	161988	TOOL KIT W/HAMMER	1
3	161992	GREASE GUN	1
4	165572	RUBBER TENSION STRAP	2
5	651475	SHCS M10-1.25 X 30 F8.8 ZY DIN912	2

Ref.

No. Part No.

Description

Qty.

6	161669	LOCKWASHER S10	2
7	161640	WASHER/GR A 10.5	2
8	165713	GREASE GUN BRACKET	1
9	207154	SEALING TAPE (0.20M)	1

# **Index**

## **A**

Air Intake System (Tier I) .....	24
Air Intake System (Tier II) .....	22
Auxiliary Hydraulics Pedal Installation ....	80

## **B**

Battery .....	82
Boom .....	108
Boom Cylinder .....	71
Boom Hydraulic Installation .....	74
Boom Work Light .....	84
Bucket Cylinder .....	73

## **C**

Cab .....	110
Cab Door .....	119
Cab Floor Trim .....	126
Cab Front Window (Windshield) .....	116
Cab Heater .....	127
Cab Sliding Window .....	117
Cab Windows .....	118
Cab/Canopy Work Lights (Option) .....	85
Camshaft (Tier II) .....	17
Canopy .....	115
Chassis .....	98
Connecting Link .....	109
Control Valve Cover .....	103
Control Valve Tubes .....	55
Control Valve/Style 1 .....	50
Control Valve/Style 2 .....	52
Control Valve/Style 3 .....	53
Control Valve/Styles 2 & 3 .....	54
Cooling System (Tier II) .....	20
Counterweight .....	101
Crankshaft Seal (Tier II) .....	15
Crankshaft, Piston (Tier II) .....	18
Cylinder Block (Tier II) .....	14
Cylinder Head & Valve Cover (Tier II) ....	13

## **D**

Decal Locations .....	3
Diesel Engine (Tier I) .....	11
Diesel Engine (Tier II) .....	10
Dipper Arm Cylinder .....	72

Dipper Arm, Long (Option) .....	106
Dipper Arm, Short (Standard) .....	104
Dozer Blade .....	93
Dozer Blade Cylinder .....	77
Dozer Blade Cylinder Installation .....	78
Dozer Blade Lever Installation .....	79
Drive Unit .....	43
Drive Unit Installation .....	44

## **E**

Engine Mounts .....	12
Exhaust Manifold (Tier II) .....	26
Exhaust System .....	27

## **F**

Filters, Gaskets and Seals .....	9
Fuel Injection System (Tier II) .....	21
Fuel System .....	32, 33, 34
Fuel Tank .....	28

## **H**

Hydraulic Oil Tank .....	46
Hydraulic Pump .....	47
Hydraulic Pump Drive .....	37
Hydraulic Pump Installation .....	48

## **I**

Intake Manifold (Tier II) .....	25
Introduction .....	i
ISO/SAE Valve .....	68

## **J**

Joystick Installation .....	61
Joysticks .....	58

## **L**

Lock Valve .....	69
Lubrication .....	100

## **M**

Manifold Block .....	70
Mirrors (Option) .....	120

# **Index**

## **O**

Oil Cooler & Installation .....	40
Oil Lubrication System (Tier II) .....	19
Oil Pan (Tier II) .....	16
Operator's Seat, Cab .....	122
Operator's Seat, Canopy .....	124

## **P**

Pilot Oil Supply Unit .....	57
-----------------------------	----

## **R**

Radiator .....	38
Radio (Option) .....	83
Rear Wall and Engine Hood .....	102
Reversing Valve (Dozer Blade) .....	67
Rotating Beacon (Option) .....	86

## **S**

Selection Valve .....	66
Sun Visor (Option) .....	121
Swivel Bucket Cylinder .....	81
Swivel Cylinder .....	75
Swivel Cylinder Installation .....	76
Swivel Joint .....	56

## **T**

Table of Contents .....	1
Throttle Lever .....	35, 36
Tools .....	130
Track Tensioner, Rubber Track .....	95
Track Tensioner, Steel Track (Option) .....	97
Travel Pilot Valve .....	63
Travel Pilot Valve Installation .....	64
Turntable Drive Unit .....	41
Turntable Drive Unit Installation .....	42

## **U**

Undercarriage, Rubber Track .....	94
Undercarriage, Steel Track (Option) .....	96

## **W**

Wire Harness, Cab .....	90
Wire Harness, Chassis .....	89
Wire Harness, Engine .....	87
Wire Harness, Joystick Console (RT) .....	91

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
101792	91	4	160639	118	6	160860	128	11
101792	92	4	160640	116	7	160860	129	11
101792	98	5	160640	118	5	160882	102	14
101792	119	8	160645	12	8	160889	87	10
101792	125	63	160651	50	24	160889	88	10
104833	4	37	160651	52	24	160949	46	23
104833	6	37	160651	53	24	160950	127	15
137499	9	3	160651	75	2	160950	128	15
137499	32	17	160658	63	14	160950	129	15
137499	33	17	160724	105	14	160983	95	13
137500	9	2	160724	107	14	160983	97	13
137500	11	4	160725	105	12	161061	102	6
160424	39	11	160725	107	12	161061	103	10
160427	11	7	160747	11	24	161062	101	5
160427	20	33	160750	11	11	161062	103	23
160436	28	12	160751	11	12	161064	103	7
160436	29	12	160751	16	1	161074	94	11
160436	30	12	160761	60	2	161074	96	11
160436	31	12	160763	67	1	161077	127	1
160437	57	3	160802	109	10	161086	116	16
160458	105	15	160803	109	15	161087	116	17
160458	107	15	160805	104	9	161091	118	4
160459	105	13	160805	105	9	161096	119	5
160459	107	13	160805	106	9	161204	102	49
160480	36	10	160805	107	9	161205	71	19
160488	112	21	160805	108	6	161220	61	7
160488	113	21	160810	98	6	161220	62	7
160494	116	11	160811	93	2	161224	61	2
160496	115	2	160812	93	4	161224	62	2
160496	118	1	160813	93	3	161224	64	1
160525	119	2	160815	98	12	161224	65	5
160526	112	1	160821	87	6	161227	42	5
160526	113	1	160821	88	6	161236	42	6
160527	112	2	160836	71	16	161236	62	6
160527	113	2	160840	48	4	161236	64	3
160537	84	1	160840	49	4	161236	65	3
160537	85	1	160844	33	15	161245	76	1
160611	122	27	160844	34	10	161260	48	13
160611	124	27	160848	27	9	161267	48	1
160639	116	8	160860	127	11	161276	61	8

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
161276	62	8	161412	94	19	161426	70	2
161276	64	2	161412	96	19	161427	31	23
161276	65	2	161414	50	5	161427	50	8
161290	76	4	161414	52	5	161427	52	8
161350	61	9	161414	53	5	161427	53	27
161350	62	17	161414	70	3	161427	56	4
161351	61	14	161415	31	22	161427	67	9
161351	62	16	161416	77	12	161428	56	3
161357	53	23	161416	81	10	161428	56	7
161363	63	24	161416	93	8	161428	75	13
161363	89	3	161418	46	32	161428	77	9
161364	87	11	161422	71	12	161429	46	11
161364	88	11	161422	72	12	161429	56	6
161366	89	6	161422	73	2	161429	73	8
161367	84	2	161422	75	12	161429	74	8
161367	85	2	161422	94	40	161429	77	8
161368	91	5	161422	96	47	161429	81	3
161368	92	5	161422	98	11	161429	129	17
161374	87	13	161422	100	5	161431	46	27
161374	88	13	161422	104	11	161431	66	4
161375	87	14	161422	105	11	161431	71	14
161375	88	14	161422	106	11	161431	72	14
161376	87	12	161422	107	11	161438	29	36
161376	88	12	161422	108	15	161438	30	24
161400	77	6	161422	109	6	161438	31	24
161400	81	9	161424	128	13	161438	57	11
161401	100	11	161426	29	25	161441	46	30
161411	79	5	161426	30	25	161443	29	26
161411	81	4	161426	31	25	161443	30	26
161411	93	7	161426	46	12	161443	31	26
161411	98	10	161426	56	5	161443	41	15
161411	100	4	161426	57	6	161443	46	13
161411	104	10	161426	58	3	161443	50	4
161411	105	10	161426	59	3	161443	52	4
161411	106	10	161426	60	4	161443	53	4
161411	107	10	161426	63	25	161443	57	12
161411	108	14	161426	66	7	161443	67	10
161411	109	5	161426	67	11	161443	68	3
161412	77	11	161426	68	2	161443	70	4

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
161444	69	5	161477	129	16	161613	102	8
161445	41	10	161479	61	3	161613	110	29
161445	127	18	161479	62	3	161613	111	29
161445	128	18	161484	104	15	161614	122	33
161445	129	18	161484	106	15	161614	124	33
161446	41	12	161485	46	25	161615	39	15
161446	46	31	161490	46	16	161615	40	6
161446	50	10	161505	104	12	161615	82	8
161446	52	10	161505	106	12	161615	98	37
161446	53	10	161511	46	10	161615	103	22
161448	50	13	161533	109	4	161615	122	17
161448	52	13	161534	98	15	161615	124	17
161448	53	13	161535	108	12	161615	127	3
161448	53	25	161536	104	3	161615	128	3
161448	57	8	161536	104	5	161615	129	3
161448	63	7	161536	105	3	161616	126	7
161450	56	8	161536	105	5	161618	116	10
161451	66	6	161536	106	5	161618	118	10
161456	50	14	161536	106	24	161618	122	30
161456	52	14	161536	107	5	161618	124	30
161456	53	14	161536	107	18	161623	95	9
161457	100	13	161536	109	3	161623	97	9
161461	100	6	161537	93	5	161624	94	25
161463	56	9	161538	71	10	161624	96	25
161463	71	13	161538	72	10	161627	101	26
161463	72	13	161538	73	9	161629	113	13
161464	40	2	161538	75	10	161630	39	18
161465	42	7	161538	77	14	161630	128	8
161465	61	4	161554	108	24	161630	129	8
161465	62	4	161556	108	8	161631	123	41
161467	41	17	161557	108	21	161631	125	41
161468	100	9	161565	47	6	161634	123	57
161469	100	10	161567	57	2	161634	125	57
161474	41	14	161570	98	28	161636	94	35
161476	127	14	161574	53	2	161636	96	42
161476	128	14	161579	46	24	161636	98	4
161476	129	14	161585	53	6	161640	12	7
161477	127	16	161590	53	8	161640	37	8
161477	128	16	161610	103	6	161640	46	22

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
161640	63	19	161662	96	32	161675	38	17
161640	94	23	161663	28	7	161675	58	5
161640	96	23	161663	29	7	161675	59	5
161640	99	45	161663	30	7	161675	60	5
161640	112	27	161663	31	7	161675	67	8
161640	113	27	161663	46	36	161675	68	5
161640	130	7	161663	102	23	161675	70	6
161642	98	31	161663	103	5	161675	87	3
161642	112	31	161668	86	4	161675	88	3
161642	113	31	161668	116	9	161675	100	3
161642	124	7	161668	118	11	161675	101	28
161643	96	40	161669	12	6	161675	102	4
161645	38	27	161669	28	6	161675	103	25
161645	39	4	161669	29	6	161675	110	10
161645	101	24	161669	30	6	161675	111	28
161650	71	17	161669	31	6	161678	28	27
161651	122	34	161669	37	7	161678	29	27
161651	124	34	161669	46	4	161678	30	27
161658	30	2	161669	47	8	161678	31	27
161659	28	18	161669	50	19	161678	35	5
161659	29	18	161669	52	19	161678	36	5
161659	30	18	161669	53	19	161678	70	8
161659	31	18	161669	63	18	161682	93	6
161659	99	50	161669	94	22	161682	104	4
161660	35	10	161669	96	22	161682	105	4
161660	36	12	161669	99	43	161682	106	4
161660	58	6	161669	102	22	161682	107	4
161660	59	6	161669	103	20	161682	109	17
161660	60	6	161669	106	3	161686	104	2
161660	67	2	161669	107	3	161686	105	2
161660	68	6	161669	112	3	161686	106	23
161660	70	7	161669	113	26	161686	107	17
161660	87	4	161669	130	6	161686	109	18
161660	88	4	161674	28	17	161722	100	1
161660	100	12	161674	29	17	161730	122	25
161660	101	8	161674	30	17	161730	124	25
161660	102	44	161674	31	17	161732	87	17
161660	103	26	161675	32	19	161732	88	17
161662	94	32	161675	33	19	161733	36	6

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
161734	36	11	161986	6	6	162246	67	6
161764	63	15	161987	4	16	162284	41	6
161805	34	12	161987	6	16	162289	41	4
161848	122	31	161988	130	2	162331	94	17
161848	124	31	161992	130	3	162331	96	17
161856	38	34	161995	84	4	162345	98	7
161868	122	21	162021	79	9	162355	35	12
161868	124	21	162021	80	9	162360	77	13
161875	112	29	162022	94	28	162389	48	11
161875	113	29	162022	96	28	162389	49	11
161921	110	16	162027	63	16	162392	12	2
161921	111	16	162029	112	10	162393	12	4
161923	110	19	162029	113	3	162394	12	1
161923	111	19	162035	48	10	162395	12	3
161929	101	15	162035	49	10	162398	35	1
161929	103	30	162035	83	6	162398	36	1
161936	112	26	162035	112	19	162398	79	3
161936	113	11	162035	113	19	162404	49	1
161939	116	14	162035	114	16	162409	44	3
161940	116	15	162041	50	17	162409	45	3
161965	4	1	162041	52	17	162419	74	5
161965	6	1	162041	53	17	162425	44	7
161966	4	2	162041	77	10	162437	42	1
161966	6	2	162041	101	20	162441	74	6
161967	4	5	162048	122	6	162445	61	10
161967	6	5	162048	125	47	162445	62	10
161968	4	12	162064	127	10	162450	4	30
161968	6	12	162064	128	10	162450	6	30
161969	4	3	162064	129	10	162451	4	31
161969	6	3	162065	32	10	162451	6	31
161970	4	24	162065	38	31	162452	4	29
161970	6	24	162066	108	22	162452	6	29
161981	4	22	162071	48	5	162453	4	32
161981	6	22	162071	49	5	162453	6	32
161982	4	23	162218	122	4	162485	98	21
161982	6	23	162218	124	4	162487	102	29
161985	4	17	162233	34	15	162489	109	16
161985	6	17	162243	67	3	162495	46	21
161986	4	6	162245	67	5	162501	39	19

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
162502	108	27	162836	88	15	163634	30	21
162503	108	26	162838	87	8	163634	31	21
162504	33	10	162838	88	8	163634	32	4
162504	34	7	162839	83	3	163634	33	4
162504	39	23	162857	112	28	163634	34	4
162526	56	1	162864	119	3	163634	35	9
162526	94	10	162869	114	7	163634	36	9
162526	96	10	162924	112	7	163634	39	26
162599	108	13	162924	113	7	163634	40	5
162607	120	1	162924	120	5	163634	45	17
162611	22	13	162925	119	21	163634	55	15
162611	23	13	162956	61	12	163634	57	7
162611	24	13	162956	62	12	163634	66	9
162611	28	10	162970	42	4	163634	71	21
162611	29	10	163001	46	19	163634	82	6
162611	30	10	163113	69	2	163634	98	36
162611	31	10	163213	120	2	163634	101	7
162661	32	5	163288	61	13	163634	102	16
162661	33	5	163288	62	13	163634	103	16
162661	34	5	163289	61	15	163634	122	10
162675	102	15	163289	62	15	163634	124	10
162716	102	13	163290	62	14	163641	94	29
162737	120	3	163325	40	7	163641	96	29
162750	95	7	163335	62	9	163642	12	13
162750	97	7	163335	64	4	163642	46	5
162754	95	15	163335	65	4	163642	50	20
162754	97	15	163343	30	3	163642	52	20
162757	95	10	163343	31	3	163642	53	20
162757	97	10	163344	112	33	163642	99	44
162758	95	11	163344	113	33	163642	112	34
162758	97	11	163347	108	11	163642	113	34
162790	57	13	163379	29	33	163645	101	29
162797	110	13	163634	12	11	163651	37	5
162797	111	13	163634	22	9	163651	38	26
162812	118	8	163634	23	9	163651	39	5
162813	119	18	163634	24	9	163651	47	10
162832	4	19	163634	27	15	163651	98	25
162832	6	19	163634	28	21	163651	101	22
162836	87	15	163634	29	21	163670	12	10

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
163670	27	14	163975	4	25	164662	13	23
163670	28	20	163975	6	25	164662	15	4
163670	29	20	163976	4	28	164663	21	8
163670	30	20	163976	6	28	164666	9	11
163670	31	20	163977	4	15	164666	13	21
163670	32	3	163977	6	15	164667	101	27
163670	33	3	163978	4	14	164667	103	14
163670	34	3	163978	6	14	164668	110	34
163670	35	8	163979	4	20	164668	111	31
163670	36	8	163979	6	20	164669	123	43
163670	38	24	163985	4		164669	125	43
163670	39	13	163985	6	37	164670	110	8
163670	40	4	163993	4	10	164670	111	8
163670	45	16	163993	6	10	164671	118	3
163670	55	14	164182	112	22	164672	118	7
163670	57	5	164182	113	22	164673	116	20
163670	63	9	164187	83	2	164676	110	2
163670	66	11	164285	92	2	164676	111	2
163670	68	9	164315	20	6	164677	110	14
163670	71	22	164316	16	4	164677	111	14
163670	72	18	164316	20	18	164678	110	18
163670	82	5	164337	22	5	164678	111	18
163670	89	8	164337	23	5	164679	112	4
163670	94	14	164337	24	5	164679	113	4
163670	96	14	164346	20	29	164680	112	5
163670	98	38	164350	26	5	164680	113	5
163670	101	10	164368	21	5	164681	112	8
163670	102	17	164370	21	7	164681	113	8
163670	103	12	164371	21	6	164682	112	24
163670	122	9	164372	21	3	164682	113	10
163670	124	9	164373	21	4	164683	83	8
163670	126	5	164434	15	9	164683	112	20
163670	127	5	164435	20	19	164683	113	20
163670	128	5	164438	16	6	164684	117	4
163670	129	5	164441	20	31	164686	112	17
163973	4	27	164535	58	11	164686	113	17
163973	6	27	164535	59	10	164688	119	25
163974	4	9	164535	60	7	164689	110	9
163974	6	9	164535	63	17	164689	111	9

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
164689	112	16	164883	92	8	165038	59	9
164689	113	16	164883	123	42	165038	60	11
164689	119	23	164883	125	42	165039	58	14
164690	110	15	164892	61	6	165039	59	13
164690	111	15	164892	62	18	165039	60	10
164696	110	7	164904	119	19	165040	59	7
164696	111	7	164907	112	9	165040	60	8
164698	101	23	164907	113	9	165042	110	12
164698	103	15	164925	46	8	165042	111	12
164699	123	53	164927	48	9	165043	57	14
164699	125	53	164927	49	9	165044	60	16
164700	119	6	164928	37	3	165045	57	1
164701	119	7	164929	48	8	165046	116	6
164706	67	7	164929	49	8	165048	116	24
164707	122	3	164929	127	13	165049	89	4
164707	124	3	164929	129	13	165052	86	6
164708	91	11	164945	41	16	165058	79	1
164708	92	11	164945	43	3	165058	80	1
164709	91	12	164945	47	13	165059	101	12
164709	92	12	164945	50	3	165061	103	27
164710	123	61	164945	52	3	165063	46	1
164710	125	61	164945	53	3	165065	50	16
164770	114	14	164978	122	37	165065	52	16
164771	110	17	164978	124	37	165065	53	16
164771	111	17	164979	122	38	165068	102	35
164779	15	6	164979	124	38	165071	103	31
164800	65	1	164980	122	15	165072	28	13
164804	48	6	164980	124	15	165072	29	13
164804	49	6	164981	122	40	165072	30	13
164853	4	18	164981	125	40	165072	31	13
164853	6	18	164982	122	39	165073	28	14
164854	4	4	164982	124	39	165073	29	14
164854	6	4	164988	4	36	165073	30	14
164879	91	13	164988	6	36	165073	31	14
164879	92	13	165032	116	18	165074	31	11
164881	91	6	165036	82	4	165075	126	1
164881	92	6	165037	58	2	165076	126	2
164883	86	13	165037	59	2	165077	103	18
164883	91	8	165037	60	9	165078	101	4

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
165079	102	25	165155	110	4	165212	112	25
165080	103	3	165155	111	4	165212	113	28
165082	129	2	165156	119	16	165213	114	18
165089	70	1	165157	112	15	165214	114	12
165090	98	17	165157	113	15	165221	119	9
165094	102	40	165158	114	8	165222	101	25
165098	101	30	165159	116	25	165224	12	15
165104	102	27	165161	111	5	165232	89	2
165106	101	21	165164	118	14	165233	84	3
165107	101	18	165165	116	1	165233	89	1
165108	46	15	165166	116	2	165236	91	7
165110	28	15	165167	116	3	165236	92	7
165110	29	15	165168	116	4	165243	90	1
165110	30	15	165169	116	26	165244	90	2
165110	31	15	165170	118	2	165248	27	6
165111	9	8	165171	118	15	165250	31	8
165111	46	18	165172	118	16	165258	24	12
165113	46	17	165173	118	19	165268	34	1
165114	102	46	165174	119	10	165270	28	9
165117	94	12	165175	119	12	165270	29	9
165117	96	12	165182	110	3	165270	30	9
165119	94	18	165182	111	3	165270	31	9
165119	96	18	165184	110	6	165272	22	1
165121	94	8	165184	111	6	165272	23	1
165121	96	8	165187	112	18	165272	24	6
165124	94	6	165187	113	18	165273	22	7
165124	96	6	165188	114	2	165273	23	7
165128	95	4	165189	114	3	165273	24	7
165128	97	4	165190	114	5	165274	33	13
165132	95	6	165191	114	6	165274	34	9
165138	95	14	165192	114	9	165293	9	10
165138	97	14	165195	114	13	165293	22	6
165139	95	12	165196	117	1	165293	23	6
165139	97	12	165199	86	1	165293	24	1
165146	94	39	165200	86	11	165294	9	9
165146	96	46	165204	83	4	165294	22	2
165153	63	21	165206	116	13	165294	23	2
165154	110	11	165207	86	2	165294	24	2
165154	111	11	165208	86	7	165295	22	3

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
165295	23	3	165532	54	9	165608	95	5
165295	24	3	165533	51	10	165608	97	5
165296	22	4	165533	54	10	165610	122	36
165296	23	4	165534	51	11	165610	124	36
165296	24	4	165534	54	11	165612	123	55
165478	46	26	165535	51	12	165612	125	55
165481	69	3	165535	54	12	165616	109	8
165488	66	1	165536	51	13	165617	109	7
165489	60	1	165536	54	13	165622	109	1
165490	69	1	165539	43	6	165623	109	2
165499	47	12	165541	51	16	165624	108	1
165504	50	7	165541	54	16	165625	104	1
165504	52	7	165543	54	15	165625	105	1
165504	53	7	165548	80	2	165626	106	1
165505	50	22	165550	80	6	165626	107	1
165505	52	22	165551	102	47	165627	73	1
165505	53	22	165553	102	33	165627	109	9
165514	63	20	165554	103	28	165628	72	1
165516	66	2	165555	103	17	165628	108	7
165517	66	3	165556	102	34	165629	71	1
165520	63	5	165557	98	29	165629	108	25
165521	63	4	165558	46	2	165630	75	1
165522	63	3	165559	102	39	165630	98	9
165524	51	1	165560	102	38	165631	77	1
165524	54	1	165564	126	3	165631	93	9
165525	51	2	165567	79	7	165632	45	14
165525	54	2	165567	80	7	165633	45	13
165526	54	3	165572	130	4	165635	55	1
165527	51	4	165588	123	49	165636	55	2
165527	54	4	165589	123	48	165637	55	3
165528	51	5	165592	98	34	165638	55	4
165528	54	5	165596	98	19	165639	45	12
165529	51	6	165598	94	16	165640	45	11
165529	54	6	165598	96	16	165641	45	10
165530	51	7	165603	94	9	165642	45	9
165530	54	7	165605	94	2	165643	55	5
165531	51	8	165605	95	1	165644	55	6
165531	54	8	165606	94	34	165645	55	8
165532	51	9	165606	95	3	165646	55	7

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
165647	55	10	165685	75	7	165839	44	2
165648	55	9	165686	75	4	165839	45	2
165649	108	18	165687	77	2	165840	44	9
165650	108	20	165688	47	2	165840	45	19
165651	108	16	165689	47	3	165845	78	3
165652	108	19	165692	104	6	165848	76	2
165653	108	17	165692	105	6	165849	78	2
165654	55	11	165692	106	6	165851	42	3
165655	55	12	165692	107	6	165852	78	1
165656	72	16	165693	109	12	165860	74	1
165657	72	15	165694	108	3	165861	74	2
165658	71	15	165695	108	10	165862	74	7
165659	71	20	165699	71	9	165863	46	7
165661	47	1	165700	72	9	165866	42	2
165662	43	1	165700	73	7	165870	48	2
165662	94	7	165702	75	9	165870	49	2
165662	96	7	165703	47	4	165871	48	3
165663	52	1	165713	130	8	165871	49	3
165663	53	1	165803	98	13	165876	44	1
165665	77	3	165816	58	15	165876	45	1
165666	77	5	165816	59	14	165877	45	7
165667	77	4	165816	60	13	165878	45	20
165669	77	7	165822	27	8	165879	45	8
165671	71	3	165823	71	11	165880	45	6
165672	71	7	165823	72	11	165886	74	4
165673	71	4	165823	73	10	165892	74	3
165674	71	6	165823	75	11	165894	61	11
165674	72	6	165824	123	51	165894	62	11
165674	75	6	165828	61	1	165896	75	14
165675	71	5	165828	62	1	165906	4	8
165675	72	5	165829	44	4	165906	6	8
165675	75	5	165829	45	4	165907	4	11
165677	72	3	165830	61	5	165907	6	11
165678	72	7	165830	62	5	165909	4	7
165678	73	5	165832	44	5	165909	6	7
165679	72	4	165832	45	5	165913	102	36
165681	73	3	165834	76	3	165924	67	4
165682	73	4	165838	44	8	165924	70	5
165684	75	3	165838	45	18	165928	66	8

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
165932	122	14	165974	74	12	177271	20	16
165932	124	14	165976	58	12	177272	25	7
165938	71	8	165976	59	11	177273	20	14
165938	72	8	165976	60	12	177274	20	1
165938	73	6	165976	68	11	177275	20	3
165938	75	8	165983	99	39	177288	14	11
165941	86	9	165987	102	1	177290	14	7
165943	99	40	165988	102	11	177291	13	10
165945	94	30	165989	103	1	177292	13	11
165945	96	30	177095	91	2	177293	13	12
165948	116	23	177100	19	18	177295	13	16
165952	35	13	177205	26	4	177296	13	17
165952	122	13	177234	19	2	177297	13	18
165952	124	13	177235	25	5	177300	17	6
165953	98	24	177236	13	2	177301	18	3
165956	98	16	177237	20	26	177302	17	10
165958	46	14	177238	15	3	177303	17	9
165961	66	10	177240	14	4	177304	25	1
165963	69	4	177241	14	12	177305	25	2
165965	43	2	177242	13	22	177307	26	2
165965	47	11	177242	15	2	177311	26	7
165966	41	9	177246	13	15	177313	18	5
165966	50	9	177248	20	20	177314	18	9
165966	52	9	177249	15	11	177315	18	17
165966	53	9	177250	15	5	177316	18	11
165968	50	15	177251	19	15	177317	18	18
165968	52	15	177254	20	27	177318	18	13
165968	53	15	177255	13	13	177319	18	14
165970	29	31	177256	19	9	177321	15	1
165970	30	23	177256	25	6	177322	15	8
165970	31	23	177257	19	4	177323	15	7
165970	50	11	177258	18	16	177324	15	13
165970	52	11	177260	14	8	177326	15	10
165970	53	11	177261	20	30	177328	19	13
165971	41	11	177264	25	4	177330	20	4
165971	50	12	177265	20	23	177331	20	8
165971	52	12	177268	25	9	177332	20	11
165971	53	12	177269	18	15	177333	20	12
165973	41	13	177270	17	2	177334	20	15

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
177335	20	35	177402	16	5	177648	27	13
177336	20	34	177402	20	36	177648	35	7
177337	20	9	177412	57	10	177648	35	11
177338	20	7	177413	121	2	177648	57	4
177339	20	2	177416	118	16	177648	68	8
177340	20	5	177417	9	1	177648	82	7
177341	21	16	177417	13	20	177648	89	7
177342	21	15	177419	38	12	177648	94	13
177343	21	14	177420	38	10	177648	96	13
177344	21	13	177421	38	8	177648	101	9
177346	17	3	177422	87	1	177648	103	19
177350	13	7	177423	35	6	177648	121	6
177351	20	24	177424	23	12	177648	126	4
177354	18	4	177425	23	15	177652	58	10
177356	18	10	177426	28	11	177652	59	8
177357	18	12	177426	29	11	177652	60	15
177358	21	12	177426	30	11	177659	9	6
177359	19	1	177427	28	8	177659	9	12
177360	19	5	177427	29	8	177659	32	8
177362	14	5	177427	30	8	177659	33	8
177364	17	4	177428	38	9	177659	34	18
177365	17	7	177430	10	5	177663	122	4
177366	17	8	177431	10	7	177664	9	5
177376	20	10	177433	38	1	177664	9	13
177377	20	13	177434	38	4	177664	32	7
177379	21	2	177435	119	1	177664	33	7
177380	21	9	177461	12	16	177664	34	19
177381	26	1	177462	19	12	177665	9	7
177382	21	1	177629	81	6	177665	16	3
177386	123	51	177630	10	3	177666	86	12
177386	125	51	177630	20	37	177679	32	1
177387	123	49	177631	10	4	177679	33	1
177387	125	49	177632	10	2	177699	32	16
177388	123	48	177632	20	22	177699	33	16
177388	125	48	177640	81	8	177710	38	32
177389	94	31	177641	81	7	177803	104	21
177389	96	31	177646	91	16	177803	106	21
177400	26	6	177646	92	16	177804	104	19
177401	26	3	177648	12	9	177804	106	19

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
177855	130	1	178856	101	2	178894	111	18
177893	32	21	178857	122	8	178895	118	2
177893	33	21	178858	122	24	178896	118	14
177934	127	20	178858	124	24	178897	116	1
177991	38	5	178860	98	35	178898	119	12
177993	38	3	178861	98	33	178899	118	15
177994	38	33	178862	96	38	178900	117	2
177996	38	2	178863	96	39	178901	117	3
178067	94	4	178867	96	2	178902	117	1
178067	95	16	178867	97	1	178903	118	19
178067	96	4	178870	97	6	178906	121	1
178100	51	21	178871	96	34	178916	85	4
178100	54	22	178871	97	3	178917	82	2
178107	83	7	178872	122	19	178918	82	3
178127	56	2	178872	124	19	178919	88	1
178172	128	1	178873	122	20	178920	89	5
178172	129	1	178873	124	20	178921	92	1
178173	11	26	178874	58	13	178924	39	1
178174	46	33	178874	59	12	178926	27	17
178268	46	34	178874	60	3	178927	39	2
178438	122	23	178875	122	29	178929	27	11
178438	124	23	178875	124	29	178930	87	5
178497	13	24	178876	122	28	178930	88	5
178569	104	20	178876	124	28	178931	11	25
178569	106	20	178877	119	1	178932	33	12
178570	104	18	178880	112	12	178932	34	8
178570	106	18	178880	113	12	178934	37	1
178700	122	22	178883	123	60	178945	46	9
178700	124	22	178883	125	60	178946	47	5
178708	85	3	178884	118	18	178947	63	1
178763	63	23	178885	117	2	178954	43	5
178764	63	22	178886	117	3	178959	41	7
178769	60	2	178887	118	13	178961	41	8
178786	60	1	178888	114	10	178963	41	3
178835	114	1	178890	120	6	178964	37	2
178852	101	16	178891	110	33	178965	32	14
178853	99	48	178891	111	32	178965	33	14
178854	101	3	178893	111	27	178965	34	14
178855	101	1	178894	110	30	178966	50	2

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
178966	52	25	179031	126	2	179814	52	2
178967	46	35	179034	122	2	179860	28	28
178967	50	21	179045	94	1	179860	29	28
178967	52	21	179045	96	1	179860	30	28
178967	53	21	179046	94	37	179860	31	28
178968	51	17	179046	96	44	179862	79	4
178968	54	17	179053	11	15	179862	80	4
178969	51	18	179057	11	23	179873	47	15
178969	54	18	179058	11	22	183963	4	35
178970	51	19	179122	9	2	183963	6	35
178970	54	19	179122	19	8	184043	4	37
178971	51	15	179135	47	14	184043	6	37
178971	54	20	179316	112	14	184306	4	34
178972	102	32	179316	113	14	184306	6	34
178973	102	48	179586	44	6	186340	9	4
178974	121	3	179669	96	36	186340	32	6
178982	68	7	179670	96	37	186340	33	6
178983	98	20	179687	4	33	189575	21	17
178985	98	23	179687	6	33	190845	38	15
178986	122	1	179704	4	26	190845	39	22
178986	124	1	179704	6	26	201601	43	4
178988	39	6	179730	4	13	201838	63	6
178989	22	14	179730	6	13	201839	83	1
178989	23	14	179740	86	3	201959	25	3
178989	24	14	179741	87	7	202450	94	5
178990	27	3	179741	88	7	203297	28	24
178991	27	2	179775	63	2	203298	28	22
178992	27	5	179777	92	10	203436	94	33
178993	27	7	179782	123	59	203436	95	2
179002	93	1	179782	125	59	203436	96	33
179003	96	9	179790	112	13	203436	97	2
179004	96	20	179790	113	13	203560	116	19
179005	39	7	179793	79	8	203566	106	25
179006	11	1	179793	80	8	203566	107	19
179016	41	2	179793	94	27	203568	28	23
179018	41	5	179793	96	27	203570	96	5
179021	102	37	179793	112	32	203796	4	21
179022	123	47	179793	113	32	203796	6	21
179023	123	46	179814	50	25	203811	38	35

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
203833	16	7	206036	103	32	206092	46	38
203834	98	27	206039	110	23	206093	46	37
203835	98	1	206039	111	23	206094	100	14
203836	22	12	206040	115	3	206095	43	8
203837	38	11	206050	81	2	206096	43	12
203838	48	7	206052	101	13	206346	80	3
203913	94	3	206053	43	7	206363	21	10
203913	95	17	206055	43	11	206380	13	8
203913	96	3	206056	43	10	206382	13	9
204733	86	10	206058	19	16	206383	13	6
204751	115	1	206059	81	1	206385	13	5
204879	29	1	206060	81	5	206387	14	2
204879	30	1	206062	111	1	206388	14	9
204879	31	1	206064	88	18	206389	14	10
204881	28	1	206065	14	6	206395	19	6
205117	51	22	206066	13	1	206808	28	4
205117	54	23	206067	19	17	206808	29	4
205343	87	18	206068	13	14	206809	28	3
205531	59	1	206069	13	19	206809	29	34
205598	98	26	206070	13	4	206896	29	22
205869	58	1	206071	13	3	206896	30	22
205940	83	9	206073	17	1	206896	31	22
205976	51	14	206074	18	1	206909	18	19
205976	54	14	206075	18	6	206912	9	5
205980	51	20	206076	18	7	206912	34	17
205980	54	21	206077	18	8	206921	110	20
205998	58	8	206079	19	7	206921	111	20
205999	58	7	206080	10	1	206922	110	21
206002	58	9	206082	79	11	206922	111	21
206003	83	5	206083	50	23	206923	119	14
206006	43	9	206083	52	23	206924	38	28
206009	110	31	206084	46	28	206927	129	9
206011	102	10	206085	127	2	206928	119	11
206012	102	2	206086	103	31	206929	38	29
206013	102	3	206087	127	8	206929	102	30
206017	10	6	206088	110	32	206929	102	31
206033	128	9	206089	50	1	206933	29	32
206034	127	9	206090	40	1	206934	29	35
206035	39	21	206091	27	1	206935	29	3

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
206936	29	23	207062	124	2	207252	128	19
206937	30	31	207063	124	8	207252	129	19
206937	31	33	207064	125	46	207252	129	20
206938	30	34	207065	124	6	207257	38	30
206938	31	31	207066	128	2	207258	32	9
206939	30	35	207067	128	20	207258	33	9
206939	31	32	207068	128	21	207260	34	6
206971	100	8	207088	102	19	207262	32	11
206976	100	7	207089	102	20	207262	33	11
207034	103	2	207096	110	22	207262	39	24
207035	103	31	207096	111	22	207264	32	13
207036	17	5	207116	110	25	207270	32	15
207037	28	2	207116	111	25	207271	32	12
207037	29	2	207128	111	24	207280	39	20
207037	30	33	207130	110	24	207466	38	7
207038	104	13	207131	114	15	207468	51	3
207038	106	13	207132	112	23	207469	79	6
207039	104	14	207132	113	23	207469	80	6
207039	106	14	207133	115	4	207470	79	2
207040	104	22	207134	118	12	207471	126	1
207040	106	22	207136	118	17	207472	74	7
207041	104	16	207138	90	3	208161	15	12
207041	106	16	207143	102	42	208161	18	2
207042	110	1	207143	123	50	208346	29	24
207043	110	5	207143	125	50	209196	91	14
207044	112	11	207150	38	13	209196	92	14
207045	112	28	207154	130	9	209197	91	15
207049	41	1	207157	39	9	209197	92	15
207049	98	2	207161	103	21	209474	20	20
207053	56	1	207173	39	17	209482	18	20
207053	94	10	207180	74	9	209549	19	11
207053	96	10	207185	74	11	209922	19	10
207054	56	2	207191	74	10	209933	21	11
207055	48	12	207211	116	12	209970	19	14
207056	91	1	207219	122	11	610478	98	14
207057	91	10	207219	124	11	651390	123	56
207060	122	5	207252	127	17	651390	125	56
207060	124	5	207252	127	19	651393	12	5
207061	122	7	207252	128	17	651393	28	5

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
651393	29	5	651439	109	13	651460	99	49
651393	30	5	651440	32	2	651463	122	32
651393	31	5	651440	33	2	651463	124	32
651393	50	6	651440	34	2	651465	80	5
651393	52	6	651440	108	2	651466	98	18
651393	53	28	651443	98	8	651466	116	5
651393	99	42	651443	104	17	651468	71	18
651393	102	7	651443	105	16	651472	63	11
651393	103	4	651443	106	17	651473	102	24
651395	12	12	651443	107	16	651475	46	20
651397	37	9	651443	109	11	651475	47	7
651397	106	2	651446	123	44	651475	102	21
651397	107	2	651446	125	44	651475	112	36
651398	95	8	651448	112	35	651475	113	25
651398	97	8	651448	113	24	651475	130	5
651399	46	3	651448	119	13	651477	112	30
651405	101	17	651456	99	51	651477	113	30
651406	98	3	651456	114	11	651480	37	4
651408	96	41	651456	119	20	651480	39	3
651408	98	22	651457	102	45	651480	47	9
651421	30	4	651458	22	11	651480	94	24
651421	31	4	651458	23	11	651480	94	38
651422	114	17	651458	24	11	651480	96	24
651424	38	16	651458	38	22	651480	96	45
651424	102	43	651458	39	27	651481	38	25
651424	119	17	651458	86	5	651489	94	26
651428	68	4	651458	102	12	651489	96	26
651430	102	41	651458	104	8	651505	28	16
651430	116	22	651458	105	8	651505	29	16
651433	22	8	651458	106	8	651505	30	16
651433	23	8	651458	107	8	651505	31	16
651433	24	8	651458	108	5	651507	58	4
651434	108	28	651458	109	14	651507	59	4
651439	34	13	651458	114	4	651507	60	14
651439	104	7	651458	119	4	651507	87	16
651439	105	7	651458	121	4	651507	88	16
651439	106	7	651458	122	26	651507	99	41
651439	107	7	651458	124	26	651507	101	6
651439	108	4	651459	103	8	651507	103	24

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
651507	110	35	656093	102	9	656149	120	4
651507	111	10	656093	103	11	809306	122	5
651515	94	15	656093	122	18	809306	124	5
651515	96	15	656093	124	18	809312	86	8
651517	102	18	656093	127	6	0003320872	91	9
651517	122	35	656093	128	6	0003320872	92	9
651517	124	35	656093	129	6	0003320872	123	52
651519	123	58	656094	71	2	0003320872	125	52
651519	125	58	656100	79	10	0003330440	87	9
656001	36	7	656100	80	10	0003330440	88	9
656001	39	12	656105	27	10	0003331306	91	3
656002	38	20	656105	40	3	0003331306	92	3
656006	94	36	656105	63	8	0003638466	50	26
656006	96	43	656105	98	32	0003638466	52	26
656006	99	46	656105	102	28	0003638466	53	26
656008	37	6	656105	122	12	0003638466	57	9
656008	50	18	656105	124	12	0210110506	14	3
656008	52	18	656110	123	54	0210111308	20	17
656008	53	18	656110	125	54	7462680008	28	26
656008	108	9	656116	103	9	7462680008	29	30
656047	98	29	656122	98	30	7462680008	30	30
656048	27	16	656128	35	3	7462680008	31	30
656048	101	14	656128	36	3	7462680008	32	20
656048	103	29	656128	100	2	7462680008	33	20
656048	116	21	656128	112	6	7462680008	38	18
656048	118	9	656128	113	6	7462680008	110	28
656048	123	45	656130	45	15	7462680008	111	30
656048	125	45	656130	55	13	7462680008	128	7
656048	127	7	656139	108	23	7462680008	129	7
656090	94	21	656148	94	20	7462680011	22	10
656090	96	21	656148	96	35	7462680011	23	10
656093	12	14	656149	28	25	7462680011	24	10
656093	28	19	656149	29	29	7462680011	27	12
656093	29	19	656149	30	29	7462680011	38	21
656093	30	19	656149	31	29	7462680011	39	14
656093	31	19	656149	38	19	7462680011	63	10
656093	38	23	656149	87	2	7462680011	68	10
656093	39	8	656149	88	2	7462680011	72	2
656093	72	17	656149	102	5	7462680011	89	9

## 303 - Numerical Index

Part No.	Page No.	Ref. No.	Part No.	Page No.	Ref. No.
7462680011	101	11	425-34686	39	31
7462680011	102	26	425-34687	39	30
7462680011	103	13	425-34688	11	3
7462680011	121	5	425-34703	11	16
7462680011	122	16	425-34704	11	18
7462680011	124	16	425-34704	20	28
7462680011	126	6	425-34713	11	20
7462680011	127	4	425-34714	11	21
7462680011	128	4	425-34715	11	19
7462680011	129	4	425-34753	11	9
7788010663	46	29	425-34753	16	2
7788010663	127	12	425-34853	38	6
7788010663	128	12	425-34853	39	29
7788010663	129	12	425-35492	11	14
1408450G	68	1	425-35492	25	8
1410401G	35	2	425-35925	11	8
1410401G	36	2	425-36085	11	5
1420403G	35	4	425-36085	19	3
1420403G	36	4	425-36086	11	2
1423029G	63	12	425-36091	9	4
1423030G	63	13	425-36091	34	11
1423447G	119	24	425-36092	39	25
1423449G	110	26	425-36093	39	10
1423449G	111	26	425-36101	23	16
1423449G	119	15	425-36152	38	14
1424404G	30	32	425-36152	39	28
1424404G	31	2	425-36241	11	10
1424446G	110	27	425-36241	14	1
1424446G	111	27	425-36251	27	4
1424447G	119	22	8002331G	49	7
1428450G	46	6	9901671G	32	18
2529457G	99	47	9901671G	33	18
2529457G	125	62	9901732G	101	19
425-34636	9	3	9910346G	66	5
425-34636	34	16			
425-34661	11	17			
425-34661	20	25			
425-34683	11	6			
425-34683	20	32			

## 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.*

**Hydraulic fittings with various seals (light application). All torque values are in lb.-ft. (Nm) unless marked otherwise.**

Thread	Straight pipe fitting with thread and screwed plug (GE)			Non-return valve with elastic seal	Identification aid outside Ø
	Sealing washer	Elastic seal	O-ring		
M10X1.0	7 (9)	13 (18)	11 (15)	13 (18)	0.4 in. (10 mm)
M12X1.5	15 (20)	18 (25)	18 (25)	18 (25)	0.5 in. (12 mm)
M14X1.5	26 (35)	33 (45)	26 (35)	26 (35)	0.6 in. (14 mm)
M16X1.5	33 (45)	41 (55)	30 (40)	37 (50)	0.6 in. (16 mm)
M18X1.5	41 (55)	52 (70)	33 (45)	52 (70)	0.7 in. (18 mm)
M22X1.5	48 (65)	92 (125)	44 (60)	92 (125)	0.9 in. (22 mm)
M27X2.0	66 (90)	133 (180)	74 (100)	107 (145)	1.0 in. (27 mm)
M33X2.0	111 (150)	229 (310)	118 (160)	155 (210)	1.3 in. (33 mm)
M42X2.0	177 (240)	332 (450)	155 (210)	266 (360)	1.7 in. (42 mm)
M48X2.0	214 (290)	398 (540)	192 (260)	398 (540)	1.9 in. (48 mm)
G1/8A	7 (9)	13 (18)	11 (15)	13 (18)	0.4 in. (9.73 mm)
G1/4A	26 (35)	26 (35)	22 (30)	26 (35)	0.5 in. (13.16 mm)
G3/8A	33 (45)	52 (70)	33 (45)	37 (50)	0.7 in. (16.66 mm)
G1/2A	48 (65)	66 (90)	41 (55)	48 (65)	0.8 in. (20.96 mm)
G3/4A	66 (90)	133 (180)	74 (100)	103 (140)	1.0 in. (26.44 mm)
G1A	111 (150)	229 (310)	118 (160)	140 (190)	1.3 in. (33.25 mm)
G1 1/4A	177 (240)	332 (450)	155 (210)	266 (360)	1.7 in. (41.91 mm)
G1 1/2A	214 (290)	398 (540)	192 (260)	398 (540)	1.9 in. (47.80 mm)

**Hydraulic fittings with various seals (heavy application). All torque values are in lb.-ft. (Nm) unless marked otherwise.**

Thread	Straight pipe fitting with thread and screwed plug (GE)			Non-return valve with elastic seal	Identification aid outside Ø
	Sealing washer	Elastic seal	O-ring		
M12X1.5	15 (20)	26 (35)	26 (35)	26 (35)	0.5 in. (12 mm)
M14X1.5	26 (35)	41 (55)	33 (45)	33 (45)	0.6 in. (14 mm)
M16X1.5	33 (45)	52 (70)	41 (55)	41 (55)	0.6 in. (16 mm)
M18X1.5	41 (55)	66 (90)	52 (70)	52 (70)	0.7 in. (18 mm)
M20X1.5	41 (55)	92 (125)	59 (80)	74 (100)	0.8 in. (20 mm)
M22X1.5	48 (65)	100 (135)	74 (100)	92 (125)	0.9 in. (22 mm)
M27X2.0	66 (90)	133 (180)	125 (170)	100 (135)	1.0 in. (27 mm)
M33X2.0	111 (150)	229 (310)	229 (310)	155 (210)	1.3 in. (33 mm)
M42X2.0	177 (240)	332 (450)	243 (330)	266 (360)	1.7 in. (42 mm)
M48X2.0	214 (290)	398 (540)	310 (420)	398 (540)	1.9 in. (48 mm)
G1/8A	26 (35)	41 (55)	33 (45)	33 (45)	0.5 in. (13.16 mm)
G1/4A	33 (45)	59 (80)	44 (60)	44 (60)	0.7 in. (16.66 mm)
G3/8A	48 (65)	85 (115)	55 (75)	74 (100)	0.8 in. (20.96 mm)
G1/2A	66 (90)	133 (180)	125 (170)	107 (145)	1.0 in. (26.44 mm)
G3/4A	111 (150)	229 (310)	229 (310)	192 (260)	1.3 in. (33.25 mm)
G1A	177 (240)	332 (450)	243 (330)	266 (360)	1.7 in. (41.91 mm)
G1 1/4A	214 (290)	398 (540)	310 (420)	398 (540)	1.9 in. (47.80 mm)

**With coarse-pitch thread. All torque values are in lb.-ft. (Nm) unless marked otherwise.**

Thread	Threads according to DIN 912, DIN 931, DIN 933, etc.			Threads according to DIN 7984	
	8.8	10.9	12.9	8.8	10.9
M5	4.1 (5.5)	6 (8)	7 (10)	4 (5)	5 (7)
M6	7 (10)	10 (14)	13 (17)	6.3 (8.5)	9 (12)
M8	18 (25)	26 (35)	31 (42)	15 (20)	22 (30)
M10	33 (45)	48 (65)	59 (80)	30 (40)	44 (59)
M12	64 (87)	81 (110)	108 (147)	51 (69)	74 (100)
M14	100 (135)	133 (180)	170 (230)	81 (110)	118 (160)
M16	155 (210)	203 (275)	258 (350)	125 (170)	184 (250)
M18	207 (280)	302 (410)	354 (480)	181 (245)	254 (345)
M20	302 (410)	420 (570)	509 (690)	251 (340)	361 (490)
M22	406 (550)	575 (780)	686 (930)	339 (460)	487 (660)
M24	524 (710)	738 (1000)	878 (1190)	435 (590)	620 (840)
M27	767 (1040)	1092 (1480)	1305 (1770)	642 (870)	922 (1250)
M30	1047 (1420)	1482 (2010)	1770 (2400)	885 (1200)	1254 (1700)

**With fine-pitch thread. All torque values are in lb.-ft. (Nm) unless marked otherwise.**

Thread	Threads according to DIN 912, DIN 931, DIN 933, etc.			Threads according to DIN 7984	
	8.8	10.9	12.9	8.8	10.9
M8X1.0	18 (25)	27 (37)	32 (43)	16 (22)	24 (32)
M10X1.0	37 (50)	55 (75)	65 (88)	32 (43)	48 (65)
M10X1.25	36 (49)	52 (71)	61 (83)	31 (42)	46 (62)
M12X1.25	64 (87)	96 (130)	111 (150)	55 (75)	81 (110)
M12X1.5	61 (83)	92 (125)	107 (145)	53 (72)	77 (105)
M14X1.5	100 (135)	148 (200)	173 (235)	89 (120)	129 (175)
M16X1.5	155 (210)	229 (310)	266 (360)	133 (180)	195 (265)
M18X1.5	232 (315)	332 (450)	391 (530)	199 (270)	284 (385)
M20X1.5	325 (440)	465 (630)	538 (730)	277 (375)	391 (530)
M22X1.5	435 (590)	620 (840)	723 (980)	369 (500)	524 (710)
M24X2.0	546 (740)	789 (1070)	922 (1250)	465 (630)	664 (900)
M27X2.0	811 (1100)	1143 (1550)	1328 (1800)	679 (920)	959 (1300)
M30X2.0	1106 (1500)	1586 (2150)	1844 (2500)	959 (1300)	1364 (1850)



**Gehl Company** 143 Water Street, P.O. Box 179, West Bend, WI 53095-0179 U.S.A  
[www.gehl.com](http://www.gehl.com)