Form No. 3371-307 Rev A

TORO®

Count on it.

Parts Catalog

Groundsmaster® 3500-D

Traction Unit

Model No. 30839—Serial No. 312000001 and Up

Ordering Replacement Parts

To order replacement parts, please supply the part number, the quantity, and the description of each part desired.

Understanding Reference Numbers

Each identified part in an illustration has a reference number. The reference number for a part also appears in the parts list, along with other information about the part.

This catalog uses two special reference number formats, one to indicate parts in a service assembly and another to indicate the quantity of a given part in an illustration.

Service Assembly Reference Numbers

Parts in service assemblies have reference numbers in the form a:b. The a represents the reference number of the entire service assembly and the b represents a sequential number unique to each part within the service assembly.

For example, a wheel assembly might be identified by reference number 6, the tire by 6:1, the valve by 6:2, and the wheel by 6:3. When you order the assembly identified by reference number 6, you receive all parts identified by reference numbers 6:1,6:2, and 6:3. However, you may also order any part individually. Reference numbers of this type appear in illustration and in parts lists.

Reference Numbers Indicating Quantity

In an illustration, if a reference number indicates more than one part, the reference number has the form nX y. The n represents the quantity of the part, the X is the multiplication symbol, and the y represents the reference number.

For example, in an illustration, the reference number 2X 37 means that two of the parts identified by reference number 37 are indicated.

List of Abbreviations

AR: as required

ASM: assembly

BBC: blade brake control

BHTF: button head thread forming

CARR: carriage

CCW: counter clockwise

CW: clockwise

DEG: degrees

DPA: Dual Point Adjustment

ECM: electronic control module

EXT: external

FH: flat head

GA: gauge

HD: heavy-duty

HF: hex flange

HH: hex head

HHF: hex head flange

HHFTF: hex head flange thread forming

HJ: hex jam

HLH: hex lag head

HOC: height-of-cut

HSBH: hex socket button head

HSFH: hex socket flat head

HSH: hex socket head

HWH: hex washer head

HWHTF: hex washer head thread forming

HYD: hydraulic

LH: left hand

LP: Liquid Propane

NI: nylon insert

NPTF: national pipe thread fine

PFH: phillips flat head

PPH: phillips pan head

PPHTF: phillips pan head thread forming

PRH: phillips round head

PTH: phillips truss head

PTO: power-take-off

RH: right hand

ROPS: roll-over protection system

RRB: rear roller brush

SFH: slotted fillister head

SHH: slotted hex head

SHWH: slotted hex washer head

SPH: slotted pan head

SQH: square head

SRH: slotted round head

STD: standard

TAP: self tapping

TTH: torx truss head

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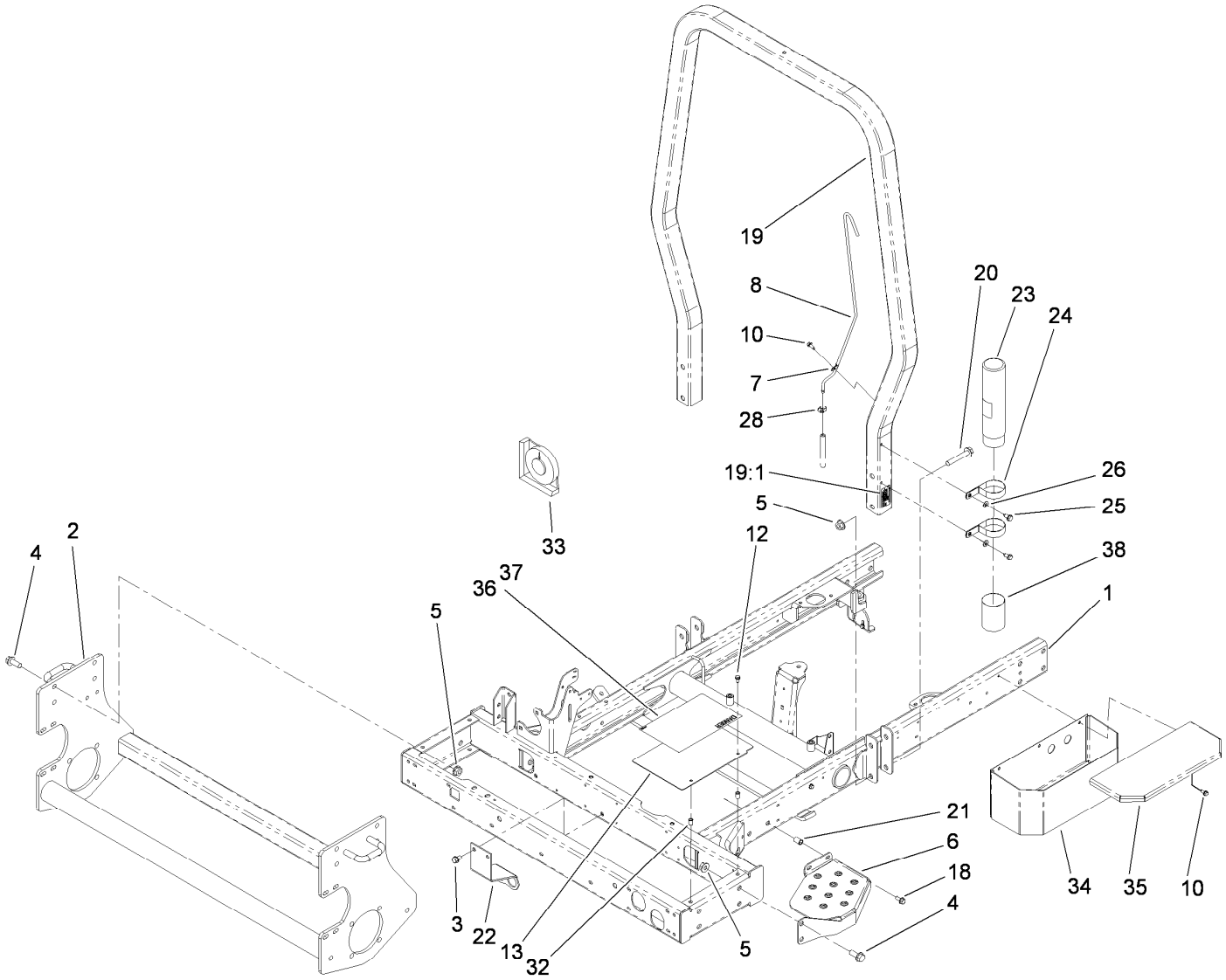
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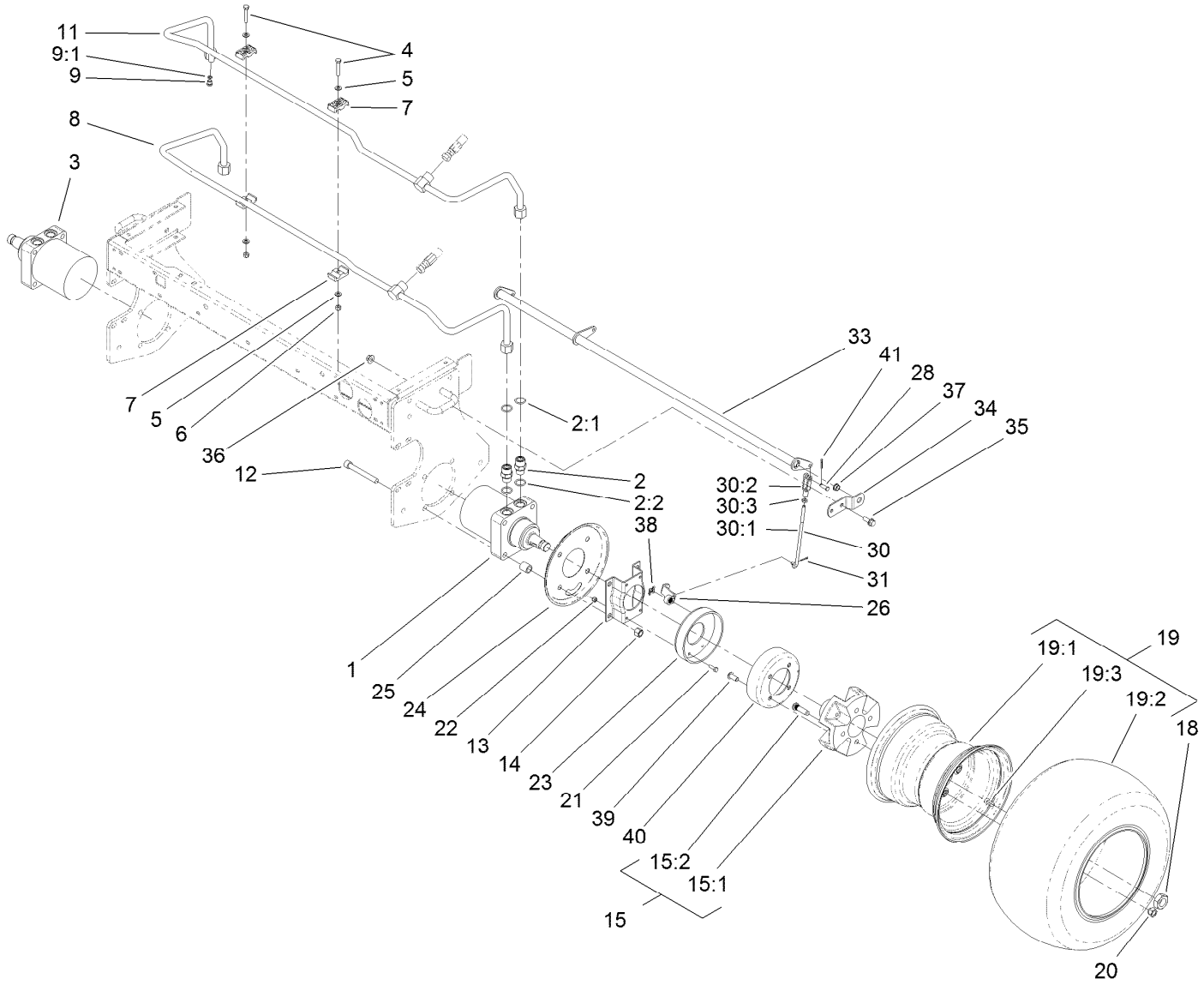
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Frame Assembly

Ref.	Part Number	Qty.	Description
1	99-3610-03	1	Frame ASM
2	95-8568-03	1	Frame-Lower
3	32144-15	2	Screw-HHFTF
4	3234-38	8	Screw-HHF
5	32128-49	12	Nut-HHF
6	99-3375-03	1	Step
7	2412-72	3	Clip-Closed, Insulated
8	95-8615	1	Tube-Breather
10	32144-10	6	Screw-HWH
12	3234-4	2	Screw-HHF
13	104-0468-01	1	Cover-Frame
18	3234-5	2	Screw-HHF
19	107-7833	1	ROPS ASM
19:1	107-7831	1	Decal-ROPS
20	3234-40	4	Screw-HF

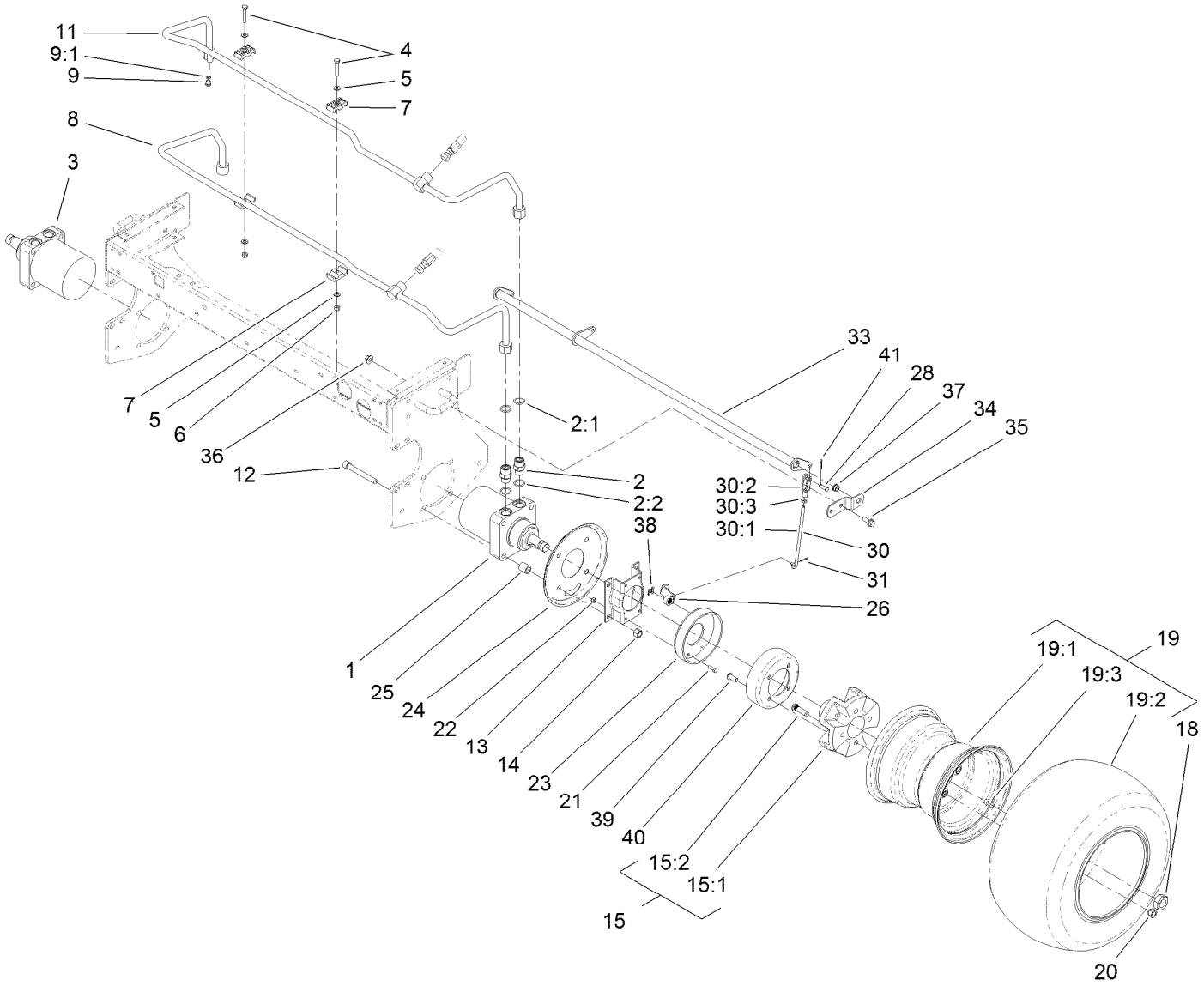
Ref.	Part Number	Qty.	Description
21	32148-8	2	Insert-Threaded
22	115-3417-03	1	Bracket-Bulkhead, Scissor
23	104-7050	1	Tube-Manual
24	2412-133	2	R-Clamp
25	32144-70	2	Screw-HWHTF
26	3256-23	2	Washer-Flat
28	2412-108	1	Clamp-Worm
32	32148-6	2	Insert-Nut
33	99-3503	1	Indicator-Angle
34	104-4634-03	1	Toolbox ASM
35	104-4633-03	1	Toolbox Cover ASM
36	104-0484	1	Decal-Danger
37	104-5181	1	Decal-Danger, Ce
38	104-7048	1	Cap-Housing



Front Wheel and Brake Assembly

Ref.	Part Number	Qty.	Description
1	110-8785	1	HYD Motor ASM (CCW)
2	340-7	4	Adapter
2:1	237-65	1	O-Ring
2:2	237-80	1	O-Ring
3	110-8786	1	HYD Motor ASM (CW)
4	322-9	2	Screw-HH
5	3256-23	4	Washer-Flat
6	3296-29	2	Nut-Lock, NI
7	56-7971	4	Clamp-Tube
8	95-8783	1	Tube ASM
9	353-990	1	Plug
9:1	237-78	1	O-Ring
11	95-8784	1	Tube ASM
12	3274-99	8	Screw-HSH
13	84-2000-03	2	Bracket-Brake
14	3296-23	8	Nut-Lock, NI
15		2	Wheel Hub / Stud ASM ●
15:1	104-0462	1	Hub-Wheel, Spacer
15:2	10-6830	4	Stud-Type, Drive
18	26-3790	2	Nut-Lock
19		2	Wheel And Tire ASM ●
19:1	117-5126	1	Rim
19:2	117-5125	1	Tire
19:3	232-27	1	Stem-Valve
20	242-50	8	Nut-Lug
21	321-5	8	Screw-HH
22	3296-42	8	Nut-Lock, NI
23	104-7705	2	Brake ASM
24	104-0485-03	2	Shield-Wheel
25	119-8238	8	Spacer-Deck Pulley
26	114-2726	2	Lever-Brake
28	283-1	2	Pin-Clevis
30	115-6672	2	Brake Lever ASM
30:1	104-4627	1	Rod-Adjusting
30:2	1-303105	1	Yoke-Adjustable
30:3	3220-2	1	Nut-Jam

● Not serviced separately

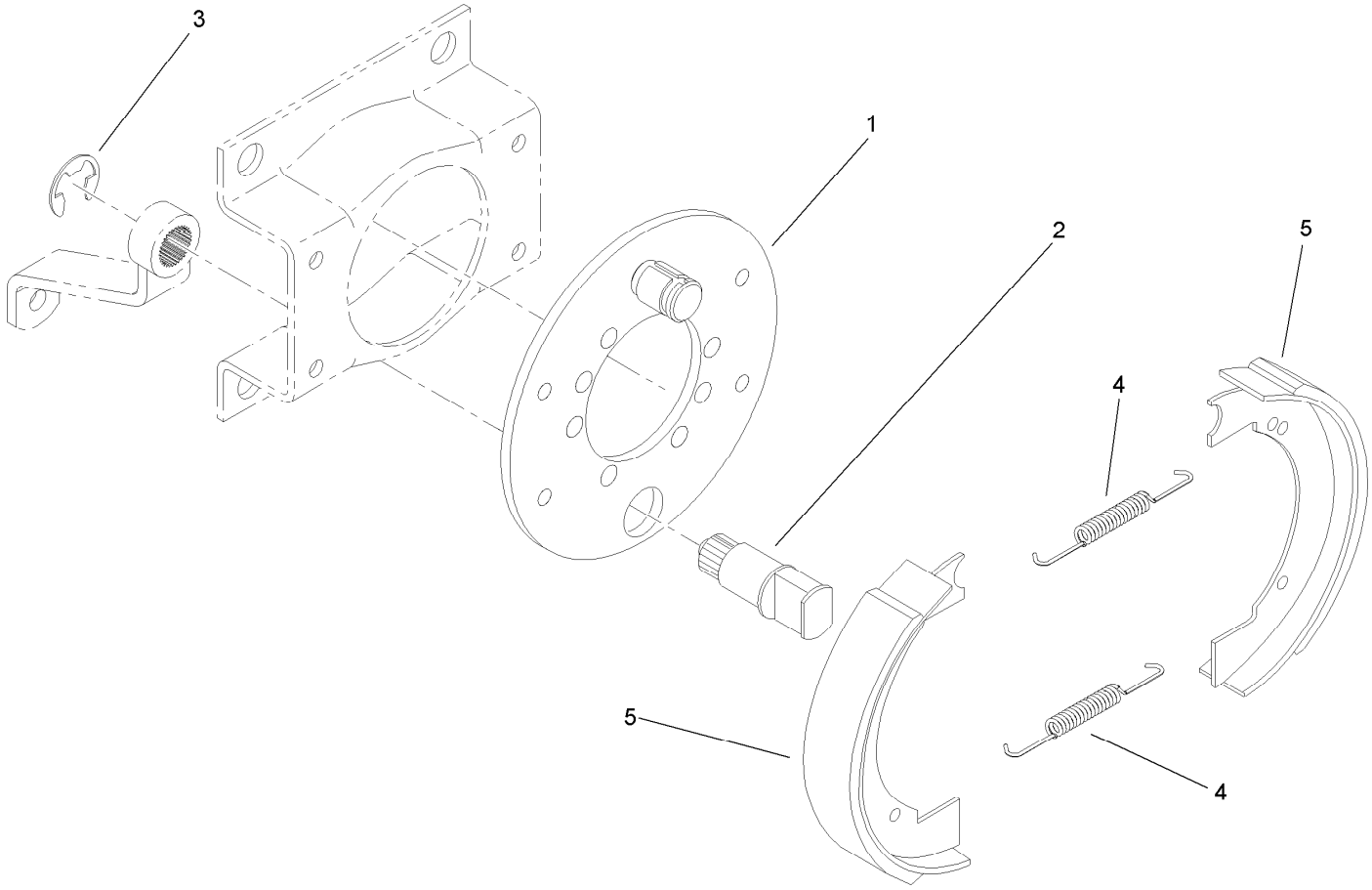


Front Wheel and Brake Assembly (continued)

Ref.	Part Number	Qty.	Description
31	3272-6	2	Pin-Cotter
33	104-4625-03	1	Brake Pivot Shaft ASM
34	95-8683	2	Bracket-Pivot, Brake
35	3234-11	4	Screw-HHF
36	32128-43	4	Nut-Flange

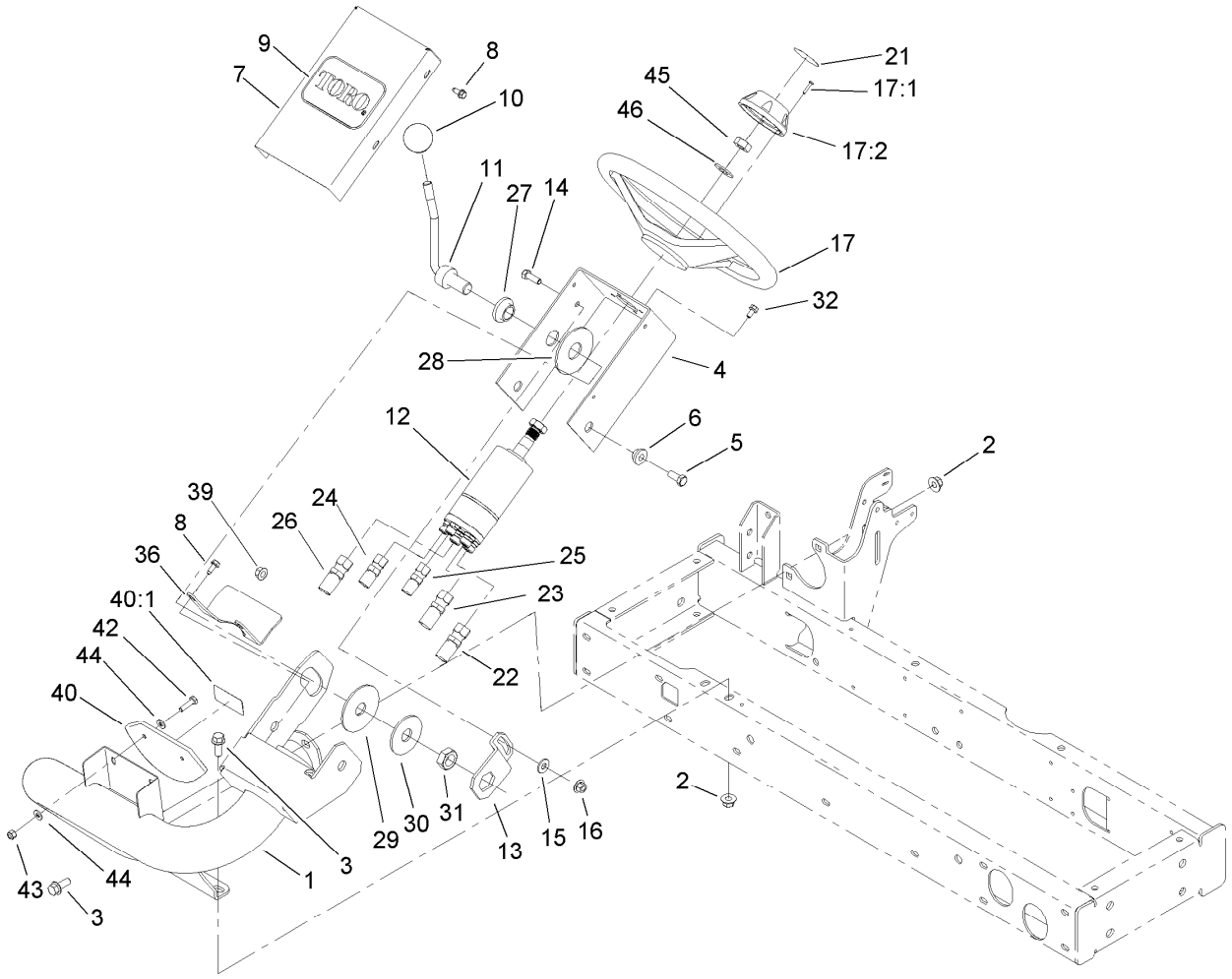
Ref.	Part Number	Qty.	Description
37	256-156	2	Bushing-Flange
38	104-7706	2	E-Ring, Bowed
39	3274-105	8	Screw-HSBH
40	104-4809	2	Drum-Brake
41	3272-10	2	Pin-Cotter

● Not serviced separately



Brake Assembly No. 104-7705

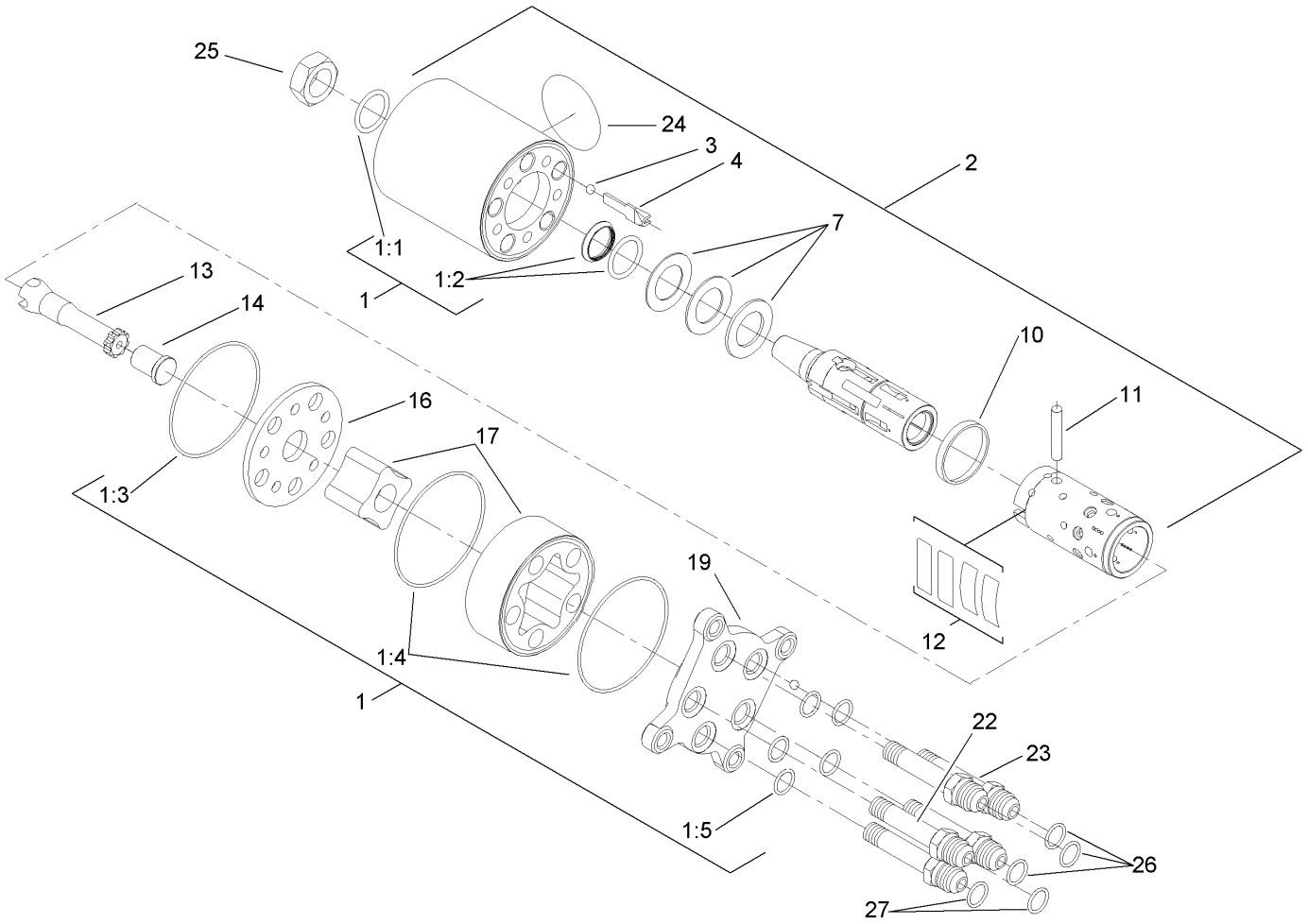
Ref.	*Part Number*	*Qty.*	*Description*
1	70-9870	1	Plate-Backing
2	104-7707	1	Shaft-Cam, Brake
3	104-7706	1	E-Ring, Bowed
4	70-9880	2	Spring-Return
5	70-9840	2	Shoe-Brake



Steering Column Assembly

Ref.	Part Number	Qty.	Description
1	105-8536-01	1	Arm-Steering
2	32128-43	4	Nut-Flange
3	3234-11	4	Screw-HHF
4	104-5185-01	1	Bracket-Valve, Steering
5	323-5	2	Screw-HH
6	93-5988	2	Hub-Pivot
7	95-8794-01	1	Cover-Valve, Steering
8	32144-10	5	Screw-HWH
9	67-1300	1	Decal
10	233-48	1	Knob
11	95-8798-03	1	Lever-Steering
12	104-5180	1	Steering Valve ASM
13	80-2880	1	Bracket-Tilt
14	322-5	1	Screw-HH
15	3256-3	1	Washer-Flat
16	32128-44	1	Nut
17	75-0560	1	Wheel-Steering
17:1	32144-21	1	Screw
17:2	68-5140	1	Cap-Wheel, Steering
21	68-5370	1	Decal
22	95-8842	1	Hose ASM

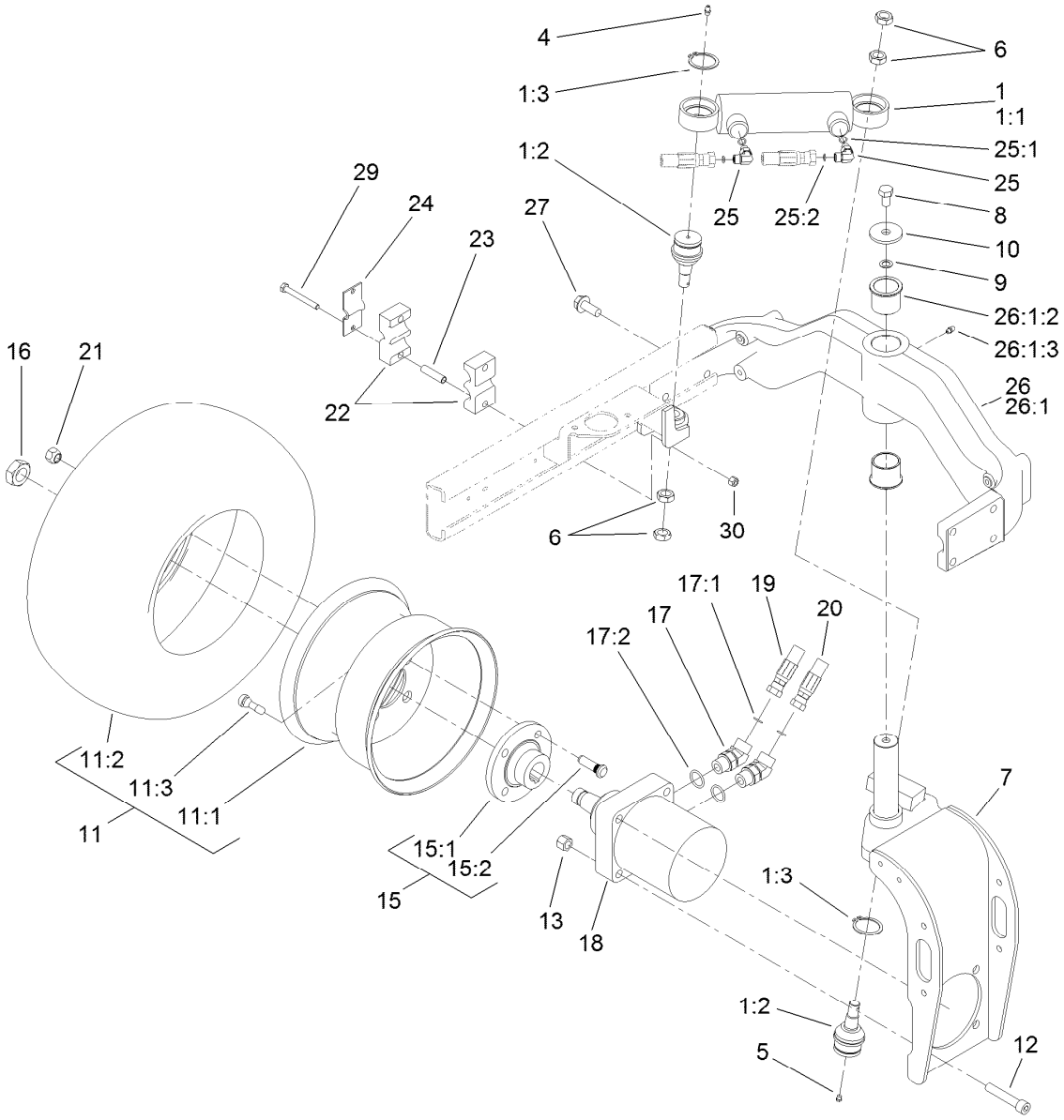
Ref.	Part Number	Qty.	Description
23	95-8843	1	Hose ASM
24	100-4892	1	Hose ASM
25	100-4893	1	Hose ASM
26	95-8846	1	Hose ASM
27	99-3502	1	Boss
28	31-0390	1	Disc-Friction
29	82-9010	1	Disc-Friction
30	80-2930	1	Washer-Flat
31	3218-7	1	Nut-Jam
32	33103-012	4	Screw-HHF
36	99-3405-01	1	Shield-Steering
39	32128-21	2	Nut-HF
40	100-4929	1	Slope Indicator ASM
40:1	100-4837	1	Decal-Danger
40:1	107-7801	1	Decal-Danger, Ce
42	321-7	2	Screw-HH
43	3296-42	2	Nut-Lock, NI
44	3256-22	4	Washer-Flat
45	3296-33	1	Nut-Lock, NI
46	3256-27	1	Washer-Flat



Steering Valve Assembly No. 104-5180

Ref.	*Part Number*	*Qty.*	*Description*
1	106-6716	1	Seal Kit
1:1		1	Ring-Seal, Dust ●
1:2		1	Seal-Shaft ●
1:3		1	O-Ring ●
1:4		2	O-Ring ●
1:5		5	O-Ring ●
2		1	Housing ●
3		1	Ball ●
4		1	Stop-Ball ●
7		1	Bearing ASM ●
10		1	Ring ●
11		1	Pin-Cross ●
12		1	Springs ●
13		1	Shaft ●
14		1	Spacer ●
16		1	Plate-Distributor ●
17		1	Gearwheel Set ●
19		1	Cover-End ●
22		1	Screw-Special ●
23		4	Screw-Special ●
24		1	Plate-Name ●
25	3296-33	1	Nut-Lock, NI
26	237-22	3	O-Ring
27	237-21	2	O-Ring

● Not serviced separately

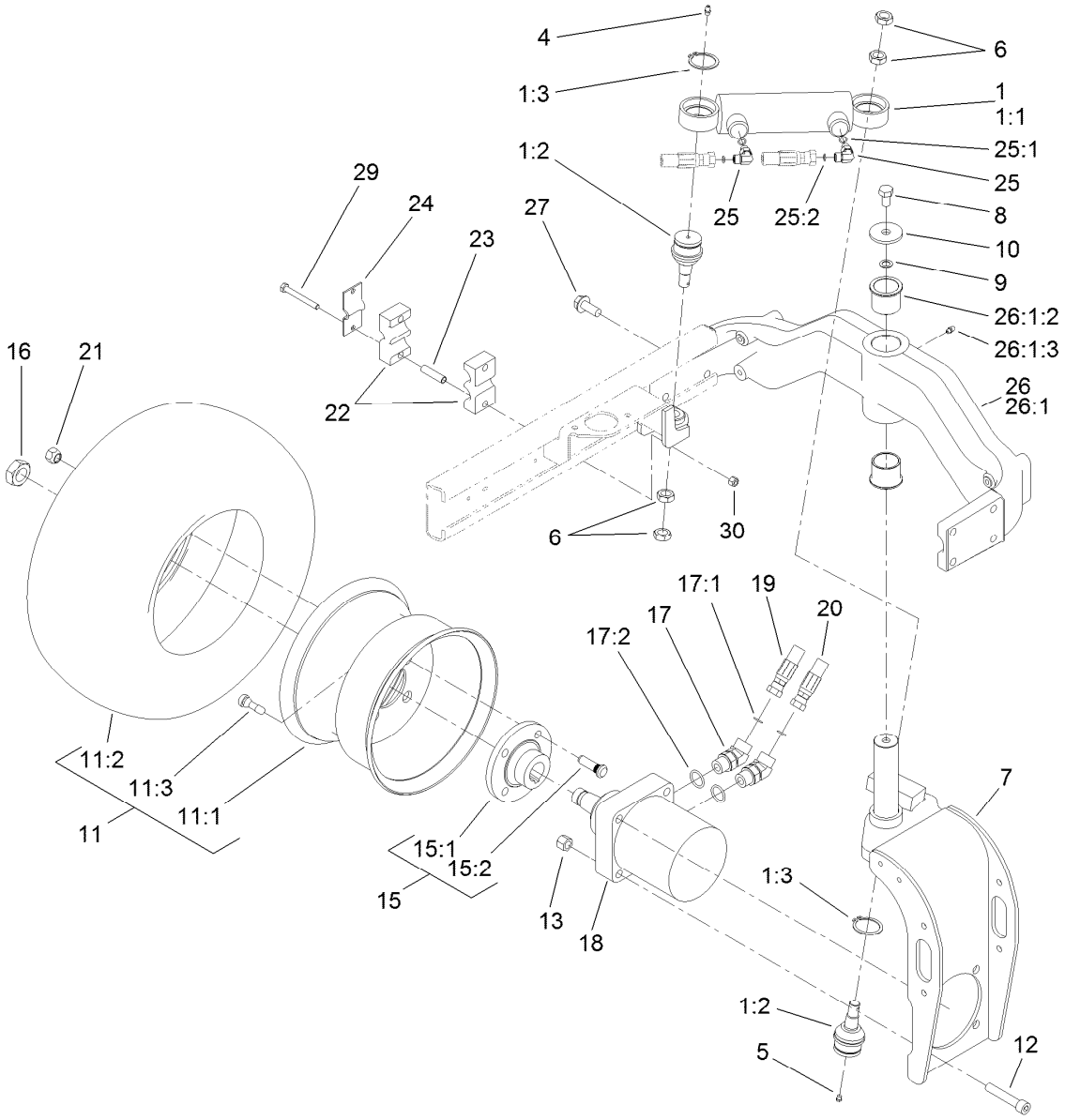


Rear Fork and Tire Assembly

Ref.	Part Number	Qty.	Description
1		1	Steering Cylinder / Balljoint ASM ●
1:1	94-8141	1	HYD Cylinder ASM
1:2	106-6774	2	Joint-Ball
1:3	32151-104	2	Ring-Retaining, External
4	302-5	1	Fitting-Grease
5	302-59	1	Plug-Threaded
6	3220-6	4	Nut-Jam
7	95-8905-01	1	Fork-Rear
8	325-3	1	Screw-HH
9	3255-2	1	Washer-Lock / EXT
10	75-7730	1	Washer-Thrust
11		1	Wheel And Tire ASM ●
11:1	117-5129	1	Rim
11:2	115-1572	1	Tire (20 X 10-10)
11:3	232-27	1	Stem-Valve
12	3274-93	4	Screw-HSH
13	3296-23	4	Nut-Lock, NI

Ref.	Part Number	Qty.	Description
15		1	Wheel Hub / Stud ASM ●
15:1	10-6870-03	1	Hub-Wheel
15:2	10-6830	4	Stud-Type, Drive
16	26-3790	1	Nut-Lock
17	340-14	2	Fitting-HYD, 45 DEG
17:1	237-65	1	O-Ring
17:2	237-80	1	O-Ring
18	95-8694	1	HYD Motor ASM
19	105-1213	1	Hose ASM
20	105-1212	1	Hose ASM
21	242-50	4	Nut-Lug
22	82-8170	2	Clamp
23	93-7960	2	Spacer
24	93-7961	1	Clamp-Drain, Case
25	340-132	2	Fitting-HYD, 90 DEG
25:1	237-78	1	O-Ring
25:2	237-21	1	O-Ring
26	107-7828-03	1	Rear Casting ASM

● Not serviced separately

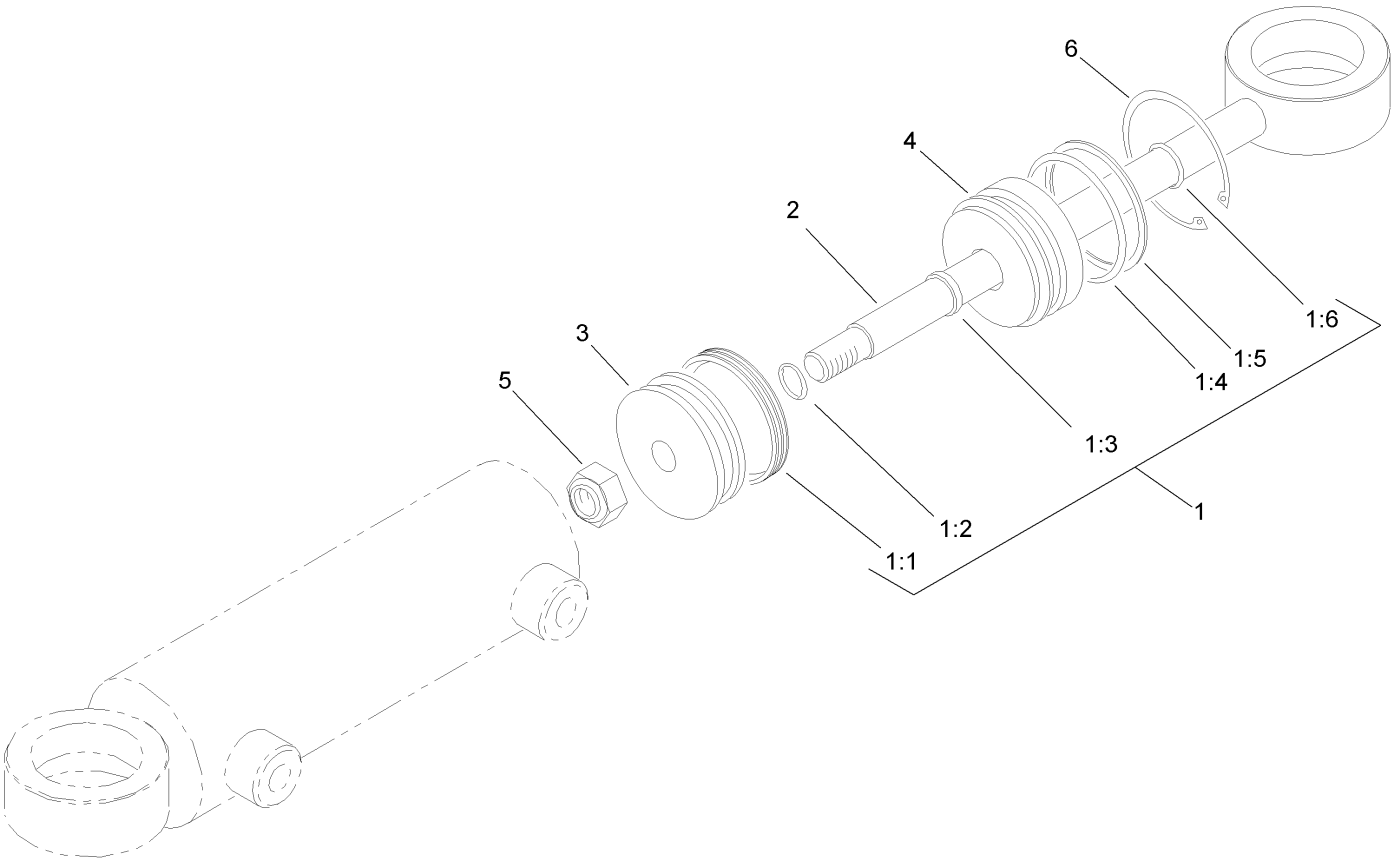


Rear Fork and Tire Assembly (continued)

Ref.	Part Number	Qty.	Description
26:1		1	Rear Casting ASM ●
26:1:2	95-8805	2	Bushing
26:1:3	302-5	1	Fitting-Grease

Ref.	Part Number	Qty.	Description
27	3234-38	8	Screw-HHF
29	322-13	2	Screw-HH
30	3296-29	2	Nut-Lock, NI

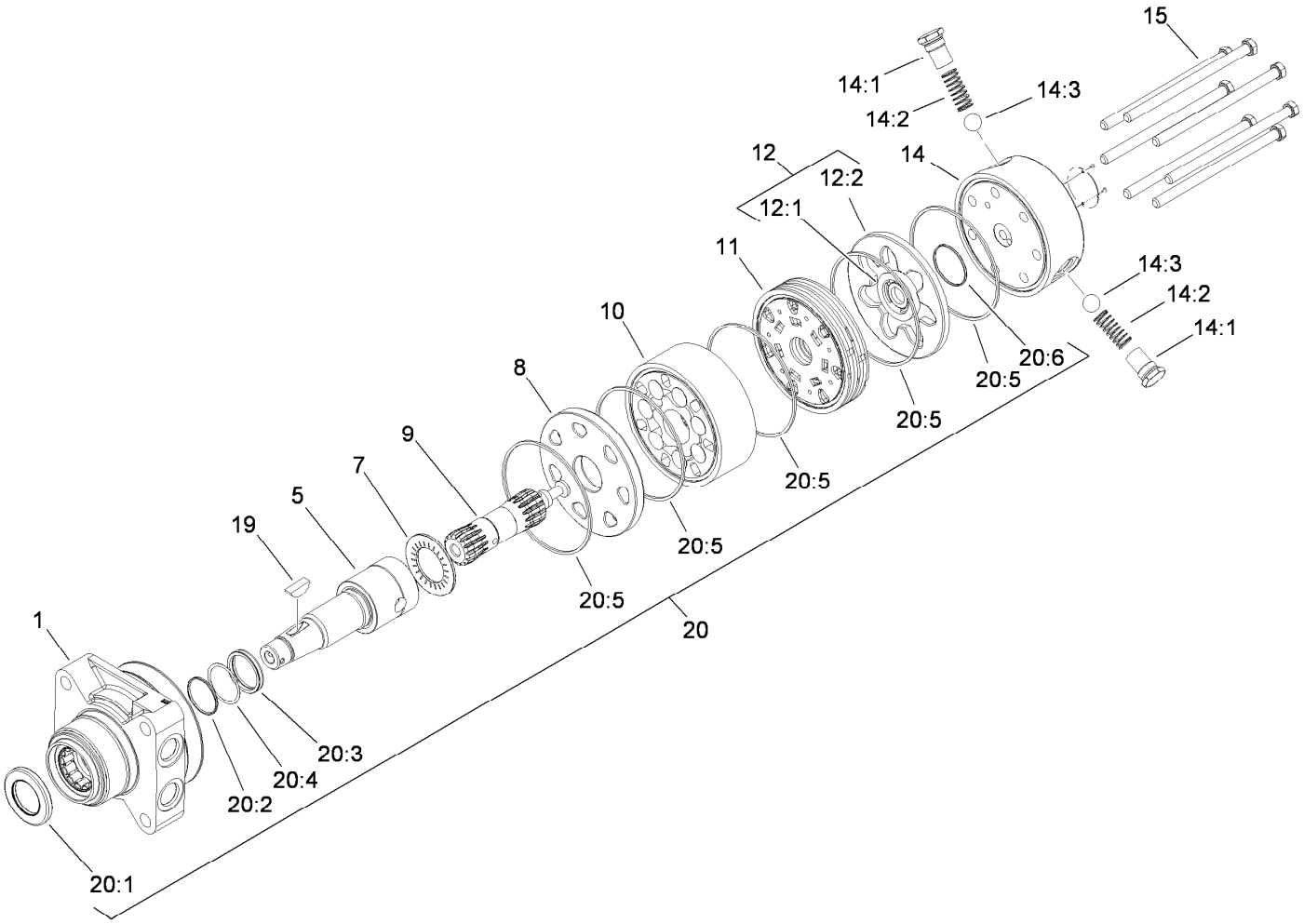
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Hydraulic Cylinder Assembly No. 94-8141

Ref.	*Part Number*	*Qty.*	*Description*
1	86-5390	1	Seal Kit
1:1		1	Uniring ●
1:2		1	O-Ring ●
1:3		1	Seal-Rod ●
1:4		1	O-Ring ●
1:5		1	Ring-Backup ●
1:6		1	O-Ring ●
2		1	Rod ●
3		1	Piston ●
4		1	Gland ●
5		1	Nut-Lock ●
6		1	Ring-Retaining ●

● Not serviced separately

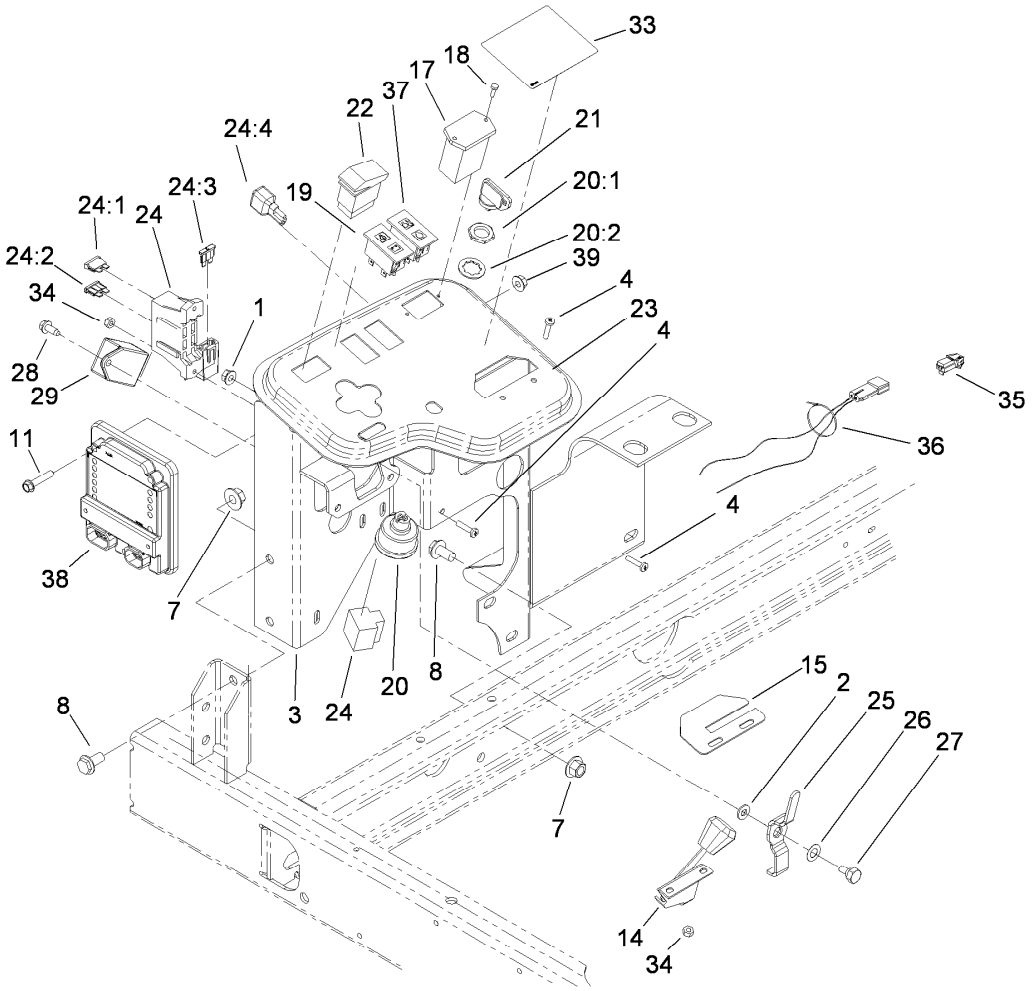


Hydraulic Motor Assembly No. 95-8694

Ref.	Part Number	Qty.	Description
1	76-0810	1	Housing ASM
5	99-3090	1	Shaft-Coupling
7	76-0850	1	Bearing-Thrust
8	76-0870	1	Plate-Wear
9	99-3537	1	Link-Drive
10	99-3539	1	Set-Rotor
11	99-3535	1	Manifold
12	76-0880	1	Commutator ASM
12:1		1	Commutator ●
12:2		1	Ring-Commutator ●
14	99-3538	1	End Cover ASM
14:1		1	Spring Cap And O-Ring ASM ●

Ref.	Part Number	Qty.	Description
14:2	99-3541	1	Spring
14:3	99-3540	1	Ball
15	99-3536	7	Screw-HH
19	3257-42	1	Key-Woodruff
20	94-8178	1	Seal Kit
20:1		1	Seal-Dirt And Water ●
20:2		1	Backup-Ring ●
20:3		1	Seal-Shaft ●
20:4		1	Washer-Backup ●
20:5		5	Seal-Square, Ring (Inner) ●
20:6		1	Seal-Commutator ●

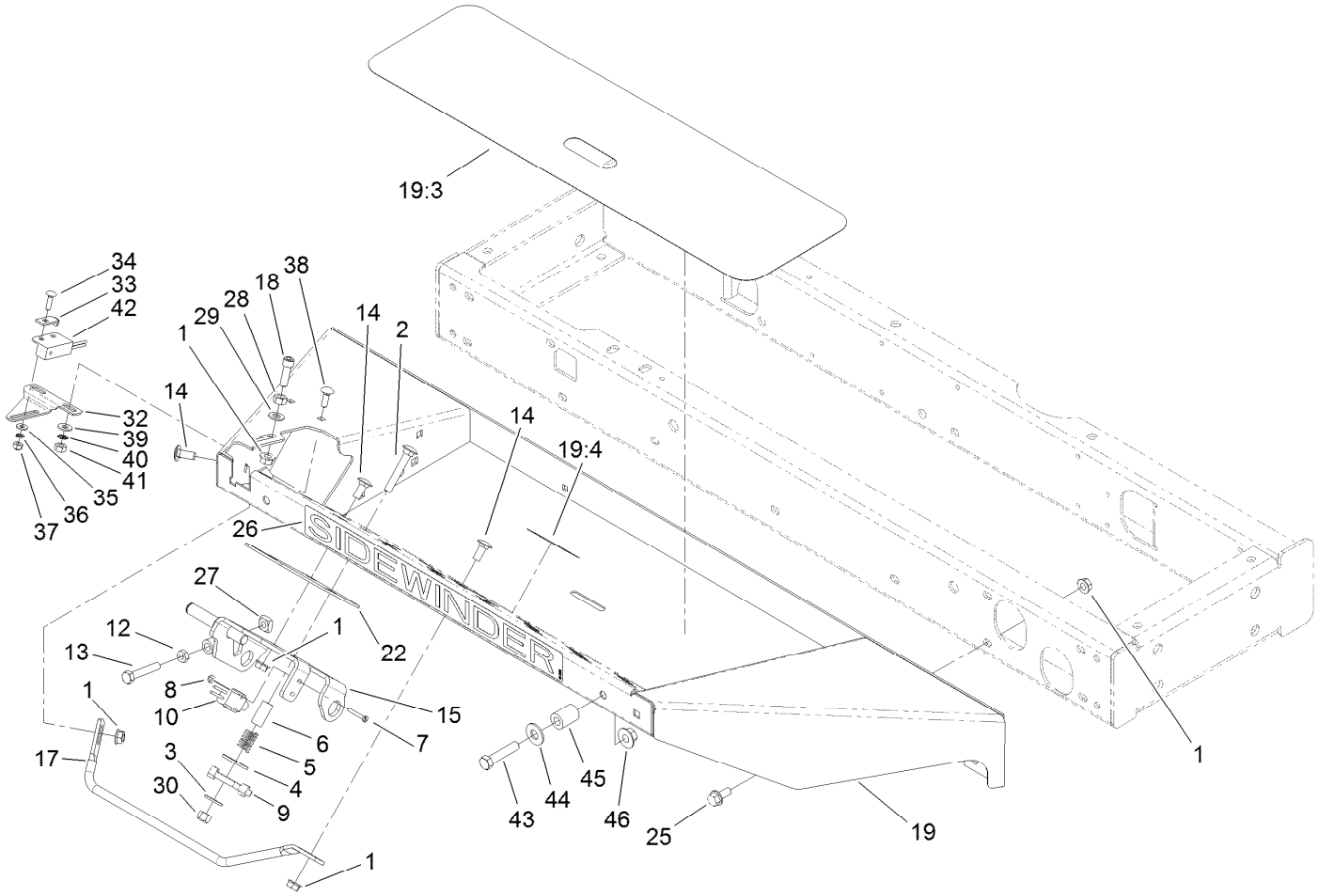
● Not serviced separately



Control Panel Assembly

Ref.	Part Number	Qty.	Description
1	32128-32	1	Nut-HHF
2	3256-22	1	Washer-Flat
3	115-3496-03	1	Control Panel ASM
4	3290-134	4	Screw
7	32128-43	5	Nut-Flange
8	3234-1	5	Screw-HHF
11	321-8	3	Screw-HH
14	110-8795	1	Cable-Throttle
15	104-0421	1	Plate-Stop, Throttle
17	75-6820	1	Hourmeter
18	32144-18	2	Screw-HH
19	100-8070	1	Lamp-Warning
20	104-2541	1	Switch ASM
20:1	218-461	1	Nut-HH
20:2	3254-5	1	Washer-Tooth, Internal
21	63-8360	2	Key-Ignition
22	95-8999	1	Switch
23	104-5191	1	Decal-Console

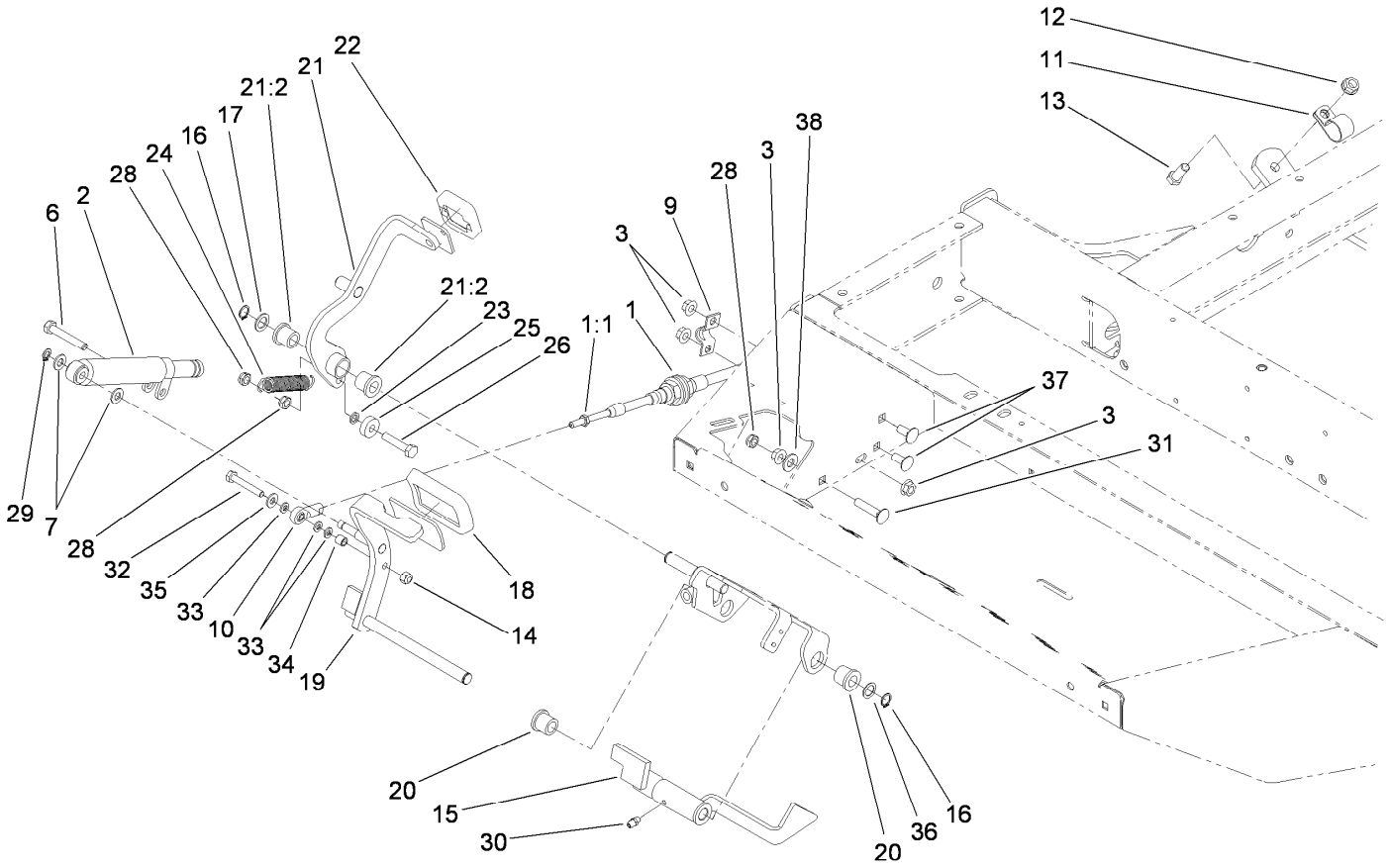
Ref.	Part Number	Qty.	Description
24	112-9911	1	Harness-Wire
24:1	218-578	2	Fuse-Blade, 10 Amp
24:2	109355	1	Fuse-Blade, 15 Amp
24:3	94-6710	1	Fuse-2 Amp
24:4	100-4918	1	Diode
25	99-3401-03	1	Lever-Valve, Lock
26	3290-477	1	Washer-Curved
27	63-3410	1	Screw-Shoulder
28	32144-10	1	Screw-HWH
29	98-7611	1	Controller-Glow
33	99-3558	1	Decal-Console, Ce
34	3290-148	4	Nut-HF
35	104-4875	1	Harness-Wire, Jumper
36	3290-379	1	Tie-Cable
37	100-8071	1	Lamp-Warning
38	106-9277	1	Module-Control, Standard
39	32128-33	3	Nut-HF



Front Platform Assembly

Ref.	Part Number	Qty.	Description
1	32128-20	17	Nut-HF
2	3230-6	1	Screw-CARR
3	3256-3	1	Washer-Flat
4	3256-40	1	Washer-Flat
5	65-9940	1	Spring
6	95-8866	1	Tube-Arm, Rocker
7	32105-9	2	Screw
8	3296-9	2	Nut-Lock
9	99-3593	1	Arm-Rocker
10	95-8900	1	Switch
12	3218-2	1	Nut-Jam
13	322-41	1	Screw-HH
14	3230-23	4	Screw-CARR
15	95-8869-03	1	Bracket-Pedal, Traction
17	95-8893	1	Bar-Deflector
18	3274-22	1	Screw-HSH
19	106-4154	1	Floorplate ASM
19:3	99-3478	1	Tread-Foot
19:4	99-3444	1	Decal-Mow / Transport
22	106-2661-01	1	Plate-Support
25	3234-5	10	Screw-HHF

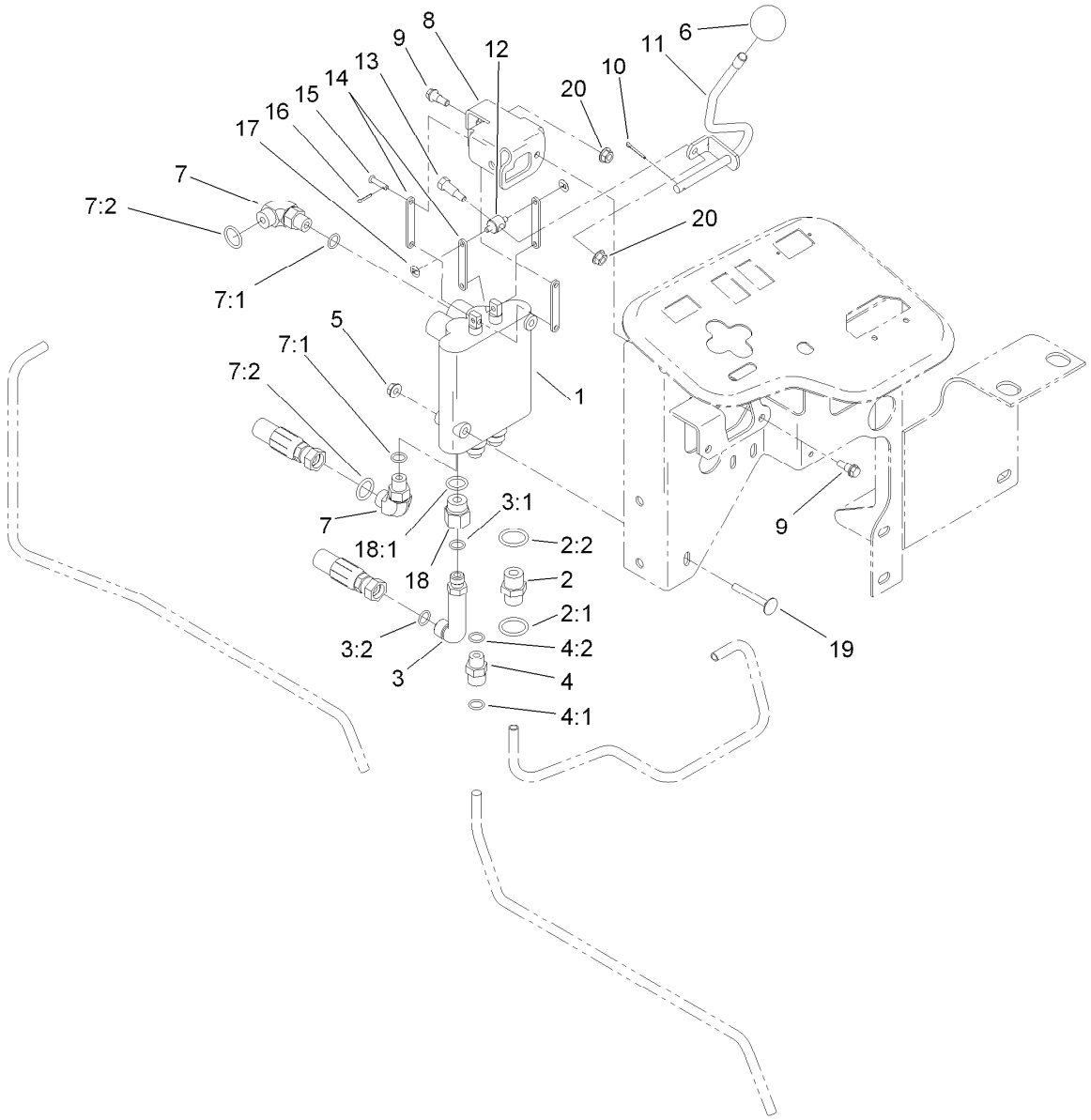
Ref.	Part Number	Qty.	Description
26	99-3388	1	Decal
27	99-3565	1	Nut-Square
28	3217-6	1	Nut-Hex
29	3256-23	1	Washer-Flat
30	3296-29	1	Nut-Lock, NI
32	100-4871	1	Bracket-Switch, Neutral
33	100-4872	1	Plate-Switch, Neutral
34	3229-20	1	Screw-CARR
35	3256-14	1	Washer-Flat
36	3255-17	1	Washer-Lock, EXT
37	3296-2	1	Nut-Lock, NI
38	3229-1	2	Screw-CARR
39	3256-22	2	Washer-Flat
40	3255-7	2	Washer-Lock/EXT
41	3217-5	2	Nut-Hex
42	100-1270	1	Switch-Proximity
43	323-9	2	Screw-HH
44	3256-4	2	Washer-Flat
45	104-4613	2	Tube-Latch
46	32128-43	2	Nut-Flange



Traction Pedal Assembly

Ref.	Part Number	Qty.	Description
1	100-4815	1	Cable-Control, Traction
1:1	3220-1	2	Nut-Jam
2	76-8870	1	Lever Damper ASM
3	32128-20	5	Nut-HF
6	322-10	1	Screw-HH
7	3256-23	2	Washer-Flat
9	93-2092	1	Clamp-Cable
10	2411-41	1	Rod End-Ball Joint
11	2412-41	1	Clamp
12	3290-357	1	Nut-HHF, Whiz
13	323-6	1	Screw-HH
14	3296-42	1	Nut-Lock, NI
15	95-8861	1	Slide
16	32151-84	2	Ring-Shaft, EXT
17	41-8440	1	Washer
18	74-9100	1	Pad-Pedal, Forward
19	104-4852-03	1	Traction Pedal ASM
20	256-243	2	Bearing-Flange

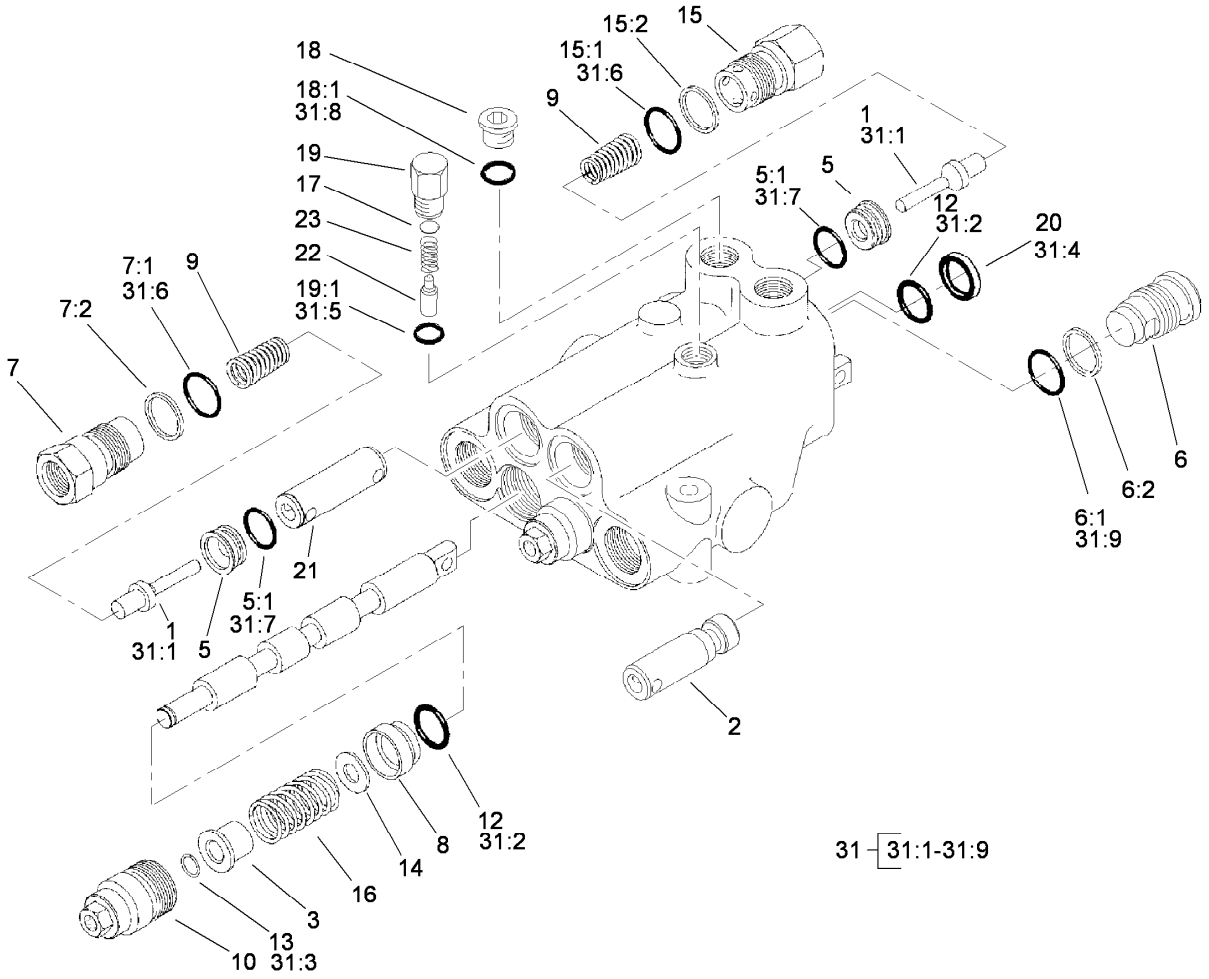
Ref.	Part Number	Qty.	Description
21	99-3379	1	Pedal-Reverse
21:2	256-243	2	Bearing-Flange
22	74-9110	1	Pad-Pedal, Reverse
23	75-5470	1	Spacer-Bearing
24	99-3476	1	Spring-Extension
25	251-259	1	Bearing-Ball
26	322-7	1	Screw-HH
28	3296-47	3	Nut-Lock, NI
29	32151-3	1	Ring-Grip
30	302-5	1	Fitting-Grease
31	3230-27	1	Screw-CARR
32	321-10	1	Screw-HH
33	33093-00	3	Washer-Flat
34	99-3545	1	Spacer
35	3256-22	1	Washer-Flat
36	73-0040	4	Washer-Thrust
37	3230-23	2	Screw-CARR
38	3256-24	1	Washer-Flat



Control Valve Installation Assembly

Ref.	Part Number	Qty.	Description
1	95-8581	1	2-Spool Control Valve ASM
2	340-3	1	Adapter
2:1	237-22	1	O-Ring
2:2	237-79	1	O-Ring
3	69-4320	1	Fitting-HYD, 90 DEG
3:1	237-22	1	O-Ring
3:2	237-42	1	O-Ring
4	340-2	1	Fitting-HYD, Straight
4:1	237-22	1	O-Ring
4:2	237-42	1	O-Ring
5	32128-33	2	Nut-HF
6	233-42	1	Knob
7	340-77	2	Fitting-HYD, 90 DEG
7:1	237-22	1	O-Ring
7:2	237-42	1	O-Ring

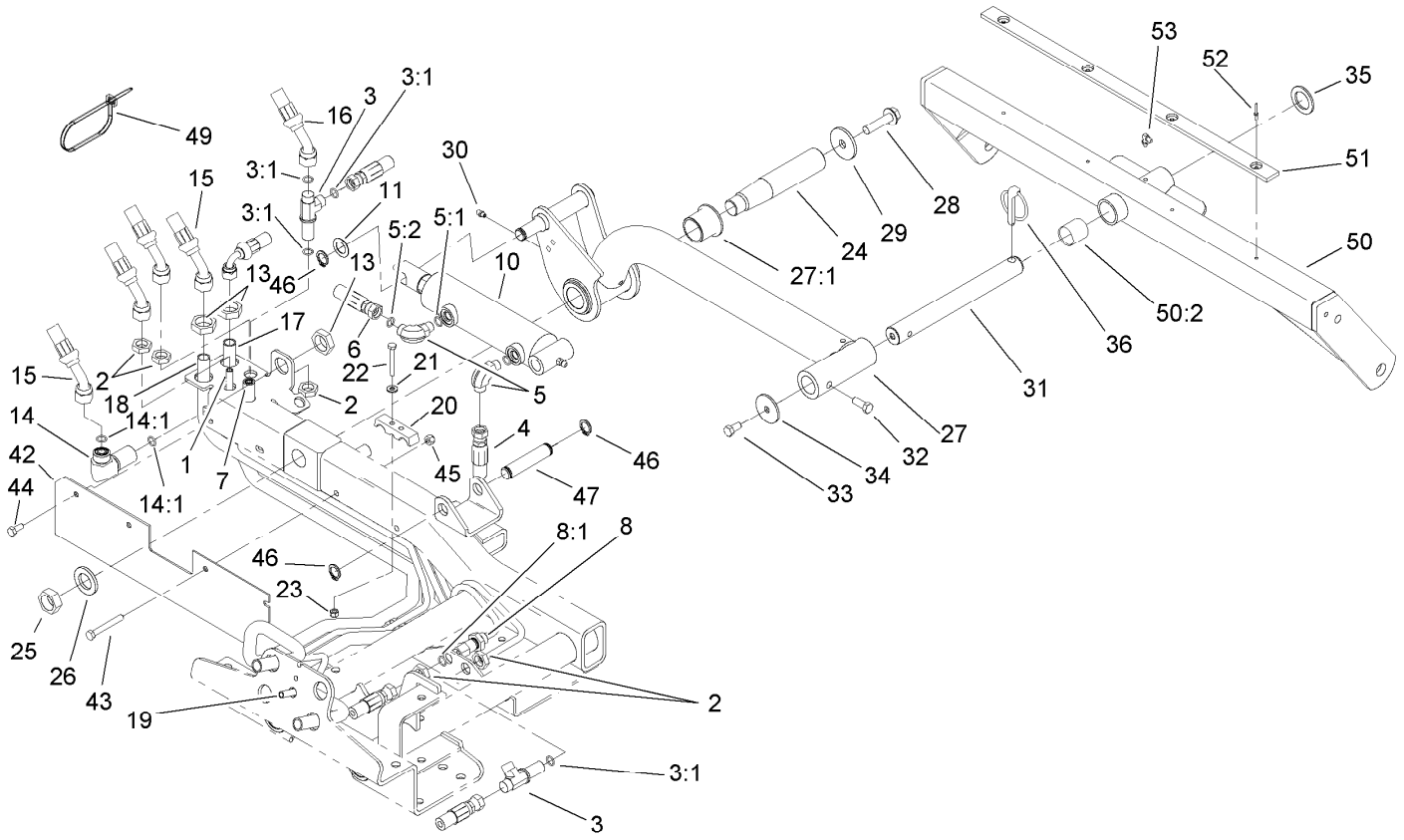
Ref.	Part Number	Qty.	Description
8	95-8633	1	Bracket-Valve, Actuator
9	42-3560	2	Bolt-Shoulder
10	3272-6	1	Pin-Cotter
11	95-8635	1	Lever-Valve
12	95-8638	1	Trunnion-Valve, Actuator
13	92-8916	1	Bolt-Shoulder
14	95-8634	4	Link
15	283-16	3	Pin-Clevis
16	3272-1	3	Pin-Cotter
17	32151-106	2	Ring-Retaining
18	353-397	1	Reducer-Adapter
18:1	237-79	1	O-Ring
19	3230-33	2	Screw-CARR
20	32128-32	3	Nut-HHF



Valve Assembly No. 95-8581

Ref.	Part Number	Qty.	Description
1	58-6290	3	Poppet
2	69-1840	1	Plunger
3	58-6310	2	Spacer
5	58-6330	3	Seat
5:1	58-6340	1	O-Ring
6	58-6350	1	Plug
6:1	60-5720	1	O-Ring
6:2	58-6370	1	Washer
7	69-1800	2	Plug ASM
7:1	60-5720	1	O-Ring
7:2	58-6370	1	Washer
8	58-6400	2	Bushing
9	69-1810	3	Spring
10	58-6420	2	Cap
12	58-6450	4	O-Ring
13	58-6460	2	Ring-Retaining
14	65-2770	2	Washer
15	99-3526	1	Plug ASM
15:1	60-5720	1	O-Ring
15:2	59-7730	1	Washer-Backup

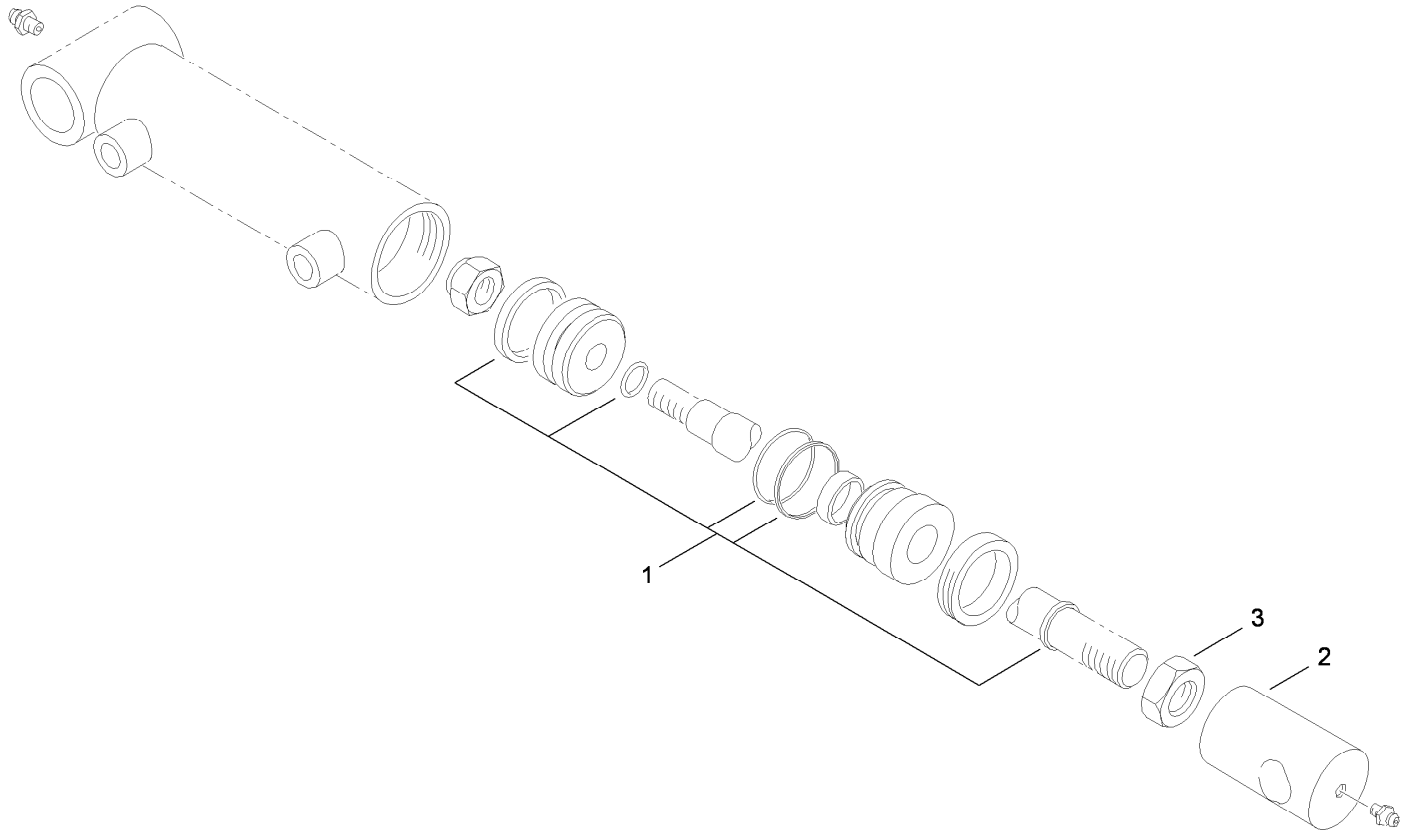
Ref.	Part Number	Qty.	Description
16	99-3531	2	Spring
17	60-6450	1	Disc
18	353-989	1	Plug-Hex, Hollow
18:1	237-42	1	O-Ring
19	58-6780	1	Plug
19:1	58-6790	1	O-Ring
20	58-6320	2	Wiper
21	99-3528	1	Plunger
22	58-6770	1	Plunger
23	58-6760	1	Spring
31	99-3530	1	Seal Kit
31:1	58-6290	3	Poppet
31:2	58-6450	4	O-Ring
31:3	58-6460	2	Ring-Retaining
31:4	58-6320	2	Wiper
31:5	58-6790	1	O-Ring
31:6	60-5720	4	O-Ring
31:7	58-6340	2	O-Ring
31:8	237-42	1	O-Ring
31:9	59-7730	2	Washer-Backup



Rear Lift Arm Assembly

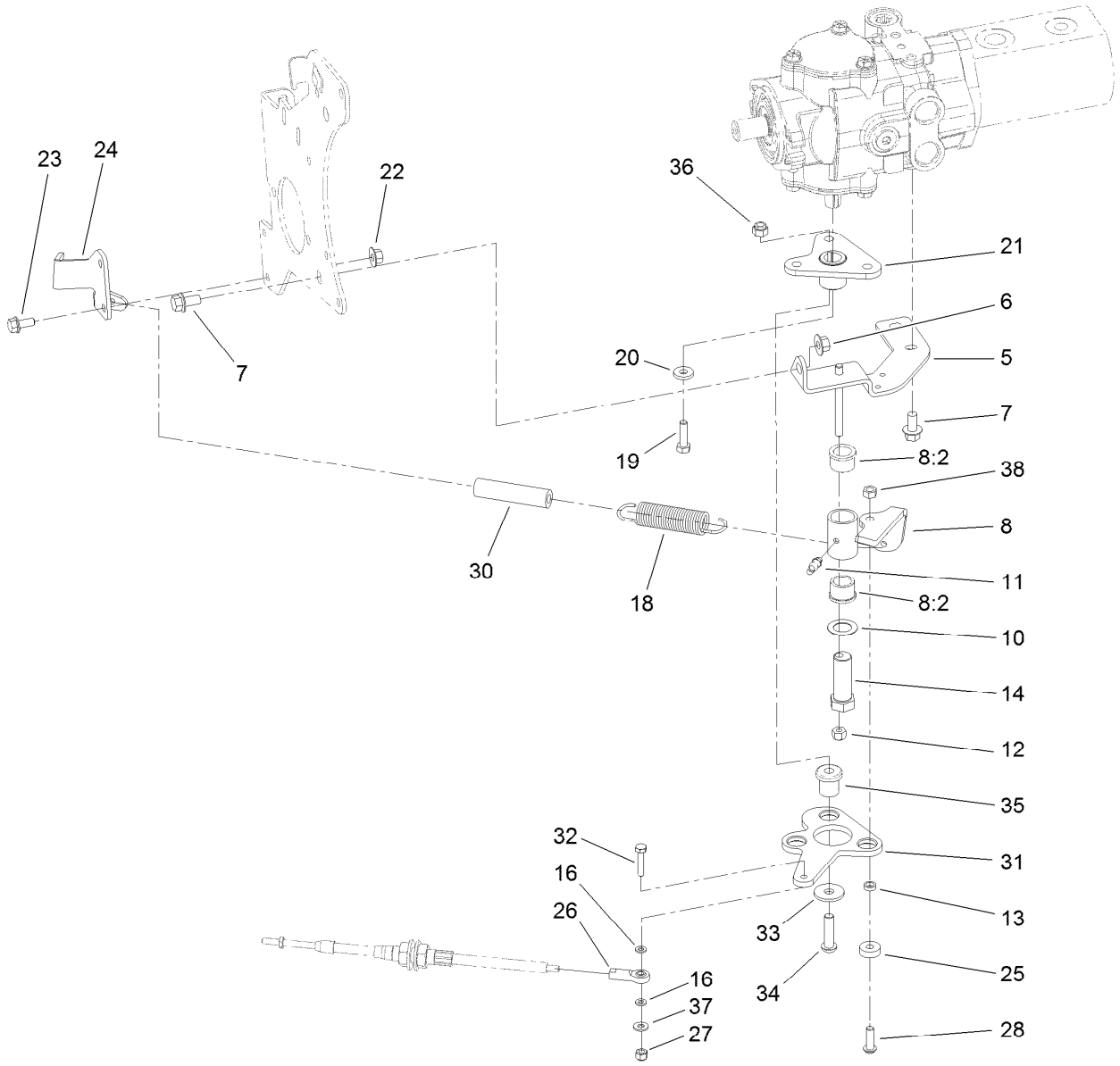
Ref.	Part Number	Qty.	Description
1	104-0402	1	Tube ASM
2	340-70	5	Nut-Lock
3	340-68	2	Fitting-Tee, Bulkhead
3:1	237-22	3	O-Ring
4	104-0407	1	Hose ASM
5	340-77	2	Fitting-HYD, 90 DEG
5:1	237-22	1	O-Ring
5:2	237-42	1	O-Ring
6	100-4891	1	Hose ASM
7	104-0403	1	Tube ASM
8	340-71	1	Fitting-Straight, Bulkhead
8:1	237-22	2	O-Ring
10	112-9916	1	HYD Cylinder ASM
11	3-6498	1	Washer-Thrust
13	340-74	3	Nut-Lock, Bulkhead
14	340-72	1	Fitting-Bulkhead, 90 DEG
14:1	237-65	2	O-Ring
15	100-4879	2	Hose ASM
16	115-3411	1	Hose ASM
17	104-0401	1	Tube ASM
18	104-0400	1	Tube ASM
19	104-0404	1	Tube ASM
20	99-3641	2	Clamp-Tube
21	3256-22	4	Washer-Flat
22	321-11	2	Screw-HH
23	3296-42	2	Nut-Lock, NI

Ref.	Part Number	Qty.	Description
24	95-8990	1	Shaft-Pivot, Rear
25	3220-9	1	Nut-Jam
26	86-1480	1	Washer
27	115-3473	1	Rear Liftarm ASM
27:1	69-6470	2	Bushing-Castor
28	3234-27	1	Screw-HHF
29	75-7730	1	Washer-Thrust
30	302-5	1	Fitting-Grease
31	100-4944	1	Shaft-Pivot, Cutting Unit
32	323-6	1	Screw-HH
33	323-4	1	Screw-HH
34	63-7400	1	Washer-Rebound
35	3-6781	1	Washer-Thrust
36	283-71	1	Pin-Lynch
42	104-0453-03	1	Guard
43	322-12	2	Screw-HH
44	322-3	2	Screw-HH
45	32128-20	4	Nut-HF
46	32120-93	3	Ring-Retaining
47	95-8575	1	Pin
49	3334-945	2	Cable Tie
50	104-4229	1	Rear Carrier Frame ASM
50:2	108-4000	2	Bushing
51	95-8936	1	Strip-Wear
52	3269-18	4	Rivet-Pop
53	302-60	1	Fitting-Grease



Hydraulic Cylinder Assembly No. 112-9916

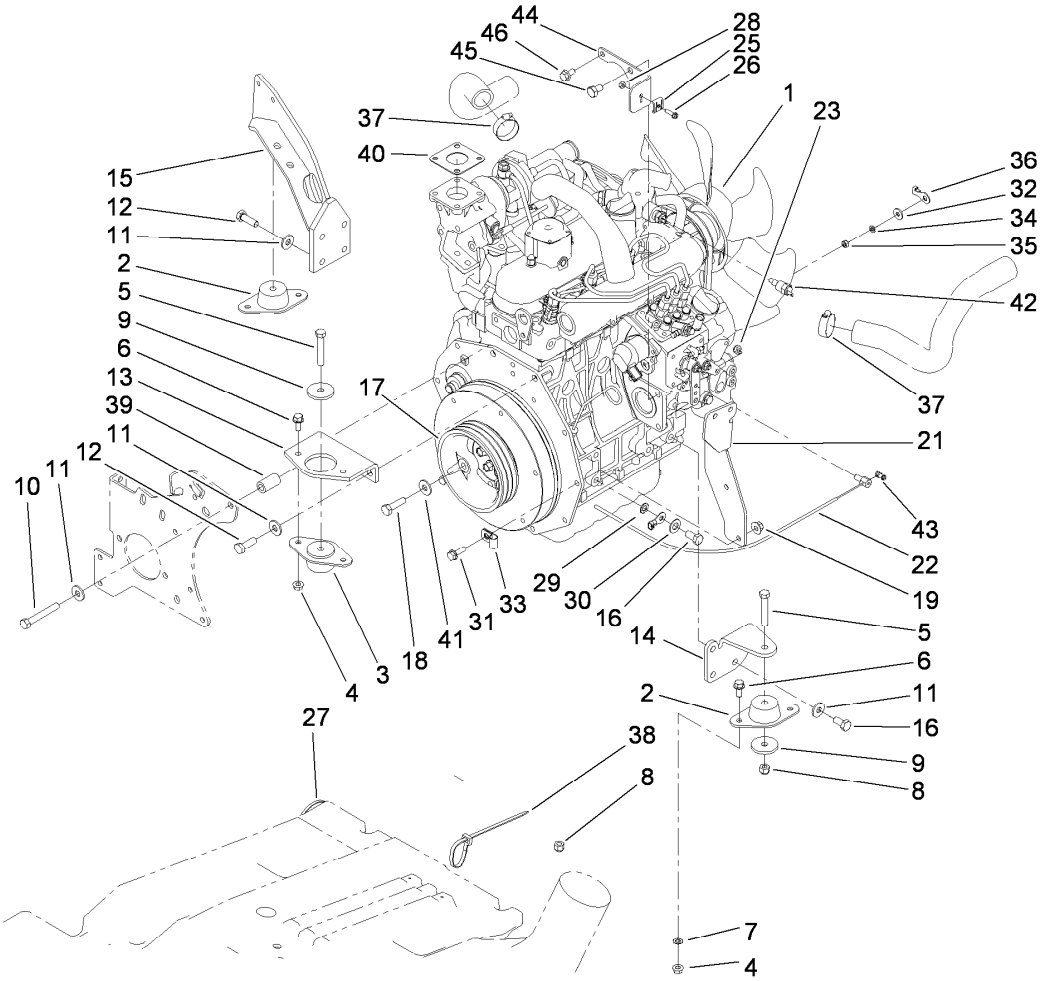
Ref.	*Part Number*	*Qty.*	*Description*
1	115-3410	1	Seal Kit
2	108-9035	1	Clevis
3	3220-7	1	Nut-Jam



Neutral Arm Assembly

Ref.	*Part Number*	*Qty.*	*Description*
5	95-8960-03	1	Bracket-Neutral
6	32128-43	1	Nut-Flange
7	3234-1	3	Screw-HHF
8	104-0422	1	Neutral Arm ASM
8:2	256-113	2	Bushing-Flange
10	3-6498	1	Washer-Thrust
11	302-60	1	Fitting-Grease
12	3296-29	1	Nut-Lock, NI
13	100-4817	1	Spacer-Bearing
14	76-8640	1	Stud-Traction
16	33093-00	2	Washer-Flat
18	94-1369	1	Spring-Extension
19	3210-6	1	Screw-HH
20	88-7200	1	Washer-Flat
21	99-3598-03	1	Hub ASM
22	32128-44	2	Nut

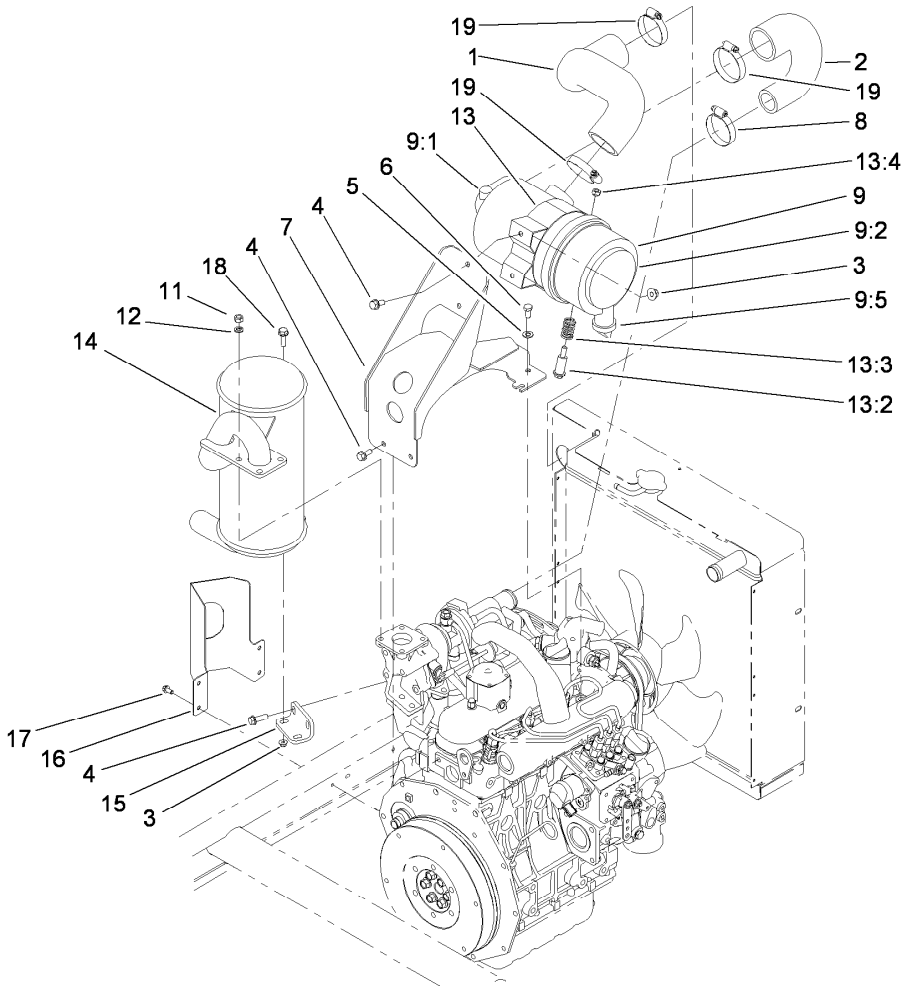
Ref.	*Part Number*	*Qty.*	*Description*
23	3234-5	2	Screw-HHF
24	104-0464-03	1	Bracket-Support, Cable
25	251-259	1	Bearing-Ball
26	2411-41	1	Rod End-Ball Joint
27	3296-42	1	Nut-Lock, NI
28	3274-104	1	Screw-HSBH
30	99-3556	1	Hose
31	99-3594-03	1	Lever-Pump
32	321-8	1	Screw-HH
33	2844	3	Washer
34	95-3857	3	Screw-HSBH
35	63-9750	3	Mount
36	3296-39	3	Nut-Lock, NI
37	3256-22	1	Washer-Flat
38	32153-3	1	Nut-Hex, Side Deform



Engine Assembly

Ref.	Part Number	Qty.	Description
1	112-9908	1	Engine ASM
2	83-1030	2	Mount-Engine
3	93-5265	1	Mount-Engine
4	32128-20	6	Nut-HF
5	323-11	3	Screw-HH
6	3234-5	6	Screw-HHF
7	3255-8	1	Washer-Lock
8	3296-39	3	Nut-Lock, NI
9	80-8560	3	Washer-Hardened
10	42-9370	1	Screw-HH
11	80-6990	9	Washer-Hardened
12	95-8812	5	Screw-HH
13	99-3618-03	1	Mount-Engine, Front
14	95-8937-03	1	Mount-Engine, LH
15	100-4838-03	1	Mount-Engine
16	63-7790	4	Screw-Cap
17	99-3626-03	1	Pulley
18	56-2140	3	Screw-HH
19	32128-44	2	Nut
21	115-3487-03	1	Bracket-Mount, Fuel Filter
22	98-9311	1	Swivel-Throttle
23	3296-20	1	Nut-Lock, NI

Ref.	Part Number	Qty.	Description
25	81-1690	1	Clamp-Cable
26	32105-13	1	Screw-HWH
27	3290-379	2	Tie-Cable
28	3296-2	1	Nut-Lock, NI
29	3255-9	1	Washer-Lock
30	3256-25	1	Washer-Flat
31	3234-17	2	Screw-HHF
32	3256-78	1	Washer-Flat
33	2412-10	1	R-Clamp
34	43-5930	1	Washer-Lock, Spring
35	48-7890	1	Nut-Hex
36	99-3441	1	Harness-Wire, Fusible Link
37	2412-34	2	Clamp-Hose
38	3290-378	14	Tie-Cable
39	95-8736	1	Spacer
40	98-9611	1	Gasket
41	3256-24	4	Washer-Flat
42	106-7772	1	Thermoswitch
43	112-9919	1	Stop-Cable, Throttle
44	110-9009-03	1	Bracket-Cable, Throttle
45	70-8470	1	Screw-HH
46	33104-016	1	Screw-HHF

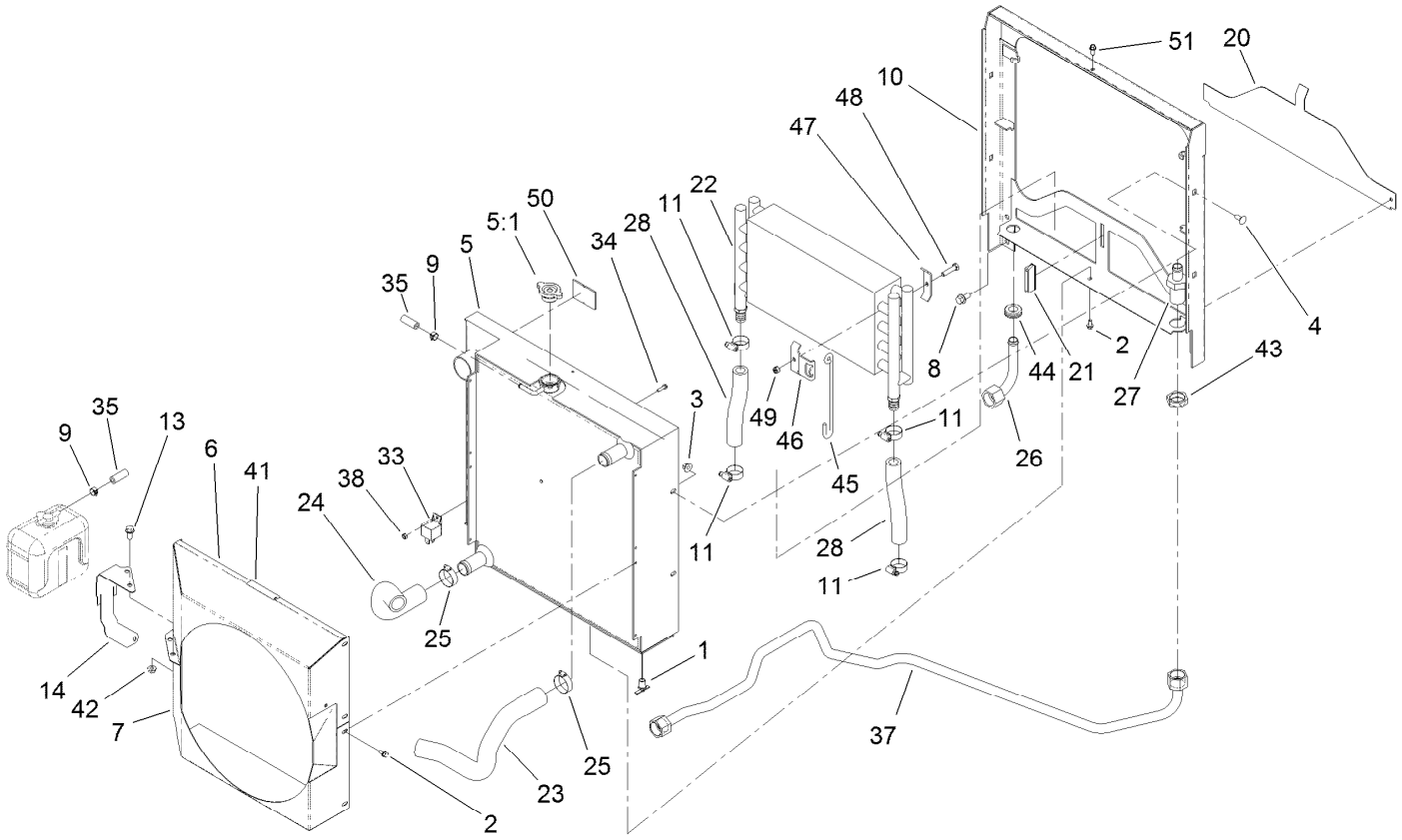


Air Cleaner and Muffler Assembly

Ref.	Part Number	Qty.	Description
1	104-0420	1	Hose-Air Intake, Upper
2	112-9910	1	Hose-Air Intake, Lower
3	32128-44	6	Nut
4	3234-5	3	Screw-HHF
5	3256-23	3	Washer-Flat
6	33114-016	3	Screw-HH
7	112-9926-03	1	Mount-Air Cleaner
8	2412-92	1	Clamp-Hose
9	100-4824	1	Air Cleaner ASM
9:1	285-17	1	Plug-Pipe
9:2	104-0497	1	Cover ASM
9:5	104-0498	1	Valve-Vacuator
9:6	108-3810	1	Filter-Air ●

Ref.	Part Number	Qty.	Description
9:7	104-4897	1	Gasket ●
11	33014-00	4	Nut-Hex
12	3253-4	4	Washer-Lock
13	100-4825	1	Band-Mounting, Air Cleaner
13:2	94-3653	1	Bolt
13:3	94-3654	1	Spring
13:4	48-9510	1	Nut
14	100-4810	1	Muffler
15	95-8943-03	1	Bracket-Muffler
16	99-3425-03	1	Guard-Exhaust
17	32144-4	4	Screw-HWH
18	3234-17	3	Screw-HHF
19	2412-130	3	Clamp-Hose

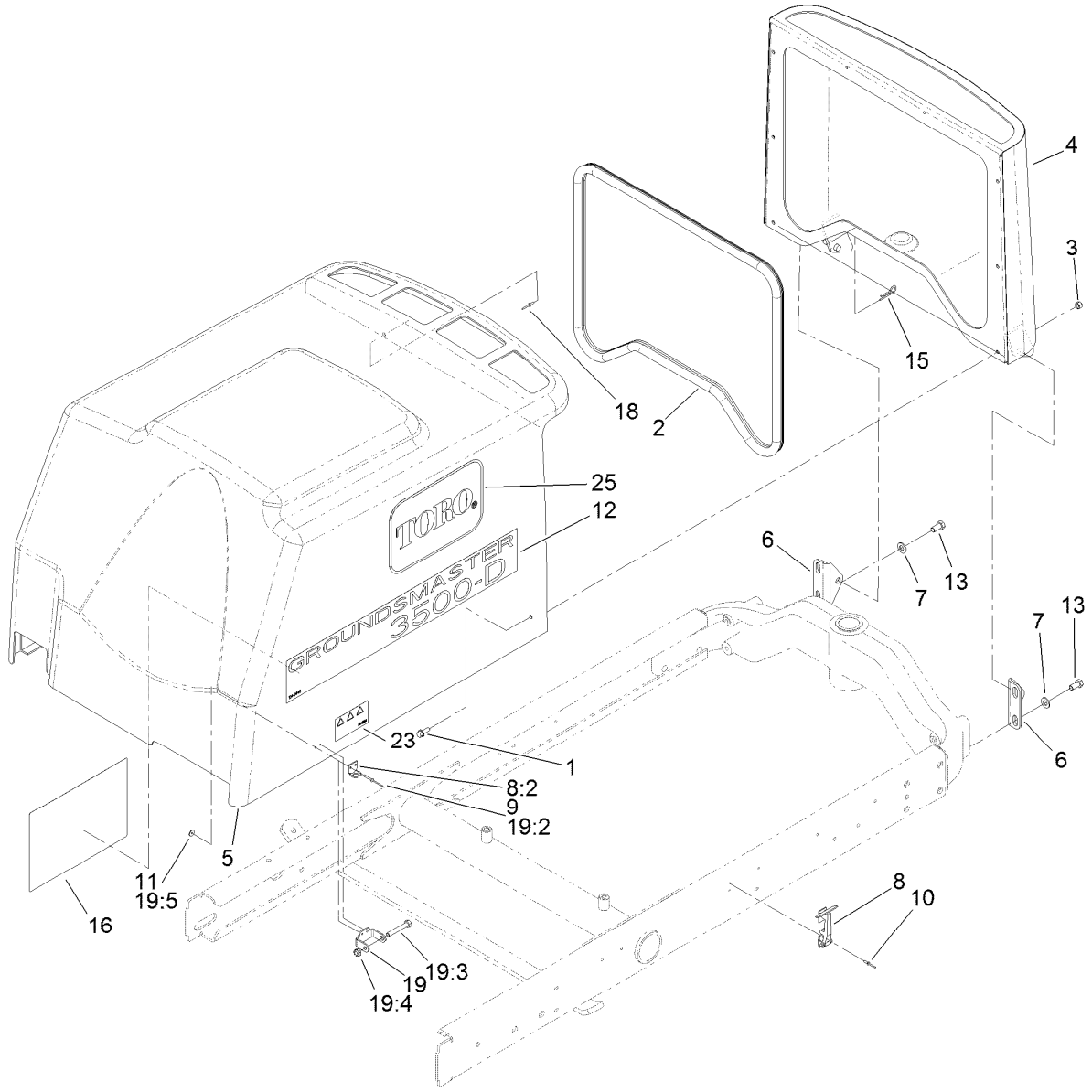
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Radiator Assembly

Ref.	Part Number	Qty.	Description
1	304-46	1	Draincock
2	32104-116	10	Screw-HF
3	32128-44	4	Nut
4	3230-1	4	Bolt-CARR
5	117-5135	1	Radiator
5:1	117-5138	1	Cap-Radiator
6	100-4885-03	1	Shroud-Fan, Top
7	119-2008-03	1	Shroud-Fan, Lower
8	3234-1	4	Screw-HHF
9	92-2379	2	Clamp-Hose
10	104-4855-03	1	Radiator Frame ASM
11	2412-129	4	Clamp-Hose
13	3234-5	2	Screw-HHF
14	100-4899-03	1	Bracket-Reservoir
20	95-8702-03	1	Shield-Radiator, Lower
21	99-3497	1	Magnet
22	100-4869	1	Cooler-Oil
23	104-0454	1	Hose-Radiator, Upper
24	100-4809	1	Hose-Radiator, Lower
25	2412-34	2	Clamp-Hose

Ref.	Part Number	Qty.	Description
26	99-3644	1	Filter Head Tube ASM
27	100-4925	1	Fitting-Bulkhead
28	99-3646	2	Hose-Cooler, Oil
33	99-7435	1	Relay-Power
34	32105-13	1	Screw-HWH
35	109-0274	1	Hose-Fuel
37	115-3489	1	Tube ASM
38	3296-2	1	Nut-Lock, NI
41	93-6681	1	Decal-Warning, Fan
42	32128-20	2	Nut-HF
43	340-126	1	Nut-Bulkhead
44	100-4866	1	Grommet
45	100-4858	2	Form-Wire
46	100-4859	2	Bracket-Cooler, Keeper
47	100-4860	2	Bracket-Clamp
48	322-17	2	Screw-HH
49	3296-47	2	Nut-Lock, NI
50	104-9459	2	Seal-Foam
51	119-2038	1	Screw-HWH

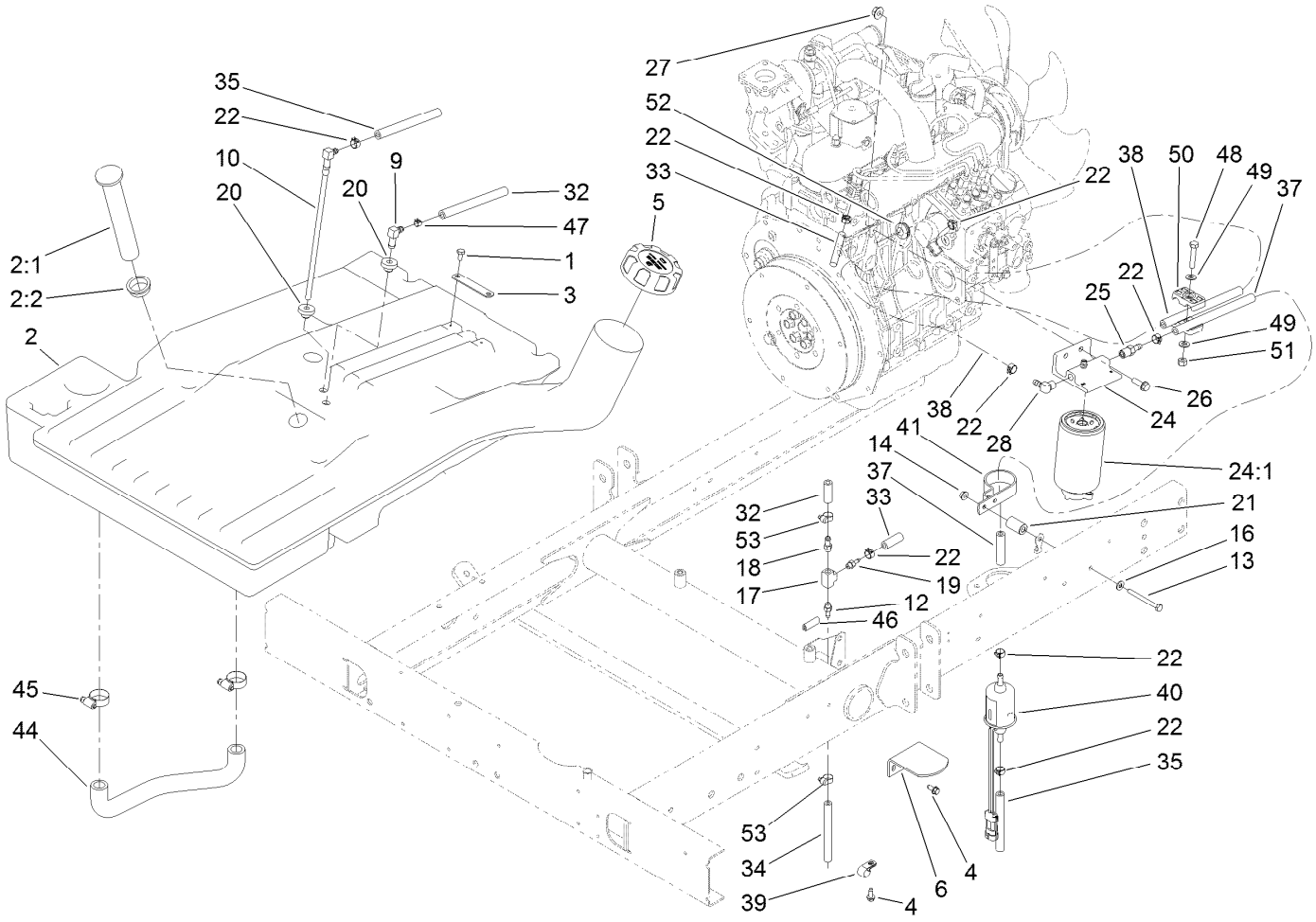


Hood and Screen Assembly

Ref.	Part Number	Qty.	Description
1	3234-4	6	Screw-HHF
2	100-4932	1	Trim-Seal
3	3296-42	6	Nut-Lock, NI
4	104-4853-03	1	Hood Screen ASM
5	100-4855	1	Hood
5:1	106-8115	1	Heat Tape Repair Kit ●
6	95-8728	2	Bracket-Pivot, Hood
7	3256-24	8	Washer-Flat
8	59-9740	2	Flex Draw Latch ASM
8:2	249-40	1	Keeper
9	107-0333	4	Rivet-Pop
10	3290-55	4	Rivet-Pop
11	3269-10	4	Washer-Back

Ref.	Part Number	Qty.	Description
12	104-5152	2	Decal-Hood
13	323-6	4	Screw-HH
15	3290-467	1	Pin-Hair
16	117-5103	1	Decal-Service
18	3269-21	2	Rivet-Pop
19	119-2004	1	Ce Latch Kit
19:2	107-0333	2	Rivet-Pop
19:3	322-10	1	Screw-HH
19:4	3296-47	1	Nut-Lock, NI
19:5	3269-10	2	Washer-Back
23	106-6754	1	Decal-Danger
25	66-6140	2	Decal

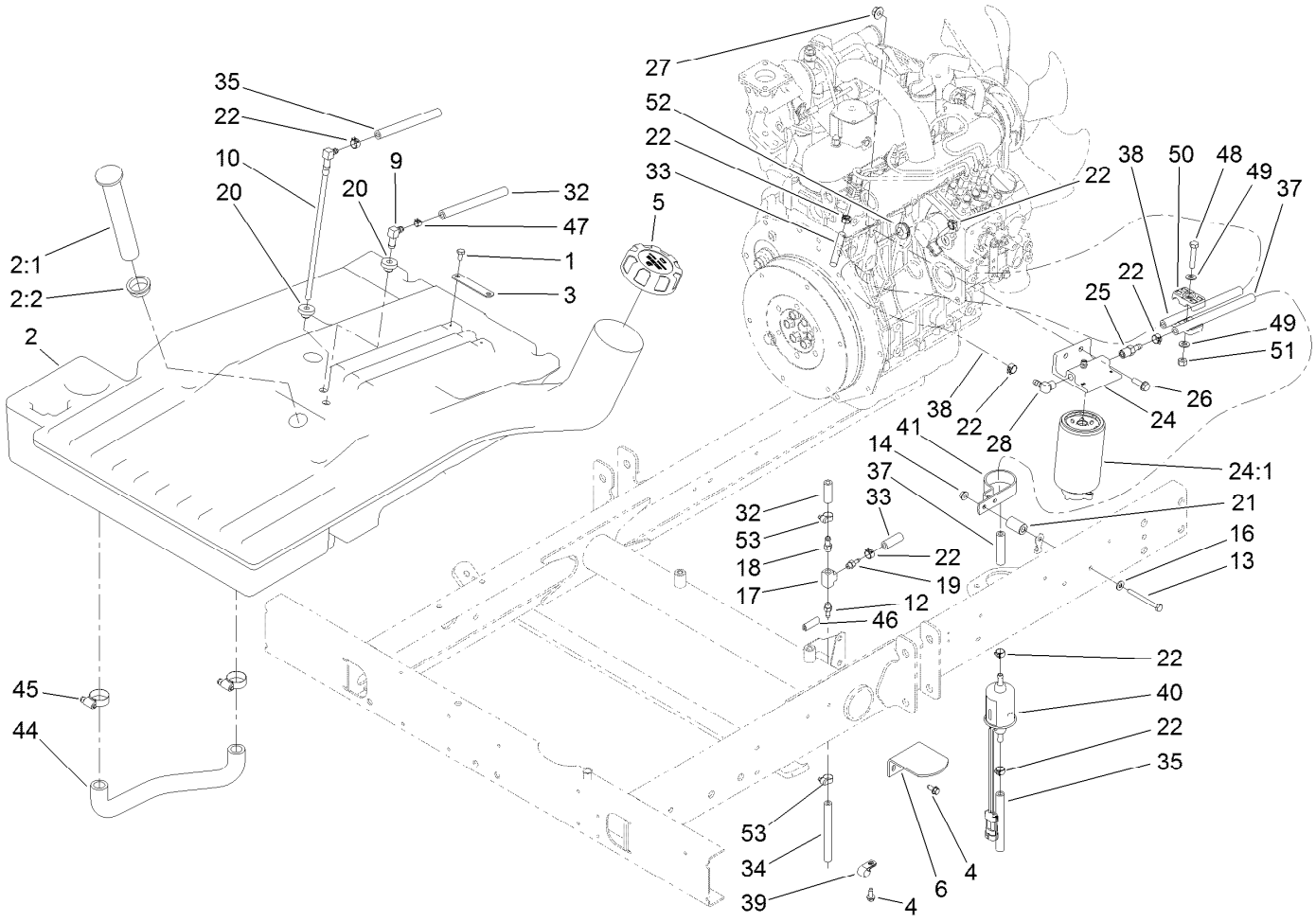
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Fuel System Assembly

Ref.	Part Number	Qty.	Description
1	321-2	2	Screw-HH
2	105-7865	1	Tank-Fuel
2:1	95-8971	1	Guage-Fuel
2:2	95-8972	1	Grommet
3	95-8881	1	Strap-Line, Fuel
4	32144-10	3	Screw-HWH
5	114-5064	1	Cap-Biodiesel
6	95-8968-03	1	Support-Tank, Fuel
9	46-6550	1	Fitting-Elbow, 90 DEG
10	110-9689	1	Pipe-Stand
12	304-73	1	Connector-Hose
13	321-14	1	Screw-HH
14	32128-33	1	Nut-HF
16	3256-22	1	Washer-Flat
17	354-20	1	Fitting-Tee
18	354-21	1	Fitting-Barbed
19	354-22	1	Fitting-Barbed
20	46-6560	2	Bushing
21	77-3180	1	Spacer
22	92-2379	7	Clamp-Hose
24	110-9044	1	Filter-Seperator

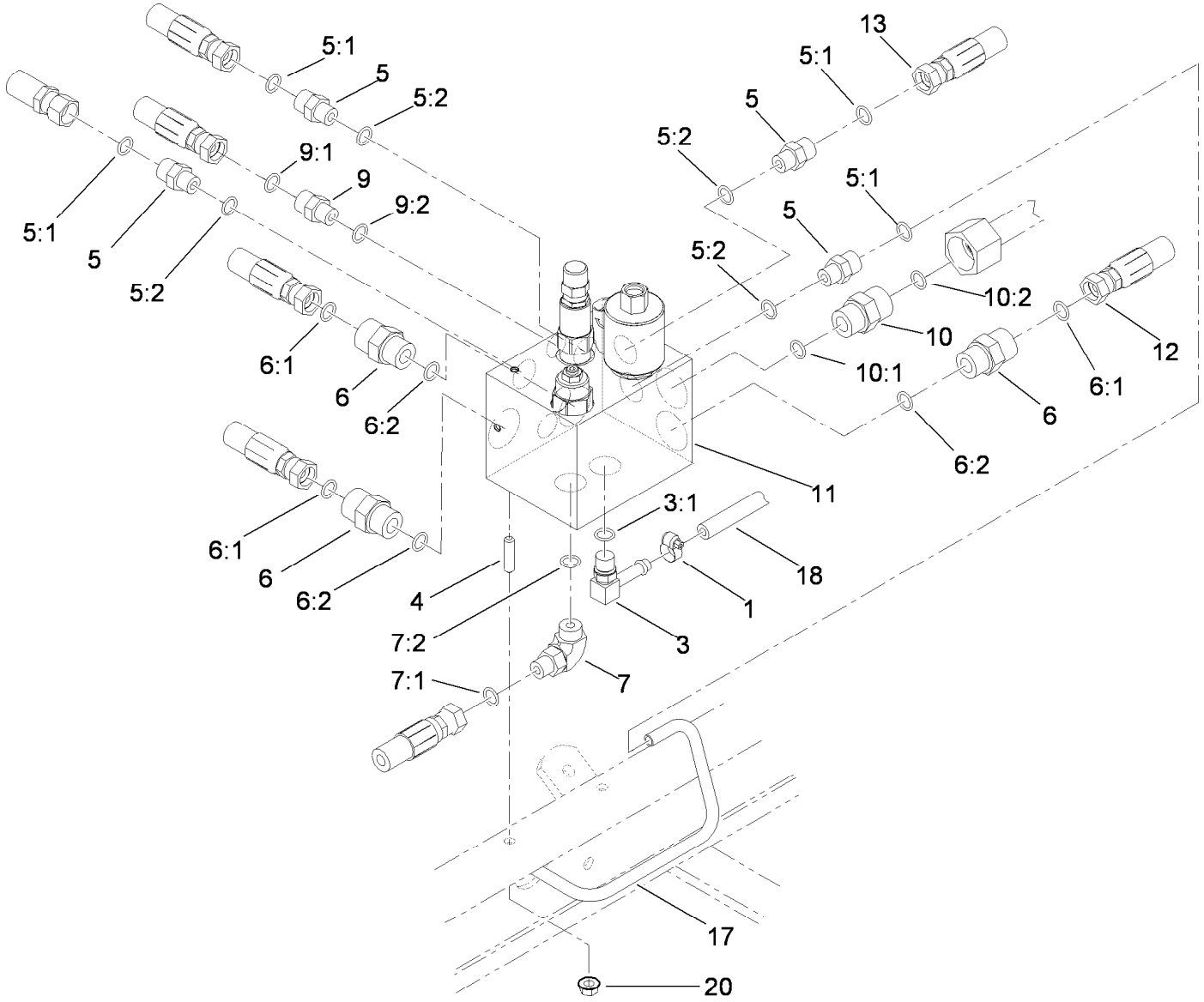
Ref.	Part Number	Qty.	Description
24:1	110-9049	1	Filter-Spin On
25	353-783	1	Fitting-Straight
26	3234-17	2	Screw-HHF
27	32128-44	2	Nut
28	353-781	1	Fitting-Elbow
32	110-6187	1	Hose-Fuel
33	110-8751	1	Hose-Fuel
34	110-5701	1	Hose-Fuel
35	110-4100	1	Hose-Fuel
37	110-4109	1	Hose-Fuel
38	110-4113	1	Hose-Fuel
39	2412-73	1	Clamp-R
40	110-8806	1	Pump-Fuel
41	110-8817	1	Bracket-Pump, Fuel
44	105-4094	1	Hose-Formed
45	2412-129	2	Clamp-Hose
46	110-8754	1	Trim
47	2412-80	2	Clamp-Hose
48	322-8	1	Screw-HH
49	3256-23	2	Washer-Flat
50	56-7971	2	Clamp-Tube



Fuel System Assembly (continued)

Ref.	Part Number	Qty.	Description
51	3296-29	1	Nut-Lock, NI

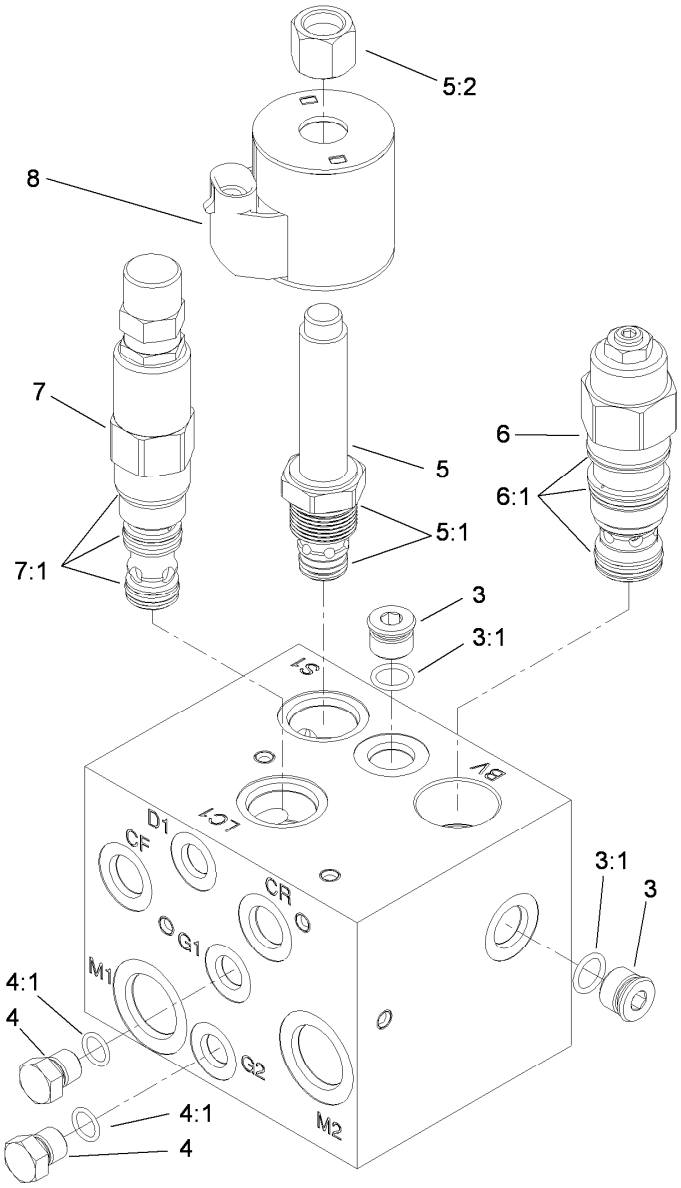
Ref.	Part Number	Qty.	Description
52	1-543296	1	Grommet
53	2412-108	2	Clamp-Worm



Manifold Block Installation Assembly

Ref.	*Part Number*	*Qty.*	*Description*
1	2412-36	1	Clamp-Hose
3	100-4887	1	Fitting-Barbed, 90 DEG
3:1	237-42	1	O-Ring
4	104-0430	2	Stud
5	340-2	4	Fitting-HYD, Straight
5:1	237-22	1	O-Ring
5:2	237-42	1	O-Ring
6	340-7	3	Adapter
6:1	237-65	1	O-Ring
6:2	237-80	1	O-Ring
7	340-77	1	Fitting-HYD, 90 DEG
7:1	237-22	1	O-Ring
7:2	237-42	1	O-Ring

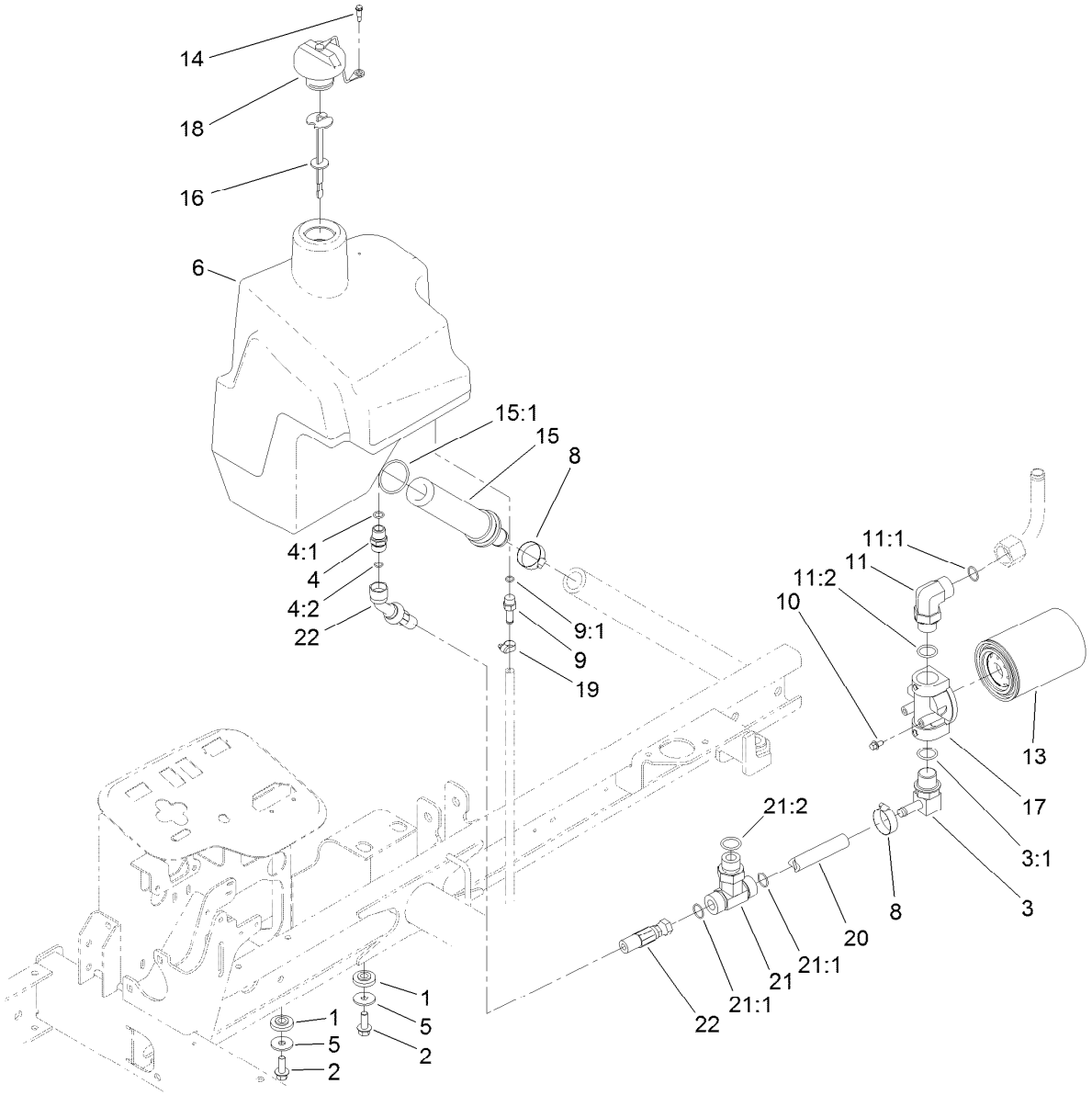
Ref.	*Part Number*	*Qty.*	*Description*
9	340-92	1	Fitting-HYD, Straight
9:1	237-78	1	O-Ring
9:2	237-21	1	O-Ring
10	340-66	1	Fitting-HYD
10:1	237-80	1	O-Ring
10:2	237-58	1	O-Ring
11	115-3486	1	Manifold Block ASM
12	104-0488	1	Hose ASM
13	92-7595	1	Hose ASM
17	100-4827	1	Tube ASM
18	80-7342	1	Hose ASM
20	32128-20	2	Nut-HF



Manifold Block Assembly No. 115-3486

Ref.	*Part Number*	*Qty.*	*Description*
3	106-1026	2	Plug-HYD
3:1	237-42	1	O-Ring
4	117-0115	2	Plug-HYD
4:1	237-78	1	O-Ring
5	110-8768	1	Valve-Relief, Solenoid
5:1	110-6316	1	Seal Kit ●
5:2	110-2635	1	Nut-Coil
6	117-5110	1	Valve-Counterbalance
6:1	117-5111	1	Seal Kit
7	119-2011	1	Valve-Logic, Adjustable
7:1	119-2159	1	Seal Kit
8	110-6344	1	Coil-12V, Dc

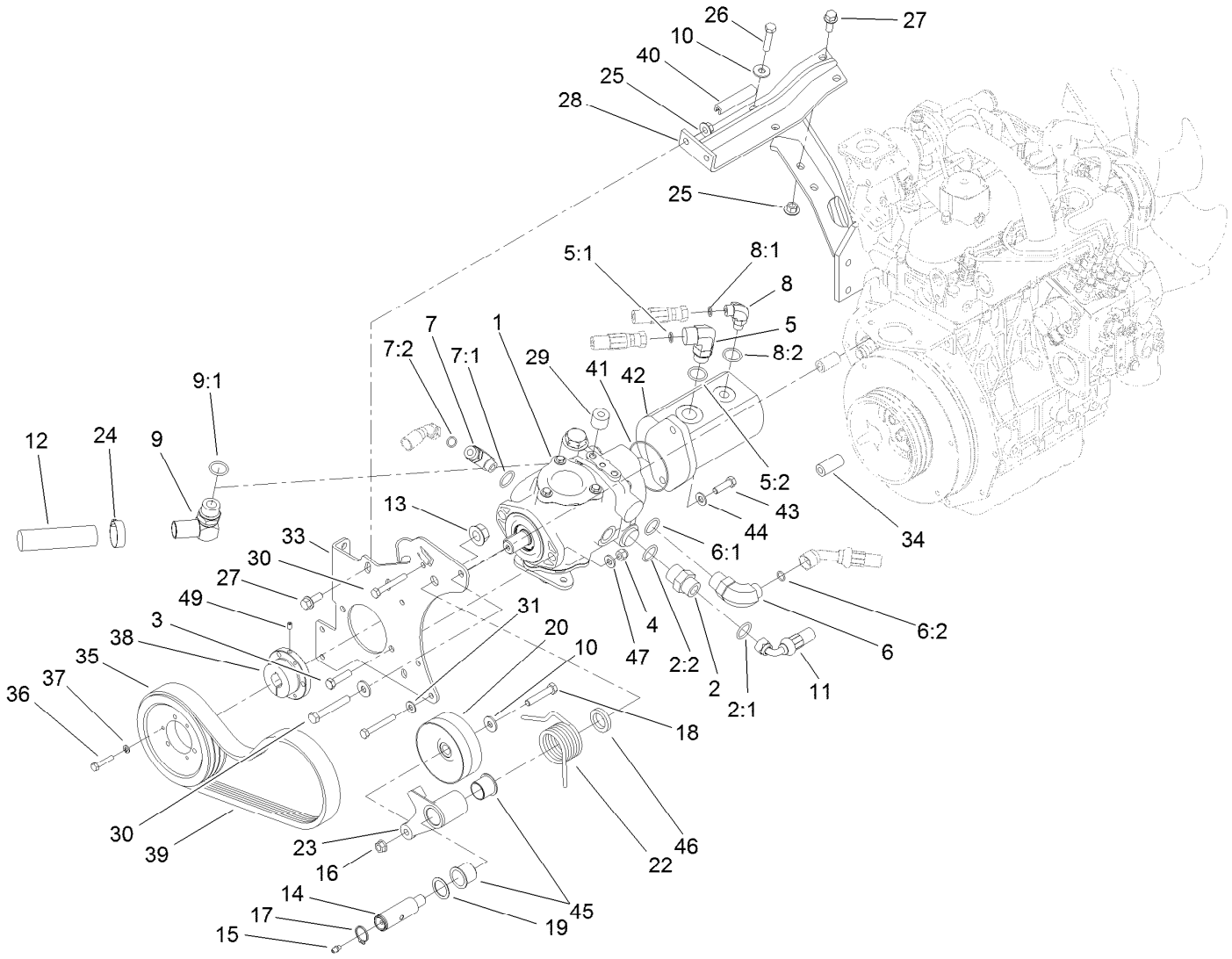
● Not illustrated



Hydraulic Tank Assembly

Ref.	Part Number	Qty.	Description
1	240-11	4	Bushing-Flange
2	3234-11	4	Screw-HHF
3	353-987	1	Fitting-HYD, 90 DEG (Barbed)
3:1	237-81	1	O-Ring
4	100-4890	1	Fitting-Check
4:1	237-79	1	O-Ring
4:2	237-30	1	O-Ring
5	63-8410	4	Washer
6	104-4840	1	Tank-HYD
8	2412-34	2	Clamp-Hose
9	353-979	1	Fitting-Straight
9:1	237-42	1	O-Ring
10	3234-13	2	Screw-HHF
11	340-142	1	Fitting-HYD, 90 DEG

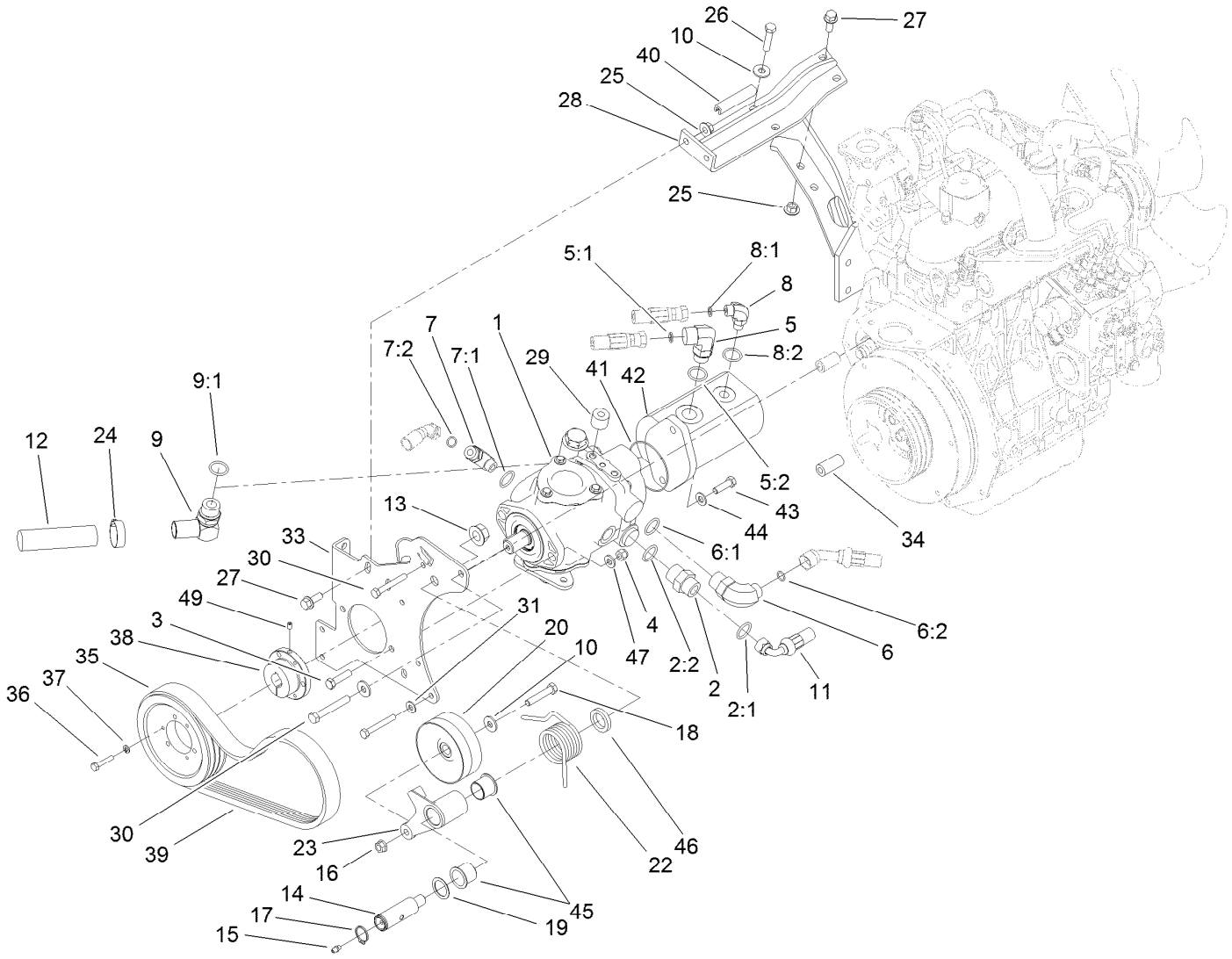
Ref.	Part Number	Qty.	Description
11:1	237-58	1	O-Ring
11:2	237-81	1	O-Ring
13	86-3010	1	Filter-Oil
14	57-5420	1	Screw-Shoulder
15	104-7546	1	Strainer-Tank
15:1	340-136	1	O-Ring
16	119-6968	1	Dipstick-Oil
17	92-5821	1	Filter Head ASM
18	93-7160	1	Cap-Oil, HYD
19	2412-36	1	Clamp-Hose
20	104-0486	1	Hose ASM
21	104-4836	1	Fitting-Tee
21:1	237-58	2	O-Ring
21:2	237-81	1	O-Ring
22	104-0487	1	Hose ASM



Hydrostat Assembly

Ref.	Part Number	Qty.	Description
1	104-4890	1	Piston Pump ASM
2	340-8	1	Adapter
2:1	237-65	1	O-Ring
2:2	237-81	1	O-Ring
3	323-8	2	Screw-HH
4	3296-39	2	Nut-Lock, NI
5	340-17	1	Fitting-HYD, 90 DEG
5:1	237-65	1	O-Ring
5:2	237-80	1	O-Ring
6	340-139	1	Fitting-HYD, 90 DEG
6:1	237-81	1	O-Ring
6:2	237-65	1	O-Ring
7	340-18	1	Fitting-HYD, 90 DEG
7:1	237-79	1	O-Ring
7:2	237-22	1	O-Ring
8	340-77	1	Fitting-HYD, 90 DEG
8:1	237-22	1	O-Ring
8:2	237-42	1	O-Ring
9	95-3502	1	Fitting-Elbow
9:1	237-81	1	O-Ring
10	80-6990	3	Washer-Hardened

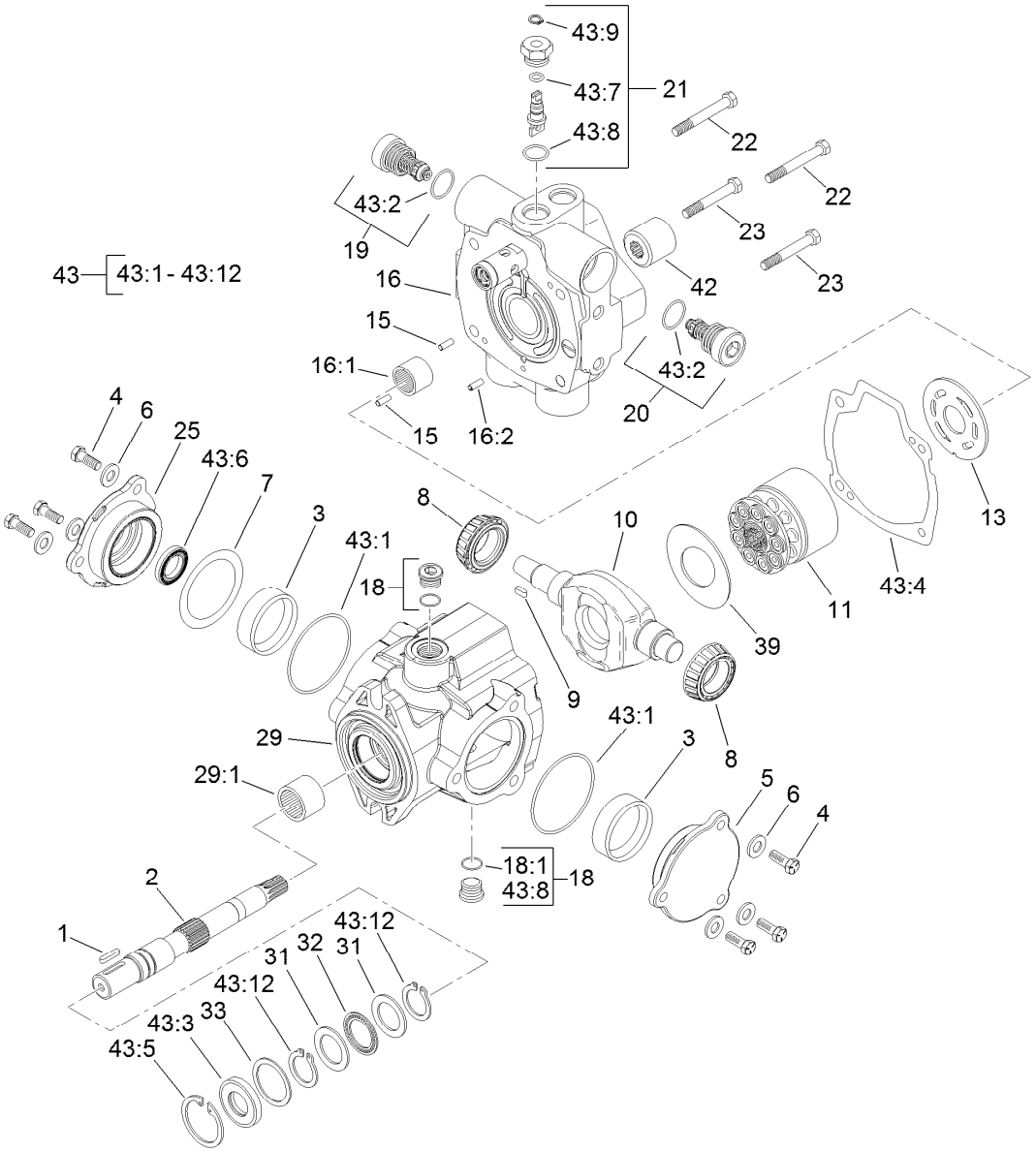
Ref.	Part Number	Qty.	Description
11	105-1214	1	Hose ASM
12	104-5486	1	Hose
13	32128-54	1	Nut-HF
14	99-3624	1	Shaft-Pivot, Idler
15	302-5	1	Fitting-Grease
16	32128-21	1	Nut-HF
17	32151-36	1	Ring-Retaining
18	323-10	1	Screw-HH
19	74-1810	1	Washer
20	107-7834	1	Pulley-Idler
22	115-3488	1	Spring-Torsion
23	99-3623-03	1	Arm-Idler
24	2412-34	1	Clamp-Hose
25	32128-43	4	Nut-Flange
26	323-19	2	Screw-HH
27	3234-11	4	Screw-HHF
28	99-3436-03	1	Support-Pump
29	99-3440	2	Spacer
30	33114-060	4	Screw-HH
31	87-8640	3	Washer-Flat
33	95-8933-03	1	Plate-Mount, Pump



Hydrostat Assembly (continued)

Ref.	Part Number	Qty.	Description
34	95-8941	4	Spacer-Mount, Pump
35	99-3620	1	Pulley-3V, Pump
36	321-13	3	Screw-HH
37	3253-3	3	Washer-Lock
38	100-4813	1	Bushing-Lock, Taper
39	99-3619	1	Belt-3V
40	70-2041	1	Trim
41	353-949	1	O-Ring

Ref.	Part Number	Qty.	Description
42	108-9036	1	HYD Gear Pump ASM
43	323-7	2	Screw-HH
44	3256-24	2	Washer-Flat
45	99-3631	2	Bushing-Flange
46	99-3625	1	Spacer-Arm, Idler
47	100-4852	2	Washer-Hardened
49	3245-7	1	Screw-Set



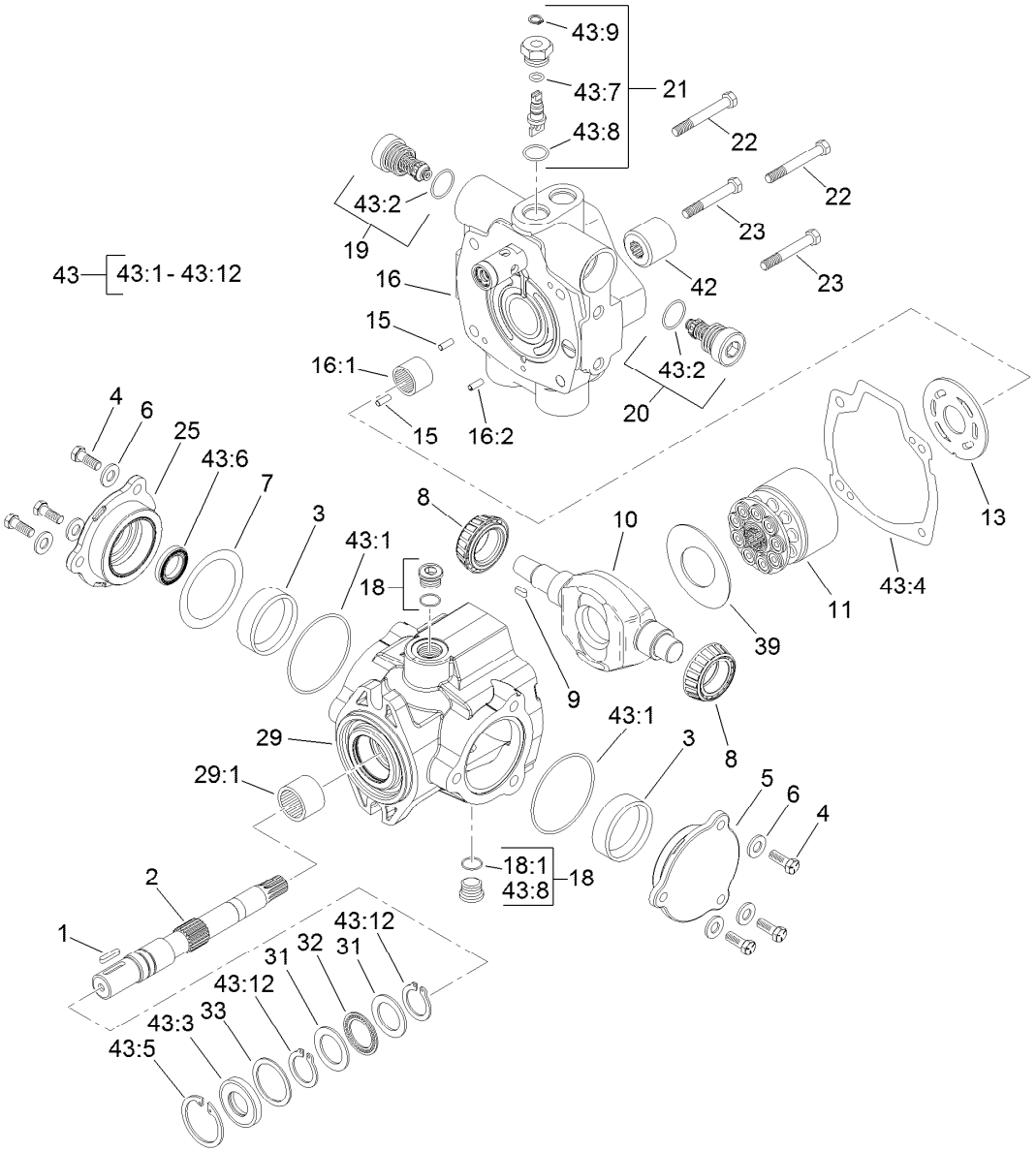
Hydraulic Pump Assembly No. 104-4890

Ref.	Part Number	Qty.	Description
1	94-3645	1	Key
2	94-6359	1	Shaft-Drive
3	104-4046	2	Bearing-Cup
4	98-4640	6	Screw-Cap
5	98-4644	1	Plate-Cover
6	105-9762	6	Washer
7	100-3182	2	Shim Kit
8	98-4639	2	Bearing-Cone
9	94-3646	1	Key
10	104-4888	1	Swashplate
11	76-6070	1	Rotating Kit
13	104-0429	1	Plate-Valve
15	76-6150	2	Pin-Dowel
16	105-3813	1	Endcover Sub ASM
16:1	94-6368	1	Bearing
16:2		1	Pin-Roll ■
18	74-9280	2	Plug ASM
18:1		1	Ring-Retaining ■

Ref.	Part Number	Qty.	Description
19	104-4889	1	Relief Valve ASM
20	105-3812	1	Valve-Check
21	105-3811	1	Valve-Bypass
22	76-6170	2	Capscrew
23	76-6160	2	Capscrew
25	98-4645	1	Plate-Cover
29	100-3176	1	Housing ASM
29:1	94-6363	1	Bearing
31	252-71	2	Washer-Thrust
32	252-66	1	Bearing-Thrust
33	33-3720	1	Washer
39	98-4635	1	Insert-Plate, Cam
42	74-9040	1	Coupler
43	120-5754	1	Seal Kit
43:1		2	Ring-Retaining ■
43:2		2	Ring-Retaining ■
43:3		1	Seal-Shaft ■
43:4		1	Gasket ■

● Not illustrated

■ Not serviced separately



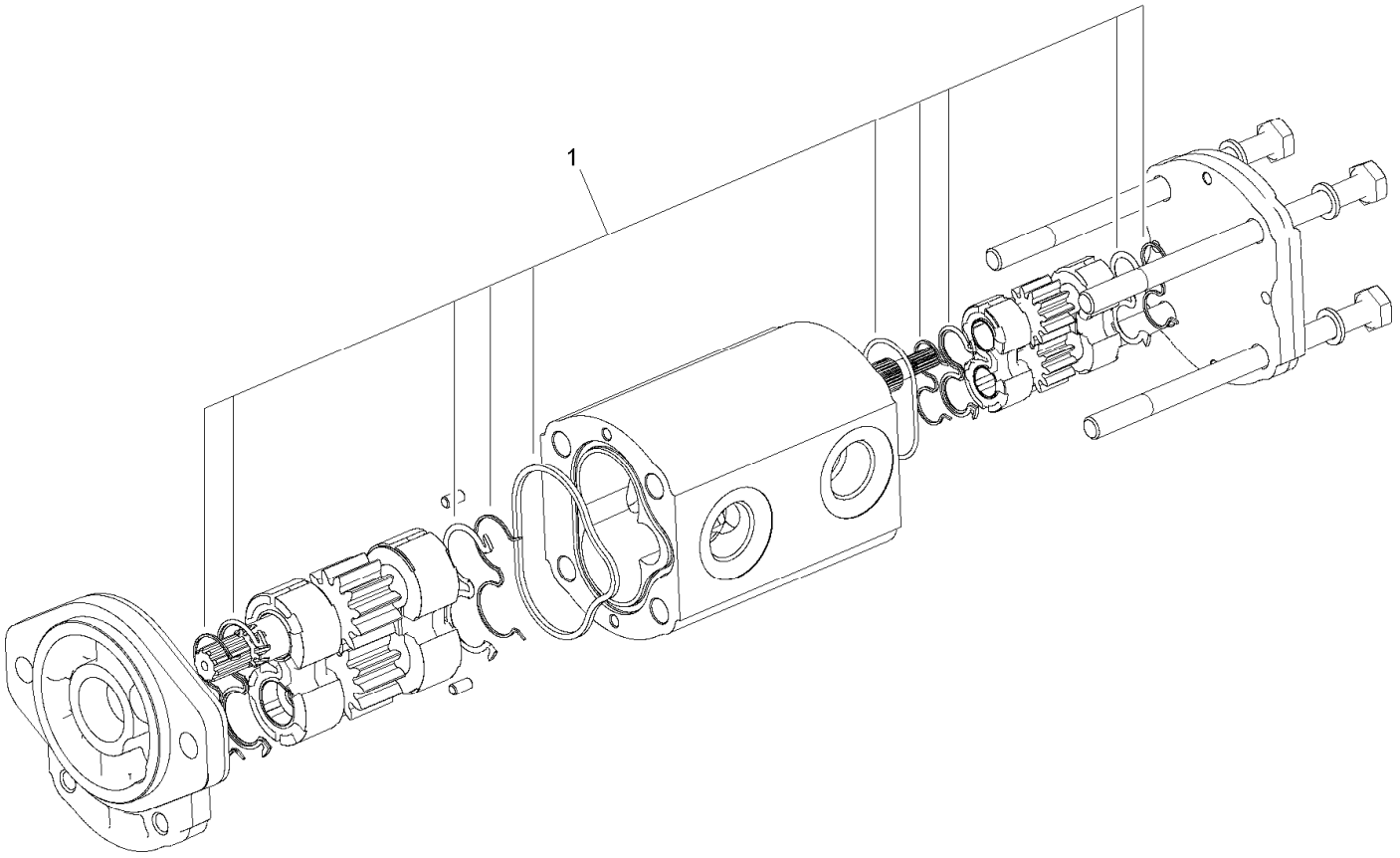
Hydraulic Pump Assembly No. 104-4890 (continued)

Ref.	Part Number	Qty.	Description
43:5		1	Ring-Retaining ■
43:6		1	Seal-Shaft ■
43:7		1	Ring-Retaining ■
43:8		5	Ring-Retaining ■
43:9		1	Ring-Retaining ■
43:10		1	O-Ring (Not Used For This Configuration) ■●

Ref.	Part Number	Qty.	Description
43:11		1	O Ring-Molded (Not Used For This Configuration) ■●
43:12		2	Ring-Retaining ■
43:13		1	O-Ring (Not Used For This Configuration) ■●

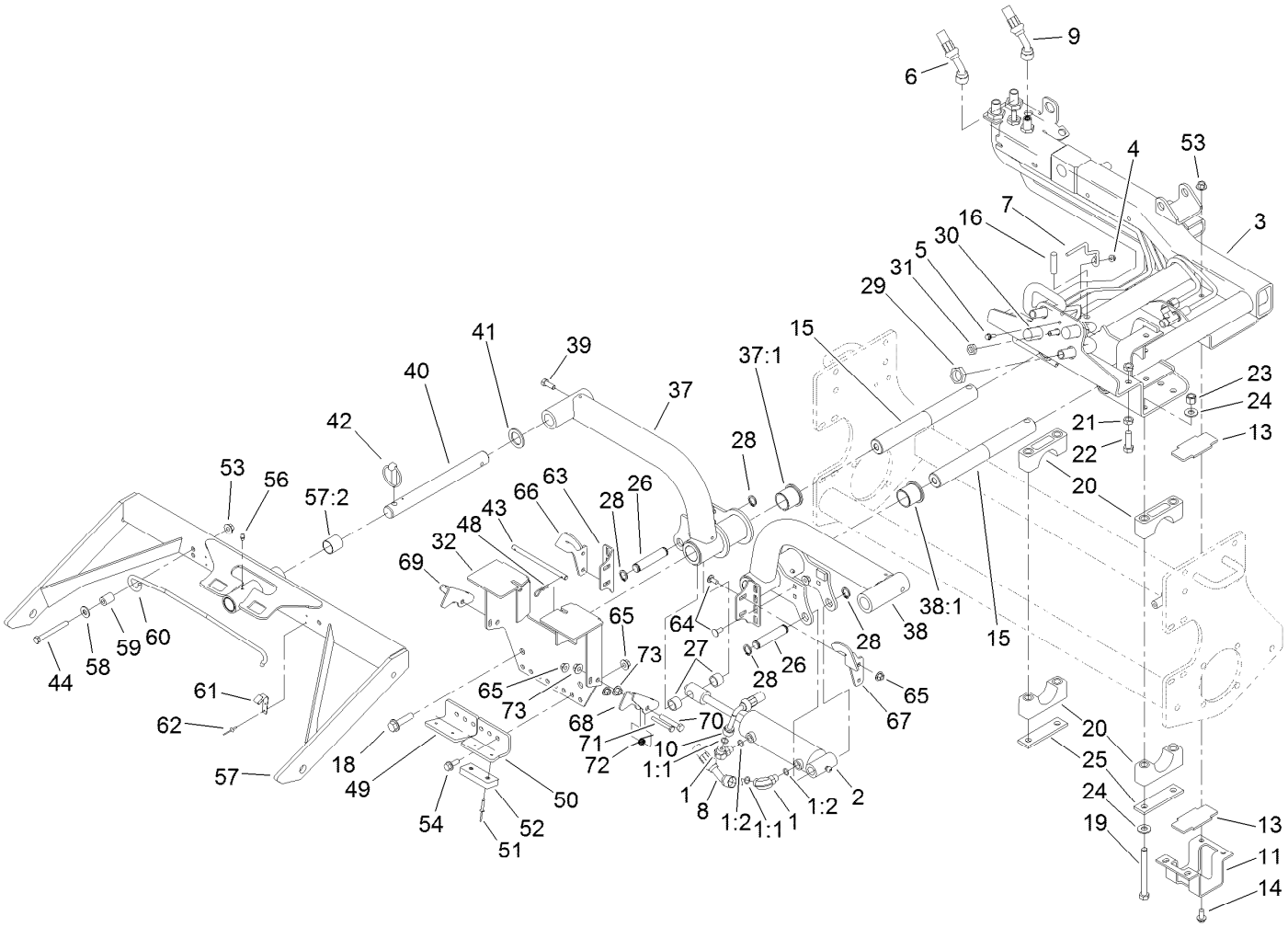
● Not illustrated

■ Not serviced separately



Hydraulic Gear Pump Assembly No. 108-9036

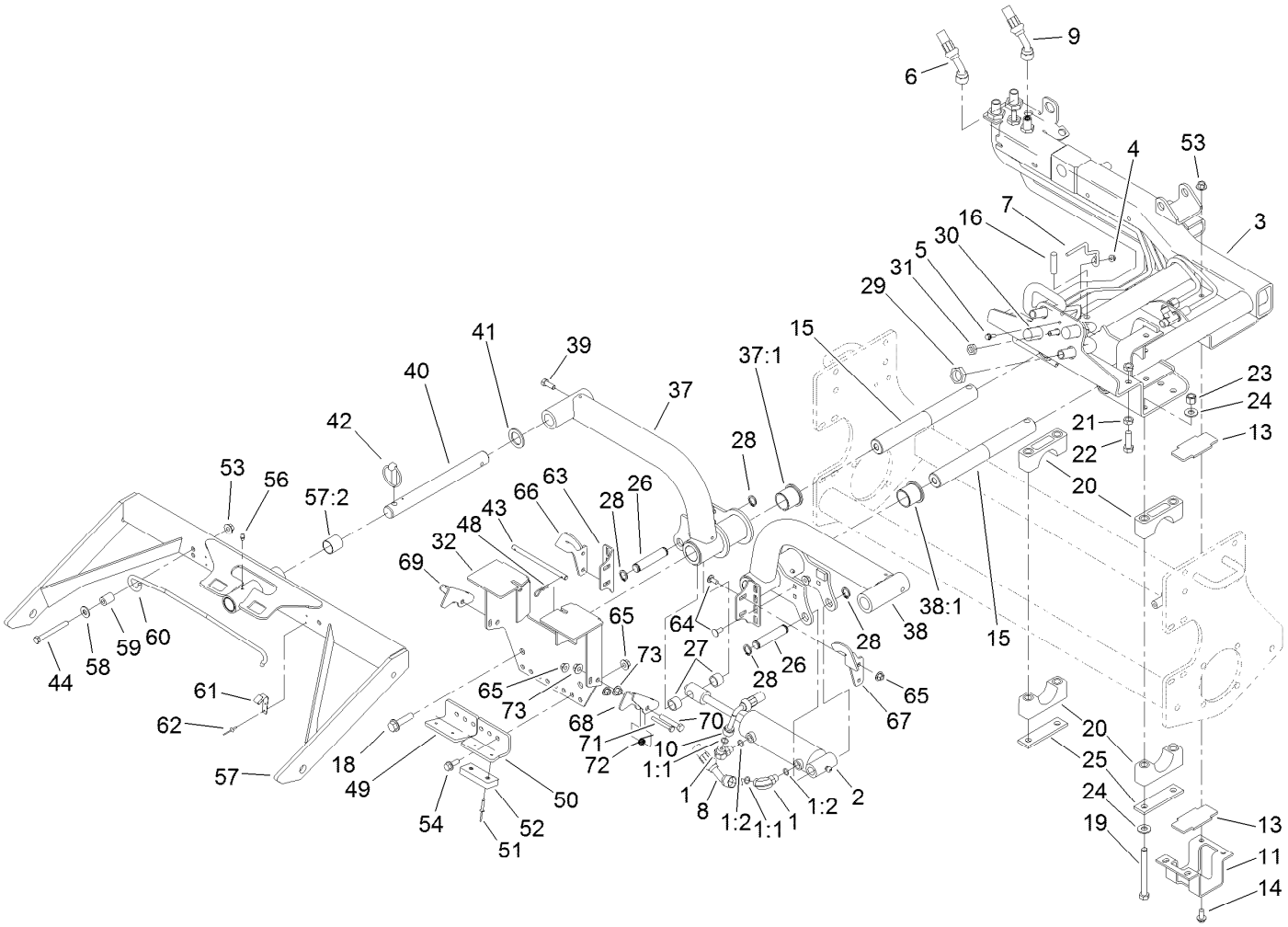
Ref.	*Part Number*	*Qty.*	*Description*
1	110-8755	1	Seal Kit



Carrier Assembly

Ref.	Part Number	Qty.	Description
1	340-77	2	Fitting-HYD, 90 DEG
1:1	237-22	1	O-Ring
1:2	237-42	1	O-Ring
2	112-9916	1	HYD Cylinder ASM
3	100-4939-03	1	Sidewinder Carrier ASM
4	32128-33	1	Nut-HF
5	3234-4	1	Screw-HHF
6	95-8822	1	Hose ASM
7	99-3433	1	Wire-Center
8	104-0405	1	Hose ASM
9	95-8821	1	Hose ASM
10	104-0406	1	Hose ASM
11	104-0416-03	1	Bracket-Slide
13	104-0417	2	Slide-Plastic
14	3234-11	4	Screw-HHF
15	95-8531	2	Shaft-Pivot, Liftarm
16	32121-122	2	Pin-Roll
18	3234-27	2	Screw-HHF
19	325-19	8	Screw-HH
20	104-4865	8	Cap-Bearing
21	3218-5	4	Nut-Jam

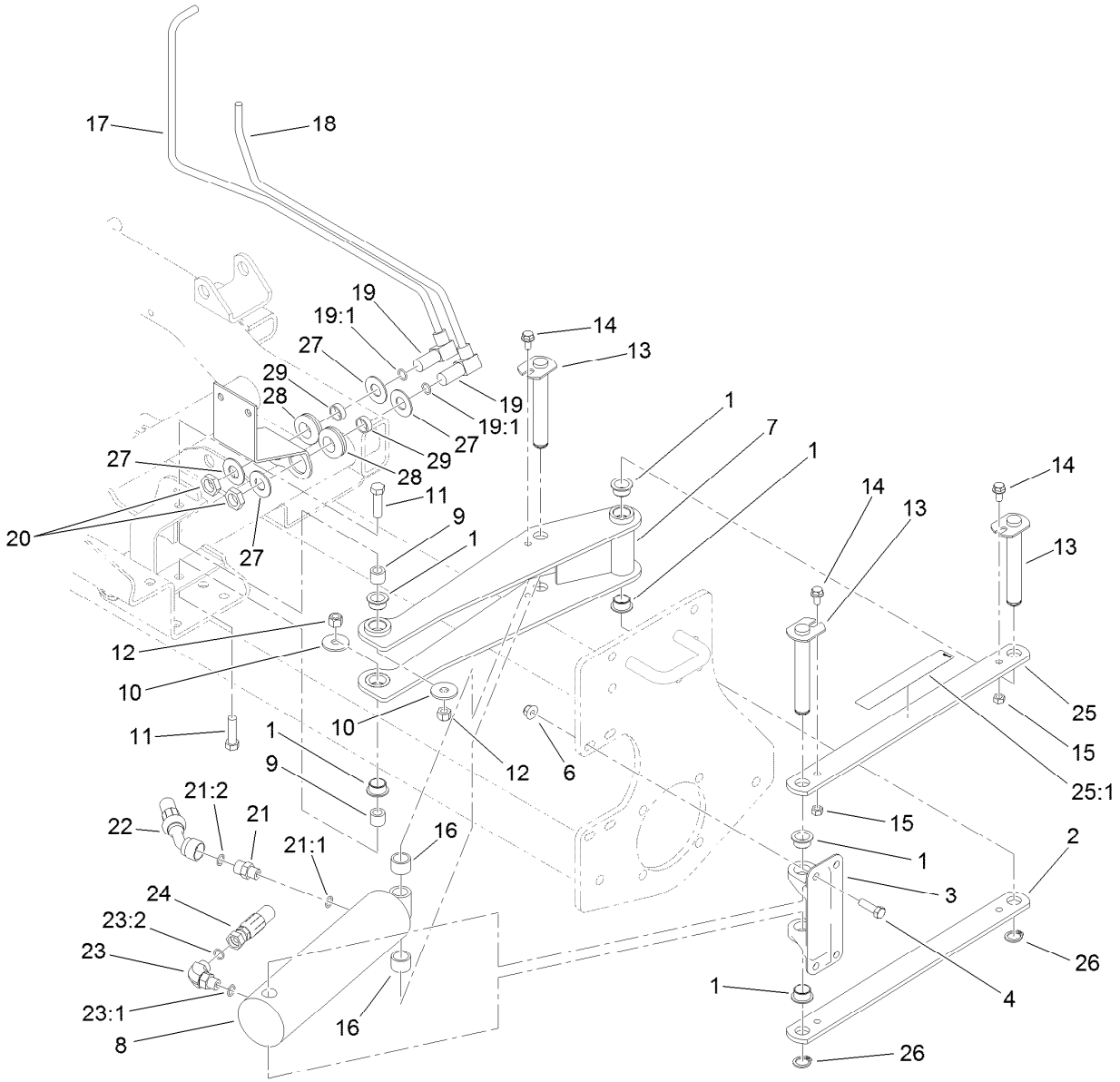
Ref.	Part Number	Qty.	Description
22	325-7	2	Screw-HH
23	3296-23	8	Nut-Lock, NI
24	87-7270	16	Washer-Thrust
25	99-3373	4	Bar-Support, Slide
26	95-8575	2	Pin
27	75-9590	2	Spacer-Cylinder
28	32120-93	4	Ring-Retaining
29	340-74	4	Nut-Lock, Bulkhead
30	99-3640	1	Tube ASM
31	340-78	1	Nut-Lock, Bulkhead
32	104-4820-03	1	Bracket-Stop, Carrier
37	115-3462	1	RH Liftarm ASM
37:1	69-6470	2	Bushing-Castor
38	115-3461	1	LH Liftarm ASM
38:1	69-6470	2	Bushing-Castor
39	323-6	2	Screw-HH
40	95-8979	2	Shaft
41	3-6781	2	Washer-Thrust
42	283-71	2	Pin-Lynch
43	104-0472	1	Rod
44	323-42	2	Screw-HH



Carrier Assembly (continued)

Ref.	Part Number	Qty.	Description
48	3290-467	2	Pin-Hair
49	110-8793-03	1	Stop-Deck, RH
50	110-8794-03	1	Stop-Deck, LH
51	3269-11	4	Rivet-Pop
52	86-5350	2	Bumper-Rubber
53	104-8301	6	Nut-Flange, NI
54	3234-11	4	Screw-HHF
56	302-5	2	Fitting-Grease
57	110-8787	2	Front Carrier Frame ASM
57:2	108-4000	2	Bushing
58	93-8806	2	Washer-Hardened
59	104-4613	2	Tube-Latch
60	104-4612	2	Rod-Latch

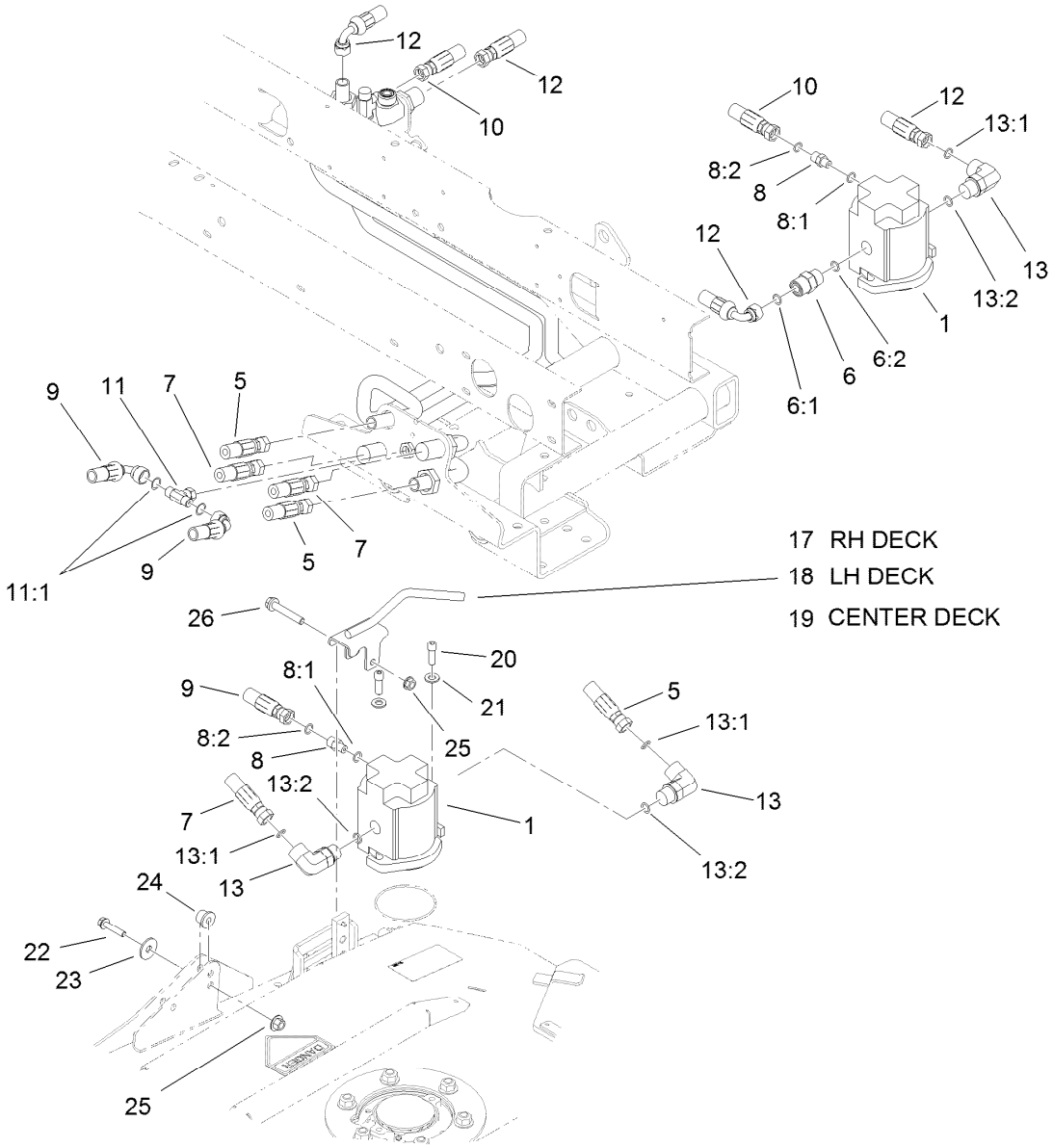
Ref.	Part Number	Qty.	Description
61	104-4237	2	Clip-Rod
62	3290-271	4	Rivet-Pop
63	104-4828-03	2	Bracket-Actuator
64	3230-23	8	Screw-CARR
65	32128-44	12	Nut
66	104-4826-03	1	Actuator-RH
67	104-4827-03	1	Actuator-LH
68	104-4819-03	1	Bracket-Pivot, LH
69	104-4825-03	1	Bracket-Pivot, RH
70	323-11	2	Screw-HH
71	322-11	2	Screw-HH
72	104-4821	2	Spring-Torsion
73	32128-43	8	Nut-Flange



Scissor Assembly

Ref.	Part Number	Qty.	Description
1	95-8526	6	Bushing-Plastic
2	95-8527-03	1	Link-Scissor
3	95-8883	1	Mount-Scissor
4	323-7	4	Screw-HH
6	104-8301	4	Nut-Flange, NI
7	95-8521-03	1	Frame-Scissor
8	95-8512	1	Cylinder-HYD
9	95-8603	2	Spacer
10	87-5330	2	Washer
11	324-6	2	Screw-HH
12	3296-48	2	Nut-Lock, NI
13	95-8529	3	Pin
14	3234-14	3	Screw-HHF
15	32152-1	3	Nut-Lock, Cone
16	46-6350	2	Spacer
17	95-8790	1	Tube ASM
18	95-8791	1	Tube ASM

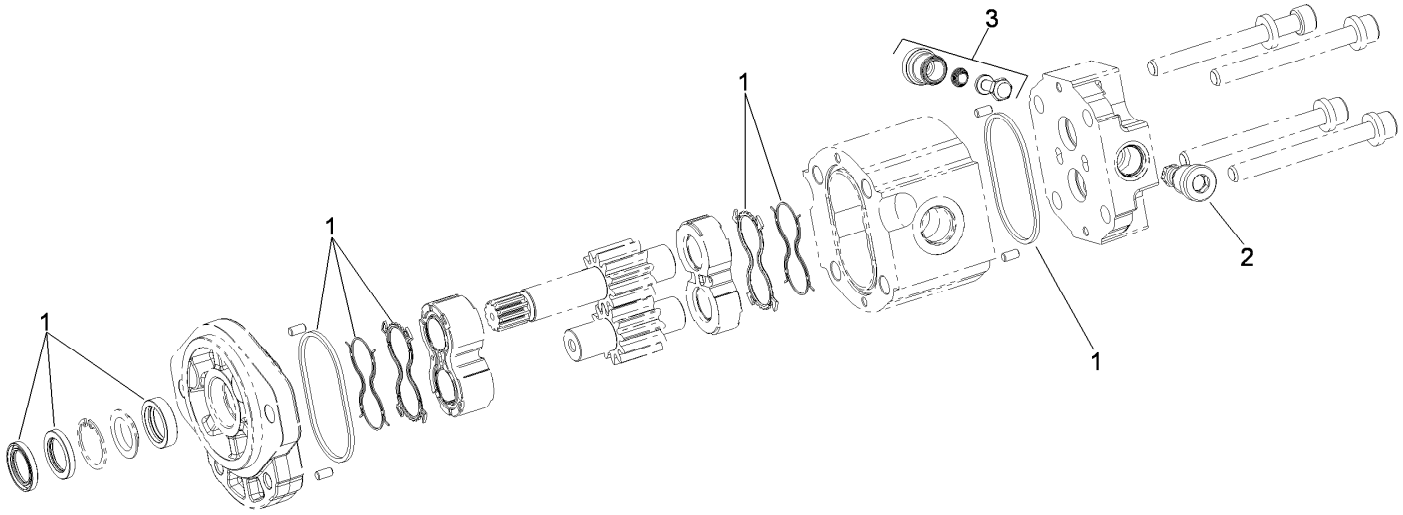
Ref.	Part Number	Qty.	Description
19	340-154	2	Union-Bulkhead
19:1	237-22	2	O-Ring
20	340-70	2	Nut-Lock
21	85-9720	1	Fitting-Orificed (.060)
21:1	237-78	1	O-Ring
21:2	237-21	1	O-Ring
22	95-8838	1	Hose ASM
23	340-132	1	Fitting-HYD, 90 DEG
23:1	237-78	1	O-Ring
23:2	237-21	1	O-Ring
24	95-8839	1	Hose ASM
25	99-3505	1	Scissors Link ASM
25:1	94-3353	1	Decal-Point, Pinch
26	32120-93	2	Ring-Retaining
27	69-8940	4	Washer
28	240-4	2	Grommet-Rubber
29	69-8970	2	Spacer



Rotary Motor Assembly

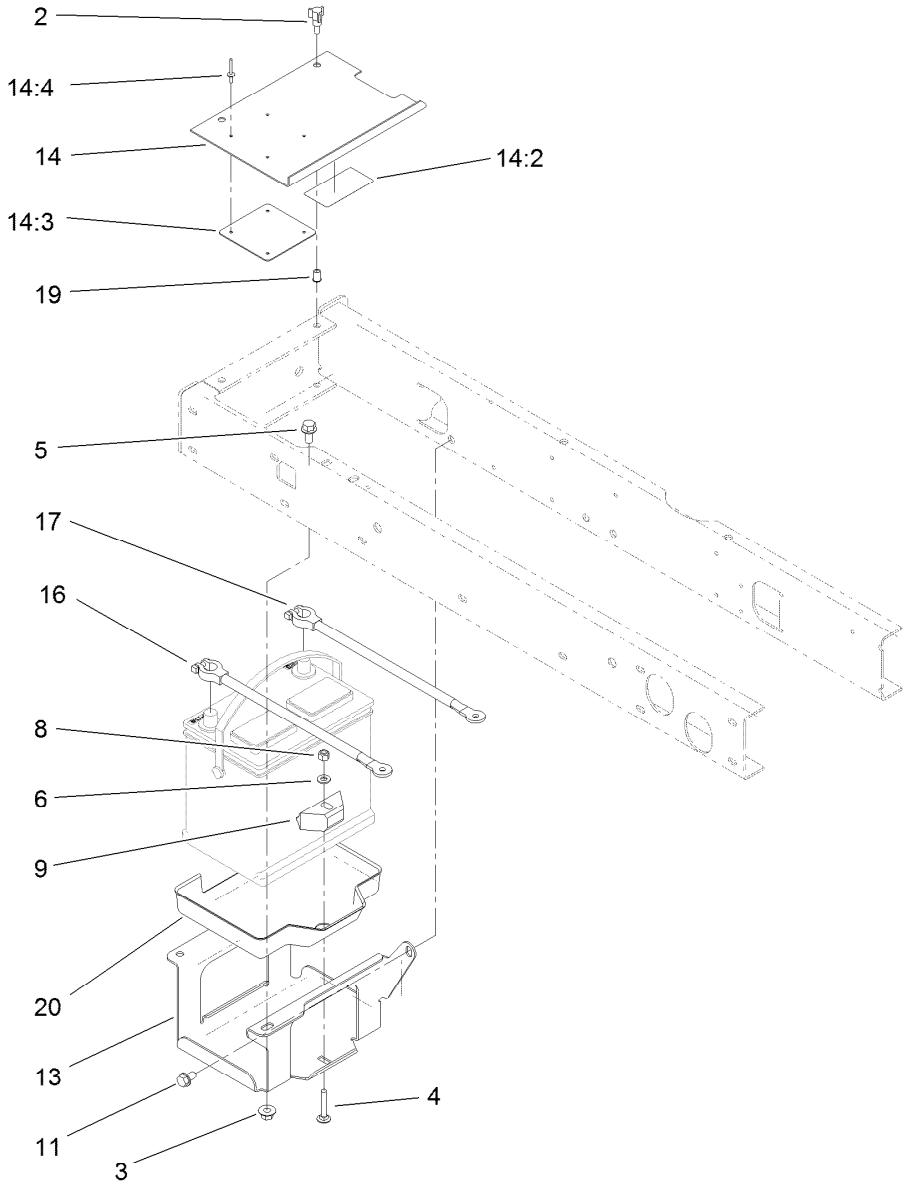
Ref.	Part Number	Qty.	Description
1	117-5141	3	Motor-HYD
5	105-1216	2	Hose ASM
6	340-7	1	Adapter
6:1	237-65	1	O-Ring
6:2	237-80	1	O-Ring
7	105-1215	2	Hose ASM
8	340-92	3	Fitting-HYD, Straight
8:1	237-78	1	O-Ring
8:2	237-21	1	O-Ring
9	104-1080	2	Hose ASM
10	100-4876	1	Hose ASM
11	99-3477	1	Fitting-Tee
11:1	237-42	2	O-Ring
12	100-4880	2	Hose ASM

Ref.	Part Number	Qty.	Description
13	340-17	5	Fitting-HYD, 90 DEG
13:1	237-65	1	O-Ring
13:2	237-80	1	O-Ring
17	112-9901-03	1	RH Foot Guard ASM
18	112-9902-03	1	LH Foot Guard ASM
19	112-9900-03	1	Guard-Foot
20	3274-7	6	Screw-HSH
21	3256-24	6	Washer-Flat
22	323-52	6	Screw-HH
23	93-8806	6	Washer-Hardened
24	95-8803	6	Bushing-Flange
25	104-8301	10	Nut-Flange, NI
26	323-11	4	Screw-HH



Gear Motor Assembly No. 117-5141

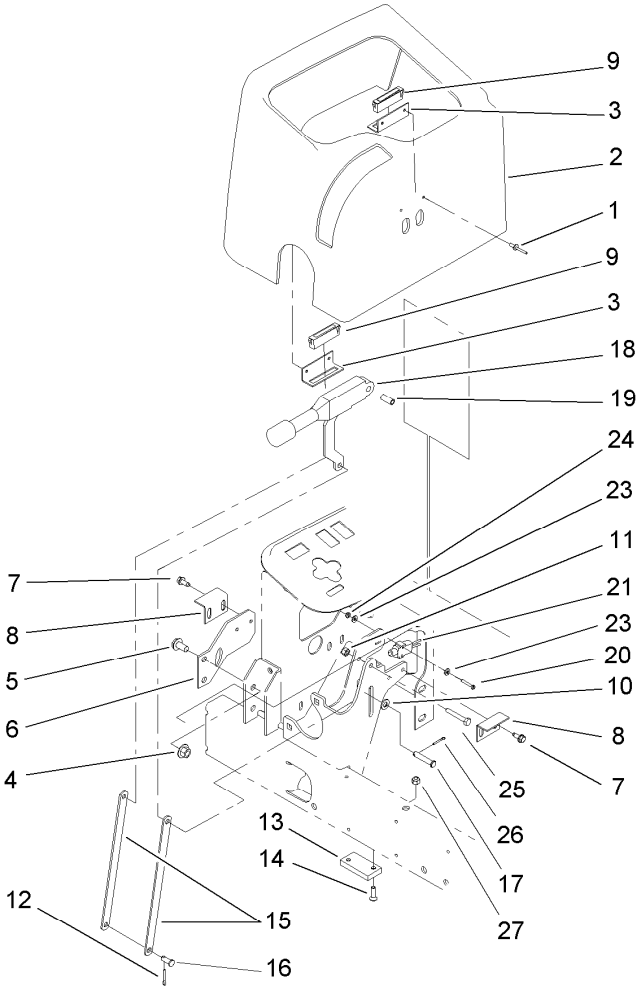
Ref.	*Part Number*	*Qty.*	*Description*
1	117-0235	1	Seal Kit
2	107-7820	1	Valve-Relief
3	107-7821	1	Valve-Anticavitation



Battery Assembly

Ref.	Part Number	Qty.	Description
2	233-70	2	Knob-Star, Three
3	32128-43	3	Nut-Flange
4	3230-6	1	Screw-CARR
5	3234-1	3	Screw-HHF
6	3256-23	1	Washer-Flat
8	3296-29	1	Nut-Lock, NI
9	66-2490	1	Retainer-Battery
11	32144-15	1	Screw-HHFTF
13	95-8796-03	1	Support-Battery

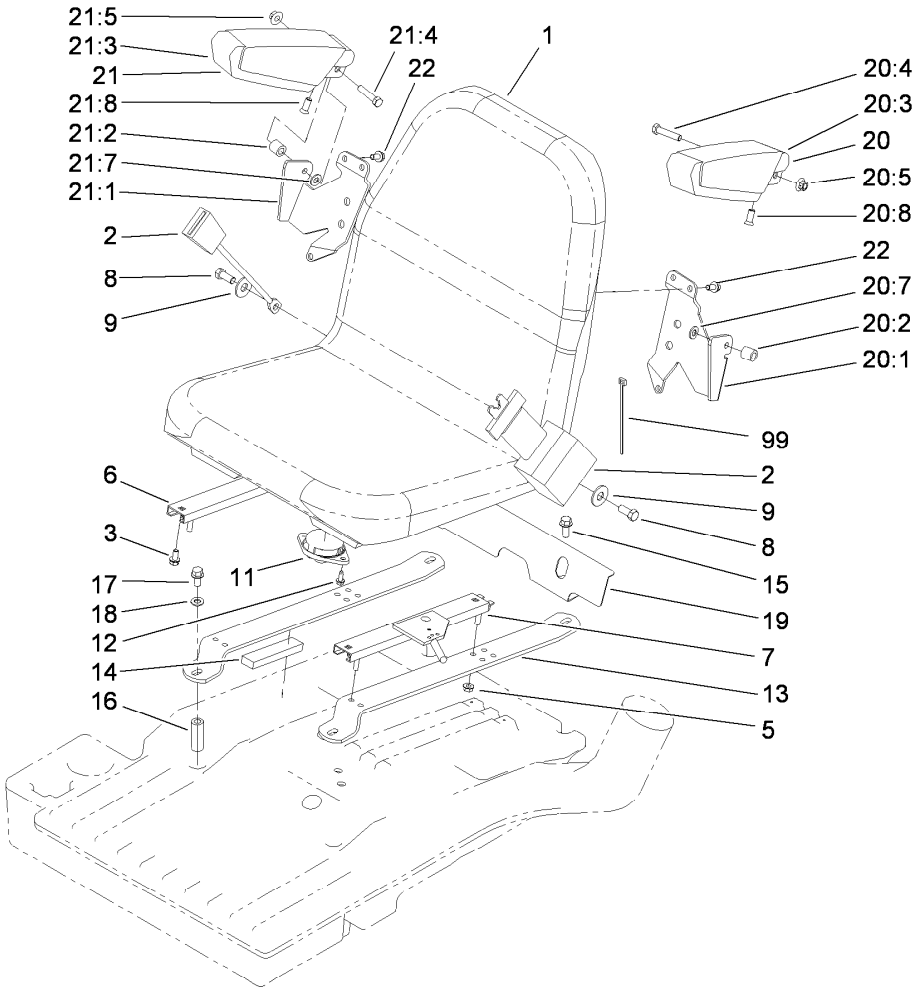
Ref.	Part Number	Qty.	Description
14	99-3602	1	Battery Cover ASM
14:2	93-7276	1	Decal-Danger
14:3	87-7620	1	Shield-Terminal, Battery
14:4	3269-27	4	Rivet-Snap
16	95-8853	1	Cable-Battery, Positive
17	95-8854	1	Cable-Battery, Negative
19	32148-6	2	Insert-Nut
20	99-3513	1	Tray-Battery



Parking Brake Assembly

Ref.	Part Number	Qty.	Description
1	3269-5	4	Rivet-Pop
2	95-8707	1	Cover-Dash
3	95-8763	2	Bracket-Hold Down, Cover
4	32128-43	2	Nut-Flange
5	3234-1	2	Screw-HHF
6	95-8764-03	1	Support-Magnet
7	32144-10	4	Screw-HWH
8	95-8765	2	Bracket-Strike, Magnet
9	58-4250	2	Catch-Magnetic
10	3256-23	3	Washer-Flat
11	3296-42	1	Nut-Lock, NI
12	3272-10	1	Pin-Cotter
13	95-8684	1	Pad-Bumper

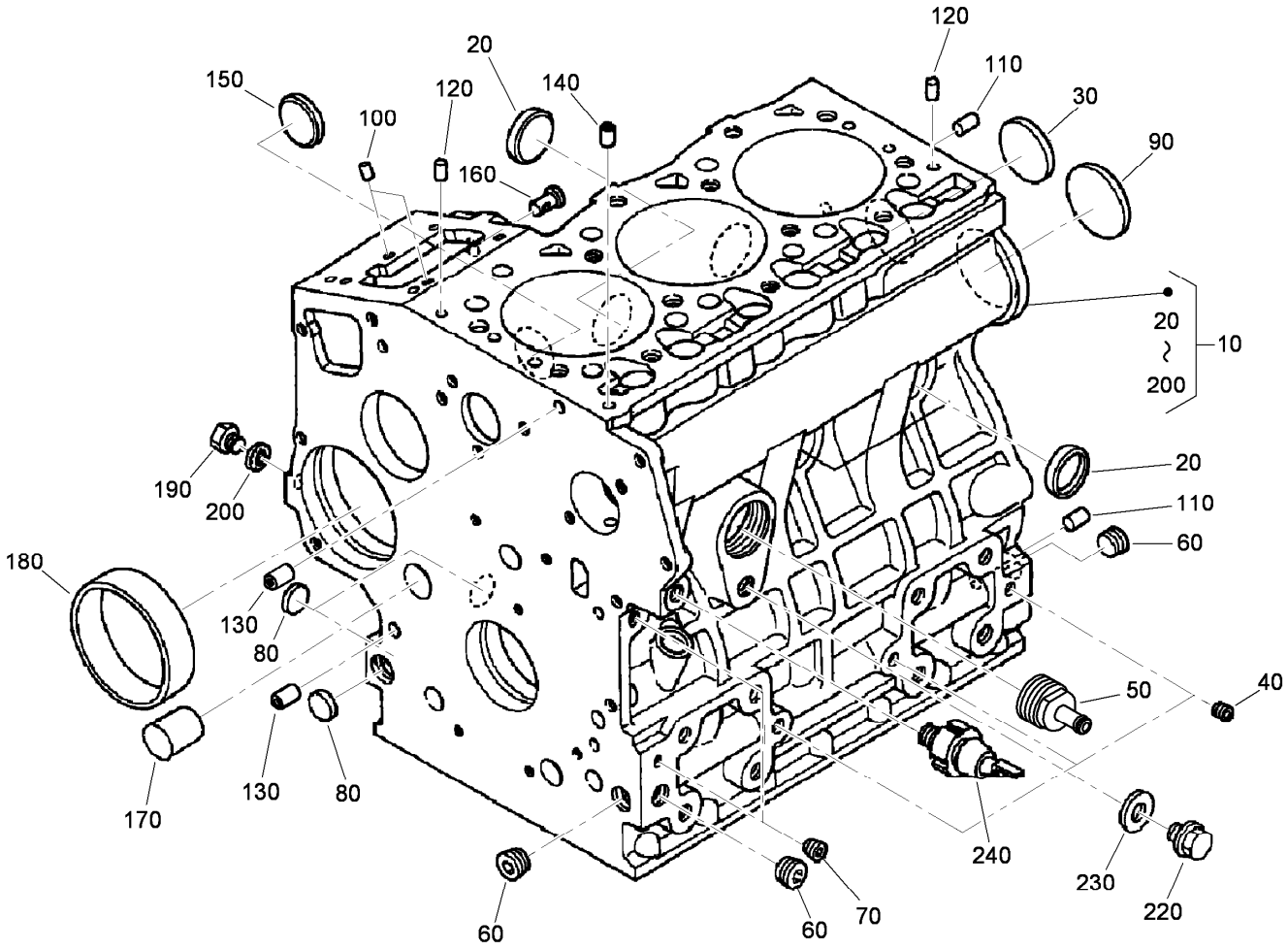
Ref.	Part Number	Qty.	Description
14	3289-4	2	Screw-FH
15	104-4628-03	2	Link-Brake, Parking
16	283-62	1	Pin-Clevis
17	94-3829	1	Pin-Clevis
18	104-4817	1	Lever-Brake
19	87-4710	1	Spacer-Brake, Parking
20	32105-9	2	Screw
21	95-8900	1	Switch
23	3256-21	4	Washer-Flat
24	3296-9	2	Nut-Lock
25	321-10	1	Screw-HH
26	3272-6	1	Pin-Cotter
27	32128-32	2	Nut-HHF



Seat Mounting Assembly

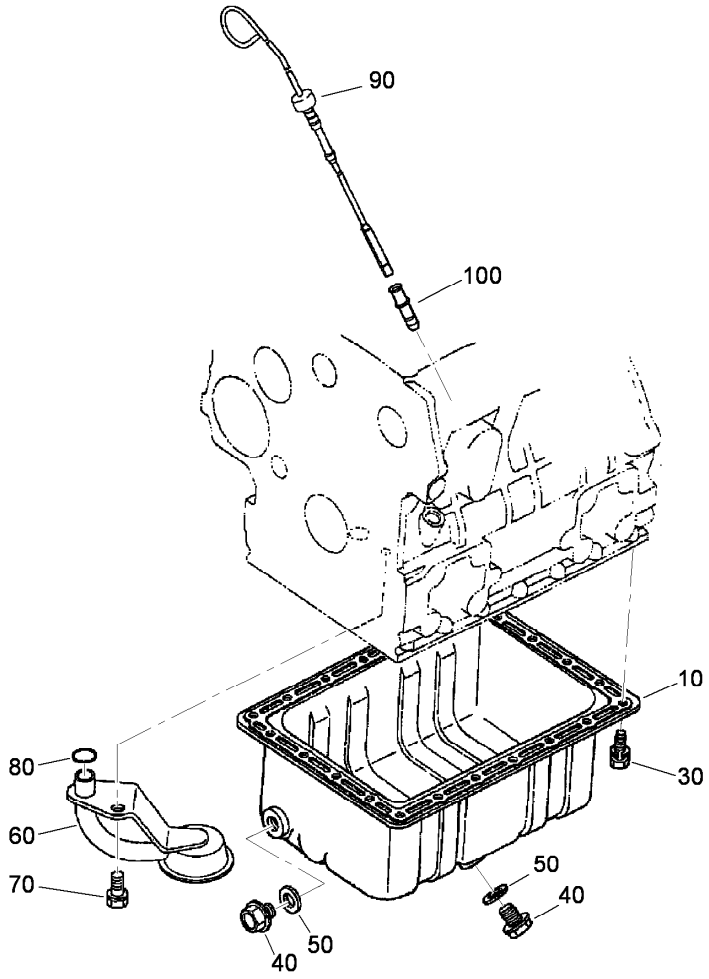
Ref.	Part Number	Qty.	Description
1	104-4620	1	Seat
2	100-4928	1	Belt-Seat
3	3234-14	4	Screw-HHF
5	104-8300	4	Nut-Flange, NI
6	92-8990	1	Adjuster-Slave
7	92-8991	1	Adjuster ASM (W/Latch)
8	3212-4	2	Screw-HH
9	3253-6	2	Washer-Lock
11	92-6282	1	Switch-Seat
12	32144-10	2	Screw-HWH
13	104-0467-03	2	Strap-Support, Seat
14	95-8896	2	Foam
15	3234-11	2	Screw-HHF
16	104-0466	2	Spacer-Tube
17	323-14	2	Screw-HH
18	3256-24	2	Washer-Flat
19	104-4833-03	1	Shield-Heat
20	92-7307	1	LH Armrest ASM

Ref.	Part Number	Qty.	Description
20:1	69-0760	1	Bracket-Arm, LH
20:2	92-7301	1	Spacer
20:3	69-1180	1	Armrest
20:4	323-9	1	Screw-HH
20:5	32128-19	1	Nut-HF
20:7	3256-24	1	Washer-Flat
20:8	92-7318	1	Screw
21	92-7306	1	RH Armrest ASM
21:1	69-0770	1	Bracket-Arm, RH
21:2	92-7301	1	Spacer
21:3	69-1180	1	Armrest
21:4	323-9	1	Screw-HH
21:5	32128-19	1	Nut-HF
21:7	3256-24	1	Washer-Flat
21:8	92-7318	1	Screw
22	3234-14	6	Screw-HHF
99	3290-378	1	Tie-Cable



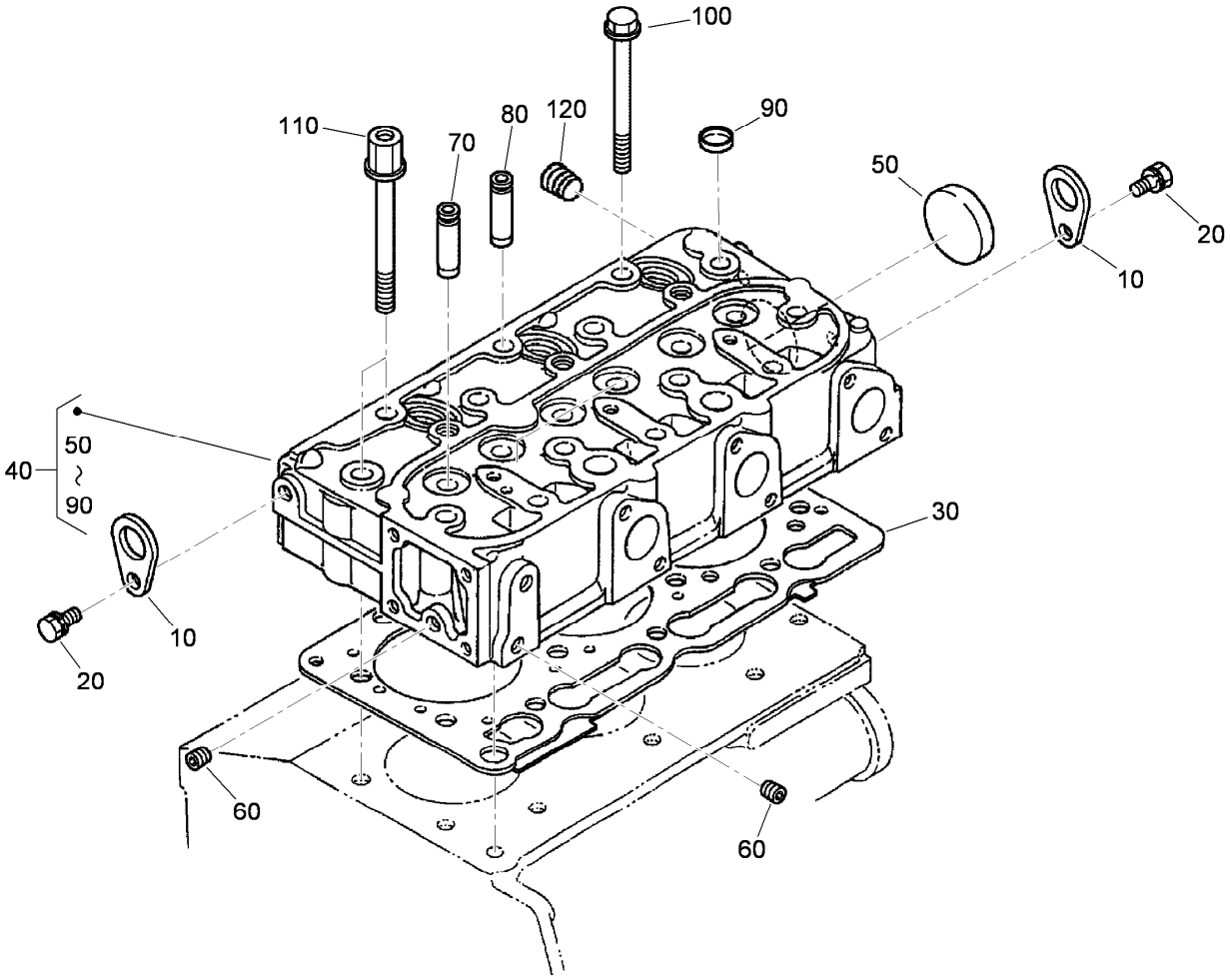
Crankcase Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	112-7043	1	Crankcase ASM
20	98-9398	4	Cap-Sealing
30	98-7539	1	Cap-Sealing
40	98-7540	3	Plug
50	99-8347	1	Joint-Pipe, Drain
60	98-9597	3	Plug
70	98-7487	2	Plug
80	98-9379	3	Plug-Expansion
90	98-9668	1	Plug-Expansion
100	98-9375	2	Pin-Straight
110	98-9377	2	Pin-Straight
120	98-9376	2	Pin-Straight
130	98-9387	2	Pin-Pipe
140	98-9539	1	Pin-Pipe
150	98-9599	1	Plug
160	98-9630	1	Pin-Spring, Start
170	98-9675	1	Plug
180	98-9656	1	Bushing-Governor, Gear
190	98-7507	1	Plug
200	98-7428	1	Gasket
220	99-3447	1	Plug
230	106-7056	1	Gasket
240	98-9416	1	Switch-Oil



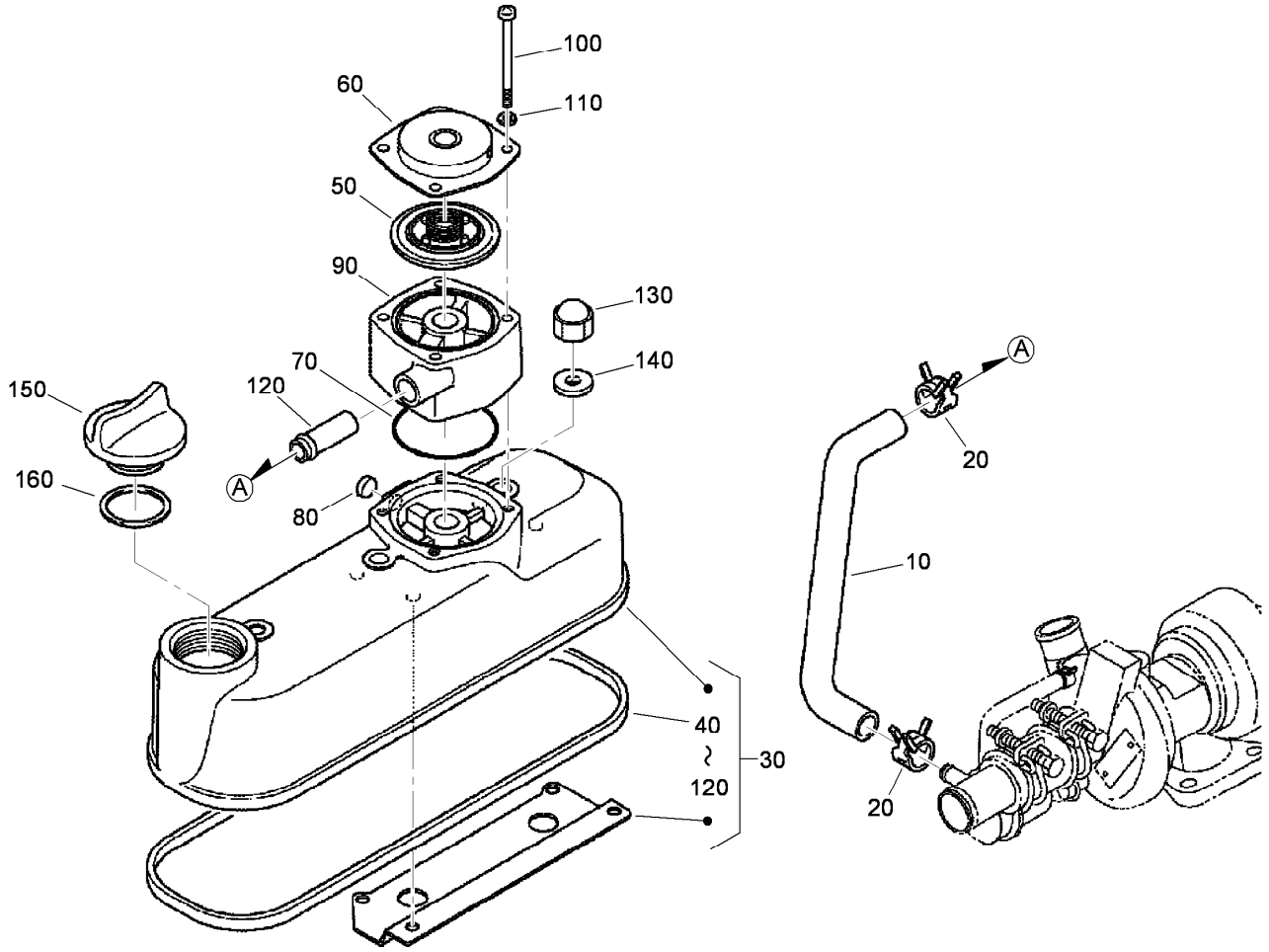
Dipstick, Guide and Oil Pan Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	98-9685	1	Pan-Oil
30	98-9351	22	Bolt
40	114-8151	2	Plug-Drain
50	98-7524	2	Gasket
60	112-7044	1	*obs* Head-Filter
70	98-7526	1	Bolt
80	105-3776	1	O-Ring
90	107-9076	1	Gauge-Oil
100	105-4580	1	Guide-Gauge, Oil



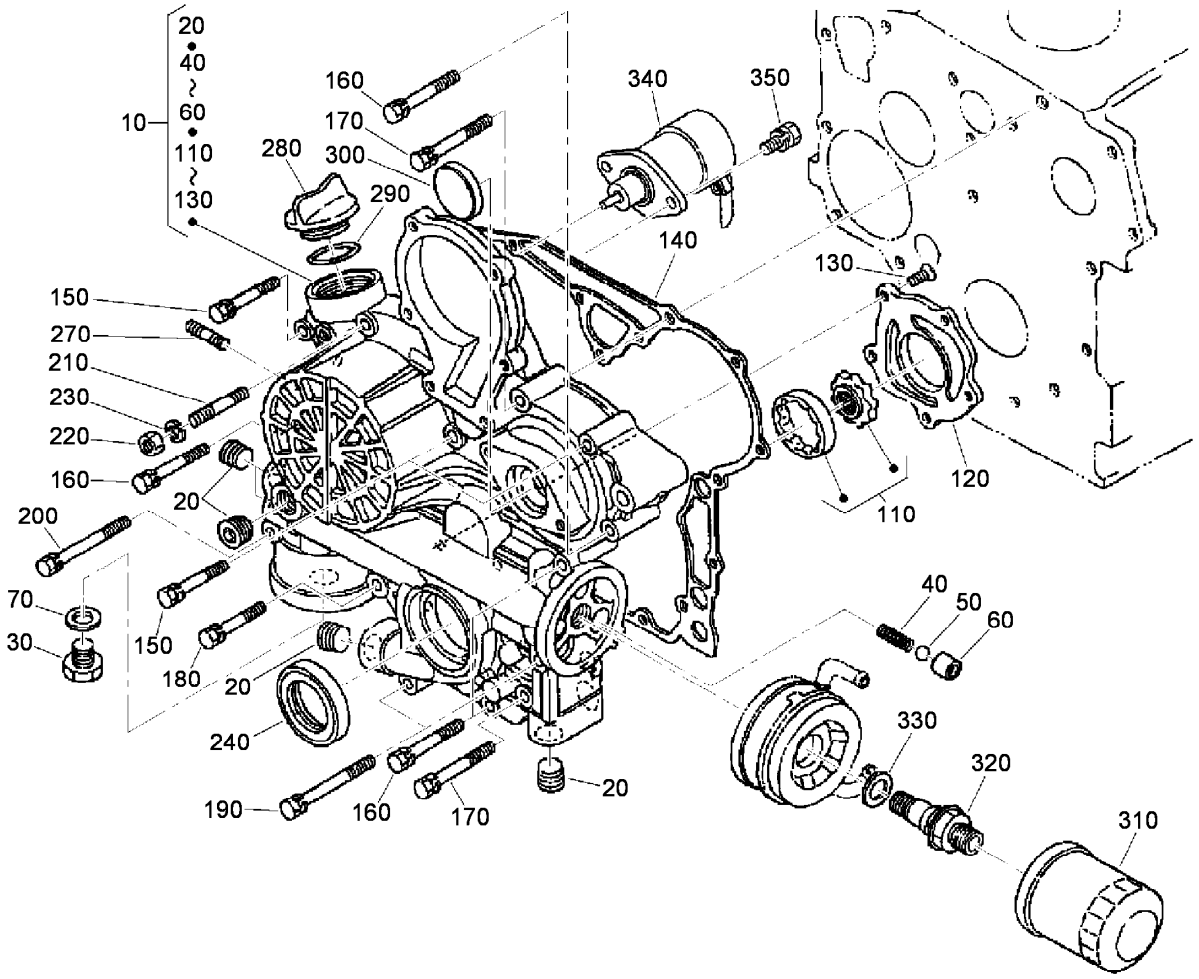
Cylinder Head Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	98-7531	2	Hook-Engine
20	100-9195	2	Bolt
30	108-6573	1	Gasket-Head, Cylinder
40	107-7823	1	Cylinder Head ASM
50	105-3705	1	Cap-Sealing
60	98-7540	2	Plug
70	107-9066	3	Guide-Valve, Inlet
80	107-9067	3	Guide-Valve, Exhaust
90	98-9389	2	Cap-Sealing
100	98-9479	12	Bolt-Head, Cylinder
110	98-9647	2	Bolt-Head, Cylinder
120	98-9444	1	Plug



Cylinder Head Cover Assembly

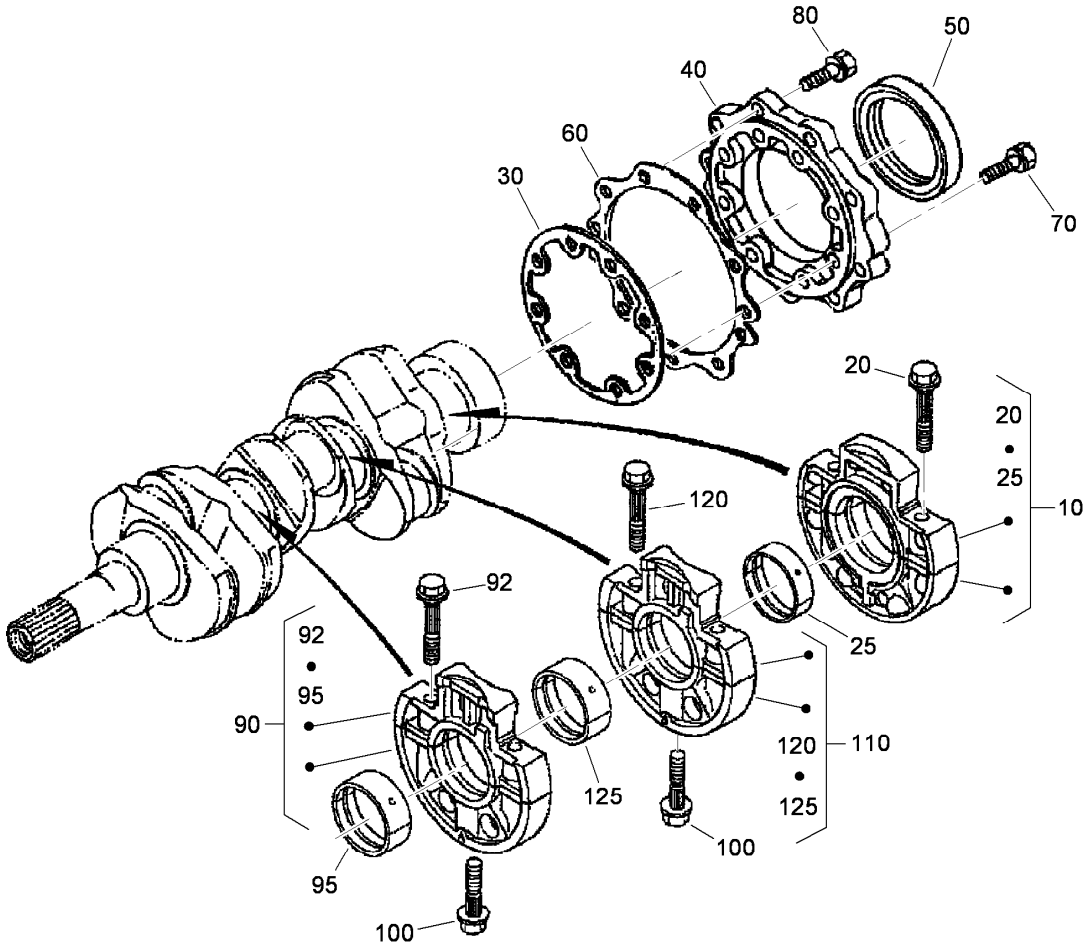
Ref.	*Part Number*	*Qty.*	*Description*
10	115-3040	1	Tube-Breather
20	108-2859	2	Clamp-Hose
30	115-3041	1	Cylinder Head Cover ASM
40	98-9615	1	Gasket-Cover, Head
50	110-3715	1	Valve-Breather
60	110-3714	1	Cover-Breather
70	110-3846	1	O Ring-Breather
80	115-3042	1	Cap-Sealing
90	115-3043	1	Spacer-Breather
100	115-3044	4	Screw-Pan Head
110	100-2204	4	Washer-Spring
120	98-7766	1	Pipe-Return, Water
130	98-9455	3	Nut-Cap
140	98-9454	3	Gasket
150	107-9075	1	Plug-Filler, Oil
160	99-3446	1	O-Ring



Gear Case and Oil Filter Cartridge Assembly

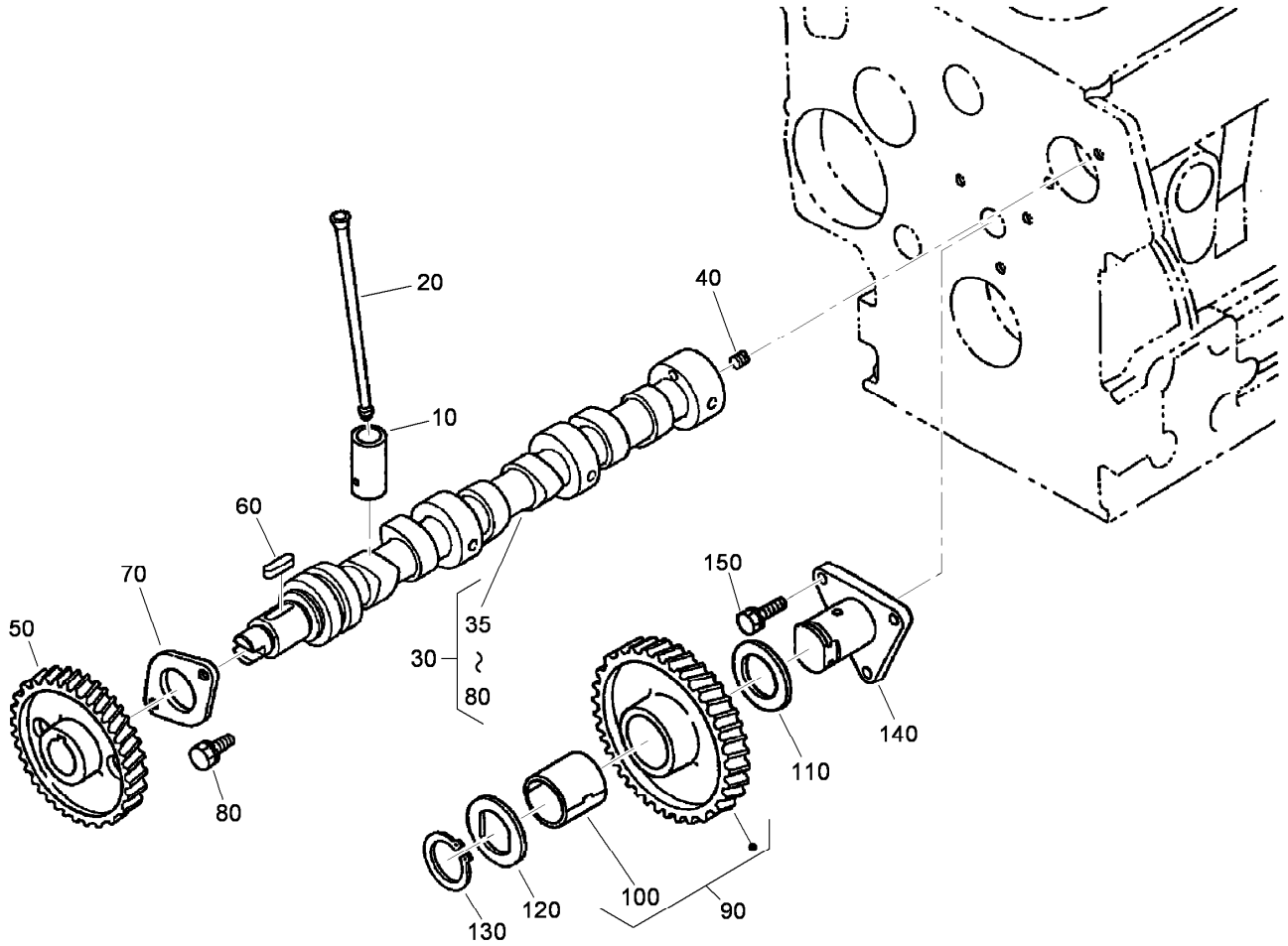
Ref.	Part Number	Qty.	Description
10	107-7825	1	Gear Case ASM
20	98-9598	5	Plug
30	99-3450	1	Plug
40	98-9544	1	Spring
50	98-9543	1	Seat-Valve
60	98-9380	1	Ball
70	99-3451	1	Plug-Packing
110	98-9540	1	Oil Pump Rotor ASM
120	105-3708	1	Cover-Pump, Oil
130	98-9592	5	Screw
140	98-9633	1	Gasket-Case, Gear
150	100-1765	3	Bolt
160	105-3797	4	Bolt
170	98-9356	2	Bolt
180	98-9437	1	Bolt

Ref.	Part Number	Qty.	Description
190	98-9586	2	Bolt
200	99-3511	1	Bolt
210	105-3709	1	Stud
220	98-7572	1	Nut
230	98-7699	1	Washer-Spring
240	98-9482	1	Seal-Oil
270	105-3710	2	Stud
280	107-9075	1	Plug-Filler, Oil
290	99-3446	1	O-Ring
300	98-9641	1	Cover-Case, Gear
310	99-8384	1	Filter-Oil
320	104-5159	1	Holder ASM
330	98-9727	1	Collar
340	104-5155	1	Solenoid-Stop
350	115-3039	2	Bolt-HSH



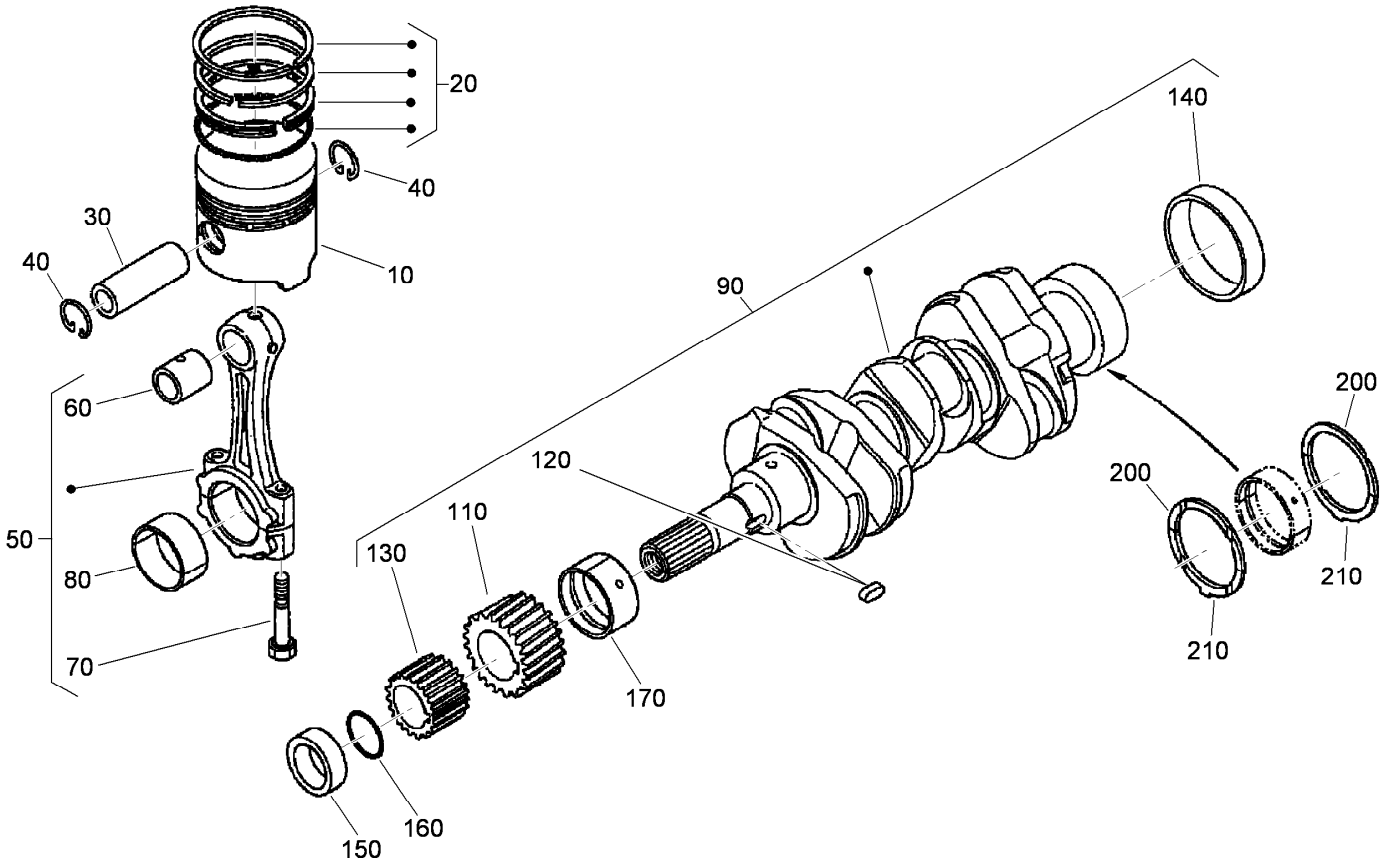
Main Bearing Case Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	112-7026	1	Wheel Bearing Case ASM
20	98-9484	2	Bolt-Case, Bearing
25	112-7045	1	Metal-Crankshaft
25	112-7039	1	Metal-Crankshaft (0.2Mm)
25	112-7040	1	Metal-Crankshaft (-0.4Mm)
30	98-9634	1	Gasket-Case, Bearing
40	112-7046	1	Cover-Case, Bearing
50	112-0180	1	Seal-Oil
60	112-7037	1	Gasket-Cover, Case
70	98-9352	8	Bolt
80	98-7568	9	Bolt
90	112-7028	1	Bearing ASM
92	98-9484	2	Bolt-Case, Bearing
95	112-7011	1	Bearing-Main (STD)
95	112-7012	1	Metal-Crankpin (-0.2Mm)
95	112-7013	1	Metal-Crankpin (-0.4Mm)
100	98-9485	2	Bolt-Case, Bearing
110	112-7027	1	Bearing ASM
120	98-9484	2	Bolt-Case, Bearing
125	112-7011	1	Bearing-Main (STD)
125	112-7012	1	Metal-Crankpin (-0.2Mm)
125	112-7013	1	Metal-Crankpin (-0.4Mm)



Camshaft and Idle Gear Shaft Assembly

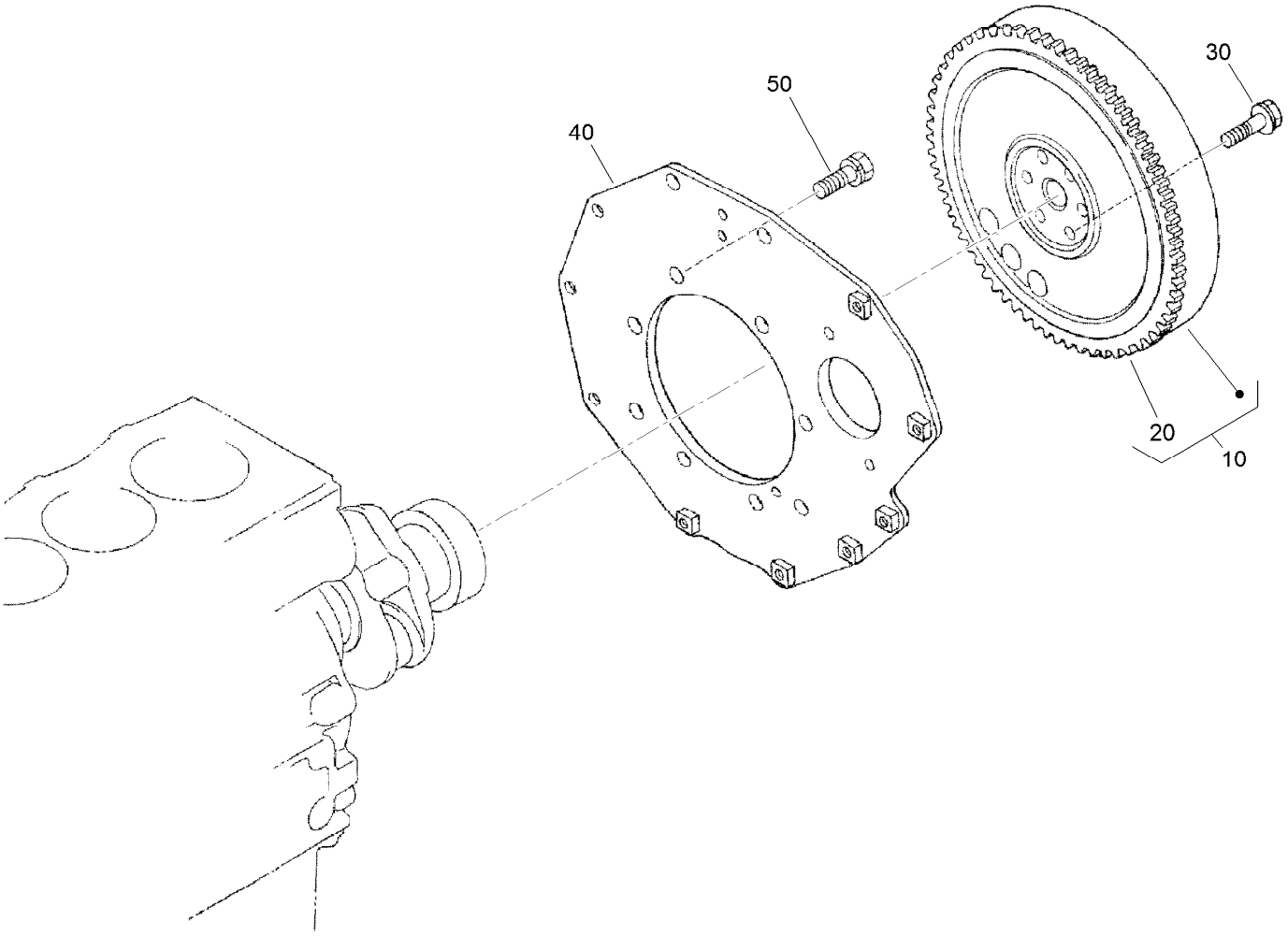
Ref.	*Part Number*	*Qty.*	*Description*
10	112-0185	6	Tappet
20	98-9509	6	Rod-Push
30	112-7029	1	Camshaft ASM
35	108-1403	1	Camshaft
40	98-7449	1	Screw-Set
50	98-9512	1	Gear-Cam
60	98-9378	1	Key-Feather
70	98-9510	1	Stopper-Camshaft
80	98-7692	2	Bolt
90	98-9649	1	Idle Gear ASM
100	98-9650	1	Bushing-Gear, Idle
110	98-9535	1	Collar-Gear, Idle
120	98-9536	1	Collar-Gear, Idle
130	98-9534	1	Circlip-Gear, Idle
140	98-9533	1	Shaft-Gear, Idle
150	98-7692	3	Bolt



Piston and Crankshaft Assembly

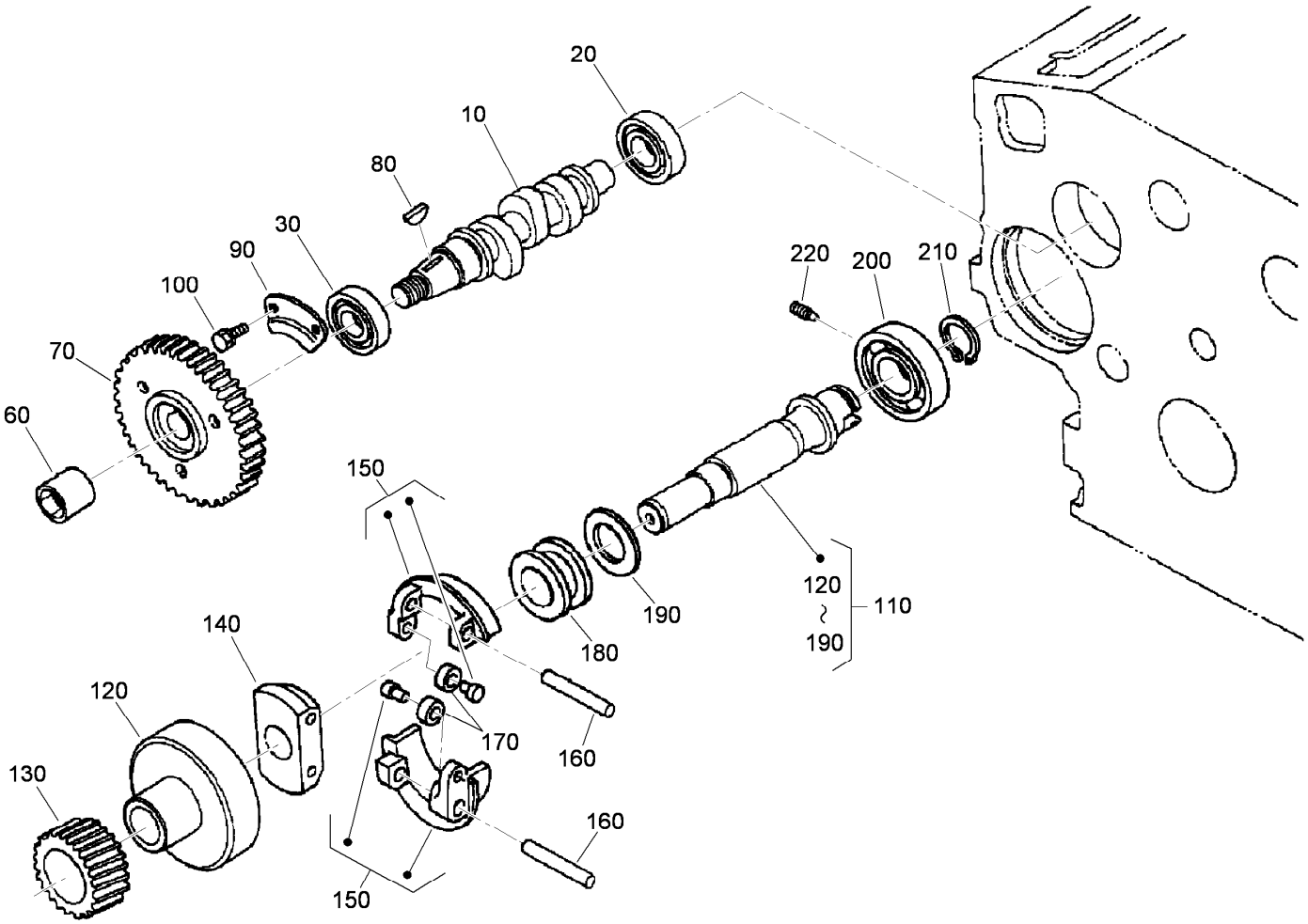
Ref.	Part Number	Qty.	Description
10	98-9550	3	Piston (STD)
10	108-1417	3	Piston (0.5Mm)
20	98-9551	3	Piston Ring ASM (STD)
20	108-1404	3	Piston Ring ASM (0.5Mm)
30	98-9513	3	Pin-Piston
40	98-9514	6	Circlip-Pin, Piston
50	98-9552	3	Connecting Rod ASM
60	115-3014	3	Bushing-Pin, Piston
70	98-9517	6	Bolt-Rod, Connecting
80	98-9553	3	Bearing-Rod (STD)
80	108-1405	3	Metal-Crankpin (-0.2Mm)
80	108-1406	3	Metal-Crankpin (-0.4Mm)
90	98-9642	1	Crankshaft ASM
110	98-9532	1	Gear-Crankshaft

Ref.	Part Number	Qty.	Description
120	98-9666	1	Key
130	98-9542	1	Gear-Drive, Oil Pump
140	98-9522	1	Sleeve-Crankshaft
150	98-9521	1	Collar-Crankshaft
160	105-3783	1	O-Ring
170	112-7005	1	Bearing-Main (STD)
170	112-7009	1	Metal-Crankpin (-0.2Mm)
170	112-7010	1	Metal-Crankpin (-0.4Mm)
200	98-9413	2	Bearing-Thrust (STD)
200	98-9414	2	Bearing-Thrust (0.2Mm)
200	98-9415	2	Bearing-Thrust (0.4Mm)
210	98-9688	2	Bearing-Thrust (STD)
210	98-9689	2	Bearing-Thrust (0.2Mm)
210	98-9690	2	Bearing-Thrust (0.4Mm)



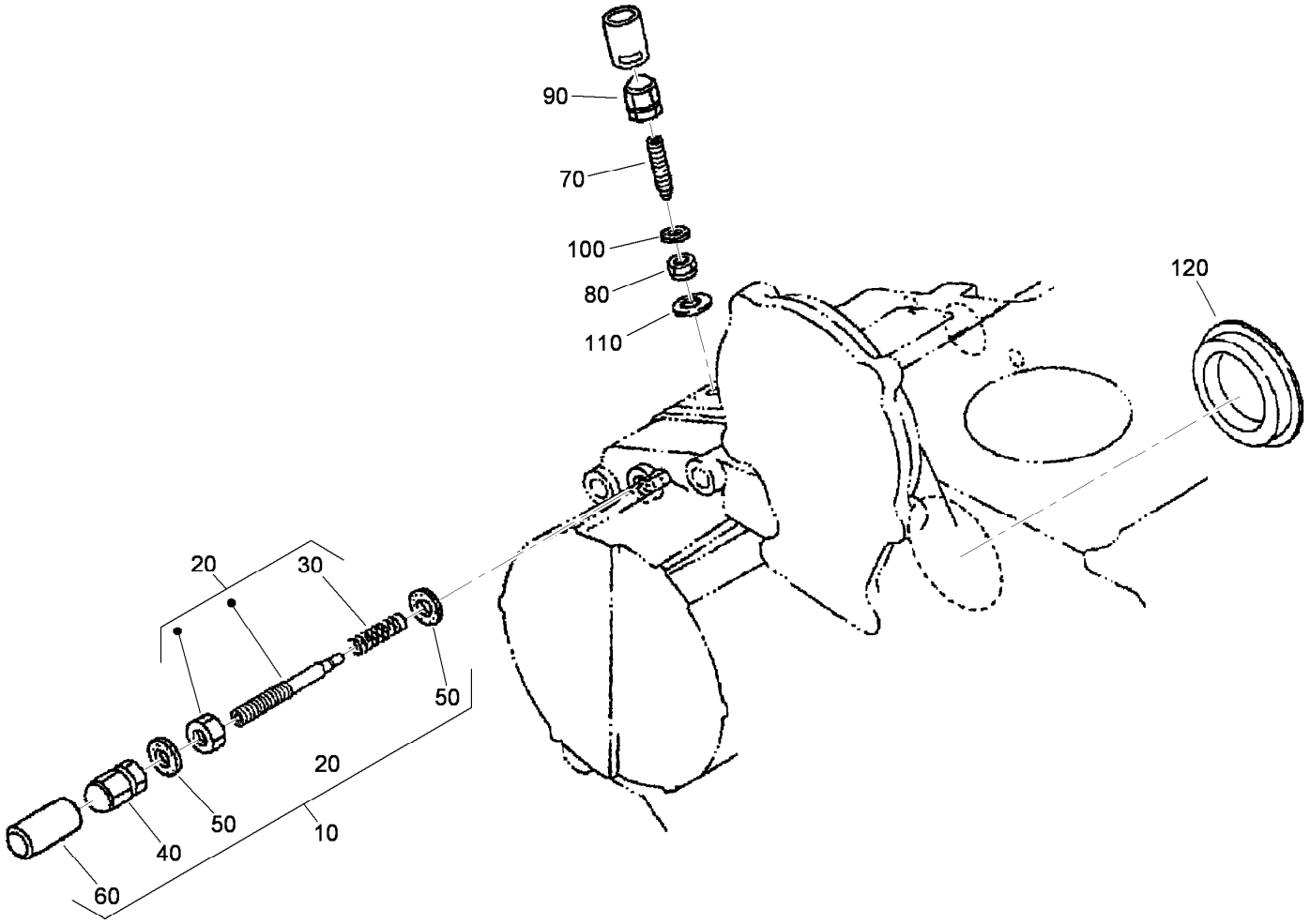
Flywheel Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	105-3784	1	Flywheel ASM
20	115-3015	1	Gear-Ring
30	98-9537	6	Bolt-Flywheel
40	98-9486	1	Plate-End, Rear
50	98-9392	8	Bolt



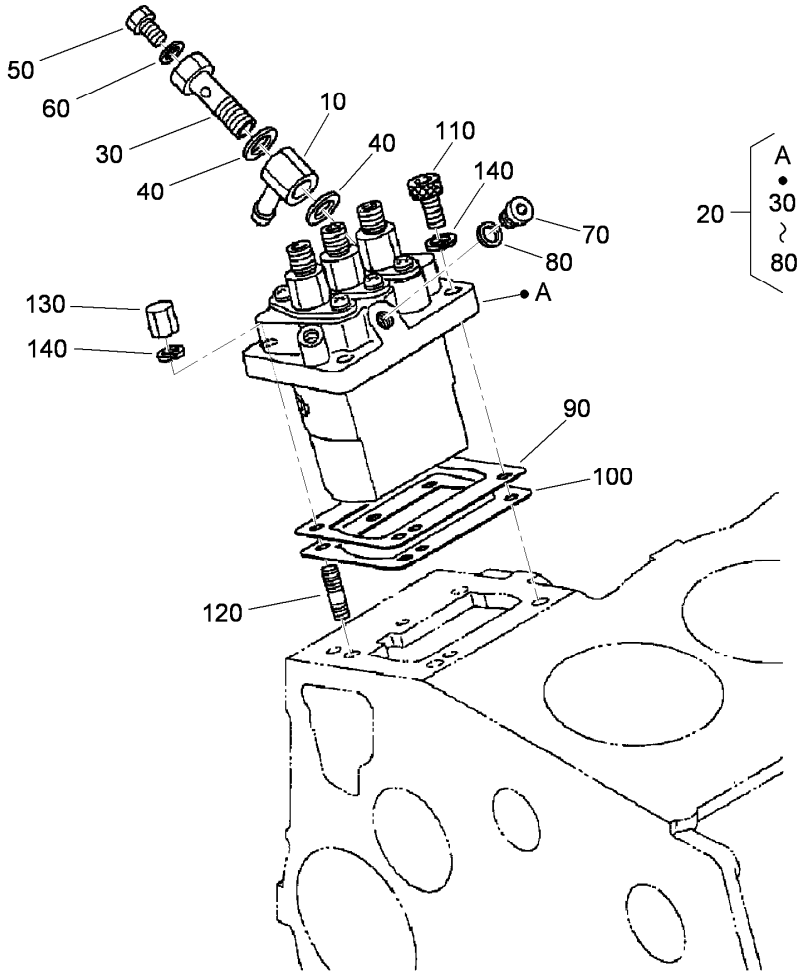
Fuel Camshaft and Governor Shaft Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	98-9459	1	Camshaft-Fuel
20	107-9077	1	Bearing-Ball
30	107-9078	1	Bearing-Ball
60	98-9590	1	Nut-Cap
70	98-9669	1	Gear-Pump, Injection
80	98-9595	1	Key-Woodruff
90	98-9511	1	Stopper-Fuel, Camshaft
100	98-7692	2	Bolt
110	98-9644	1	Governor Shaft ASM
120	98-9562	1	Holder-Gear, Governor
130	98-9673	1	Gear-Governor
140	98-9561	1	Holder-Weight, Governor
150	98-9559	2	Governor Weight ASM
160	98-9560	2	Shaft-Weight, Governor
170	98-9692	2	Roller
180	98-9563	1	Sleeve-Governor
190	98-9564	1	Washer-Thrust
200	107-9079	1	Bearing-Ball
210	98-9657	1	Circlip-Shaft, Governor
220	98-9565	1	Screw-Set



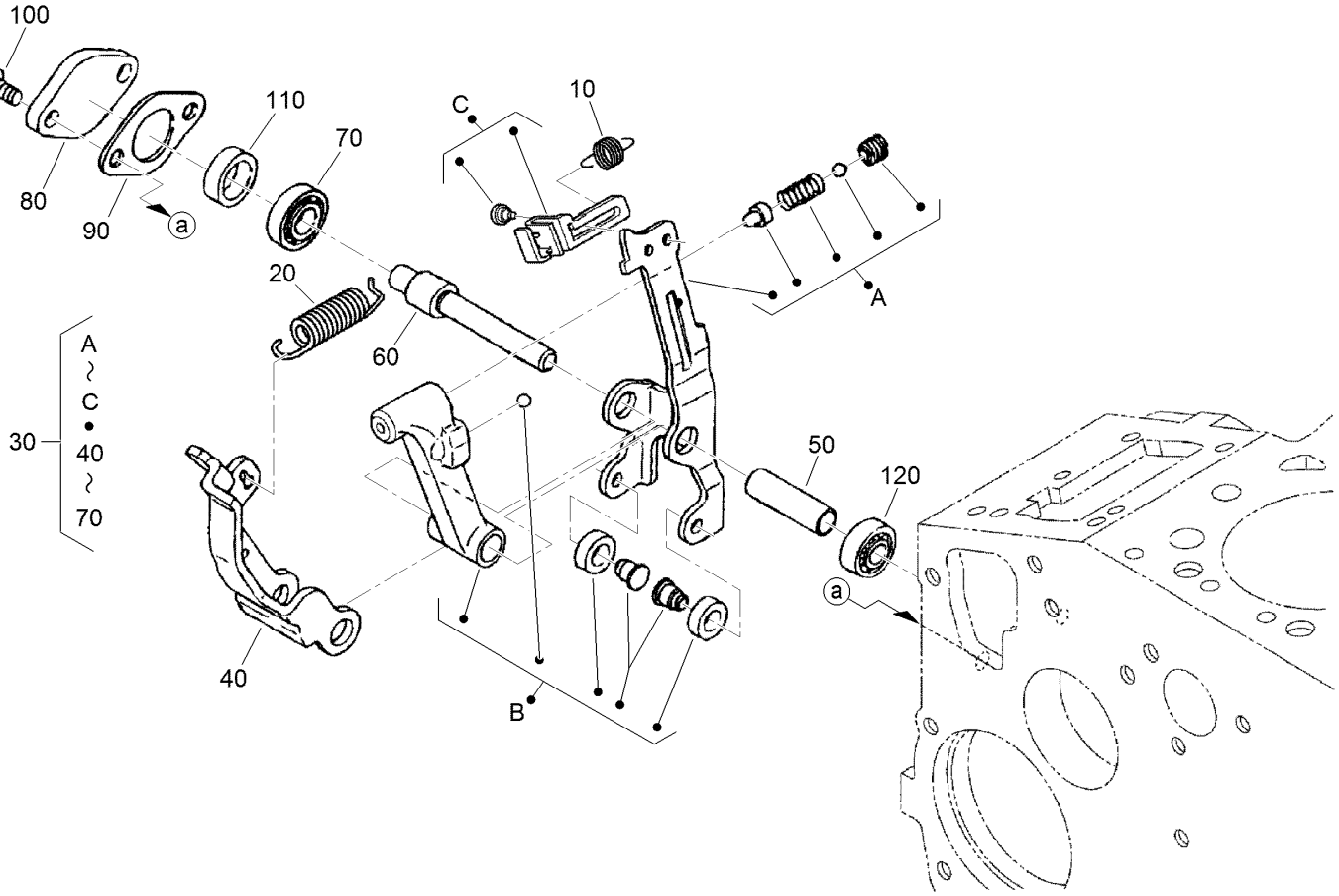
Idle Apparatus Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	115-4124	1	Apparatus-Idling
20	115-4125	1	Adjustment Bolt ASM
30	98-9439	1	Nut
40	112-0181	1	Nut
50	98-7654	2	Gasket
60	98-7656	1	Cap
70	112-7015	1	Bolt-Adjusting
80	100-2175	1	Nut-Lock
90	112-0181	1	Nut
100	98-7654	1	Gasket
110	107-9081	1	Gasket
120	112-7016	1	Cover-Pump



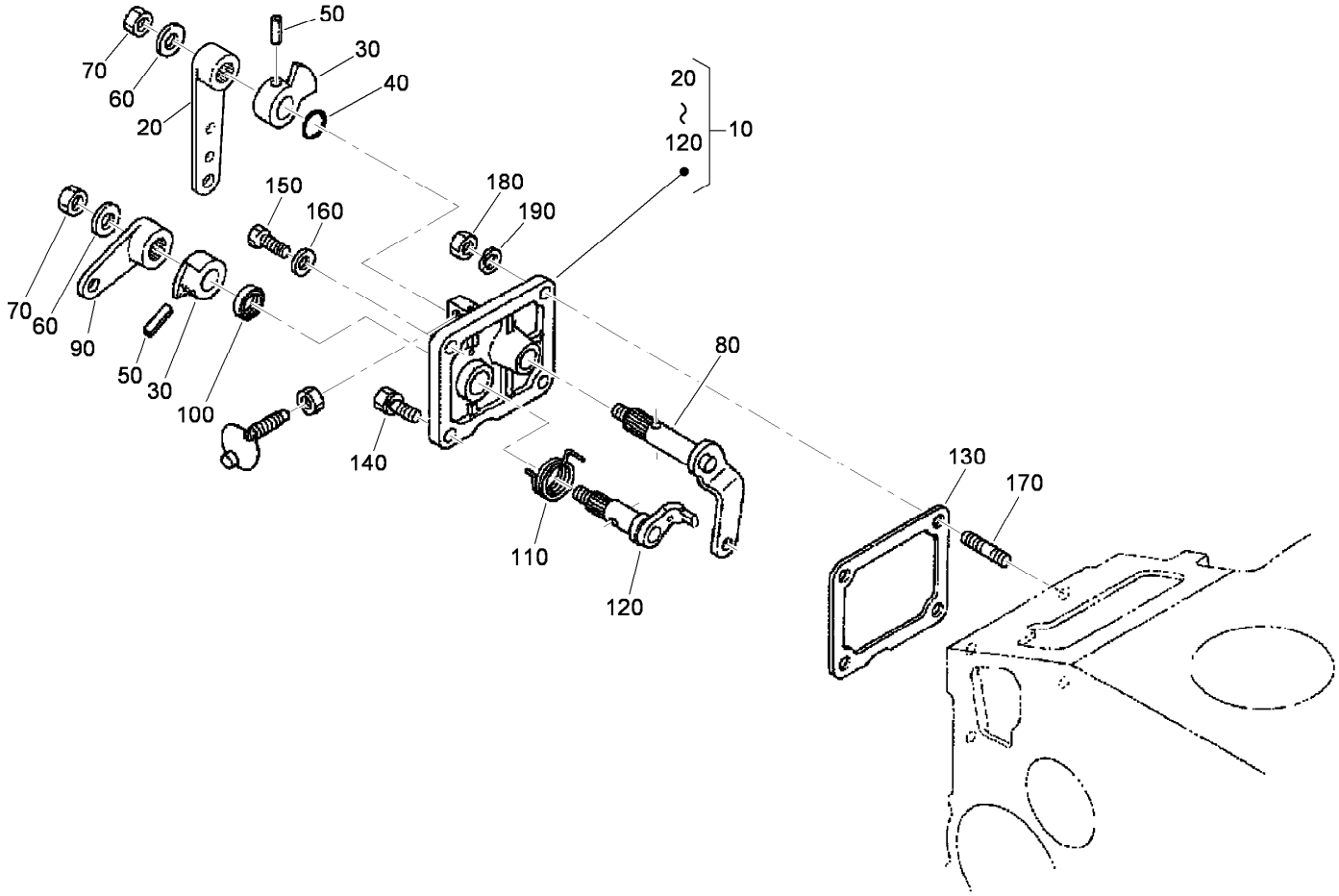
Injection Pump Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	98-9596	1	Joint-Eye
20	98-9643	1	Injection Pump ASM
30	98-9464	1	Bolt-Joint
40	98-9445	2	Gasket
50	98-9430	1	Screw
60	98-9446	1	Gasket
70	98-9466	1	Plug
80	98-9451	1	Gasket
90	98-9456	1	Shim-Injection (0.20Mm)
90	98-9457	1	Shim-Injection (0.25Mm)
90	115-3045	1	Shim-Injection (0.175Mm)
100	98-9458	1	Shim-Injection (0.30Mm)
100	115-3046	1	Shim-Injection (0.35Mm)
110	98-9361	2	Bolt-HSH
120	98-9438	2	Stud
130	98-9440	2	Nut-Cap
140	98-7699	4	Washer-Spring



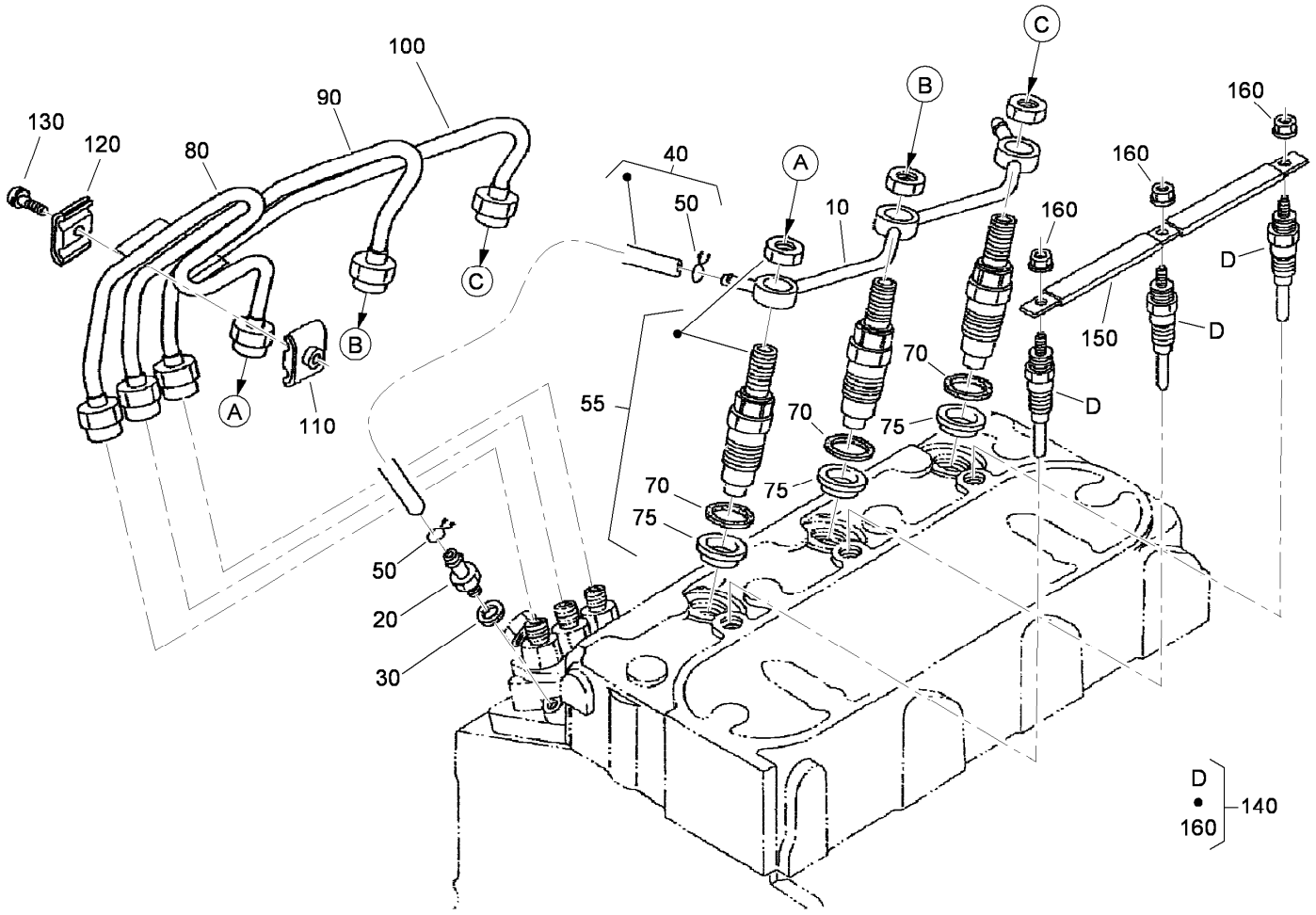
Governor Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	105-3786	1	Spring-Start
20	98-9681	1	Spring-Governor
30	115-4502	1	Fork Lever ASM
40	107-9084	1	Lever-Fork
50	107-9085	1	Shaft-Lever, Fork
60	107-9086	1	Shaft-Lever, Fork
70	98-9570	1	Bearing-Miniaturize
80	115-4122	1	Cover-Shaft, Fork Lever
90	98-9682	1	Gasket
100	98-9350	2	Bolt
110	98-9567	1	Collar
120	98-9571	1	Bearing-Miniaturize



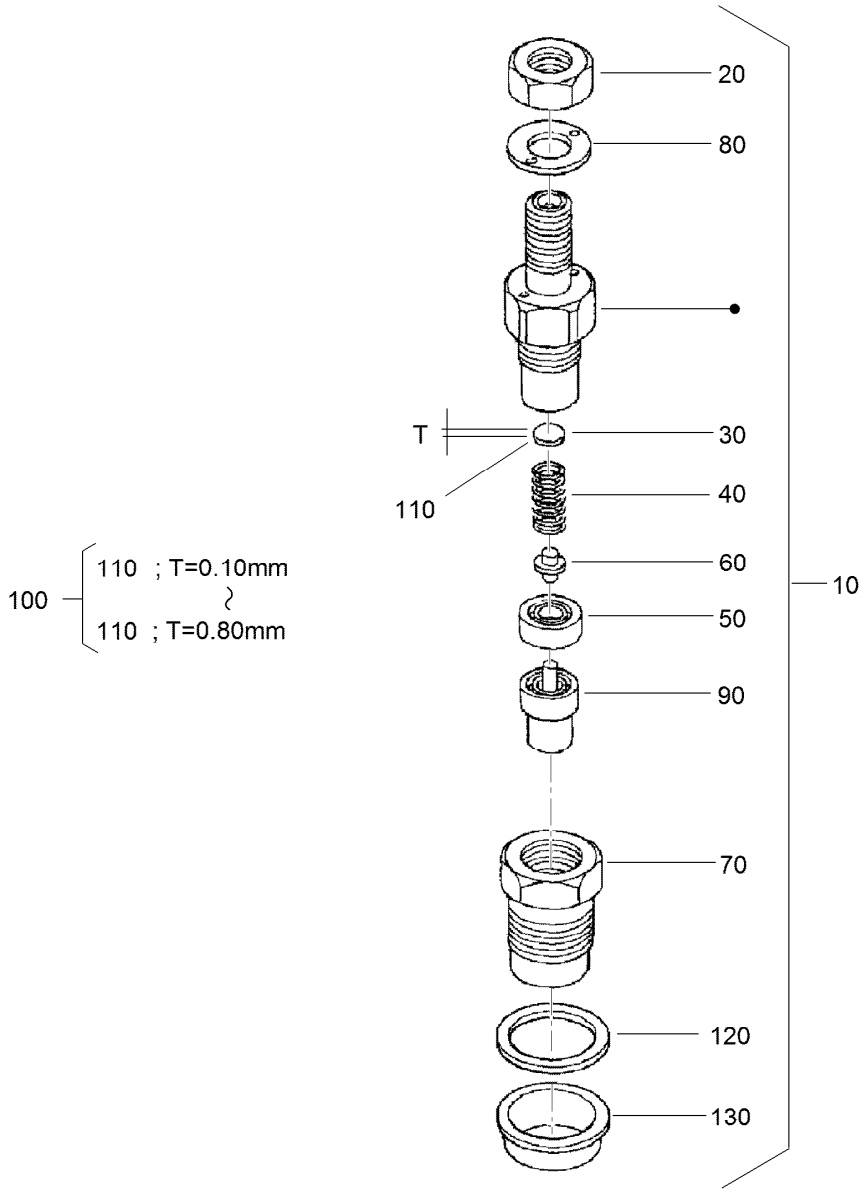
Speed Control Plate Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	105-3735	1	Control Plate ASM
20	98-9662	1	Lever-Control, Speed
30	98-9572	2	Lever-Control, Speed
40	105-3788	1	O-Ring
50	98-7602	2	Pin-Spring
60	98-9594	2	Washer-Plain
70	98-9589	2	Nut
80	98-9658	1	Governor Lever ASM
90	98-9663	1	Lever-Stop, Engine
100	98-7601	1	Seal-Oil
110	98-9472	1	Spring-Return
120	98-9664	1	Shaft-Lever, Stop
130	98-9637	1	Gasket
140	98-7692	1	Bolt
150	99-8348	1	Bolt
160	98-7654	1	Gasket
170	105-3710	2	Stud
180	98-7572	2	Nut
190	98-7699	2	Washer-Spring



Nozzle Holder and Glow Plug Assembly

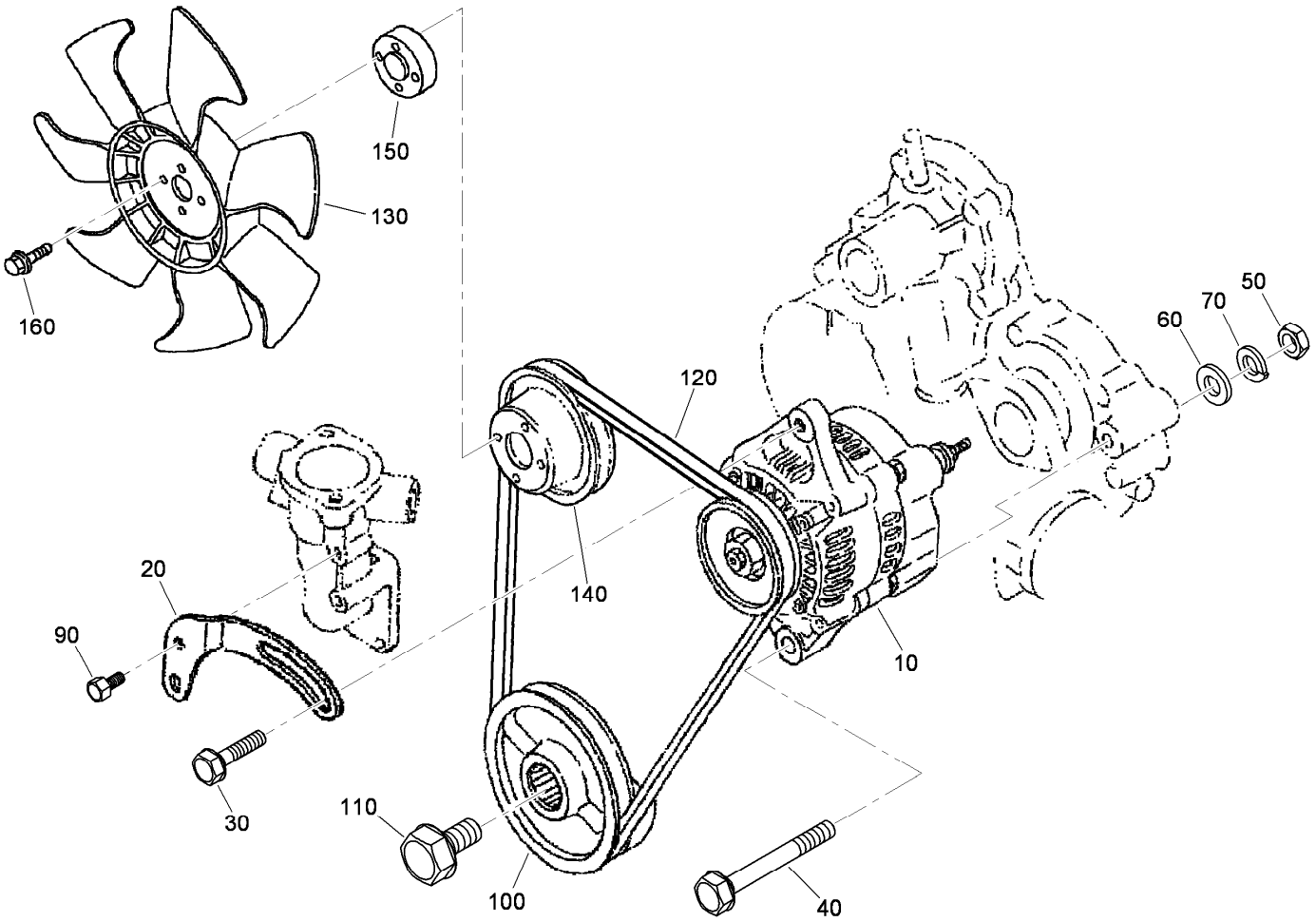
Ref.	*Part Number*	*Qty.*	*Description*
10	98-9621	1	Overflow Pipe ASM
20	98-9431	1	Screw-Bleeder, Air
30	98-7654	1	Gasket
40	98-9624	1	Overflow Pipe ASM
50	98-7671	2	Clip-Pipe
55	108-2866	3	Nozzle Holder Kit
70	98-7676	3	Gasket
75	98-7677	3	Seal-Heat
80	98-9622	1	Pipe-Injection
90	98-9654	1	Pipe-Injection
100	98-9655	1	Pipe-Injection
110	98-7682	2	Clamp-Pipe
120	98-7683	2	Clamp-Pipe
130	98-7684	2	Screw (W/Washer)
140	98-9623	3	Plug-Glow
150	98-9631	1	Cord-Plug, Glow
160	99-8377	3	Nut-Flange



Nozzle Holder Assembly

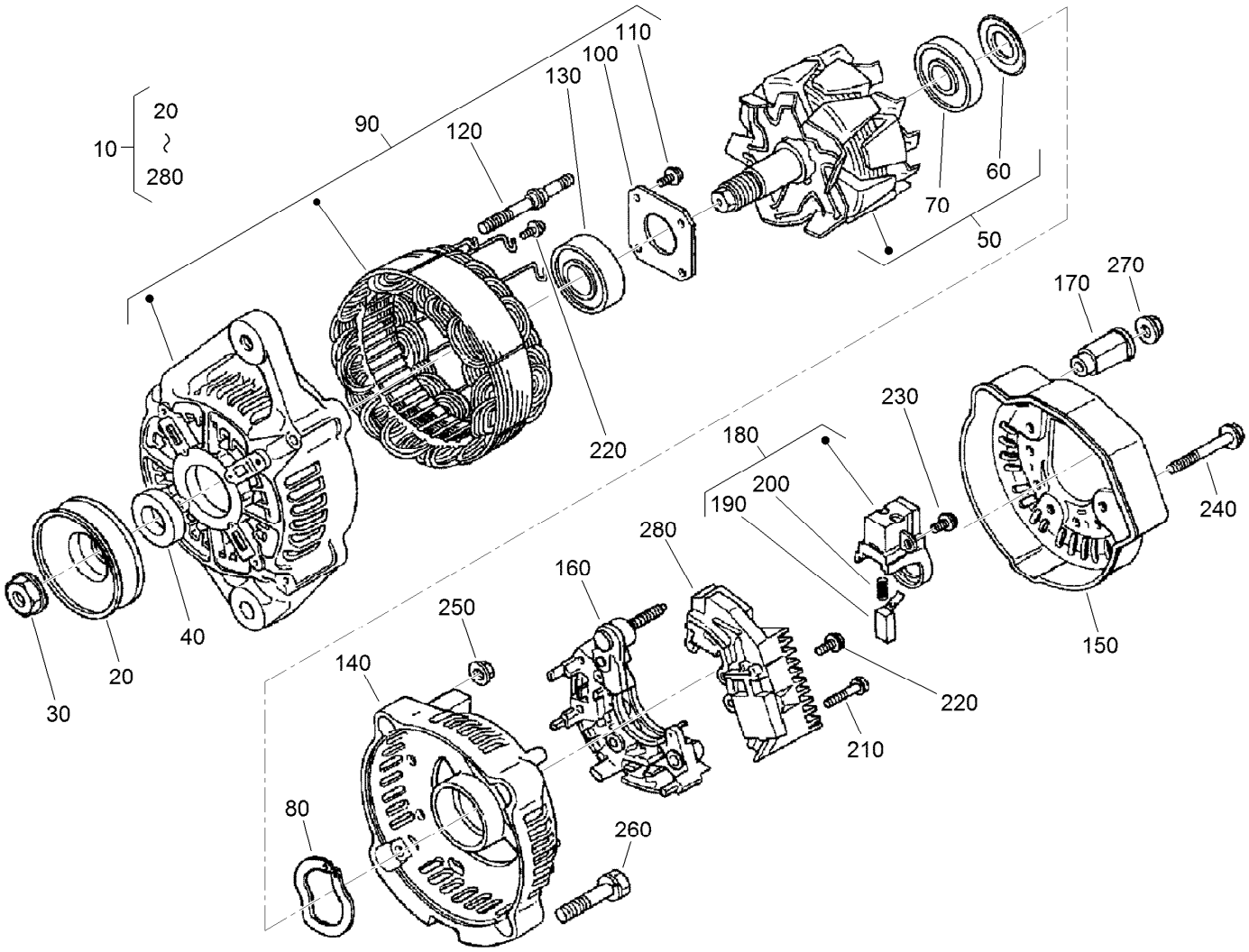
Ref.	Part Number	Qty.	Description
10	108-2866	3	Nozzle Holder Kit
20	99-8301	3	Nut
30	99-8302	3	Washer-Adjusting
40	99-8303	3	Spring-Nozzle
50	99-8304	3	Spacer-Distance
60	99-8305	3	Rod-Push
70	99-8306	3	Nut-Nozzle
80	99-8307	3	Washer-Plain
90	107-7826	3	Piece-Nozzle
100	99-8309	3	Adjusting Washer ASM
110	99-8310	3	Washer-Adjust (0.10Mm)

Ref.	Part Number	Qty.	Description
110	99-8311	3	Washer-Adjust (0.20Mm)
110	99-8312	3	Washer-Adjust (0.30Mm)
110	99-8313	3	Washer-Adjust (0.40Mm)
110	99-8314	3	Washer-Adjust (0.50Mm)
110	99-8315	3	Washer-Adjust (0.52Mm)
110	99-8316	3	Washer-Adjust (0.54Mm)
110	99-8317	3	Washer-Adjust (0.56Mm)
110	99-8318	3	Washer-Adjust (0.58Mm)
110	99-8319	3	Washer-Adjust (0.80Mm)
120	98-7676	3	Gasket
130	98-7677	3	Seal-Heat



Alternator and Pulley Assembly

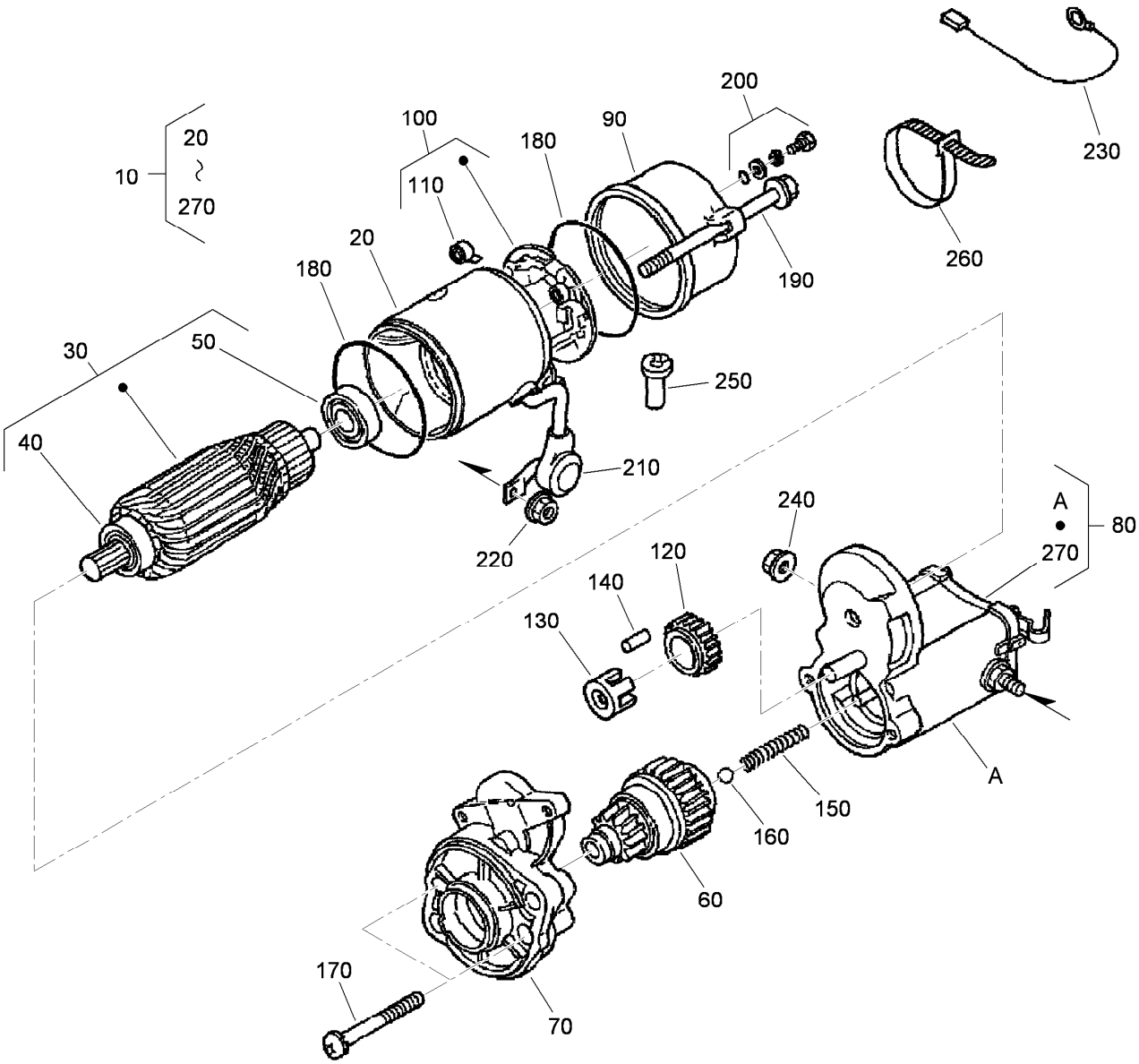
Ref.	*Part Number*	*Qty.*	*Description*
10	98-9474	1	Alternator ASM
20	112-7047	1	Stay-Dynamo
30	108-7088	1	Bolt
40	98-9360	1	Bolt
50	98-7737	1	Nut
60	98-9366	1	Washer-Plain
70	98-7738	1	Washer-Spring
90	98-7692	1	Bolt
100	99-3456	1	Pulley-Drive, Fan
110	98-9585	1	Bolt
120	98-9676	1	V-Belt
130	104-4246	1	Fan-Engine
140	98-9584	1	Pulley-Fan
150	108-2872	1	Collar-Fan
160	108-2873	4	Bolt-Flange



Alternator Components Assembly

Ref.	Part Number	Qty.	Description
10	98-9474	1	Alternator ASM
20	98-9453	1	Pulley-Dynamo
30	98-7708	1	Nut
40	98-7709	1	Collar
50	107-0136	1	Rotor ASM
60	98-7711	1	Cover-Bearing
70	107-0138	1	Bearing-Ball
80	98-7713	1	Washer-Thrust
90	107-0139	1	Drive End Frame ASM
100	98-7715	1	Plate-Retainer
110	98-7716	4	Screw-Head, Round
120	98-7717	2	Bolt-Through
130	107-0137	1	Bearing-Ball
140	107-9087	1	Frame-End

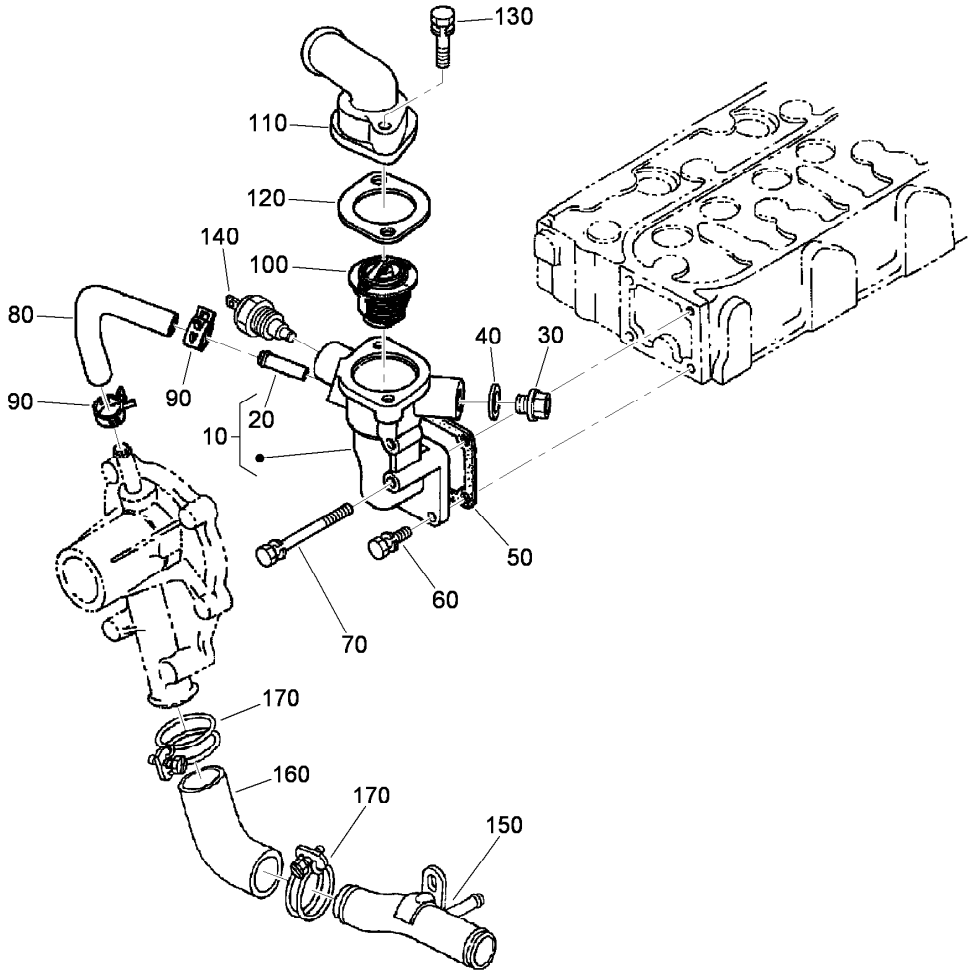
Ref.	Part Number	Qty.	Description
150	107-0140	1	Cover-End
160	98-7721	1	Rectifier ASM
170	98-7722	1	Bushing-Insulation
180	107-0141	1	Brush Holder ASM
190	98-7724	2	Brush
200	98-7725	2	Spring-Brush
210	98-7726	2	Screw-Head, Round
220	98-7727	6	Screw-Head, Round
230	98-7728	1	Screw-Head, Round
240	98-7729	3	Bolt
250	98-7730	2	Nut
260	98-7731	2	Bolt
270	98-7732	1	Nut
280	110-3799	1	Regulator ASM



Starter (Component Part) Assembly

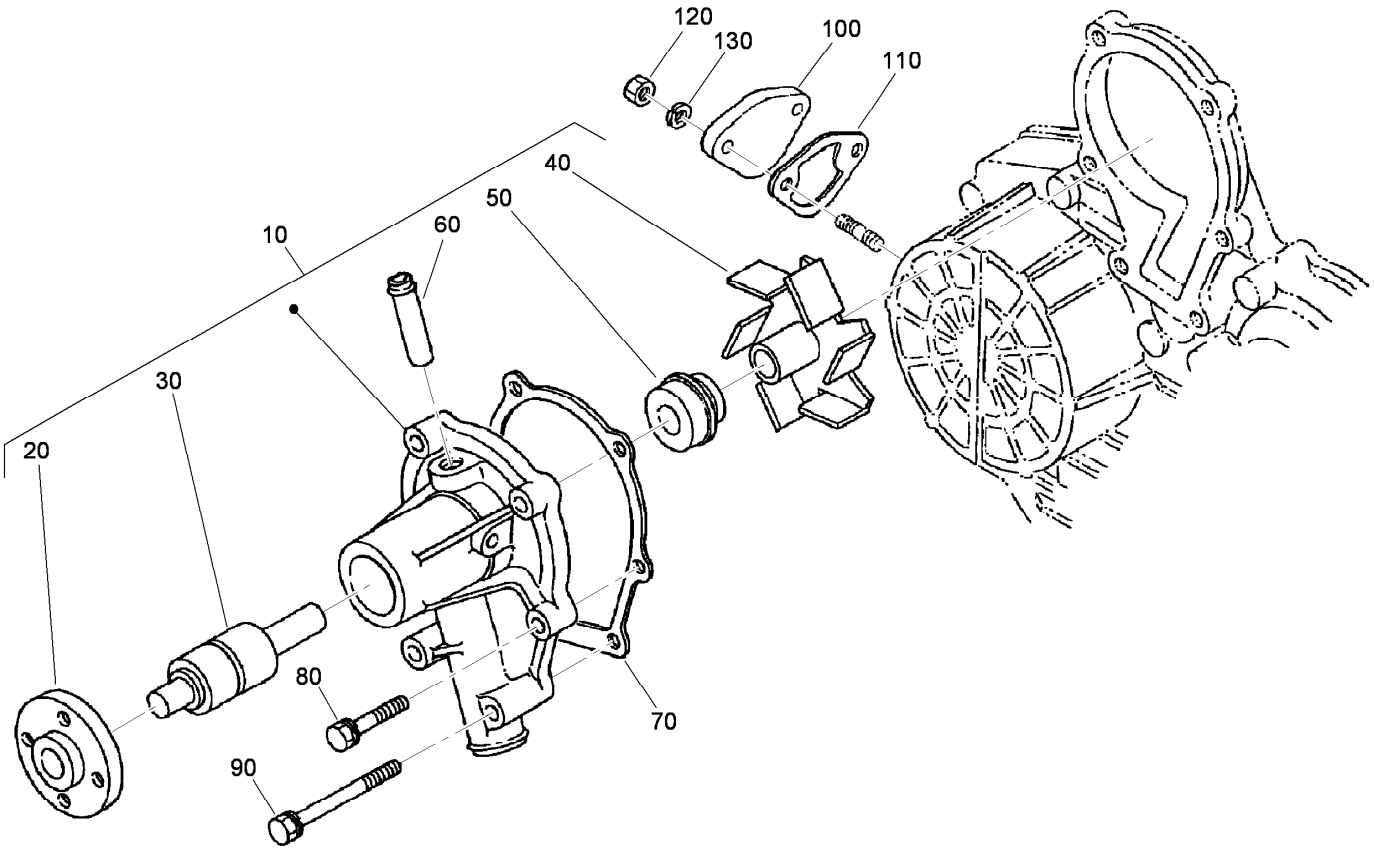
Ref.	Part Number	Qty.	Description
10	98-9705	1	Starter ASM
20	104-8608	1	Yoke ASM
30	98-7742	1	Armature ASM
40	98-7744	1	Bearing
50	98-7743	1	Bearing
60	99-8373	1	Clutch-Running, Over
70	99-8374	1	Frame-End, Drive
80	105-3746	1	Magnetic Switch ASM
90	98-7748	1	Frame-End
100	98-7749	1	Brush Holder ASM
110	98-7750	4	Spring-Brush
120	98-7751	1	Gear
130	98-7752	1	Retainer
140	98-7753	5	Roller

Ref.	Part Number	Qty.	Description
150	98-7754	1	Spring
160	98-7755	1	Ball
170	98-7756	2	Bolt
180	98-7757	2	O-Ring
190	100-9240	2	Bolt
200	98-7758	2	Bolt ASM
210	99-8375	1	Cover
220	99-8371	1	Nut-Hex
230	98-9711	1	Cord-Solenoid, Stop
240	99-8376	1	Nut-Hex
250	98-7759	1	Pipe-Drain
260	98-9712	1	Band-Cover
270	105-2886	1	Cover ASM



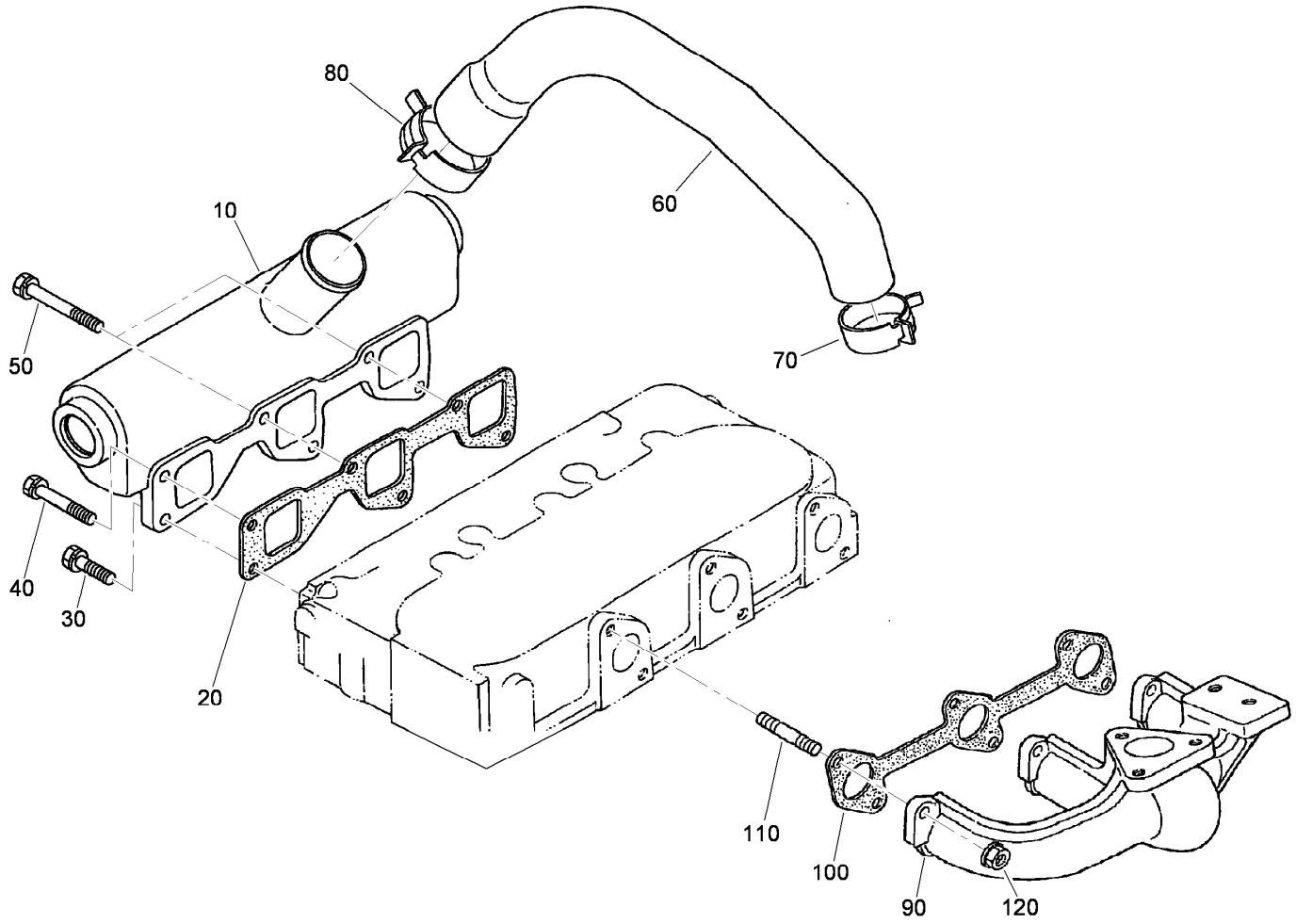
Water Flange and Thermostat Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	98-9713	1	Water Flange ASM
20	98-9580	1	Pipe-Return, Water
30	105-3747	1	Plug
40	99-3583	1	Gasket
50	98-9638	1	Gasket-Flange, Water
60	98-7692	3	Bolt
70	98-9356	1	Bolt
80	98-9578	1	Pipe-Return, Water
90	98-9579	2	Band-Pipe
100	98-7778	1	Thermostat ASM
110	104-4804	1	Outlet-Water
120	105-3748	1	Gasket-Thermostat
130	98-7777	2	Bolt
140	98-9719	1	Thermoswitch
150	99-8379	1	Pipe-Water
160	107-9091	1	Pipe-Water
170	98-9717	2	Clamp



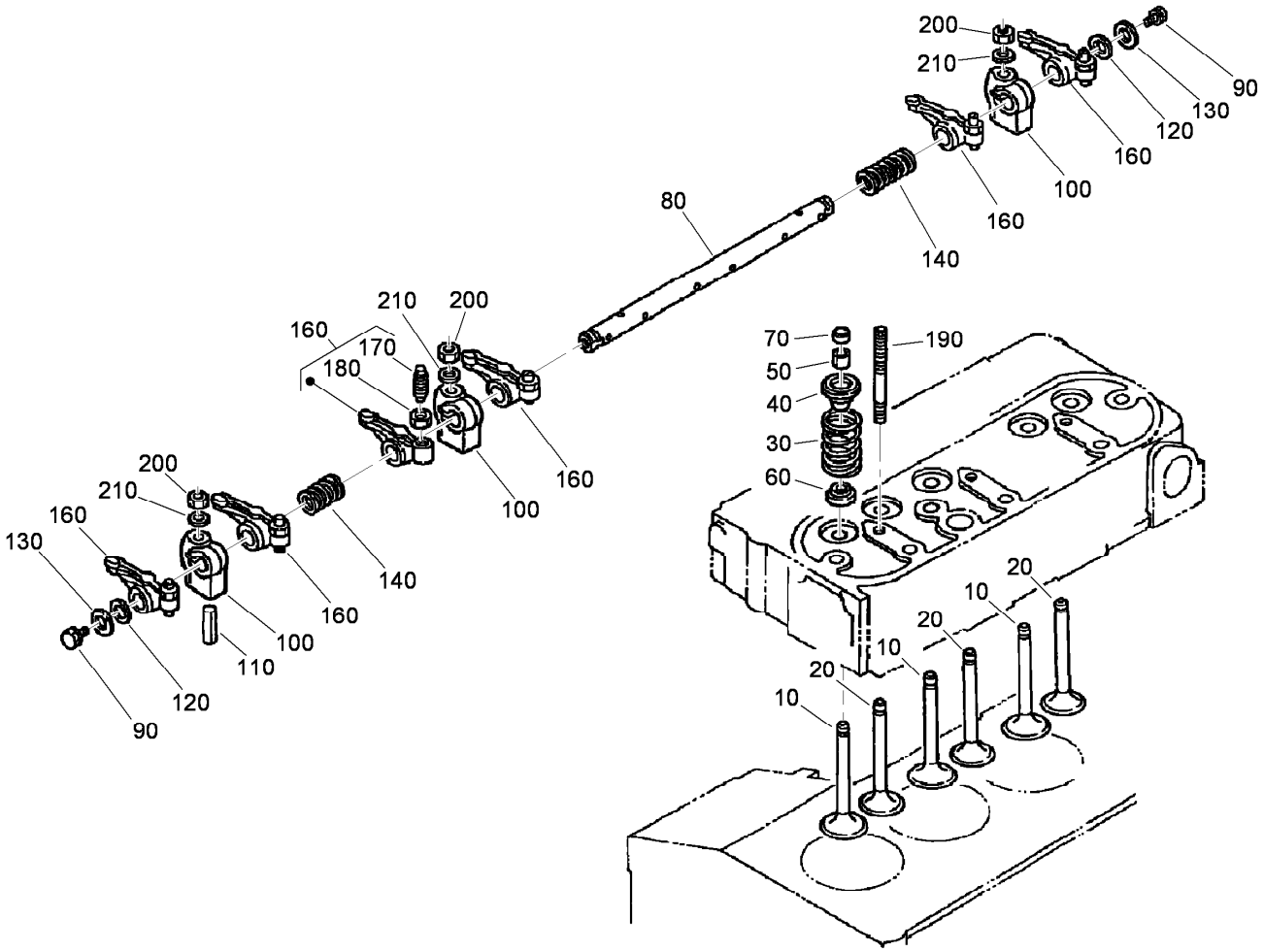
Water Pump and Fuel Pump Cover Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	107-9089	1	Water Pump ASM
20	99-3516	1	Flange-Pump, Water
30	99-3517	1	Bearing-Pump, Water
40	105-3750	1	Mechanical Seal ASM
50	112-7017	1	Impeller-Pump, Water
60	100-1932	1	Pipe-Return, Water
70	99-3454	1	Gasket-Pump, Water
80	98-9353	4	Bolt
90	98-9357	2	Bolt
100	99-3514	1	Cover
110	98-9636	1	Gasket-Pump, Fuel
120	98-7572	2	Nut
130	98-7699	2	Washer-Spring



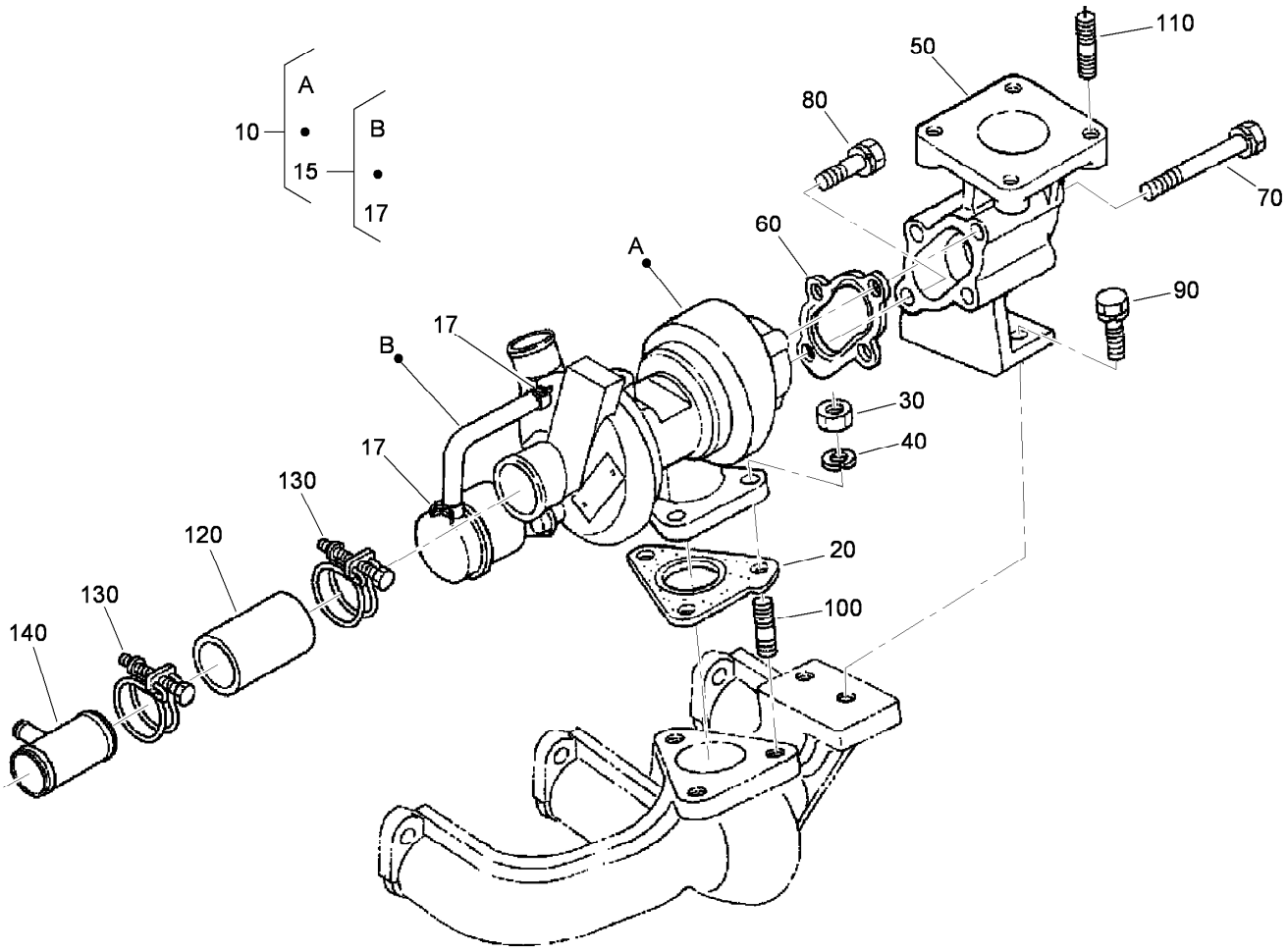
Inlet and Exhaust Manifold Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	99-8321	1	Manifold-Inlet
20	99-8329	1	Gasket-Manifold, Intake
30	98-7568	3	Bolt
40	107-9073	1	Bolt
50	99-8320	2	Bolt
60	115-3047	1	Hose-Inlet
70	115-3048	1	Clamp-Hose
80	115-3049	1	Clamp-Hose
90	108-1411	1	Manifold-Exhaust
100	99-8327	1	Gasket-Manifold, Exhaust
110	98-9588	6	Stud
120	98-9665	6	Nut



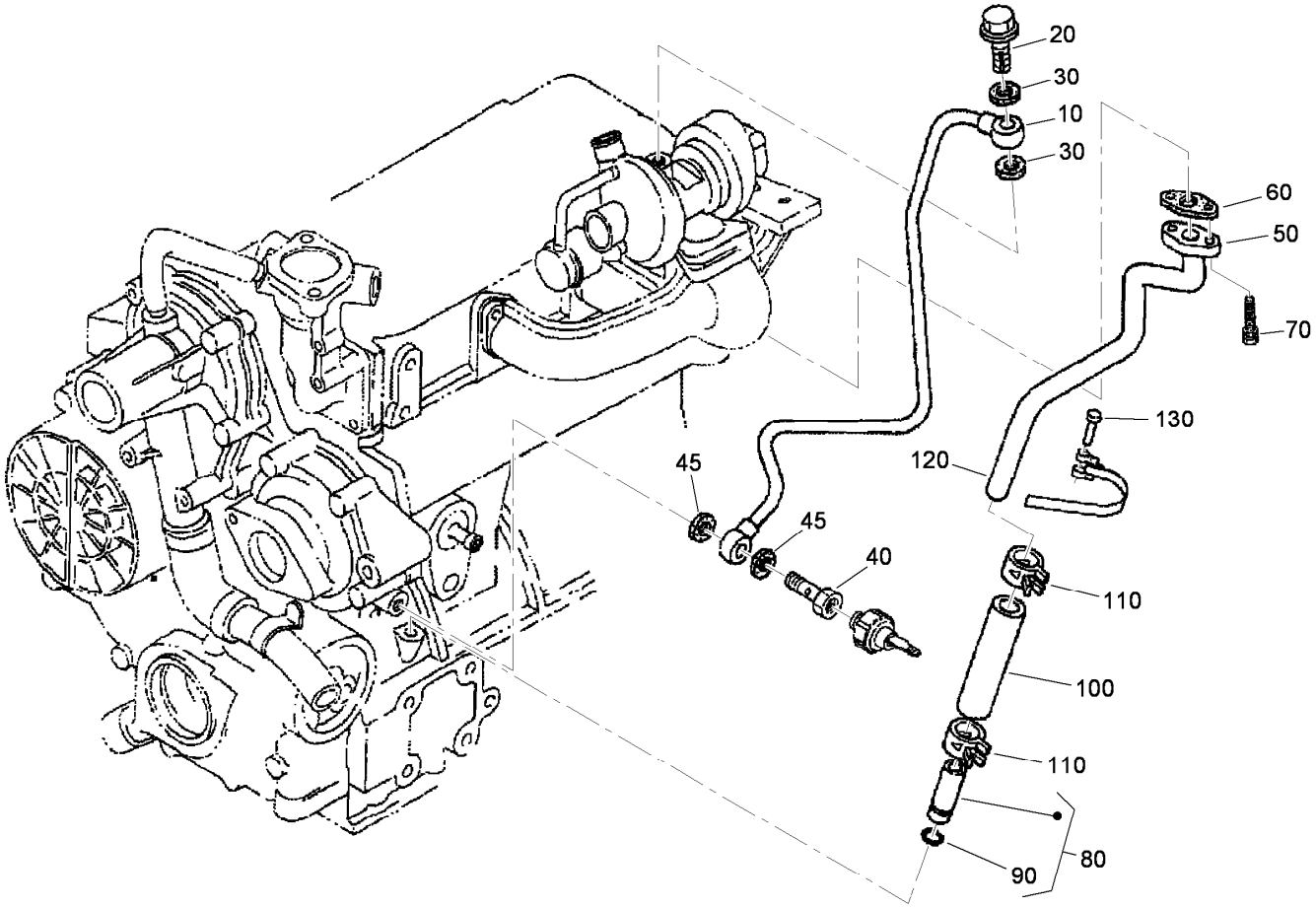
Valve and Rocker Arm Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	112-7018	3	Valve-Inlet
20	112-7019	3	Valve-Exhaust
30	98-9626	6	Spring-Valve
40	107-9092	6	Retainer-Spring
50	98-9390	6	Collet-Spring, Valve
60	99-8385	6	Seal-Stem, Valve
70	98-9497	6	Cap-Valve
80	105-3790	1	R-Arm Shaft ASM
90	100-9265	2	Bolt
100	98-9505	3	Bracket-Arm, Rocker
110	105-3758	1	Pin-Spring
120	98-9507	2	Washer-Shaft, R-Arm
130	110-3832	2	Washer-Plain
140	98-9504	2	Spring-Arm, Rocker
160	112-7020	6	Rocker Arm ASM
170	98-9502	6	Screw-Adjusting
180	98-9503	6	Nut
190	98-9506	3	Stud
200	98-9393	3	Nut
210	98-9385	3	Washer-Flat



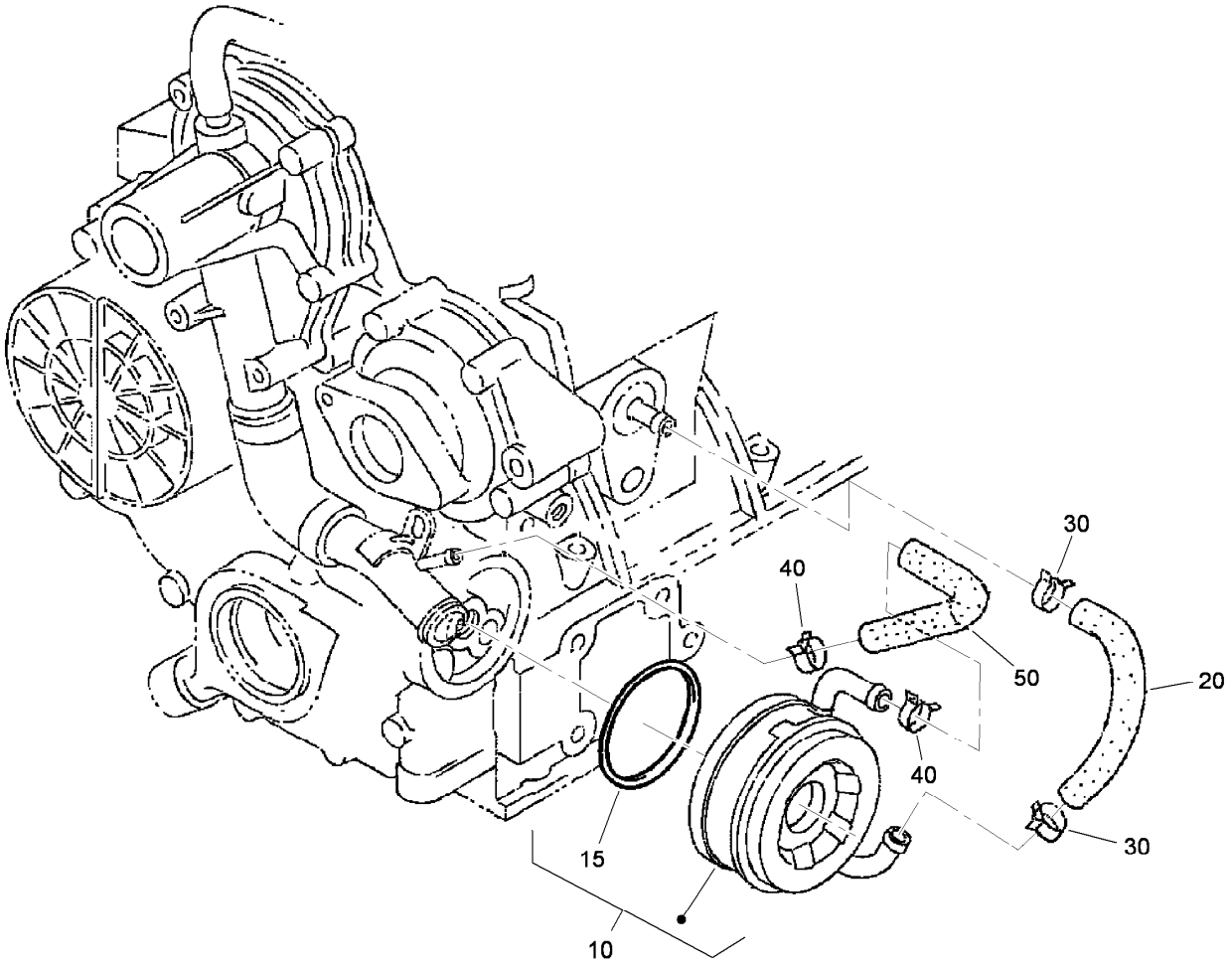
Turbo Charger Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	108-1412	1	Turbo Charger ASM
15	108-1413	1	Hose ASM
17	108-1414	2	Clamp-Hose
20	105-3767	1	Gasket
30	98-7534	3	Nut
40	105-2893	3	Washer-Spring
50	99-8335	1	Flange-Muffler
60	105-3768	1	Gasket
70	115-4100	3	Bolt
80	105-2895	1	Bolt
90	98-7610	2	Bolt
100	99-8342	3	Stud
110	98-7769	4	Stud
120	115-4101	1	Tube-Inlet, Turbo
130	115-4102	2	Band
140	115-4103	1	Pipe-Inlet, Breather



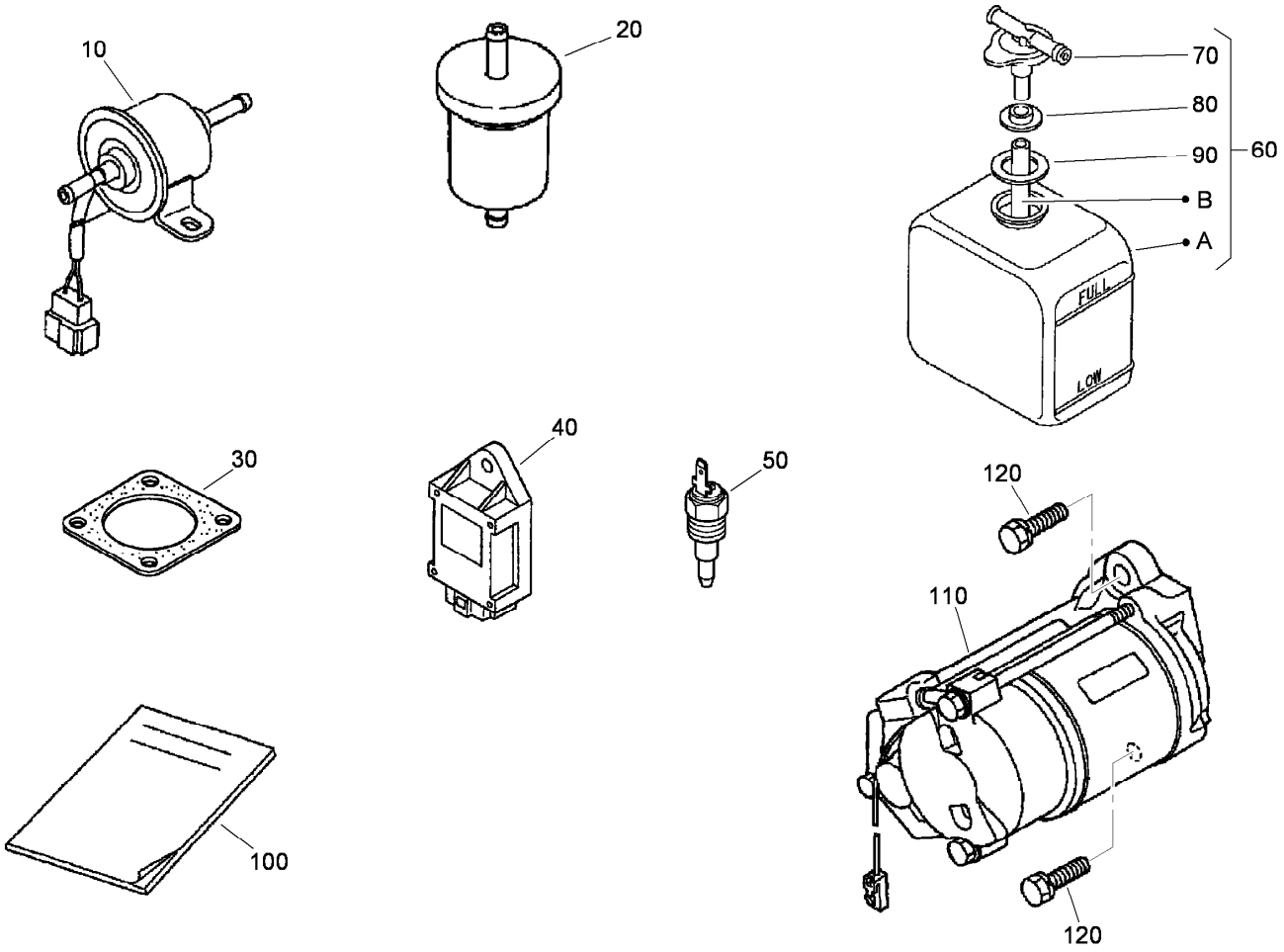
Oil Pipe (Turbo Charger) Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	98-9419	1	Oil Pipe ASM
20	115-4126	1	Bolt-Joint, Eye
30	99-8346	2	Gasket
40	98-9417	1	Bolt-Joint, Eye
45	99-8346	2	Gasket
50	98-9461	1	Pipe Line ASM
60	108-4422	1	Gasket
70	98-7605	2	Bolt
80	99-8383	1	Oil Pipe ASM
90	98-9722	1	O-Ring
100	98-9721	1	Pipe-Oil
110	98-9714	2	Clamp-Hose
120	98-9601	1	Clamp-Pipe
130	98-9591	1	Pin-Band



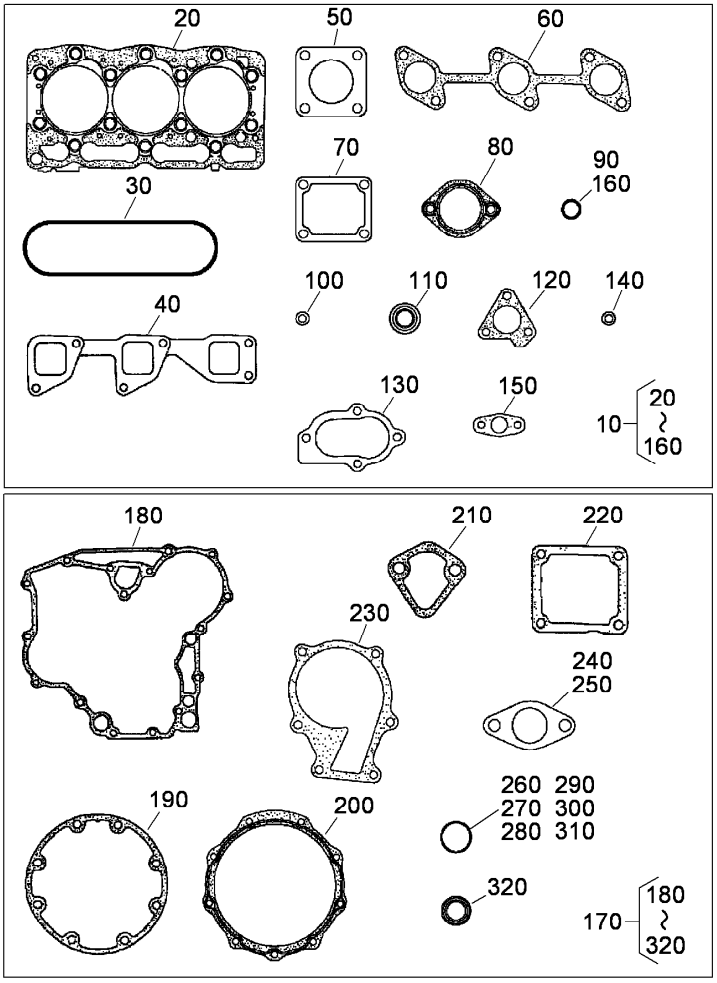
Oil Cooler Assembly

Ref.	*Part Number*	*Qty.*	*Description*
10	104-5158	1	Oil Cooler ASM
15	112-7030	1	O-Ring
20	98-9724	1	Pipe-Cooler, Oil
30	98-9579	2	Band-Pipe
40	98-9579	2	Band-Pipe
50	98-9578	1	Pipe-Return, Water



Starter, Overflow Bottle and Miscellaneous Engine Parts

Ref.	*Part Number*	*Qty.*	*Description*
10	107-0122	1	Pump-Fuel, Electric
20	98-7612	1	Filter-Fuel
30	98-9611	1	Gasket
40	98-7611	1	Controller-Glow
50	106-7772	1	Thermoswitch
60	104-9318	1	Overflow Bottle ASM
70	115-4132	1	Cap
80	105-3755	1	Gasket
90	105-3756	1	Plate
100	115-4104	1	Operator Manual
110	98-9705	1	Starter ASM
120	98-7697	2	Bolt



Upper and Lower Gasket Kits

Ref.	Part Number	Qty.	Description
10	108-1415	1	Upper Gasket Kit
20	108-6573	1	Gasket-Head, Cylinder ●
30	98-9615	1	Gasket-Cover, Head ●
40	99-8329	1	Gasket-Manifold, Intake ●
50	99-8343	1	Gasket-Muffler ●
60	99-8327	1	Gasket-Manifold, Exhaust ●
70	98-9638	1	Gasket-Flange, Water ●
80	105-3748	1	Gasket-Thermostat ●
90	99-3446	1	O-Ring ●
100	98-9454	3	Gasket ●
110	99-8385	6	Seal-Stem, Valve ●
120	105-3767	1	Gasket ●
130	105-3768	1	Gasket ●
140	99-8346	4	Gasket ●
150	108-4422	1	Gasket ●
160	98-9722	1	O-Ring ●

Ref.	Part Number	Qty.	Description
170	112-7041	1	Lower Gasket Kit
180	98-9633	1	Gasket-Case, Gear ●
190	98-9634	1	Gasket-Case, Bearing ●
200	112-7037	1	Gasket-Cover, Case ●
210	98-9636	1	Gasket-Pump, Fuel ●
220	98-9637	1	Gasket ●
230	98-9632	1	Gasket-Pump, Water ●
240	98-9683	1	Gasket-Cover, Solenoid ●
250	98-9682	1	Gasket ●
260	105-3781	2	O-Ring ●
270	105-3777	2	O-Ring ●
280	105-3783	1	O-Ring ●
290	105-3776	1	O-Ring ●
300	98-9729	1	O-Ring ●
310	105-3788	1	O-Ring ●
320	98-7601	1	Seal-Oil ●

● Not illustrated

Attachments and Accessories

For 30839 Groundsmaster 3500-D Traction Unit

Product Name	Model/Part
Blade-Lift, High	104-5183
Blade-Angle Sail	105-9810-03
Blade-Atomic	107-0235-03
27in Blade Service Pack	108-1462
Blade-Combo	108-9026-03
400-hour Filter Maintenance Kit	30058
Premium Seat Kit	30629
27in Rotary Cutting Unit	30834
Leaf Mulching Kit	30836
Work Light Kit	30841

Notes:

Notes:



Count on it.