



Groundsmaster® 3500-D

Model No. 30821 - 230000001 and up.

Parts Catalog

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 illustrations and in part 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.

Contents

Description	Page	Description	Page
Frame and Platform Assembly	 4	Deck Motor Assembly	 39
Front Wheel and Brake Assembly	 5	Hydraulic Motor Assembly No. 105-9820	 40
Hydraulic Wheel Motor Assembly No. 75-9990	 6	Battery Assembly	 41
Hydraulic Motor Assembly No. 95-8693	 7	Parking Brake Assembly	 42
Brake Assembly No. 104-7705	 8	Crankcase Assembly	 43
Steering Column Assembly	 9	Oil Pan Assembly	 44
Steering Control Assembly No. 104-0474	 10	Cylinder Head Assembly	 45
Rear Fork and Tire Assembly	 11	Grease and Oil Filter Assembly	 46
Hydraulic Cylinder Assembly No. 94-8141	 12	Filter, Oil Cooler, and Pipe Assembly	 47
Hydraulic Motor Assembly No. 95-8694	 13	Head Cover Assembly	 48
Control Panel Assembly	 14	Dipstick Assembly	 49
Front Platform Assembly	 15	Main Bearing Case Assembly	 50
Traction Pedal Assembly	 16	Camshaft Assembly	 51
Control Valve Installation Assembly	 17	Piston and Crankshaft Assembly	 52
Valve Assembly No. 95-8581	 18	Flywheel Assembly	 53
Rear Liftarm Assembly	 19	Fuel Camshaft Assembly	 54
Hydraulic Cylinder Assembly No. 95-8978	 21	Engine Stop Lever Assembly	 55
Neutral Arm Assembly	 22	Stop Solenoid and Fuel Pump Assembly	 56
Engine Assembly	 23	Injection Pump Installation Assembly	 57
Air Cleaner and Muffler Assembly	 24	Injection Pump Assembly No. 98-9643	 58
Radiator Assembly	 25	Governor Assembly	 59
Hood-Screen Assembly	 26	Speed Control Plate Assembly	 60
Fuel System Assembly	 27	Nozzle Holder and Glow Plug Assembly	 61
Water / Fuel Filter Assembly No. 98-9305	 28	Nozzle Holder Assembly No. 98-9468	 62
Manifold Block Installation Assembly	 29	Alternator and Pulley Assembly	 63
Manifold Block Assembly No. 104-4876	 30	Alternator Assembly No. 98-9474	 64
Hydraulic Tank Assembly	 31	Starter Mount Assembly	 65
Hydrostat Assembly	 32	Starter Assembly No. 98-9705	 66
Piston Pump Assembly No. 104-4890	 34	Water Flange and Thermostat Assembly	 67
Gear Pump Assembly No. 100-1646	 35	Water Pump Assembly	 68
Carrier Assembly	 36	Valve and Rocker Arm Assembly	 69
Scissor Assembly	 38	Exhaust Manifold and Gasket Assembly	 70
		Turbo Charge Assembly	 71

Part Description Abbreviations

Part descriptions in this catalog may include the following abbreviations.

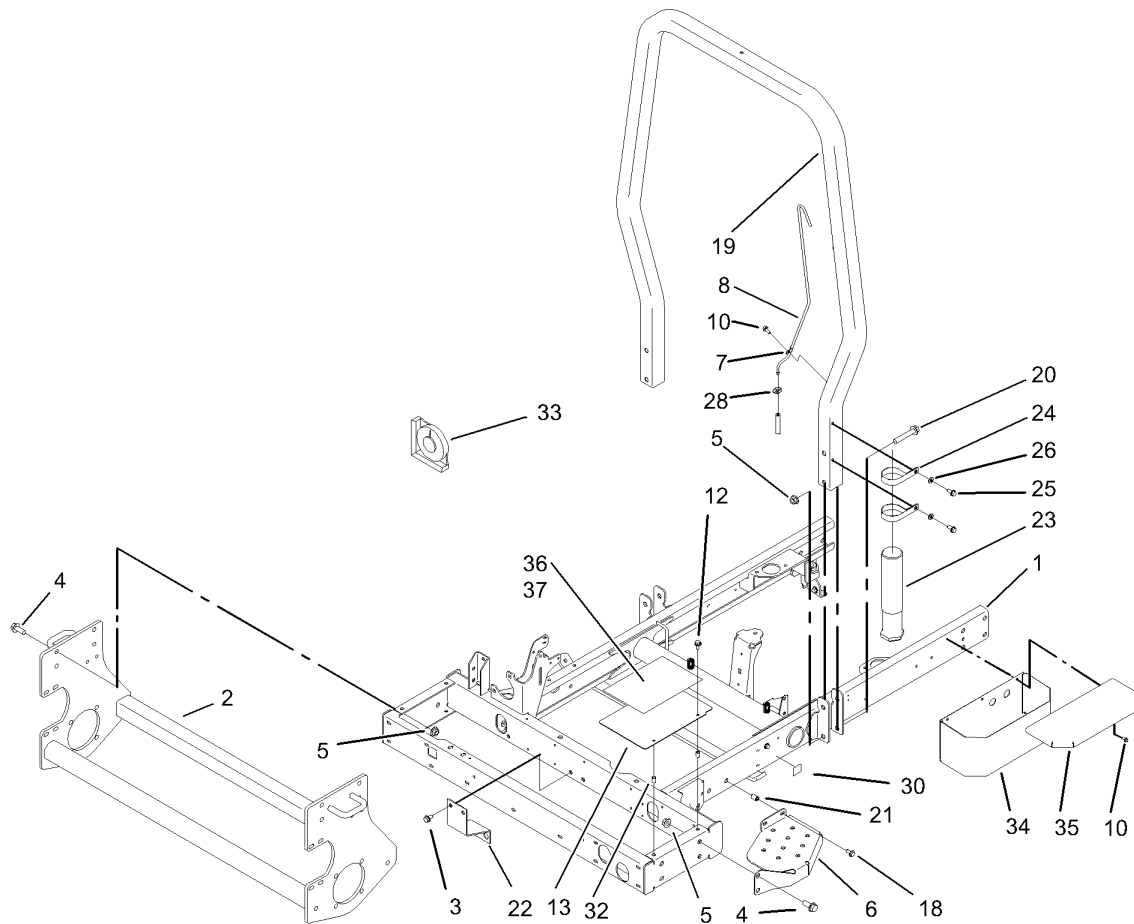
AR.	as required	HYD.	hydraulic
ASM.	assembly	LH.	left hand
BBC.	blade brake clutch	NI.	nylon insert
CARR.	carriage	NPTF.	national pipe thread fine
DEG.	degrees	PFH.	phillips flat head
EXT.	external	PPH.	phillips pan head
FH.	flat head	PPHTF.	phillips pan head thread forming
GA.	gauge	PRH.	phillips round head
HD.	heavy-duty	PTH.	phillips truss head
HF.	hex flange	PTO.	power-take-off
HH.	hex head	RH.	right hand
HHF.	hex head flange	ROPS.	roll-over protection system
HHFTF.	hex head flange thread forming	SFH.	slotted fillister head
HJ.	hex jam	SHH.	slotted hex head
HLH.	hex lag head	SHWH.	slotted hex washer head
HOC.	height-of-cut	SPH.	slotted pan head
HSBH.	hex socket button head	SQH.	square head
HSFH.	hex socket flat head	SRH.	slotted round head
HSH.	hex socket head	STD.	standard
HWH.	hex washer head	TAP.	self tapping
HWHTF.	hex washer head thread forming	TTH.	torx truss head

Footnotes

- ❶

Not serviced separately
- ❷

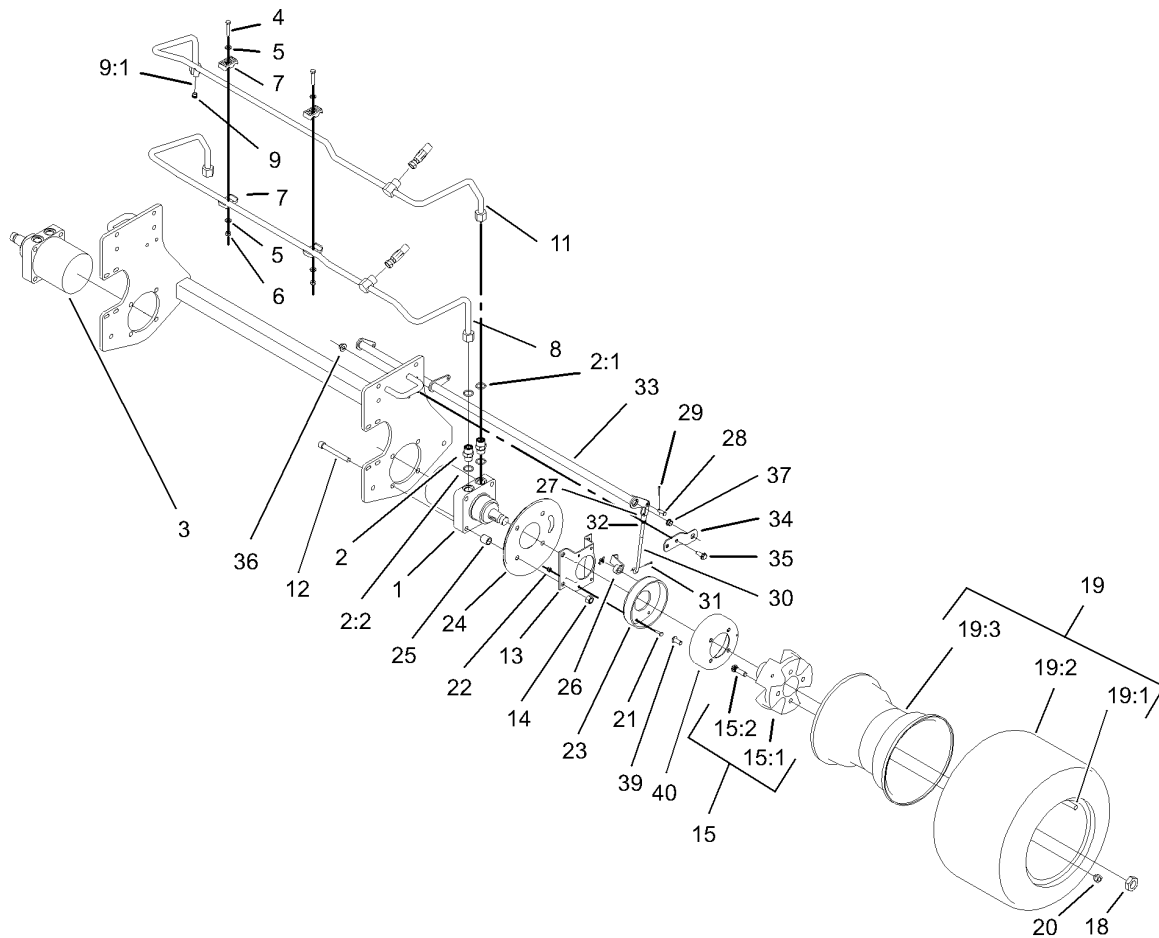
* Not Illustrated



Frame and Platform Assembly

Ref	Part No.	Qty.	Description
1	99-3610-03	1	Frame
2	95-8568-03	1	Frame-Lower
3	3274-80	2	Screw-HH
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	11	Screw-HWH
12	3234-4	2	Screw-HHF
13	104-0468-01	1	Cover-Frame
18	3234-5	2	Screw
19	99-3350-03	1	Tube-ROPS
20	3234-40	4	Screw-HF
21	32148-8	2	Insert-Threaded
22	95-8598-03	1	Bracket-Bulkhead, Scissor
23	74-0720	1	Tube-Manual
24	2412-133	2	R-Clamp
25	32144-70	2	Screw-HH
26	3256-23	2	Washer-Flat
28	2412-108	1	Clamp-Worm
30	105-4674	1	Decal-Noise, Ce
32	32148-6	2	Insert-Nut
33	99-3503	1	Indicator-Angle

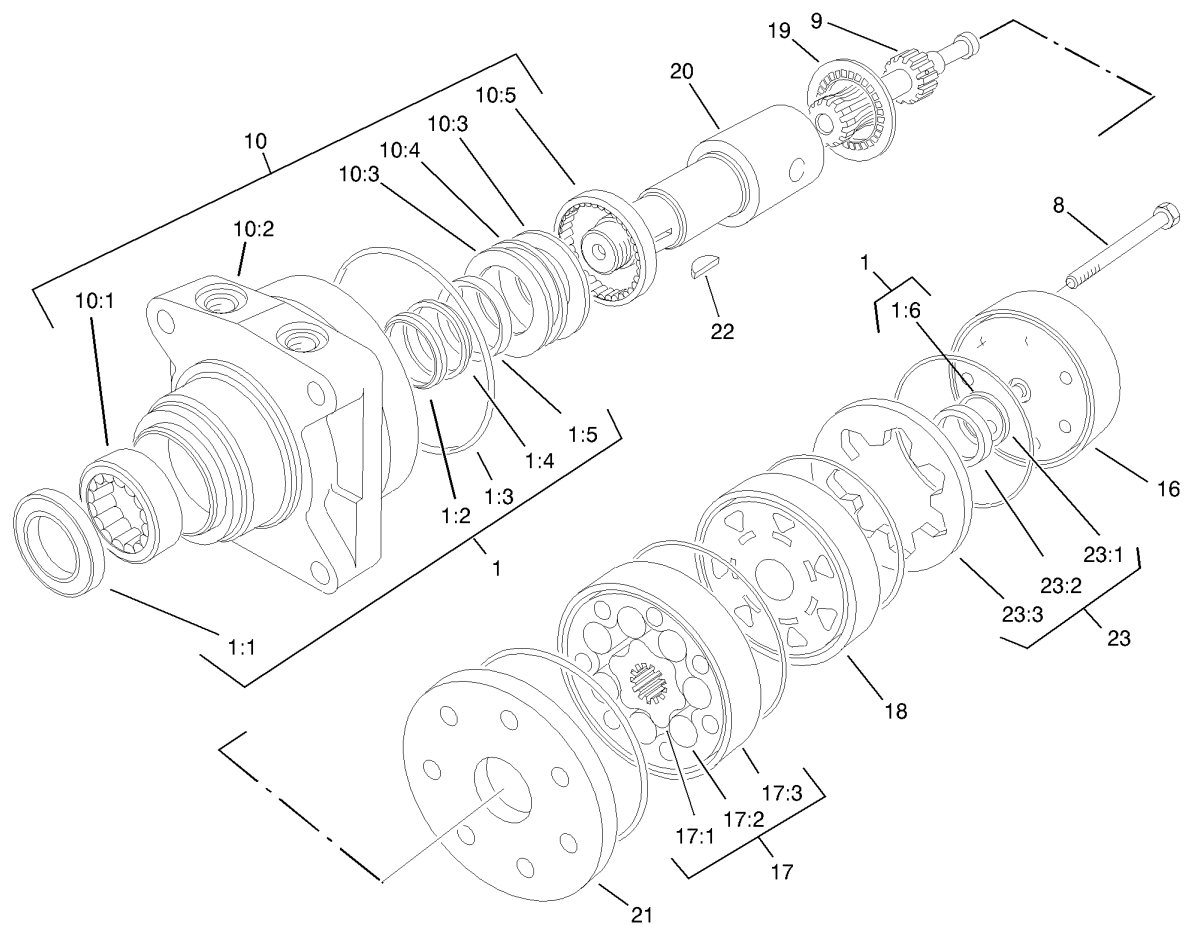
Ref	Part No.	Qty.	Description
34	104-4634-03	1	Toolbox ASM
35	104-4633-03	1	Toolbox Cover ASM
36	104-0484	1	Decal-Danger
37	99-3560	1	Decal-Danger, Ce



Front Wheel and Brake Assembly

Ref	Part No.	Qty.	Description
1	75-9990	1	HYD Motor ASM
2	340-7	4	Adapter
2:1	237-65	1	O-Ring
2:2	237-80	1	O-Ring
3	95-8693	1	HYD Motor ASM
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	104-0462-03	1	Hub-Wheel
15:2	10-6830	4	Stud-Type, Drive
18	26-3790	2	Nut-Lock
19		2	Tire & Wheel ASM
19:1	232-27	1	Stem-Valve
19:2	104-0451	1	Tire
19:3	104-0452	1	Rim-Wheel

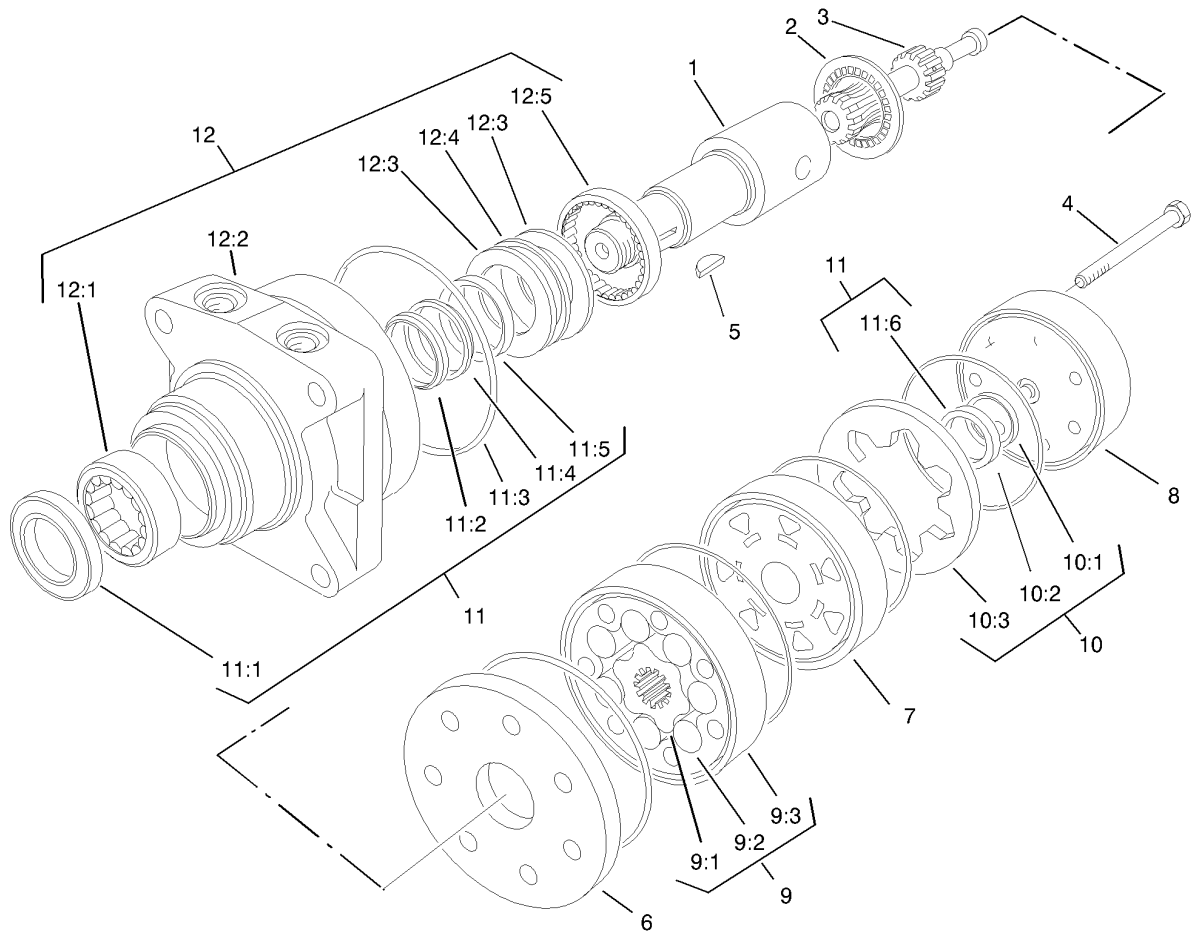
Ref	Part No.	Qty.	Description
20	242-50	8	Nut-Lug
21	321-5	8	Screw-HH
22	3296-42	8	Nut-Lock, NI
23	104-7705	2	Brake ASM
24	104-0485-03	2	Shield-Wheel
25	92-1715	8	Spacer
26	93-6850	2	Lever-Brake
27	282-2	2	Yoke
28	283-1	2	Pin-Yoke
29	3272-10	2	Pin-Cotter
30	104-4627	2	Rod-Adjusting
31	3272-6	2	Pin-Cotter
32	3220-2	2	Nut
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
37	256-156	2	Bushing-Flange
39	3274-105	8	Screw-HSBH
40	104-4809	2	Drum-Brake



Hydraulic Wheel Motor Assembly No. 75-9990

Ref	Part No.	Qty.	Description
1	76-0800	1	Seal Kit
●1:1		1	Seal-Dirt & Water
●1:2		1	Washer-Back-Up
●1:3		5	Ring-Seal
●1:4		1	Washer-Back-Up
●1:5		1	Seal-Inner
●1:6		1	Seal-Commutator
8	76-1010	7	Screw
9	76-0960	1	Link-Drive
10	76-0810	1	Housing ASM
●10:1		1	Bearing
●10:2		1	Housing
●10:3		2	Washer-Thrust
●10:4		1	Bearing-Thrust
●10:5		1	Bearing
16	76-0940	1	End Cover ASM
17	76-0970	1	Set-Rotor
●17:1		1	Rotor
●17:2		7	Vane
●17:3		1	Stator
18	76-0840	1	Manifold
19	76-0850	1	Bearing-Thrust
20	76-0860	1	Shaft-Coupling
21	76-0870	1	Plate-Wear

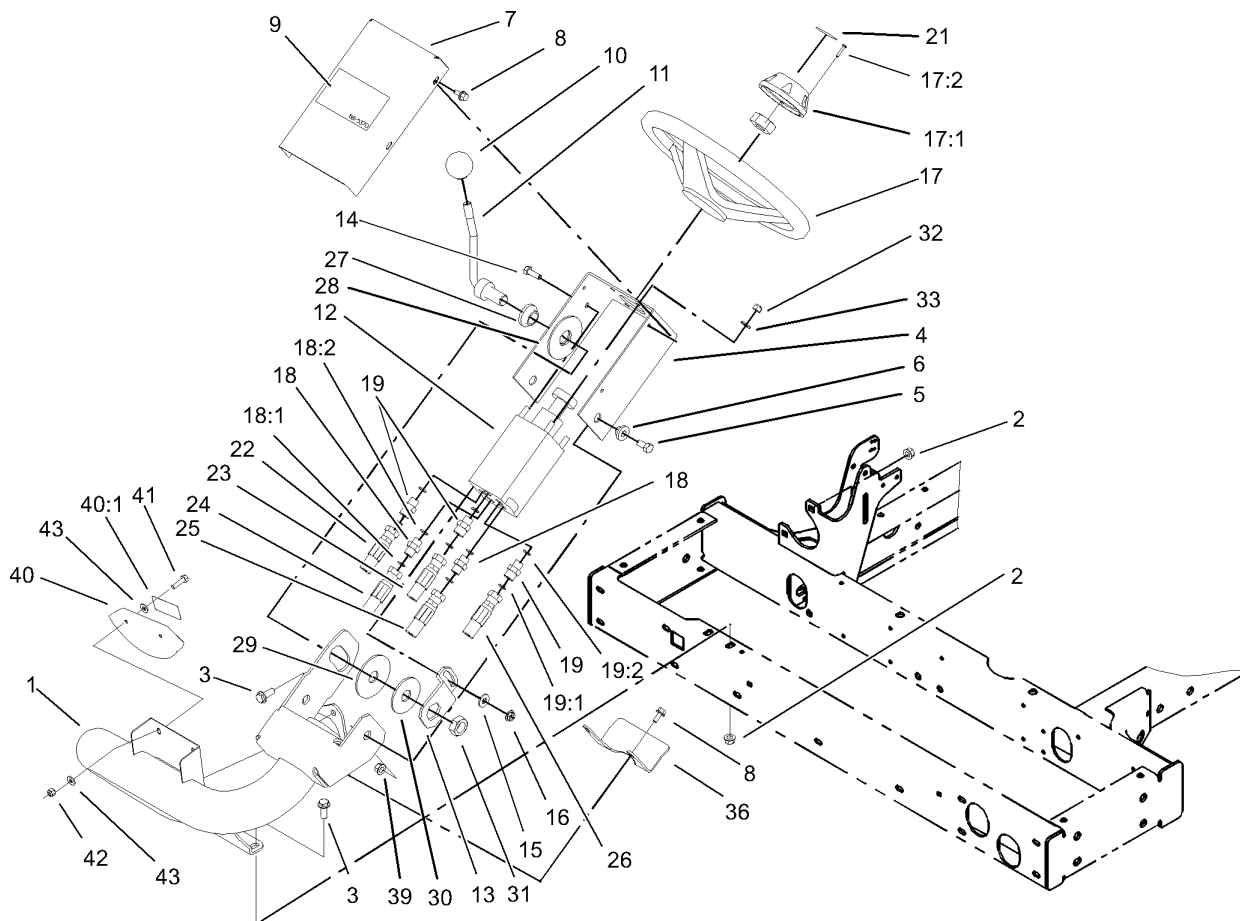
Ref	Part No.	Qty.	Description
22	3257-42	1	Key-Woodruff
23	76-0880	1	Commutator ASM
●23:1		1	Seal-Commutator
●23:2		1	Commutator
●23:3		1	Ring-Commutator



Hydraulic Motor Assembly No. 95-8693

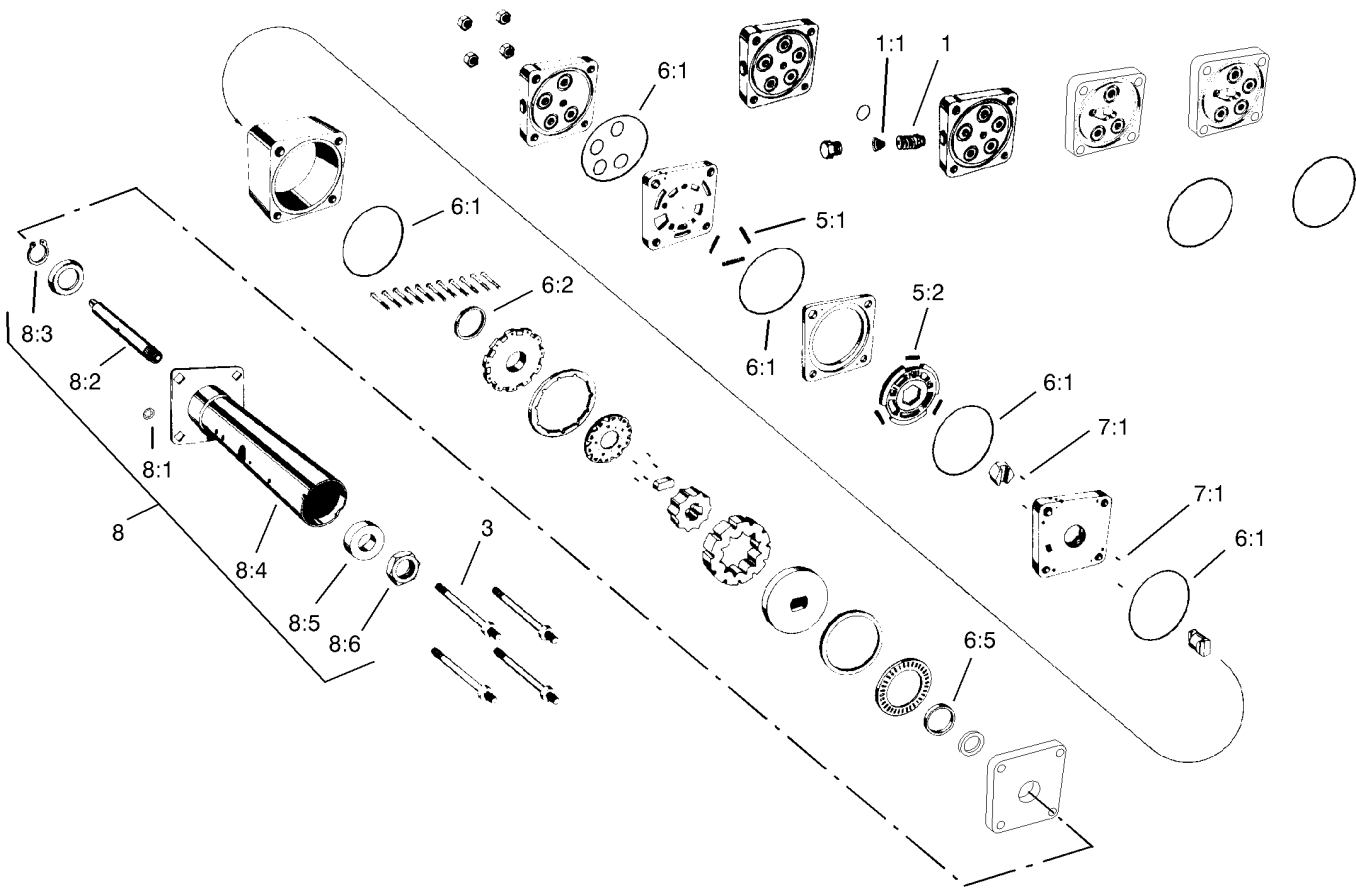
Ref	Part No.	Qty.	Description
1	76-0860	1	Shaft-Coupling
2	76-0850	1	Bearing-Thrust
3	76-0960	1	Link-Drive
4	76-1010	7	Screw
5	3257-42	1	Key-Woodruff
6	76-0870	1	Plate-Wear
7	99-3535	1	Manifold
8	76-0940	1	End Cover ASM
9	76-0970	1	Set-Rotor
●9:1		1	Rotor
●9:2		7	Vane
●9:3		1	Stator
10	76-0880	1	Commutator ASM
●10:1		1	Seal-Commutator
●10:2		1	Commutator
●10:3		1	Ring-Commutator
11	76-0800	1	Seal Kit
●11:1		1	Seal-Dirt & Water
●11:2		1	Washer-Back-Up
●11:3		5	Ring-Seal
●11:4		1	Washer-Back-Up
●11:5		1	Seal-Inner
●11:6		1	Seal-Commutator
12	76-0810	1	Housing ASM

Ref	Part No.	Qty.	Description
●12:1		1	Bearing
●12:2		1	Housing
●12:3		2	Washer-Thrust
●12:4		1	Bearing-Thrust
●12:5		1	Bearing



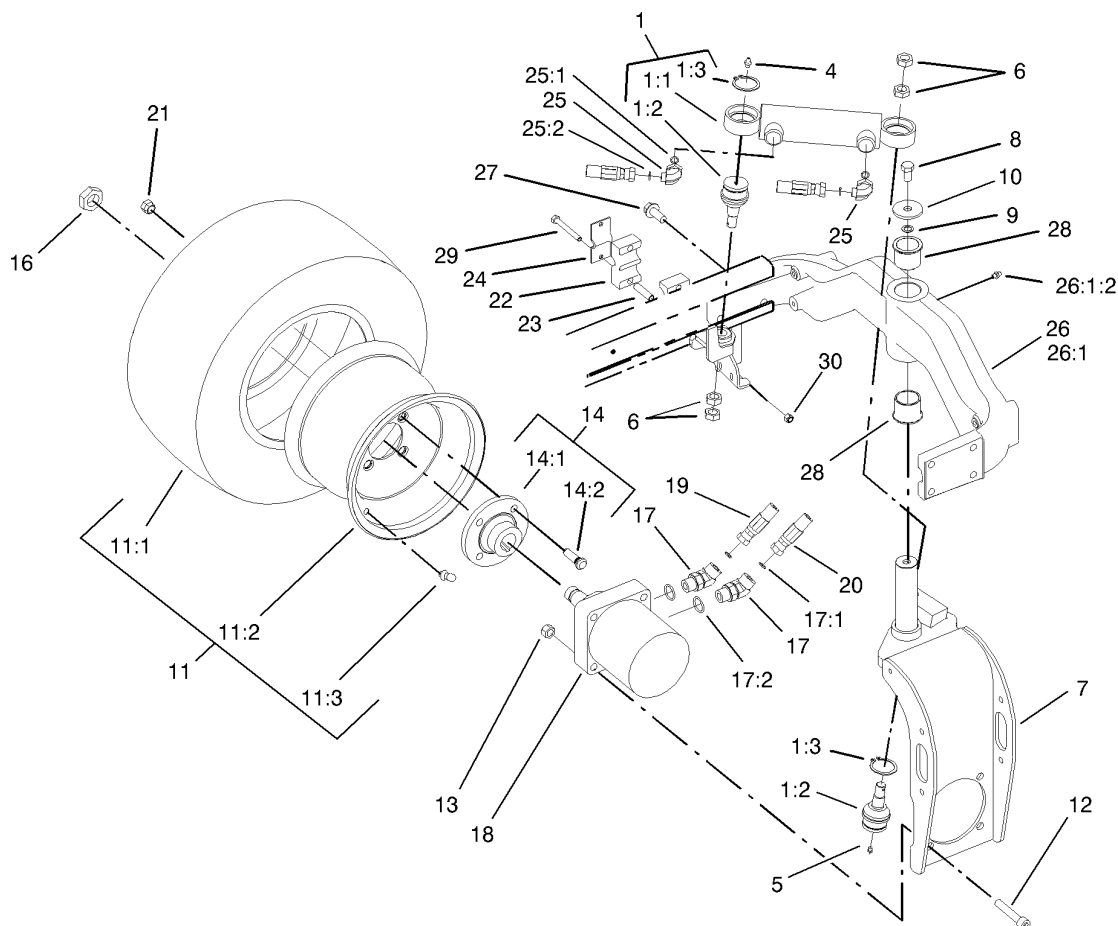
Steering Column Assembly

Ref	Part No.	Qty.	Description	Ref	Part No.	Qty.	Description
1	105-8536-01	1	Arm-Steering	19:2	237-42	1	O-Ring
2	32128-43	4	Nut-Flange	21	68-5370	1	Decal-Toro
3	3234-11	4	Screw-HHF	22	95-8842	1	Hose ASM
4	95-8793-01	1	Bracket-Valve, Steering	23	95-8843	1	Hose ASM
5	323-5	2	Screw-HH	24	100-4892	1	Hose ASM
6	93-5988	2	Hub-Pivot	25	100-4893	1	Hose ASM
7	95-8794-01	1	Cover-Valve, Steering	26	95-8846	1	Hose ASM
8	32144-10	5	Screw-HWH	27	99-3502	1	Boss
9	67-1300	1	Decal-Toro	28	31-0390	1	Disc-Friction
10	233-48	1	Knob	29	82-9010	1	Disc-Friction
11	95-8798-03	1	Lever-Steering	30	80-2930	1	Washer-Flat
12	104-0474	1	Control-Steering	31	3218-7	1	Nut-Jam
13	80-2880	1	Bracket-Tilt	32	3296-4	4	Nut-Lock, NI
14	322-5	1	Screw-HH	33	3256-23	4	Washer-Flat
15	3256-3	1	Washer-Flat	36	99-3405-01	1	Shield-Steering
16	32128-44	1	Nut	39	32128-21	2	Nut-HF
17	68-5130	1	Wheel-Steering	40	100-4929	1	Slope Indicator ASM
17:1	68-5140	1	Cap-Wheel, Steering	40:1	100-4933	1	Decal-Danger
17:2	32144-21	1	Screw	40:1	100-4837	1	Decal-Danger
18	340-1	2	Adapter	42	321-7	2	Screw-HH
18:1	237-35	1	O-Ring	43	3296-42	2	Nut-Lock, NI
18:2	237-42	1	O-Ring	44	3256-22	4	Washer-Flat
19	340-2	3	Fitting-Straight, HYD				
19:1	237-22	1	O-Ring				



Steering Control Assembly No. 104-0474

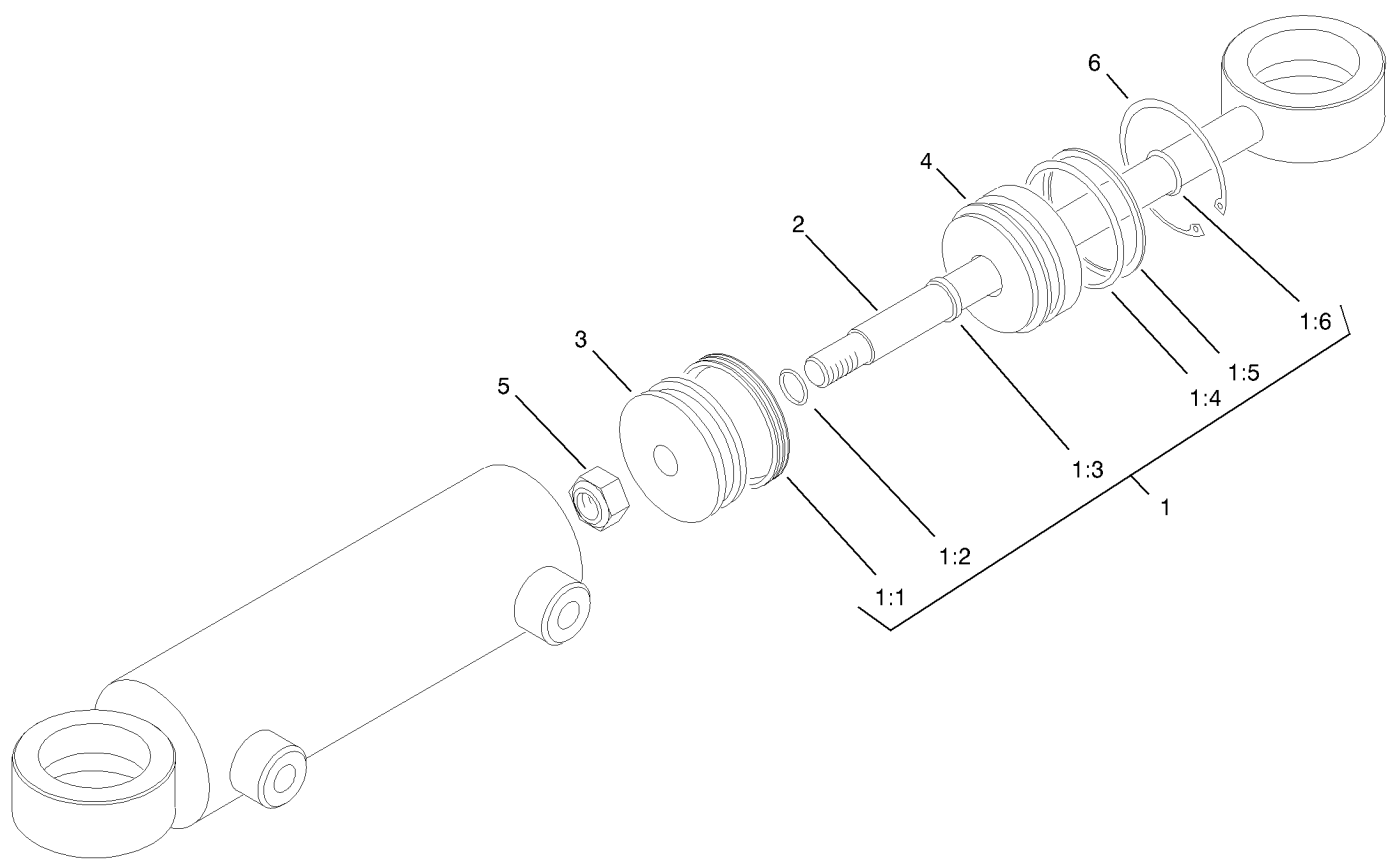
Ref	Part No.	Qty.	Description				
1	99-3523	1	Cartridge-Valve, Relief				
1:1		1	Spring-Coil				
3	99-3524	4	Bolt-Special				
5	66-9970	1	Spring Kit				
5:1		3	Spring				
5:2		3	Spring				
6	66-9980	1	Seal Kit				
6:1		5	Ring-Seal				
6:2		1	Seal-Commutator				
6:3		1	O-Ring				
6:4		5	O-Ring				
6:5		1	Seal-Face				
7	66-9990	1	Needle Roller Kit				
7:1		9	Pin-Alignment				
8	104-0475	1	Column ASM				
8:1	92-7316	4	Nut-Push On				
8:2		1	Shaft-Input				
8:3		1	Ring-Retaining				
8:4		1	Upper Cover & Jacket				
8:5		1	Bushing				
8:6	47-6990	1	Nut				



Rear Fork and Tire Assembly

Ref	Part No.	Qty.	Description
❶ 1		1	Steering Cylinder/Balljoint ASM
1:1	94-8141	1	HYD Cylinder ASM
1:2	92-5838	2	Joint-Ball
1:3	32151-104	2	Ring-Retaining, EXT
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
❶ 11		1	Tire & Wheel ASM
11:1	95-8656	1	Tire
11:2	95-8657	1	Rim-Wheel
11:3	232-27	1	Stem-Valve
12	3274-93	4	Screw-HSH
13	3296-23	4	Nut-Lock, NI
❶ 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, 45Ø
17:1	237-65	1	O-Ring
17:2	237-80	1	O-Ring

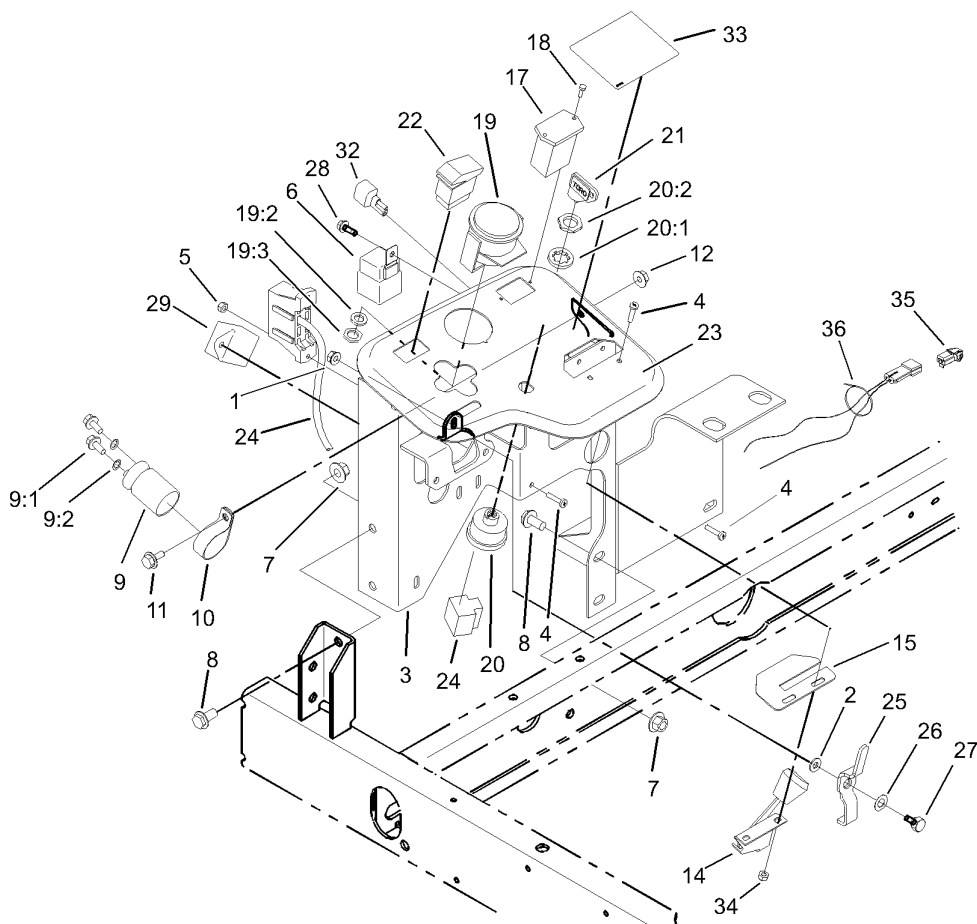
Ref	Part No.	Qty.	Description
18	95-8694	1	HYD Motor ASM
19	105-1213	1	Hose ASM
20	105-1212	1	Hose ASM
21	242-50	4	Nut-Lug
22	82-8170	2	Clamp
23	93-7960	2	Spacer
24	93-7961	1	Clamp-Drain, Case
25	340-132	2	Fitting-HYD, 90Ø
25:1	237-78	1	O-Ring
25:2	237-21	1	O-Ring
26	18-3979-03	1	Rear Casting ASM
❶ 26:1		1	Rear Casting ASM
26:1:2	302-5	1	Fitting-Grease
27	3234-38	8	Screw-HHF
28	95-8805	2	Bushing
29	322-13	2	Screw-HH
30	3296-29	2	Nut-Lock, NI



Hydraulic Cylinder Assembly No. 94-8141

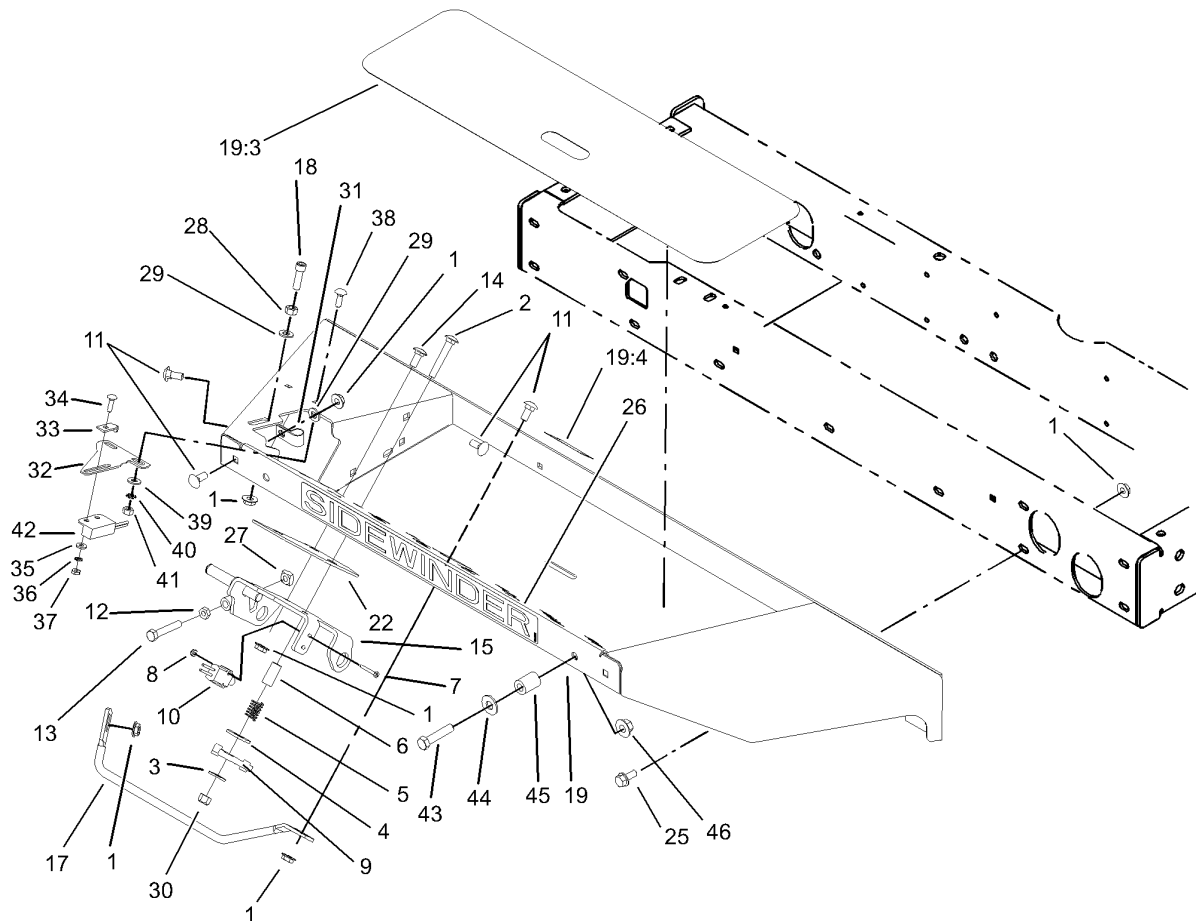
Ref	Part No.	Qty.	Description				
1	86-5390	1	Seal Repair Kit				
1:1		1	Uniring				
1:2		1	O-Ring				
1:3		1	Seal-Rod				
1:4		1	O-Ring				
1:5		1	Ring-Backup				
1:6		1	O-Ring				
2		1	Rod				
3		1	Piston				
4		1	Gland				
5		1	Nut-Lock				
6		1	Ring-Retaining				

13



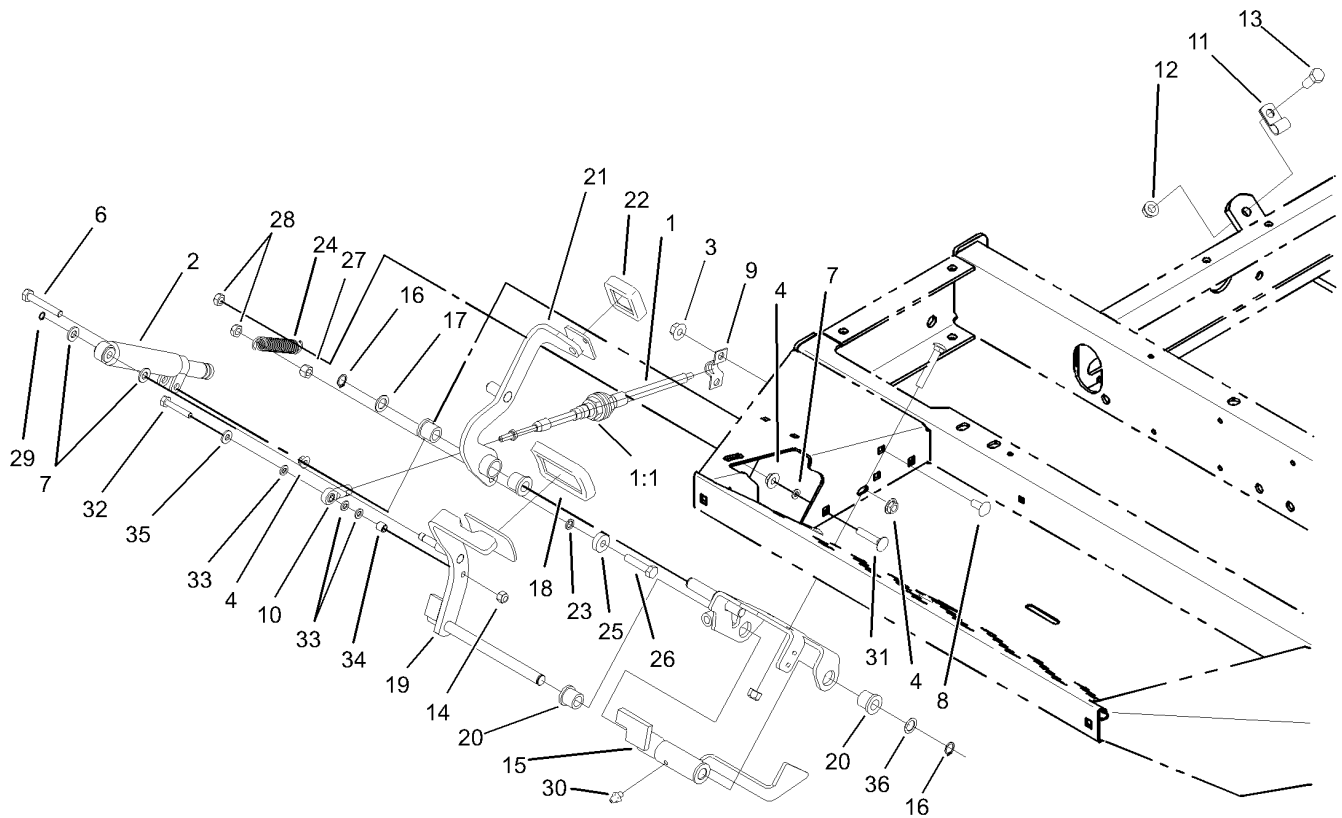
Control Panel Assembly

Ref	Part No.	Qty.	Description	Ref	Part No.	Qty.	Description
1	32128-32	1	Nut-HHF	20:2	218-461	1	Nut-HH
2	3256-22	1	Washer-Flat	21	63-8360	2	Key-Ignition
3	95-8712-03	1	Panel-Control	22	95-8999	1	Switch
4	3250-27	4	Screw-PPH	23	100-4834	1	Decal-Console
5	3296-2	2	Nut-Lock	24	104-4896	1	Harness-Wire
6	70-1480	4	Relay	25	99-3401-03	1	Lever-Valve, Lock
7	32128-43	5	Nut-Flange	26	3290-477	1	Washer-Curved
8	3234-1	5	Screw-HHF	27	63-3410	1	Screw-Shoulder
9	37-2690	1	Capacitor	28	32144-10	5	Screw-HWH
9:1	3252-18	2	Screw	29	99-3463	1	Controller-Glow
9:2	3254-1	2	Washer-Lock, Internal	32	100-4918	4	Diode
10	2412-74	1	R-Clamp	33	99-3558	1	Decal-Console, Ce
11	3234-4	1	Screw-HHF	34	3290-148	2	Nut-HF
12	32128-33	1	Nut-HF	35	104-4875	1	Harness-Wire, Jumper
14	95-8855	1	Control-Throttle	36	3290-378	1	Tie-Cable
15	104-0421	1	Plate-Stop, Throttle				
17	75-6820	1	Hourmeter				
18	32144-18	2	Screw-HH				
19	93-7053	1	Cluster-Lamp, Warning				
19:1	219-17	4	Bulb				
19:2	3254-1	1	Washer-Lock, Internal				
19:3	3217-26	1	Nut-Hex				
20	88-9830	1	Key Switch ASM				
20:1	3254-5	1	Washer-Lock, Internal				



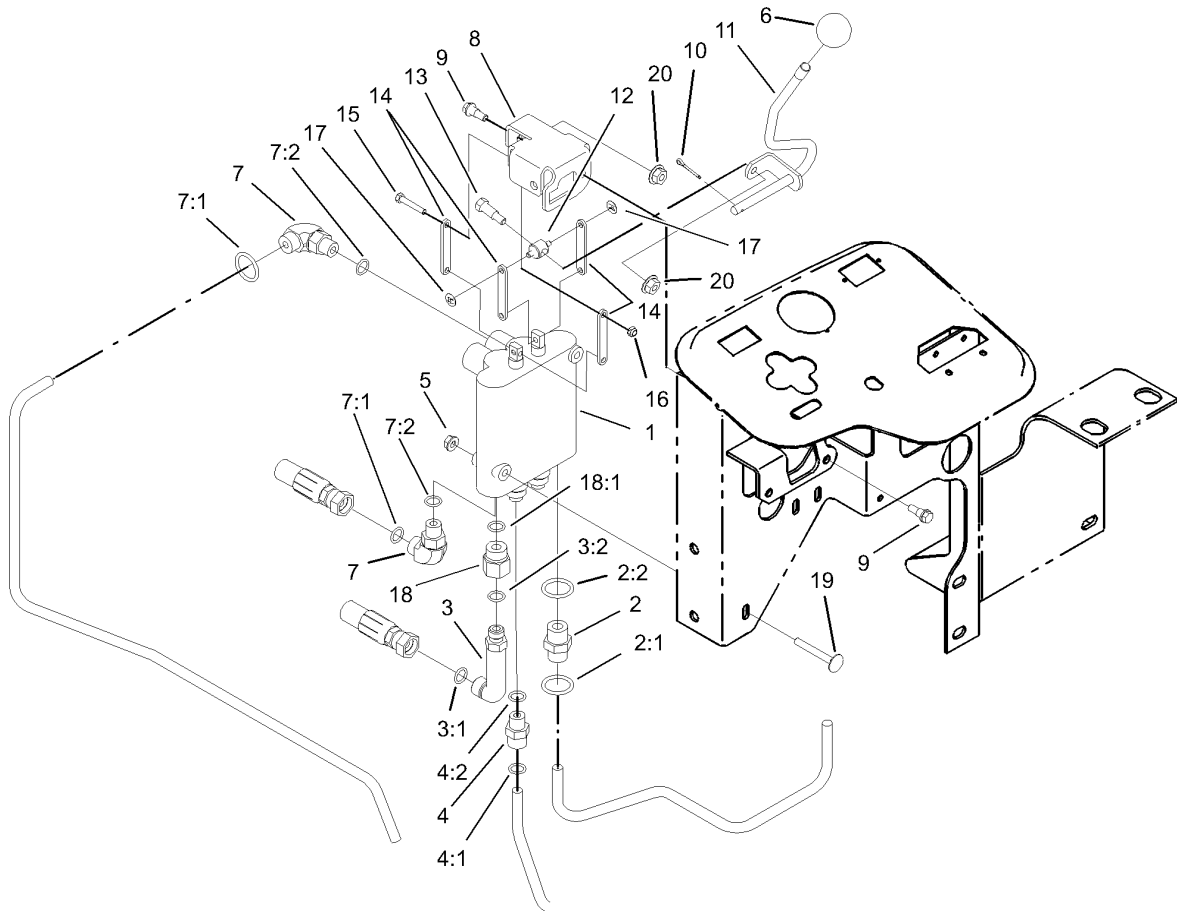
Front Platform Assembly

Ref	Part No.	Qty.	Description	Ref	Part No.	Qty.	Description
1	32128-44	18	Nut	26	99-3388	1	Decal-Sidewinder
2	3230-6	1	Screw-CARR	27	99-3565	1	Nut-Square
3	3256-3	1	Washer-Flat	28	3217-6	1	Nut-Hex
4	3256-40	1	Washer-Flat	29	3256-23	2	Washer-Flat
5	65-9940	1	Spring	30	3296-29	1	Nut-Lock, NI
6	95-8866	1	Tube-Arm, Rocker	31	2412-103	1	Clamp
7	32105-9	2	Screw	32	100-4871	1	Bracket-Switch, Neutral
8	3296-9	2	Nut-Lock, NI	33	100-4872	1	Plate-Switch, Neutral
9	99-3593	1	Arm-Rocker	34	3229-20	1	Screw-CARR
10	95-8900	1	Switch	35	3256-14	1	Washer-Flat
11	3230-1	5	Bolt-CARR	36	3255-17	1	Washer-Lock/EXT
12	3218-2	1	Nut-Jam	37	3296-2	1	Nut-Lock
13	322-41	1	Screw-HH	38	3229-1	2	Screw-CARR
14	3230-23	2	Screw-CARR	39	3256-22	2	Washer-Flat
15	95-8869-03	1	Bracket-Pedal, Traction	40	3255-7	2	Washer-Lock/EXT
17	95-8893	1	Bar-Deflector	41	3217-5	2	Nut-Hex
18	3274-22	1	Screw-HSH	42	100-1270	1	Switch-Proximity
19	106-4154	1	Floorplate ASM	43	323-9	2	Screw-HH
19:3	99-3478	1	Tread-Foot	44	3256-4	2	Washer-Flat
19:4	99-3444	1	Decal-Mow/Transport	45	104-4613	2	Tube-Latch
20	99-3444	1	Decal-Mow/Transport	46	32128-43	2	Nut-Flange
21	99-3478	1	Tread-Foot				
22	106-2661-01	1	Plate-Support, Red				
25	3234-5	10	Screw				



Traction Pedal Assembly

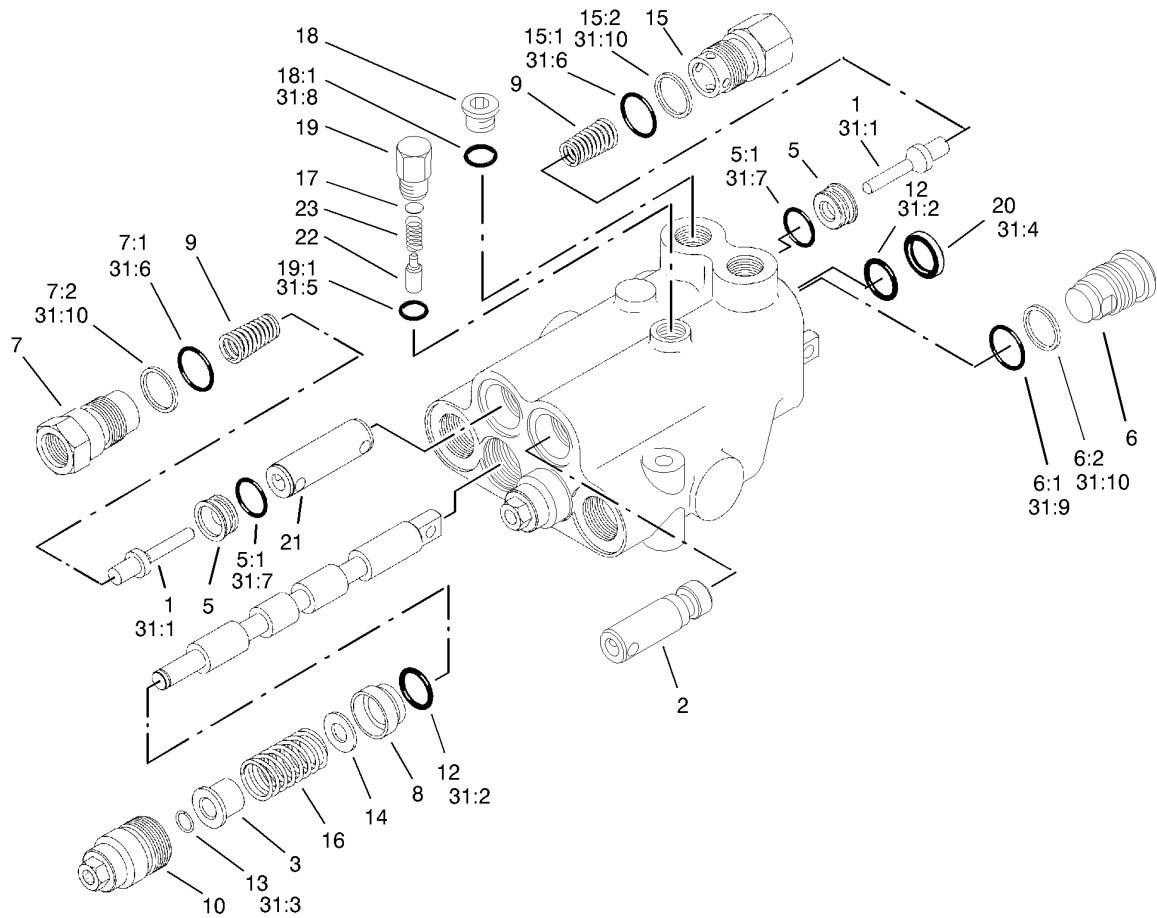
Ref	Part No.	Qty.	Description	Ref	Part No.	Qty.	Description
1	100-4815	1	Cable-Control, Traction	25	251-259	1	Bearing
1:1	3220-1	2	Nut-Jam	26	322-7	1	Screw-HH
2	76-8870	1	Lever Damper ASM	27	3296-29	1	Nut-Lock, NI
3	32128-20	2	Nut-HF	28	3296-47	2	Nut-Lock, NI
4	32128-44	3	Nut	29	32151-3	1	Ring-Grip, EXT
6	322-10	1	Screw-HH	30	302-5	1	Fitting-Grease
7	3256-23	3	Washer-Flat	31	3230-27	1	Screw-CARR
8	3230-23	2	Screw-CARR	32	321-10	1	Screw-HH
9	93-2092	1	Clamp-Cable	33	33093-00	3	Washer-Flat
10	2411-41	1	Joint-Ball	34	99-3545	1	Spacer
11	2412-10	1	R-Clamp	35	3256-22	1	Washer-Flat
12	32128-43	1	Nut-Flange	36	73-0040	4	Washer-Thrust
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				
21	99-3379	1	Pedal-Reverse				
22	74-9110	1	Pad-Pedal, Reverse				
23	75-5470	1	Spacer-Bearing				
24	99-3476	1	Spring-Extension				



Control Valve Installation Assembly

Ref	Part No.	Qty.	Description
1	95-8581	1	Valve-2 Spool
2	340-3	1	Adapter
2:1	237-22	1	O-Ring
2:2	237-79	1	O-Ring
3	69-4320	1	Fitting-90°
3:1	237-22	1	O-Ring
3:2	237-42	1	O-Ring
4	340-2	1	Fitting-Straight, HYD
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°
7:1	237-22	1	O-Ring
7:2	237-42	1	O-Ring
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	87-5150	3	Bolt
16	87-5140	3	Nut-Lock

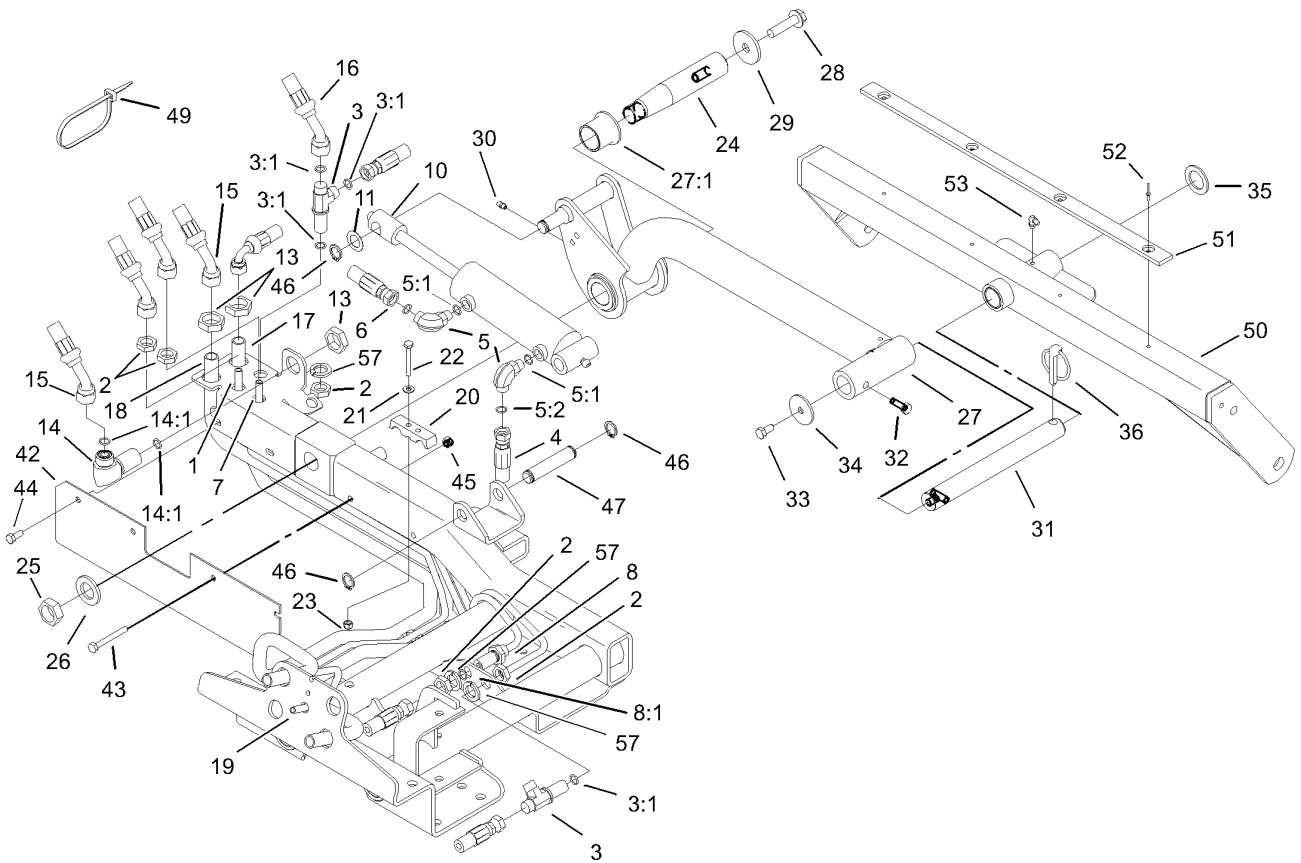
Ref	Part No.	Qty.	Description
17	93-3988	2	Pushnut-Tinnerman
18	353-397	1	Reducer-Adapter
18:1	237-79	1	O-Ring
19	3230-33	2	Screw-CARR
20	32128-32	3	Nut-HHF



Valve Assembly No. 95-8581

Ref	Part No.	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	99-3527	2	Plug ASM
7:1	60-5720	1	O-Ring
7:2	59-7730	1	Washer-Backup
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
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
16	99-3531	2	Spring
17	60-6450	1	Disc
18	353-989	1	Plug-Hex, Hollow
18:1	237-42	1	O-Ring

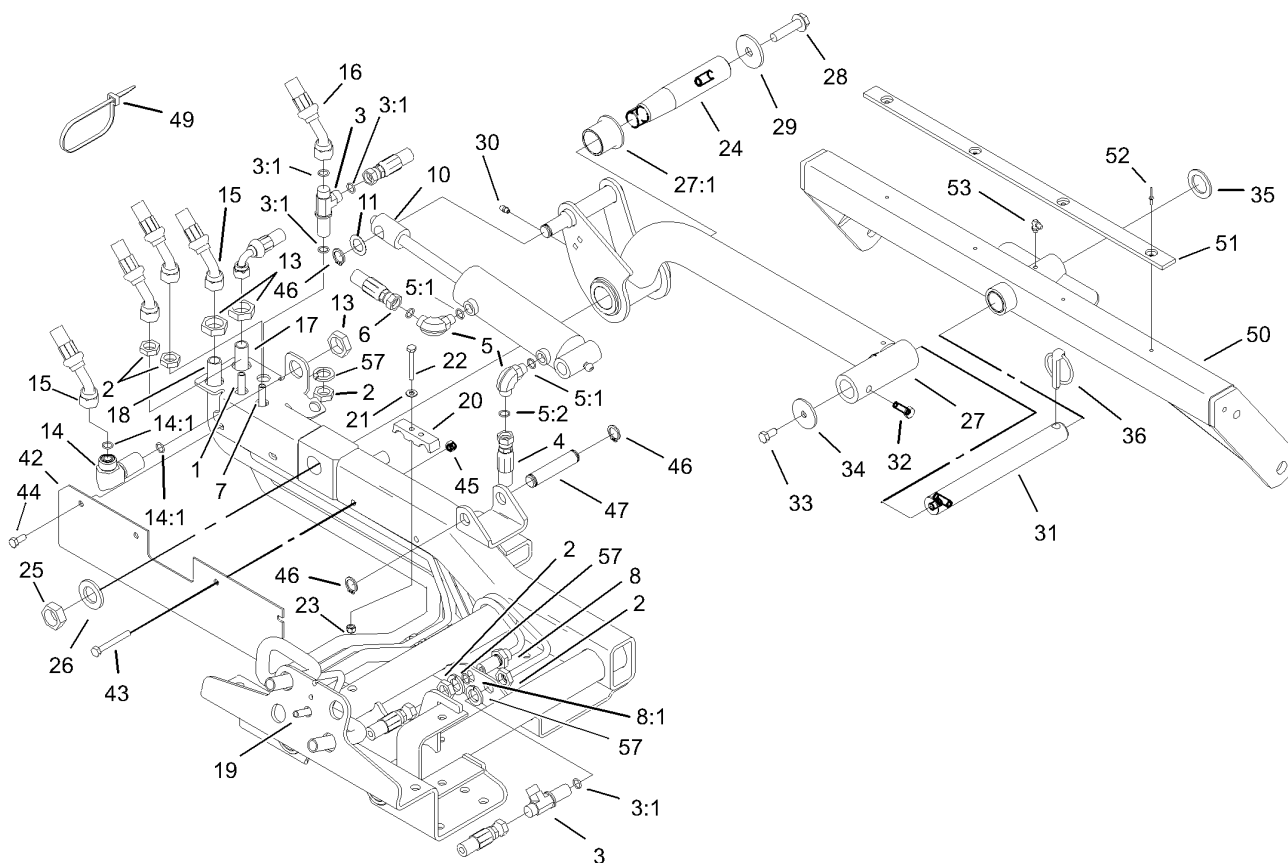
Ref	Part No.	Qty.	Description
19	58-6780	1	Plug
19:1	58-6790	1	O-Ring
20	58-6320	2	Wiper
21	99-3528	1	Plunger
22	58-6770	1	Plunger
23	58-6760	1	Spring
31	99-3530	1	Seal Kit
31:1	58-6290	3	Poppet
31:2	58-6450	4	O-Ring
31:3	58-6460	2	Ring
31:4	58-6320	2	Wiper
31:5	58-6790	1	O-Ring
31:6	60-5720	2	O-Ring
31:7	58-6340	2	O-Ring
31:8	237-42	1	O-Ring
31:9	60-5720	2	O-Ring
31:10	59-7730	2	Washer-Backup



Rear Liftarm Assembly

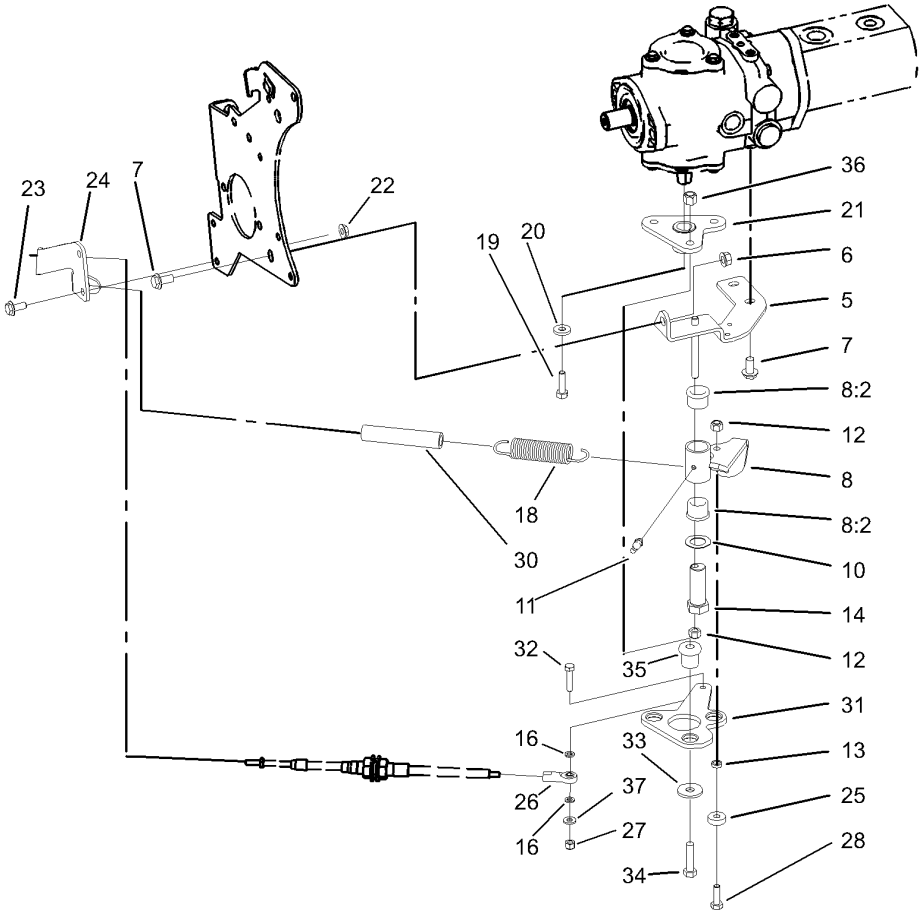
Ref	Part No.	Qty.	Description
1	104-0402	1	Tube ASM
2	340-70	5	Nut-Lock
3	340-68	2	Fitting-Tee, Bulkhead
3:1	237-22	3	O-Ring
4	104-0407	1	Hose ASM
5	340-77	2	Fitting-HYD, 90°
5:1	237-22	1	O-Ring
5:2	237-42	1	O-Ring
6	100-4891	1	Hose ASM
7	104-0403	1	Tube ASM
8	340-71	1	Fitting-Straight, Bulkhead
8:1	237-22	2	O-Ring
10	95-8978	1	Cylinder-HYD
11	3-6498	1	Washer-Thrust
13	340-74	3	Locknut-Bulkhead
14	340-72	1	Fitting-HYD, Bulkhead, 90°
14:1	237-65	2	O-Ring
15	100-4879	2	Hose ASM
16	95-8825	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

Ref	Part No.	Qty.	Description
22	321-11	2	Screw-HH
23	3296-42	2	Nut-Lock, NI
24	95-8990	1	Shaft-Pivot, Rear
25	3220-9	1	Nut-Jam
26	86-1480	1	Washer
27	100-4938	1	Rear Lift Arm ASM
27:1	69-6470	2	Bushing-Castor
28	3234-27	1	Screw-Flange
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	1	Tie-Cable
50	104-4229	1	Rear Carrier Frame ASM



Rear Liftarm Assembly (continued)

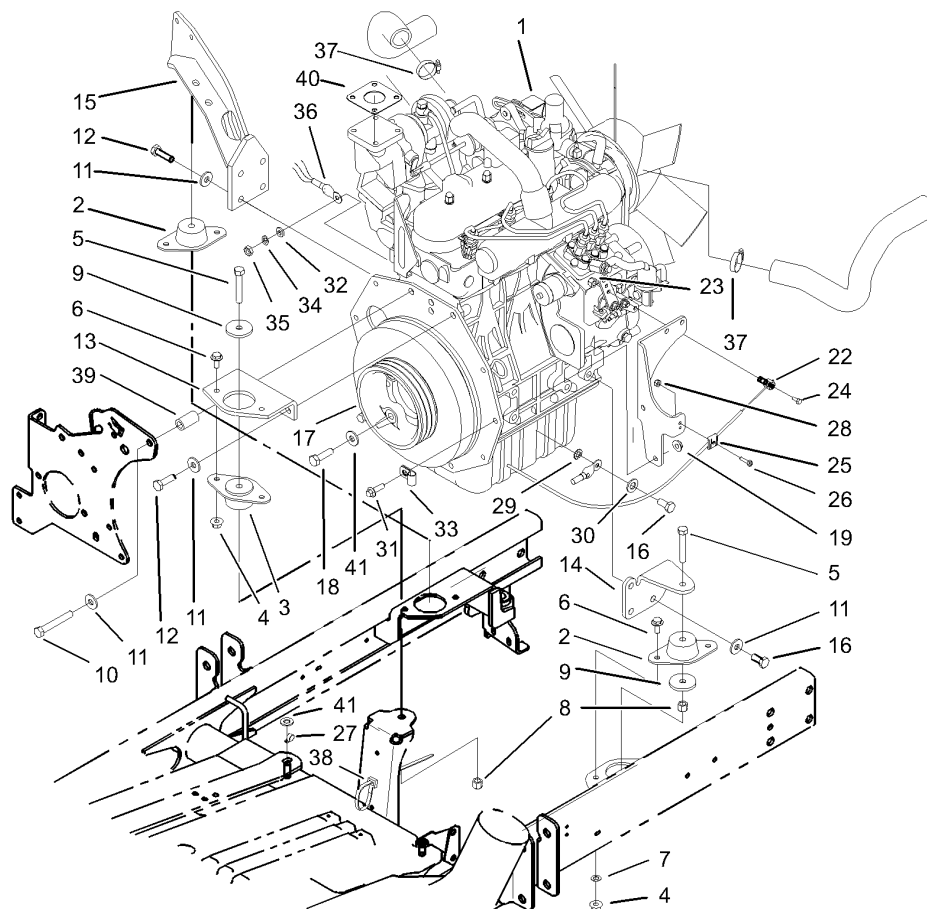
Ref	Part No.	Qty.	Description
51	95-8936	1	Strip-Wear
52	3269-18	4	Rivet-Pop, Steel
53	302-60	1	Fitting-Grease
57	3254-7	3	Washer-Lock/Int



Neutral Arm Assembly

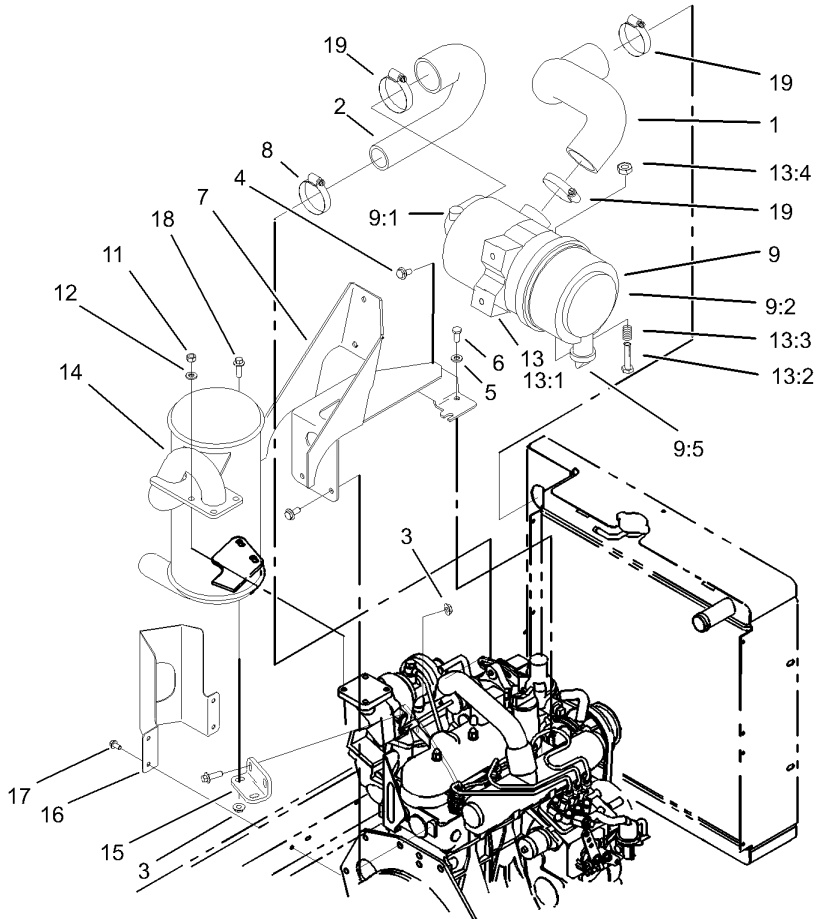
Ref	Part No.	Qty.	Description
5	95-8960-03	1	Bracket-Neutral
6	32128-43	1	Nut-Flange
7	3234-1	3	Screw-HHF
8	104-0422	1	Neutral Arm ASM
8:2	256-113	2	Bushing-Flange
10	3-6498	1	Washer-Thrust
11	302-60	1	Fitting-Grease
12	3296-29	2	Nut-Lock, NI
13	100-4817	1	Spacer-Bearing
14	76-8640	1	Stud-Traction
16	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
23	3234-5	2	Screw
24	104-0464-03	1	Bracket-Support, Cable
25	251-259	1	Bearing
26	2411-41	1	Joint-Ball
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

Ref	Part No.	Qty.	Description
32	321-8	1	Screw-HH
33	2844	3	Washer
34	95-3857	3	Screw-Head, Button
35	63-9750	3	Mount
36	3296-39	3	Nut-Lock, NI
37	3256-22	1	Washer-Flat



Engine Assembly

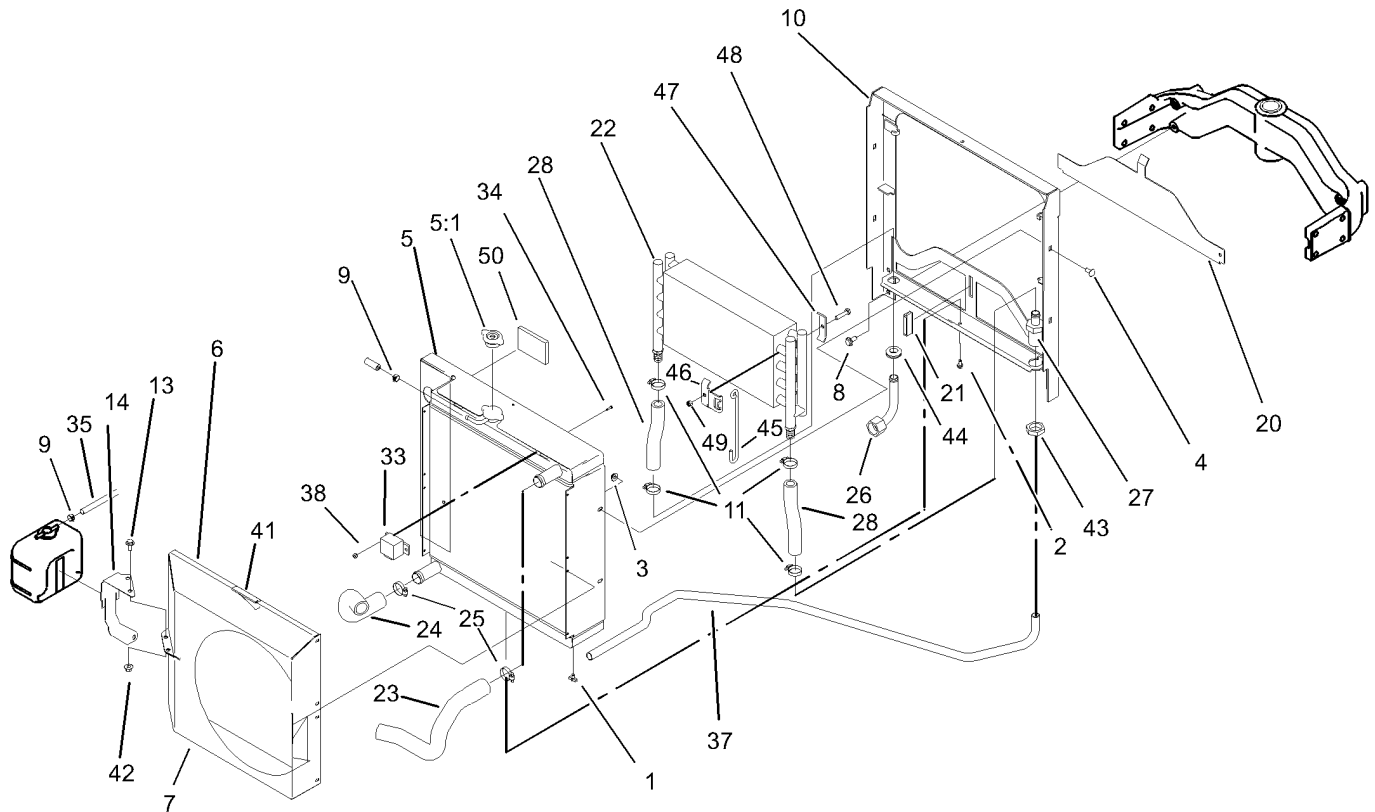
Ref	Part No.	Qty.	Description	Ref	Part No.	Qty.	Description
1	104-4898	1	Engine-Kubota	27	2412-112	1	Clamp
2	83-1030	2	Mount-Engine	28	3296-2	1	Nut-Lock
3	93-5265	1	Mount-Engine	29	3255-9	1	Washer-Lock/EXT
4	32128-20	6	Nut-HF	30	3256-25	1	Washer-Flat
5	323-11	3	Screw-HH	31	3234-17	2	Screw-HHF
6	3234-5	6	Screw	32	3256-78	1	Washer-Flat
7	3255-8	1	Washer-Lock	33	2412-10	1	R-Clamp
8	3296-39	3	Nut-Lock, NI	34	43-5930	1	Washer-Spring
9	80-8560	3	Washer-Hardened	35	48-7890	1	Nut
10	42-9370	1	Screw-HH	36	99-3441	1	Harness-Wire, Fusible Link
11	80-6990	9	Washer-Hardened	37	2412-34	2	Clamp-Hose
12	95-8812	5	Screw-HH	38	3290-378	14	Tie-Cable
13	99-3618-03	1	Mount-Engine, Front	39	95-8736	1	Spacer
14	95-8937-03	1	Mount-Engine, LH	40	98-9611	1	Gasket
15	100-4838-03	1	Mount-Engine	41	3256-24	4	Washer-Flat
16	63-7790	4	Screw-Cap				
17	99-3626-03	1	Pulley				
18	56-2140	3	Bolt				
19	32128-44	2	Nut				
22	98-9311	1	Swivel-Throttle				
23	3296-20	1	Nut-Lock, NI				
24	25-8640	1	Screw-HH				
25	81-1690	1	Clamp-Cable				
26	32105-13	1	Screw-SHH				



Air Cleaner and Muffler Assembly

Ref	Part No.	Qty.	Description
1	104-0420	1	Hose-Air Intake, Upper
2	99-3643	1	Hose-Air Intake, Lower
3	32128-44	6	Nut
4	3234-5	3	Screw
5	3256-23	4	Washer-Flat
6	33114-016	4	Screw-HH
7	99-3648-03	1	Mount-Filter, Air
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	98-9763	1	Element ASM
9:7	104-4897	1	Gasket
11	33014-00	4	Nut-Hex
12	42-9850	4	Washer-Lock, Spring
13	100-4825	1	Band-Mounting, Air Cleaner
13:1		1	Clamp ASM
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

Ref	Part No.	Qty.	Description
17	32144-4	4	Screw-HWH
18	3234-17	3	Screw-HHF
19	2412-130	3	Clamp-Hose

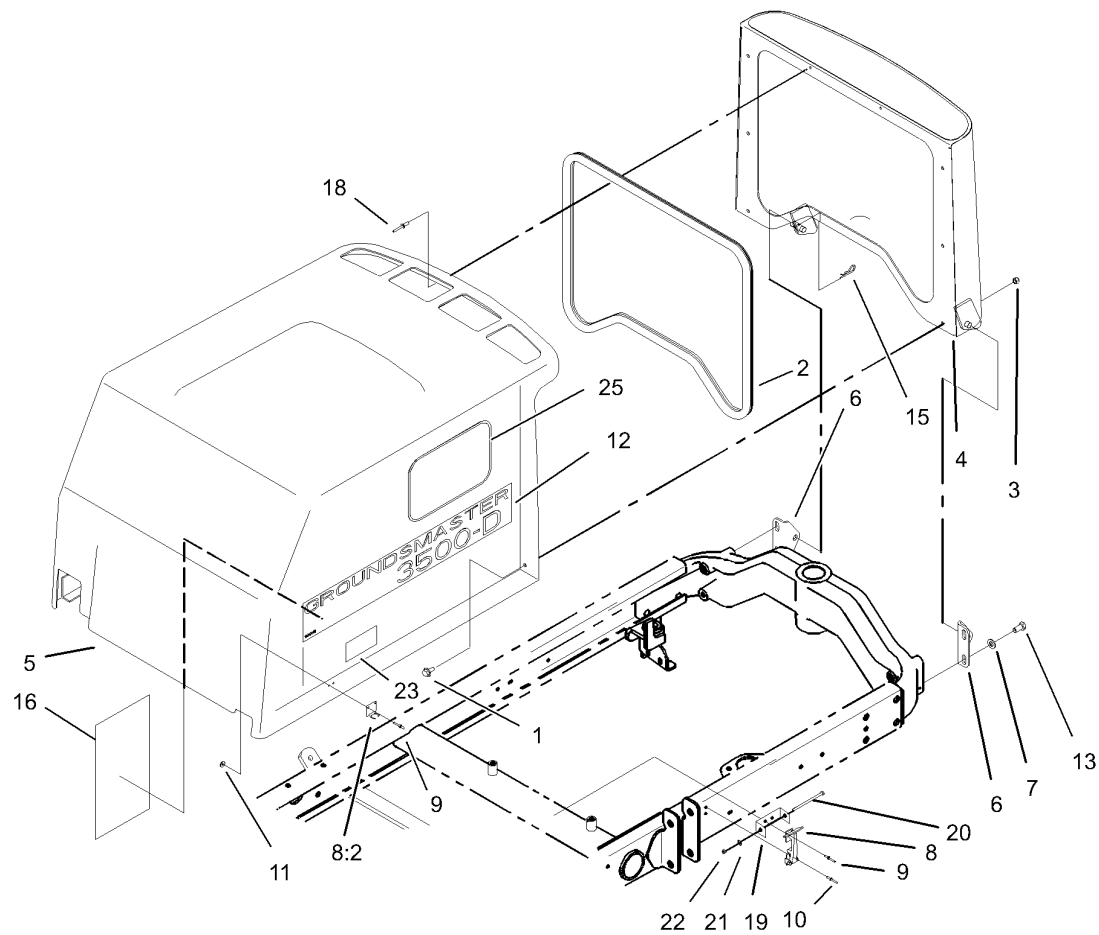


**Water Overflow Bottle
is furnished with engine**

Radiator Assembly

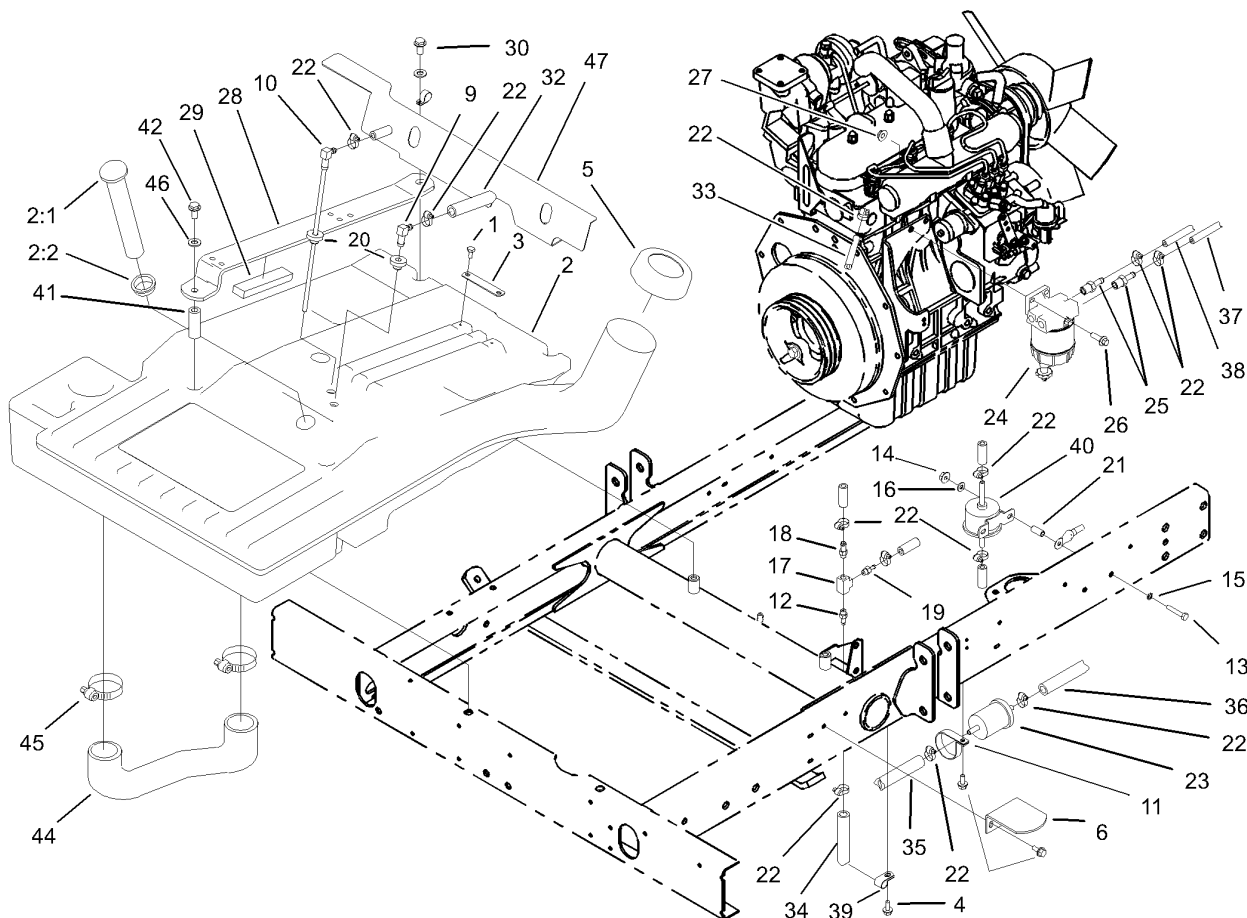
Ref	Part No.	Qty.	Description
1	304-46	1	Draincock
2	32104-116	11	Screw
3	32128-44	4	Nut
4	3230-1	4	Bolt-CARR
5	99-3637	1	Radiator
5:1	93-5957	1	Cap-Radiator
6	100-4885-03	1	Shroud-Fan, Top
7	100-4898-03	1	Shroud-Fan, Bottom
8	3234-1	4	Screw-HHF
9	92-2379	2	Clamp-Hose
10	104-4855-03	1	Radiator Frame ASM
11	2412-129	4	Clamp-Hose
13	3234-5	2	Screw
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
26	99-3644	1	Filter Head Tube ASM
27	100-4925	1	Fitting-Bulkhead
28	99-3646	2	Hose-Cooler, Oil
33	66-8800	1	Relay

Ref	Part No.	Qty.	Description
34	32105-13	2	Screw-SHH
35	63-9640	1	Hose
37	100-4924	1	Tube ASM
38	32128-17	2	Nut-Lock, Flange
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	4	Seal-Foam



Hood-Screen Assembly

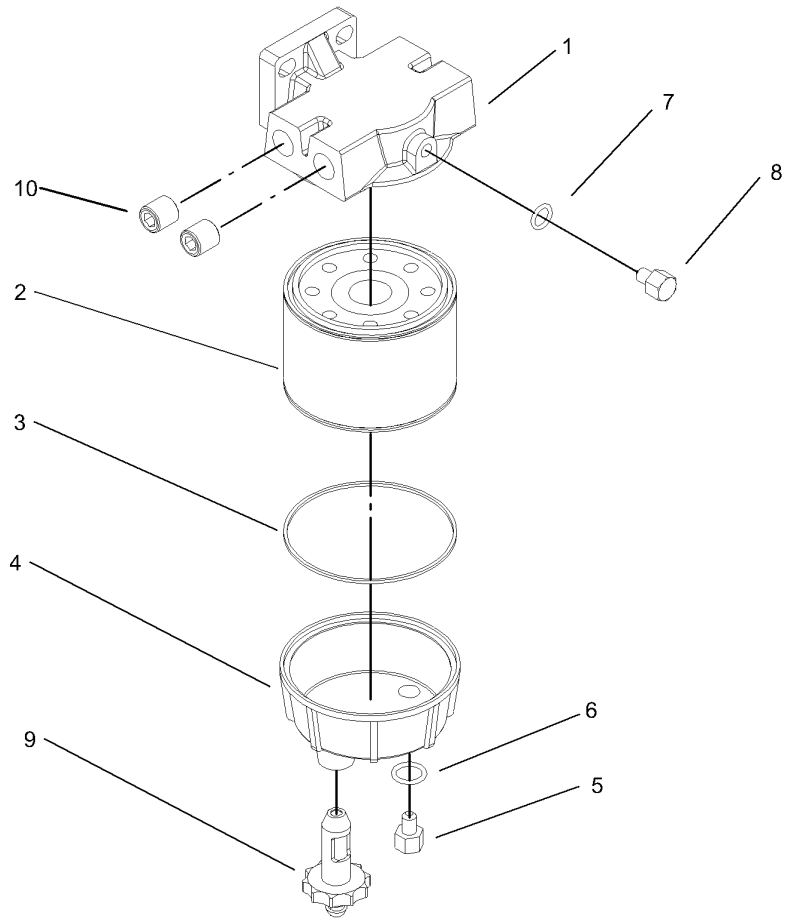
Ref	Part No.	Qty.	Description				
1	3234-4	6	Screw-HHF				
2	100-4932	1	Trim-Seal				
3	3296-42	6	Nut-Lock, NI				
4	104-4853-03	1	Hood Screen ASM				
5	100-4855	1	Hood				
6	95-8728	2	Bracket-Pivot, Hood				
7	3256-24	4	Washer-Flat				
8	59-9740	2	Flex Draw Latch ASM				
8:2	249-40	1	Keeper				
9	98-7310	4	Rivet				
10	3290-55	4	Rivet-Pop				
11	3269-10	4	Washer-Back				
12	104-5152	2	Decal-Hood				
13	323-4	4	Screw-HH				
15	3290-467	1	Pin-Hair				
16	104-4864	1	Decal-Instructions, Service				
18	3269-21	2	Rivet-Pop				
19	99-3568	1	Bracket-Lock,Ce				
20	321-9	1	Screw-HH				
21	3256-22	1	Washer-Flat				
22	3296-42	1	Nut-Lock, NI				
23	100-6574	1	Decal-Warning				
25	66-6140	2	Decal-Logo, Toro				



Fuel System Assembly

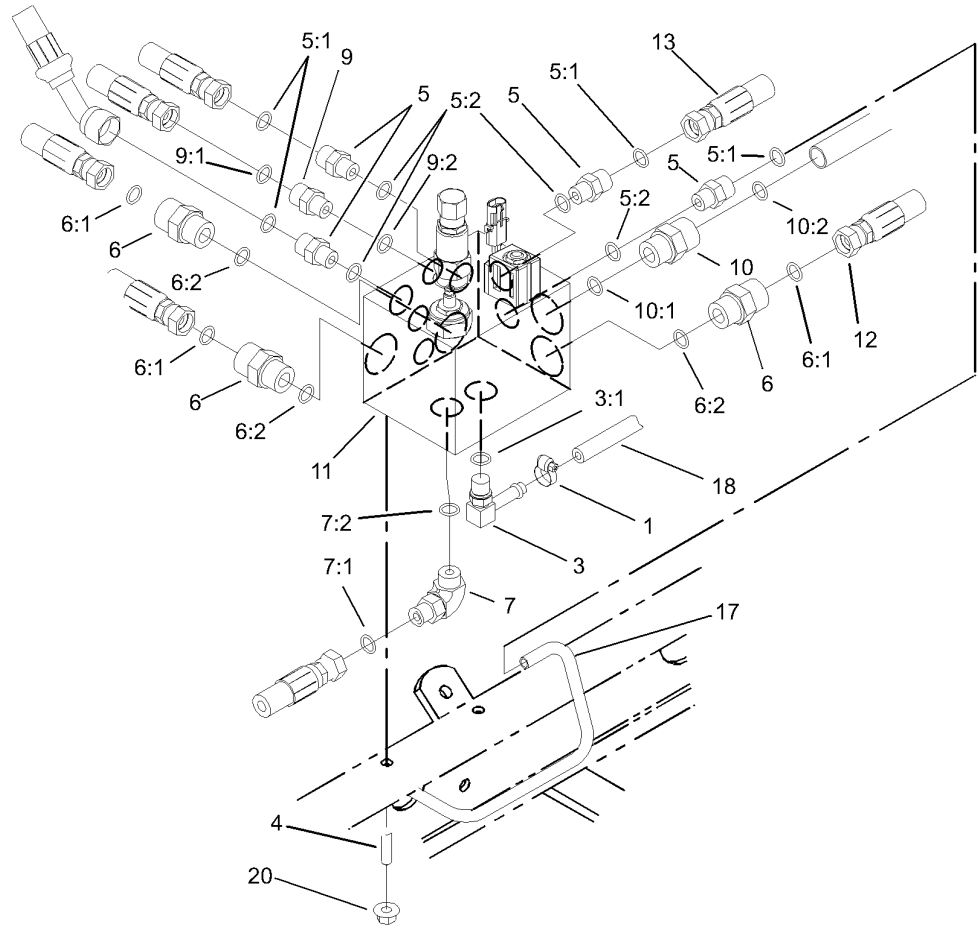
Ref	Part No.	Qty.	Description
1	321-2	2	Screw-HH
2	105-7865	1	Tank-Fuel
2:1	95-8971	1	Guage-Fuel
2:2	95-8972	1	Grommet
3	95-8881	1	Strap-Line, Fuel
4	32144-10	4	Screw-HWH
5	95-4193	1	Diesel Gas Cap ASM
6	95-8968-03	1	Support-Tank, Fuel
9	46-6550	1	Fitting-HYD, 90Ø
10	66-8121	1	Standpipe
11	2412-148	1	Clamp-R
12	304-73	1	Connector-Hose
13	321-9	2	Screw-HH
14	32128-33	2	Nut-HF
15	3255-7	1	Washer-Lock/EXT
16	3256-22	2	Washer-Flat
17	354-20	1	Fitting-Tee
18	354-21	1	Fitting-Barb
19	354-22	1	Fitting-Barb
20	46-6560	2	Bushing
21	87-4710	2	Spacer-Brake, Parking
22	2412-108	13	Clamp-Worm
23	98-7612	1	Filter-Fuel
24	98-9305	1	Filter-Water/Fuel

Ref	Part No.	Qty.	Description
25	353-783	2	Fitting
26	3234-17	2	Screw-HHF
27	32128-44	2	Nut
28	104-0467-03	2	Strap-Support, Seat
29	95-8896	2	Foam
30	3234-11	2	Screw-HHF
32	71-3380	1	Hose-Fuel
33	99-3498	1	Return-Line, Fuel
34	99-3185	1	Hose-Fuel
35	71-3383	1	Hose-Fuel
36	19-3250	1	Hose-Fuel
37	63-9640	1	Hose
38	104-4857	1	Hose-Fuel
39	2412-73	1	Clamp-R
40	99-3464	1	Pump-Fuel
41	104-0466	2	Spacer-Tube
42	323-14	2	Screw-HH
44	105-4094	1	Hose-Formed
45	2412-129	2	Clamp-Hose
46	3256-24	2	Washer-Flat
47	104-4833-03	1	Shield-Heat



Water / Fuel Filter Assembly No. 98-9305

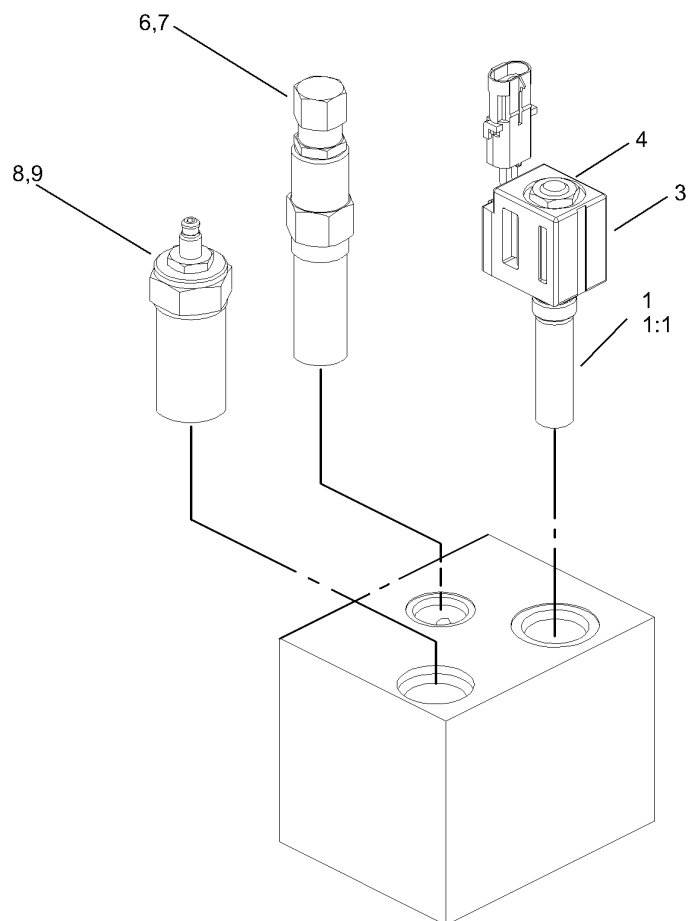
Ref	Part No.	Qty.	Description				
1	98-9772	1	Head-Filter				
2	98-9764	1	Element				
3	98-9774	1	O-Ring-Base, Filter				
4	98-9775	1	Base-Filter				
5	98-9773	1	Plug-Base, Filter				
6	237-42	1	O-Ring				
7	237-78	1	O-Ring				
8	98-9776	1	Plug-Head, Filter				
9	98-9777	1	Drain Valve ASM				
10	285-22	2	Plug-Pipe				



Manifold Block Installation Assembly

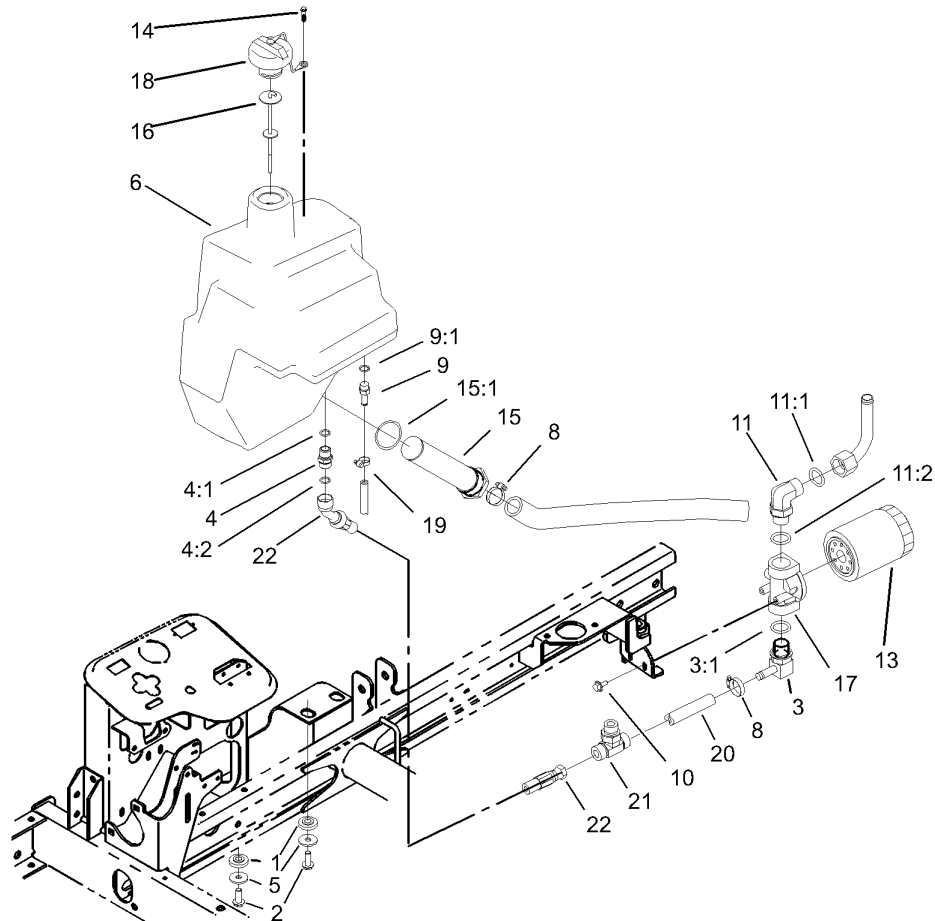
Ref	Part No.	Qty.	Description
1	2412-36	1	Clamp-Hose
3	100-4887	1	Fitting-Barb
3:1	237-42	1	O-Ring
4	104-0430	2	Stud
5	340-2	4	Fitting-Straight, HYD
5:1	237-22	1	O-Ring
5:2	237-42	1	O-Ring
6	340-7	3	Adapter
6:1	237-65	1	O-Ring
6:2	237-80	1	O-Ring
7	340-77	1	Fitting-HYD, 90°
7:1	237-22	1	O-Ring
7:2	237-42	1	O-Ring
9	340-88	1	Adapter
9:1	237-22	1	O-Ring
9:2	237-78	1	O-Ring
10	340-66	1	Fitting-HYD
10:1	237-80	1	O-Ring
10:2	237-58	1	O-Ring
11	104-4876	1	Manifold 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

Ref	Part No.	Qty.	Description
20	32128-20	2	Nut-HF



Manifold Block Assembly No. 104-4876

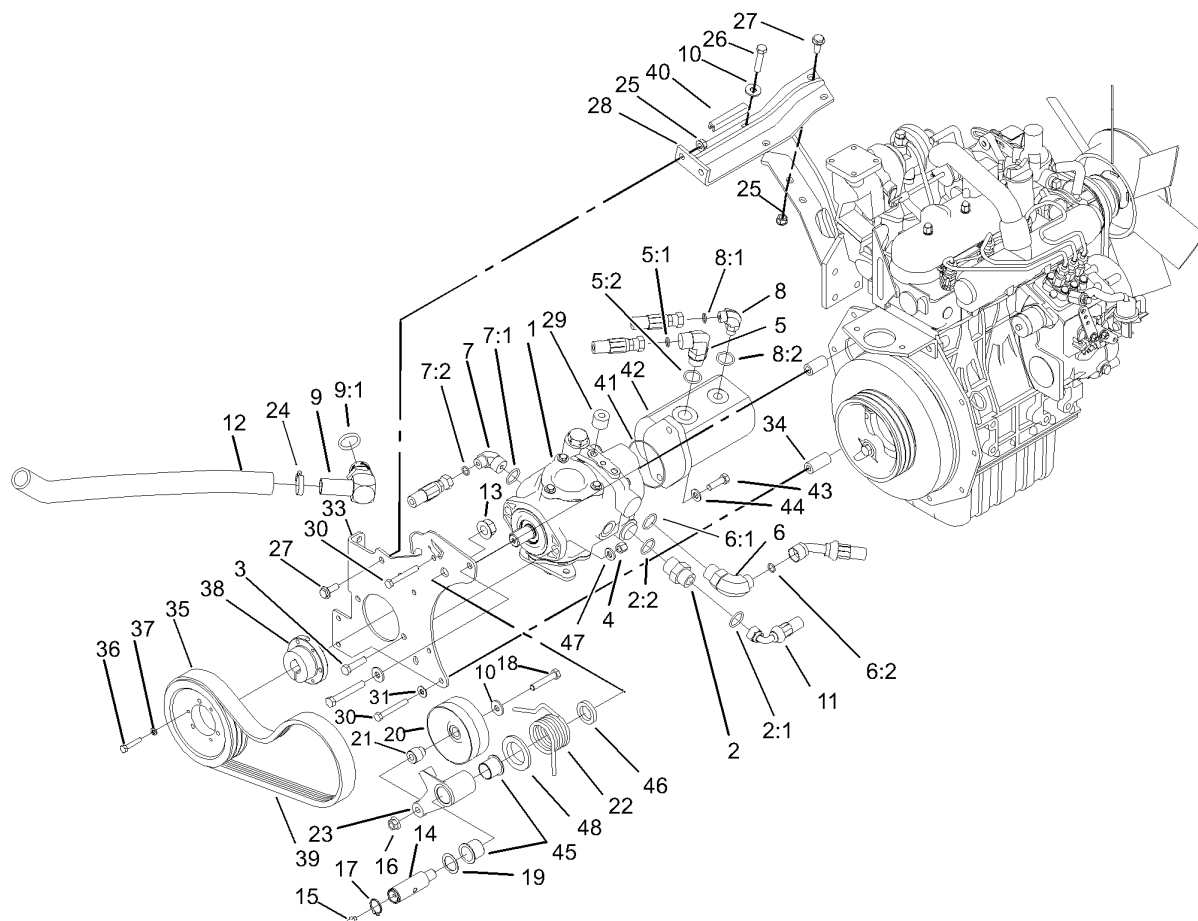
Ref	Part No.	Qty.	Description
1	104-4877	1	Cartridge ASM
1:1	104-4879	1	Seal Kit
3	104-4878	1	Solenoid
4	104-4882	1	Nut-Solenoid
6	104-4267	1	Cartridge-Logic
7	104-4268	1	Kit-Seal
8	104-4269	1	Valve-Braking
9	104-4270	1	Kit-Seal



Hydraulic Tank Assembly

Ref	Part No.	Qty.	Description
1	240-11	4	Grommet-Mount, Tank
2	3234-11	4	Screw-HHF
3	353-987	1	Fitting-HYD, 90Ø
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-Barbed, Straight
9:1	237-42	1	O-Ring
10	3234-13	2	Screw-HHF
11	340-142	1	Fitting-HYD, 90Ø
11:1	237-58	1	O-Ring
11:2	237-81	1	O-Ring
13	86-3010	1	Filter-Oil, Transmission
14	57-5420	1	Screw-Shoulder
15	104-7546	1	Strainer-Tank
15:1	340-136	1	O-Ring
16	75-3710	1	Dipstick
17	92-5821	1	Filter Head ASM
18	93-7160	1	Cap-Oil, HYD
19	2412-36	1	Clamp-Hose

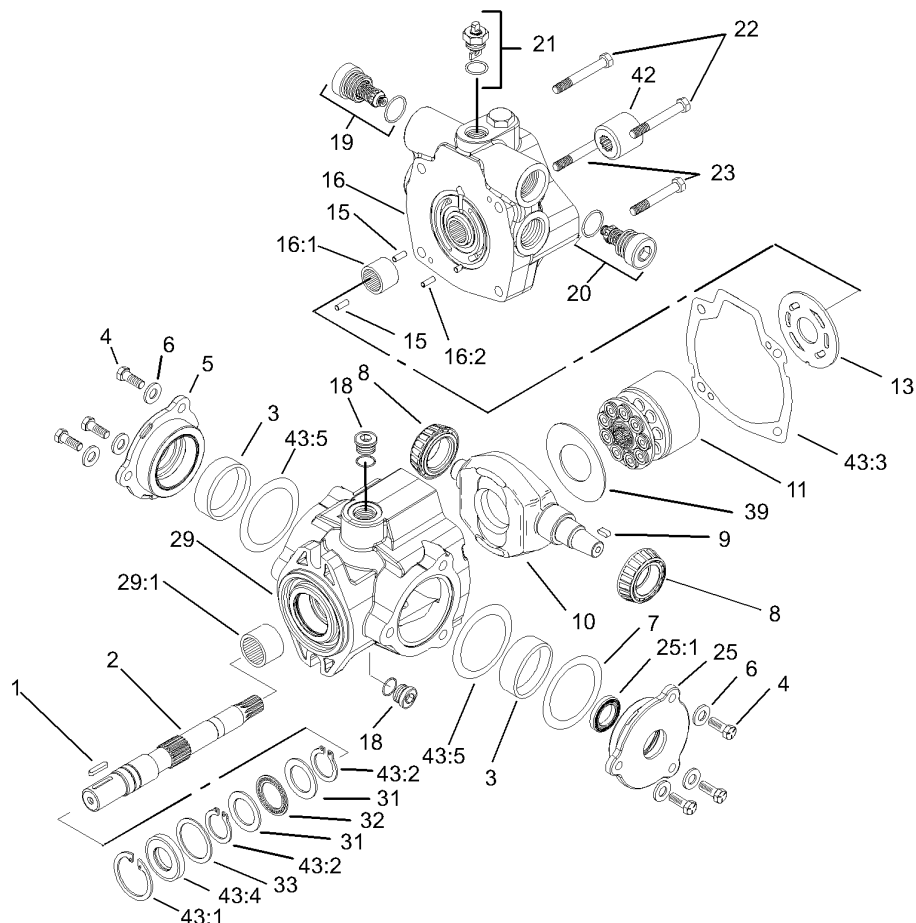
Ref	Part No.	Qty.	Description
20	104-0486	1	Hose ASM
21	104-4836	1	Fitting-Tee
22	104-0487	1	Hose ASM



Hydrostat Assembly

Ref	Part No.	Qty.	Description
1	104-4890	1	Pump-Piston, 1.44 Cid
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, 90Ø
5:1	237-65	1	O-Ring
5:2	237-80	1	O-Ring
6	340-139	1	Fitting-HYD, 90Ø
6:1	237-81	1	O-Ring
6:2	237-65	1	O-Ring
7	340-18	1	Fitting-HYD, 90Ø
7:1	237-79	1	O-Ring
7:2	237-22	1	O-Ring
8	340-77	1	Fitting-HYD, 90Ø
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
11	105-1214	1	Hose ASM
12	104-5486	1	Hose
13	32128-54	1	Nut-Flange

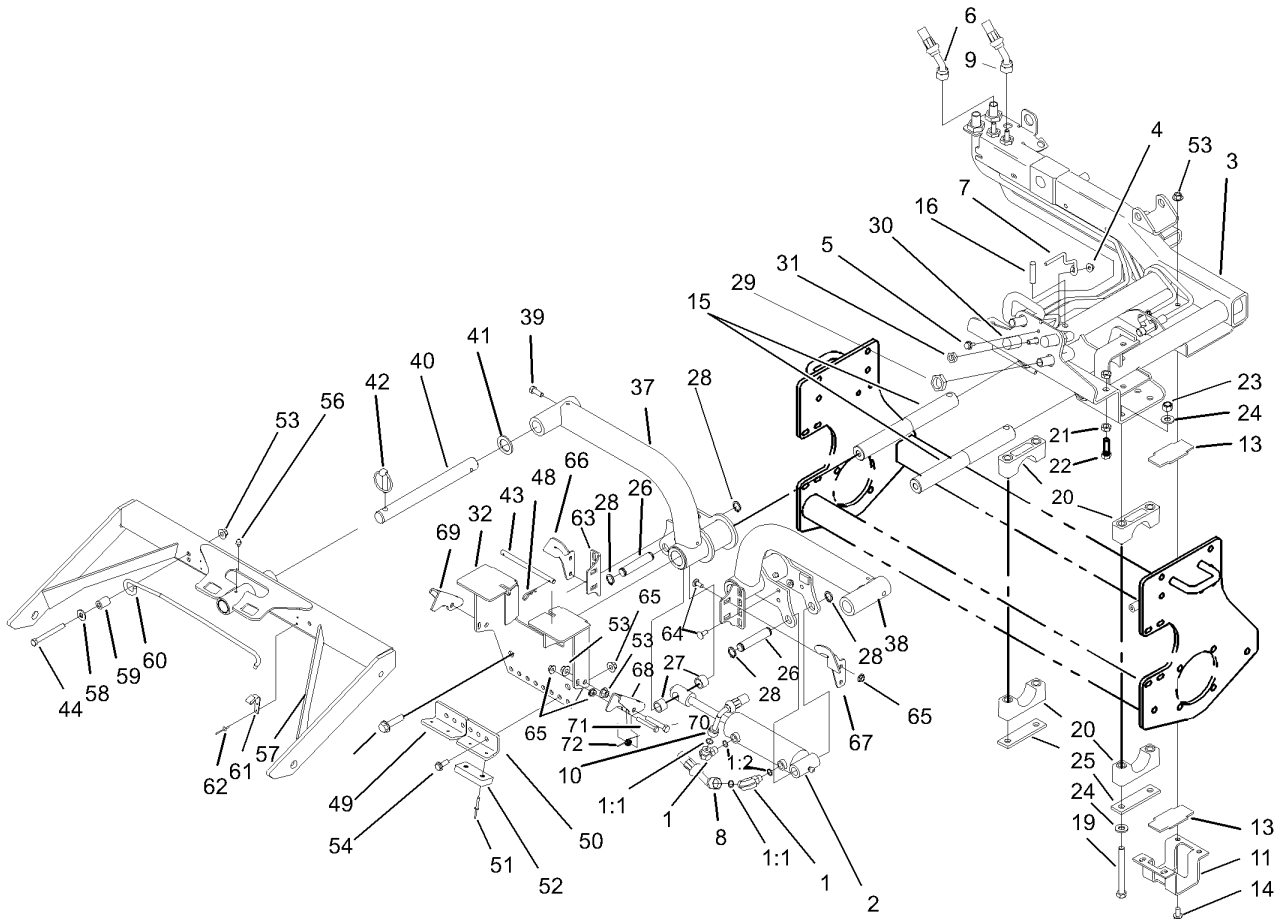
Ref	Part No.	Qty.	Description
14	99-3624	1	Shaft-Pivot, Idler
15	302-5	1	Fitting-Grease
16	32128-21	1	Nut-HF
17	32151-36	1	Ring-Retaining
18	323-10	1	Screw-HH
19	74-1810	1	Washer
20	99-3621	1	Pulley-Idler
21	99-3622	1	Spacer-Idler
22	100-4844	1	Spring-Torsion
23	99-3623-03	1	Arm-Idler
24	2412-34	1	Clamp-Hose
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
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



Piston Pump Assembly No. 104-4890

Ref	Part No.	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-Cam
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
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

Ref	Part No.	Qty.	Description
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	104-4868	1	Seal Repair Kit
43:1	32151-13	1	Ring-Retaining
43:2	32151-29	1	Ring-Retaining
43:3	33-4930	1	Gasket-Housing
43:4	104-4861	1	Seal-Shaft
43:5	100-3179	1	O-Ring

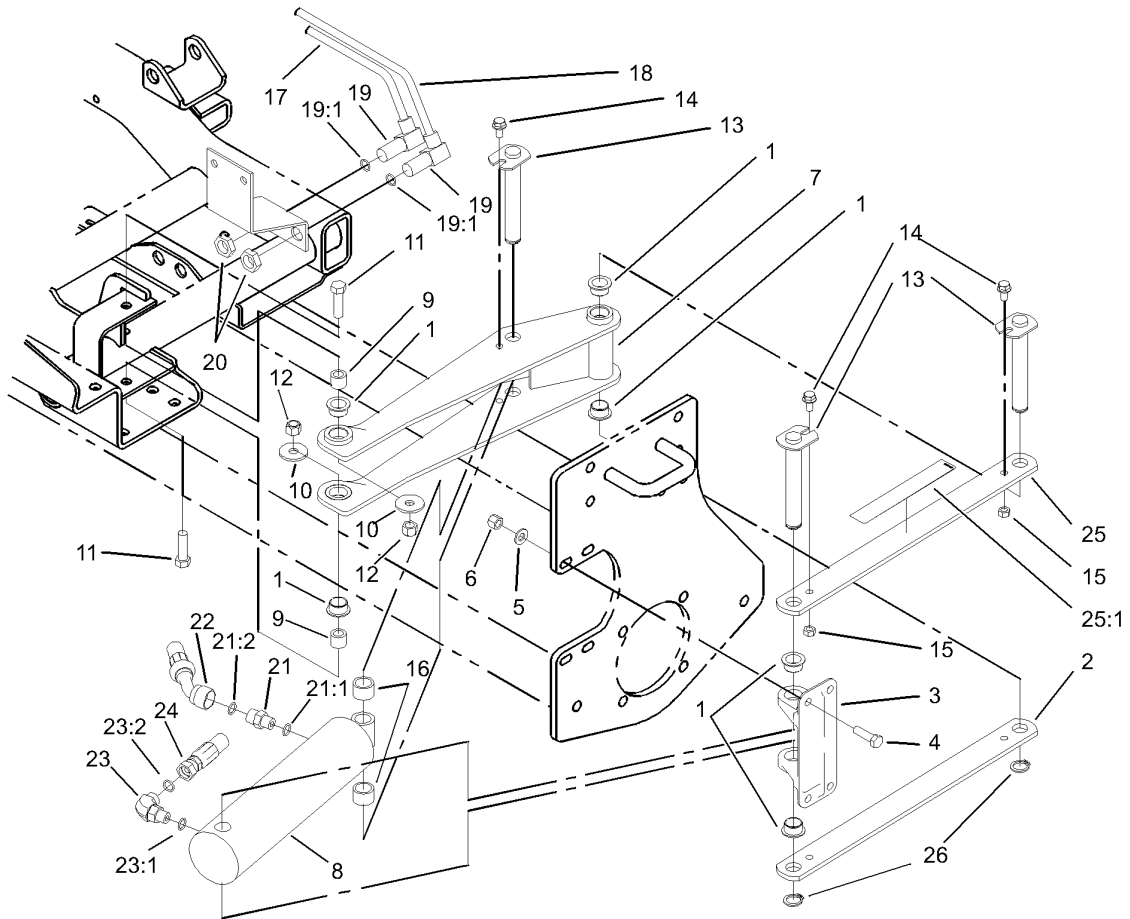


Carrier Assembly

Ref	Part No.	Qty.	Description
1	340-77	2	Fitting-HYD, 90°
1:1	237-22	1	O-Ring
1:2	237-42	1	O-Ring
2	95-8978	1	Cylinder-HYD
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	3234-1	4	Screw-HHF
15	95-8531	2	Shaft-Pivot, Liftarm
16	32121-122	2	Pin-Roll
18	3234-27	2	Screw-Flange
19	325-38	8	Screw-HH
20	104-4865	8	Cap-Bearing
21	3218-5	4	Nut-Jam
22	325-6	2	Screw-HH
23	3296-23	8	Nut-Lock, NI
24	87-7270	16	Washer-Thrust

Ref	Part No.	Qty.	Description
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	Locknut-Bulkhead
30	99-3640	1	Tube ASM
31	340-78	1	Locknut-Bulkhead
32	104-4820-03	1	Bracket-Stop, Carrier
37	104-0481	1	RH Liftarm ASM
38	104-0482	1	LH Liftarm ASM
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	323-15	2	Screw-HH
48	3290-467	2	Pin-Hair
49	104-4639-03	1	Stop-Deck, LH
50	104-4640-03	1	Stop-Deck, RH
51	3269-11	4	Rivet
52	86-5350	2	Bumper-Rubber
53	32128-43	14	Nut-Flange
54	3234-11	4	Screw-HHF
56	302-5	2	Fitting-Grease

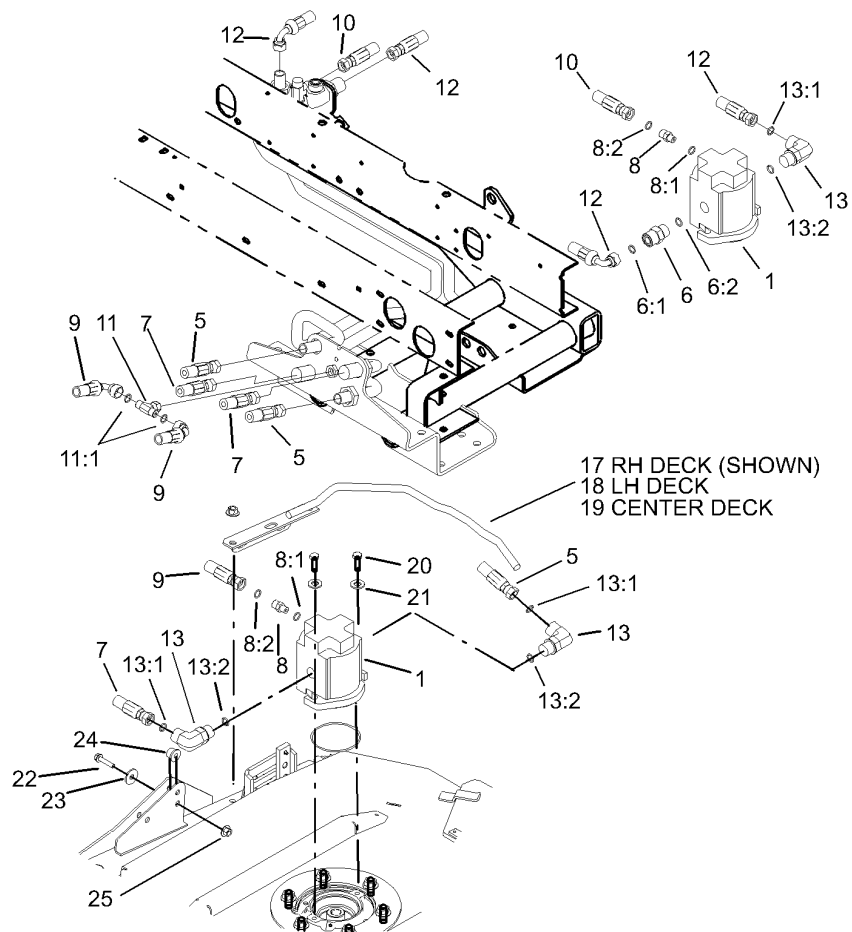
37



Scissor Assembly

Ref	Part No.	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
5	3256-24	4	Washer-Flat
6	3296-39	4	Nut-Lock, 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, NI
16	46-6350	2	Spacer
17	95-8790	1	Tube ASM
18	95-8791	1	Tube ASM
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
21:1	237-78	1	O-Ring
21:2	237-21	1	O-Ring

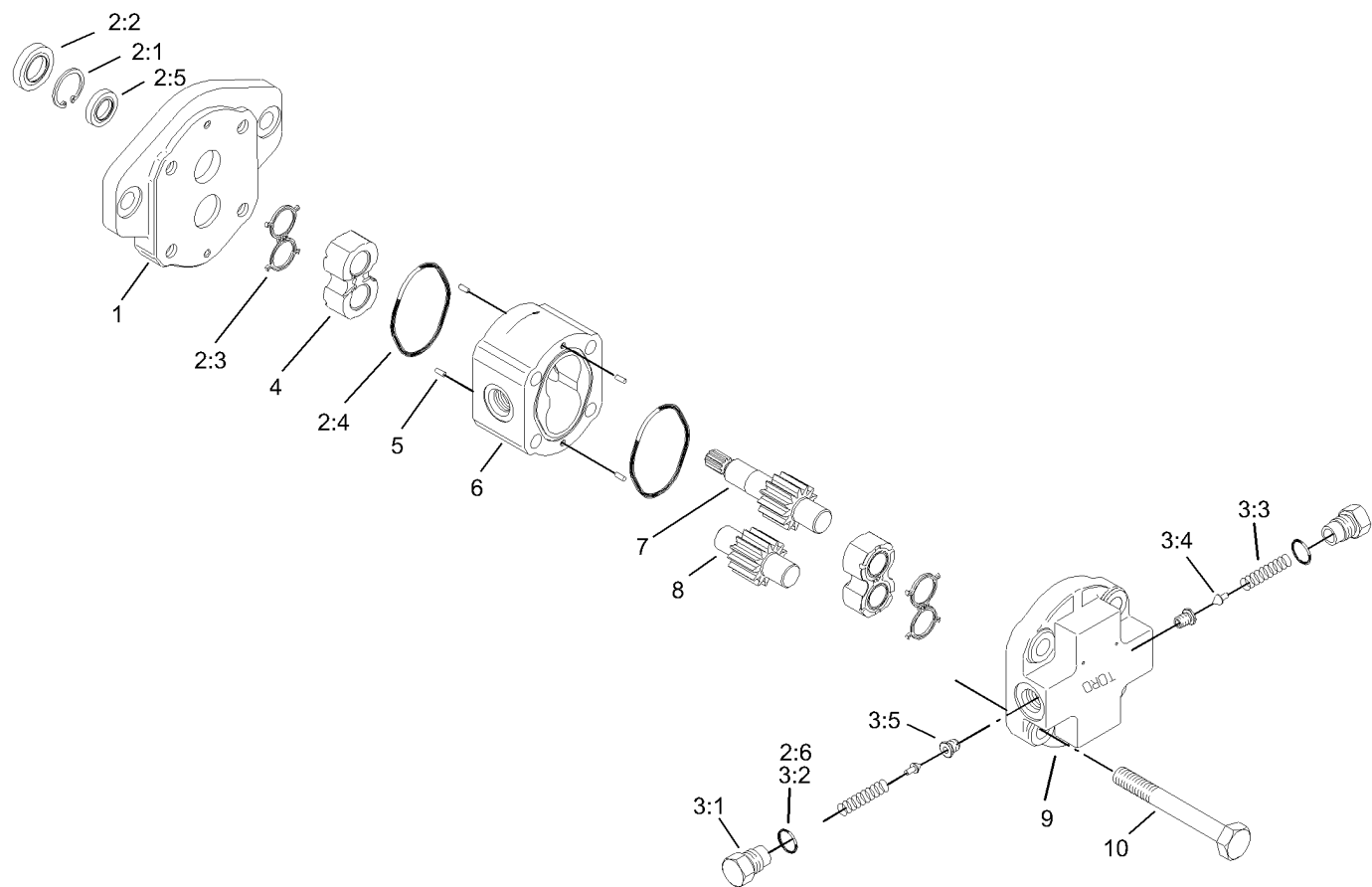
Ref	Part No.	Qty.	Description
22	95-8838	1	Hose ASM
23	340-132	1	Fitting-HYD, 90°
23:1	237-78	1	O-Ring
23:2	237-21	1	O-Ring
24	95-8839	1	Hose ASM
25	99-3505	1	Scissors Link ASM
25:1	94-3353	1	Decal-Point, Pinch
26	32120-93	2	Ring-Retaining



Deck Motor Assembly

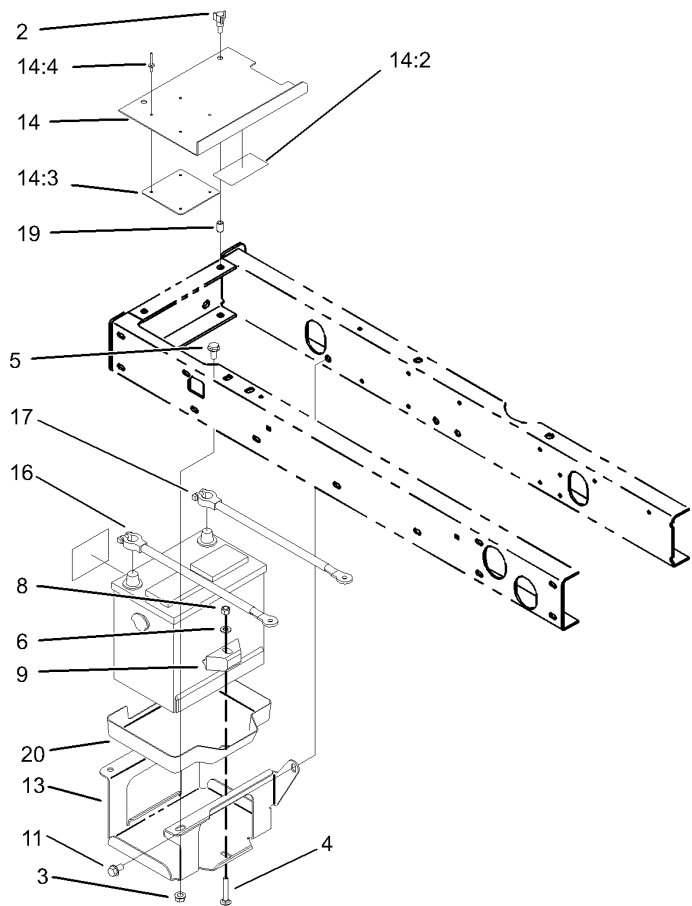
Ref	Part No.	Qty.	Description
1	105-9820	3	Motor-HYD
5	105-1216	2	Hose ASM
6	340-7	1	Adapter
6:1	237-65	1	O-Ring
6:2	237-80	1	O-Ring
7	105-1215	2	Hose ASM
8	340-92	3	Fitting-HYD, Straight
8:1	237-78	1	O-Ring
8:2	237-21	1	O-Ring
9	104-1080	2	Hose ASM
10	100-4876	1	Hose ASM
11	99-3477	1	Fitting-Tee
11:1	237-42	2	O-Ring
12	100-4880	2	Hose ASM
13	340-17	5	Fitting-HYD, 90°
13:1	237-65	1	O-Ring
13:2	237-80	1	O-Ring
17	106-2677-01	1	RH Foot Guard ASM
18	106-2679-01	1	LH Foot Guard ASM
19	106-2653-01	1	Foot Guard ASM
20	3274-7	6	Screw-HSH
21	3256-24	6	Washer-Flat
22	3234-18	6	Screw-HHF
23	93-8806	6	Washer-Hardened

Ref	Part No.	Qty.	Description
24	95-8803	6	Bushing-Flange
25	32128-43	6	Nut-Flange



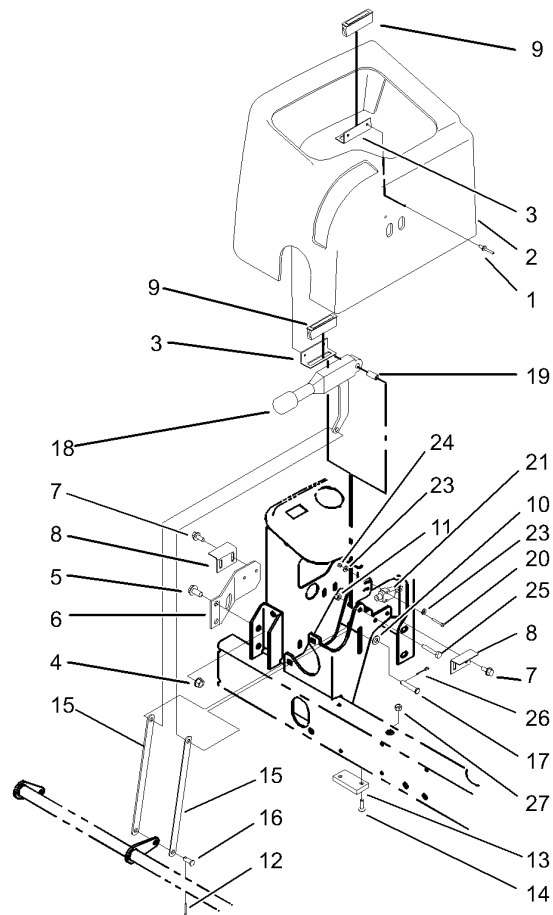
Hydraulic Motor Assembly No. 105-9820

Ref	Part No.	Qty.	Description				
❶1	105-9191	1	Flange				
2		1	Seal Kit				
❶2:1		1	Ring-Retaining				
❶2:2		1	Seal-Shaft				
❶2:3		2	Seal				
❶2:4		2	O-Ring				
❶2:5	105-9192	1	Seal-Shaft				
❶2:6		2	O-Ring				
3		2	Relief Valve Kit				
❶3:1		1	Cap-Valve, Relief				
❶3:2		1	O-Ring				
❶3:3		1	Spring				
❶3:4		1	Poppet				
❶3:5		1	Seat-Valve, Relief				
❶4		2	Block-Bushing				
❶5		4	Pin-Dowel				
❶6		1	Housing				
❶7		1	Gear-Drive				
❶8		1	Gear-Idler				
❶9		1	Block-Valve				
❶10		4	Bolt				



Battery Assembly

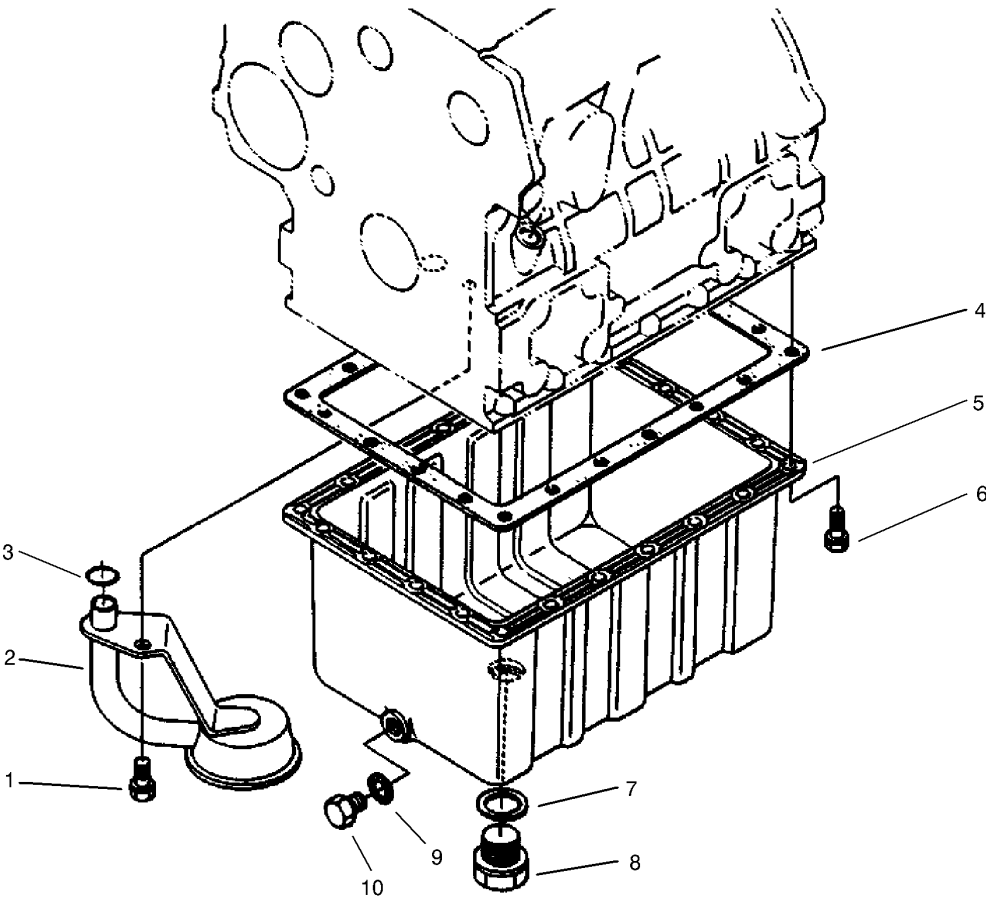
Ref	Part No.	Qty.	Description				
2	233-70	2	Knob-3 Star				
3	32128-43	3	Nut-Flange				
4	3230-6	1	Screw-CARR				
5	3234-1	3	Screw-HHF				
6	3256-23	1	Washer-Flat				
8	3296-29	1	Nut-Lock, NI				
9	66-2490	1	Retainer-Battery				
11	32144-15	1	Screw				
13	95-8796-03	1	Support-Battery				
14	99-3602	1	Cover-Battery				
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

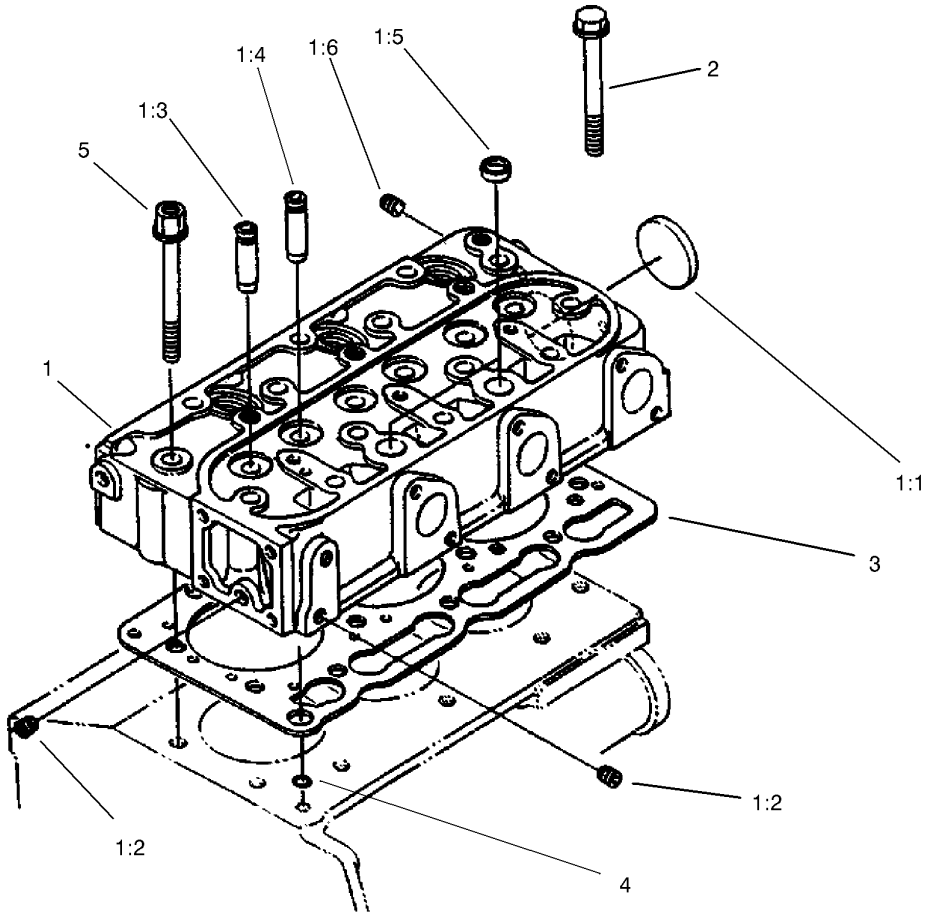
Ref	Part No.	Qty.	Description	Ref	Part No.	Qty.	Description
1	3269-5	4	Rivet	26	3272-6	1	Pin-Cotter
2	95-8707	1	Cover-Dash	27	32128-32	2	Nut-HHF
3	95-8763	2	Bracket-Hold Down, Cover				
4	32128-43	2	Nut-Flange				
5	3234-1	2	Screw-HHF				
6	95-8764-03	1	Support-Magnet				
7	32144-10	4	Screw-HWH				
8	95-8765	2	Bracket-Strike, Magnet				
9	58-4250	2	Catch-Magnetic				
10	3256-23	1	Washer-Flat				
11	3296-42	1	Nut-Lock, NI				
12	3272-10	1	Pin-Cotter				
13	95-8684	1	Pad-Bumper				
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, NI				
25	321-10	1	Screw-HH				

43



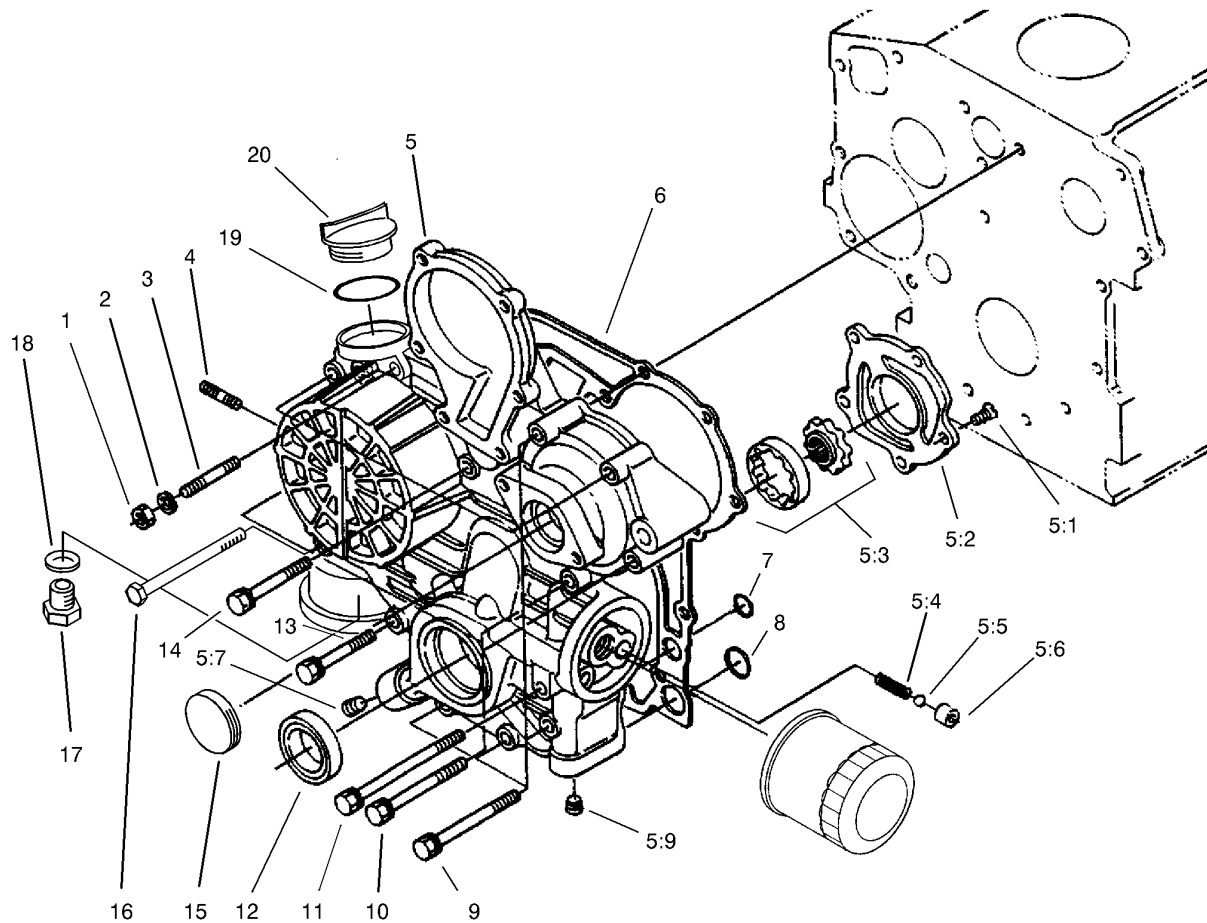
Oil Pan Assembly

Ref	Part No.	Qty.	Description				
1	98-9358	1	Bolt				
2	98-9538	1	Filter-Oil				
3	98-7527	1	O-Ring				
4	98-9646	1	Gasket-Pan, Oil				
5	98-9685	1	Drain-Oil				
6	98-9350	22	Bolt				
7	98-9399	1	Gasket				
8	98-7523	1	Plug-Drain				
9	98-7524	1	Gasket				
10	98-9386	1	Plug				



Cylinder Head Assembly

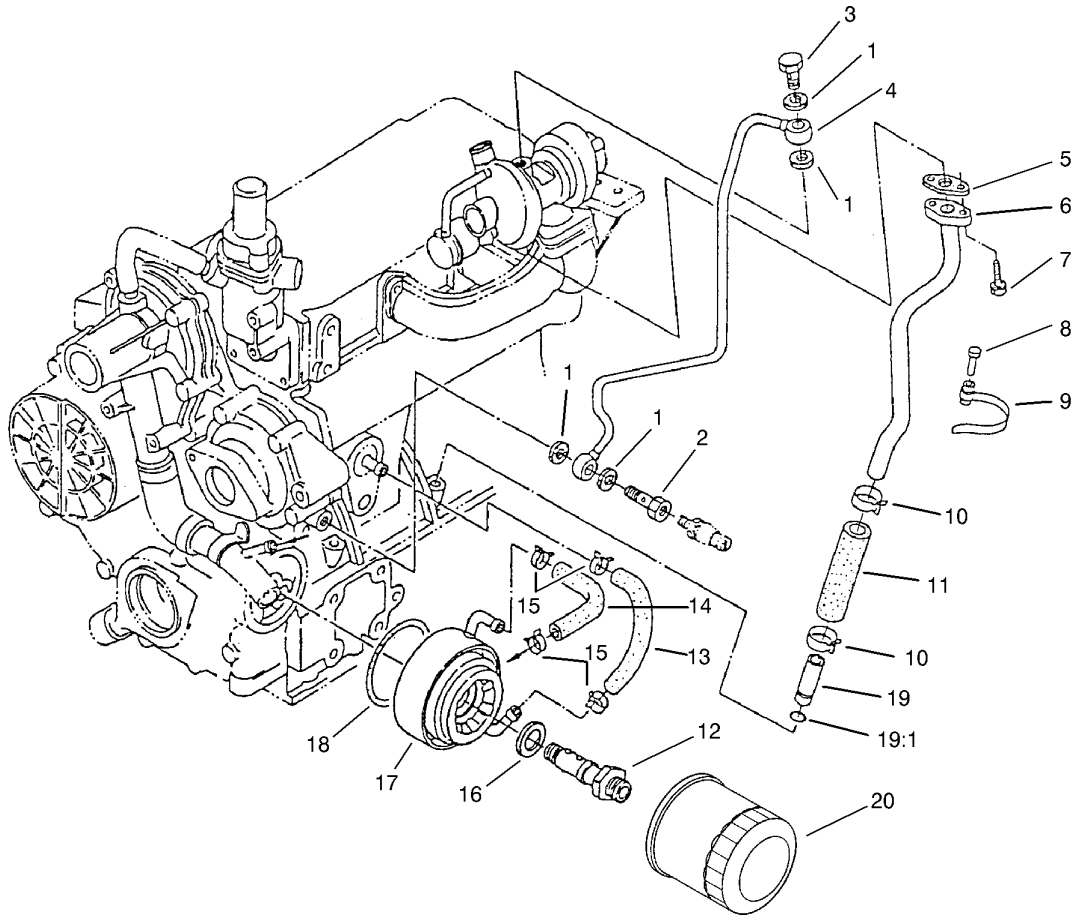
Ref	Part No.	Qty.	Description				
1	99-8344	1	Cylinder Head ASM				
1:1	98-9395	1	Cap-Sealing				
1:2	98-7540	2	Cap-Sealing				
1:3	98-9499	3	Guide-Valve, Inlet				
1:4	98-9500	3	Guide-Valve, Exhaust				
1:5	98-9389	2	Cap-Sealing				
1:6	98-9444	1	Plug				
2	98-9479	12	Bolt-Head, Cylinder				
3	98-9613	1	Gasket-Head, Cylinder				
4	98-7509	1	O-Ring				
5	98-9647	2	Bolt-Head, Cylinder				



Grease and Oil Filter Assembly

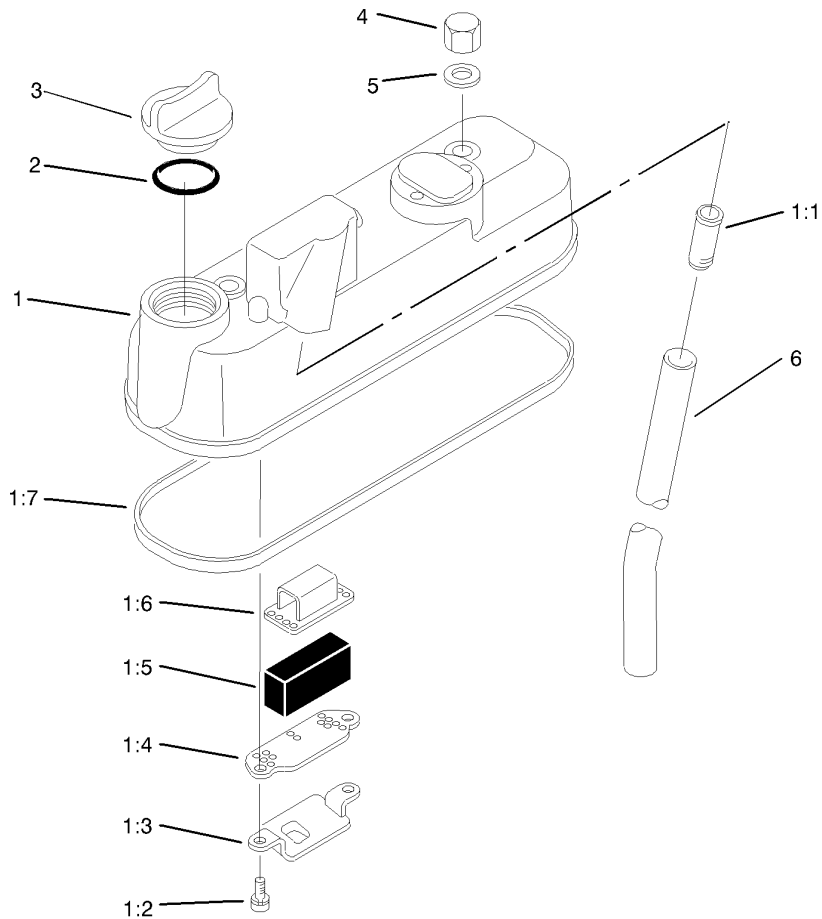
Ref	Part No.	Qty.	Description
1	98-7572	1	Nut
2	98-9367	1	Washer-Spring
3	98-9363	1	Stud
4	98-9362	2	Stud
5		1	Gear Case ASM
5:1	98-9592	5	Screw
5:2	105-3708	1	Cover-Pump, Oil
5:3	98-9540	1	Oil Pump Rotor ASM
5:4	98-9544	1	Spring
5:5	98-9390	1	Ball
5:6	98-9543	1	Seat-Valve
5:7	98-9598	2	Plug
6	98-9633	1	Gasket-Case, Gear
7	98-9372	2	O-Ring
8	98-7547	2	O-Ring
9	98-9356	2	Bolt
10	98-9355	6	Bolt
11	99-3510	2	Bolt
12	98-9482	1	Seal-Oil
13	98-9437	1	Bolt
14	98-7496	3	Bolt
15	99-3515	1	Plug-Gearcase
16	99-3511	1	Bolt
17	99-3450	2	Plug

Ref	Part No.	Qty.	Description
18	99-3451	1	Plug-Packing
19	98-7430	1	O-Ring
20	98-9449	1	Plug-Filler, Oil



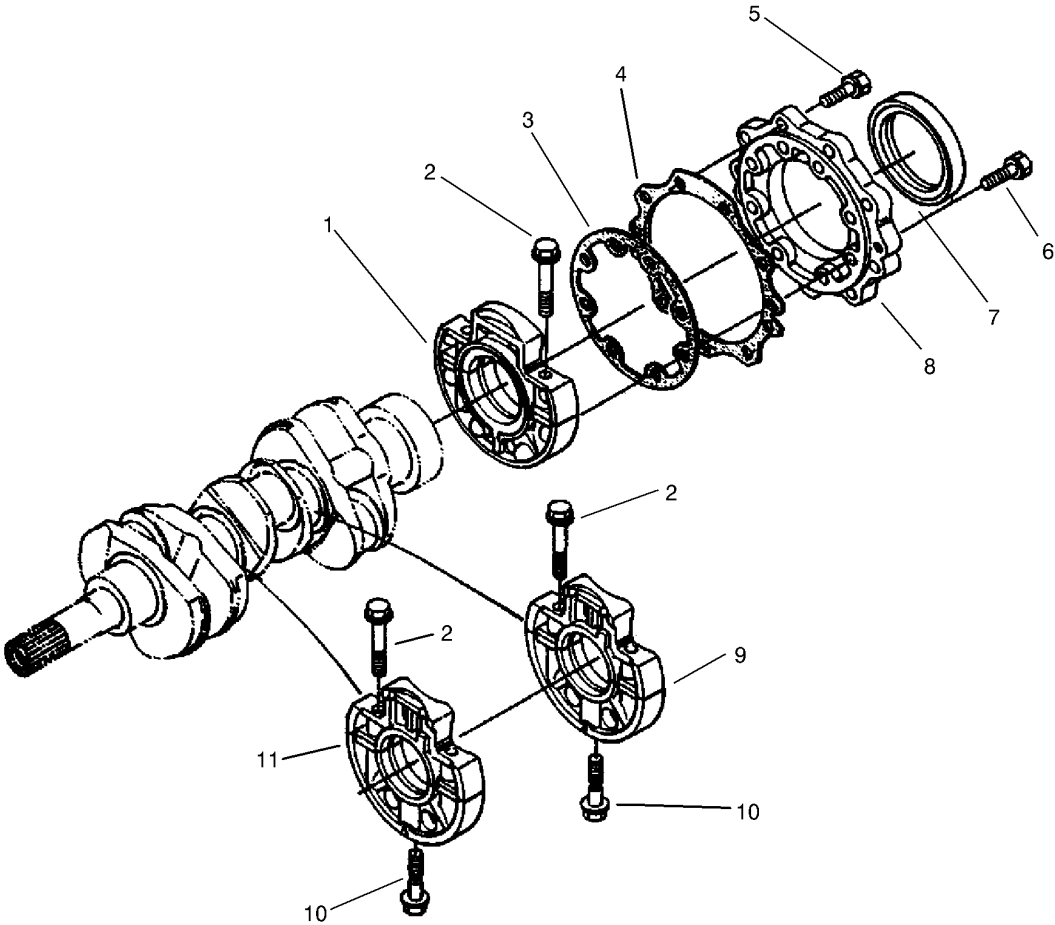
Filter, Oil Cooler, and Pipe Assembly

Ref	Part No.	Qty.	Description				
1	99-8346	4	Gasket				
2	98-9417	1	Bolt-Joint, Eye				
3	98-9418	1	Bolt-Joint, Eye				
4	98-9419	1	Oil Pipe ASM				
5	98-9435	1	Gasket-Oil Return, Turbo				
6	98-9461	1	Pipe Line ASM				
7	98-7568	2	Bolt				
8	98-9591	1	Pin-Band				
9	98-9601	1	Clamp-Pipe				
10	98-9714	2	Clamp-Hose				
11	98-9721	1	Pipe-Oil				
12	104-5159	1	Holder ASM				
13	98-9724	1	Pipe-Cooler, Oil				
14	98-9578	1	Pipe-Return, Water				
15	98-9579	4	Band-Pipe				
16	98-9727	1	Collar				
17	104-5158	1	Oil Cooler ASM				
18	98-9729	1	O-Ring				
19	99-8383	1	Oil Pipe ASM				
19:1	98-9722	1	O-Ring				
20	99-8384	1	Filter-Oil				



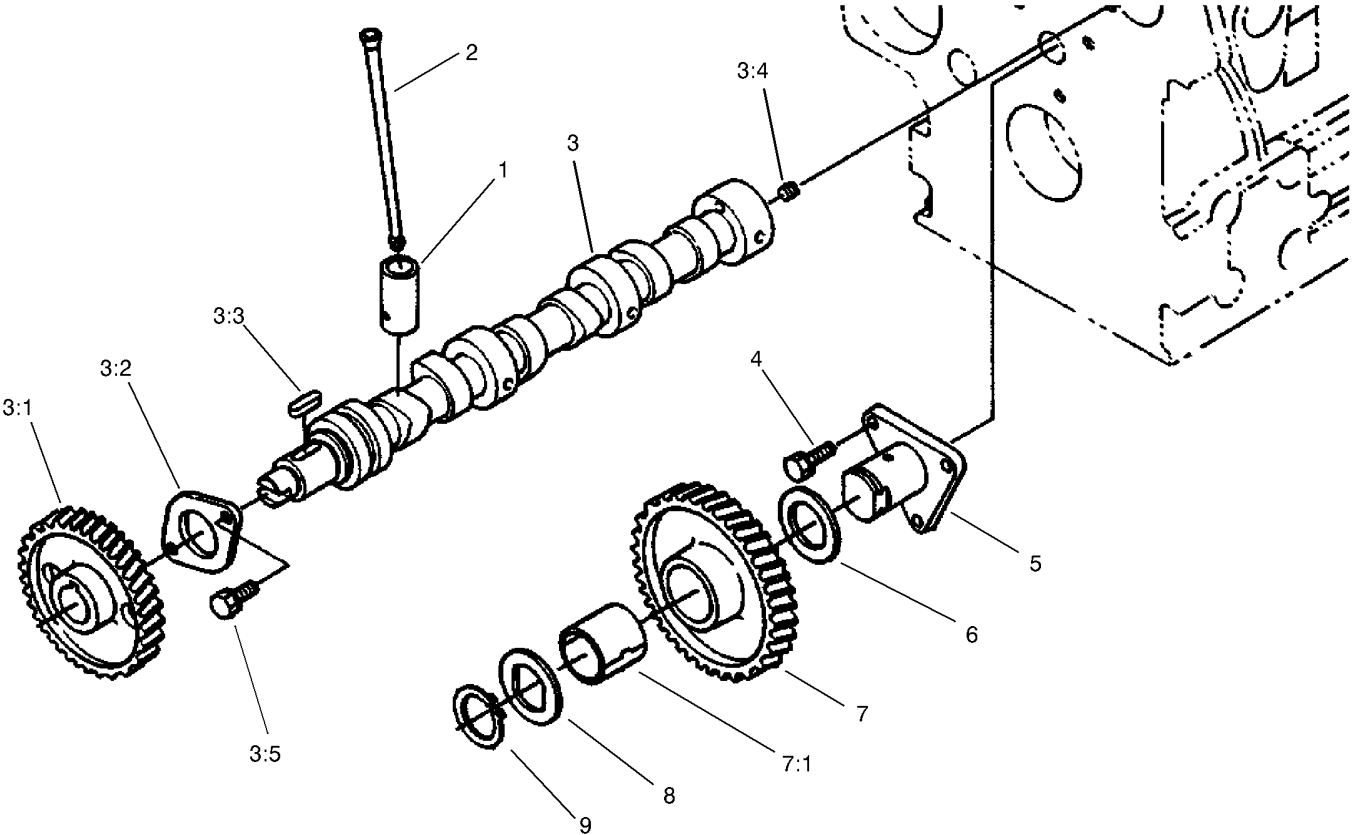
Head Cover Assembly

Ref	Part No.	Qty.	Description				
1	98-9614	1	Cylinder Head Cover ASM				
1:1	98-9492	1	Joint-Pipe, Breather				
1:2	98-9364	2	Screw-W/Washer				
1:3	98-9490	1	Shield-Oil, Breather				
1:4	98-9488	1	Plate-Element, Breather				
1:5	98-9493	1	Element-Breather				
1:6	98-9489	1	Plate-Element, Breather				
1:7	98-9615	1	Gasket-Cover, Head				
2	98-7430	1	O-Ring				
3	98-9449	1	Plug-Filler, Oil				
4	98-9455	3	Nut-Cap				
5	98-9454	3	Gasket				
6	98-9491	1	Pipe-Breather				



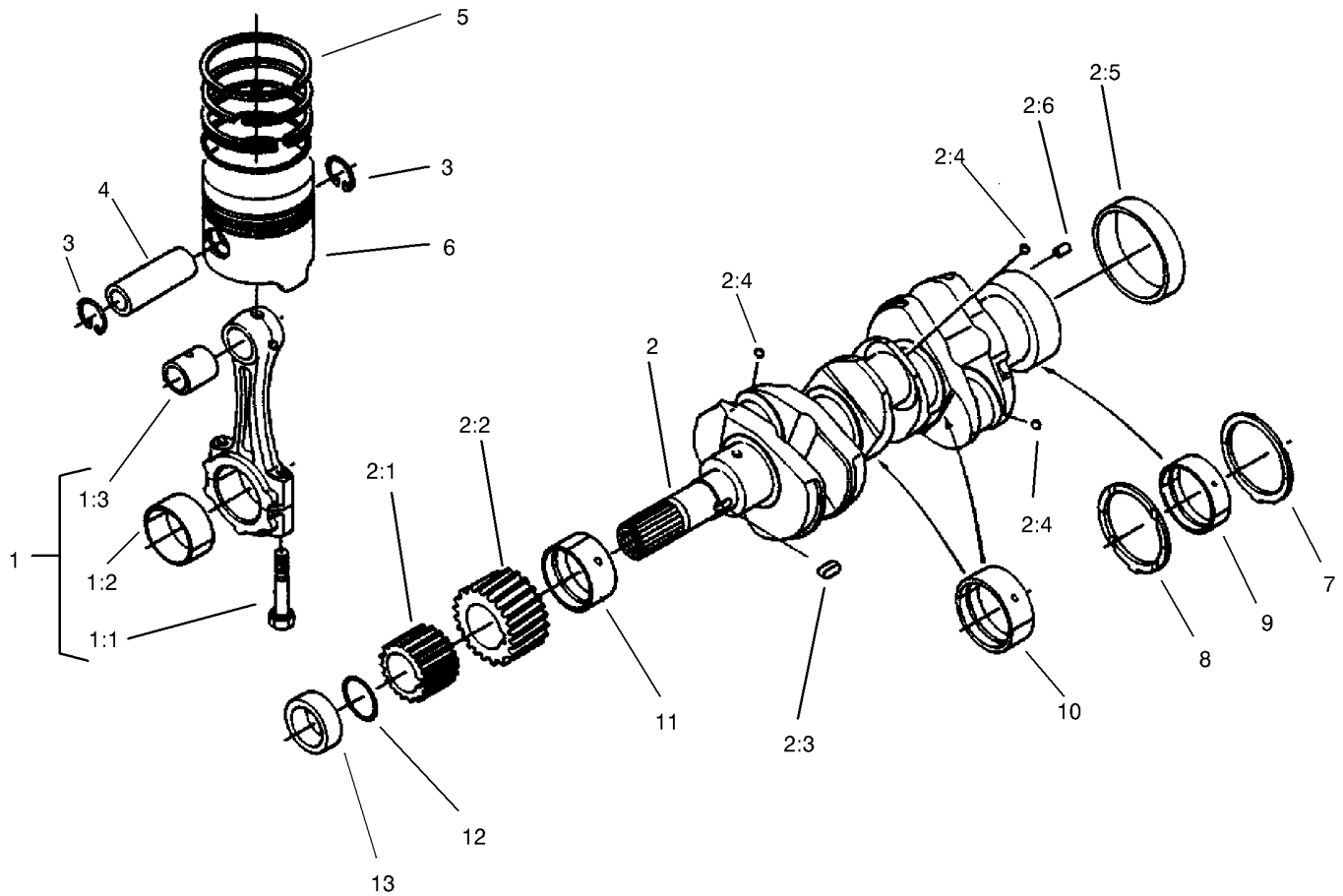
Main Bearing Case Assembly

Ref	Part No.	Qty.	Description				
1	98-9480	1	Main Bearing Case ASM				
2	98-9484	6	Bolt-Case, Bearing				
3	98-9634	1	Gasket-Case, Bearing				
4	98-9635	1	Gasket-Cover, Bearing Case				
5	98-7568	9	Bolt				
6	98-9352	8	Bolt				
7	98-9483	1	Seal-Oil				
8	98-9487	1	Cover-Case, Bearing				
9	99-8360	1	Case-Bearing, Main				
10	98-9485	2	Bolt-Case, Bearing				
11	99-8361	1	Case-Bearing, Main				



Camshaft Assembly

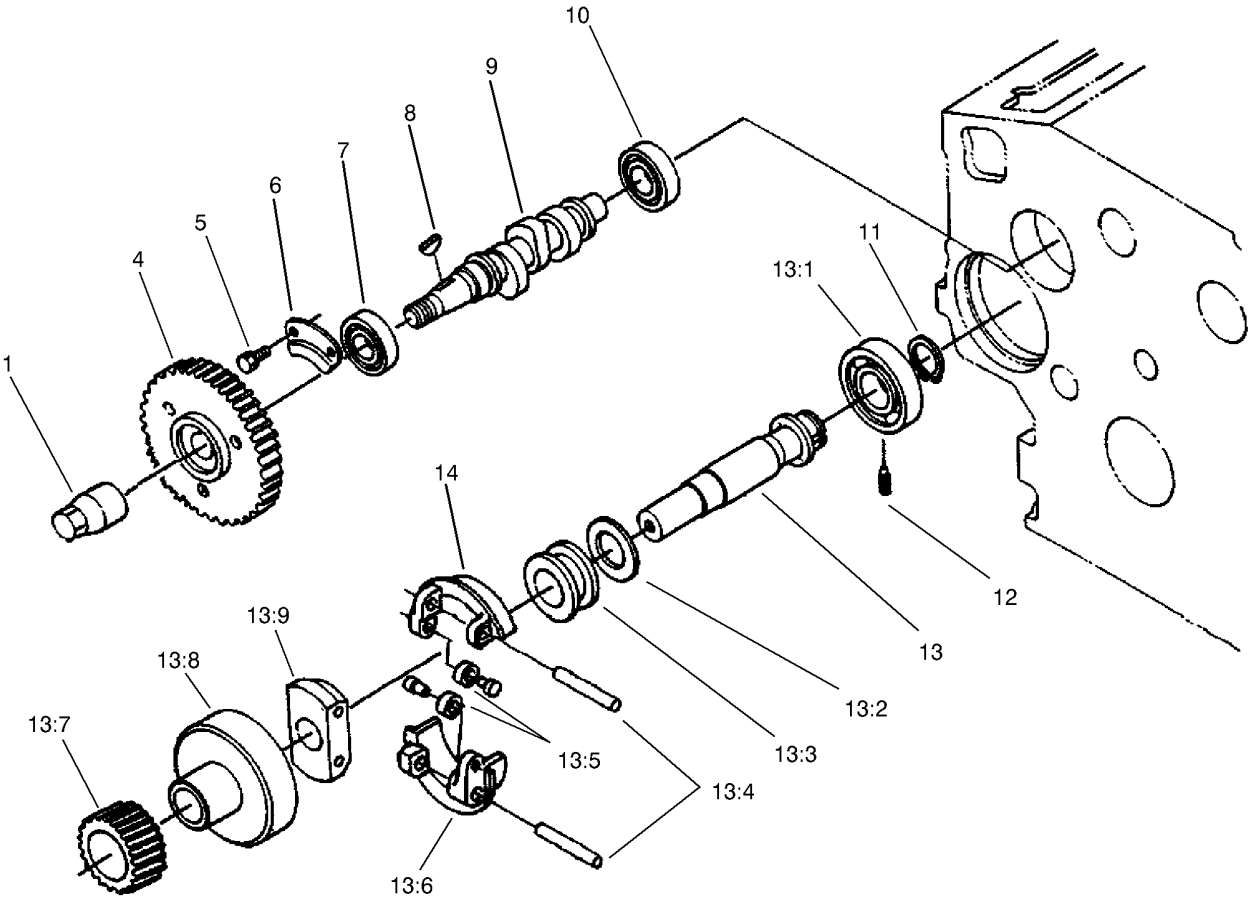
Ref	Part No.	Qty.	Description				
1	98-9616	6	Tappet				
2	98-9509	6	Rod-Push				
3	99-8362	1	Camshaft ASM				
3:1	98-9512	1	Gear-Cam				
3:2	98-9510	1	Stopper-Camshaft				
3:3	98-9378	1	Key-Feather				
3:4	98-7449	1	Screw-Set				
3:5	98-9351	2	Bolt				
4	98-7692	3	Bolt				
5	98-9533	1	Shaft-Gear, Idle				
6	98-9535	1	Collar-Gear, Idle				
7	98-9649	1	Idle Gear ASM				
7:1	98-9650	1	Bushing-Gear, Idle				
8	98-9536	1	Collar-Gear, Idle				
9	98-9534	1	Clip-Circular, Idle Gear				



Piston and Crankshaft Assembly

Ref	Part No.	Qty.	Description
1	98-9552	3	Connecting Rod ASM
1:1	98-9517	6	Bolt-Rod, Connecting
1:2	98-9519	3	Bearing-Rod (0.2Mm)
1:2	98-9520	3	Bearing-Rod (0.4Mm)
1:2	98-9553	3	Bearing-Rod (STD)
1:3	98-9515	3	Bushing-Pin, Piston
2	98-9642	1	Crankshaft ASM
2:1	98-9542	1	Gear-Drive, Oil Pump
2:2	98-9532	1	Gear-Crankshaft
2:3	98-9666	1	Key
2:4	98-7473	3	Ball
2:5	98-9522	1	Sleeve-Crankshaft
2:6	98-9375	1	Pin-Straight
3	98-9514	6	Clip-Circular, Piston Pin
4	98-9513	3	Pin-Piston
5	98-9619	3	Piston Ring ASM (0.5Mm)
5	98-9551	3	Piston Ring ASM (STD)
6	98-9550	3	Piston (STD)
6	98-9470	3	Piston (0.5Mm)
7	98-9413	2	Bearing-Thrust (STD)
7	98-9414	2	Bearing-Thrust (0.2Mm)
7	98-9415	2	Bearing-Thrust (0.4Mm)
8	98-9688	2	Bearing-Thrust (STD)
8	98-9689	2	Bearing-Thrust (0.2Mm)

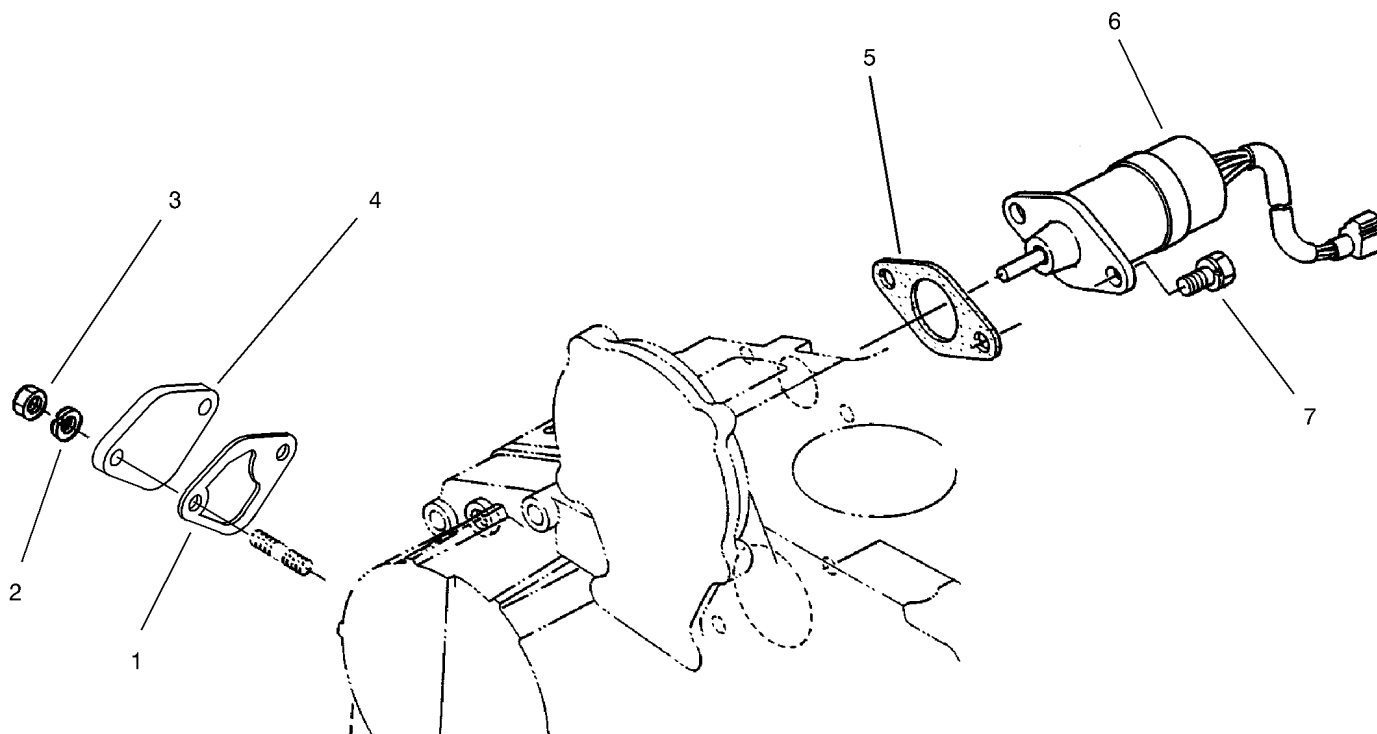
Ref	Part No.	Qty.	Description
8	98-9690	2	Bearing-Thrust (0.4Mm)
9	98-9526	1	Bearing-Main (0.2Mm)
9	98-9527	1	Bearing-Main (0.4Mm)
9	98-9556	1	Bearing-Main (STD)
10	98-9530	2	Bearing-Main (0.2Mm)
10	98-9531	2	Bearing-Main (0.4Mm)
10	98-9555	2	Bearing-Main (STD)
11	98-9528	1	Bearing-Main (0.2Mm)
11	98-9529	1	Bearing-Main (0.4Mm)
11	98-9554	1	Bearing-Main (STD)
12	98-9373	1	O-Ring
13	98-9521	1	Collar-Crankshaft



Fuel Camshaft Assembly

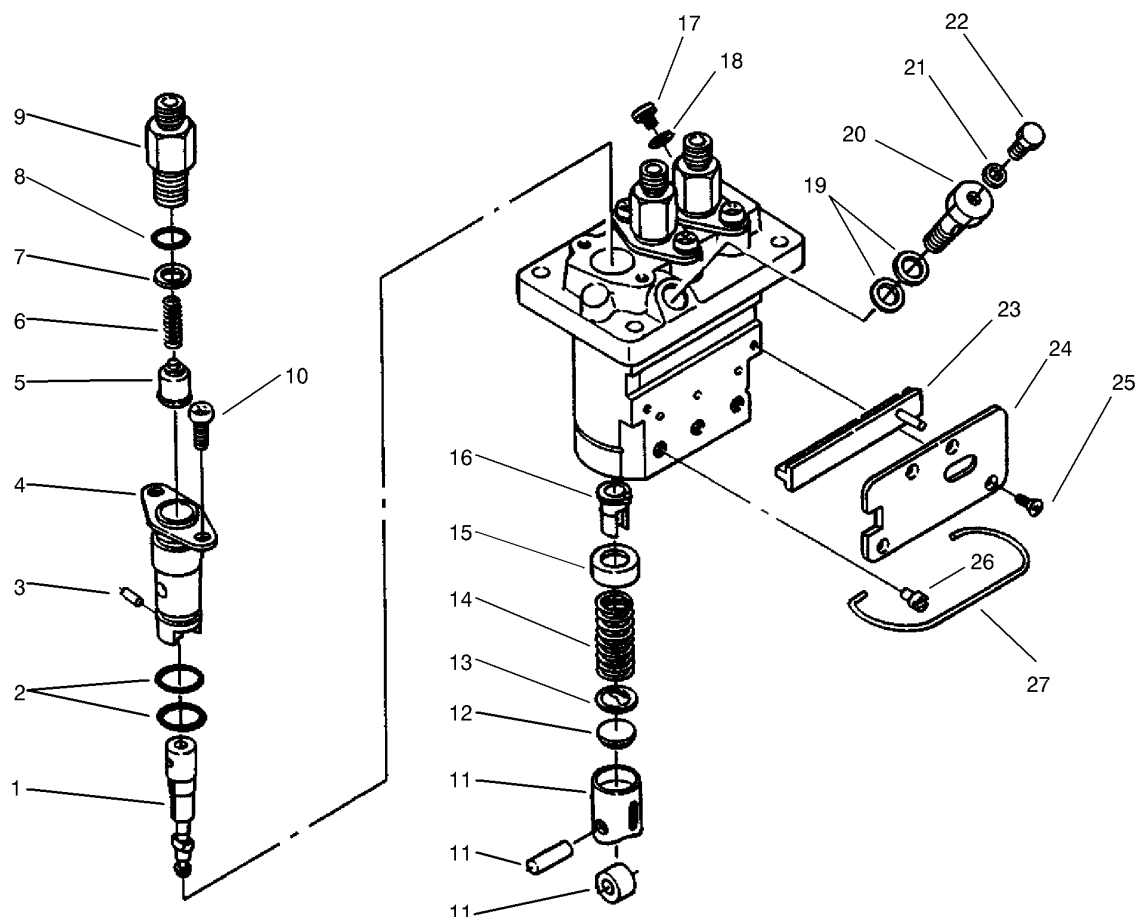
Ref	Part No.	Qty.	Description				
1	98-9590	1	Nut-Cap				
4	98-9669	1	Gear-Pump, Injection				
5	98-9350	2	Bolt				
6	98-9511	1	Stopper-Fuel, Camshaft				
7	98-9383	1	Bearing-Ball				
8	98-9595	1	Key-Woodruff				
9	98-9459	1	Camshaft-Fuel				
10	98-9382	1	Bearing-Ball				
11	98-9657	1	Clip-Circular, Governor Shaft				
12	98-9565	1	Screw-Set				
13	98-9644	1	Governor Shaft ASM				
13:1	98-9381	1	Bearing-Ball				
13:2	98-9564	1	Washer-Thrust				
13:3	98-9563	1	Sleeve-Governor				
13:4	98-9560	2	Shaft-Weight, Governor				
13:5	98-9692	2	Roller				
13:6	98-9559	2	Governor Weight ASM				
13:7	98-9673	1	Gear-Governor				
13:8	98-9562	1	Holder-Gear, Governor				
13:9	98-9561	1	Holder-Weight, Governor				
14	98-9559	2	Governor Weight ASM				

55



Stop Solenoid and Fuel Pump Assembly

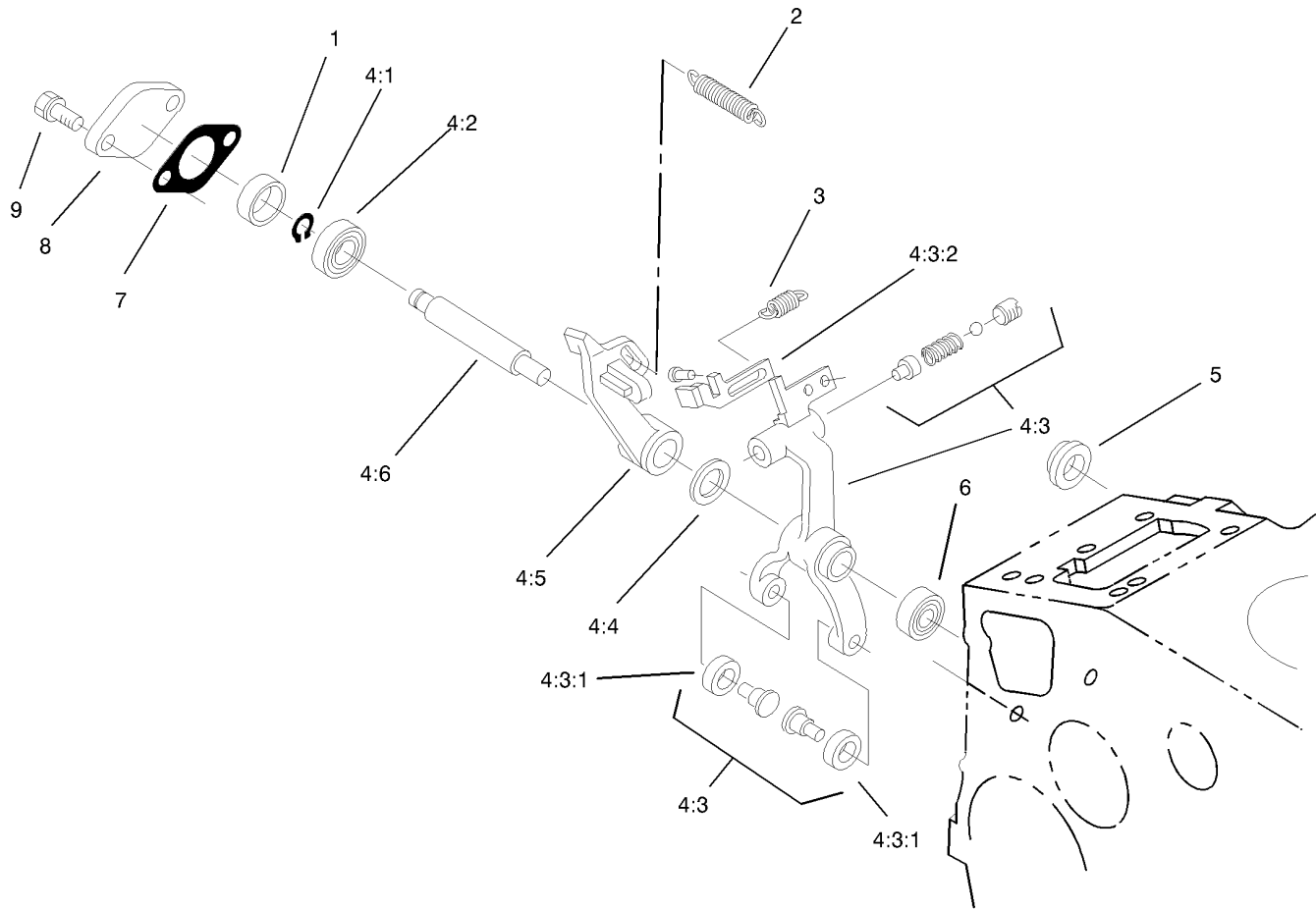
Ref	Part No.	Qty.	Description
1	98-9636	1	Gasket-Pump, Fuel
2	98-9367	2	Washer-Spring
3	98-7572	2	Nut
4	99-3514	1	Cover
5	98-9683	1	Gasket-Cover, Solenoid
6	104-5155	1	Solenoid-Stop
7	98-9351	2	Bolt



Injection Pump Assembly No. 98-9643

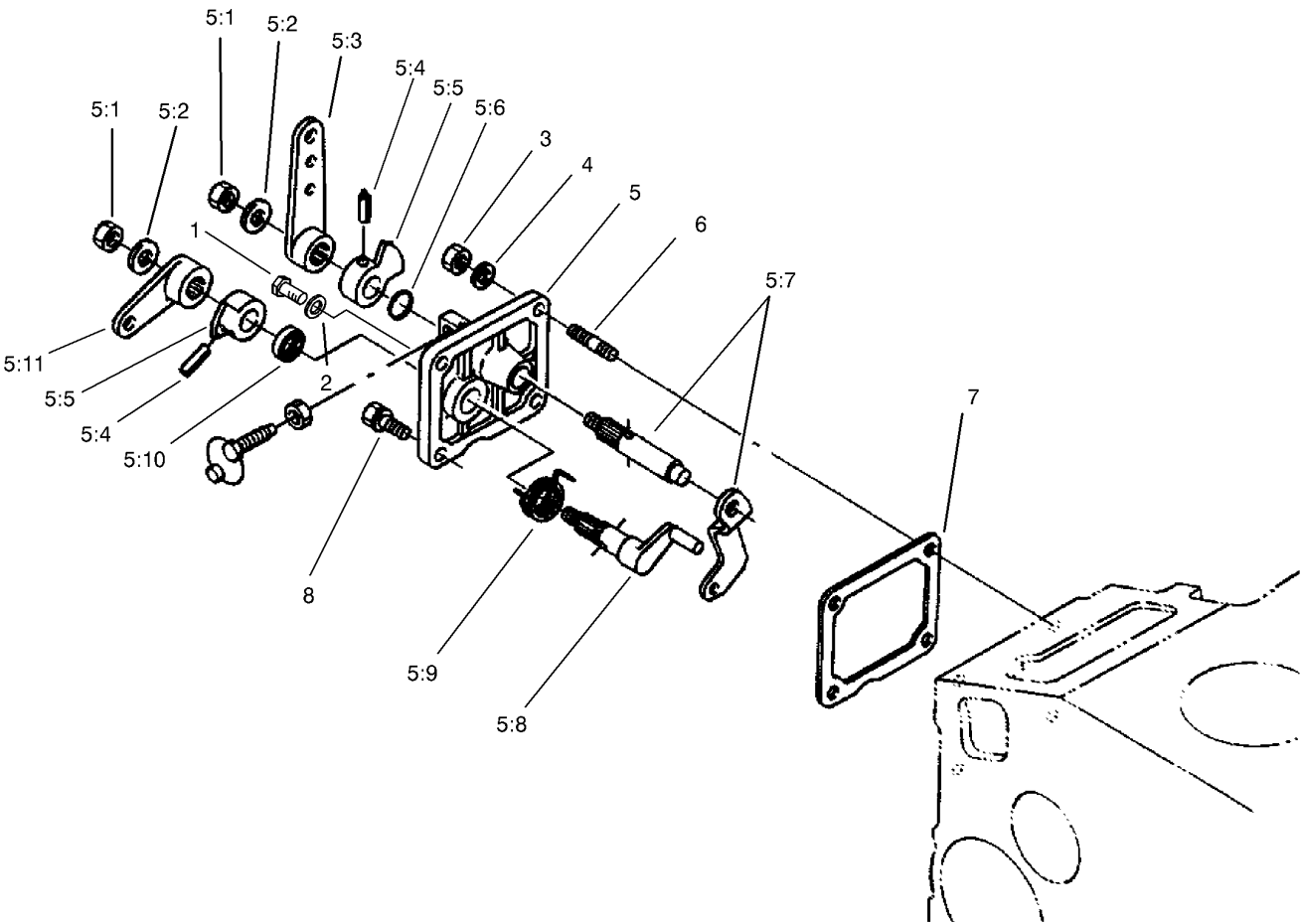
Ref	Part No.	Qty.	Description
1	98-9462	3	Element-Pump
2	98-9423	6	O-Ring
3	98-9443	3	Pin-Joint
4	98-9434	3	Flange-Sleeve
5	98-9421	3	Valve-Delivery
6	98-9424	3	Spring-Valve, Delivery
7	98-9425	3	Gasket-Valve, Delivery
8	98-9447	3	O-Ring
9	98-9652	3	Holder-Valve, Delivery
10	98-9452	6	Screw
11	98-9422	3	Tappet ASM
12	98-9433	3	Shim
13	98-9429	3	Seat-Spring, Lower
14	98-9428	3	Spring-Plunger
15	98-9427	3	Seat-Spring, Upper
16	98-9432	3	Sleeve-Control
17	98-9466	1	Plug
18	98-9451	1	Gasket
19	98-9445	1	Gasket
20	98-9464	1	Bolt-Joint
21	98-9446	1	Gasket
22	98-9430	1	Screw
23	98-9463	1	Control-Rack
24	98-9465	1	Plate

Ref	Part No.	Qty.	Description
25	98-9442	4	Screw
26	98-9426	3	Pin-Guide, Tappet
27	98-9450	1	Pin-Clamp



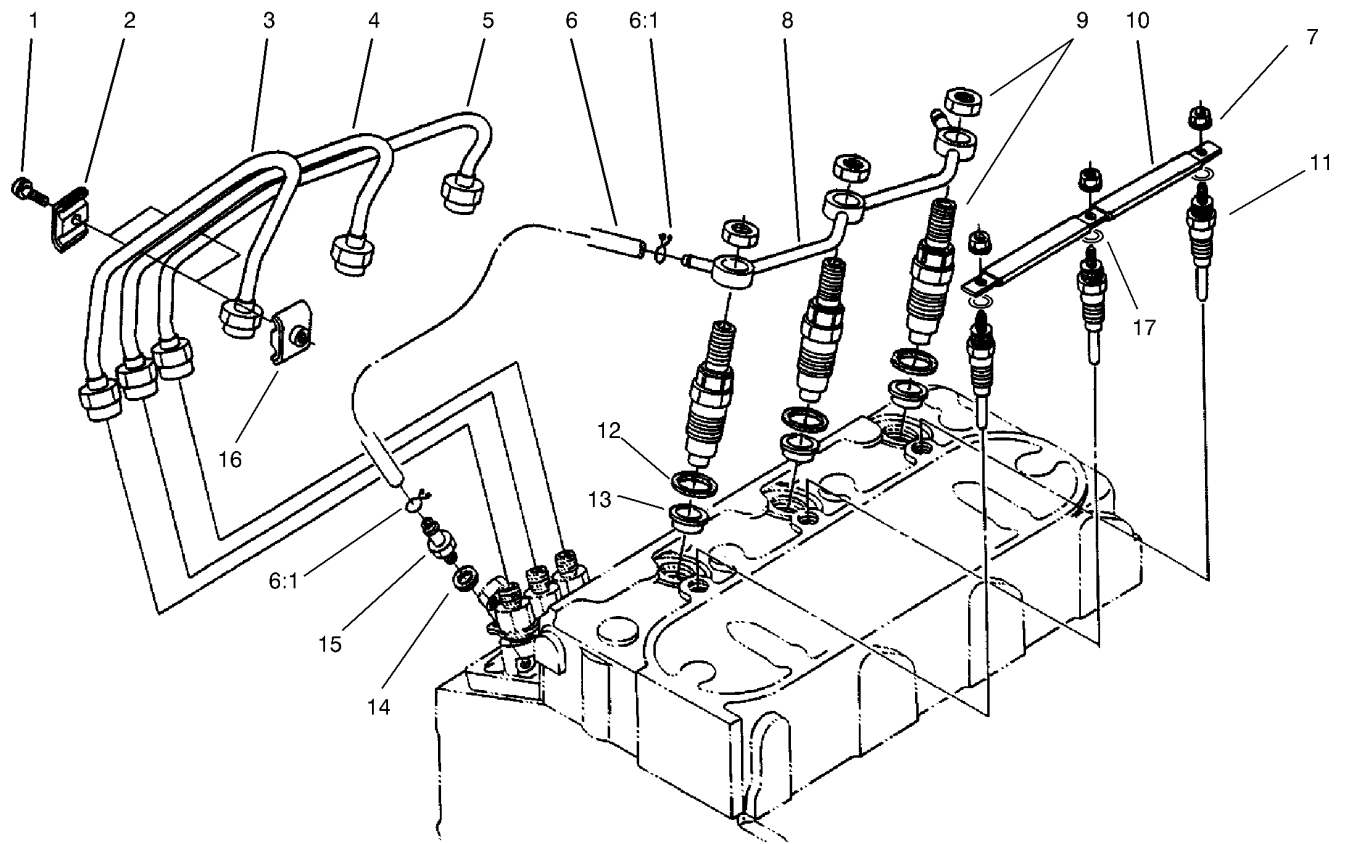
Governor Assembly

Ref	Part No.	Qty.	Description				
1	98-9567	1	Collar				
2	98-9681	1	Spring-Governor				
3	98-9645	1	Spring-Start				
4	98-9680	1	Fork Lever ASM				
4:1	98-9369	1	Clip-Circular, External				
4:2	98-9570	1	Bearing-Miniaturize				
4:3	99-8380	1	Fork Lever ASM				
4:3:1	98-9692	2	Roller				
4:3:2	98-9660	1	Lever-Thrust				
4:4	98-9593	1	Washer-Plain				
4:5	98-9659	1	Lever-Fork				
4:6	98-9566	1	Shaft-Lever, Fork				
5	98-9568	1	Collar				
6	98-9571	1	Bearing-Miniaturize				
7	98-9682	1	Gasket				
8	98-9569	1	Cover-Shaft, Fork Lever				
9	98-9351	2	Bolt				



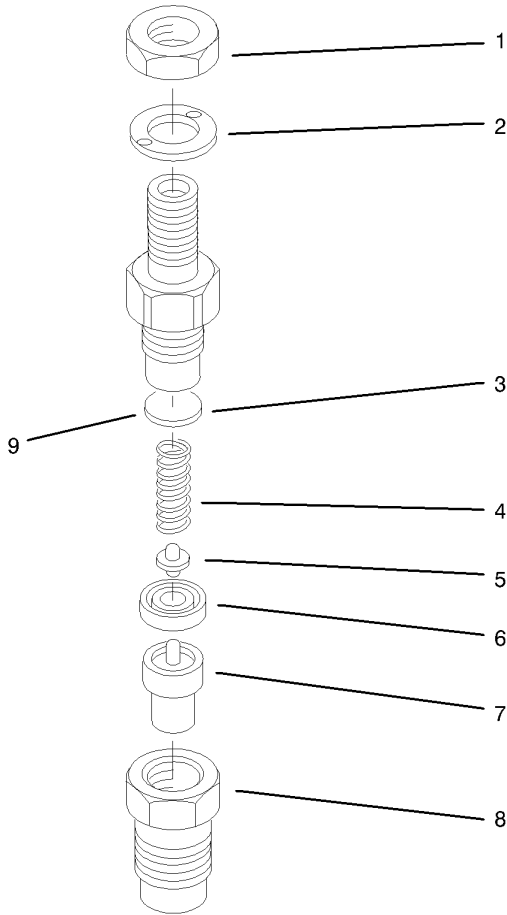
Speed Control Plate Assembly

Ref	Part No.	Qty.	Description				
1	99-8348	1	Bolt				
2	98-7654	1	Gasket				
3	98-7572	2	Nut				
4	98-9367	2	Washer-Spring				
5	98-9661	1	Control Plate ASM				
5:1	98-9589	2	Nut				
5:2	98-9594	2	Washer-Plain				
5:3	98-9662	1	Lever-Control, Speed				
5:4	98-7602	2	Pin-Spring				
5:5	98-9572	2	Lever-Control, Speed				
5:6	98-9371	1	O-Ring				
5:7	98-9658	1	Governor Lever ASM				
5:8	98-9664	1	Shaft-Lever, Stop				
5:9	98-9472	1	Spring-Return				
5:10	98-7601	1	Seal-Oil				
5:11	98-9663	1	Lever-Stop, Engine				
6	98-9362	2	Stud				
7	98-9637	1	Gasket				
8	98-7692	1	Bolt				



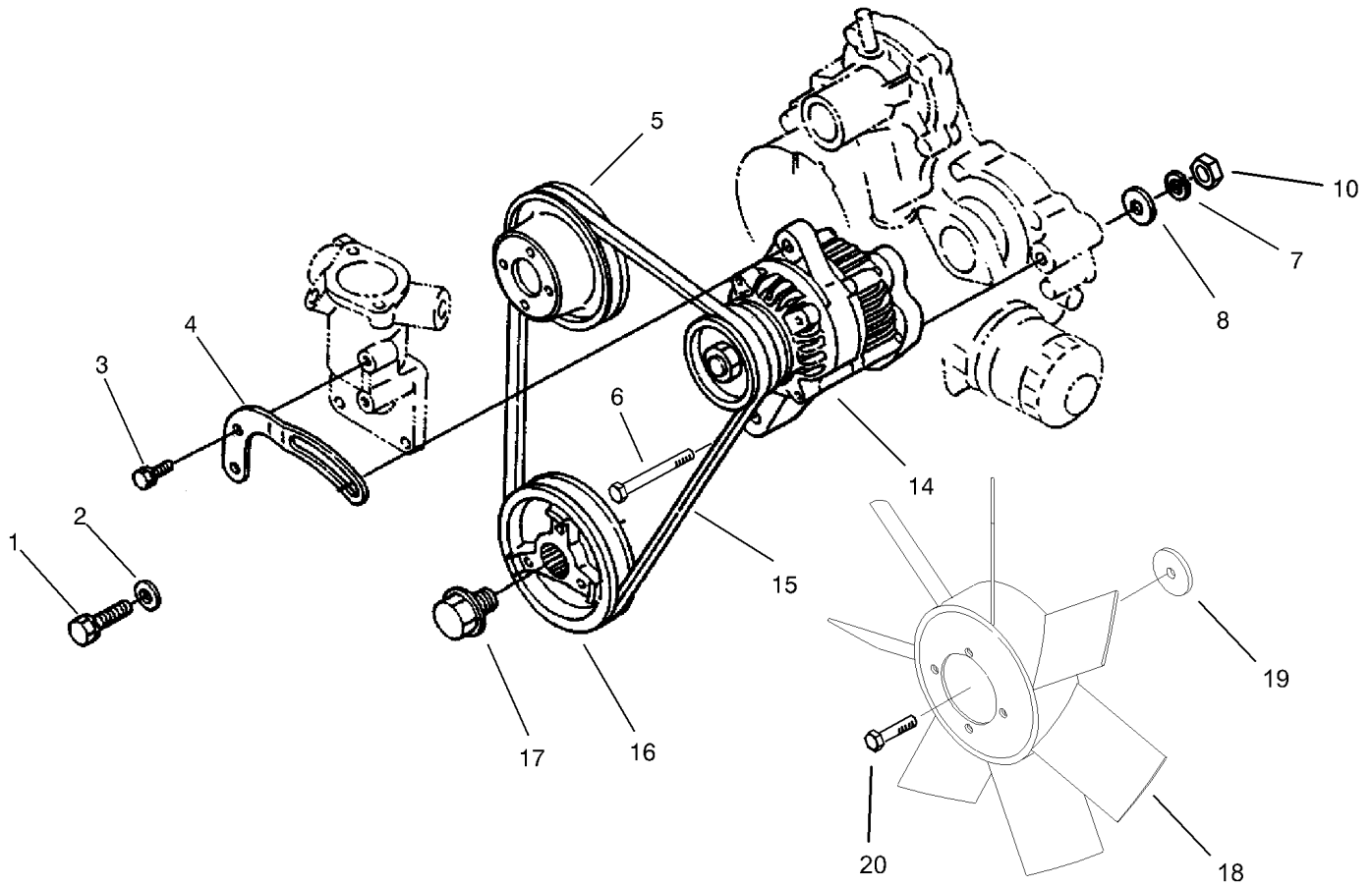
Nozzle Holder and Glow Plug Assembly

Ref	Part No.	Qty.	Description
1	98-7684	2	Screw W/Washer
2	98-7683	2	Clamp-Pipe
3	98-9622	1	Pipe-Injection
4	98-9654	1	Pipe-Injection
5	98-9655	1	Pipe-Injection
6	98-9624	1	Overflow Pipe ASM
6:1	98-7671	2	Clip-Pipe
7	99-8377	3	Nut-Flange
8	98-9621	1	Overflow Pipe ASM
9	98-9468	3	Nozzle Holder ASM
10	98-9631	1	Cord-Plug, Glow
11	98-9623	3	Plug-Glow
12	98-7676	3	Gasket
13	98-7677	3	Seal
14	98-7654	1	Gasket
15	98-9431	1	Screw-Bleeder
16	98-7682	2	Clamp-Pipe
17	99-8378	3	Washer-Plain



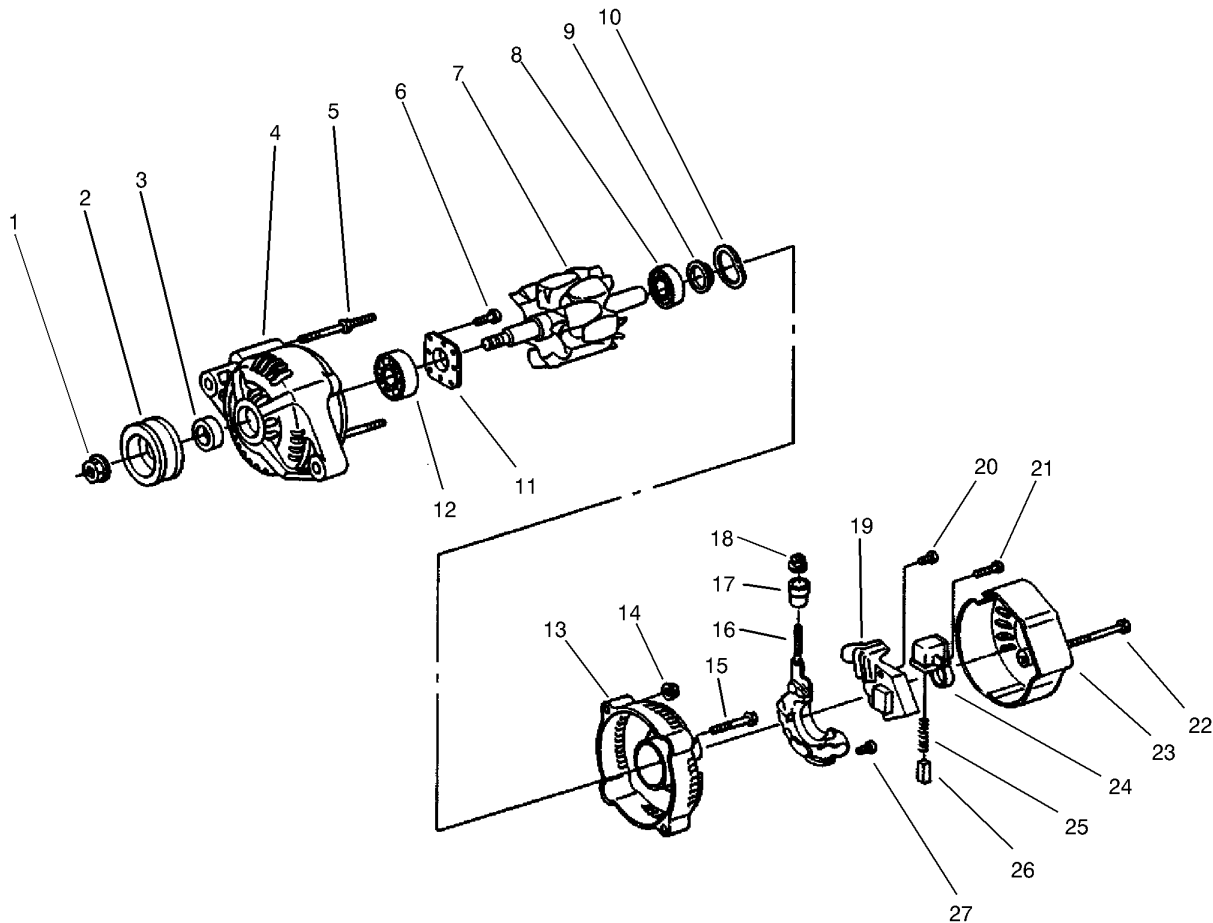
Nozzle Holder Assembly No. 98-9468

Ref	Part No.	Qty.	Description				
1	99-8301	3	Nut				
2	99-8307	3	Washer-Plain				
3	99-8302	3	Washer-Adjusting				
4	99-8303	3	Spring-Nozzle				
5	99-8305	3	Rod-Push				
6	99-8304	3	Spacer-Distance				
7	99-8308	3	Piece-Nozzle				
8	99-8306	3	Nut-Nozzle				
9	99-8316	3	Washer-Adjust (0.54Mm)				
9	99-8317	3	Washer-Adjust (0.56Mm)				
9	99-8318	3	Washer-Adjust (0.58Mm)				
9	99-8319	3	Washer-Adjust (0.80Mm)				
9	99-8315	3	Washer-Adjust (0.52Mm)				
9	99-8314	3	Washer-Adjust (0.50Mm)				
9	99-8313	3	Washer-Adjust (0.40Mm)				
9	99-8312	3	Washer-Adjust (0.30Mm)				
9	99-8311	3	Washer-Adjust (0.20Mm)				
9	99-8310	3	Washer-Adjust (0.10Mm)				
9	99-8309	3	Adjusting Washer ASM				



Alternator and Pulley Assembly

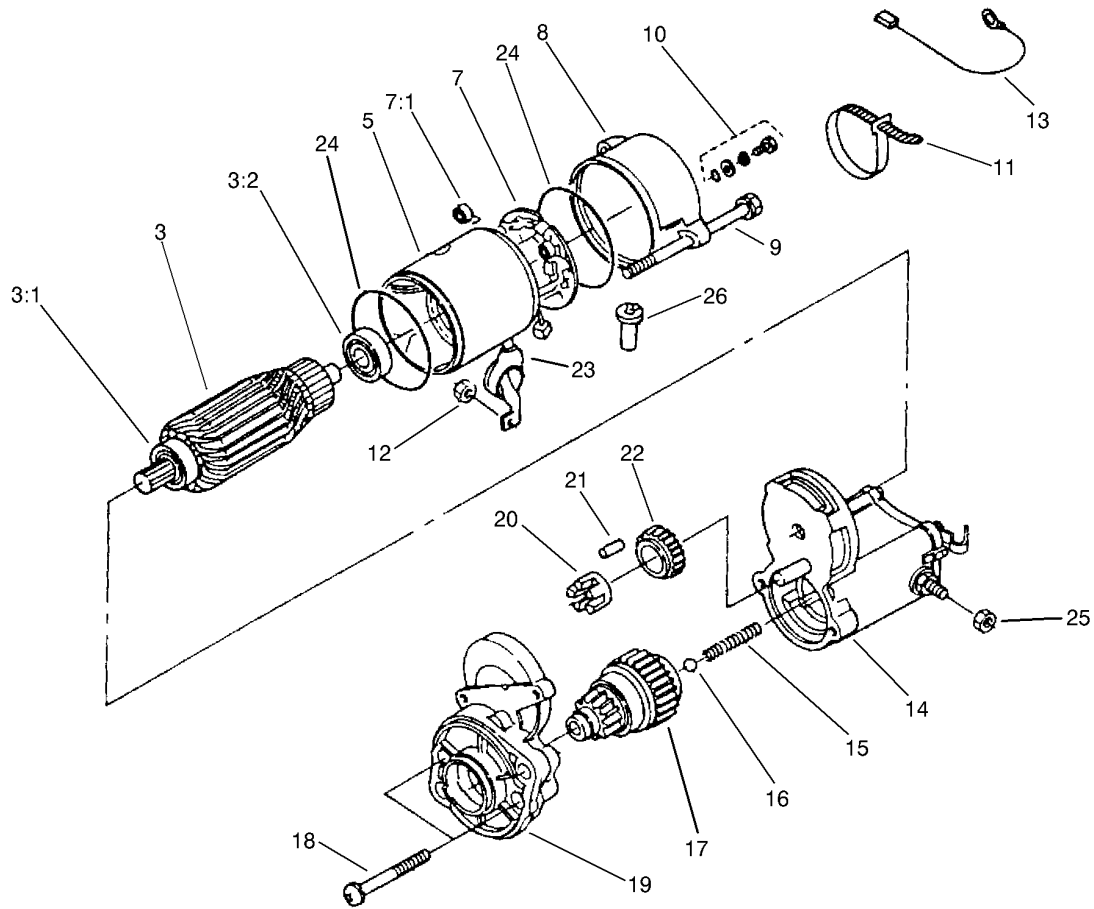
Ref	Part No.	Qty.	Description				
1	98-7697	1	Bolt				
2	98-7698	1	Washer-Plain				
3	98-7692	1	Bolt				
4	98-9573	1	Stay-Dynamo				
5	98-9584	1	Pulley-Fan				
6	98-9360	1	Bolt				
7	98-9368	1	Washer-Spring				
8	98-9366	1	Washer-Plain				
10	98-7737	1	Nut				
14	98-9474	1	Alternator ASM				
15	98-9676	1	V-Belt				
16	99-3456	1	Pulley-Drive, Fan				
17	98-9585	1	Bolt				
18	104-4246	1	Fan-Engine				
19	104-4247	1	Spacer-Fan				
20	33103-020	4	Screw-HHF				



Alternator Assembly No. 98-9474

Ref	Part No.	Qty.	Description
1	98-7708	1	Nut
2	98-9453	1	Pulley-Dynamo
3	98-7709	1	Collar
4	98-7714	1	Frame-End, Drive
5	98-7717	2	Bolt-Through
6	98-7716	4	Screw-Head, Round
7	98-7710	1	Rotor
8	98-7712	1	Bearing-Ball
9	98-7711	1	Cover-Bearing
10	98-7713	1	Washer-Thrust
11	98-7715	1	Plate-Retainer
12	98-7718	1	Bearing-Ball
13	98-7719	1	Frame-End
14	98-7730	2	Nut
15	98-7731	2	Bolt
16	98-7721	1	Rectifier ASM
17	98-7722	1	Bushing-Insulation
18	98-7732	1	Nut
19	98-7733	1	Regulator ASM
20	98-7726	2	Screw-Head, Round
21	98-7728	1	Screw-Head, Round
22	98-7729	3	Bolt
23	98-7720	1	Cover-End
24	98-7723	1	Holder-Brush

Ref	Part No.	Qty.	Description
25	98-7725	2	Spring-Brush
26	98-7724	2	Brush
27	98-7727	6	Screw-Head, Round

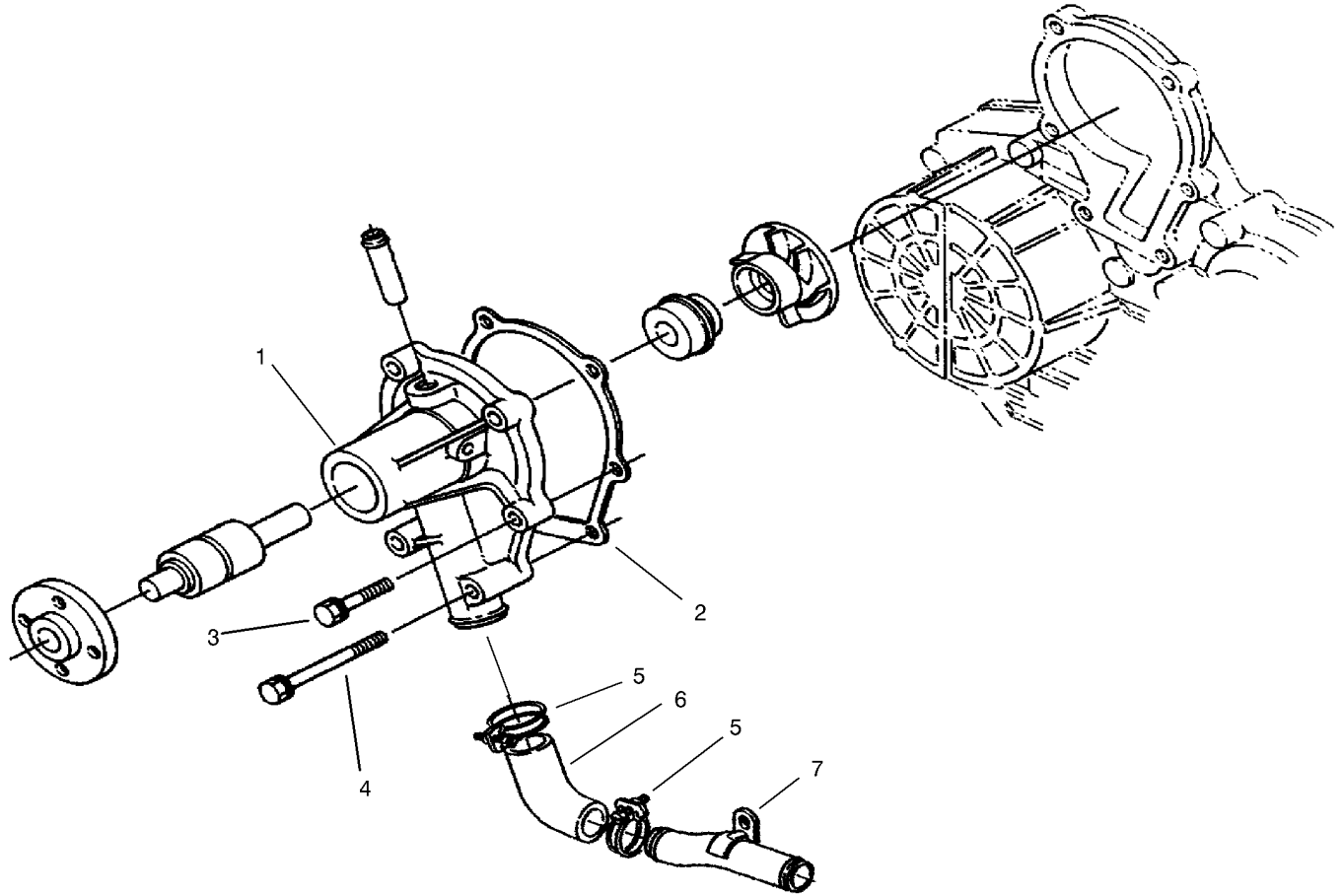


Starter Assembly No. 98-9705

Ref	Part No.	Qty.	Description
3	98-7742	1	Armature ASM
3:1	98-7743	1	Bearing
3:2	98-7744	1	Bearing
5	98-7741	1	Yoke ASM
7	98-7749	1	Brush Holder ASM
7:1	98-7750	4	Spring-Brush
8	99-8370	1	Frame-End
9	98-9549	2	Bolt
10	98-7758	2	Bolt ASM
11	98-9712	1	Band-Cover
12	99-8371	1	Nut-Hex
13	98-9711	1	Cord-Solenoid, Stop
14	99-8372	1	Magnetic Switch ASM
15	98-7754	1	Spring
16	98-7755	1	Ball
17	99-8373	1	Clutch-Running, Over
18	98-7756	2	Bolt
19	99-8374	1	Frame-End, Drive
20	98-7752	1	Retainer
21	98-7753	5	Roller
22	98-7751	1	Gear
23	99-8375	1	Cover
24	98-7757	2	O-Ring
25	99-8376	1	Nut-Hex

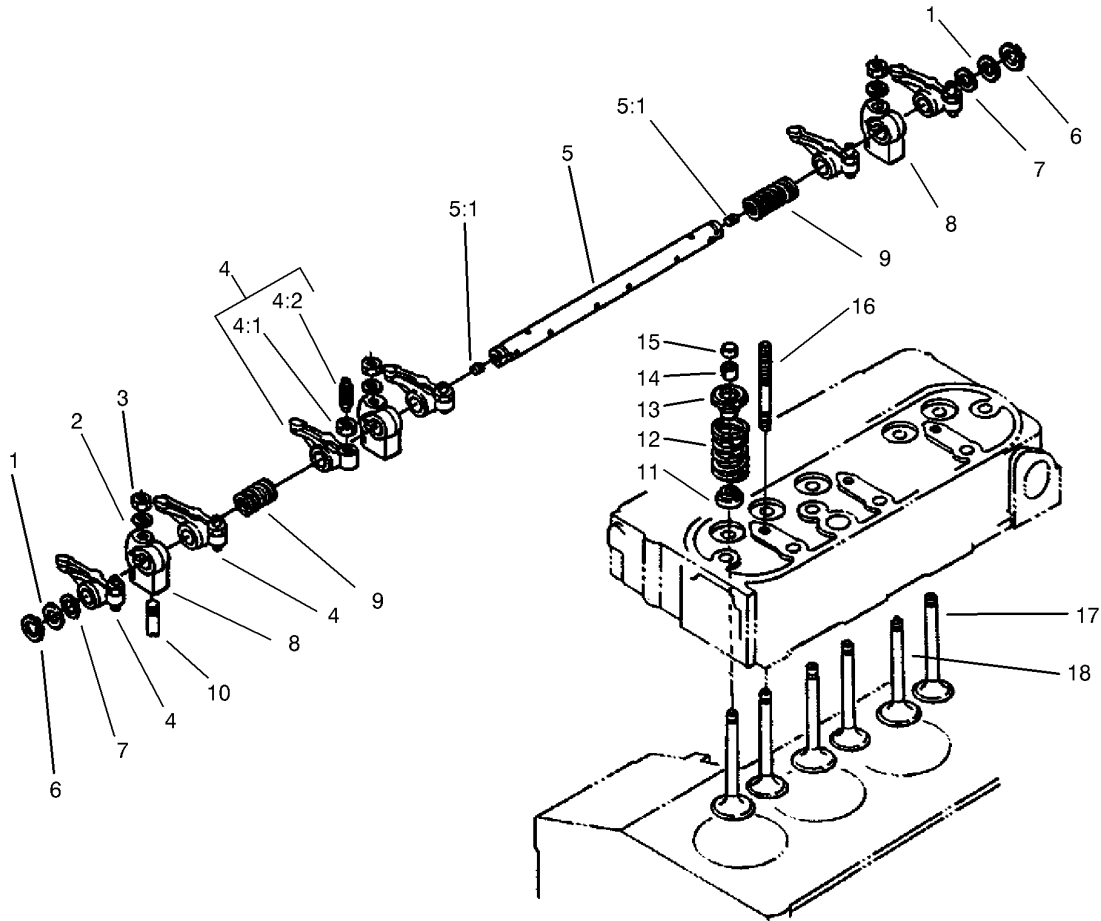
Ref	Part No.	Qty.	Description
26	98-7759	1	Pipe-Drain

67



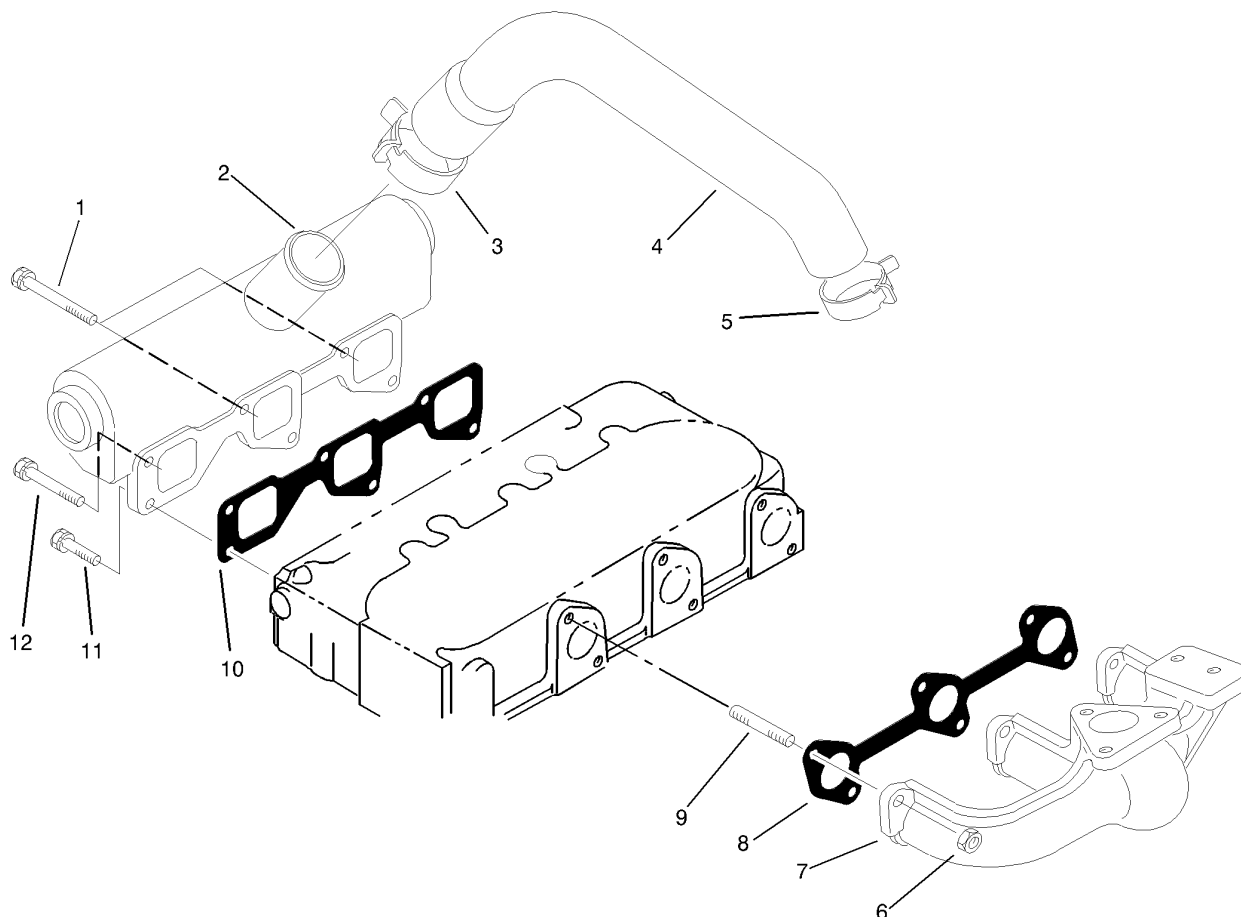
Water Pump Assembly

Ref	Part No.	Qty.	Description				
1	104-4885	1	ASM-Pump, Water				
2	99-3454	1	Gasket-Pump, Water				
3	33103-030	1	Screw-HHF				
4	98-9357	4	Bolt				
5	98-9717	2	Clamp				
6	98-9574	1	Pipe-Water				
7	99-8379	1	Pipe-Water				



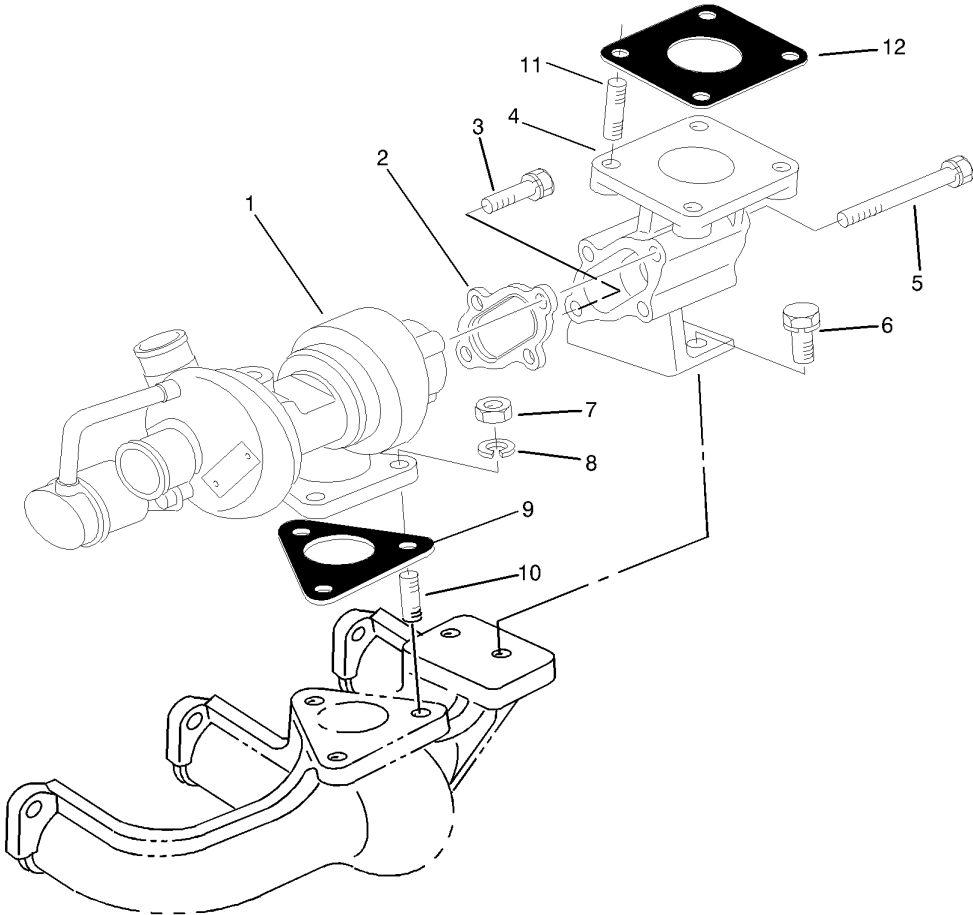
Valve and Rocker Arm Assembly

Ref	Part No.	Qty.	Description				
1	98-9508	2	Washer-Shaft, R-Arm				
2	98-9385	3	Washer-Flat				
3	98-9393	3	Nut				
4	98-9501	6	Rocker Arm ASM				
4:1	98-9503	6	Nut				
4:2	98-9502	6	Screw-Adjusting				
5	98-9612	1	R-Arm Shaft ASM				
5:1	98-9365	2	Screw-Set				
6	98-9370	2	Clip-Circular, External				
7	98-9507	2	Washer-Shaft, R-Arm				
8	98-9505	3	Bracket-Arm, Rocker				
9	98-9504	2	Spring-Arm, Rocker				
10	98-9391	1	Screw-Set, Rocker Arm				
11	98-9496	6	Seat-Valve Stem				
12	98-9626	6	Spring-Valve				
13	98-9498	6	Retainer-Valve				
14	98-9390	6	Collet-Set, Valve Spring				
15	98-9497	6	Cap-Valve				
16	98-9506	3	Stud				
17	98-9625	3	Valve-Exhaust				
18	98-9494	3	Valve-Inlet				



Exhaust Manifold and Gasket Assembly

Ref	Part No.	Qty.	Description				
1	99-8320	2	Bolt				
2	99-8321	1	Manifold-Inlet				
3	99-8322	1	Band-Pipe				
4	99-8323	1	Hose-Inlet				
5	99-8324	1	Band-Pipe				
6	98-9665	6	Nut				
7	99-8326	1	Manifold-Exhaust				
8	99-8327	1	Gasket-Manifold, Exhaust				
9	98-9588	6	Stud				
10	99-8329	1	Gasket-Manifold, Intake				
11	98-7568	3	Bolt				
12	98-7496	1	Bolt				



Turbo Charge Assembly

Ref	Part No.	Qty.	Description				
1	99-8332	1	Turbo Charger ASM				
2	99-8333	1	Gasket				
3	99-8334	1	Bolt				
4	99-8335	1	Flange-Muffler				
5	99-8336	3	Bolt				
6	98-7610	2	Bolt				
7	98-7534	3	Nut				
8	99-8339	3	Washer-Spring				
9	99-8340	1	Gasket				
10	99-8341	3	Stud				
11	99-8342	4	Stud				
12	99-8343	1	Gasket-Muffler				

