



Traction Unit

for Greensmaster[®] 3250-D

Model No. 04383—200000801 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.

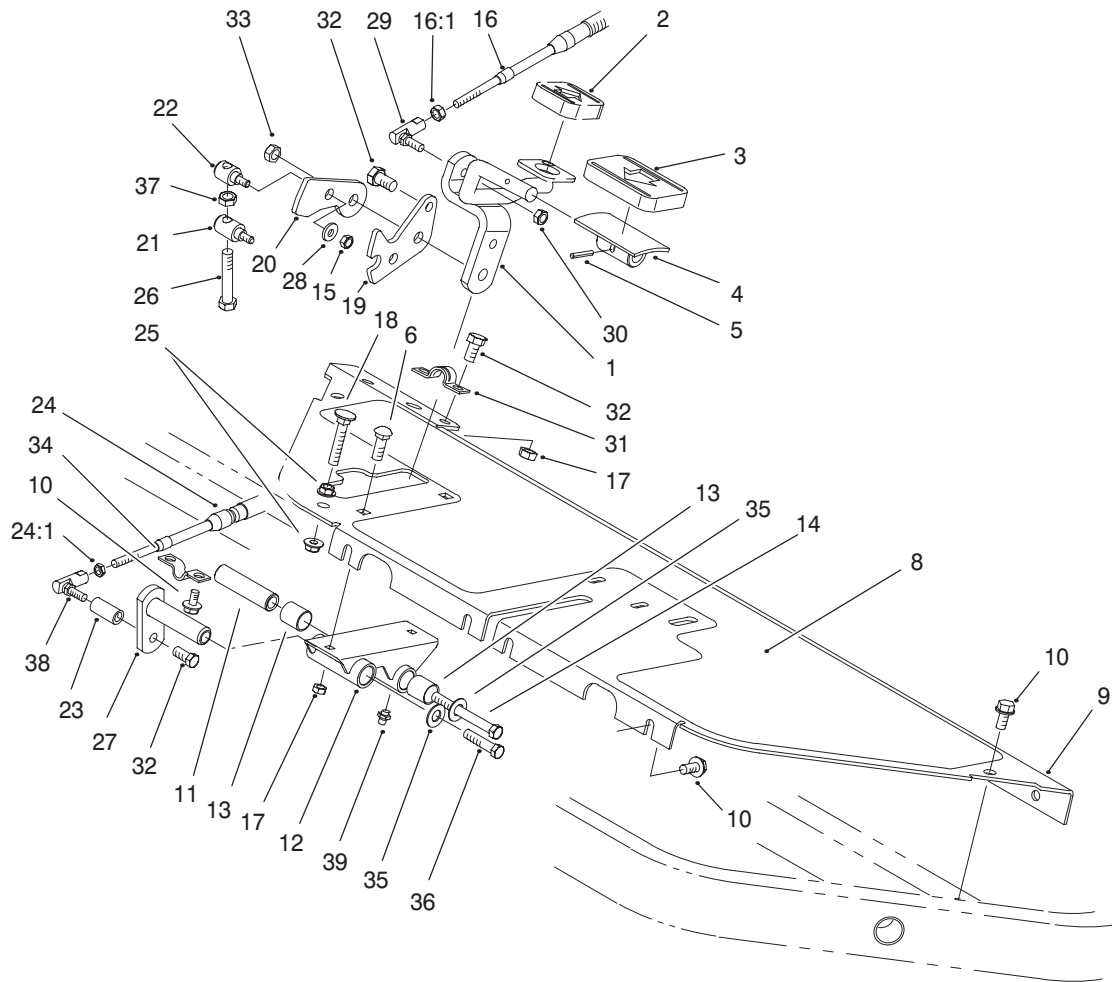
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Part Description Abbreviations

Part descriptions in this catalog may include the following abbreviations.

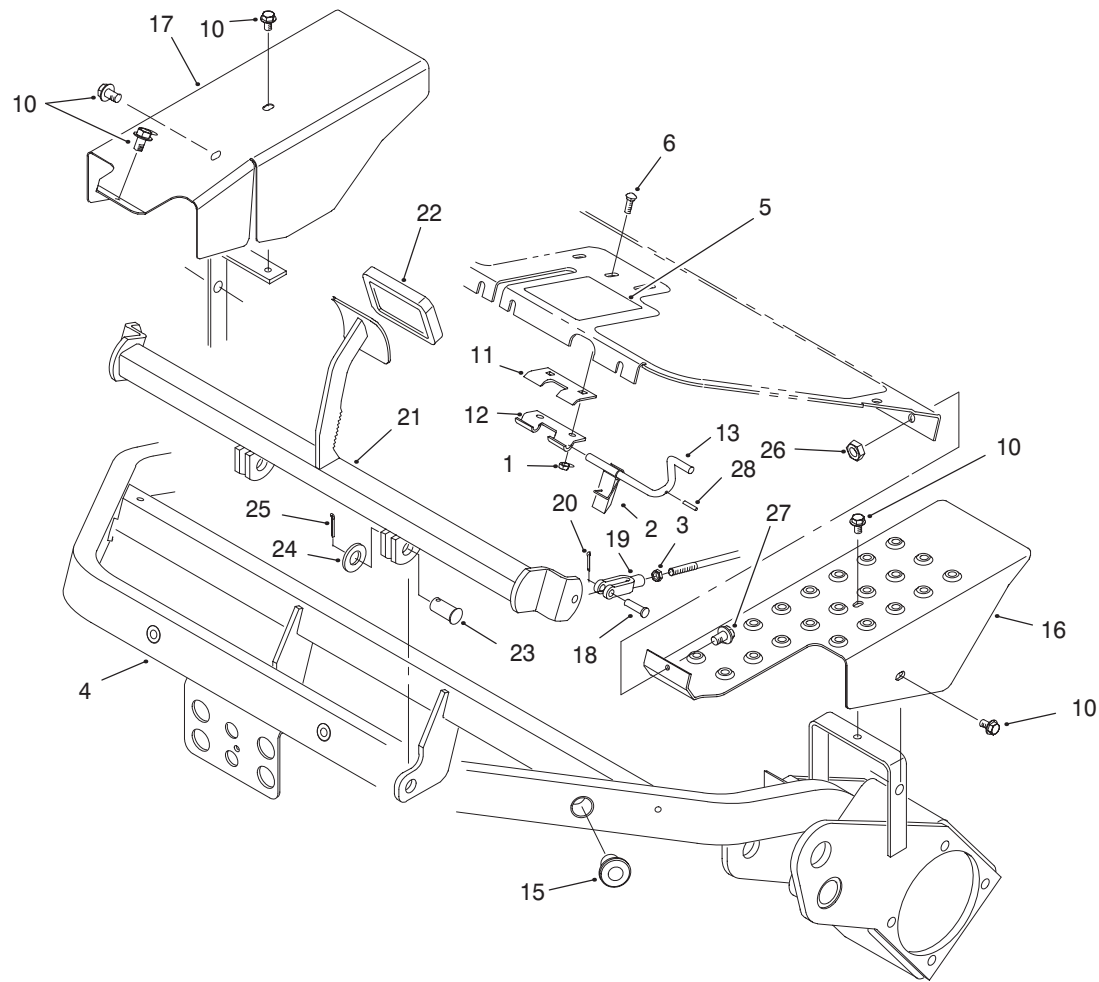
Abbreviation	Meaning	Abbreviation	Meaning
AR	as required	INC	incorporated
ASM	assembly	LH	left hand
CARR	carriage	NI	nylon insert
DEG	degrees	PPH	Phillips pan head
FH	flat head	PTH	Phillips truss head
GA	gauge	PTO	power take off
HF	hex flange	RH	right hand
HH	hex head	SFH	slotted fillister head
HHF	hex head flange	SHH	slotted hex head
HLH	hex lag head	SQH	square head
HJ	hex jam	SHWH	slotted hex washer head
HOC	height-of-cut	SPH	slotted pan head
HS	hex socket	SRH	slotted round head
HSBH	hex socket button head	STD	standard
HSFH	hex socket flat head	TAP	self tapping
HSH	hex socket head	TTH	Torx truss head
HWH	hex washer head	WH	wing head
HWHTF	hex washer head thread forming		



Sheet No.:2

Traction Control Assembly

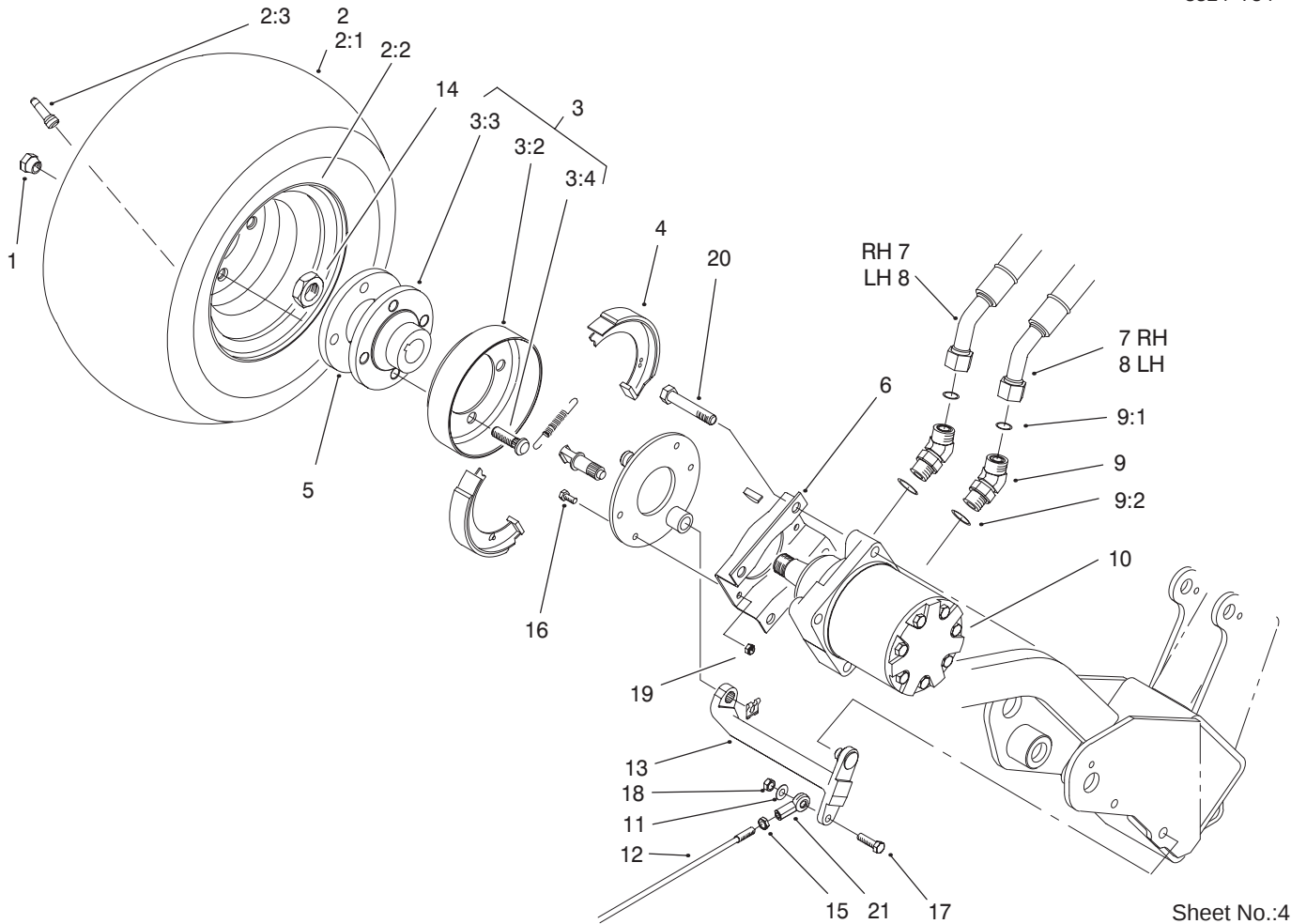
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	93-2085-01	1	Rod	24	94-1304	1	Cable-Lock, Neutral
2	74-9110	1	Pad-Pedal, Reverse	24:1	3219-14	2	Nut-Hex
3	74-9100	1	Pad-Pedal, Forward	25	32128-20	2	Nut-HF
4	49-6440-03	1	Pedal-Forward	26	94-3489	1	Capscrew - HH
5	32121-45	1	Pin-Spring	27	94-1300	1	Lock-Neutral
6	33124-020	2	Screw-CARR	28	3256-1	2	Washer-Flat
8	93-2142	1	Pad-Plate, Floor	29	2411-34	1	Joint-Ball
9	94-6399-01	1	Plate - Floor	30	3296-13	1	Nut-Lock NI
10	32144-14	8	Screw-FWH	31	93-2092	1	Clamp - Cable
11	94-1371	1	Spacer	32	33114-016	2	Screw-HH
12	94-1383	1	Pedal - Pivot	33	33025-00	1	Nut-Lock, NI
13	256-311	4	Bushing-Split	34	93-2279	1	Clamp - Cable
14	33115-090	1	Screw-HH	35	3256-24	2	Washer-Flat
15	33023-00	2	Nut-Lock, NI	36	33115-016	1	Screw-HH
16	93-2099	1	Cable-Control, Traction	37	33014-00	1	Nut-Hex
16:1	3220-1	2	Nut-Jam	38	2411-38	1	Joint-Ball
17	33024-00	4	Nut-Lock, NI	39	302-5	1	Fitting-Lube
18	17-9420	1	Screw - Handle				
19	94-1373	1	Bracket - Lock				
20	94-1372	1	Bracket - Mow				
21	94-1375	1	Trunnion-Bracket, Lock				
22	94-1374	1	Trunnion-Bracket, Mow				
23	94-1386	1	Shaft-Pedal, Pivot				



Sheet No.:3

Brake Pedal Assembly

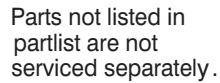
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	33023-00	2	Nut-Lock, NI	PROTOTYPE			
2	93-2276	1	Spring-Latch, Brake				
3	3220-2	2	Nut-HJ				
4	93-2010-01	1	Frame				
5	93-8062	1	Decal-Brake, Parking				
6	33123-016	2	Screw-CARR				
10	32144-14	5	Screw-HWH				
11	95-1628	1	Hinge - Upper				
12	95-1629	1	Hinge - Lower				
13	94-9600	1	Latch-Brake				
15	83-1700	3	Bushing - Flange				
16	93-2073-01	1	Shield-Wheel, LH				
17	93-2072-01	1	Shield-Wheel, RH				
18	283-61	2	Pin-Yoke				
19	282-2	2	Yoke				
20	3272-6	2	Pin-Cotter				
21	93-2075-01	1	Pedal-Brake				
22	93-7629	1	Pad-Foot, Brake				
23	283-87	2	Pin-Clevis				
24	3256-27	2	Washer-Flat				
25	3272-11	2	Pin-Cotter				
26	33024-00	1	Nut-Lock, NI				
27	33114-020	1	Screw-HH				
28	32121-50	1	Pin-Spring				



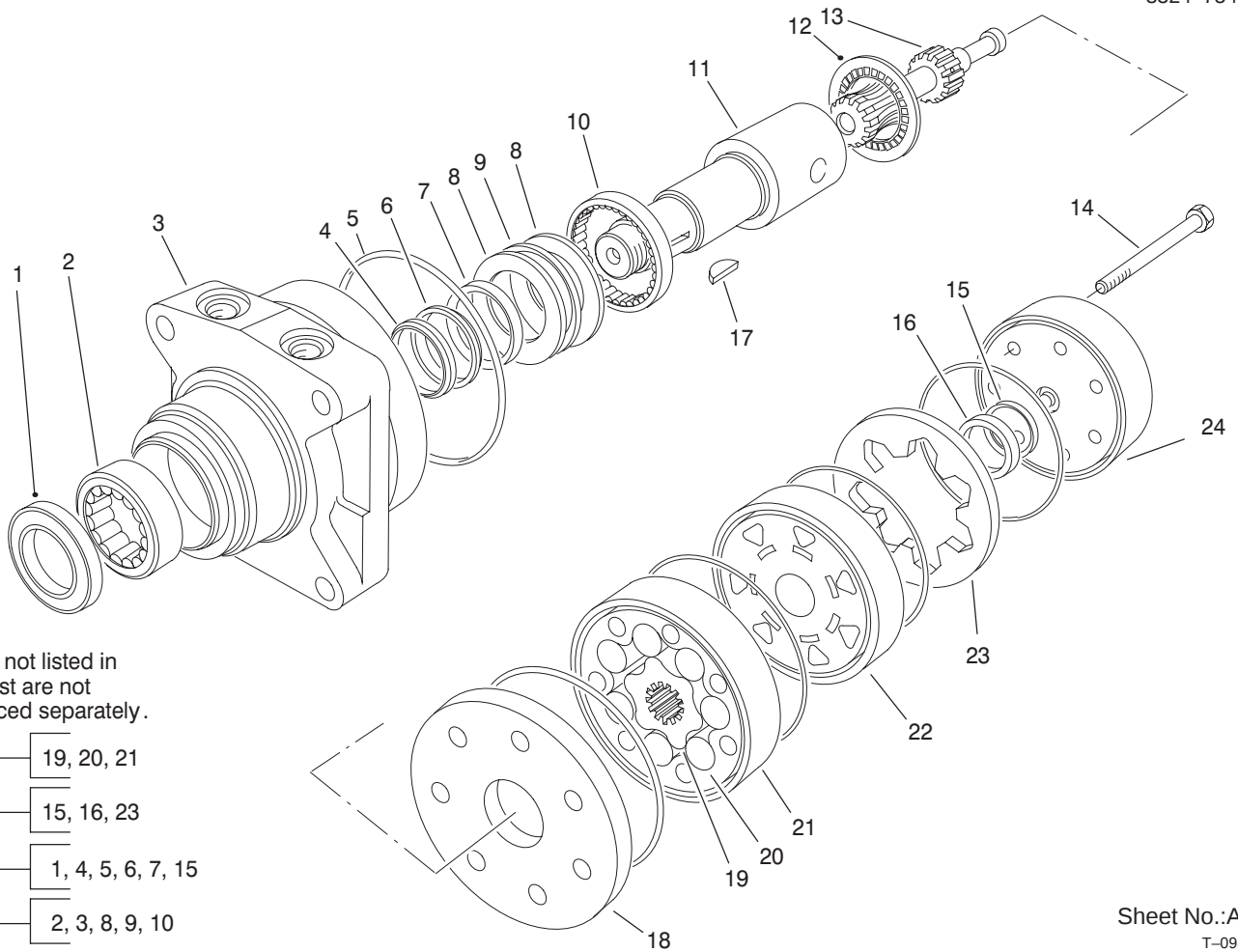
Front Wheel and Brake Assembly

Ref. No.	Part No.	Qty.	Description
1	242-50	8	Nut-Lug
2	99-8186	2	Tire ASM
2:1	70-8500	1	Tire
2:2	94-6116	1	Wheel - Rear
2:3	232-27	1	Stem-Valve
3	10-6821	2	Brake Drum ASM
3:2	10-6850	1	Drum-Brake
3:3	10-6870-03	1	Hub-Wheel
3:4	85-6540	4	Stud-Drive
4	71-1500	2	Brake ASM
5	92-9154-03	2	Plate-Bearing
6	84-2000-03	2	Bracket-Brake
7	94-5357	2	Hose ASM
8	94-5358	2	Hose ASM
9	340-14	4	Fitting-Hyd., 45°
9:1	237-65	1	O-Ring
9:2	237-80	1	O-Ring
10	92-9199	2	Motor-Hydraulic
11	3256-23	2	Washer-Flat
12	93-2069	2	Rod - Brake
13	93-2096	2	Lever - Brake
14	26-3790	2	Nut-Lock
15	3220-20	2	Nut-Jam
16	33113-020	8	Screw-HH
17	33114-030	2	Screw-HH
18	33024-00	2	Nut-Lock, NI

Ref. No.	Part No.	Qty.	Description
19	33023-00	8	Nut-Lock, NI
20	33116-060	8	Screw-HH
21	93-2070	2	Clevis - Swivel



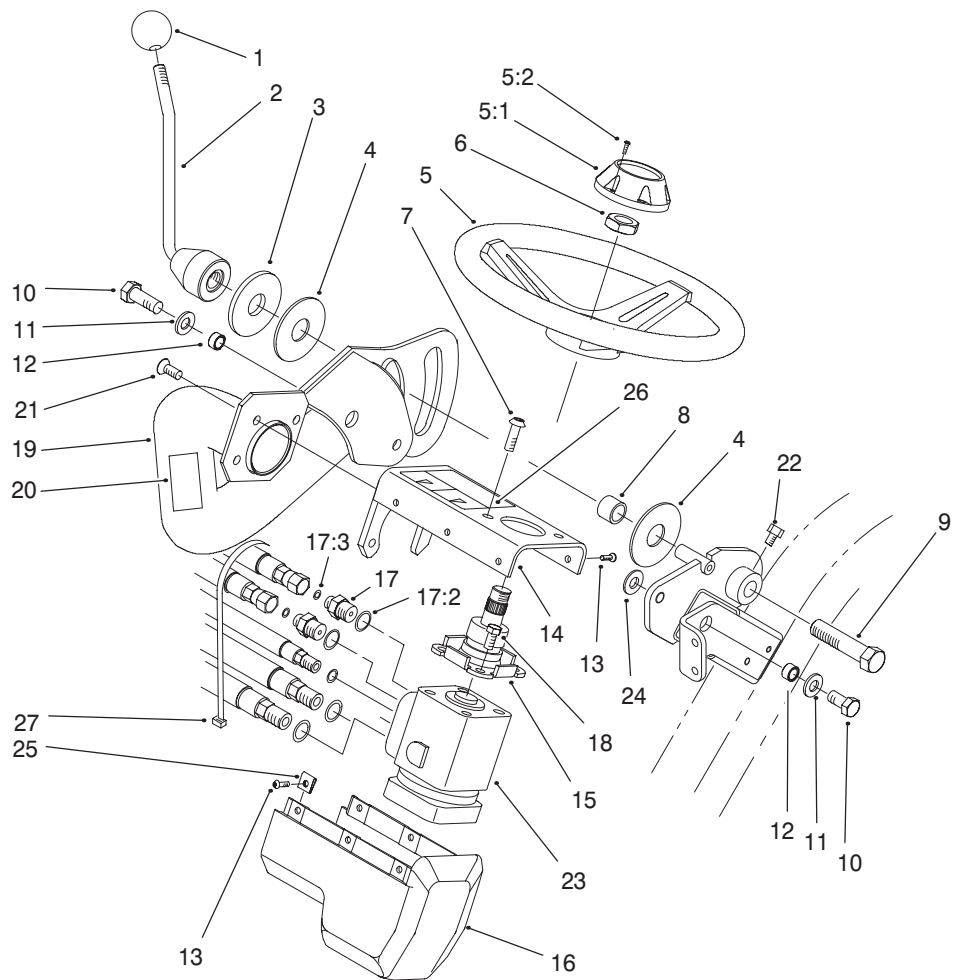
- 25 — 19, 20, 21
26 — 15, 16, 23
27 — 1, 4, 5, 6, 7, 15
28 — 2, 3, 8, 9, 10



Sheet No.:A2
T-0983

Hydraulic Motor Assembly No. 92-9199

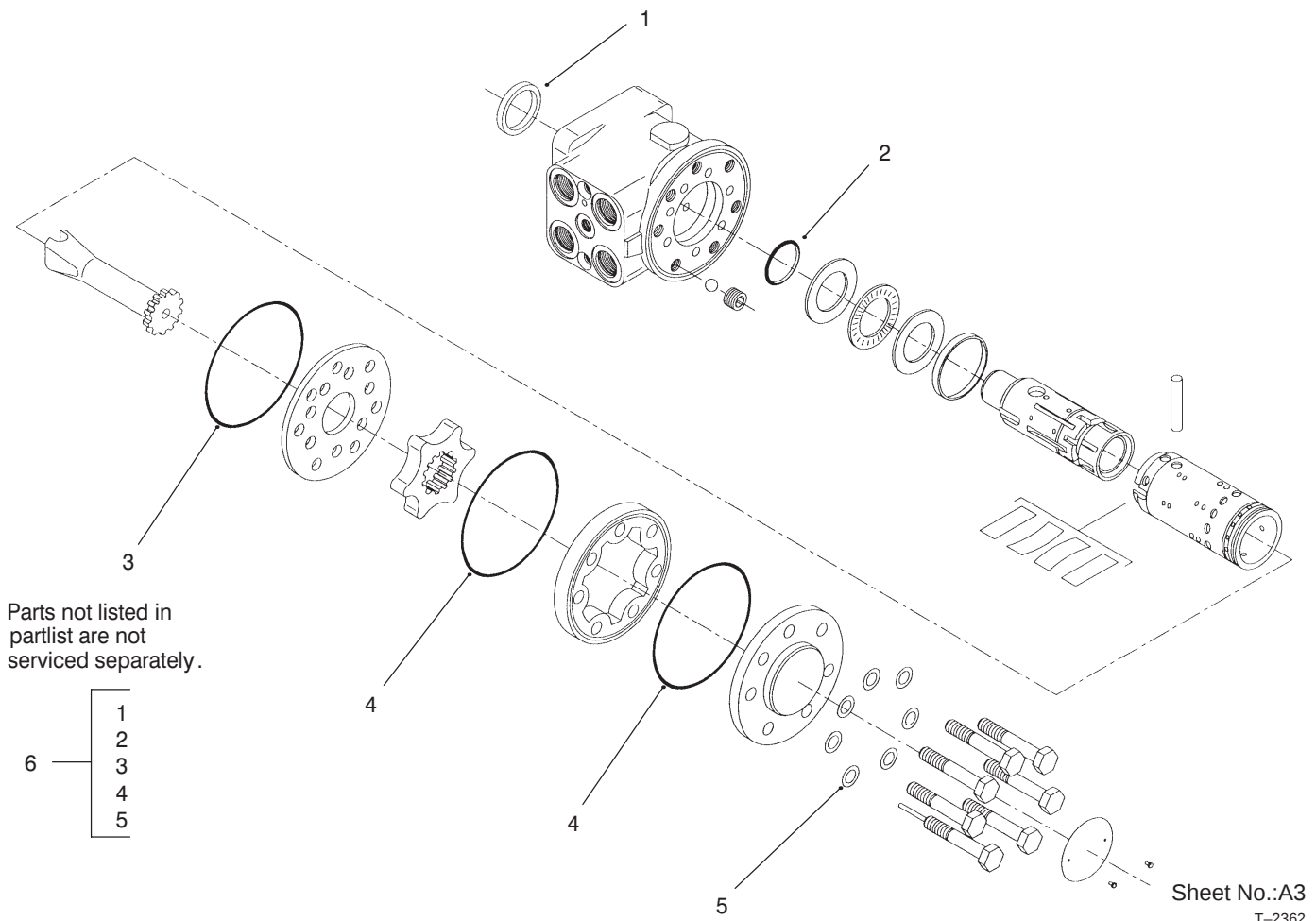
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
11	76-0860	1	Shaft-Coupling				
12	76-0850	1	Bearing-Thrust				
13	92-9761	1	Link - Drive				
14	92-9762	7	Screw-Cap, Hex Head				
17	3257-42	1	Key-Woodruff				
18	76-0870	1	Plate-Wear				
22	76-0840	1	Manifold				
24	76-0940	1	End Cover ASM				
25	92-9763	1	Set-Rotor				
26	76-0880	1	Commutator ASM				
27	94-8178	1	Kit-Seal				
28	76-0810	1	Wheel Motor Housing ASM				



Sheet No.:5

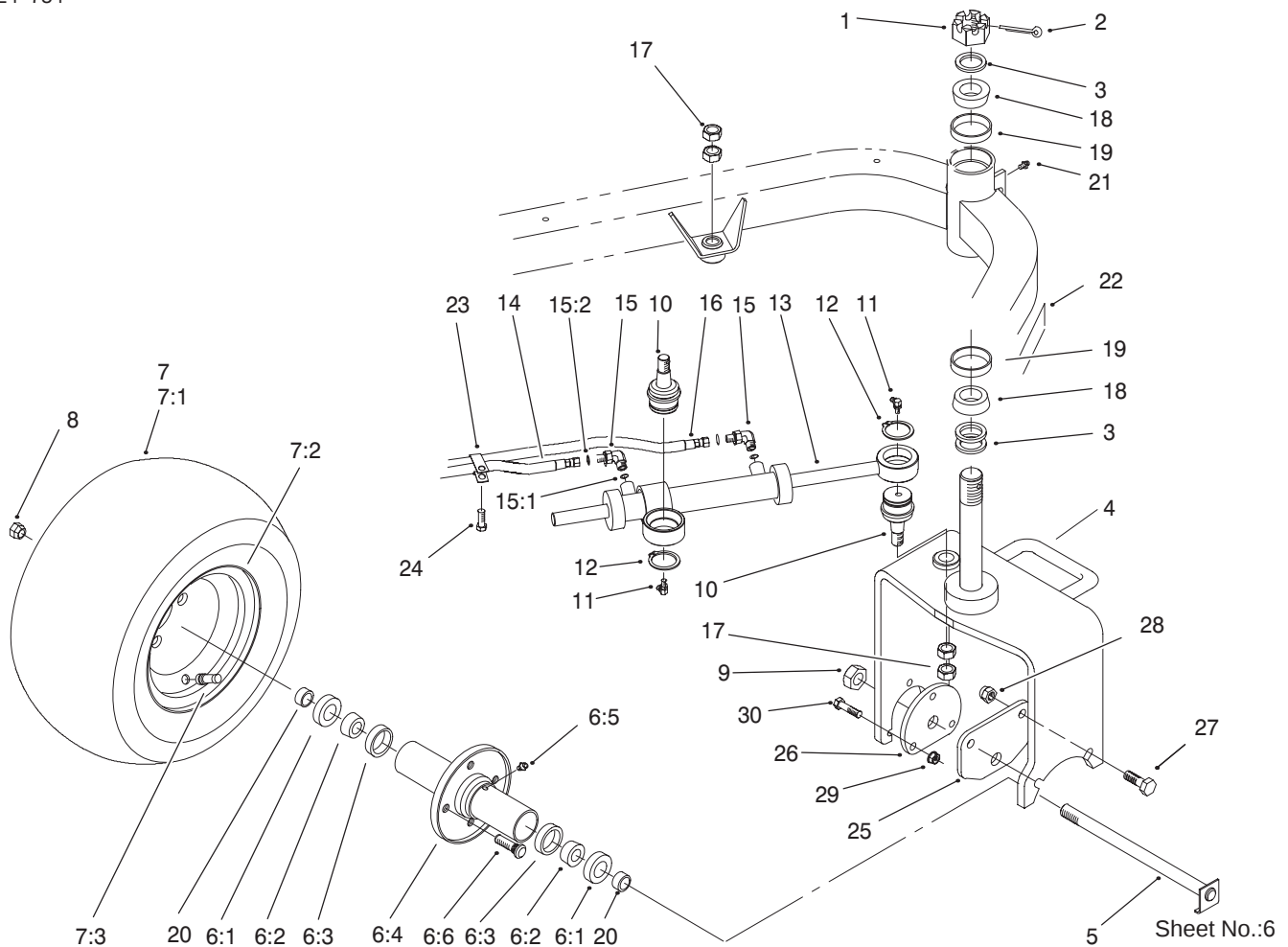
Steering Arm Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	233-48	1	Knob	23	93-2120	1	Valve-Control, Steering
2	93-2400-03	1	Lockup Handle	24	65-6390	1	Washer – Thrust, Plain
3	83-0760	1	Spacer-Plate, Lockup	25	3290-277	6	Nut-Speed
4	83-0740	2	Disc – Friction	26	93-8063	1	Decal-Warning (Int'l)
5	68-5130	1	Wheel-Steering	27	3290-379	1	Tie-Cable
5:1	68-5140	1	Cap-Wheel, Steering				
5:2	32144-21	1	Screw				
6	47-6990	1	Nut				
7	3274-63	2	Screw-HSH				
8	83-0730	1	Spacer-Lockup				
9	93-2199	1	Screw – HH (RH)				
10	325-4	2	Screw-HH				
11	3256-26	2	Washer-Flat				
12	47-2890	2	Bushing				
13	3274-39	6	Screw-HSBH				
14	94-3461-03	1	Cover-Steering				
15	83-1420	1	Column-Steering				
16	94-6366	1	Cover-Valve, Steering				
17	340-133	2	Adapter				
17:2	237-79	1	O-Ring				
17:3	237-21	1	O-Ring				
18	323-4	2	Screw-HH				
19	93-2115-01	1	Arm-Steering				
20	93-8068	1	Decal-Arm, Steering				
21	3274-80	3	Screw-HH				
22	3242-2	1	Screw-SQH				



Steering Control Valve Assembly No. 93-2120

Ref. No.	Part No.	Qty.	Description
6	94-4929	1	Kit – Seal

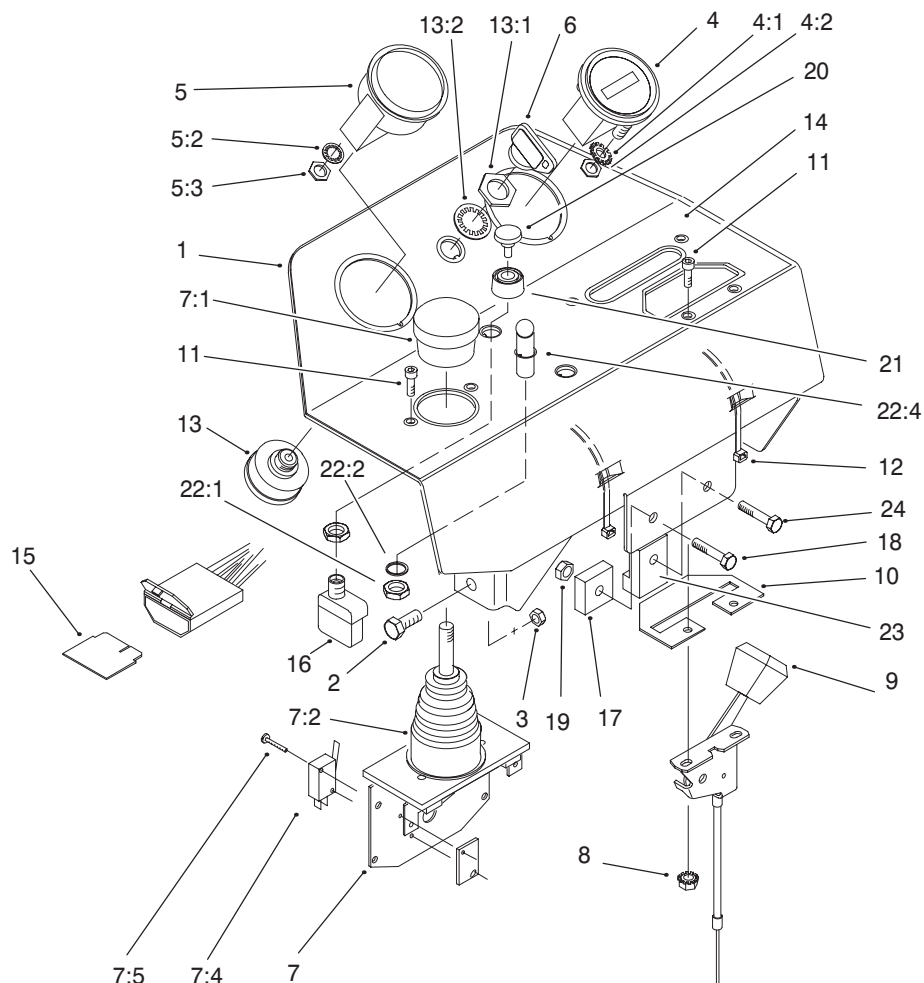


Rear Wheel Assembly

Ref. No.	Part No.	Qty.	Description
1	32136-9	1	Nut-Hex, Slot
2	3272-37	1	Pin-Cotter
3	18-6320	3	Washer-Steering
4	99-1492-01	1	Castor Fork ASM
5	70-8370	1	Bolt
6	72-9710	1	Hub-Tire, Sulky
6:1	253-111	2	Seal-Oil
6:2	254-78	2	Cone-Bearing
6:3	254-79	2	Bearing-Roller, Cup
6:4	75-9440	1	Hub ASM
6:5	302-55	1	Zerk
6:6	10-6830	4	Stud-Type, Drive
7	99-8186	1	Tire ASM
7:1	70-8500	1	Tire
7:2	94-6116	1	Wheel - Rear
7:3	232-27	1	Stem-Valve
8	242-50	4	Nut-Lug
9	3296-67	1	Nut-Lock NI
10	92-5838	2	Joint-Ball
11	302-60	2	Fitting-Lube
12	32151-104	2	Ring-Retaining, External
13	93-2122	1	Steering Cylinder ASM
*13:1	94-4398	1	Kit-Repair, Seal
14	93-2270	1	Hydraulic Hose ASM
15	340-132	2	Elbow-90°

Ref. No.	Part No.	Qty.	Description
15:1	237-78	1	O-Ring
15:2	237-21	1	O-Ring
16	93-2269	1	Hydraulic Hose ASM
17	3220-6	4	Nut-Jam
18	254-70	2	Cone-Bearing
19	254-61	2	Cup-Bearing
20	70-8490	2	Spacer-Spindle, Rear
21	302-5	1	Fitting-Lube
22	99-1493	1	Decal-Greensmaster 3250-D
23	92-5753	1	Clamp-Hose
24	32144-14	1	Screw-HWH
25	99-1485-01	1	Plate-Adapter, Motor
26	99-1486-01	1	Plate-Adapter
27	325-6	2	Screw-HH
28	3296-23	2	Nut-Lock, NI
29	3296-39	3	Nut-Lock, NI
30	323-8	3	Screw-HH

* Not illustrated

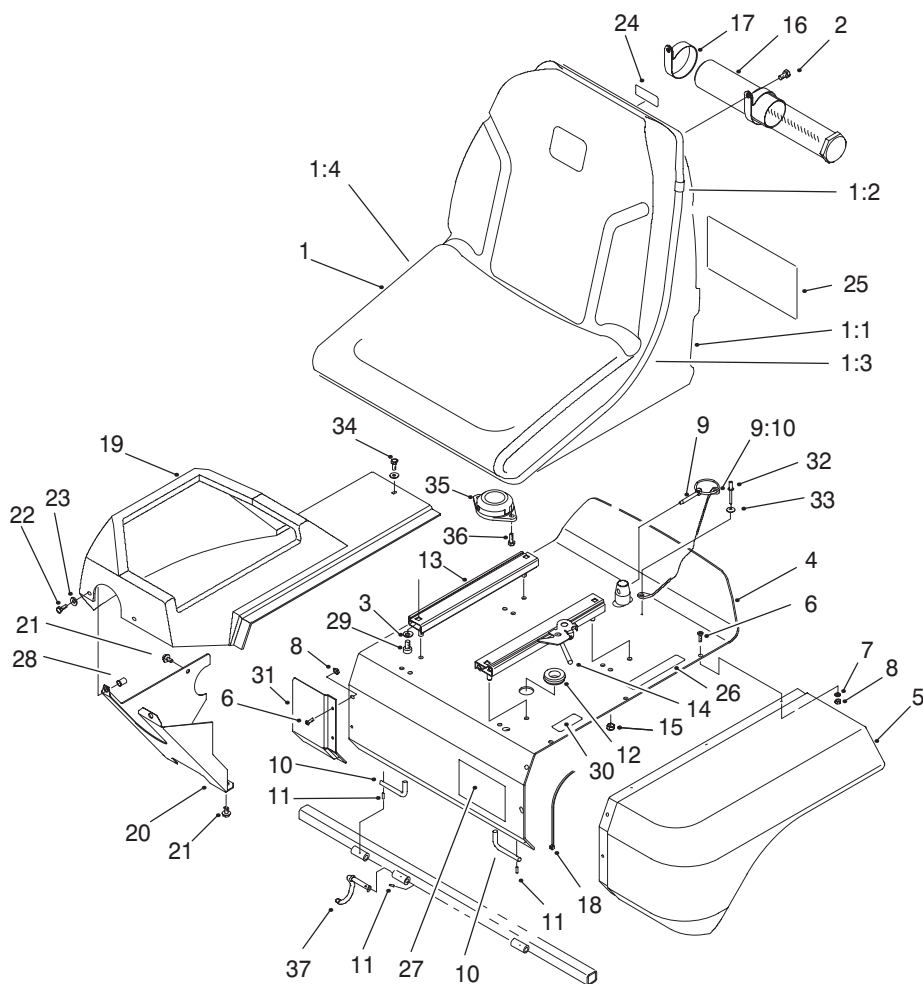


Sheet No.:7

Console Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	100-3185-03	1	Console ASM	13:1	218-446	1	Nut-Hex
2	33114-020	4	Screw-HH	13:2	218-447	1	Washer-Lock
3	33024-00	4	Nut-Lock, NI	14	100-3183	1	Decal-Panel, Control
4	66-2950	1	Gauge-Hourmeter	15	92-3188	1	Diode-Board, Circuit
4:1	3255-20	2	Washer-Lock	16	72-9760	1	Switch
4:2	3217-25	2	Nut-Hex	17	92-2538	1	Timer-Plug, Glow
5	93-7053	1	Cluster-Lamp, Warning	18	33113-030	1	Screw-HH
*5:1	219-17	4	Bulb	19	33023-00	2	Nut-Lock, NI
5:2	3254-1	1	Washer-Lock/Int	20	43-6280	1	Button-Push
5:3	3217-26	1	Nut-Hex	21	43-6420	1	Bezel
6	63-8360	1	Key-Ignition	22	44-2212	1	Light-Indicator, Amber
7	98-2195	1	Joystick	22:1	218-535	1	Nut-Hex
7:1	3290-489	1	Knob	22:2	218-536	1	Washer-Lock
7:2	3290-488	1	Boot	22:4	218-562	1	Lens
*7:3	3290-354	2	Nut-Speed	23	99-9666	1	Module
7:4	218-590	2	Switch	24	33113-020	1	Screw-HH
7:5	3290-93	4	Screw-Head, Pan				
*7:6	93-3625	1	Spring - Return				
8	32149-8	2	Nut-Keps				
9	99-8150	1	Control-Throttle (Diesel)				
10	99-8195-03	1	Plate-Cover				
11	3273-26	4	Screw-HSH				
12	3290-378	2	Tie-Cable				
13	27-2360	1	Switch-Key				

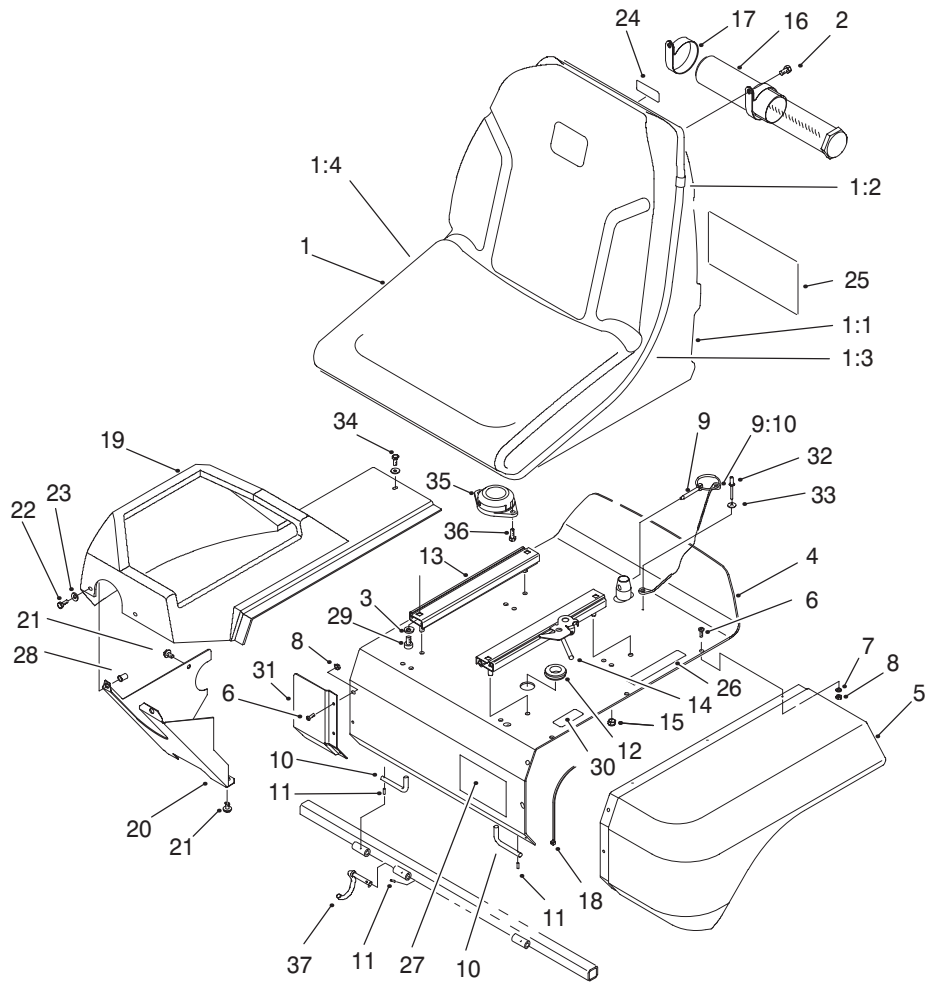
* Not illustrated



Sheet No.:9

Seat Assembly

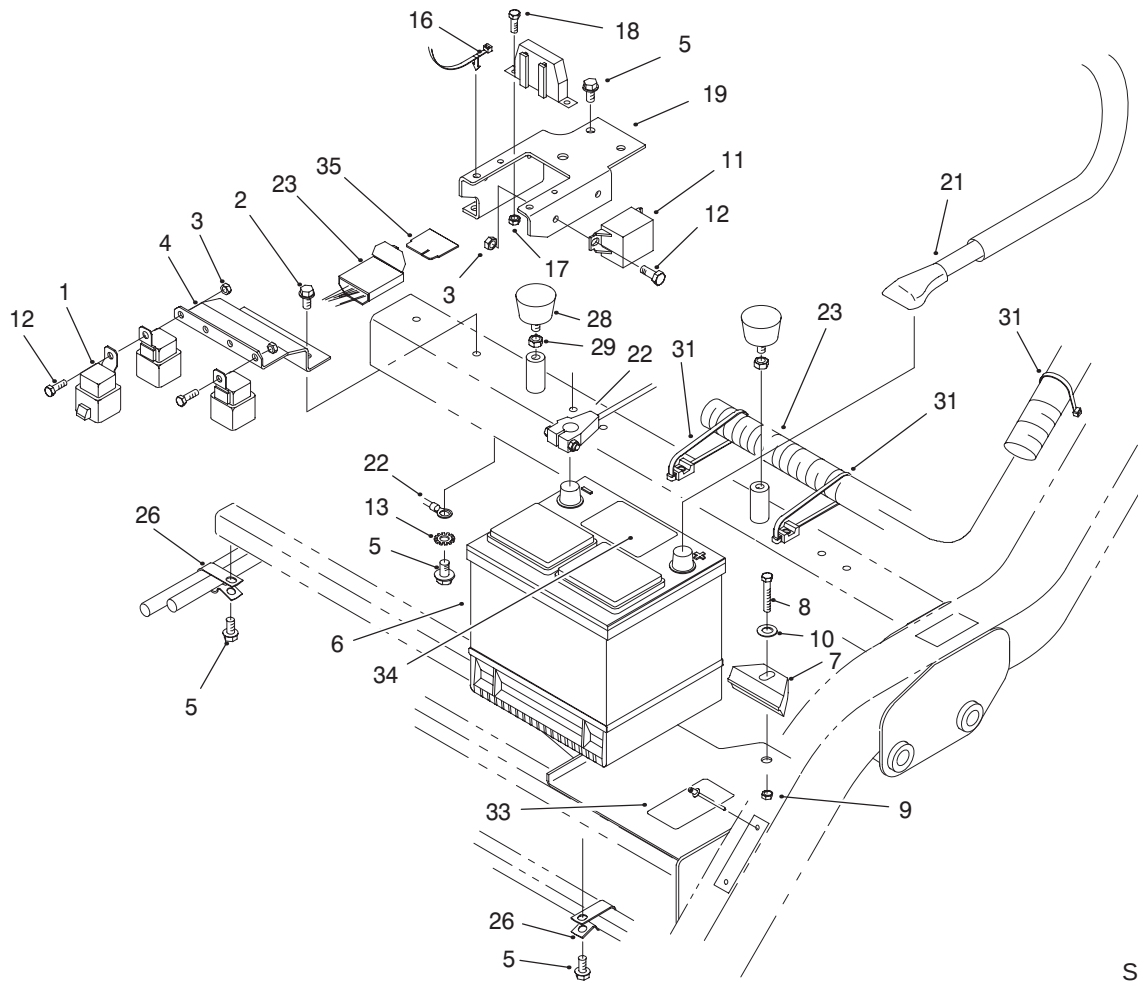
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	100-3187	1	Seat ASM	22	33113-016	2	Screw-HH
1:1	92-6534	1	Shell	23	3256-1	3	Washer-Flat
1:2	351-80	1	Clip	24	93-8067	1	Decal-Oil, Hydraulic
1:3	351-78	1	Edging	25	100-3150	1	Decal-Service
1:4	100-6411	1	Cushion-Replacement	25	100-3151	1	Decal-Service (Spanish)
2	322-2	2	Screw-HH	25	100-3152	1	Decal-Service (French)
3	3256-23	4	Washer-Flat	25	100-3153	1	Decal-Service (German)
4	93-2135-03	1	Seat Support	25	100-3154	1	Decal-Service (Swedish)
5	93-2128	1	Panel-Base, Seat	25	100-3155	1	Decal-Service (Italian)
6	3274-39	9	Screw-HSBH	25	100-3156	1	Decal-Service (Portuguese)
7	3256-77	6	Washer-Flat	25	100-3157	1	Decal-Service (Norwegian)
8	3296-12	9	Nut-Lock	25	100-3158	1	Decal-Service (Finnish)
9	77-3780	1	Pin ASM	25	100-3159	1	Decal-Service (Danish)
9:10	28-8070	1	Lanyard	25	100-3160	1	Decal-Service (Dutch)
10	93-2422	2	Rod-Pivot, Seat	25	100-3161	1	Decal-Service (Japan)
11	32121-7	3	Pin-Spring	26	93-6689	1	Decal - No Riders
12	237-100	1	Grommet	27	94-2579	1	Decal - Toro
13	92-8990	1	Adjuster - 7"	28	93-5447	2	Nut-Clinch
14	92-8991	1	Adjuster w/Latch				
15	3296-29	4	Nut-Lock, NI				
16	74-0720	1	Tube-Manual				
17	2412-133	2	R-Clamp				
18	3290-378	1	Tie-Cable				
19	99-4208	1	Shroud-Console				
20	94-4547-01	1	Panel - Lower, RH				
21	32144-14	2	Screw-HWH				



Sheet No.:9

Seat Assembly (Continued)

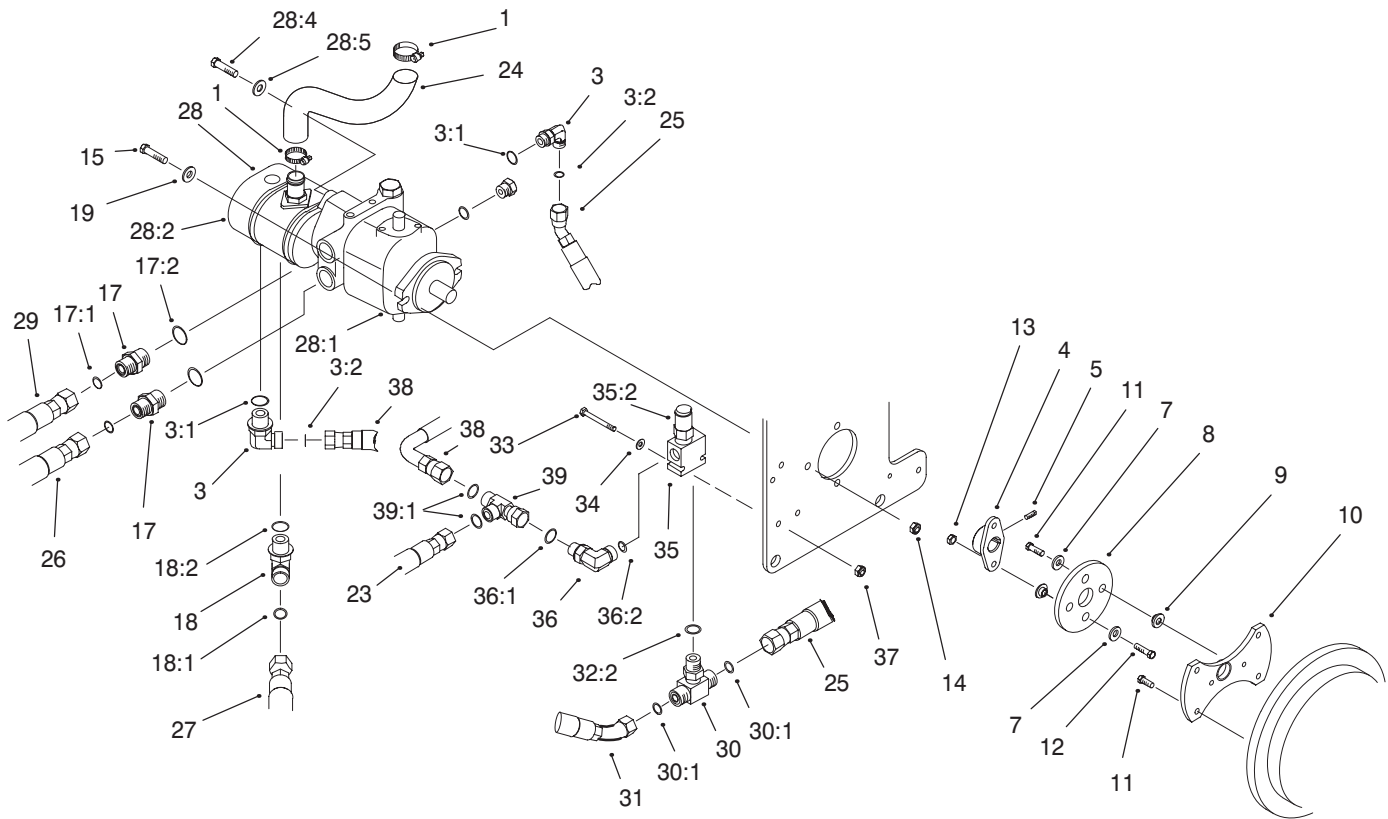
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
29	3274-12	4	Screw-HSH				
30	93-7252	1	Decal-International				
31	94-4546-01	1	Panel-Extension				
32	3290-282	1	Rivet-Pop, Steel				
33	3256-49	1	Washer-Flat				
34	33113-012	1	Screw-HH				
35	92-6282	1	Switch-Seat				
36	32144-10	2	Screw-HWH				
37	99-4247	1	Wire-Hook				



Sheet No.:10

Electronics Installation Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	70-1480	8	Relay	31	3290-378	6	Tie-Cable
2	32144-11	2	Screw-TAP	33	93-6668	1	Decal - Battery
3	33023-00	6	Nut-Lock, NI	34	93-7276	1	Decal - Danger
4	93-2169-01	1	Bracket - Relay	35	92-3188	1	Diode-Board, Circuit
5	32144-14	5	Screw-HWH				
6	66-2750	1	Battery				
7	66-2490	1	Retainer-Battery				
8	33115-040	1	Screw-HH				
9	33025-00	1	Nut-Lock, NI				
10	3256-24	1	Washer-Flat				
11	66-8800	1	Relay				
12	33113-016	6	Screw-HH				
13	3254-2	1	Washer-Lock, Internal				
16	94-1325	2	Tie-Mount, Push				
17	3296-2	2	Nut-Lock				
18	32105-13	2	Screw-Shh				
19	100-3186-03	1	Bracket-Holder, Fuse				
21	95-8853	1	Cable-Battery, Positive				
22	99-8167	1	Cable-Battery, Negative				
23	99-8165	1	Harness-Wire, Gr3250d				
26	92-5753	2	Clamp-Hose				
28	68-3270	2	Bumper-Rubber				
29	3218-2	2	Nut-Jam				



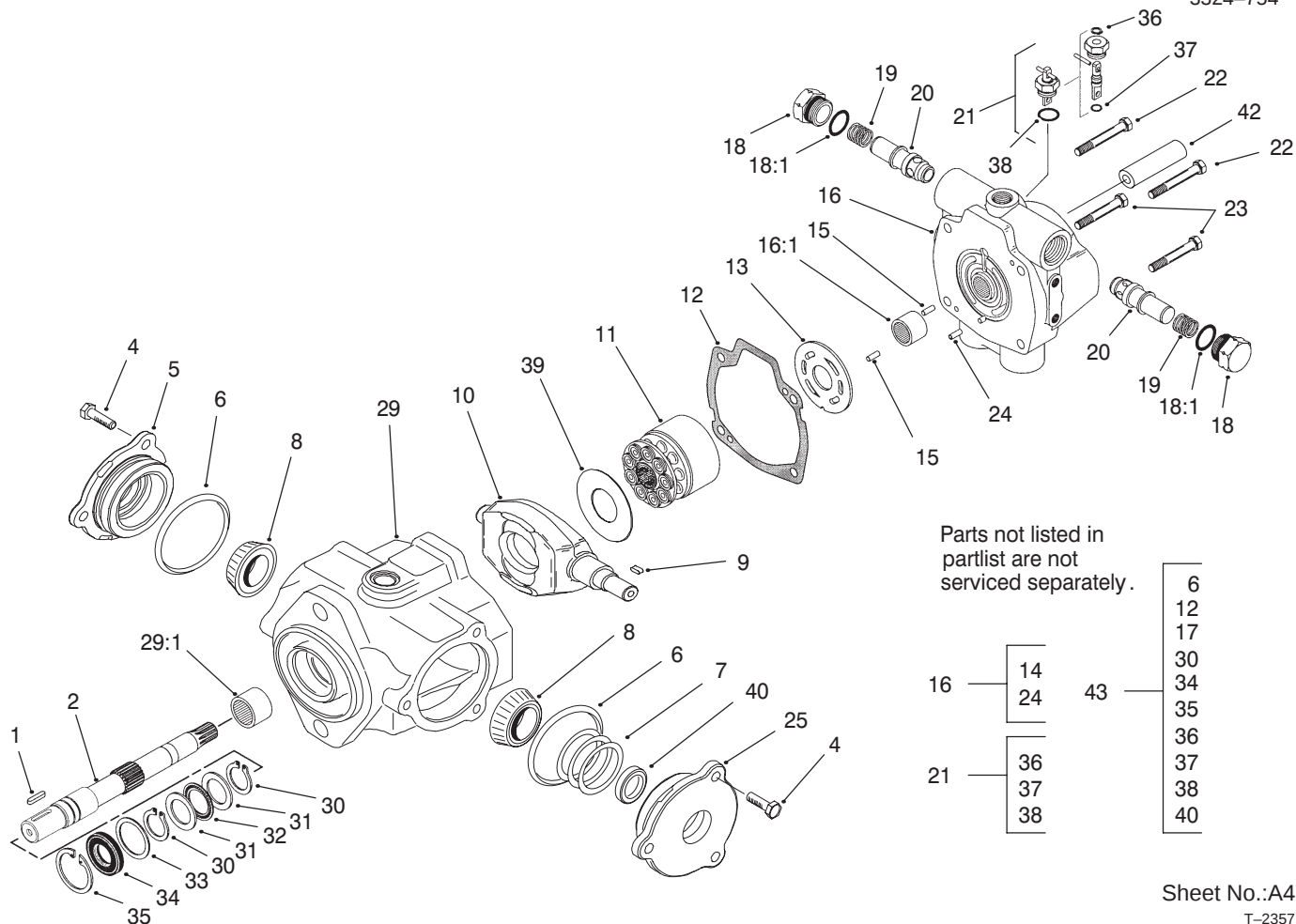
Sheet No.:11

Hydrostat and Gear Pump Drive Assembly

Ref. No.	Part No.	Qty.	Description
1	2412-34	2	Clamp-Hose
3	340-18	2	Fitting
3:1	237-79	1	O-Ring
3:2	237-22	1	O-Ring
4	93-2589	1	Hub - Pump
5	3241-6	2	Screw-SQH
7	3256-3	2	Washer-Flat
8	80-8650	1	Coupling - Drive
9	27-6600	4	Spacer-Coupling, Rubber
10	93-2220-03	1	Adapter-Pump
11	33114-020	6	Screw-HH
12	33114-030	1	Screw-HH
13	33024-00	2	Nut-Lock, NI
14	33025-00	2	Nut-Lock, NI
15	33115-040	2	Screw-HH
17	340-8	2	Adapter
17:1	237-65	1	O-Ring
17:2	237-81	1	O-Ring
18	340-17	1	Adapter
18:1	237-65	1	O-Ring
18:2	237-80	1	O-Ring
19	100-4852	2	Washer - Hardened
23	99-4218	1	Hose ASM
24	99-1905	1	Hose-Inlet, Pump
25	94-6384	1	Hose ASM

Ref. No.	Part No.	Qty.	Description
26	99-4220	1	Hose ASM
27	99-4216	1	Hose ASM
28	99-8152	1	Pump-Gear, Hydro
28:1	100-3174	1	Hydrostat ASM
28:2	94-6390	1	Pump-Gear
*28:3	60-3520	1	O-Ring
28:4	3274-1	2	Screw-HSH
28:5	3256-24	2	Washer-Flat
29	99-4217	1	Hose ASM
30	340-94	1	Adapter
30:1	237-22	2	O-Ring
30:2	237-42	1	O-Ring
31	99-4215	1	Hose ASM
33	33113-050	2	Screw-HH
34	3256-22	2	Washer-Flat
35	94-6385	1	Valve - Relief
35:2	94-6386	1	Cartridge-Valve, Relief
36	340-77	1	Fitting-90°
36:1	237-22	1	O-Ring
36:2	237-42	1	O-Ring
37	33023-00	2	Nut-Lock, NI
38	99-4219	1	Hose ASM
39	340-115	1	Fitting-Tee
39:1	237-22	2	O-Ring

* Not illustrated



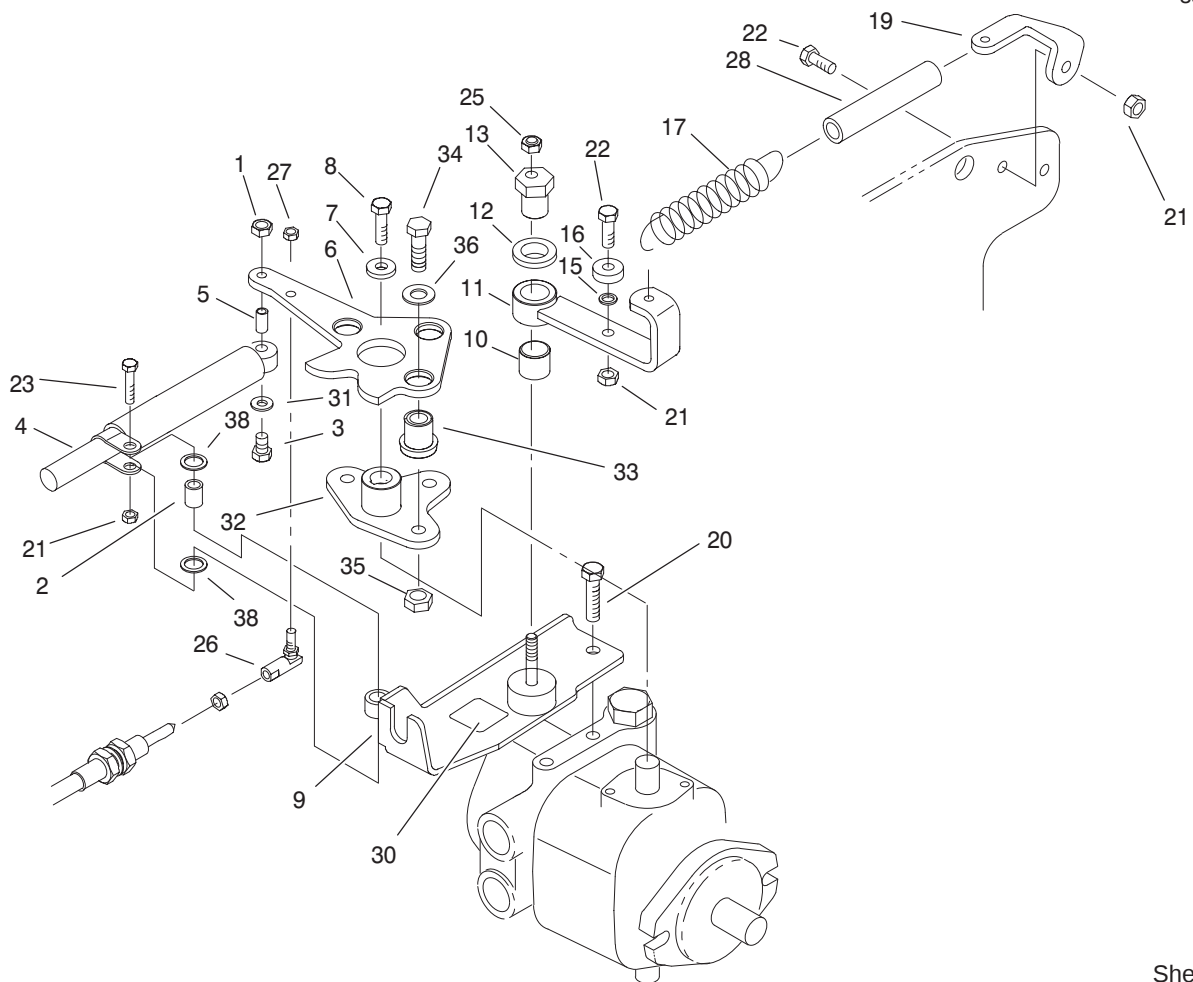
Sheet No.:A4

T-2357

Hydrostat Assembly No. 100-3174

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	94-3645	1	Key	31	252-71	2	Bearing-Thrust
2	94-6359	1	Shaft - Drive	32	252-66	1	Bearing-Thrust
4	98-4640	6	Screw - Cap	33	33-3720	1	Washer
5	98-4644	1	Cover Plate ASM	34	42-2720	1	Seal-External
6	100-3179	2	O-Ring	35	32151-13	1	Ring-Snap, Internal
7	100-3182	2	Kit-Shim	39	98-4635	1	Insert-Plate, Cam
8	98-4639	2	Bearing-Cone	42	74-9040	1	Coupler
9	94-3646	1	Key	*43	98-4643	1	Seal Repair Kit
10	100-3175	1	Camplate				
11	76-6070	1	Rotating Kit ASM				
12	33-4930	1	Gasket-Housing				
13	100-3180	1	Valve-Plate				
15	76-6150	2	Pin-Dowel				
16	100-3177	1	Back Plate ASM				
16:1	94-6368	1	Bearing				
18	70-1240	2	Plug ASM				
18:1	60-5980	1	O-Ring				
19	100-3178	2	Spring				
20	94-3644	2	Seat				
21	100-3181	1	Dump Valve ASM				
22	76-6170	2	Capscrew				
23	76-6160	2	Capscrew				
25	98-4645	1	Cover Plate ASM				
29	100-3176	1	Housing ASM				
29:1	94-6363	1	Bearing				
30	32151-29	2	Ring-Snap, External				

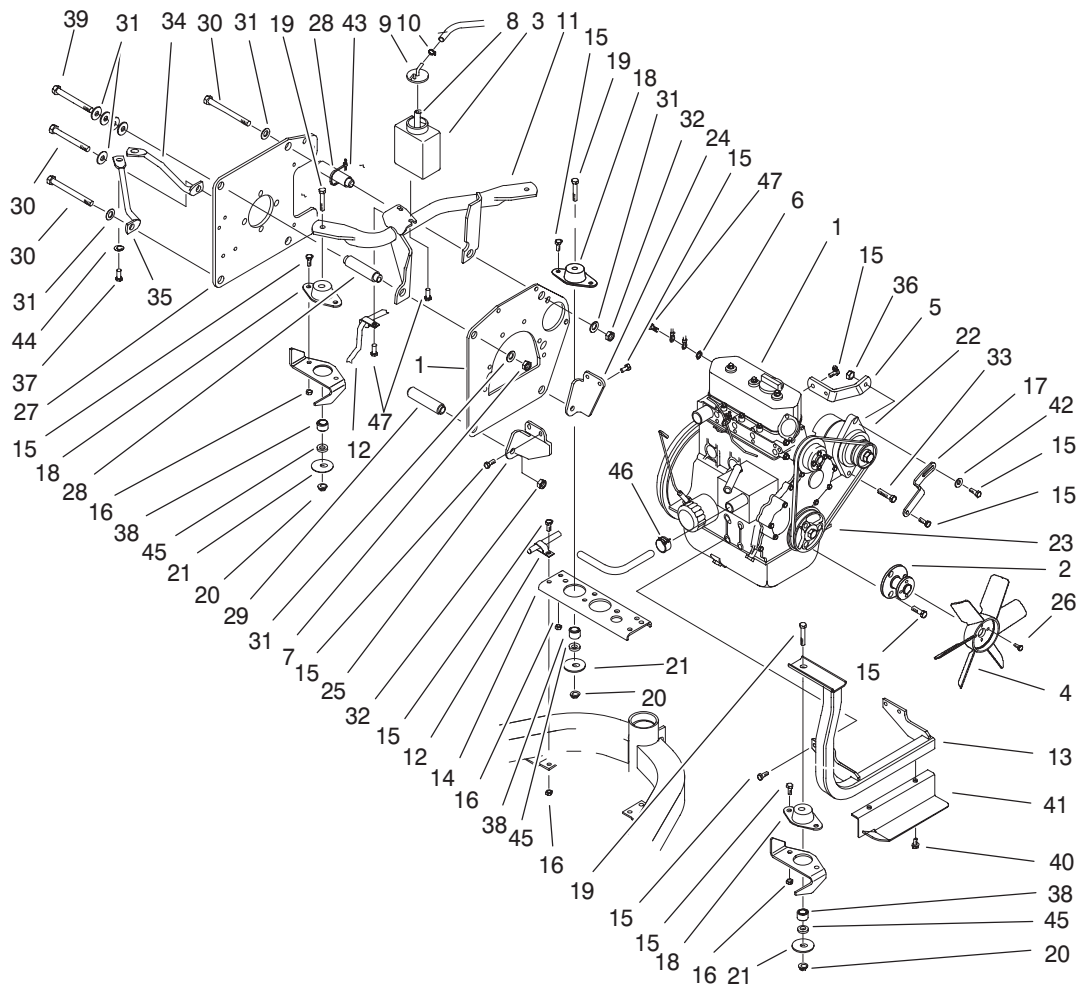
* Not illustrated



Sheet No.:12

Neutral System Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	33023-00	1	Nut-Lock, NI	30	93-9051	1	Decal-Bolt, Eccentric
2	94-8197	1	Tube - Pivot	31	3256-22	1	Washer-Flat
3	33113-030	1	Screw-HH	32	94-3486	1	Plate
4	76-8870	1	Lever Damper ASM	33	63-9750	3	Mount
5	94-1312	1	Spacer - Pivot	34	33115-035	3	Screw-HH
6	94-3488-03	1	Lever - Pump	35	33025-00	3	Nut-Lock, NI
7	88-7200	1	Washer-Flat	36	2844	3	Washer
8	3210-6	1	Screw-HH	38	94-8196	2	Washer - Nylon
9	100-9846	1	Support-Cable, Welded				
10	94-9609	1	Bushing - Straight				
11	94-4527	1	Arm-Neutral				
12	3-6498	1	Washer-Thrust				
13	93-2111	1	Stud - Traction				
15	75-5470	1	Spacer-Bearing				
16	251-259	1	Bearing				
17	94-1369	1	Spring - Extension				
19	99-4249	1	Bracket-Spring				
20	323-4	2	Screw-HH				
21	33024-00	3	Nut-Lock, NI				
22	33114-025	2	Screw-HH				
23	33114-030	1	Screw-HH				
25	3296-29	1	Nut-Lock, NI				
26	2411-34	1	Joint-Ball				
27	3296-13	1	Nut-Lock NI				
28	99-4251	1	Hose-Dampener				

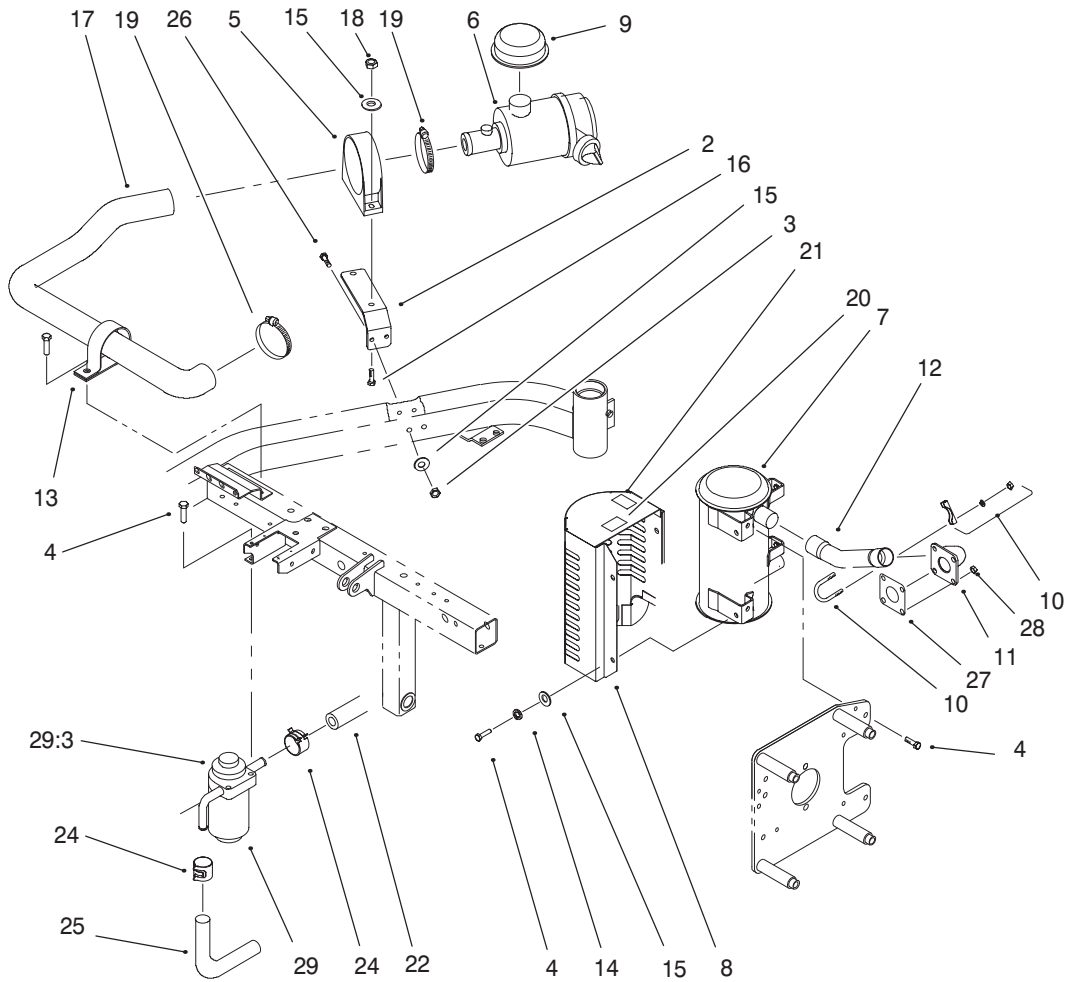


Sheet No.:13

Engine Installation Assembly

Ref. No.	Part No.	Qty.	Description
1	99-1481	1	Engine-Briggs Daihatsu 522447-0107-E2
2	99-1495	1	Adapter-Fan
3	93-2049	1	Tank-Overflow
4	93-2090	1	Fan-Engine
5	93-2445	1	Bracket-Alternator, Upper
6	3254-2	1	Washer-Lock, Internal
7	51-2070	1	Nut
8	94-1348	1	Hose-Tank, Recov
9	93-2048	1	Cap-Tank, Overflow
10	2412-108	1	Clamp-Worm
11	100-3190-03	1	Engine Mount ASM
12	92-5753	2	Clamp-Hose
13	99-1473-03	1	Mount-Engine, Front
14	93-2020-01	1	Bracket - Support
15	33114-020	26	Screw-HH
16	33024-00	4	Nut-Lock, NI
17	93-2446	1	Bracket-Alternator, Lower
18	83-1030	3	Mount-Engine
19	323-11	3	Screw-HH
20	3290-357	3	Nut-Flange, Lock
21	83-1040	3	Washer - Flat
22	99-9209	1	Alternator

Ref. No.	Part No.	Qty.	Description
23	99-8153	1	Belt-V
24	99-4189-03	1	Bracket-Engine, LH
25	99-4188-03	1	Bracket-Engine, RH
26	33113-016	4	Screw-HH
27	99-4190-03	1	Plate-Pump
28	93-2588	2	Spacer - Upper
29	93-2174	2	Spacer
30	33116-130	3	Screw-HH
31	87-7270	9	Washer - Thrust
32	33026-00	3	Nut-Lock, NI
33	33115-050	1	Screw-HH
34	99-4240	1	Brace-Wireform, LH
35	99-4238	1	Brace-Wireform, RH
36	33025-00	1	Nut-Lock, NI
37	323-4	2	Screw-HH
38	94-4538	3	Spacer - Mount
39	33116-120	1	Screw-HH
40	32144-14	2	Screw-HWH
41	94-8156-03	1	Deflector - Fan
42	3256-3	1	Washer-Flat
43	3290-378	2	Tie-Cable
44	3256-24	2	Washer-Flat
45	66-6480	3	Washer
46	92-2379	1	Clamp-Hose
47	33114-016	3	Screw-HH

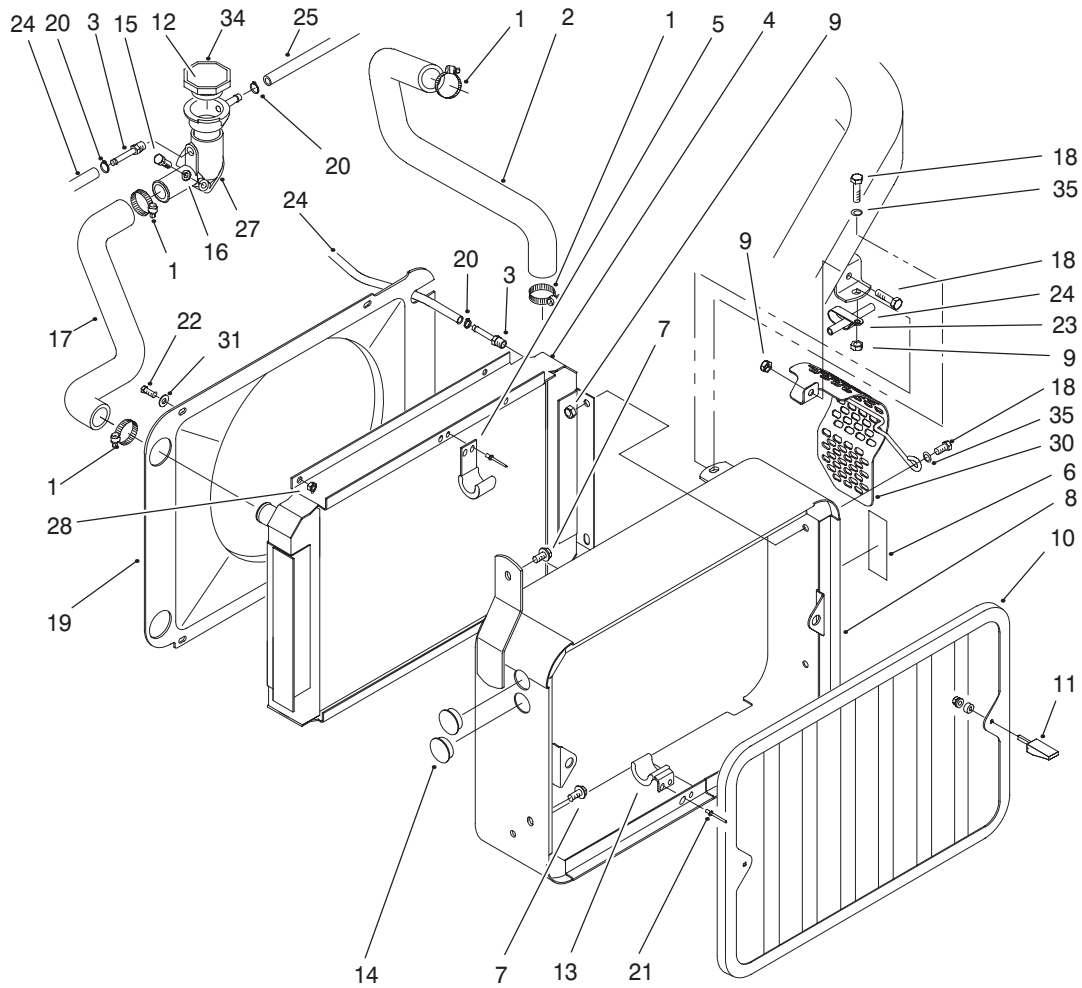


Sheet No.:14

Air Cleaner and Exhaust Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
2	99-4203	1	Bracket-Cleaner, Air	28	99-9176	4	Nut-Hex
3	33024-00	2	Nut-Lock, NI	29	100-3191	1	Separator-Fuel
4	33114-020	8	Screw-HH				Fltr/Wtr (Diesel)
5	95-5806	1	Bracket-Mounting, Air Cleaner	*29:1	100-3192	1	Element-Filter, Fuel
6	95-5805	1	Air Cleaner ASM	*29:2	100-6409	1	Sensor-Filter, Fuel
7	94-8153	1	Muffler	29:3	100-6408	1	Cover-Filter
8	94-8182-03	1	Shield-Muffler				
9	46-7510	1	Hood-Inlet, Air				
10	2112-9	2	Clamp				
11	99-1472	1	Plate-Exhaust				
12	99-1494	1	Pipe - Exhaust				
13	2412-107	1	R Clamp				
14	3253-4	4	Washer				
15	3256-23	4	Washer-Flat				
16	322-16	2	Screw-HH				
17	99-4204	1	Hose-Cleaner, Air				
18	3296-29	2	Nut-Lock, NI				
19	2412-92	2	Clamp-Hose				
20	93-8069	1	Decal-Surface, Hot				
21	93-7275	1	Decal-Fluid, Starting				
22	92-9283	1	Hose-Vent, Fuel				
24	92-2379	2	Clamp-Hose				
25	93-5553	1	Hose - Fuel				
26	33114-080	2	Screw-HH				
27	99-9179	1	Gasket-Exhaust				

* Not illustrated

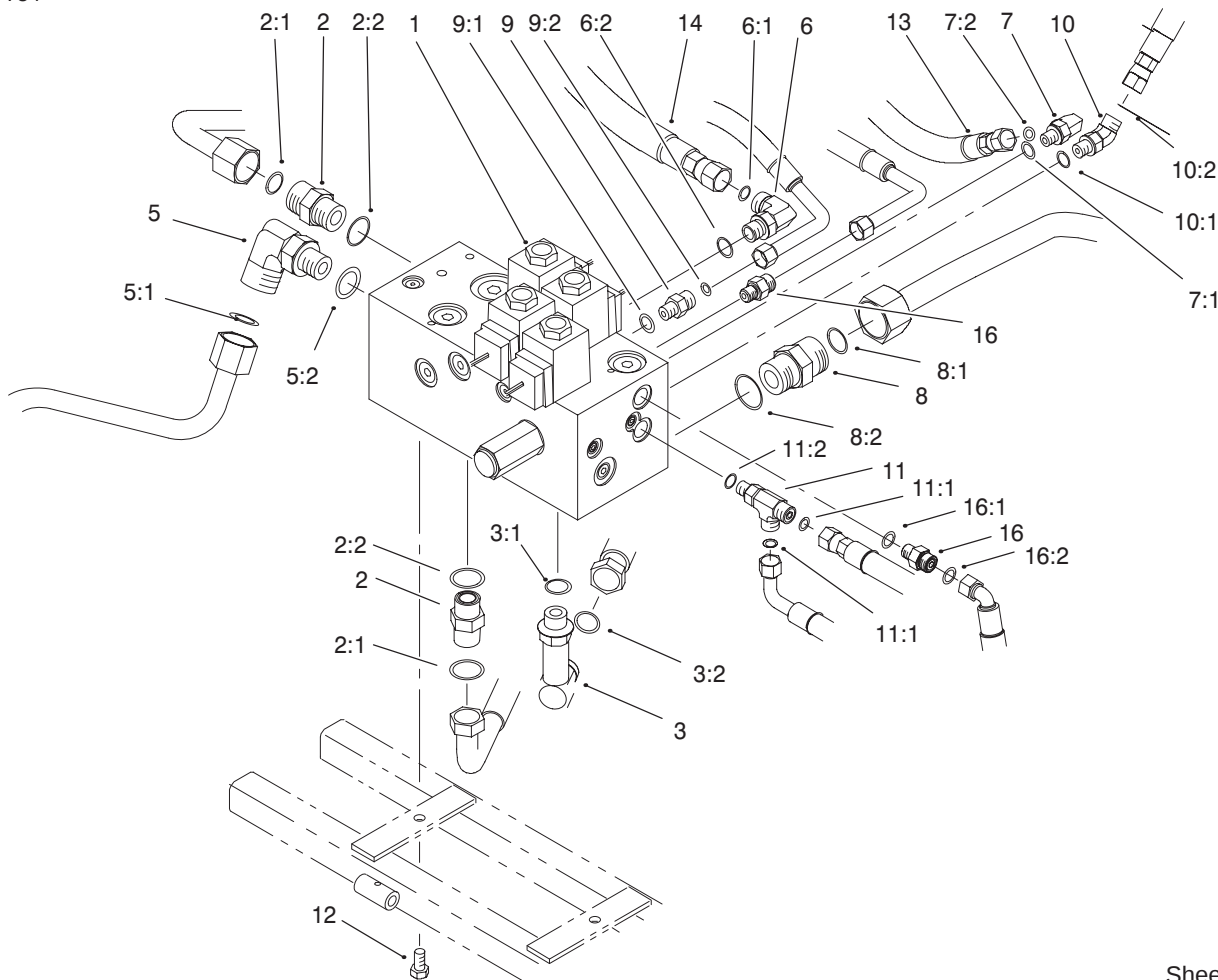


Sheet No.:15

Radiator Assembly

Ref. No.	Part No.	Qty.	Description
1	2412-34	4	Clamp-Hose
2	99-1469	1	Hose - Radiator
3	304-73	2	Connector-Hose
4	99-8193	1	Radiator
5	93-2425	2	Bracket-Cooler, Upper
6	93-6681	1	Decal-Warning, Fan
7	32144-14	2	Screw-HWH
8	100-3163-01	1	Radiator Support ASM
9	33024-00	6	Nut-Lock, NI
10	93-2050-03	1	Screen
11	74-5950	2	Latch-Swell
12	93-7840	1	Decal-Cap, Radiator
13	93-2424	2	Bracket-Cooler, Lower
14	94-4528	2	Plug
15	33113-025	2	Screw-HH
16	3253-3	2	Washer-Lock/Sp
17	93-2018	1	Hose - Radiator
18	33114-020	6	Screw-HH
19	93-2320	1	Shroud-Fan
20	2412-108	3	Clamp-Worm
21	3269-15	8	Rivet
22	33113-016	4	Screw-HH
23	92-5753	1	Clamp-Hose
24	27-4480	1	Hose
25	92-9283	1	Hose-Vent, Fuel

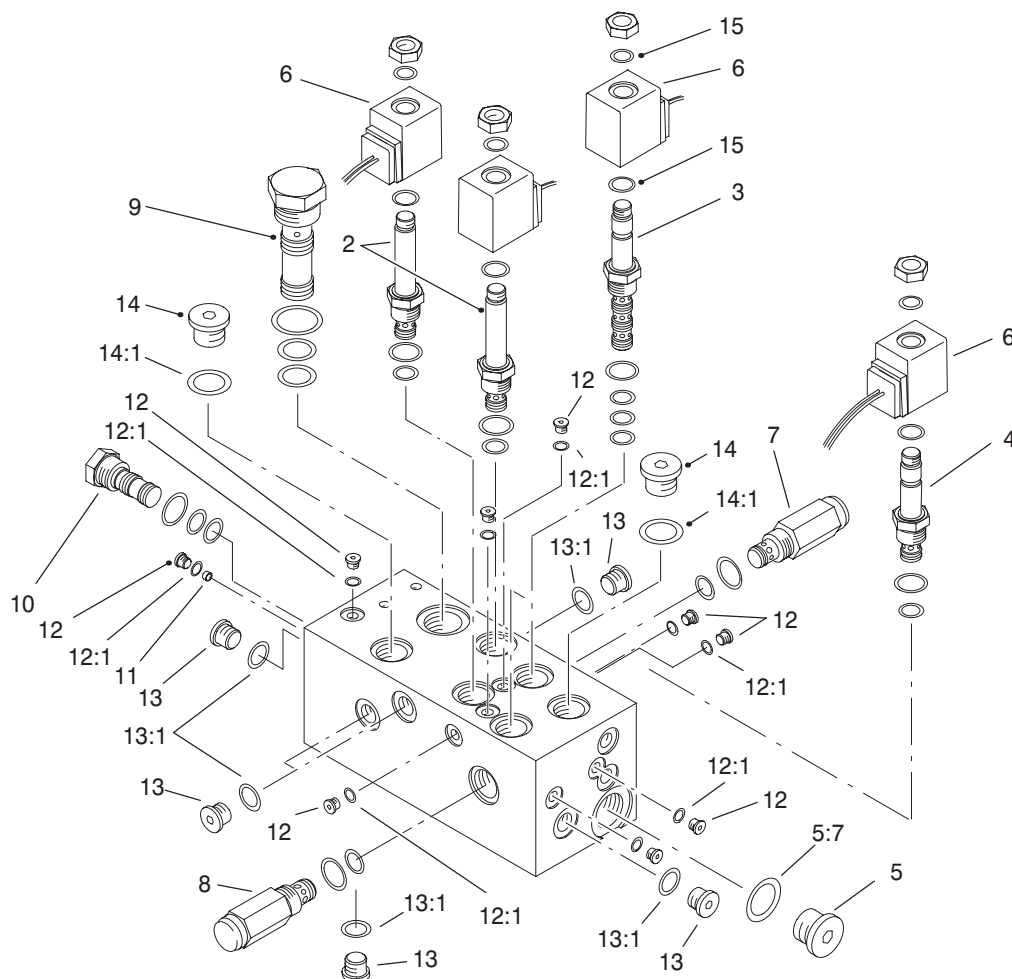
Ref. No.	Part No.	Qty.	Description
27	93-2448	1	Thermostat Housing ASM
28	33023-00	4	Nut-Lock, NI
30	100-3164-03	1	Guard-Alternator
31	3256-22	4	Washer-Flat
34	66-3240	1	Cap-Radiator
35	3256-23	2	Washer-Flat



Sheet No.:16

Manifold Block Installation Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	93-2240	1	Manifold-Mow/Lift, Basic	11	340-140	1	Adapter Tee
2	340-7	2	Adapter	11:1	237-21	2	O-Ring
2:1	237-65	1	O-Ring	11:2	237-78	1	O-Ring
2:2	237-80	1	O-Ring	12	33114-016	2	Screw-HH
3	99-4214	1	Fitting-Hydraulic	13	93-2271	1	Hydraulic Hose ASM
3:1	237-79	1	O-Ring	14	93-2272	1	Hydraulic Hose ASM
3:2	237-30	1	O-Ring	16	95-1639	2	Fitting - Orificed
5	340-17	1	Adapter	16:1	237-78	1	O-Ring
5:1	237-65	1	O-Ring	16:2	237-21	1	O-Ring
5:2	237-80	1	O-Ring				
6	340-77	1	Fitting-90°				
6:1	237-22	1	O-Ring				
6:2	237-42	1	O-Ring				
7	340-132	1	Elbow-90°				
7:1	237-78	1	O-Ring				
7:2	237-21	1	O-Ring				
8	340-9	1	Fitting-Straight				
8:1	237-58	1	O-Ring				
8:2	237-81	1	O-Ring				
9	340-92	1	Fitting				
9:1	237-78	1	O-Ring				
9:2	237-21	1	O-Ring				
10	340-103	1	Fitting				
10:1	237-78	1	O-Ring				
10:2	237-21	1	O-Ring				



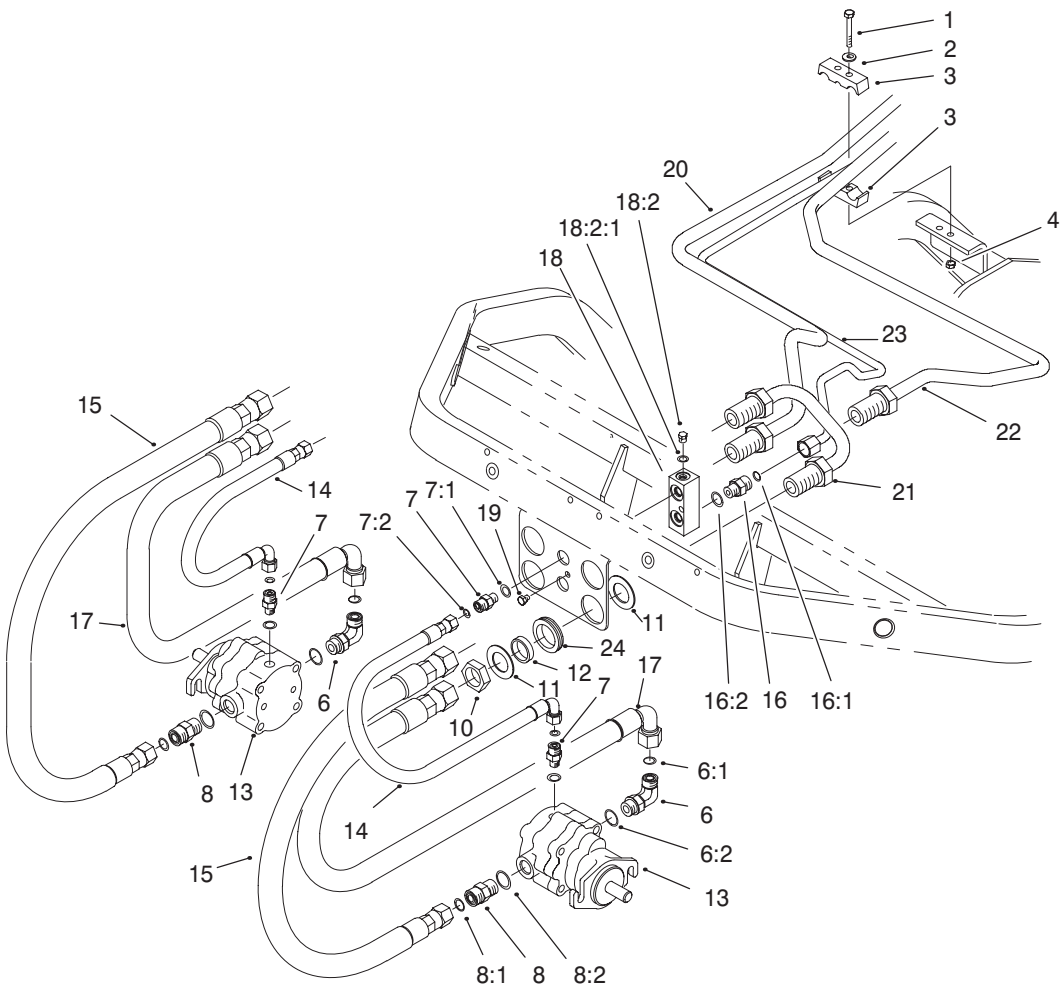
Sheet No.:A9

T-2251

Basic Mow/Lift Manifold Assembly No. 93-2240

Ref. No.	Part No.	Qty.	Description
2	93-7494	2	Cartridge
*2:1	75-2080	1	Kit-Seal
3	94-2627	1	Cartridge
*3:1	75-2090	1	Kit-Seal
4	92-6315	1	Cartridge-N.c. Poppet
4:1	69-4230	1	Kit-Seal
5	353-988	1	Plug-Hex, Hollow
5:7	237-79	1	O-Ring
6	88-9190	4	Kit-Coil, Solenoid
7	95-1601	1	Cartridge-Relief D.a.
*7:1	69-4230	1	Kit-Seal
8	94-6351	1	Cartridge-Relief D.a.
*8:1	69-4230	1	Kit-Seal
9	94-6352	1	Plug - Cavity
*9:1	94-3661	1	Kit-Seal, 4-Way
10	94-6353	1	Plug - Cavity
*10:1	69-4240	1	Kit-Seal
11	95-5999	1	Plug-Orifice
12	353-991	9	Plug-Hex, Hollow
12:1	237-156	1	O-Ring
13	353-989	6	Plug-Hex, Hollow
*13:1	237-42	1	O-Ring
14	354-70	2	Plug-Hex, Hollow
14:1	237-80	1	O-Ring
15	94-5438	8	Seal-Solenoid

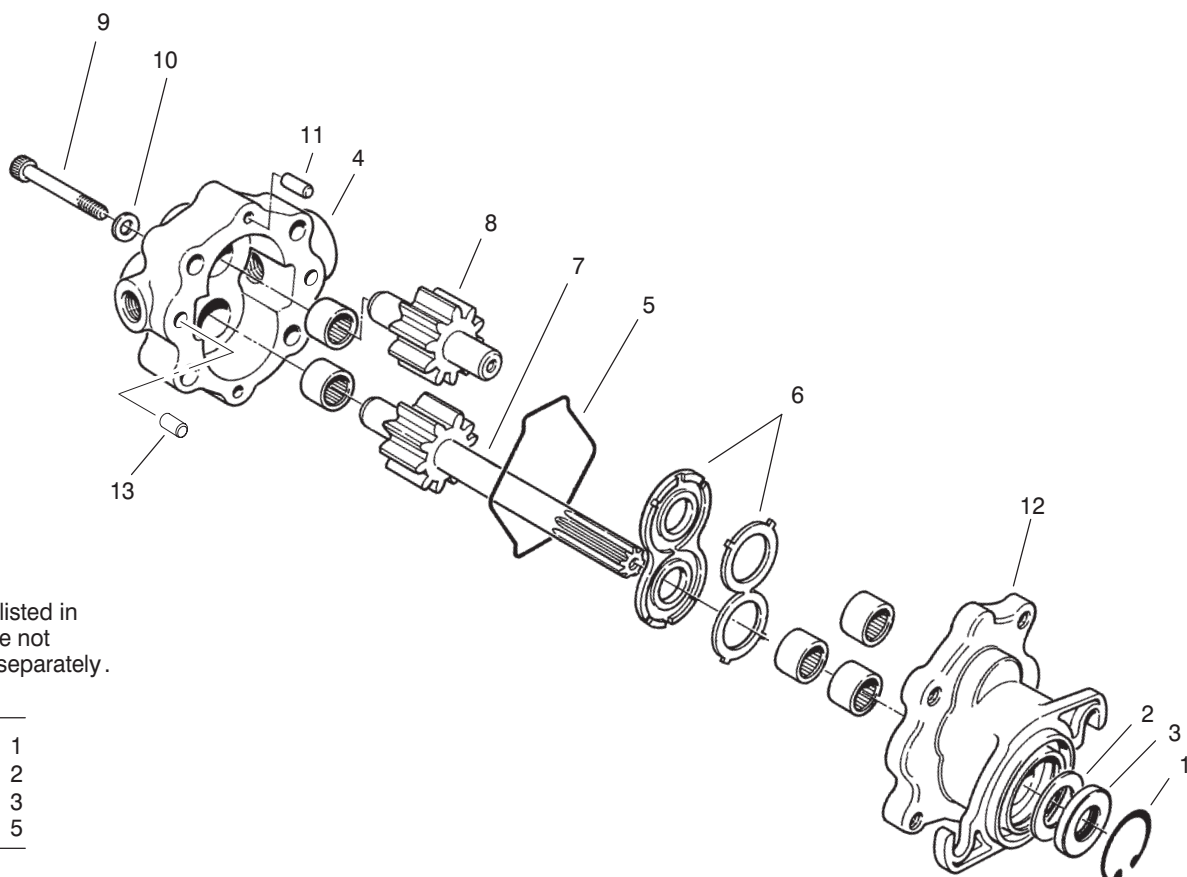
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Sheet No.:17

Front Bulkhead and Reel Motor Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	33113-050	2	Screw-HH	19	33113-008	1	Screw-HH
2	3256-1	2	Washer-Flat	20	94-1318	1	Tube - Hydraulic
3	93-2509	2	Clamp - Tube	21	94-1319	1	Tube - Hydraulic
4	33023-00	2	Nut-Lock, NI	22	94-1320	1	Tube - Hydraulic
6	340-98	2	Fitting-90°	23	94-1321	1	Tube - Hydraulic
6:1	237-79	1	O-Ring	24	240-3	2	Grommet-Rubber
6:2	237-30	1	O-Ring				
7	340-92	4	Fitting				
7:1	237-78	2	O-Ring				
7:2	237-21	2	O-Ring				
8	340-4	2	Adapter				
8:1	237-30	1	O-Ring				
8:2	237-79	1	O-Ring				
10	340-74	2	Locknut-Bulkhead				
11	69-9010	4	Washer				
12	69-9000	2	Spacer				
13	93-1375	2	Motor-Reel				
14	93-2264	2	Hydraulic Hose ASM				
15	95-2908	2	Hose ASM				
16	340-2	1	Adapter				
16:1	237-22	1	O-Ring				
16:2	237-42	1	O-Ring				
17	95-2909	2	Hose ASM				
18	93-2238	1	T-Block				
18:2	353-991	1	Plug-Hex, Hollow				
18:2:1	237-156	1	O-Ring				



Parts not listed in
partlist are not
serviced separately.

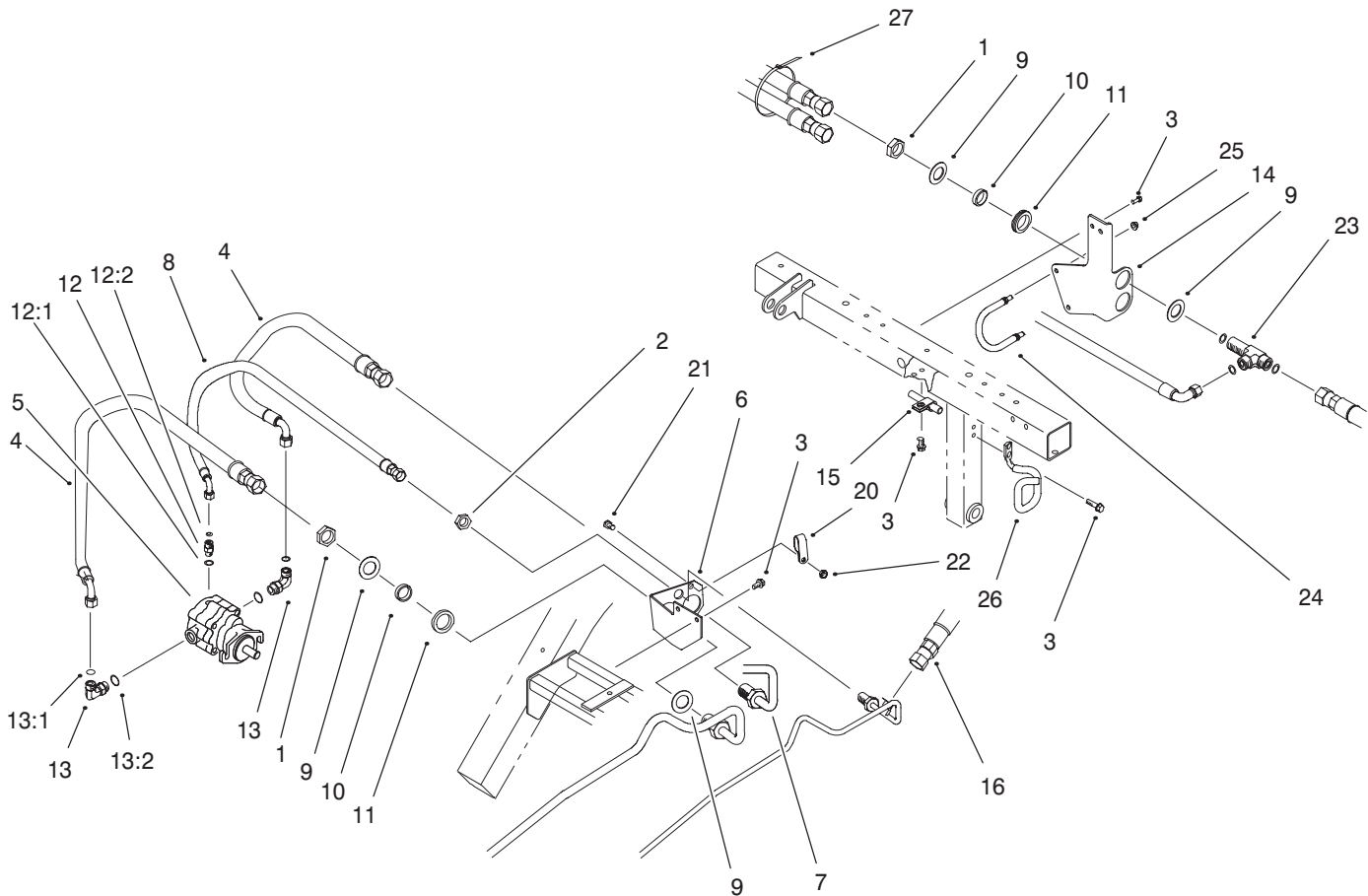
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Sheet No.:B1

T-1872

Reel Motor Assembly No. 93-1375

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	32151-41	1	Ring-Snap				
4	93-3614	1	Cover ASM				
5	354-46	1	Ring-Seal				
6	74-3810	1	Load Plate ASM				
7	93-3615	1	Drive Shaft & Gear ASM				
8	93-3616	1	Idler Shaft & Gear ASM				
9	354-50	4	Screw-HSH				
10	354-51	4	Washer				
11	353-599	2	Pin-Dowel				
12	92-8795	1	Body ASM				
13	92-8796	2	Pin - Dowel				
14	92-8863	1	Kit-Repair				

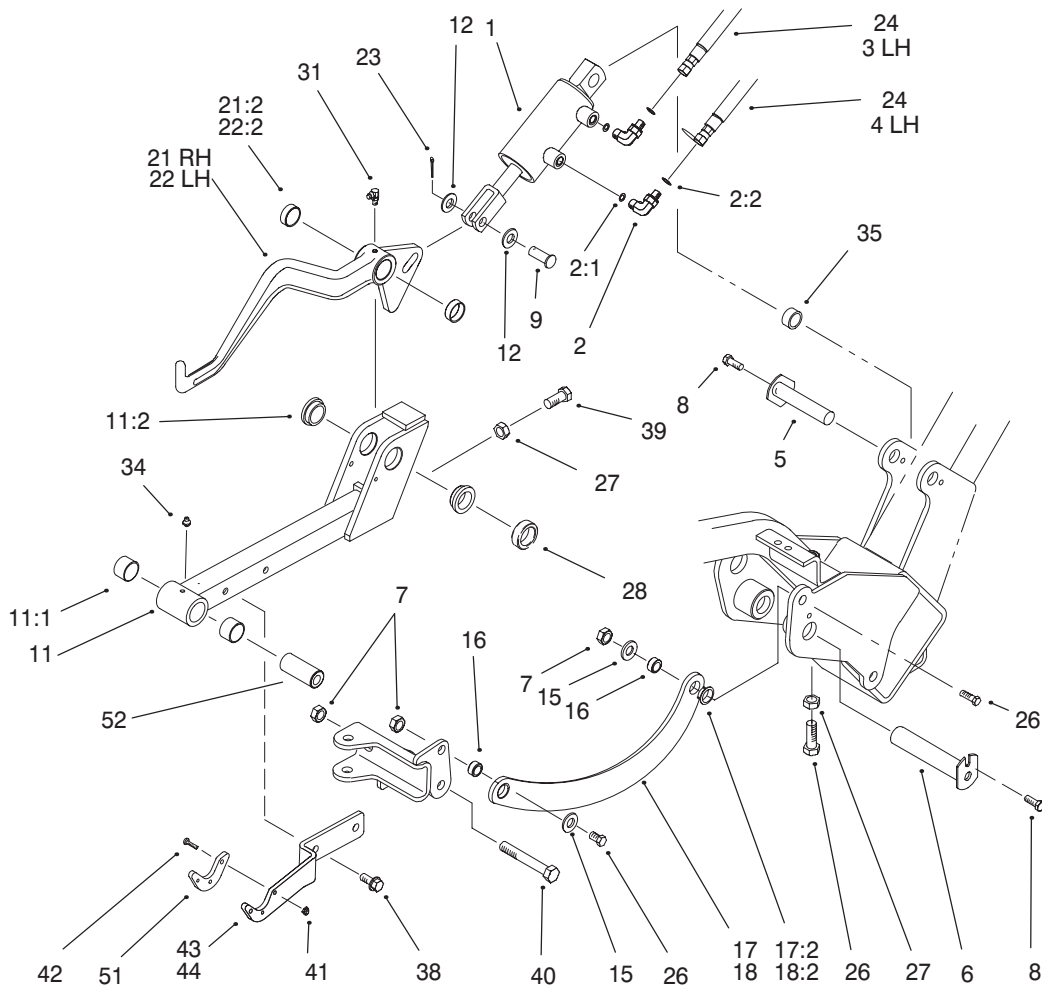


Sheet No.:18

Rear Bulkhead and Reel Motor Assembly

Ref. No.	Part No.	Qty.	Description
1	340-74	4	Locknut-Bulkhead
2	340-70	1	Locknut-Bulkhead
3	32144-14	7	Screw-HWH
4	95-2907	2	Hose ASM
5	93-1375	1	Motor-Reel
6	94-1316	1	Bracket - Bulkhead
7	94-1317	1	Tube - Hydraulic
8	94-1328	1	Hose ASM
9	69-9010	8	Washer
10	69-9000	4	Spacer
11	240-3	4	Grommet-Rubber
12	340-92	1	Fitting
12:1	237-78	1	O-Ring
12:2	237-21	1	O-Ring
13	340-98	2	Fitting-90°
13:1	237-79	1	O-Ring
13:2	237-30	1	O-Ring
14	99-4222-03	1	Bracket-Hose
15	2412-4	1	Clamp
16	94-4539	1	Hose ASM
20	2412-137	1	Clamp-Tube
21	33114-020	1	Screw-HH
22	33024-00	1	Nut-Lock, NI
23	94-5350	2	Tee-Bulkhead, Ors
24	99-4221	1	Retainer-Hose
25	3296-29	2	Nut-Lock, NI

Ref. No.	Part No.	Qty.	Description
26	94-5352	1	Retainer - Hose
27	3290-378	1	Tie-Cable

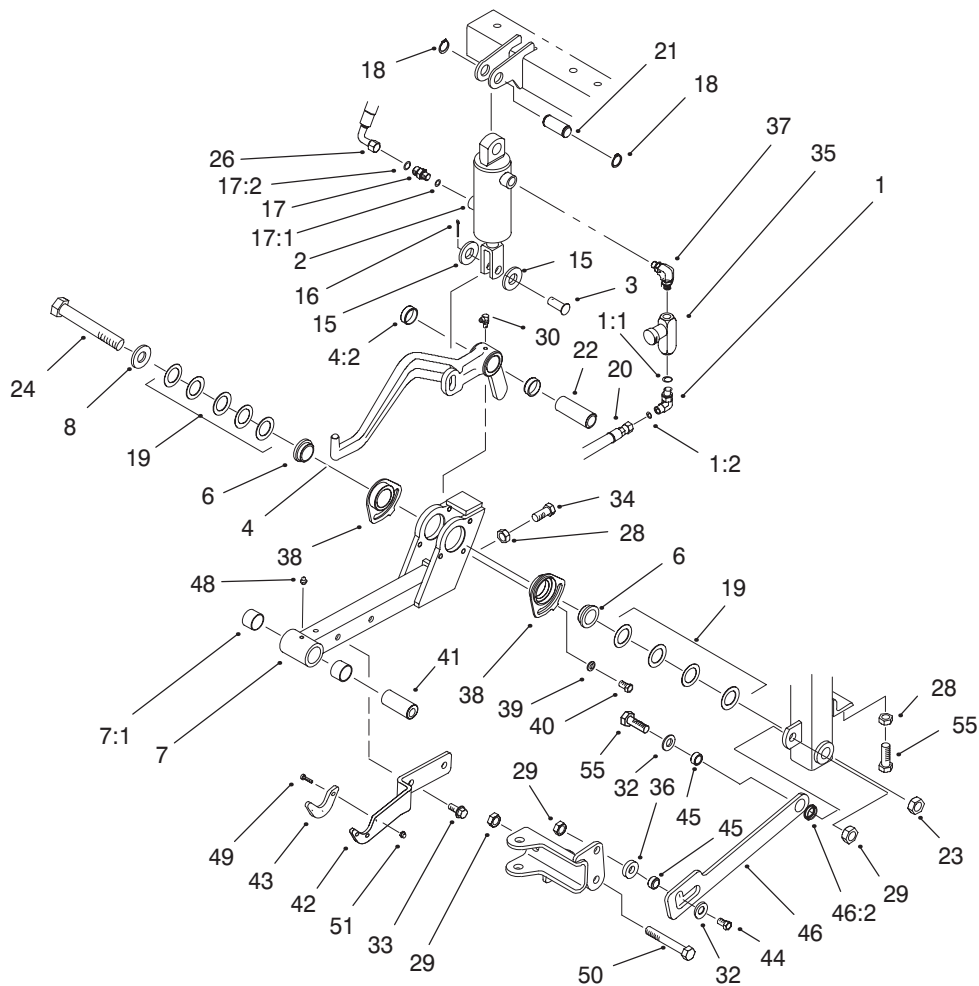


Sheet No.:19

LH and RH Lift Arm Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	99-4263	2	Hydraulic Cylinder ASM	22:2	92-8995	2	Bushing
*1:1	99-8163	1	Kit-Repair, Seal	23	3272-11	2	Pin-Cotter
2	340-132	4	Elbow-90°	24	93-2254	2	Hydraulic Hose ASM
2:1	237-78	1	O-Ring	26	325-6	5	Screw-HH
2:2	237-21	1	O-Ring	27	3218-5	3	Nut-Jam
3	93-2255	1	Hydraulic Hose ASM	28	93-2384	2	Spacer-Carrier
4	93-2256	1	Hydraulic Hose ASM	31	302-60	2	Fitting-Lube
5	10-6060	2	Pin-Pivot, Ram	34	302-5	2	Fitting-Lube
6	94-8198	2	Pin	35	74-3730	2	Spacer-Spindle, Rear
7	3296-25	6	Nut-Lock NI	38	32144-69	4	Screw-Hex
8	32144-14	4	Screw-HWH	39	325-4	2	Screw-HH
9	283-68	2	Pin-Clevis	40	325-14	2	Screw-HH
11	99-4115	2	Front Lift Frame ASM	41	3296-54	6	Nut-Lock NI
11:1	98-4166	2	Bushing	42	3250-17	6	Screw-PPH
11:2	94-9610	2	Bushing - Flange	43	99-4111-01	1	Plate-Transport (#1 & #3)
12	33096-00	4	Washer-Flat	44	99-4112-01	1	Plate-Transport (#2)
15	3256-26	4	Washer-Flat	51	99-4225	2	Pad-Wear
16	99-4201	4	Tube-Spacer	52	99-4072	2	Spacer-Frame, Pull
17	99-4258	1	RH Link Bracket ASM				
17:2	99-4243	2	Bushing-Flange				
18	99-4260	1	LH Link Bracket ASM				
18:2	99-4243	2	Bushing-Flange				
21	99-4213	1	RH Lift Arm ASM				
21:2	92-8995	2	Bushing				
22	99-4212	1	LH Lift Arm ASM				

* Not illustrated



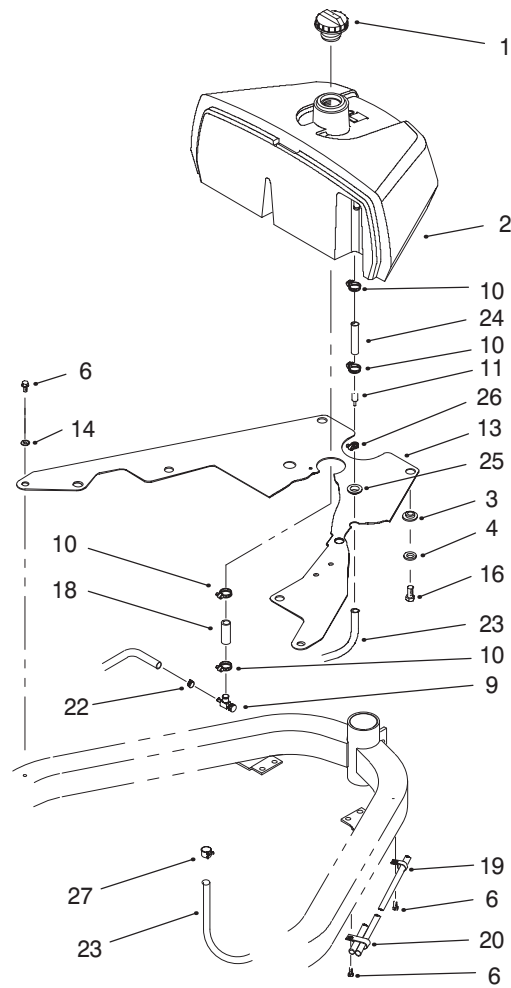
Sheet No.:20

Center Lift Arm Assembly

Ref. No.	Part No.	Qty.	Description
1	340-132	1	Elbow-90°
1:1	237-78	1	O-Ring
1:2	237-21	1	O-Ring
2	99-4262	1	Hydraulic Cylinder ASM
*2:1	99-8163	1	Kit-Repair, Seal
3	283-68	1	Pin-Clevis
4	99-4126	1	Center Lift Arm ASM
4:2	92-8995	2	Bushing
6	98-2197	2	Bushing - Flange
7	99-4116	1	Rear Lift Frame ASM
7:1	98-4166	2	Bushing
8	69-8940	1	Washer
15	33096-00	2	Washer-Flat
16	3272-11	1	Pin-Cotter
17	95-1639	1	Fitting - Orificed
17:1	237-78	1	O-Ring
17:2	237-21	1	O-Ring
18	32120-72	2	Ring-Snap
19	63-2290	9	Washer-Thrust
20	93-2258	1	Hydraulic Hose ASM
21	94-3452	1	Pin
22	94-8199	1	Tube-Pivot
23	3296-53	1	Nut-Lock NI
24	327-19	1	Screw-HH
26	94-3477	1	Hydraulic Hose ASM

Ref. No.	Part No.	Qty.	Description
28	3218-5	2	Nut-Jam
29	3296-25	3	Nut-Lock NI
30	302-60	1	Fitting-Lube
32	3256-26	2	Washer-Flat
33	32144-69	2	Screw-Hex
34	325-5	1	Screw-HH
35	93-7489	1	Orifice Valve ASM
36	99-4248	1	Spacer
37	95-2927	1	Fitting - Elbow
38	98-4618	2	Bushing-Eccentric
39	3256-74	2	Washer-Flat
40	33114-016	2	Screw-HH
41	99-4072	1	Spacer-Frame, Pull
42	99-4111-01	1	Plate-Transport (#1 & #3)
43	99-4225	1	Pad-Wear
44	325-7	1	Screw-HH
45	99-4201	2	Tube-Spacer
46	99-4246	1	Link Bracket ASM
46:2	99-4243	1	Bushing-Flange
48	302-5	1	Fitting-Lube
49	3250-17	3	Screw-PPH
50	325-14	1	Screw-HH
51	3296-54	3	Nut-Lock NI
55	325-6	2	Screw-HH

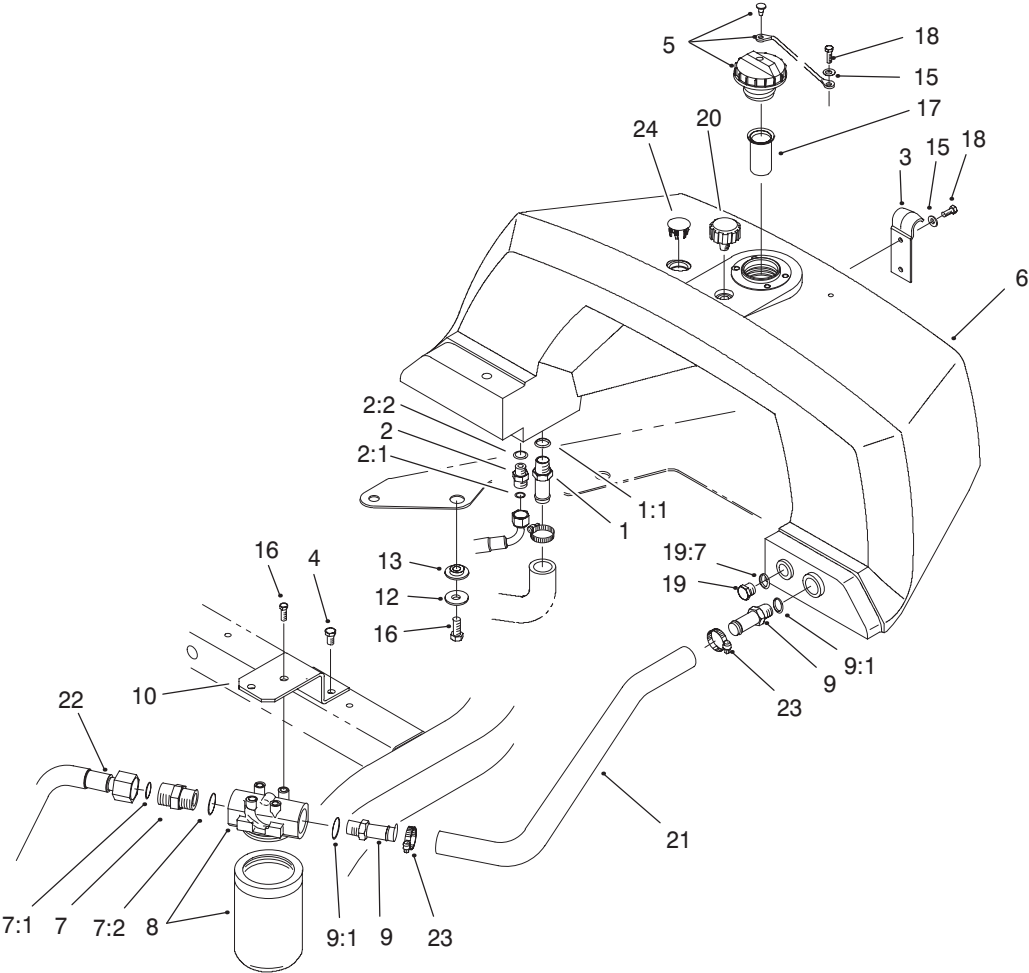
* Not illustrated



Sheet No.:21

Fuel System Assembly

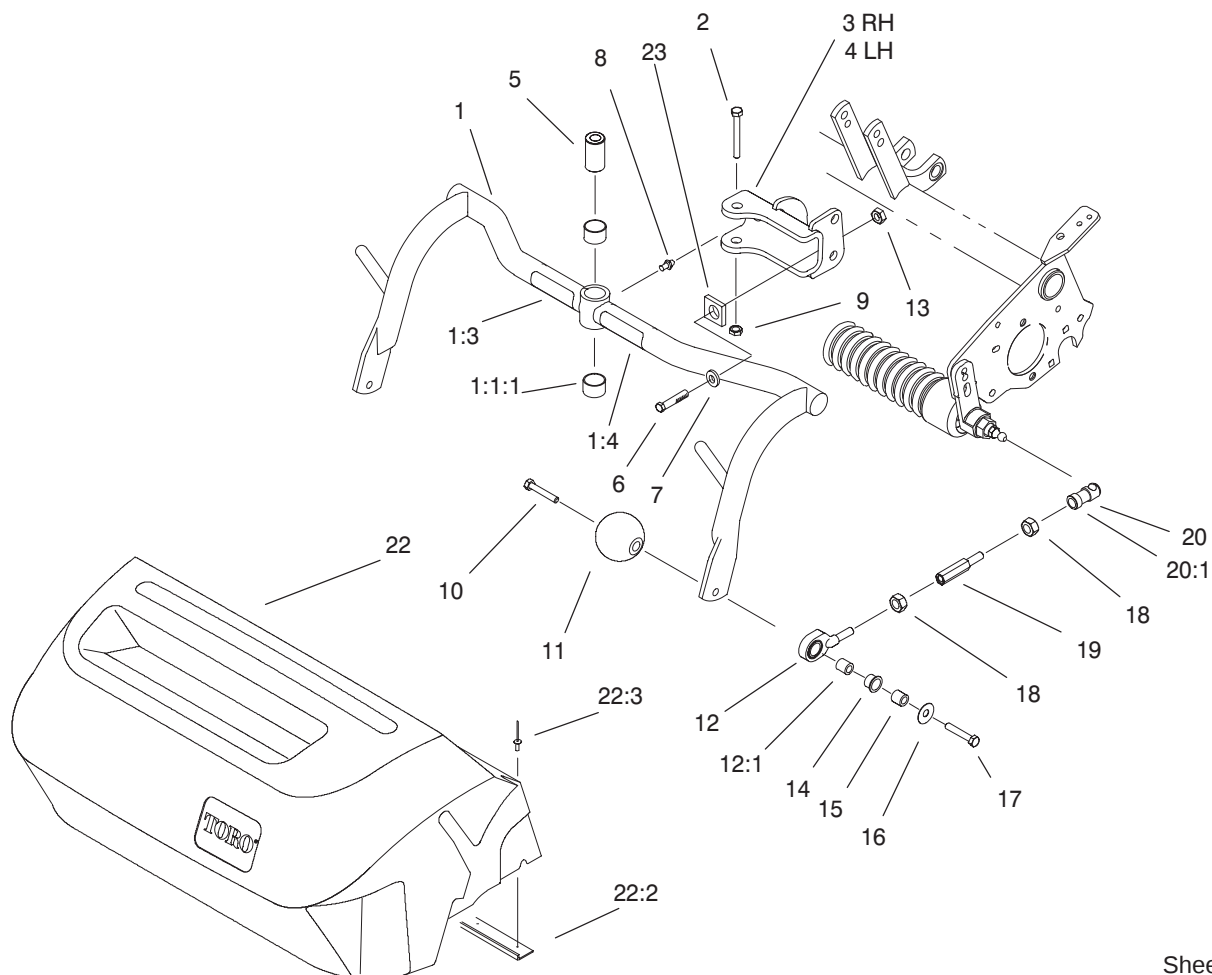
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	93-3102	1	Cap-Fuel				
2	93-2225	1	Tank - Fuel				
3	240-11	3	Grommet-Mount, Tank				
4	93-4637	3	Washer - Flat				
6	32144-14	5	Screw-HWH				
9	56-2520	1	Fitting-Shut Off, Fuel				
10	2412-36	4	Clamp-Hose				
11	93-2299	1	Fitting - Fuel				
13	94-1364-03	1	Plate				
14	3256-23	2	Washer-Flat				
16	33115-020	3	Screw-HH				
18	94-4353	1	Hose-Line, Fuel				
19	2412-41	1	Clamp				
20	92-5753	1	Clamp-Hose				
22	92-2379	1	Clamp-Hose				
23	93-2298	1	Hose - Fuel				
24	56-2230	1	Hose-Fuel				
25	237-124	1	Grommet				
26	2412-108	1	Clamp-Worm				
27	94-8189	1	Clamp-Hose				



Sheet No.:22

Hydraulic Tank and Filter Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	354-78	1	Connector-Hose	21	94-9607	1	Hose - Return
1:1	237-146	1	O-Ring	22	94-4518	1	Tube ASM
2	340-2	1	Adapter	23	2412-129	2	Clamp-Hose
2:1	237-22	1	O-Ring	24	93-2437	1	Plug - Serrated
2:2	237-42	1	O-Ring				
3	93-2438	1	Clamp-Tank, Fuel				
4	32144-14	2	Screw-HWH				
5	93-7160	1	Cap-Oil, Hydraulic				
6	93-2235	1	Tank-Hydraulic				
7	340-9	1	Fitting-Straight				
7:1	237-58	1	O-Ring				
7:2	237-81	1	O-Ring				
8	93-2242	1	Oil Filter ASM				
9		2	Fitting				
9:1	237-81	2	O-Ring				
10	93-2236-03	1	Mount-Filter, Oil				
12	93-4637	4	Washer - Flat				
13	240-11	4	Grommet-Mount, Tank				
15	3256-1	3	Washer-Flat				
16	33115-020	4	Screw-HH				
17	93-2275	1	Screen - Filler				
18	33113-016	3	Screw-HH				
19	353-988	1	Plug-Hex, Hollow				
19:7	237-79	1	O-Ring				
20	68-6150	1	Breather-Air				

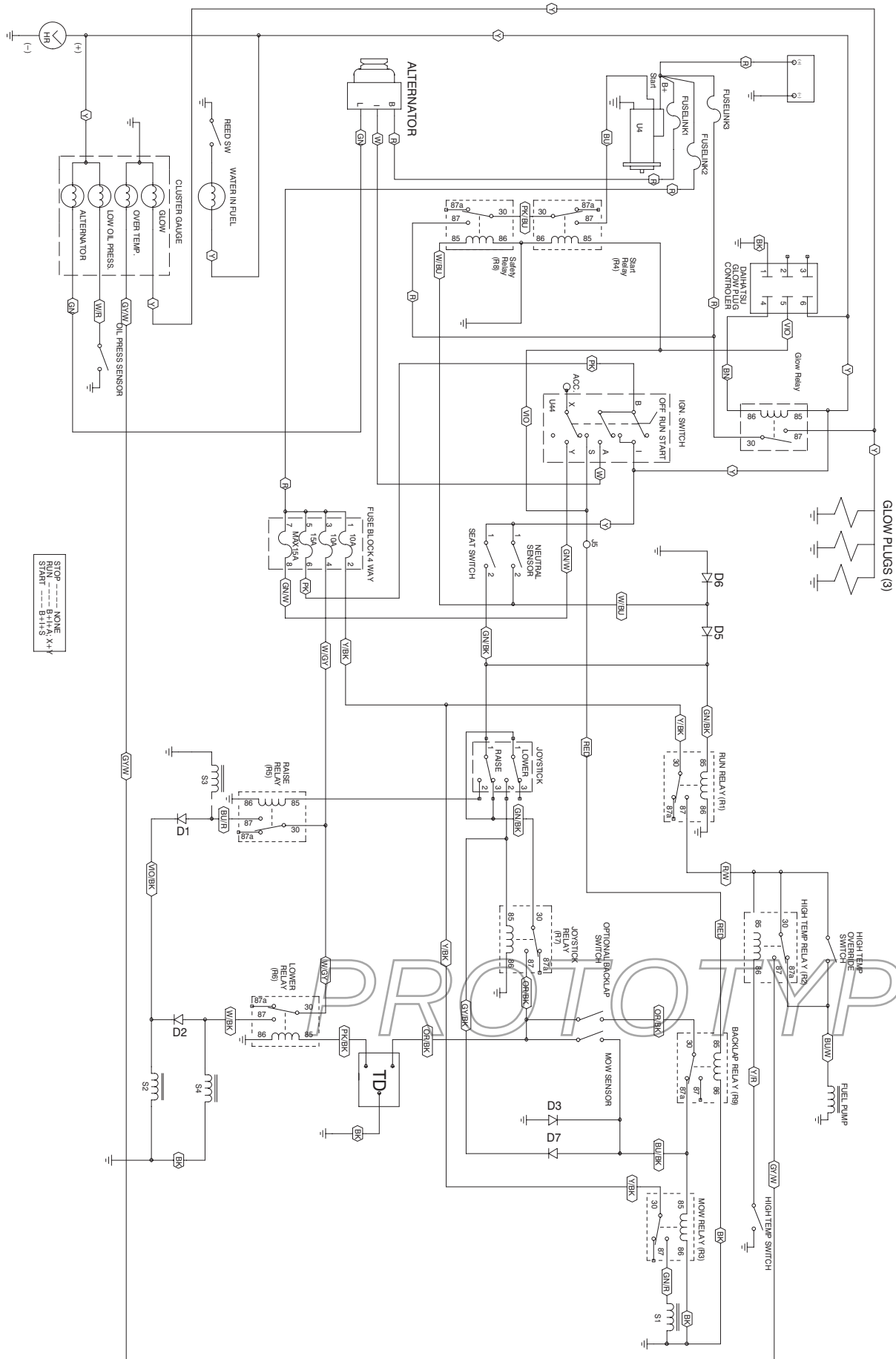


Sheet No.:30

Center Pull Frame Assembly

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1	99-4114	3	Pull Frame ASM	20	99-1460	6	Ball Joint Receiver ASM
1:1		1	Pull Frame ASM	20:1	99-1461	1	Sleeve-Joint, Ball
1:1:1	98-4166	2	Bushing	22	99-4105	3	Basket ASM
1:3	94-2575	1	Decal-Adjustment	22:2	99-4102	1	Strip-Basket
1:4	99-4118	1	Decal-Danger	22:3	3290-382	8	Rivet-Pop
2	325-13	3	Screw-HH	23	94-1392	3	Pad - Rubber
3	99-4183-01	2	RH Clevis ASM				
4	99-4182-01	1	LH Clevis ASM				
5	99-4109	3	Spacer-Pivot				
6	78-8710	3	Screw				
7	3256-77	3	Washer-Flat				
8	302-5	3	Fitting-Lube				
9	3296-25	3	Nut-Lock NI				
10	99-4209	6	Shaft-Roller				
11	99-4210	6	Roller-Anti Scalp				
12	100-6440	6	Pull Link And Bushing ASM				
12:1	95-0532	1	Rubber Bushing ASM				
13	3296-12	3	Nut-Lock				
14	256-292	6	Bushing-Flange, NI				
15	75-5270	6	Spacer-Knob, Seat				
16	80-6990	6	Washer-Hardened				
17	323-8	6	Screw-HH				
18	3220-3	12	Nut-Jam				
19	88-6870	6	Extension-Arm, Pull				

Electrical Schematic

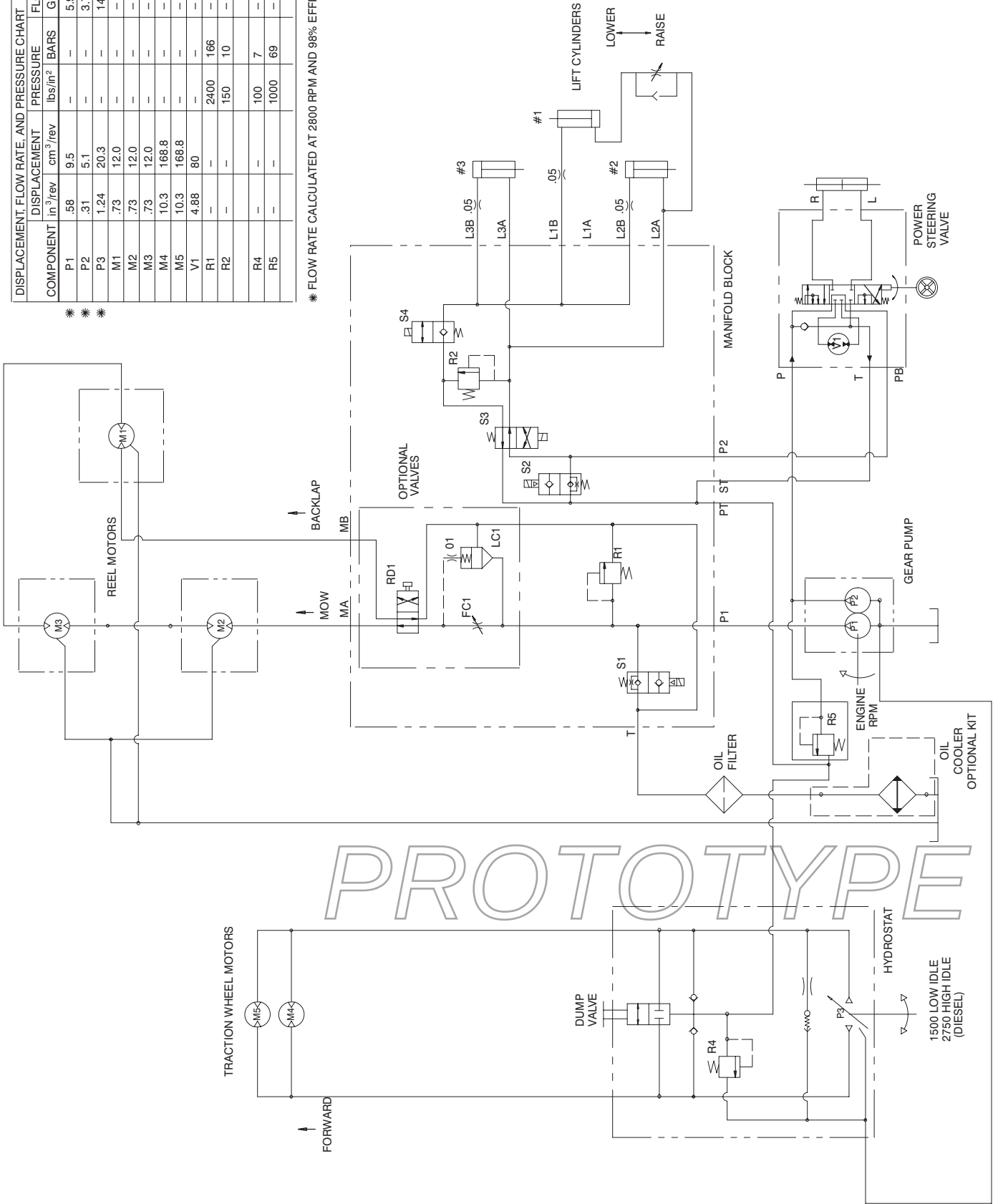


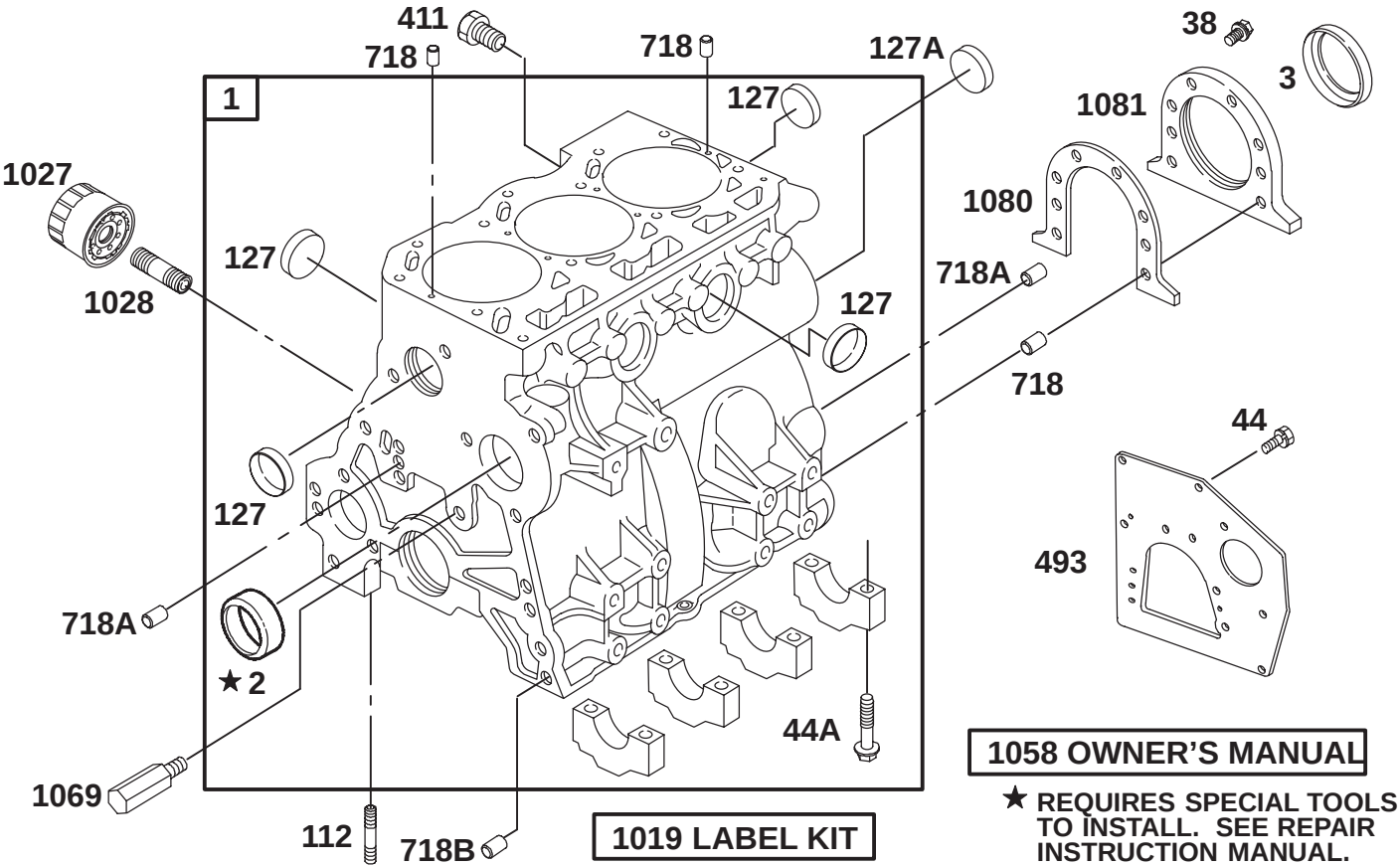
Hydraulic Schematic

DISPLACEMENT, FLOW RATE, AND PRESSURE CHART						
COMPONENT	DISPLACEMENT		PRESSURE		FLOW RATE	
	in ³ /rev	cm ³ /rev	lbs/in ²	BARS	GPM	LPM
P1	.58	9.5	—	—	5.9	22.4
P2	.31	5.1	—	—	3.7	13.9
P3	1.24	20.3	—	—	14.8	55.8
M1	.73	12.0	—	—	—	—
M2	.73	12.0	—	—	—	—
M3	.73	12.0	—	—	—	—
M4	10.3	168.8	—	—	—	—
M5	10.3	168.8	—	—	—	—
V1	4.88	80	—	—	—	—
R1	—	—	2400	166	—	—
R2	—	—	150	10	—	—
R4	—	—	100	7	—	—
R5	—	—	1000	69	—	—

* * *

* FLOW RATE CALCULATED AT 2800 RPM AND 98% EFFICIENCY





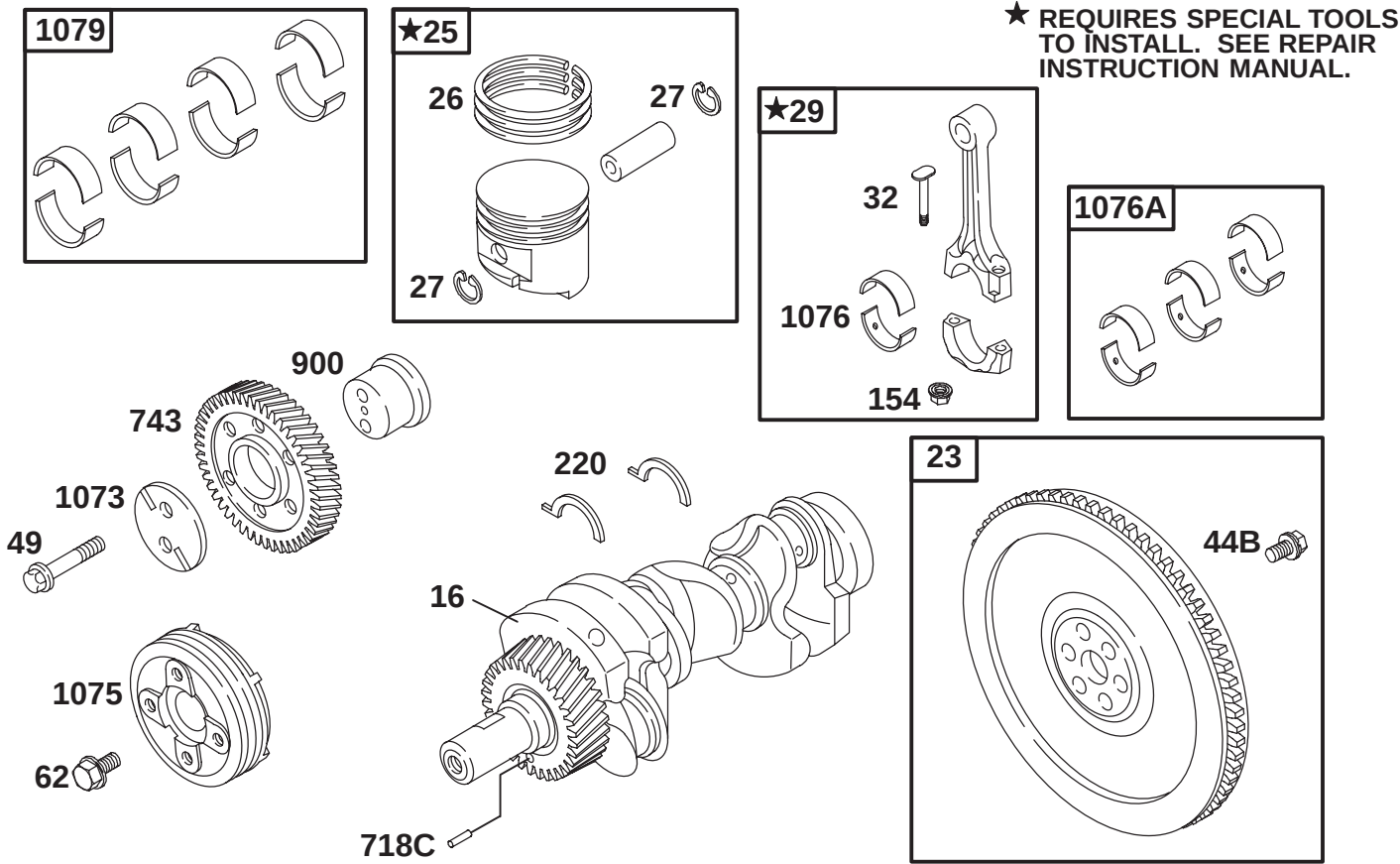
522447-0107-E2 TORO DIESEL

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
∇01	100-6401	1	Cylinder Assembly				
∇02	99-9002	1	Bushing				
★03	99-9003	1	Seal-Oil				
1019	99-9015	1	Label Kit				
1058	99-9602	1	Owner's Manual				
∇1069	99-9020	1	Nozzle-Oil				
★1080	99-9021	1	Gasket-Retainer				
∇1081	99-9022	1	Retainer-Seal				
112	99-9007	1	Stud-Metric				
1027	99-9017	1	Filter-Oil				
127	99-9008	7	Plug-Welch				
∇127A	99-9010	1	Plug-Welch (Camshaft)				
1028	99-9018	1	Adapter-Oil Filter				
38	99-9004	6	Screw-Hex				
∇411	99-9601	1	Plug (Cylinder Block)				
44	99-9005	3	Screw-Hex				
44A	99-9006	8	Screw-Hex				
∇493	100-3195	1	Bracket-Mounting				
718	99-9012	4	Pin-Locating				
718A	99-9013	3	Pin-Locating				
718B	99-9014	2	Pin-Locating				

∇ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

△ Included in Valve Overhaul Kit – Part Number 99-9668



522447-0107-E2 TORO DIESEL

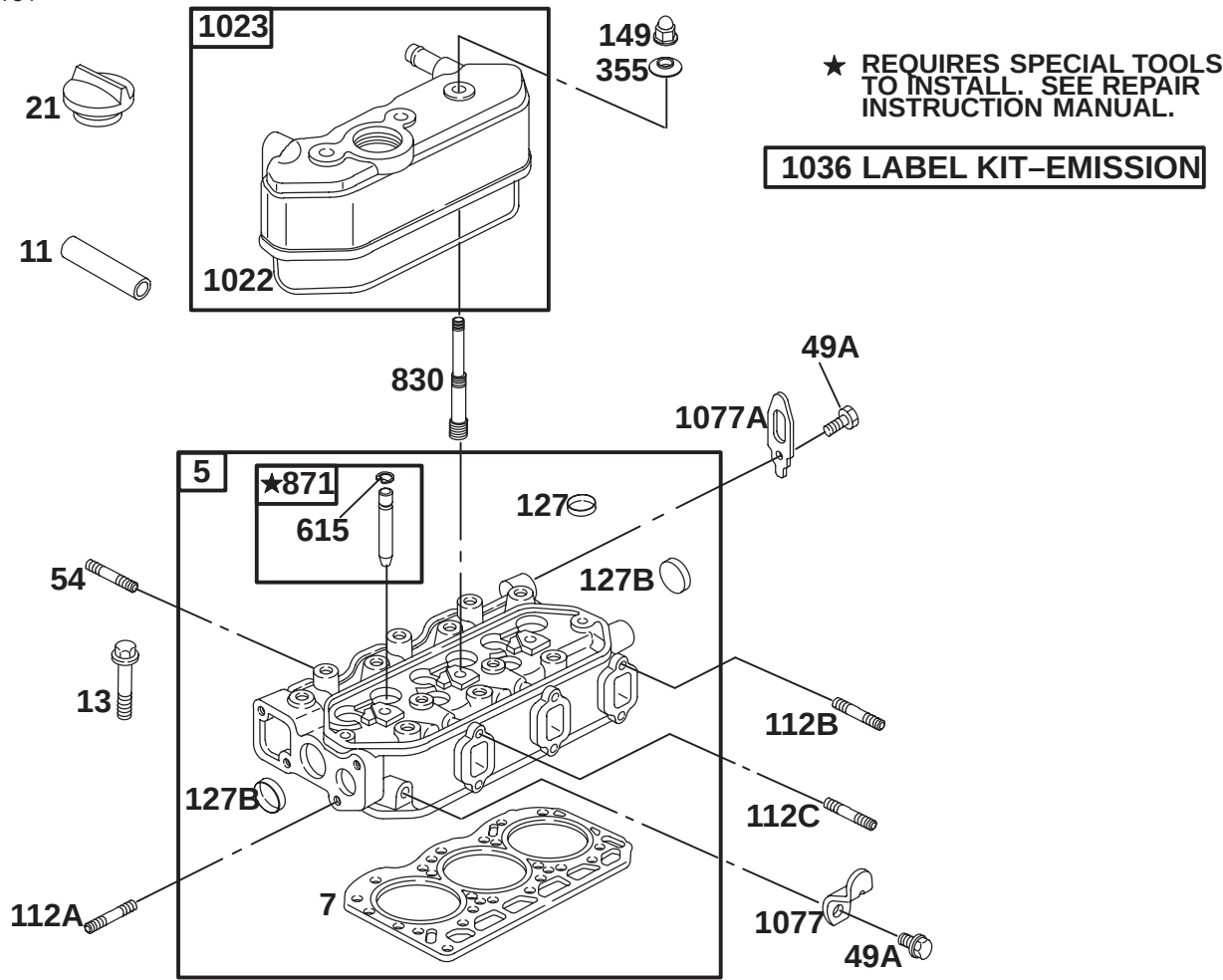
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1073	99-9040	1	Plate-Idler Gear	718C	99-9037	1	Pin-Locating
1075	99-9692	1	Pully-Crankshaft	▽743	99-9609	1	Gear-Drive
▽1076	99-9042	1	Bearing-Rod	▽900	99-9039	1	Shaft-Gear
▽1076A	99-9043	3	Bearing Set-Rod				
▽1076A	99-9044	3	Bearing Set-Rod, .010 Undersize				
▽1079	99-9045	1	Bearing Set-Main				
▽1079	99-9046	1	Bearing Set-Main, .010 Under				
154	99-9034	6	Nut-Hex				
▽16	99-9252	1	Crankshaft				
▽220	99-9035	1	Washer-Thrust				
▽220	99-9036	1	Washer-Thrust .005\" Oversize				
▽23	99-9267	1	Flywheel				
▽25	99-9605	3	Piston Assembly				
▽25	99-9268	3	Piston ASM				
▽26	99-9606	3	Ring Set				
▽26	99-9269	3	Ring Set				
27	99-9607	6	Lock-Piston Pin				
▽29	99-9608	3	Rod-Connecting				
▽32	99-9030	6	Screw-Connecting Rod				
44B	99-9031	6	Screw-10mm Hex				
49	99-9032	2	Screw-8mm Hex				
62	99-9033	1	Screw-Hex				

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

△ Included in Valve Overhaul Kit – Part Number 99-9668

Assemblies include all parts shown in frames.



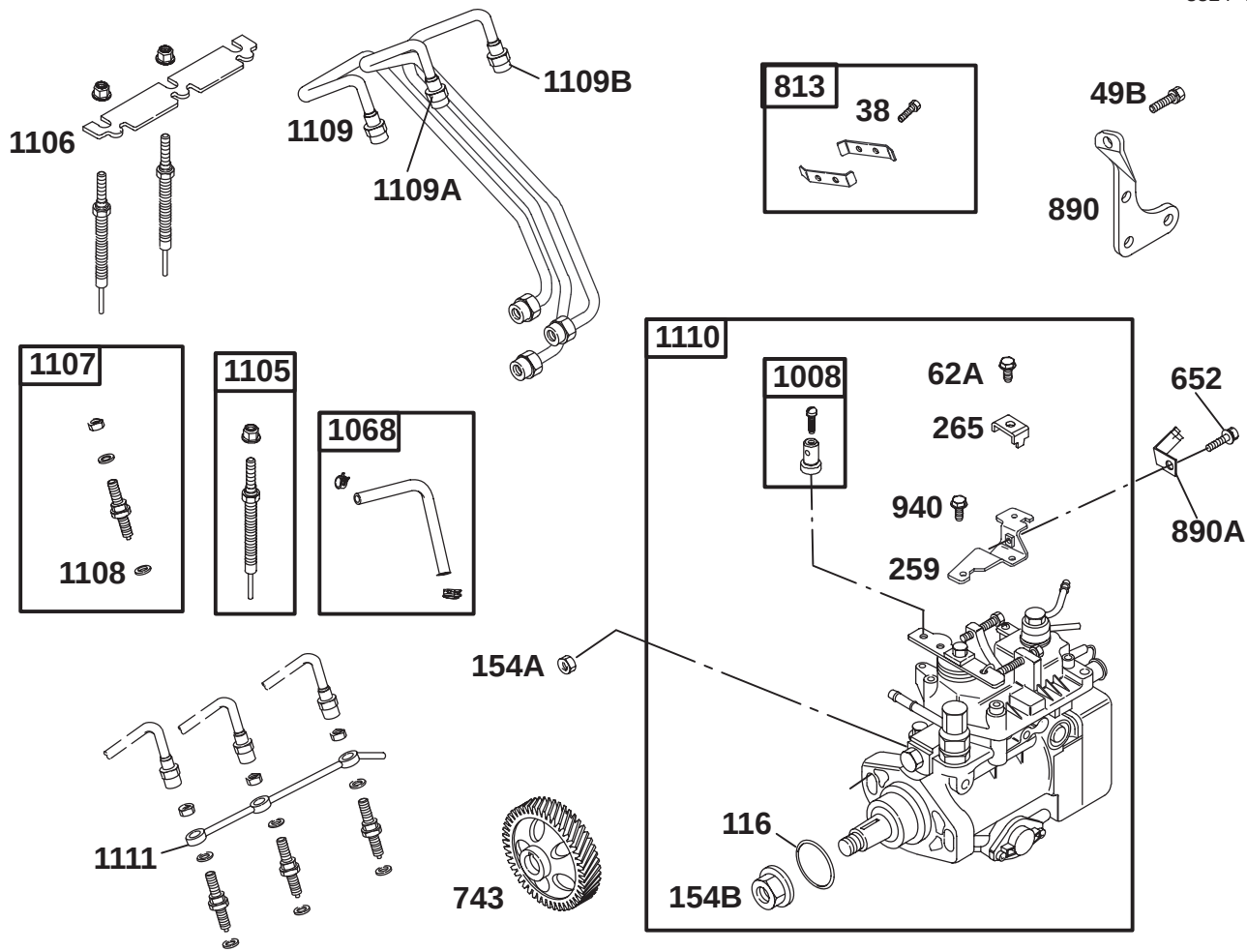
522447-0107-E2 TORO DIESEL

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
∇05	99-9611	1	Head-Cylinder				
★Δ07	99-9612	1	Gasket-Cylinder Head				
★Δ1022	99-9073	1	Gasket-Rocker Cover				
1023	100-6402	1	Cover-Rocker				
1036	99-9615	1	Label Kit-Emission				
1077	99-9076	1	Bracket-Lifting				
1077A	99-9077	1	Bracket-Lifting				
11	99-9613	1	Tube-Breather				
112A	99-9057	2	Stud-Metric				
112C	99-9059	1	Stud-Metric				
112B	99-9058	5	Stud-Metric				
127	99-9008	2	Plug-Welch				
127B	99-9060	2	Plug-Welch				
13	99-9614	14	Screw-Metric				
149	99-9061	3	Nut-Metric Hex				
21	99-9052	1	Cap-Oil Fill				
★Δ355	99-9063	3	Washer-Seal				
49A	99-9054	2	Screw-8mm Hex				
54	99-9055	2	Stud-Metric				
615	99-9067	6	Retainer				
830	99-9101	3	Stud-Rocker Arm				
∇871	99-9070	6	Bushing-Guide				

∇ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

Δ Included in Valve Overhaul Kit – Part Number 99-9668



522447-0107-E2 TORO DIESEL

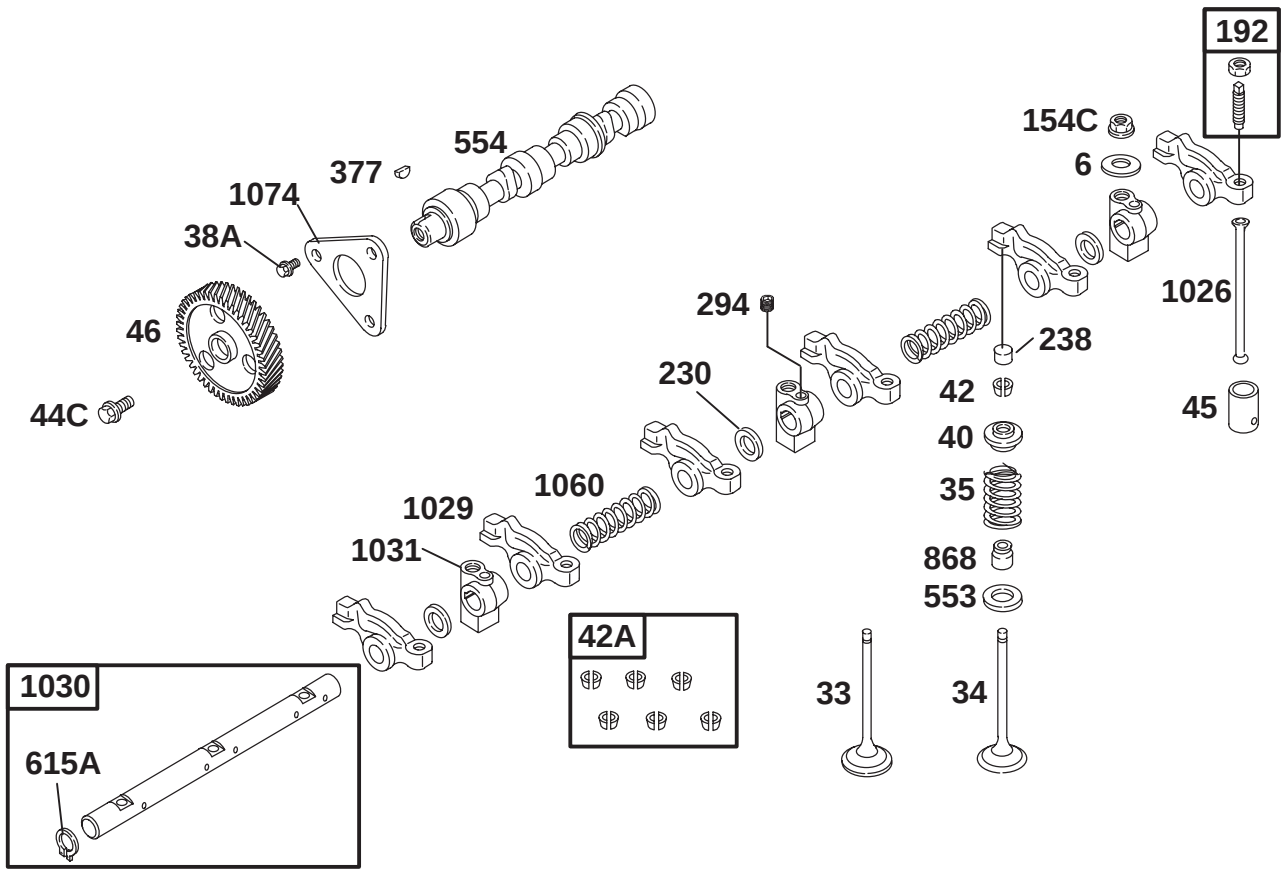
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
1008	99-9628	1	Clamp-Swivel				
1068	99-9629	1	Hose/Clamp Assembly				
1105	99-9630	3	Plug-Glow				
1106	99-9631	1	Strap-Glow Plug				
1107	99-9632	3	Nozzle-Injector				
1108	99-9633	3	Seat-Injector				
1109	99-9690	1	Pipe-Injector #1				
1109A	99-9634	1	Pipe-Injector #2				
1109B	99-9635	1	Pipe-Injector #3				
1110	100-6404	1	Pump-Injection				
1111	99-9637	1	Pipe-Fuel Return				
116	99-9618	1	Seal-O-Ring				
154A	99-9619	2	Nut-Metric Hex				
154B	99-9620	1	Nut-Metric Hex				
259	99-9621	1	Bracket-Casing Clamp				
265	99-9622	1	Clamp-Casing				
38	99-9004	2	Screw-Hex				
49B	99-9616	4	Screw-8mm Hex				
62A	100-6403	1	Screw-Metric				
743	99-9624	1	Gear-Drive				
813		1	Clamp				
890	99-9626	1	Bracket-Support				
940	100-6410	2	Screw-Hex				

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

△ Included in Valve Overhaul Kit – Part Number 99-9668

Assemblies include all parts shown in frames.



522447-0107-E2 TORO DIESEL

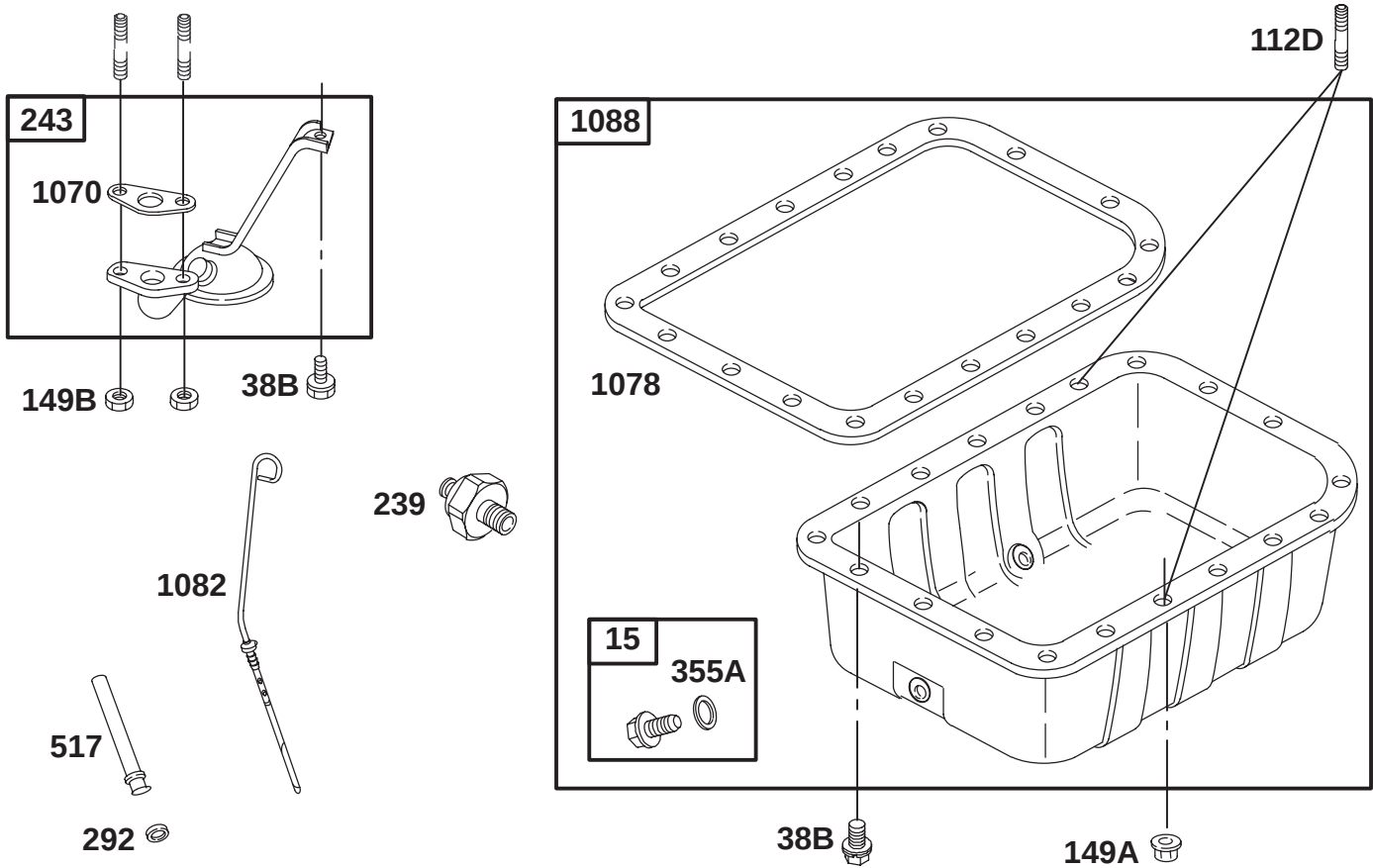
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
06	99-9079	3	Washer-Flat	615A	99-9099	2	Retainer
1026	99-9103	6	Rod-Push	★868	99-9643	6	Seal-Valve
▽1029	99-9104	1	Arm-Rocker				
▽1030	99-9106	1	Shaft-Rocker Arm				
▽1031	99-9107	3	Support-Rocker Arm				
▽1060	99-9108	2	Spring-Rocker Shaft				
1074	99-9109	1	Retainer-Camshaft				
154C	99-9091	3	Nut-Metric Hex				
192	99-9092	6	Adjuster-Rocker Arm				
▽230	99-9093	3	Washer-Spacer				
238	99-9094	6	Cap-Valve				
294	99-9090	1	Screw-Metric				
33	99-9638	3	Valve-Exhaust				
34	99-9639	3	Valve-Intake				
35	99-9640	6	Spring-Valve				
377	99-9642	1	Key-Timing				
38A	99-9083	3	Screw-6mm Hex				
40	99-9084	6	Retainer-Valve				
42	99-9086	1	Keeper-Valve				
42A	99-9087	6	Keeper-Valve (Set Of 6)				
44C	99-9085	1	Screw-Metric				
45	99-9088	6	Tappet-Valve				
▽46	99-9641	1	Gear-Cam				
553	99-9096	6	Seat-Valve Spring				
554	99-9097	1	Shaft-Cam				

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

△ Included in Valve Overhaul Kit – Part Number 99-9668

40 Assemblies include all parts shown in frames.



522447-0107-E2 TORO DIESEL

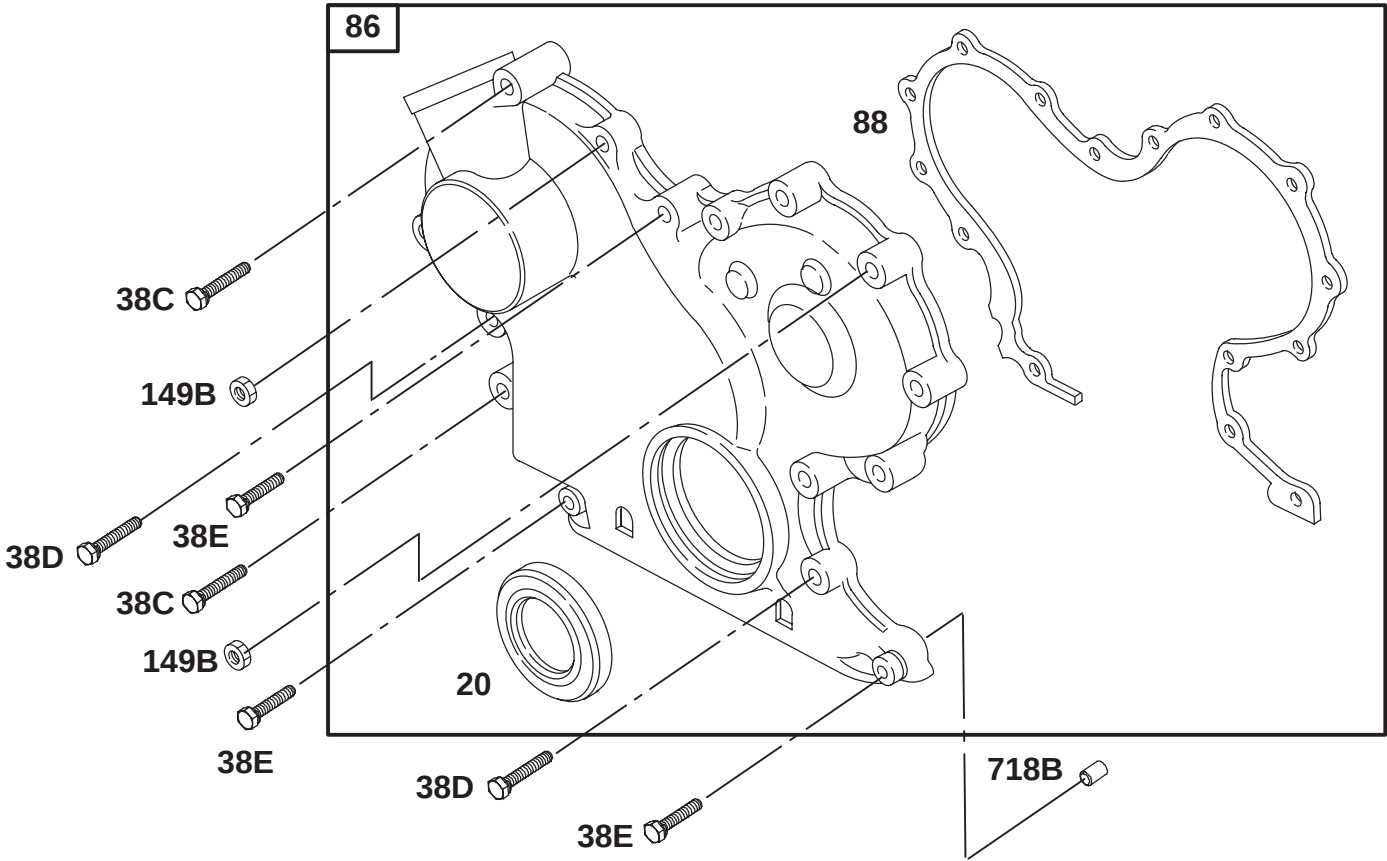
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
★1070	99-9120	1	Gasket-Oil Strainer				
★1078	99-9121	1	Gasket-Oil Pan				
1082	100-6405	1	Dipstick				
▽1088	99-9649	1	Pan-Oil				
112D	99-9112	2	Stud-Metric				
149A	99-9113	2	Nut-Metric Hex				
149B	99-9114	2	Nut-Metric Hex				
15	99-9644	1	Plug-Oil Drain				
239	99-9115	1	Switch-Oil Pressure				
▽243	99-9116	1	Screen-Oil Pump				
292	99-9265	1	O-Ring Seal (Dipstick)				
★355A	99-9645	1	Washer-Seal				
38B	99-9111	18	Screw-6mm Hex				
517	100-6406	1	Tube-Dipstick				

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

△ Included in Valve Overhaul Kit – Part Number 99-9668

Assemblies include all parts shown in frames.



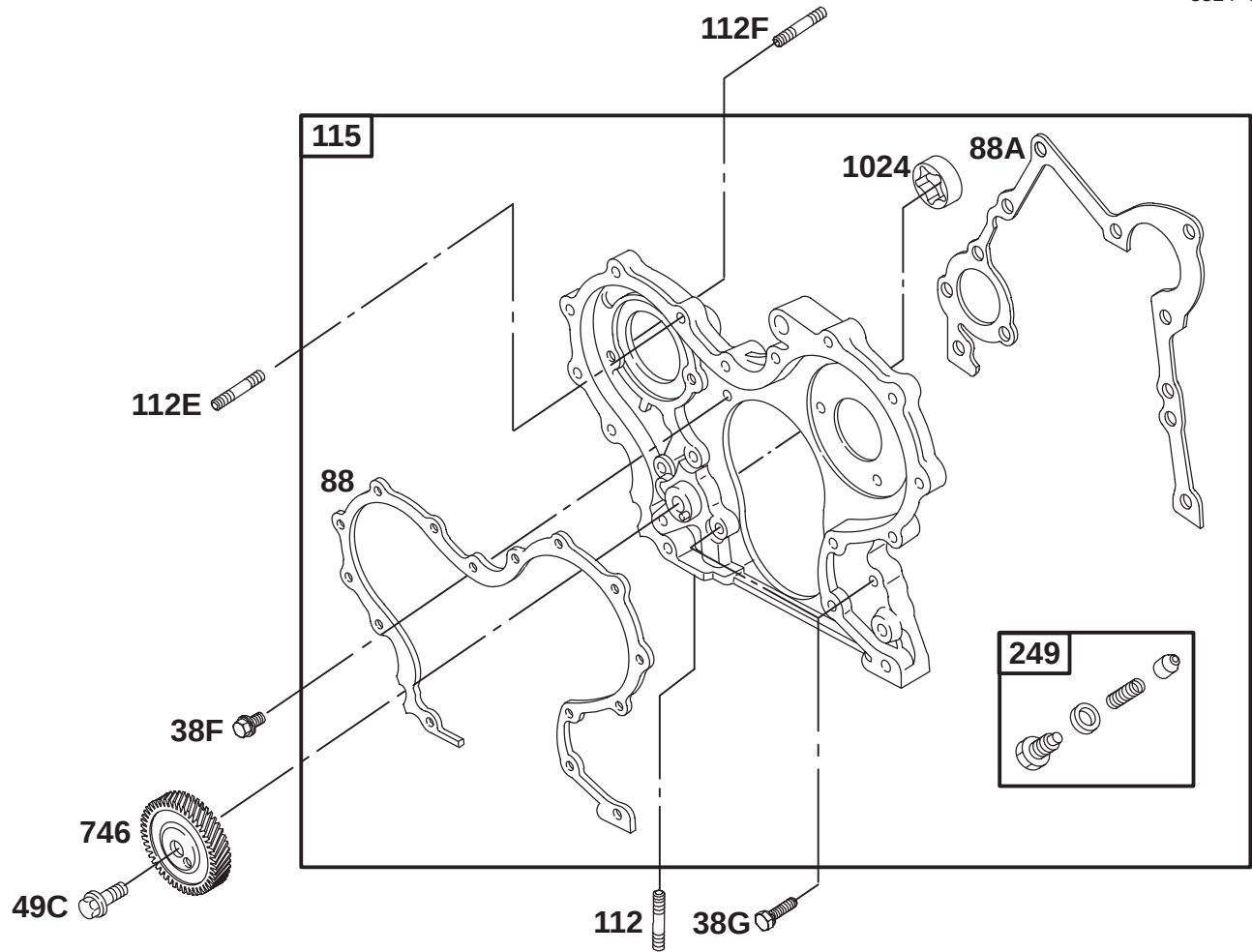
522447-0107-E2 TORO DIESEL

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
149B	99-9114	2	Nut-Metric Hex				
★20	99-9126	1	Seal-Oil				
38C	99-9651	2	Screw-6mm Hex				
38D	99-9128	9	Screw-6mm Hex				
38E	99-9129	3	Screw-6mm Hex				
718B	99-9014	1	Pin-Locating				
▽86	99-9652	1	Cover-Assembly-Gear				
★88	99-9653	1	Gasket-Gear Cover				

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

△ Included in Valve Overhaul Kit – Part Number 99-9668



522447-0107-E2 TORO DIESEL

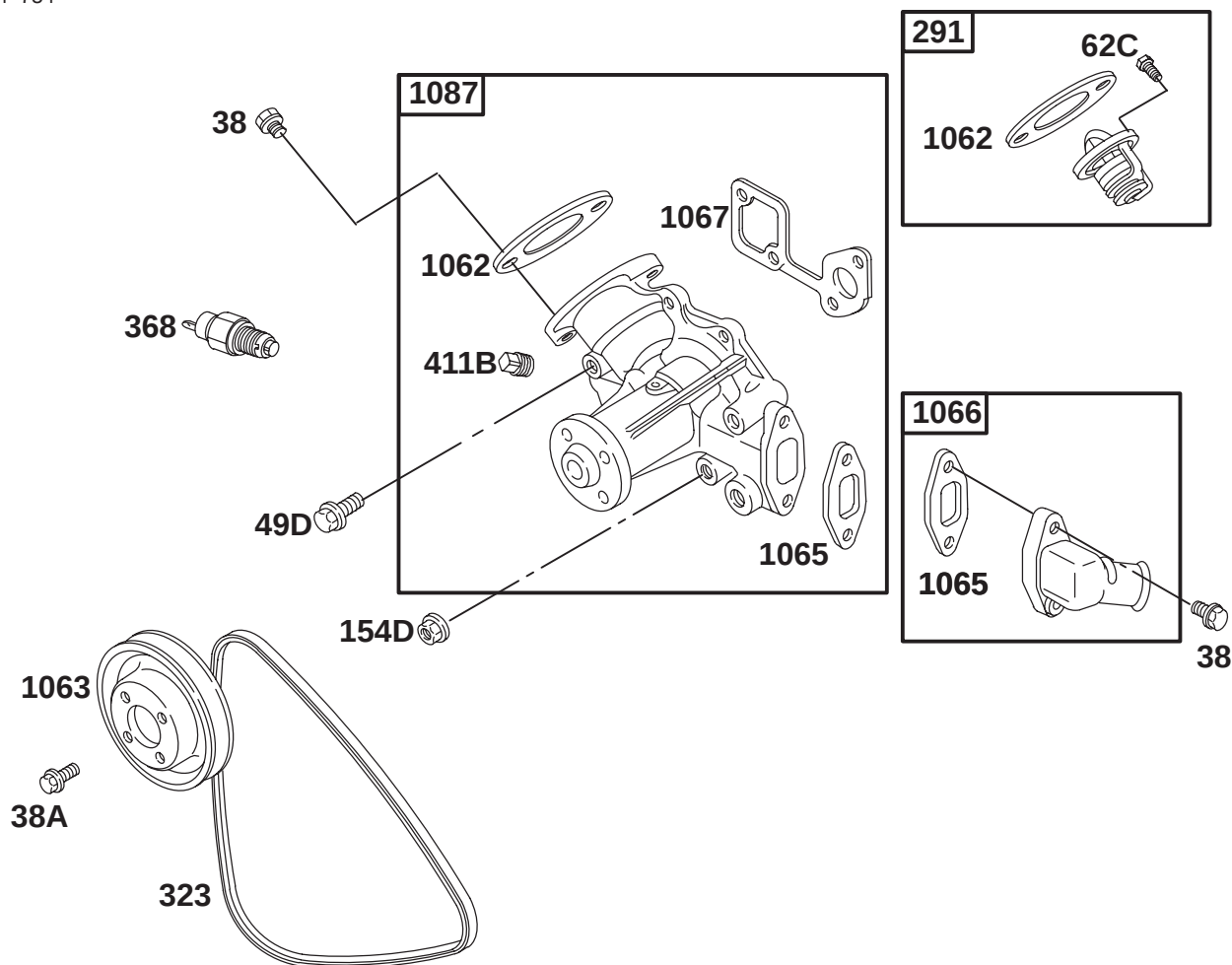
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
112	99-9007	1	Stud-Metric				
112E	99-9137	2	Stud-Metric				
112F	99-9654	2	Stud-Metric				
∇115	99-9655	1	Housing-Gear				
∇249	99-9142	1	Valve-Oil Relief				
38F	99-9134	1	Screw-6mm Hex				
38G	99-9133	4	Screw-6mm Hex				
49C	99-9135	1	Screw-8mm Hex				
∇746	99-9656	1	Gear-Drive				
★88	99-9653	1	Gasket-Gear Cover				
★88A	99-9136	1	Gasket-Gear Cover				
1024			Gear-Drive Pump-Oil (Sold in Gear Housing Only, Ref. 115)				

∇ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

△ Included in Valve Overhaul Kit – Part Number 99-9668

Assemblies include all parts shown in frames.



522447-0107-E2 TORO DIESEL

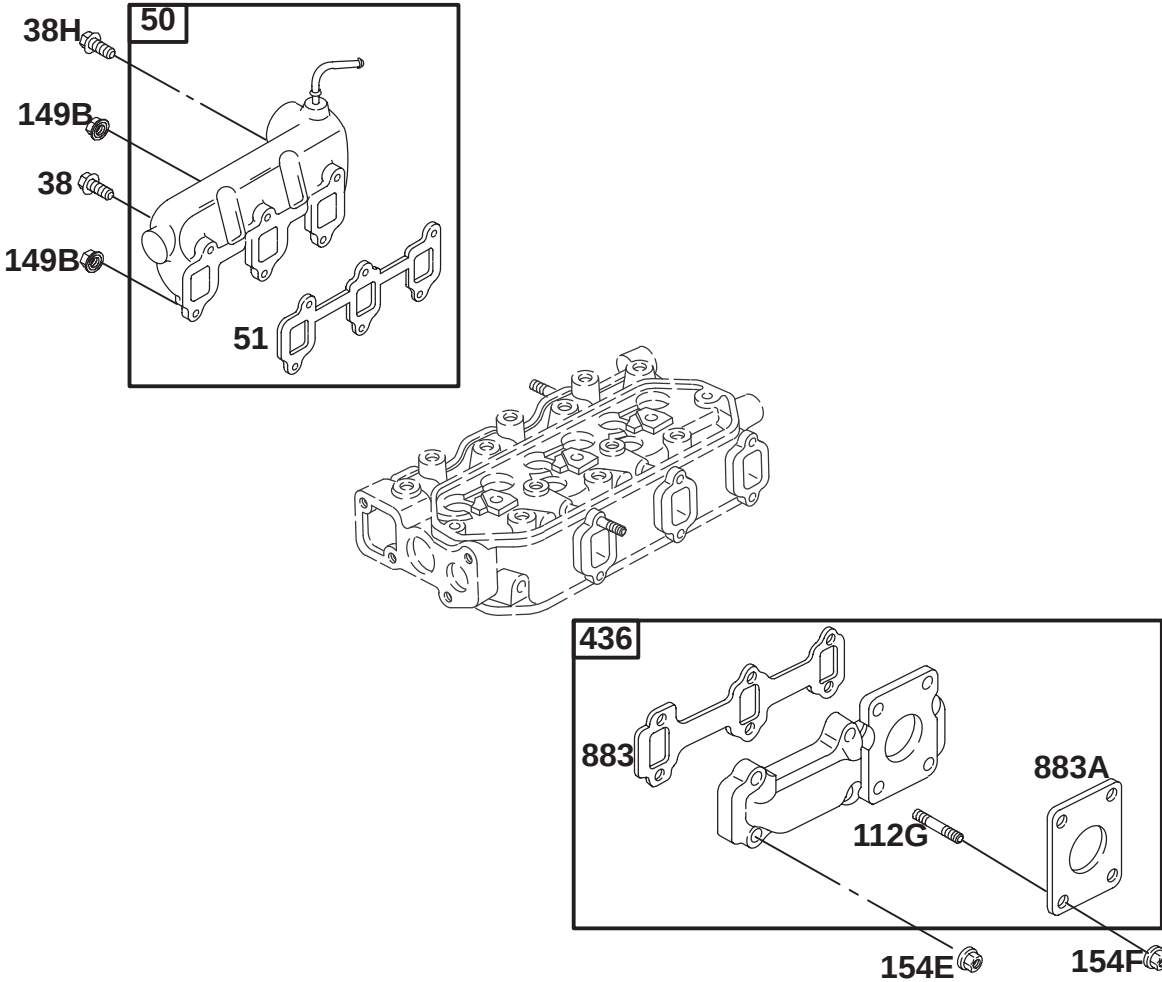
Ref. No.	Part No.	Qty.	Description
★1062	99-9163	1	Gasket-Outlet
1063	99-9164	1	Pulley-Pump
★1065	99-9166	1	Gasket-Inlet Housing
1066	99-9167	1	Housing-Inlet
★Δ1067	99-9168	1	Gasket-Water Pump
1087	99-9659	1	Pump-Water
154D	99-9153	1	Nut-Metric Hex
291	99-9155	1	Thermostat
▽323	99-8153	1	Belt-V
368	99-9157	1	Switch-Water Temp.
38	99-9004	2	Screw-Hex
38A	99-9111	4	Screw-6mm Hex
411B	99-9159	1	Plug
49D	99-9151	2	Screw-8mm Hex
62C	99-9152	1	Screw-Metric
839	93-2090	1	Fan - Engine, 280 Mm

Ref. No.	Part No.	Qty.	Description
OTOTYPE			

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

Δ Included in Valve Overhaul Kit – Part Number 99-9668



522447-0107-E2 TORO DIESEL

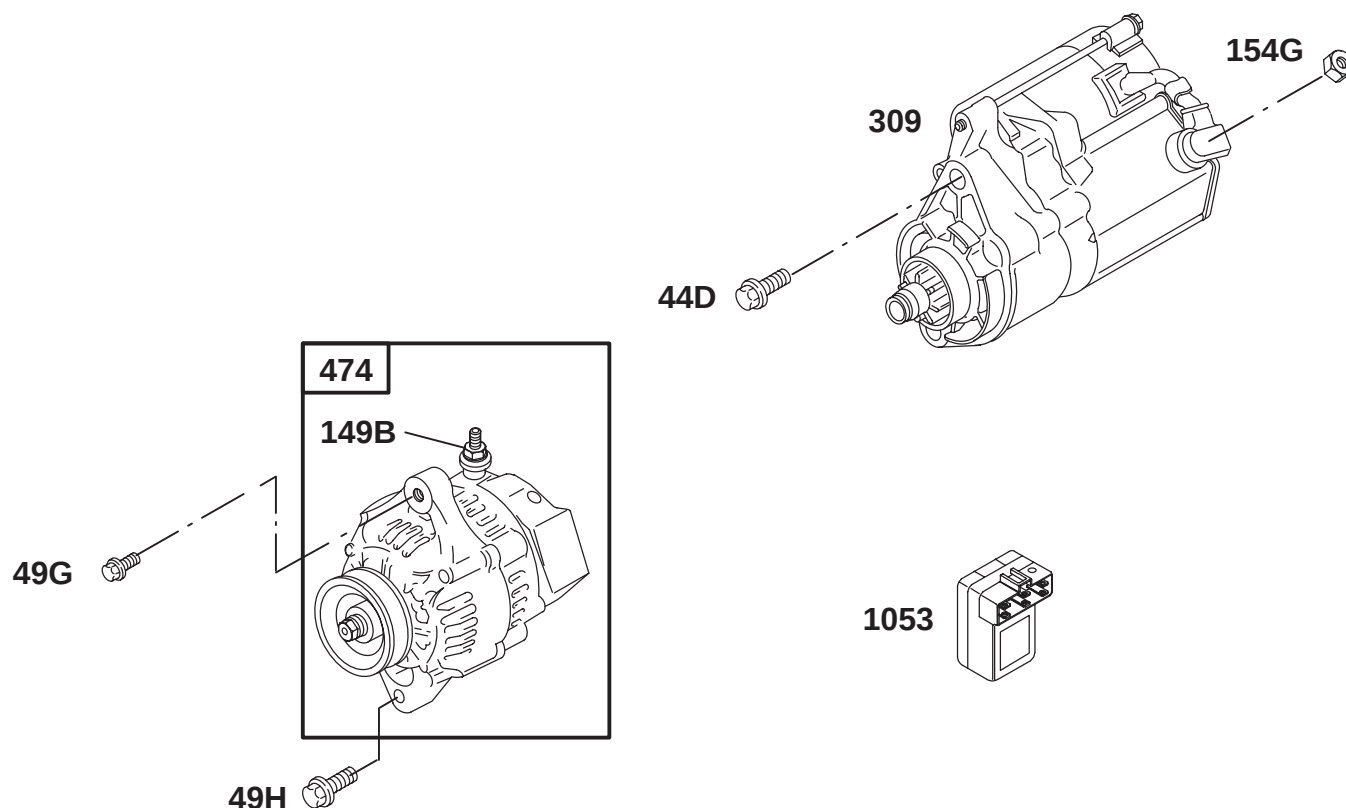
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
112G	100-6407	4	Stud-Exhaust Manifold				
149B	99-9114	2	Nut-Metric Hex				
154E	99-9175	6	Nut-Metric Hex				
154F	99-9176	4	Nut-Metric Hex				
38	99-9004	1	Screw-Hex				
38H	99-9660	3	Screw-6mm Hex				
∇436	99-9177	1	Manifold-Exhaust				
∇50	99-9661	1	Manifold-Intake				
★Δ51	99-9662	1	Gasket-Intake				
★Δ883	99-9178	1	Gasket-Exhaust				
★883A	99-9179	1	Gasket-Exhaust				

∇ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

Δ Included in Valve Overhaul Kit – Part Number 99-9668

Assemblies include all parts shown in frames.



522447-0107-E2 TORO DIESEL

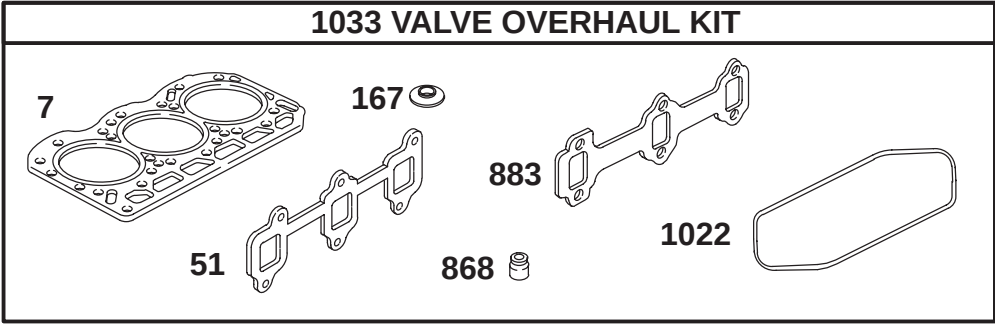
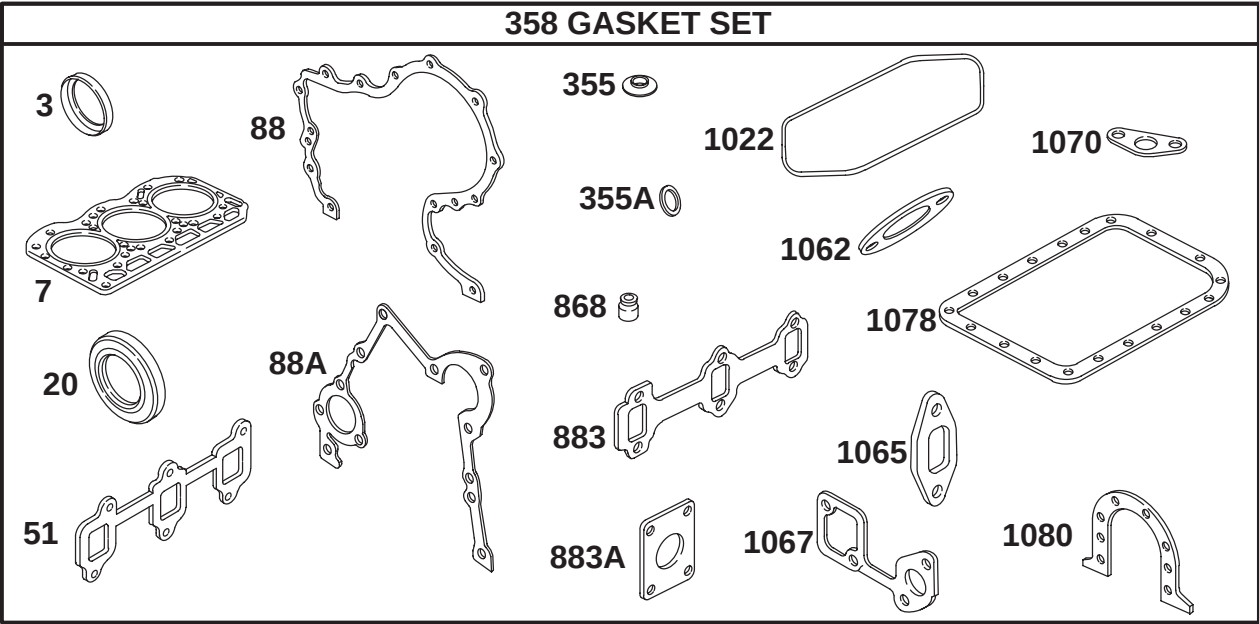
Ref. No.	Part No.	Qty.	Description
1053	99-9666	1	Module
149B	99-9114	1	Nut-Metric Hex
154G	99-9206	1	Nut-Metric Hex
▽309	99-9693	1	Motor-Starter
44D	99-9201	2	Screw-10mm Hex
474	99-9209	1	Alternator

Ref. No.	Part No.	Qty.	Description
OTOTYPE			

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

Δ Included in Valve Overhaul Kit – Part Number 99-9668



522447-0107-E2 TORO DIESEL

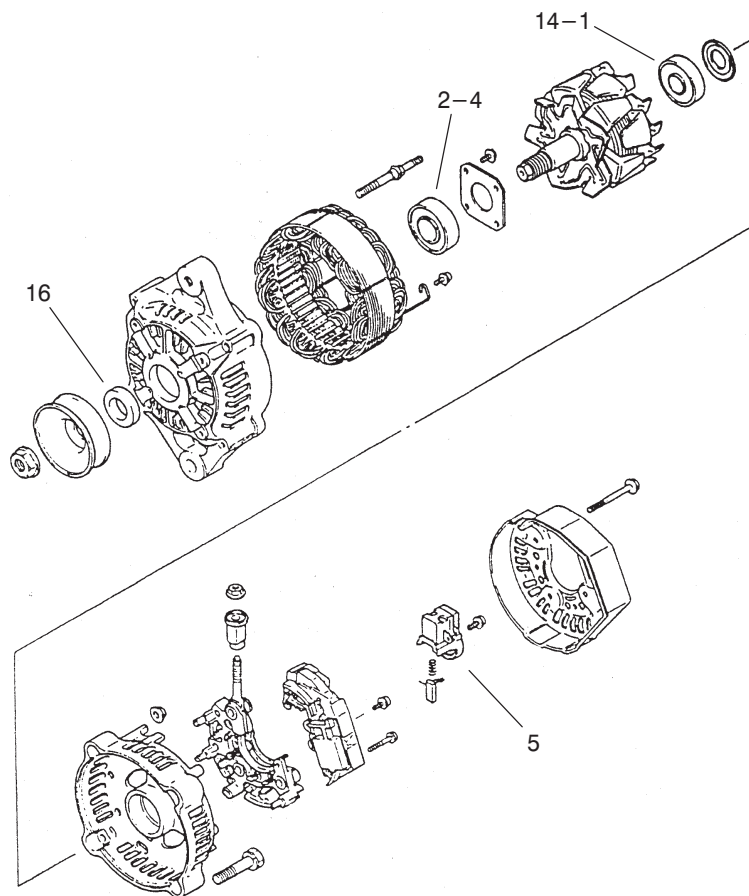
Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
★03	99-9003	1	Seal-Oil				
★Δ07	99-9612	1	Gasket-Cylinder Head				
★Δ1022	99-9073	1	Gasket-Rocker Cover				
1033	99-9668	1	Kit-Valve Overhaul				
★1062	99-9163	1	Gasket-Outlet				
★1065	99-9166	1	Gasket-Inlet Housing				
★Δ1067	99-9168	1	Gasket-Water Pump				
★1070	99-9120	1	Gasket-Oil Strainer				
★1078	99-9121	1	Gasket-Oil Pan				
★1080	99-9021	1	Gasket-Retainer				
★20	99-9126	1	Seal-Oil				
★Δ355	99-9063	1	Washer-Seal				
★355A	99-9645	1	Washer-Seal				
358	99-9667	1	Gasket-Set				
★Δ51	99-9662	1	Gasket-Intake				
★Δ868	99-9643	6	Seal-Valve				
★88	99-9653	1	Gasket-Gear Cover				
★Δ883	99-9178	1	Gasket-Exhaust				
★883A	99-9179	1	Gasket-Exhaust				
★88A	99-9136	1	Gasket-gear Cover				

▽ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.

★ Included in Gasket Set – Part Number 99-9667

Δ Included in Valve Overhaul Kit – Part Number 99-9668

Assemblies include all parts shown in frames.



Sheet No.: 0

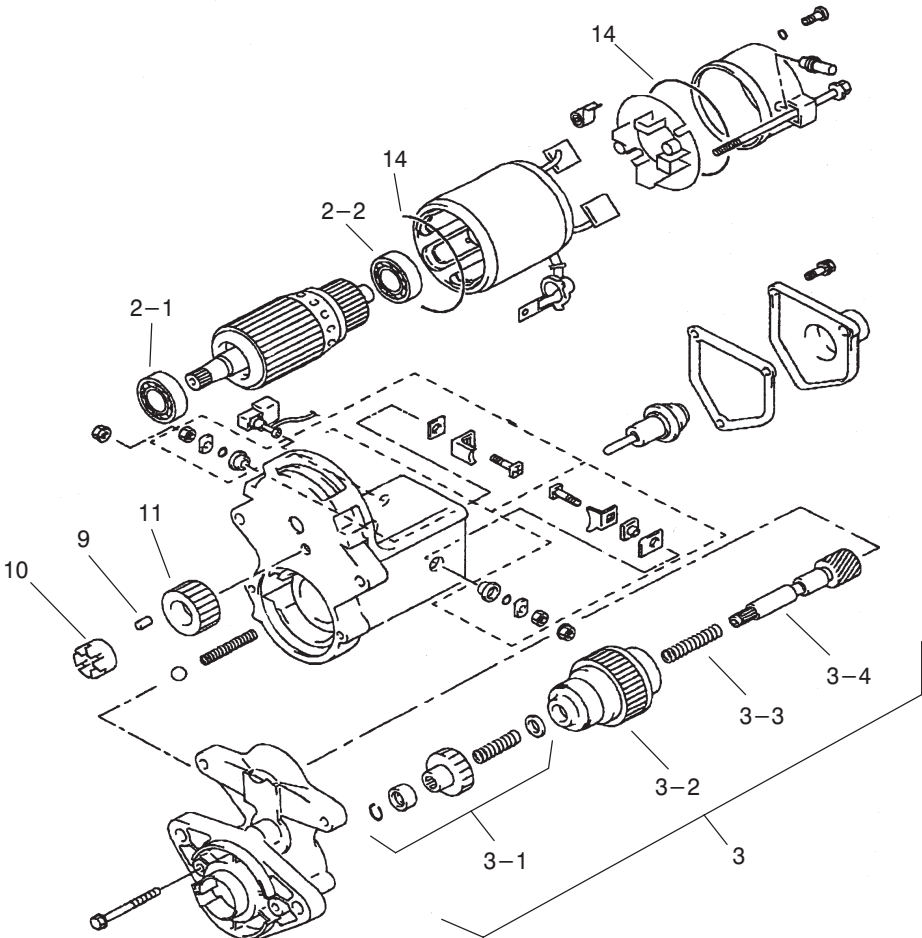
T-3540

Alternator Assembly No. 99-9209

Ref. No.	Part No.	Qty.	Description
14-1	100-5317	1	Bearing
16	100-5315	1	Collar
2-4	100-5316	1	Bearing
5	100-5318	1	Brush Holder ASM

Ref. No.	Part No.	Qty.	Description
OTOTYPE			

PROTOTYPE



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Starter Assembly No. 99-9693

Ref. No.	Part No.	Qty.	Description	Ref. No.	Part No.	Qty.	Description
10	100-5322	1	Retainer	PROTOTYPE			
11	100-5323	1	Pinion, Starter				
14	100-5329	2	O-Ring				
2-1	100-5319	1	Bearing				
2-2	100-5320	1	Bearing				
3	100-5324	1	Clutch Sub-ASM, Starter				
3-1	100-5325	1	Starter Kit				
3-2	100-5326	1	Clutch-Starter				
3-3	100-5327	1	Spring				
3-4	100-5328	1	Shaft				
9	100-5321	5	Roller-clutch				

PROTOTYPE



PROTOTYPE