Form No. 3324-893 Rev. A

Traction Unit

for Greensmaster® 3250-D

Model No. 04383—200000943 and Up

Parts Catalog

PROTOTYPE

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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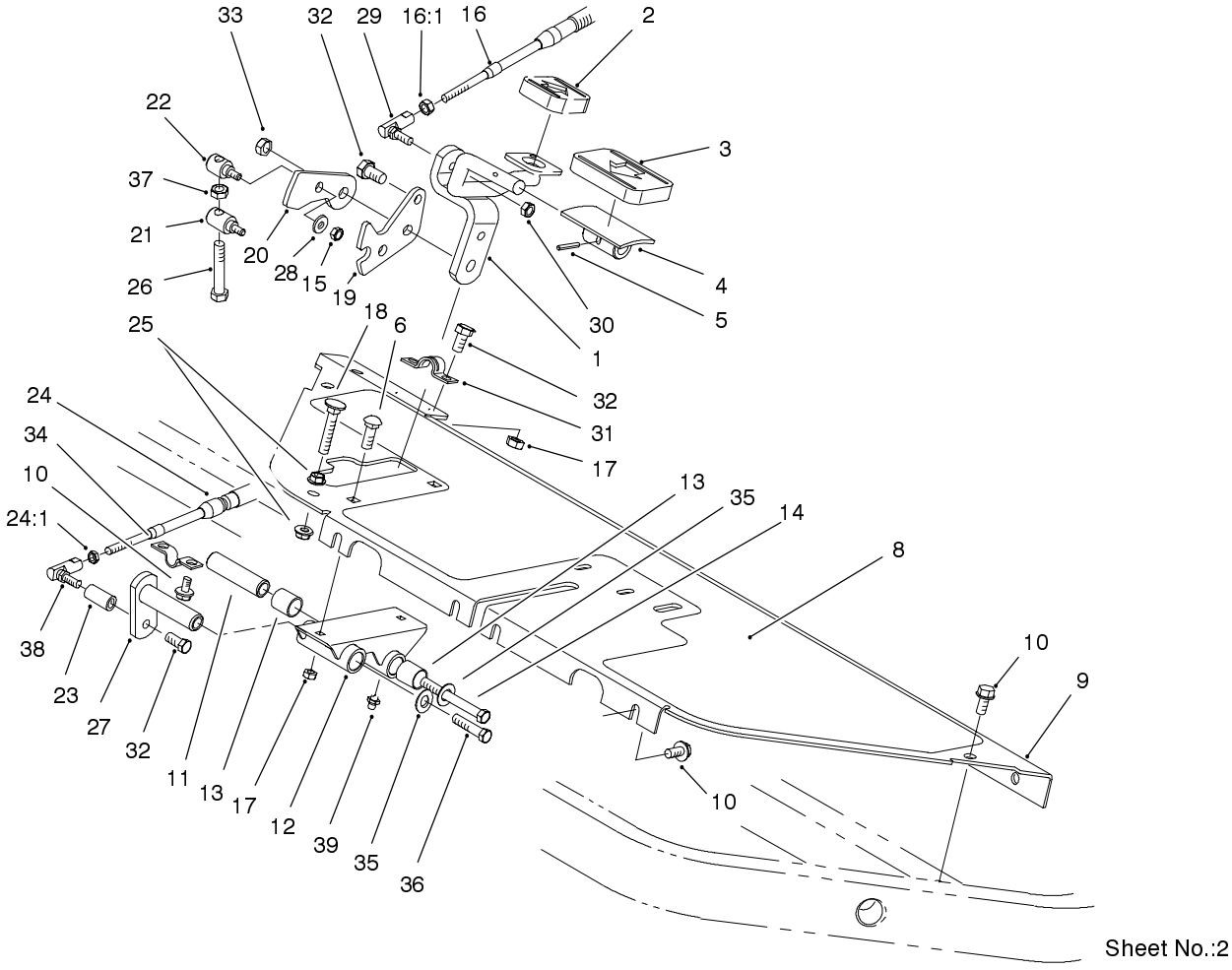
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Part Description Abbreviations

Part descriptions in this catalog may include the following abbreviations.

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

PROTOTYPE



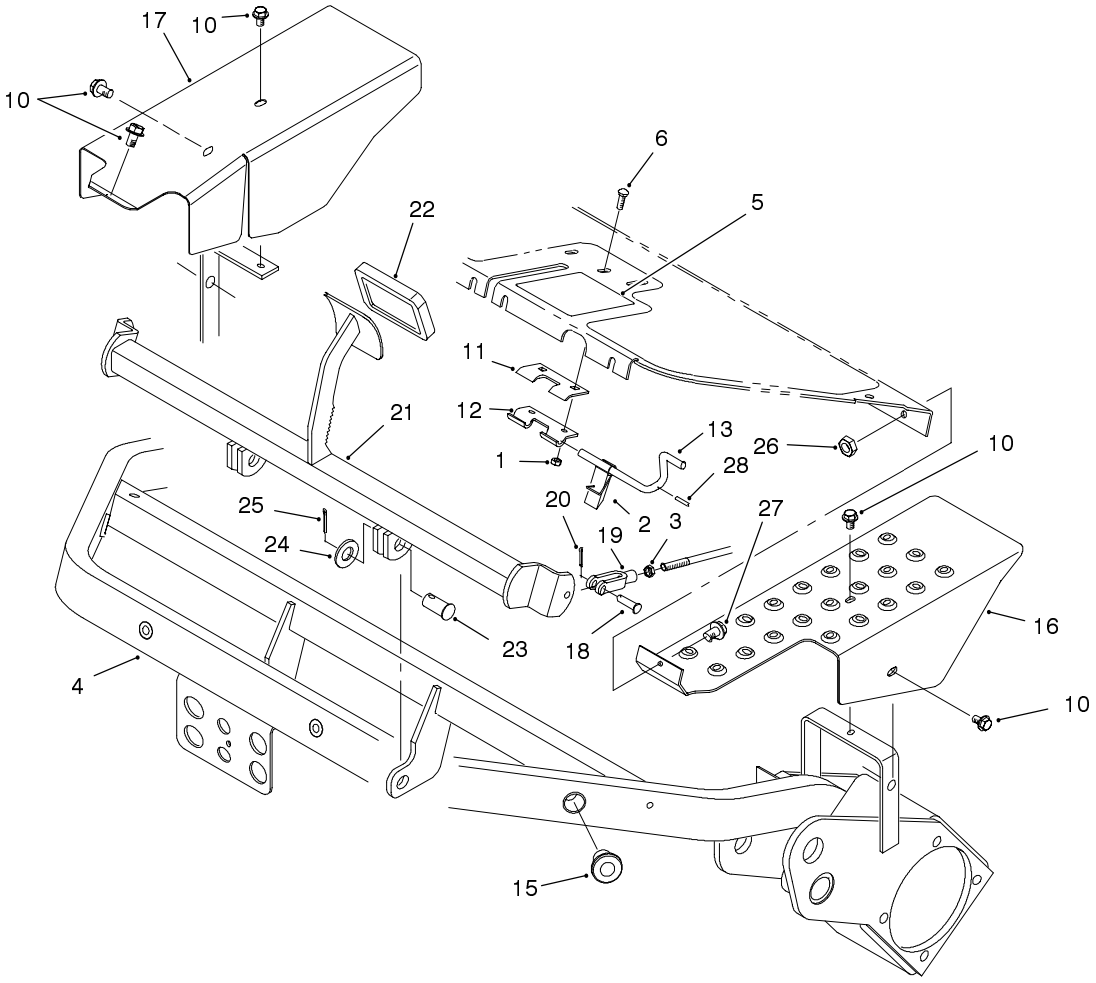
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Traction Control Assembly

Ref. No.	Part No.	Qty.	Description
1	93-2085-01	1	Rod
2	74-9110	1	Pad-Pedal, Reverse
3	74-9100	1	Pad-Pedal, Forward
4	49-6440-03	1	Pedal-Forward
5	32121-45	1	Pin-Spring
6	33124-020	2	Screw-CARR
8	93-2142	1	Pad-Plate, Floor
9	94-6399-01	1	Plate - Floor
10	32144-14	8	Screw-HWH
11	94-1371	1	Spacer
12	94-1383	1	Pedal - Pivot
13	256-311	4	Bushing-Split
14	33115-090	1	Screw-HH
15	33023-00	2	Nut-Lock
16	93-2099	1	Cable-Control, Traction
16:1	3220-1	2	Nut-Jam
17	33024-00	4	Nut-Lock
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

Ref. No.	Part No.	Qty.	Description
24	94-1304	1	Cable-Lock, Neutral
24:1	3219-14	2	Nut-Hex
25	32128-20	2	Nut-HF
26	94-3489	1	Capscrew-HH
27	94-1300	1	Lock-Neutral
28	3256-1	2	Washer-Flat
29	2411-34	1	Joint-Ball
30	3296-13	1	Nut-Lock NI
31	93-2092	1	Clamp - Cable
32	33114-016	2	Screw-HH
33	33025-00	1	Nut-Lock
34	93-2279	1	Clamp - Cable
35	3256-24	2	Washer-Flat
36	33115-016	1	Screw-HH
37	33014-00	1	Nut-Hex
38	2411-38	1	Joint-Ball
39	302-5	1	Fitting - Grease

PROTOTYPE



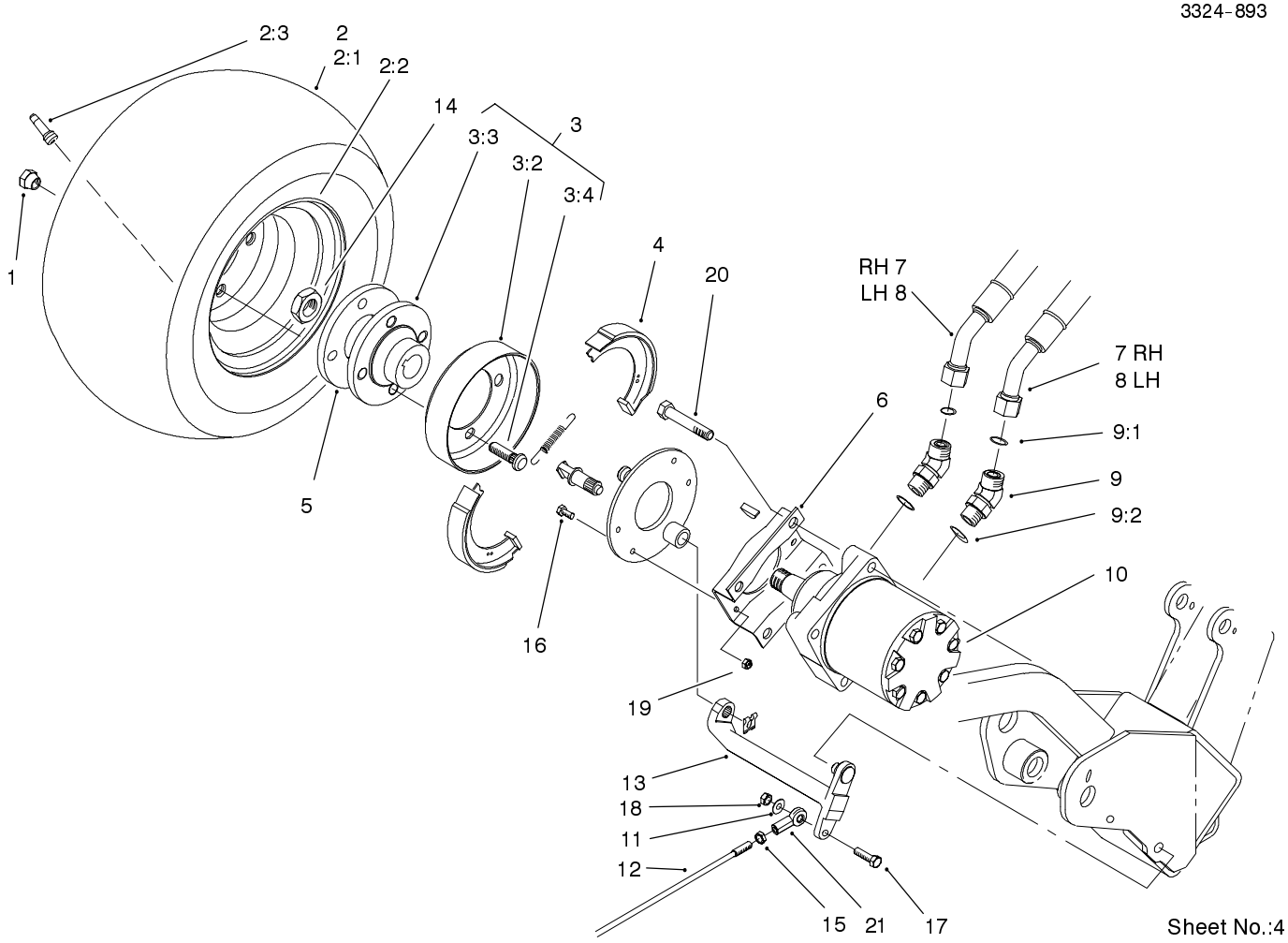
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Brake Pedal Assembly

Ref. No.	Part No.	Qty.	Description
1	33023-00	2	Nut-Lock
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
27	33114-020	1	Screw-HH
28	32121-50	1	Pin-Spring

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



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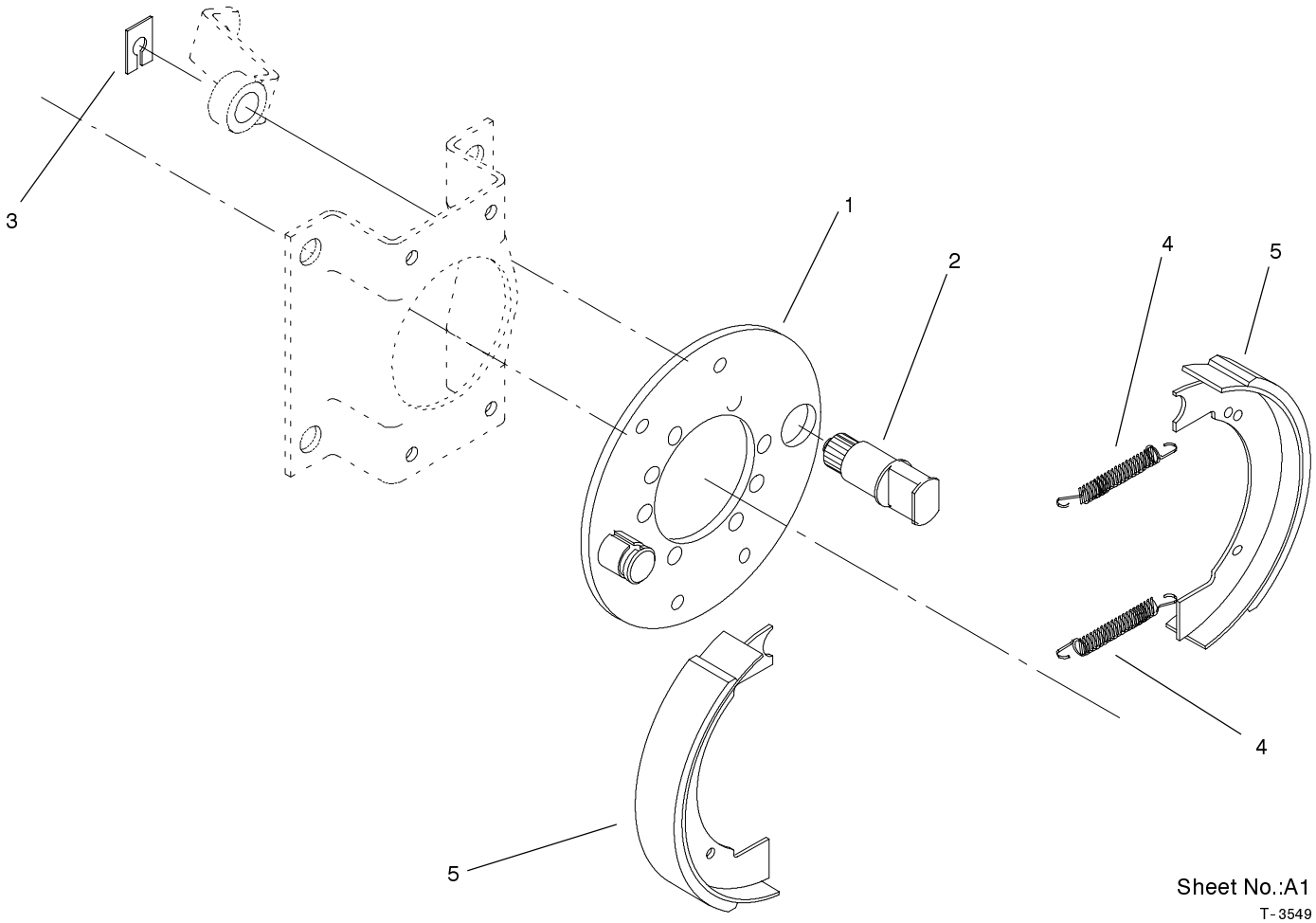
Front Wheel and Brake Assembly

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

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

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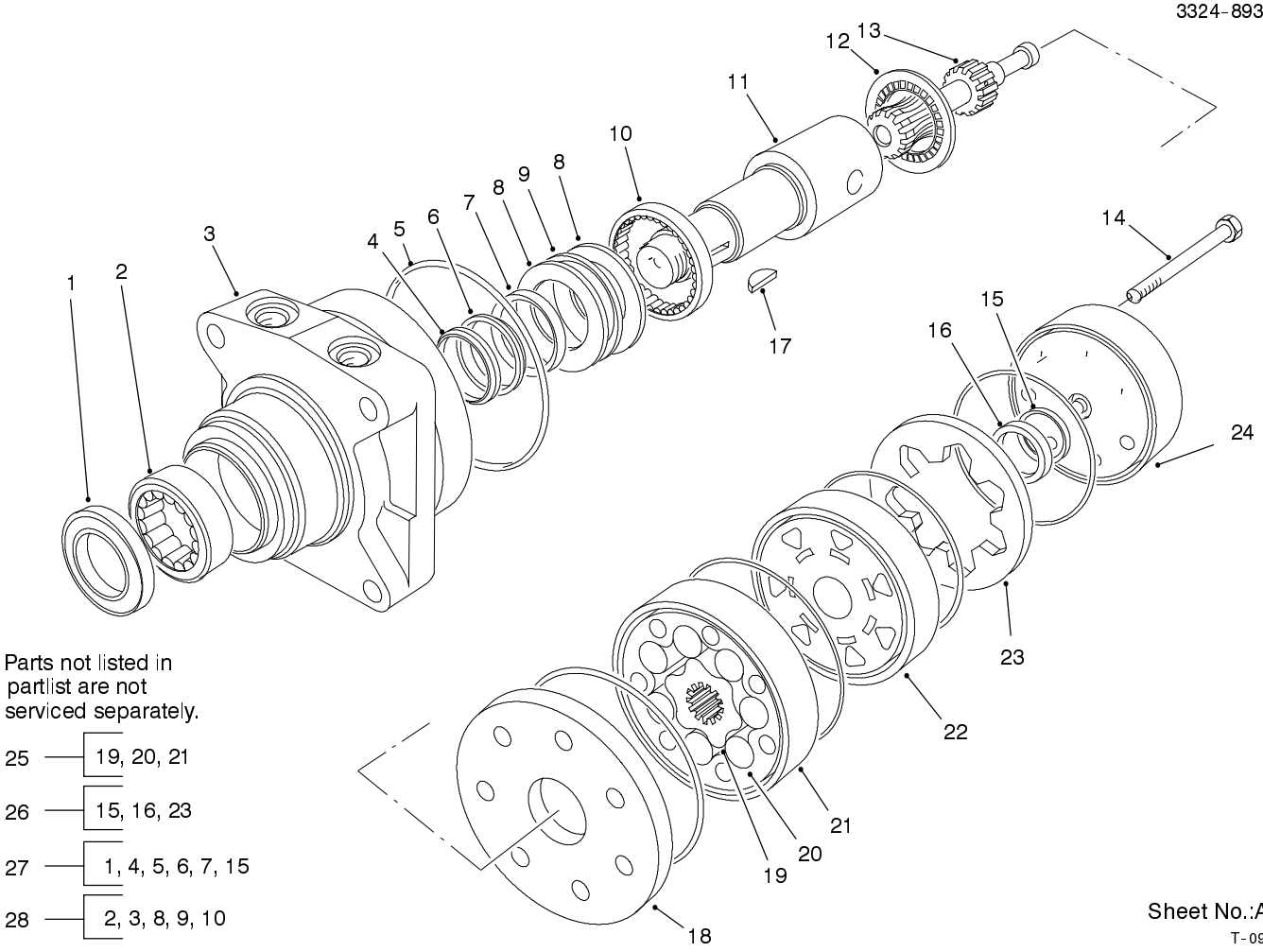
T-3549

Brake Assembly No. 71-1500

Ref. No.	Part No.	Qty.	Description
1	70-9870	1	Plate-Backing
2	70-9860	1	Cam-Brake
3	70-9850	1	Clip-Retaining
4	70-9880	2	Spring-Return
5	70-9840	2	Shoe-Brake

Ref. No.	Part No.	Qty.	Description

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Parts not listed in partlist are not serviced separately.

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

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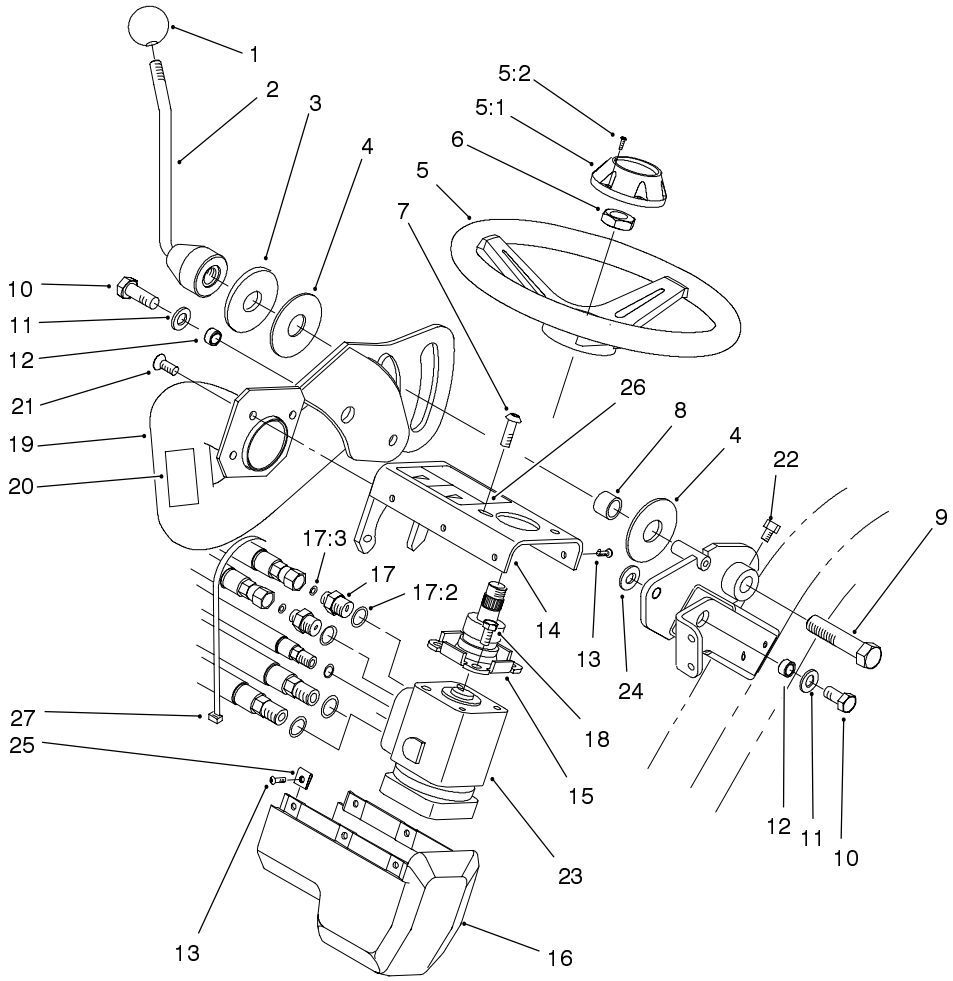
T-0983

Hydraulic Motor Assembly No. 92-9199

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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



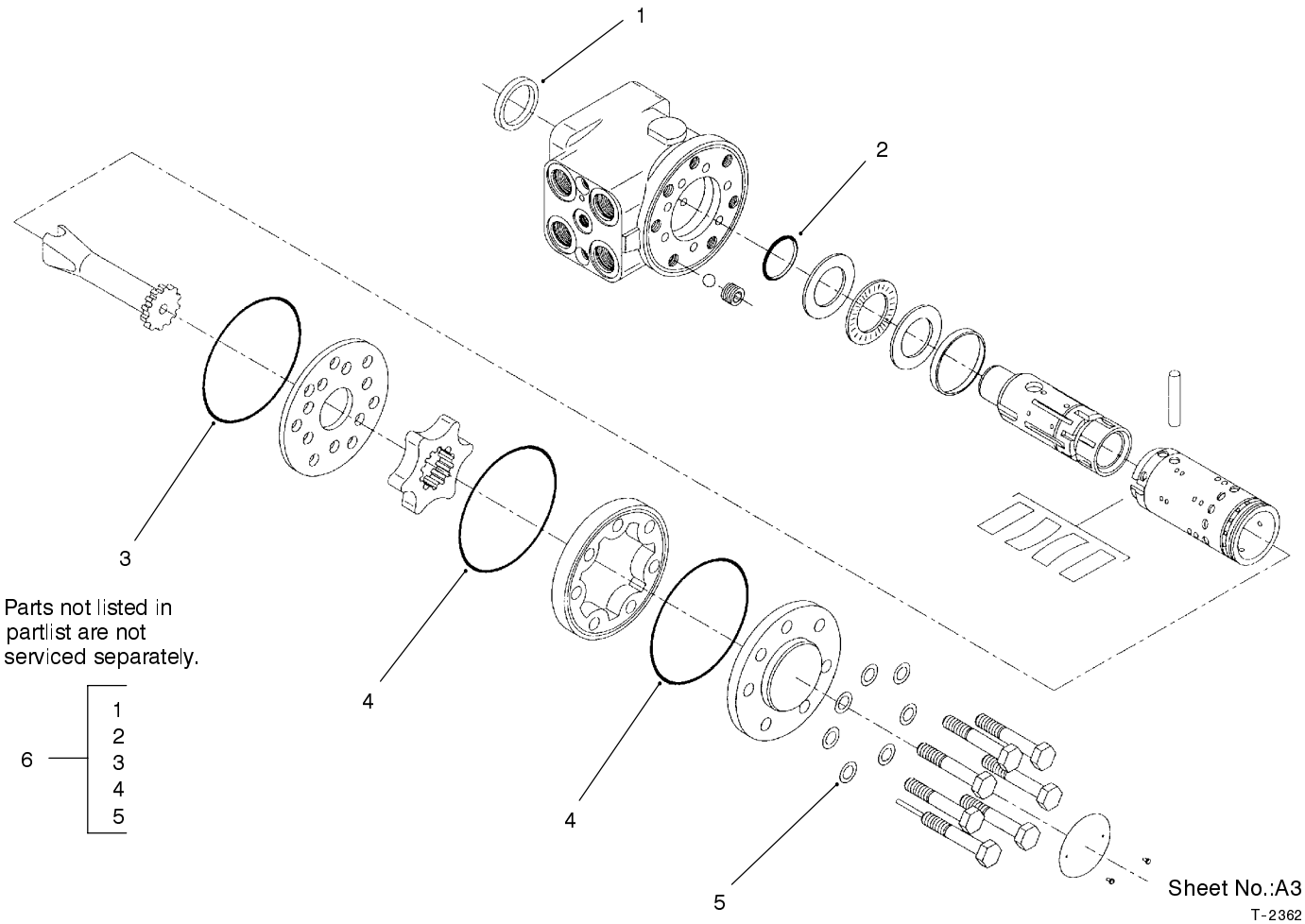
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Steering Arm Assembly

Ref. No.	Part No.	Qty.	Description
1	233-48	1	Knob
2	93-2400-03	1	Handle-Lockup
3	83-0760	1	Spacer-Plate, Lockup
4	83-0740	2	Disc - Friction
5	68-5130	1	Wheel-Steering
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

Ref. No.	Part No.	Qty.	Description
23	93-2120	1	Valve-Control, Steering
24	65-6390	1	Washer - Thrust, Plain
25	3290-277	6	Nut-Speed
26	93-8063	1	Decal-Warning (Int'l)
27	3290-379	1	Tie-Cable

PROTOTYPE

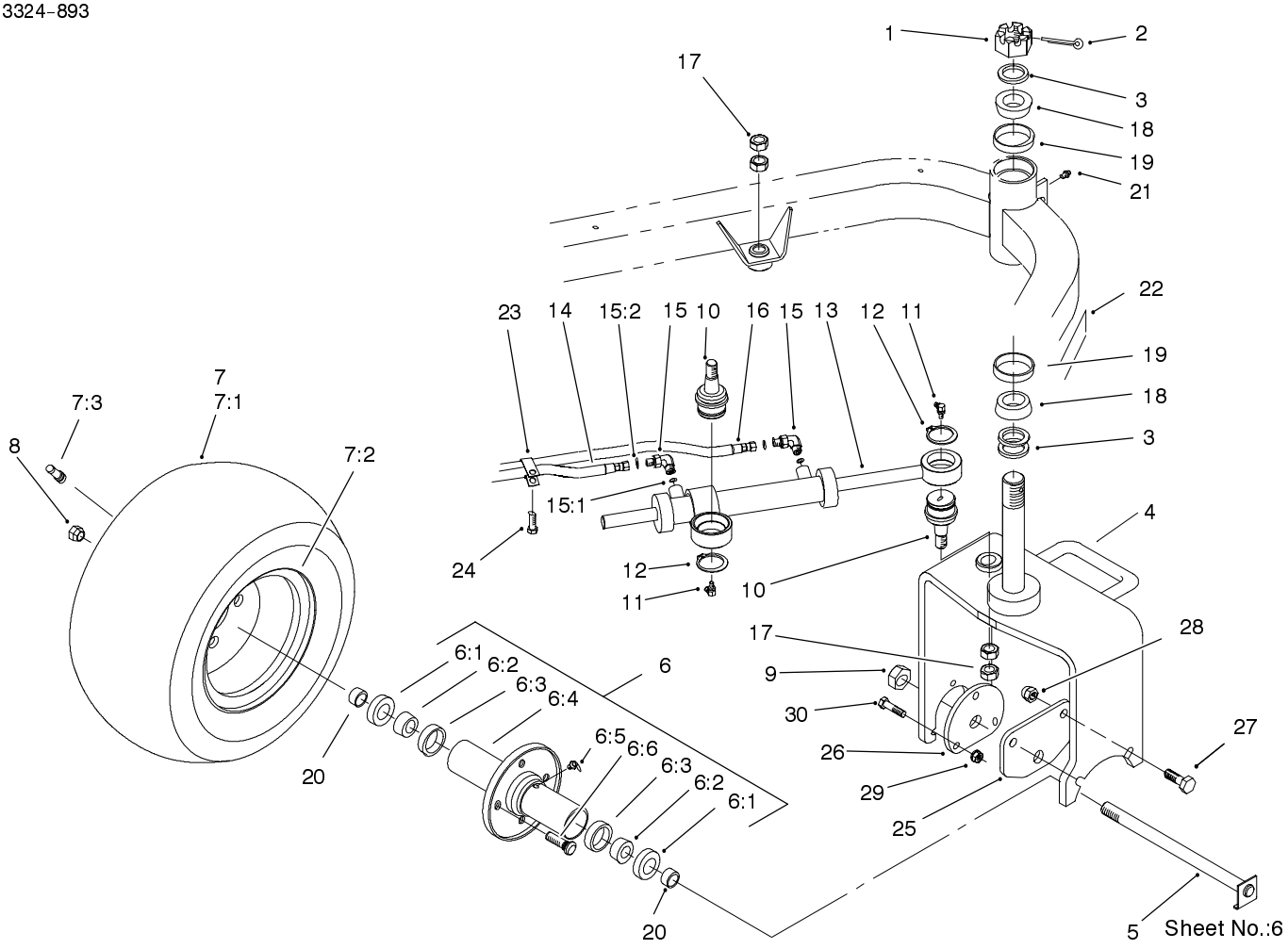


Steering Control Valve Assembly No. 93-2120

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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



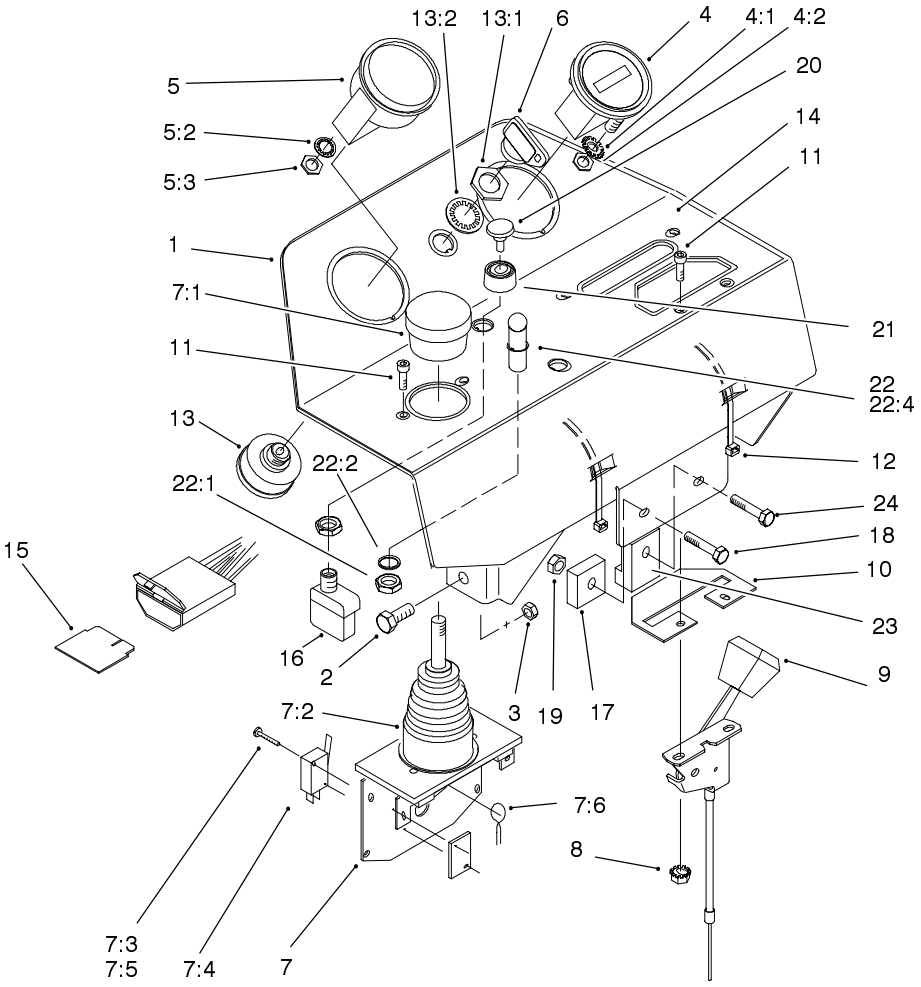
Rear Wheel Assembly

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 Nl
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 - Grease
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, Nl
29	3296-39	3	Nut-Lock, Nl
30	323-8	3	Screw-HH

PROTOTYPE

* Not illustrated



Sheet No.:7

Console Assembly

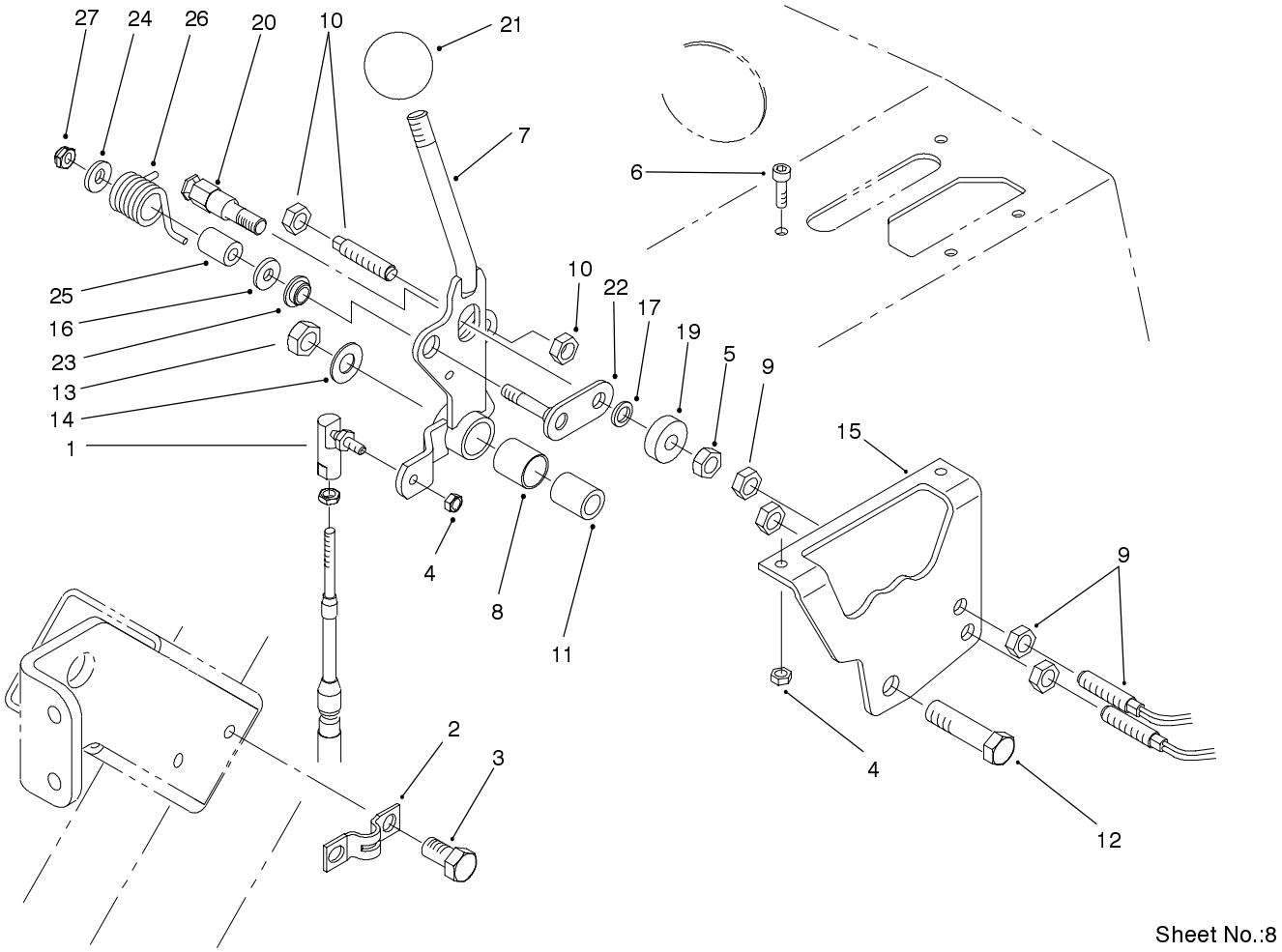
Ref. No.	Part No.	Qty.	Description
1	100-3185-03	1	Console ASM
2	33114-020	4	Screw-HH
3	33024-00	4	Nut-Lock
4	66-2950	1	Gauge-Hourmeter
4:1	3255-20	2	Washer-Lock
4:2	3217-25	2	Nut-Hex
5	93-7053	1	Cluster-Lamp, Warning
*5:1	219-17	4	Bulb
5:2	3254-1	1	Washer-Lock/Int
5:3	3217-26	1	Nut-Hex
6	63-8360	1	Key-Ignition
7	98-2195	1	Joystick
7:1	3290-489	1	Knob
7:2	3290-488	1	Boot
7:3	3290-354	2	Nut-Speed
7:4	218-590	2	Switch
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

Ref. No.	Part No.	Qty.	Description
13:1	218-446	1	Nut-Hex
13:2	218-447	1	Washer-Lock
14	100-3183	1	Decal-Panel, Control
15	92-3188	1	Diode-Board, Circuit
16	72-9760	1	Switch
17	92-2538	1	Timer-Plug, Glow
18	33113-030	1	Screw-HH
19	33023-00	2	Nut-Lock
20	43-6280	1	Button-Push
21	43-6420	1	Bezel
22	44-2212	1	Light ASM -Indicator, Amber
22:1	218-535	1	Nut-Hex
22:2	218-536	1	Washer-Lock
22:4	218-562	1	Lens
23	99-9666	1	Module
24	33113-020	1	Screw-HH

PROTOTYPE

* Not illustrated

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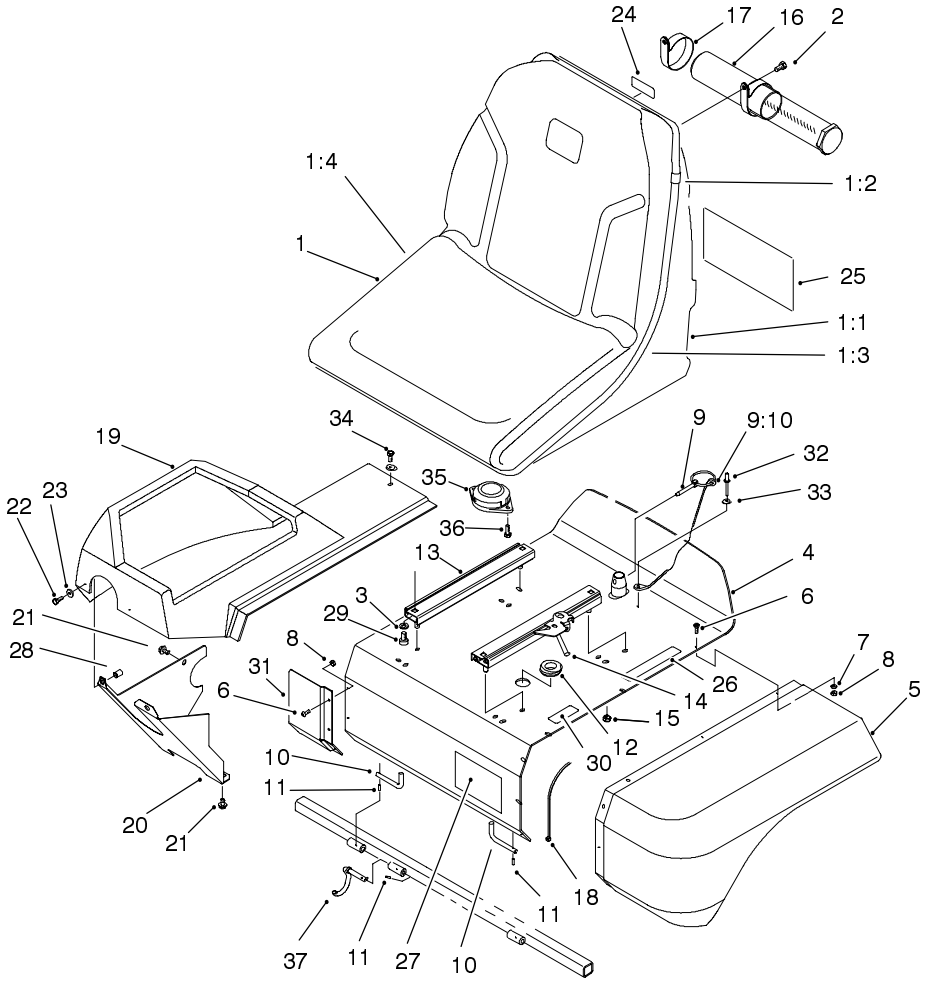
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Functional Control Lever Assembly

Ref. No.	Part No.	Qty.	Description
1	2411-38	1	Joint-Ball
2	93-2279	1	Clamp - Cable
3	32144-14	2	Screw-HWH
4	3296-27	2	Nut-Lock NI
5	33024-00	1	Nut-Lock
6	3273-26	2	Screw-HSH
7	94-9611	1	Handle
8	256-311	1	Bushing-Split
9	93-2055	2	Sensor-Switch, Reed
10	93-2056	1	Actuator-Switch, Reed
11	94-1378	1	Tube-Pivot, Handle
12	33115-040	1	Screw-HH
13	33025-00	1	Nut-Lock
14	3256-24	1	Washer-Flat
15	94-6398	1	Bracket - Traction
16	3256-23	1	Washer-Flat
17	75-5470	1	Spacer-Bearing
19	251-259	1	Bearing
20	94-9617	1	Pin - Spring
21	233-42	1	Knob
22	94-9614	1	Pivot-Roller
23	94-9619	1	Bushing
24	3256-1	1	Washer-Flat
25	94-9618	1	Spacer-Spring
26	94-9620	1	Spring - Torsion
27	33023-00	1	Nut-Lock

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



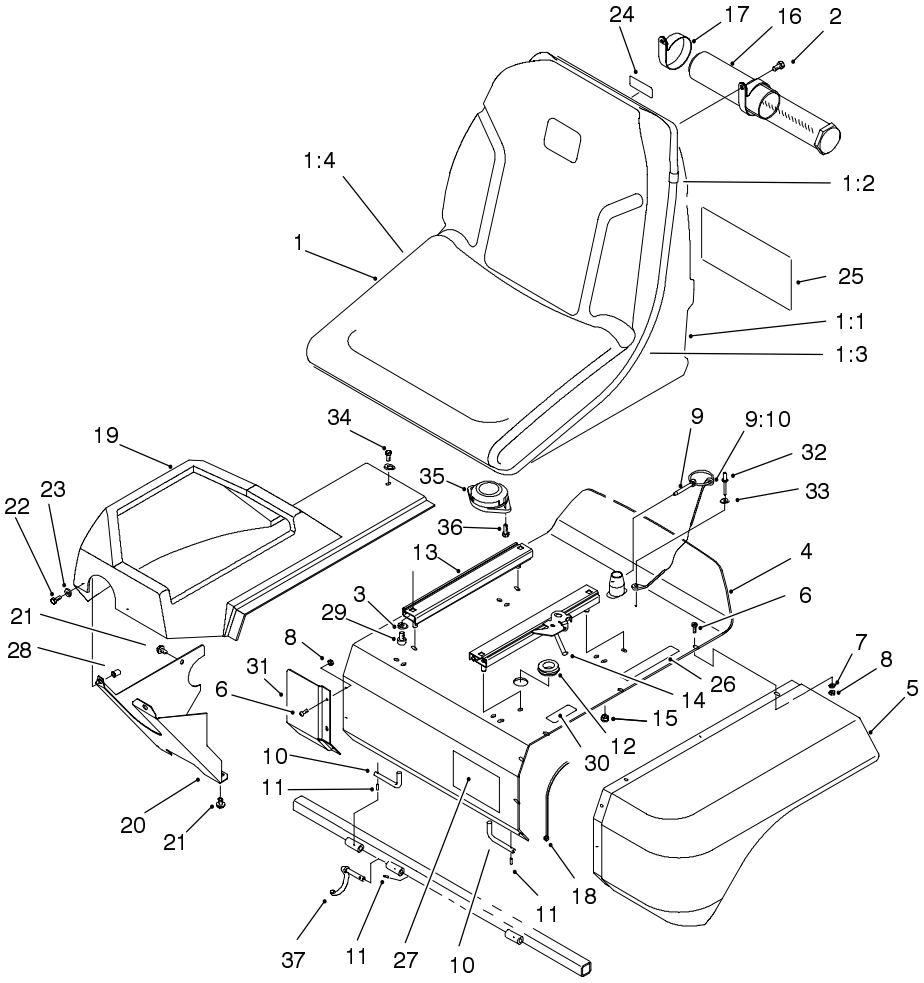
Sheet No.:9

Seat Assembly

Ref. No.	Part No.	Qty.	Description
1	100-3187	1	Seat ASM
1:1	92-6534	1	Shell
1:2	351-80	1	Clip
1:3	351-78	1	Edging
1:4	100-6411	1	Cushion-Replacement
2	322-2	2	Screw-HH
3	3256-23	4	Washer-Flat
4	93-2135-03	1	Seat Support
5	93-2128	1	Panel-Base, Seat
6	3274-39	9	Screw-HSBH
7	3256-77	6	Washer-Flat
8	3296-12	9	Nut-Lock
9	77-3780	1	Pin ASM
9:10	28-8070	1	Lanyard
10	93-2422	2	Rod-Pivot, Seat
11	32121-7	3	Pin-Spring
12	237-100	1	Grommet
13	92-8990	1	Adjuster - 7”
14	92-8991	1	Adjuster w/Latch
15	3296-29	4	Nut-Lock
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

Ref. No.	Part No.	Qty.	Description
22	33113-016	2	Screw-HH
23	3256-1	3	Washer-Flat
24	93-8067	1	Decal-Oil, Hydraulic
25	100-3150	1	Decal-Service
25	100-3151	1	Decal-Service (Spanish)
25	100-3152	1	Decal-Service (French)
25	100-3153	1	Decal-Service (German)
25	100-3154	1	Decal-Service (Swedish)
25	100-3155	1	Decal-Service (Italian)
25	100-3156	1	Decal-Service (Portuguese)
25	100-3157	1	Decal-Service (Norwegian)
25	100-3158	1	Decal-Service (Finnish)
25	100-3159	1	Decal-Service (Danish)
25	100-3160	1	Decal-Service (Dutch)
25	100-3161	1	Decal-Service (Japan)
26	93-6689	1	Decal - No Riders
27	94-2579	1	Decal - Toro
28	93-5447	2	Nut-Clinch

PROTOTYPE



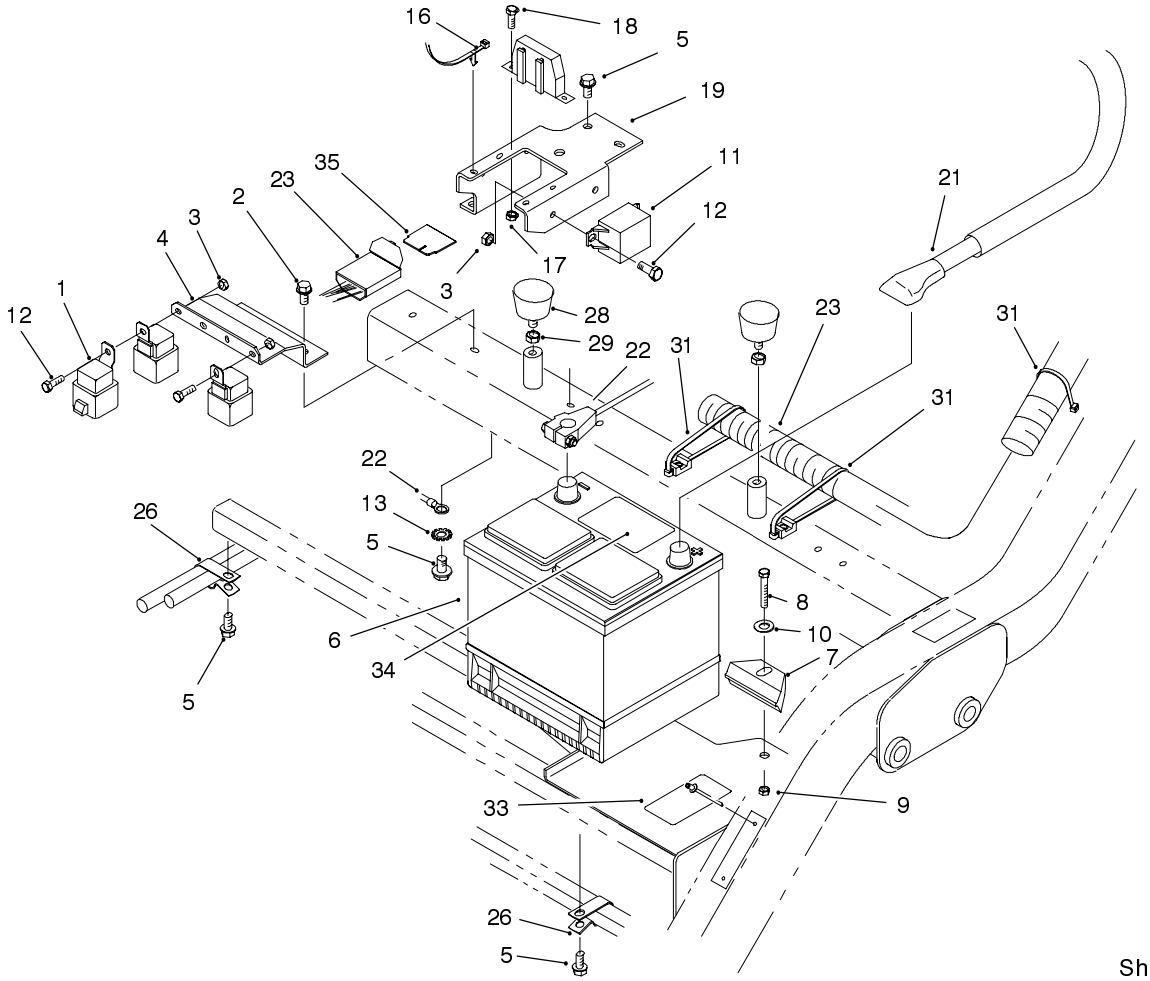
Sheet No.:9

Seat Assembly (Continued)

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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



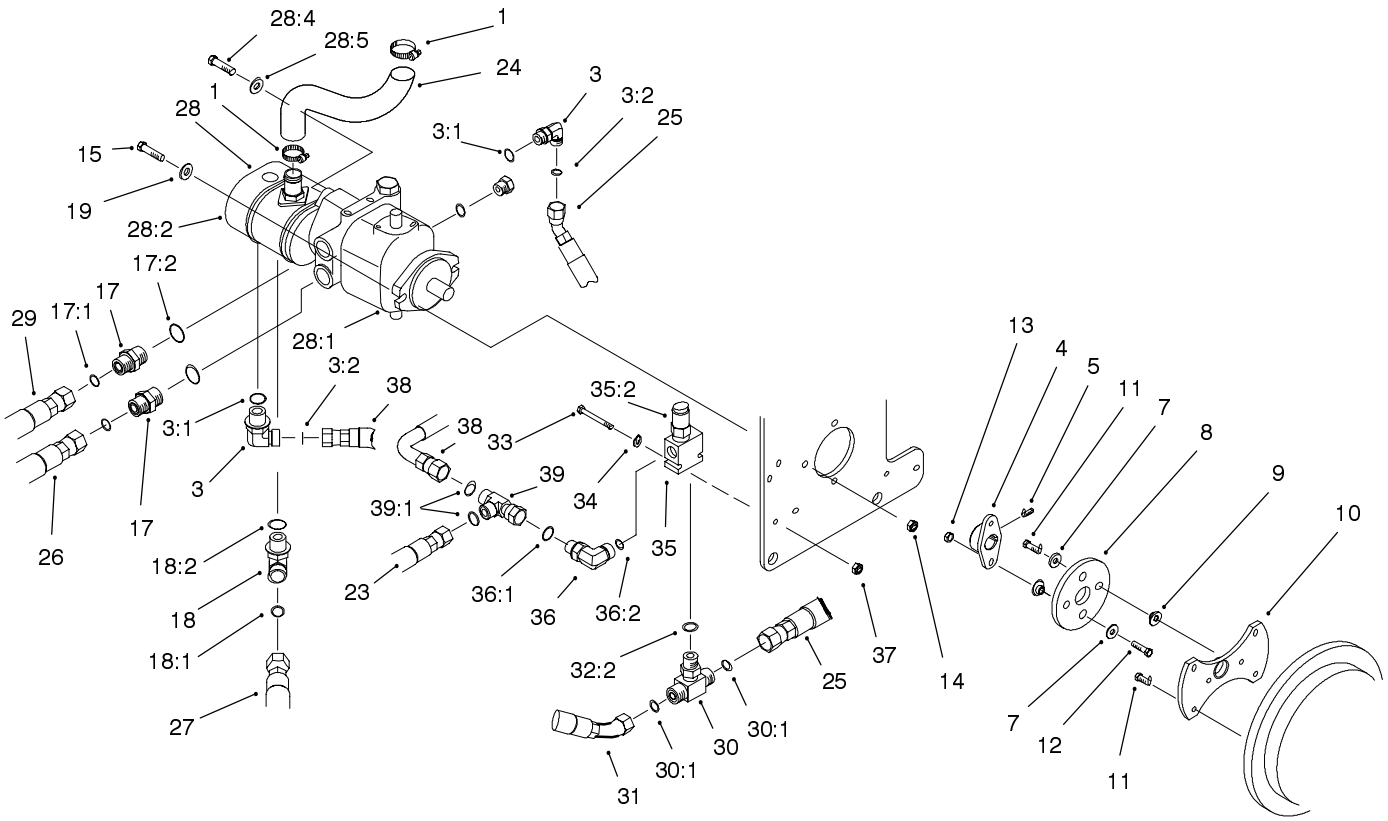
Sheet No.:10

Electronics Installation Assembly

Ref. No.	Part No.	Qty.	Description
1	70-1480	8	Relay
2	32144-11	2	Screw-TAP
3	33023-00	6	Nut-Lock
4	93-2169-01	1	Bracket - Relay
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
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

Ref. No.	Part No.	Qty.	Description
31	3290-378	6	Tie-Cable
33	93-6668	1	Decal - Battery
34	93-7276	1	Decal-Danger
35	92-3188	1	Diode-Board, Circuit

PROTOTYPE



Sheet No.:11

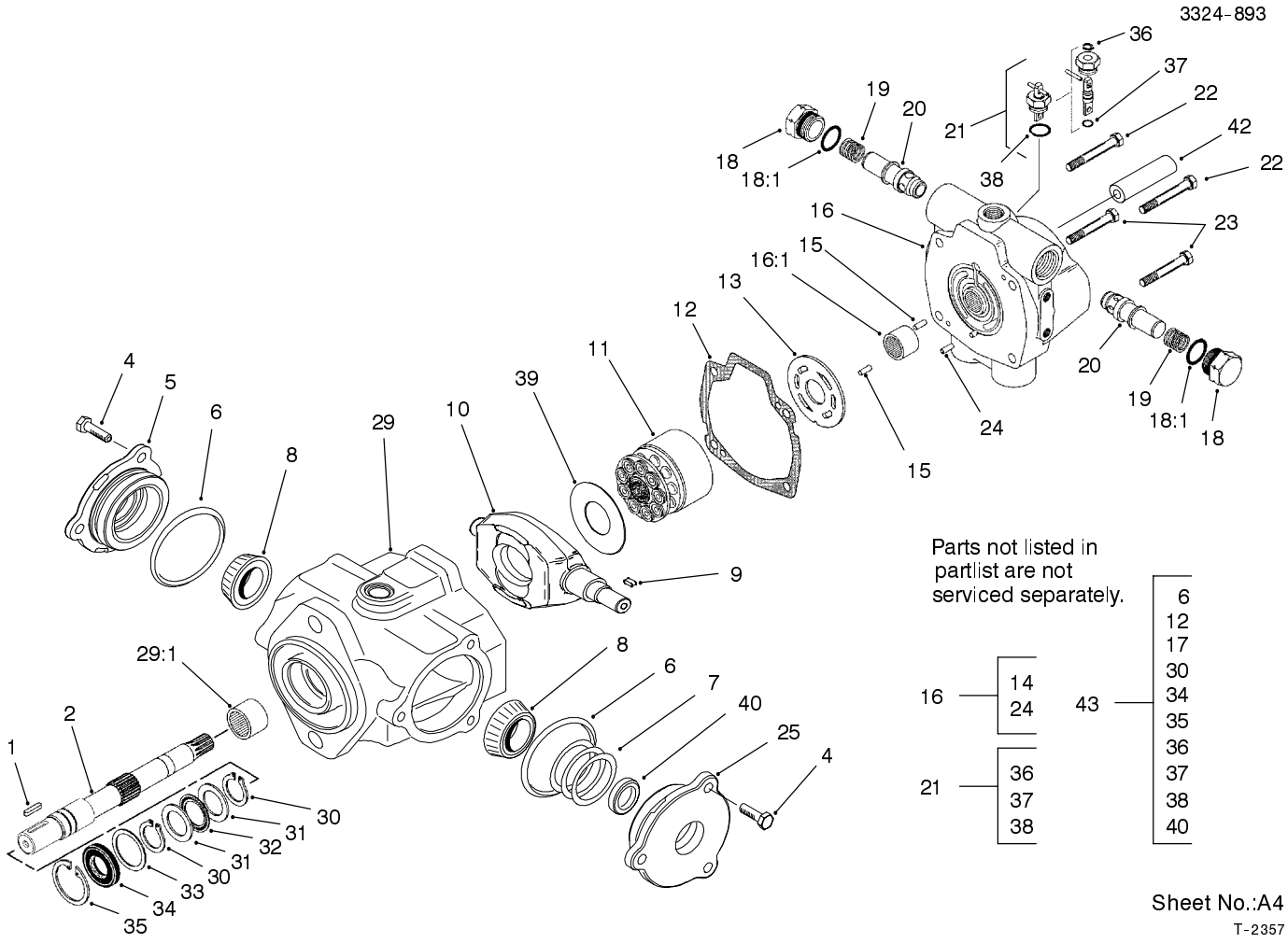
Hydrostat and Gear Pump Drive Assembly

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
14	33025-00	2	Nut-Lock
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
38	99-4219	1	Hose ASM
39	340-115	1	Fitting-Tee
39:1	237-22	2	O-Ring

PROTOTYPE

* Not illustrated



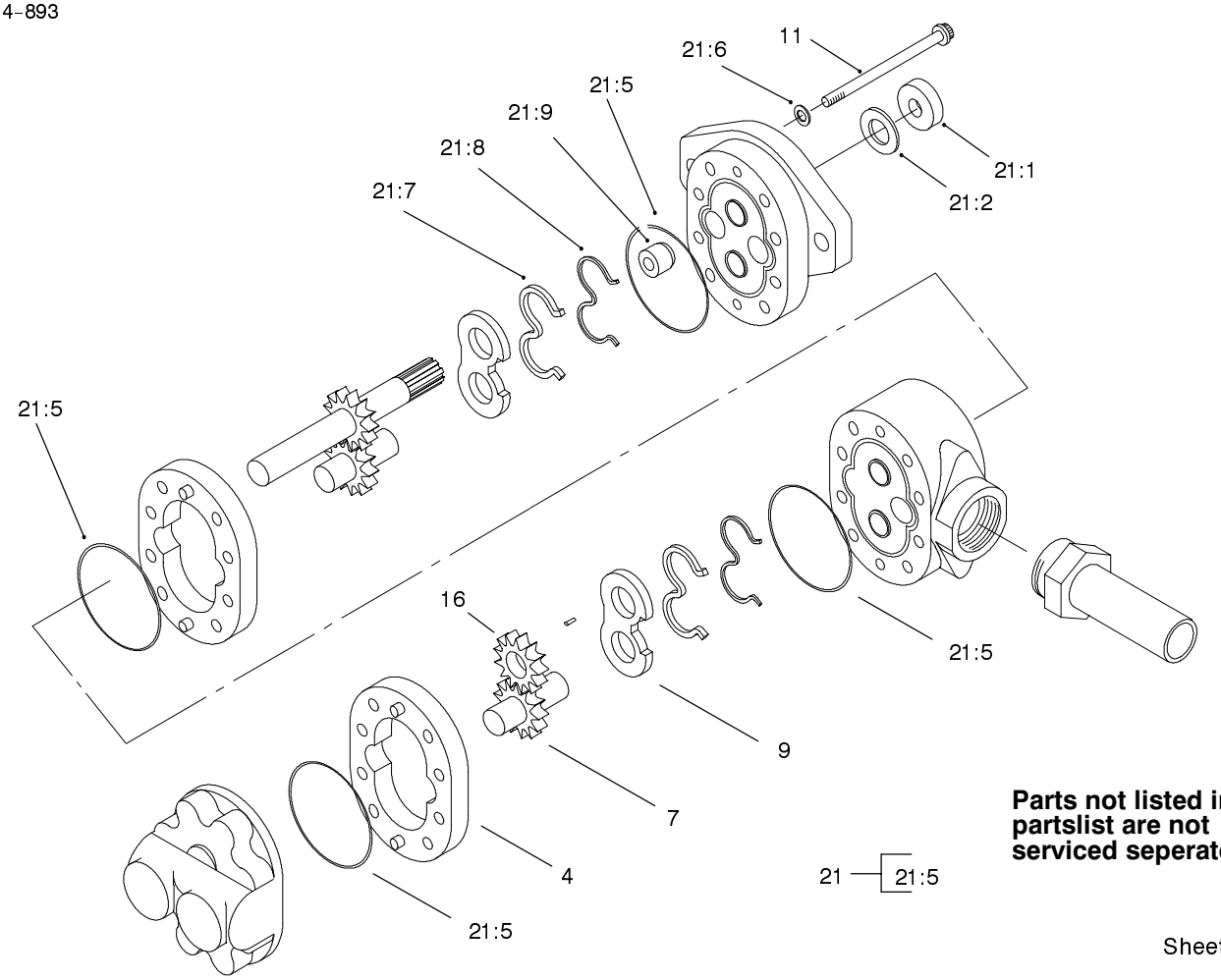
Hydrostat Assembly No. 100-3174

Ref. No.	Part No.	Qty.	Description
1	94-3645	1	Key
2	94-6359	1	Shaft - Drive
4	98-4640	6	Screw - Cap
5	98-4644	1	Cover Plate ASM
6	100-3179	2	O-Ring
7	100-3182	2	Kit-Shim
8	98-4639	2	Bearing-Cone
9	94-3646	1	Key
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

Ref. No.	Part No.	Qty.	Description
31	252-71	2	Bearing-Thrust
32	252-66	1	Bearing-Thrust
33	33-3720	1	Washer
34	42-2720	1	Seal-External
35	32151-13	1	Ring-Snap, Internal
39	98-4635	1	Insert-Plate, Cam
42	74-9040	1	Coupler
*43	98-4643	1	Seal Repair Kit

PROTOTYPE

* Not illustrated

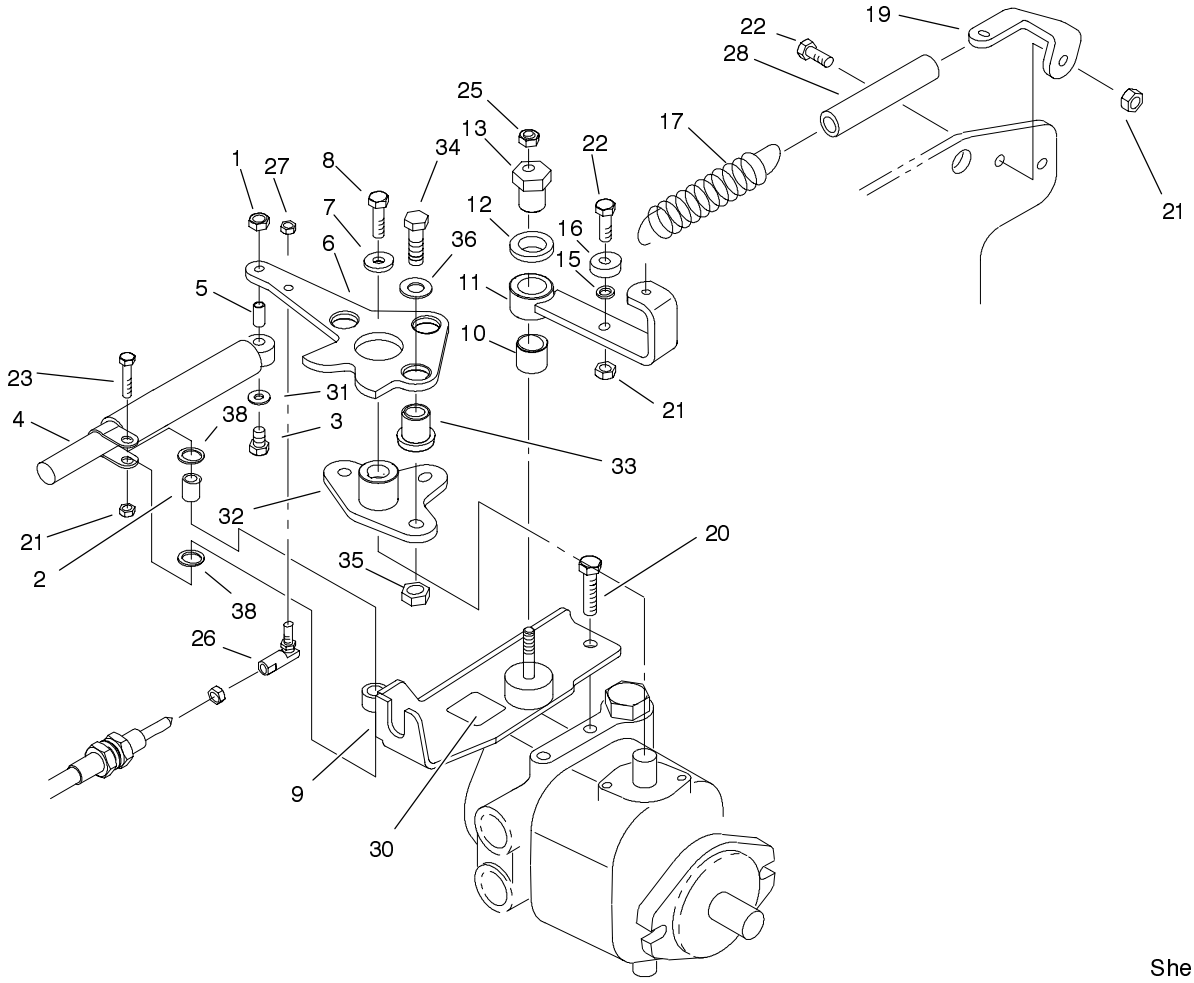


Gear Pump Assembly No. 94-6390

Ref. No.	Part No.	Qty.	Description
4	95-4364	1	Body
7	95-4366	1	Gear-Idler
9	95-4368	2	Plate - Wear
11	94-8158	8	Screw - Cap
16	95-4373	1	Gear-Fit, Slip
21	94-8161	1	Kit-Repair, Seal
21:1	49-2640	1	Seal-Shaft
21:2	60-5890	1	Washer
21:5		4	O-Ring
21:6	94-8160	4	Washer
21:7	95-4369	2	Seal
21:8	95-4367	2	Gasket-Back-Up
21:9	94-3011	1	Plug

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



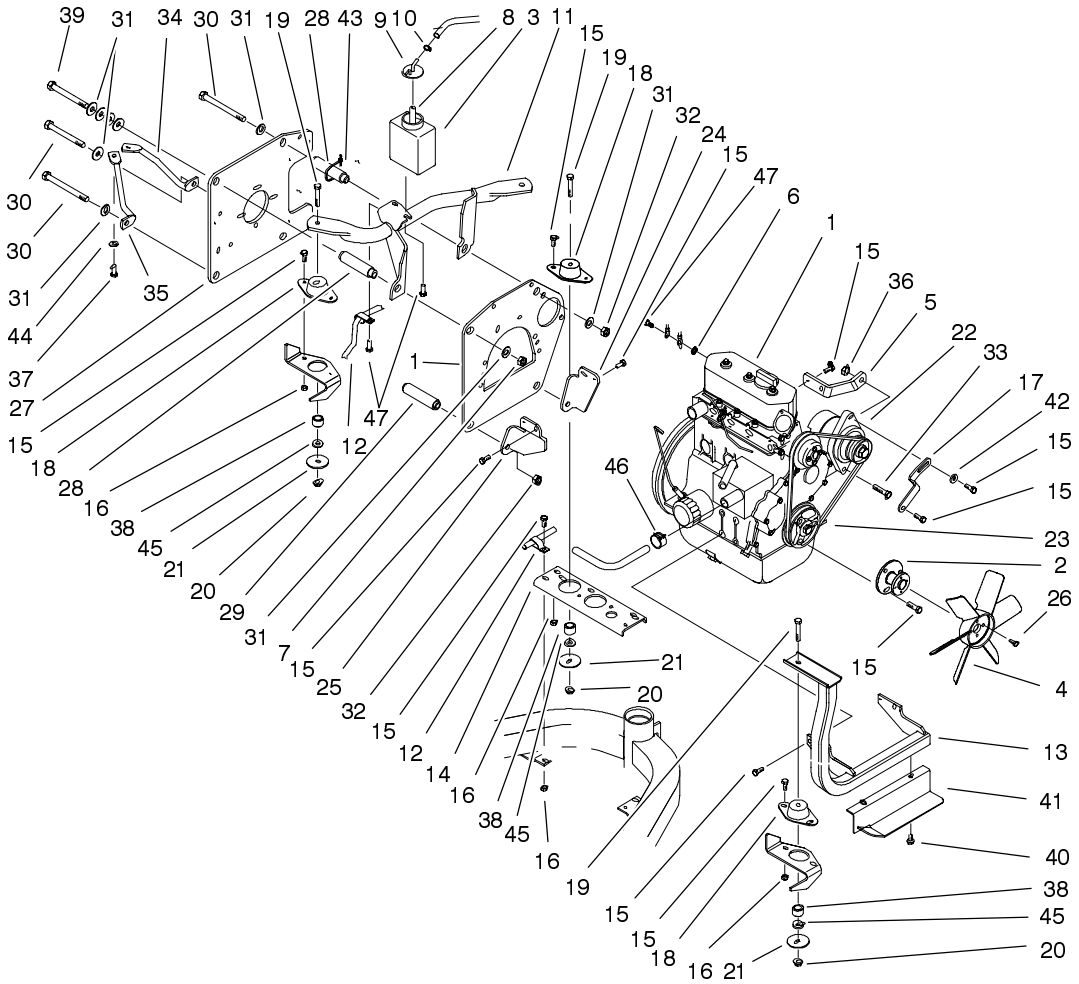
Sheet No.:12

Neutral System Assembly

Ref. No.	Part No.	Qty.	Description
1	33023-00	1	Nut-Lock
2	94-8197	1	Tube - Pivot
3	33113-030	1	Screw-HH
4	76-8870	1	Lever Damper ASM
5	94-1312	1	Spacer - Pivot
6	94-3488-03	1	Lever - Pump
7	88-7200	1	Washer-Flat
8	3210-6	1	Screw-HH
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	99-4254	1	Spring-Extension
19	99-4276	1	Bracket-Spring
20	323-4	2	Screw-HH
21	33024-00	3	Nut-Lock
22	33114-025	2	Screw-HH
23	33114-030	1	Screw-HH
25	3296-29	1	Nut-Lock
26	2411-34	1	Joint-Ball
27	3296-13	1	Nut-Lock NI
28	99-4251	1	Hose-Dampener

Ref. No.	Part No.	Qty.	Description
30	93-9051	1	Decal-Bolt, Eccentric
31	3256-22	1	Washer-Flat
32	94-3486	1	Plate
33	63-9750	3	Mount
34	33115-035	3	Screw-HH
35	33025-00	3	Nut-Lock
36	2844	3	Washer
38	94-8196	2	Washer - Nylon

PROTOTYPE



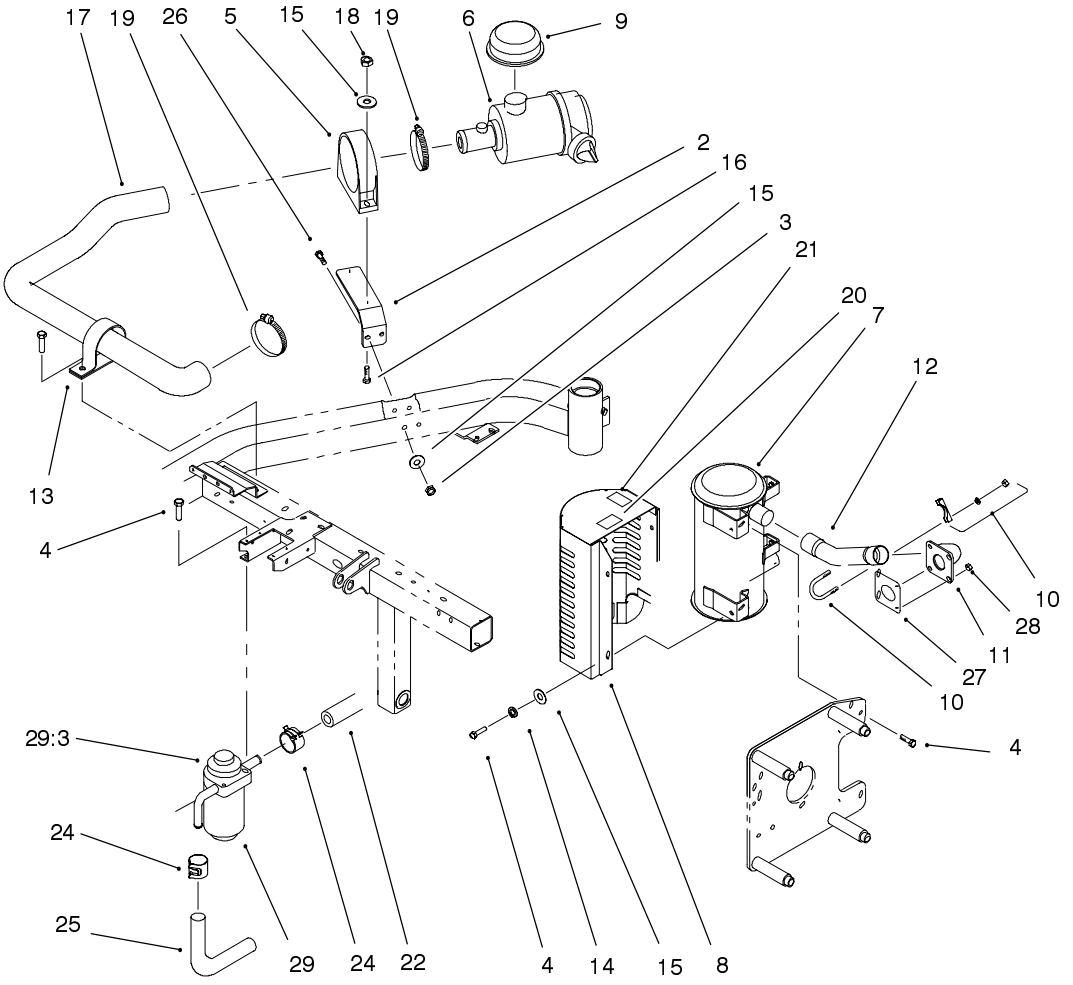
Sheet No.:13

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
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
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
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

PROTOTYPE



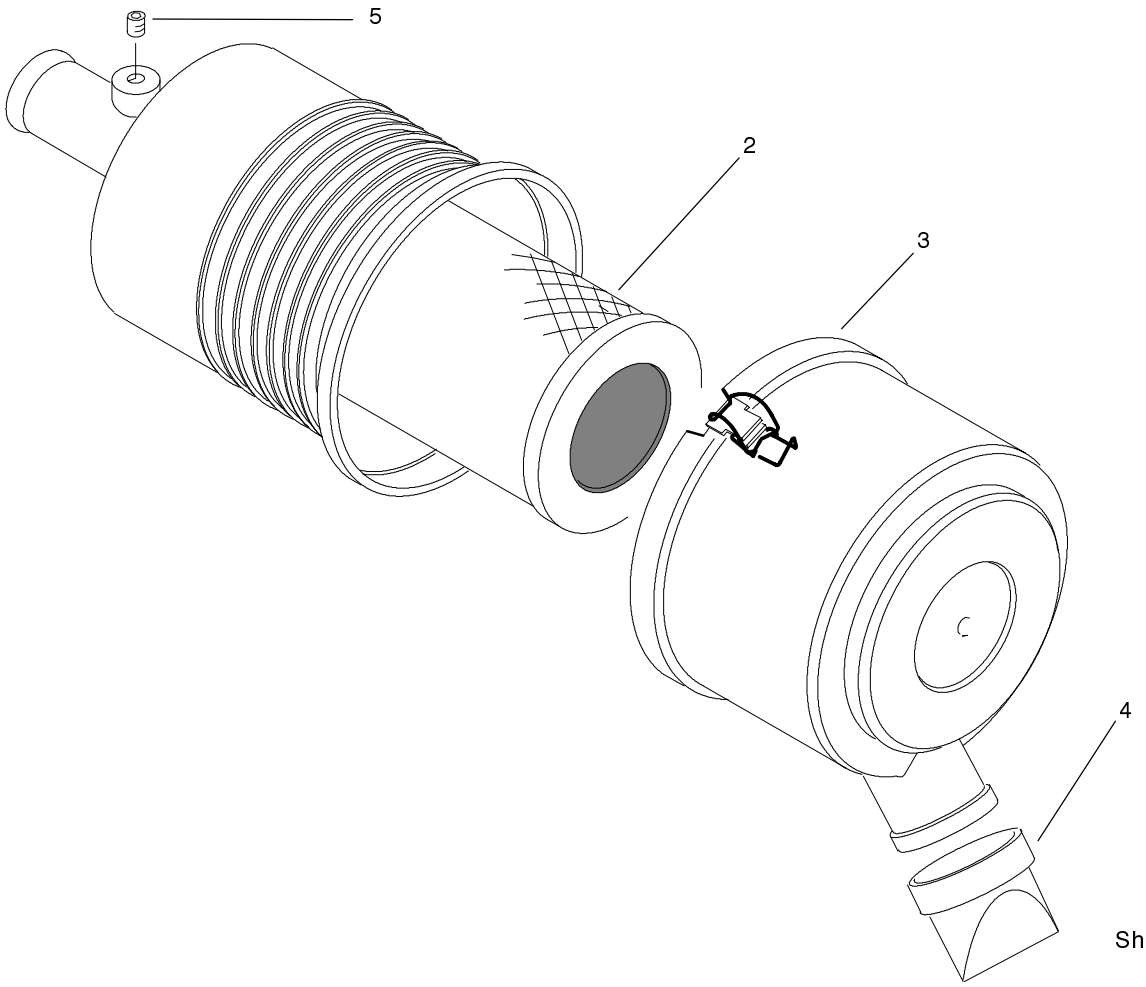
Sheet No.:14

Air Cleaner and Exhaust Assembly

Ref. No.	Part No.	Qty.	Description
2	99-4203	1	Bracket-Cleaner, Air
3	33024-00	2	Nut-Lock
4	33114-020	8	Screw-HH
5	95-5806	1	Bracket-Mounting, Air Cleaner
6	95-5805	1	Air Cleaner ASM
7	94-8153	1	Muffler
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
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
28	99-9176	4	Nut-Hex
29	100-3191	1	Separator-Fuel Fltr/Wtr (Diesel)
*29:1	100-3192	1	Element-Filter, Fuel
*29:2	100-6409	1	Sensor-Filter, Fuel
29:3	100-6408	1	Cover-Filter

PROTOTYPE

* Not illustrated



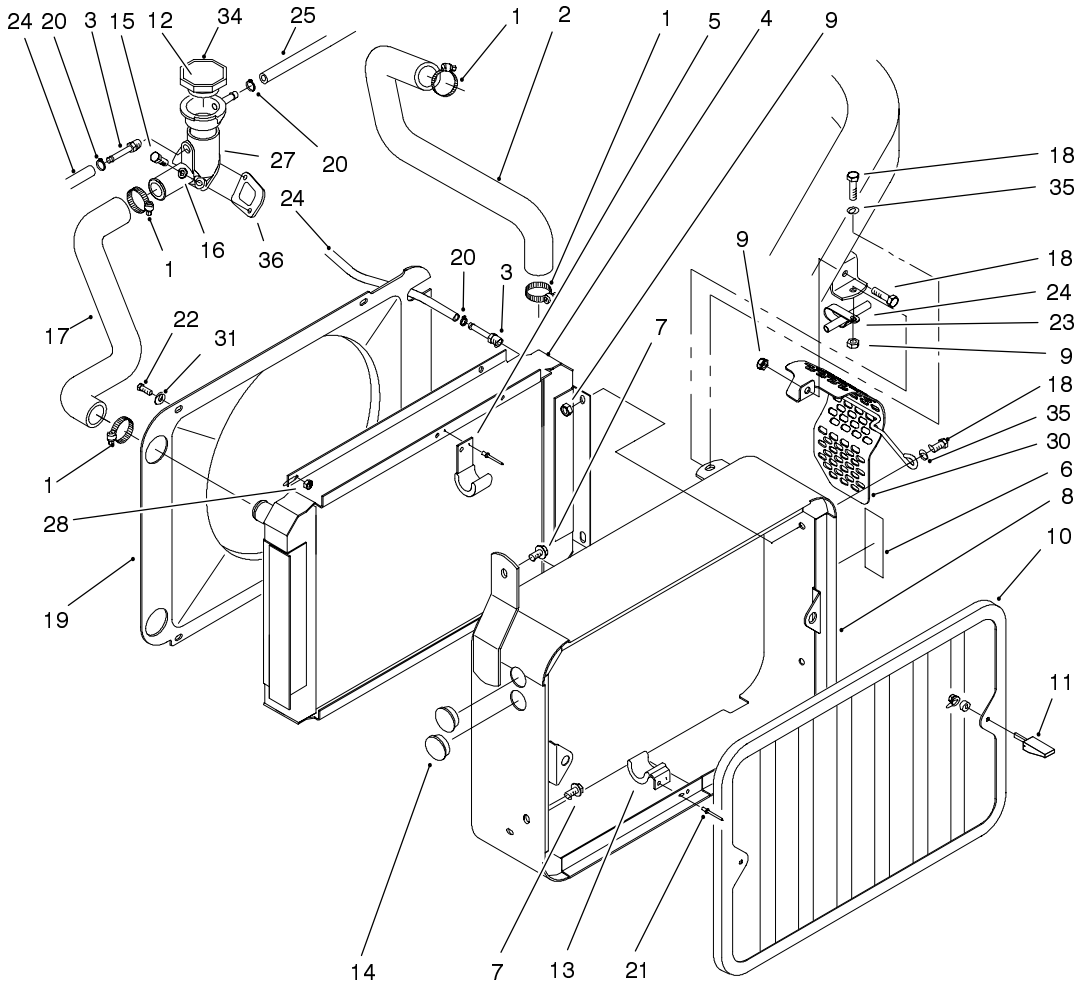
Sheet No.:A8
T-2607

Air Cleaner Assembly No. 95-5805

Ref. No.	Part No.	Qty.	Description
2	93-2195	1	Filter
3	94-3652	1	Cover ASM
4	94-1414	1	Valve - Vacuator
5	285-17	1	Plug-Pipe

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



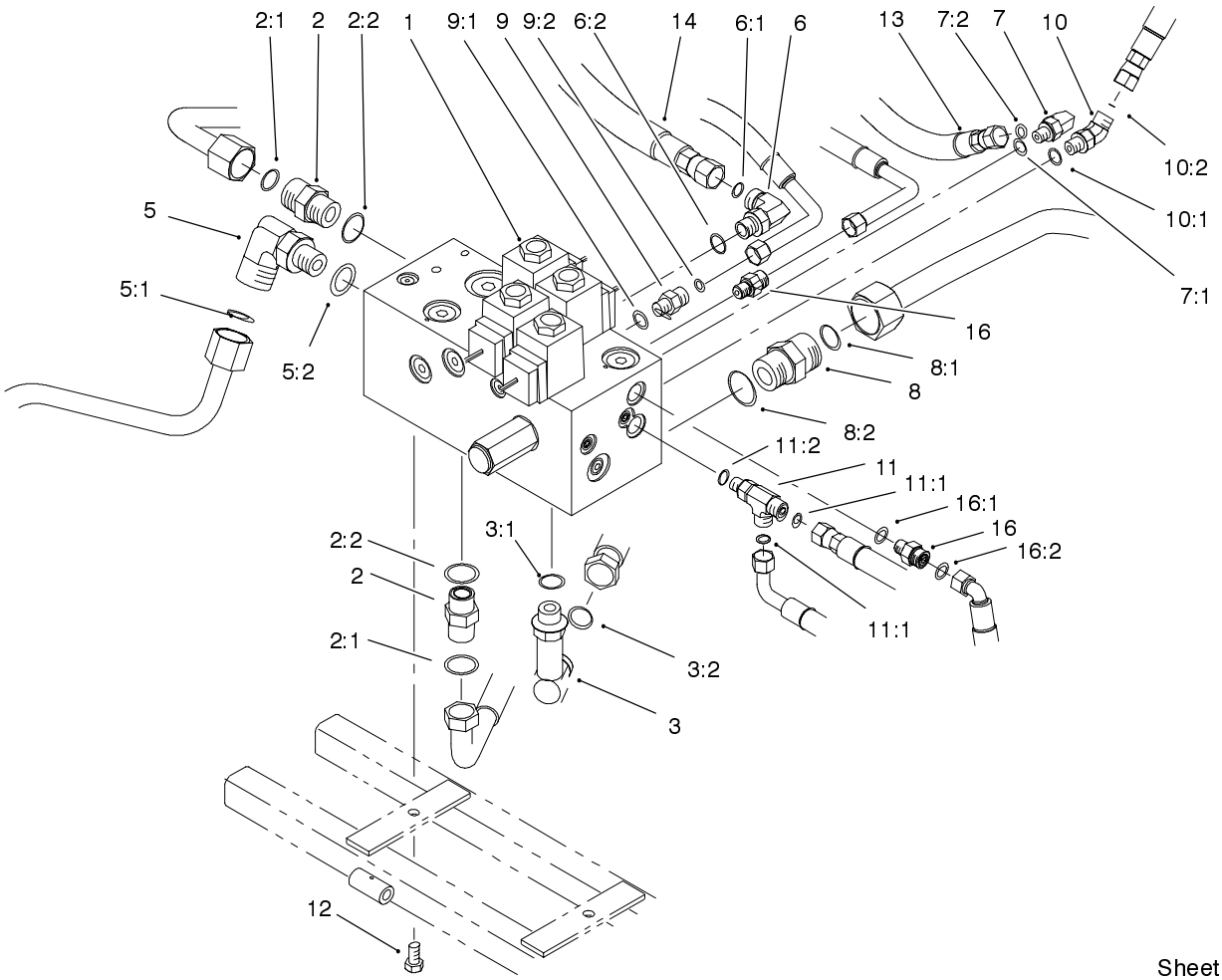
Sheet No.:15

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
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
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
36	99-9163	1	Gasket-Outlet

PROTOTYPE



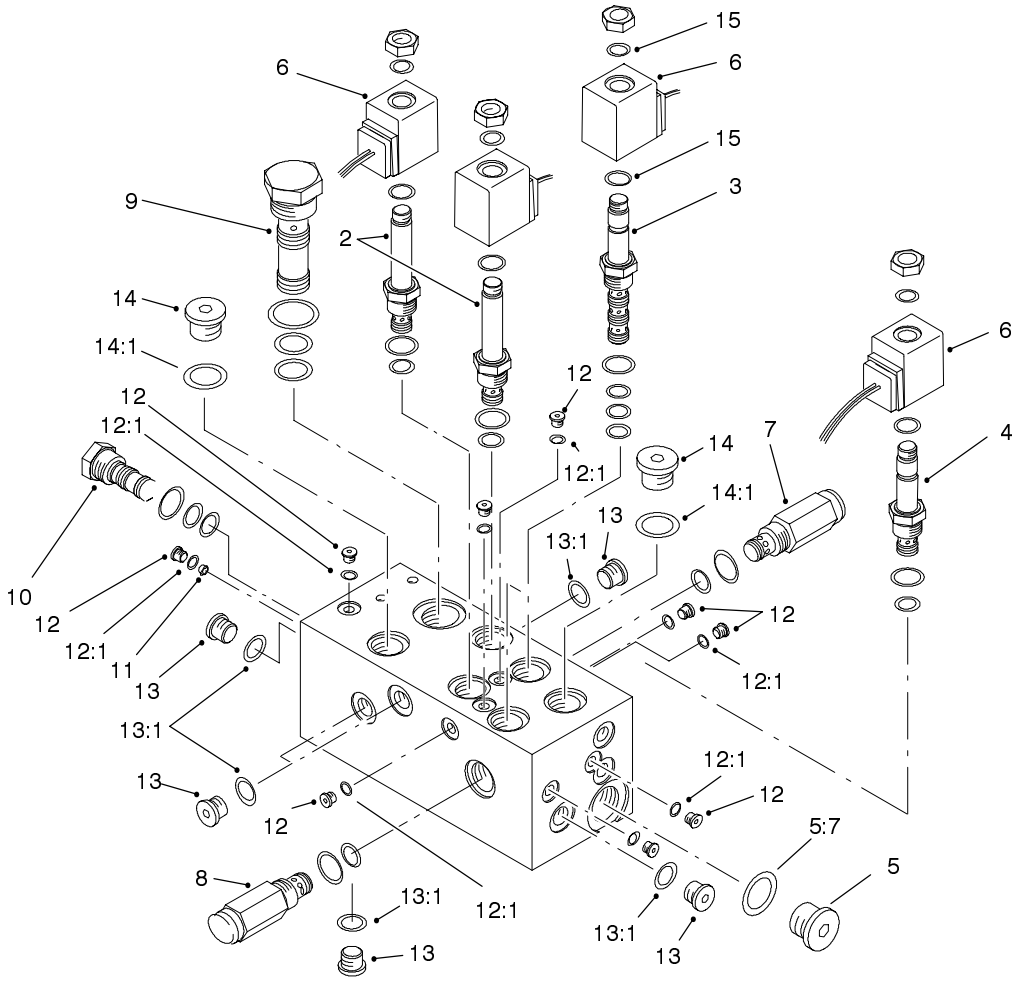
Sheet No.:16

Manifold Block Installation Assembly

Ref. No.	Part No.	Qty.	Description
1	93-2240	1	Manifold-Mow/Lift, Basic
2	340-7	2	Adapter
2:1	237-65	1	O-Ring
2:2	237-80	1	O-Ring
3	99-4214	1	Fitting-Hydraulic
3:1	237-79	1	O-Ring
3:2	237-30	1	O-Ring
5	340-17	1	Adapter
5:1	237-65	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

Ref. No.	Part No.	Qty.	Description
11	340-140	1	Adapter Tee
11:1	237-21	2	O-Ring
11:2	237-78	1	O-Ring
12	33114-016	2	Screw-HH
13	93-2271	1	Hydraulic Hose ASM
14	93-2272	1	Hydraulic Hose ASM
16	95-1639	2	Fitting - Orificed
16:1	237-78	1	O-Ring
16:2	237-21	1	O-Ring

PROTOTYPE



Sheet No.:A9

T-2251

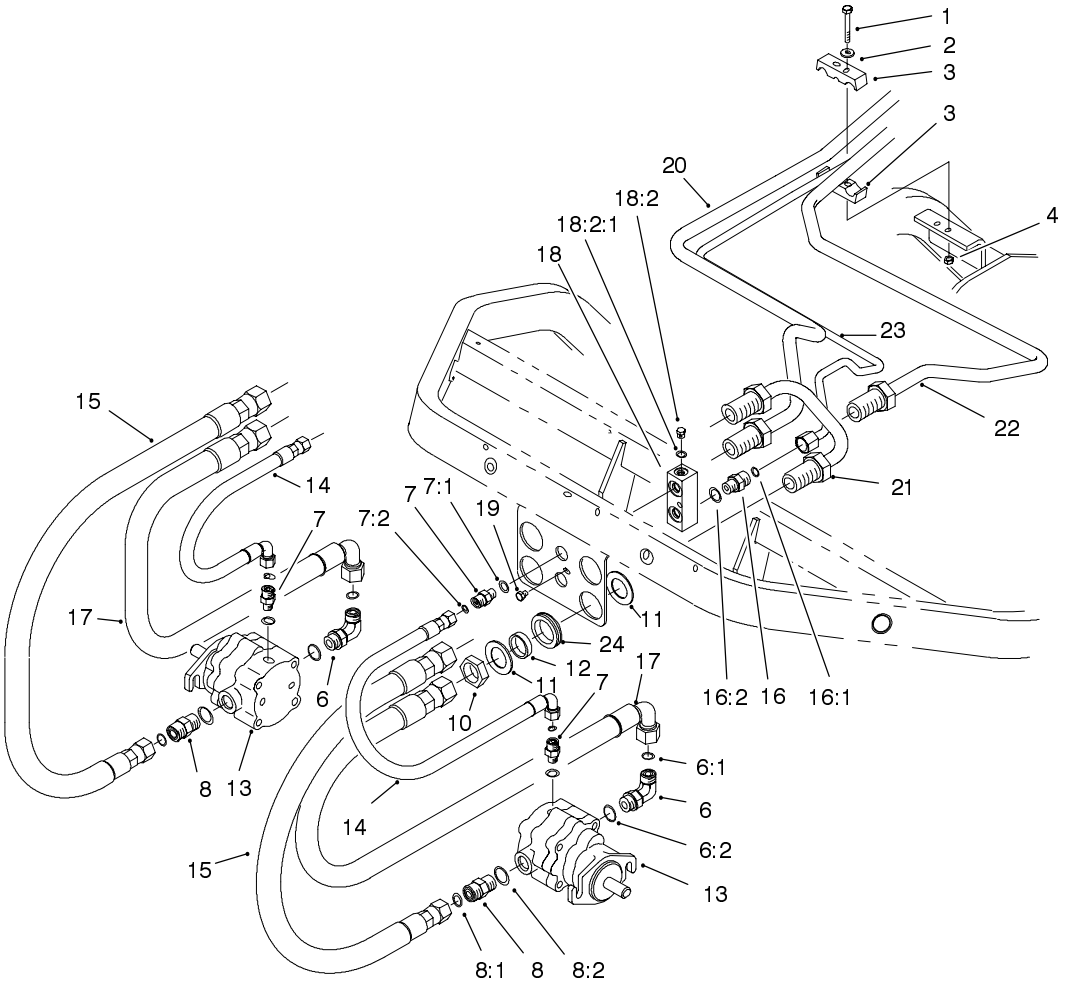
Basic Mow/Lift Manifold Assembly No. 93-2240

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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

* Not illustrated



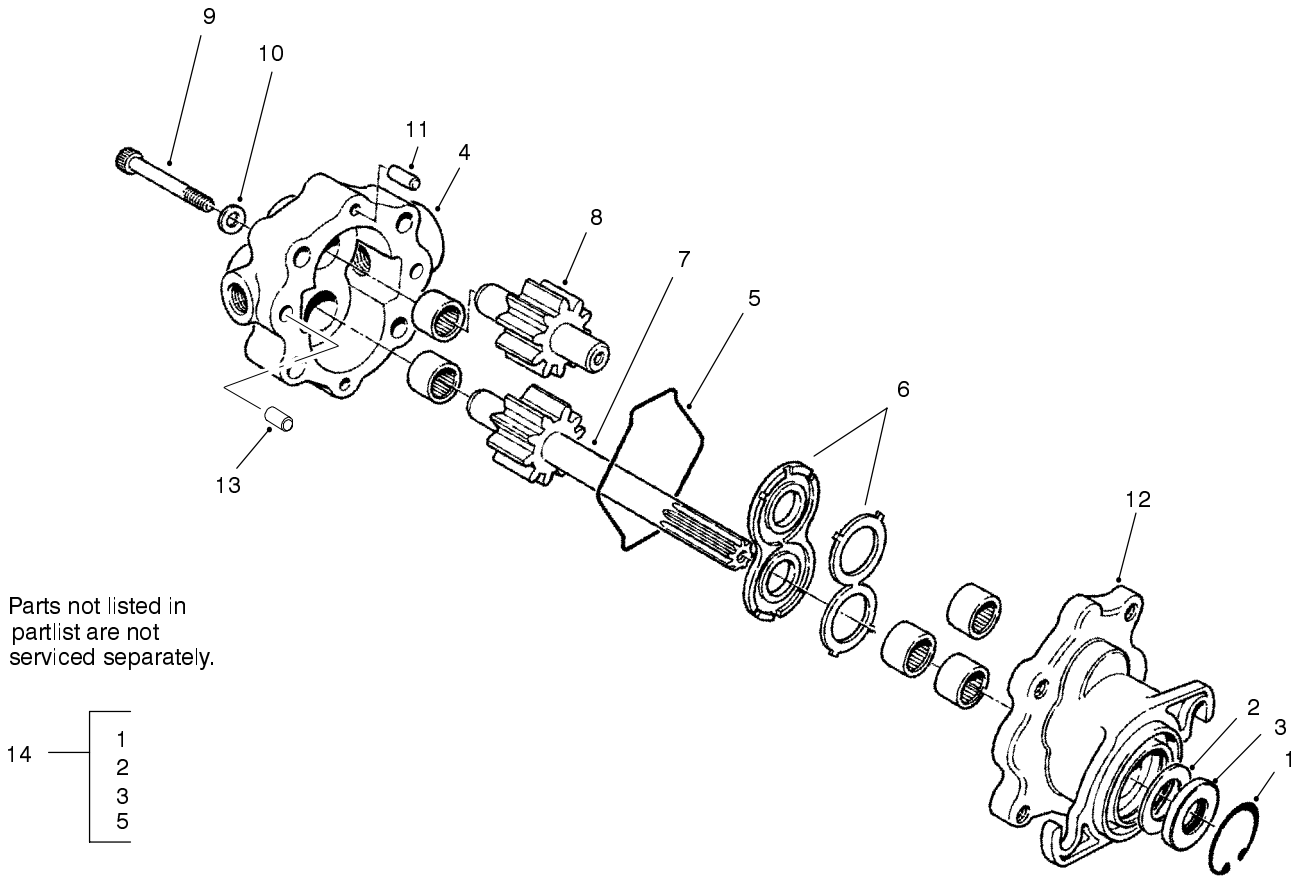
Sheet No.:17

Front Bulkhead and Reel Motor Assembly

Ref. No.	Part No.	Qty.	Description
1	33113-050	2	Screw-HH
2	3256-1	2	Washer-Flat
3	93-2509	2	Clamp - Tube
4	33023-00	2	Nut-Lock
6	340-98	2	Fitting-90°
6:1	237-79	1	O-Ring
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

Ref. No.	Part No.	Qty.	Description
19	33113-008	1	Screw-HH
20	94-1318	1	Tube - Hydraulic
21	94-1319	1	Tube - Hydraulic
22	94-1320	1	Tube - Hydraulic
23	94-1321	1	Tube - Hydraulic
24	240-3	2	Grommet-Rubber

PROTOTYPE



Parts not listed in partlist are not serviced separately.

14 — 1, 2, 3, 5

Sheet No.:B1

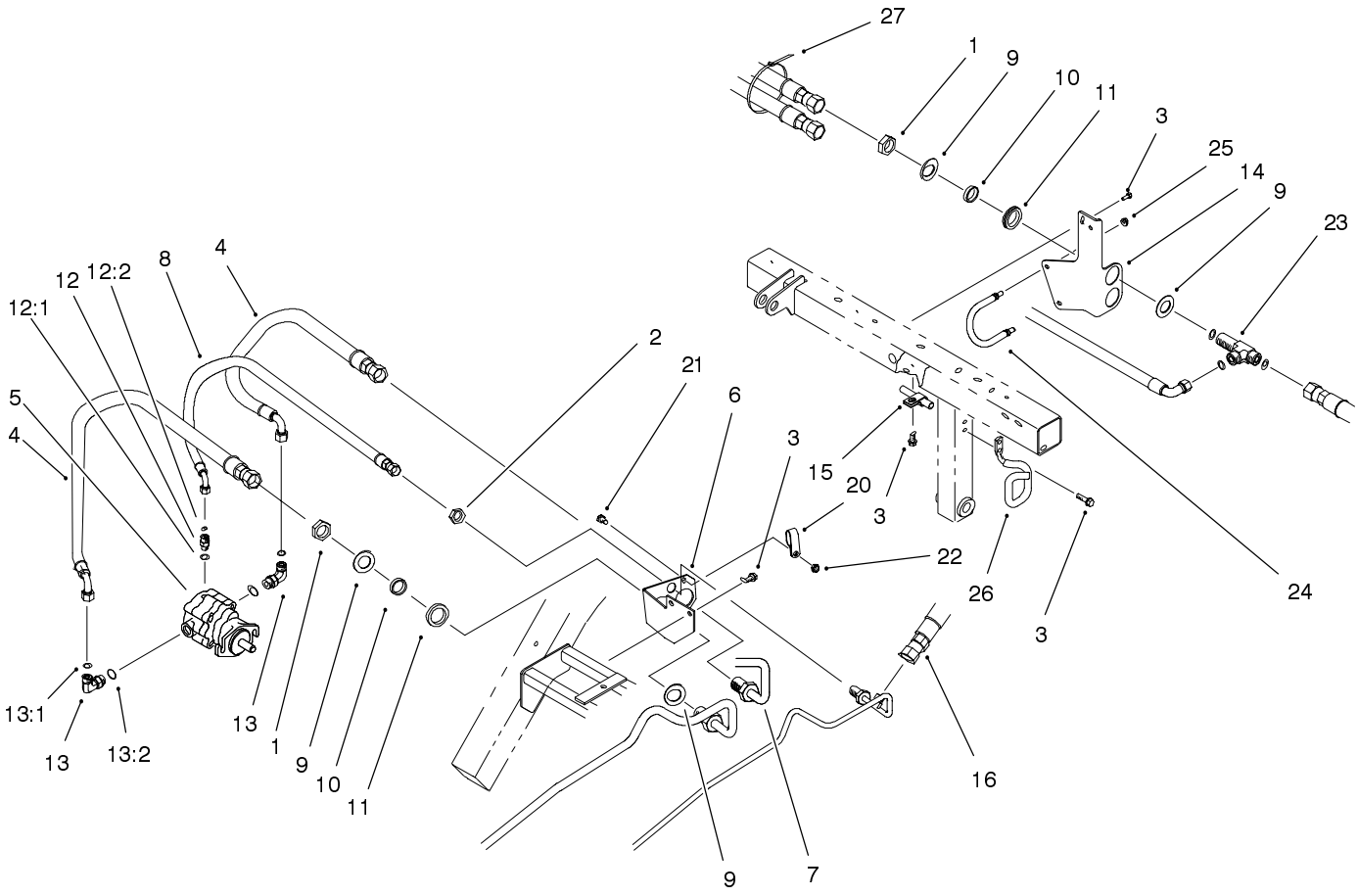
T-1872

Reel Motor Assembly No. 93-1375

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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



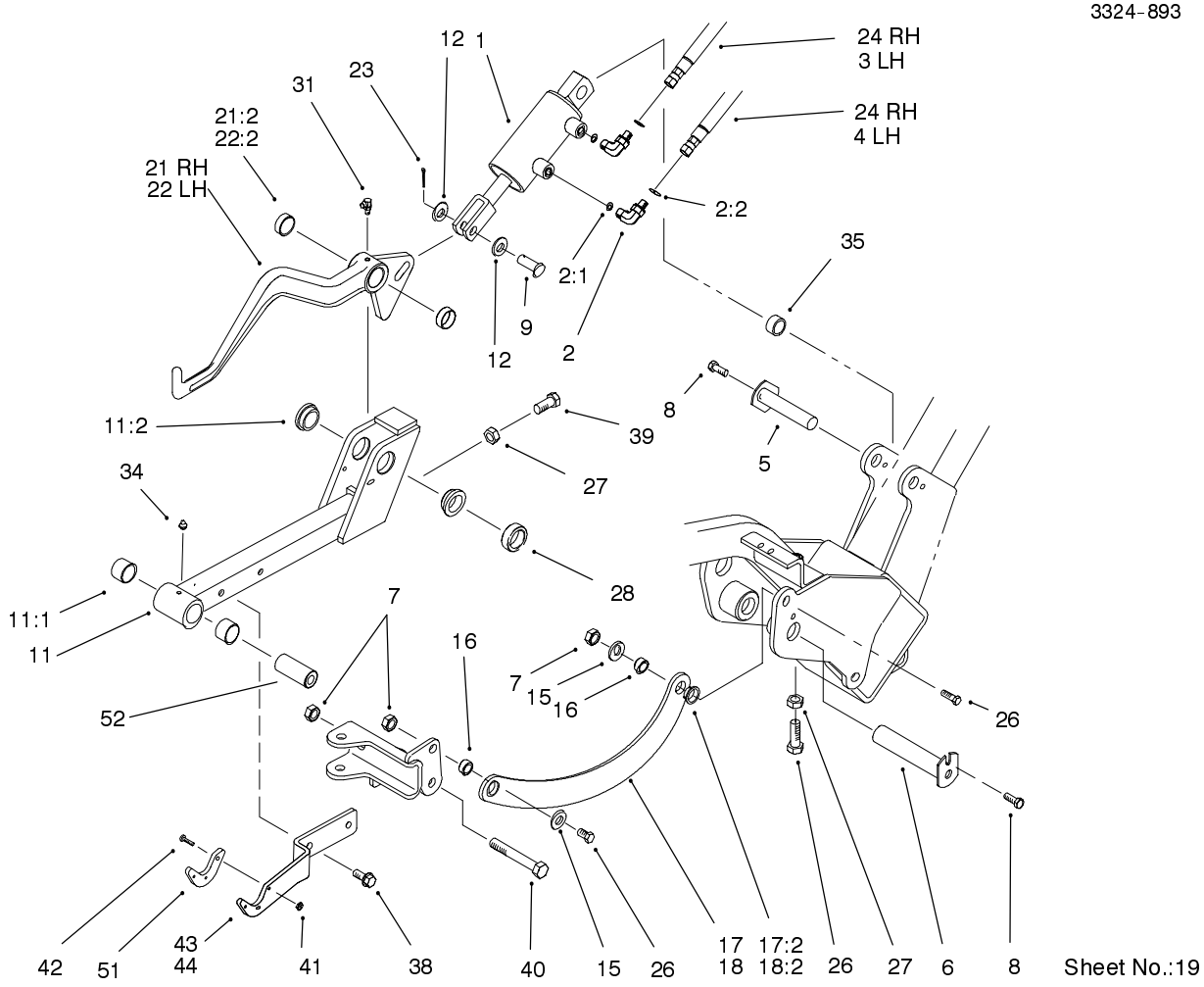
Sheet No.:18

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
23	94-5350	2	Tee-Bulkhead, Ors
24	99-4221	1	Retainer-Hose
25	3296-29	2	Nut-Lock

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

PROTOTYPE



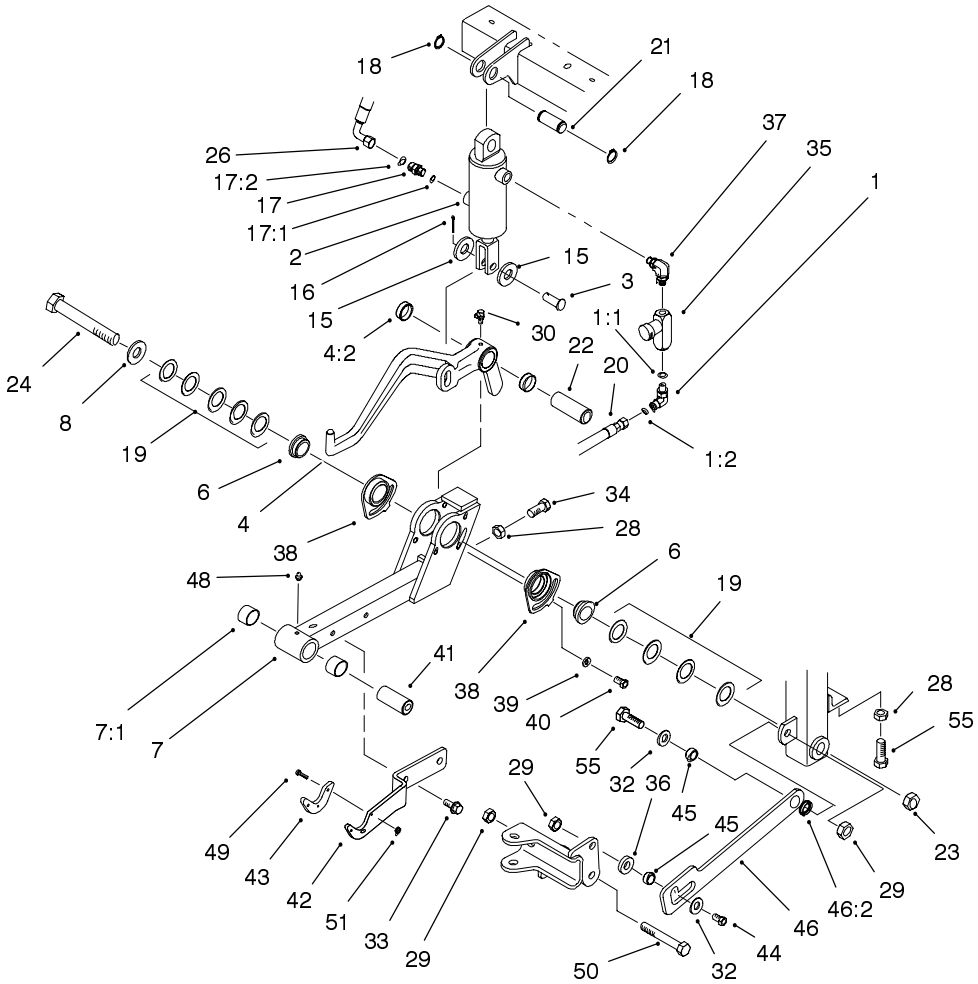
LH and RH Lift Arm Assembly

Ref. No.	Part No.	Qty.	Description
1	99-4263	2	Hydraulic Cylinder ASM
*1:1	99-8163	1	Kit-Repair, Seal
2	340-132	4	Elbow-90°
2:1	237-78	1	O-Ring
2:2	237-21	1	O-Ring
3	93-2255	1	Hydraulic Hose ASM
4	93-2256	1	Hydraulic Hose ASM
5	10-6060	2	Pin-Pivot, Ram
6	94-8198	2	Pin
7	3296-25	6	Nut-Lock NI
8	32144-14	4	Screw-HWH
9	283-68	2	Pin-Clevis
11	99-4115	2	Front Lift Frame ASM
11:1	98-4166	2	Bushing
11:2	94-9610	2	Bushing - Flange
12	33096-00	4	Washer-Flat
15	3256-26	4	Washer-Flat
16	99-4201	4	Tube-Spacer
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

Ref. No.	Part No.	Qty.	Description
22:2	92-8995	2	Bushing
23	3272-11	2	Pin-Cotter
24	93-2254	2	Hydraulic Hose ASM
26	325-6	5	Screw-HH
27	3218-5	3	Nut-Jam
28	93-2384	2	Spacer-Carrier
31	302-60	2	Fitting-Lube
34	302-5	2	Fitting - Grease
35	74-3730	2	Spacer-Spindle, Rear
38	32144-69	4	Screw-HH
39	325-4	2	Screw-HH
40	325-14	2	Screw-HH
41	3296-54	6	Nut-Lock NI
42	3250-17	6	Screw-PPH
43	99-4111-01	1	Plate-Transport
44	99-4112-01	1	Plate-Transport
51	99-4225	2	Pad-Wear
52	99-4072	2	Spacer-Frame, Pull

PROTOTYPE

* Not illustrated



Sheet No.:20

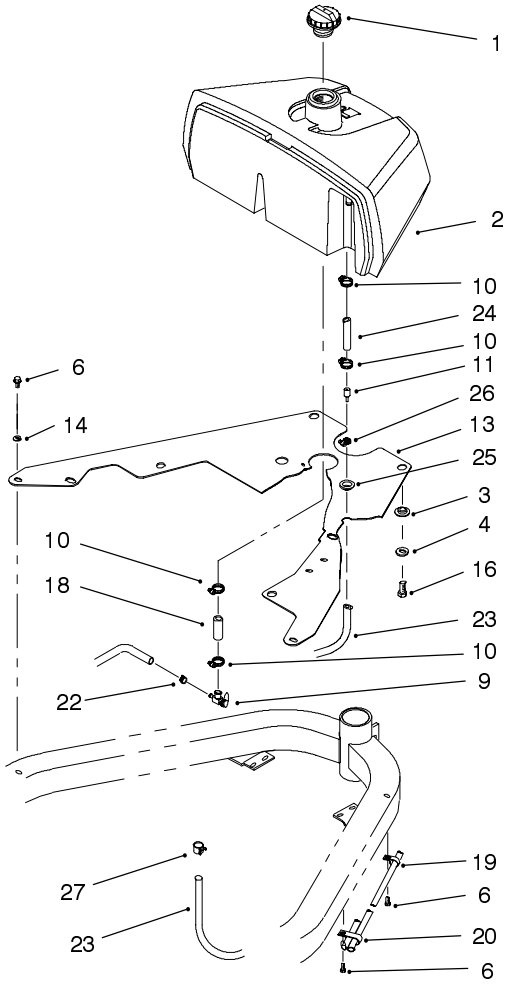
Center Lift Arm Assembly

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-HH
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
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 - Grease
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

PROTOTYPE



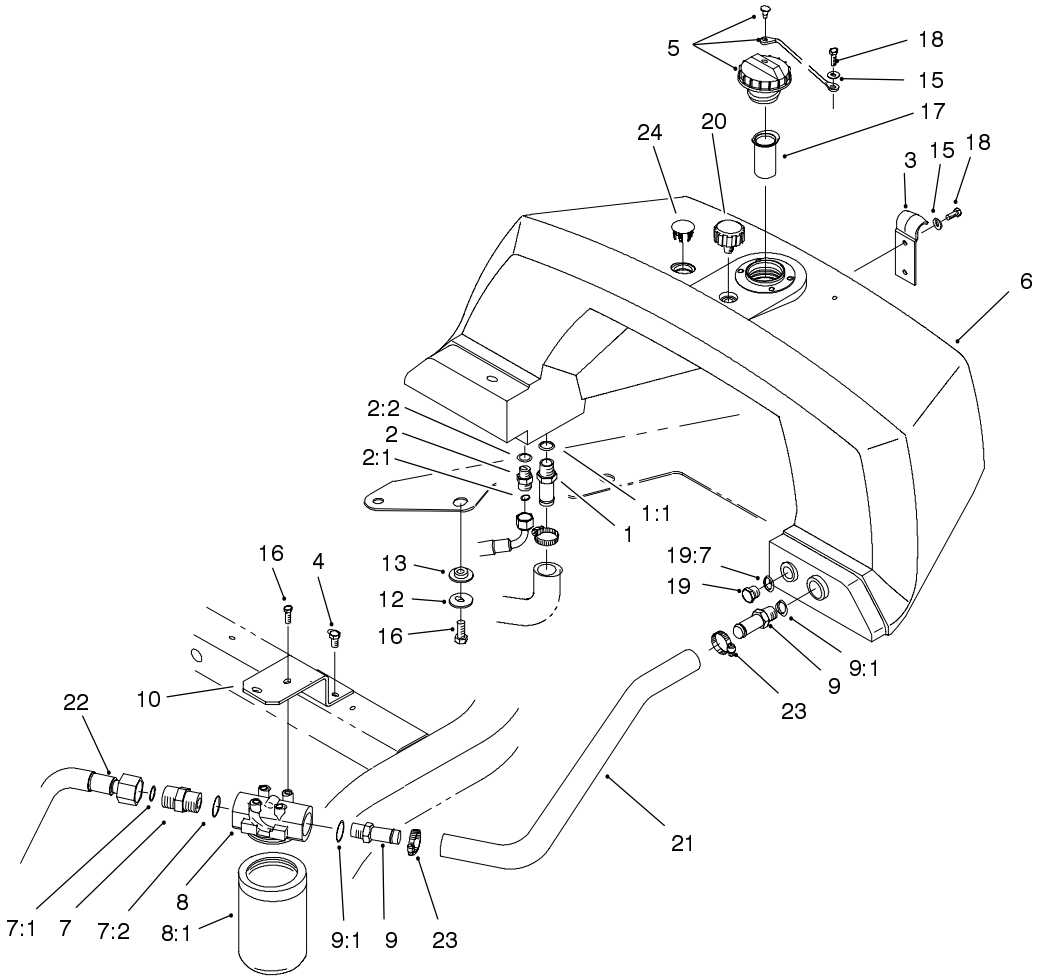
Sheet No.:21

Fuel System Assembly

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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE



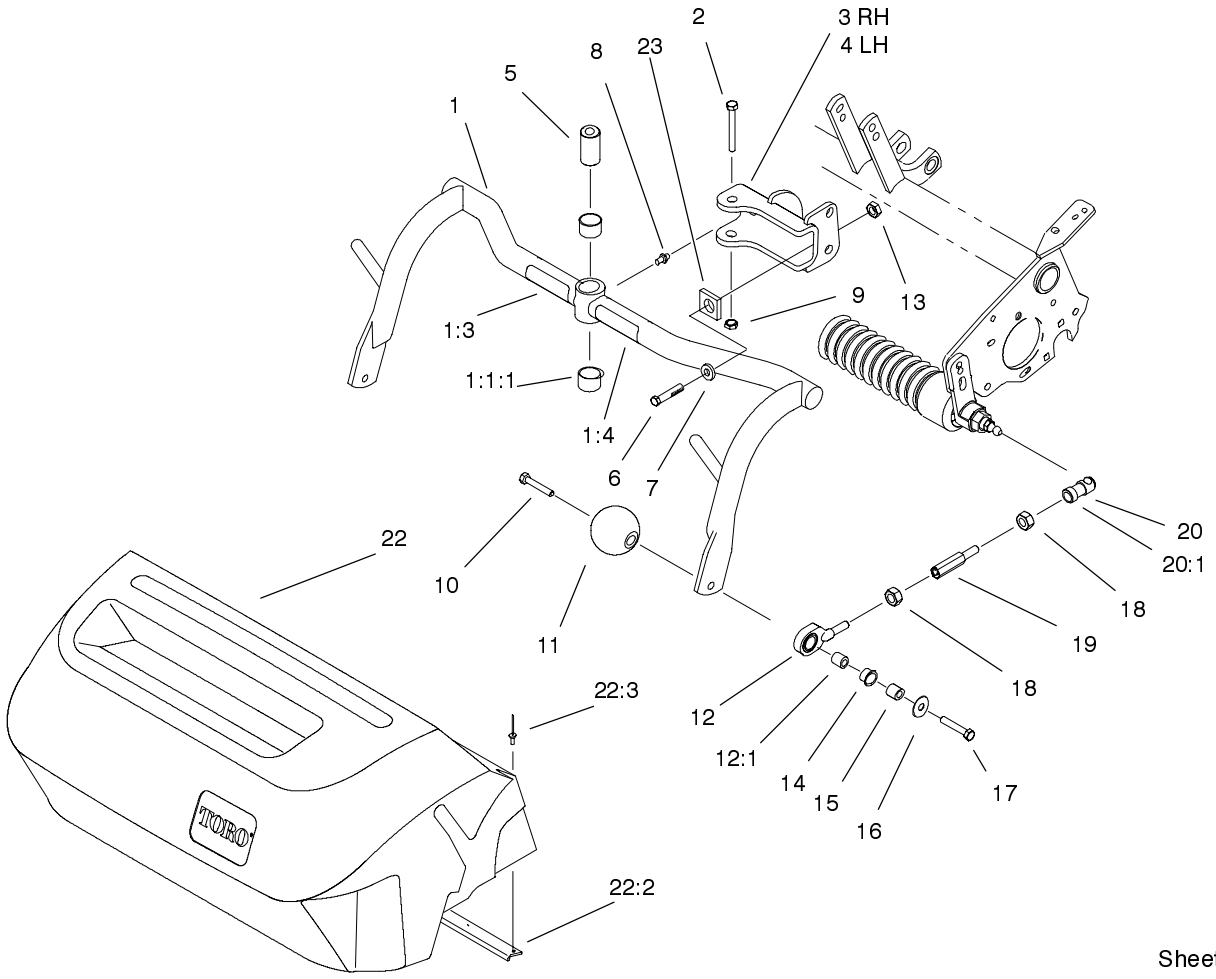
Sheet No.:22

Hydraulic Tank and Filter Assembly

Ref. No.	Part No.	Qty.	Description
1	354-78	1	Connector-Hose
1:1	237-146	1	O-Ring
2	340-2	1	Adapter
2:1	237-22	1	O-Ring
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
8:1	75-1310	1	Filter Element
9	354-73	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

Ref. No.	Part No.	Qty.	Description
20	68-6150	1	Breather-Air
21	94-9607	1	Hose - Return
22	94-4518	1	Tube ASM
23	2412-129	2	Clamp-Hose
24	93-2437	1	Plug - Serrated

PROTOTYPE



Sheet No.:30

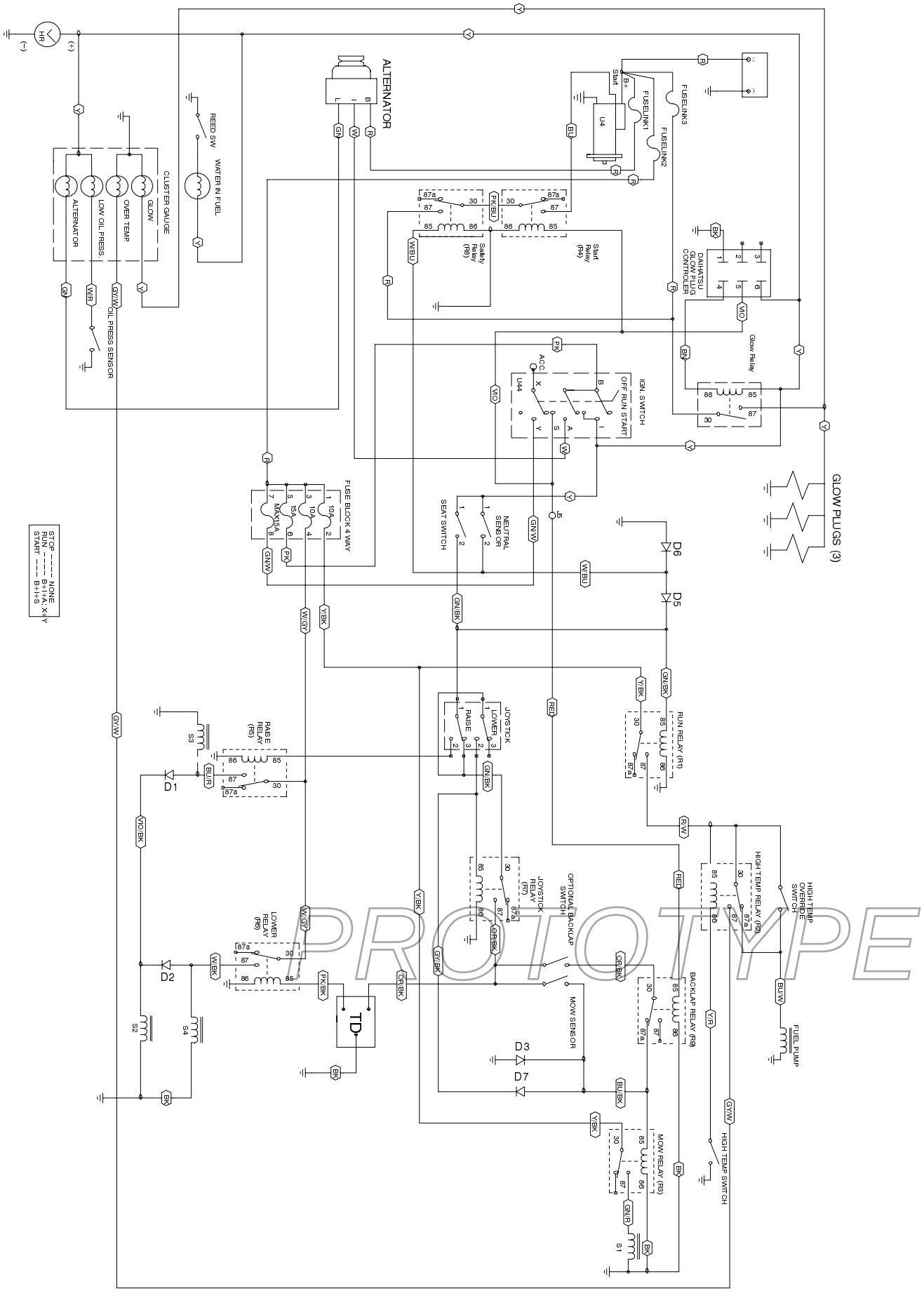
Center Pull Frame Assembly

Ref. No.	Part No.	Qty.	Description
1	99-4114	3	Pull Frame ASM
1:1		1	Pull Frame ASM
1:1:1	98-4166	2	Bushing
1:3	94-2575	1	Decal-Adjustment
1:4	99-4118	1	Decal-Danger
2	325-13	3	Screw-HH
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 - Grease
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

Ref. No.	Part No.	Qty.	Description
20	99-1460	6	Ball Joint Receiver ASM
20:1	99-1461	1	Sleeve-Joint, Ball
22	104-2071	3	Basket ASM
22:2	104-2607	1	Strip-Basket
22:3	3290-382	8	Rivet-Pop
23	94-1392	3	Pad - Rubber

PROTOTYPE

Electrical Schematic



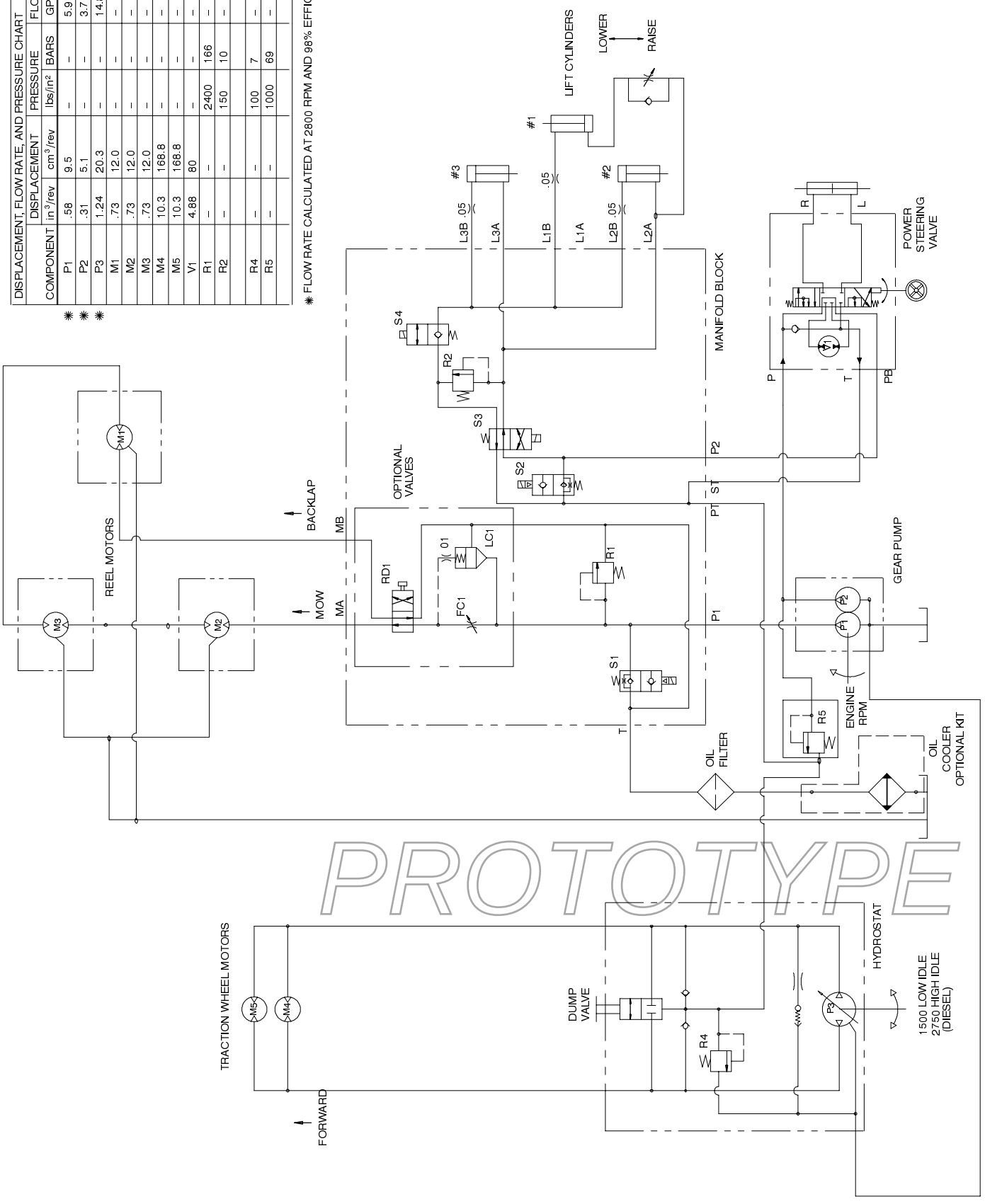
Hydraulic Schematic

DISPLACEMENT, FLOW RATE, AND PRESSURE CHART

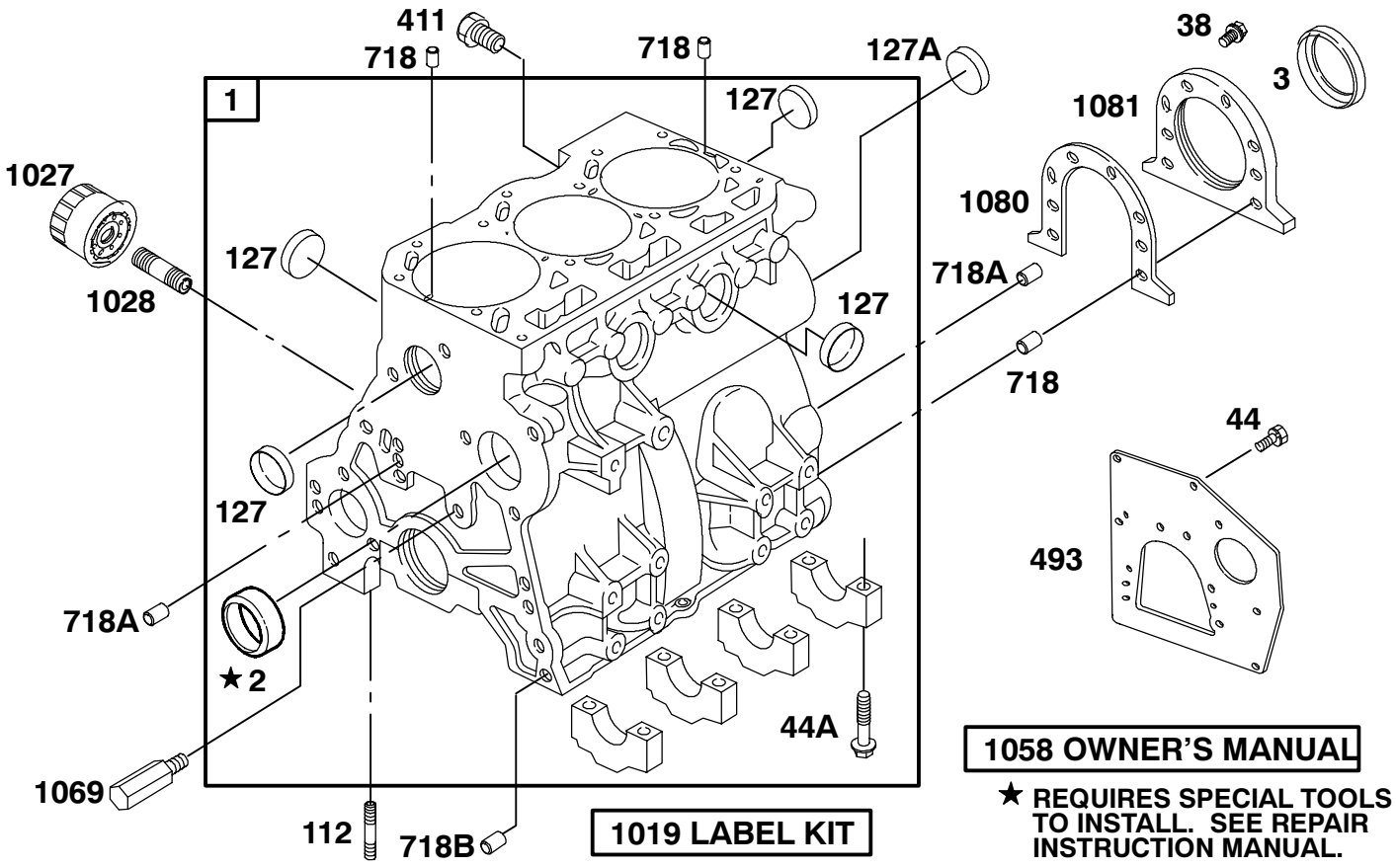
COMPONENT	DISPLACEMENT in³/rev	DISPLACEMENT cm³/rev	PRESSURE lbs/in²	PRESSURE BARS	FLOW RATE GPM	FLOW RATE LPM
P1	.58	9.5	–	–	5.9	22.4
P2	.31	5.1	–	–	3.7	13.9
P3	1.24	20.3	–	–	14.8	55.8
M1	.73	12.0	–	–	–	–
M2	.73	12.0	–	–	–	–
M3	.73	12.0	–	–	–	–
M4	10.3	168.8	–	–	–	–
M5	10.3	168.8	–	–	–	–
V1	4.88	80	–	–	–	–
R1	–	–	2400	166	–	–
R2	–	–	150	10	–	–
R4	–	–	100	7	–	–
R5	–	–	1000	69	–	–

✳ ✳ ✳

✳ FLOW RATE CALCULATED AT 2800 RPM AND 98% EFFICIENCY



PROTOTYPE



522447-0107-E2 TORO DIESEL

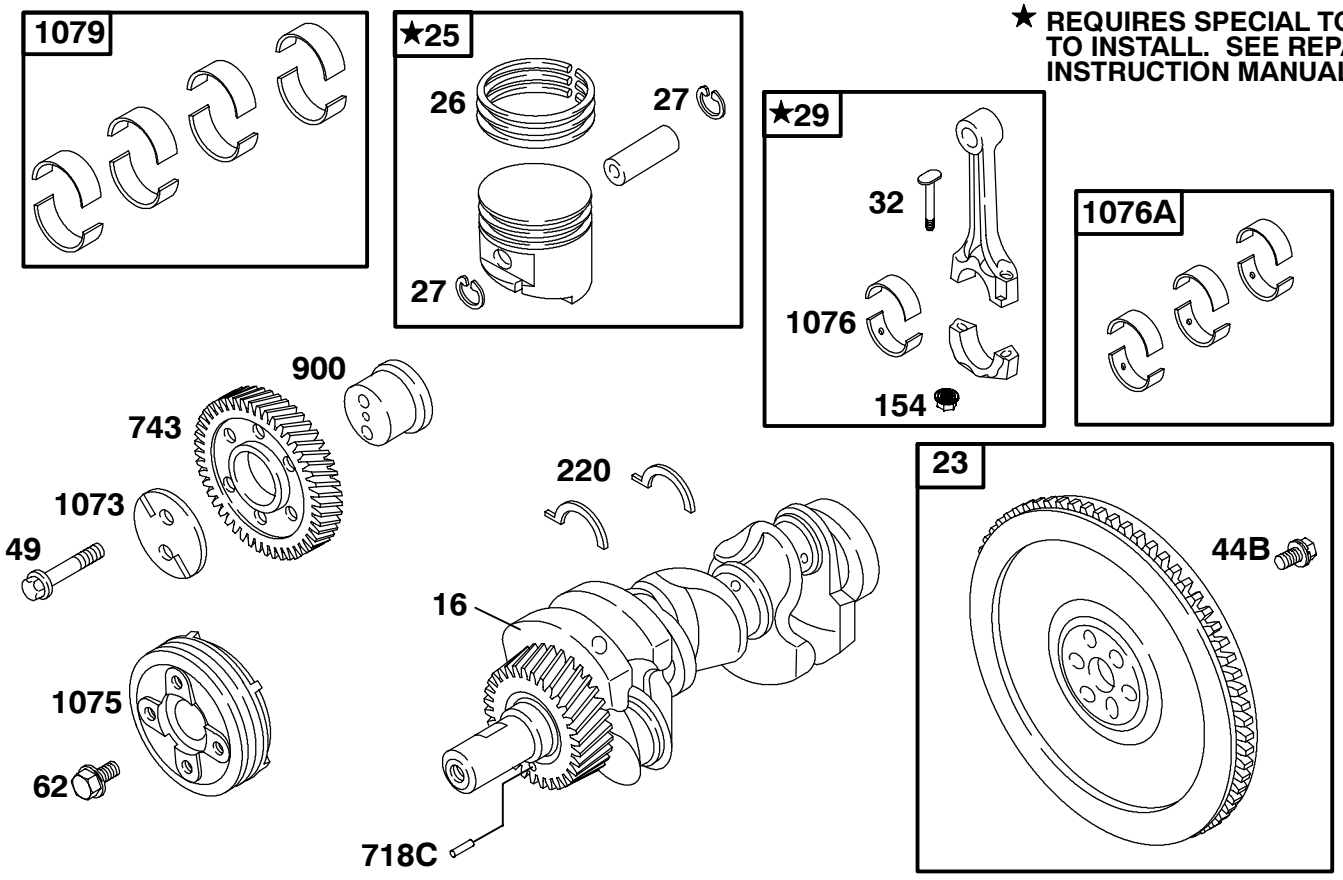
Ref. No.	Part No.	Qty.	Description
∇01	100-6401	1	Cylinder Assembly
∇02	99-9002	1	Bushing
★03	99-9003	1	Seal-Oil
1019	99-9015	1	Label Kit
1058	99-9602	1	Owner's Manual
∇1069	99-9020	1	Nozzle-Oil
★1080	99-9021	1	Gasket-Retainer
∇1081	99-9022	1	Retainer-Seal
112	99-9007	1	Stud-Metric
1027	99-9017	1	Filter-Oil
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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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.



★ REQUIRES SPECIAL TOOLS TO INSTALL. SEE REPAIR INSTRUCTION MANUAL.

522447-0107-E2 TORO DIESEL

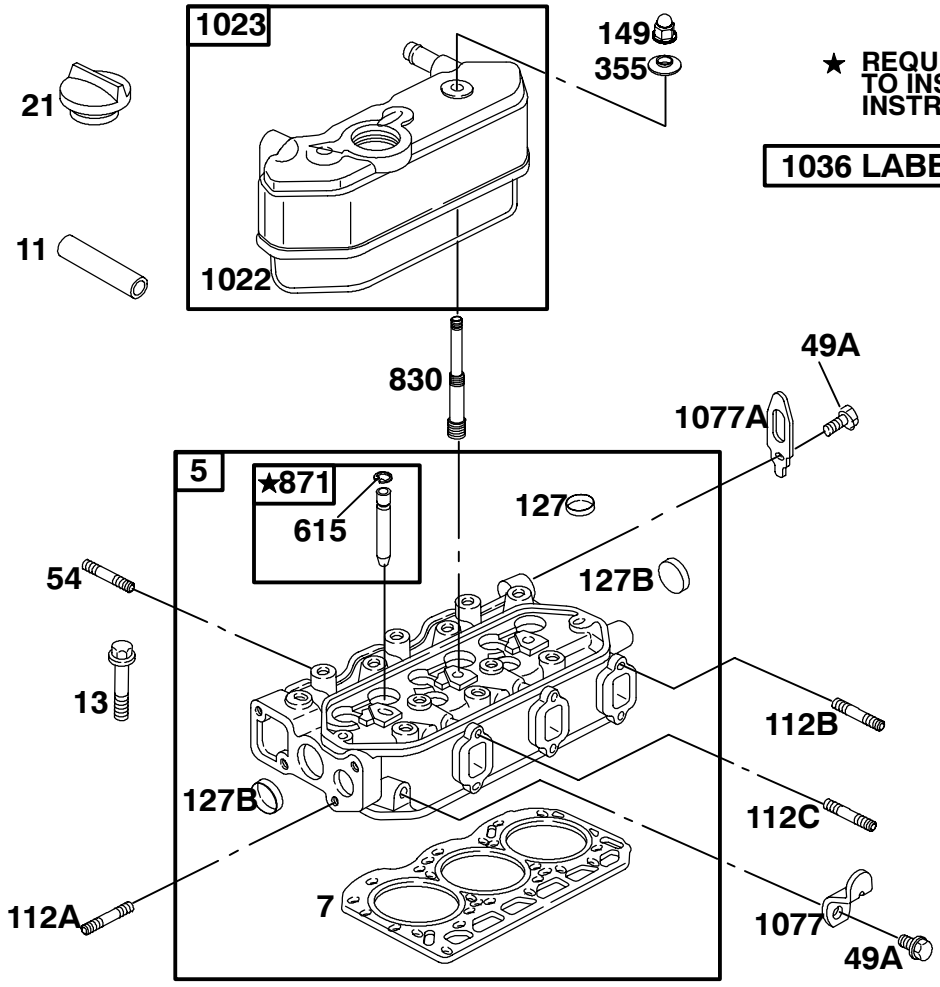
Ref. No.	Part No.	Qty.	Description
1073	99-9040	1	Plate-Idler Gear
1075	99-9692	1	Pully-Crankshaft
∇1076	99-9042	1	Bearing-Rod
∇1076A	99-9043	3	Bearing Set-Rod
∇1076A	99-9044	3	Bearing Set-Rod, .010 Undersize
∇1079	99-9045	1	Bearing Set-Main
∇1079	99-9046	1	Bearing Set-Main, .010 Under
154	99-9034	6	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

Ref. No.	Part No.	Qty.	Description
718C	99-9037	1	Pin-Locating
∇743	99-9609	1	Gear-Drive
∇900	99-9039	1	Shaft-Gear

PROTOTYPE

∇ 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.



★ REQUIRES SPECIAL TOOLS TO INSTALL. SEE REPAIR INSTRUCTION MANUAL.

1036 LABEL KIT-EMISSION

522447-0107-E2 TORO DIESEL

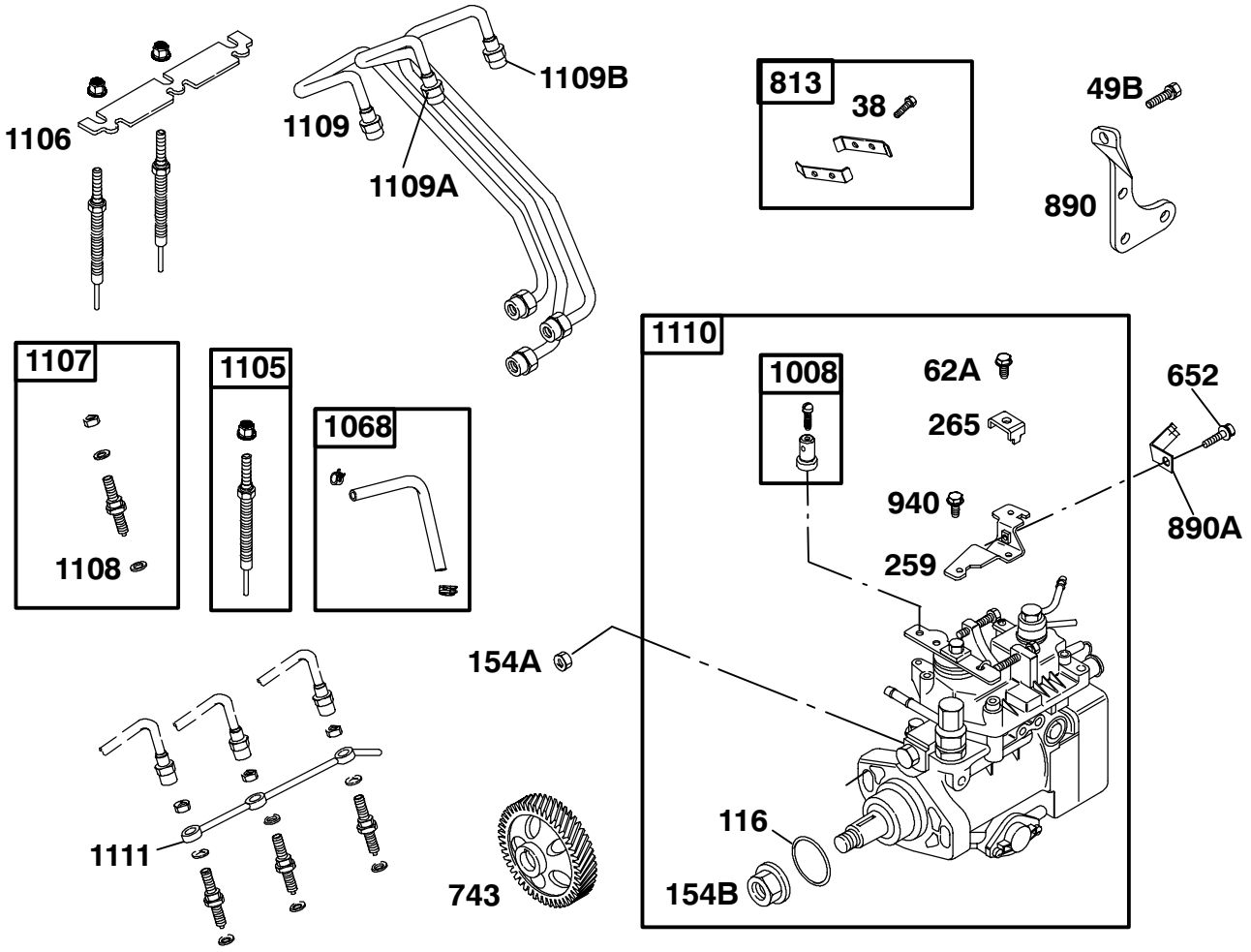
Ref. No.	Part No.	Qty.	Description
∇05	99-9611	1	Head-Cylinder
★Δ07	99-9612	1	Gasket-Cylinder Head
★Δ1022	99-9073	1	Gasket-Rocker Cover
1023	100-6402	1	Cover-Rocker
1036	99-9615	1	Label Kit-Emission
1077	99-9076	1	Bracket-Lifting
1077A	99-9077	1	Bracket-Lifting
11	99-9613	1	Tube-Breather
112A	99-9057	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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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

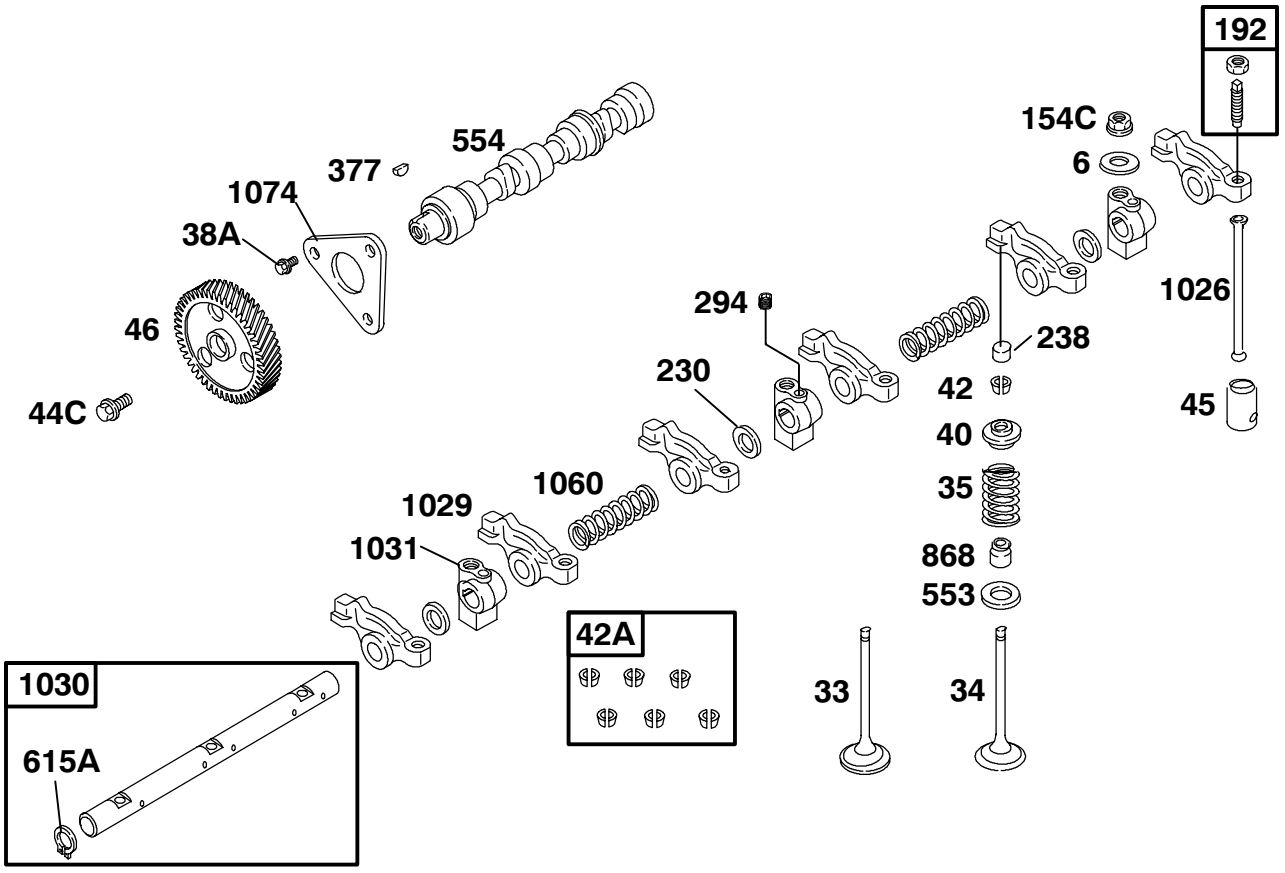
Ref. No.	Part No.	Qty.	Description
1008	99-9628	1	Clamp-Swivel
1068	99-9629	1	Hose/Clamp Assembly
1105	99-9630	3	Plug-Glow
1106	99-9631	1	Strap-Glow Plug
1107	99-9632	3	Nozzle-Injector
1108	99-9633	3	Seat-Injector
1109	99-9690	1	Pipe-Injector #1
1109A	99-9634	1	Pipe-Injector #2
1109B	99-9635	1	Pipe-Injector #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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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

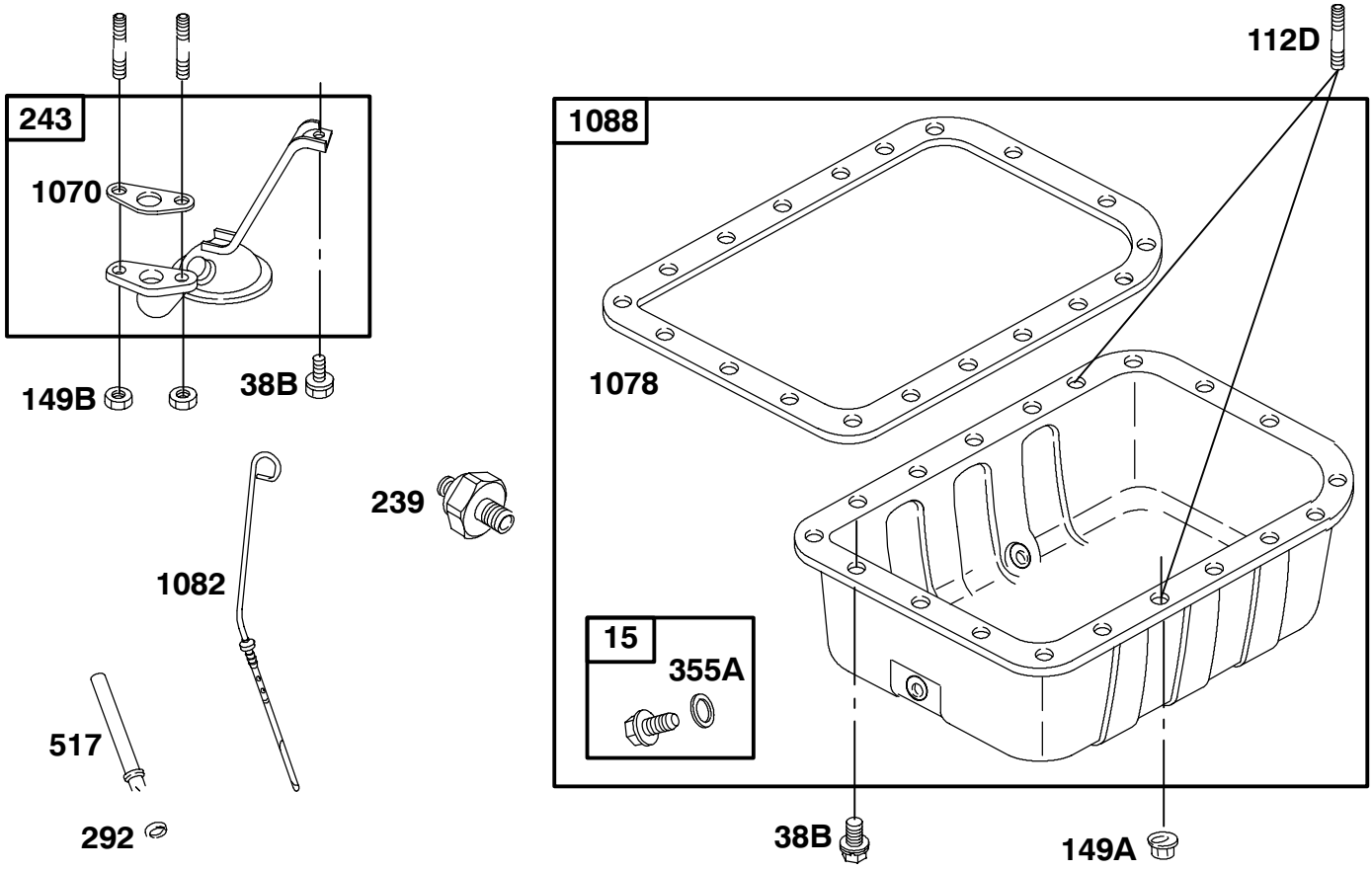
Ref. No.	Part No.	Qty.	Description
06	99-9079	3	Washer-Flat
1026	99-9103	6	Rod-Push
∇1029	99-9104	1	Arm-Rocker
∇1030	99-9106	1	Shaft-Rocker Arm
∇1031	99-9107	3	Support-Rocker Arm
∇1060	99-9108	2	Spring-Rocker Shaft
1074	99-9109	1	Retainer-Camshaft
154C	99-9091	3	Nut-Metric Hex
192	99-9092	6	Adjuster-Rocker 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

Ref. No.	Part No.	Qty.	Description
615A	99-9099	2	Retainer
★Δ868	99-9643	6	Seal-Valve

PROTOTYPE

∇ 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

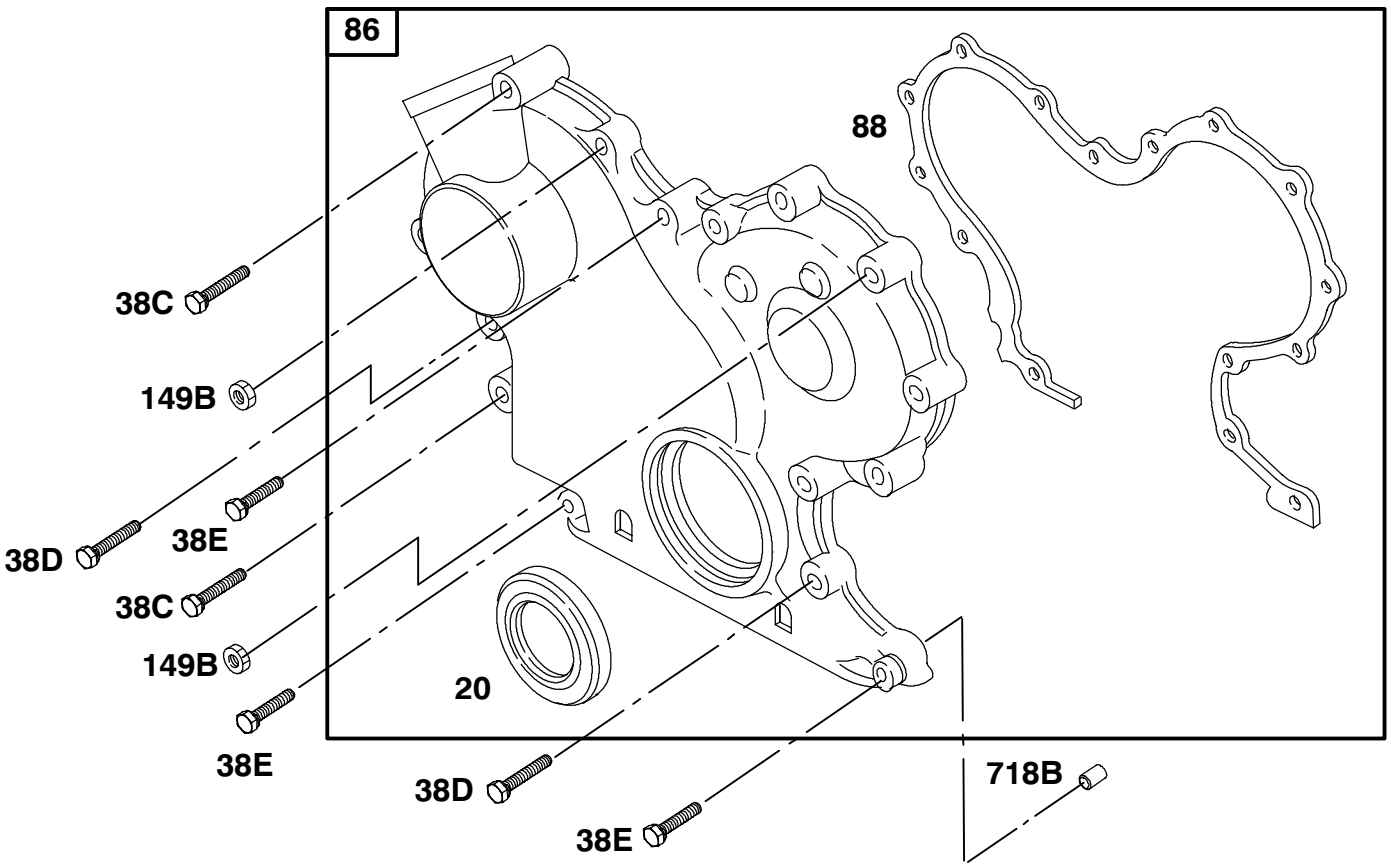
Ref. No.	Part No.	Qty.	Description
★1070	99-9120	1	Gasket-Oil Strainer
★1078	99-9121	1	Gasket-Oil Pan
1082	100-6405	1	Dipstick
∇1088	99-9649	1	Pan-Oil
112D	99-9112	2	Stud-Metric
149A	99-9113	2	Nut-Metric Hex
149B	99-9114	2	Nut-Metric Hex
15	99-9644	1	Plug-Oil Drain
239	99-9115	1	Switch-Oil Pressure
∇243	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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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

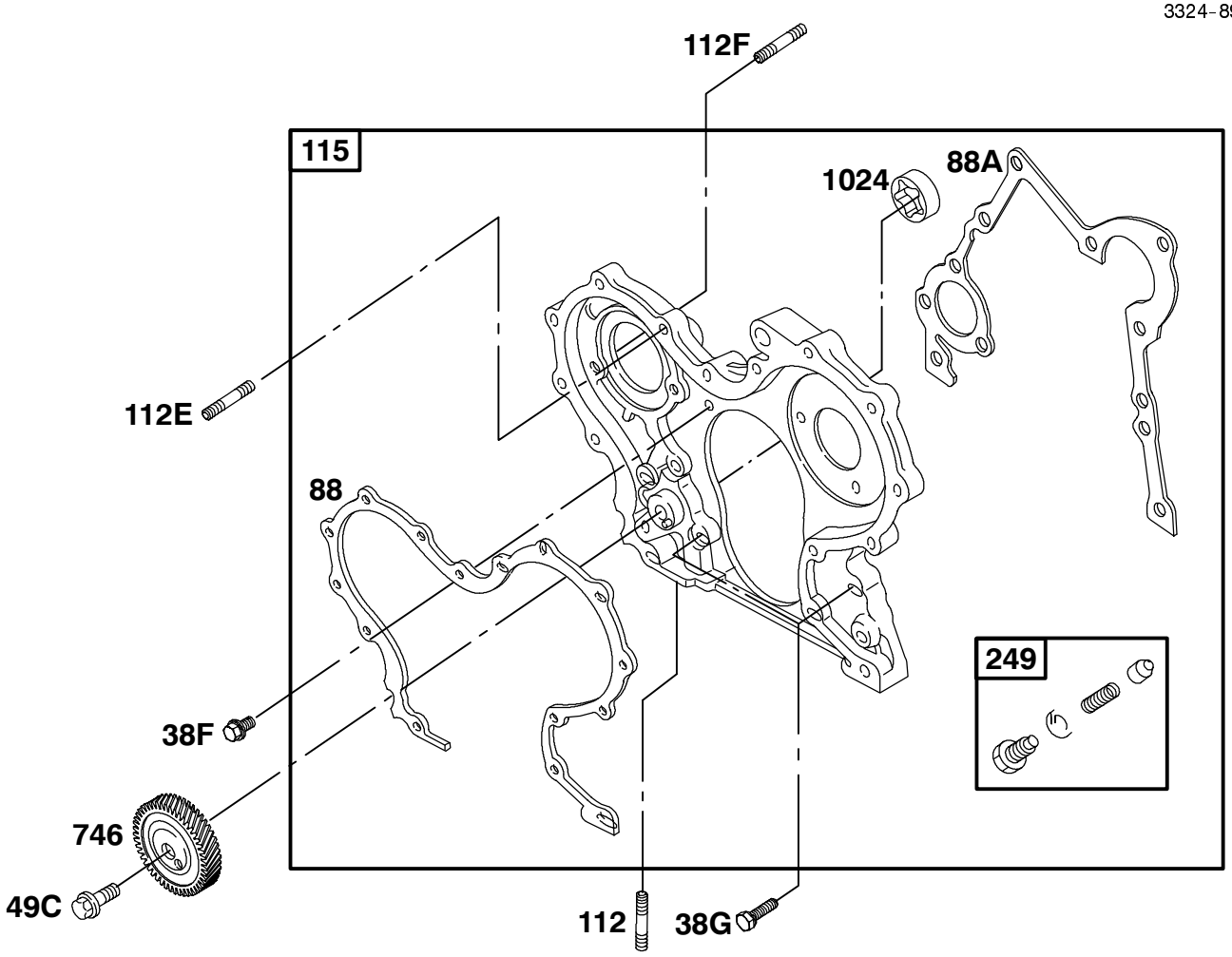
Ref. No.	Part No.	Qty.	Description
149B	99-9114	2	Nut-Metric Hex
★20	99-9126	1	Seal-Oil
38C	99-9651	2	Screw-6mm Hex
38D	99-9128	9	Screw-6mm Hex
38E	99-9129	3	Screw-6mm Hex
718B	99-9014	1	Pin-Locating
∇86	99-9652	1	Cover-Assembly-Gear
★88	99-9653	1	Gasket-Gear Cover

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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

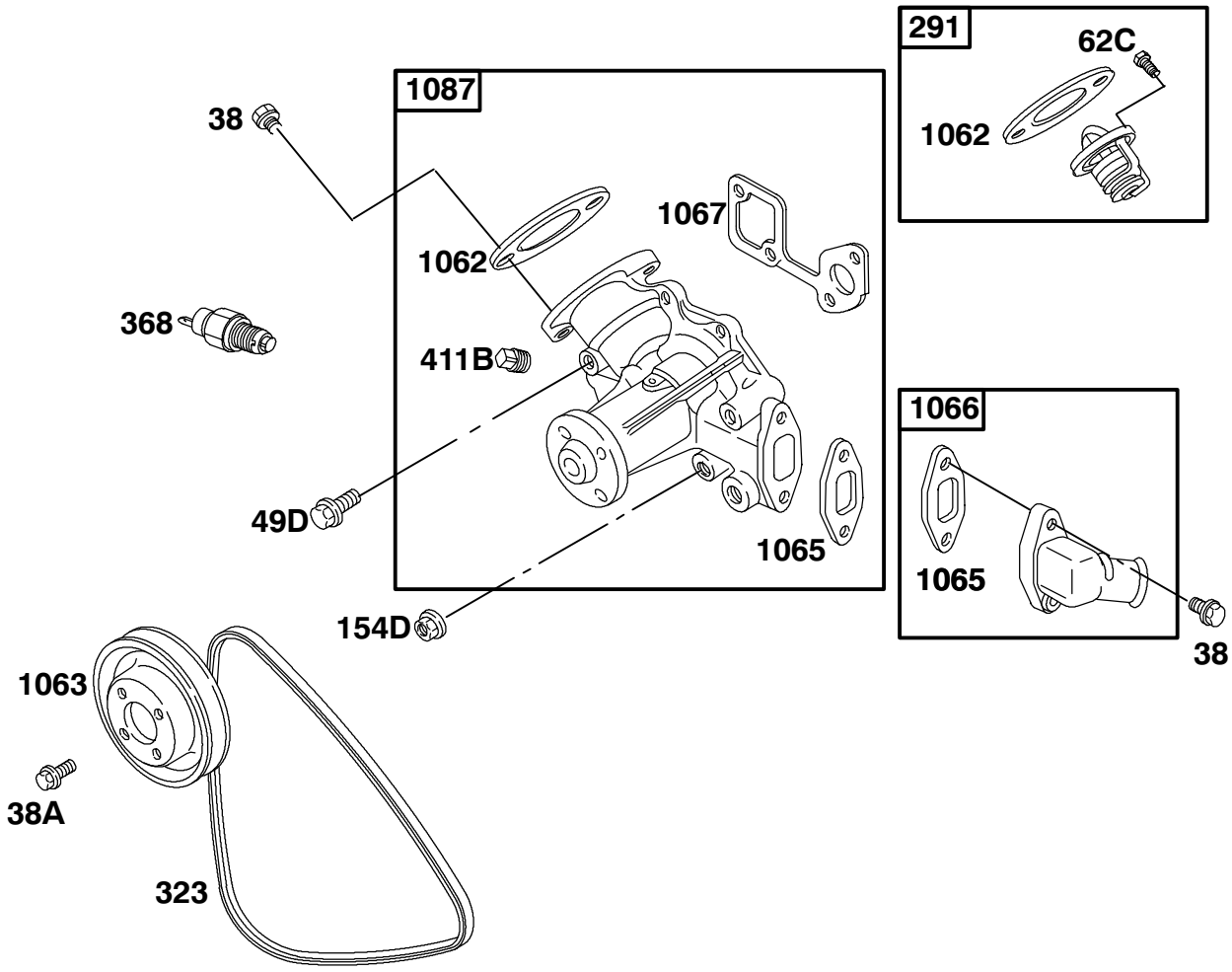
Ref. No.	Part No.	Qty.	Description
112	99-9007	1	Stud-Metric
112E	99-9137	2	Stud-Metric
112F	99-9654	2	Stud-Metric
∇115	99-9655	1	Housing-Gear
∇249	99-9142	1	Valve-Oil Relief
38F	99-9134	1	Screw-6mm Hex
38G	99-9133	4	Screw-6mm Hex
49C	99-9135	1	Screw-8mm Hex
∇746	99-9656	1	Gear-Drive
⋆88	99-9653	1	Gasket-Gear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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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

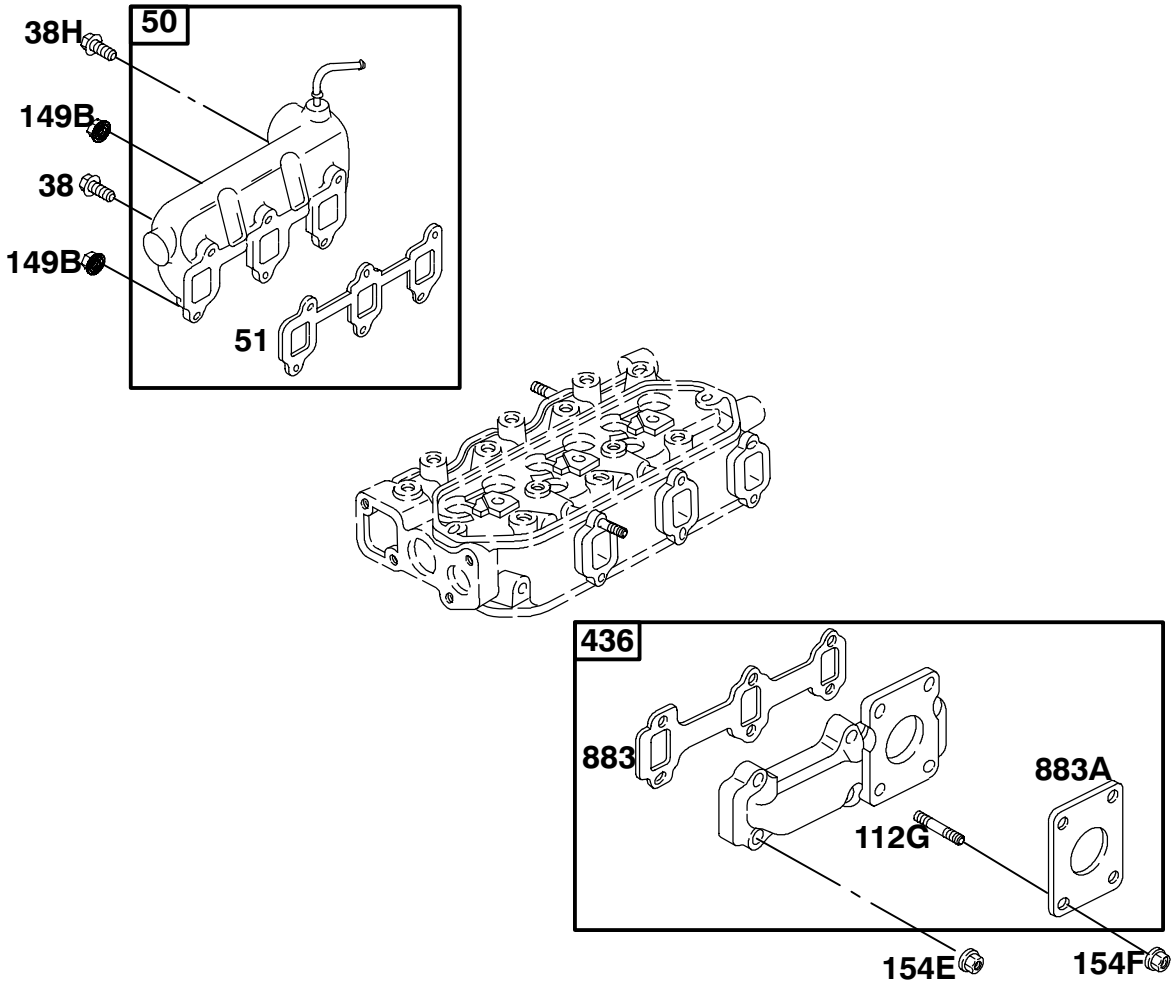
Ref. No.	Part No.	Qty.	Description
★1062	99-9163	1	Gasket-Outlet
1063	99-9164	1	Pulley-Pump
★1065	99-9166	1	Gasket-Inlet Housing
1066	99-9167	1	Housing-Inlet
★Δ1067	99-9168	1	Gasket-Water Pump
1087	99-9659	1	Pump-Water
154D	99-9153	1	Nut-Metric Hex
291	99-9155	1	Thermostat
∇323	99-8153	1	Belt-V
368	99-9157	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

PROTOTYPE

∇ 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

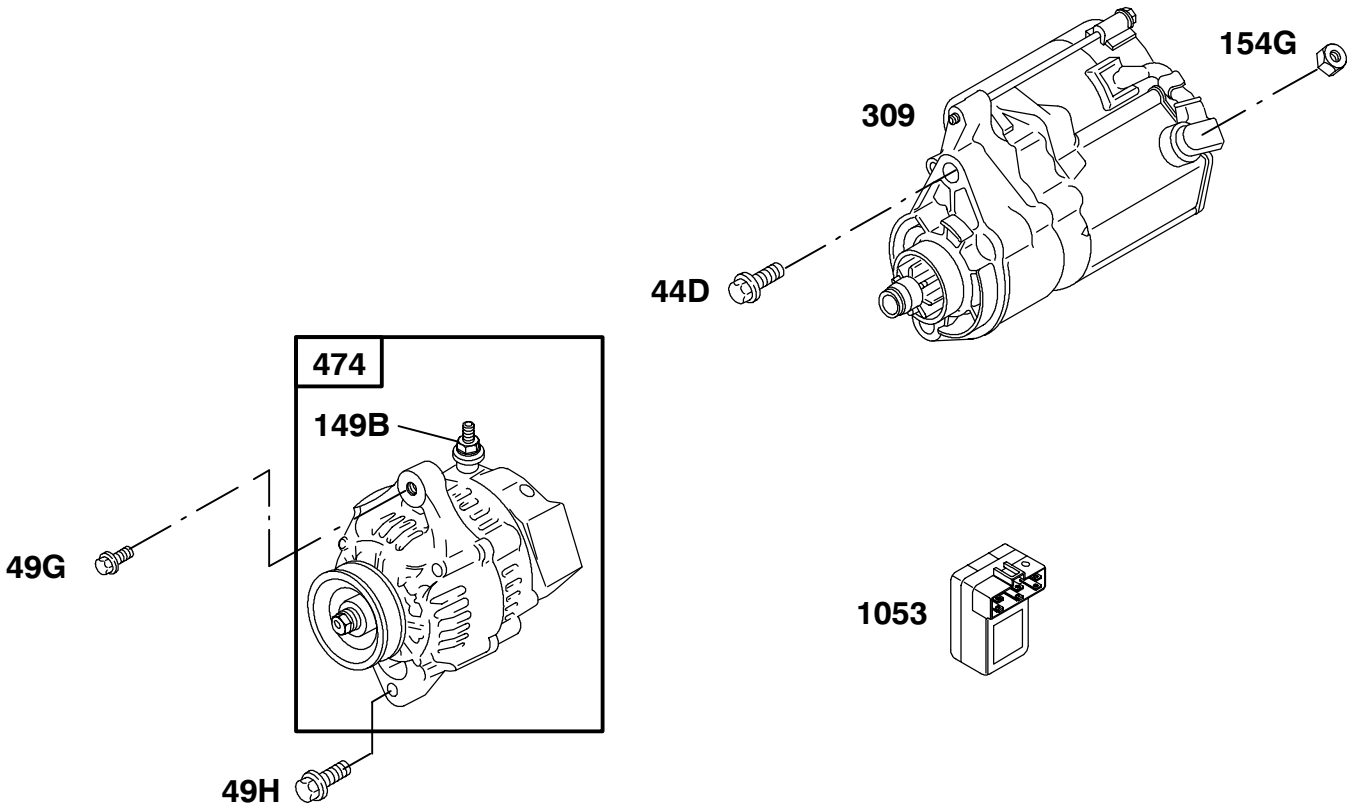
Ref. No.	Part No.	Qty.	Description
112G	100-6407	4	Stud-Exhaust Manifold
149B	99-9114	2	Nut-Metric Hex
154E	99-9175	6	Nut-Metric Hex
154F	99-9176	4	Nut-Metric Hex
38	99-9004	1	Screw-Hex
38H	99-9660	3	Screw-6mm Hex
∇436	99-9177	1	Manifold-Exhaust
∇50	99-9661	1	Manifold-Intake
⋆Δ51	99-9662	1	Gasket-Intake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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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

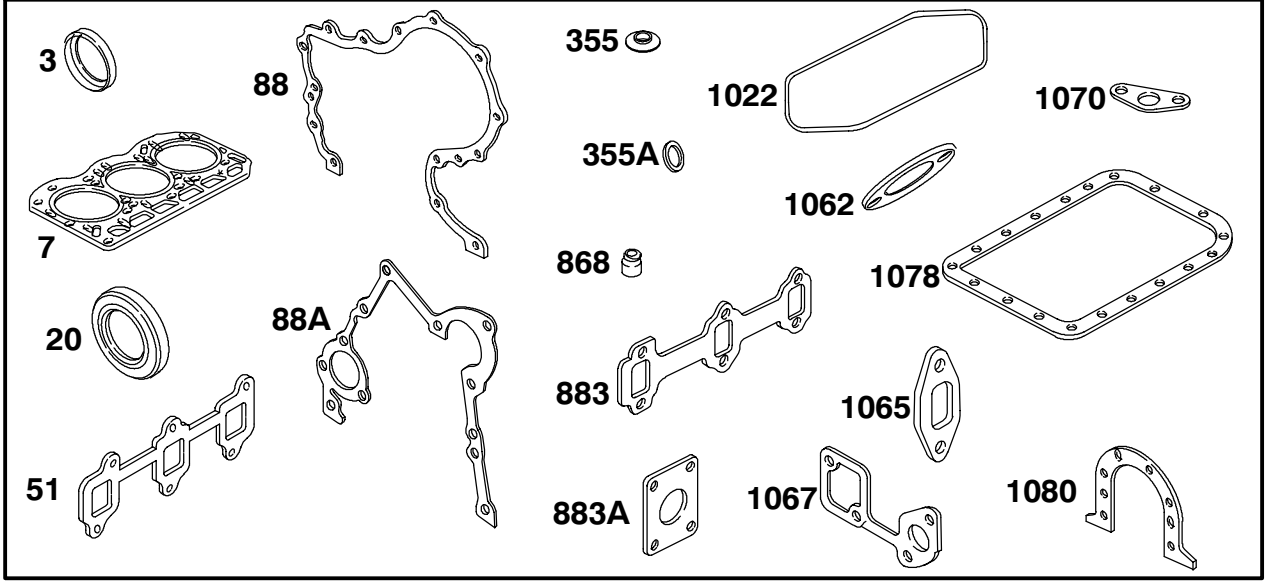
Ref. No.	Part No.	Qty.	Description

PROTOTYPE

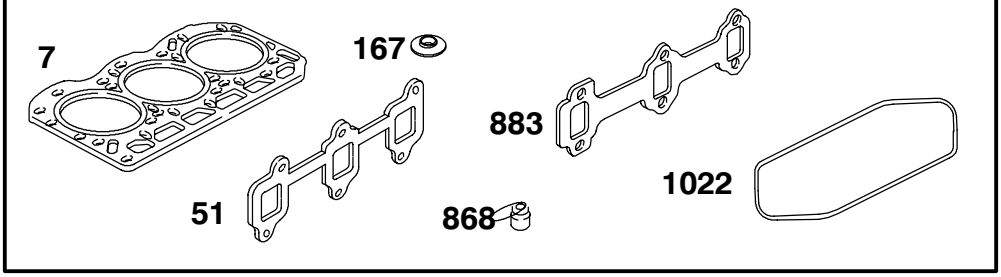
∇ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.
★ Included in Gasket Set - Part Number 99-9667
Δ Included in Valve Overhaul Kit - Part Number 99-9668

Assemblies include all parts shown in frames.

358 GASKET SET



1033 VALVE OVERHAUL KIT



522447-0107-E2 TORO DIESEL

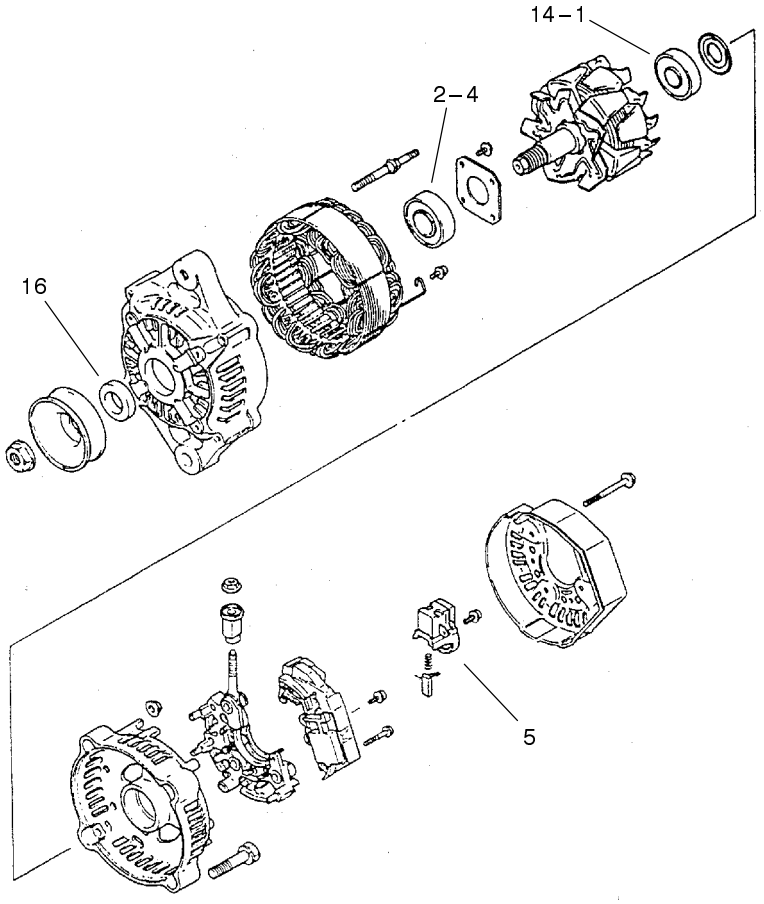
Ref. No.	Part No.	Qty.	Description
★03	99-9003	1	Seal-Oil
★Δ07	99-9612	1	Gasket-Cylinder Head
★Δ1022	99-9073	1	Gasket-Rocker Cover
1033	99-9668	1	Kit-Valve Overhaul
★1062	99-9163	1	Gasket-Outlet
★1065	99-9166	1	Gasket-Inlet Housing
★Δ1067	99-9168	1	Gasket-Water Pump
★1070	99-9120	1	Gasket-Oil Strainer
★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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

∇ 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.



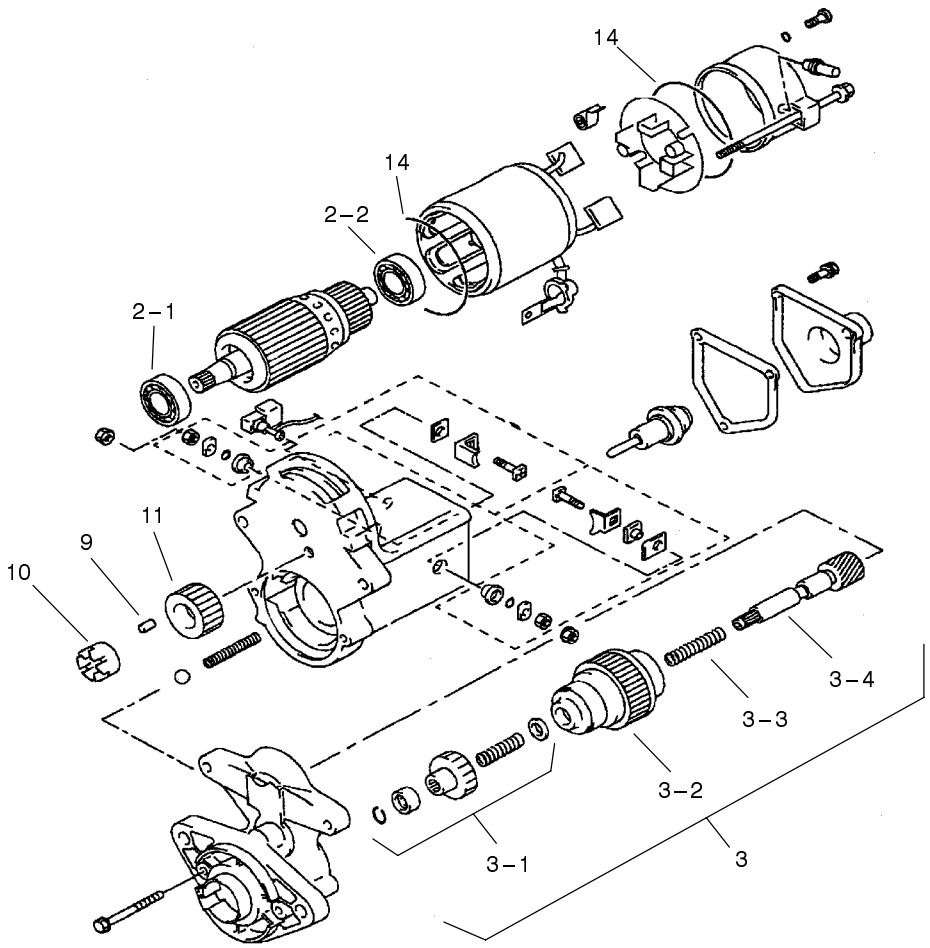
Sheet No.: 0
T-3540

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

PROTOTYPE



Sheet No.: 0
T-3541

Starter Assembly No. 99-9693

Ref. No.	Part No.	Qty.	Description
10	100-5322	1	Retainer
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

Ref. No.	Part No.	Qty.	Description

PROTOTYPE

Maintenance Record

Date								

PROTOTYPE

Maintenance Record

Date								

PROTOTYPE



PROTOTYPE