Form No. 3321–616

Traction Unit

For Greensmaster 3250D

Model No. 04383 – 200000001 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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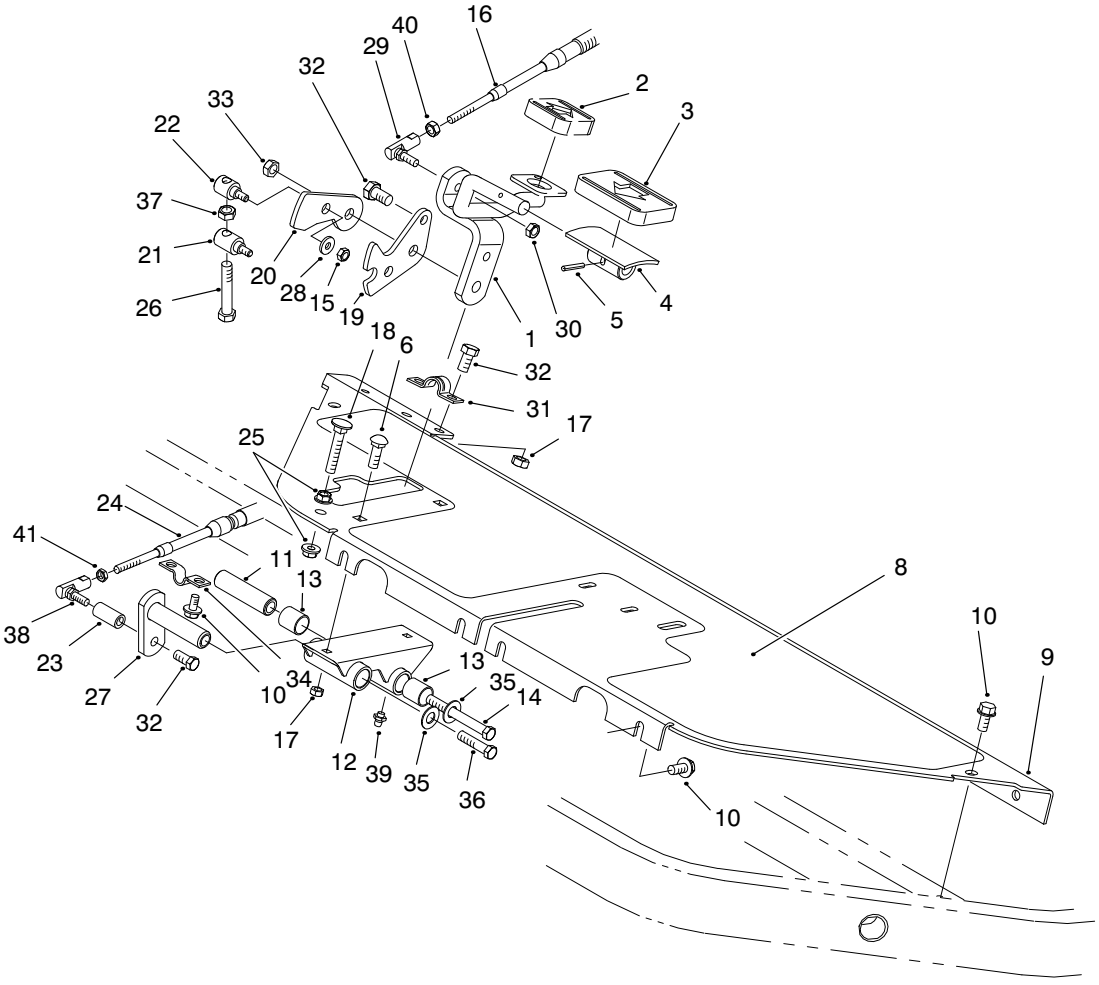
Accessories

Description	Model / Part No.
Thatching Reel	04493
Spiker Kit	04494
Tri–Roller Kit	04495
Oil Cooler Kit	100–3166
Leak Detector Kit	04497
Backlap/Reel Kit	04498
Light Kit	04551
Quick Height of Cut Kit	04451
Direct Suspension Kit	04452
Tie Down Kit	94–6379
Hose Adapter Kit	94–8190
Spark Arrestor Screen	94–8157
3 Wheel Drive Kit	04553
8 Blade 4 Bolt Cutting Unit	04480
11 Blade 4 Bolt Cutting Unit	04481
8 Blade SPA Cutting Unit	04482
11 Blade SPA Cutting Unit	04483

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

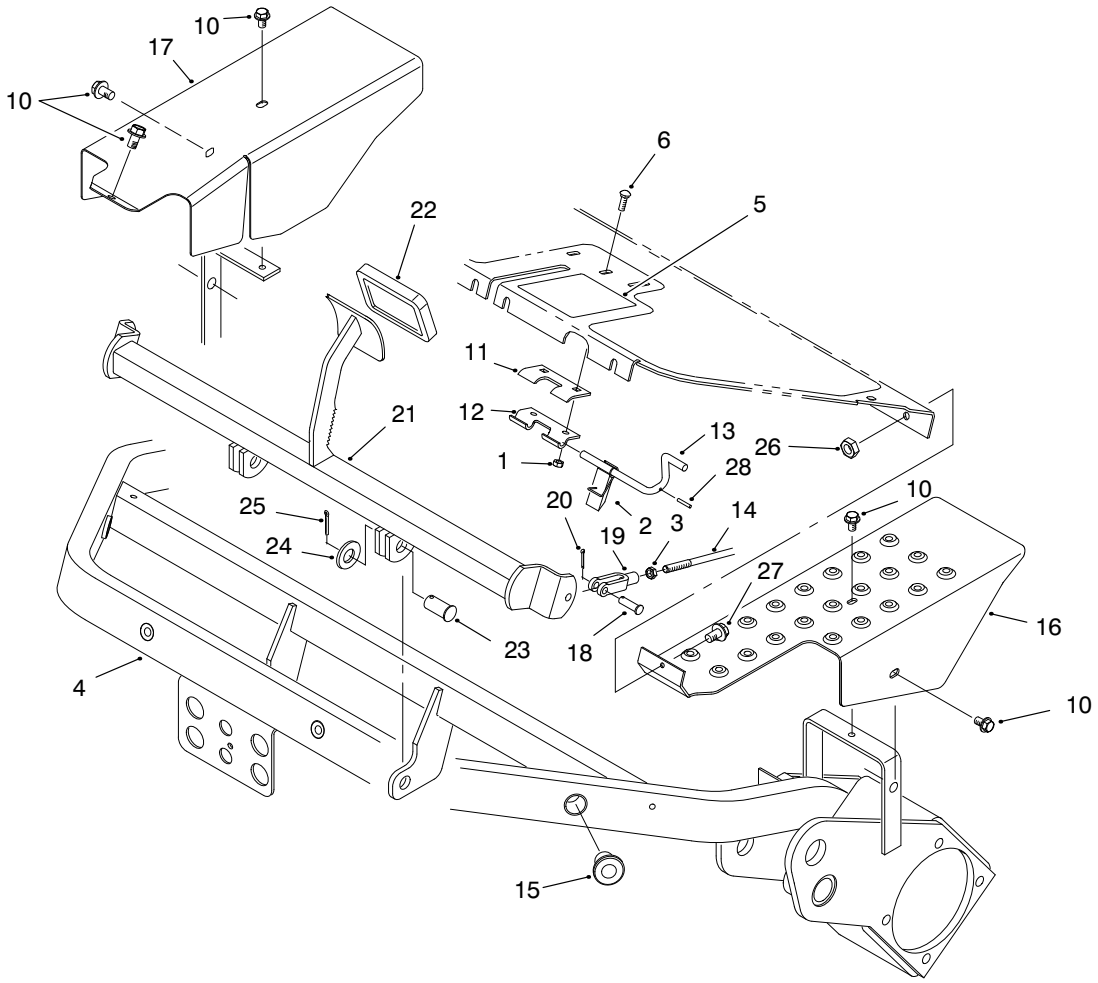


Sheet No.:2

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	Acc Pedal
5	32121–45	1	Pin–Spring
6	33124–020	2	Screw–CARR
8	93–2142	1	Pad – Floor Plate
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	Split Bushing
14	33115–090	1	Screw–HH
15	33023–00	2	Nut–Lock NI
16	93–2099	1	Cable – Traction Control
17	33024–00	4	Nut–Lock NI
18	17–9420	1	Screw – Handle
19	94–1373	1	Bracket – Lock
20	94–1372	1	Bracket – Mow
21	94–1375	1	Trunnion – Lock Bracket
22	94–1374	1	Trunnion – Mow Bracket
23	94–1386	1	Shaft – Pivot Pedal
24	94–1304	1	Cable – Neutral Lock

Ref. No.	Part No.	Qty.	Description
25	32128–20	2	Nut–HF
26	94–3489	1	Capscrew – HH
27	94–1300	1	Neutral Lock
28	3256–1	2	Washer–Flat
29	2411–34	1	Ball Joint
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 NI
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	Ball Joint
39	302–5	1	Fitting–Lube
40	3220–1	1	Nut–Jam
41	3219–14	1	Nut–Hex

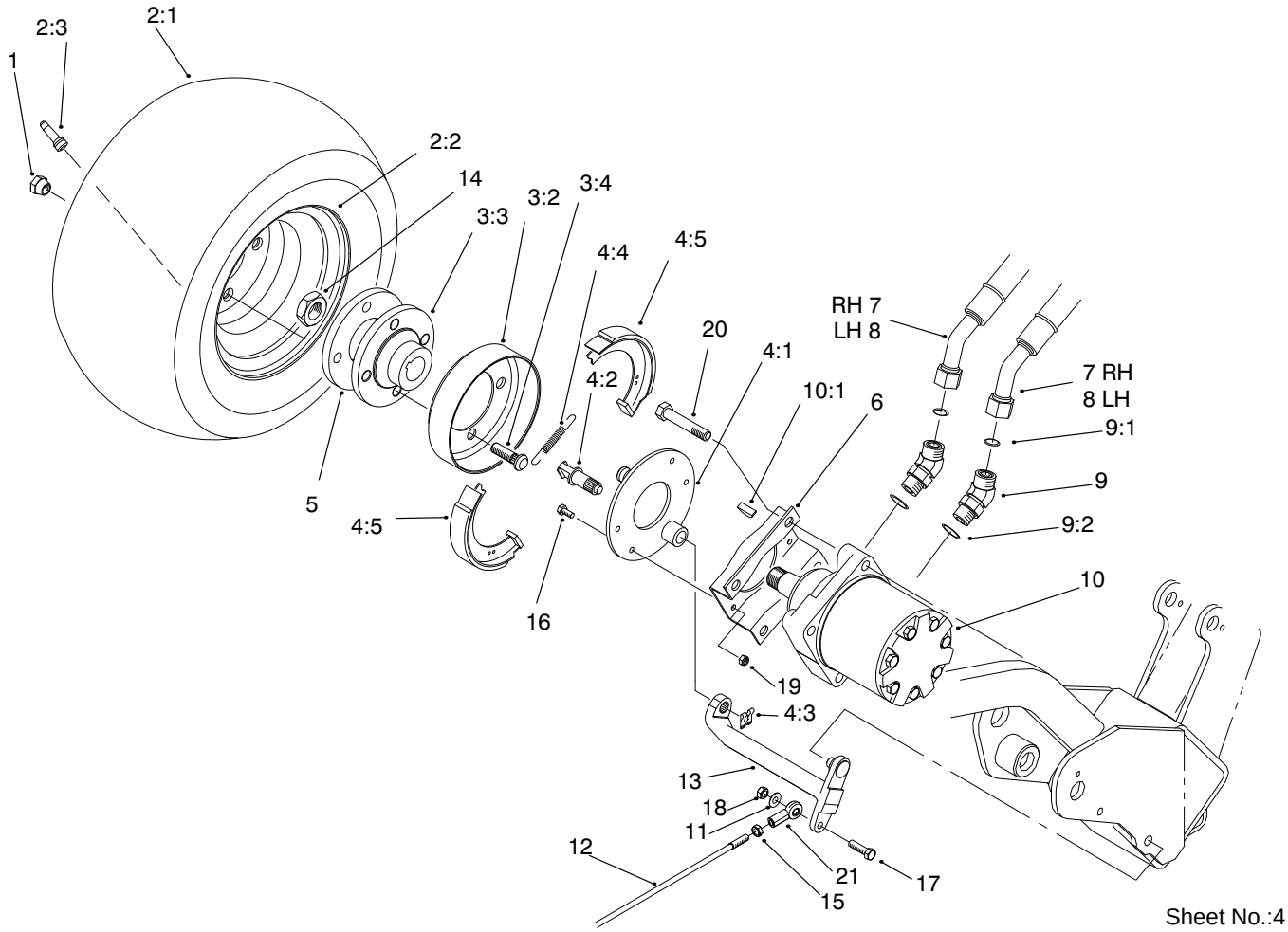


Sheet No.:3

Brake Pedal Assembly

Ref. No.	Part No.	Qty.	Description
1	33023–00	2	Nut–Lock NI
2	93–2276	1	Spring – Brake Latch
3	3220–2	2	Nut–Jam
4	93–2010–01	1	Frame
5	93–8062	1	Decal–Parking Brake
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,
14	93–2069	2	Rod–Brake
15	83–1700	3	Bushing – Flange
16	93–2073–01	1	LH Shield – Wheel,
17	93–2072–01	1	RH Shield – Wheel,
18	283–61	2	Pin–Yoke
19	282–2	2	Yoke
20	3272–6	2	Pin–Cotter
21	93–2075–01	1	Brake Pedal
22	93–7629	1	Foot Pad – 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

Ref. No.	Part No.	Qty.	Description

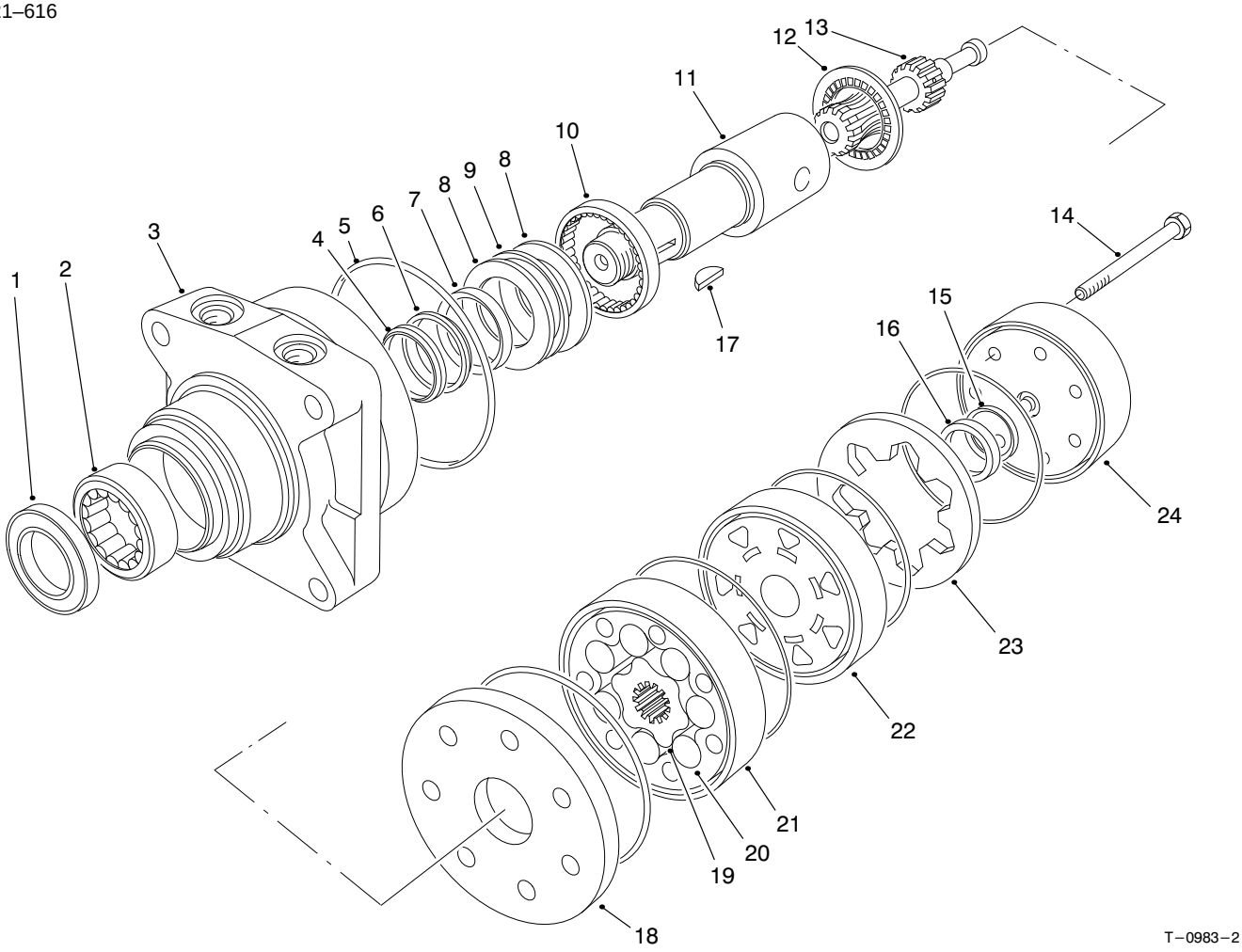


Sheet No.:4

Front Wheel And Brake Assembly

Ref. No.	Part No.	Qty.	Description
1	242–50	8	Nut–Lug
2:1	70–8500	2	Tire
2:2	94–6116	2	Wheel – Rear
2:3	232–27	2	Stem–Valve
3	10–6821	2	Brake Drum ASM
3:2	10–6850	1	Brake Drum
3:3	10–6870–03	1	Wheel Hub
3:4	85–6540	4	Drive Type Stud
4	71–1500	2	Brake Assembly
4:1	70–9870	1	Plate–Backing
4:2	70–9860	1	Cam Shaft
4:3	70–9850	1	Clip–Retaining
4:4	70–9880	2	Spring–Retaining
4:5	70–9840	2	Shoe–Brake
5	92–9154–03	2	Plate–Bearing
6	84–2000–03	2	Bracket–Brake
7	94–5357	2	Hose ASM

Ref. No.	Part No.	Qty.	Description
8	94–5358	2	Hose ASM
9	340–14	4	Fitting–45°
9:1	237–65	1	O–Ring
9:2	237–80	1	O–Ring
10	92–9199	2	Wheel Motor
10:1	3257–42	2	Key–Woodruff
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 LH
16	33113–020	8	Screw–HH
17	33114–030	2	Screw–HH
18	33024–00	2	Nut–Lock NI
19	33023–00	8	Nut–Lock NI
20	33116–060	8	Screw–HH
21	93–2070	2	Clevis – Swivel

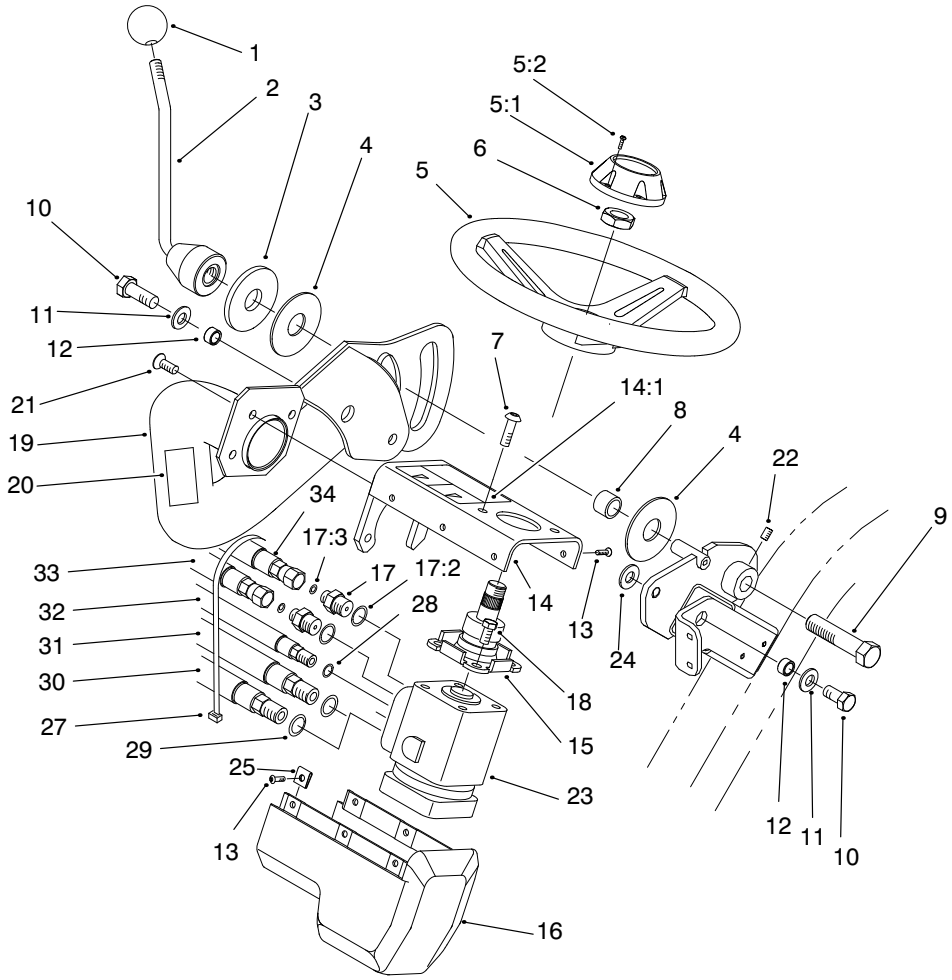


HYDRAULIC DRIVE MOTOR ASSEMBLY NO. 92–9199

Ref. No.	Part No.	Description	No. Used
†1		Seal – Dirt & Water	1
†2		Bearing	1
†3		Housing	1
†4		Washer – Back–Up	1
†5		Ring – Seal	5
†6		Washer – Back–Up	1
†7		Seal – Inner	1
†8		Washer – Thrust	2
†9		Bearing – Thrust	1
†10		Bearing	1
11	76–0860	Shaft – Coupling	1
12	76–0850	Bearing – Thrust	1
13	92–9761	Link – Drive	7
14	92–9762	Screw – Cap Hex. Hd.	1
†15		Seal – Commutator	1
†16		Commutator	1
17	3257–42	Key – Woodruff	1
18	76–0870	Plate – Wear	1
†19		Rotor	1
†20		Vane	7
†21		Stator	1
22	76–0840	Manifold	1
†23		Ring – Commutator	1
24	76–0940	End Cover Assembly	1
*	92–9763	Rotor Set (Incl. Ref. #19–21)	1

Ref. No.	Part No.	Description	No. Used
*	76–0880	Commutator Assembly (Incl. Ref. #15, 16 & 23)	1
*	94–8178	Seal Kit (Incl. Ref. #1, 4–7 & 15)	1
*	76–0810	Housing Assembly (Incl. Ref. #2, 3 & 8–10)	1

*Not Illustrated
†Not Serviced Separately

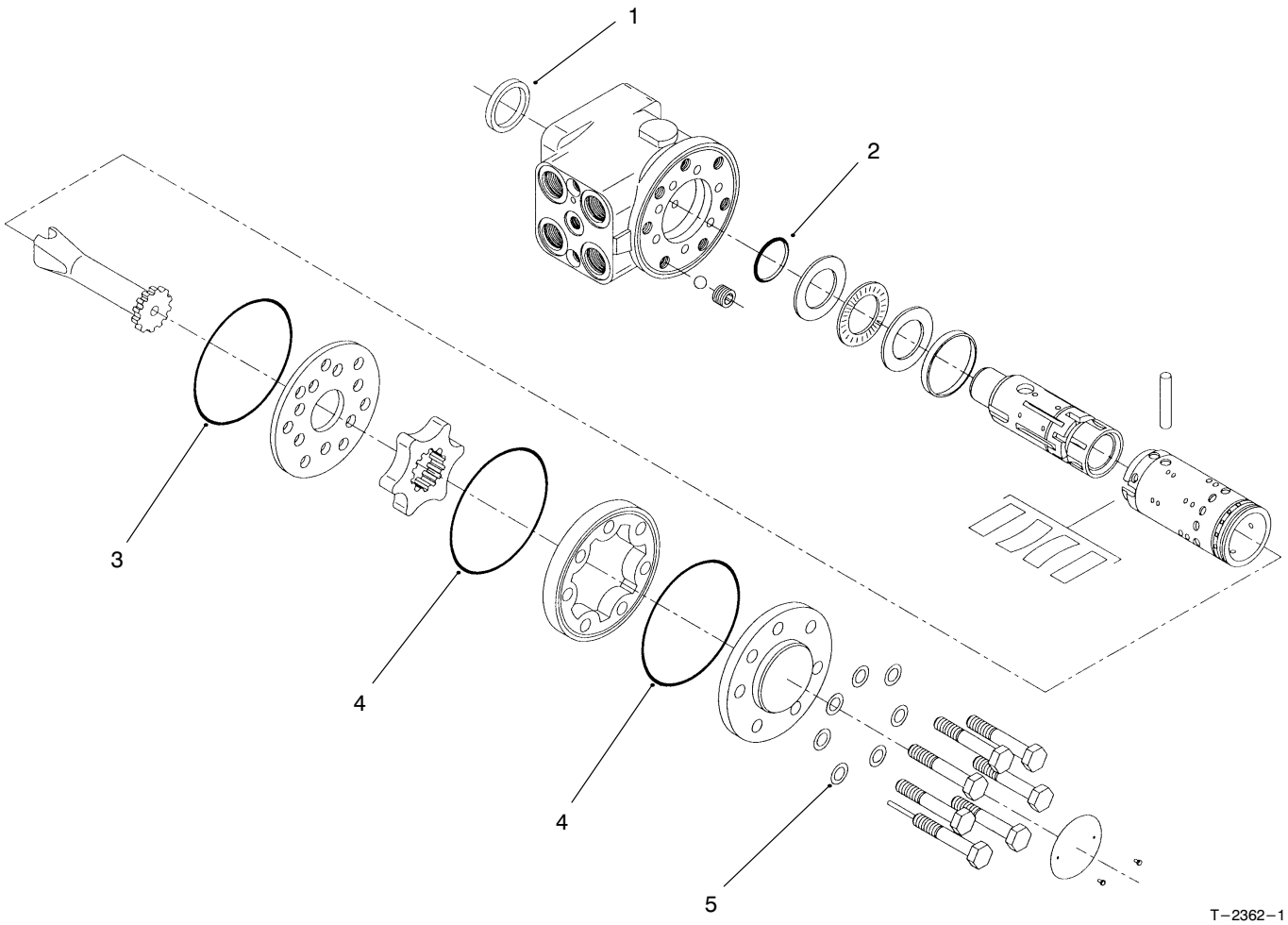


Sheet No.:5

Steering Arm Assembly

Ref. No.	Part No.	Qty.	Description
1	233–48	1	Knob
2	93–2400–03	1	Lockup Handle
3	83–0760	1	Spacer – Lockup Plate
4	83–0740	2	Disc – Friction
5	68–5130	1	Steering Wheel
5:1	68–5140	1	Cap–Steering Wheel
5:2	32144–21	1	Screw F/W
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	94–9628	1	Steering Cover Asm
14:1	93–8063	1	Decal–Warning
15	83–1420	1	Column–Steering
16	94–6366	1	Steering Valve Cover
17	340–133	2	Adapter

Ref. No.	Part No.	Qty.	Description
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	Steering Arm
20	93–8068	1	Decal–Steering Arm
21	3274–80	3	Screw–HH
22	3246–3	1	Screw–HS
23	93–2120	1	Steering Control Valve
23:6	94–4929	1	Kit – Seal
24	65–6390	1	Washer – Thrust, Plain
25	3290–277	6	Nut–Speed
27	3290–379	1	Tie–Cable
28	237–21	1	O–Ring
29	237–79	2	O–Ring
30	93–2272	1	Hose Asm
31	99–4218	1	Hose Asm
32	93–2269	1	Hose Asm
33	93–2270	1	Hose Asm
34	93–2122	1	Hose Asm

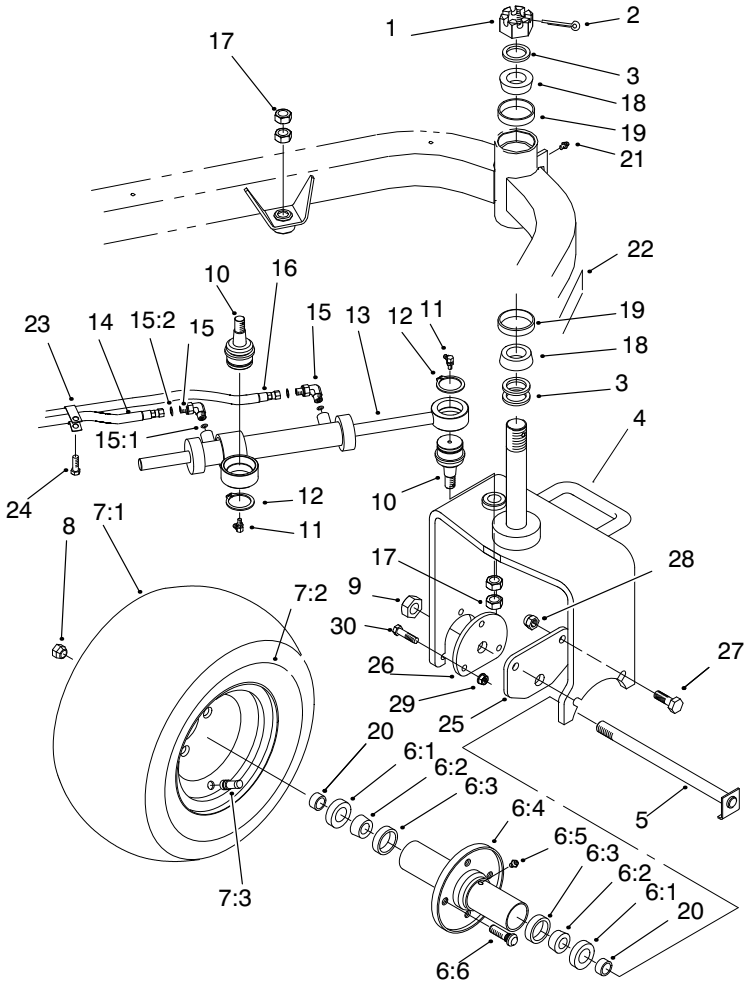


STEERING CONTROL VALVE NO. 93–2120

Ref. No.	Part No.	Description	No. Used
†1		Ring – Dust Seal	1
†2		O–Ring	1
†3		O–Ring	1
†4		O–Ring	2
†5		Washer	7
*	94–4929	Kit – Seal (Incl. Ref. #1–5)	1

Ref. No.	Part No.	Description	No. Used

†Not Serviced Separately

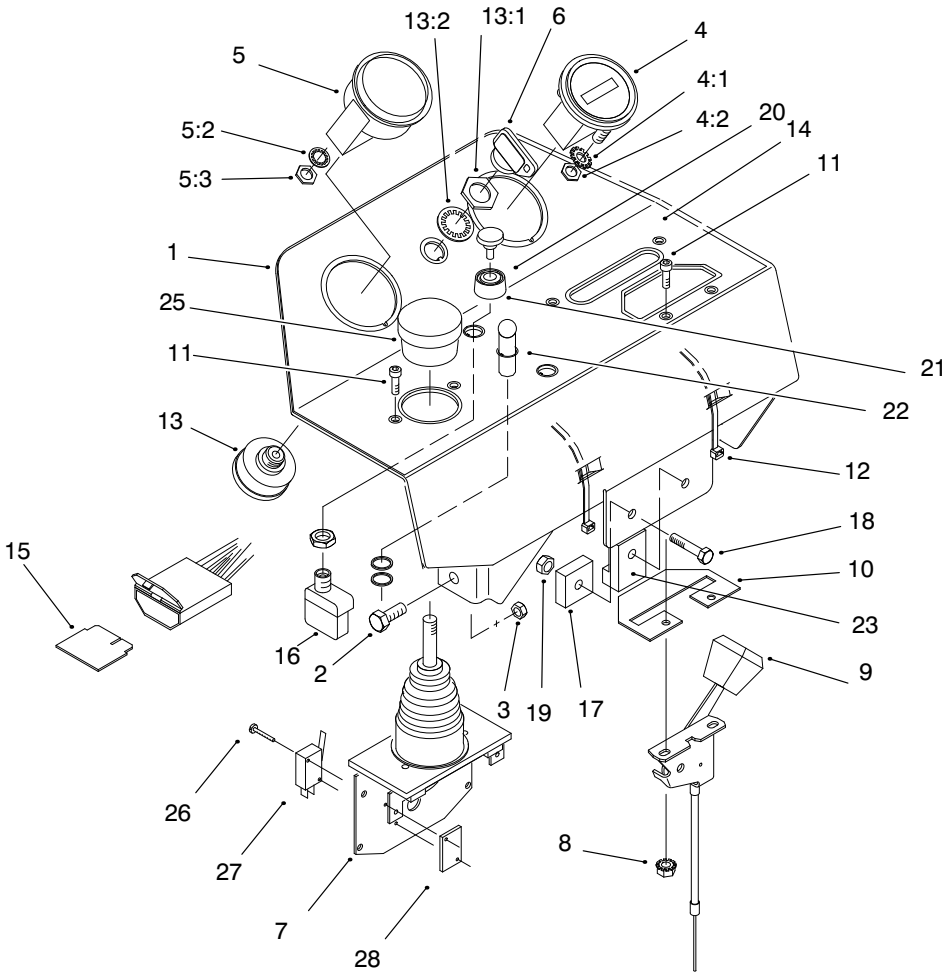


Sheet No.:6

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, Welded
5	70–8370	1	Bolt
6	72–9710	1	Hub – Sulky Tire
6:1	253–111	2	Oil Seal
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
7:1	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	Ball Joint
11	302–60	2	Fitting–Lube
12	32151–104	2	Ring–Retaining, Ext
13	93–2122	1	Cylinder Assy – Steering
13:1	94–4398	1	Seal Kit – Repair
14	93–2270	1	Hose Assy – Hyd
15	340–132	2	90 Elbow

Ref. No.	Part No.	Qty.	Description
15:1	237–78	1	O–Ring
15:2	237–21	1	O Ring
16	93–2269	1	Hose Assy – Hyd
17	3220–6	4	Nut–Jam
18	254–70	2	Cone–Bearing
19	254–61	2	Cup–Bearing
20	70–8490	2	Rear Spindle Spacer
21	302–5	1	Fitting–Lube
22	99–1493	1	Decal–Greensmaster 3250–D
23	92–5753	1	Clamp – Hose Dbl
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



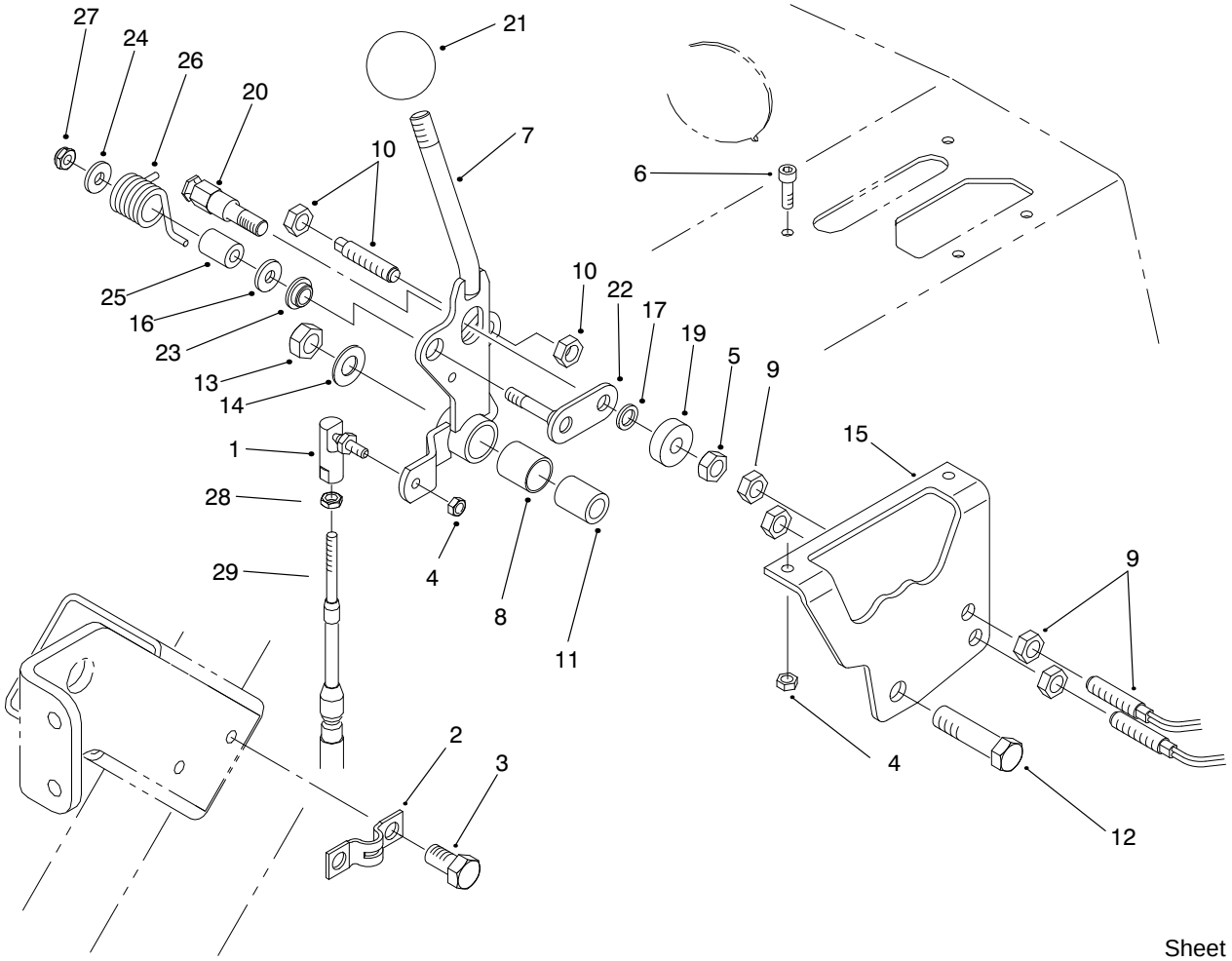
Sheet No.:7

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 NI
4	66–2950	1	Guage–Hourmeter
4:1	3255–20	2	Washer–Lock, Ext. Tooth
4:2	3217–25	2	Nut–Hex
5	93–7053	1	Warning Lamp Cluster
*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 (Incl 25–28)
8	32149–8	2	Keps Nut
9	99–8150	1	Control–Throttle (Diesel)
10	99–8195–03	1	Plate–Cover
11	3273–26	4	Hex Soc Screw
12	3290–378	2	Tie–Cable
13	27–2360	1	Key Switch
13:1	218–446	1	Nut–Hex
13:2	218–447	1	Washer–Lock
14	100–3183	1	Decal–Contr0l–Panel
15	92–3188	1	Diode – Circuit Board
16	72–9760	1	Switch
17	92–2538	1	Timer – Glow Plug

Ref. No.	Part No.	Qty.	Description
18	33113–030	1	Screw–HH
19	33023–00	2	Nut–Lock NI
20	43–6280	1	Push Button
21	43–6420	1	Bezel
22	44–2212	1	Amber Indicator Light
23	99–9666	1	Module
24	33113–020	1	Screw–HH
25	3290–489	1	Knob–Control, Left
26	3290–93	4	Screw
27	2128–590	2	Switch–Micro
28	3290–354	2	Plate–Nut

* Not illustrated

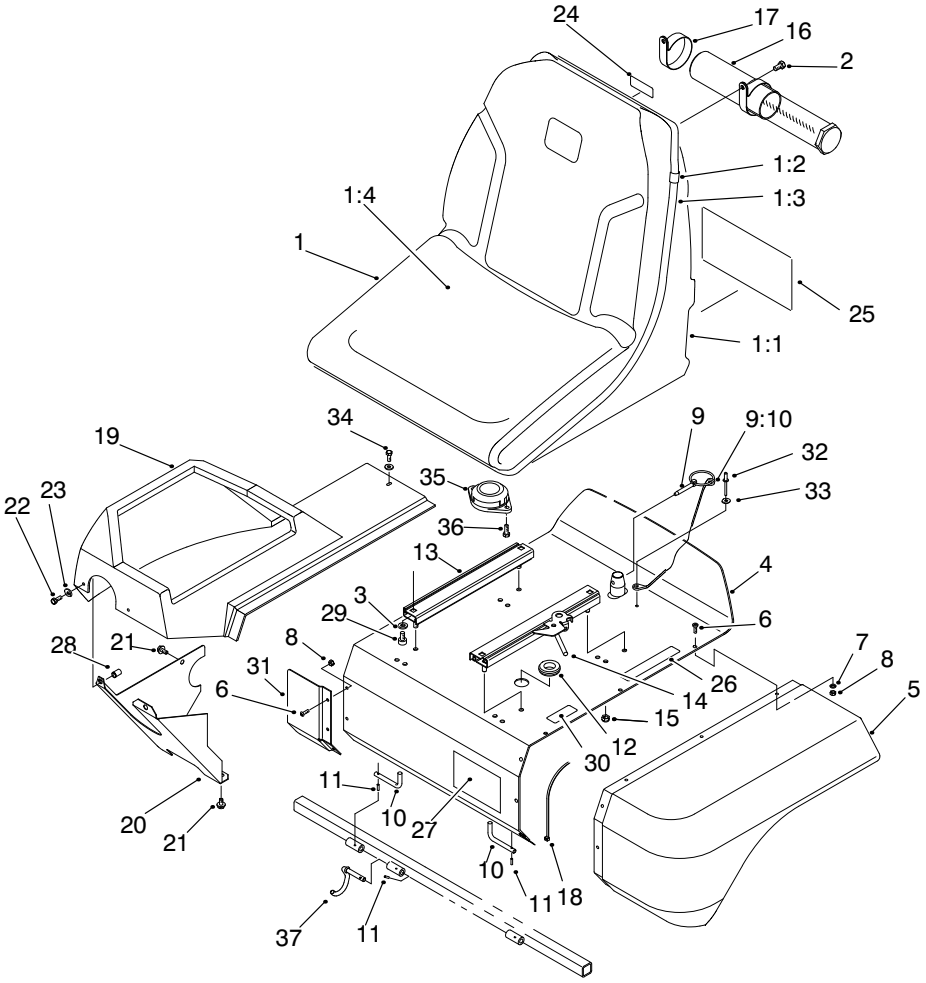


Sheet No.:8

Functional Control Lever Assembly

Ref. No.	Part No.	Qty.	Description
1	2411–38	1	Ball Joint
2	93–2279	1	Clamp – Cable
3	32144–14	2	Screw–HWH
4	3296–27	3	Nut–Lock NI
5	33024–00	1	Nut–Lock NI
6	3273–26	2	Hex Soc Screw
7	94–9611	1	Handle
8	256–311	1	Split Bushing
9	93–2055	2	Reed Switch – Sensor
10	93–2056	1	Reed Switch – Actuator
11	94–1378	1	Tube – Handle Pivot
12	33115–040	1	Screw–HH
13	33025–00	1	Nut–Lock NI
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	Roller Pivot
23	94–9619	1	Bushing
24	3256–1	1	Washer–Flat
25	94–9618	1	Spacer – Spring
26	94–9620	1	Spring – Torsion

Ref. No.	Part No.	Qty.	Description
27	33023–00	1	Nut–Lock NI
28	3219–4	1	Nut–Jam
29	94–1304	1	Cable–Neutral Lock

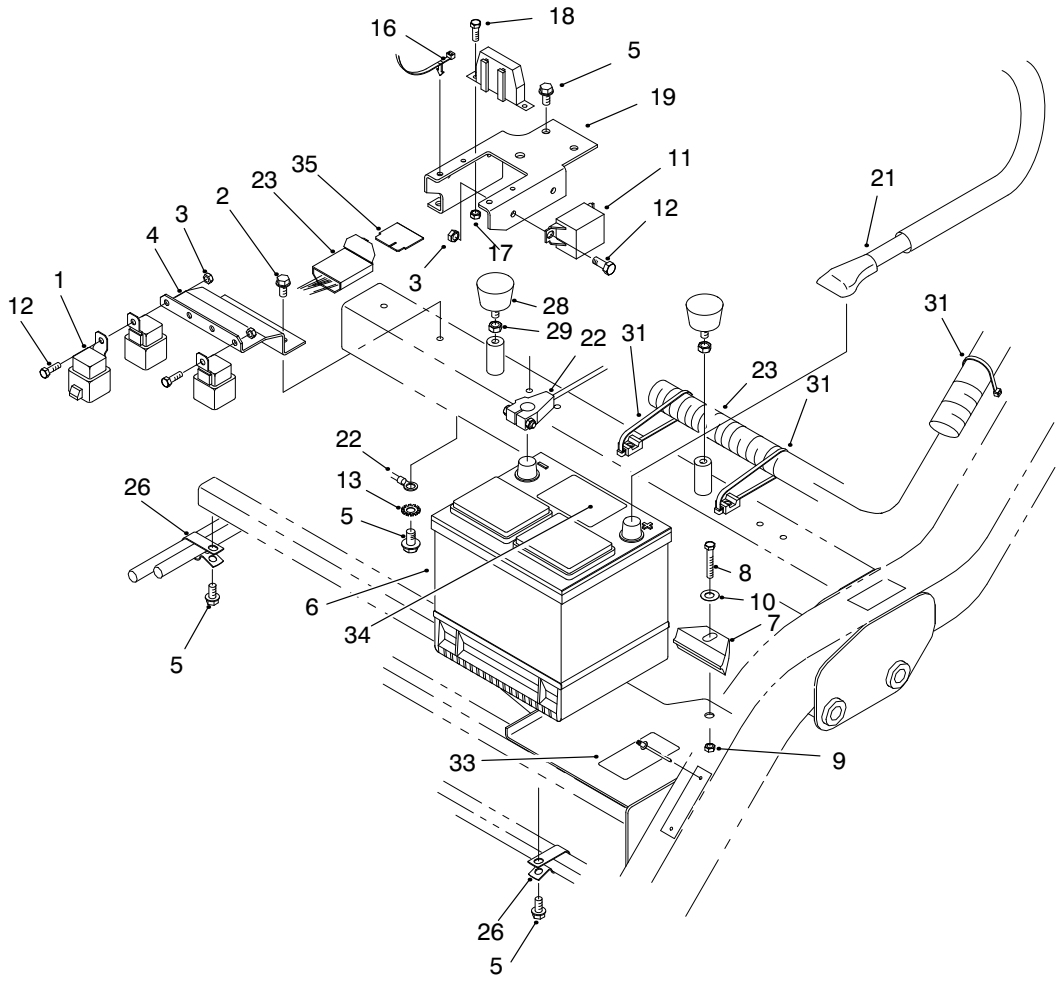


Sheet No.:9

Seat Assembly

Ref. No.	Part No.	Qty.	Description
1	100–3187	1	Seat
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 – Seat Base
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 – Seat Pivot
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–Hydraulic Oil
25	100–3150	1	Decal–Service
26	93–6689	1	Decal – No Riders
27	94–2579	1	Decal – Toro
28	93–5447	2	Nut – Clinch,
29	3274–12	4	Screw–HSH
30	93–7252	1	Decal–C.e. Mark
31	94–4546–01	1	Panel Extension
32	3290–282	1	Pop Rivet–Steel
33	3256–49	1	Washer–Flat
34	33113–012	1	Screw–HH
35	92–6282	1	Seat Switch
36	32144–10	2	Screw–HWH
37	99–4247	1	Wire–Hook

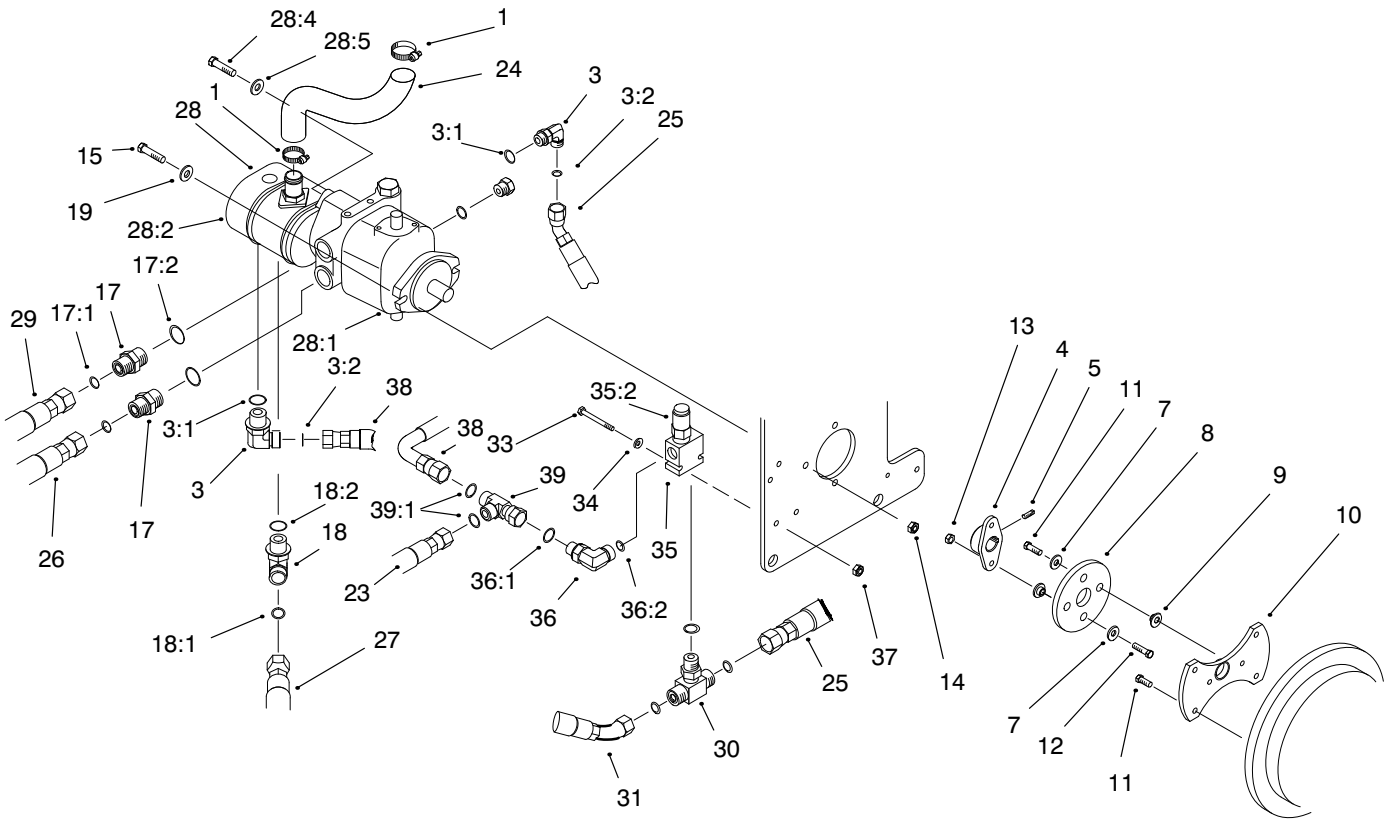


Sheet No.:10

Electronics Installation Assembly

Ref. No.	Part No.	Qty.	Description
1	70–1480	8	Relay
2	32144–11	2	5/16–18 X 3/4 Thrd Sc
3	33023–00	6	Nut–Lock NI
4	93–2169–01	1	Bracket – Relay
5	32144–14	5	Screw–HWH
6	66–2750	1	Battery\grp26 Wet
7	66–2490	1	Battery Retainer
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/Int
16	94–1325	2	Push Mount – Tie
17	3296–2	2	Nut–Lock
18	32105–13	2	Screw–Shh
19	100–3186–03	1	Bracket–Fuse Holder
21	95–8853	1	Cable – Battery, Positive
22	99–8167	1	Cable–Battery, Negative
23	99–8165	1	Wire Harness,Gr3250d
26	92–5753	1	Clamp – Hose Dbl
28	68–3270	2	Rubber Bumper
29	3218–2	2	Nut–Jam
31	3290–378	6	Tie–Cable

Ref. No.	Part No.	Qty.	Description
33	93–6668	1	Decal – Battery
34	93–7276	1	Decal – Danger
35	92–3188	1	Diode – Circuit Board



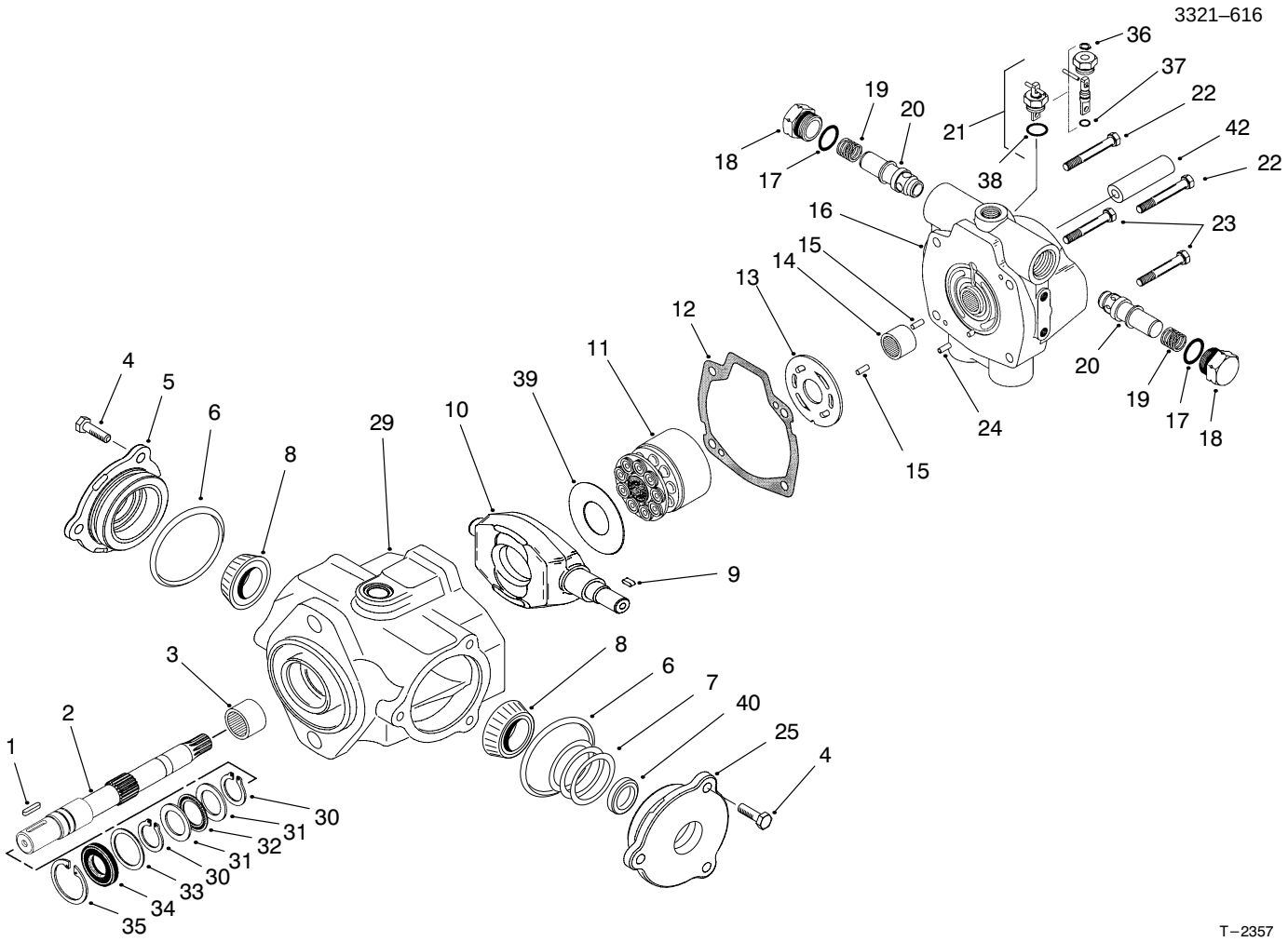
Sheet No.:11

Hydrostat And Gear Pump 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, Sq Hd
7	3256–3	2	Washer–Flat
8	80–8650	1	Coupling – Drive
9	27–6600	4	Spacer–Coupling
10	93–2220–03	1	Pump Adapter
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 – Pump Inlet

Ref. No.	Part No.	Qty.	Description
25	94–6384	1	Hose ASM
26	99–4220	1	Hose ASM
27	99–4216	1	Hose ASM
28	99–8152	1	Hydro Gear Pump
28:1	100–3174	1	Hydrostat Assembly
28:2	94–6390	1	Gear Pump
*28:3	60–3520	1	Seal – 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
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 – Relief Valve
36	340–77	1	Fitting–Hyd. 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

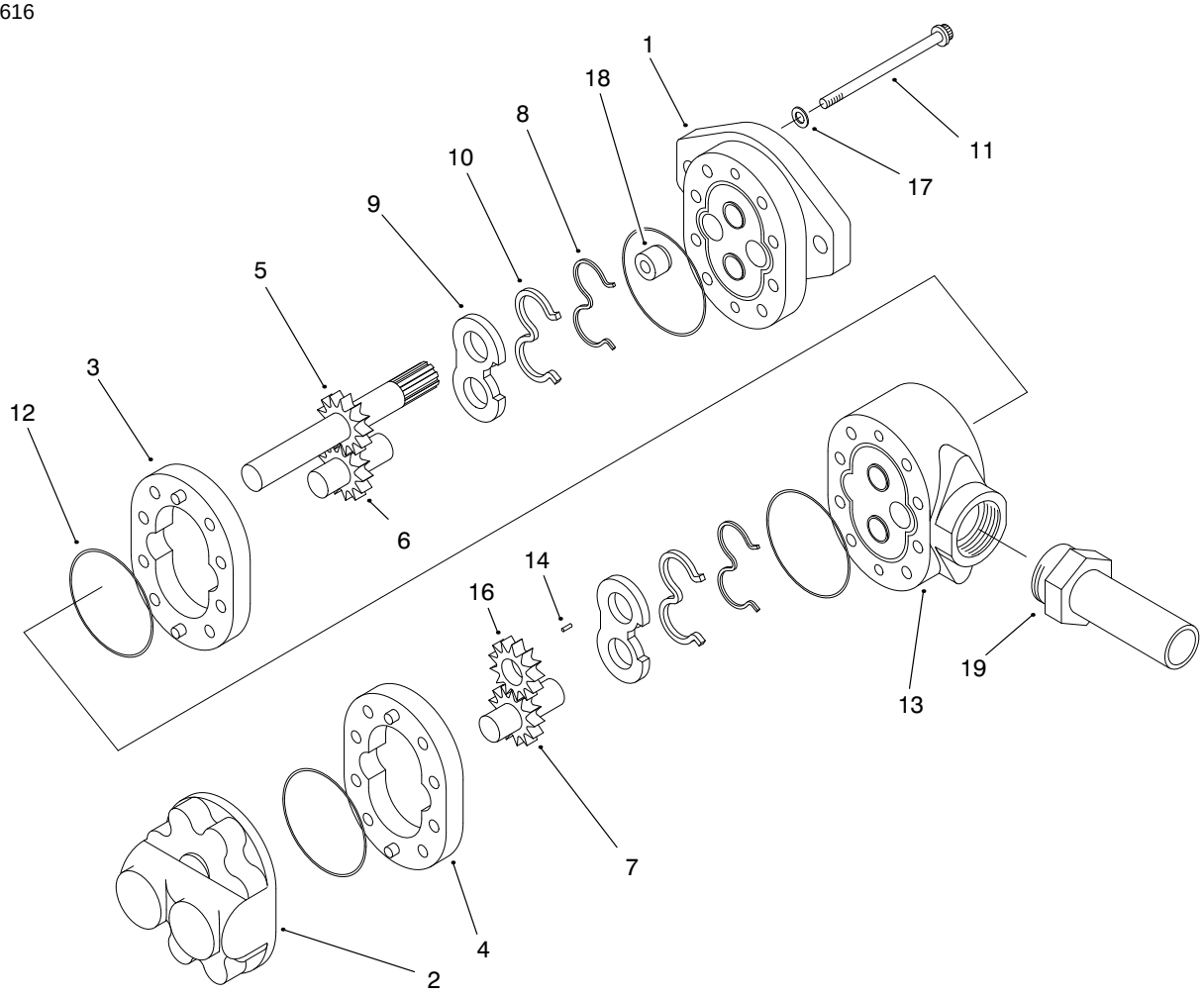


HYDROSTAT ASSEMBLY NO. 100–3174

Ref. No.	Part No.	Description	No. Used
1	94–3645	Key	1
2	94–6359	Shaft – Drive	1
3	94–6363	Bearing	1
4	98–4640	Screw – Cap	6
5	98–4644	Cover Plate Assembly	1
6	100–3179	O–Ring	2
7	100–3182	Shim Kit	1
8	98–4639	Bearing – Cone	2
9	94–3646	Key	1
10	100–3175	Plate – Cam	1
11	76–6070	Rotating Kit Assembly	1
12	33–4930	Gasket	1
13	100–3180	Plate – Valve	1
14	94–6368	Bearing	1
15	76–6150	Pin – Dowel	2
16	100–3177	Back Plate Assembly (Incl. Ref. #14 & 24)	1
†17		O–Ring	4
18	70–1240	Plug Assembly (Incl. Ref. #17)	2
19	100–3178	Spring	2
20	94–3644	Seat	2

Ref. No.	Part No.	Description	No. Used
21	100–3181	Dump Valve Assembly (Incl. Ref. #36–38)	1
22	76–6170	Screw – Cap	2
23	76–6160	Screw – Cap	2
†24		Pin – Roll	1
25	98–4645	Cover Plate Assembly	1
29	100–3176	Housing Assembly (Incl. Ref. #3)	1
30	32151–29	Ring – Retaining	2
31	252–71	Race – Bearing	2
32	252–66	Bearing – Thrust	1
33	33–3720	Washer	1
34	42–2720	Seal – Shaft	1
35	32151–13	Ring – Retaining	1
†36		Ring – Retaining	1
†37		O–Ring	1
†38		O–Ring	1
39	98–4635	Insert – Camplate	1
†40		Seal – Shaft	1
42	74–9040	Coupler	1
*	98–4643	Seal Repair Kit (Incl. Ref. #6, 12, 17, 30, 34–38 & 40)	1

*Not Illustrated
†Not Serviced Separately

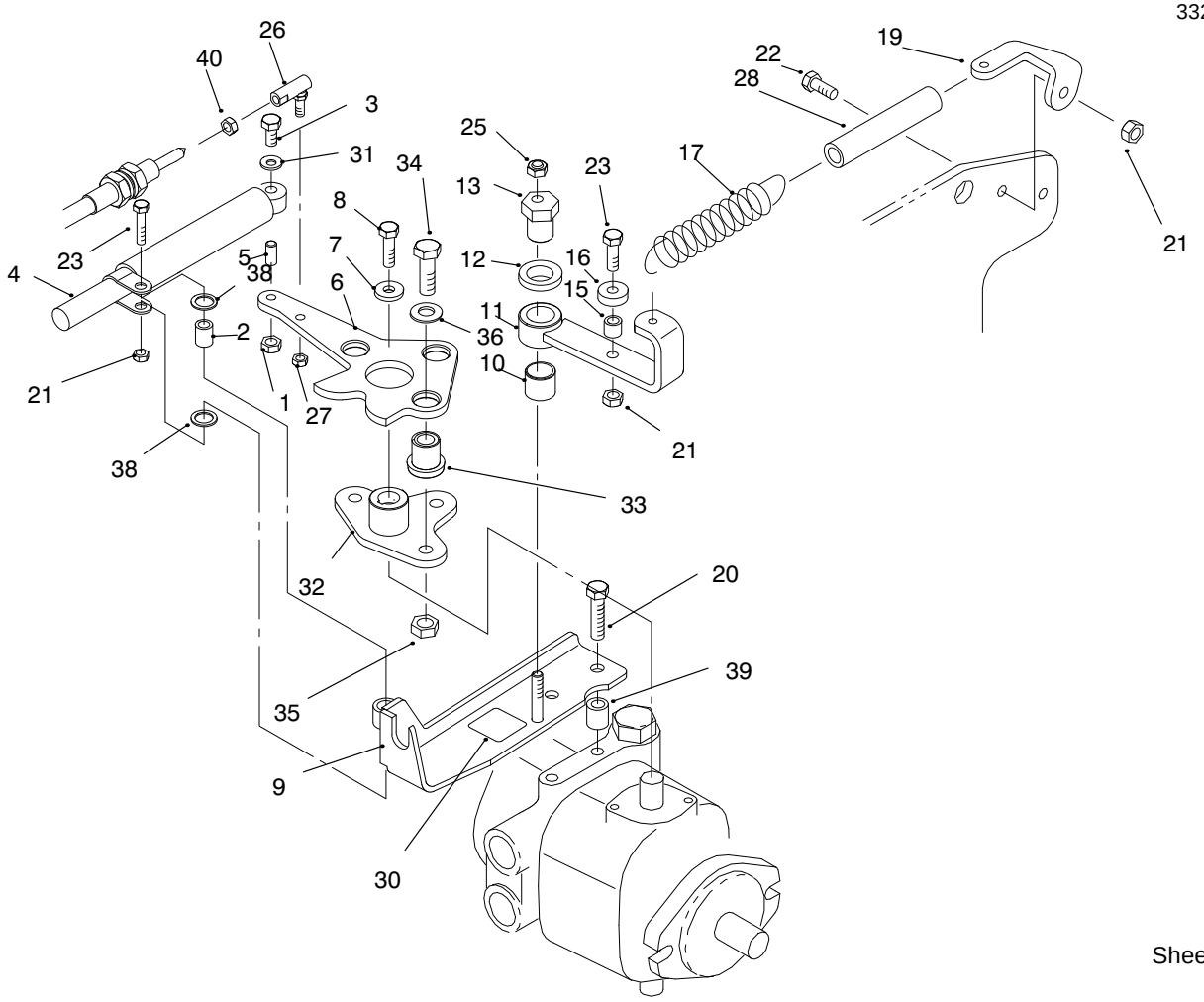


GEAR PUMP ASSEMBLY NO. 94–6390

Ref. No.	Part No.	Description	No. Used
†1		Plate–Front	1
†2		Plate–Back	1
†3		Body	1
†4		Body	1
†5		Gear–Drive	1
†6		Gear–Idler	1
†7		Gear–Idler	1
†8		Gasket–Backup	2
†9		Plate–Wear	2
†10		Seal–Pressure	2
11	94–8158	Screw–Cap	8
†12		O–Ring	4
†13		Plate–Adapter	1
†14		Key	1
†15		Tube	1
†16		Gear	1
17	94–8160	Washer	4
18	94–3011	Plug	1
†19		Fitting–Suction	1
†20		O–Ring	1
*	94–8161	Kit–Seal Repair (Incl. Ref. #8–10,12, 14 & 20)	1

Ref. No.	Part No.	Description	No. Used

* Not Illustrated
† Not Serviced Separately

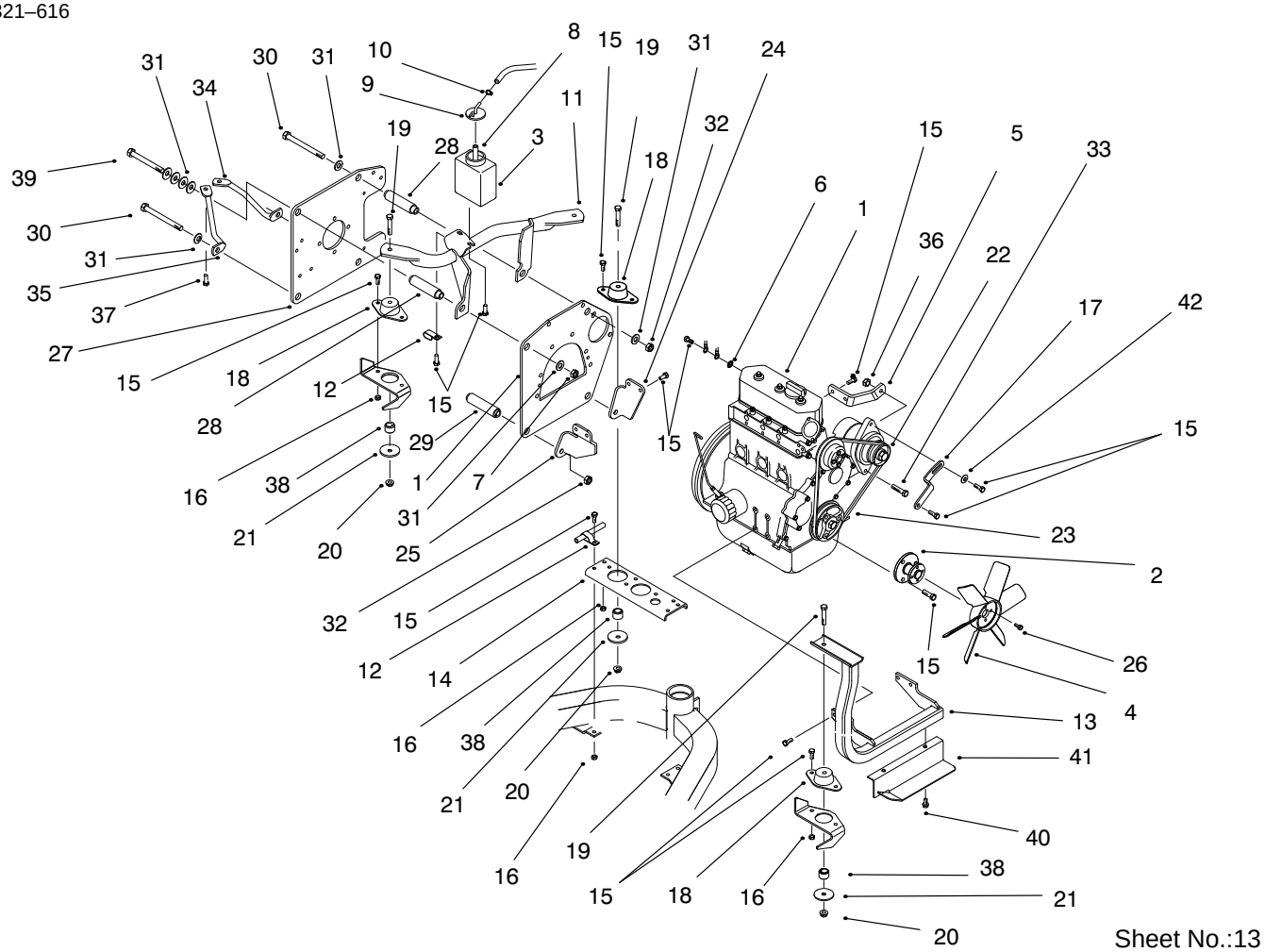


Sheet No.:12

Neutral System Assembly

Ref. No.	Part No.	Qty.	Description
1	33023–00	1	Nut–Lock NI
2	94–8197	1	Tube – Pivot
3	33113–030	1	Screw–HH
4	76–8870	1	Lever Damper Assy
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	94–9603	1	Cable Support
10	94–9609	1	Bushing – Straight
11	94–4527	1	Neutral Arm
12	3–6498	1	Washer–Thrust
13	93–2111	1	Stud – Traction
15	65–7910	1	Spacer
16	251–259	1	Bearing
17	94–1369	1	Spring – Extension
19	99–4249	1	Bracket–Spring
20	323–7	2	Screw–HH
21	33024–00	2	Nut–Lock NI
22	33114–025	1	Screw–HH
23	33114–030	2	Screw–HH
25	3296–29	1	Nut–Lock
26	2411–34	1	Ball Joint
27	3296–13	1	Nut–Lock NI
28	99–4251	1	Hose–Dampener
30	93–9051	1	Decal – Eccentric Bolt

Ref. No.	Part No.	Qty.	Description
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 NI
36	2844	3	Washer
38	94–8196	2	Washer – Nylon
39	43–3800	2	Bushing PTO Fork
40	3220–1	1	Nut–Jam

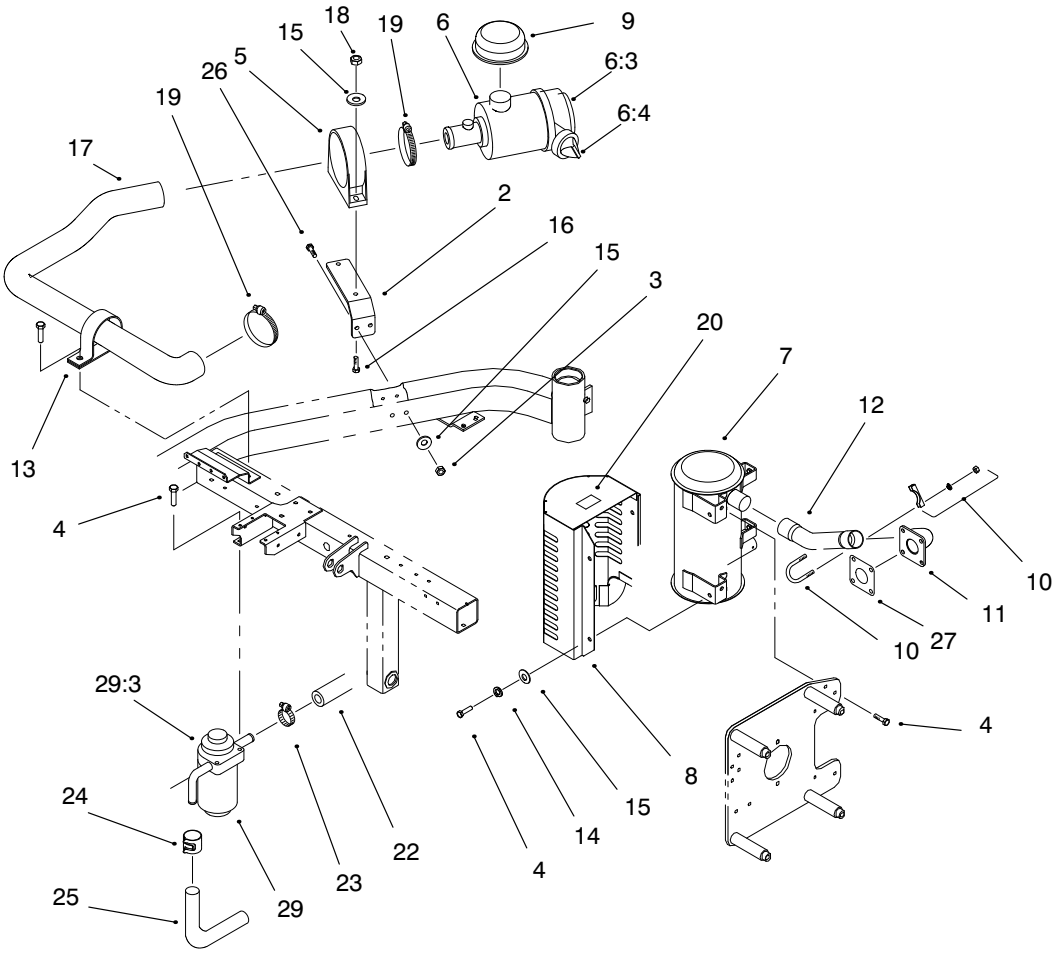


Sheet No.:13

Engine Installation Assembly

Ref. No.	Part No.	Qty.	Description
1		1	Engine–Briggs Daihatsu Model 522447 Type 0107 Trim E29
2	99–1495	1	Adapter–Fan
3	93–2049	1	Tank–Overflow
4	93–2090	1	Fan – Engine,
5	93–2445	1	Bracket – Alt, Upper
6	3254–3	1	Washer–Lock/Int
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 Dbl
13	99–1473–03	1	Eng Mount Wa – Front
14	93–2020–01	1	Bracket – Support
15	33114–020	20	Screw–HH
16	33024–00	4	Nut–Lock NI
17	93–2446	1	Bracket – Alt, 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
23	99–8153	1	Belt–V

Ref. No.	Part No.	Qty.	Description
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



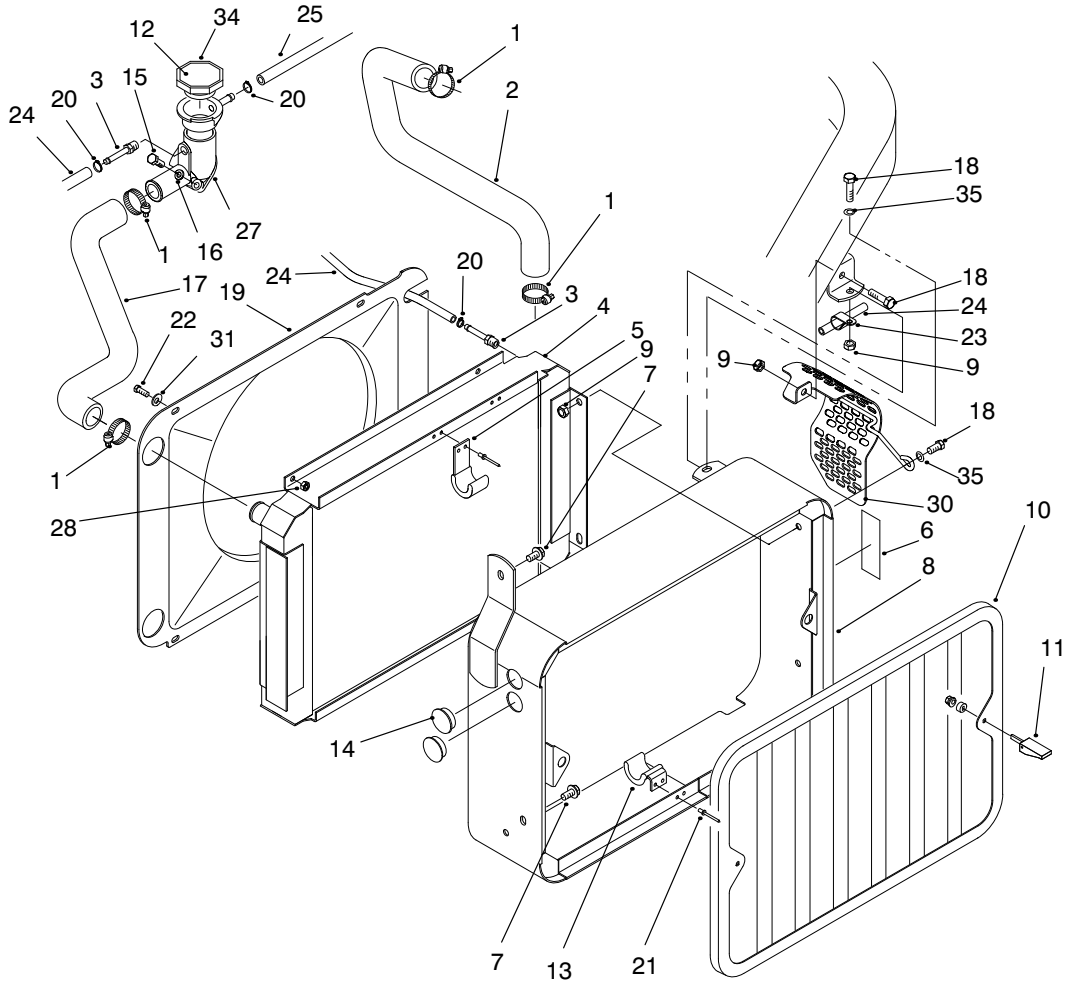
Sheet No.:14

Air Cleaner, Fuel Filter & Exhaust Assembly

Ref. No.	Part No.	Qty.	Description
2	99–4203	1	Bracket–Air Cleaner
3	33024–00	2	Nut–Lock NI
4	33114–020	8	Screw–HH
5	95–5806	1	Bracket – Mounting, Air Cleaner
6	95–5805	1	Air Cleaner ASM
*6:2	93–2195	1	Filter
6:3	94–3652	1	Cover ASM
*6:3:1	E643283	2	Latch–Cleaner, Air
6:4	87–9400	1	Valve–Vacuator
7	94–8153	1	Muffler
8	94–8182–03	1	Muffler Shield
9	46–7510	1	Hood–Inlet, Air
10	2112–9	2	Clamp
11	99–1472	1	Exhaust Plate,
12	99–1494	1	Pipe – Exhaust
13	2412–107	1	R Clamp
14	3253–4	4	Washer–Lock/Sp
15	3256–23	4	Washer–Flat
16	322–16	2	Screw–HH
17	99–4204	1	Hose–Air Cleaner
18	3296–29	2	Nut–Lock
19	2412–92	2	Clamp–Hose
20	93–8069	1	Decal–Hot Surface
22	92–9283	1	Hose – Fuel, Vent
23	2412–108	1	Clamp–Worm

Ref. No.	Part No.	Qty.	Description
24	92–2379	1	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–Metric Hex
29	100–3191	1	Fuel Fltr/Wtr Separator,Diesel
*29:1	100–3192	1	Fuel Filter Element
*29:2	100–6409	1	Sensor–Fuel Filter
29:3	100–6408	1	Cover–Filter

* Not illustrated

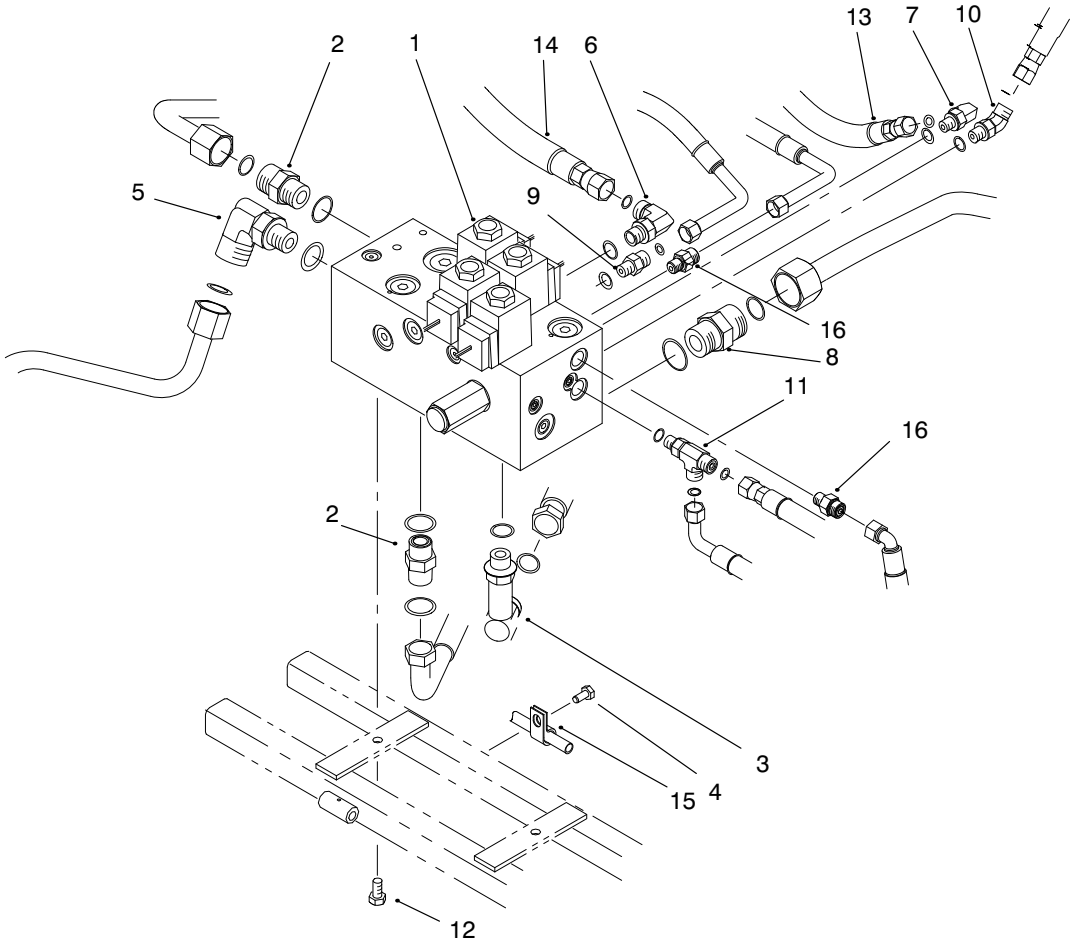


Sheet No.:15

Radiator Assembly

Ref. No.	Part No.	Qty.	Description
1	2412–34	2	Clamp–Hose
2	99–1469	1	Hose – Radiator
3	304–73	1	Hose Connector
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	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	Fan Shroud
20	2412–108	2	Clamp–Worm
21	3269–15	8	Rivet
22	33113–016	4	Screw–HH
23	92–5753	1	Clamp – Hose Dbl
24	27–4480	1	Hose

Ref. No.	Part No.	Qty.	Description
25	92–9283	1	Hose – Fuel, Vent
27	93–2448	1	Housing ASM – Thermostat
28	33023–00	4	Nut–Lock NI
30	100–3164–03	1	Alternator Guard
31	3256–22	4	Washer–Flat
34	66–3240	1	Cap–Radiator
35	3256–23	2	Washer–Flat

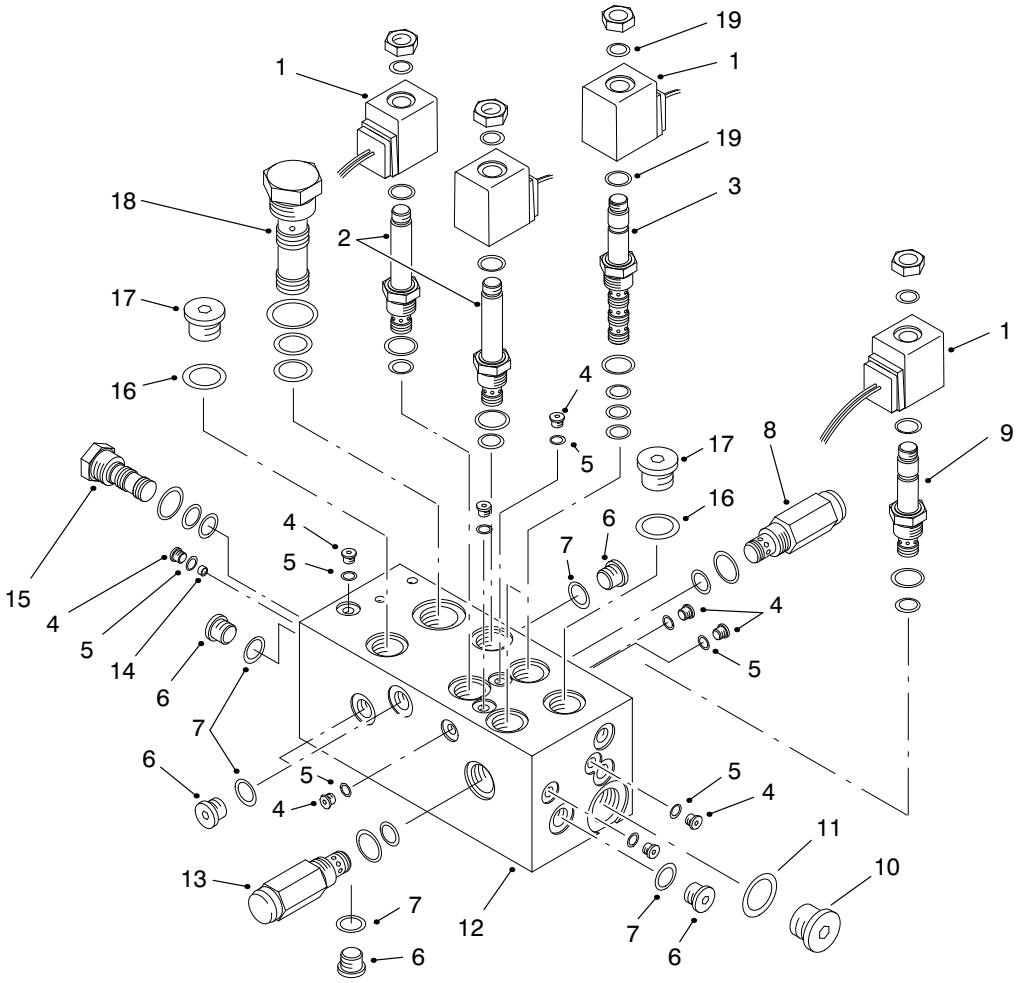


Sheet No.:16

Manifold Block Installation Assembly

Ref. No.	Part No.	Qty.	Description
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–Hyd. 90°
6:1	237–22	1	O–Ring
6:2	237–42	1	O–Ring
7	340–132	1	90 Elbow

Ref. No.	Part No.	Qty.	Description
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
11	340–140	1	Adapter Tee
12	33114–016	2	Screw–HH
13	93–2271	1	Hose Assy – Hyd
14	93–2272	1	Hose Assy – Hyd
16	95–1639	2	Fitting – Orificed

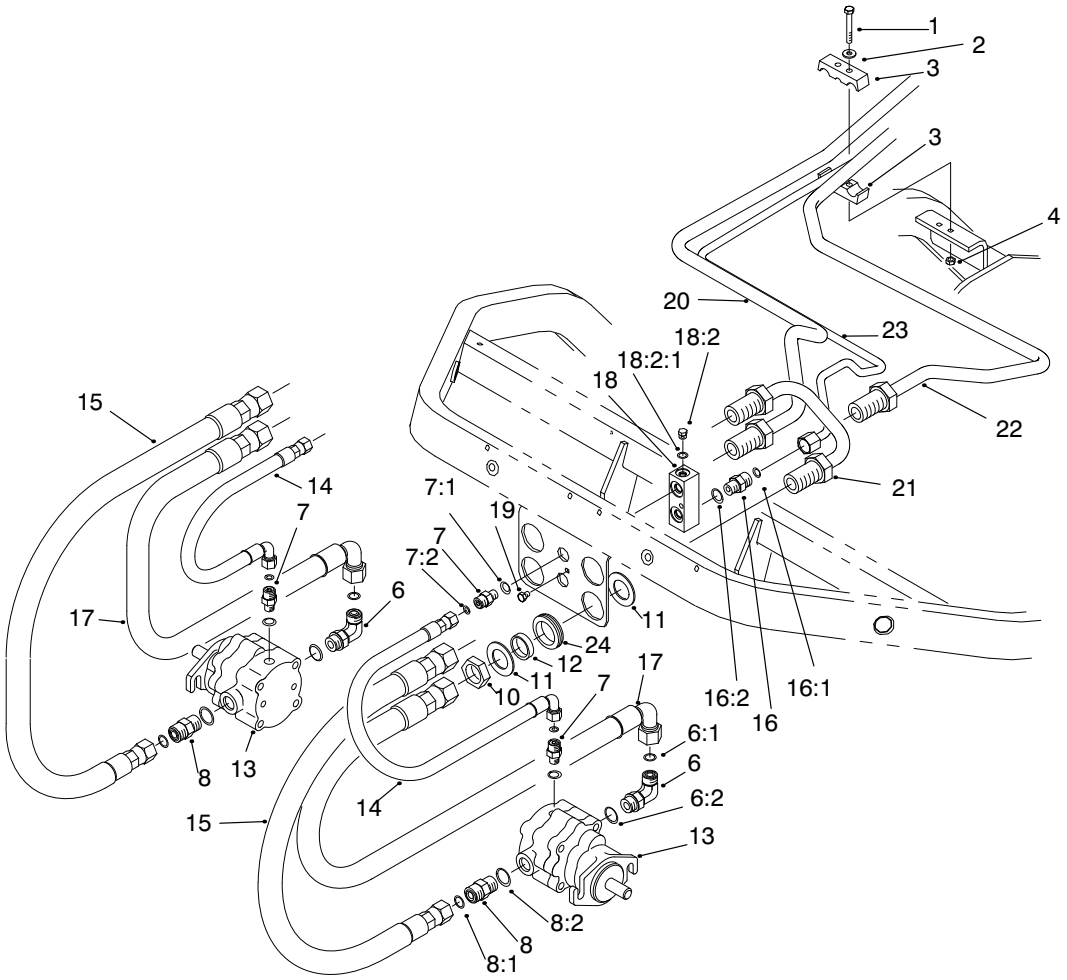


T–2251–1

MANIFOLD ASSEMBLY NO. 93–2240

Ref. No.	Part No.	Description	No. Used
1	88–9190	Solenoid–20 Watt	4
2	93–7494	Cartridge–N.O. Poppet (Use Seal Kit #75–2080)	2
3	94–2627	Cartridge (Use Seal Kit #75–2090)	1
4	353–991	Plug (Incl. Ref. #5)	9
5	237–156	O–Ring	9
6	353–989	Plug (Incl. Ref. #7)	6
7	237–42	O–Ring	6
8	95–1601	Cartridge–Relief 2400 psi (Use Seal Kit #75–2080)	1
9	92–6315	Cartridge–N.C. (Use Seal Kit #75–2080)	1
10	353–988	Plug (Incl. Ref. #11)	1
11	237–79	O–Ring	1
†12		Body–Manifold	1
13	94–6351	Cartridge–Relief 150 psi (Use Seal Kit #75–2080)	1
14	95–5999	Plug–Orifice	1
15	94–6353	Plug–Cavity (use Seal Kit #95–5641)	1
16	237–80	O–Ring	2
17	354–70	Plug (Incl. Ref. #16)	2
18	94–6352	Plug–Cavity (Use Seal Kit #94–3661)	1
19	94–5438	Seal–Solenoid	8
*	75–2080	Kit–Seal	5
*	95–5641	Kit–Seal	1
*	75–2090	Kit–Seal	1
*	94–3661	Kit–Seal	1

* Not Illustrated
† Not Serviced Separately

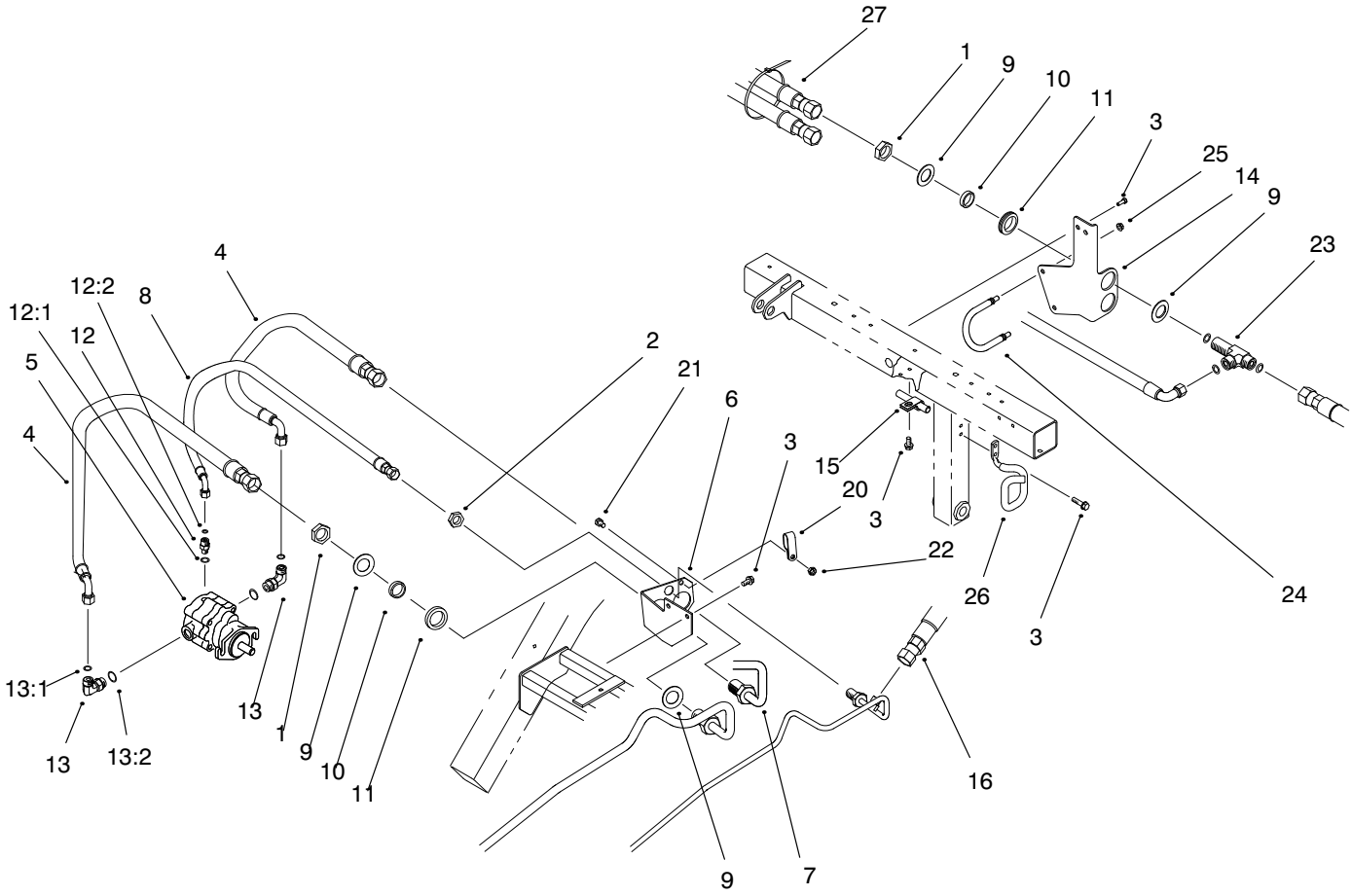


Sheet No.:17

Front Bulkhead & 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 NI
6	340–98	2	Fitting–90°
6:1	237–30	1	O–Ring
6:2	237–79	1	O–Ring
7		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	Reel Motor
14	93–2264	2	Hose Assy – Hyd
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
18:1	237–156	1	O–Ring
18:2	353–991	1	Plug–Hollow Hex

Ref. No.	Part No.	Qty.	Description
18:2:1	237–156	1	O–Ring
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	Rubber Grommet

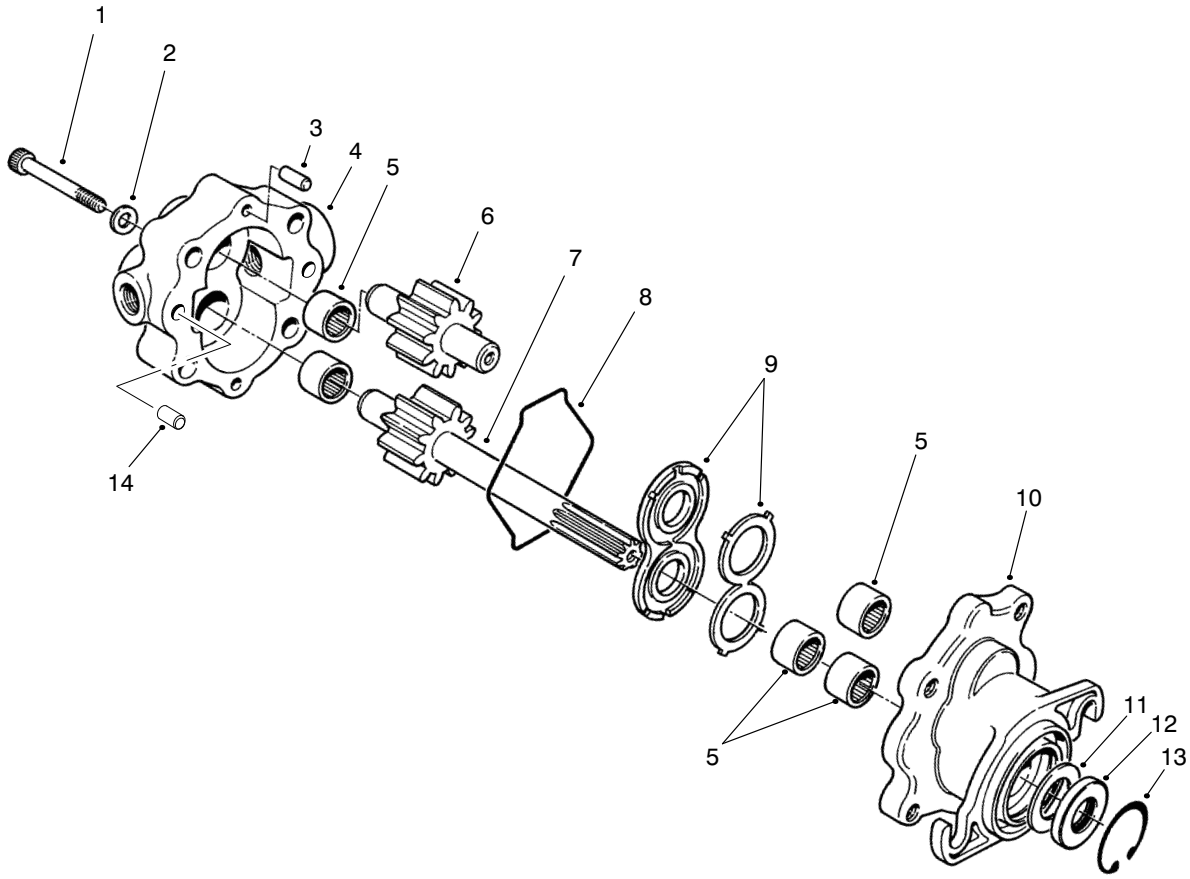


Sheet No.:18

Rear Bulkhead & 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	Reel Motor
5:1	32151–41	1	Snap Ring
5:2	92–8864	1	Seal – Oil
5:3	353–590	1	Spacer
5:4	93–3614	1	Cover Assy
5:5	354–46	1	Seal Ring
5:6	74–3810	1	Plate – Load Assy
5:7	93–3615	1	Drive Shaft & Gear Assy
5:8	93–3616	1	Shaft & Gear Assy – Idler
5:9	354–50	4	Screw – Hex Socket Hd
5:10	354–51	4	Washer
5:11	353–599	2	Dowel Pin
5:12	92–8795	1	Body Assy
5:13	92–8796	2	Pin – Dowel
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

Ref. No.	Part No.	Qty.	Description
11	240–3	4	Rubber Grommet
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	237–30	1	O–Ring
13:2	237–79	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	Bulkhead Tee, Ors
24	99–4221	1	Retainer–Hose
25	3296–29	2	Nut–Lock
26	94–5352	1	Retainer – Hose
27	3290–378	1	Tie–Cable

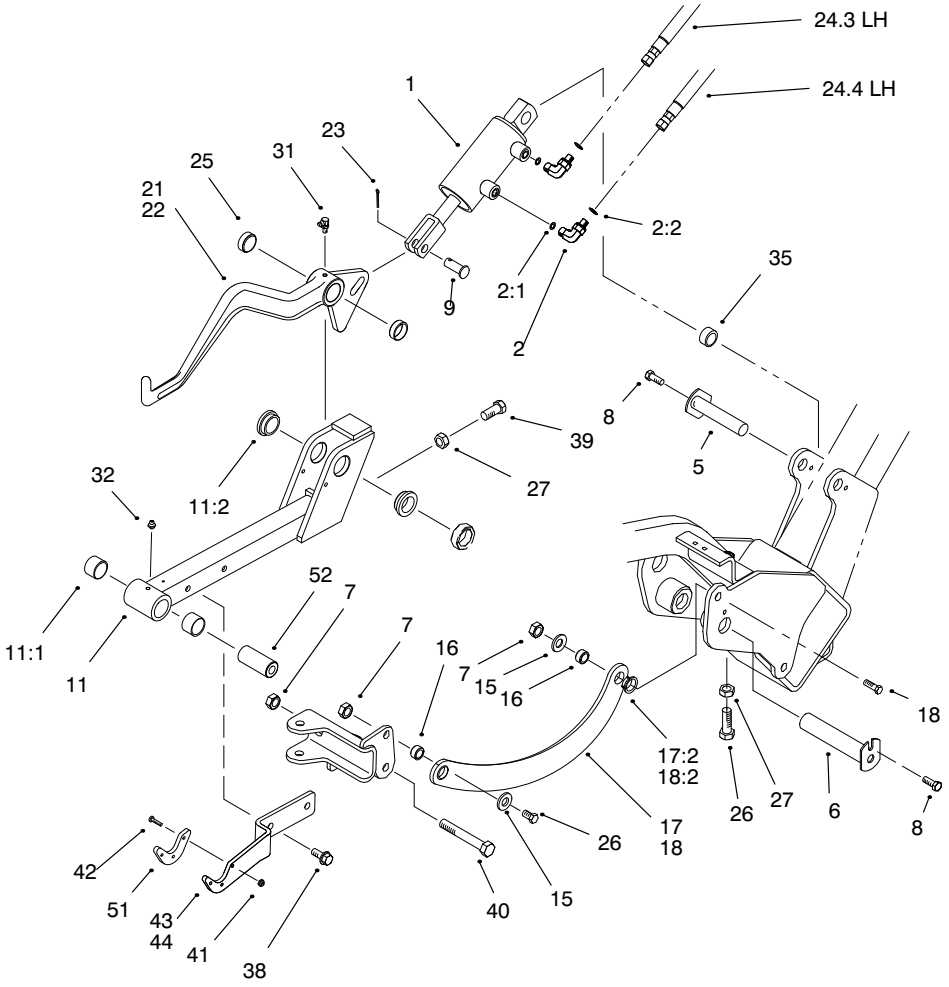


Sheet No.:A5
T–1872–2

Reel Motor Assembly N0. 93–1375

Ref. No.	Part No.	Qty.	Description
1	32151–41	1	Snap Ring
2	92–8864	1	Seal – Oil
3	353–590	1	Spacer
4	93–3614	1	Cover Assy
5	354–46	1	Seal Ring
6	74–3810	1	Plate – Load Assy
7	93–3615	1	Drive Shaft & Gear Assy
8	93–3616	1	Shaft & Gear Assy – Idler
9	354–50	4	Screw – Hex Socket Hd
10	354–51	4	Washer
11	353–599	2	Dowel Pin
12	92–8795	1	Body Assy
13	92–8796	2	Pin – Dowel

Ref. No.	Part No.	Qty.	Description



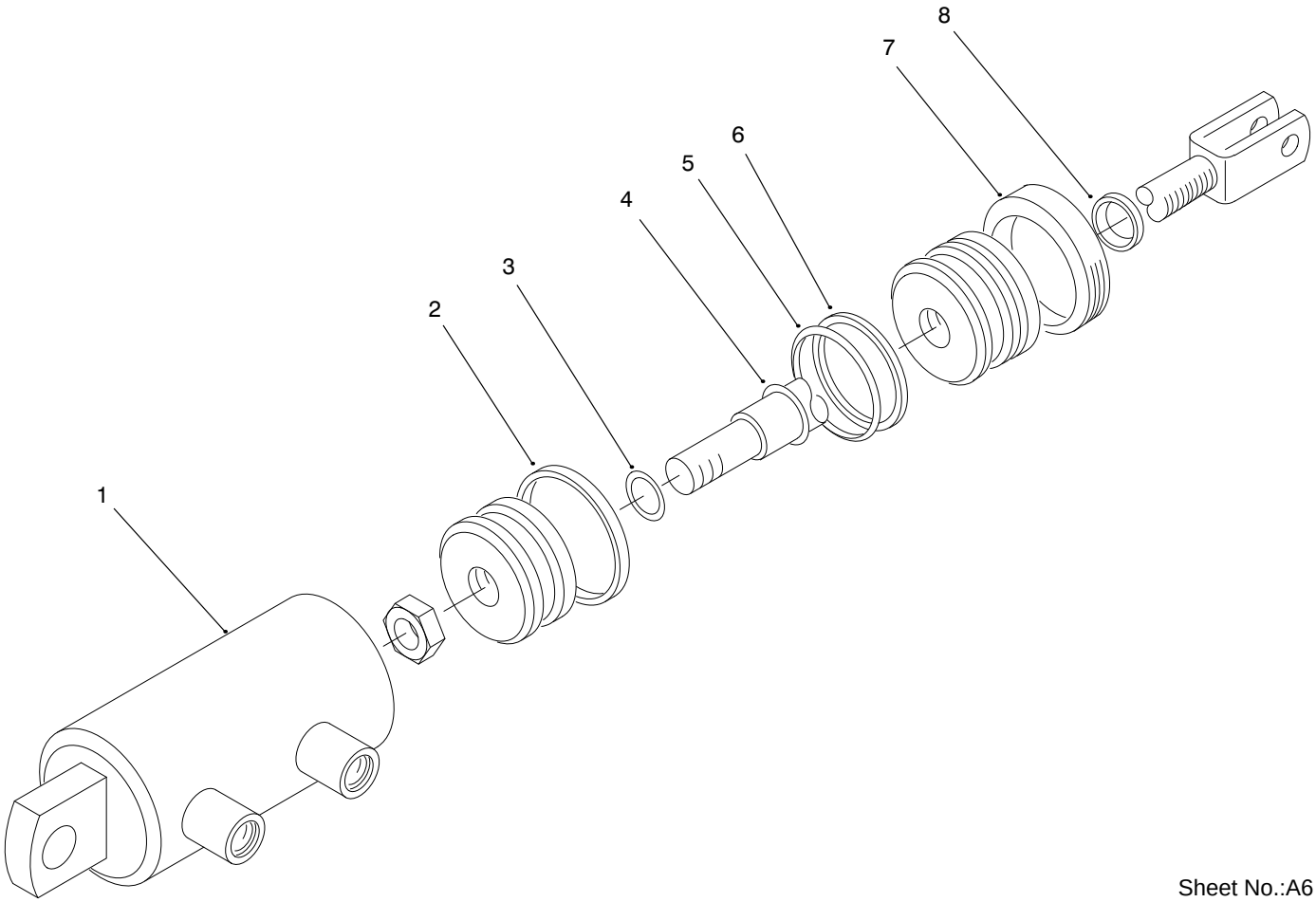
Sheet No.:19

Lift Arm Assembly–L.H. & R.H. Right Arm Shown

Ref. No.	Part No.	Qty.	Description
1	99–8158	2	Hydraulic Cyl ASM
2	340–132	4	90 Elbow
2:1	237–78	1	O–Ring
2:2	237–21	1	O Ring
3	93–2255	1	Hose Assy – Hyd
4	93–2256	1	Hose Assy – Hyd
5	10–6060	2	Pin–Pivot, Ram
6	94–8198	2	Pin Wa
7	3296–25	6	Nut–Lock NI
8	32144–14	4	Screw–HWH
9	283–8	2	Pin–Clevis
10	94–9610	4	Bushing – Flange
11	99–4115	2	Front Lift Frame ASM w/Bushings
11:1	98–4166	2	Bushing
11:2	94–9610	2	Bushing – Flange
15	3256–26	4	Washer–Flat
16	99–4201	4	Tube–Spacer
17	99–4258	1	Link Bracket ASM
17:2	99–4243	2	Bushing–Flange w/Bsg R.H.
*18	99–4260	1	Link Bracket ASM w/Bsg L.H.
*18:2	99–4243	2	Bushing–Flange
21	99–4213	1	Lift Arm–RH ASM w/Bushing

Ref. No.	Part No.	Qty.	Description
21:2	92–8995	2	Bushing
22	99–4212	1	Lift Arm–LH ASM w/Bushing
22:2	92–8995	2	Bushing
23	3272–11	2	Pin–Cotter
24	93–2254	2	Hose Assy – Hyd
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–Lube
35	74–3730	2	Spacer – Rear Spindle
38	32144–69	4	Hex Screw
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 (#1 & #3)
44	99–4112–01	1	Plate–Transport (#2)
51	99–4225	2	Pad–Wear
52	99–4072	2	Spacer–Pull Frame

* Not Illustrated

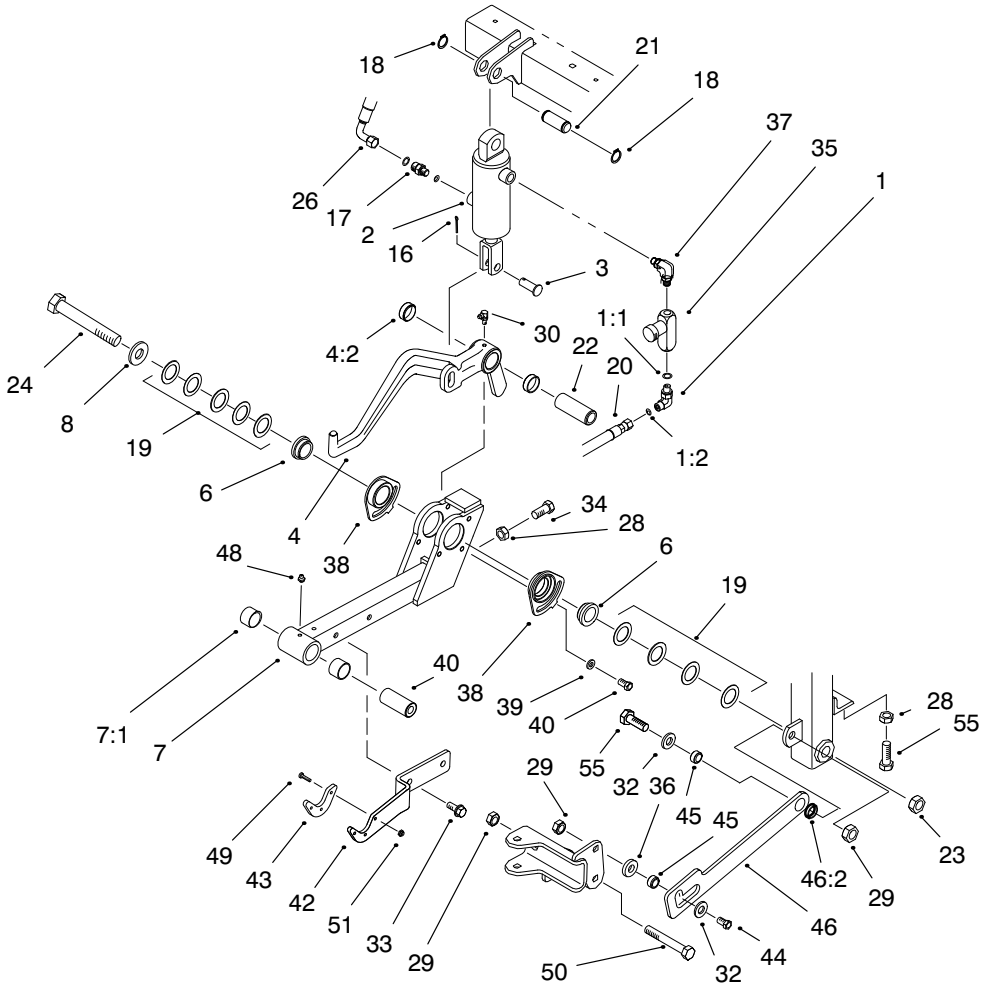


Sheet No.:A6
T–2299–1

Hydraulic Cylinder Assembly No. 99–8158

Ref. No.	Part No.	Qty.	Description
1	99–8163	1	Kit – Seal Repair

Ref. No.	Part No.	Qty.	Description

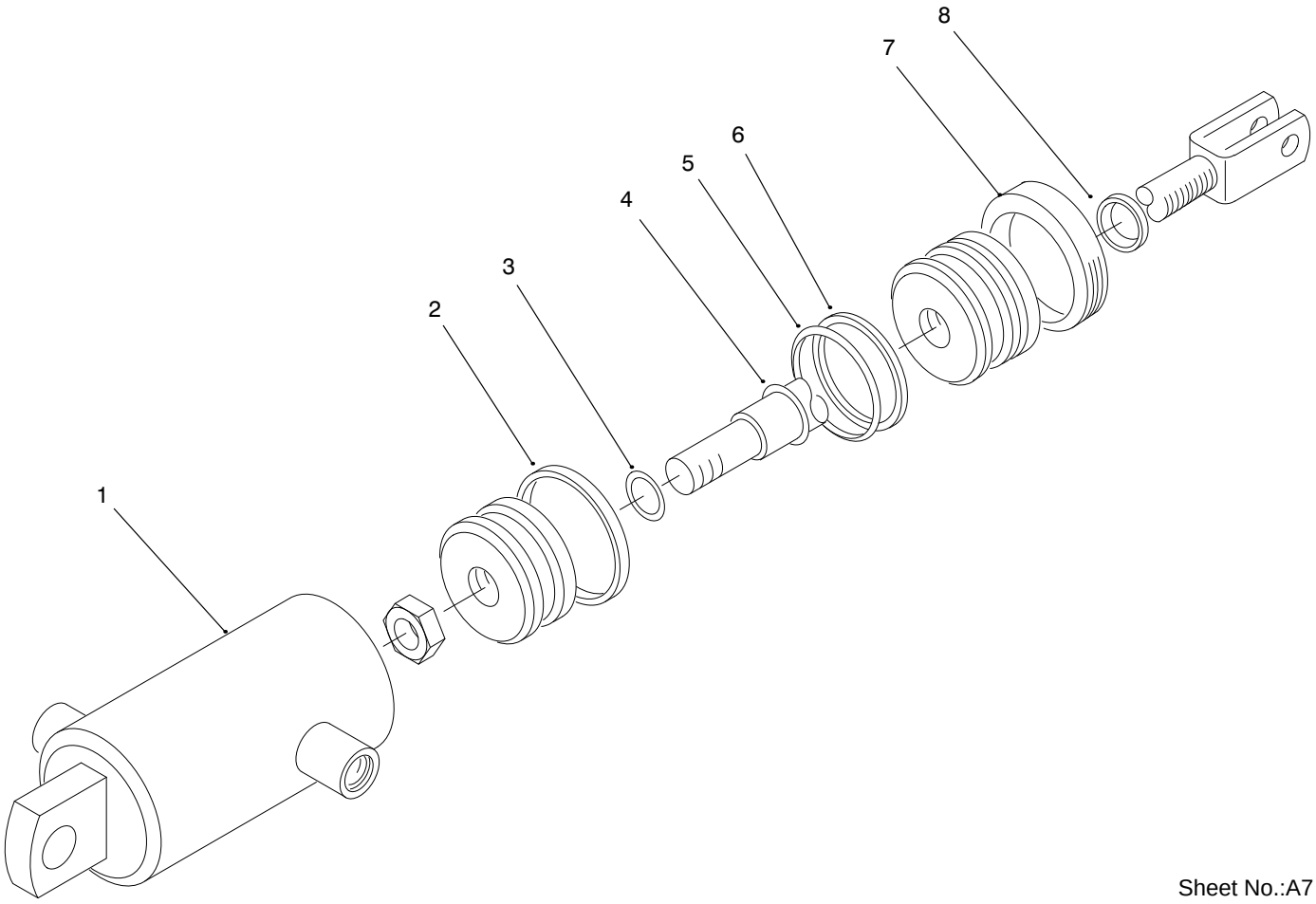


Sheet No.:20

Lift Arm Assembly – Center

Ref. No.	Part No.	Qty.	Description
1	340–132	1	90 Elbow
1:1	237–78	1	O–Ring
1:2	237–21	1	O Ring
2	99–8157	1	Hydraulic Cyl ASM
3	283–8	1	Pin–Clevis
4	99–4126	1	Lift Arm–Center ASM w/Bushings
4:2	92–8995	2	Bushing
6	98–2197	2	Bushing – Flange
7	99–4116	1	Lift Frame ASM Rear w/Bushings
7:1	98–4166	2	Bushing
8	69–8940	1	Washer
16	3272–11	1	Pin–Cotter
17	95–1639	1	Fitting – Orificed
18	32120–72	2	Ring–Snap
19	63–2290	9	Washer–Thrust
20	93–2258	1	Hose Assy – Hyd
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	Hose Assy – Hyd
28	3218–5	2	Nut–Jam
29	3296–25	3	Nut–Lock NI
30	302–60	1	Fitting–Lube

Ref. No.	Part No.	Qty.	Description
32	3256–26	2	Washer–Flat
33	32144–69	2	Hex Screw
34	325–5	1	Screw–HH
35	93–7489	1	Orifice Valve Assy
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–Pull Frame
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 w/Bsg
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



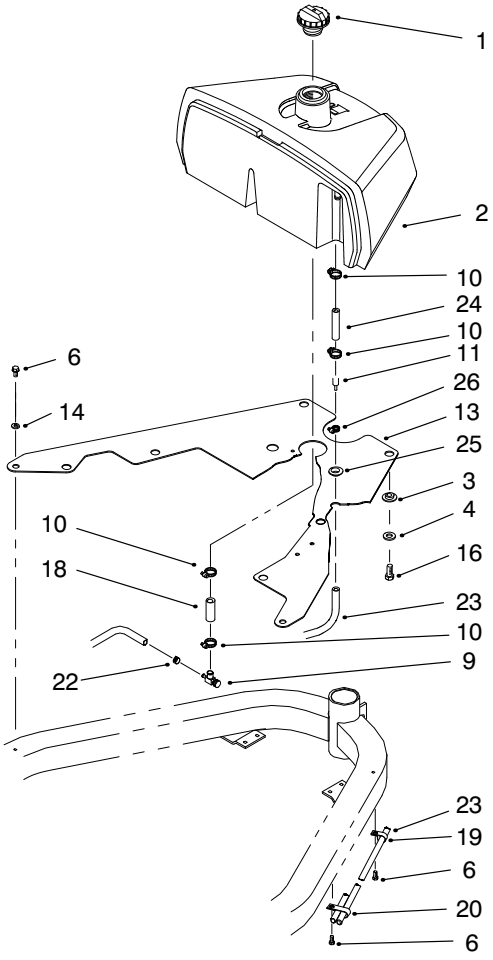
Sheet No.:A7

T–2358–1

Hydraulic Cylinder No. 99–8157

Ref. No.	Part No.	Qty.	Description
1	99–8163	1	Kit – Seal Repair

Ref. No.	Part No.	Qty.	Description

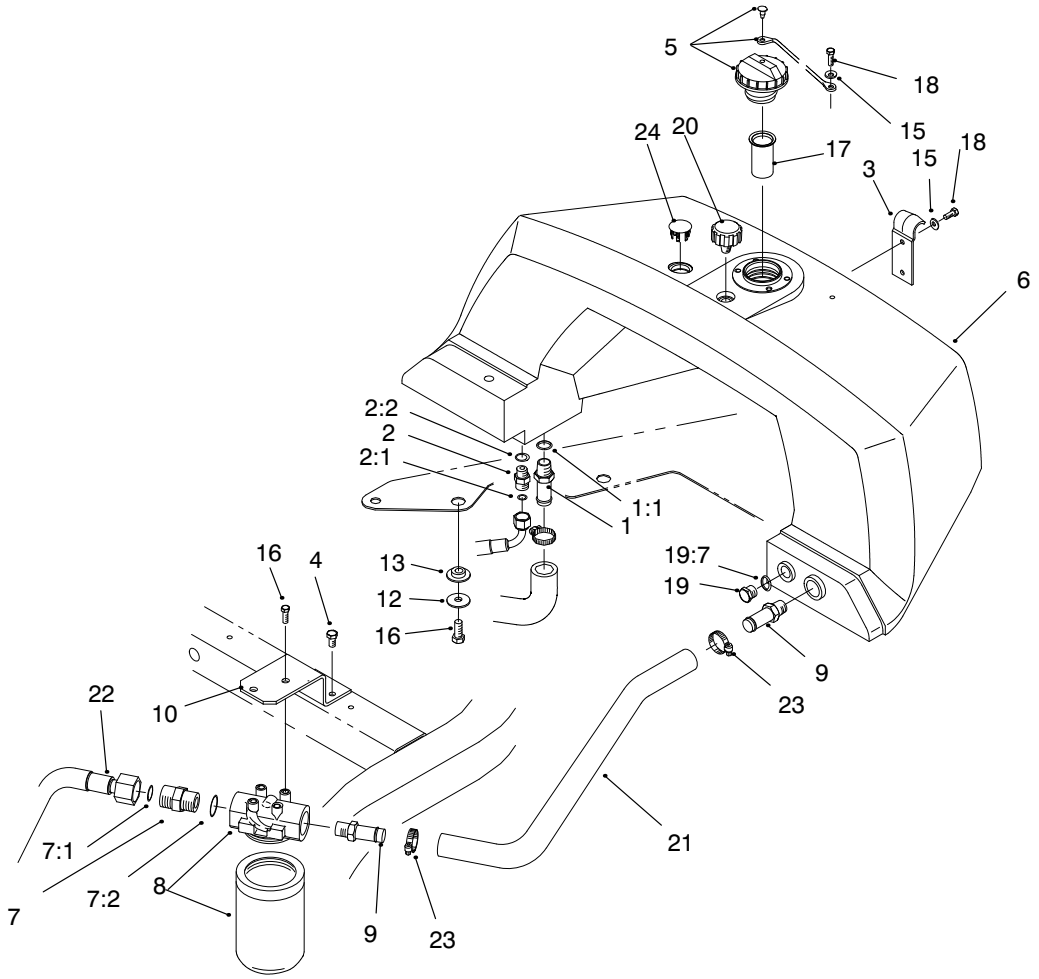


Sheet No.:21

Fuel System Assembly

Ref. No.	Part No.	Qty.	Description
1	93–3102	1	Cap – Fuel (Diesel)
2	93–2225	1	Tank – Fuel
3	240–11	3	Grommet
4	93–4637	3	Washer – Flat
6	32144–14	5	Screw–HWH
9	56–2520	1	Fitting–Fuel Shut Off
10	2412–36	4	Clamp–Hose
11	93–2299	1	Fitting – Fuel
13	94–1364–03	1	Plate Wa
14	3256–23	2	Washer–Flat
16	33115–020	3	Screw–HH
18	94–4353	1	Hose – Fuel Line
19	2412–41	1	Clamp
20	92–5753	1	Clamp – Hose Dbl
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

Ref. No.	Part No.	Qty.	Description



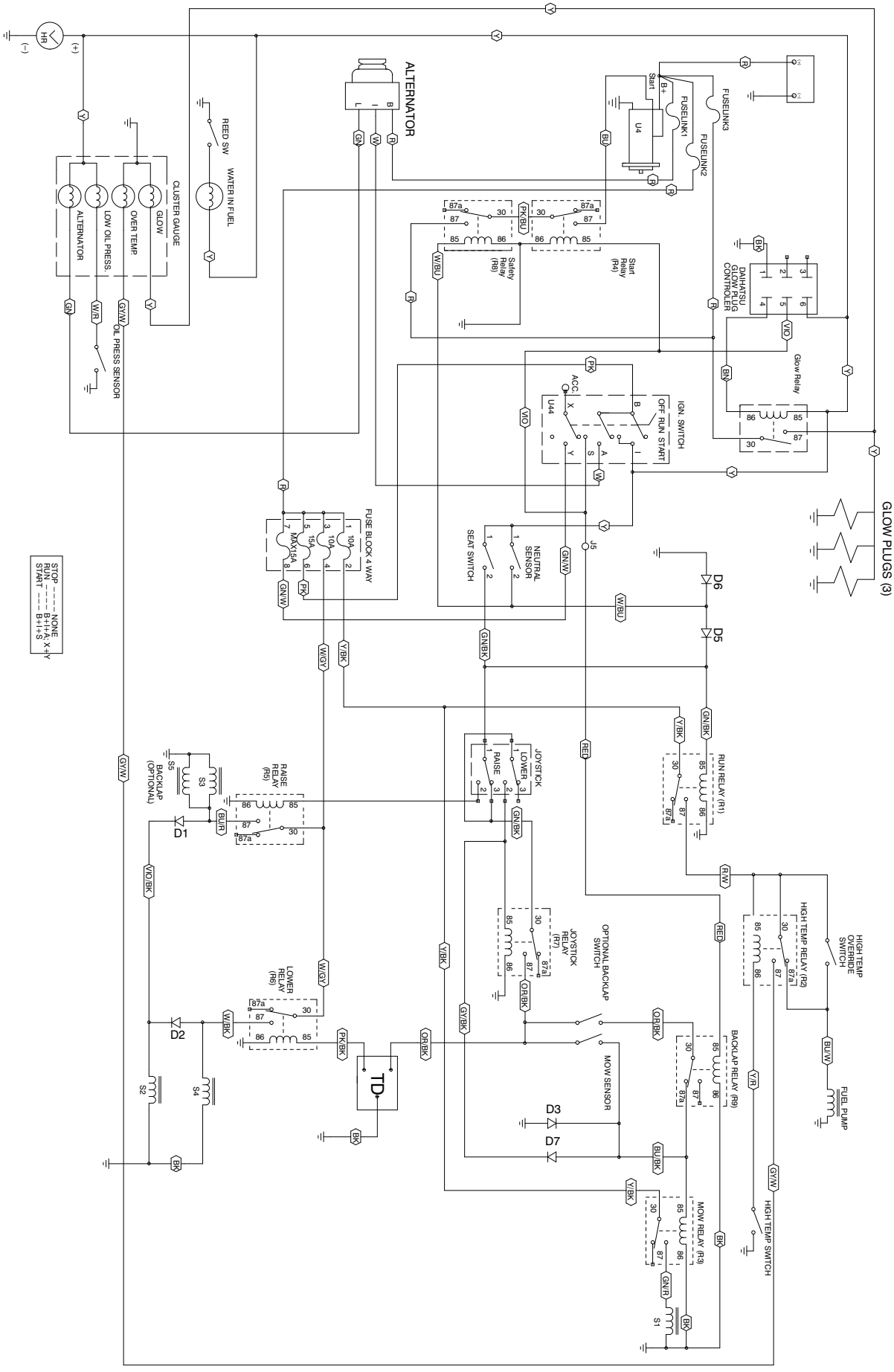
Sheet No.:22

Hydraulic Tank & Filter Assembly

Ref. No.	Part No.	Qty.	Description
1	354–78	1	Connector–Hose
1:1	237–146	1	O–Ring
2	340–2	2	Adapter
2:1	237–22	2	O–Ring
2:2	237–42	2	O–Ring
3	93–2438	1	Clamp – Fuel Tank
4	32144–14	2	Screw–HWH
5	93–7160	1	Cap – Hyd Oil
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	Filter Assy – Oil
9	354–73	1	Fitting
10	93–2236–03	1	Mount – Oil Filter
12	93–4637	4	Washer – Flat
13	240–11	4	Grommet
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
21	94–9607	1	Hose – Return
22	94–4518	1	Tube ASM

Ref. No.	Part No.	Qty.	Description
23	2412–129	1	Clamp–Hose
24	93–2437	1	Plug – Serrated

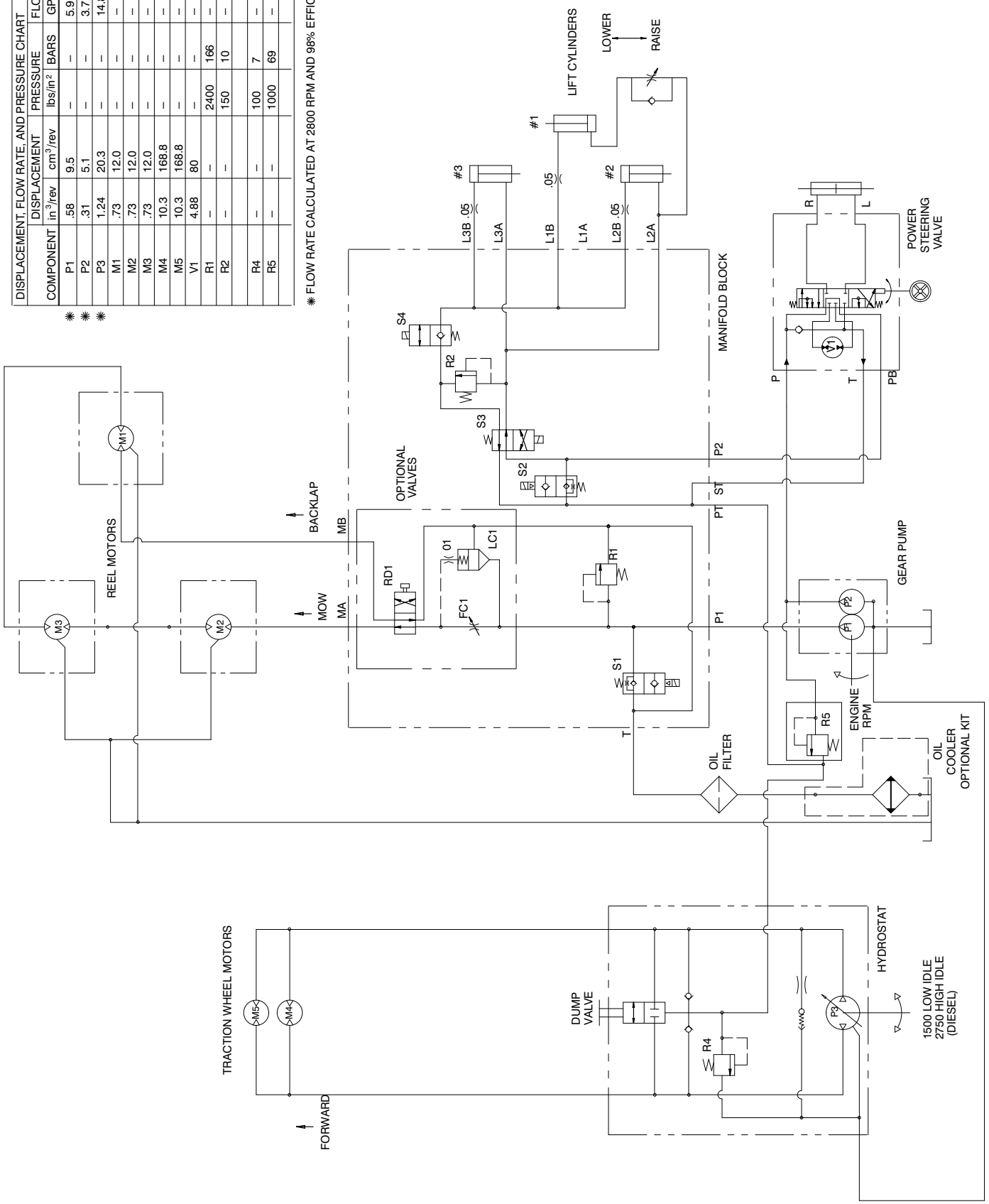
Electrical Schematic

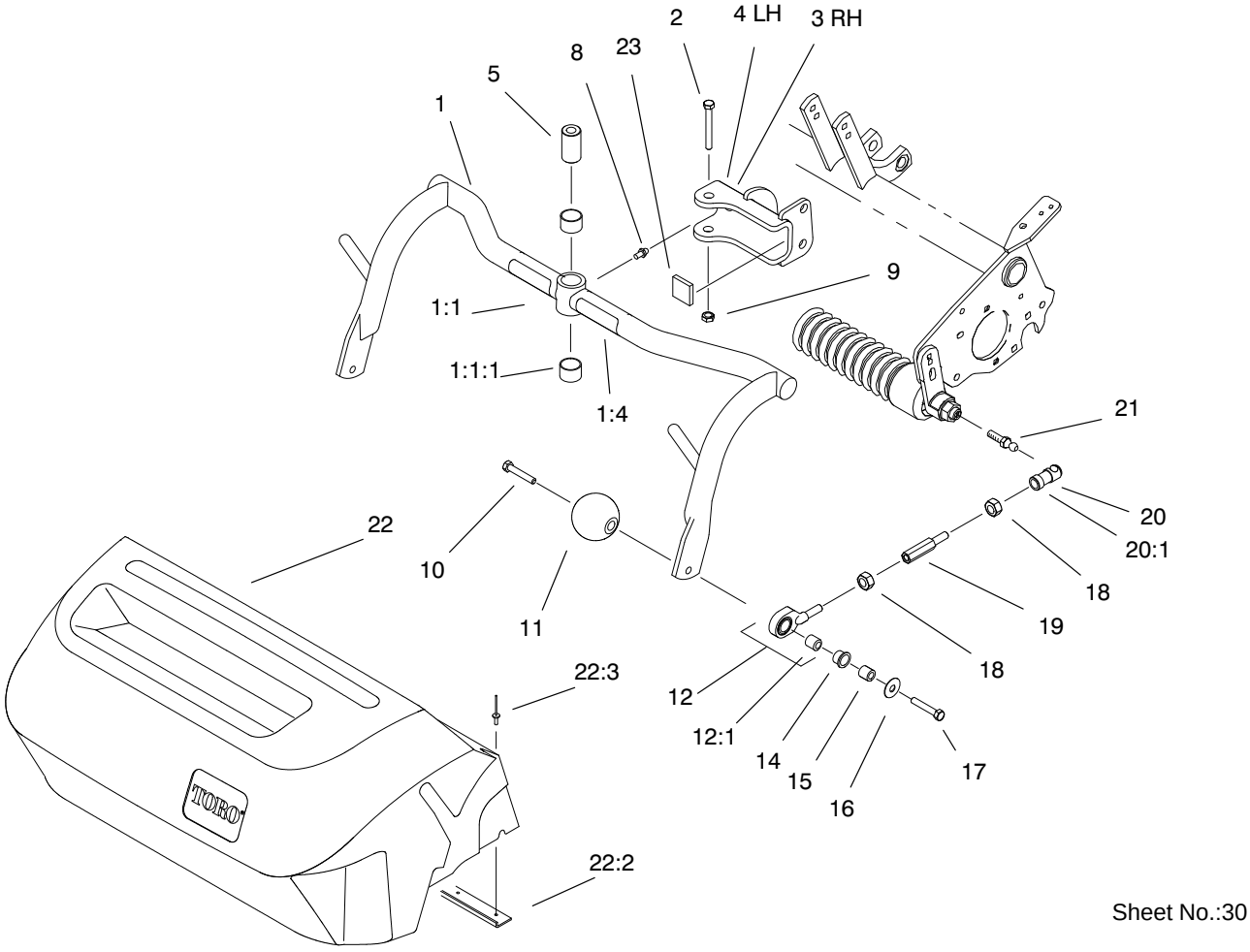


Hydraulic Schematic

DISPLACEMENT, FLOW RATE, AND PRESSURE CHART						
	DISPLACEMENT		PRESSURE		FLOW RATE	
COMPONENT	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





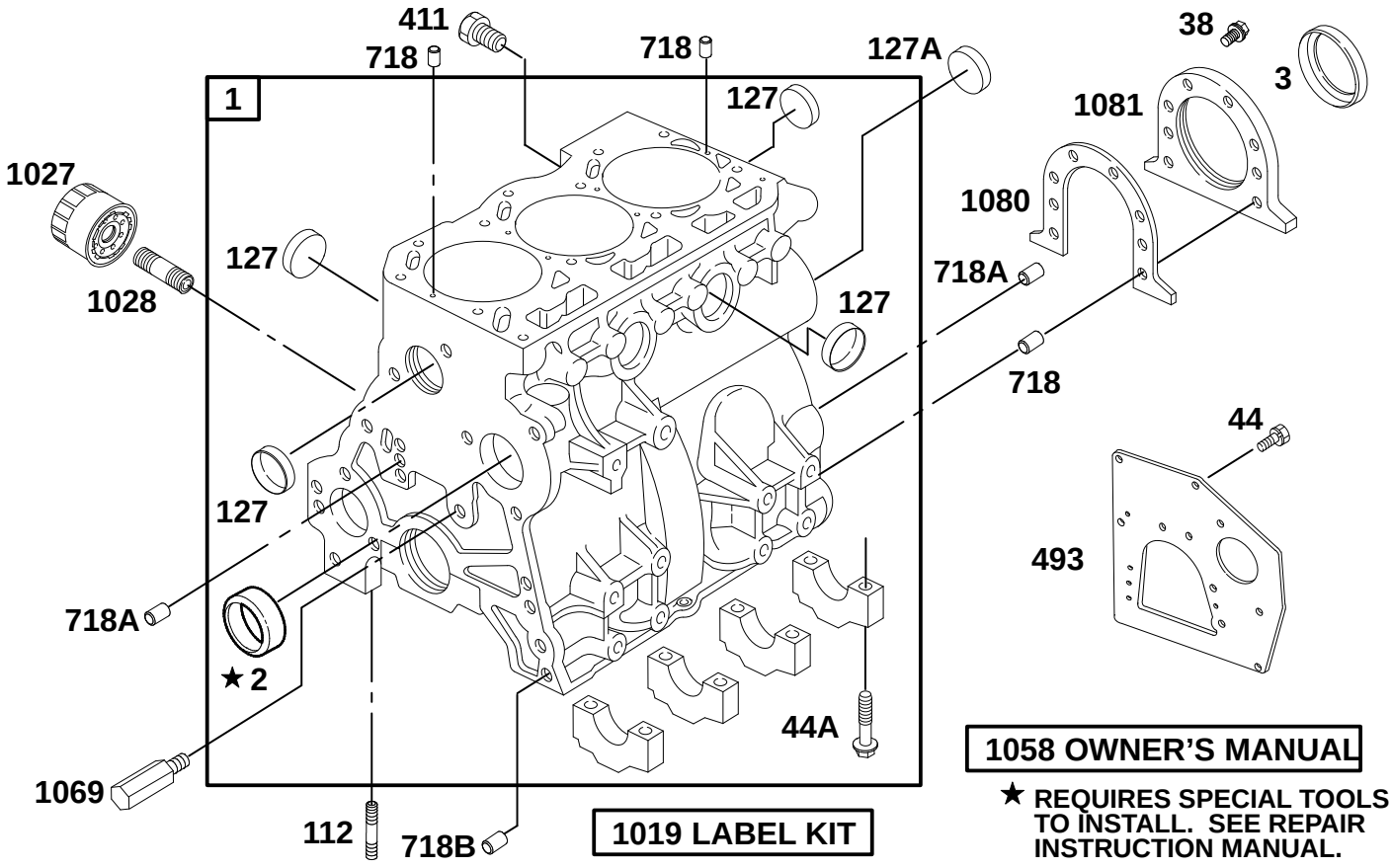
Sheet No.:30

Pull Frame Assembly

Ref. No.	Part No.	Qty.	Description
1	99–4114	3	Pull Frame ASM
☆1:1		1	Pull Frame ASM W / Bushings
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	Clevis ASM RH
4	99–4182–01	1	Clevis ASM LH
5	99–4109	3	Spacer–Pivot
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	17–2889	6	Pull Link & Bushing ASM
12:1	95–0532	1	Rubber Bushing ASM
14	256–292	6	Bushing–Flange, Nylon
15	75–5270	6	Spacer–Seat Knob
16	80–6990	6	Washer
17	323–8	6	Screw–HH
18	3220–3	12	Nut–Jam
19	88–6870	6	Extension–Pull Arm
20	99–1460	6	Ball Joint Receiver ASM

Ref. No.	Part No.	Qty.	Description
20:1	99–1461	1	Sleeve – Ball Joint
21	94–2958	6	Ball Stud
22	99–4105	3	Basket ASM
22:2	99–4102	1	Strip–Basket
22:3	3290–382	8	Pop Rivet
23	99–4145	3	Pad–rubber

☆ Not serviced



Sheet No.:3

T–xxxx

522447–0107–E2 TORO DIESEL

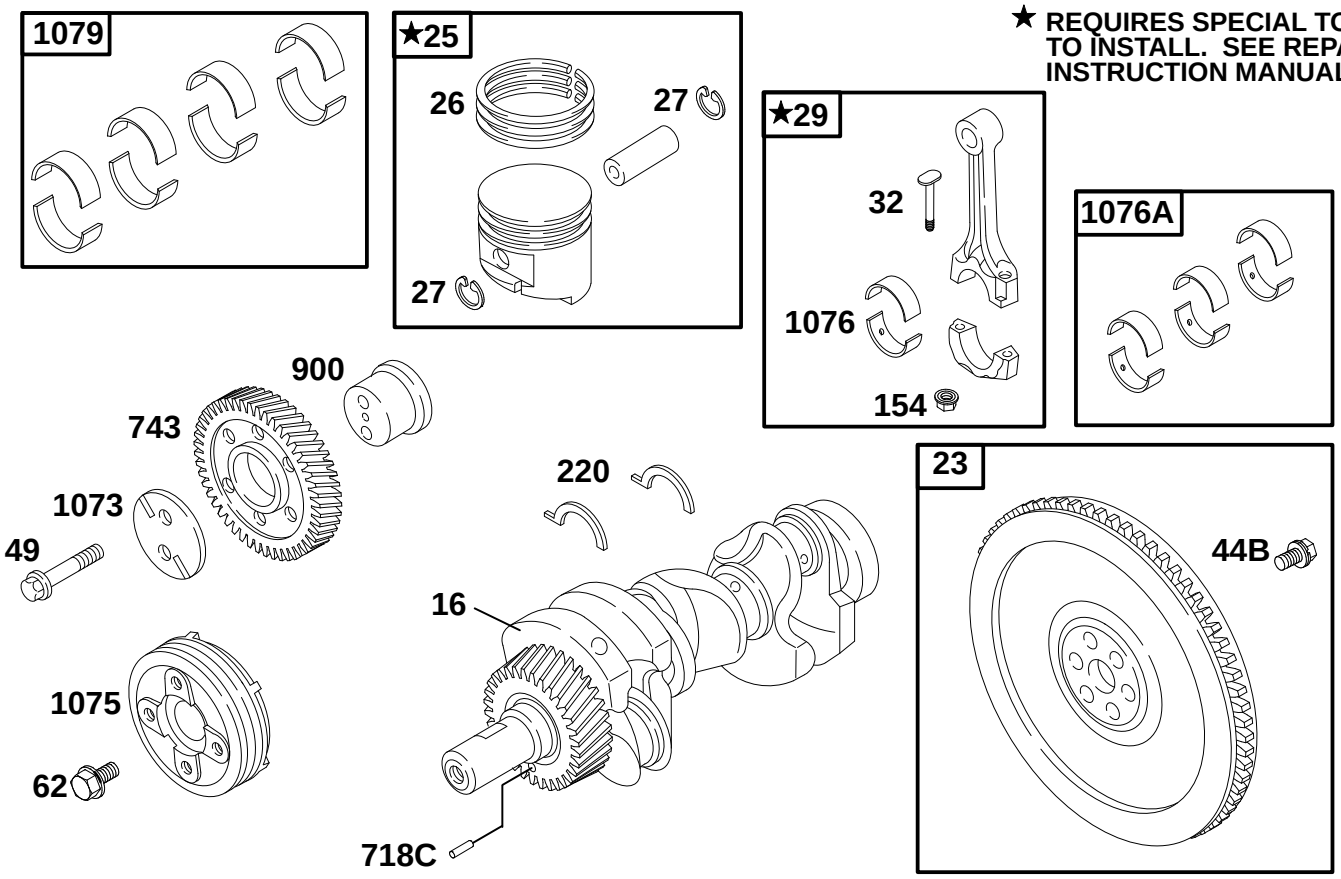
Ref. No.	Part No.	Qty.	Description
∇01	100–6401	1	Cylinder Assembly
∇02	99–9002	1	Bushing
⋆03	99–9003	1	Seal–Oil
1019	99–9015	1	Label Kit
1058	99–9602	1	Owner's Manual
∇1069	99–9020	1	Nozzle–Oil
⋆1080	99–9021	1	Gasket–Retainer
∇1081	99–9022	1	Retainer–Seal
112	99–9007	1	Stud–Metric
1027	99–9017	1	Filter–Oil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

∇ 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.**



Sheet No.:4

T–xxxx

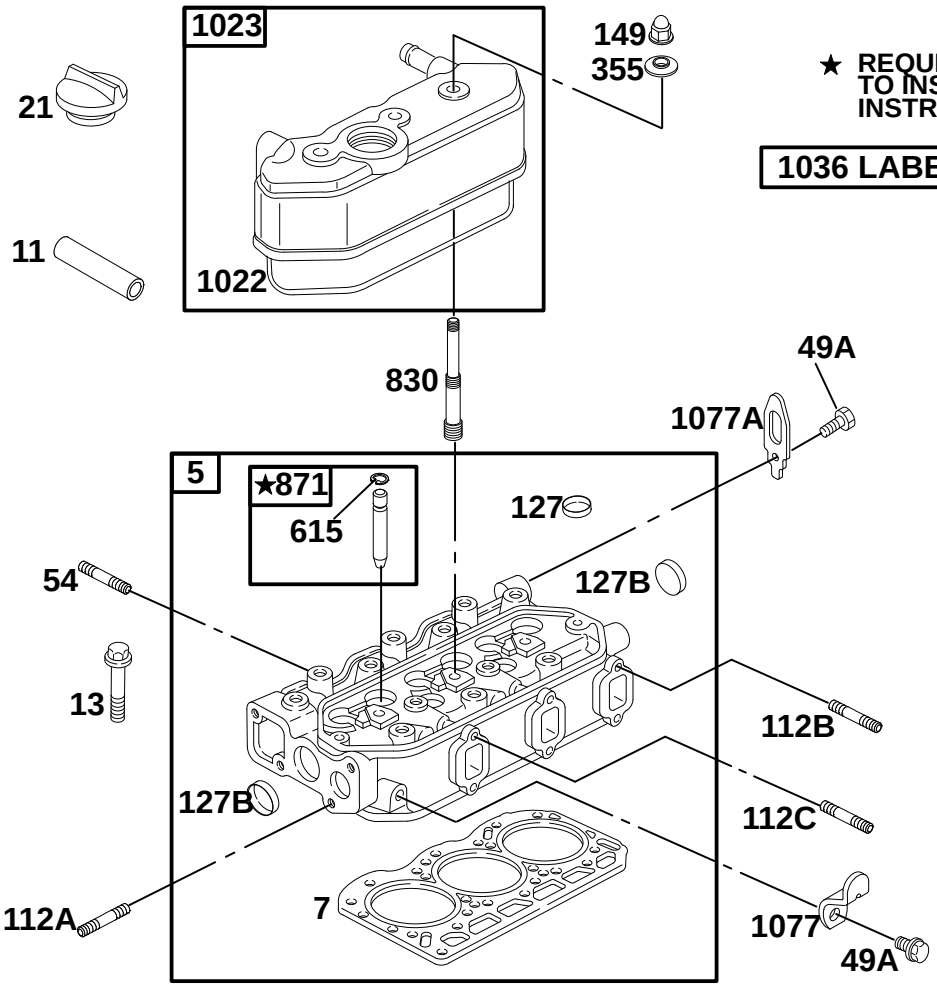
522447–0107–E2 TORO DIESEL

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

∇ 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

Sheet No.:5
T–xxxx

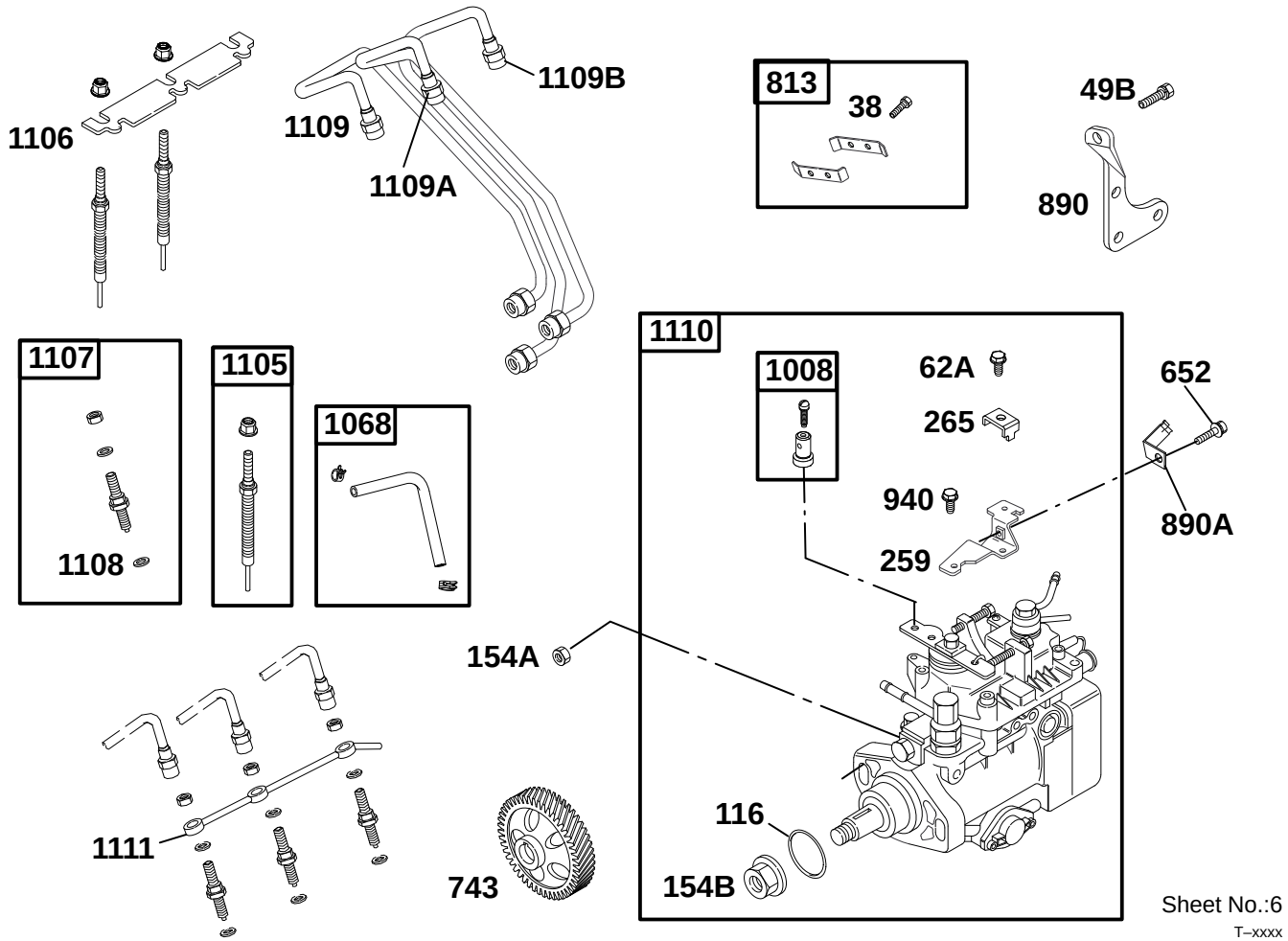
522447–0107–E2 TORO DIESEL

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

∇ 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.



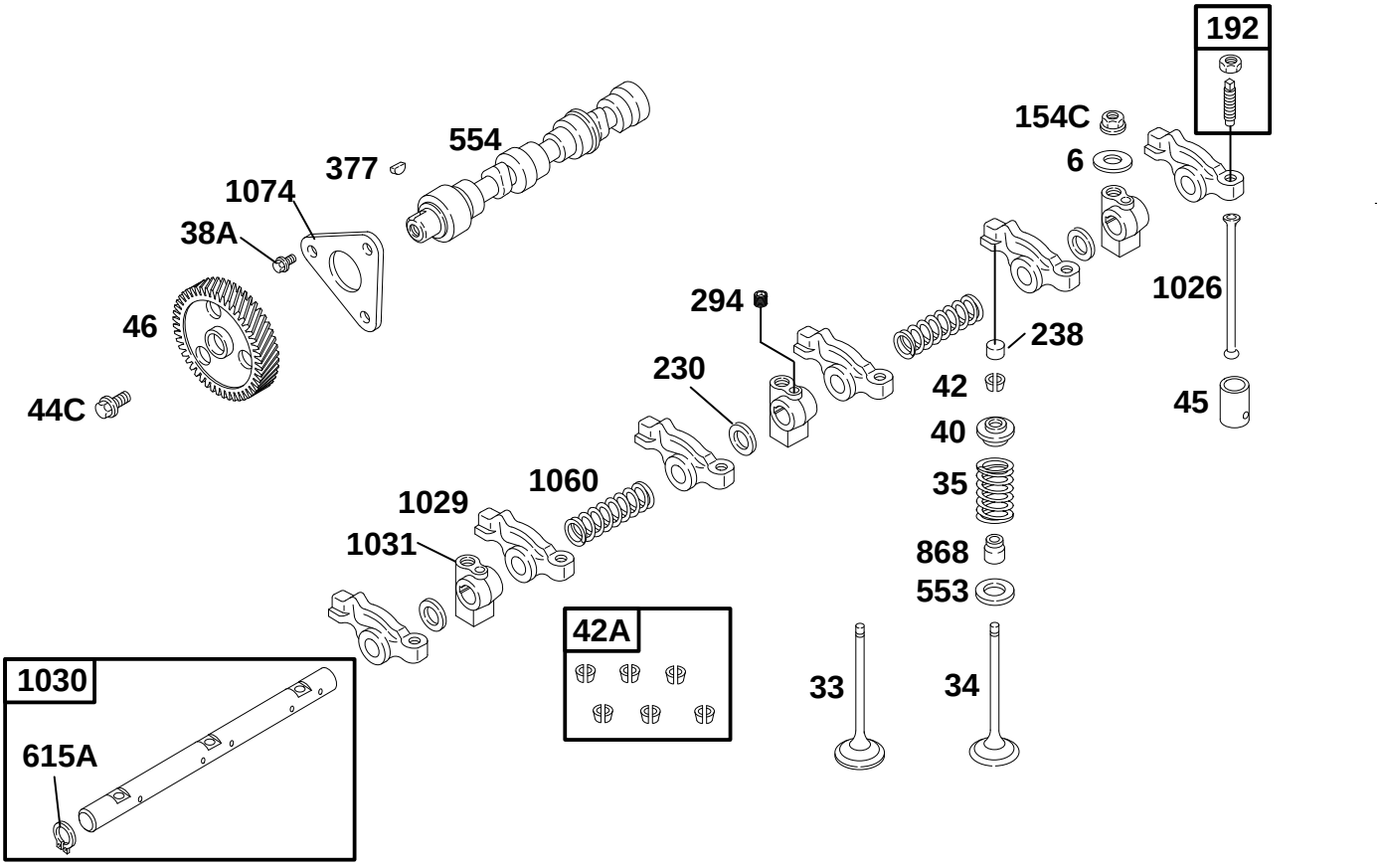
522447–0107–E2 TORO DIESEL

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

∇ 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.



Sheet No.:7

T–xxxx

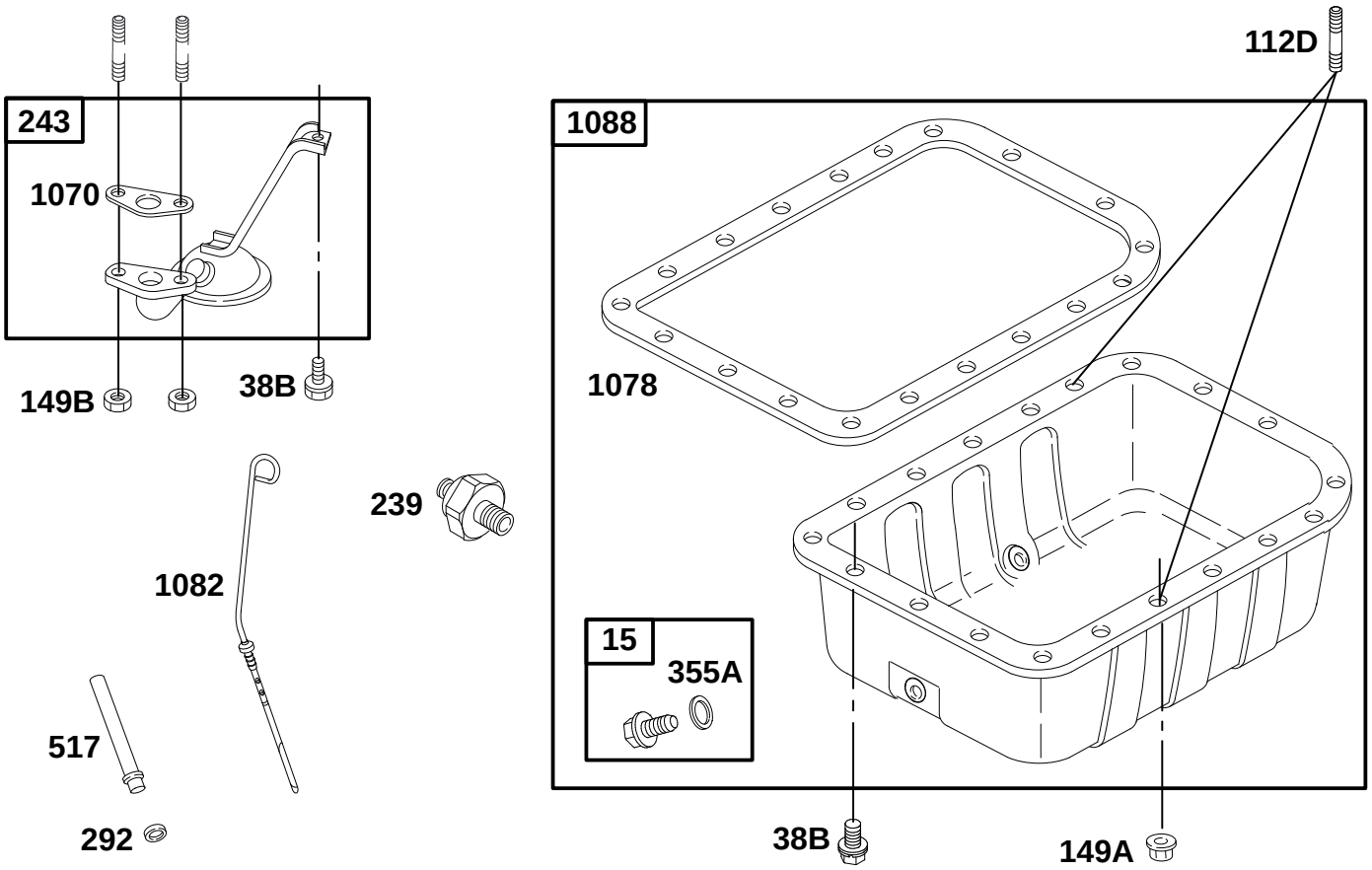
522447–0107–E2 TORO DIESEL

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

∇ 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.:8

T–xxxx

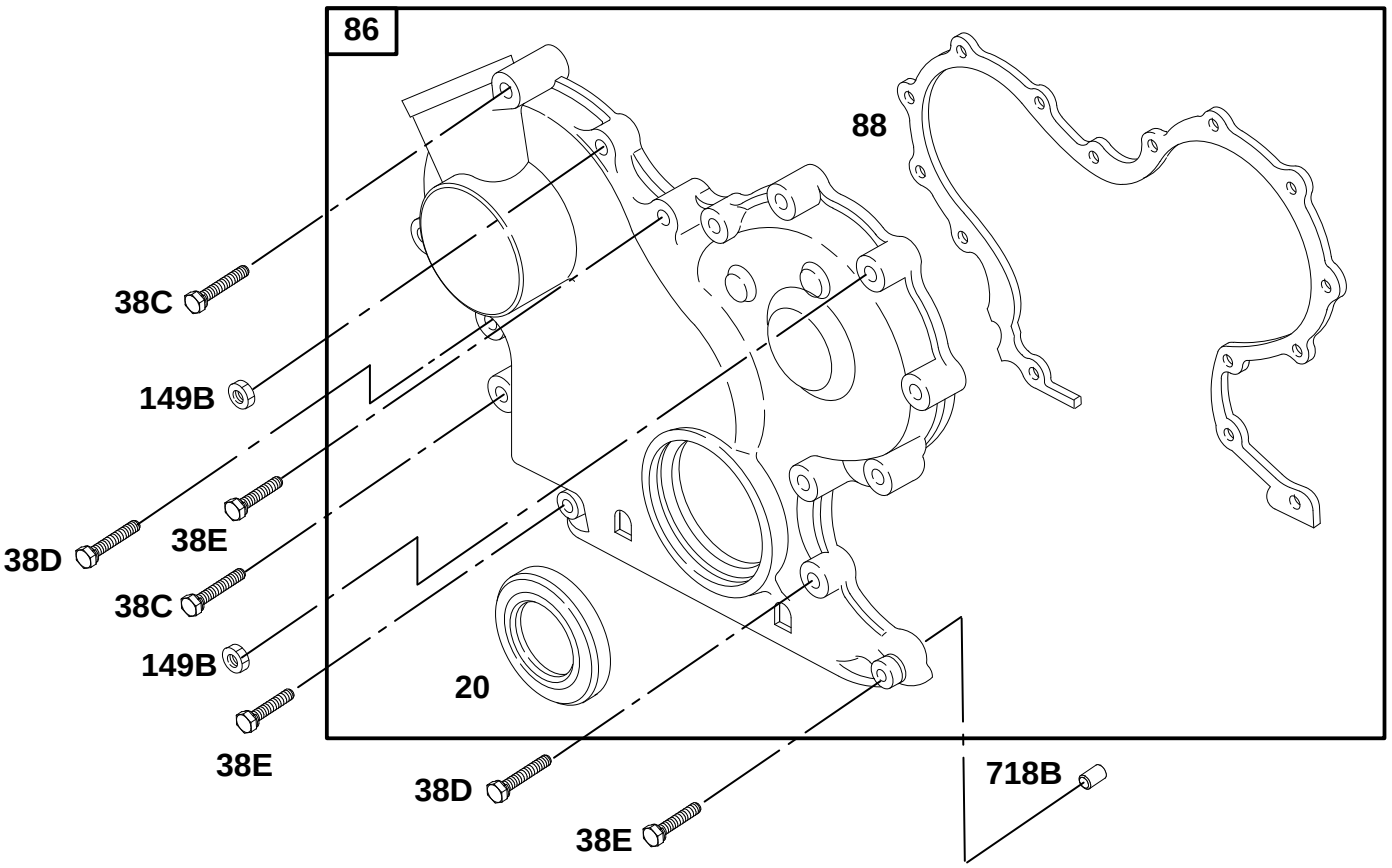
522447–0107–E2 TORO DIESEL

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

∇ 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.:9

T–xxxx

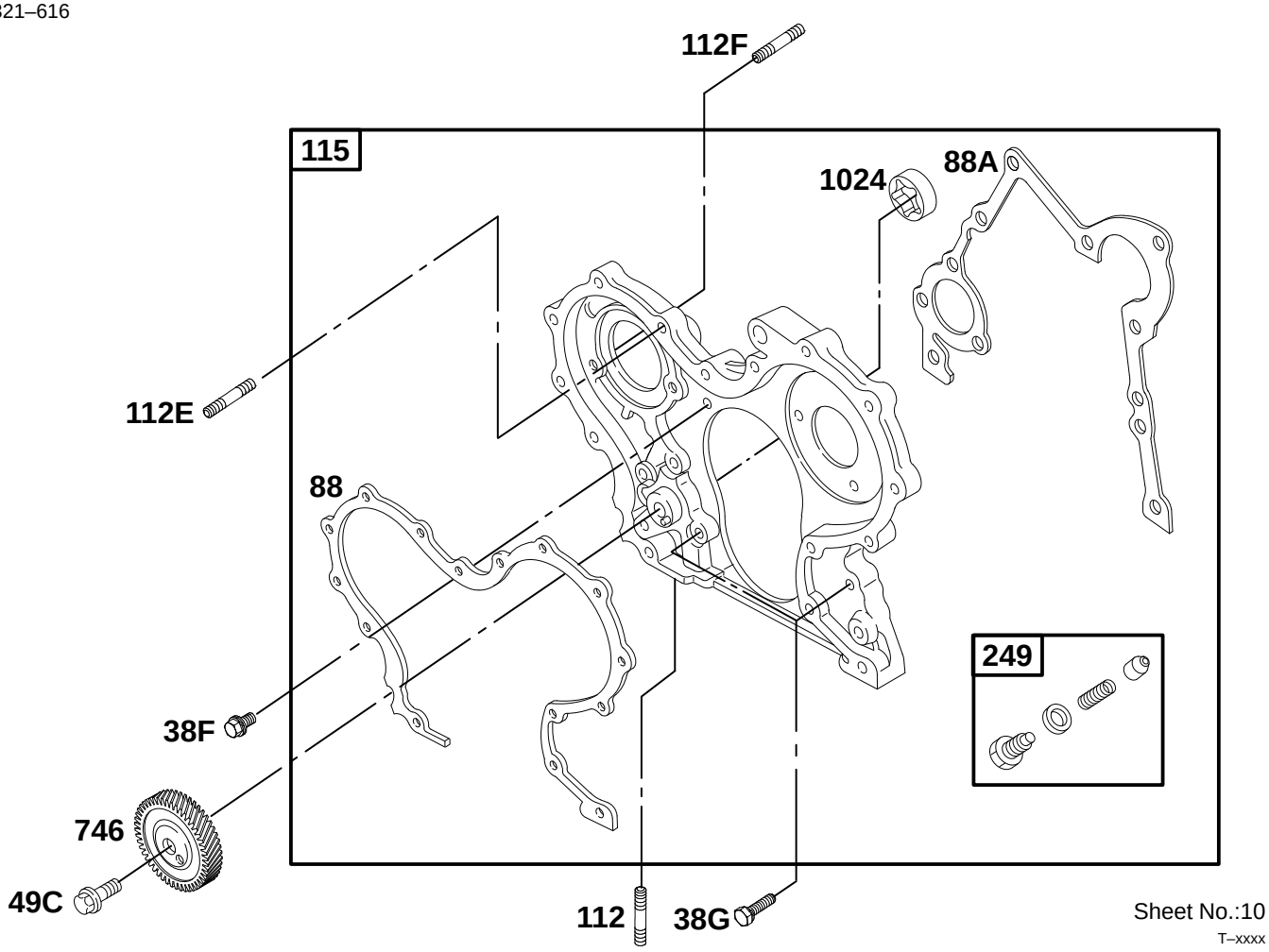
522447–0107–E2 TORO DIESEL

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–Gar
⋆88	99–9653	1	Gasket–Gear Cover

Ref. No.	Part No.	Qty.	Description

∇ 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.



Sheet No.:10
T–xxxx

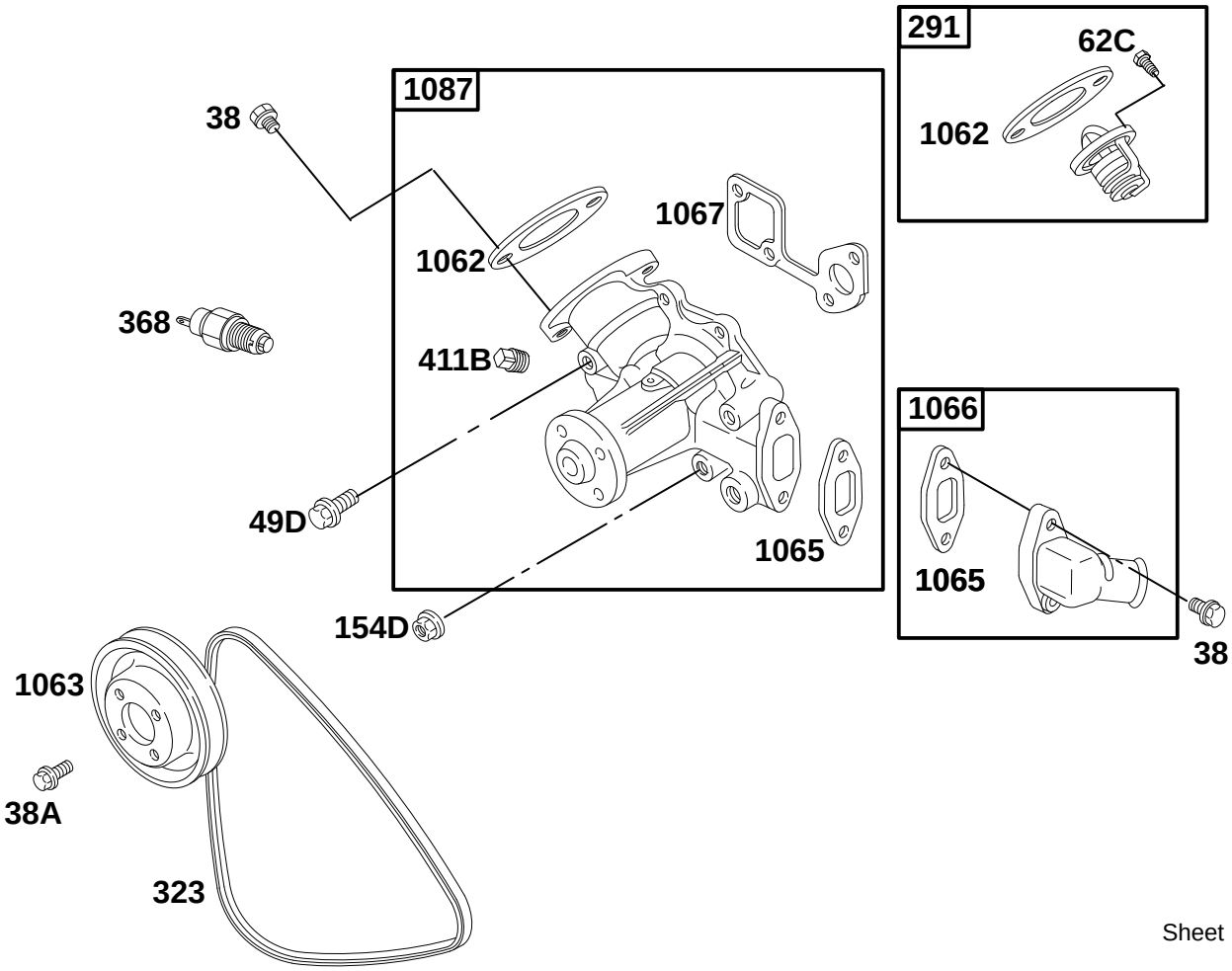
522447–0107–E2 TORO DIESEL

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

∇ 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.



Sheet No.:11

T–xxxx

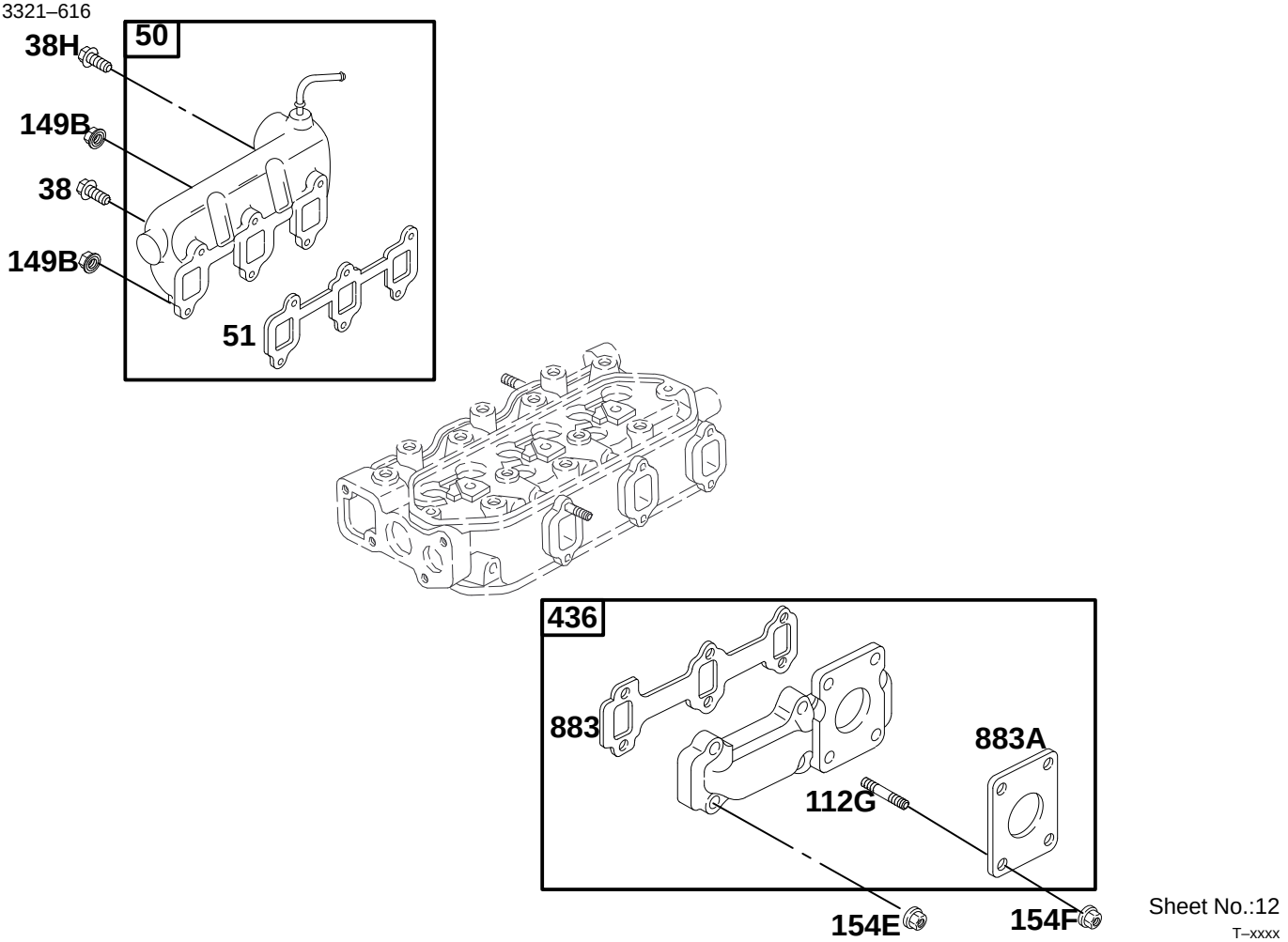
522447–0107–E2 TORO DIESEL

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

∇ 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.:12
T–xxxx

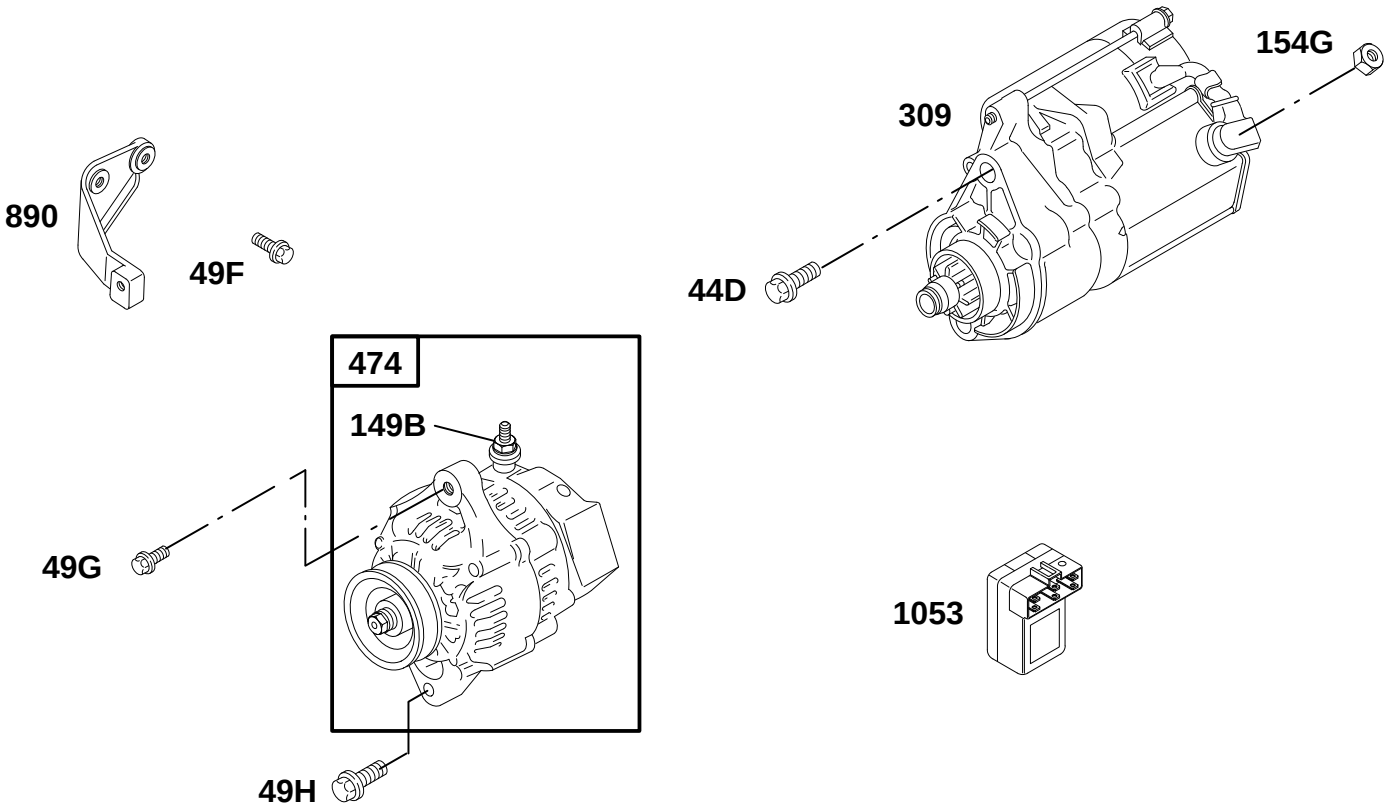
522447–0107–E2 TORO DIESEL

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

∇ 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.:13

T–xxxx

522447–0107–E2 TORO DIESEL

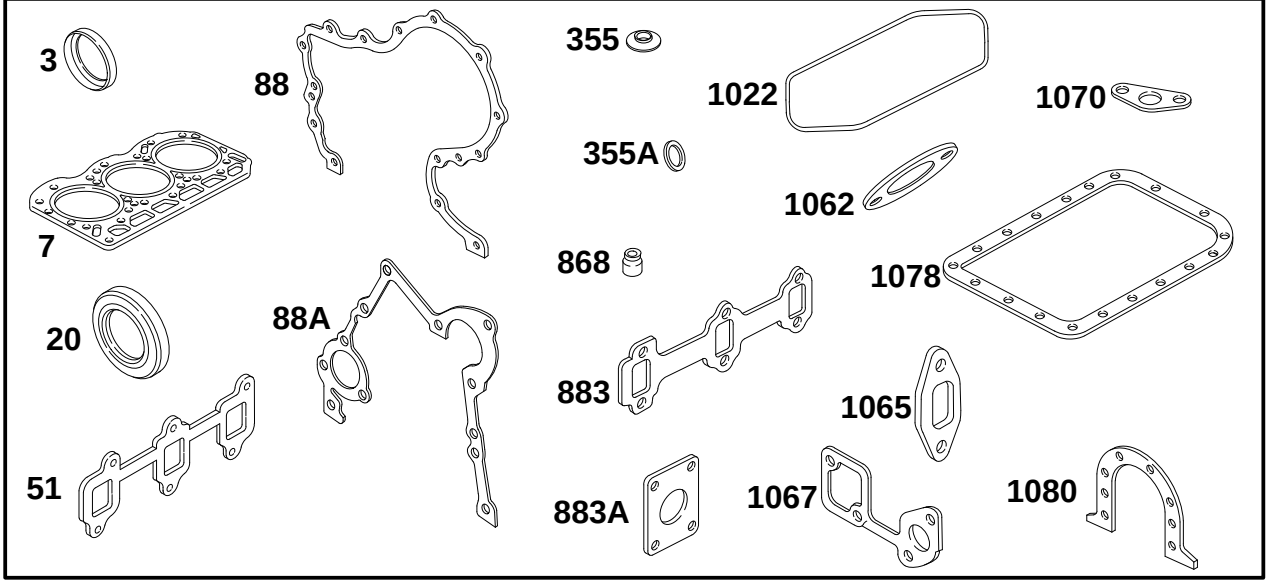
Ref. No.	Part No.	Qty.	Description
1053	99–9666	1	Module
149B	99–9114	1	Nut–Metric Hex
154G	99–9206	1	Nut–Metric Hex
∇309	99–9693	1	Motor–Starter
44D	99–9201	2	Screw–10mm Hex
474	99–9209	1	Alternator

Ref. No.	Part No.	Qty.	Description

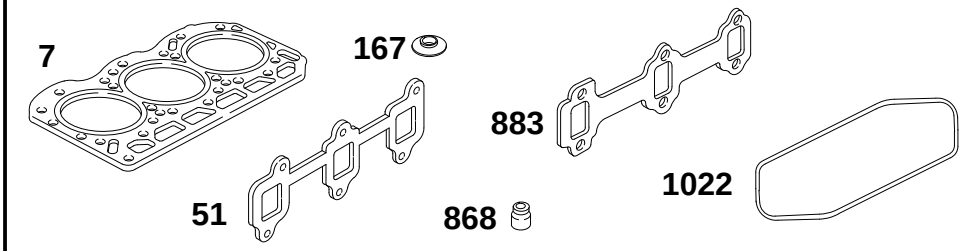
∇ Refer To Repair Manual MS 1055 For Assembly and/or Torque Requirements.
★ Included in Gasket Set – Part Number 99–9667
∆ Included in Valve Overhaul Kit – Part Number 99–9668

Assemblies include all parts shown in frames.

358 GASKET SET



1033 VALVE OVERHAUL KIT



Sheet No.:14
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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

∇ 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.

Maintenance Record

Date								


TORO®