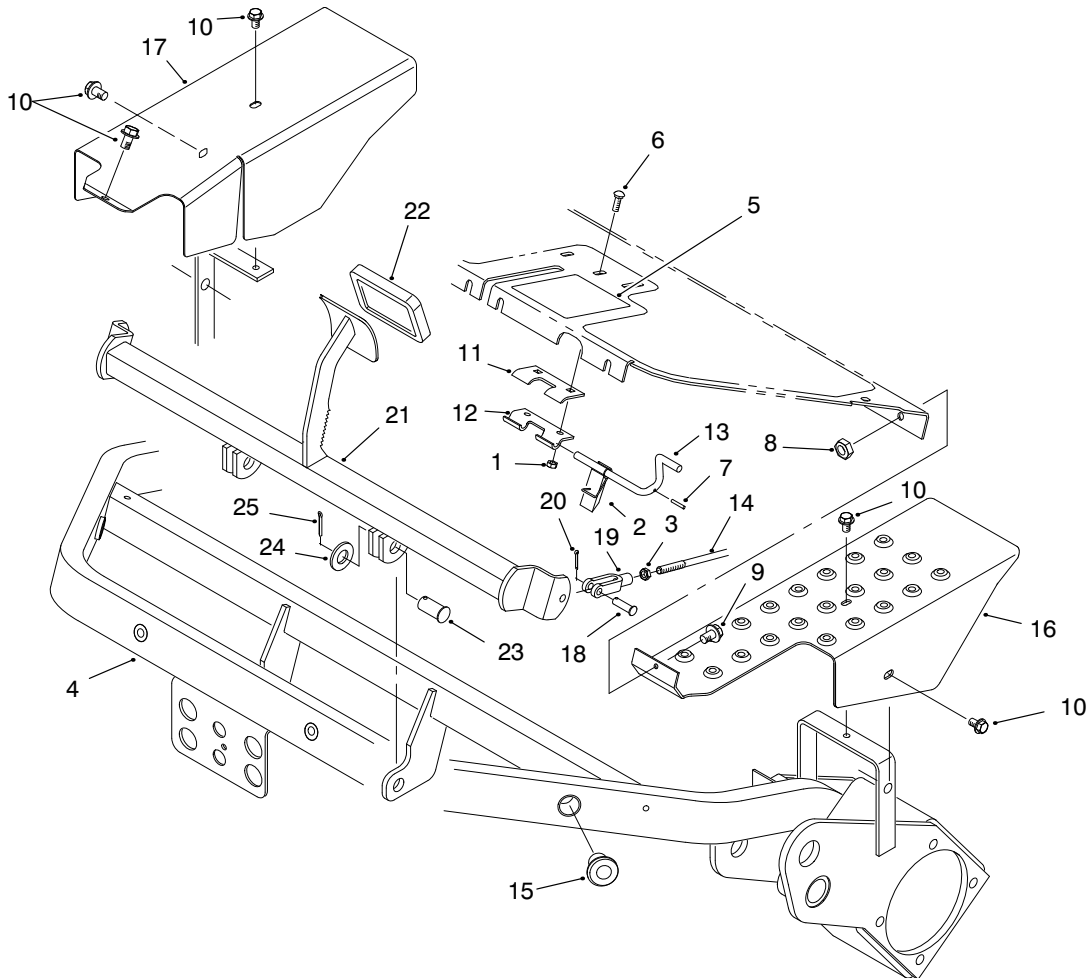




MODEL NO. 04381-91121 & UP

PARTS
CATALOG

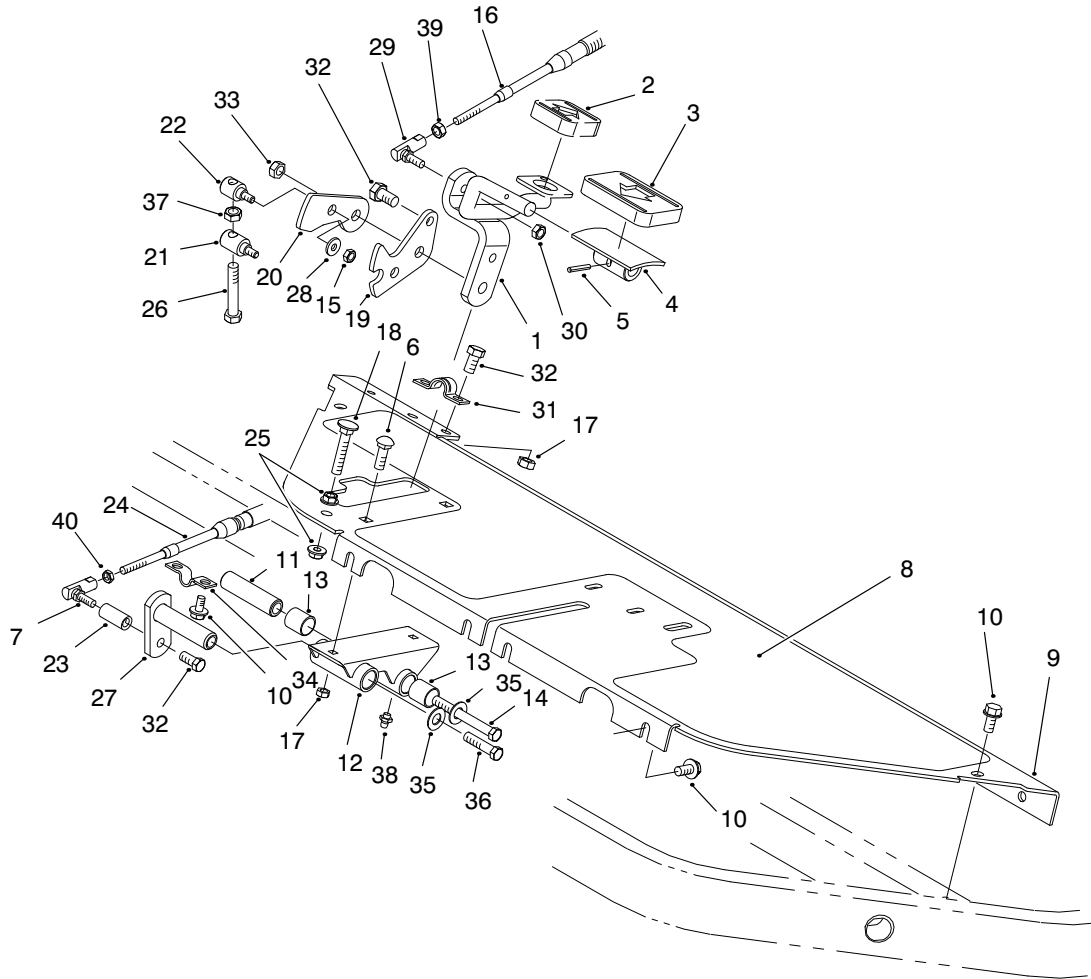
GREENSMASTER® 3200D TRACTION UNIT



T-2222-3

FRAME & BRAKE PEDAL ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	33023-00	Nut - Lock	2	14	93-2069	Rod - Brake	2
2	93-2276	Spring - Brake Latch	1	15	83-1700	Bushing - Flange	3
3	3220-2	Nut - Jam	2	16	93-2073-01	Shield - Wheel LH	1
4	93-2010-01	Frame	1	17	93-2072-01	Shield - Wheel RH	1
5	93-8062	Decal - Parking Brake	1	18	283-61	Pin - Clevis	2
6	33123-016	Screw - Carriage	2	19	282-2	Clevis	2
7	32121-50	Pin - Roll	1	20	3272-6	Pin - Cotter	2
8	33024-00	Nut - Lock	1	21	93-2075-01	Brake Pedal	1
9	33114-020	Screw - HH	1	22	93-7629	Pad - Foot Brake	1
10	32144-14	Screw - HH	5	23	283-87	Pin - Clevis	2
11	95-1628	Hinge - Upper	1	24	3256-27	Washer - Flat	2
12	95-1629	Hinge - Lower	1	25	3272-11	Pin - Cotter	2
13	94-9600	Brake Latch	1				



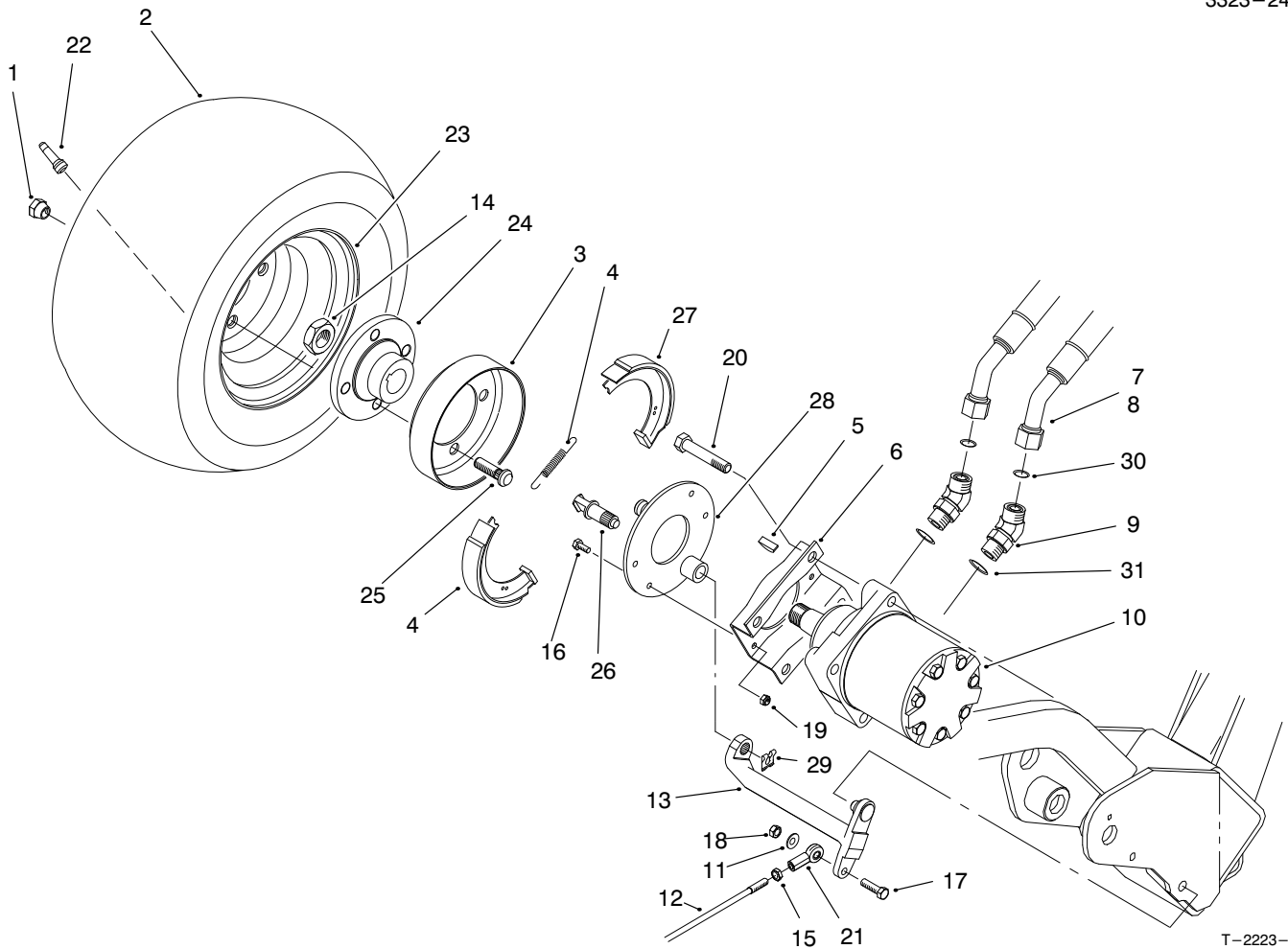
T-2242-2

FLOOR PANEL & TRACTION PEDAL ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	93-2085-01	Rod	1
2	74-9110	Pad - Pedal Reverse	1
3	74-9100	Pad - Pedal Forward	1
4	49-6440-03	Pedal - Accelerator	1
5	32121-45	Roll Pin	1
6	33124-020	Screw - Carr.	2
7	2411-38	Ball Joint Assembly	1
8	93-2142	Pad - Floor Plate	1
9	94-6399-01	Plate - Floor	1
10	32144-14	Screw - HH	8
11	94-1371	Spacer	1
12	94-1383	Pedal Pivot	1
13	256-311	Bushing - Straight	4
14	33115-090	Screw - HH	1
15	33023-00	Nut - Lock	2
16	93-2099	Cable - Traction Control	1
17	33024-00	Nut - Lock	4
18	17-9420	Screw - Handle	1
19	94-1373	Bracket - Lock	1
20	94-1372	Bracket - Mow	1

Ref. No.	Part No.	Description	No. Used
21	94-1375	Trunion Lock Bracket	1
22	94-1374	Trunion Mow Bracket	1
23	94-1386	Shaft - Pedal Lock	1
24	94-1304	Cable - Neutral Lock	1
25	32128-20	Nut - Lock	2
26	94-3489	Screw - HH	1
27	94-1300	Neutral Lock	1
28	3256-1	Washer - Flat	2
29	2411-34	Ball Joint	1
30	3296-13	Nut - Lock	1
31	93-2092	Clamp - Cable	1
32	33114-016	Screw - HH	4
33	33025-00	Nut - Lock	1
34	93-2279	Clamp - Cable	1
35	3256-24	Washer - Flat	2
36	33115-016	Screw - HH	1
37	33014-00	Nut - Hex	1
38	302-5	Fitting - Grease	1
39	3220-1	Nut - Jam	1
40	3219-14	Nut - Hex.	1

* Not Illustrated



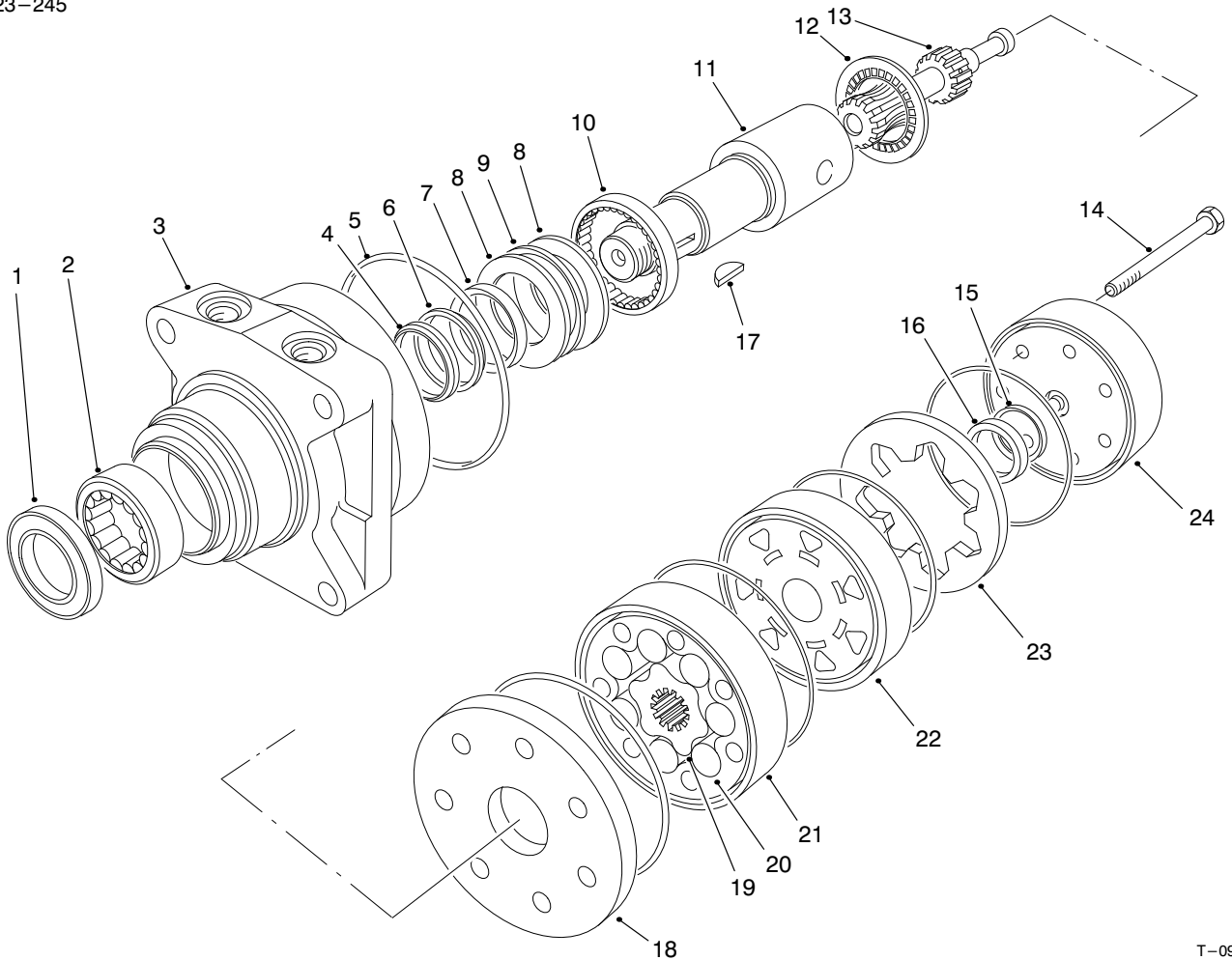
T-2223-1

FRONT WHEEL & BRAKE ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	242-50	Nut - Lug	8
2	28-3680	Tire	2
3	10-6850	Drum - Brake	2
4	70-9880	Spring - Return	4
5	3257-42	Key - Woodruff	2
6	84-2000-03	Bracket - Brake	2
7	94-5357	Hose Assembly - RH	2
8	94-5358	Hose Assembly - LH	2
9	340-14	Fitting - 45° (Incl. Ref. #30-31)	4
10	92-9199	Hydraulic Motor - Wheel	2
11	3256-23	Washer - Flat	2
12	93-2069	Rod - Brake	2
13	93-2096	Lever - Brake	2
14	26-3790	Nut - Lock	2
15	3220-20	Nut - Jam	2
16	33113-020	Screw - HH	8
17	33114-030	Screw - HH	2

Ref. No.	Part No.	Description	No. Used
18	33024-00	Nut - Lock NI	2
19	33023-00	Nut - Lock NI	8
20	33116-060	Screw - HH	8
21	93-2070	Clevis - Swivel	2
22	232-24	Stem - Valve	2
23	217-60	Rim	2
24	10-6870-03	Hub - Wheel	2
25	85-6540	Stud - Drive	8
26	70-9860	Cam - Brake	2
27	70-9840	Shoe - Brake	4
28	70-9870	Plate - Backing	2
29	70-9850	Clip - Retaining	2
30	237-65	O-Ring	4
31	237-80	O-Ring	4
*	10-6821	Brake Drum Assembly (Incl. Ref. #3 & 24-25)	2
*	71-1500	Brake Assembly (Incl. Ref. #4 & 26-29)	2

*Not Illustrated



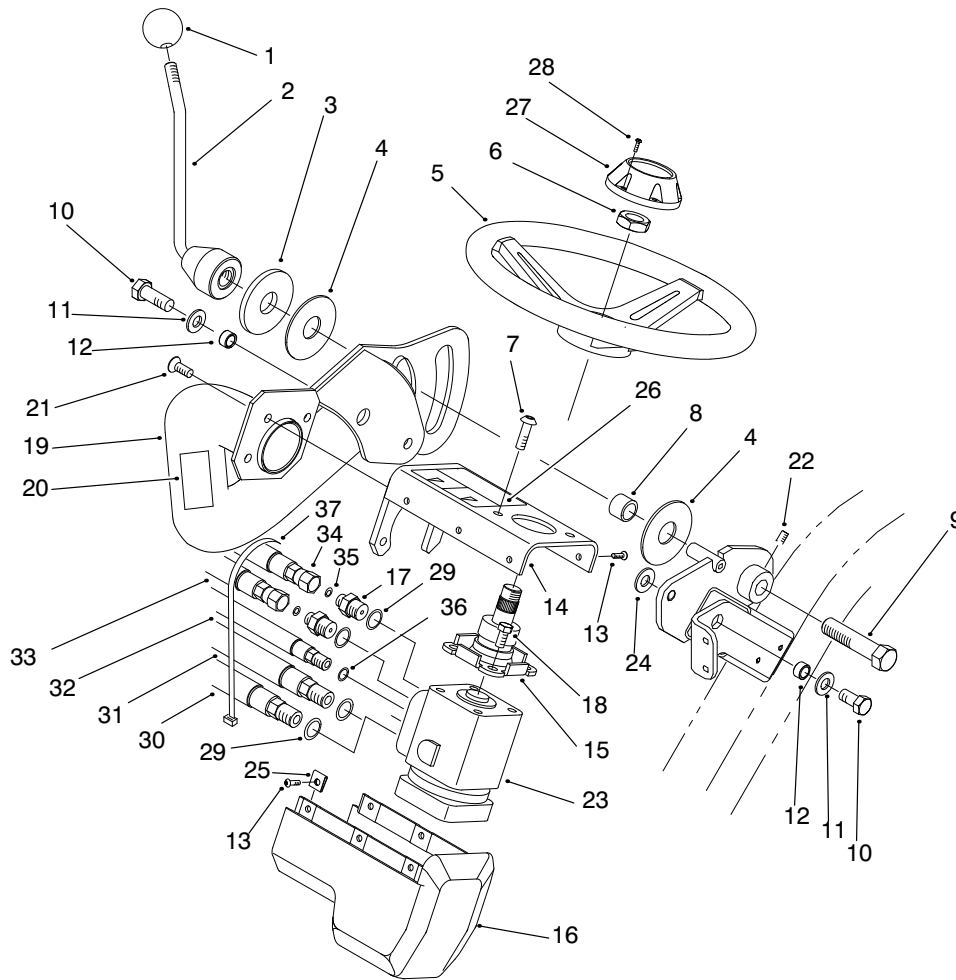
T-0983-2

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

Ref. No.	Part No.	Description	No. Used
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
*	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

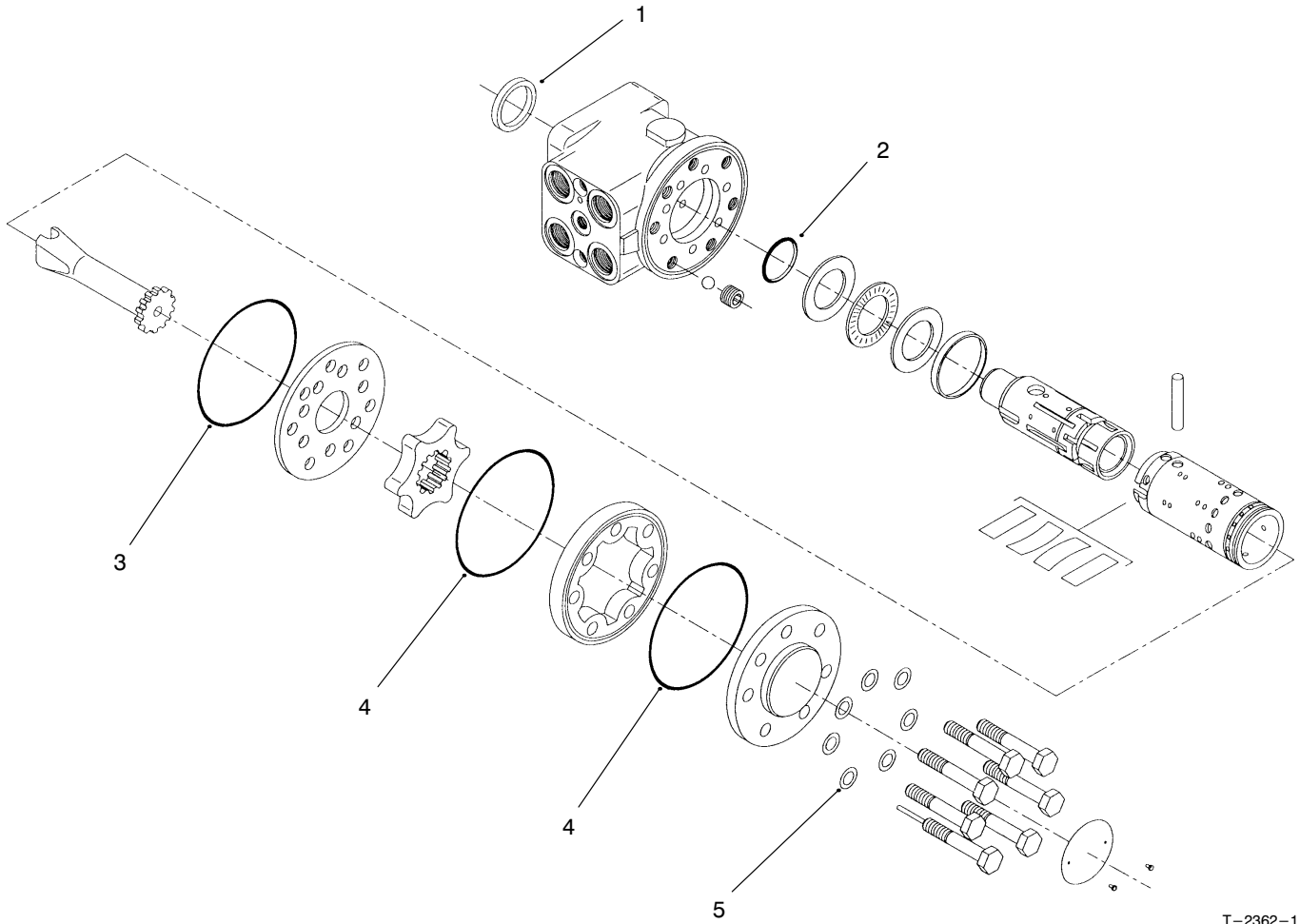
*Not Illustrated
 †Not Serviced Separately
 4



T-2224-1

STEERING ARM ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	233-48	Knob	1	18	323-4	Screw - HH	2
2	93-2400-03	Lockup Handle	1	19	93-2115-01	Steering Arm	1
3	83-0760	Spacer - Lockup	1	20	93-8068	Decal - Steering Arm	1
4	83-0740	Disc - Friction	2	21	3274-80	Screw - HSBH	3
5	68-5130	Wheel - Steering (Incl. Ref. #27-28)	1	22	3246-3	Screw - Set	1
6	47-6990	Nut - Steering Wheel	1	23	93-2120	Steering Control Valve	1
7	3274-63	Screw - HSBH	2	24	65-6390	Washer - Thrust	1
8	83-0730	Spacer - Lockup	1	25	3290-277	Nut - Speed	6
9	93-2199	Screw - HH	1	26	93-8063	Decal - Warning	1
10	325-4	Screw - HH	2	27	68-5140	Cap - Steering Wheel	1
11	3256-26	Washer - Flat	2	28	32144-21	Screw - PPH	2
12	47-2890	Bushing	2	29	237-79	O-Ring	4
13	3274-39	Screw - HSBH	6	30	93-2272	Hose Assembly	1
14	94-9628	Steering Cover Asm (Incl. Ref. #26)	1	31	93-2252	Hose Assembly	1
15	83-1420	Steering Column Assembly	1	32	93-2269	Hose Assembly	1
16	94-6366	Cover - Steering Valve	1	33	93-2270	Hose Assembly	1
17	340-133	Fitting - Hydraulic (Incl. Ref. #29-30)	2	34	93-2271	Hose Assembly	1
				35	237-21	O-Ring	2
				36	237-42	O-Ring	1
				37	3290-379	Tie - Cable	1



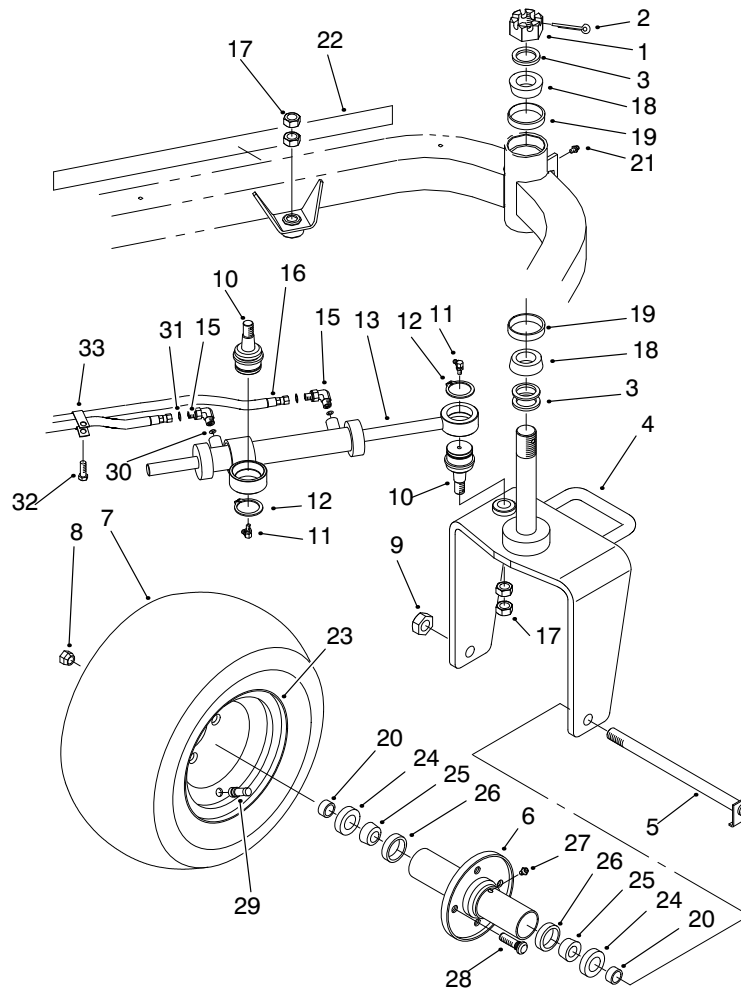
T-2362-1

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

Ref. No.	Part No.	Description	No. Used
†5		Washer	7
*	94-4929	Kit – Seal (Incl. Ref. #1-5)	1

†Not Serviced Separately

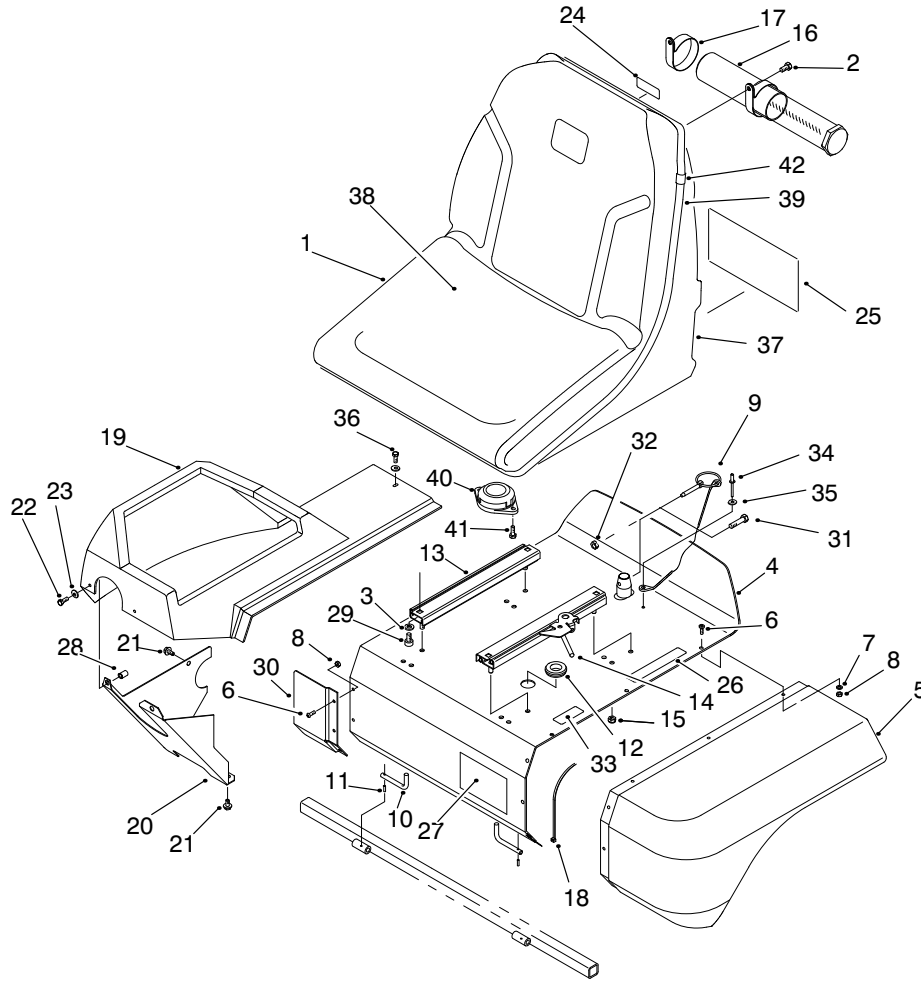


T-2225-1

REAR WHEEL ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	32136-9	Nut - Hex	1	18	254-70	Bearing Cone	2
2	3272-37	Pin - Cotter	1	19	254-61	Bearing - Cup	2
3	18-6320	Washer - Steering	3	20	74-3730	Spacer - Cylinder	2
4	93-2125-01	Castor Fork	1	21	302-5	Fitting - Grease, Str.	1
5	5-3934	Bolt	1	22	93-2233	Decal - GR3200	2
6	75-9440	Hub - Wheel	1	23	217-60	Rim	1
7	28-3680	Tire	1	24	253-111	Seal - Shaft	2
8	242-50	Nut - Lug	4	25	254-78	Cone - Bearing	2
9	3296-67	Nut - Lock NI	1	26	254-79	Cup - Bearing	2
10	92-5838-01	Ball Joint	2	27	302-55	Fitting - Grease	1
11	302-60	Fitting - Grease, 90°	2	28	10-6830	Stud - Drive	4
12	32151-104	Ring - Retaining, Ext.	2	29	232-27	Valve Stem w/Cap	1
13	93-2122	Cylinder Asm - Steering (Incl. Ref. #32)	1	30	237-78	O-Ring	2
14	93-2270	Hose Assembly	1	31	237-21	O-Ring	2
15	340-132	Fitting - Hydraulic	2	32	32144-14	Screw - Hex. Washer Hd.	1
16	93-2269	Hose Assembly	1	33	92-5753	Clamp - Hose Double	1
17	3220-6	Nut - Jam	4	*	94-4398	Kit - Seal, Cylinder Repair	1

*Not Illustrated



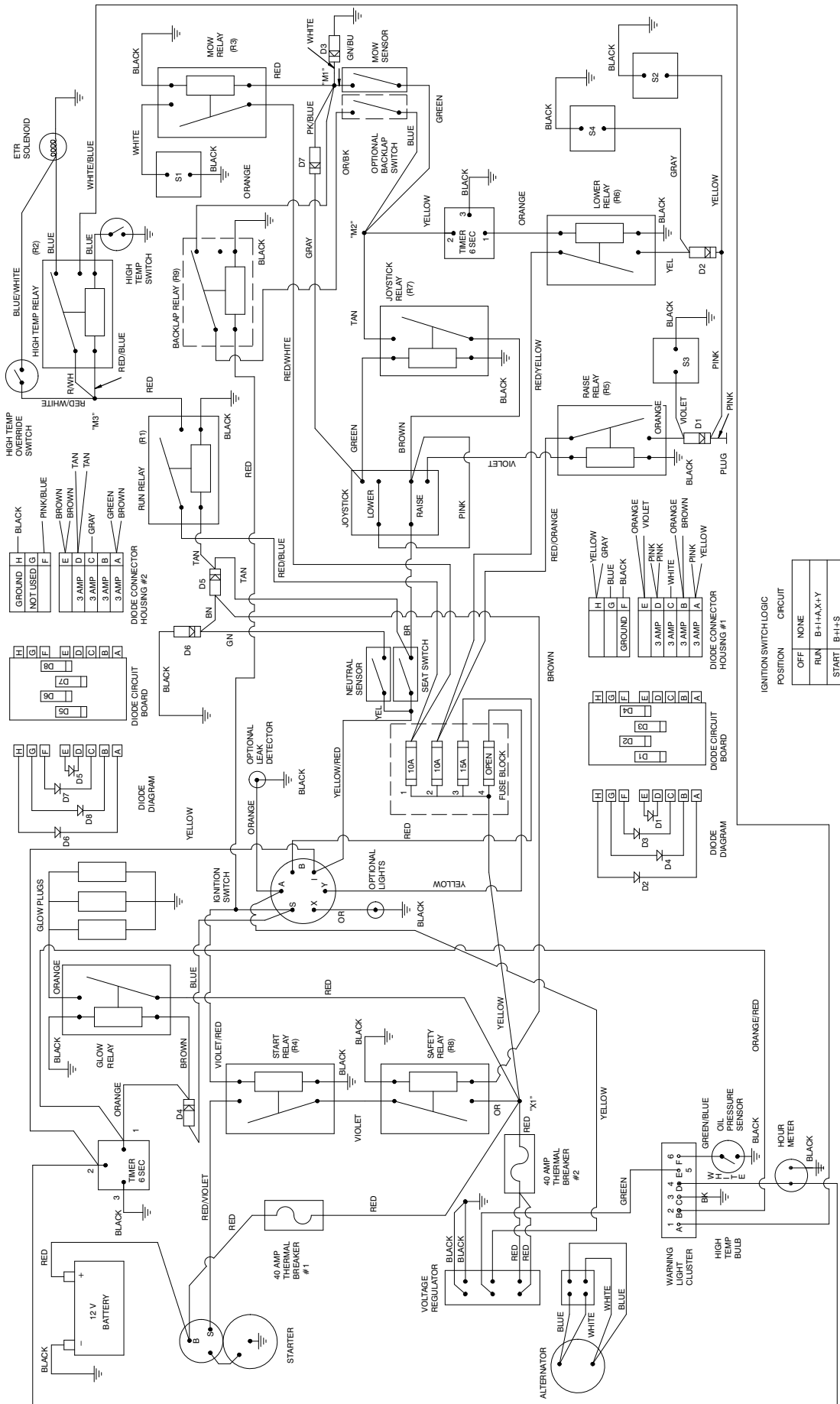
T-2226-3

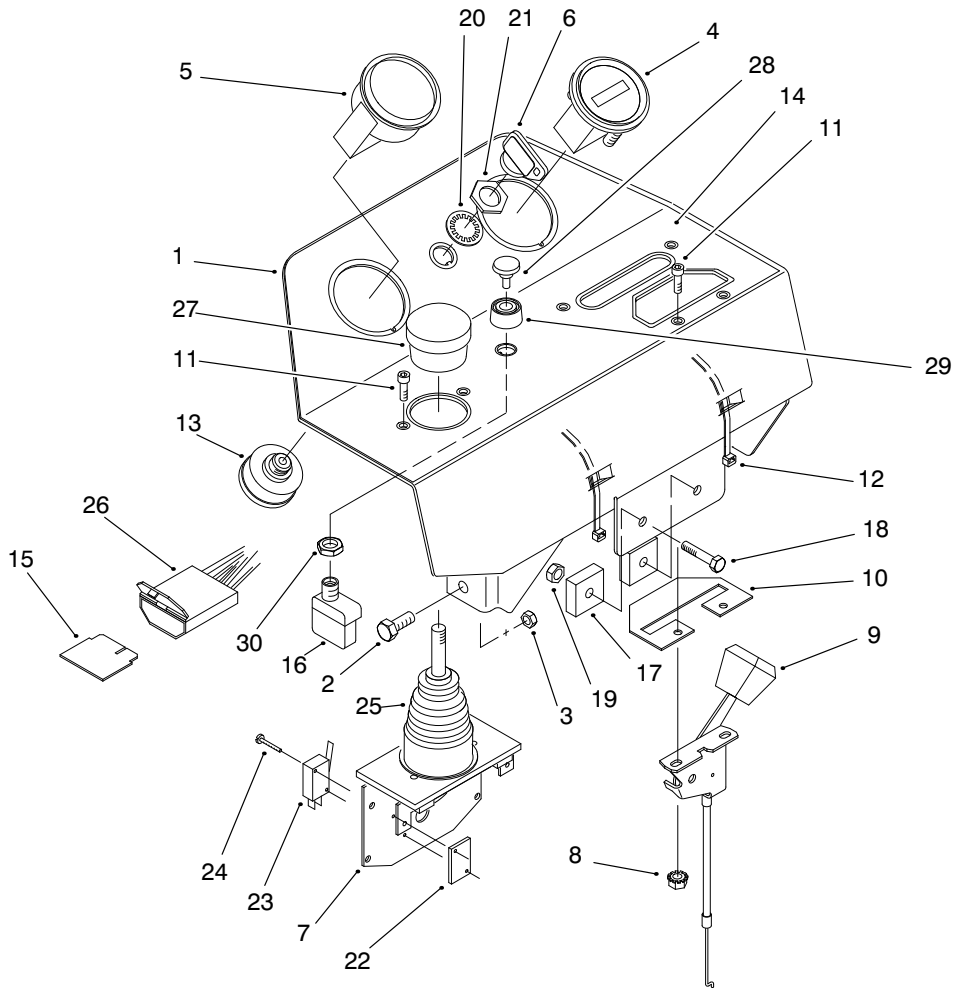
SEAT ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	92-6280	Seat Assembly (Incl. Ref. #37-42)	1
2	322-2	Screw - HH	2
3	3256-23	Washer - Flat	4
4	94-9627	Seat Support Asm (Incl. Ref. #26, 27 & 33)	1
5	93-2128	Panel - Seat Base	1
6	3274-39	Screw - HSBH	9
7	3256-77	Washer - Flat	6
8	3296-12	Nut - Lock	9
9	77-3780	Lynch Pin & Lanyard Assy.	
10	93-2422	Rod - Seat Pivot	2
11	32121-7	Pin - Spring	2
12	237-100	Grommet	1
13	92-8990	Adjuster - Seat	1
14	92-8991	Adjuster w/Latch	1
15	3296-29	Nut - Lock	4
16	74-0720	Tube - Manual	1
17	2412-133	Clamp - R	2
18	3290-378	Tie - Cable	1
19	93-2578	Shroud - Console	1
20	94-4547-01	Panel - Lower	1
21	32144-14	Screw - HH	2
22	33113-016	Screw - HH	2
23	3256-1	Washer - Flat	3
24	93-8067	Decal - Hydraulic Oil	1
25	94-9633	Decal - Service	1
25	94-9642	Decal - Service (Danish)	1

Ref. No.	Part No.	Description	No. Used
25	94-9643	Decal - Service (Dutch)	1
25	94-9641	Decal - Service (Finnish)	1
25	94-9635	Decal - Service (French)	1
25	94-9636	Decal - Service (German)	1
25	94-9638	Decal - Service (Italian)	1
25	94-9644	Decal - Service (Japanese)	1
25	94-9640	Decal - Service (Norwegian)	1
25	94-9639	Decal - Service (Portuguese)	1
25	94-9634	Decal - Service (Spanish)	1
25	94-9637	Decal - Service (Swedish)	1
26	93-6689	Decal - No Rider	1
27	94-2579	Decal - Toro	1
28	93-5447	Insert - Threaded	2
29	3274-12	Screw - HSH	4
30	94-4546-01	Panel - Extension	1
31	33113-030	Screw - HH (Europe)	1
32	33023-00	Nut - Lock NI (Europe)	1
33	93-7252	Decal - CE Mark	1
34	3290-282	Rivet - Pop	1
35	3256-49	Washer - Flat	1
36	33113-012	Sctew - Hex. Hd.	1
37	92-6534	Shell - Seat	1
38	92-6533	Kit - Cushion Repair	1
39	351-78	Edging	1
40	92-6282	Switch - Seat	1
41	321-3	Screw - Hex. Hd.	2
42	351-80	Clip - Edging	1

ELECTRICAL SCHEMATIC



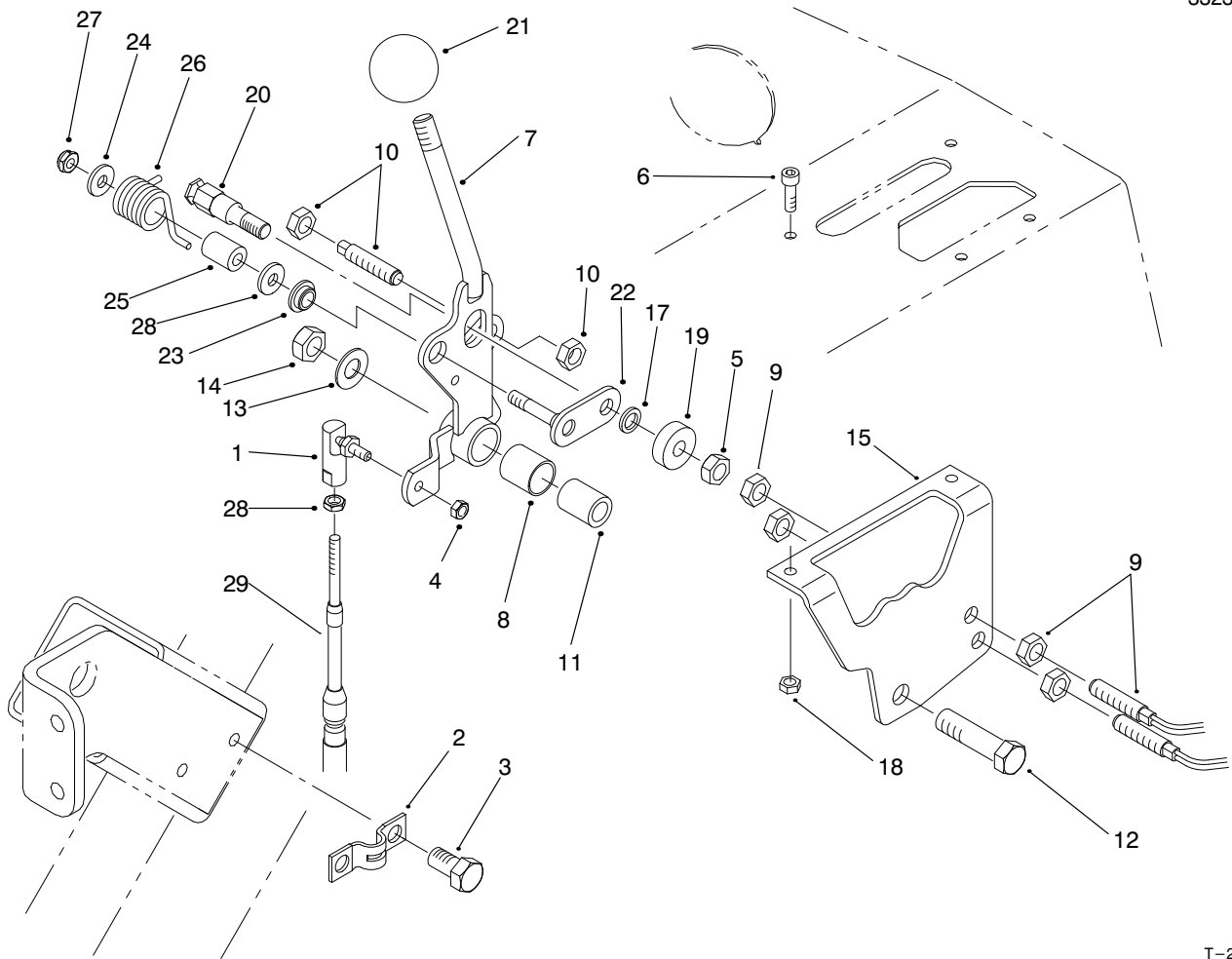


T-2292-1

CONTROL PANEL ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	94-6953-03	Console	1
2	33114-020	Screw - HH	4
3	33024-00	Nut - Lock NI	4
4	66-2950	Gauge - Hour Meter	1
5	92-9775	Warning Light Cluster	1
6	63-8360	Key - Ignition	2
7	98-2195	Lever - Control (Incl. Ref. #22-25 & 27)	1
8	32149-8	Nut - Keps	2
9	93-2322	Control - Throttle	1
10	85-9190-03	Plate - Control	1
11	3273-26	Screw - PPH	4
12	3290-378	Tie - Cable	2
13	27-2360	Switch - Ignition	1
14	94-8077	Decal - Console	1
15	92-3188	Diode - Circuit Board	1

Ref. No.	Part No.	Description	No. Used
16	72-9760	Switch - Override (Incl. Ref. #30)	1
17	92-2538	Timer - Glow Plug	2
18	33113-030	Screw - HH	2
19	33023-00	Nut - Lock NI	2
20	218-446	Washer - Lock	1
21	218-447	Nut - Hex.	1
22	3290-354	Plate - Nut	2
23	218-590	Switch - Micro	2
24	3290-93	Screw - HH	4
25	3290-488	Boot - Control, Lift	1
26	93-2340	Harness - Wire	1
27	3290-489	Knob - Control, Lift	1
28	43-6280	Button - Push	1
29	43-6420	Bezel	1
30	218-498	Nut - Hex.	1



T-2265-5

TRACTION HANDLE ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	2411-38	Ball Joint	1
2	93-2279	Clamp - Cable	1
3	32144-14	Screw - HH	2
4	3296-27	Nut - Lock	1
5	33024-00	Nut - Lock NI	1
6	3273-26	Screw - HSH	2
7	94-9611	Handle	1
8	256-311	Bushing - Straight	1
9	93-2055	Reed Switch - Sensor	2
10	93-2056	Reed Switch - Actuator	1
11	94-1378	Tube - Handle Pivot	1
12	33115-040	Screw - HH	1
13	3256-24	Washer - Flat	1
14	33025-00	Nut - Lock NI	1

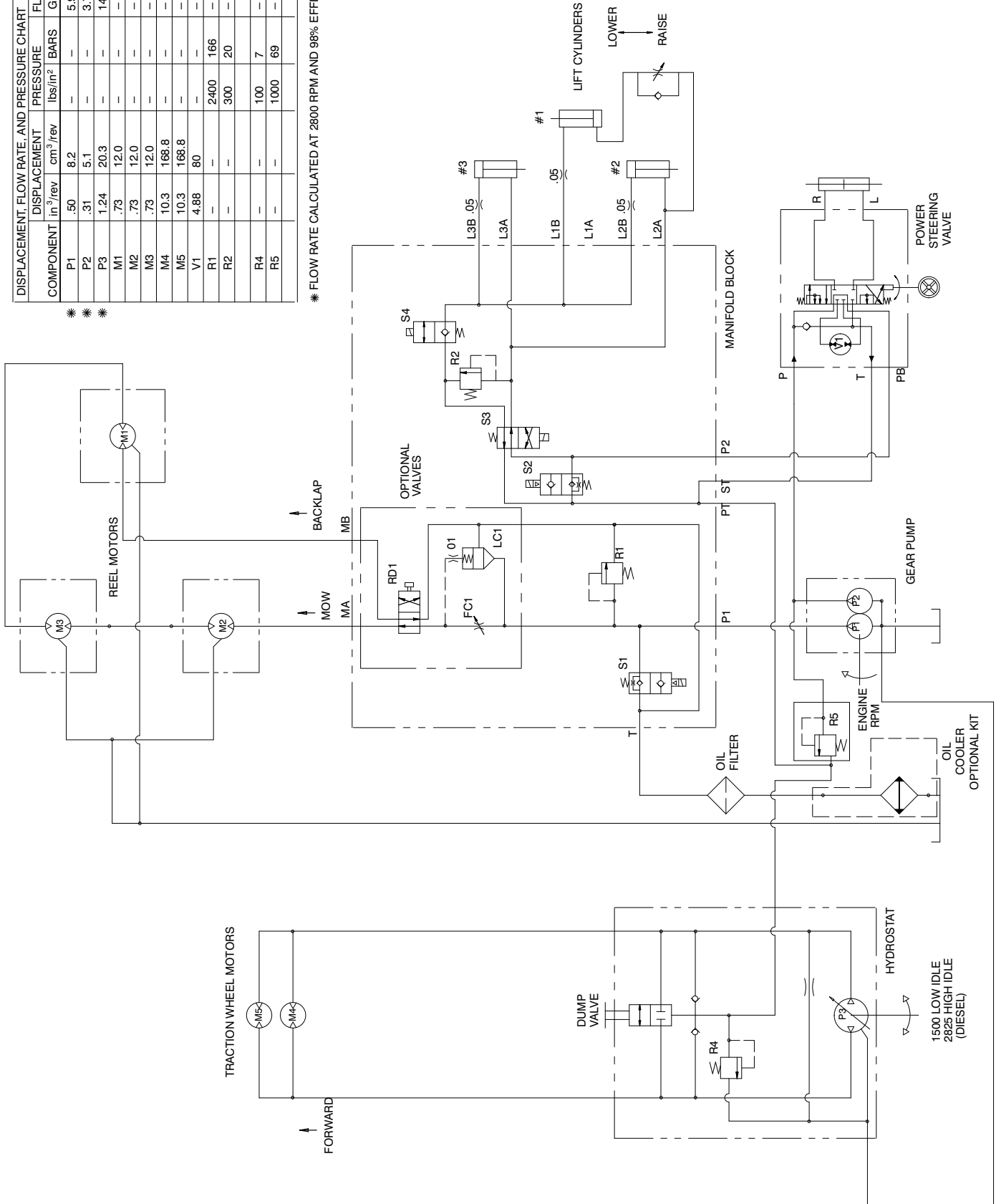
Ref. No.	Part No.	Description	No. Used
15	94-6398	Bracket - Traction	1
17	75-5470	Spacer	1
18	3296-27	Nut - Lock	2
19	251-259	Bearing - Ball	1
20	94-9617	Pin - Spring	1
21	233-42	Knob	1
22	94-9614	Roller - Pivot	1
23	94-9619	Bushing	1
24	3256-1	Washer - Flat	1
25	94-9618	Spacer - Spring	1
26	94-9620	Spring - Torsion	1
27	33023-00	Nut - Lock	1
28	3256-23	Washer - Flat	1

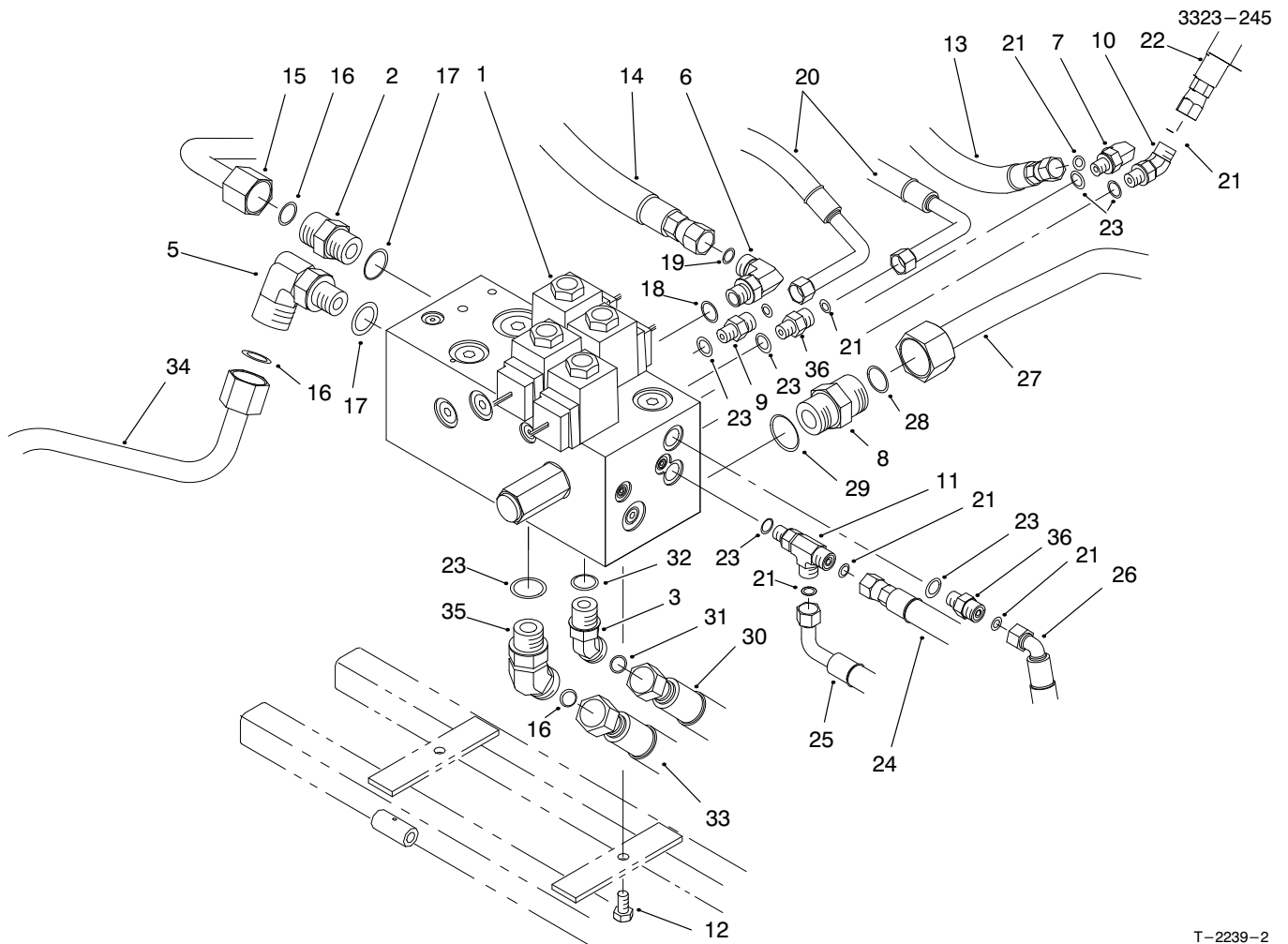
HYDRAULIC SCHEMATIC

DISPLACEMENT, FLOW RATE, AND PRESSURE CHART					
COMPONENT	DISPLACEMENT in ³ /rev	DISPLACEMENT cm ³ /rev	PRESSURE lbs/in ² BARS	FLOW RATE	
				GPM	LPM
P1	.50	8.2	-	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	-	-	300	20	-
R4	-	-	100	7	-
R5	-	-	1000	69	-

* * *

* FLOW RATE CALCULATED AT 2800 RPM AND 98% EFFICIENCY

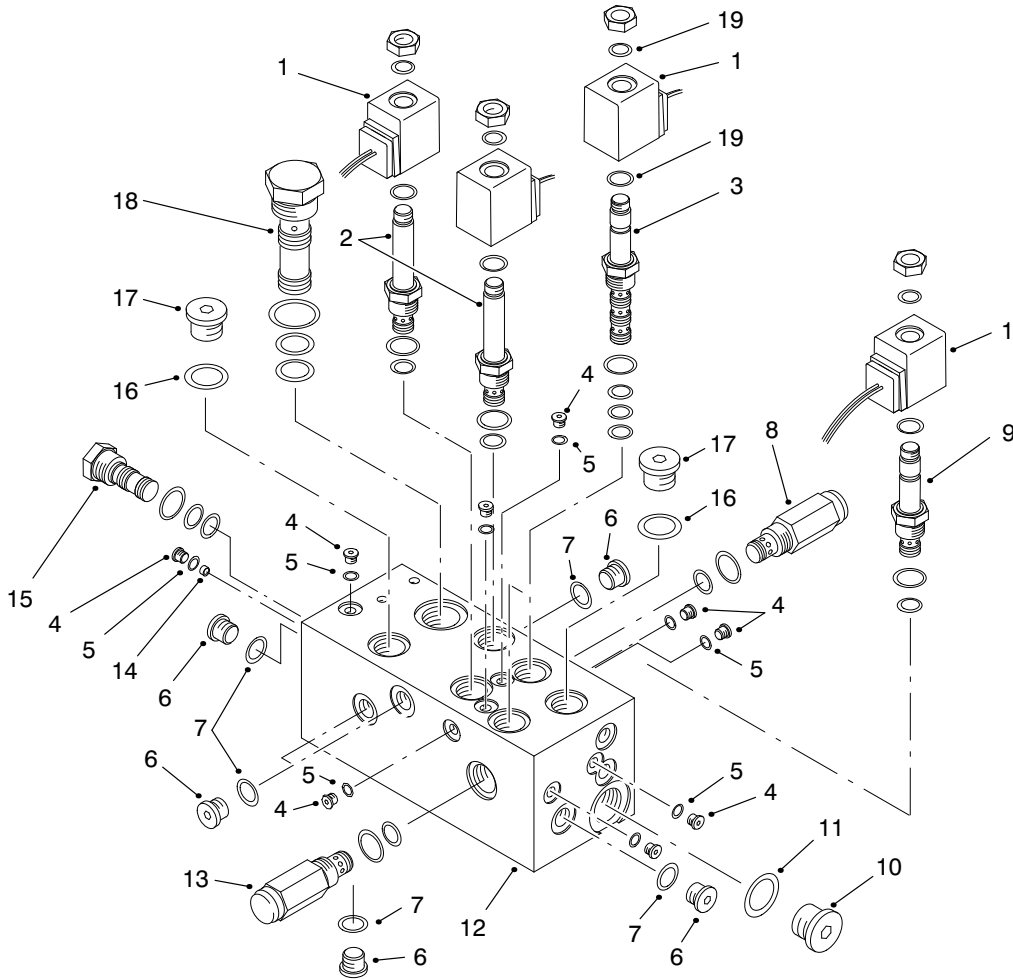




T-2239-2

MANIFOLD INSTALLATION ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	93-2240	Manifold Assembly	1	16	237-65	O-Ring	3
2	340-7	Fitting - Hydraulic (Incl. Ref. #16-17)	1	17	237-80	O-Ring	2
3	340-138	Fitting - Hydraulic 45° (Incl. Ref. #31-32)	1	18	237-42	O-Ring	1
5	340-17	Fitting - Hydraulic 90° (Incl. Ref. #16-17)	1	19	237-22	O-Ring	1
6	340-77	Fitting - Hydraulic 90° (Incl. Ref. #18-19)	1	20	93-2254	Hose Assembly	2
7	340-132	Fitting - Hydraulic 90° (Incl. Ref. #21 & 23)	1	21	237-21	O-Ring	7
8	340-9	Fitting - Hydraulic (Incl. Ref. #28-29)	1	22	94-3477	Hose Assembly	1
9	340-92	Fitting - Hydraulic (Incl. Ref. #21 & 23)	1	23	237-78	O-Ring	7
10	340-103	Fitting - Hydraulic 45° (Incl. Ref. #21 & 23)	1	24	93-2258	Hose Assembly	1
11	340-140	Tee - Hydraulic (Incl. Ref. #21 & 23)	1	25	93-2256	Hose Assembly	1
12	33114-016	Screw - HH	2	26	93-2255	Hose Assembly	1
13	93-2271	Hose Assembly	1	27	94-4518	Tube - Hydraulic	1
14	93-2272	Hose Assembly	1	28	237-58	O-Ring	1
15	94-1317	Tube - Hydraulic	1	29	237-81	O-Ring	1
				30	94-6383	Hose Assembly	1
				31	237-30	O-Ring	1
				32	237-79	O-Ring	1
				33	94-1332	Hose Assembly	1
				34	94-1320	Tube - Hydraulic	1
				35	340-14	Fitting - Hydraulic (Incl. Ref. #16 & 23)	1
				36	95-1639	Fitting - Orificed (Incl. Ref. #21 & 23)	2



T-2251-1

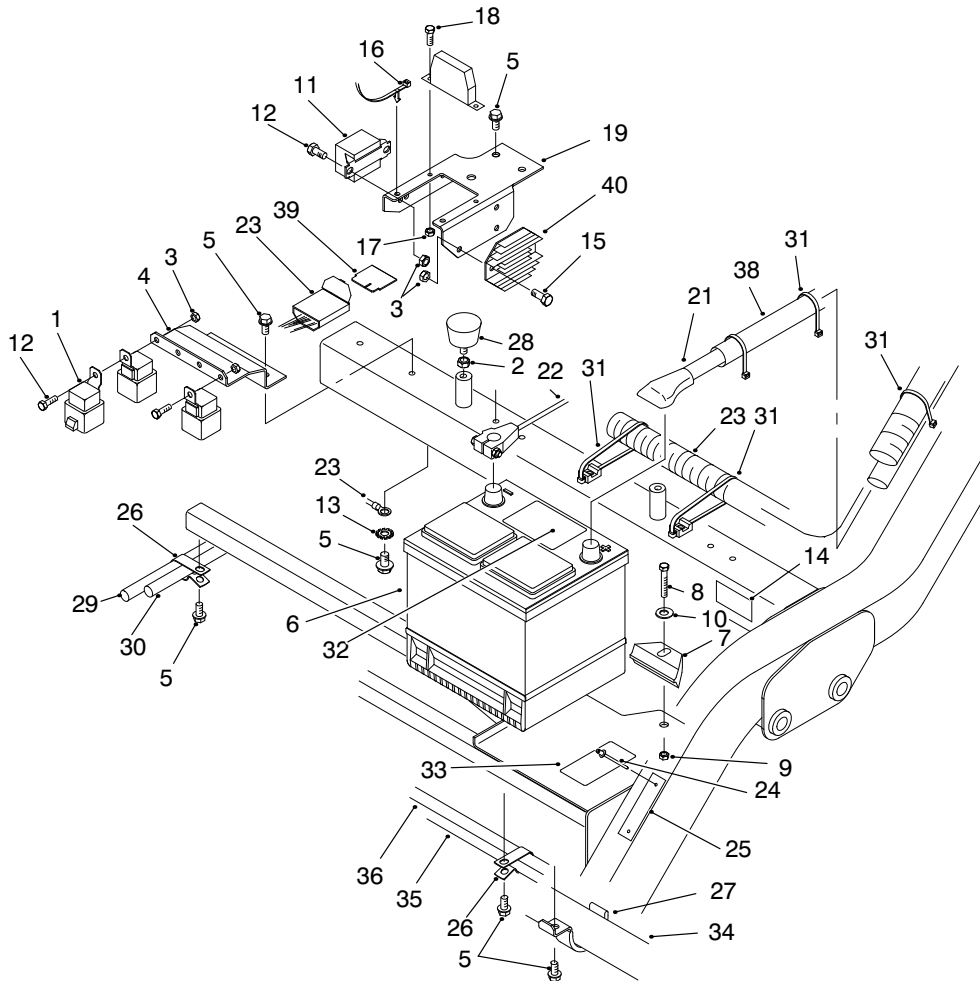
MANIFOLD ASSEMBLY NO. 93-2240

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	75-2010	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

Ref. No.	Part No.	Description	No. Used
†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	Seal Kit	5
*	95-5641	Seal Kit	1
*	75-2090	Seal Kit	1
*	94-3661	Seal Kit	1

*Not Illustrated

†Not serviced separately



T-2275-5

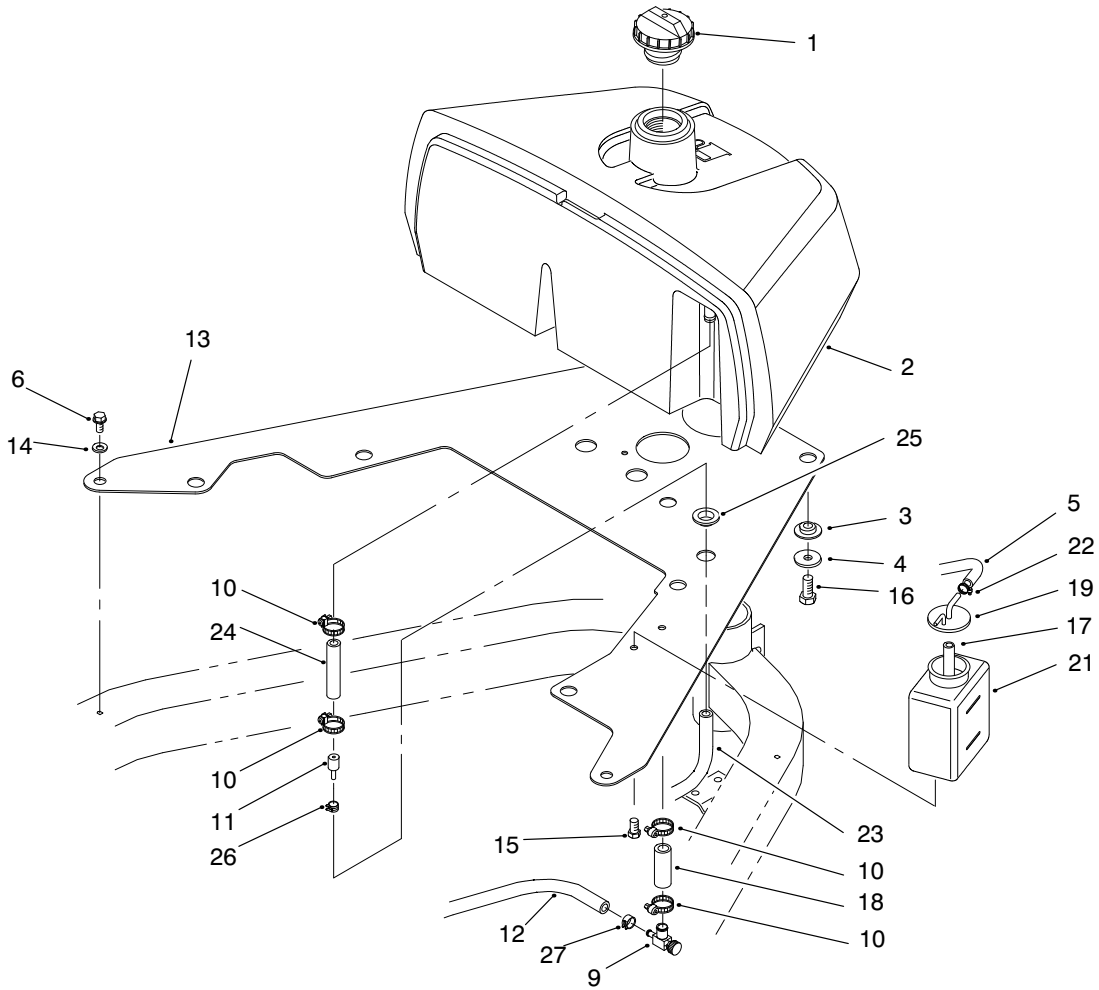
ELECTRONICS INSTALLATION ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	70-1480	Relay	8	22	93-2344	Cable - Battery Negative	1
2	3218-2	Nut - Hex Jam	2	23	93-2340	Wire Harness	1
3	33023-00	Nut - Lock	8	24	3290-415	Rivet - Pop	2
4	93-2169-01	Bracket - Relay	1	†25		Serial Plate	1
5	32144-14	Screw - HH	8	26	92-5753	Clamp - Hose Double	2
6	66-2750	Battery	1	27	93-2036	Clamp - Air Hose	1
7	66-2490	Retainer - Battery	1	28	68-3270	Bumper	2
8	33115-040	Screw - HH	1	29	93-2270	Hose Assembly	1
9	33025-00	Nut - Lock	1	30	93-2269	Hose Assembly	1
10	3256-24	Washer - Flat	1	31	3290-378	Tie - Cable	7
11	66-8800	Relay - Glow Plug	1	32	93-7276	Decal - Danger	1
12	33113-016	Screw - HH	6	33	93-6668	Decal - Battery	1
13	3254-2	Washer - Lock	1	34	93-2035	Hose - Air Cleaner	1
†14		Decal - ANSI	1	35	93-2256	Hose Assembly	1
15	33113-030	Screw - HH	2	36	93-2255	Hose Assembly	1
16	94-1325	Push Mount Tie	2	38	94-4519	Tube - Convuluted	1
17	3296-2	Nut - Lock	2	39	92-3188	Diode - Circuit Board	1
18	32105-13	Screw - HH	2	‡40	185516140	Regulator	1
19	93-2123-03	Bracket - Fuse Block	1	*	70-8570	Circuit Breaker - 40 Amp	2
21	93-2343	Cable - Battery Positive	1				

*Not Illustrated

†Not serviced separately

‡Obtain from your local Perkins Dealer.

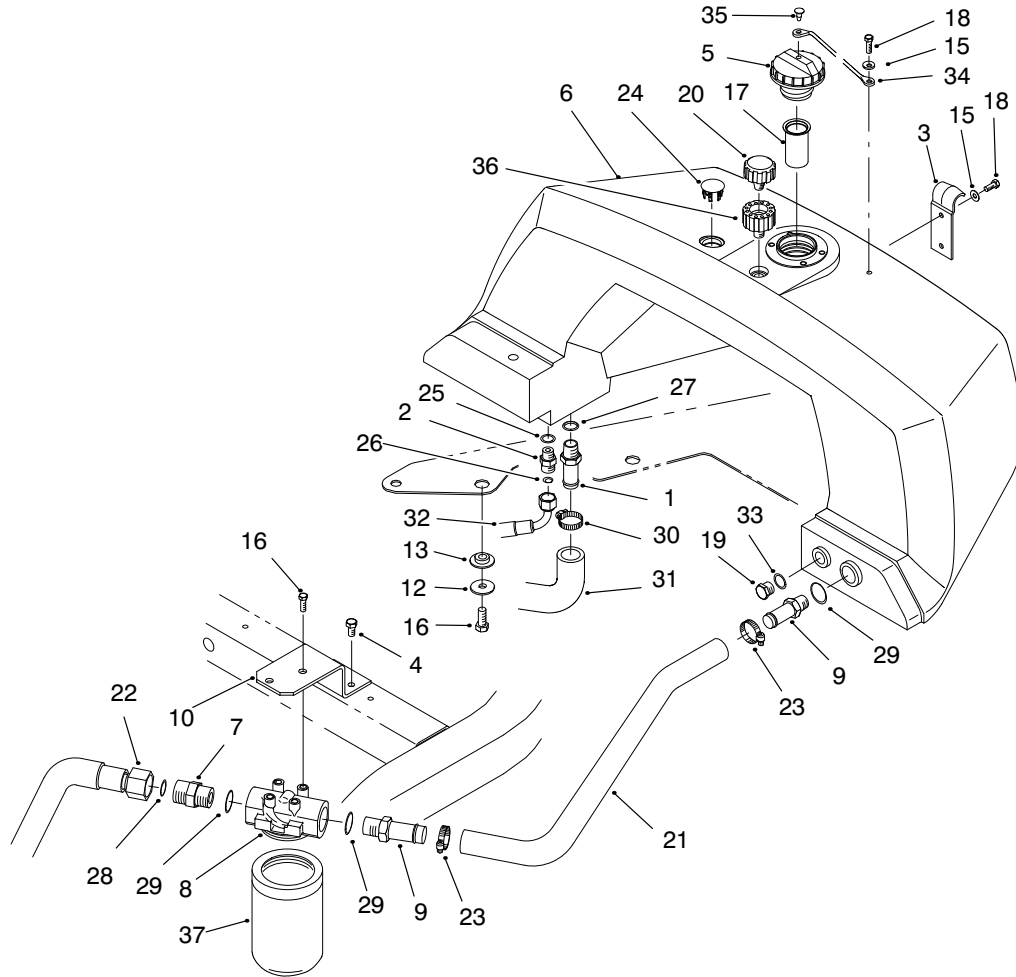


T-2271-2

FUEL TANK ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	93-3102	Fuel Cap - Diesel	1
2	93-2225	Tank - Fuel	1
3	240-11	Grommet	3
4	93-4637	Washer - Flat	3
5	93-2260	Hose - Expansion Tank	1
6	32144-14	Screw - HH	3
9	56-2520	Fitting - Fuel Shut Off	1
10	2412-36	Clamp - Hose	4
11	93-2299	Fitting - Fuel	1
12	93-2230	Hose - Fuel	1
13	94-1364-03	Plate	1
14	3256-23	Washer - Flat	2

Ref. No.	Part No.	Description	No. Used
15	33114-016	Screw - HH	2
16	33115-020	Screw - HH	3
17	94-1348	Hose - Tank	1
18	94-4353	Hose - Fuel	1
19	93-2048	Cap - Overflow Tank	1
21	93-2049	Tank - Overflow	1
22	2412-108	Clamp - Hose	1
23	93-2298	Hose - Fuel	1
24	56-2230	Hose - Fuel	1
25	237-124	Grommet	1
26	2412-108	Clamp - Hose	1
27	92-2379	Clamp - Hose	1

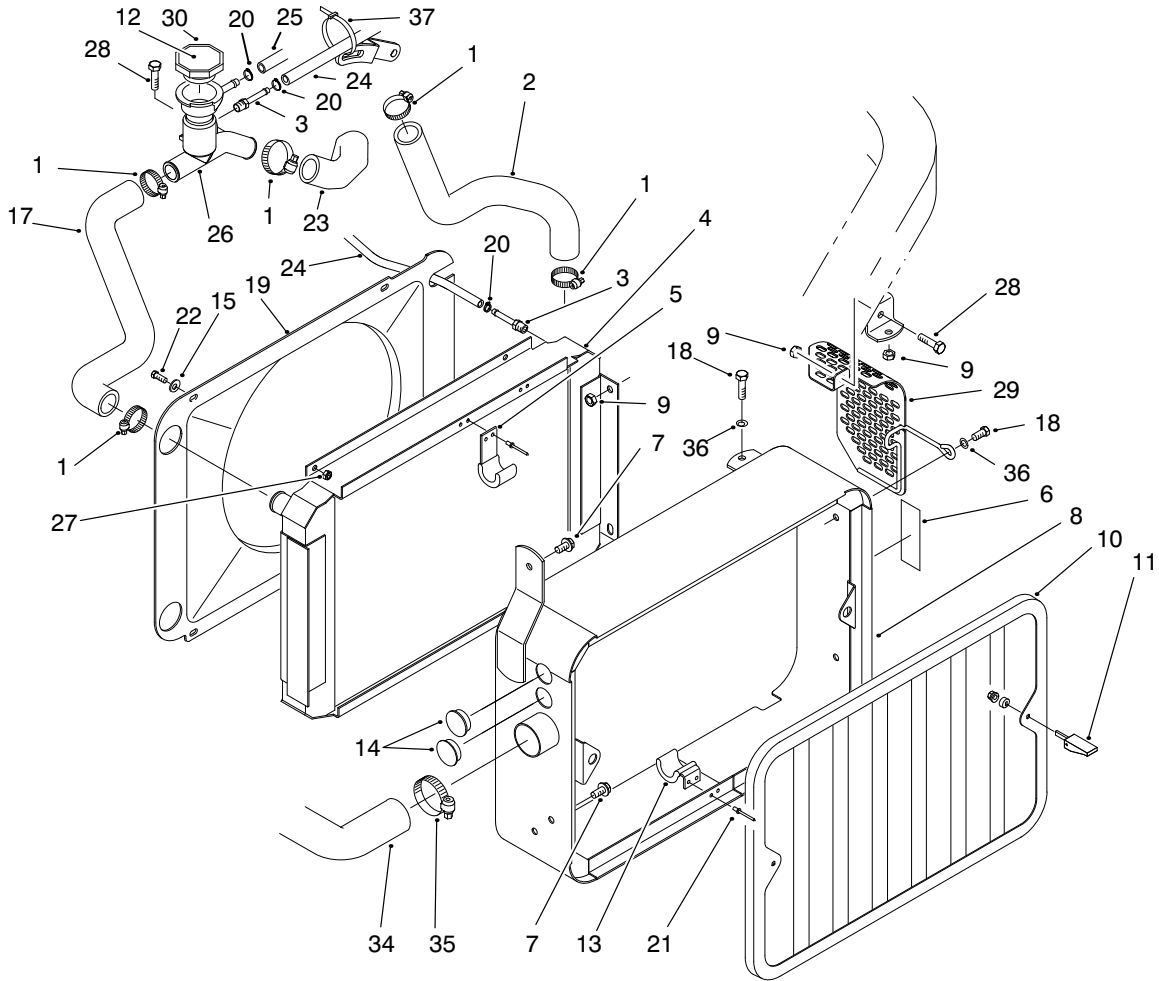


T-2272-4

HYDRAULIC RESERVOIR ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	354-78	Fitting - Hydraulic (Incl. Ref. 27)	1	18	33113-016	Screw - HH	3
2	340-2	Fitting - Hydraulic (Incl. Ref. 25 & 26)	1	19	353-988	Plug (Incl. Ref. 33)	1
3	93-2438	Clamp - Fuel Tank	1	20	68-6150	Breather - Air	1
4	32144-14	Screw - HH	2	21	94-9607	Hose - Formed	1
5	93-7160	Cap - Hydraulic Oil (Incl. Ref. #34-35)	1	22	94-4518	Hose - Assembly	1
6	93-2235	Tank - Hydraulic	1	23	2412-129	Clamp - Hose	2
7	340-9	Fitting - Hydraulic (Incl. Ref. 28 & 29)	1	24	93-2437	Plug - Serrated	1
8	93-2242	Filter Assembly - Oil (Incl. Ref. #37)	1	25	237-42	O-Ring	1
9	354-73	Fitting - Hydraulic, Barb (Incl. Ref. #29)	2	26	237-22	O-Ring	1
10	93-2236-03	Mount - Oil Filter	1	27	237-146	O-Ring	1
12	93-4637	Washer - Flat	4	28	237-58	O-Ring	1
13	240-11	Grommet	4	29	237-81	O-Ring	3
15	3256-1	Washer - Flat	3	30	2412-34	Clamp - Hose	1
16	33115-020	Screw - HH	6	31	93-2068	Hose - Pump Inlet	1
17	93-2275	Screen - Filler	1	32	94-4539	Hose Assembly	1
				33	237-79	O-Ring	1
				†34		Tether	1
				†35		Plug	1
				36	92-8020	Adapter - Breather	1
				37	75-1310	Element - Filter	1

†Not serviced separately

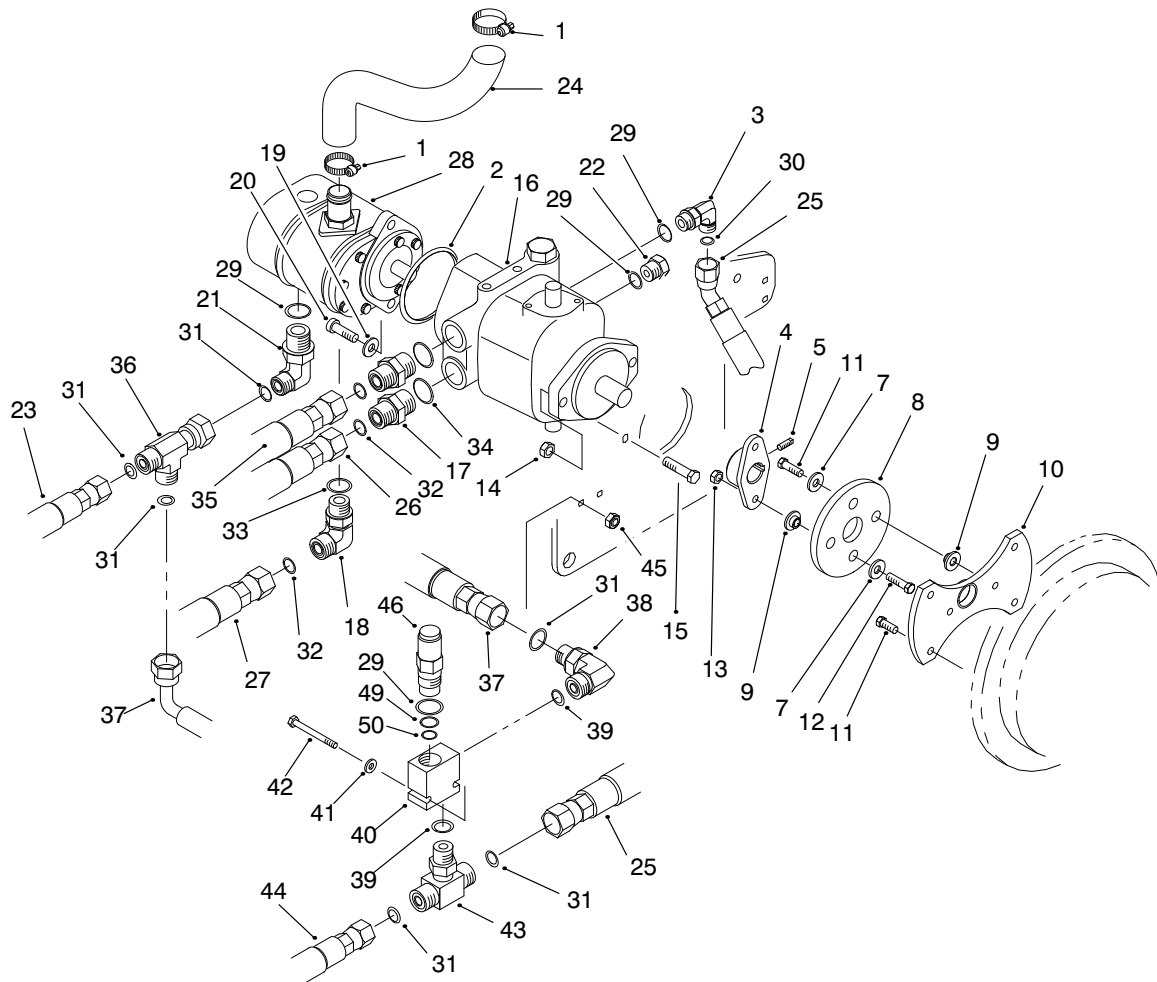


T-2274-3

RADIATOR ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	2412-34	Clamp - Hose	5
2	93-2031	Hose - Radiator	1
3	304-73	Fitting - Hydraulic Barb	2
4	93-2300	Radiator	1
5	93-2425	Bracket - Cooler Upper	2
6	93-6681	Decal - Warning	1
7	32144-14	Screw - HH	2
8	94-9623	Radiator Support Asm (Incl. Ref. #6)	1
9	33024-00	Nut - Lock	6
10	93-2050-03	Screen	1
11	74-5950	Latch - Swell	2
12	93-7840	Decal - Radiator Cap	1
13	93-2424	Bracket - Cooler Lower	2
14	94-4528	Plug	2
15	3256-22	Washer - Flat	4
17	93-2018	Hose - Radiator	1

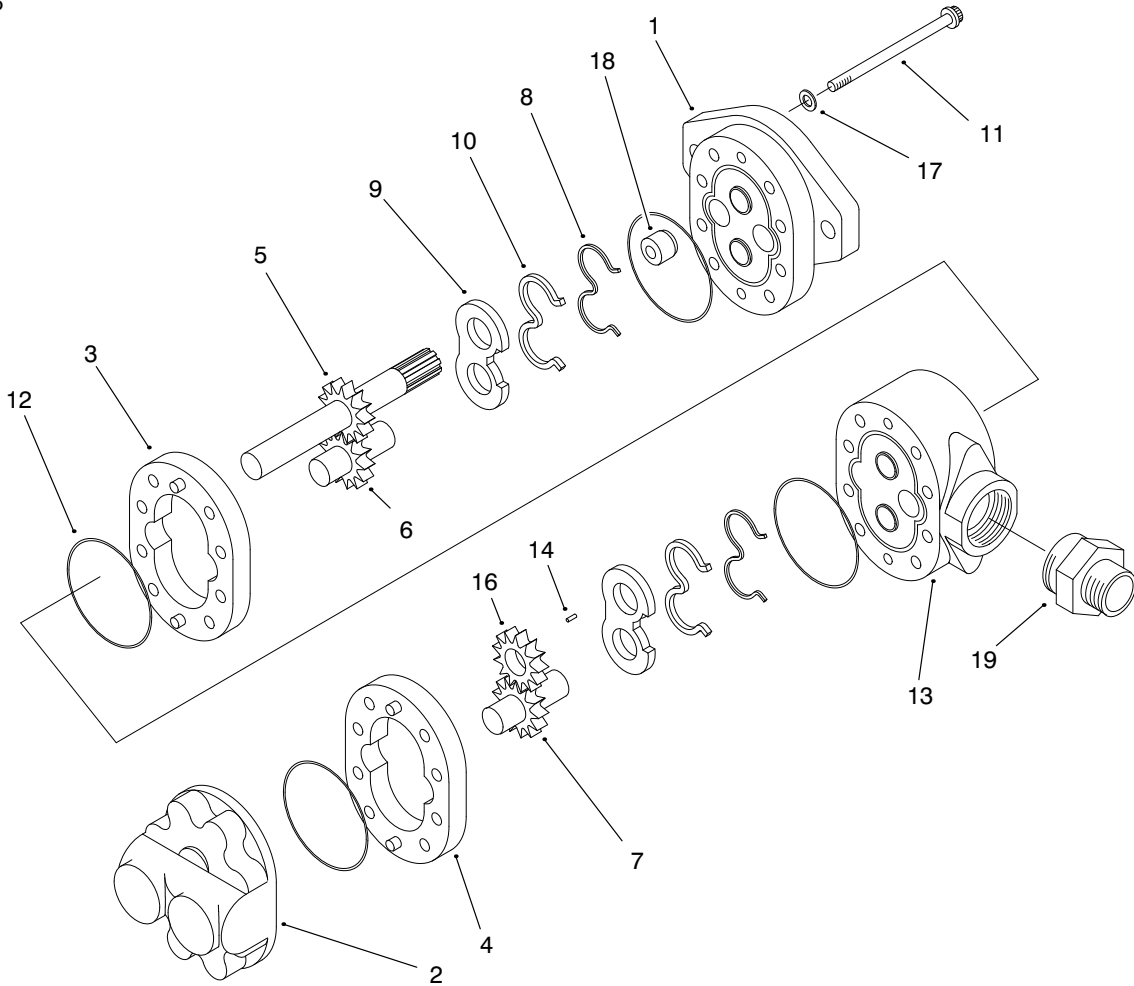
Ref. No.	Part No.	Description	No. Used
18	33114-020	Screw - HH	5
19	93-2320	Shroud - Fan	1
20	2412-108	Clamp - Hose	3
21	3269-15	Rivet - Pop	8
22	33113-016	Screw - HH	4
23	93-2016	Hose - Radiator	1
24	94-1349	Hose - Breather	1
25	93-2260	Hose - Expansion Tank	1
26	94-3473	Elbow Assembly - Radiator	1
27	33023-00	Nut - Lock	4
28	33114-016	Screw - HH	3
29	94-3480-03	Guard - Alternator	1
30	66-3240	Cap - Radiator	1
34	93-2035	Hose - Air Cleaner	1
35	2412-92	Clamp - Hose	1
36	3256-23	Washer - Flat	2
37	3290-378	Tie - Cable	1



T-2270

HYDRAULIC PUMP & HYDROSTAT ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	2412-34	Clamp - Hose	2	24	99-1905	Hose - Pump Inlet	1
2	60-3520	O-Ring	1	25	94-6384	Hose Assembly	1
3	340-18	Fitting - Hydraulic 90° (Incl. Ref. #29 & 31)	1	26	94-5355	Hose Assembly	1
4	93-2589	Hub - Pump	1	27	94-1332	Hose Assembly	1
5	3241-6	Screw - SQH	2	28	95-0533	Gear Pump	1
7	3256-3	Washer - Flat	4	29	237-79	O-Ring	4
8	80-8650	Coupling - Rubber	1	31	237-22	O-Ring	7
9	27-6600	Spacer - Coupling	4	32	237-65	O-Ring	3
10	93-2170-03	Pump Adapter	1	33	237-80	O-Ring	1
11	33114-020	Screw - HH	6	34	237-81	O-Ring	2
12	33114-030	Screw - HH	2	35	94-5356	Hose Assembly	1
13	33024-00	Nut - Lock	2	36	340-115	Fitting - Tee	1
14	33025-00	Nut - Lock	2	37	98-4606	Hose Assembly	1
15	33115-035	Screw - HH	2	38	340-77	Fitting - Hydraulic 90°	1
16	100-3174	Hydrostat	1	39	237-42	O-Ring	2
17	340-8	Fitting - Hydraulic (Incl. Ref. #32 & 34)	2	40	94-6385	Valve - Relief (Incl. Ref. #46)	1
18	340-17	Fitting - Hydraulic 90° (Incl. Ref. #32 & 33)	1	41	3256-22	Washer - Flat	2
19	3256-24	Washer - Flat	2	42	33113-050	Screw - HH	2
20	3274-1	Screw - HSH	2	43	340-94	Fitting - Tee	1
21	340-18	Fitting - Hydraulic 90° (Incl. Ref. #29 & 31)	1	44	94-6383	Hose Assembly	1
22	353-988	Plug (Incl. Ref. #29)	1	45	33023-00	Nut - Lock	2
23	93-2252	Hose Assembly	1	46	94-6386	Cartridge - Relief Valve (Incl. Ref. #29 & 49-50)	1
				49		O-Ring	1
				50		Ring - Backup	1



T-2392-1

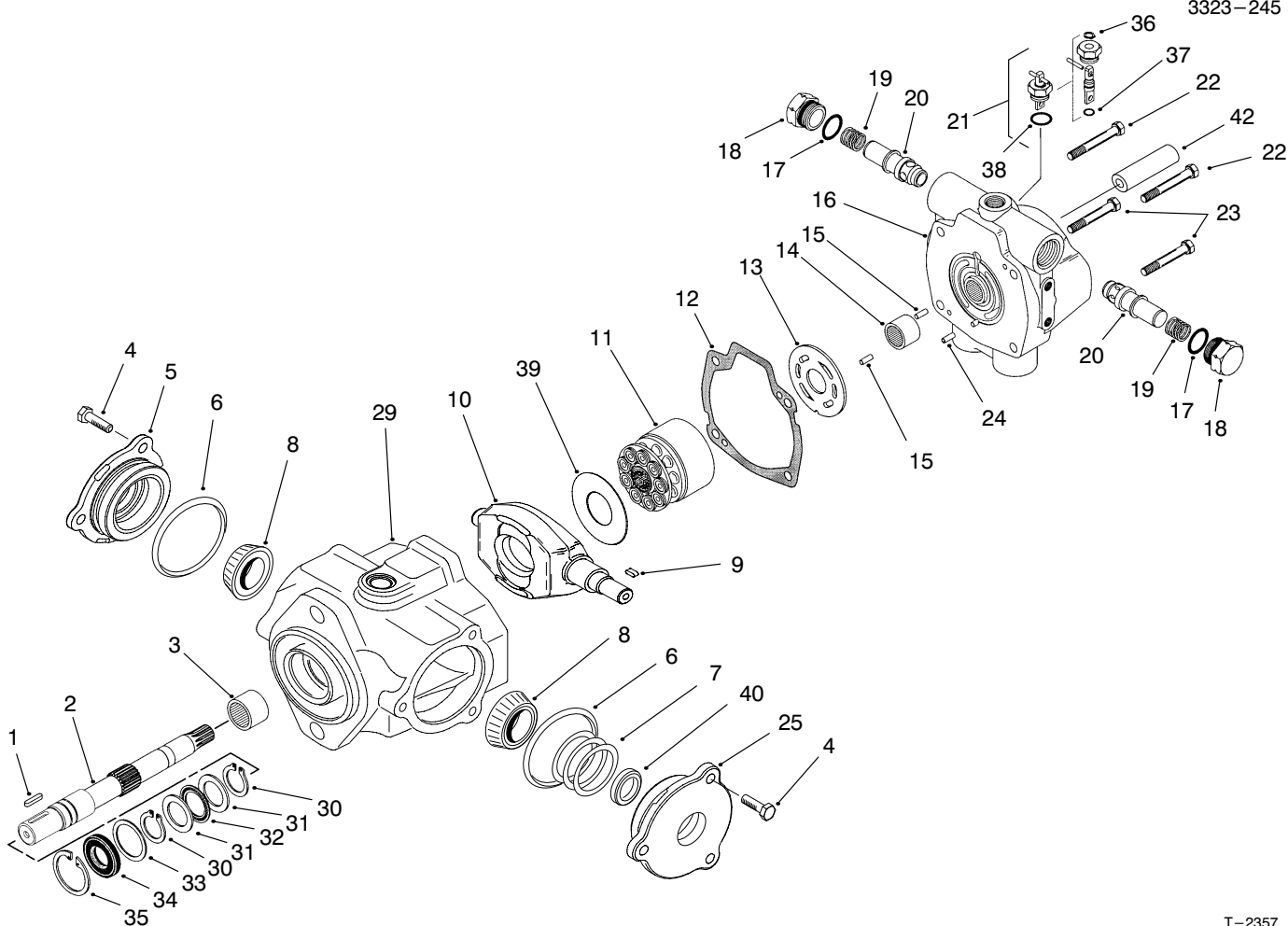
GEAR PUMP ASSEMBLY NO. 95-0533

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

Ref. No.	Part No.	Description	No. Used
†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
*	94-8161	Kit – Seal Repair (Incl. Ref. #8,10, 12 & 17-18)	1

†Not Serviced Separately

*Not Illustrated



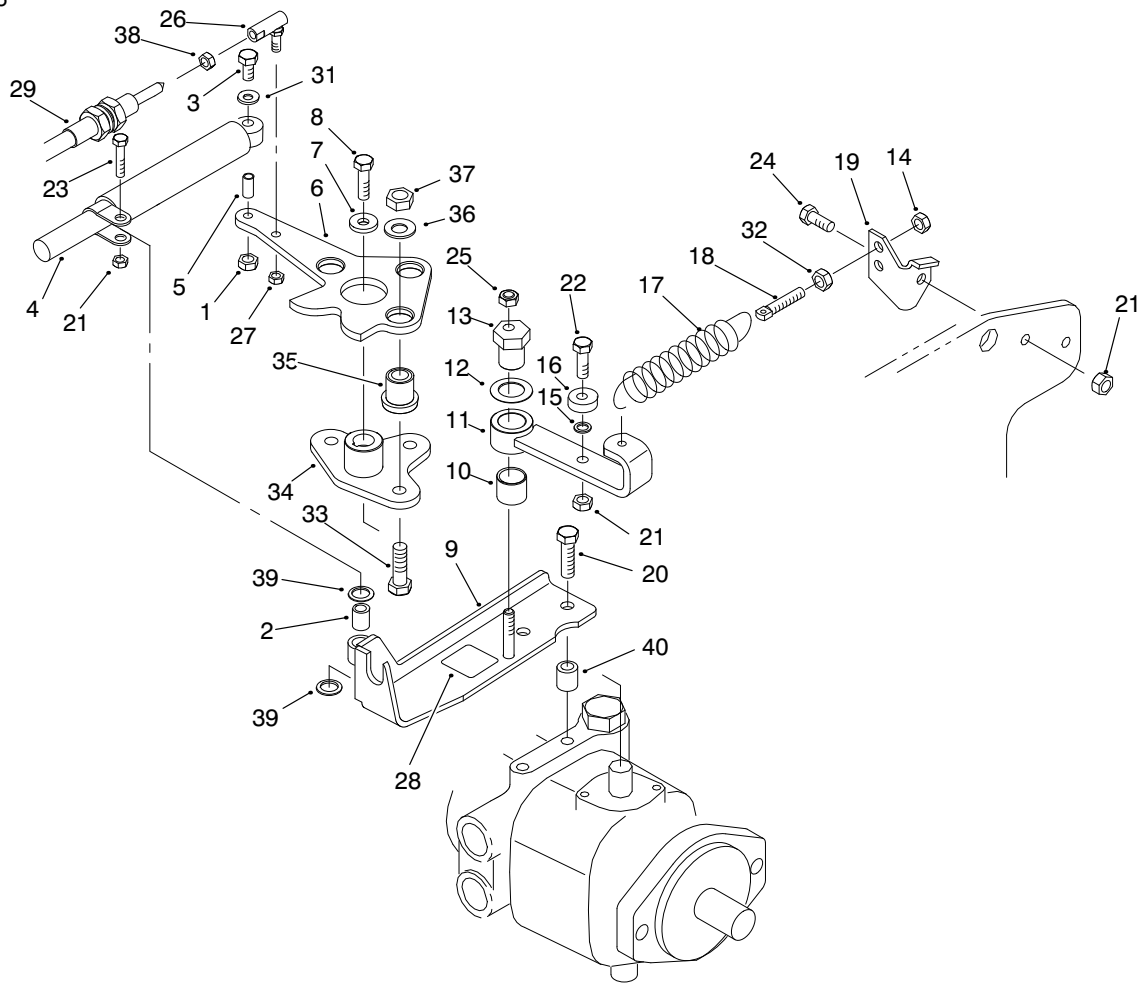
T-2357

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

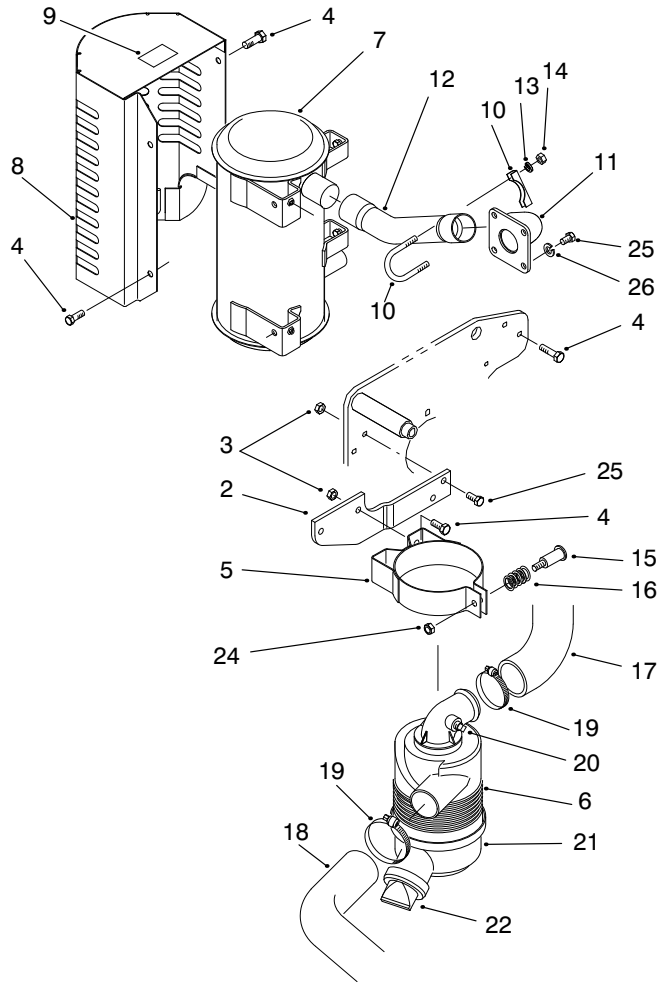


T-2228-3

NEUTRAL SYSTEM ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	33023-00	Nut - Lock	1
2	94-8197	Tube - Pivot	1
3	33113-030	Screw - HH	1
4	76-8870	Lever Damper Assembly	1
5	94-1312	Spacer - Pivot	1
6	94-3488-03	Lever - Pump	1
7	88-7200	Washer - Pivot	1
8	3210-6	Screw - HH	1
9	94-9603	Cable Support	1
10	94-9609	Bushing - Straight	1
11	94-4527	Neutral Arm	1
12	3-6498	Washer - Thrust	1
13	93-2111	Stud - Traction	1
14	3296-4	Nut - Lock Elastic	1
15	75-5470	Spacer	1
16	251-259	Bearing - Ball	1
17	94-1369	Spring - Ext.	1
18	99-8194	Pin	1
19	98-4607	Bracket - Spring	1
20	323-8	Screw - HH	2

Ref. No.	Part No.	Description	No. Used
21	33024-00	Nut - Lock	3
22	33114-025	Screw - HH	1
23	33114-030	Screw - HH	1
24	33114-020	Screw - HH	1
25	3296-29	Nut - Hex	1
26	2411-34	Ball Joint	1
27	3296-13	Nut - Lock	1
28	93-9051	Decal - Eccentric Bolt	1
29	93-2099	Cable - Traction Control	1
31	3256-22	Washer - Flat	1
32	3220-2	Nut - Jam	1
33	33115-035	Screw - HH	3
34	94-3486	Plate	1
35	63-9750	Mount - Rubber	3
36	2844	Washer	3
37	33025-00	Nut - Lock	3
38	3220-1	Nut - Jam	1
39	94-8196	Washer - Nylon	2
40	92-5723	Spacer	2

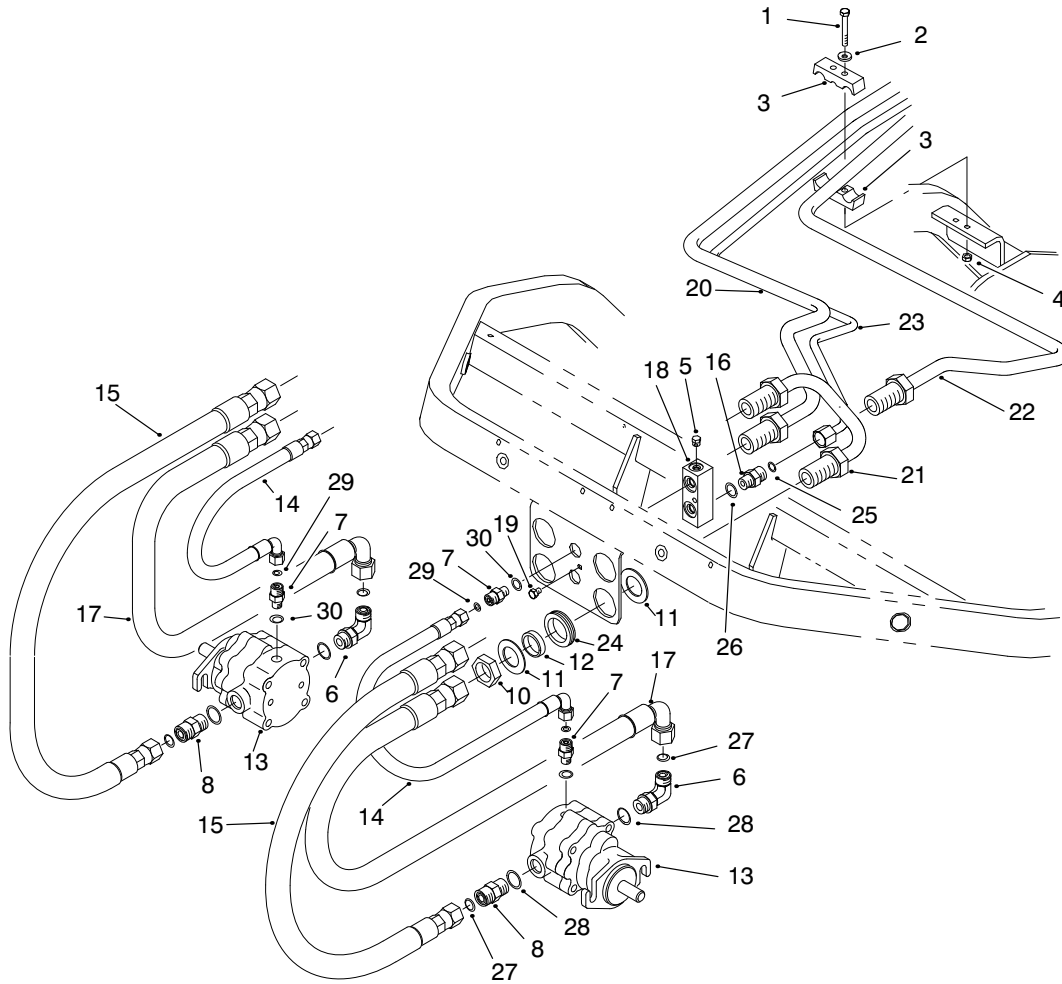


T-2291-3

MUFFLER & AIR CLEANER ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
2	94-5359-03	Bracket – Air Cleaner	1	12	93-2183	Pipe – Exhaust	1
3	33024-00	Nut – Lock	4	13	3253-4	Washer – Lock	4
4	33114-020	Screw – HH	8	14	3217-6	Nut – Hex.	4
5	93-2191	Mounting Band Assembly (Incl. Ref. #24-26)	1	15	94-3653	Bolt	1
6	93-2190	Air Cleaner Assembly (Incl. Ref. #20-23)	1	16	94-3654	Spring – Compression	1
7	94-8153	Muffler	1	17	93-2423	Hose – Air Cleaner	1
*	94-8157	Arrester – Spark (Optional)	1	18	93-2035	Hose – Air Cleaner	1
8	94-9629	Muffler Shield Asm (Incl. Ref. #9)	1	19	2412-92	Clamp – Hose	2
9	93-8069	Decal – Hot Surface	1	20	285-17	Plug	1
10	2112-9	Clamp (Incl. Ref. #13 & 14)	2	21	94-3652	Cover Assembly	1
11	93-2185	Exhaust Bracket	1	22	94-1414	Valve	1
				*23	93-2195	Element – Air Cleaner	1
				24	48-9510	Nut – Lock	1
				25	33114-025	Screw – HH	6
				26	3253-4	Washer – Spring Lock	4

*Not Illustrated

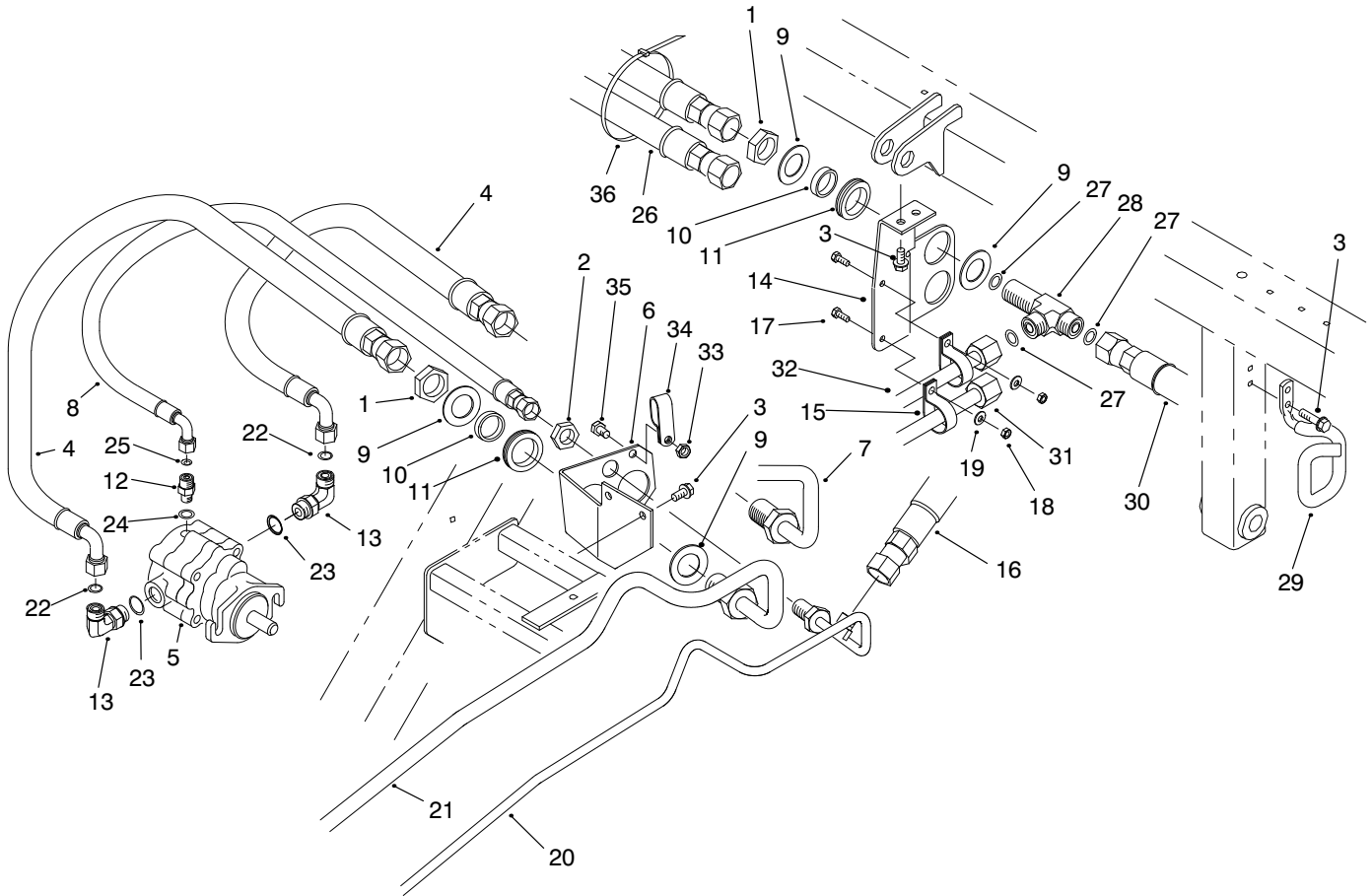


T-2240-1

REEL MOTOR INSTALLATION ASSEMBLY – RH & LH

Ref. No.	Part No.	Description	No. Used
1	33113-050	Screw – HH	2
2	3256-1	Washer – Flat	2
3	93-2509	Clamp – Tube	2
4	33023-00	Nut – Lock NI	2
5	353-991	Plug	1
6	340-98	Fitting – Hydraulic 90° (Incl. Ref. #27-28)	2
7	340-92	Fitting – Hydraulic (Incl. Ref. #29-30)	4
8	340-4	Fitting – Hydraulic (Incl. Ref. #27-28)	2
10	340-74	Nut – Bulkhead	4
11	69-9010	Washer	8
12	69-9000	Spacer	4
13	93-1375	Reel Motor	2
14	93-2264	Hose Assembly	2
15	95-2908	Hose Assembly	2

Ref. No.	Part No.	Description	No. Used
16	340-2	Fitting – Hydraulic (Incl. Ref. #25-26)	1
17	95-2909	Hose Assembly	2
18	93-2238	T-Block (Incl. Ref. #5)	1
19	33113-008	Screw – HH	1
20	94-1318	Tube – Hydraulic	1
21	94-1319	Tube – Hydraulic	1
22	94-1320	Tube – Hydraulic	1
23	94-1321	Tube – Hydraulic	1
24	240-3	Grommet – Rubber	4
25	237-22	O-Ring	1
26	237-42	O-Ring	1
27	237-30	O-Ring	4
28	237-79	O-Ring	4
29	237-21	O-Ring	4
30	237-78	O-Ring	4

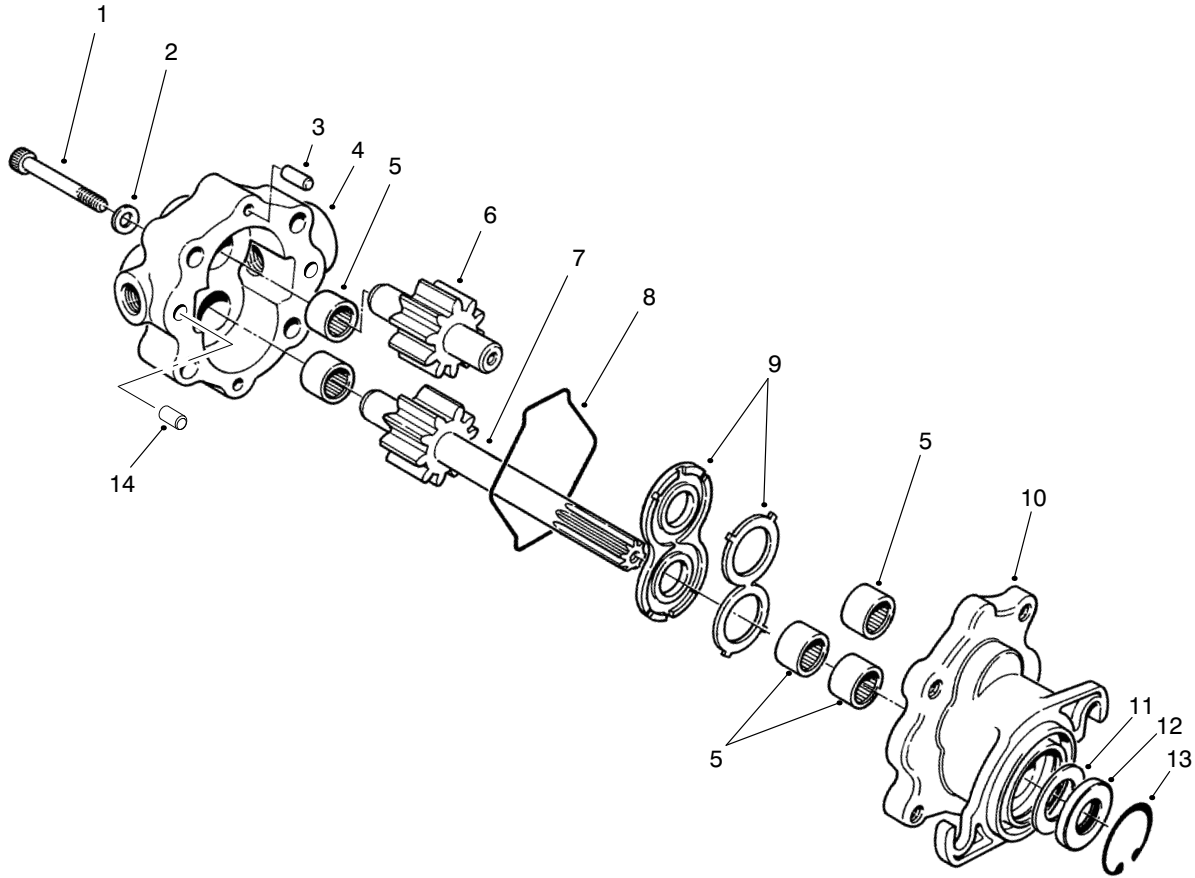


T-2241-2

REEL MOTOR INSTALLATION ASSEMBLY – REAR

Ref. No.	Part No.	Description	No. Used
1	340-74	Nut – Bulkhead	4
2	340-70	Nut – Bulkhead	1
3	32144-14	Screw – HH	6
4	95-2907	Hose Assembly	2
5	93-1375	Reel Motor	1
6	94-1316	Bracket – Bulkhead	1
7	94-1317	Tube – Hydraulic	1
8	94-1328	Hose Assembly	1
9	69-9010	Washer	8
10	69-9000	Spacer	4
11	240-3	Grommet – Rubber	4
12	340-92	Fitting – Hydraulic (Incl. Ref. #24-25)	1
13	340-98	Fitting – Hydraulic 90° (Incl. Ref. #22-23)	2
14	94-8155-03	Bracket – Bulkhead	1
15	2412-134	Clamp – R	2
16	94-4539	Hose Assembly	1
17	33113-020	Screw – HH	2
18	33023-016	Nut – Lock NI	2

Ref. No.	Part No.	Description	No. Used
19	3256-22	Washer – Flat	2
20	94-1321	Tube – Hydraulic	1
21	94-1318	Tube – Hydraulic	1
22	237-30	O-Ring	2
23	237-79	O-Ring	2
24	237-78	O-Ring	1
25	237-21	O-Ring	1
26	94-5357	Hose Assembly	2
27	237-65	O-Ring	3
28	94-5350	Fitting – Bulkhead Tee (Incl. Ref. #27)	2
29	94-5352	Retainer – Hose	1
30	94-5358	Hose Assembly	2
31	94-5353	Tube – Hydraulic	1
32	94-5354	Tube – Hydraulic	1
33	33024-00	Nut – Lock	1
34	2412-137	Clamp – Tube, Double	1
35	33114-020	Screw – HH	1
36	3290-378	Tie – Cable	1



T-1872-2

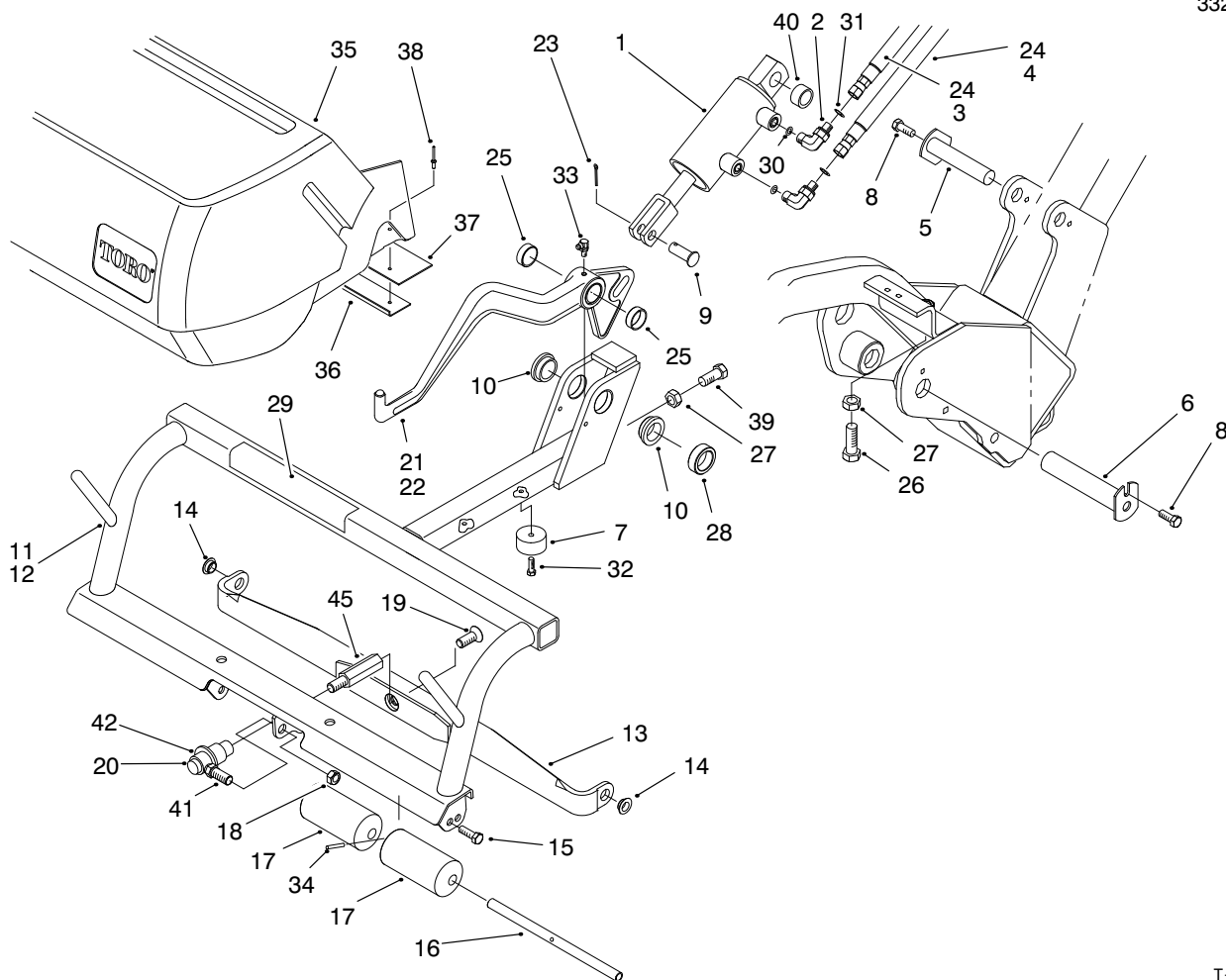
REEL MOTOR ASSEMBLY NO. 93-1375

Ref. No.	Part No.	Description	No. Used
1	354-50	Screw-Hex Socket Hd.	4
2	354-51	Washer	4
3	353-599	Pin-Dowel	2
4	93-3614	Assembly - Cover (Incl. Ref. #5)	1
†5		Bearing-Needle	5
6	93-3616	Assembly - Idler Gear	1
7	93-3615	Assembly - Drive Shaft	1
8	354-46	Ring-Seal	1

Ref. No.	Part No.	Description	No. Used
9	74-3810	Assembly - Load Plate	1
10	92-8795	Assembly - Body (Incl. Ref. #5)	1
†11		Spacer	1
†12		Seal-Shaft	1
13	32151-41	Ring - Retaining	1
14	92-8796	Pin - Dowel	2
*	92-8863	Repair Kit (Incl. Ref. #8, & 11-13)	1

*Not Illustrated

†Not Serviced Separately



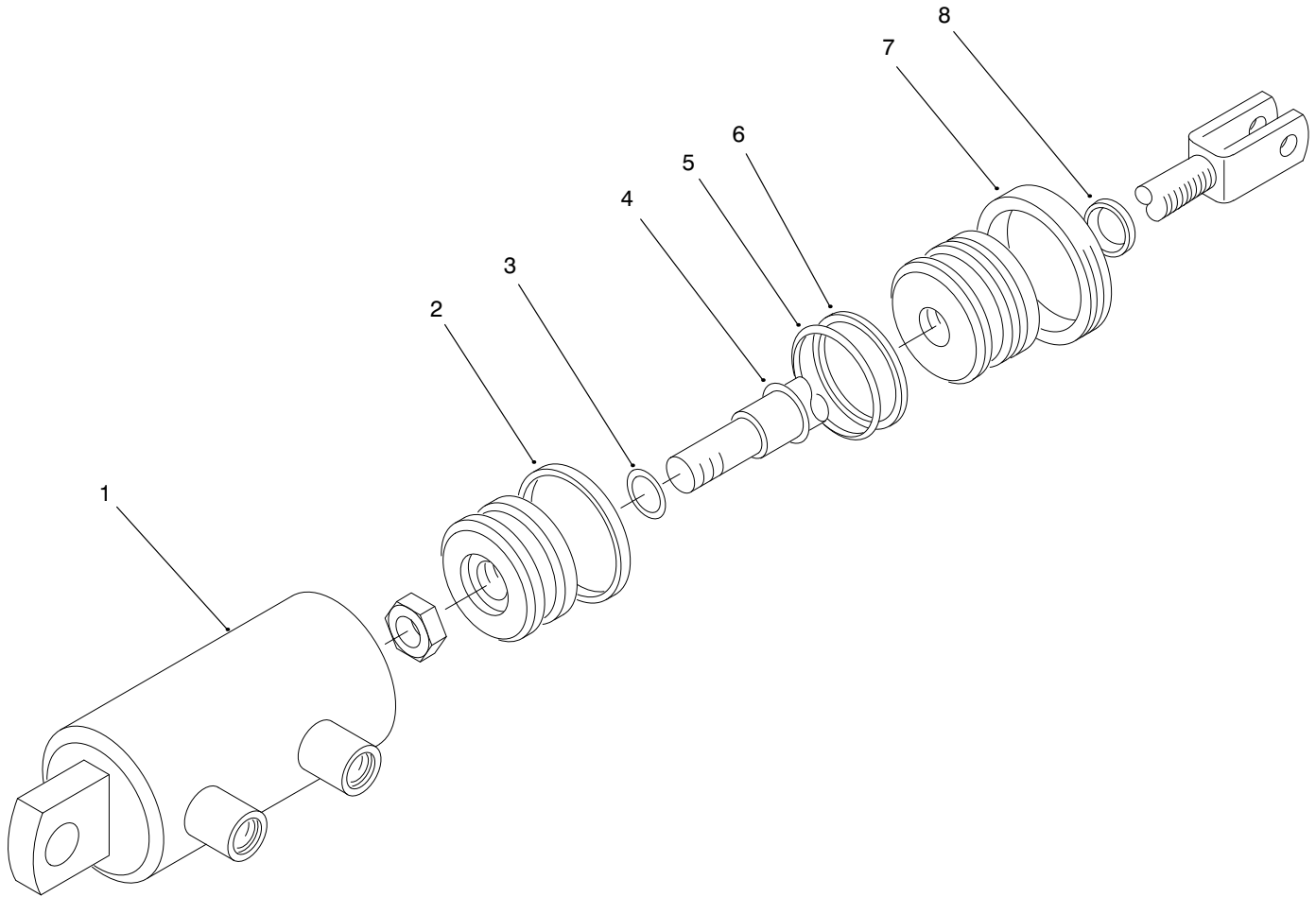
T-2230-7

PULL FRAME ASSEMBLY – RH & LH

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	99-8158	Hydraulic Cylinder Assembly	2	22	98-2176-01	Lift Arm – LH	1
2	340-132	Fitting – Hydraulic 90° (Incl. Ref. #30-31)	4	23	3272-11	Pin – Cotter	2
3	93-2255	Hose Assembly	1	24	93-2254	Hose Assembly	2
4	93-2256	Hose Assembly	1	25	92-8995	Bushing – Straight	4
5	10-6060	Pin – Ram Pivot	2	26	325-6	Screw – HH	2
6	94-8198	Pin	2	27	3218-5	Nut – Jam	4
7	94-4548	Bumper	2	28	93-2384	Spacer – Carrier	2
8	32144-14	Screw – HH	4	29	93-8064	Decal – Warning	2
9	283-8	Pin – Clevis	2	30	237-78	O-Ring	4
10	94-9610	Bushing – Flange	4	31	237-21	O-Ring	4
11	99-1455	Carrier – RH (Incl. Ref. #10 & 29)	1	32	32144-44	Screw – HWH	2
12	99-1454	Carrier – LH (Incl. Ref. #10 & 29)	1	33	302-60	Fitting – Grease 90°	2
13	98-4624	Pull Arm	2	34	32121-6	Pin – Roll	4
14	93-2368	Bushing – Flange	4	35	98-2199	Grass Basket Assembly (Incl. Ref. #36-38)	2
15	3211-2	Screw – HH	8	36	95-2903	Angle – Basket Seal	2
16	93-2363	Shaft – Roller	4	37	93-2551	Seal – Basket	2
17	93-2362	Roller – Anti Scalp	8	38	3290-382	Rivet – Pop	16
18	3296-19	Nut – Lock	2	39	325-4	Screw – HH	2
19	98-2178	Screw	2	40	74-3730	Spacer – Cylinder	2
20	94-9647	Ball Joint (Incl. Ref. #41 & 42)	2	41	94-9648	Ball Stud	2
21	98-2174-01	Lift Arm – RH	1	42	98-2179	Shell & Housing Assembly	2
				45	98-0632	Adapter – Pull Link	2
				*	65-8320	Bar – Gauge	1
				*†	99-1456	Pad	3

* Not Illustrated.

†To be installed on cutting unit grass shields as required.



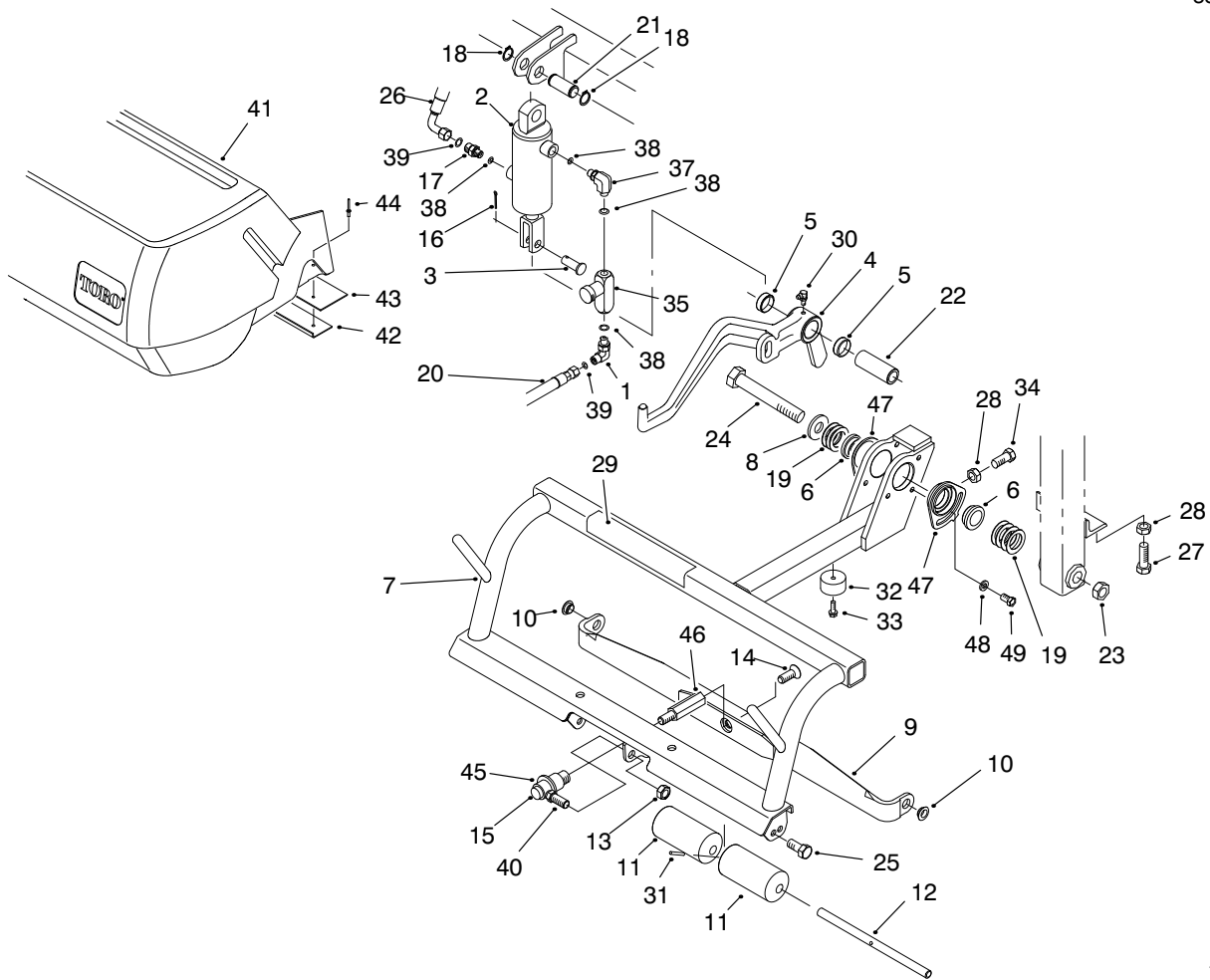
T-3159-1

HYDRAULIC CYLINDER NO. 99-8158

Ref. No.	Part No.	Description	No. Used
†1		Barrel	1
†2		Uniring	1
†3		O-Ring	1
†4		Seal - Rod	1
†5		O-Ring	1

Ref. No.	Part No.	Description	No. Used
†6		Washer - Back-Up	1
7		Collar - Internal	1
†8		Seal - Dust	1
*	99-8163	Kit - Seal, Repair (Incl. Ref. #2-6 & 8)	1

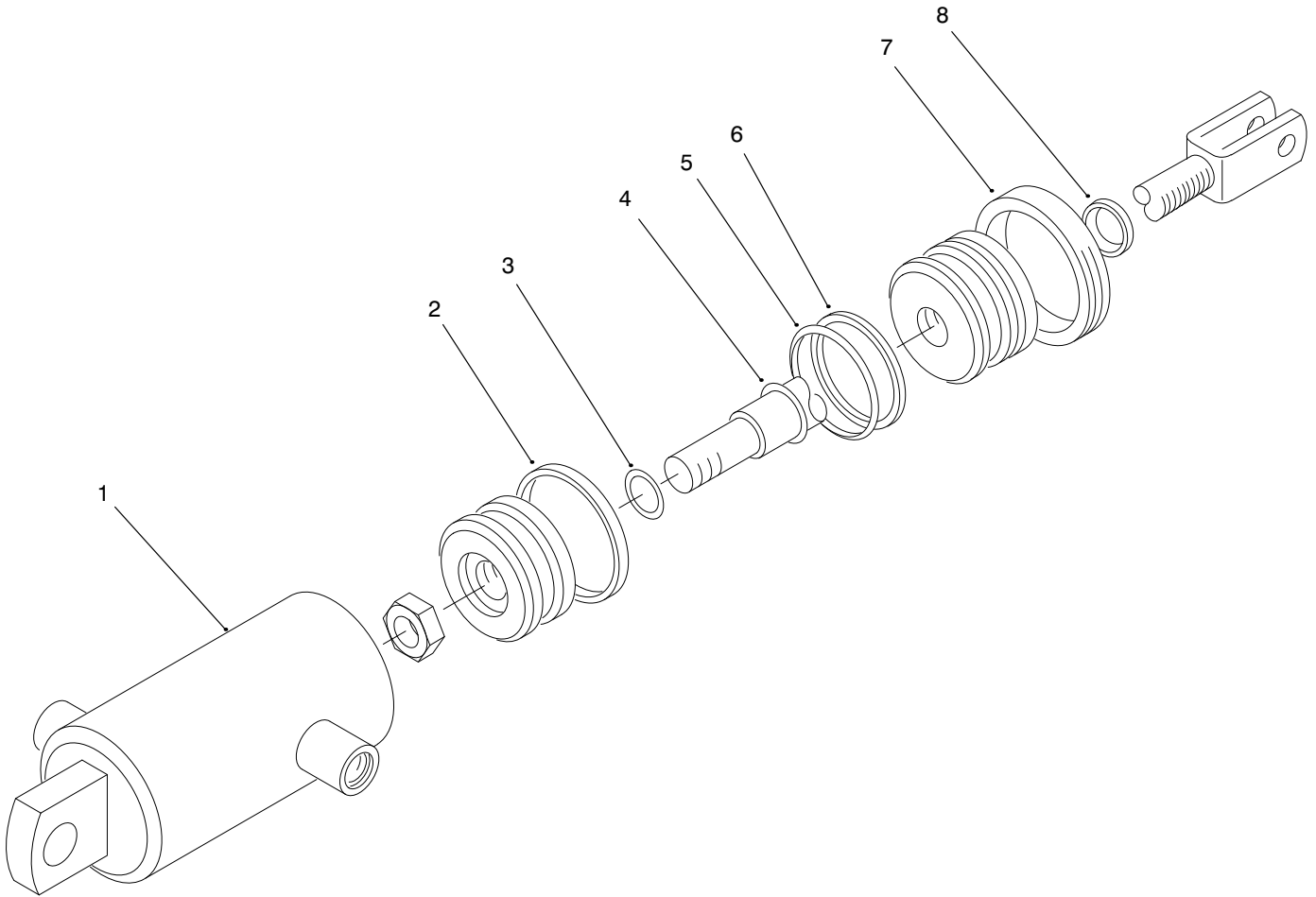
†Not Serviced Separately



T-2231-7

PULL FRAME ASSEMBLY – REAR

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	340-132	Fitting – Hydraulic 90° (Incl. Ref. #38 & 39)	1	24	327-17	Screw – HH	1
2	99-8157	Hydraulic Cylinder Assembly	1	25	3211-2	Screw – HH	4
3	283-8	Pin – Clevis	1	26	94-3477	Hose Assembly	1
4	98-2172-01	Lift Arm – Center	1	27	325-6	Screw – HH	1
5	92-8995	Bushing – Straight	2	28	3218-5	Nut – Jam	2
6	98-2197	Bushing – Flange	2	29	93-8064	Decal – Warning	1
7	99-1453	Center Carrier Asm (Incl. Ref. #29)	1	30	302-60	Fitting – Grease 90°	1
8	69-8940	Washer – Flat	1	31	32121-6	Pin – Roll	2
9	98-4624	Pull Arm	1	32	94-4548	Bumper – Recessed	1
10	93-2368	Bushing – Flange	2	33	32144-44	Screw – HWH	1
11	93-2362	Roller – Anti Scalp	4	34	325-4	Screw – HH	1
12	93-2363	Shaft – Roller	2	35	93-7489	Valve – Flow Control	1
13	3296-19	Nut – Lock	1	37	95-2927	Fitting – Hydraulic 90° (Incl. Ref. #38)	1
14	98-2178	Screw – HH	1	38	237-78	O-Ring	4
15	94-9647	Ball Joint (Incl. Ref. #40 & 45)	1	39	237-21	O-Ring	2
16	3272-11	Pin – Cotter	1	40	94-9648	Ball Stud	1
17	95-1639	Fitting – Hydraulic (Incl. Ref. #38 & 39)	1	41	98-2199	Grass Basket Assembly (Incl. Ref. #42-44)	1
18	32120-72	Ring – Retaining, Ext.	2	42	95-2903	Angle – Basket Seal	1
19	63-2290	Washer – Thrust	9	43	93-2551	Seal – Basket	1
20	93-2258	Hose Assembly	1	44	3290-382	Rivet – Pop	8
21	94-3452	Pin – Cylinder	1	45	98-2179	Shell & Housing Assembly	1
22	94-8199	Tube – Pivot	1	46	98-0632	Adapter – Pull Link	1
23	3296-53	Nut – Hex	1	47	98-4618	Bushing – Eccentric	2
				48	3256-74	Washer – Flat	2
				49	33114-016	Screw – Cap Hex. Hd.	2



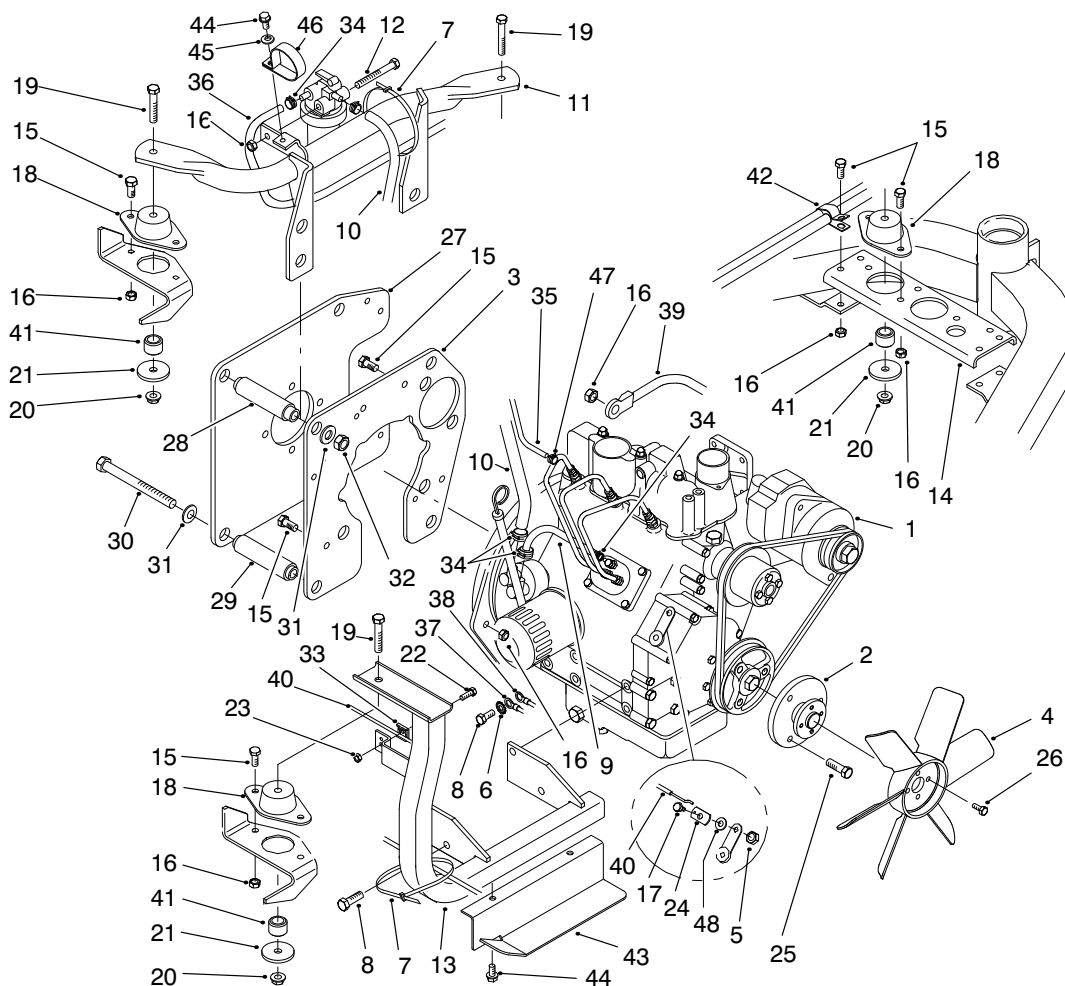
T-3158-1

HYDRAULIC CYLINDER NO. 99-8157

Ref. No.	Part No.	Description	No. Used
†1		Barrel	1
†2		Uniring	1
†3		O-Ring	1
†4		Seal - Rod	1
†5		O-Ring	1

Ref. No.	Part No.	Description	No. Used
†6		Washer - Back-Up	1
7		Collar-Internal	1
†8		Seal - Dust	1
*	99-8163	Kit - Seal, Repair (Incl. Ref. #2-6 & 8)	

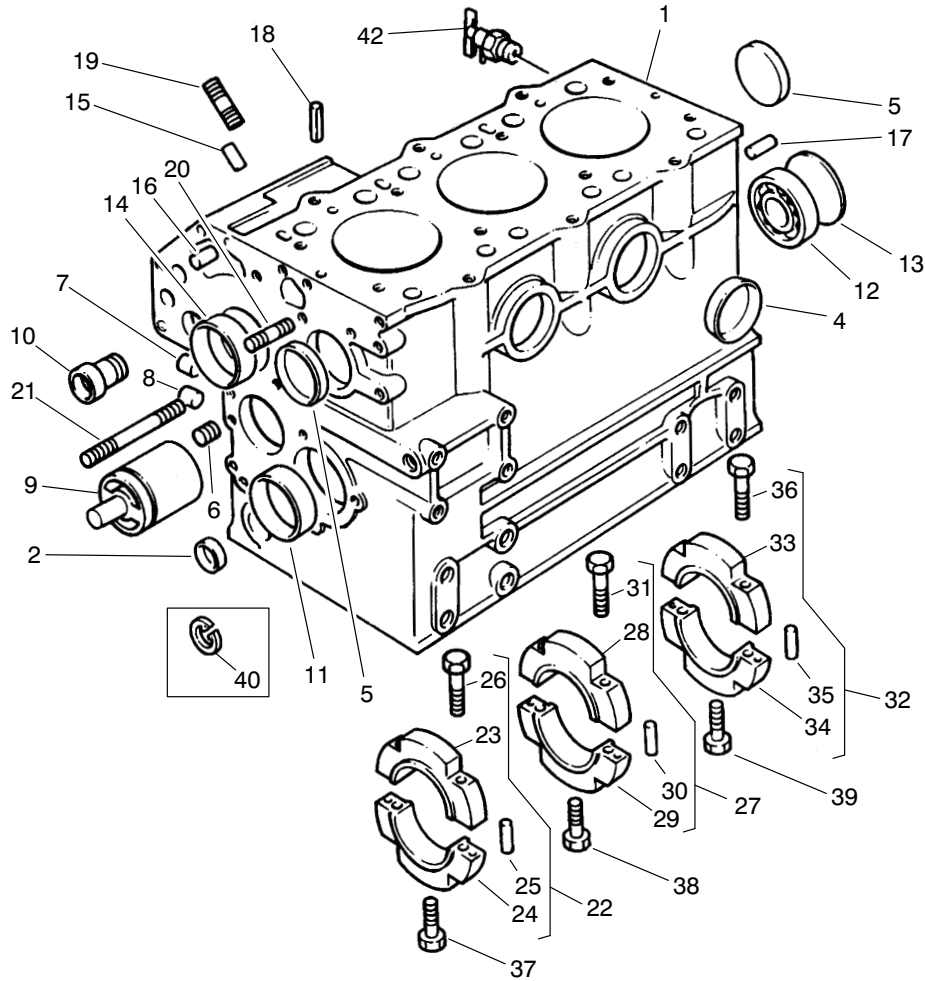
†Not Serviced Separately



T-2273-3

ENGINE INSTALLATION ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	95-0535	Engine - Perkins (Incl. Ref. #4)	1	25	33114-020	Screw - HH	3
2	93-2152	Adapter - Fan	1	26	33113-016	Screw - HH	4
3	93-2151-03	Plate - Backing	1	27	98-4608-03	Plate - Pump	1
4		Fan	1	28	93-2177	Spacer - Upper	2
5	3296-27	Nut - Lock	1	29	93-2178	Spacer - Lower	2
6	3254-3	Washer - Lock	1	30	33116-130	Screw - HH	4
7	3290-378	Tie - Cable	2	31	3256-26	Washer - Flat	8
8	33115-020	Screw - HH	5	32	33026-00	Nut - Lock	4
9	93-2043	Hose - Fuel	1	33	81-1690	Clamp - Throttle Cable	1
10	93-2260	Hose - Expansion Tank	1	34	94-8191	Clamp - Hose	5
11	93-2160-03	Engine Mount - Rear	1	35	93-2298	Hose - Fuel	1
12	33114-070	Screw - HH	1	36	93-2230	Hose - Fuel	1
13	93-2155-03	Engine Mount - Front	1	37	93-2344	Cable - Battery Negative	1
14	93-2020-01	Bracket - Support	1	38	93-2340	Wire Harness	1
15	33114-020	Screw - HH	14	39	93-2343	Cable - Battery Positive	1
16	33024-00	Nut - Lock	14	40	93-2322	Cable - Throttle Control	1
17	94-1390	Screw - Shoulder	1	41	94-4538	Spacer - Mount	3
18	83-1030	Mount - Engine	3	42	92-5753	Clamp - Hose, Double	1
19	323-11	Screw - HH	3	43	94-8156-03	Shield - Dust	1
20	3290-357	Nut - Lock, Flange	3	44	32144-14	Screw - HWH	3
21	83-1040	Plate - Washer	3	45	3256-23	Washer - Flat	1
22	32105-13	Screw - HH	1	46	2412-107	Clamp - R	1
23	3296-2	Nut - Lock	1	47	94-8189	Clamp - Hose	1
24	92-3154	Tab - Throttle	1	48	3256-51	Washer - Flat	1



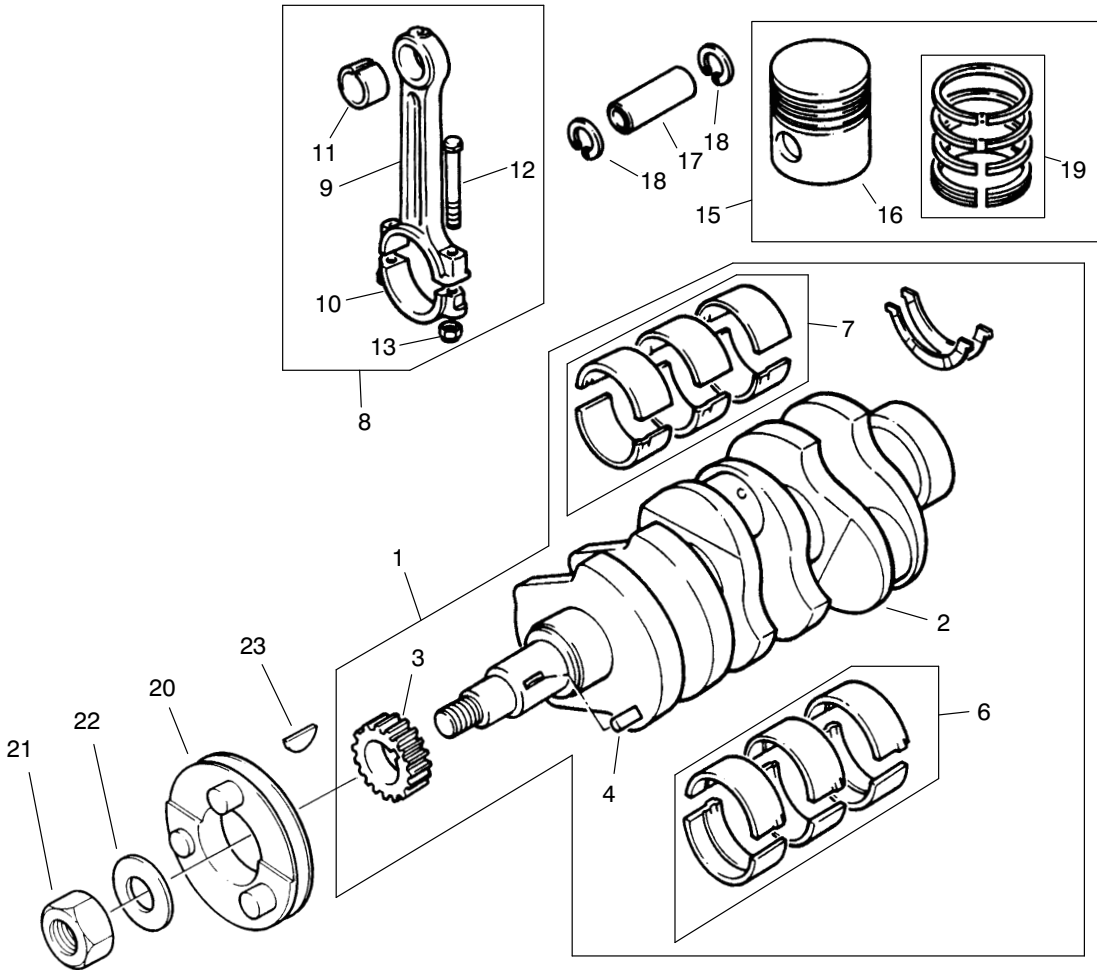
T-1377-1

CYLINDER BLOCK ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	110186150	Kit – Cylinder Block	1	23		Cap	1
2	064200015	Plug	1	24		Cap	1
4	064200040	Plug	2	25	030500612	Dowel	2
5	064200040	Plug	2	26	010810840	Screw	2
6	198466050	Plug	3	27	110156230	Holder (Incl. Ref. #28 & 29)	1
7	198466010	Plug	4	28		Cap	1
8	198466070	Plug	2	29		Cap	1
9	165296160	Shaft	1	30	030500612	Dowel	2
10	198517090	Bush	1	31	010810840	Screw	2
11	198517300	Bush	1	32	110156240	Holder (Incl. Ref. #33 & 34)	1
*	198517304	Bush, 0.25mm u/s	1	33		Cap	1
*	198517307	Bush, 0.50mm u/s	1	34		Cap	1
12	040106203	Bearing – Ball	1	35	030500612	Dowel	2
13	064100045	Plug	1	36	010810840	Screw	2
14	042303015	Bush	1	37	011310850	Screw	1
15	030500512	Dowel	2	38	011310850	Screw	1
16	030500616	Dowel	2	39	010700845	Screw	2
17	030500820	Dowel	2	40	036509005	Circlip	1
18	030309005	Pin	2	41	064200018	Plug	2
19	012100620	Stud	2	42	198736052	Cock	1
20	012100635	Stud	1	*	195906840	Kit – Gasket	1
21	012100660	Stud	1				
22	110156220	Holder (Incl. Ref. #23 & 24)	1				

NOTE: Obtain replacement parts from your local Perkins Dealer.

*Not Illustrated



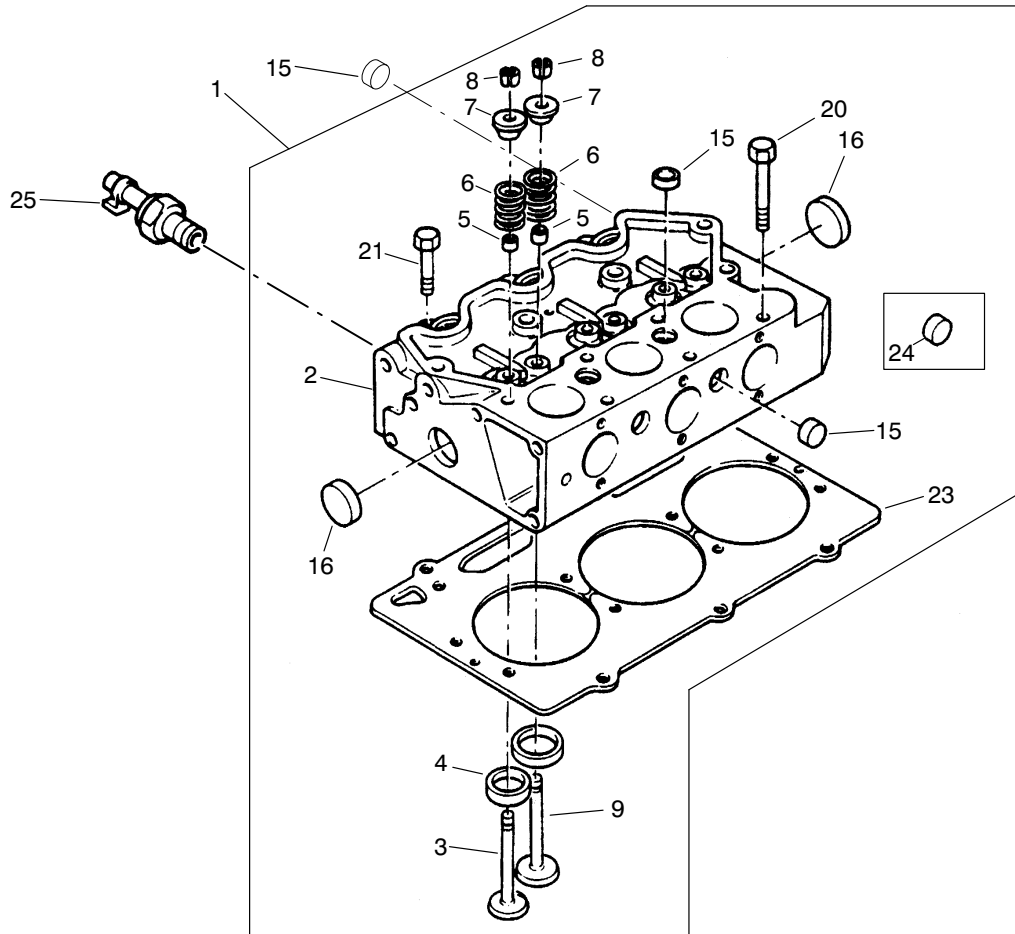
T-2174-3

CRANKSHAFT ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	115236020	Kit – Crankshaft (Inc. Ref. #2)	1
2		Crankshaft	1
3	115276210	Gear	1
4	030509020	Key	1
6	198586030	Kit – Bearing, Std.	1
*	198586034	Kit – Bearing, 0.25mm u/s	1
*	198586037	Kit – Bearing, 0.50mm u/s	1
7	198586060	Kit – Bearing, Std.	1
*	198586064	Kit – Bearing, 0.25mm u/s	1
*	198586067	Kit – Bearing, 0.50mm u/s	1
8	115026240	Connecting Rod Assembly (Incl. Ref. # 9 & 10)	3
9		Rod	1
10		Cap	1
11	198517325	Bushing	1
12	115176130	Screw	2

Ref. No.	Part No.	Description	No. Used
13	020109103	Nut	2
14	115017090	Kit – Piston, Std.	3
*	115017100	Kit – Piston, 0.5mm o/s	1
15	115016960	Kit – Piston, Std. (Incl. Ref. #16)	1
*	115016970	Kit – Piston, 0.5mm o/s (Incl. Ref. #16)	1
16		Piston	1
17	115326260	Pin	1
18	036500019	Circlip	2
19	115107400	Kit – Piston Ring, Std.	1
*	115107410	Kit – Piston Ring, 0.5mm o/s	1
20	115396742	Pulley	1
21	020800018	Nut	1
22	026200018	Washer	1
23	134100508	Key	1

NOTE: Obtain replacement parts from your local Perkins Dealer.
*Not Illustrated



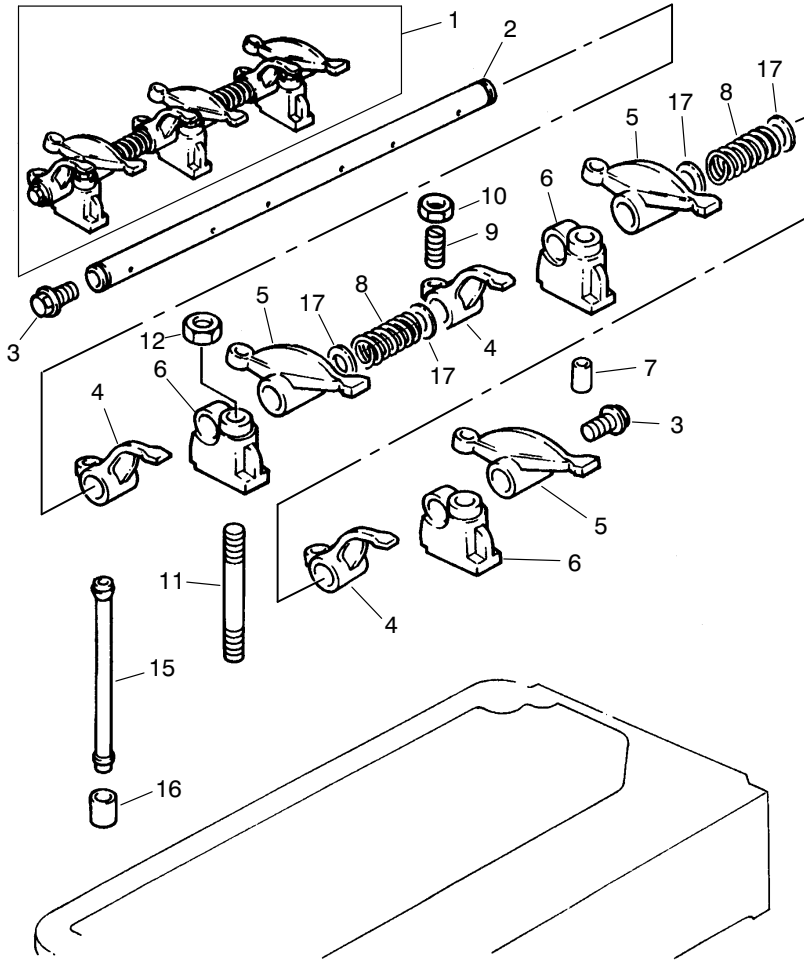
T-2175

CYLINDER HEAD ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	111016911	Kit – Cylinder Head	1	13	120186100	Cap	3
2	111086030	Kit – Cylinder Head	1	14	120226080	Cotter	6
3	120166280	Valve Inlet	3	15	198466070	Plug	4
4	110136290	Insert	3	16	064200022	Plug	3
5	120406080	Seal	3	17	064200022	Plug	3
6	198217070	Spring	3	20	111136340	Screw	11
7	120186100	Cap	3	21	111136350	Screw	3
8	120226080	Cotter	6	23	111147400	Gasket, o/s 1.3mm	1
9	120176290	Valve Exhaust	3	24	064200018	Plug	2
11	120406080	Seal	3	25	185246060	Switch – Oil Pressure	1
12	198217070	Spring	3				

NOTE: Obtain replacement parts from your local Perkins Dealer.

*Not Illustrated

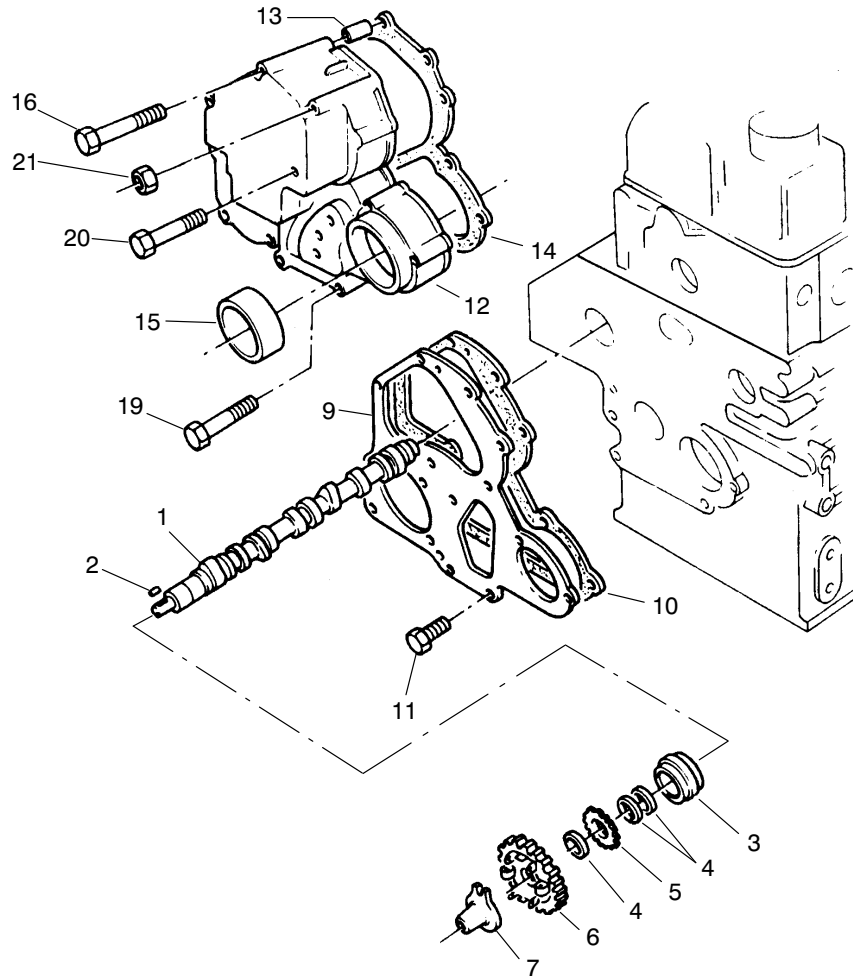


T-1380-1

ROCKER ARM ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	120036330	Rocker Shaft Assembly	1	9	199486220	Adjusting Screw	6
2	120316190	Shaft	1	10	020109076	Nut	6
3	064609006	Plug	2	11	012109177	Stud	3
4	120356120	Lever	3	12	023100008	Nut	3
5	120356110	Lever	3	15	120456240	Rod	6
6	120346170	Bracket	3	16	120116100	Tappet	6
7	030300325	Pin	1	17	199280280	Washer	4
8	198217080	Spring	2				

NOTE: Obtain replacement parts from your local Perkins Dealer.

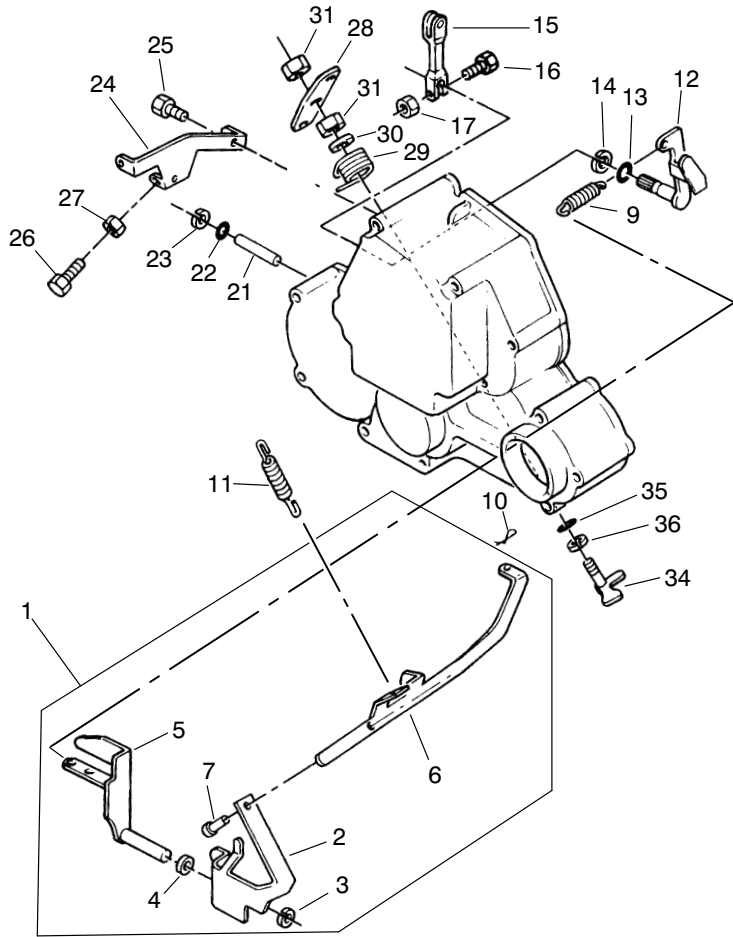


T-1381-1

CAMSHAFT ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	120026121	Camshaft	1	11	011300612	Bolt	3
2	034100508	Key	1	12	165106131	Cover	1
3	040109059	Bearing	1	13	030300414	Pin	1
4	199216230	Spacer	3	14	165996410	Joint	1
5	120736081	Gear	1	15	198636090	Seal	1
6	120016030	Gear	1	16	011300680	Screw	2
7	125256120	Tappet	1	19	011300640	Screw	4
9	165166260	Plate	1	20	011300660	Screw	2
10	165996400	Joint	1	21	023100006	Nut	1

NOTE: Obtain replacement parts from your local Perkins Dealer.

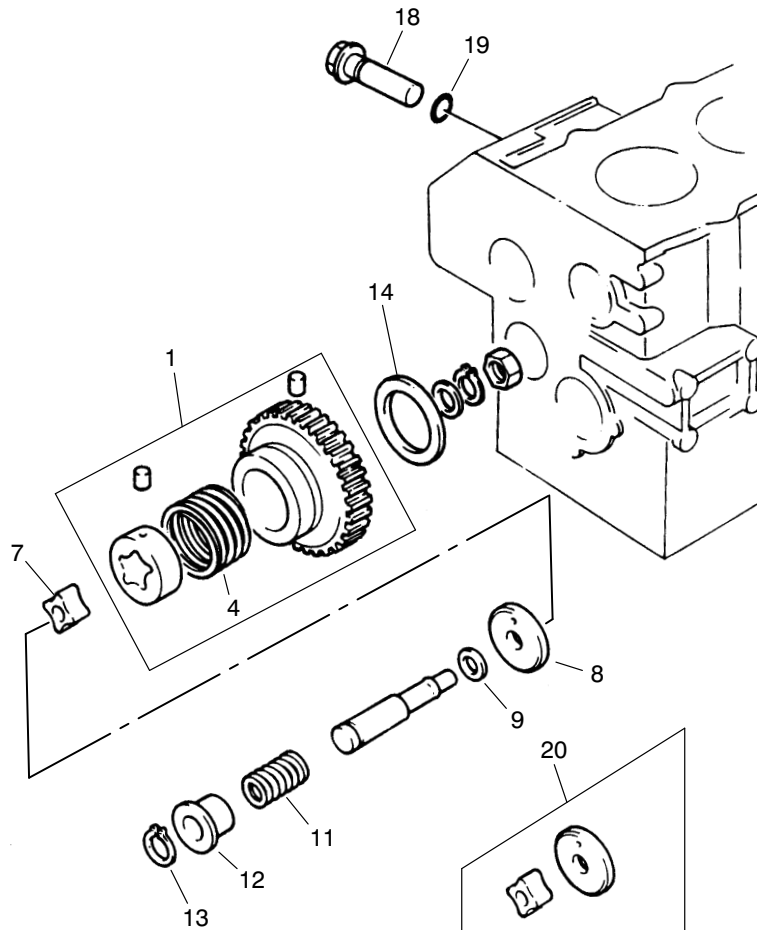


T-1382-1

TIMING COVER ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	125046250	Lever (Incl. Ref. #2, 6 & 7)	1	17	023100006	Nut	1
2		Lever	1	21	125116130	Shaft	1
3	036800008	Circlip	1	22	052100030	Seal - O-Ring	1
4	026200010	Washer	1	23	036800005	Circlip	1
5	125406071	Lever	1	24	125976120	Stay	1
6		Link	1	25	011300616	Screw	2
7		Pin	1	26	010109264	Screw	2
9	198217110	Spring	1	27	023100006	Nut	2
10	031100004	Pin	1	28	125176080	Lever	1
11	198216731	Spring	1	29	198216760	Spring	1
12	125156170	Arm	1	30	026200008	Washer	1
13	052100070	O Ring	1	31	020300008	Nut	2
14	036800008	Circlip	1	34	125156180	Arm	1
15	125416300	Lever	1	35	052100050	O Ring	1
16	010110630	Screw	1	36	036800006	Circlip	1

NOTE: Obtain replacement parts from your local Perkins Dealer.



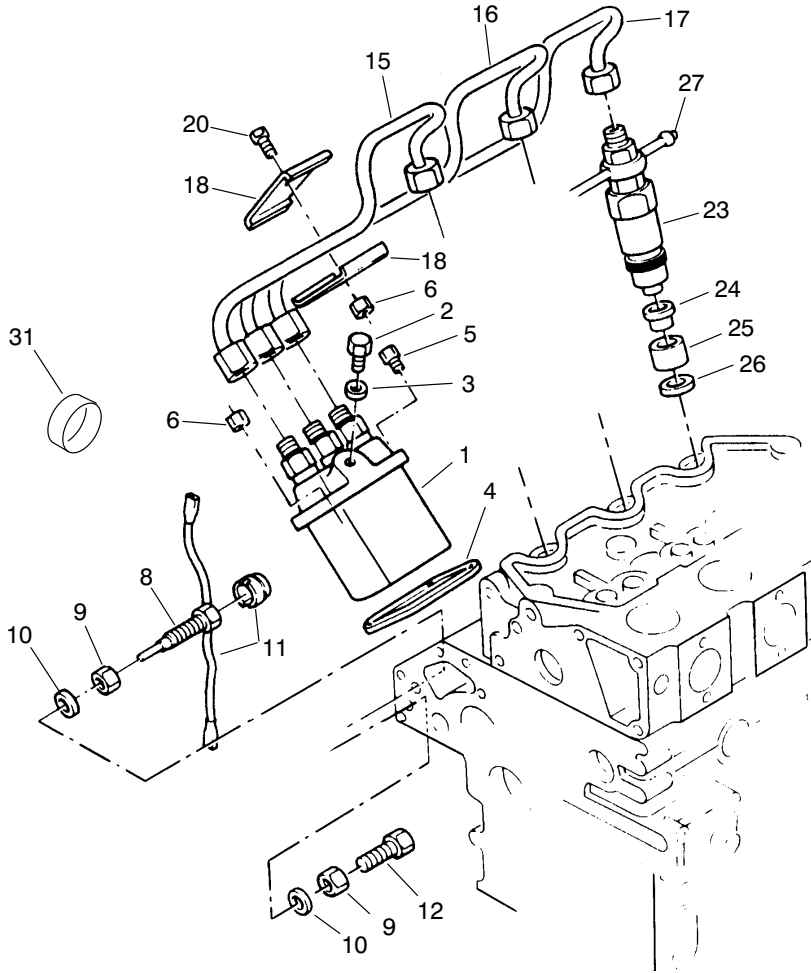
T-1383-1

OIL PUMP ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	165026110	Gear	1	11	198216720	Spring	1
4	198216821	Spring	1	12	199236540	Collar	1
7	140166130	Rotor	1	13	036800010	Circlip	1
8	140116140	Cover	1	14	199266180	Washer	1
9	199286150	Shim, 0.10mm o/s	1	18	140036120	Valve	1
*	199286160	Shim, 0.15mm o/s	1	19	052100150	Seal - O-Ring	1
*	199286170	Shim, 0.20mm o/s	1	20	140186010	Repair Kit	1
*	199286180	Shim, 0.50mm o/s	1				

NOTE: Obtain replacement parts from your local Perkins Dealer.

*Not Illustrated

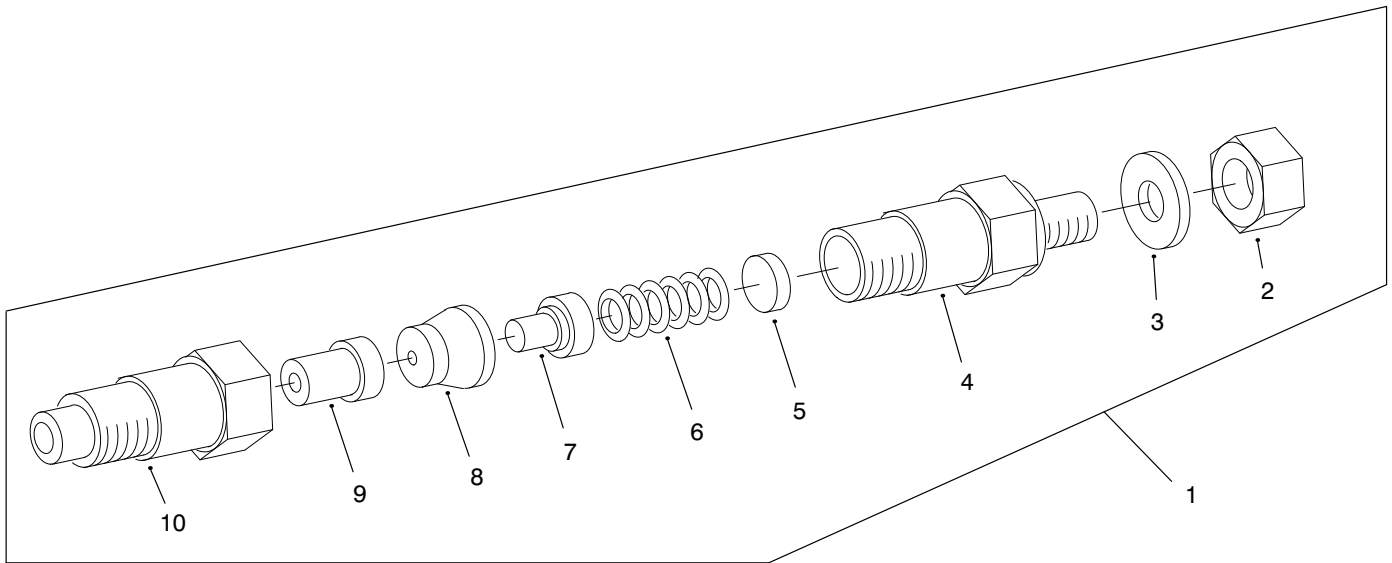


T-1384-1

FUEL INJECTION SYSTEM ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	131017610	Injection Pump	1	15	131507010	Injection Pipe No. 1 Cyl.	1
2	131236280	Screw	1	16	131507020	Injection Pipe No. 2 Cyl.	1
3	025100006	Washer	1	17	131507030	Injection Pipe No. 3 Cyl.	1
4	131426300	Shim	1	18	199106020	Damper	2
5	011300620	Screw	2	19	199106020	Damper	2
6	023100006	Nut	2	20	010100625	Screw	2
8	131046160	Screw	1	21	023100006	Nut	2
9	023109002	Nut	1	23	131406340	Atomiser	3
10	025100010	Washer	1	24	131426200	Gasket	3
11	198236030	Wire	1	25	111316280	Insert	3
12	010109475	Screw	1	26	198996090	Seal	3
13	023109008	Nut	1	27	131606260	Pipe	1
14	025100010	Washer	1	31	198466060	Plug	2

NOTE: Obtain replacement parts from your local Perkins Dealer.



T-2495

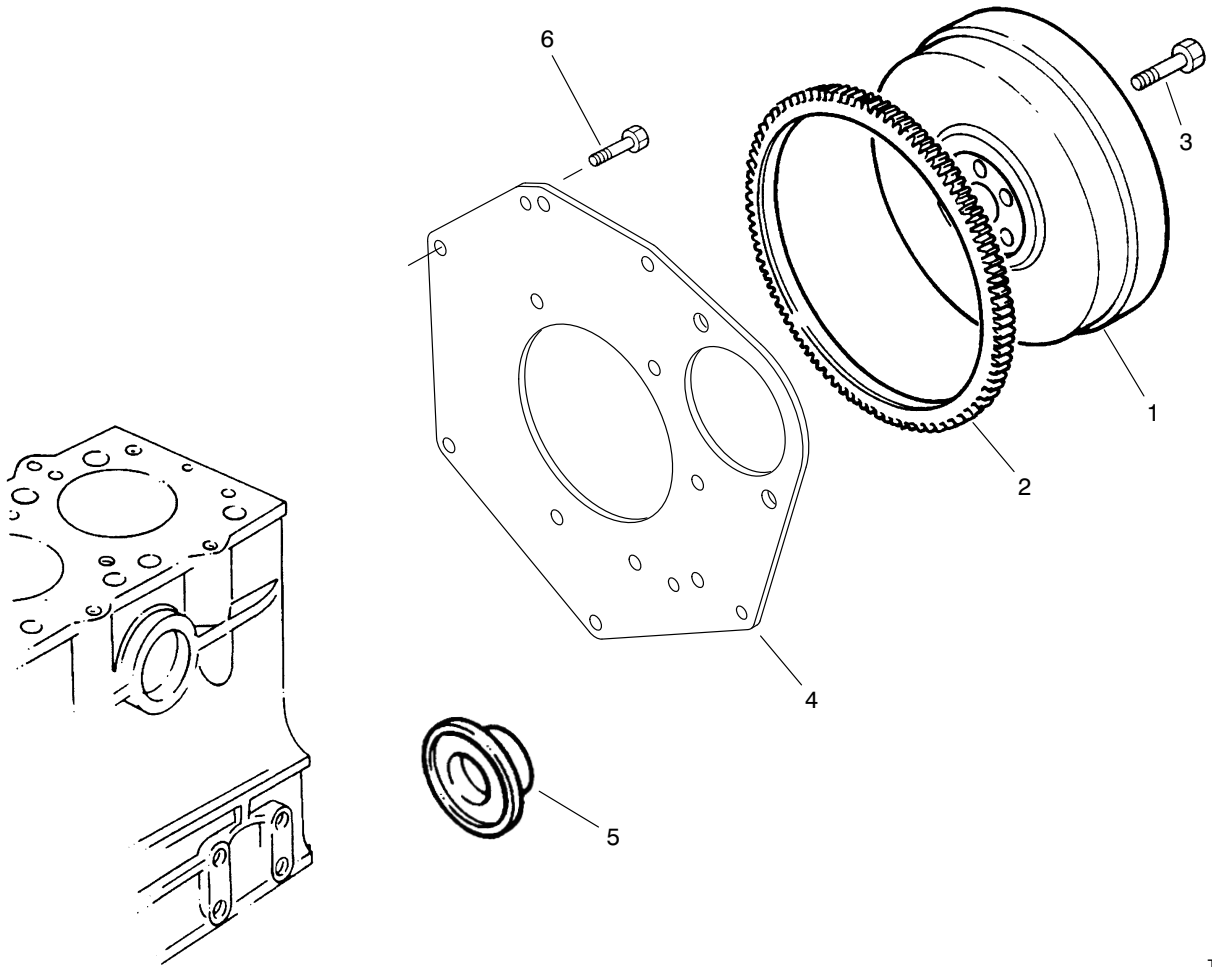
INJECTION PUMP ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	131406340	Atomiser	3
2	131446069	Nut	1
3	131426210	Washer	1
4	131446065	Body	1
5	131437250	Shim, 0.90mm o/s	1
*	131437251	Shim, 0.925mm o/s	1
*	131437252	Shim, 0.95mm o/s	1
*	131437253	Shim, 0.975mm o/s	1
*	131437354	Shim, 1.00mm o/s	1
*	131437255	Shim, 1.025mm o/s	1
*	131437256	Shim, 1.05mm o/s	1
*	131437257	Shim, 1.075mm o/s	1
*	131437258	Shim, 1.10mm o/s	1
*	131437259	Shim, 1.125mm o/s	1
*	131437260	Shim, 1.15mm o/s	1
*	131437261	Shim, 1.175mm o/s	1

Ref. No.	Part No.	Description	No. Used
*5	131437262	Shim, 1.20mm o/s	1
*	131437263	Shim, 1.225mm o/s	1
*	131437264	Shim, 1.250mm o/s	1
*	131437265	Shim, 1.275mm o/s	1
*	131437266	Shim, 1.30mm o/s	1
*	131437267	Shim, 1.325mm o/s	1
*	131437268	Shim, 1.35mm o/s	1
*	131437269	Shim, 1.375mm o/s	1
*	131437270	Shim, 1.40mm o/s	1
*	131437271	Shim, 1.425mm o/s	1
*	131437272	Shim, 1.45mm o/s	1
6	131446066	Spring	1
7	131446070	Pin	1
8	131446068	Spacer	1
9	131416150	Nozzle	1
10	131446067	Nut	1

NOTE: Obtain replacement parts from your local Perkins Dealer.

*Not Illustrated



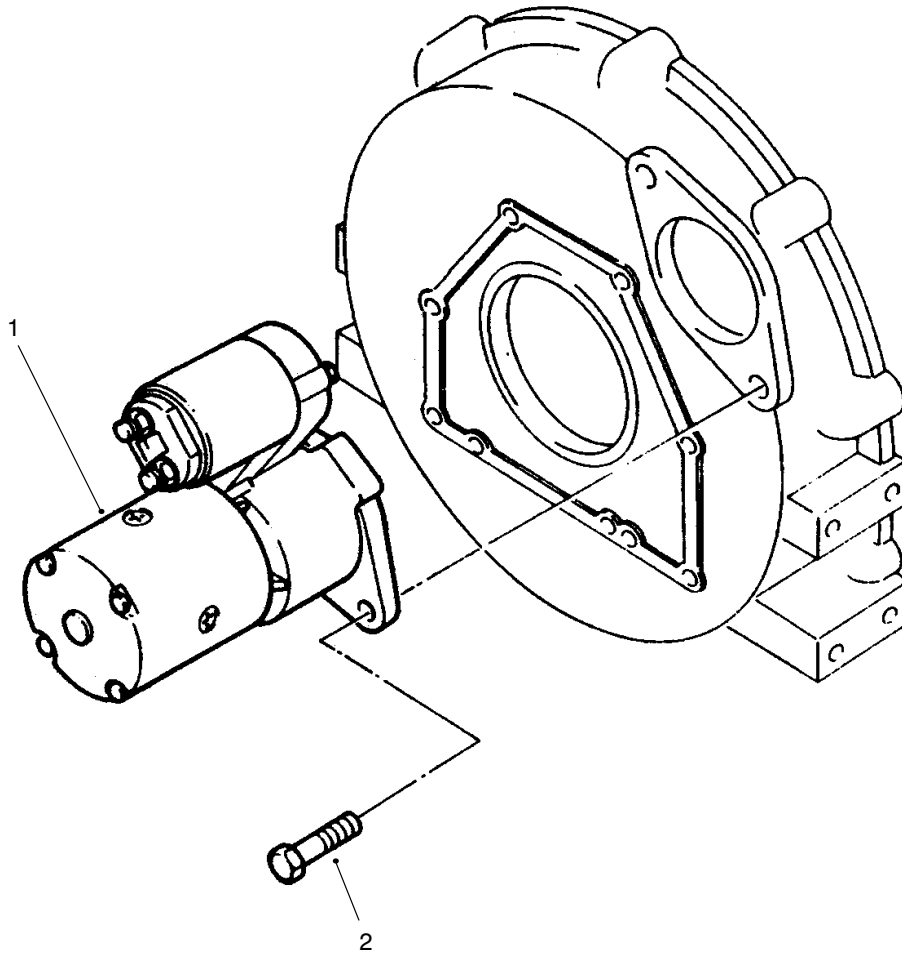
T-1387-3

FLYWHEEL ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	115357190	Flywheel	1
2	115376150	Gear – Ring	1
3	010109330	Screw	4

Ref. No.	Part No.	Description	No. Used
4	110366400	Plate	1
5	198636080	Seal	1
6	011310816	Screw	10

NOTE: Obtain replacement parts from your local Perkins Dealer.

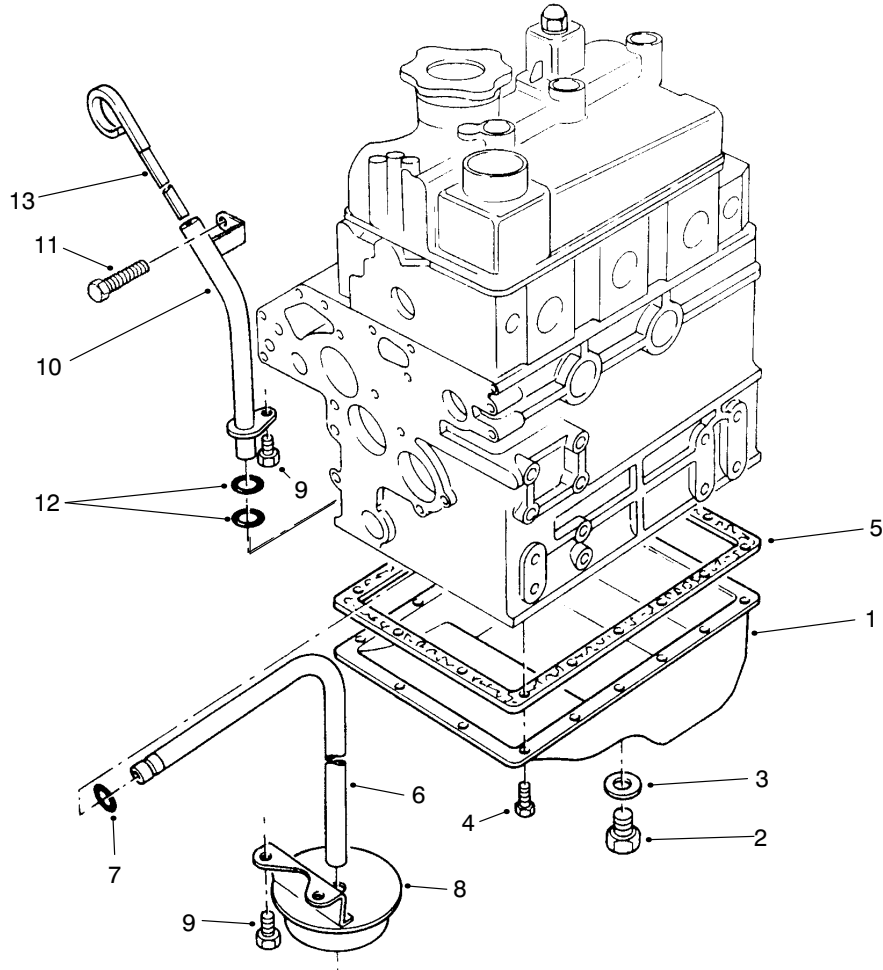


T-2191-1

STARTER INSTALLATION ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	185086400	Starter Motor	1	2	011401020	Screw	2

NOTE: Obtain replacement parts from your local Perkins Dealer.

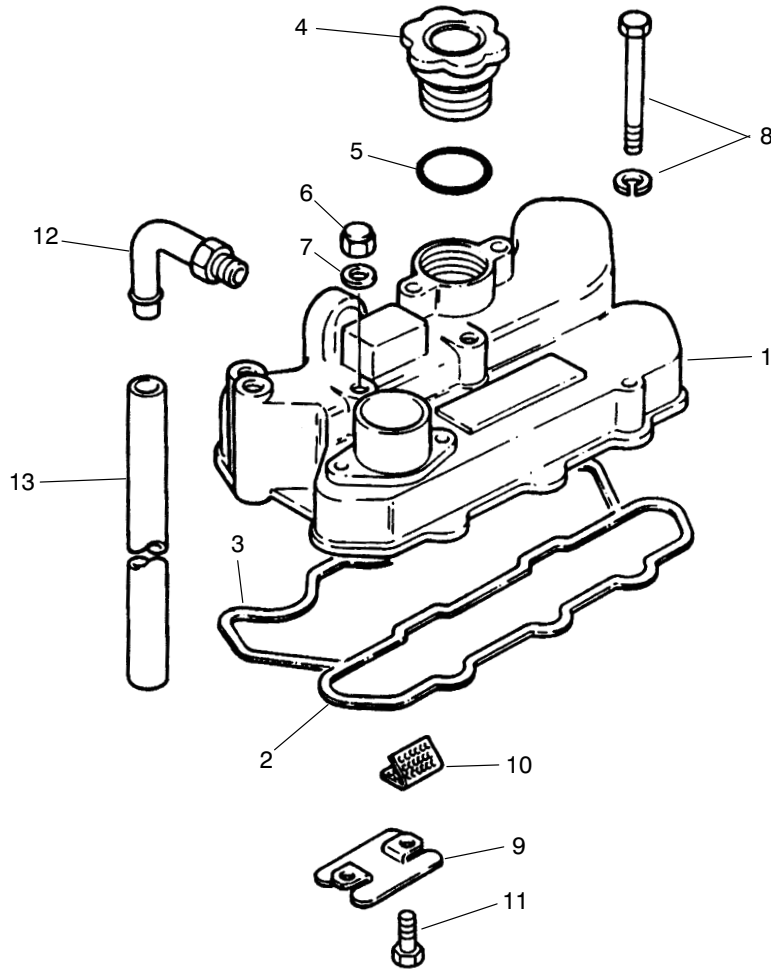


T-1390-1

OIL SUMP ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	110706860	Sump	1	8	140406310	Strainer	1
2	010401212	Plug	2	9	011300612	Bolt	3
3	025100012	Washer	2	10	110756380	Tube	1
4	010109235	Screw	18	11	011300812	Screw	1
5	110996590	Gasket	1	12	052100100	Seal - O-Ring	2
6	140986590	Pipe	1	13	198416371	Dipstick	1
7	052109076	Seal - O-Ring	1				

NOTE: Obtain replacement parts from your local Perkins Dealer.

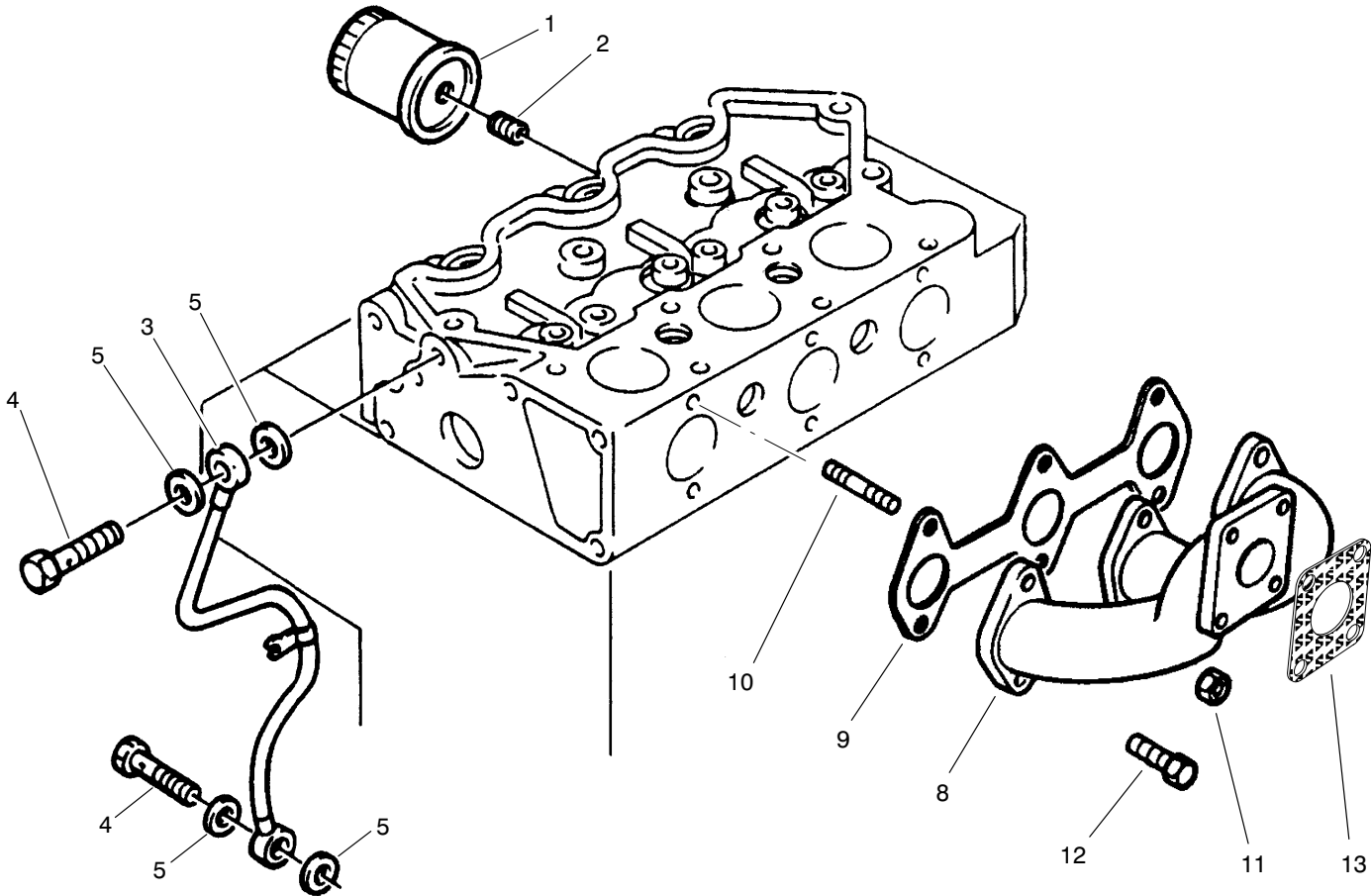


T-1391-1

VALVE COVER ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	111026371	Cover	1	8	011300650	Screw	2
2	111996330	Gasket	1	9	110666110	Plate	1
3	111996060	Gasket	1	10	110666120	Gauze	1
4	198436010	Cap	1	11	011300612	Bolt	2
5	052100400	Seal	1	12	110986500	Pipe	1
6	024500008	Nut	3	13	068122560	Hose	1
7	198996060	Washer	3				

NOTE: Obtain replacement parts from your local Perkins Dealer.
 *Not Illustrated



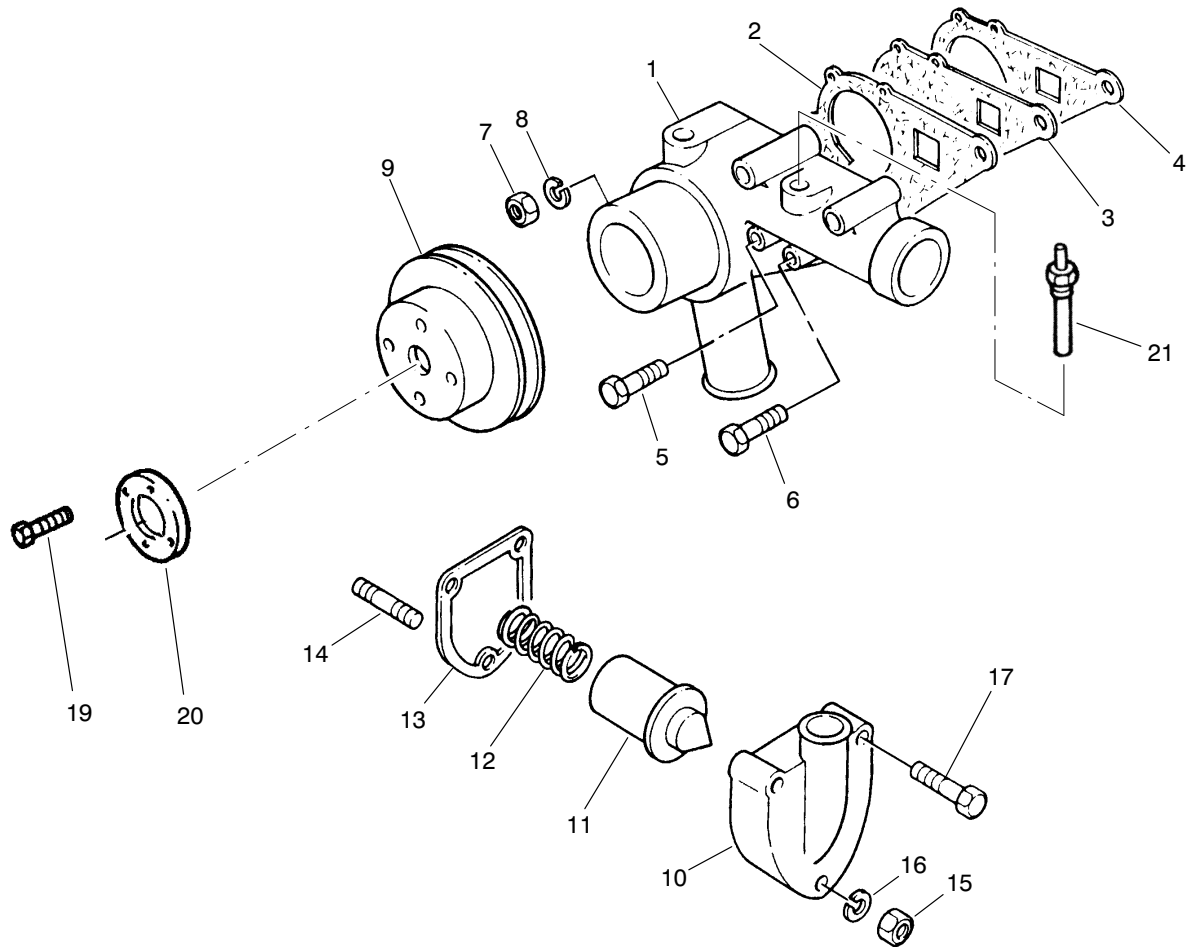
T-1392-2

OIL FILTER & EXHAUST MANIFOLD ASSEMBLIES

Ref. No.	Part No.	Description	No. Used
†1	85-4930	Filter – Oil	1
2	140546020	Connection	1
3	140606680	Pipe	1
4	198486780	Bolt	1
5	198996060	Washer	2
6	198486780	Bolt	1
7	198996060	Washer	2

Ref. No.	Part No.	Description	No. Used
8	135616620	Manifold – Exhaust	1
9	135996520	Gasket	1
10	012110625	Stud	3
11	023100006	Nut	3
12	011310625	Screw	3
13	314990013	Gasket – Muffler	1

NOTE: Obtain replacement parts from your local Perkins Dealer.
 †Available from your local TORO Distributor.

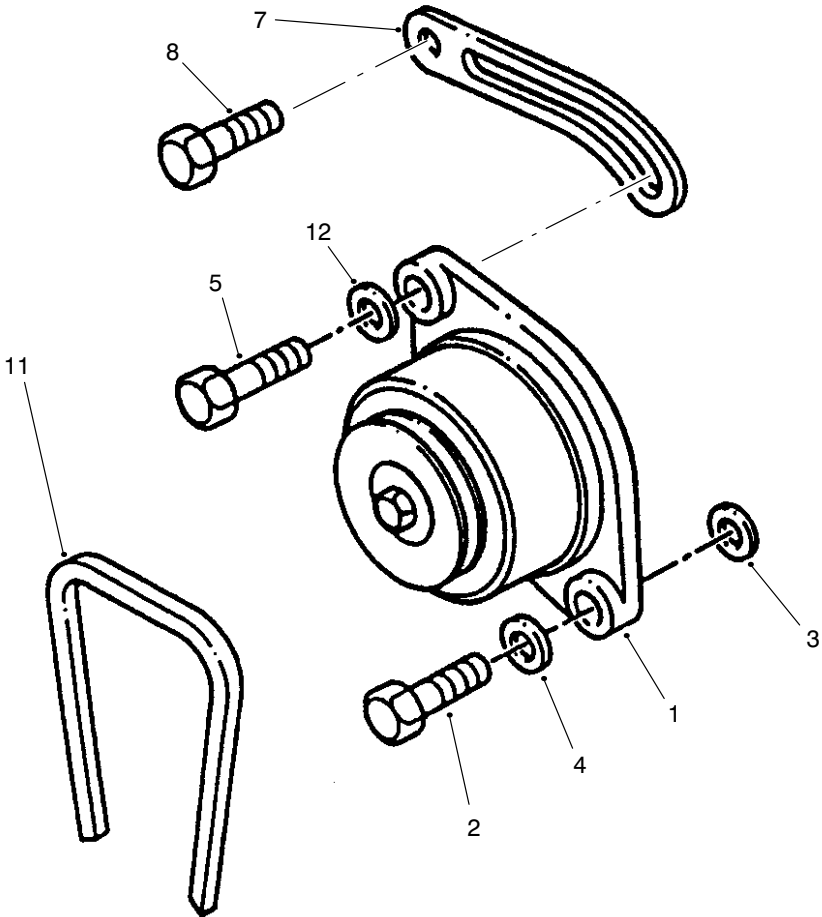


T-2454

WATER PUMP ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	145017400	Pump – Water	1	11	145206062	Thermostat	1
2	145996430	Gasket	1	12	198217410	Spring	1
3	145146270	Backplate	1	13	145996440	Gasket	1
4	145996420	Gasket	1	14	012100650	Stud	1
5	011300635	Screw	3	15	023100006	Nut	1
6	011300650	Screw	4	16	027100006	Washer	1
7	023100006	Nut	1	17	011300650	Screw	2
8	027100006	Washer	1	19	011310620	Screw	4
9	145336490	Pulley	1	20	145386520	Plate	1
10	145216161	Housing	1	21	385720101	Sender – Temperature	1

NOTE: Obtain replacement parts from your local Perkins Dealer.

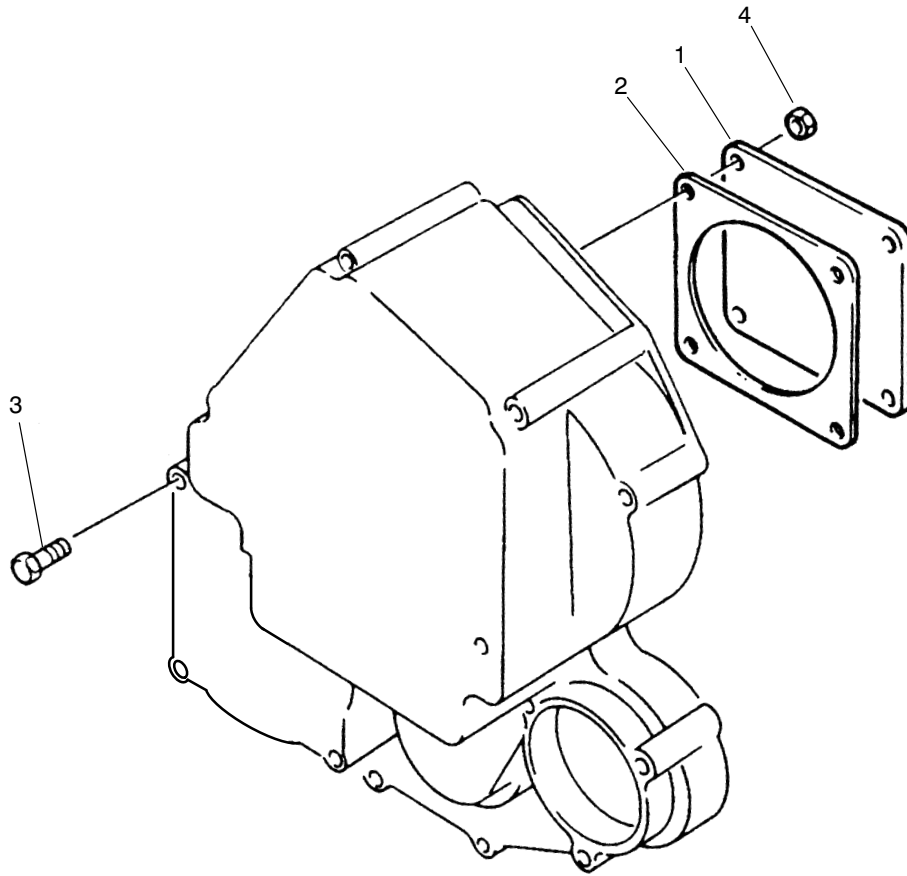


T-2192-1

ALTERNATOR ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	185046300	Alternator	1	7	185726910	Lever	1
2	010110850	Screw	1	8	011300816	Screw	1
3	199236850	Washer	1	11	080109083	Belt	1
4	026109017	Washer	1	12	026109017	Washer	1
5	011310825	Screw	1				

NOTE: Obtain replacement parts from your local Perkins Dealer.



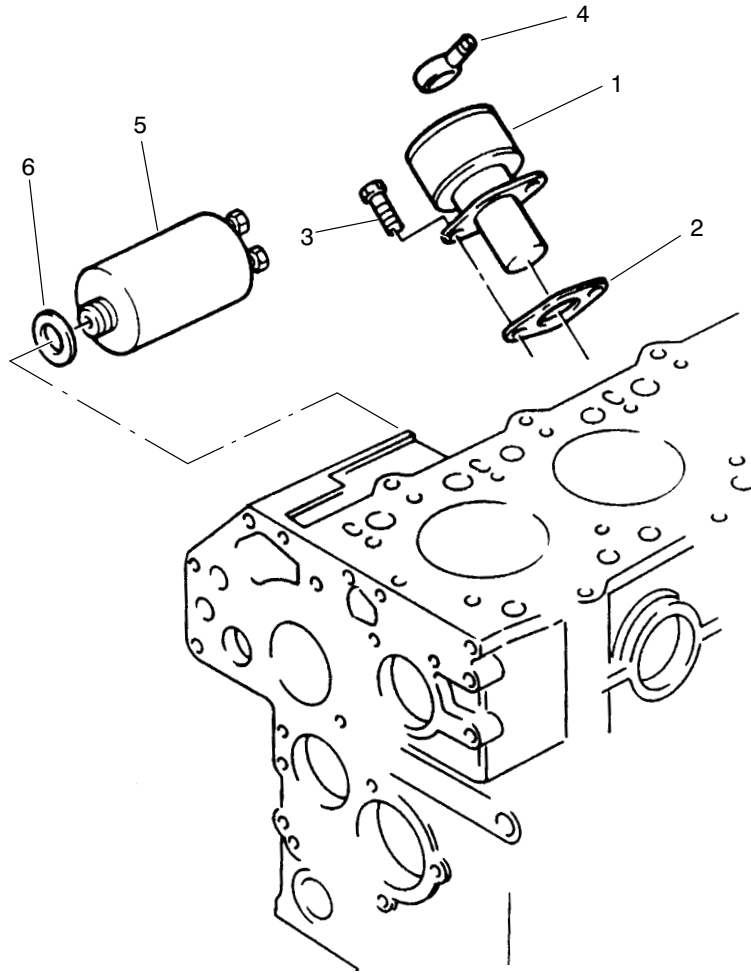
T-1398-1

TIMING COVER PLATE ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	165206360	Plate	1
2	165996420	Gasket	1

Ref. No.	Part No.	Description	No. Used
3	010110850	Screw	4
4	023100008	Nut	4

NOTE: Obtain replacement parts from your local Perkins Dealer.

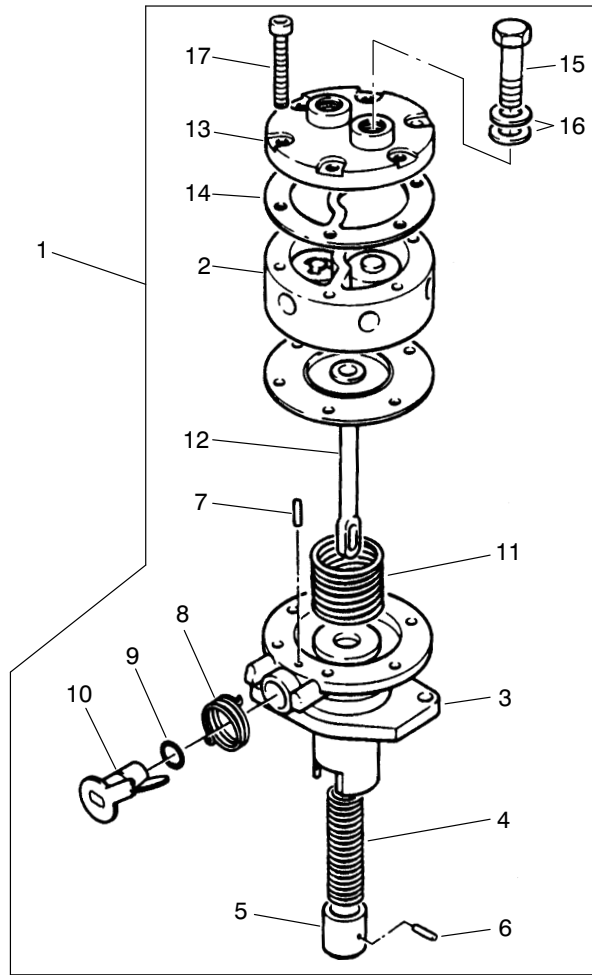


T-2179-2

LOW PRESSURE FUEL SYSTEM & THROTTLE STOP ASSEMBLIES

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	130506140	Pump – Lift	1	4	198486840	Connection	2
2	130996130	Gasket	1	5	185206082	Solenoid	1
3	011140616	Screw	2	6	025100016	Washer	1

NOTE: Obtain replacement parts from your local Perkins Dealer.

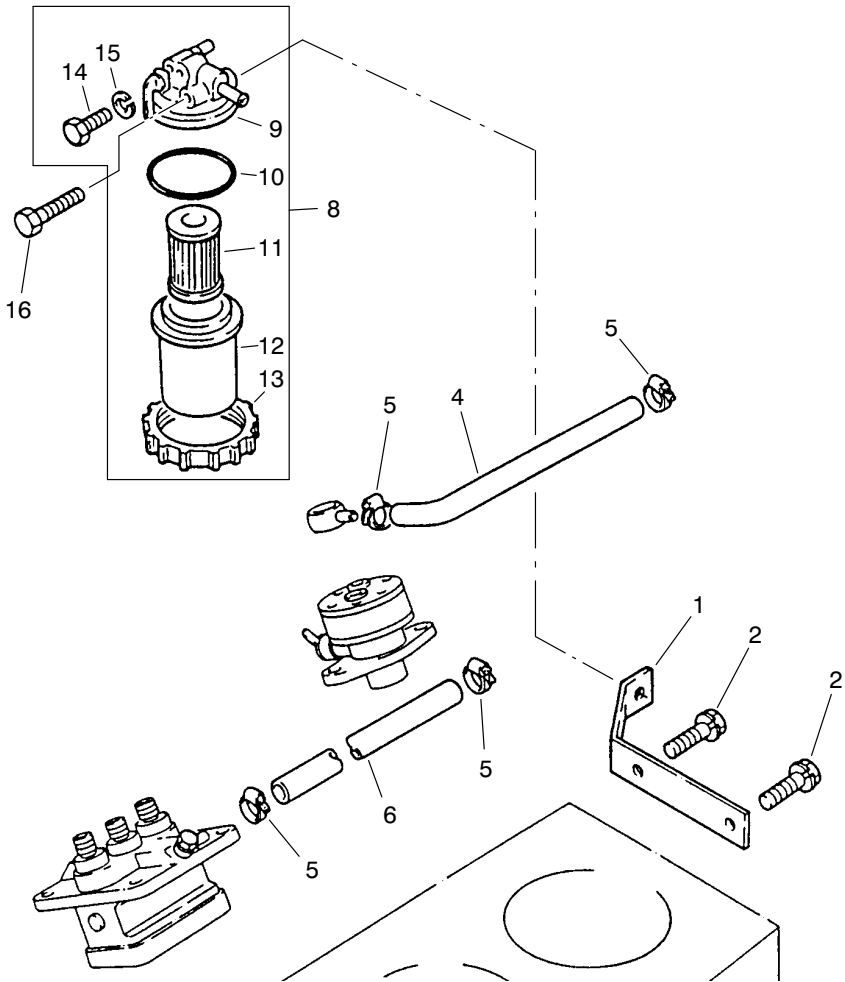


T-2455-1

LIFT PUMP ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	130506140	Lift Pump Assembly (Incl. Ref. #2)	1	9	131226180	Seal – O–Ring	1
2		Body	1	10	130516086	Lever	1
3	130516080	Body	1	11	130516087	Spring	1
4	130516081	Spring	1	12	130516084	Diaphragm	1
5	130516082	Plunger	1	13	130516090	Cap	1
6	130516085	Pin	1	14	130516089	Gasket	1
7	130516088	Pin	1	15	130516092	Bolt	2
8	130516083	Spring	1	16	130516069	Washer	4
				17	130516091	Screw	6

NOTE: Obtain replacement parts from your local Perkins Dealer.

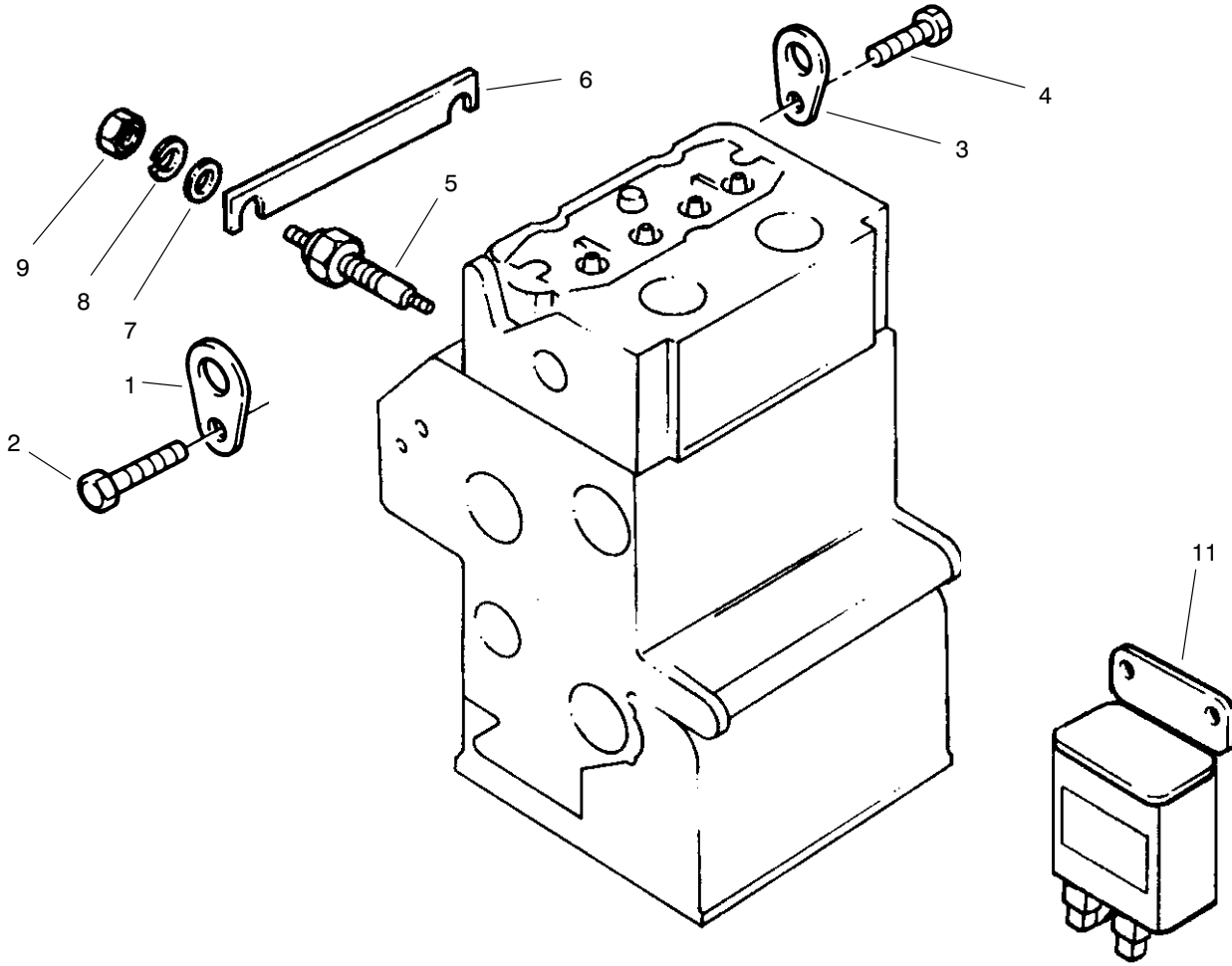


T-2180-1

FUEL FILTER ASSEMBLY

Ref. No.	Part No.	Description	No. Used	Ref. No.	Part No.	Description	No. Used
1	130976222	Bracket	1	10	052100440	Seal – O–Ring	1
2	011310816	Screw	1	11	130336040	Element – Filter	1
4	068207224	Pipe – Fuel	1	12	130336031	Container	1
5	198346020	Clip	4	13	130446090	Ring	1
6	068207400	Pipe – Fuel	1	14	130446080	Plug	2
8	130306041	Fuel Filter Assembly (Incl. Ref. #9)	1	15	130326120	Washer	2
9		Head – Filter	1	16	010100865	Screw	1

NOTE: Obtain replacement parts from your local Perkins Dealer.



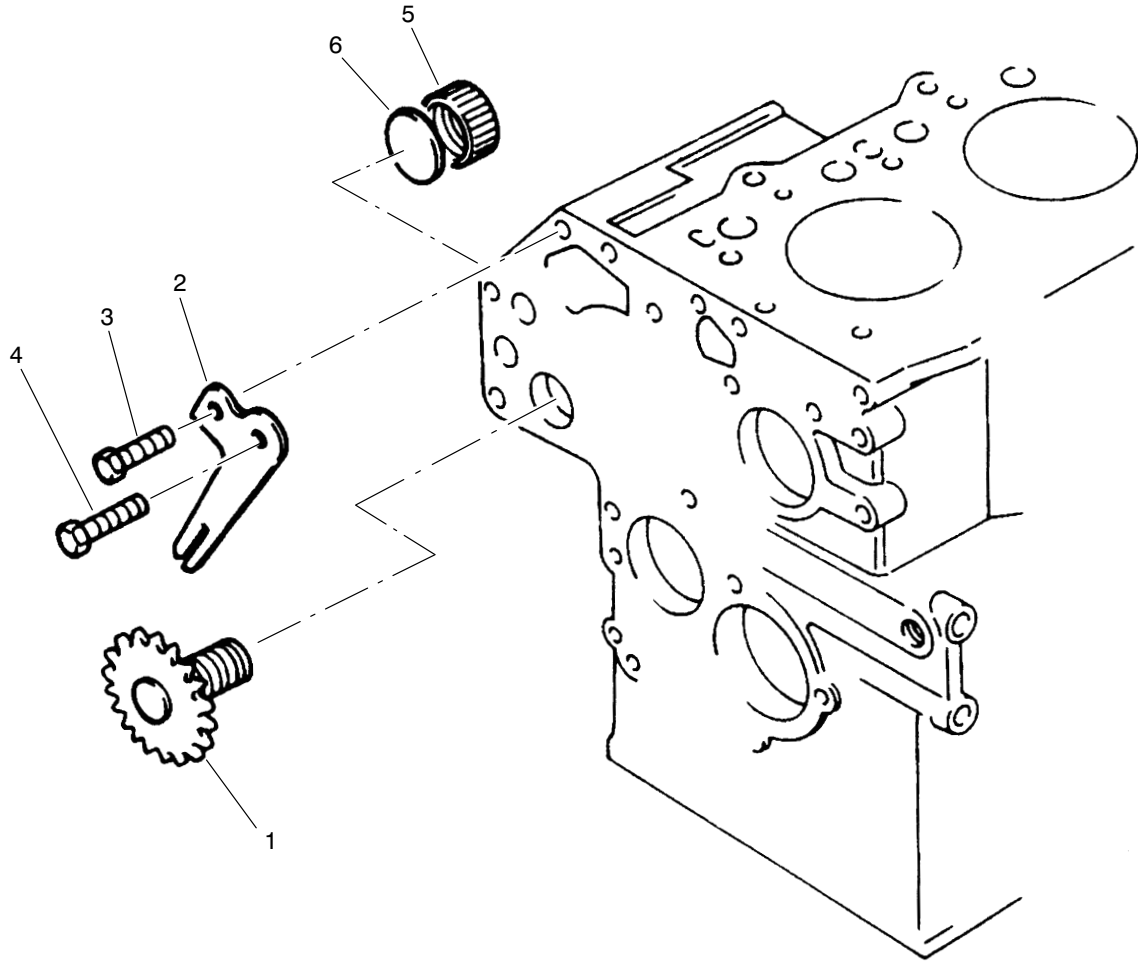
T-1404

ENGINE LIFTING TAB & COLD START ASSEMBLIES

Ref. No.	Part No.	Description	No. Used
1	195816200	Plate	1
2	011310816	Screw	1
3	195816200	Plate	1
4	011310816	Screw	1
5	185366190	Heater	3

Ref. No.	Part No.	Description	No. Used
6	185376170	Bar	1
7		Washer	3
8		Washer	3
9		Nut	3
11	385230120	Relay	1

NOTE: Obtain replacement parts from your local Perkins Dealer.



T-1406

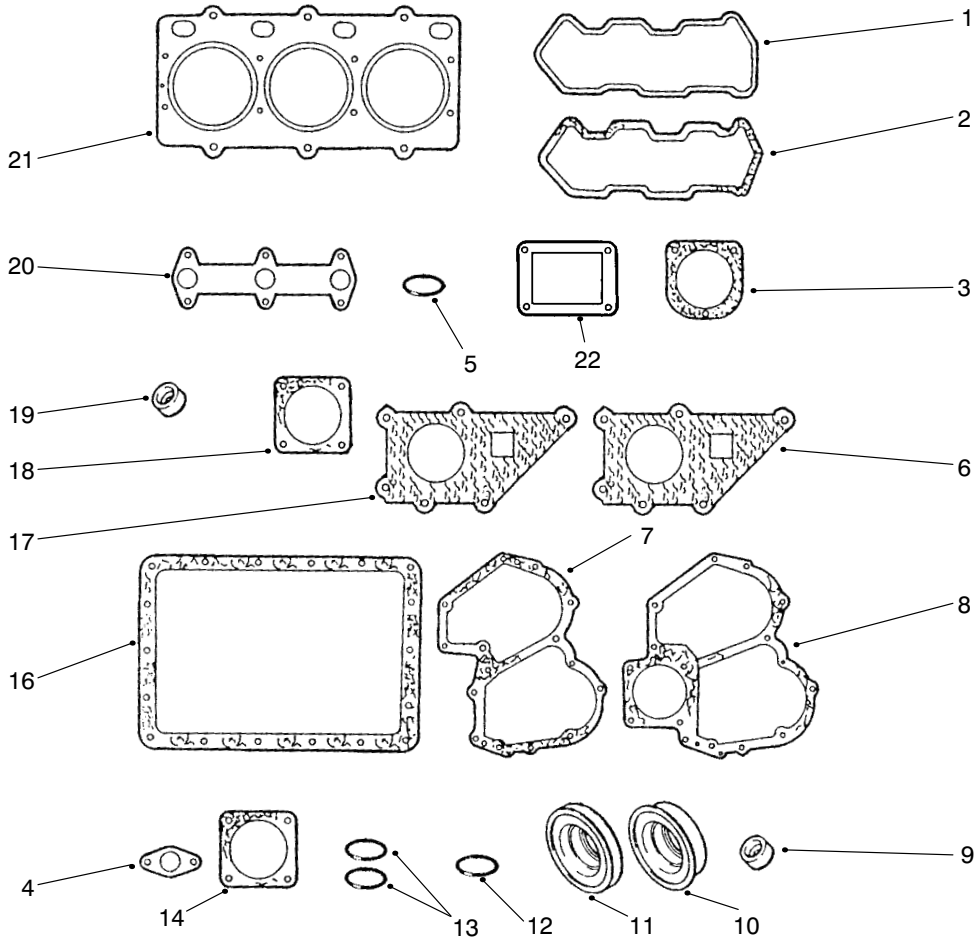
TACHOMETER & HOUR RECORDER DRIVE ASSEMBLY

Ref. No.	Part No.	Description	No. Used
1	120076070	Shaft	1
2	199566651	Plate	1
3	011310612	Screw	1

Ref. No.	Part No.	Description	No. Used
4	010700610	Screw	1
5	199376230	Cap	1
6	120996060	Seal	1

NOTE: Obtain replacement parts from your local Perkins Dealer.

*Not Illustrated



T-1970-2

GASKET AND SEALS

Ref. No.	Part No.	Description	No. Used
1	111996060	Gasket – Valve Cover	1
2	111996330	Gasket – Valve Cover	1
3	145996440	Gasket	1
4	130996130	Gasket – Lift Pump	2
5	052100400	Seal – Oil Filler Cap	1
6	145996430	Gasket – Water Pump	1
7	165996400	Gasket	1
8	165996410	Gasket	1
9	131426200	Gasket	3
10	198636080	Seal – Crankshaft	1
11	198636090	Seal	1
12	052109076	O-Ring	1

Ref. No.	Part No.	Description	No. Used
13	052100100	O-Ring – Dipstick Tube	2
14	165996420	Gasket – Timing Cover	1
16	110996590	Gasket – Oil Pan	1
17	145996420	Gasket – Water Pump	1
18	314990013	Gasket – Muffler	1
19	120406080	Seal	3
20	135996520	Gasket – Exhaust Manifold	1
21	111147390	Gasket – Cylinder Head	1
22	130996070	Gasket	1
*	195906840	Kit – Gasket & Seals (Incl. Ref. #1-21)	1

NOTE: Obtain replacement parts from your local Perkins Dealer.

*Not Illustrated

PRODUCT CHANGES

In an effort to make improvements available to TORO owners as quickly as possible, minor changes are incorporated into Toro's products from time to time that do not become immediately shown in the Parts Catalog. If such a change has been made in your unit, which is not reflected in your manual, see your TORO Distributor or his Authorized TORO Service Dealer for information and part numbers.

IDENTIFICATION AND ORDERING

MODEL AND SERIAL NUMBERS

The Greensmaster 3200D has two identification numbers; a model number and a serial number. The two numbers are stamped on a plate which is located on the left hand frame rail. In any correspondence concerning the Greensmaster 3200D, supply model and serial numbers to assure that correct information and replacement parts are obtained.

To order replacement parts from an Authorized TORO Service Dealer, supply the following information:

1. Model and serial number of the Greensmaster 3200D.
2. Part number, description, and the quantity of part(s) desired.

NOTE: Do not order by reference number if a parts catalog is being used; use the PART NUMBER.

TABLE OF CONTENTS

Description	Page	Description	Page
Frame & Brake Pedal Assembly	1	Pull Frame Assembly – Rear	29
Floor Panel & Traction Pedal Assembly	2	Hydraulic Cylinder No. 99-8157	30
Front Wheel & Brake Assembly	3	Engine Installation Assembly	31
Hydraulic Drive Motor Assembly No. 92-9199	4	Cylinder Block Assembly	32
Steering Arm Assembly	5	Crankshaft Assembly	33
Steering Control Valve No. 93-2120	6	Cylinder Head Assembly	34
Rear Wheel Assembly	7	Rocker Arm Assembly	35
Seat Assembly	8	Camshaft Assembly	36
Electrical Schematic	9	Timing Cover Assembly	37
Control Panel Assembly	10	Oil Pump Assembly	38
Traction Handle Assembly	11	Fuel Injection System Assembly	39
Hydraulic Schematic	12	Injection Pump Assembly	40
Manifold Installation Assembly	13	Flywheel Assembly	41
Manifold Assembly No. 93-4420	14	Starter Installation Assembly	42
Electronics Installation Assembly	15	Oil Sump Assembly	43
Fuel Tank Assembly	16	Valve Cover Assembly	44
Hydraulic Reservoir Assembly	17	Oil Filter & Exhaust Manifold Assemblies	45
Radiator Assembly	18	Water Pump Assembly	46
Hydraulic Pump & Hydrostat Assembly	19	Alternator Assembly	47
Gear Pump Assembly No. 95-0533	20	Timing Cover Plate Assembly	48
Hydrostat Assembly No. 98-4609	21	Low Pressure Fuel System & Throttle Stop Assemblies	49
Neutral System Assembly	22	Lift Pump Assembly	50
Muffler & Air Cleaner Assembly	23	Fuel Filter Assembly	51
Reel Motor Installation Assembly – RH & LH	24	Engine Lifting Tab & Cold Start Assemblies	52
Reel Motor Installation Assembly – Rear	25	Tachometer & Hour Recorder Drive Assembly	53
Reel Motor Assembly No. 93-1375	26	Gasket and Seals	54
Pull Frame Assembly – RH & LH	27		
Hydraulic Cylinder No. 99-8158	28		

