



Parts Manual

TOURNAMENT ULTRA PLUS

7580
SN: T5925

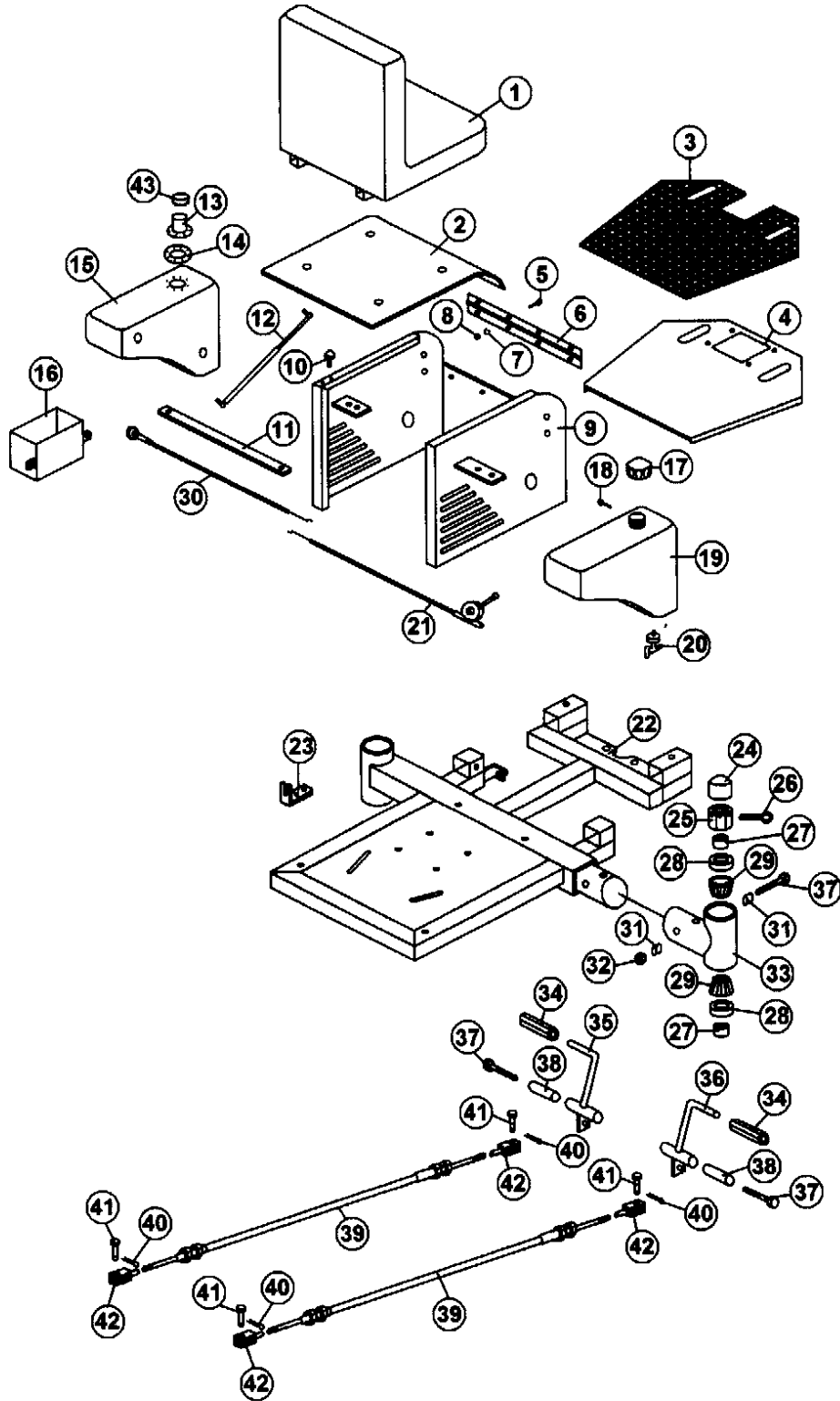
Revised June, 2015

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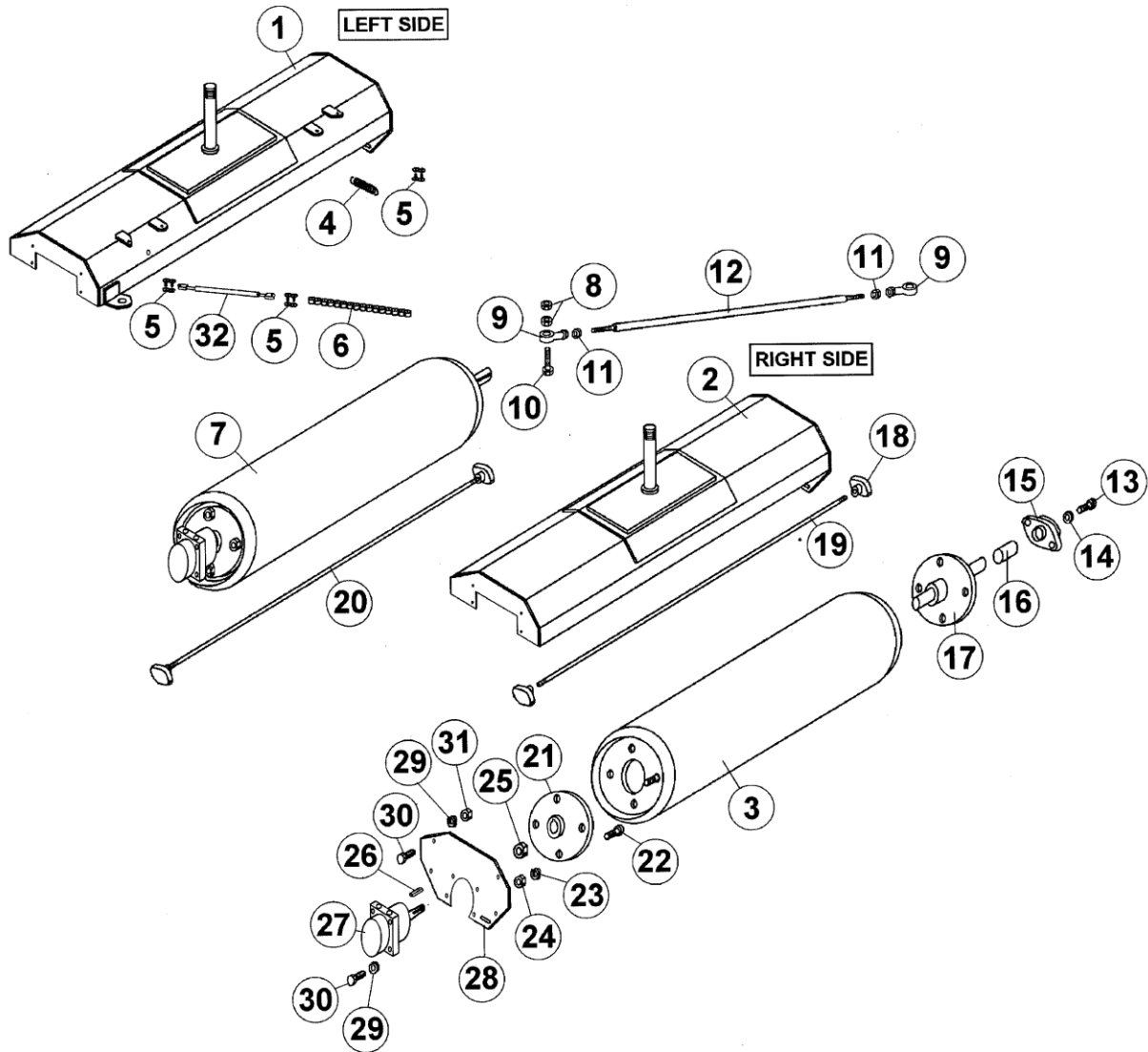
7580 FRAME DRAWING



7580 FRAME PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	832-123	Low-Back "Smithco" Seat	1
2	750-253-1	Seat Plate	1
3	750-278	Rubber Mat	1
4	750-871	Deck Plate	1
5	400-002	5/16" x 1" HHCS	14
6	750-254	Seat Plate Hinge	1
7	400-207	5/16" Lockwasher	10
8	400-102	5/16" – 18 Hex Nut	10
9	750-262	Engine Cover	1
10	41-143	Protective Bumper	2
11	750-290	Engine Cover Brace	1
12	41-127	Gas Shock Assembly	1
13	750-293	Oil Tank Neck	1
14	750-292-1	Oil Cap Gasket	1
15	943-111	Oil Tank	1
16	750-402	Battery Box	1
17	943-110-5	Vented Gas Cap	1
18	400-043	1/4" – 20 x 3/4" HHCS	6
19	943-110	Gas Tank	1
20	943-110-2	Gas Valve	1
21	750-715	Throttle Cable	1
22	750-872	Main Frame	1
23	750-251	Shift Cable Bracket	2
24	750-192	1 1/8" Poly Hex Nut & Cap	2
25	932-042	Thick Slotted Nut 1 1/4"	2
26	709-143	Cotter Pin 1/8" x 2"	2
27	932-024	Spacer	2
28	932-022	Seal	4
29	932-023	Bearing	4
30	943-126	Choke Cable	1
31	750-186	1/2" ID x 3/4" OD x 1/2" Spacer	4
32	400-112	1/2" – 13 Locknut 2-Way	1
33	750-750	Swivel Axle Bracket	1
34	943-127	Accelerator Pedal Pad	2
35	750-893	Left Foot Pedal	1
36	750-892	Right Foot Pedal	1
37	400-061	1/2" – 13 x 3 1/2" HHCS	3
38	10-007	Oilite Bushing	4
39	750-001	SS Control Cable w/ Clevis	2
40	720-079	Cotter Pin 3/32 x 3/4"	6
41	720-078	5/16" x 1" Clevis Pin	4
42	11-102	1/4" Fine Thread Yoke w/5/16" Pin	4
43	750-292	Oil Filler Breather	1

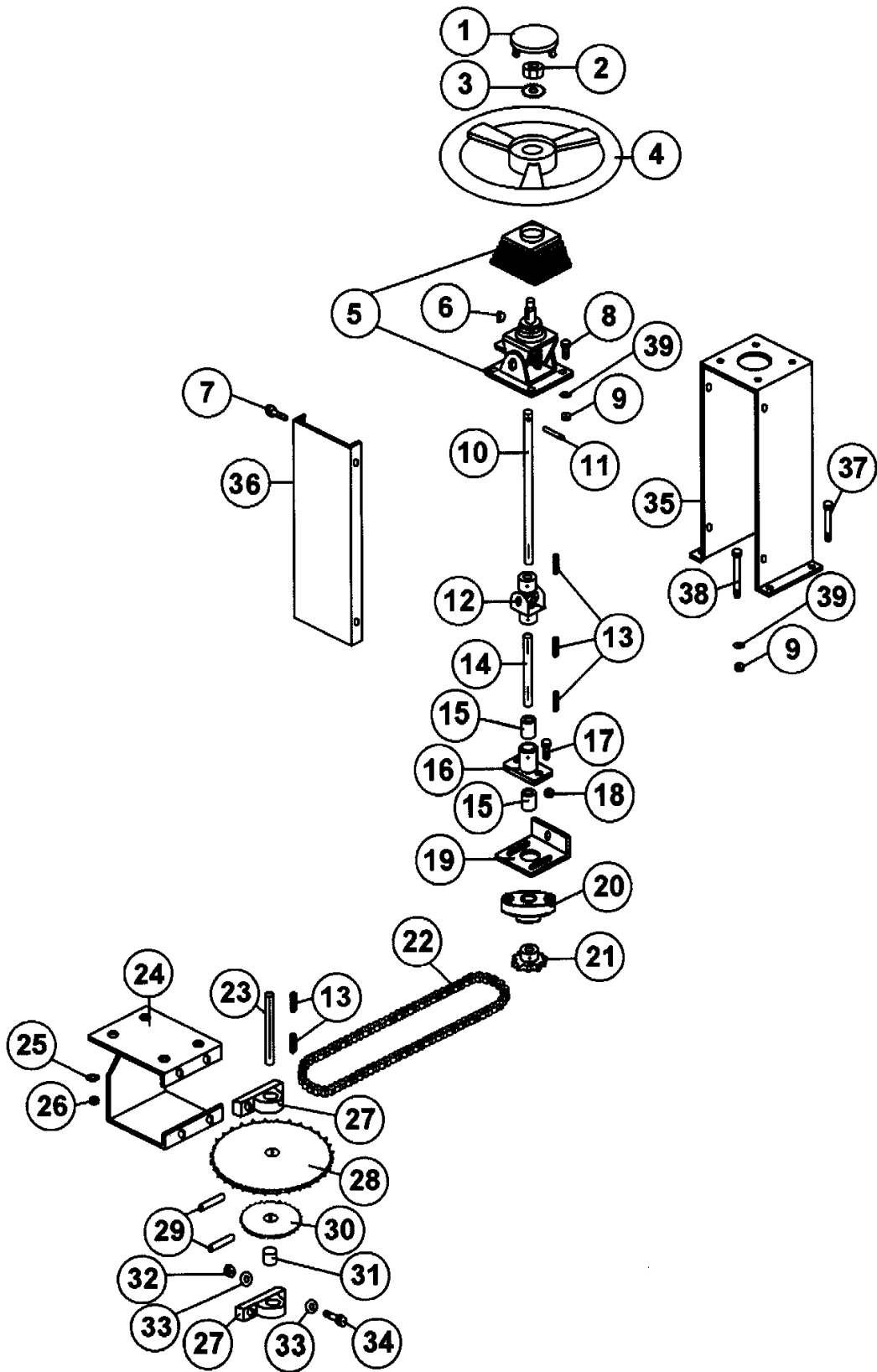
7580 ROLLER HOUSING DRAWING



7580 ROLLER HOUSING PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	750-825	Left Roller Housing	1
2	750-826	Right Roller Housing	1
3	750-220-3	Roller w/Plate & Hub	2
4	40-199	Idler Spring	1
5	1083	#50 Master Link	3
6	750-415	#50 Chain 50 pitch w/3 connecting links	1
7	750-821	Roller Assembly	2
8	400-105	1/2" – 13 Hex Nut	5
9	713-806	Ball Joint	2
10	400-056	1/2" – 13 X 2 1/2" HHCS	2
11	400-136	1/2" – 20 Fine Thread Hex Nut	2
12	750-411	Tie Rod	1
13	400-044	1/4" – 20 x 1" Bolt	2
14	400-208	1/4" Lock Washer	2
15	720-004	Flange Bearing	2
16	750-721	Spacer 1 1/4"	2
17	750-220-2	Hub Shaft	2
18	750-210-2	Scraper Knob	4
19	750-210-1	Scraper Rod	2
20	750-210	Scraper Assembly	2
21	750-802	Hub 4 Bolt	2
22	1189	Lug Bolt	8
23	400-210	1/2" Lock Washer	8
24	400-105	1/2" – 13 Hex Nut	8
25	750-801-3	Castle Nut	2
26	740-023	3/16" x 3/4" Key	2
27	750-801	Hydro Gear Motor	2
28	750-827	Bolted End Plate f/Housing	2
29	400-209	3/8" Lock Washer	16
30	400-090	3/8" x 1 1/4" Bolt	16
31	400-103	3/8" Hex Nut	8
32	750-873	Steering Chain Adjuster – Turnbuckle	1

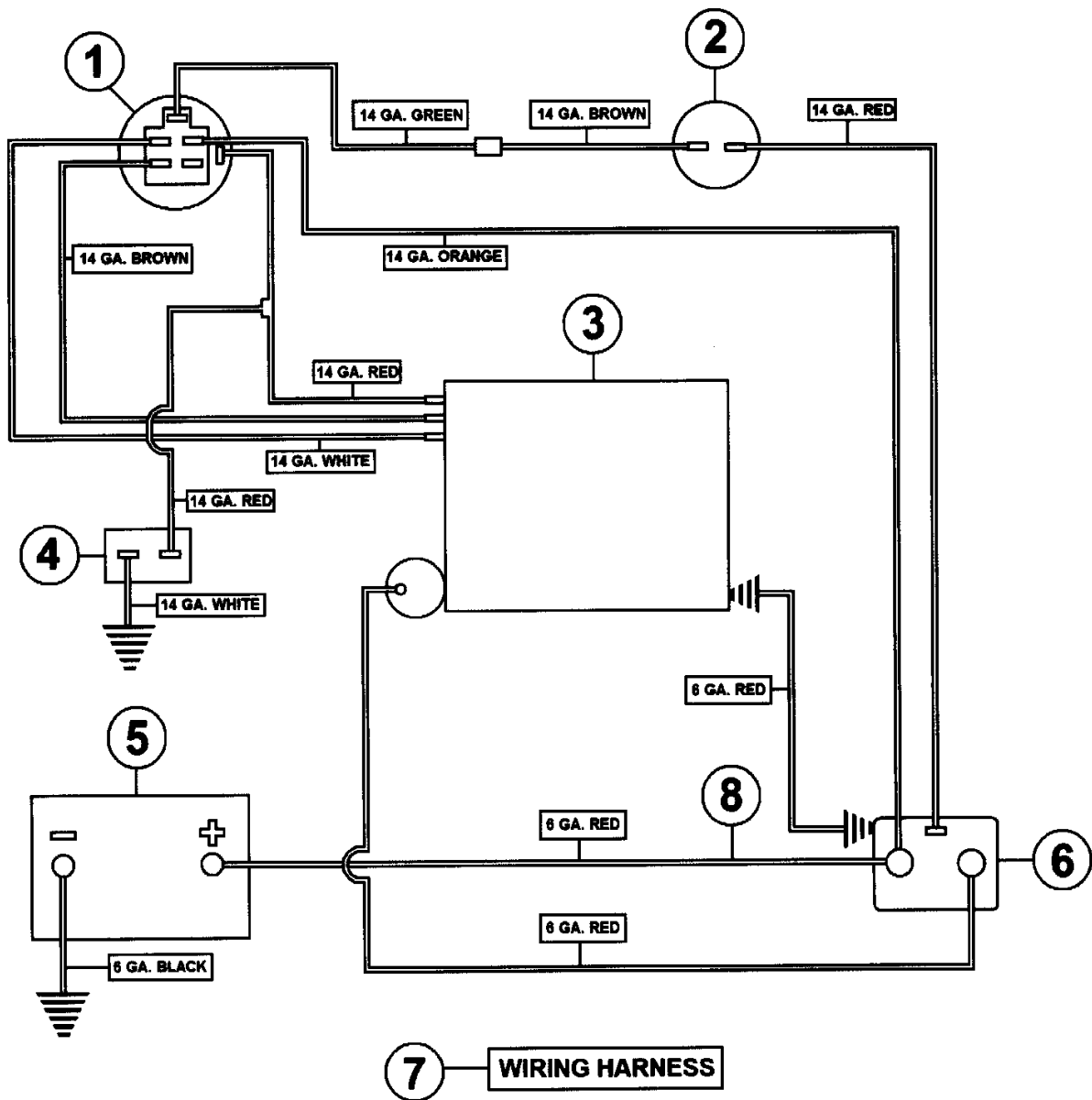
7580 STEERING DRAWING



7580 STEERING PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	730-046-2	Steering Wheel Cap	1
2	932-122	5/8" – 18 Hex Jam Nut	1
3	400-143	5/8" Lock Washer	1
4	730-046	Steering Wheel w/Cap	1
5	832-028	Tilt Steering Mechanism & Boot	1
6	740-023	3/16" x 3/4" Key	1
7	400-073	1/4" x 1" Self Tap Screw	4
8	400-003	5/16" – 18 x 1 1/4" HHCS	4
9	400-102	5/16" – 18 Hex Nut	8
10	750-286	Upper Steering Shaft	1
11	832-030	7/32" x 1 1/4" Spring Pin	1
12	41-120	U-Joint 3/4" x 3/4"	1
13	1088	3/16" x 1" Key	3
14	750-266	Steering Sprocket Shaft	1
15	520-007	Bronze Bushing	2
16	750-195	Steering Tube	1
17	400-005	5/16" – 18 x 1 3/4" HHCS	2
18	400-109	5/16" – 18 Locknut	2
19	41-194	Chain Adjuster Bracket	1
20	1036	Jackshaft Bearing	1
21	1075	#40 Jackshaft Sprocket 11T	1
22	41-251	#40 Chain x 108 Pitch	1
23	750-148-1	Sprocket & Bearing Shaft 5 1/2"	1
24	750-894	Bearing & Sprocket Bracket	1
25	400-103	3/8" – 16 Hex Nut	4
26	400-209	3/8" Lock Washer	4
27	1040	Front Axle Bearing	2
28	750-234	40BS 60T Sprocket	1
29	750-315	1/4" x 2 1/2" Spring Pin	2
30	750-133-1	50BS 19 x 3/4" Sprocket	1
31	750-722	1" Spacer (3/4" ID)	1
32	400-116	3/8" – 16 Locknut	4
33	400-202	5/16" Flat Washer	4
34	400-015	3/8" – 16 x 1 1/2" HHCS	4
35	750-106	Steering Column	1
36	750-107	Steering Column Cover	1
37	400-314	5/16" x 4 1/2" Bolt	2
38	400-010	5/16" – 18 x 5" HHCS	2
39	400-207	5/16" Lock Washer	8

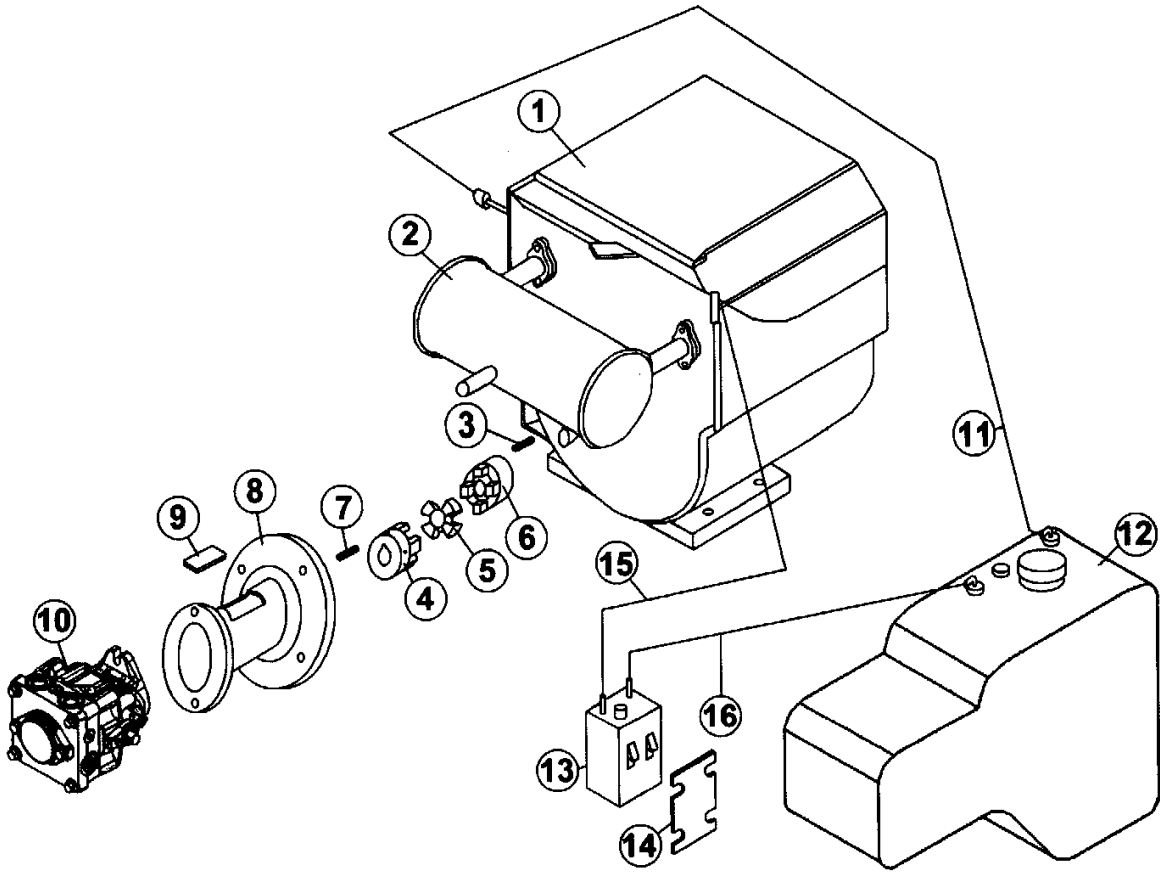
7580 WIRING DRAWING



WIRING PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	932-071	Key Switch	1
2	932-119-1	Safety Seat Switch	1
3	943-100	16 HP Vanguard Twin Engine	1
4	44-873	Hour Meter	1
5		Battery	
6	932-072	Solenoid	1
7	750-265	Wiring Harness	1
8	750-401	Battery Wire 6GA Red 33"	1

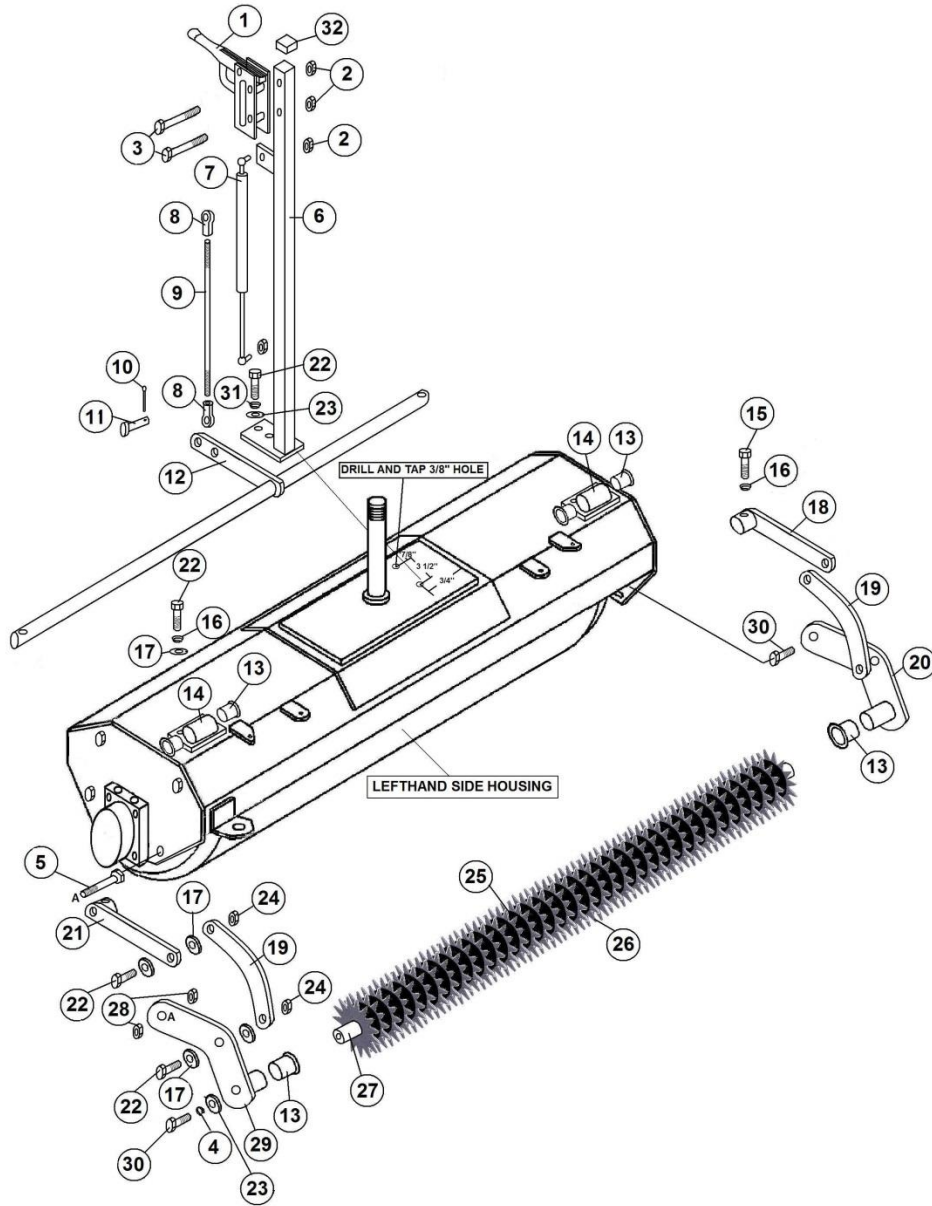
7580 ENGINE DRAWING



7580 ENGINE PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	943-100	16 HP Engine (Model# 303447 Type 1131-E1)	1
2	943-115	Muffler	1
3	1517	1/4" x 1" Key	1
4	750-851	Pump Hub	1
5	720-027	Element	1
6	41-147	Engine Coupling 1"	1
7	750-201	3/16" x 1" Key	1
8	750-255	Bell Housing	1
9	750-127-1	Bell Housing Cover	1
10	750-847	16cc without Aux Charge Pump	1
11	638	1/4" Gas Hose 35"	1
12	943-110	Gas Tank	1
13	943-241	Carbon Canister	1
14	943-240	Carbon Canister Mount	1
15	638	1/4" Gas Hose 40"	1
16	638	1/4" Gas Hose 17"	1

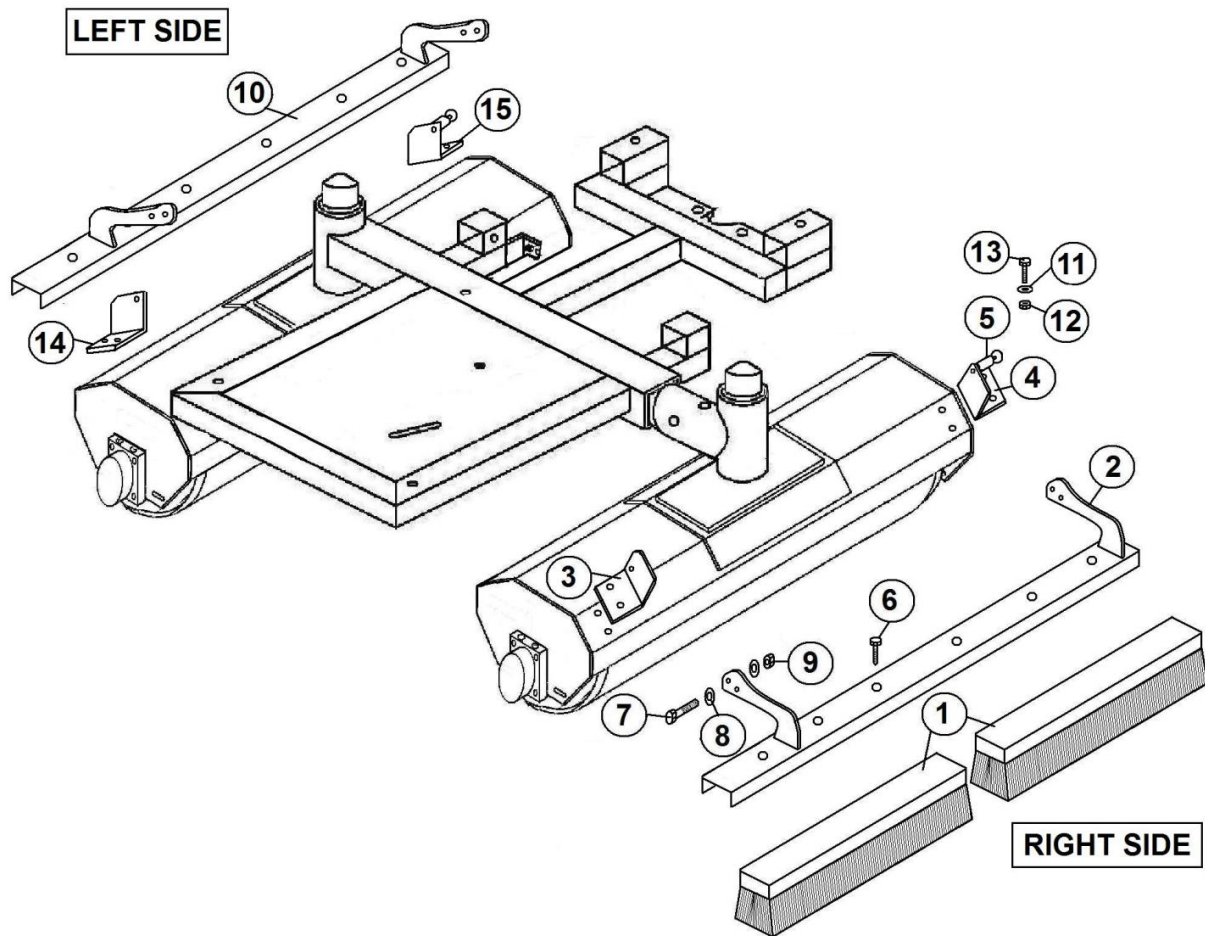
7512 SPIKER KIT DRAWING



7512 SPIKER KIT PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	44-763	Parking Brake Lever	1
2	400-281	5/16" Flange Nut	4
3	400-008	5/16" x 2 1/2" Bolt	2
4	400-209	3/8" Lock Washer	2
5	400-015	3/8" x 1 1/2" Bolt	1
6	750-858	Brake Lever Bracket	1
7	750-859	Gas Shock	1
8	11-101-1	Linkage Yoke	2
9	750-860	Linkage Rod	1
10	720-079	3/32" x 3/4" Cotter Pin	2
11	720-078	5/16" x 1" Clevis Pin	2
12	750-861	Lift Rod	1
13	2110	Bushing	6
14	750-862	Lift Rod Mounting Bracket	2
15	400-001	5/16" x 3/4" HHCS	2
16	400-207	5/16" Lock Washer	6
17	400-201	1/4" Flat Washer	14
18	750-863	Left Lift Lever	1
19	750-864	Connecting Lever	2
20	750-865	Left Spiker Mounting Bracket	1
21	750-866	Right Lift Lever	1
22	400-014	3/8" x 1" HHCS	8
23	400-202	5/16" Flat Washer	4
24	400-109	5/16" Lock nut	4
25	750-867	Rubber Spacer	69
26	750-844	Spikes	35
27	750-868	Spiker Shaft	1
28	400-116	3/8" Locknut	4
29	750-870	Right Spiker Mounting Bracket	1
30	400-090	3/8" x 1 1/4" Bolt	3
31	400-209	3/8" Lockwasher	2
32	610-221	Plastic Plug	1

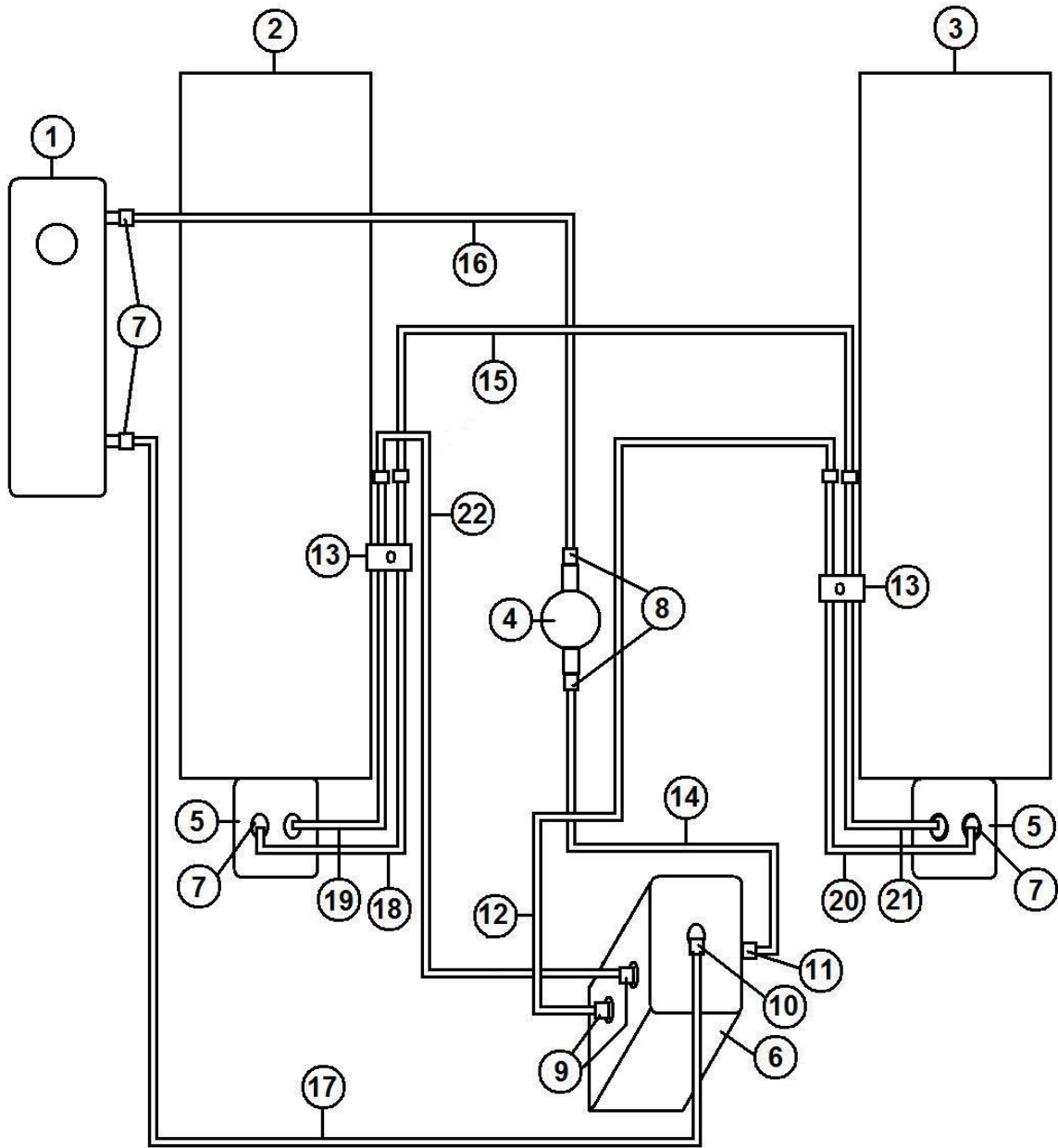
7514 BRUSH KIT DRAWING



7514 BRUSH KIT PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	750-410	Roller Brush	4
2	750-856	Right Brush Bracket	1
3	750-857	Right Brush Bracket Mount	1
4	750-855	Right Brush Bracket Mount w/Ball	1
5	88-001	Ball Lock Pin	1
6	400-343	5/16" x 1" Lag Screw	12
7	400-027	1/2" x 1 1/2" Bolt	4
8	40-128-1	1/2" Machine Bushing	8
9	400-112	1/2" Lock Nut	4
10	750-900	Left Brush Bracket	1
11	400-201	1/4" Flat Washer	20
12	400-281	5/16" Flanged Locknut	8
13	400-002	5/16" x 1" HHCS	8
14	750-901	Left Brush Bracket Mount	1
15	750-902	Left Brush Bracket Mount w/Ball	1
NI	400-207	5/16" Lockwasher	8

HYDRAULIC PLUMBING DRAWING



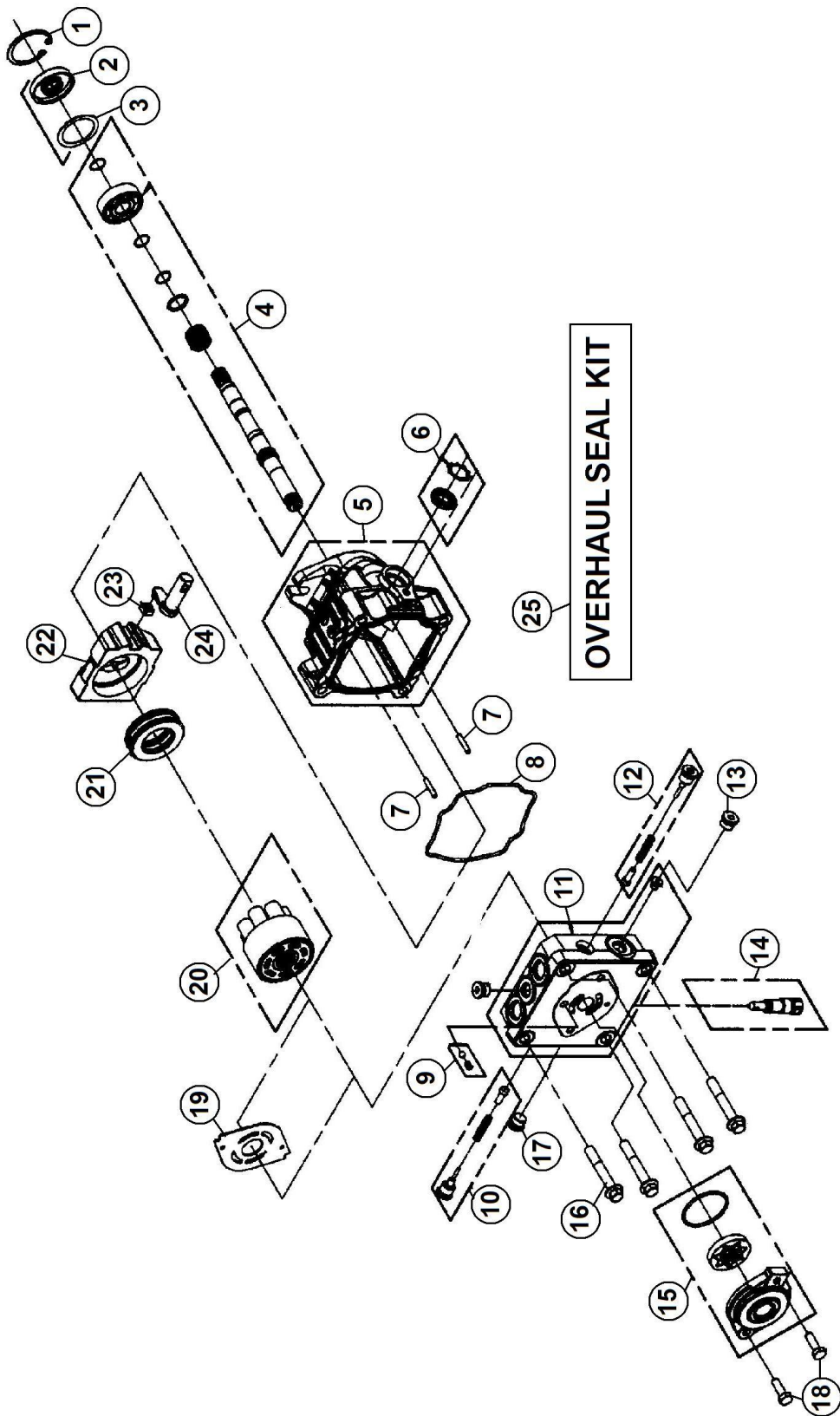
HYDRAULIC PLUMBING PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	943-111	Oil Tank	1
2	750-825	Left Roller Housing	1
3	750-826	Right Roller Housing	1
4	750-302	Filter Head	1
5	750-801	Wheel Motor	2
6	750-847	16cc without Aug Charge Pump	1
7	750-326	Wheel Motor Fitting	4
8	750-325	Oil Filter Head Fitting	2
9	750-322	Pump Fitting	2
10	750-324	Pump Fitting Top	1
11	750-295	Pump Fitting	1
12	750-511	Hydraulic Hose 64" w/Straight both ends	1
13	750-502	Hard Line Clamp	2
14	750-310	Hydraulic Hose – Pump to Filter	1
15	750-503	Hydraulic Hose 38"	2
16	750-306	Hydraulic Hose – Oil Tank to Filter Head	1
17	750-305	Hydraulic Hose – Oil Tank to Pump	1
18	750-520	Long Left Tube Assy 27 1/2"	1
19	750-519	Short Left Tube Assy. 26 1/2"	1
20	750-506	Hard Line Long Right Side	1
21	750-507	Hard Line Short Right Side	1
22	750-510	Hose 75" w/ 45° & Straight	1

NOTE: OIL FILTER IS A PART# 750-300

COMPLETE HOSE KIT IS A PART# 750-540

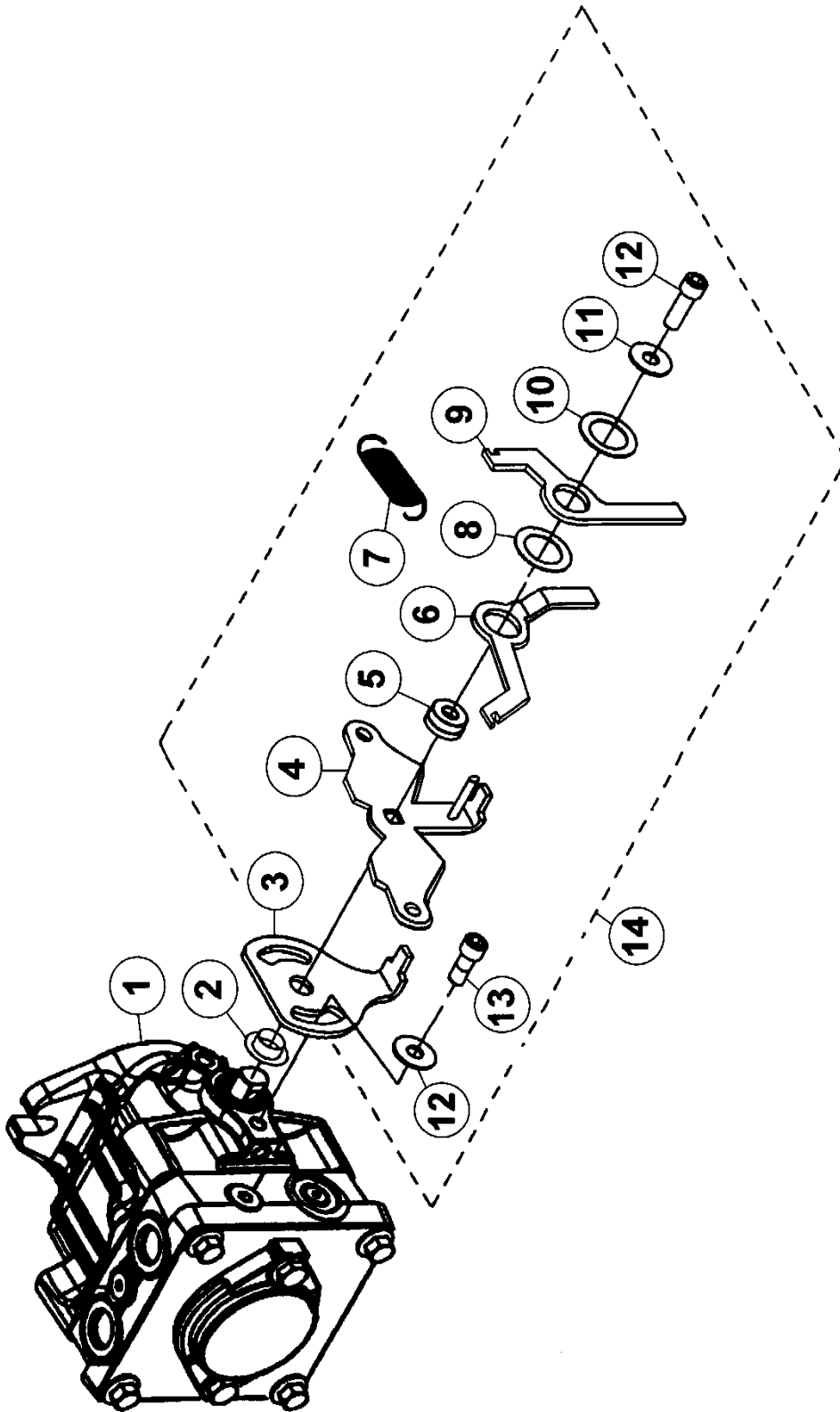
750-847 PUMP DRAWING



750-847 PUMP PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	750-847-3	Retaining Ring	1
2	750-847-4	Lip Seal	1
3	750-847-5	Spacer	1
4	750-847-6	Shaft Kit	1
5	750-847-7	Housing	1
6	750-847-8	Trunnion Seal Kit	1
7	750-228-15	Pin	2
8	750-847-9	O-Ring	1
9	750-847-10	Charge Relief	1
10	750-847-11	Shock Valve Kit	1
11	750-847-12	End Cap	1
12	750-847-11	Shock Valve Kit	1
13	750-847-13	Plug	1
14	750-228-7	Bypass Kit	1
15	750-847-14	Charge Pump	1
16	750-847-15	Screw	4
17	750-847-13	Plug	1
18	750-847-16	Screw	2
19	750-847-17	Valve Plate	1
20	750-847-18	Cylinder Block	1
21	750-847-19	Thrust Bearing	1
22	750-847-20	Swash Plate	1
23	750-128-38	Slot Guide	1
24	750-847-21	Trunnion Arm	1
25	750-849	Seal Kit	1

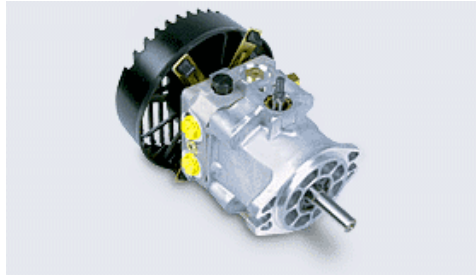
PUMP LINKAGE DRAWING



PUMP LINKAGE PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	750-800	Pump	1
2	750-228-30	Bushing	1
3	750-343-1	Shift Lever Top (New)	1
3	750-343	Shift Lever Top (Old)	1
4	750-344-1	Shift Lever Bottom (Sq. Hole .470)	1
4	750-344	Shift Lever Bottom (Sq. Hole .350)	1
5	750-228-31	Bushing	1
6	750-345	Shift lever Right	1
7	750-229-1	Gold Spring	1
8	750-228-32	Nylon Washer	1
9	750-346	Shift Lever Left	1
10	750-228-33	Nylon Washer	1
11	750-228-34	5/16" Flat Washer	2
12	750-228-35	Allen Head Bolt	1
13	750-228-36	Allen Head Bolt	1
14	750-228-37	Pump Bracket Kit	1

PERFORMANCE CHART



Product Type		PC	PG	PJ	PR	PW
Displacement	in ³ /rev [cc/rev]	0.37 [6.1]	0.62 [10.2]	0.73 [12]	0.97 [16]	1.33 [21.8]
Input Speed						
Maximum Unloaded	rpm	3600	3600	3600	3600	3600
Minimum Loaded	rpm	1800	1800	1800	1800	1800
System Operating Pressure						
Continuous	psi [bar]	750 [51]	1000 [70]	1000 [70]	1250 [86]	1250 [86]
Intermittent	psi [bar]	1750 [120]	2100 [145]	2100 [145]	2500 [172]	2500 [172]
Peak	psi [bar]	2500 [172]	3500 [240]	3500 [240]	3750 [260]	3750 [260]
Pump Performance						
@ 2400 rpm/1000 psi	gpm [l/min]	3.6 [13.6]	6.1 [23.1]	7.1 [26.8]	9.6 [36.3]	13.1 [49.6]
@ 3000 rpm/1000 psi	gpm [l/min]	4.5 [17.0]	7.6 [28.8]	8.9 [33.6]	12 [45.4]	16.4 [62.1]
@ 3600 rpm/1000 psi	gpm [l/min]	5.4 [20.4]	9.2 [34.8]	10.8 [40.8]	14.4 [54.5]	19.6 [74.2]
Case Pressure						
Maximum @ Cold Start	psi [bar]	10 [0.7]	10 [0.7]	10 [0.7]	25 [1.7]	25 [1.7]
Continuous - Max.	psi [bar]	4 [0.3]	4 [0.3]	4 [0.3]	10 [0.7]	10 [0.7]
Inlet Vacuum						
Maximum Continuous Inches Mercury		4	4	4	4	4
Charge Pump Displacement(s)	in ³ /rev [cc/rev]	.13 [2.1]	0.11/0.13 [1.9/2.1]	0.19 [3.2]	0.13/0.19 [2.1/3.2]	0.13/0.19 [2.1/3.2]
Auxiliary Pump Displacement	in ³ /rev [cc/rev]	0.19 [3.2]	0.19 [3.2]	0.19 [3.2]	0.19 [3.2]	0.19 [3.2]
Auxiliary Pump Relief Setting	psi [bar]	650 [45]	650 [45]	650 [45]	650 [45]	650 [45]
Auxiliary Pump Performance @3200 rpm, 500 psi, 70 SUS [13 Cst] oil, & 180°F	gpm [l/min]	1.8 - 2.0 [6.8 - 7.6]	1.8 - 2.0 [6.8 - 7.6]	1.8 - 2.0 [6.8 - 7.6]	1.8 - 2.0 [6.8 - 7.6]	1.8 - 2.0 [6.8 - 7.6]

Control Torque Required to Stroke Pump
[Approximate - 20° External Stroke Angle]

	lb-in / 1000 psi [N-m / 70 bar]	75 [8.5]	85 [9.6]	85 [9.6]	95 [10.7]	105 [11.9]
	lb-in / 500 psi [N-m / 35 bar]	55 [6.2]	60 [6.8]	60 [6.8]	75 [8.5]	85 [9.6]
Pump Oil Temperature						
Maximum Intermittent (hottest point)	°F [°C]	230 [110]	230 [110]	230 [110]	230 [110]	230 [110]
Normal Operating Range	°F [°C]	-10 to 200 [-23 to 93]	-10 to 200 [-23 to 93]	-10 to 200 [-23 to 93]	-10 to 200 [-23 to 93]	-10 to 200 [-23 to 93]
Fluid Viscosity Limits @ 230°F [110°C]						
Optimum	SUS[cSt]	70 [13]	70 [13]	70 [13]	70 [13]	70 [13]
Minimum	SUS[cSt]	55 [9]	55 [9]	55 [9]	55 [9]	55 [9]
Weight of Unit						
	lbs [kg]	7 [3.2]	8 [3.6]	12.65 [5.7]	12 [5.4]	14 [6.3]
Inlet Filtration Requirement						
Nominal	micron	25	25	25	25	25

The Smithco Commercial Products Two-Year Limited Warranty

Smithco, Inc. (Smithco) warrants your 2007 or newer Smithco Commercial Product (“Product”) purchased after January 1, 2007, to be free from defects in materials or workmanship for the period of time listed below. Where a warrantable condition exists, Smithco will repair the Product at no cost to you including diagnosis, labor (at the Smithco standard labor rate, subject to the Smithco flat rate schedule), and parts.

Warranty Duration Is:

1. Two years, 1500 operational hours* from the date of delivery to the original purchaser or three years from the date of original manufacturer of the product, whichever occurs first. (*Products equipped with hour meter).
2. Products used in rental situations are covered for 90 days from date of delivery to original user/renter.

Owner responsibilities:

As the Product owner, you are responsible for required maintenance and adjustments stated in your Owner’s Manual. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim. **You are particularly responsible to train all present and future operators of this product on the safe operation of this product at your location.**

Instructions for Obtaining Warranty Service:

You are responsible for notifying the Authorized Smithco Products Distributor from whom you purchased the Product as soon as you believe a warrantable condition exists and not later than 30 days from discovery of the condition.

If you need help locating an Authorized Smithco Distributor, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Smithco Product Support Department
Highway SS @ Poplar St.
Cameron, Wisconsin 54822
Telephone: 715-458-4192 E-Mail: ProductSupport@Smithco.com

Maintenance Parts:

Parts scheduled for replacement as required maintenance (“Maintenance Parts”), are warranted for the period of time up to the scheduled replacement time for that part.

Items/Conditions Not Covered:

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. The items/conditions listed below are not covered by this warranty.



Product failures which result from the use of non-Smithco replacement parts, or from installation and use of add-on, modified, or unapproved accessories are not covered.



Product failures which result from failure to perform required maintenance and/or adjustments are not covered.



Product failures that result from operating the Product in an abusive, negligent or reckless manner are not covered.



This warranty does not apply to parts subject to consumption through use, unless found to be defective. Examples of parts which are consumed, or used up during normal Product operation include, but are not limited to: blades, tines, teeth, scarifiers, rakes, plates, wear plates, castor wheels, tires, batteries, filters, belts, nozzles, etc.



This warranty does not apply to failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, or chemicals, etc.



This warranty does not apply to normal "wear and tear" items. Normal "Wear and Tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.



Smithco may require the return of failed parts or components in order determine the validity of any warranty claim.



Smithco will not be obligated to replace components of other manufacturers if inspection by the original component manufacturer indicates that failure was due to normal wear and tear, expected consumption through use or improper care or service.

Other Legal Disclaimers:

The above remedy for product defects through repair or replacement by an authorized Smithco distributor or dealer is the purchaser's sole remedy for any defect. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

THERE ARE NO OTHER EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH ABOVE. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE DURATION OF THE LIMITED WARRANTIES CONTAINED HEREIN.

Some States may not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

THE SMITHCO COMPANY IS NOT LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT, INCLUDING ANY COST OR EXPENSE OF PROVIDING A SUBSTITUTE PRODUCT OR SERVICE DURING PERIODS OF MALFUNCTION OR NON-USE.

Some states may not allow the exclusion of indirect, incidental or consequential damages, so the above exclusion may not apply to you.

Smithco neither assumes, nor authorizes any person to assume for it, any other liability in connection with the sale or use of this product.

**SMITHCO, INC.
WANYE, PA 19087**

