



Parts & Service

Operators

Fairway Ultra 10
Remote Hydraulics Model 12-501-A
Self-Contained Hydraulics
Model 12-500-A

SN FWR-058

December 2015

Product Support:

Hwy 55 & Poplar Ave; Cameron WI 54822

1-800-891-9435 productsupport@smithco

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Thank you for purchasing a **Smithco** product.

Read this manual and all other manuals pertaining to the Fairway Ultra 10, FairWay Roller (FWR) carefully as they contain safety, operating, assembly and maintenance instructions. Failure to do so could result in personal injury or equipment damage.

Keep manuals in a safe place after operator and maintenance personnel have read them. Right and left sides are from the operator's seat, facing forward.

WARNING

Failure to follow cautious operating practices can result in serious injury to the operator or other persons. The owner must understand these instructions, and must allow only trained persons who understand these instructions to operate this vehicle.

All **Smithco** machines have a Serial Number and Model Number. Both numbers are needed when ordering parts.

For product and accessory information, help finding a dealer, or to register your product please contact us at www.Smithco.com.

Information needed when ordering replacement parts:

1. Model Number of machine
2. Serial Number of machine
3. Name and Part Number of part
4. Quantity of parts

For easy access record your Serial and Model numbers here.

SMITHCO		DATE OF MFG.	
WAYNE, PENNSYLVANIA 19087 USA 610-688-4009 Fax 610-688-6069		<input type="text"/>	
SERIAL NO.	kW/hp	<input type="text"/>	<input type="text"/>
MODEL NO.	kg/lb	<input type="text"/>	<input type="text"/>



SAFE PRACTICES

1. It is your responsibility to read this manual and all publications associated with this machine.
2. Never allow anyone to operate or service the machine or its attachments without proper training and instructions. Never allow minors to operate any equipment.
3. Learn the proper use of the machine, the location and purpose of all the controls before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
4. Wear all the necessary Personal Protective Equipment (PPE) to protect our head, eyes, ears, hands and feet. Operate the machine only in daylight or in good artificial light.
5. Inspect the area where the equipment will be used. Beware of overhead obstructions and underground obstacles. Stay alert for hidden hazards.
6. Never operate equipment that is not in perfect working order or without decals, guards, shields, or other protective devices in place.
7. Never disconnect or bypass any switch.
8. Never use your hands to search for oil leaks. Hydraulic fluid under pressure can penetrate the skin and cause serious injury.
9. This machine demands your attention. To prevent loss of control or tipping of the vehicle:
 - A. Use extra caution in backing up the vehicle. Ensure area is clear.
 - B. Do not stop or start suddenly on any slope.
 - C. Reduce speed on slopes and in sharp turns. Use caution when changing directions on slopes.
 - D. Stay alert for holes in the terrain and other hidden hazards.
 - E. Operate equipment up and down slopes, never across the face.
 - F. Before unhitching, lower jack stands and secure pins.
10. Before leaving operator's position for any reason:
 - A. Disengage all drives.
 - B. Lower all attachments to the ground.
 - C. Shut engine off and remove the ignition key.
11. Keep hands, feet and clothing away from moving parts. Wait for all movement to stop before you clean, adjust or service the machine.
12. Keep the area of operation clear of all bystanders.
13. Never carry passengers.
14. Use parts and materials supplied by **Smithco** only. Do not modify any function or part.
15. Avoid sharp turns. Watch the tires of the tractor while turning to make sure they do not contact the drawbar of the Fairway Roller .

These machines are intended for professional maintenance on golf courses, sports turf, and any other area maintained turf and related trails, paths and lots. No guaranty as to the suitability for any task is expressed or implied.

SPECIFICATIONS FOR FAIRWAY ULTRA 10

WEIGHTS AND DIMENSIONS

Length	81.5" (2.07 m) Folded Width x 147" (3.73 m) Overall Length
Width	120" (3.05 m) Effective Rolling Width 125" (3.18 m) Overall Width Extended x 144" (3.66 m) Overall Length
Water Weight Capacity	100 Gallons (378,5 l)
Rolling Weight	2220 lbs (1007 kg)
Dry Weight 12-501	1360 lbs (616.8 kg)
Dry Weight 12-500	1570 lbs (712 kg)
Tongue Weight in Transport	538 lbs (244 kg)
Tongue Weight While Rolling	80 lbs (36,3 kg)

TIRES & WHEELS

Two 24 x 13.00 x 12 (18 psi (1.3 bar))

GROUND PRESSURE

9.25 psi (with 100 gallons of water)
5.6psi empty

BATTERY (Not Included)

	Deep Cycle 24F-12 Volt
BCI Group	Size 24F
Cold Cranking Amps	600 minimum
Ground Terminal Polarity	Negative (-)
Maximum Length	10.25" (26 cm)
Maximum Width	6.88" (17 cm)
Maximum Height	10" (25 cm)

FLUID CAPACITY

Hydraulic Fluid	1.50 Gal (5.68 liter) MileMaster 303 Tractor HYD Fluid or equivalent
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TOW VEHICLE

Minimum drawbar power of 20 HP (15 kW)
Heavy Duty Vehicle with 4 wheel brakes
Capable of 550 lb (249.5kg) tongue weight.

ACCESSORIES

TOW OPTIONS

78-244 Clevis
78-536 2" Ball
78-245 2-5/16" Ball

LIFT OPTIONS

12-500 Self Contained Hydraulic Power Unit
12-501 Tractor Hydraulics

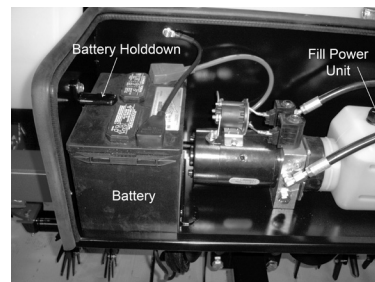
SETUP

ELECTRIC/HYDRAULIC LIFT SYSTEM 12-500

NOTE:

If you purchased a 12-500 Electric/hydraulic Lift System, it will come installed. Battery not included.

1. If tongue is folded up, remove bracket, unfold tongue and hook up adjustment link. See Storage section for more information.
2. Install an Automotive type 24F-12 Volt battery into the Motor Box and secure with the battery hold-down.
3. Fill the power unit with approximately 1.50 Gal (5.68 liter) MileMaster 303 Tractor HYD Fluid or equivalent.



REMOTE HYDRAULIC LIFT SYSTEM 12-501

1. If tongue is folded up, remove bracket, unfold tongue and hook up adjustment link. See Storage section for more information.
2. Route the hoses through the trough in front of the ballast tank, secure in the hose clamps on the top of the tongue.

HILLSIDE OPERATION

Do NOT stop or start suddenly on any slope. Be especially cautious when changing direction. Do NOT operate on slopes greater than 20°.

IMPORTANT - Roller frame **MUST** be level in rolling position for proper operation.
- Extend and retract outboard rollers **ONLY** in raised position.

To Level Frame

1. Connect coupling to tow vehicle hitch and park on level surface.
2. Extend outboard rollers fully.
3. Lower unit completely to ground.
4. Check slope meter reading. Ball should be centered.
5. If ball is not centered in slope meter, release the lock on the adjustable link. Rotate link until ball is centered on slope gage.
6. Re-lock adjustable link bar.

To Transport

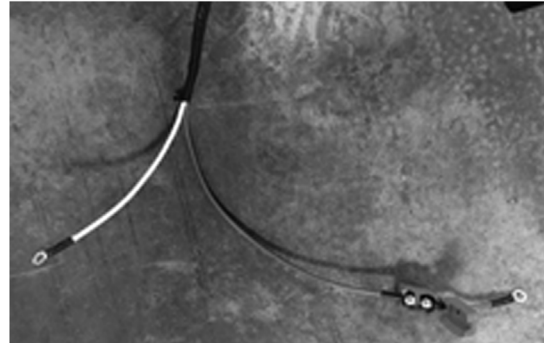
1. Lift roller to highest point.
2. Retract outboard rollers.
3. Tow at a safe speed.

To Roll Fairways

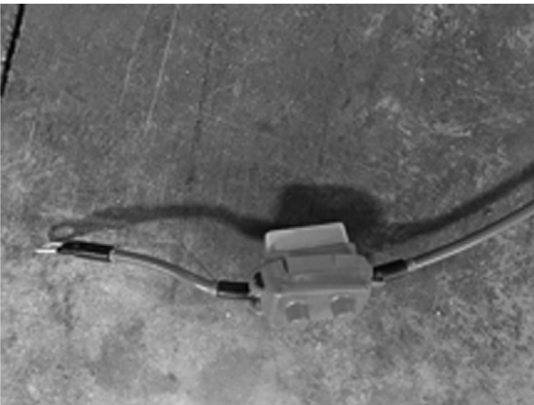
1. Extend outboard rollers.
2. Lower unit fully to ground
3. Tow and roll at a safe speed.



Use a 3" piece of red power wire. Add 2 standard eyelets to each end. Place a MIDI High Amp Fuse 60A on one end,



Hook the "open" eyelet onto the red part of the 8' Parallel cable. Add another eyelet to the black part of the Parallel cable.



Place a 12-566 Fuse holder over the 60A MIDI Fuse.

1. Route charging wire from hitch to battery. Leave enough wire at the hitch so it won't pull while turning.
2. Zip tie wire out of the way of moving parts, pinch points and hot areas.
3. Cut cable to length and crimp ring terminal to black wire and fuse link assembly to red/black wire.
4. Cover with heat shrink.
5. Connect black wire to Negative (-) battery terminal and red/black wire to positive (+) battery terminal.

MAINTENANCE



Before servicing or making adjustments to machine, stop engine on tow vehicle and remove key from ignition. Securely prop FairWay Roller on jack stands.



Use all procedures and parts prescribed by the manufacturer.

Before operating this machine, become familiar with all controls and functions of this unit and the tow vehicle. Also complete all maintenance requirements and read all safety warnings. By knowing both machines thoroughly, how it operates and by doing the prescribed maintenance steps, you can expect relatively trouble-free operation for years to come.

TOW VEHICLE

You will need a heavy duty vehicle with 4 wheel brakes.

Transport Frame Assembly requires a clevis hitch and a $\frac{3}{4}$ diameter by 4" pin with some type of lock. Tow vehicle must be capable of 550 lb tongue weight.

DAILY CHECKLIST

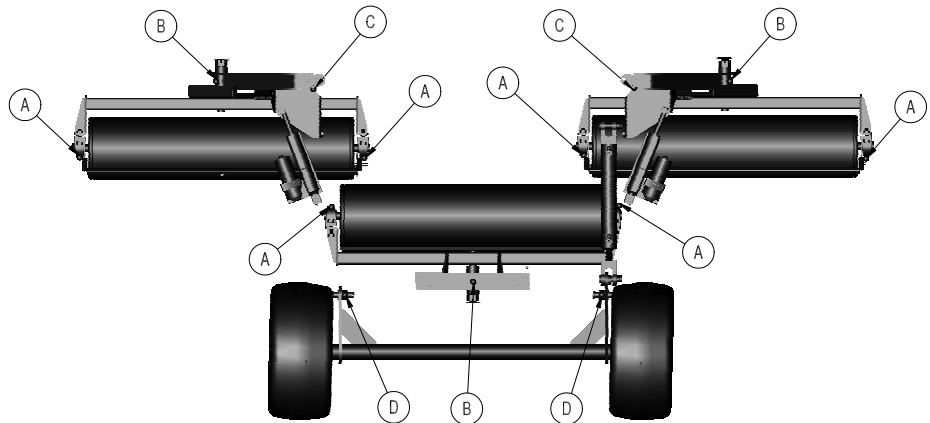
1. Check engine oil level in tow vehicle. Add as needed. DO NOT OVERFILL.
2. Check Fairway Roller for loose or missing nuts, bolts, screws, etc., and tighten or replace as needed..
3. Check that all rollers are in good condition.
4. Grease bearings daily after each use.
5. Check hydraulic hoses for any leaks or loose connections.
6. Check tire pressure. 18 psi (1.3 bar)
7. Check electrical system for loose connections or frayed wiring, including battery cables. Replace any faulty equipment or tighten if loose.

OPERATION SAFETY

1. Before operation check to see that rollers are rotating properly.
2. When not in use, remove the jack pin and extend the legs to maximum extension, reinsert the jack pin and secure with a clip. Always use jack stands for safe storage.

LUBRICATION

Use No. 2 General Purpose Lithium Base Grease and lubricate **DAILY**. The Fairway Ultra 10 has 13 grease fittings, one on each pillow block (A). One on each Roller Shaft Housing (B). One on Right and Left Wing (C). Two on Rear axle (D). When inserting grease, be careful not to ruin the seal, if this happens, replace the seal at once. Be sure to wipe grease fitting clean before injecting grease. Give only one or two pumps of grease at each lubrication.



WHEEL MOUNTING PROCEDURE

1. Set park brake on tow vehicle. Turn machine off and remove key.
2. Block one of the other wheels.
3. Loosen nuts slightly on wheel to be removed.
4. Lower unit fully to the ground until wheels lift off the ground.
5. Remove nuts, remove wheel.
6. Place new wheel on hub lining up bolt holes.
7. Torque nuts to 64-74 ft/lb (87-100Nm) using a cross pattern. Retorque after first 10 hours and every 200 hours thereafter.

TIRE PRESSURE

Caution must be used when inflating a low tire to recommended pressure. Over inflating can cause tires to explode. Tires on the machine should be 18 psi (1.3 bar). Improper inflation will reduce tire life considerably.

SERVICE INTERVALS

Before each Use:

Lubricate all bearings on rollers. Use No. 2 General Purpose Lithium Base Grease.

Check tow vehicle fluid levels.

Check fluid level in power unit. Use Universal Trans-Draulic Oil.

After Each Use:

Inspect hydraulic system for leaks or damage.

Check for loose or missing hardware.

After 10 hours:

Check rollers for wear.

Lubricate all grease fittings

After 50 hours:

Check wheel lug nuts torque to 64-74 ft/lb (87-100Nm).

Inspect tires - Check air pressure 18 psi

After 125 hours:

Lubricate wheel bearings.

After 250 Hours:

Drain oil and fill power unit with approximately 1.25 gallons (4,73 l) Universal Trans-Draulic Oil.

Tire - Torque nuts to 64-74 ft/lb (87-100Nm) using a cross pattern.



BATTERY FOR 12-500

Batteries normally produce explosive gases which can cause personal injury. Do not allow flames, sparks or any ignited object to come near the battery. When charging or working near battery, always shield your eyes and always provide proper ventilation.

Battery cable should be disconnected before using "Fast Charge".

Charge battery at 15 amps for 10 minutes or 7 amps for 30 minutes. Do not exceed the recommended charging rate. If electrolyte starts boiling over, decrease charging.

Always remove grounded (-) battery clamp first and replace it last. Avoid hazards by:

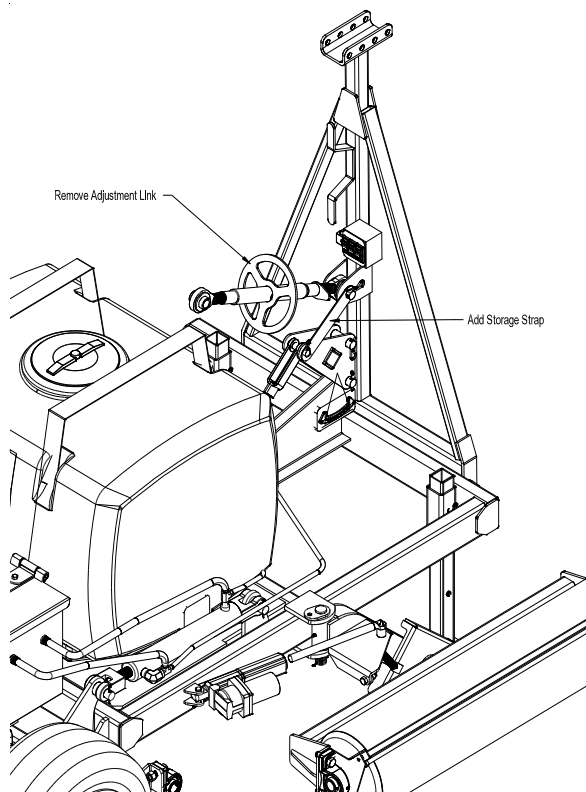
1. Filling batteries in well-ventilated areas.
2. Wear eye protection and rubber gloves.
3. Avoid breathing fumes when electrolyte is added.
4. Avoid spilling or dripping electrolyte.

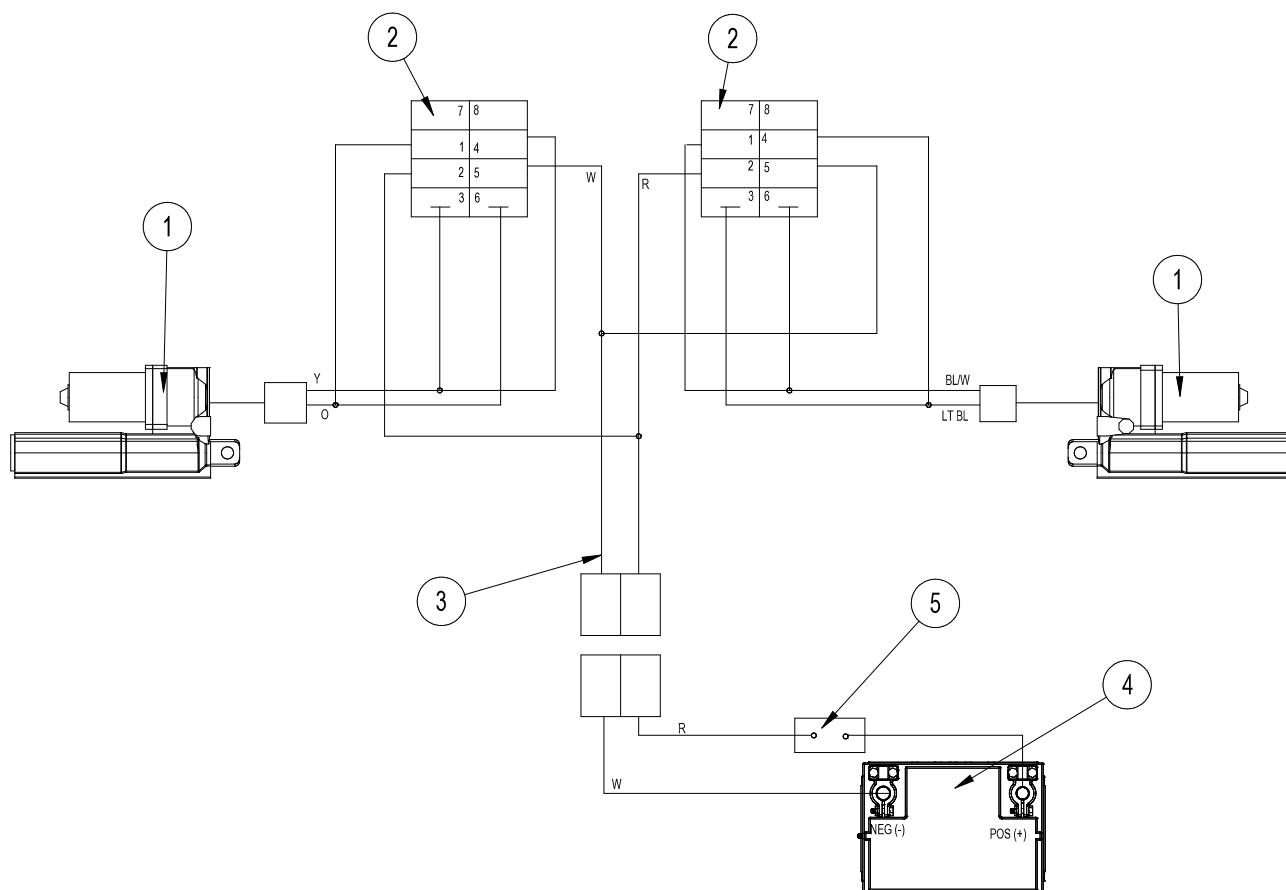


WARNING Battery Electrolyte is an acidic solution and should be handled with care. If electrolyte is splashed on any part of your body, flush all contact areas immediately with liberal amounts of water. Get medical attention immediately.

STORAGE

1. Before storing clean machine thoroughly.
2. Check bolts and nuts, tighten as necessary.
3. Make all repairs that are needed and remove any debris.
4. Store in a clean and dry area.
5. Make sure rollers are on level ground.
6. Lower the jack stands. Secure with pins.
7. Only after FairWay Roller is securely placed on a level surface should you remove from the tow vehicle.
8. Tongue can be folded up by removing the adjustment link and replacing with storage strap to minimize storage space.

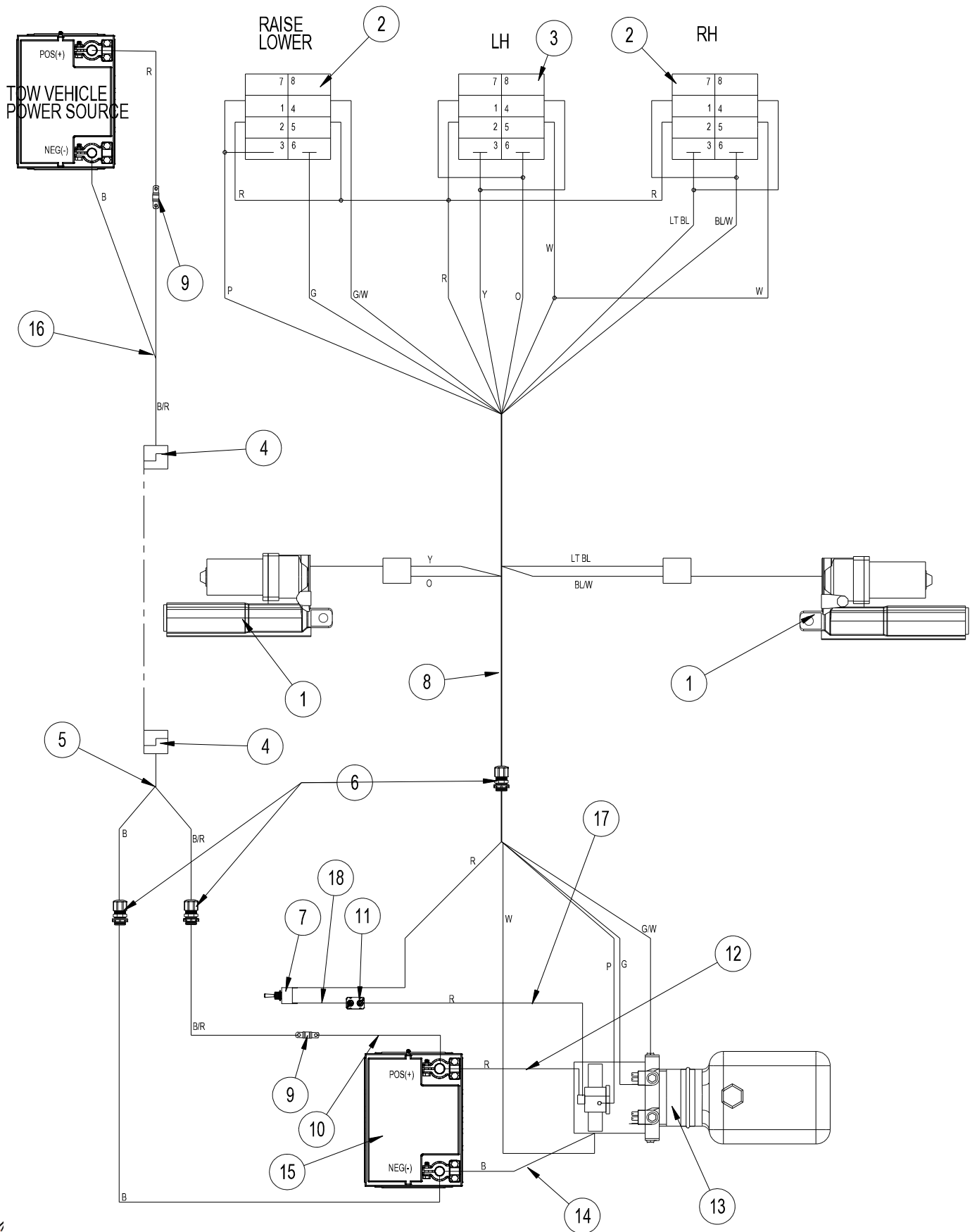




Diagrams

REF#	PART#	DESCRIPTION	QUANTITY
1	12-558	KYB Elec/Hyd Actuator w/ Connectors	2
2	15-725	Mount Panel End	2
	15-727	Rocker Switch, No Light	2
3	12-512	Main Wire Harness 12-501	1
4		Battery on Tow Vehicle	
5	8975	30 AMP Breaker	1
	8977	Red Breaker Boot	1

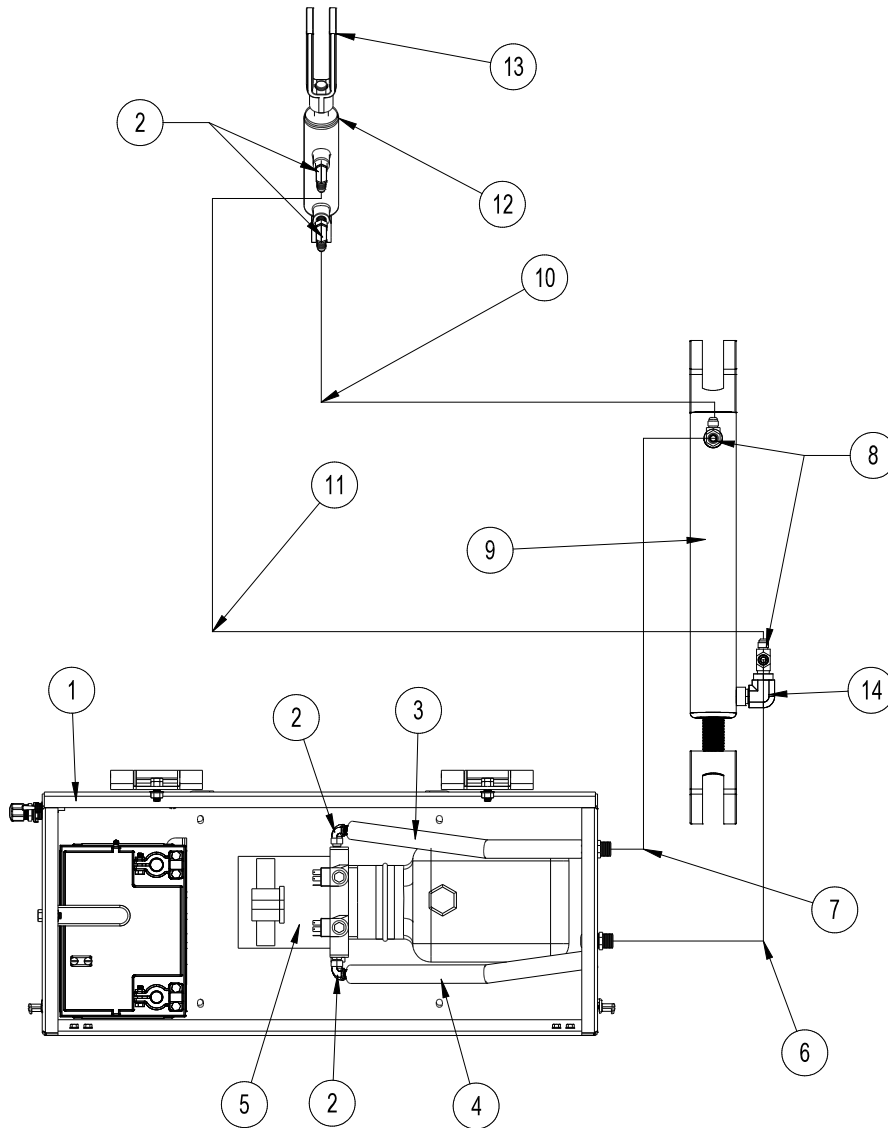
12-500 WIRING



12-500 WIRING

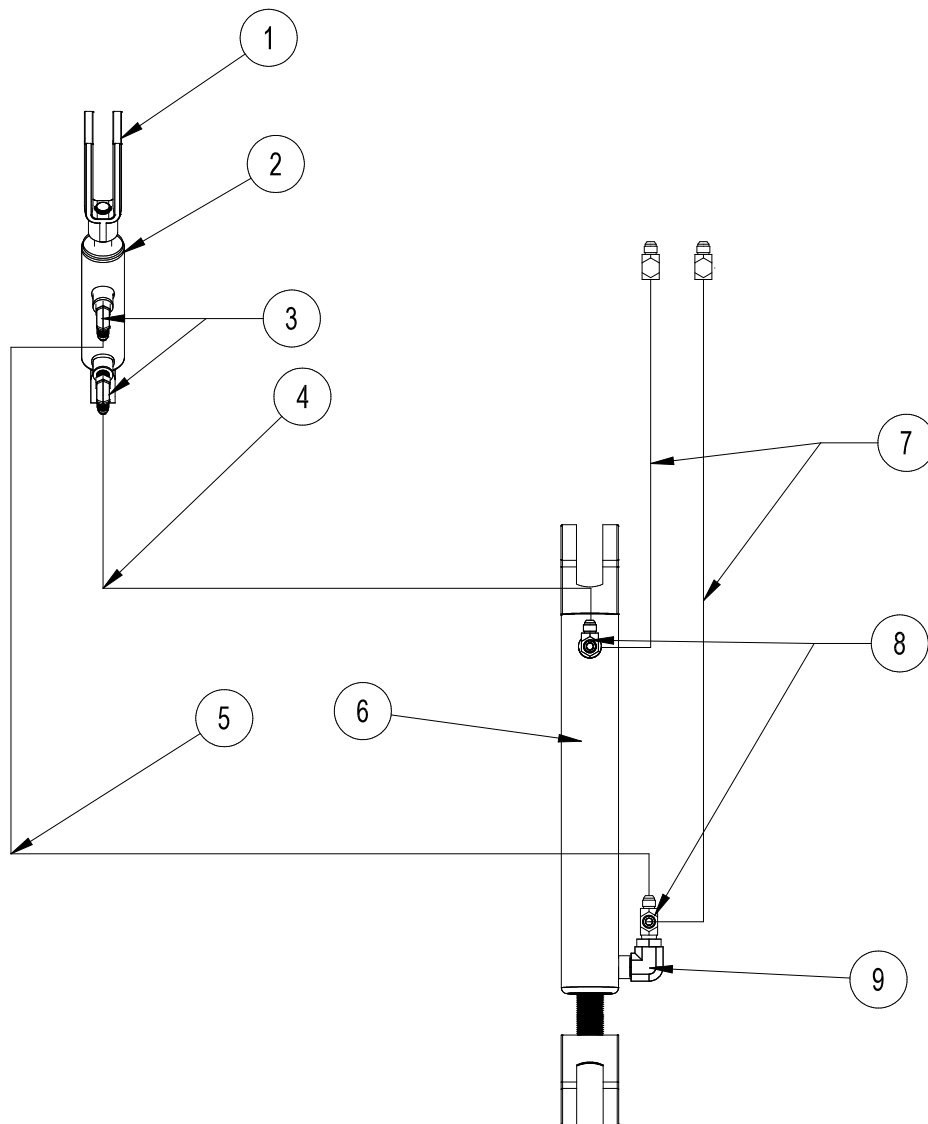
REF#	PART#	DESCRIPTION	QUANTITY
1	12-558	KYB Elec/Hyd Actuator w/ Connectors	2
2	15-725	Mount Panel End	2
	15-727	Rock Switch, No Light	2
	15-728	Centering Switch, Momentary, On-Off-On	2
3	15-729	Mount Panel Middle	1
	15-727	Rock Switch, No Light	1
	12-728	Centering Switch, Momentary, On-Off-On	1
4	74-271	Power Connector	2
5	74-270	Parallel Battery Cable	212"
	74-272	Standard Eyelet	2
6	18-445	Cord Connector	3
7	12-003	Toggle Switch	1
8	12-511	Main Wire Harness 12-500	1
9	74-273	MIDI High AMP Fuse	2
	12-566	MIDI Fuse Holder	2
	74-276	#10 Ring Terminal	4
10	74-270	Parallel Battery Cable	6"
11	8975	Circuit Breaker, 30AMP	1
	8977	Circuit Breaker Boot	1
12	22-055	Battery Cable, Red	1
13	12-546	Power Unit	1
14	76-327	Battery Cable, Black	1
15		Automotive type 24F-12 Volt Battery (not included)	1
16	74-270	Parallel Battery Cable	144"
	74-272	Standard Eyelet	2
17		Red 10GA Wire (Part of wire harness)	1
18		Red 10Ga Wire (Part of wire harness)	1

12-500 HYDRAULIC DIAGRAM



REF#	PART#	DESCRIPTION	QUANTITY
1	12-530	Motor Box	1
2	18-168	$\frac{3}{8}$ Straight Thread Elbow	4
3	74-229	Hose - 16"	1
4	74-230	Hose - 17"	1
5	12-546	Power Unit	1
6	12-517	Hose	1
7	12-518	Hose	1
8	18-464	Male Run Tee	2
9	12-514	Hydraulic Cylinder	1
10	12-515	Hose	1
11	12-516	Hose	1
12	12-519	Hydraulic Cylinder	1
13	42-040	Yoke End	1
14	18-467	$\frac{3}{8}$ " Street Elbow	1

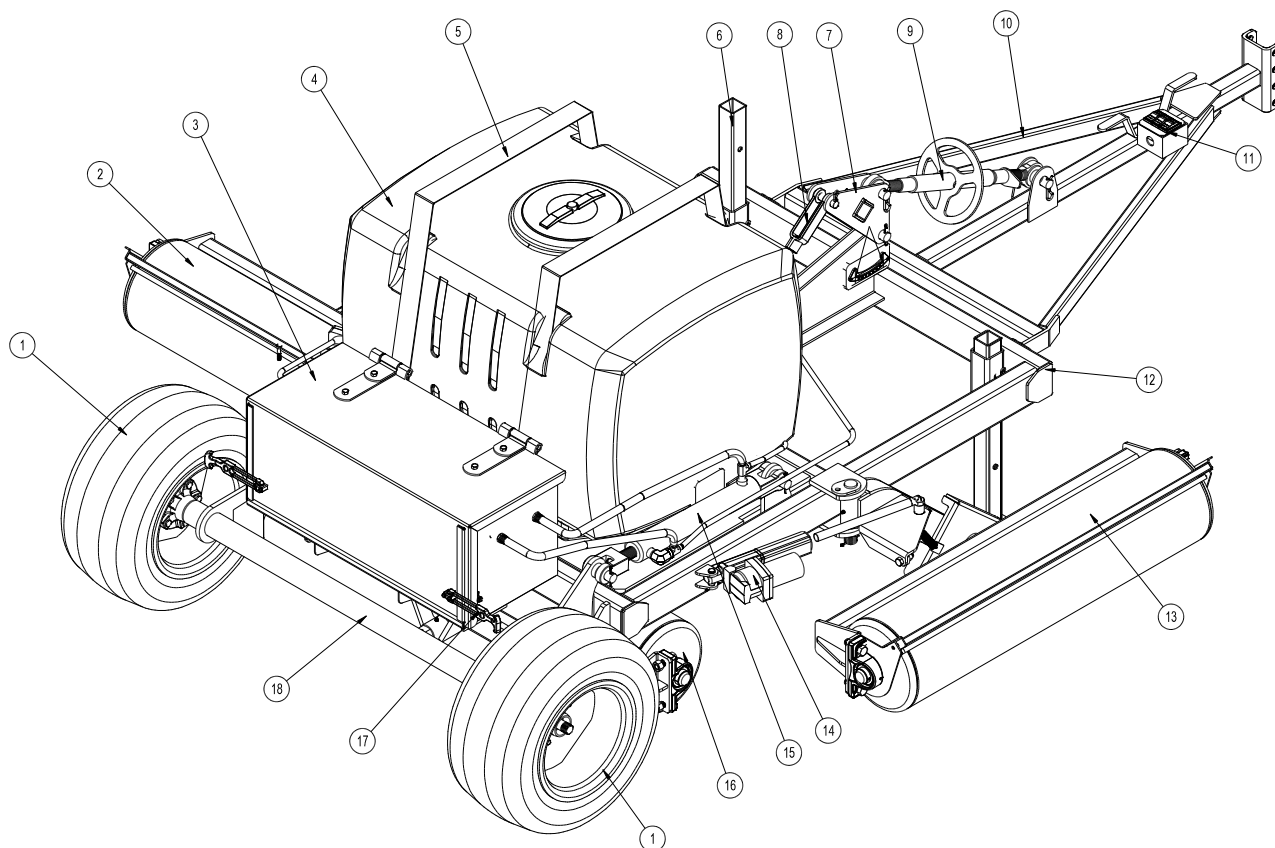
12-501 HYDRAULIC DIAGRAM



Diagrams

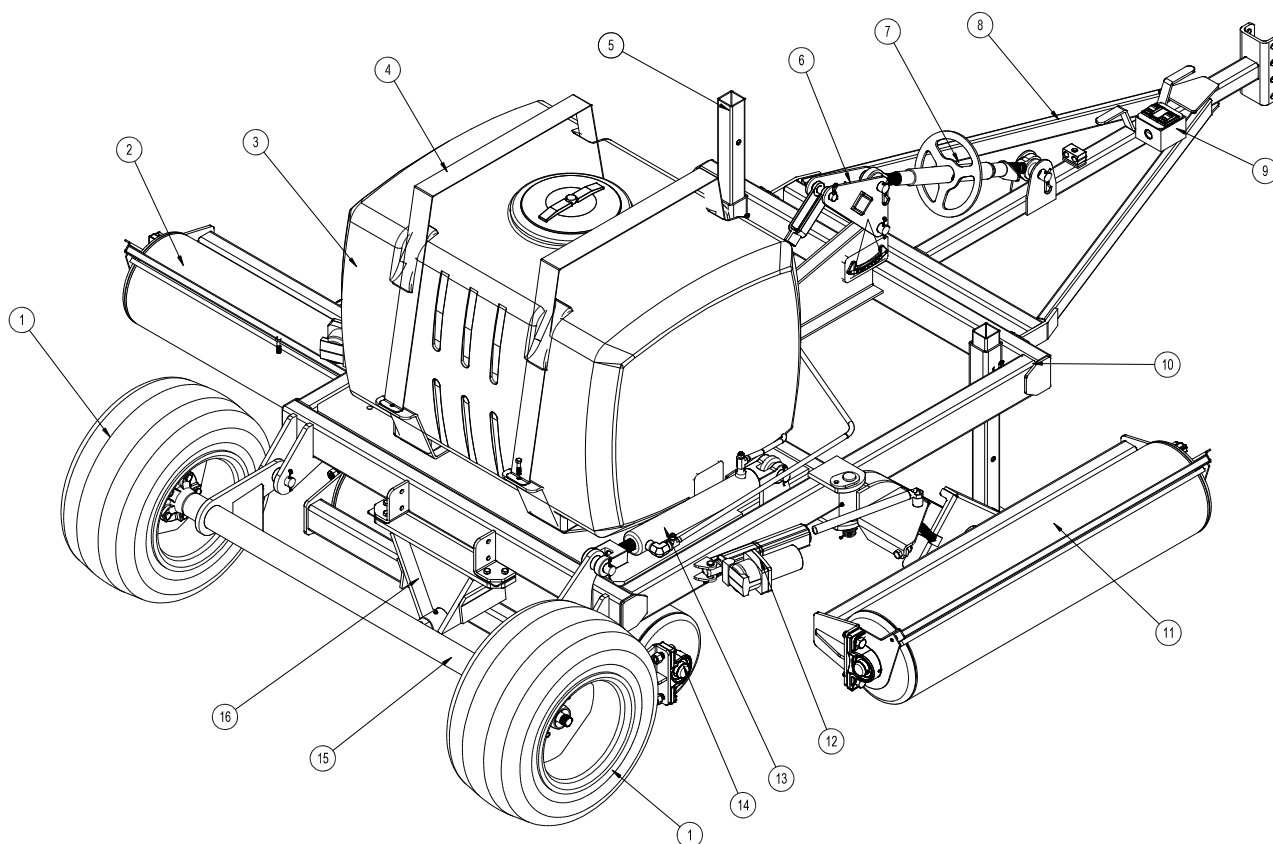
REF#	PART#	DESCRIPTION	QUANTITY
1	42-040	Yoke End	1
2	12-519	Hydraulic Cylinder	1
3	18-168	$\frac{3}{8}$ Straight Thread Elbow	2
4	12-515	Hose	1
5	12-516	Hose	1
6	12-514	Hydraulic Cylinder	1
7	74-246	Hose (to remote hydraulics)	2
8	18-464	Male Run Tee	2
9	18-467	$\frac{3}{8}$ " Street Elbow	1

12-500-A MAIN DRAWING



REF#	PART#	DESCRIPTION	QUANTITY
1	78-221	Tire and Wheel	2
	16-225-01	Tire	
	78-221-02	Wheel	
2		Left Roller Assembly (see Drawing)	
3	12-530	Motor Box	1
	74-248	Motor Box Cover	1
4	12-513	100 Gallon Tank	1
5	12-540	Tank Strap	2
6	12-542	Jack Stand	2
	18-297	Cap Plug	2
7	12-543	Lift Relay	1
8	42-040	Yoke End	1
9	12-552	Adjustment Link	1
10	12-536	Drawbar	1
11	12-527	Switch Box	1
	12-526	Switch Backing Plate	1
12	12-525	Main Frame	1
13		Right Roller Assembly (See Drawing)	
14	12-558	KYB Elec/Hyd Actuator w/ connectors	1
15	12-514	Hydraulic Cylinder	1
16		Rear Roller Assembly (See Rear Axle Drawing)	
17	15-437	Latch	2
18	12-541	Axle	1

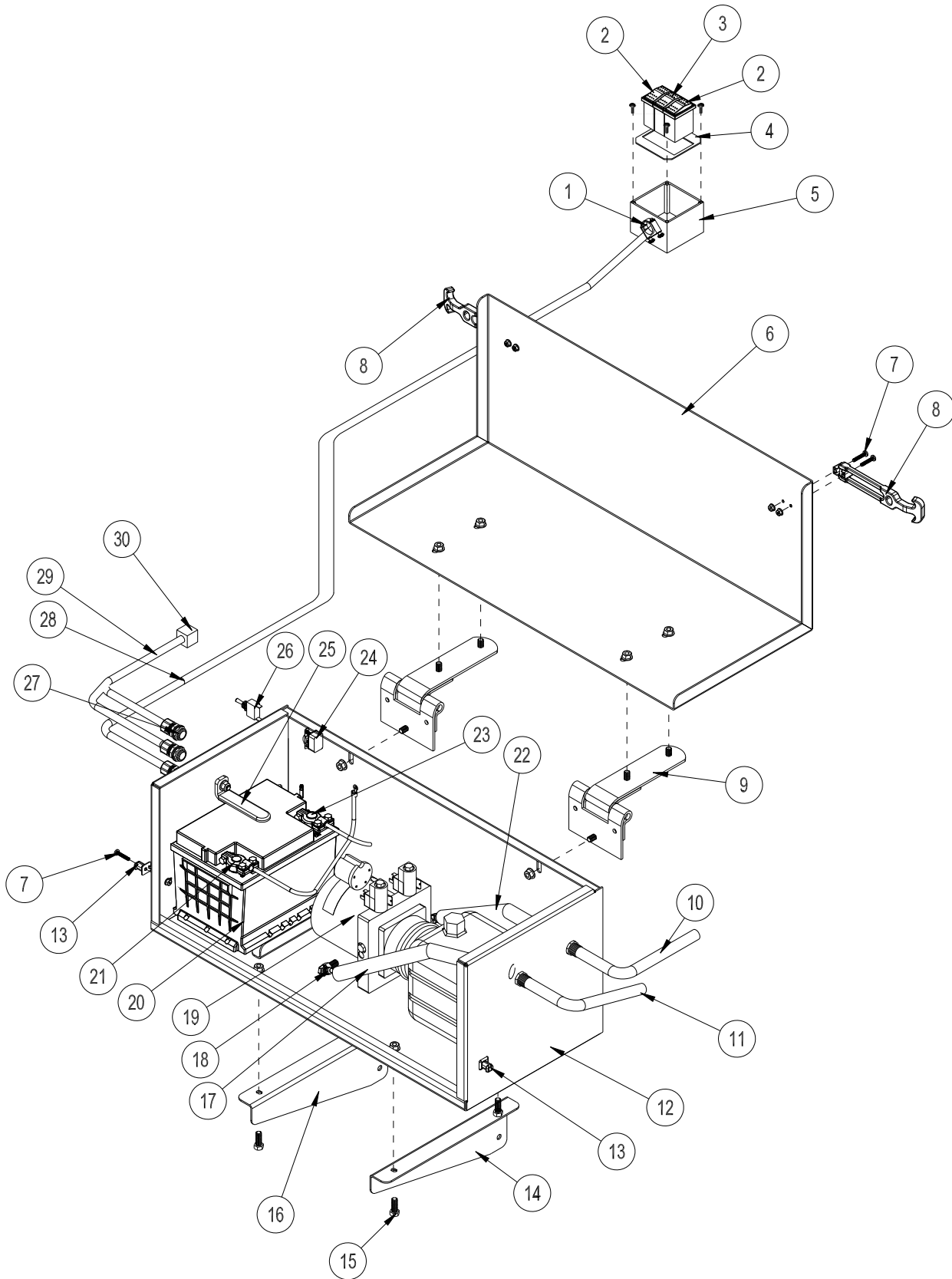
12-501-A MAIN DRAWING



REF#	PART#	DESCRIPTION	QUANTITY
1	78-221	Tire and Wheel	2
	16-225-01	Tire	
	78-221-02	Wheel	
2		Left Roller Assembly (see Drawing)	
3	12-513	100 Gallon Tank	1
4	12-540	Tank Strap	2
5	12-542	Jack Stand	2
	18-297	Cap Plug	2
6	12-543	Lift Relay	1
7	12-552	Adjustment Link	1
8	12-536	Drawbar	1
9	12-527	Switch Box	1
	12-526	Switch Backing Plate	1
10	12-525	Main Frame	1
11		Right Roller Assembly (See Drawing)	
12	12-558	KYB Elec/Hyd Actuator w/ Connectors	1
13	12-514	Hydraulic Cylinder	1
14		Rear Roller Assembly (See Rear Axle Drawing)	
15	12-541	Axle	1
16	12-544	Rear Roller Mount	1

Parts

POWER BOX DRAWING (12-500 ONLY)

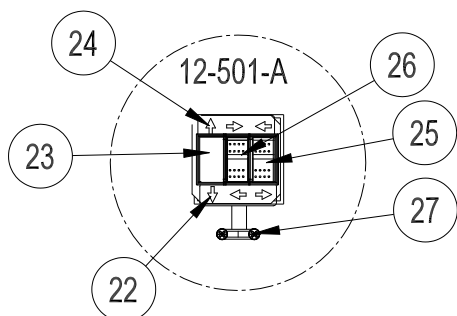
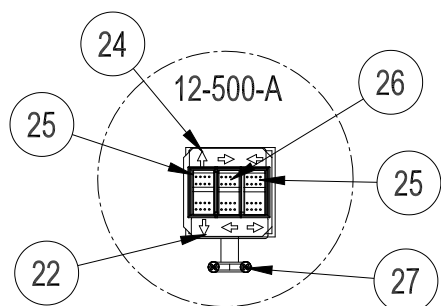
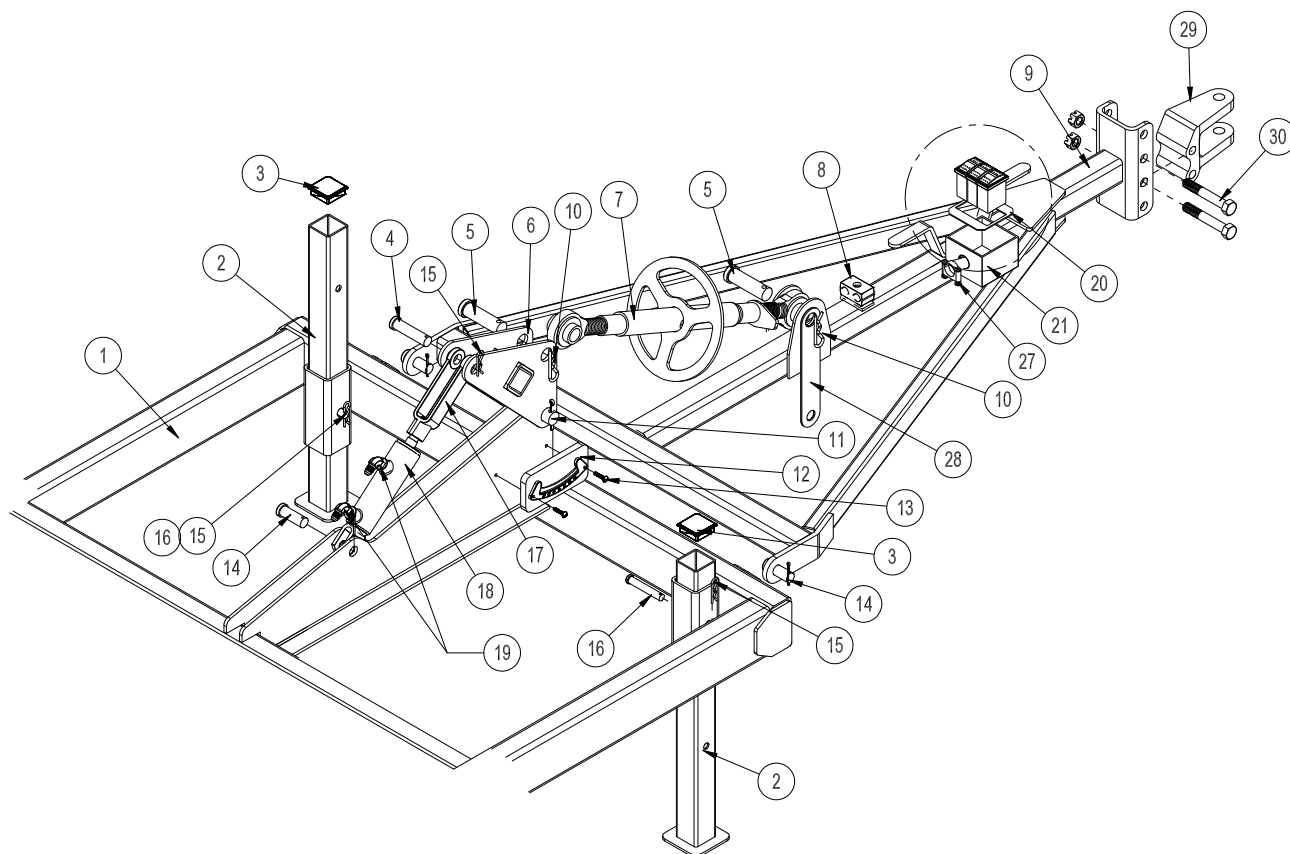


Parts

POWER BOX DRAWING (12-500 ONLY)

REF#	PART#	DESCRIPTION	QUANTITY
1	12-524	Knock Out Clamp	1
2	15-725	Mount Panel End	2
	15-727	Rock Switch, No Light	2
	15-728	Centering Switch, Momentary, On-Off-On	2
3	15-729	Mount Panel Middle	1
	15-727	Rock Switch, No Light	1
	15-728	Centering Switch, Momentary, On-Off-On	1
4	12-526	Switch Backing Plate	1
5	12-527	Switch Box	1
6	74-248	Motor Box Cover	1
	8947-74	Trim Seal, 74"	1
7	HSM-10-32-112	Machine Screw, 10-32 x 1 ¹ / ₈	6
	HNFL-10-32	Flange Lock Nut, 10-32	6
8	15-437	Latch, Complete	2
	15-437-02	Handle and Bracket	2
9	74-231	Hinge	2
	HB-516-18-100	Bolt, ⁵ / ₁₆ - 18 x 1	10
	HNFL-516-18	Flange Lock Nut, ⁵ / ₁₆ - 18	10
10	12-518	Hose	1
11	12-517	Hose	1
12	12-530	Motor Box	1
13	15-437-01	Keeper	2
14	12-529	Right Motor Box Mount	1
15	HB-38-16-100	Bolt, ³ / ₈ - 16 x 1	6
	HNTL-38-16	Lock Nut, ³ / ₈ - 16	6
16	12-528	Left Motor Box Mount	1
17	74-230	Hose	1
18	18-168	Fitting	2
19	12-546	Power Unit	1
20	Not Included	Battery - Automotive type 24F-12 Volt	
21	76-327	Battery Cable, Negative	1
22	74-229	Hose	1
23	22-055	Battery Cable, Positive	1
24	8975	Circuit Breaker	1
	8977	Circuit Breaker Boot, Red	1
25	74-234	Battery Hold Down	1
	HB-38-16-100	Bolt, ³ / ₈ - 16 x 1	1
	HNFL-38-16	Flange Lock Nut, ³ / ₈ - 16	1
	15-020	Hand Grip	1
26	12-003	Toggle Switch	1
27	18-445	Cord Connector	3
28	12-511	Wire Harness for 12-500	1
29	74-270	Parallel Battery Cable	212"
30	74-271	Multipole Pole Connector	1

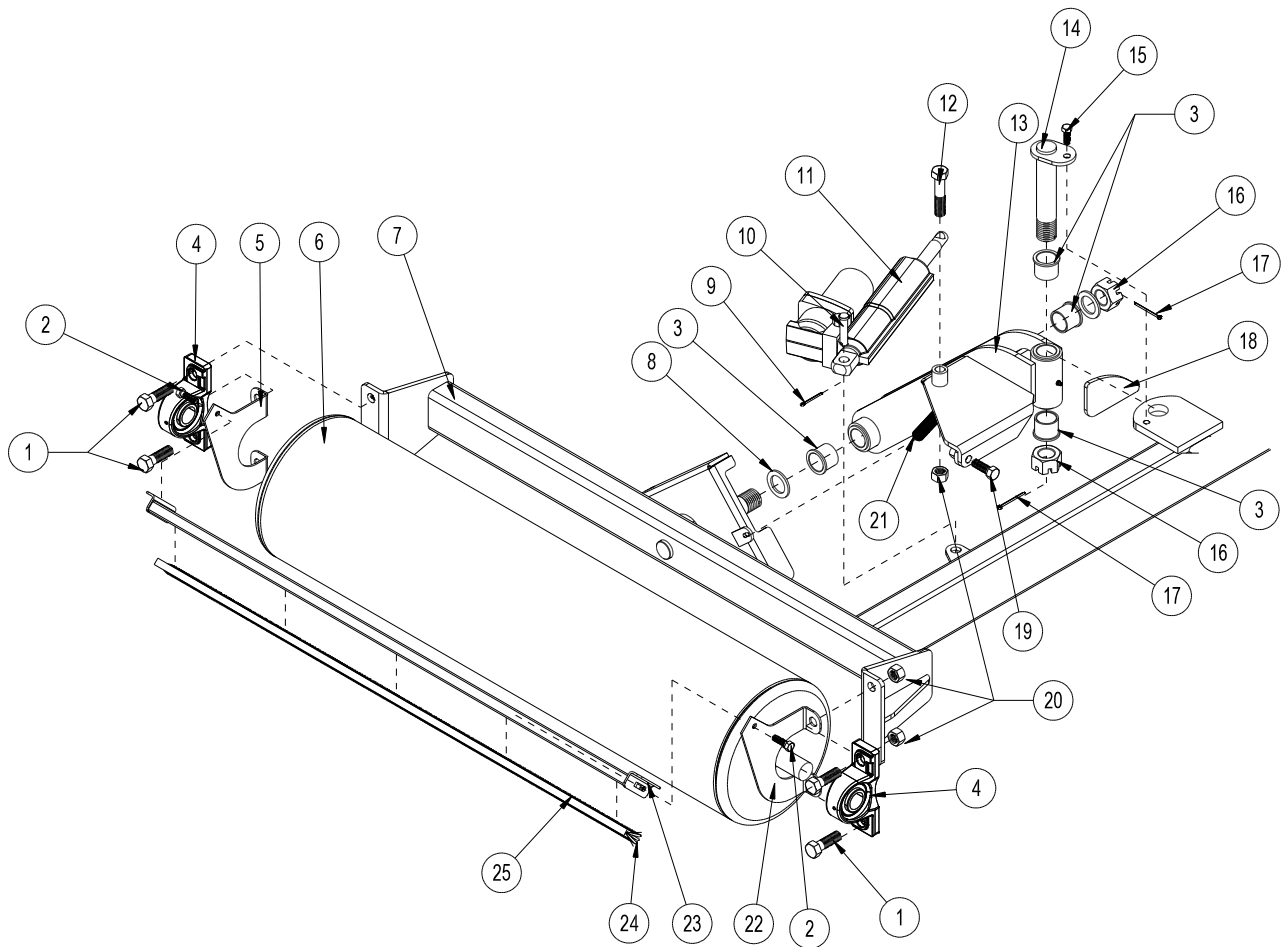
DRAWBAR DRAWING



DRAWBAR DRAWING

REF#	PART#	DESCRIPTION	QUANTITY
1	12-525	Main Frame	1
2	12-542	Jack Stand	2
3	18-297	Cap Plug	2
4	HCP-34-300	Clevis Pin, $\frac{3}{4}$ x 3	1
5	HCP-100-325	Clevis Pin, 1 x $3\frac{1}{4}$	2
6	12-543	Lift Relay	1
7	12-552	Adjustment Link	1
8	13-652	Hose Clamp (12-501 ONLY)	1
9	12-536	Draw Bar	1
10	HHP-.177	Bridge Pin, $\frac{3}{16}$	2
11	HCP-100-325	Clevis Pin, 1 x $3\frac{1}{4}$	1
	HP-18-200	Cotter Pin, $\frac{1}{8}$ x 2	1
12	76-372	Inclinometer	1
13	HSM-10-32-100	Machine Screw	2
	HNFL-10-32	Flange Lock Nut, 10 - 32	2
14	HCP-34-200	Clevis Pin, $\frac{3}{4}$ x 2	2
	HP-18-150	Cotter Pin, $\frac{1}{8}$ x $1\frac{1}{2}$	2
15	HHP-18	Bridge Pin, $\frac{1}{8}$	2
16	HCP-12-300	Clevis Pin, $\frac{1}{2}$ x 3	2
17	42-040	Yoke End	1
18	12-519	Hydraulic Cylinder	1
19	18-168	$\frac{3}{8}$ Straight Thread Elbow	2
20	12-526	Switch Backing Plate	1
21	12-527	Switch Box	1
22	12-522	Decal, Lower Control	1
23	15-729	Mount Panel Middle	1
	15-730	Mount Panel Plug	1
24	12-521	Decal, Upper Control	1
25	15-725	Mount Panel End	2
	15-727	Rocker, No Light	2
	12-728	Centering Switch, Momentary, On-Off-On	2
26	15-729	Mount Panel Middle	1
	15-727	Rocker, No Light	1
	12-728	Centering Switch, Momentary, On-Off-On	1
27	12-524	Knock Out Clamp	1
28	12-553	Storage Strap	1
29	78-244	Clevis	1
30	HB-58-11-400	Bolt, $\frac{5}{8}$ - 11 x 4	2
	HNCL-58-11	Center Lock Nut, $\frac{5}{8}$ - 11	2

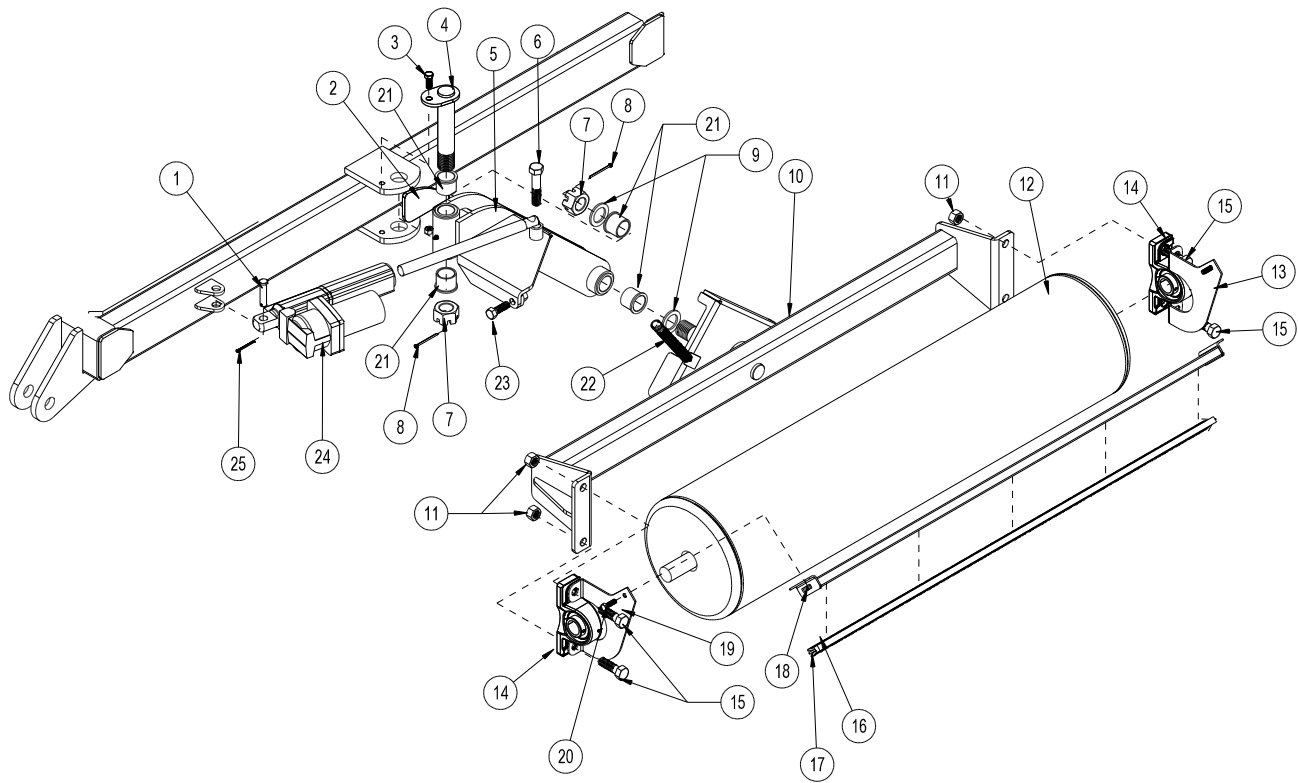
LEFT ROLLER DRAWING



LEFT ROLLER DRAWING

REF#	PART#	DESCRIPTION	QUANTITY
1	HB-58-11-200	Bolt, $\frac{5}{8}$ - 11 x 2	4
2	HB-516-18-100	Bolt, $\frac{5}{16}$ - 18 x 1	2
	HW-516	Washer, $\frac{5}{16}$	2
	HNTL-516-18	Lock Nut, $\frac{5}{16}$ - 18	2
3	18-153	Bushing (come with 12-531)	4
4	75-511	Pillow Block	2
5	12-550	LH Brush Mount	1
6	12-539	Roller Drum	1
7	12-533	LH Roller Frame	1
8	HMB-114-14	Machine Bushing, $1\frac{1}{4}$ - 14	2
9	HP-18-150	Cotter Pin, $\frac{1}{8}$ x $1\frac{1}{2}$	1
10	HCP-58-250	Clevis Pin, $\frac{5}{8}$ x $2\frac{1}{2}$	1
11	12-558	KYB Electric/Hydraulic Actuator w/ connectors	1
12	HB-58-11-300	Bolt, $\frac{5}{8}$ - 11 x 3	1
13	12-531	LH Wing	1
14	12-537	Wing Pivot Pin	1
15	HB-38-16-125	Bolt, $\frac{3}{8}$ - 16 x $1\frac{1}{4}$	1
	HNTL-38-16	Lock Nut, $\frac{3}{8}$ - 16	1
16	HNA-114-12	Axle Nut, $1\frac{1}{4}$ - 12	2
17	HP-18-200	Cotter Pin, $\frac{1}{8}$ x 2	2
18	12-557	LH Wing Pad	1
19	HB-12-13-175	Bolt, $\frac{1}{2}$ - 13 x $1\frac{3}{4}$	1
20	HNTL-58-11	Lock Nut, $\frac{5}{8}$ - 11	5
21	15-843	Tapered Extension Spring	1
22	12-551	RH Brush Mount	1
23	12-549	Brush Bracket	1
24	12-548	Strip Brush	1
25	12-555	Brush Track	1
	HRS-316-050	Rivet, $\frac{3}{16}$ x $1\frac{1}{2}$	5

RIGHT ROLLER DRAWING

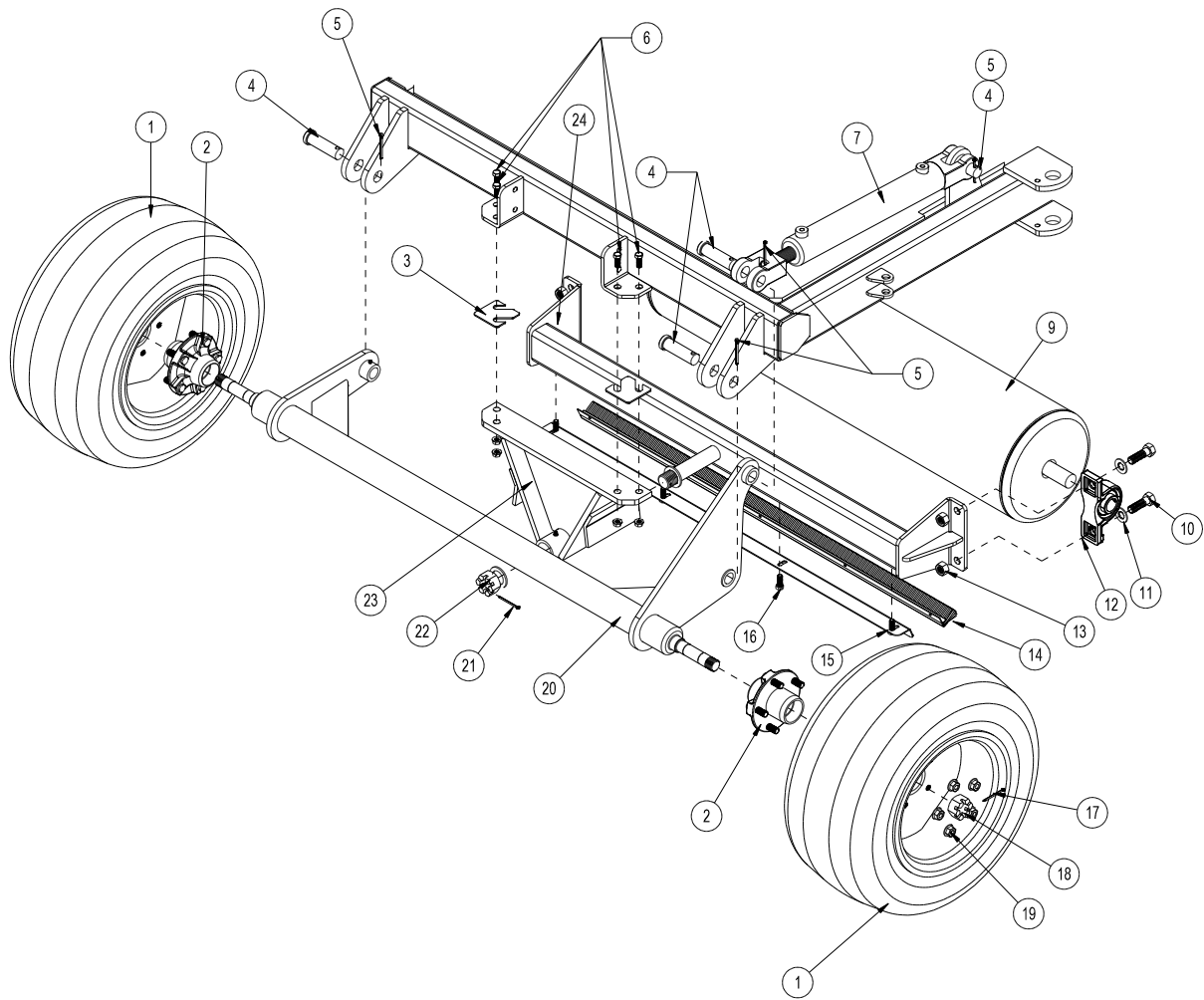


Parts

RIGHT ROLLER DRAWING

REF#	PART#	DESCRIPTION	QUANTITY
1	HCP-58-250	Clevis Pin, $\frac{5}{8}$ x $2\frac{1}{2}$	1
2	12-556	RH Wing Pad	1
3	HB-38-16-125	Bolt, $\frac{3}{8}$ - 16 x $1\frac{1}{4}$	1
	HNTL-38-16	Lock Nut, $\frac{3}{8}$ - 16	1
4	12-537	Wing Pivot Pin	1
5	12-532	RH Wing	1
6	HB-58-11-300	Bolt, $\frac{5}{8}$ - 11 x 3	1
	HNTL-58-11	Lock Nut, $\frac{5}{8}$ - 11	1
7	HNA-114-12	Axle Nut, $1\frac{1}{4}$ - 12	2
8	HP-18-200	Cotter Pin, $\frac{1}{8}$ x 2	2
9	HMB-114-14	Machine Bushing, $1\frac{1}{4}$ - 14	2
10	12-534	RH Roller Frame	1
11	HNTL-58-11	Lock Nut, $\frac{5}{8}$ - 11	4
12	12-539	Roller Drum	1
13	12-551	LH Wing	1
14	75-511	Pillow Block	2
15	HB-58-11-200	Bolt, $\frac{5}{8}$ - 11 x 2	4
16	12-555	Brush Track	1
	HRS-316-050	Rivet, $\frac{3}{16}$ x $\frac{1}{2}$	5
17	12-548	Strip Brush	1
18	12-549	Brush Bracket	1
19	12-550	LH Brush Mount	1
20	HB-516-18-100	Bolt, $\frac{5}{16}$ - 18 x 1	2
	HW-516	Washer, $\frac{5}{16}$	2
	HNTL-516-18	Lock Nut, $\frac{5}{16}$ - 18	2
21	18-153	Bushing (comes with 12-532)	4
22	15-843	Tapered Extension Spring	1
23	HB-12-13-175	Bolt, $\frac{1}{2}$ - 13 x $1\frac{3}{4}$	1
24	12-558	KYB Electric/Hydraulic Actuator w/ Connectors	1
25	HP-18-150	Cotter Pin, $\frac{1}{8}$ x $1\frac{1}{2}$	1

REAR ROLLER/ REAR AXLE DRAWING

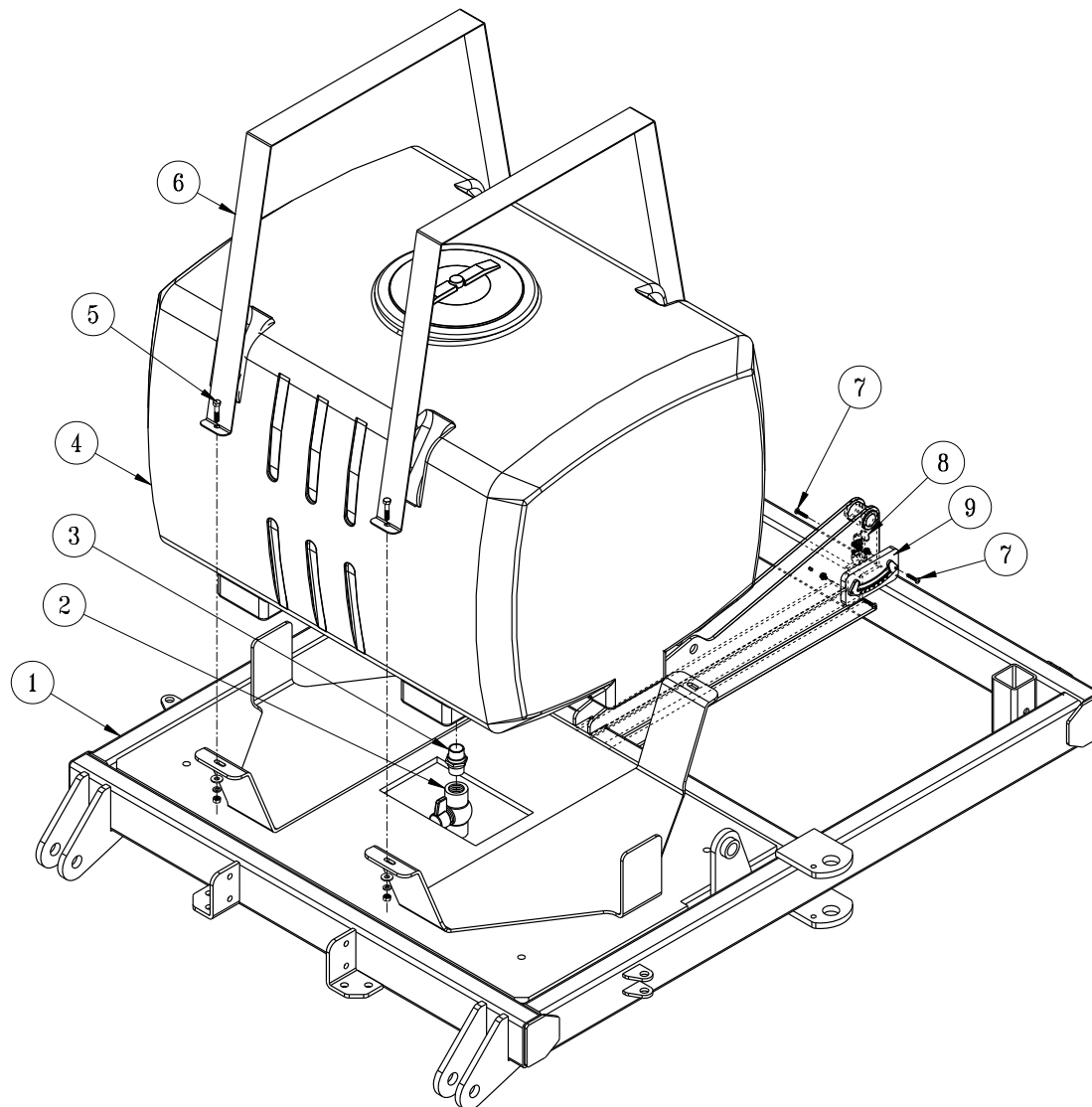


Parts

REAR ROLLER / REAR AXLE DRAWING

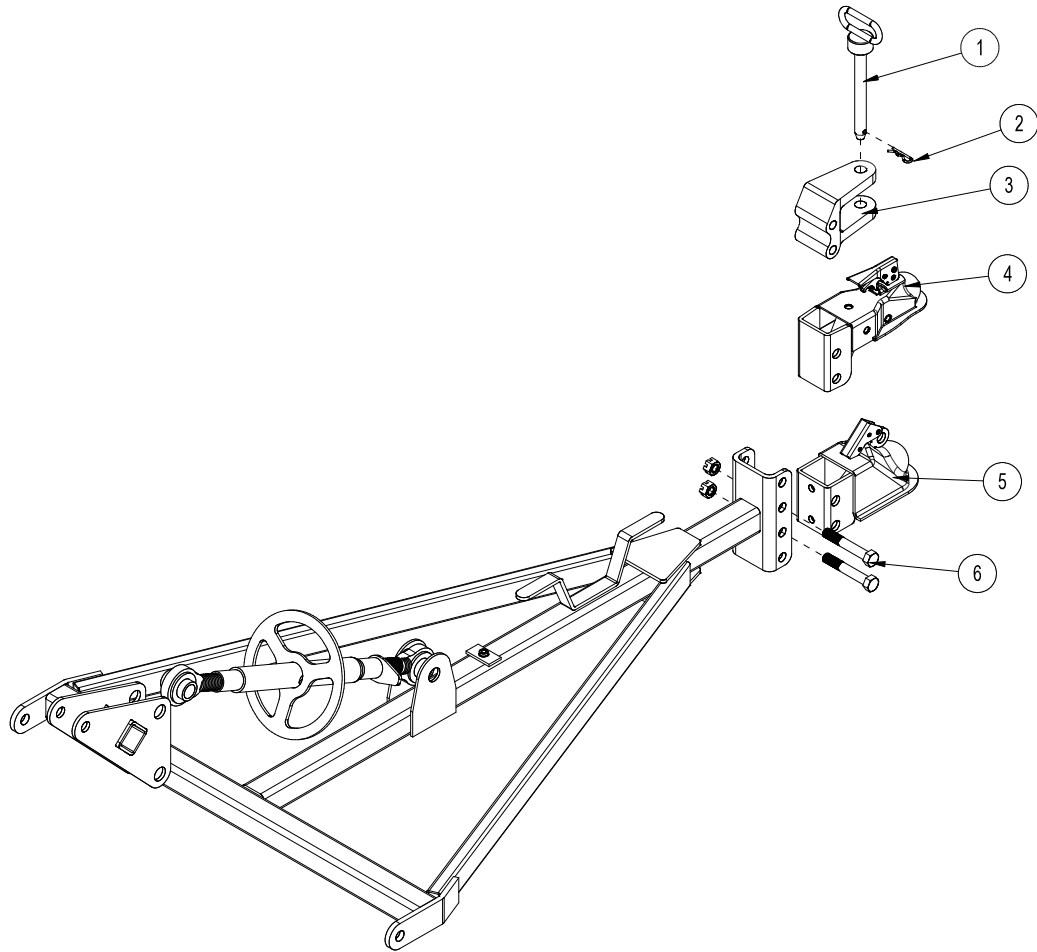
REF#	PART#	DESCRIPTION	QUANTITY
1	78-221	Tire and Wheel	2
	16-225-01	Tire	
	78-221-02	Wheel	
2	30-071	Hub	2
	30-071-01	Inner and Outter Bearing	
	30-071-02	Seal	
3	12-545	Leveling Shim	4 (as needed)
4	HCP-100-325	Clevis Pin, 1 x 3 ¹ / ₄	4
5	HP-18-200	Cotter Pin, 1/8 x 2	4
6	HB-12-13-175	Bolt, 1/2 - 13 x 1 ³ / ₄	4
	HNTL-12-13	Lock Nut, 1/2 - 13	4
7	12-514	Hydraulic Cylinder	1
9	12-539	Roller Drum	1
10	HB-58-11-200	Bolt, 5/8 -11 x 2	4
11	HW-58	Washer, 5/8	4
12	75-511	Pillow Block	2
13	HNTL-58-11	Lock Nut, 5/8 - 11	4
14	12-548	Strip Brush	1
	12-555	Brush Track	1
	HRS-316-050	Rivet, 3/16 x 1/2	5
15	12-547	Rear Brush Mount	1
16	HB-516-18-100	Bolt, 5/16 - 18 x 1	4
	HW-516	Washer, 5/16	4
	HNFL-516-18	Flange Lock Nut, 5/16 - 18	4
17	HP-18-150	Cotter Pin, 1/8 x 1 ¹ / ₂	2
18	HNAR-100-14	Slotted Jam Nut, 1 -14	2
	HP-18-150	Cotter Pin, 1/8 x 1 ¹ / ₂	2
19	60-268	Lug Bolt, 1/2 - 20 (part of hub)	10
20	12-541	Axle	1
21	HP-18-200	Cotter Pin, 1/8 x 2	1
22	HNA-114-12	Axle Nut, 1 ¹ / ₄ - 12	1
	HMB-114-14	Machine Bushing, 1 ¹ / ₄ - 14GA	2
23	12-544	Rear Roller Mount	1
24	12-535	Rear Roller Frame	1

TANK DRAWING



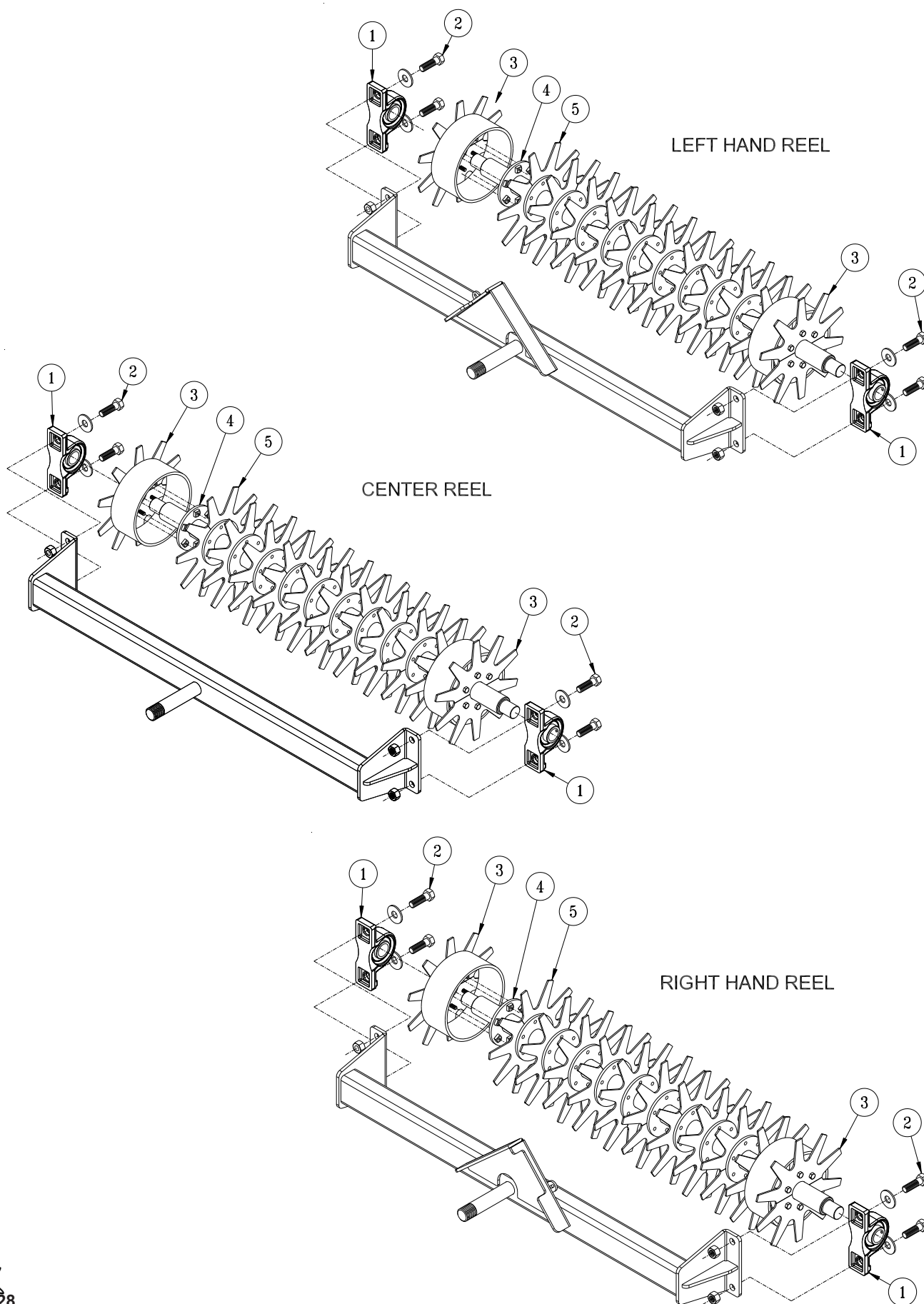
REF#	PART#	DESCRIPTION	QUANTITY
1	12-525	Main Frame	1
2	18-448	Ball Valve, 1"	1
3	16-851	Close Nipple, 1"	1
4	12-513	100 Gallon Tank	1
	12-554	Decal, Fairway Ultra 10	2
5	HB-516-18-175	Bolt, $\frac{5}{16}$ - 18 x $1\frac{3}{4}$	4
	HW-516	Washer, $\frac{5}{16}$	4
	HWL-516	Lock Washer, $\frac{5}{16}$	4
	HNTL-516-18	Lock Nut, $\frac{5}{16}$ - 18	4
6	12-540	Tank Strap	2
7	HSM-10-32-100	Machine Screw, #10 - 32 x 1	3
	HNFL-10-32	Flange Lock Nut, #10 - 32	3
8	8-732	Hose Clamp	2
9	76-372	Inclinometer	1

HITCH OPTIONS DRAWING



REF#	PART#	DESCRIPTION	QUANTITY
1	74-257	Hitch Pin	1
2	HHP-18	Bridge Pin, ¹ / ₈	1
3	78-244	Clevis (comes on machine)	1
4	78-356	2" Ball Coupling	1
5	78-245	2 ⁵ / ₁₆ Ball Coupling	1
6	HB-58-11-500	Bolt, ⁵ / ₈ - 11 x 5 (comes on machine)	2
	HNTL-58-11	Center Lock Nut, ⁵ / ₈ - 11 (comes on machine)	2

12-502 SPIKER REEL SET DRAWING



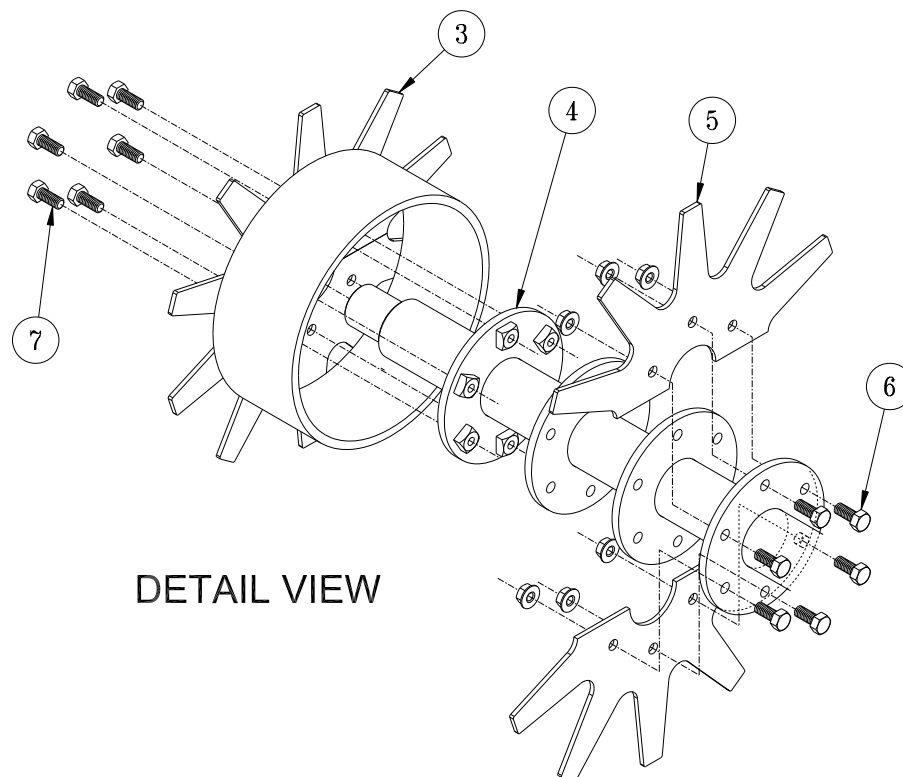
12-502 SPIKER REEL SET PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	75-511	Pillow Block	6
2	HB-58-11-200	Hex Bolt, $\frac{5}{8}$ - 11 x 2	12
	HW-58	Flat Washer, $\frac{5}{8}$	12
	HNTL-58-11	Nylon Lock Nut, $\frac{5}{8}$ - 11	12
3	12-560	Depth Wheel	6
4	12-559	Spiker Shaft	3
5	12-561	Spiker Half	60
6	HB-516-18-075	Hex Bolt, $\frac{5}{16}$ - 18 x $\frac{3}{4}$	180
	HNFL-516-18	Flange Lock Nut, $\frac{5}{16}$ - 18 x $\frac{3}{4}$	180
7	HB-516-18-075	Hex Bolt, $\frac{5}{16}$ - 18 x $\frac{3}{4}$	36

SPIKER REEL SET INSTRUCTIONS

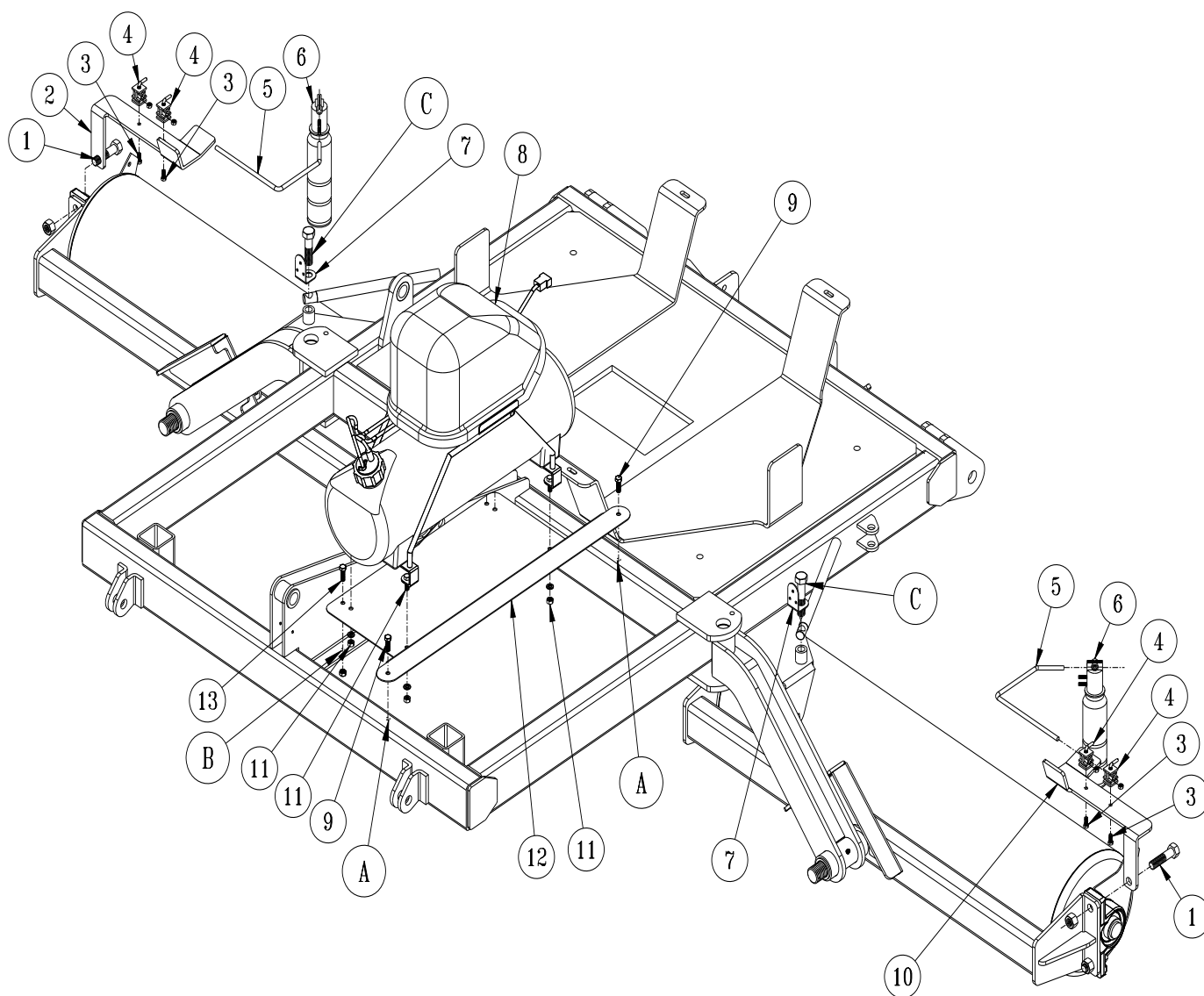
The Spiker Reels arrive fully assembled and only need to be mounted to the roller frames in place of the roller drums. ***This process should be performed with more than one person.***

1. With another person, remove the three Roller Drums, including the Pillow Blocks and hardware, from the Fairway Roller.
2. Mount each Spiker Reel Assembly (**Refs. 1, 3-7**) to each roller frame using the $\frac{5}{8}$ - 11 Hex Bolts, Flat Washers and Lock Nuts (**Ref. 2**).

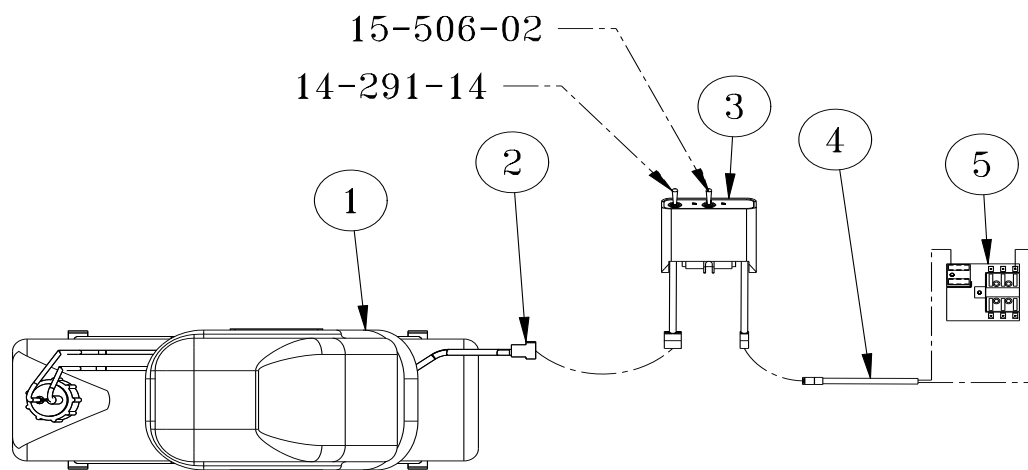


DETAIL VIEW

12-503 FOAM MARKER FOR FAIRWAY ULTRA 10 DRAWING



FOAM MARKER WIRING DRAWING



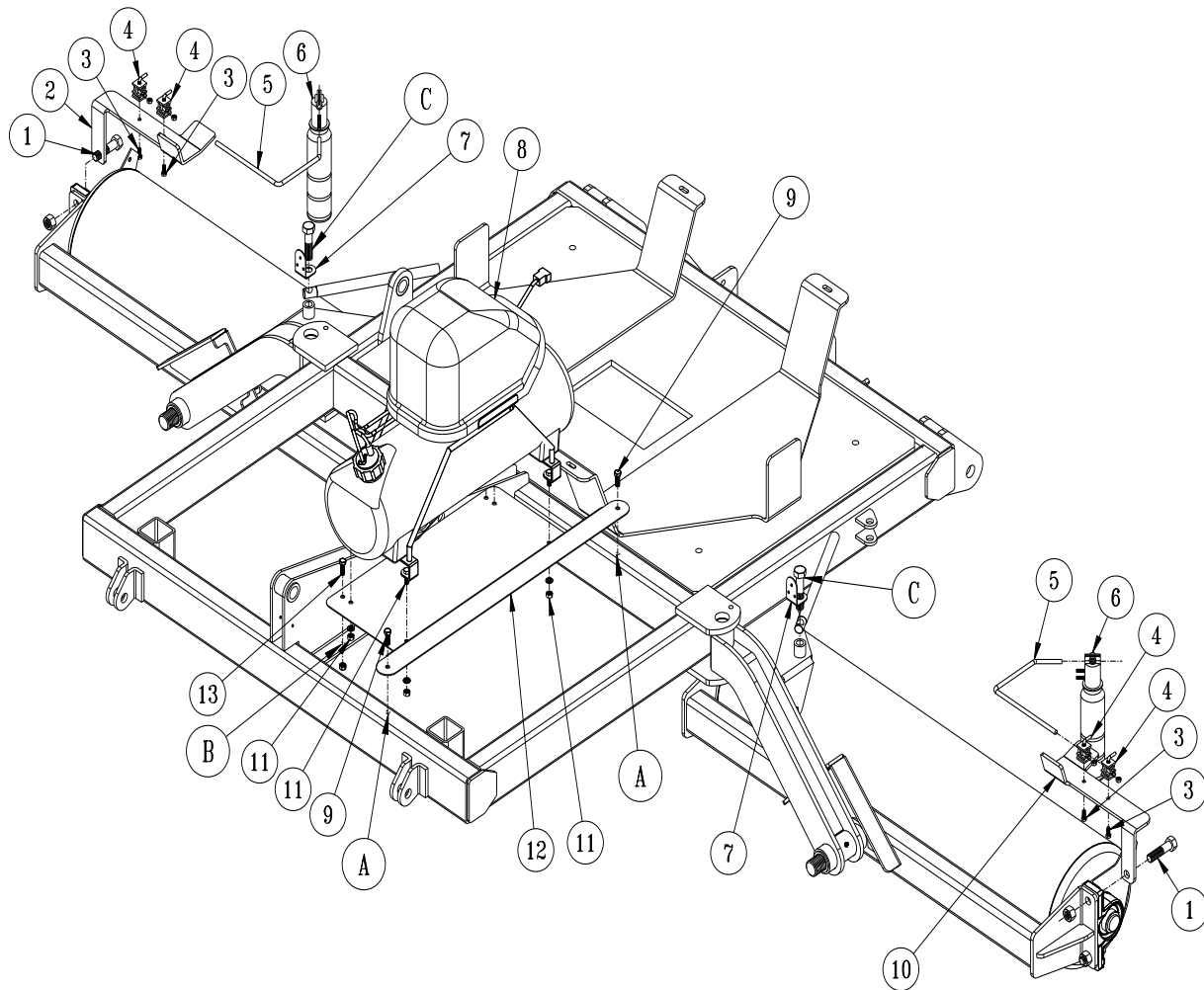
12-503 FOAM MARKER FOR FAIRWAY ULTRA 10 PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	HBFL-516-18-075	Flange Bolt, $\frac{5}{16}$ - 18 x $\frac{3}{4}$	7
	HNFL-516-18	Flange Lock Nut, $\frac{5}{16}$ - 18	7
2	15-689	Foamer Bottom Brace	1
3	HBFL-516-18-075	Flange Bolt, $\frac{5}{16}$ - 18 x $\frac{3}{4}$	1
4	HN-14-20-075	Hex Bolt, $\frac{1}{4}$ - 20 x $\frac{3}{4}$	2
	HBFL-14-20	Flange Lock Nut, $\frac{1}{4}$ - 20	2
5	15-755	Mount Plate	1
A	14-291-04	Tank Bracket	2
B	14-284-02	Cap Assembly	1
C		Blue Tube	1
D		Clear Tube	1
E	14-291-03	Compressor Only	1
	14-291-01	Black Cover	1
F	14-291-02	Foamer Tank	1
G	14-291-05	Double Switch Box	1
	15-506-01	Fuse (F10A 250)	1
	15-506-02	Switch	1
A-G	14-284	Foamer (includes parts A-G)	1

FOAM MARKER WIRING PARTS LIST

REF#	PART#	DESCRIPTION	QUANTITY
1	14-291-03	Compressor	1
2	15-504-04	Wiring Harness	1
3	14-291-05	Switch Box	1
	33-508	Auto Blade Type Fuse 15 amp	1
	15-506-02	Switch - middle	1
	14-291-14	Switch - outside	1
4	15-509	Power Cable	1
5	33-271	Fuse Block (part of machine)	1
	33-508	Auto Blade Type Fuse 15 amp	1

12-503 FOAM MARKER FOR FAIRWAY ULTRA 10 DRAWING



INSTALLATION INSTRUCTIONS

Safety: Before working on machine stop engine, set park brake, remove key from ignition and block wheels. Disconnect negative (-) battery terminal.

1. Mount the switch box to the panel to the right of the operator's seat. Remove the drill screw on the right hand rear side and mount the Switch Box (Ref. G) using this screw. The switch box must be mounted facing towards the operator's seat.

WIRING

Use dielectric grease on all electrical connections. Connect power cable (15-509) to the switch box. Turn the switch off. Route the power wire to the fuse block (on the inside of the engine cover) out of the way of any heat or moving parts. Use nylon ties as needed. Cut the power wire with enough length to connect the fuse block. Put the slide on terminal with heat shrink onto the wire ends and connect to fuse block. Red to positive(+), black to negative(-). Insert 15 amp fuse into slot which has red wire attached to it.

MOUNTING THE FOAMER UNIT

1. Position the Mount Plate (Ref. 5) as illustrated and mount to the Tank Carrier using two $\frac{1}{4}$ -20 x $\frac{3}{4}$ Flange Bolts and $\frac{1}{4}$ -20 Flange Lock Nuts. Leave loose.
2. Connect Brace (Ref. 2) to the Mount Plate using one $\frac{5}{16}$ - 18 x $\frac{3}{4}$ Flange Bolt and $\frac{5}{16}$ - 18 Flange Lock Nut. Tighten. Bolt Brace (Ref. 2) to the tapped hole in the mainframe using one $\frac{5}{16}$ - 18 x $\frac{3}{4}$ Flange Bolt. Tighten.
3. Tighten hardware connecting Mount Plate (Ref. 5) to the Tank Carrier.
4. Place Foamer unit (Refs. A-G) on the Mount Plate (Ref. 5) and bolt in place with four $\frac{5}{16}$ - 18 x $\frac{3}{4}$ Flange Bolts and $\frac{5}{16}$ - 18 Flange Lock nuts (Ref. 1). Foamer must be placed with the Cap Assembly (Ref. B) facing to the **rear** of the machine.
5. Tighten hardware.

CONNECTING THE CAP ASSEMBLY

Connect the blue tube to the tank cap connector which is also connected to the large blue tube which hangs below the cap. This is the soap outlet tube. Connect the clear tube to the other connector on the tank cap. This is the air input tube. Tighten connectors hand tight, assembly tank cap onto tank.

HOSES

Being careful not to cut the tubing, cut the oversleeve back approximately 2" (5 cm) to expose blue and clear tubing. Remove blue wing nut from top connector of foam nozzle and slide it on the blue tube with the threads facing toward end of tube. Slide blue tube all the way over the top of the small tube on foam nozzle. Slide wing nut back to the threads and hand tighten. Follow the same steps for the clear tube and tube nut.

Route the tubing along underside of main frame using tie downs as necessary.

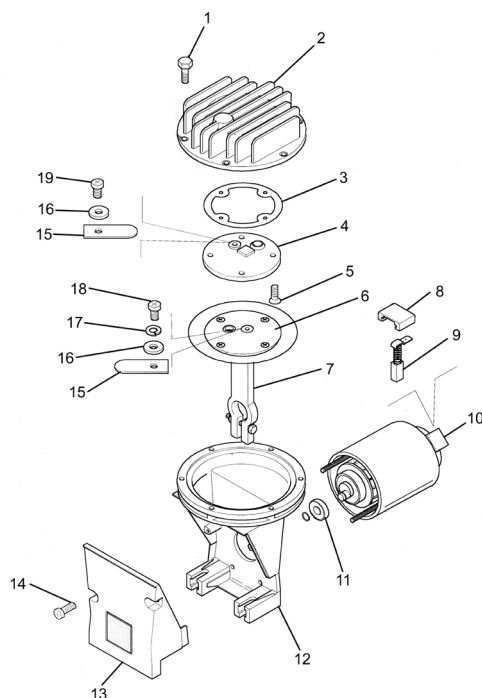
Install opposite ends of air-liquid tubes to compressor, again cutting back the oversleeve approximately 2" (5 cm) and inserting blue and clear tubes for the left boom section into the tubing connectors on the right side of compressor as far as possible. Follow the same steps for the right boom tubing. Notice the right boom is inserted into left side of compressor. To release tubing from compressor, hold black ring around tubing, and pull tube out.

14-291 FOAM MARKER DRAWING



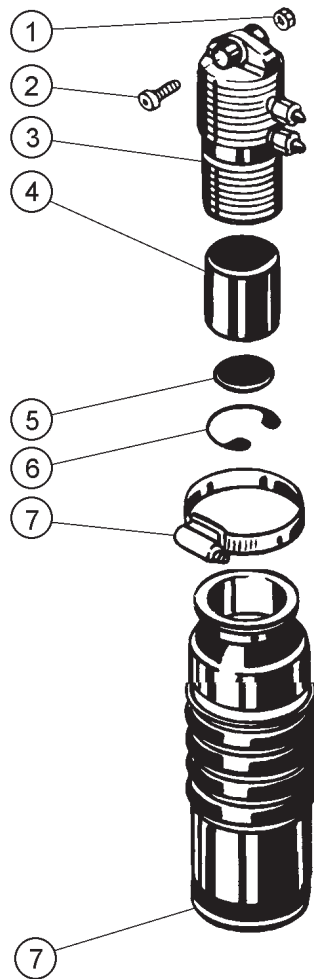
REF#	PART#	DESCRIPTION	QUANTITY
1	15-507	Foamer Tubing	2
2	14-291-02	Tank	1
3	14-291-01	Black Cover	1
	14-291-03	Compressor	1
4	14-284-02	Cap Assembly	1
5	14-291-04	Tank Bracket	1
6	14-291-05	Switch Box	1
7	15-511	Foam Nozzle	1
8	15-510-01	Nozzle Mounting Rod	1
9	16-987	Foam Nozzle Mounting Kit	1

15-505 MOTOR SUB ASSEMBLY DRAWING



REF#	PART#	DESCRIPTION	QUANTITY
1†		Bolt	6
2		Head	1
3	15-505-01	Exhaust Manifold Gasket	1
4		Exhaust Manifold	1
5†		Manifold Screw	8
6†	15-505-03	Diaphragm	1
7†		Piston	1
8		Brush Retainer	2
9	15-505-06	Brush	2
10	15-505-07	12 Volt Electric Motor	1
11	15-505-05	Stainless Steel Bearing	1
12		Block	1
13		Cover	1
14		Cover Screw	2
15*		Exhaust Reed Valve	1
16*†		Washer	2
17*†		Split Lockwasher	1
18*†		Intake Valve Screw	1
19*		Exhaust Valve Screw	1
*	15-505-02	Intake Exhaust Valve Sub Assembly	
†	15-505-04	Intake Piston Sub Assembly	

15-511 FOAM NOZZLE SUB ASSEMBLY DRAWING

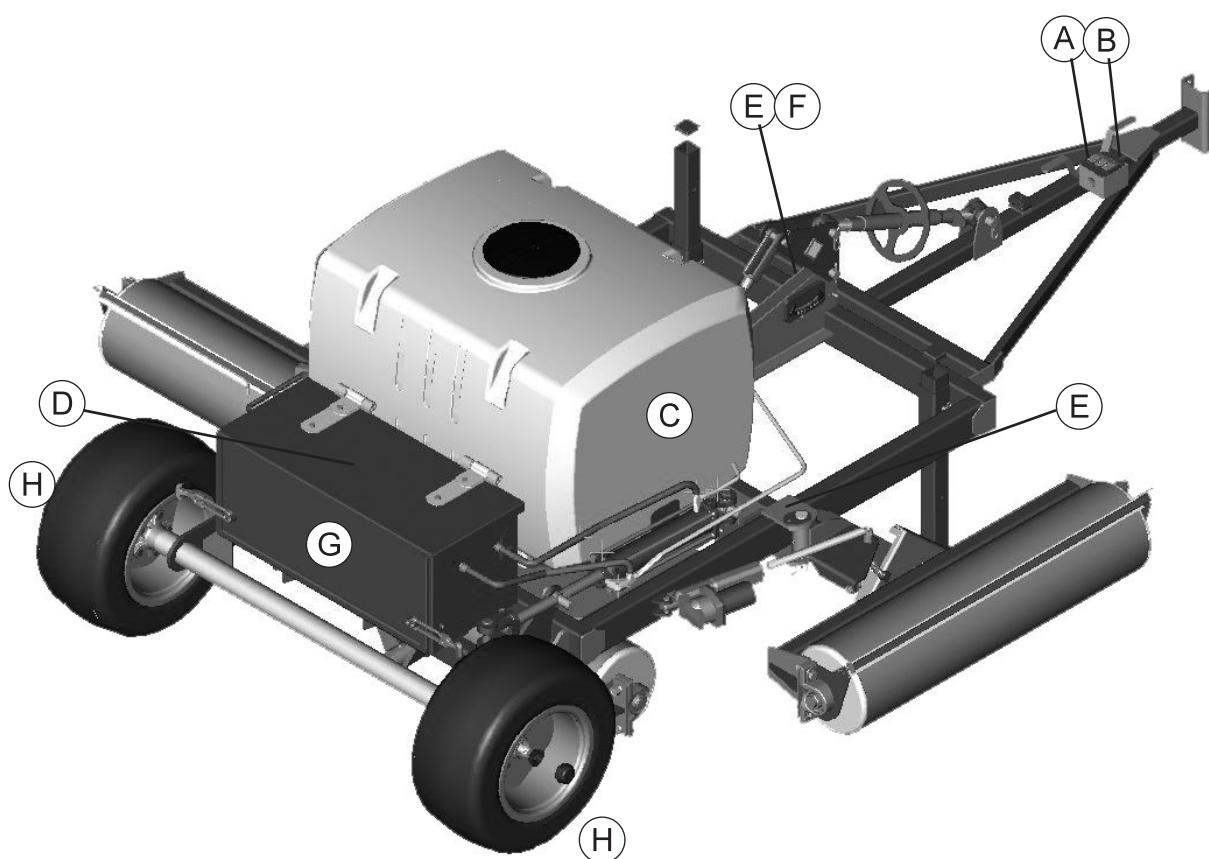


REF#	PART#	DESCRIPTION	QUANTITY
1†		Nut	1
2†		Screw	1
3†		Foam Nozzle Inlet Body	1
4*†	15-510-01	Nozzle Mounting Rods	2
5*†	15-511-02	Foam Sponge	1
6*†		Stainless Steel Screen	1
7	15-511-04	Stainless Steel Snap Ring	1
		Drop Tube	1
†	15-511-01	Foam Nozzle Inlet Sub Assembly	
*	15-511-06	Foam Kit (includes 2 each * items)	

DECAL LIST

This is a list of decals located on the Ultra 15 Fairway Roller. Part number, description and location will help in reordering decals.

A	12-521	Decal, Control Box Top	1
B	12-522	Decal, Control Box Bottom	1
C	12-554	Decal, Fairway Ultra 10	2
D	25-277	Decal, Battery Warning	1
E	25-286	Decal, Pinch Points	4
F	25-357	Decal, Smithco	2
G	34-147	Decal, Smithco Star	1
H	25-355	Decal, Tire Pressure, 18psi	2



QUICK REFERENCE

Battery (not supplied) Automotive type 24F-12 Volt
Hydraulic Fluid 1.50 Gal (5.68 liter) MileMaster 303 Tractor HYD Fluid or equivalent

12-519-P Hydraulic Cylinder

15-519-01P Sea lKit

15-514-P Hydraulic Cylinder

15-514-01P Seal Kit

EC Declaration of Incorporation

Incorporation with CE Marking (2006/42/EC)

Manufacturer	Griffioen
Address	24 Watt Avenue Winnipeg, MB R2L 2P6 Canada R2L 2P6

Incorporation with CE Marking (2006/42/EC)

2006/42/EC

The Machinery Directive

Manufacturer declares that for the each completed machinery identified as:

Equipment	Ultra 100 Power Mower
Model number	1000001000000
Serial Number	0000000000000000

the following CE Marking have been complied with:

EN 143812	Domestic Turf Cuts, Safety Specifications
EN 143812-2:2011	Ag Machinery General Requirements
EN 143812-3:2011	Safety of Machinery General Requirements

and the details of the incorporation have been filed for record with the relevant CE Marking (2006/42/EC) Declaration

The manufacturer hereby declares that the incorporation is required by the appropriate standards for the machinery, and that the incorporation has been completed in accordance with the relevant standards. The incorporation shall be electronically

The machinery is shown photo and marked and labelled in accordance with the machinery rules which can be found in the relevant standards. The incorporation has been completed in accordance with the provisions of the Directive.

Signature



David L. Griffin
President, The Incorporated Machine
Griffioen Mower Inc.
24 Watt Avenue
Winnipeg, MB R2L 2P6
Canada R2L 2P6

The technical documentation for the machinery is available from:



David L. Griffin
President, The Incorporated Machine
Griffioen Mower Inc.
24 Watt Avenue
Winnipeg, MB R2L 2P6
Canada R2L 2P6

Document Ref: 1000001000000000

The Smithco Commercial Products Two-Year Limited Warranty

Smithco, Inc. (Smithco) warrants your 2016 or newer Smithco Commercial Product ("Product") purchased after October 1, 2016 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 Five 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
200 West Poplar Ave.
Cameron, Wisconsin 54822
Telephone: 800-891-9435 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 to 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.

