



## **Parts Manual**

# **SUPER STAR "G"**

**9440**

**SN: G522**

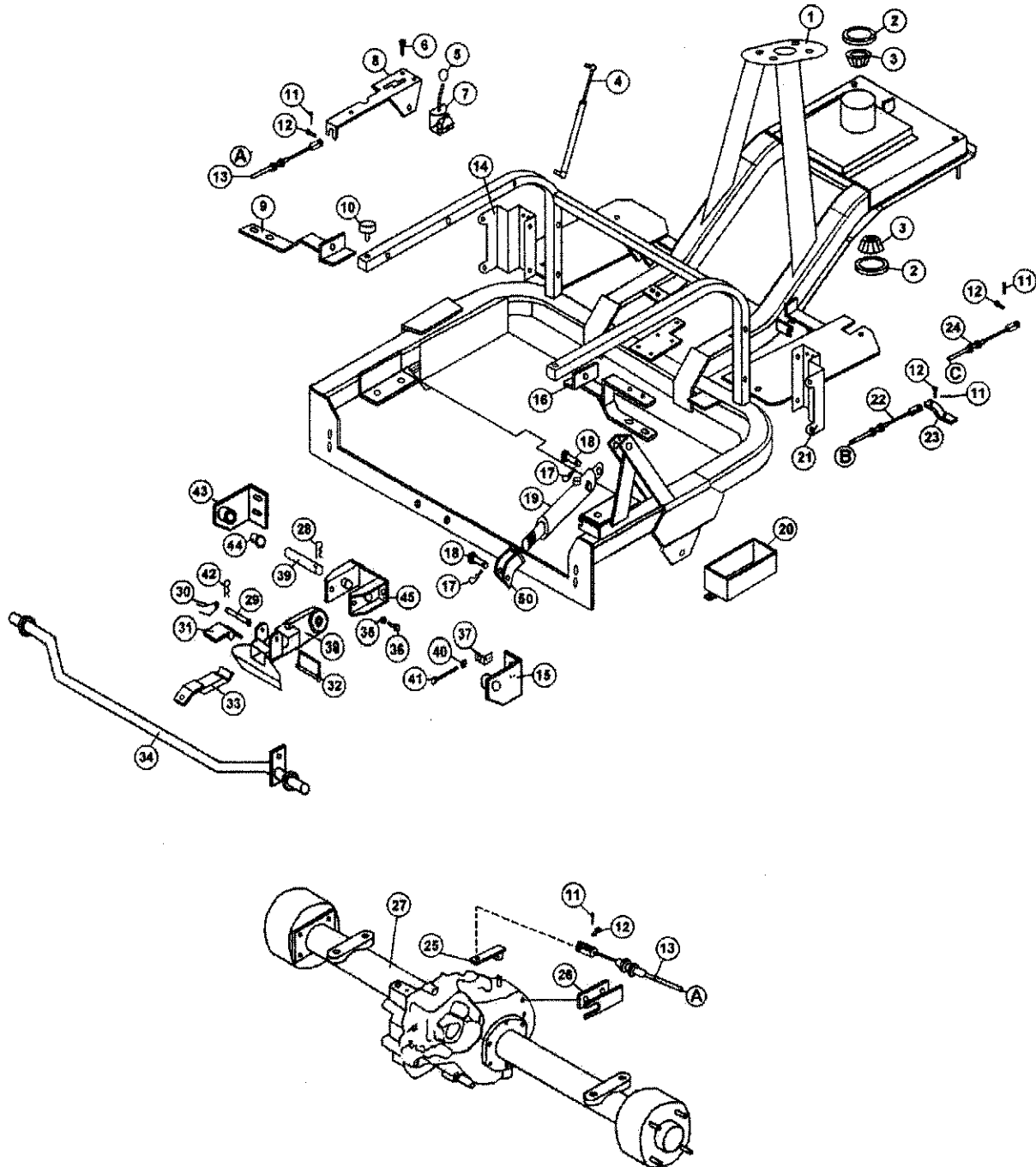
**July, 2010**

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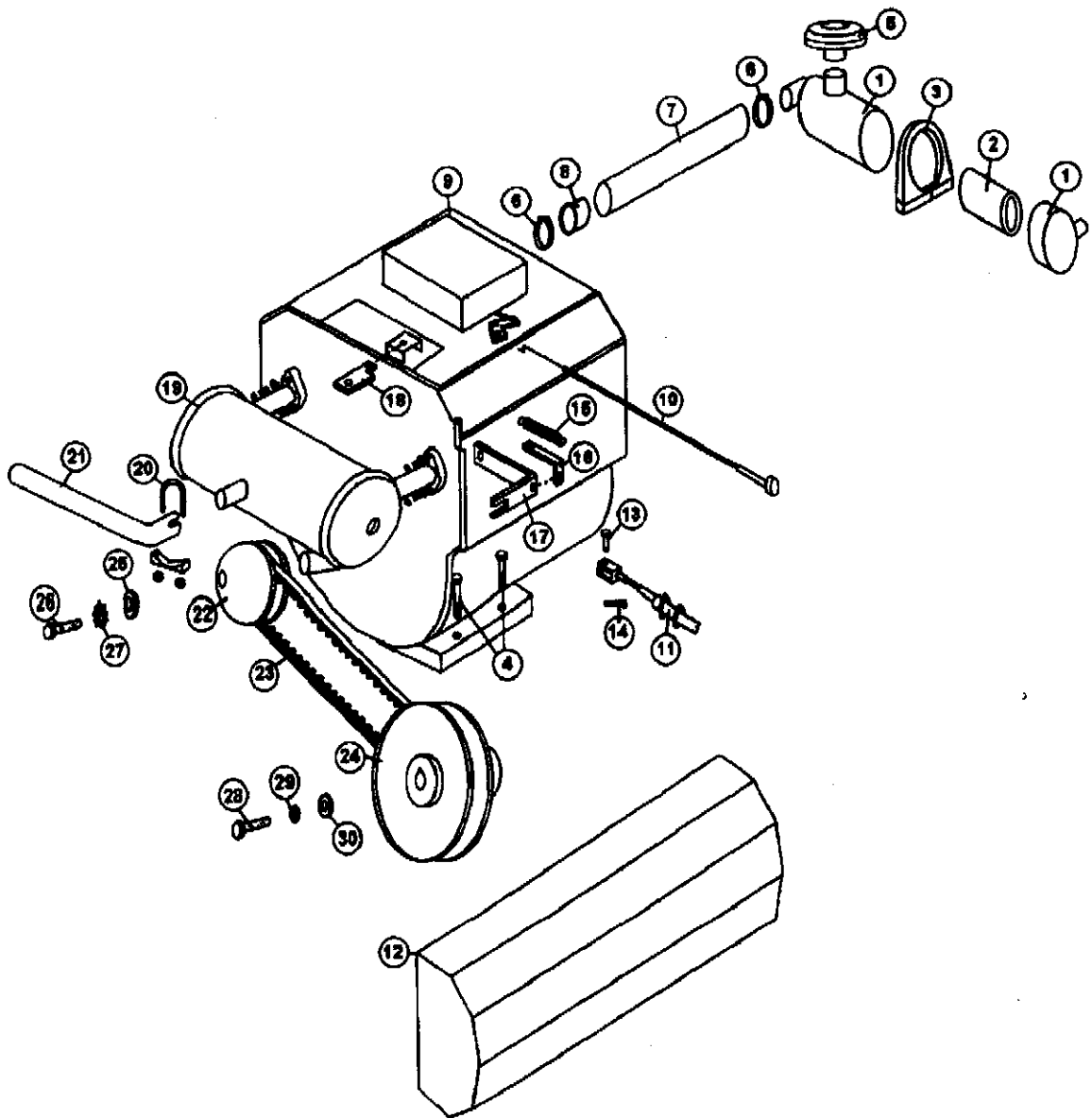
# 9440 MAIN FRAME DRAWING



**9440 MAIN FRAME PARTS LIST**

<b>REF.#</b>	<b>PART#</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	943-214	Main Frame	1
2	932-022	Seal	2
3	932-023	Bearing	2
4	41-128	Gas Shock	1
5	730-156	Ball Knob	1
6	400-321	1/4" x 3/4" x 20 Round Head Bolt	1
7	943-511	Shifter Arm	1
8	943-512	Shifter Plate	1
9	943-123	Oil Tank Bracket Rear Left	1
10	730-038	Rubber Mount	2
11	720-079	3/32" x 3/4" Cotter Pin	4
12	720-078	5/16" x 1" Clevis Pin	4
13	943-519	102" Shifter Cable	1
14	943-113	Left Oil Tank Bracket	1
15	943-191	Right Pivot Bracket	1
16	943-122	Gas Tank Bracket Rear Right	1
17	400-307	Hitch Pin #16	2
18	40-396	Clevis Pin 1/2" x 2"	2
19	943-204	Hydraulic Ram	1
20	942-040	Battery Box	1
21	943-112	Front Gas Tank Bracket	1
22	943-521	Speed Boss Cable	1
23	732-118	Speed Boss Lever	1
24	943-520	60" Accelerator Cable	1
25	932-028	Axle Shift Arm	1
26	932-029-2	Shift Cable Support	1
27	943-205	Axle Assembly	1
28	2050	Snap Pin	1
29	943-178	Clevis Pin 1/2" x 3 1/2"	1
30	943-180	Torsion Spring	1
31	943-179	Lock	1
32	943-190	Wire Lock Pin	1
33	943-182	Towing Hitch	1
34	943-196	Lift Bar	1
35	400-105	1/2" - 13 Hex Nut	1
36	400-027	1/2" - 13 x 1 1/2" HHCS	1
37	943-192	Switch Bracket	1
38	943-195	Hitch Assembly	1
39	943-181	Clevis Pin 7/8" x 3 1/2"	1
40	400-102	5/16" - 18 Hex Nut	1
41	400-055	5/16" - 18 x 3" HHCS	1
42	400-307	Hair Pin #16	1
43	943-193	Left Pivot Bracket	1
44	720-064	Bronze Bushing	2
45	943-194	Frame Mount	1
50	943-206	Ram Lift Bracket	1
51	932-121	Rod End	1

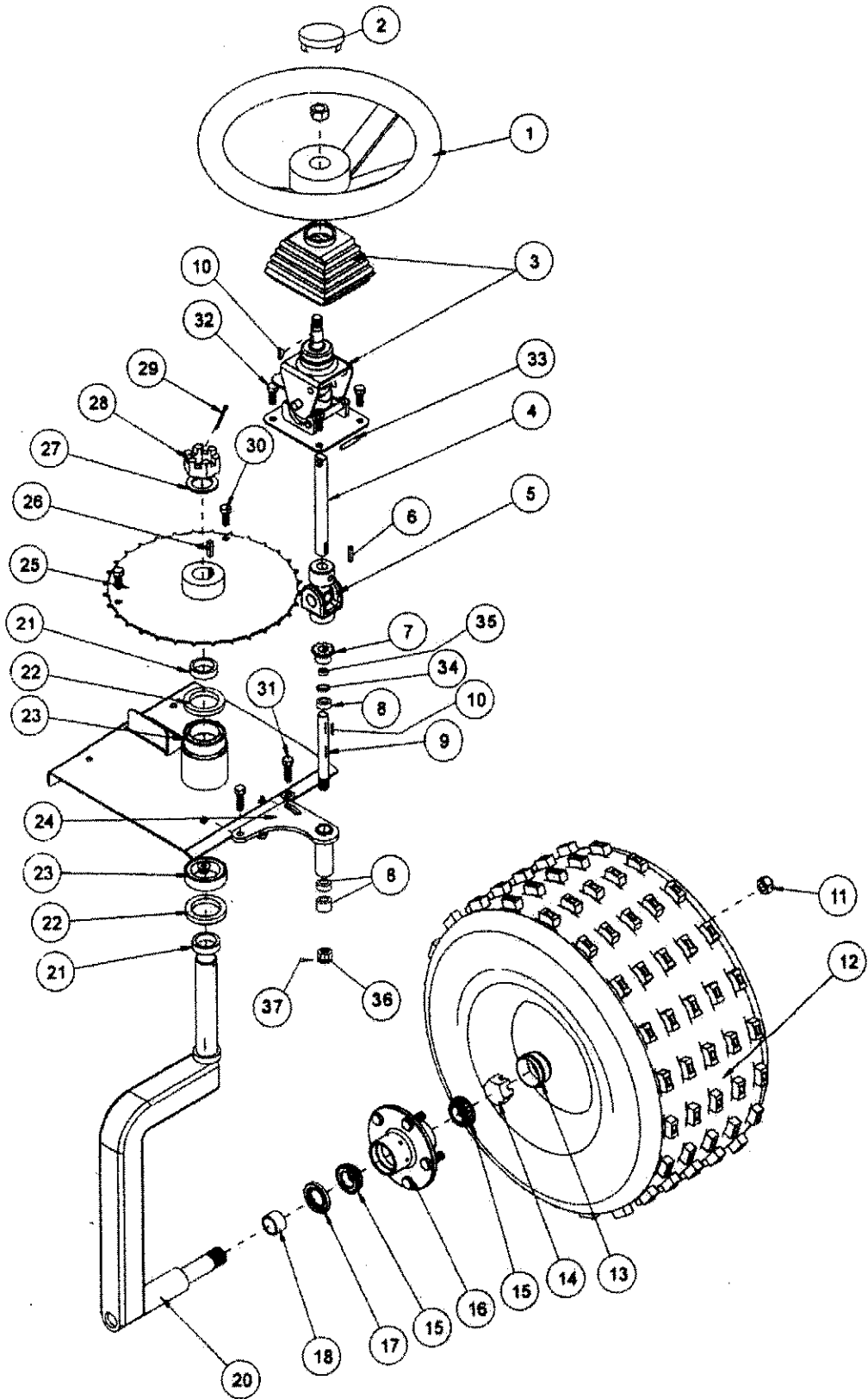
9440 ENGINE DRIVE ASSEMBLY DRAWING



## 9440 ENGINE DRIVE ASSEMBLY PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	943-118	Air Cleaner	1
2	943-118-1	Air Filter	1
3	943-119	Mounting Ring	1
4	400-005	5/16" x 1 3/4" Bolt	4
5	943-120	Intake Cap	1
6	709-308	1 1/2" Hose Clamp	2
7	943-121	Air Cleaner Hose	1
8	943-125	Hose Insert	1
9	943-100	16 HP Vanguard Twin Engine (Model #303447, Type 1131-E1)	1
10	943-126	Choke Cable	1
11	943-135-1	72" Accelerator Cable	1
12	943-200	Belt Guard	1
13	720-078	5/16" x 1" Clevis Pin	1
14	720-079	3/32" x 3/4" Cotter Pin	1
15	1071	Idler Tension Spring	1
16	943-144	Throttle Return Bracket	1
17	943-143	Throttle Cable Bracket	1
18	943-142	Throttle Bracket	1
19	943-115	Muffler	1
20	943-146	1 1/8" Muffler Clamp	1
21	943-145	Tail Pipe	1
22	943-500	Drive Clutch	1
23	943-502	Belt	1
24	943-501	Driven Clutch	1
25	400-310	7/16" Flat Washer	1
26	400-330	3/8" x 2 1/2" Bolt	1
27	400-268	3/8" Lockwasher	1
28	400-324	1/2" x 2 1/2" Bolt	1
29	400-210	1/2" Lockwasher	1
30	400-204	1/2" Flat Washer	1

# 9440 STEERING ASSEMBLY DRAWING



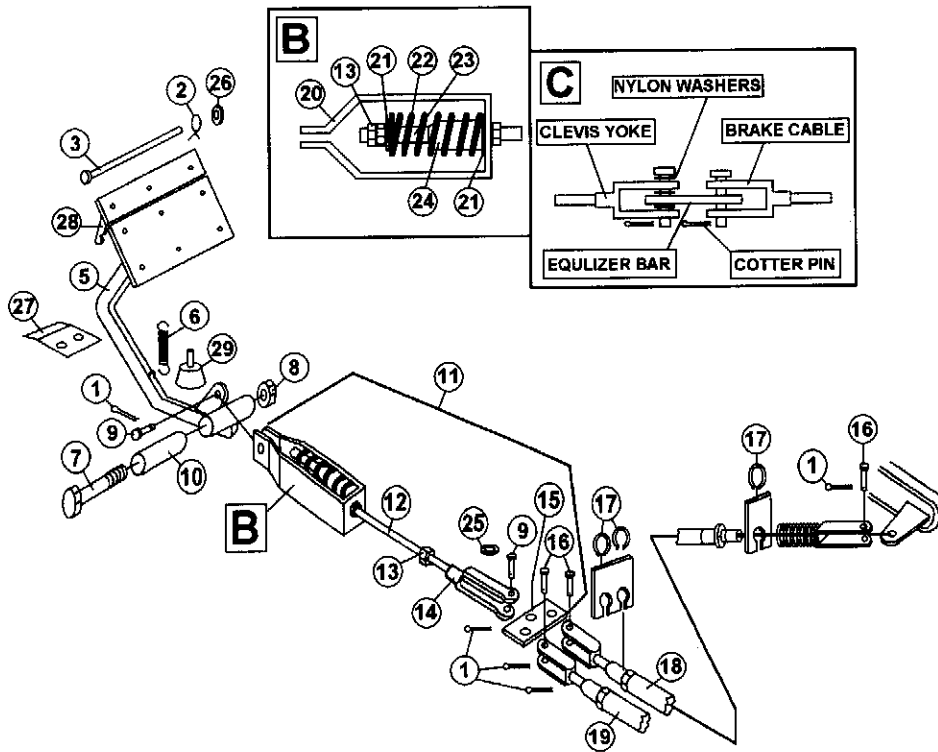
## 9440 STEERING ASSEMBLY PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	730-046	Steering Wheel	1
2	730-046-1	Steering Wheel Cap	1
3	832-028	Tilt Steering	1
4	943-021	Upper Steering Shaft	1
5	932-035	U-Joint	1
6	1088	3/16" x 1" Key	2
7	932-030	Steering Sprocket 10T	1
*8	943-209-4	Spacer	3
*9	943-209-2	Bottom Steering Shaft	1
10	740-023	Woodruff Key 3/16" x 3/4"	3
11	1187	Lug Nut	5
12	932-090	Wheel & Tire	1
13	2024	Grease Cap	1
14	709-126	Spindle Nut	1
15	2028	Tapered Bearing	2
16	2027-2	5 Bolt Hub Only	1
17	709-171	Seal	1
18	720-043	Cotter Pin 1/8" x 1 1/2"	1
19	2013	Spindle Washer	1
20	932-021	Front Fork	1
21	932-024	Spacer	3
22	932-022	Seal	2
23	932-023	Bearing	2
*24	943-209-1	Chain Adjuster Bracket	1
25	932-031	Steering Sprocket 96T	1
26	1517	1/4" Key	1
27	943-210	Spacer	1
28	932-042	Thick Slotted Hex Nut 1 1/4 - 12	1
29	720-043	Cotter Pin 1/8" x 1 1/2"	1
30	400-090	3/8" x 1 1/4" Bolt	2
31	932-032	Steering Chain #35 x 100 Pitch	1
32	400-003	5/16" x 1 1/4" Bolt	4
33	832-030	1/4" Drive Pin	1
*34	943-209-3	Spacer	1
*35	943-209-5	Washer	1
*36	943-209-6	Shaft Nut	1
37	720-043	Cotter Pin 1/8" x 1 1/2"	1
*	943-209	Chain Adjuster Assy.	1



# 9440 BRAKE LINKAGE DRAWING

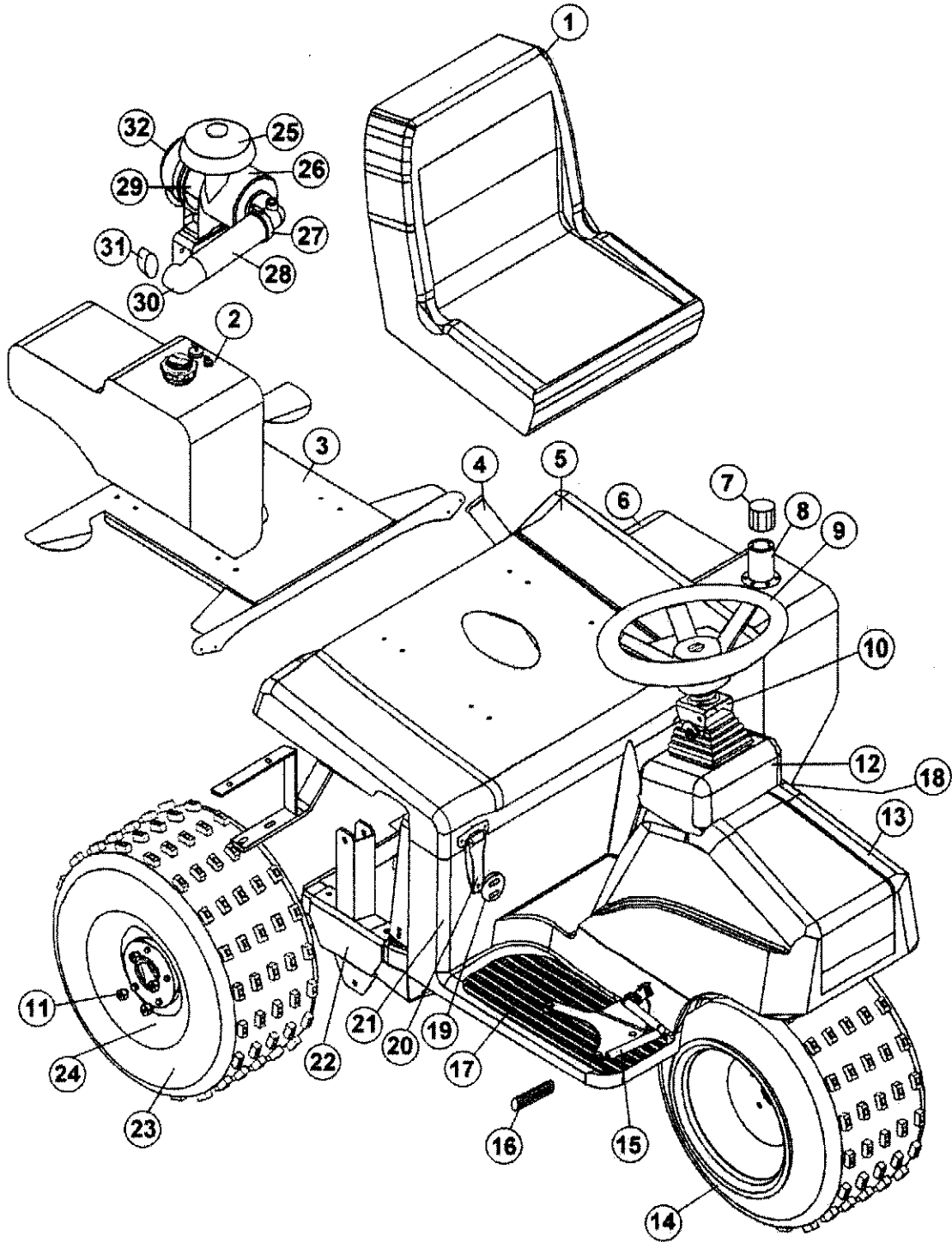
## BRAKE LINKAGE



**9440 BRAKE LINKAGE PARTS LIST**

<b>REF.#</b>	<b>PART#</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	720-079	Cotter Pin 3/32" x 3/4"	5
2	732-019	Hill Brake Spring	2
3	732-021	Pin	1
5	732-046	Brake Pedal Assy. Less Pads	1
6	40-199	Idler Spring	1
7	400-029	1/2" - 13 x 3" Bolt	1
8	400-112	1/2" - 13 Locknut 2-Way	1
9	720-078	Clevis Pin 5/16" x 1"	2
10	720-009	Bronze Bushing 1/2" ID x 11/16 OD x 2	1
11	943-020	Compensating Link Assembly	1
12	943-139	Brake Rod	1
13	400-118	5/16" Hex Nut x 24 Thread	3
14	11-101-1	Linkage Yoke 24 Thread	1
15	732-052	Equalizer Bar	1
16	720-087	Clevis Pin 5/16" x 3/4"	3
17	730-240	Brake Cable Retaining Clip 1/2"	4
18	730-028	Brake Cable Right (Long)	1
19	730-029	Brake Cable Left (Short)	1
20	732-048	Brake Yoke Housing	1
21	400-202	5/16" Flat Washer	2
22	732-050	Compression Spring	1
23	732-049	Brake Tube	1
24	732-051	Nylon Bushing	1
25	732-053	Nylon Washer	3
26	732-022	Push Nut	1
27	932-017	Latch Bracket	1
28	943-147	Upper Brake Pad	1
29	732-008	Rubber Stud Bumper	1

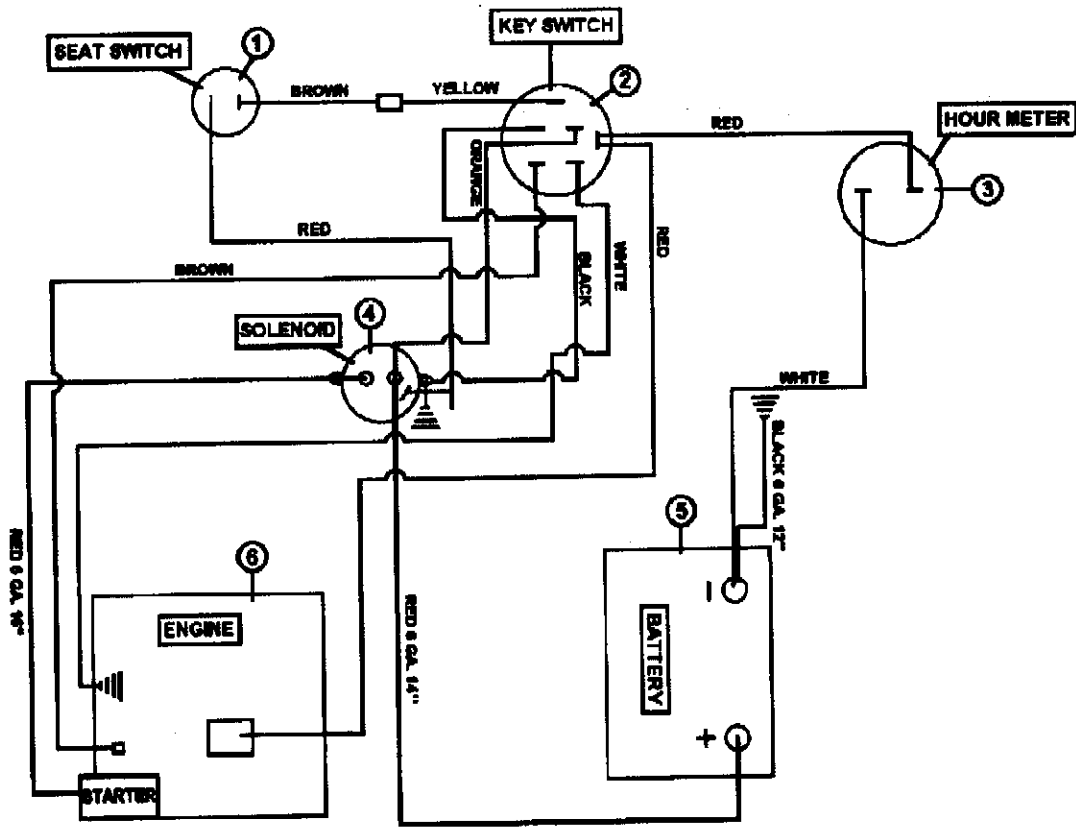
# 9440 BODY ASSEMBLY DRAWING



## 9440 BODY ASSEMBLY PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	832-123	Low-Back "SMITHCO" Seat	1
2	943-110	Gas Tank	1
3	943-105	Seat Plate	1
4	943-525	Rake Holder	1
5	943-527	Rear Cover	1
6	943-111	Oil Tank	1
7	750-292	Oil Filler Breather	1
8	750-293	Oil Tank Neck	1
9	730-046	Steering Wheel	1
10	832-028	Tilt Steering & Boot	1
11	1187	Lug Nut	15
12	943-108	Console	1
13	943-107	Nose Cone	1
14	932-090	Knobby Wheel & Tire	3
15	943-124	Foot Pedal Assembly	1
16	943-127	Accelerator Pedal Pad	1
17	943-128	Right Floor Mat	1
18	943-129	Left Floor Mat	1
19	720-084	Hour Meter	1
20	730-058	Hinge	2
21	943-106	Floorboard	1
22	943-101	Frame	1
23	932-090-1	Tire	3
24	932-090-2	Wheel	3
25	943-120	Intake Ring Cap	1
26	943-118	Air Cleaner	1
27	709-308	1 1/2" Hose Clamp	2
28	943-121	Air Cleaner Hose (30")	1
29	943-119	Mounting Band	1
30	943-118-2	Air Cleaner Elbow	1
31	943-118-3	Air Cleaner Sleeve	1
32	943-118-1	Filter Element	1

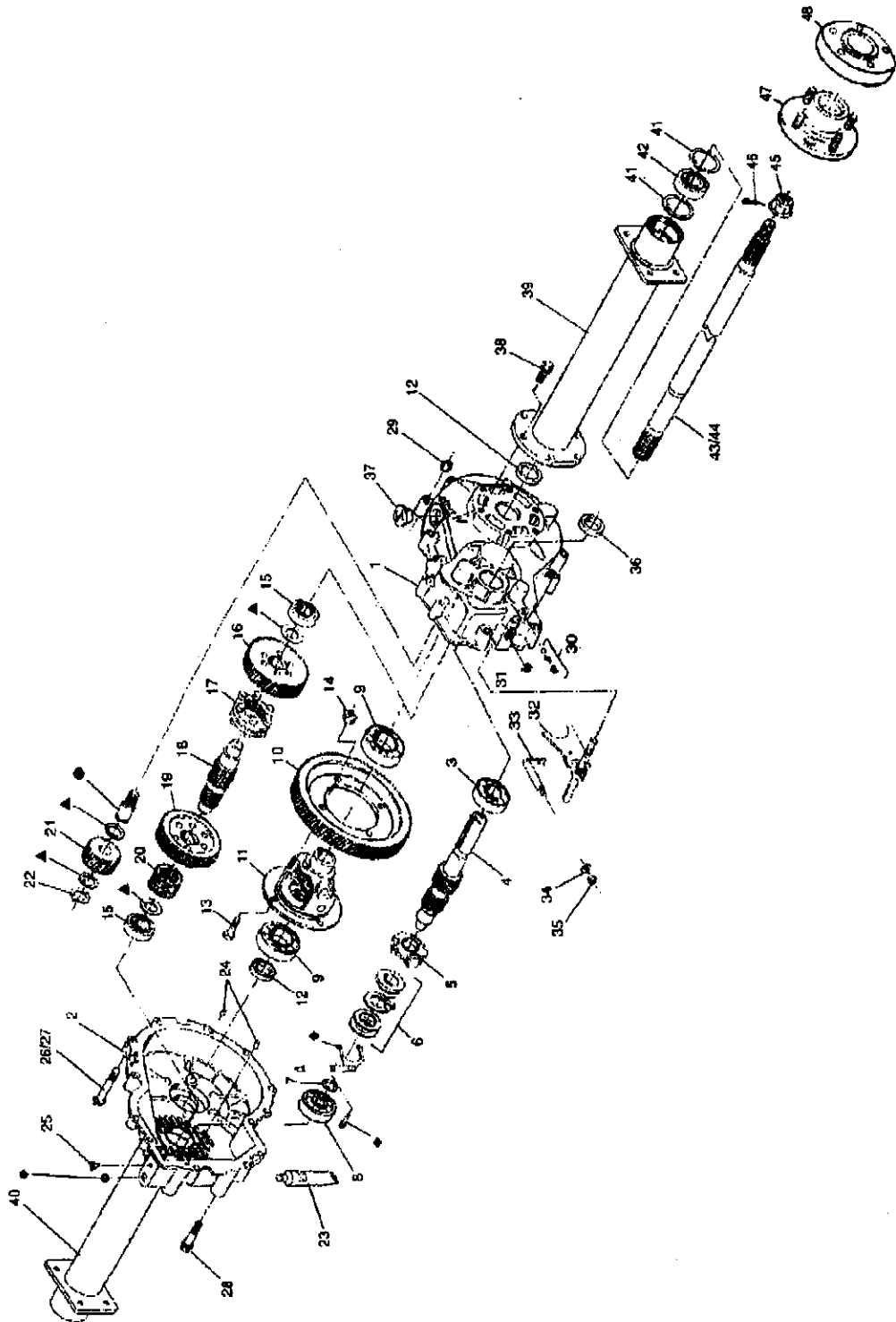
# 9440 WIRING DIAGRAM



## 9440 WIRING DIAGRAM PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	932-119-1	Seat Switch	1
2	932-071	Key Switch	1
3	720-084	Hour Meter	1
4	932-072	Solenoid	1
5	720-076	Battery	1
6	943-100	Engine	1
7	750-265	Wiring Harness	1

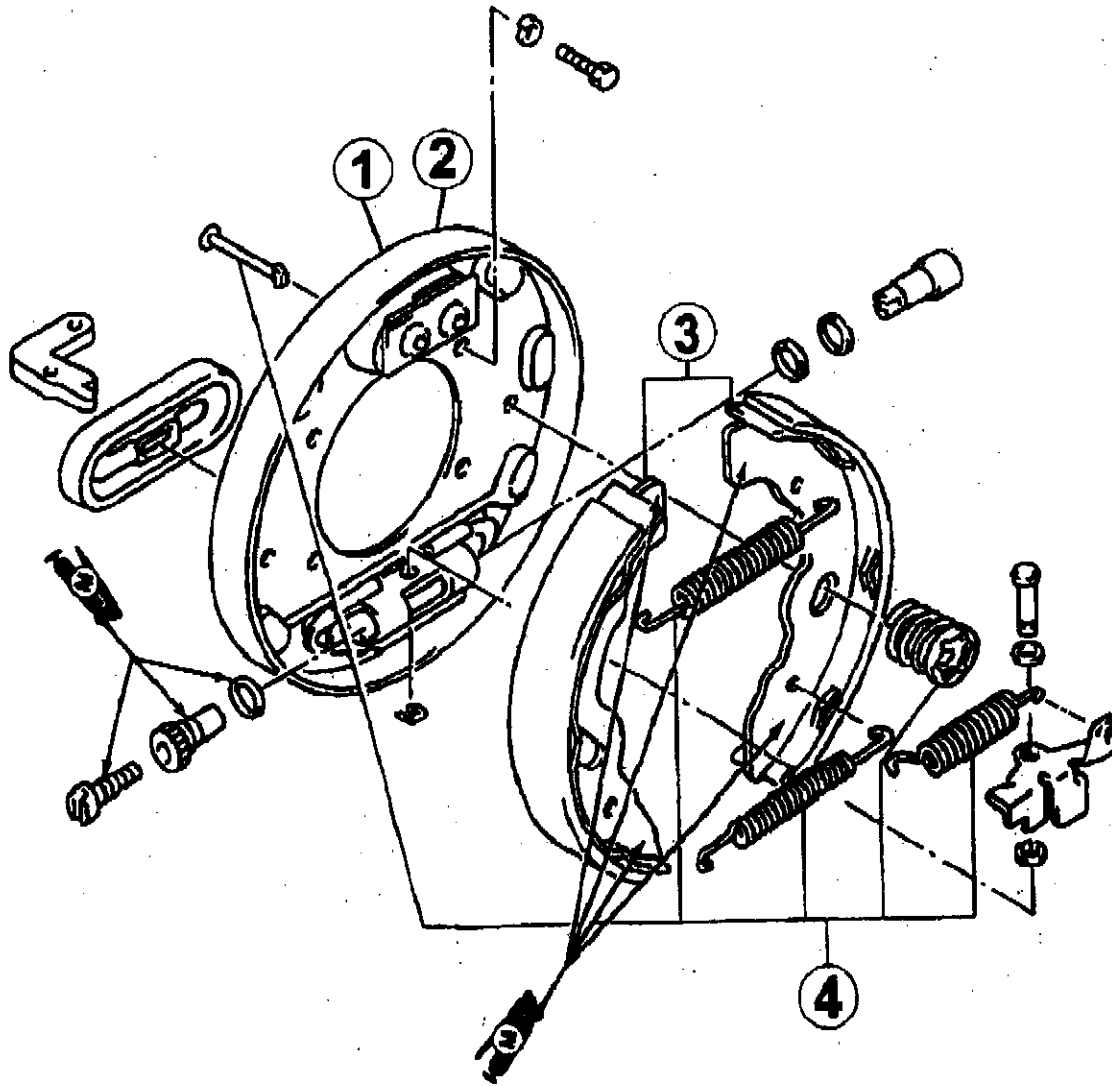
943-203-1 AXLE ASSEMBLY DRAWING



**943-203-1 AXLE ASSEMBLY PARTS LIST**

<b>REF#</b>	<b>PART#</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	943-203-1	Axle Housing Right	1
2	943-202-2	Axle Housing Left	1
3	943-203-3	Ball Bearing	1
4	943-203-4	Input Shaft	1
5	943-203-5	Backing Plate Assembly	1
6	943-203-6	Actuating Sleeve Assembly	1
7	943-203-7	Shim Kit	1
8	943-203-8	Ball Bearing	1
9	943-203-9	Ball Bearing	2
10	943-203-10	Final Gear Drive	1
11	943-203-11	Differential Assembly	1
12	943-203-12	Oil Seal	2
13	943-203-13	Cap Screw	4
14	943-203-14	Lock Nut	4
15	943-203-15	Ball Bearing	2
16	943-203-16	Gear Drive Assembly	1
17	943-203-17	Gear Clutch	1
18	943-203-18	Intermediate Shaft	1
19	943-203-19	Gear Assembly	1
20	943-203-20	Final Gear Drive	1
21	943-203-21	Idler Gear Assembly	1
22	943-203-22	Snap Ring	1
23	943-203-23	Sealant	1
24	943-203-24	Oil Seal	2
25	943-203-25	Vent	1
26	943-203-26	Long Flange Screw	2
27	943-203-27	Short Flange Screw	11
28	943-203-28	Short Flange Screw	2
29	943-203-29	Lock Nut	13
30	943-203-30	Detent Kit	1
31	943-203-31	Oil Seal	1
32	943-203-32	Shaft Rod Assembly	1
33	943-203-33	Actuator Shaft Assembly	1
34	943-203-34	Washer	1
35	943-203-35	Lock Nut	1
36	943-203-36	Oil Seal	1
37	943-203-37	Rubber Plug	1
38	943-203-38	Flange Screw	12
39	943-203-39	Right Tube Assembly	1
40	943-203-40	Left Tube Assembly	1
41	943-203-41	Snap Ring	4
42	943-203-42	Ball Bearing	2
43	943-203-43	Right Axle Shaft	1
44	943-203-44	Left Axle Shaft	1
45	943-203-45	Spindle Nut	2
46	943-203-46	Cotter Pin	2
47	932-124-1	5-Bolt Axle Hub	2
48	932-142-2	5-Bolt Axle Drum	2
49	943-203-1	Axle Assembly	1

# BRAKE SHOE DRAWING

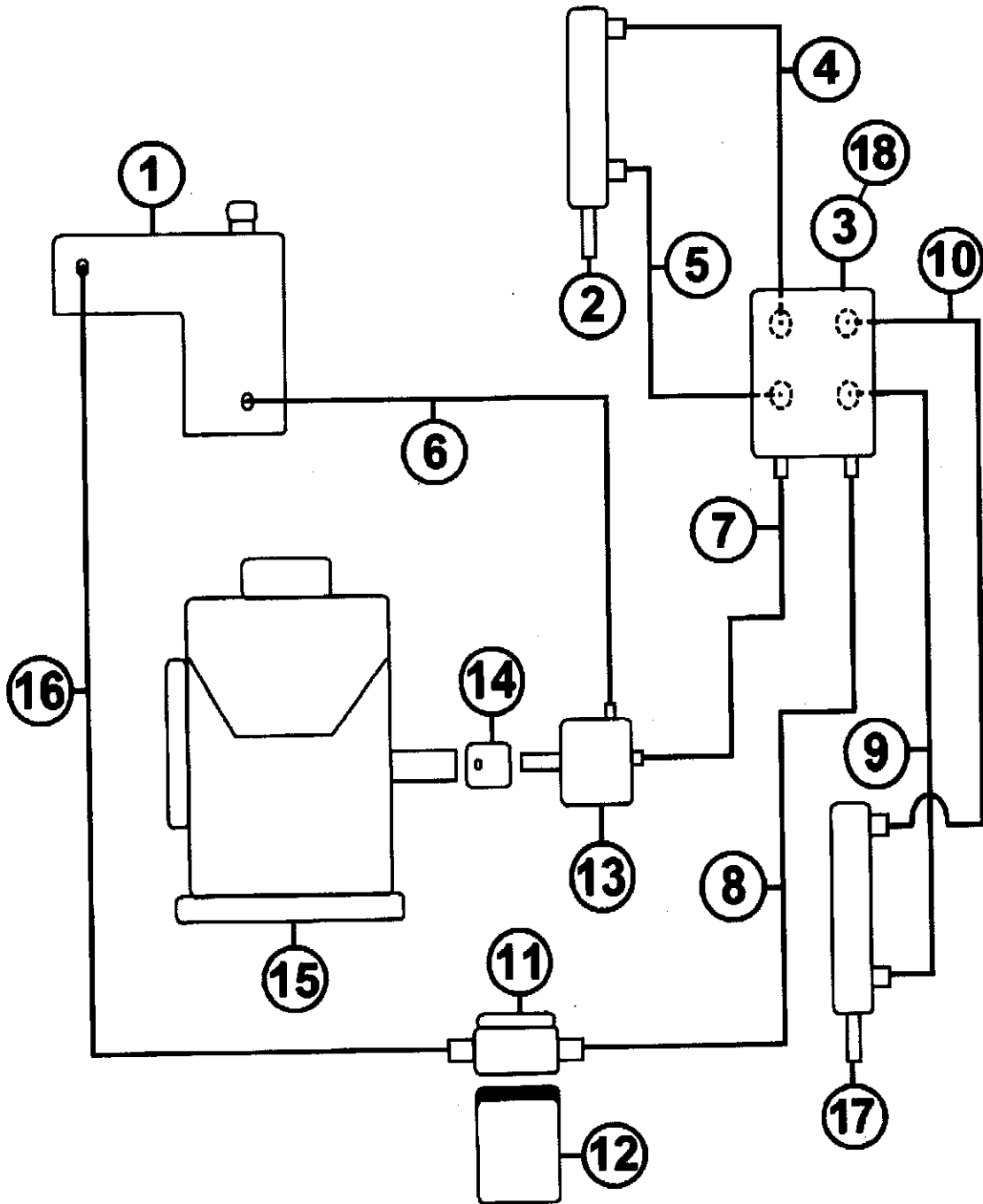


## BRAKE SHOE PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	730-151	Right Backing Plate	1
2	730-152	Left Backing Plate	1
3	730-147	Brake Shoe Set	1
4	730-146	Spring Kit	1



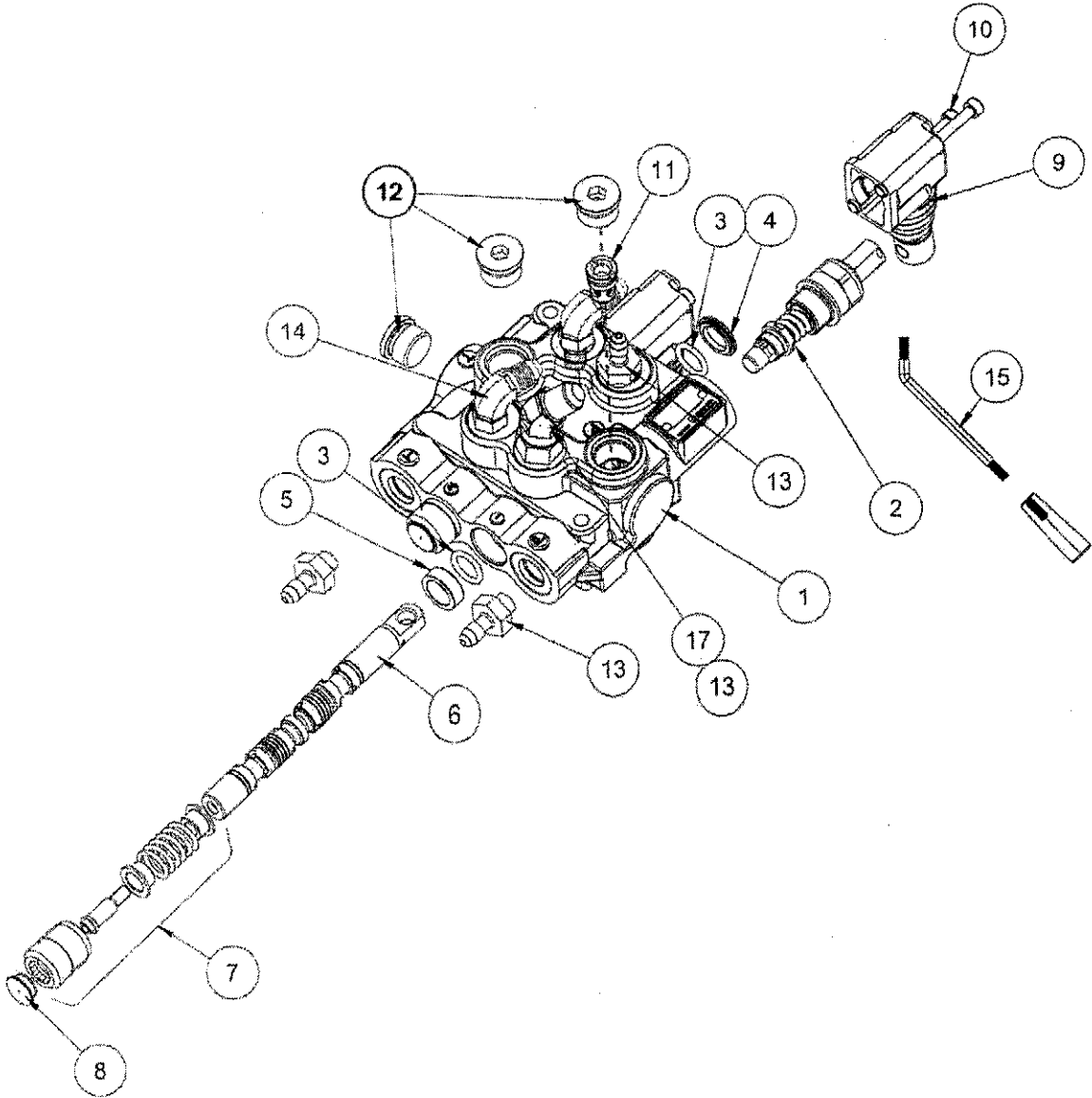
9440 HOSE DRAWING



## 9440 HOSE PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	943-111	Oil Tank	1
2	943-504	Hydraulic Ram	1
3	943-505	Hydraulic Valve	1
4	943-220	Hydraulic Hose 17"	1
5	943-221	Hydraulic Hose 18"	1
6	943-222	Hydraulic Hose 30"	1
7	943-223	Hydraulic Hose 6"	1
8	943-224	Hydraulic Hose 11"	1
9	943-225	Hydraulic Hose 12"	1
10	943-226	Hydraulic Hose 10"	1
11	750-136	Oil Filter Head	1
12	750-135	Oil Filter	1
13	943-202	Pump	1
14	943-230	Coupler	1
15	943-100	Engine	1
16	943-227	Hydraulic Hose 47"	1
17	943-503	Hydraulic Ram	1
18	943-506	Valve Handles	2
19	943-508	Shaft Kit	1
20	943-509	Hydraulic Hose Kit	1
21	943-247	Pump Mount	2

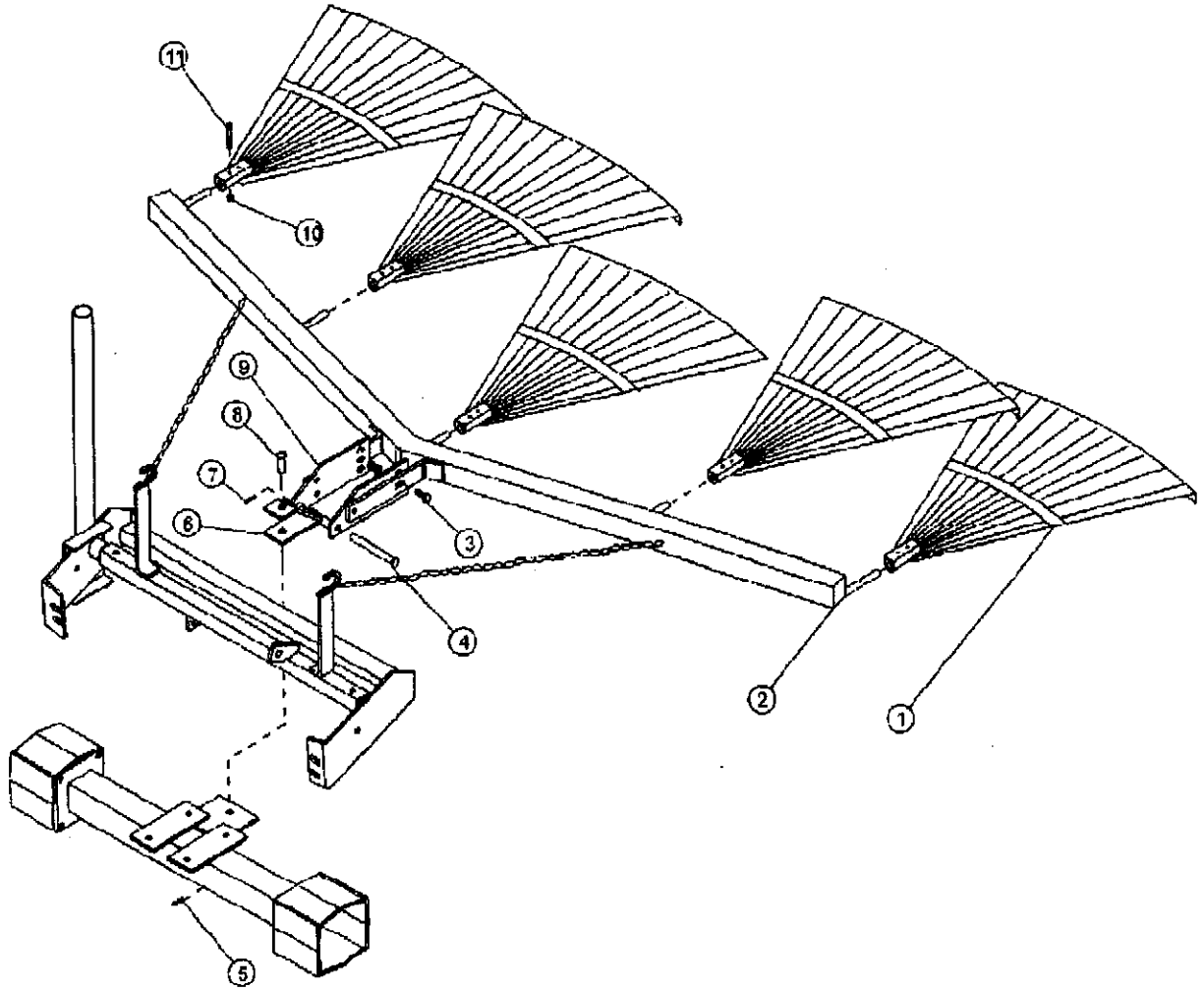
# 13-729 2-BANK HYDRAULIC VALVE DRAWING



**13-729 2-BANK HYDRAULIC VALVE PARTS LIST**

<b>REF#</b>	<b>PART#</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1*	78-415-01	Body (complete w/spacer and check valve)	1
2*	78-415-02	Spool HDM10	1
3*	78-415-03	O-Ring Seal	6
4*	78-415-04	Flanged Washer HDM10	3
5*	78-415-05	Spacer	3
6*	78-415-06	A Type Spool HDS11	3
7*	78-415-11	Positioner	2
8*	78-415-08	Plug	3
9*	78-415-09	Lever Group HDS11	3
10*	78-415-10	Metric Socket Screw M5 x .8 x 45	6
11*	78-415-12	Check Valve Assembly HDM12	1
12*	78-415-13	¾ - 16 SAE 8 Screw Plug	3
13	18-169	Adapter	4
14	18-168	Elbow 3/8 Straight Thread	2
15	78-454	Bent Handle	2
16		Tapered Knob	3
17	18-214	Elbow 45°	1
*	13-729	2 – Bank Hydraulic Valve (includes all * items)	

**13-298 FAN RAKE ATTACHMENT DRAWING**



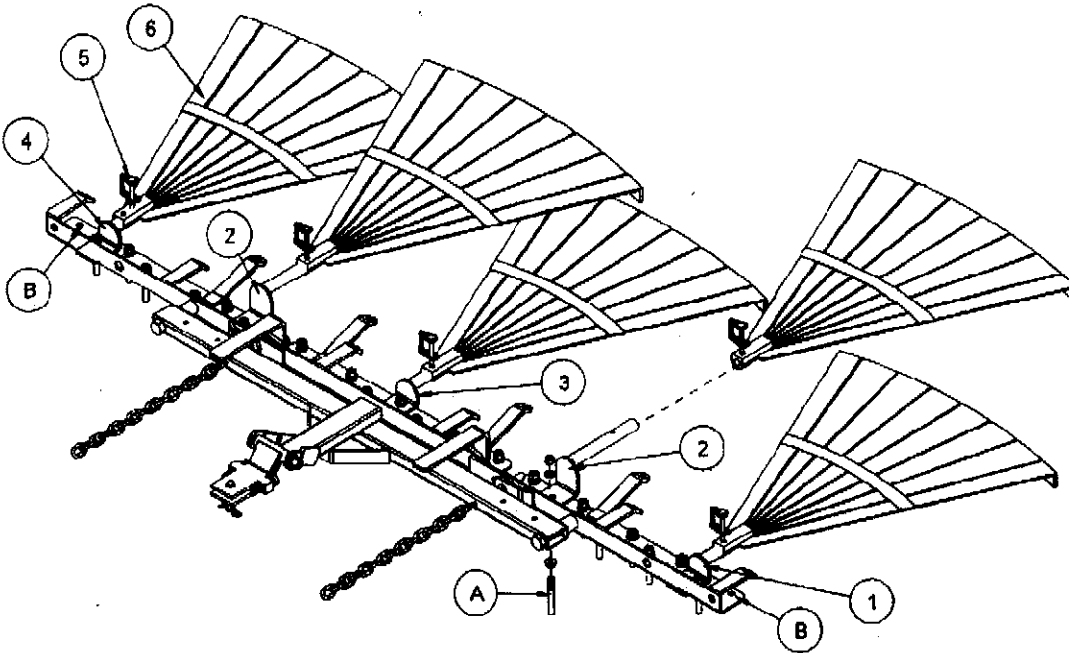
## 13-298 FAN RAKE ATTACHMENT PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	13-310	Rake	5
2	13-306	Frame	1
3	HB-38-16-100	Bolt 3/8 – 16 x 1	4
	HN-38-16	Nut 3/8 – 16	4
	HWL-38	Lockwasher 3/8	4
4	HCP-12-450	Clevis Pin 1/2 x 4 1/2	1
5	HHP-18	Bridge Pin 1/8"	1
6	19-107	Drawbar	1
7	HP-18-100	Cotter Pin 1/8 x 1	1
8	HCP-12-150	Clevis Pin 1/2 x 1 1/2	1
9	13-307	Hitch	2
10	HNCL-14-20	Center Lock Nut 1/4 - 20	5
11	HB-14-20-200	Bolt 1/4 - 20 x 2	5

## INSTALLATION INSTRUCTIONS

1. Remove the complete rake assembly from the trap rake. Replace the clevis pin and bridge pin in the hitch for future use with the rake.
2. Assemble hitch (Ref 9) to frame (Ref 2) using hardware (Ref 3). Assemble drawbar (Ref 6) to the hitch using clevis pin (Ref 4) and cotter pin (Ref 7), as shown. The different holes in the hitch are for adjusting the angle of the rakes.
3. Assemble the five rakes (Ref 1) to the frame (Ref 2) using 1/4 - 20 x 2 bolt and center lock nuts (Ref 9 and 10). Slide the fan rake assembly under the rear of the trap rake to the hitch. Attach the drawbar (Ref 6) to the hitch using the clevis pin and the bridge pin (Ref 5).
4. Hook the chains from the frame to the hooks on the rake lift.

## 13-319 FAN RAKE DRAWING



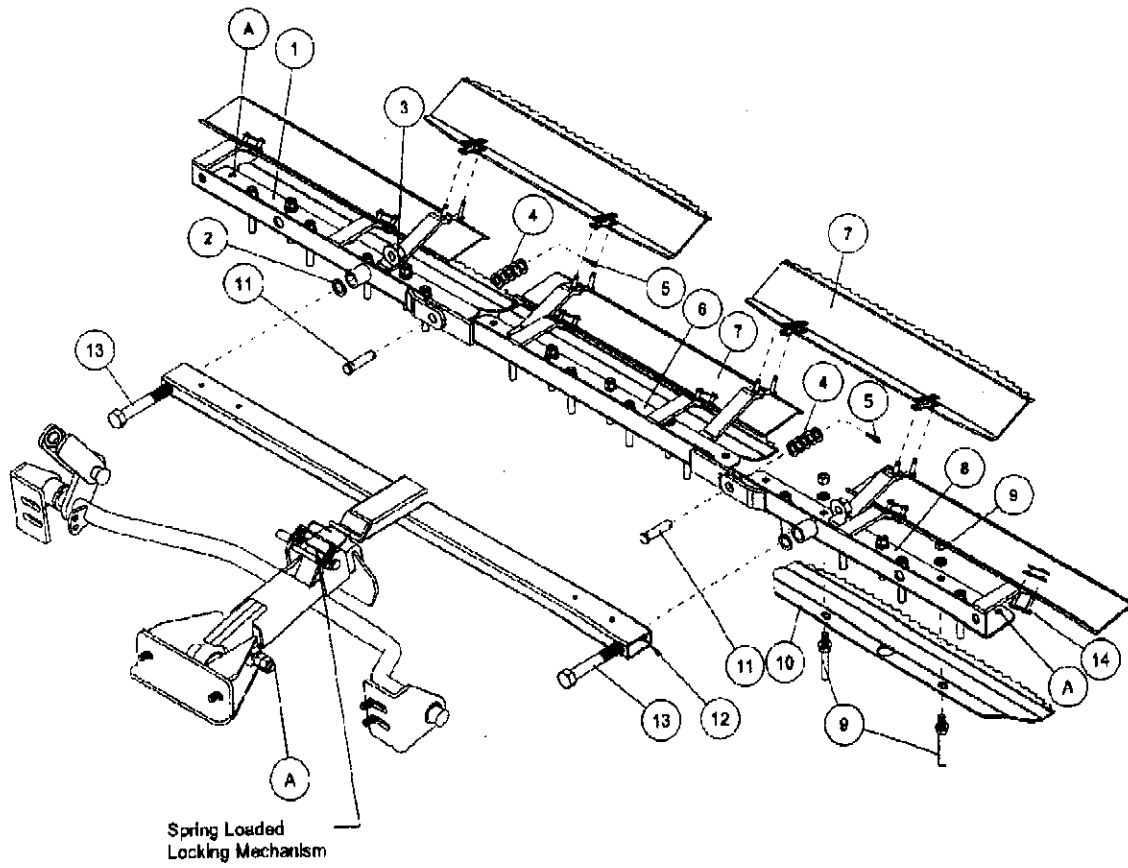
## 13-319 FAN RAKE KIT PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	13-326	Left Holder	1
2	13-329	Long Holder	2
3	13-327	Center Holder	1
4	13-328	Right Holder	1
5	29-541	Lock Pin	5
6	13-310	Rake	5

## 13-319 FAN RAKE KIT INSTRUCTIONS

1. Remove connector links that hold rake blades to rake frame if desired.
2. Remove groomer blades from rake frame that are held on with rake teeth studs (Ref A). Replace rake teeth studs, if desired.
3. Place left holder (Ref 1), angle side up, to the second rake tooth hole from the end and install rake tooth stud. The first rake tooth hole from each end (Ref B) have no rake teeth in them.
4. Remove the 8<sup>th</sup> rake tooth stud from the end of right and left rake frame and place long holders (Ref 2) on top, reinstall rake teeth studs.
5. Remove rake tooth in direct center of rake and install the center holder (Ref 3). Reinstall rake teeth studs.
6. Place right holder (Ref 4), angle side up, to the second rake tooth hole from the end and install rake tooth stud. The first rake tooth hole from each end (Ref B) has no rake teeth in them.
7. Slide fan rake (Ref 6) onto holders and pin with lock pin (Ref 5).

# 13-438Q RAKE ASSEMBLY WITH FINISHING BLADES DRAWING





## 13-438Q RAKE ASSEMBLY WITH FINISHING BLADES PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	13-441	Right Rake	1
2	HMB-58-14	Machine Bushing 5/8" x 14GA	2
3	HNCL-58-11	Lock Nut 5/8" – 11	2
4	HMB-12-14	Machine Bushing 1/2" x 14 GA	10
5	HP-18-100	Cotter Pin 1/8 x 1	2
6	13-753	Center Rake	1
7	13-443	Finishing Blade	5
8	13-439	Left Rake	1
9*		Rake Teeth	25
10	13-442	Groomer Blade	3
11	HCP-12-150	Clevis Pin 1/2 - 1 1/2	2
12	43-145	Drawbar	1
13	HB-58-11-400	Bolt 5/8 – 11 x 4	2
14	13-417	Connector Link	10
	*13-090	Rake Teeth Kit (Studs & Hardware)	1

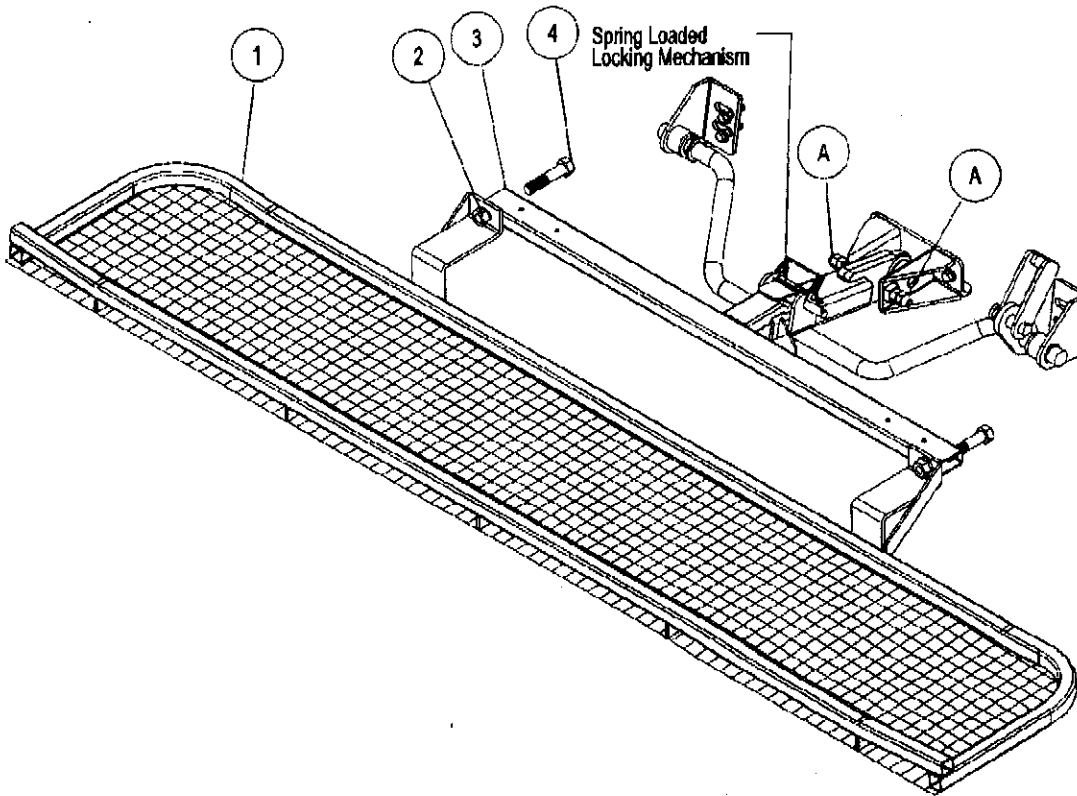
## 13-438Q INSTALLATION INSTRUCTIONS

1. Bolt Rake teeth (Ref 9 ) to frames, keeping all the same length. Leave the two outside holes on right and left rake open (Ref A).
2. Lay out rake frames (Ref 1, 6 and 8). Connect them using clevis pin, machine bushing and cotter pin (Ref 11, 4 & 5).
3. Attach drawbar to left and right frames using bolt, machine bushing and nut (Ref 13, 2 and 3).
4. Attach five finishing blades (Ref 7) to the tabs of the rake frames using master link (ref 14). Blades may be mounted with saw tooth up or down, depending on the desired finish of the sand trap.
5. Attach the rake lift to the trap rake quick hitch, by sliding the hitch into the spring loaded locking mechanism.
6. With the rake on the ground pull the rake to the right side until it is 2-3 inches from the tire.
7. Repeat steps on left side.
8. Turn machine on and test for operation of rake assembly by raising and lowering the rake assembly. Also with rake down, turn sharp corners to check that rake does not touch wheels.
9. NOTE: Test rake in sand to assure tire tracks are covered by the rake when turning sharp corners in either direction. If there are tire tracks, readjust using the adjusting screws on the hitch, so the rake comes closer to the tire.

### GROOMER BLADES – GOLF COURSE USE ONLY.

1. Place the three groomer blades (Ref 10) under to three rake assemblies (Ref 1, 6 and 8).
2. Center blades below rear most row of rake teeth. The blade is designed to miss the outside two "teeth" and fit around the center "tooth".
3. Remove the two "teeth" that line up with slots of each groomer blade. Move blade up and into position and reattach "teeth". Blade thickness should be accounted for by shortening the "teeth" and equal length.

## 26-007Q PROFESSIONAL INFIELD FINISHER DRAWING



## 26-007Q PROFESSIONAL INFIELD FINISHER PARTS LIST

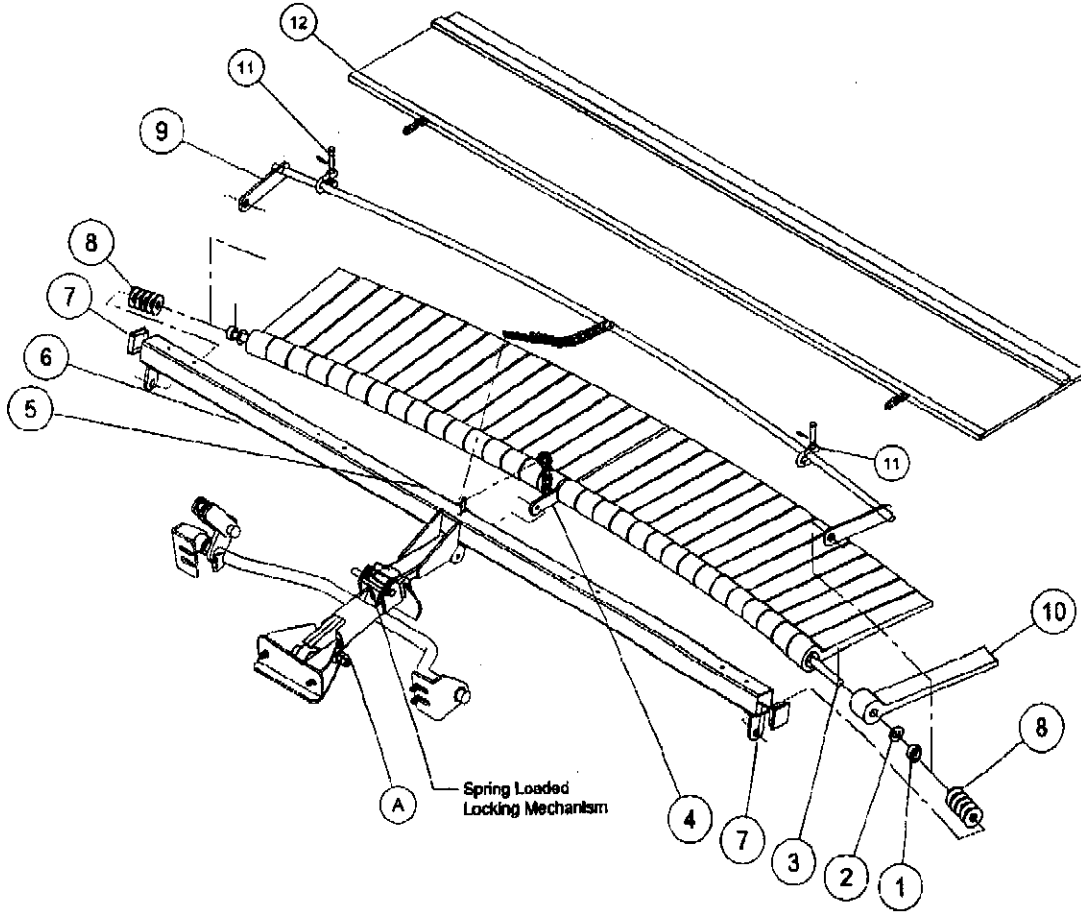
REF#	PART#	DESCRIPTION	QTY.
1	26-045	Leveling Screen	1
2	HNCL-58-11	Center Lock Nut 5/8" – 11	2
3	43-152	Drawbar	1
4	HB-58-11-300	Bolt 5/8" – 11 x 3	2

## INSTALLATION INSTRUCTIONS

The Professional Field Finisher is used for smoothing and leveling fields to professional standards.

1. Attach leveling screen (Ref 1) to drawbar (Ref 3) using two bolts (Ref 4) and center lock nuts (Ref 2).
2. Mount Professional Field Finisher to the hitch on the trap rake by sliding the drawbar into the quick hitch locking mechanism.
3. When Professional Field Finisher is attached, adjust bolts on hitch (Ref A) to hold Finisher in desired position.
4. **NOTE:** When assembled properly, rake will angle down from front to back. If front of finisher is not higher than the back, damage will result to infield.
5. When removing the attachment from machine push down on quick hitch locking mechanism and pull accessory out

**26-008Q FLEX ACTION FIELD FINISHER DRAWING**



## 26-008Q FLEX ACTION FIELD FINISHER PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	11-040	Spacer 3/4"	2
2	HW-58	Washer 5/8"	32
3	26-049	Mounting Bar	1
4	26-048	Flail Bar Strap	1
	HB-38-16-100	Bolt 3/8" – 16 x 1	1
	HNCL-38-16	Center Lock Nut 3/8" – 16	1
5	HHP-18	Bridge Pin 1/8"	2
6	43-146	Frame	1
7	18-297	Cap Plug	2
8	HMB-58-14	Machine Bushing 5/8" x 14GA	10
9	26-047	Leveler Bar	1
10	26-041	Rasp Flail	32
11	21-260	Clevis	2
12	26-115	Mesh Finisher	1

## 26-008Q INSTALLATION INSTRUCTIONS

1. Install flail bar strap (Ref 4) to center of mounting bar (Ref 3) with chain on top of flail bar strap and mounting bar bent away from you. Apply a light coat of lubricant to overall length of mounting bar.
2. Install one rasp flail (Ref 16) with knobby side down adjacent to sides of flail bar strap. Now install a flat washer (Ref 2) so it sits adjacent with the outside of the rasp flail. Continue to install flails with knobby sides down with washers between until you have 16 flails and washers on each side of bar strap. Force all flails tightly toward bar strap.
3. After all 32 flails have been installed, place on spacer (Ref 1) to each end of mounting bar adjacent to washer.
4. Install leveler bar (Ref 9) to mounting bar, with curved leveler bar resting on top on the smooth sides of flails. If all flails and washers do not fit snugly at this time, remove leveler bar and install enough machine bushings to ensure a snug fit. Then reinstall leveler bar.
5. Lay the frame (Ref 6) on the floor or bench with welded tabs facing up. Install ends of assembled mounting bar, with knobby sides of flails up, into welded tabs on each end of frame and secure with 1/8" x 1" cotter pin.
6. Install flail bar strap (Ref 4) to center tab on frame with 3/8 – 16 x 1 bolt and 3/8 – 16 center lock nut. Loose fit is required. Do not over tighten.
7. Flip assembly over so knobby sides of flails are now facing down. Install hitch to frame with clevis pin (Ref 3) and cotter pin (Ref 24). The hitch should be attached to the frame as shown.
8. Install bar strap chain over welded pin on frame. Install leveler bar chain on to pin and secure in place with bridge pin. Use last bridge pin and clevis pin to hitch field finisher to your machine.

### OPERATING INSTRUCTIONS

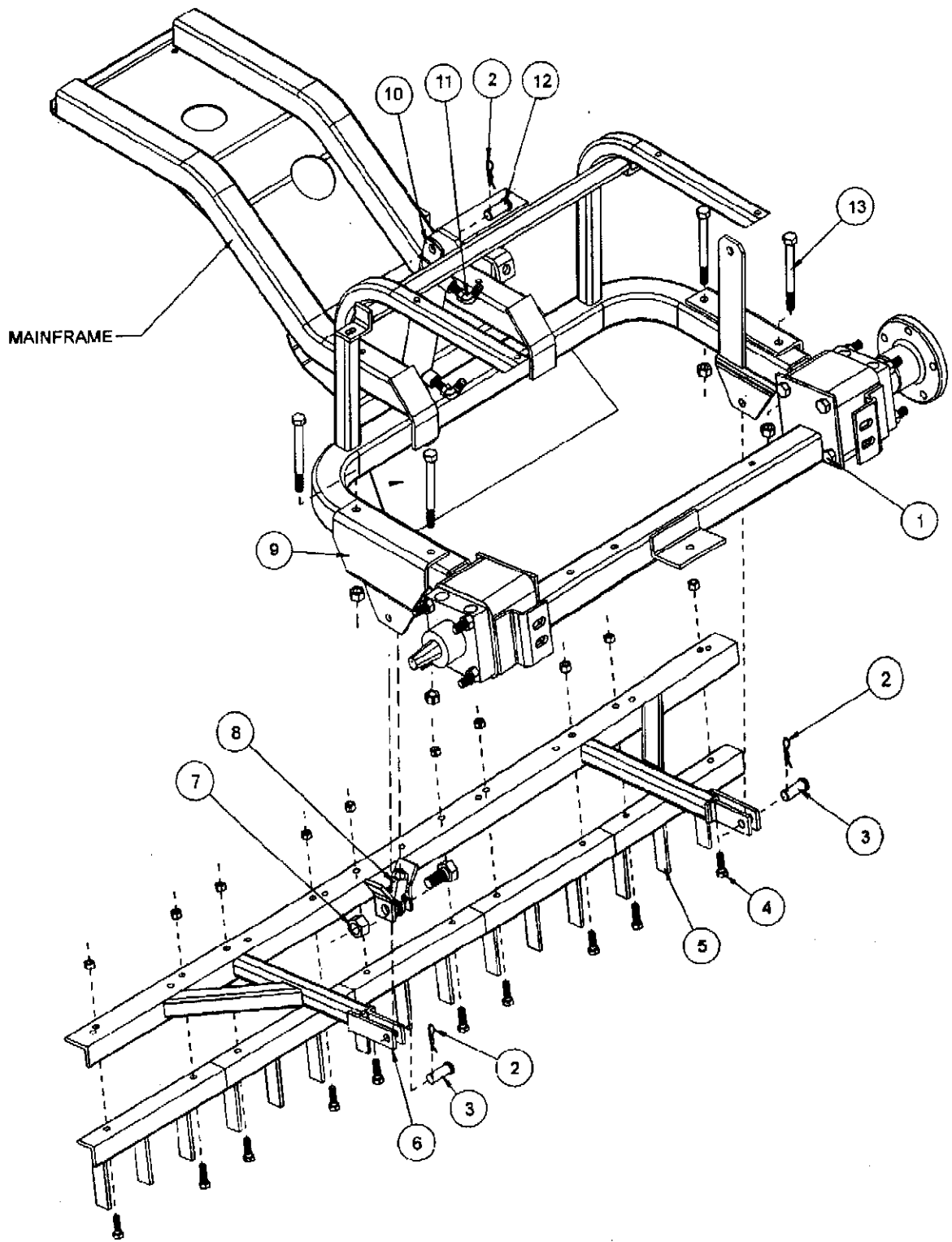
Running attachment with all flails down, flat on the surface, will provide a leveling function. Running attachment partially raised and flails at a 20° - 40° angle in relation to the level surface, will provide a finishing function. The flails increase down pressure for desired finish. Drive in wide circular patterns and increase or decrease ground speed to achieve desired finish.

## MESH FINISHER

To get a smoother finish, install a Mesh finisher onto your Flex Action Field Finisher.

1. If the 26-008Q Flex action Finisher is on your machine, lower it to the ground. You may have to pull machine ahead slightly so the field finisher is lying flat on the ground or floor.
2. Lay mesh finisher behind field finisher with weight bar facing up and chain hooks towards field finisher.
3. Take the two chain clevises and hook onto leveler bar and then through the chain hooks on mesh finisher. The clevis pin that comes with the chain clevis should go through the chain clevis, first link on chain hook (on the mesh finisher) and then through other side of the chain clevis. Insert the cotter pin.
4. Center the mesh finisher with flex action field finisher.
5. Raise lift on your machine to insure proper ground clearance before driving your machine.
6. (Ref A) Chain length is to control amount of mesh trailing behind flails for wet or dry conditions. For wet conditions, shorten chains. For dry conditions you may use maximum amount of chain to make desired finish.

# 42-008 SAND CULTIVATOR DRAWING



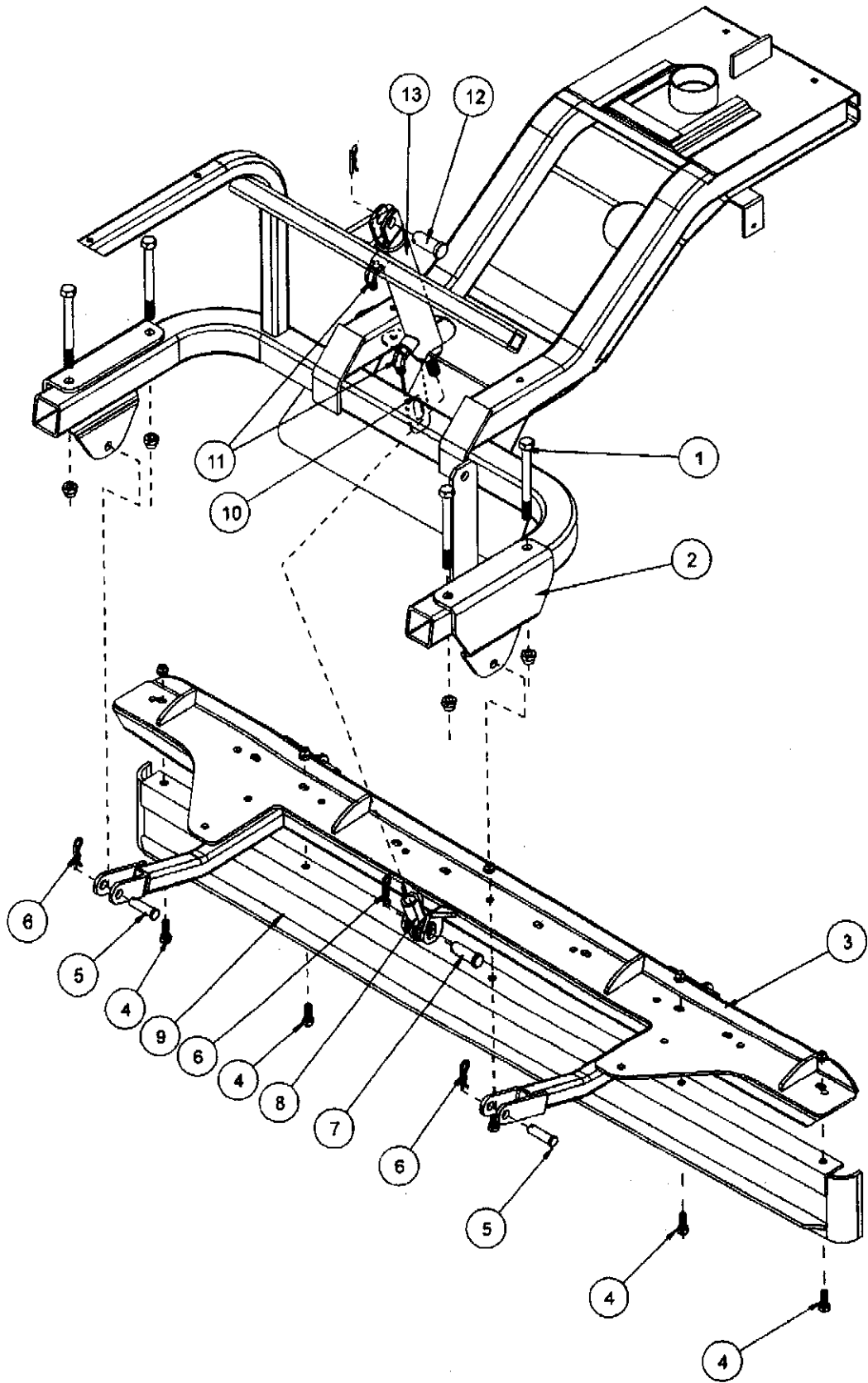
## 42-008 SAND CULTIVATOR PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	HCP-58-175	Clevis Pin 5/8" – 1 3/4"	1
2	10-135	Hydraulic Cylinder	1
3	18-168	90° Elbow	2
4	42-217	Cylinder Mount	1
5	HB-12-13-500	Bolt 1/2" – 13 x 5	4
	HNTL-12-13	Lock Nut 1/2" – 13	4
6	42-015	Attachment Mount	2
*7	HHP-18	Bridge Pin 1/8"	3
*9	HB-38-16-125	Bolt 3/8" – 16 x 1 1/4"	10
	HNTL-38-16	Lock Nut 3/8" – 16	10
*10	42-038	Tine Segment	5
*11	HCP-12-200	Clevis Pin 1/2" x 2	2
*12	42-203	Attachment Lift	1
*13	HCP-58-250	Clevis Pin 5/8" x 2 1/2"	1
14	18-154	Rod End	1
*	42-008	Sand Cultivator (all other parts reference only)	

## INSTALLATION INSTRUCTIONS

1. Install valve handle with linkage (13-672) onto valve.
2. Remove the cylinder mount (Ref 4) from the machine.
3. Tine Segments (Ref 10) should be bolted to the attachment lift (Ref 12). Attach the attachment lift to (Ref 12) attachment mount using (Ref 11 & 7) clevis pin and bridge pin.
4. Lift attachment lift up or extend cylinder so rod end (Ref 14) lines up with the holes on the center of the attachment lift. Use clevis pin and bridge pin (Ref 7 & 13) to fasten cylinder to sand cultivator.
5. Turn machine on and test for proper operation.

**42-010 CONSTRUCTION LEVELING BLADE DRAWING**





## 42-010 CONSTRUCTION LEVELING BLADE PARTS LIST

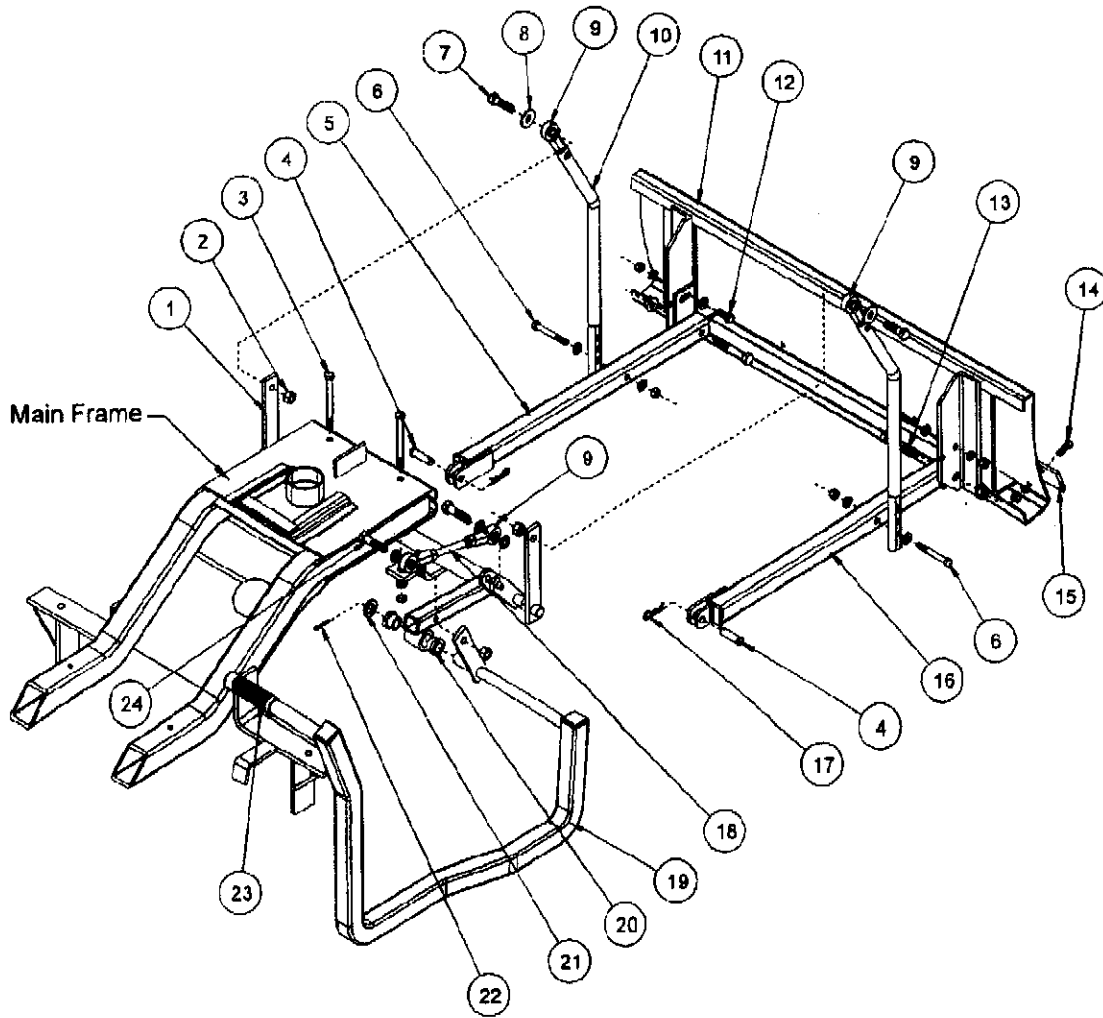
REF.#	PART#	DESCRIPTION	QTY.
1	HB-12-13-500	Bolt 1/2" – 13 x 5	4
	HNTL-12-13	Lock Nut 1/2" – 13	4
2	42-015	Attachment Mount	2
*3	42-203	Attachment Lift	1
*4	HB-38-16-100	Bolt 3/8" – 16 x 1	5
	HNTL-38-16	Lock Nut 3/8" – 16	5
*5	HCP-12-200	Clevis Pin 1/2" x 2	2
*6	HHP-18	Bridge Pin 1/8"	3
*7	HCP-58-250	Clevis Pin 5/8" x 2 1/2"	1
8	18-154	Rod End	1
*9	42-097	Leveling Blade	1
10	42-217	Cylinder Mount	1
11	18-168	90° Elbow	2
12	HCP-34-175	Clevis Pin 3/4" – 1 3/4"	1
13	10-135	Hydraulic Cylinder	1
*	42-010	Construction Leveling Blade (all other parts are reference only)	

## INSTALLATION INSTRUCTIONS

1. Remove the cylinder mount (Ref 10) from the machine.
2. Bolt leveling blade (Ref 9) to attachment lift (Ref 3) using five 3/8" -16 x 1 bolts and five 3/8" – 16 lock nuts as shown on drawing.
3. Attach the attachment lift to attachment mount (Ref 3) using clevis pin and bridge pin (Ref 5 & 6).
4. Lift attachment lift up or extend cylinder so rod end (Ref 8) lines up with the holes on the center of the attachment lift. Use 5/8" x 2 1/2" clevis pin and bridge pin (Ref 6 & 7) to fasten cylinder to cultivator.
5. Turn machine on and test for proper operation.

**42-011 - AB ALUMINUM SAND PLOW DRAWING**

**42-011 - SB STEEL SAND PLOW DRAWING**



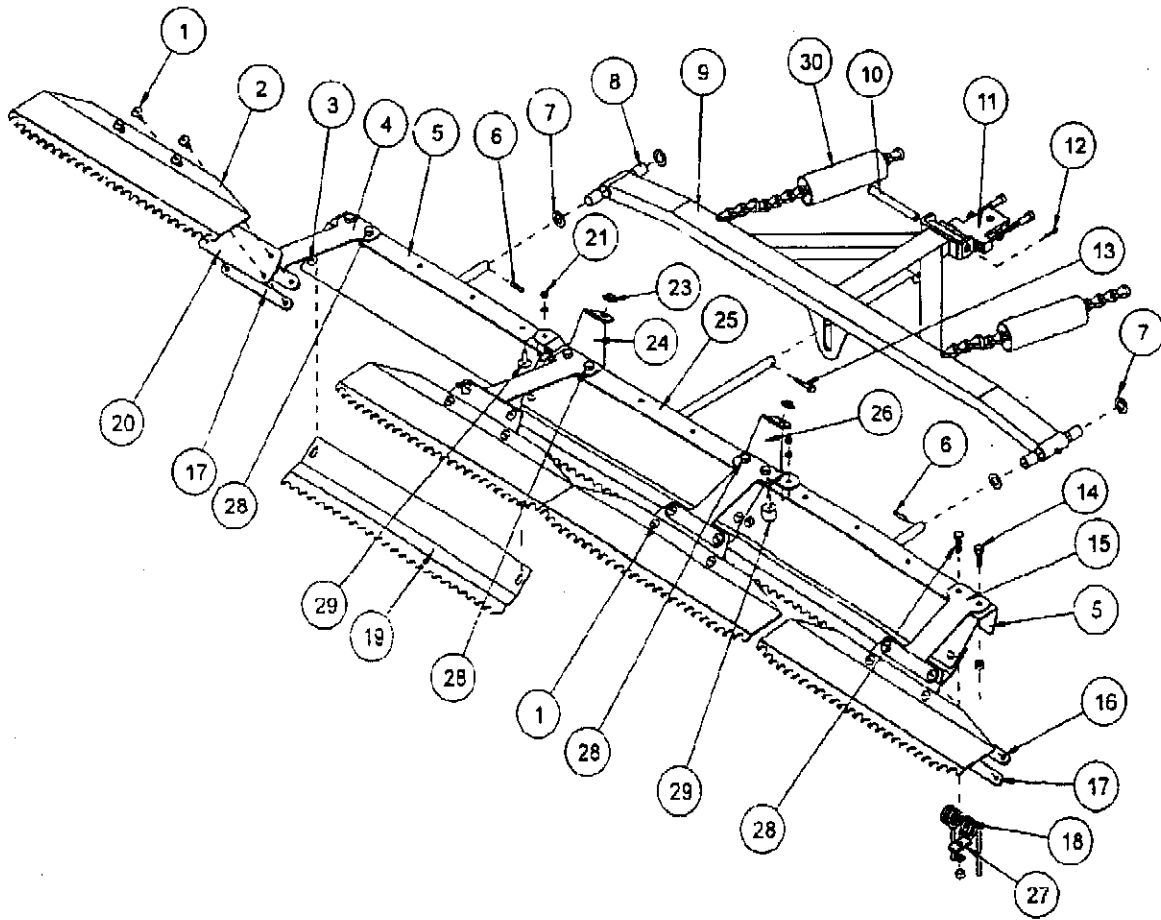
## 42-011 SAND PLOW PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	42-346	Lift Assembly (includes Ref#20)	1
2	HNTL-12-13	Lock Nut ½ - 13	2
3	HB-38-16-350	Bolt 3/8 – 16 x 3 ½ (part of main frame)	2
	HWL-38	Lock Washer 3/8	2
	HN-38-16	Nut 3/8 –16	2
4	HCP-12-150	Clevis Pin ½ x 1 ½	2
5	27-049	Left Pusher Bar	1
6	HB-38-16-300	Bolt 3/8 – 16 x 3	2
	HW-38	Washer 3/8	4
	HNTL-38-16	Lock Nut 3/8 –16	2
7	HB-12-13-200	Bolt ½ - 13 x 2	2
8	HMB-12-14	Machine Bushing ½ x 14GA	8
9	80-006	Rod End	4
	HNJ-12-20	Jam Nut ½ - 20	4
10	27-073	Lift Rod	2
11	27-017	Aluminum Sand Plow Blade	1
	13-352	Steel Sand Plow Blade	1
12	HB-38-16-100	Bolt 3/8 – 16 x 1	2
	HW-38	Washer 3/8	2
	HWL-38	Lock Washer 3/8	2
	HN-38-16	Nut 3/8 – 16	2
13	HB-12-13-300	Bolt ½ - 13 x 3	2
	HNTL-12-13	Lock Nut ½ -13	2
14	HB-38-16-100	Bolt 3/8 – 16 x 1	4
	HNFL-38-16	Flange Whiz Lock Nut 3/8" - 16	4
15	13-167	Wear Blade	1
16	27-050	Right Pusher Bar	1
17	HHP-18	Bridge Pin 1/8	2
18	42-348	Threaded Rod	1
19	42-347	Lift Handle	1
20	18-221	Flange Bushing	2
21	HMB-34-14	Machine Bushing ¾ - 14GA	1
22	HP-18-150	Cotter Pin 1/8 x 1 ½	1
23	15-019	Grip	1
24	HB-12-13-200	Bolt ½ - 13 x 2	2

## 42-011 INSTALLATION INSTRUCTIONS

1. Assemble the pusher bars (Ref 5 & 16) to the plow (Ref 11) using hardware (Ref 12 & 13). There are 2 holes to bolt the hardware in. Using hole closest to the blade will result in a shallow cut, whereas using the hole furthest from the blade will result in a deeper cut. The slot on the pusher bar is for fine tuned adjustment.
2. Assemble the lift assembly (Ref 1) to the main frame using the two studs that are under the frame and below the front of the console.
3. Attach the lift handle (Ref 19) to the lift assembly using cotter pin and machine bushing (Ref 21 & 22). Using rod and yoke (Ref 18 & 9) attach the handle to the lift assembly.
4. Put rod ends (Ref 9) onto lift rods (Ref 10) with jam nut first. Adjust to equal lengths. Bolt lift rods to lift arms with ball joints to the outside. Bolt from outside with the ½" machine bushing between rod end and lift arm and the ½ - 13 nylon lock nut on the inside. Use (Ref 7) hardware.
5. Slide plow under machine and connect to machine. Use clevis pin and bridge pin (Ref 4 & 17).
6. Lift up the plow. Using the top hole in the lift rod as a starting point hook on the pusher bars. Use (Ref 6) hardware. The three holes in the lift rods are for adjusting the hand lever. The top hole moves the lever forward and holds the blade with the most clearance. Each hole down moves the lever to the rear of the machine and decreases blade clearance by approximately one inch.
7. For fine tuning of blade height off ground twist rod end (Ref 9) on rod (Ref 18). Twisting the rod end out will increase down pressure. Twisting the rod end onto the rod will decrease down pressure.

**42-026 84" (213 CM) STAINLESS STEEL TOURNAMENT RAKE  
DRAWING**



## 42-026 84" (213 CM) STAINLESS STEEL TOURNAMENT RAKE PARTS LIST

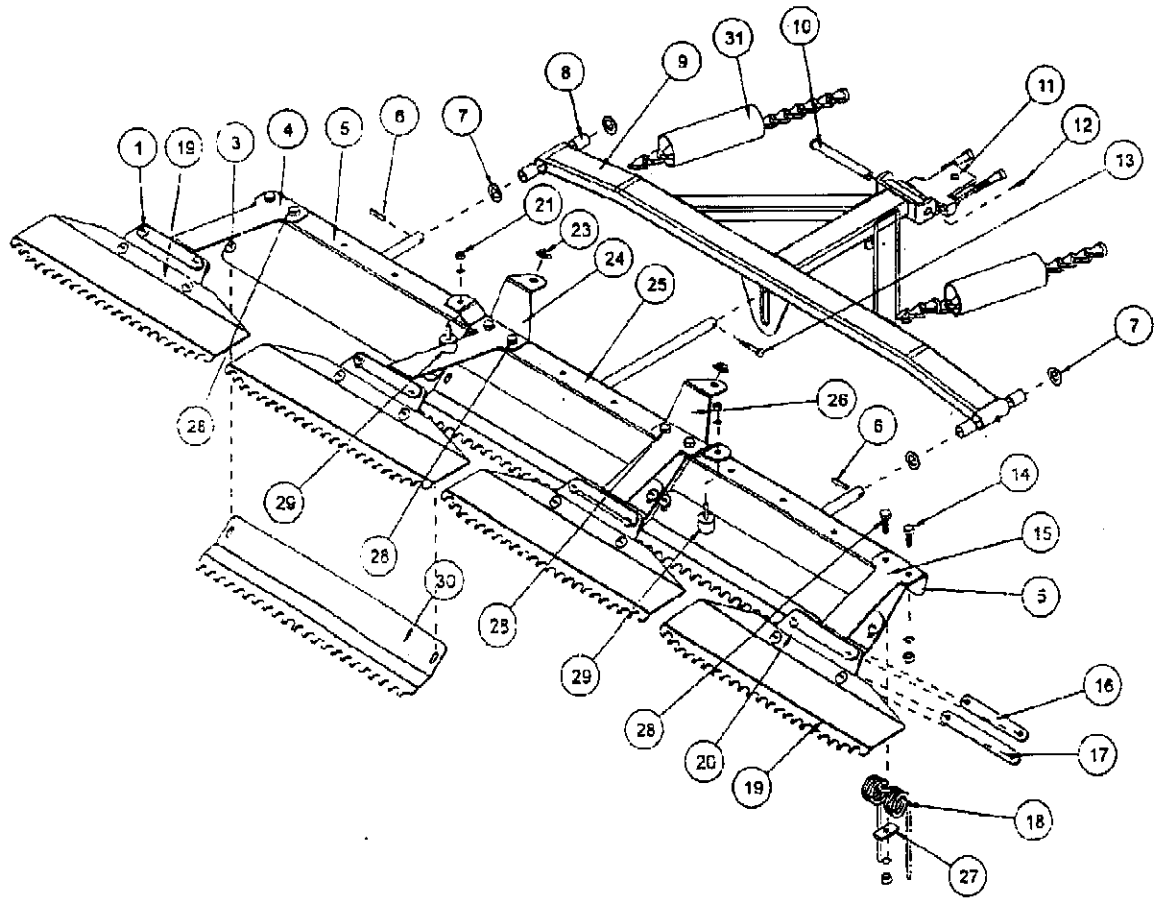
REF.#	PART#	DESCRIPTION	QTY.
1	HSTS-516-18-100	Stainless Truss Head Screw 5/16 – 18 x 1	16
	HWL-516	Lock Washer 5/16	16
	HN-516-18	Nut 5/16 – 18	16
2	42-104	Finishing Blades	4
3	HSTS-516-18-075	Stainless Truss Head Screw 5/16 – 18 x 3/4	6
	HWL-516	Lock Washer 5/16	6
	Hn-516-18	Nut 5/16 – 18	6
4	42-111	Left Outside Mount	1
5	42-102	Outside Rake	2
6	HRP-14-100	Roll Pin 1/4 x 1	2
7	HMB-58-14	Machine Bushing 5/8 x 14GA	4
8	20-018	Oilite Bushing (comes with 42-100)	4
9	42-100	Draw Bar	1
10	HCP-12-450	Clevis Pin 1/2 x 4 1/2	1
11	13-647	Hitch	1
	HSSQ-38-16-200	Square Head Set Screw 3/8 – 16 x 2 (adjustment screw)	2
	HN-38-16	Nut 3/8 – 16	2
	HCP-12-150	Clevis Pin 1/2 x 1 1/2	1
	HHP-18	Bridge Pin 1/8	1
12	HP-18-100	Cotter Pin 1/8 x 1	1
13	HBS-14-20-150	Stainless Steel Bolt 1/4 -20 x 1 1/2	1
	HNTL-14-20	Lock Nut 1/4 - 20	1
14	HSTS-38-16-100	Stainless Steel Truss Head Screw 3/8 – 16 x 1	12
	HWL-38	Lock Washer 3/8	12
	HN-38-16	Nut 3/8 – 16	12
15	42-109	Outside Towel Mount	1
16	42-105	Top Strap	4
17	42-106	Bottom Strap	4
18	42-122	Rake Spring	12
19	42-103	Groomer Blades	3
20	42-107	Matting	4
21	HNC-14-20	Cap Nut 1/4 - 20	2
	HWL-14	Lock Washer 1/4	2
23	42-116	Rubber Insert	2
24	42-110	Left Inside Mount	1
25	42-101	Center Rake	1
26	42-108	Inside Trowel Mount	1
27	42-177	Spring Holder	12
28	HSTS-38-16-125	Stainless Steel Truss Head Screw 3/8 – 16 x 1 1/4	4
	HWL-38	Lock Washer 3/8	4
	HN-38-16	Nut 3/8 – 16	4
29	15-013	Rubber Bumper	2
30	8892-6	Hose Wrap	2

## 42-026 INSTALLATION INSTRUCTIONS

1. Attach drawbar (Ref 9) to hitch (Ref 11) using clevis pin (Ref 10) and cotter pin (Ref 12).
2. Bolt rake spring (Ref 18) to rake frames (Ref 5 & 25) using hardware (Ref 14). Leave the two outside holes on right, left, and center rake open.
3. Attach rubber bumper (Ref 29) using cap nut and lock washer (Ref 21). Attach the rubber inserts (Ref 23) to the inside mounts (Ref 24 & 26).
4. Attach the outside mount (Ref 4), the left inside mount (Ref 24), the outside trowel mount (Ref 15), and the inside trowel mount (Ref 26) to the outside and center rakes (Ref 5 & 25) as shown. Use the 1" stainless steel truss head screws (Ref 14) on the outside hole of each rake. Use the spring holder (Ref 27) and the 1 ¼" stainless steel truss head screws (Ref 28) to attach rake springs (Ref 18) to the rakes under the left outside and inside mounts and the outside and inside trowel mounts.
5. Slide a machine bushing onto outside rake frames then slide the outside rake frames (Ref 5) into the tubing on the end of the drawbar. Hold in place with another machine bushing and roll pin (Ref 6).
6. Attach center rake (Ref 25) to drawbar (Ref 9) as shown, using 1 ½ stainless steel bolts and lock nuts (Ref 13) with the shaft of the center rake between the tabs on the bottom of the drawbar.
7. Attach the matting (Ref 20) and the top strap (Ref 16) to the inside and outside mounts using stainless steel truss head screw 5/16 – 18 x 1 (Ref 1). Attach four finishing blades (Ref 2) to the matting on the inside and outside mounts with the stainless steel truss head screw 5/16 – 18 x 1 (Ref 1) going through the finishing blade, matting, and bottom strap (Ref 17).
8. Place the three groomer blades (Ref 19) under the three rake assemblies as shown, using (Ref 3).
9. Attach the rake lift to the trap rake hitch.
10. The end links of chain on the drawbar are to be hooked to the hooks of the trap rake lift.
11. With the rake on the ground pull the rake to the right side until it is 2-3 inches from the tire.
12. Using the adjustment screw on the right side of hitch, adjust the screw until it hits the trap rake hitch, located on rear axle. Lock jam nut so adjustment will not change.
13. Repeat steps 8 and 9 on left side.
14. Turn machine on and test for operation of rake assembly by raising and lowering the rake assembly. Also with rake down, turn sharp corners to check that rake does not touch wheels.

**NOTE:** Test rake in sand to assure tire tracks are covered by the rake when turning sharp corners in either direction. If there are tire tracks, readjust using the adjusting screws on the hitch, so the rake comes closer to the tire.

**42-128 72" (183 CM) STAINLESS STEEL TOURNAMENT RAKE  
DRAWING**





## 42-128 72" (183 CM) STAINLESS STEEL TOURNAMENT RAKE PARTS LIST

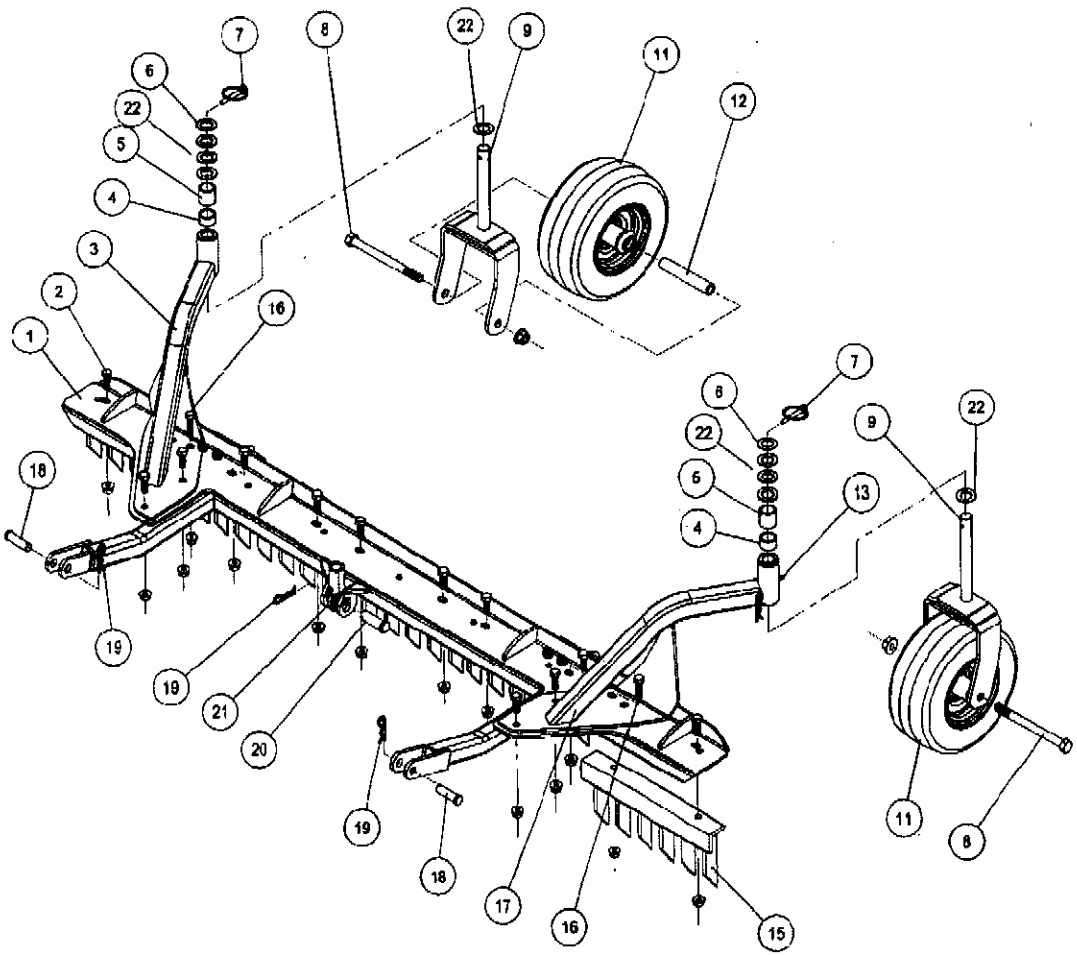
REF#	PART#	DESCRIPTION	QTY.
1	HSTS-516-18-100	Stainless Steel Truss Head Screw 5/16-18 x 1	16
	HWL-516	Lock Washer 5/16	16
	HN-516-18	Nut 5/16 – 18	16
3	HSTS-516-18-075	Stainless Steel Truss Head Screw 5/16-18x3/4	6
	HWL-516	Lock Washer 5/16	6
	HN-516-18	Nut 5/16 – 18	6
4	42-111	Left Outside Mount	1
5	42-140	Outside Rake	2
6	HRP-14-100	Roll Pin ¼ x 1	2
7	HMB-58-14	Machine Bushing 5/8 x 14GA	4
8	20-018	Oilite Bushing (comes with 42-141)	4
9	42-141	Draw Bar	1
10	HCP-12-450	Clevis Pin ½ x 4 ½	1
11	13-647	Hitch	1
	HSSQ-38-16-200	Square Head Set Screw 3/8 –16 x 2 (adjustment screw)	2
	HN-38-16	Nut 3/8 –16	2
	HCP-12-150	Clevis Pin ½ x 1 ½	1
	HHP-18	Bridge Pin 1/8	1
12	HP-18-100	Cotter Pin 1/8 x 1	1
13	HBS-14-20-150	Stainless Steel Bolt ¼ -20 x 1 ½	1
	HNTL-14-20	Lock Nut ¼ - 20	1
14	HSTS-38-16-100	Stainless Steel Truss Head Screw 3/8 – 16 x 1	12
	HWL-38	Lock Washer 3/8	12
	HN-38-16	Nut 3/8 –16	12
15	42-109	Outside Towel Mount	1
16	42-105	Top Strap	4
17	42-106	Bottom Strap	4
18	42-122	Rake Spring	12
19	42-137	Finishing Blades	4
20	42-107	Matting	4
21	HNC-14-20	Cap Nut ¼ - 20	2
	HWL-14	Lock Washer ¼	2
23	42-116	Rubber Insert	2
24	42-110	Left Inside Mount	1
25	42-139	Center Rake	1
26	42-108	Inside Trowel Mount	1
27	42-177	Spring Holder	12
28	HSTS-38-16-125	Stainless Steel Truss Head Screw 3/8 – 16 x 1 ¼	4
	HWL-38	Lock Washer 3/8	4
	HN-38-16	Nut 3/8 –16	4
29	15-013	Rubber Bumper	2
30	42-138	Groomer Blades	3
31	8892-6	Hose Wrap	2

## 42-128 INSTALLATION INSTRUCTIONS

1. Attach drawbar (Ref 9) to hitch (Ref 11) using clevis pin (Ref 10) and cotter pin (Ref 12).
2. Bolt rake spring (Ref 18) to rake frames (Ref 5 & 25) using hardware (Ref 14). Leave the two outside holes on right, left, and center rake open.
3. Attach rubber bumper (Ref 29) using cap nut and lock washer (Ref 21). Attach the rubber inserts (Ref 23) to the inside mounts (Ref 24 & 26).
4. Attach the left outside mount (Ref 4), the left inside mount (Ref 24), the outside trowel mount (Ref 15), and the inside trowel mount (Ref 26) to the outside and center rakes (Ref 5 & 25) as shown. Use the 1" stainless steel truss head screws (Ref 14) on the outside hole of each rake. Use the spring holder (Ref 27) and the 1 ¼" stainless steel truss head screws (Ref 28) to attach rake springs (Ref 18) to the rakes under the left outside and inside mounts and the outside and inside trowel mounts.
5. Slide a machine bushing onto outside rake frames then slide the outside rake frames (Ref 5) into the tubing on the end of the drawbar. Hold in place with another machine bushing and a roll pin (Ref 6).
6. Attach center rake (Ref 25) to drawbar (Ref 9) as shown, using 1 ½ stainless steel bolts and lock nuts (Ref 13) with the shaft of the center rake between the tabs on the bottom of the drawbar.
7. Attach the matting (Ref 20) and the top strap (Ref 16) to the inside and outside mounts using stainless steel truss head screw 5/16 – 18 x 1 (Ref 1). Attach four finishing blades (Ref 19) to the matting on the inside and outside mounts with the stainless steel truss head screw 5/16 – 18 x 1 (Ref 1) going through the finishing blade, matting, and bottom strap (Ref 17).
8. Place the three groomer blades (Ref 30) under the three rake assemblies as shown, using (Ref 3).
9. Attach the rake lift to the trap rake hitch.
10. The end links of chain on the drawbar are to be hooked to the hooks of the trap rake lift.
11. With the rake on the ground pull the rake to the right side until it is 2-3 inches from the tire.
12. Using the adjustment screw on the right side of hitch, adjust the screw until it hits the trap rake hitch, located on rear axle. Lock nut so adjustment will not change.
13. Repeat steps 8 and 9 on left side.
14. Turn machine on and test for operation of rake assembly by raising and lowering the rake assembly. Also with rake down, turn sharp corners to check that rake does not touch wheels.

**NOTE:** Test rake in sand to assure tire tracks are covered by the rake when turning sharp corners in either direction. If there are tire tracks readjust, using the adjusting screws on the hitch, so the rake comes closer to the tire.

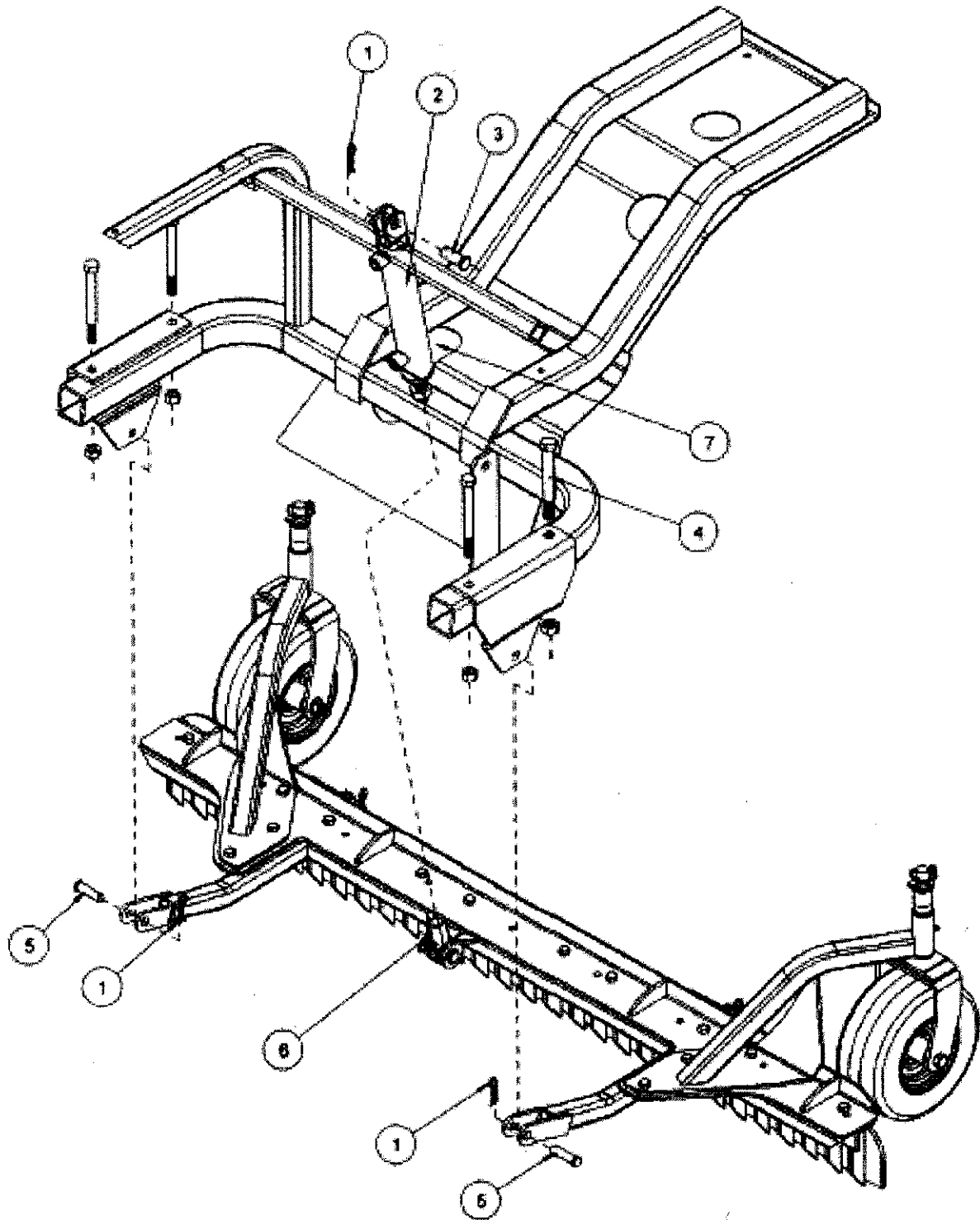
**42-178 INFIELD SCARIFIER WITH VERTICAL BLADES DRAWING**



**42-178 INFIELD SCARIFIER WITH VERTICAL BLADES PARTS LIST**

<b>REF.#</b>	<b>PART#</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	42-203	Attachment Lift Assembly	1
2	HB-38-16-100	Bolt 3/8 – 16 x 1	12
	HNTL-38-16	Lock Nut 3/8 – 16	12
3	42-205	Left Castor Wheel Bracket	1
	10-025	Bushing (part of 42-205)	2
4	42-215	Short Spacer	2
5	42-214	Long Spacer	2
6	HMB-34-14	Machine Bushing 3/4 x 14GA	2
7	42-539	Lynch Pin 5/16	2
8	HB-12-13-600	Bolt 1/2 - 13 x 6	2
	HNTL-12-13	Lock Nut 1/2 - 13	2
9	42-204	Castor Fork	2
11	42-202	Tire and Wheel	2
12	33-338	Axle Bearing	2
13	HG-14-28-180	Grease Fitting 1/4 - 28 x 180° (part of 42-205 and 42-206)	2
15	26-042	Tine Segment	5
16	HB-38-16-125	Bolt 3/8 – 16 x 1 1/4	2
	HNTL-38-16	Lock Nut 3/8 – 16	2
17	42-206	Right Castor Wheel Bracket	1
	10-025	Bushing (part of 42-205)	2
18	HCP-12-200	Clevis Pin 1/2 x 2	2
19	HHP-18	Bridge Pin 1/8	3
20	HCP-58-250	Clevis Pin 5/8 x 2 1/2	1
21	18-154	Rod End (part of machine)	1
22	HMB-34-10	Machine Bushing 3/4 x 10GA	8

**42-178 SCARIFIER MOUNTING DRAWING**



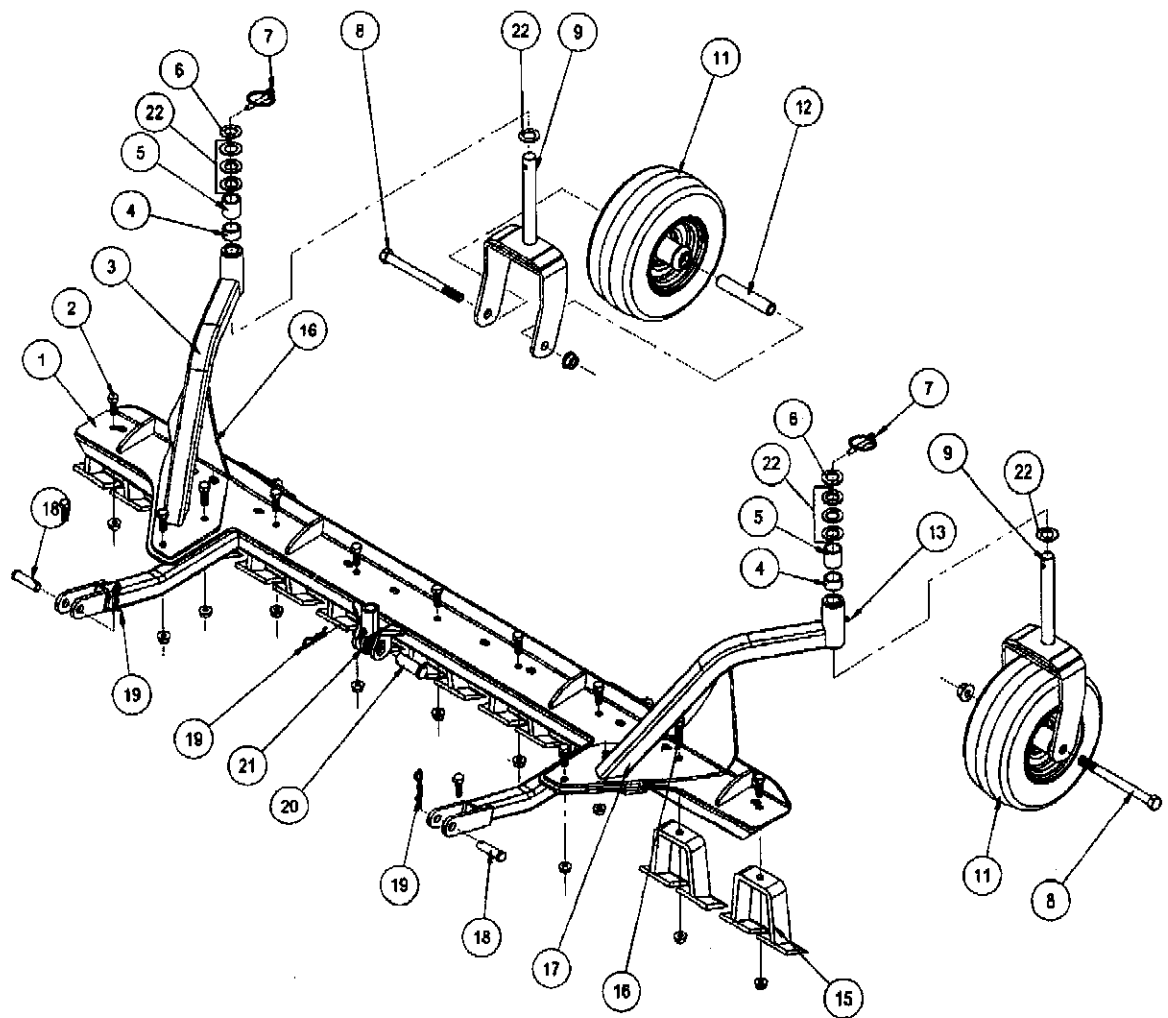
## 42-178 SCARIFIER MOUNTING PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	HHP-18	Bridge Pin 1/8	3
2	10-135	Hydraulic Cylinder (part of machine)	1
3	HCP-58-175	Clevis Pin 5/8 x 1 3/4	1
4	HB-12-13-500	Bolt 1/2 - 13 x 5	4
	HNTL-12-13	Lock Nut 1/2 - 13	4
5	HCP-12-200	Clevis Pin 1/2 - 2	2
6	18-154	Rod End	1
7	42-217	Cylinder Mount (part of machine)	1

## INSTALLATION INSTRUCTIONS

1. Assemble the Scarifier as shown on previous page.
2. Remove the rod end (Ref 6) on the hydraulic cylinder (Ref 2) from the cylinder mount (Ref 7). Remove the cylinder mount (Ref 7) from the machine.
3. Place the handle and linkage onto the empty linkage port of the two bank valve on the machine.
4. Slide the Scarifier under the machine lining up the hydraulic cylinder and the center of the attachment lift assembly.
5. Extend hydraulic cylinder all the way down by pushing the lever forward.
6. Mount the rod end of the cylinder onto the attachment lift assembly and secure with a clevis pin and bridge pin.
7. Attach the arms on the attachment lift to the attachment mount on the machine and secure with clevis pin and bridge pin.
8. Turn machine on and test for proper operation.
9. Adjust castor wheels by placing the short or long spacer on the castor wheel fork before placing the castor wheel assembly into the castor wheel brackets. Be sure both castor wheels are adjusted to the same height.

**42-179 INFIELD SCARIFIER WITH CHISEL BLADES DRAWING**

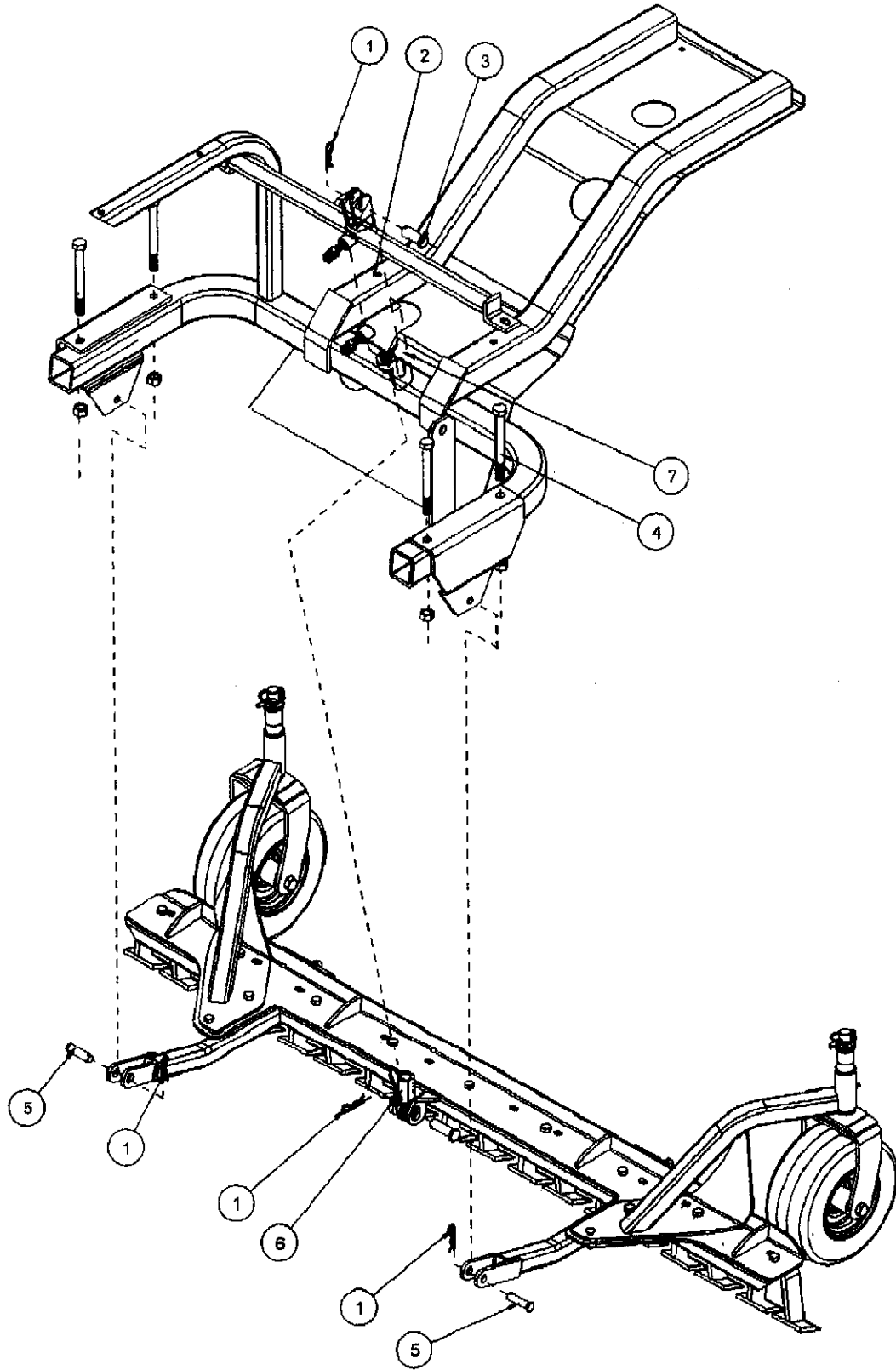


## 42-179 INFIELD SCARIFIER WITH CHISEL BLADES PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	42-203	Attachment Lift Assembly	1
2	HB-38-16-125	Bolt 3/8 – 16 x 1 ¼	11
	HNTL-38-16	Lock Nut 3/8 –16	11
3	42-205	Left Castor Wheel Bracket	1
	10-025	Bushing (part of 42-205)	2
4	42-215	Short Spacer	2
5	42-214	Long Spacer	2
6	HMB-34-14	Machine Bushing ¾ x 14GA	2
7	42-539	Lynch Pin 5/16	2
8	HB-12-13-600	Bolt ½ - 13 x 6	2
	HNTL-12-13	Lock Nut ½ -13	2
9	42-204	Castor Fork	2
11	42-202	Tire and Wheel	2
12	33-338	Axle Bearing	2
13	HG-14-28-180	Grease Fitting ¼ -28 x 180° (part of 42-205 and 42-206)	2
15	13-114	Digger Blade	9
16	HG-38-16-150	Bolt 3/8 – 16 x 1 ½	2
	HNTL-38-16	Lock Nut 3/8 –16	2
17	42-206	Right Castor Wheel Bracket	1
	10-025	Bushing (part of 42-205)	2
18	HCP-12-200	Clevis Pin ½ x 2	2
19	HHP-18	Bridge Pin 1/8	3
20	HCP-58-250	Clevis Pin 5/8 x 2 ½	1
21	18-154	Rod End (part of machine)	1
22	HMB-34-10	Machine Bushing ¾ x 10GA	8



**42-179 SCARIFIER MOUNTING DRAWING**



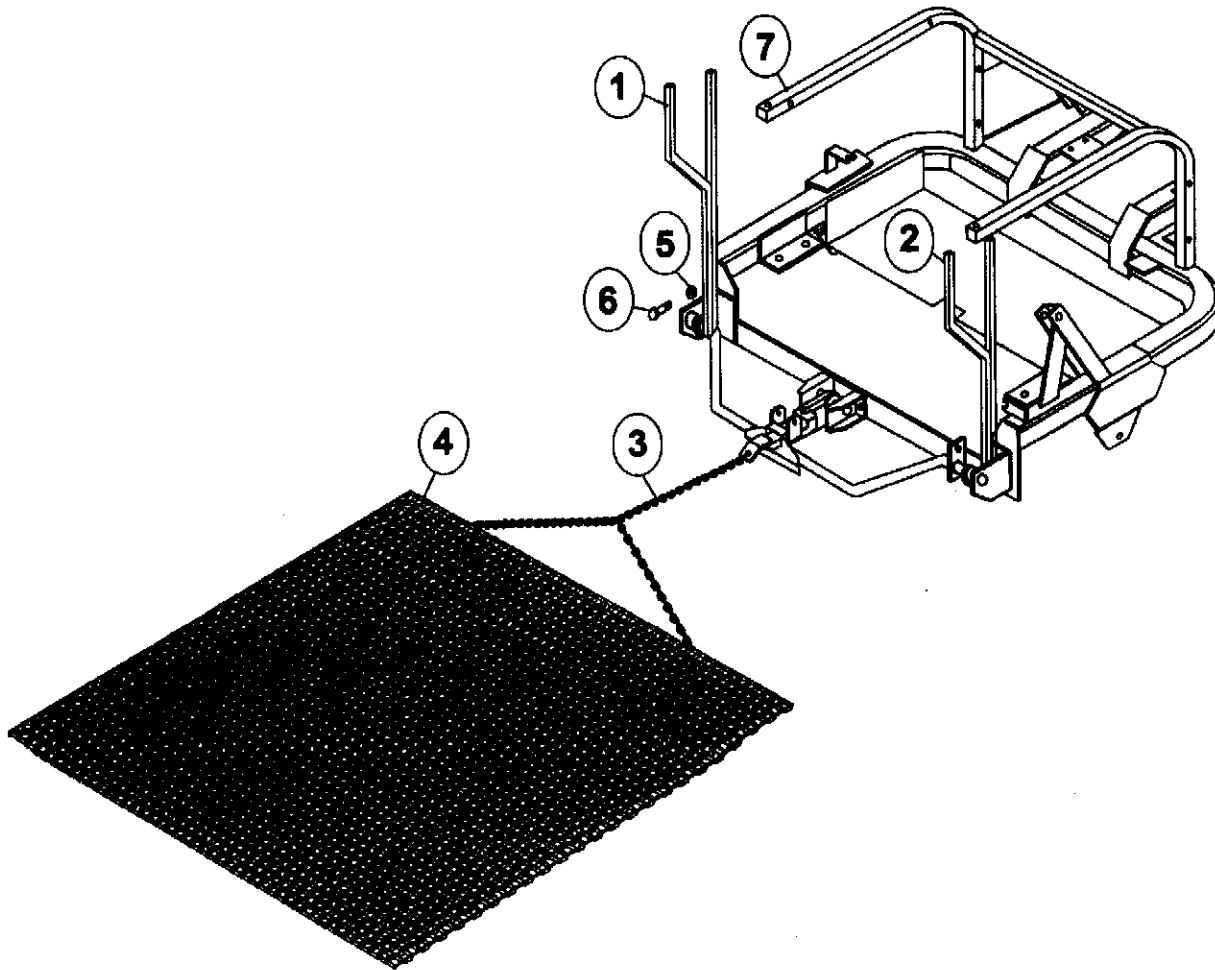
## 42-179 SCARIFIER MOUNTING PARTS LIST

REF.#	PART#	DESCRIPTION	QTY.
1	HHP-18	Bridge Pin 1/8	3
2	10-135	Hydraulic Cylinder (part of machine)	1
3	HCP-58-175	Clevis Pin 5/8 x 1 3/4	1
4	HB-12-13-500	Bolt 1/2 - 13 x 5	4
	HNTL-12-13	Lock Nut 1/2 -13	4
5	HCP-12-200	Clevis Pin 1/2 - 2	2
6	18-154	Rod End (part of machine)	1
7	42-217	Cylinder Mount (part of machine)	1

## INSTALLATION INSTRUCTIONS

1. Assemble the Scarifier as shown on previous page.
2. Remove the rod end (Ref 6) on the hydraulic cylinder (Ref 2) from the cylinder mount (Ref 7). Remove the cylinder mount (Ref 7) from the machine.
3. Place the handle and linkage onto the empty linkage port of the two bank valve on the machine.
4. Slide the Scarifier under the machine lining up the hydraulic cylinder and the center of the attachment lift assembly.
5. Extend hydraulic cylinder all the way down by pushing the lever forward.
6. Mount the rod end of the cylinder onto the attachment lift assembly and secure with a clevis pin and bridge pin.
7. Attach the arms on the attachment lift to the attachment mount on the machine and secure with clevis pin and bridge pin.
8. Turn machine on and test for proper operation.
9. Adjust castor wheels by placing the short or long spacer on the castor wheel fork before placing the castor wheel assembly into the castor wheel brackets. Be sure both castor wheels are adjusted to the same height.

## 9412 DRAG MAT KIT DRAWING



## 9412 DRAG MAT KIT PARTS LIST

REF#	PART#	DESCRIPTION	QTY.
1	943-231	Left Hand Bracket	1
2	943-232	Right Hand Bracket	1
3	943-233	Chain Kit	1
4	943-234	Drag Mat	1
5	400-105	1/2" - 13 Hex Nut	4
6	400-028	1/2" - 13 x 2" HHCS	4
7	943-101	Frame	

## 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 55 @ Poplar St.  
Cameron, Wisconsin 54822  
Telephone: 715-458-4192      E-Mail: [ProductSupport@Smithco.com](mailto: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**

