REMLINGER

ISO9001:2015 certified

Cultivator
Model 9400

Owner's Manual
Installation and Parts Manual

Our Tradition is Quality Driven and Field Proven

Manual # - MAN-RC-9400-003

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Common Used Symbols

Alert, Caution or Important Symbol

Danger or Warning Symbol

Fluid under Pressure Symbol

Lubrication Symbol

Remlinger 9400 High Residue Cultivator

Thank you for purchasing a **Remlinger 9400 HIGH RESIDUE CULTIVATOR**, still following it's the long history of being the finest high residue cultivator on the market. The Remlinger 9400 was designed at the request of farmers like yourself with a need to cultivate through adverse conditions while still maintaining a high amount of residue cover on the surface. This required that the design include a narrow shank, with flat, reversible share type sweeps. The residue cutting coulter was placed as close to the sweep as possible for minimum plugging and superior rock protection. Dual depth wheels were placed in the optimum position of coulter to ground contact for trash holding ability and still kept at a minimum distance from the sweep for accurate depth control. The high clearance shank is a trussed design for high strength while still offering room for trash flow.

Best of all, you can leave your toolbox at home. The major in-field adjustments can all be adjusted with one tool, which is supplied and stored on the cultivator itself. No more digging through toolboxes! No lost wrenches in the field! You simply remove the tool from its holder, slip it on the adjusting lever, reposition to the desired setting, and the spring loaded lever will do the rest. Cultivator adjusting has never been so easy!

This machine is designed to cultivate for maximum weed kill with minimum disturbance of surface residue for high erosion control. The cultivator kills by cutting the roots of the weeds but does not roll the top soil. This not only maintains the surface residue, but also allows for high speed cultivation with minimum shielding. The lower shank design also allows for pitch adjustment of the shares and/or the point itself. This arrangement is fashioned in a shear style so that when you catch the big one, the bolt is what gives, not the cultivator.

The options on this machine were also made with the farmer in mind. Open top rotary hoe and corrugated shield assemblies attach and detach with only one bolt. These shields are fully adjustable, spring loaded, and can also can also be flipped up out of the way. Anhydrous ammonia shanks or liquid fertilizer tubes also make this machine much more than just an ordinary cultivator.

We believe that we have designed a machine with enough strength and flexibility to carry you into the next phase of farming, the management of your residue. Try it out and we bet that you will agree.

Read and study operator's manual carefully to learn how to safely service and operate your machine. Failure to do so could cause personal injury or equipment damage.

In addition to the equipment furnished with your cultivator, attachments are available to help you do a better job. **Right Hand and Left Hand sides are determined by facing in the direction the cultivator will travel when in use**.

For your convenience write model and serial number in area provided below. Serial number is located on side end of tool bar.

Model Number: _____

Serial Number: _____

Date of Purchase: _____

This symbol indicates an important Safety Alert Message in this Manual. Carefully read and understand the message that follows. The potential for series injury or death is possibly.

Warning

Before using this attachment, make certain that every operator:

- Is instructed in safe and proper use of this attachment.
- Reads and understands the manual pertaining to the cultivator.
- Reads and understands ALL (if applicable) Safety Decals on the cultivator.
- Clears the area of all other people before operating the cultivator and / or attachments.
- Learns and practices safe use of the cultivator and / or attachments in a safe clear open area before operating in the field.

Safety Rules

- Never attempt to operate or adjust the cultivator without reading this manual.
- Do not attempt to adjust the cultivator while it is in motion.
- Caution is required when hooking up or un-hooking the cultivator. Two toolbar stands have been provided to help support the cultivator.
- Always use any transport locks that are provided on the cultivator or attachment.
- Always place any safety decals and / or reflectors in their proper locations. Clean and replace as necessary.
- Never allow anyone to ride on the cultivator or attachments.
- Always slow down when turning and traveling over rough terrain.
- Always support the cultivator when mounting or working on the attachments.
- Hydraulic oil escaping under pressure can have sufficient force to penetrate the skin causing serious personal injury.
- Before disconnecting lines be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes, and hoses are not damaged.
- Be careful around teeth, tines, sweeps, and blades: they get sharper with wear.

To The Owner

This manual contains important information about the safe assembly, adjustment, operation and maintenance of your 9400 Cultivator. The Toolbar and Row Units have been partially assembled at the factory. The use of this manual describes how to complete the remaining assembly. Additional diagrams may also be included for specific applications. Please contact your dealer or Remlinger Manufacturing for any questions. **1-800-537-7370**

Any unauthorized modification to any part of the Cultivator or attachments could cause series injury and void any warranty consideration. Please refer to the Warranty Policy referenced below. This manual should be placed in the Owner's Manual Canister on the implement to which it is attached. For additional manuals or to replace a lost or damaged manual, please contact your dealer. The manual number is referenced on the lower right hand corner of each page.

Warranty Policy

Remlinger Mfg. will warrant all products against defects in material and workmanship manufactured and sold by it. Warranty will only be granted after examination by appropriate personnel. This warranty is expressly limited to the replacement of defective products. This warranty does not obligate Remlinger Manufacturing to cover cost of labor to replace these parts.

Remlinger Mfg. reserves the right to change specifications, add improvements or discontinue manufacture of any of its equipment without notice or obligation to purchasers of its equipment. This warranty gives you specific legal rights. You may also have other rights which vary according to state or province.

WARRANTY EXCLUSIONS: Labor, transportation, or any cost related to a service call is not provided by Remlinger Mfg. This Limited Warranty does not apply to damage resulting from misuse, neglect, normal wear, accident or improper installation or maintenance.

BASIC WARRANTY: All Remlinger manufactured products are warranted for one year from date of purchase.

WARRANTY CERTIFICATION: Warranty registration should be mailed, emailed or faxed within 30 days of purchase. Please see Registration Form on page 45.

UNAPPROVED PARTS OR MODIFICATION: All obligations of Remlinger Mfg. under this Warranty are terminated if unapproved parts are used or if equipment is modified or altered in any way not approved by Remlinger Mfg.

Introduction

This manual contains an illustrated parts catalog and instructions for installation, operation, and service of unit. Please read carefully and follow all instructions.

Parts catalog covers serviceable parts and is broken down into groups for each section of unit.

Parts shown in exploded views of assemblies have reference numbers that correspond to Part Numbers. **DO NOT ORDER PARTS BY REFERENCE NUMBERS.** Part number and part description are shown with reference numbers. Total number of parts required per unit or assembly is shown opposite each part number.

When ordering parts, always give parts number and part description. If part the number cannot be found in manual, give clear description of part and its location and function. Specify machine type and size.

General Instructions

Read all assembly instructions carefully and observe illustrations. Lubricate all bushings and moving parts as you proceed. Bolts should be used in the holes in which they are designated. Leave bolts loose until parts are attachments are completely assembled. Then tighten bolts. It is important that bolts are tight. Loose bolts can cause breakage of parts. If bolts must be replaced, replace them only with bolts of equal strength. The radial lines on the bolt determine their strength.

Operation

Be careful when operating the cultivator to avoid injury to the operator and assistants. If the cultivator must be in a raised position when working on it or near it, be sure proper safety precautions are taken.

Pay close attention to pinch points. Be especially careful when raising or lowering unit while assembling. Could cause crushing or loss of fingers.

Permit only one person, the operator, on the tractor platform while tractor and cultivator are in operation. Be careful when operating on side hills because the tractor may tip sideways if it strikes a hole, ditch, or other irregularity.

Oil escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood instead of a hand to search for suspecting leaks. If injured by escaping oil, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately. Always relieve pressure in a hydraulic system before working with hydraulic system components.

Agricultural chemicals can be dangerous. Improper selection or use can injury persons, animals, plants soil, or other property. Be safe, handle and apply with car. Follow instructions of chemical manufacturer. Finally, remember this, an accident is usually caused by the carelessness, neglect, or oversight or someone.

Service

Always lower the cultivator to the ground when not in use. Whenever possible perform service work and adjustments with cultivator on the ground. Never clean, lubricate, or adjust a machine that is in motion.

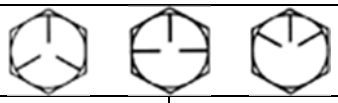
Before using the cultivator after it has been stored, thoroughly inspect the unit for loose parts and adjust as necessary.

Tighten all bolts. It is important that bolts be kept tight at all times. Loose bolts can cause breakage of parts. Check the tightness of bolts periodically and keep them tightened. When bolts are replaced be sure they are replaced with bolts of equal strength.

Clean any dirt or grease that may have accumulated on moving parts. This will prevent abrasive action that could cause excessive wear.

Be certain that all adjustments are made for the cultivating conditions to be encountered. At the end of the season store the cultivator under cover with all parts in operating condition. Clean the cultivator thoroughly to remove dirt and trash which could hold moisture and cause rusting. Store the cultivator in a clean, dry place with the cultivator wheels out of the sun and off of the floor. Do not let the cultivator rest on the wheels in storage as it will reduce tire life.

Recommended Torque Specifications

SAE Grade No.	**5**		**8**	
Bolt Head Identification				
Bolt Size	**Lb - Ft**	**N - m**	**Lb - Ft**	**N - m**
1/4”	9 - 11	12 – 15	12 - 15	16 - 20
5/16”	17 - 20.5	23 – 28	24 - 29	33 - 39
3/8”	35 – 42	48 - 57	45 - 54	61 - 73
7/16”	54 – 64	73 - 87	70 - 84	95 - 114
1/2”	80 - 96	109 - 130	110 - 132	149 - 179
5/8”	150 – 180	203 - 244	220 - 264	298 - 358
3/4”	270 – 324	366 – 439	380 - 456	515 - 618
7/8”	400 – 480	542 – 651	600 - 720	814 - 976
1”	580 - 696	787 – 944	900 - 1080	1220 - 1464
1-1/8”	800 – 880	1085 – 1193	1280 - 1440	1736 - 1953
1-1/4”	1120 – 1240	1519 – 1681	1820 - 2000	2468 - 2712
1-3/8”	1460 – 1680	1980 – 2278	2380 - 2720	3227 - 3688
1-1/2”	1940 - 2200	2631 – 2983	3160 - 3560	4285 - 4827

Caution

Escaping fluid under pressure can cause serious injury and requires doctor's immediate attention. Keep away from hydraulic system until pressure is relieved.

Caution

Caution: Do not store the cultivator with hydraulic pressure in the remote hydraulic cylinders.

Danger

Danger: Keep everyone clear of machinery when folding or unfolding wings, and have the unit on level ground before folding or unfolding unit. Failure to do so may cause serious injury or death.

Attention

All grease zerks should be greased Every 12 Hours of Operation

Coulter Bearings with Seals 1 Pump every 12 Hours of Operation

Tractor Preparation

Before hooking tractor to cultivator, these are items that should be checked for best cultivator operation and safety.

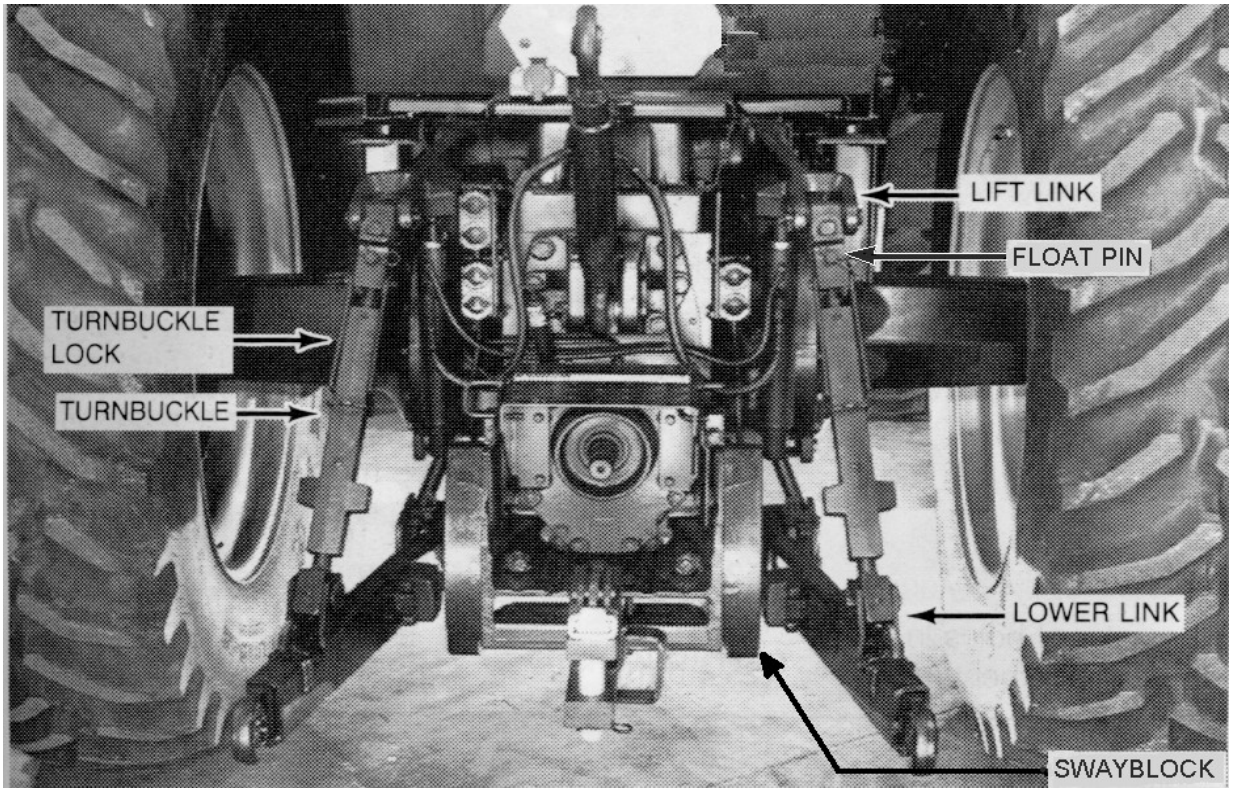
- Select the correct tractor for the cultivator size. Recommended Horse Power is 12-15hp per row. Example - a 12 row cultivator will require a tractor with 150-180hp. This is recommended not only for pulling but for lifting capabilities and safety during transport.

- Set sway blocks to allow for a small amount of side sway (1/4 – 1/2 inch) when down and minimal travel side to side when lifted. This will allow for corrective steering while cultivating, but keeps the cultivator from interfering with tractor tires. Find out if tractor 3-point is to be used as Category II or III. This will determine bushing set-up on cultivator 3-point.

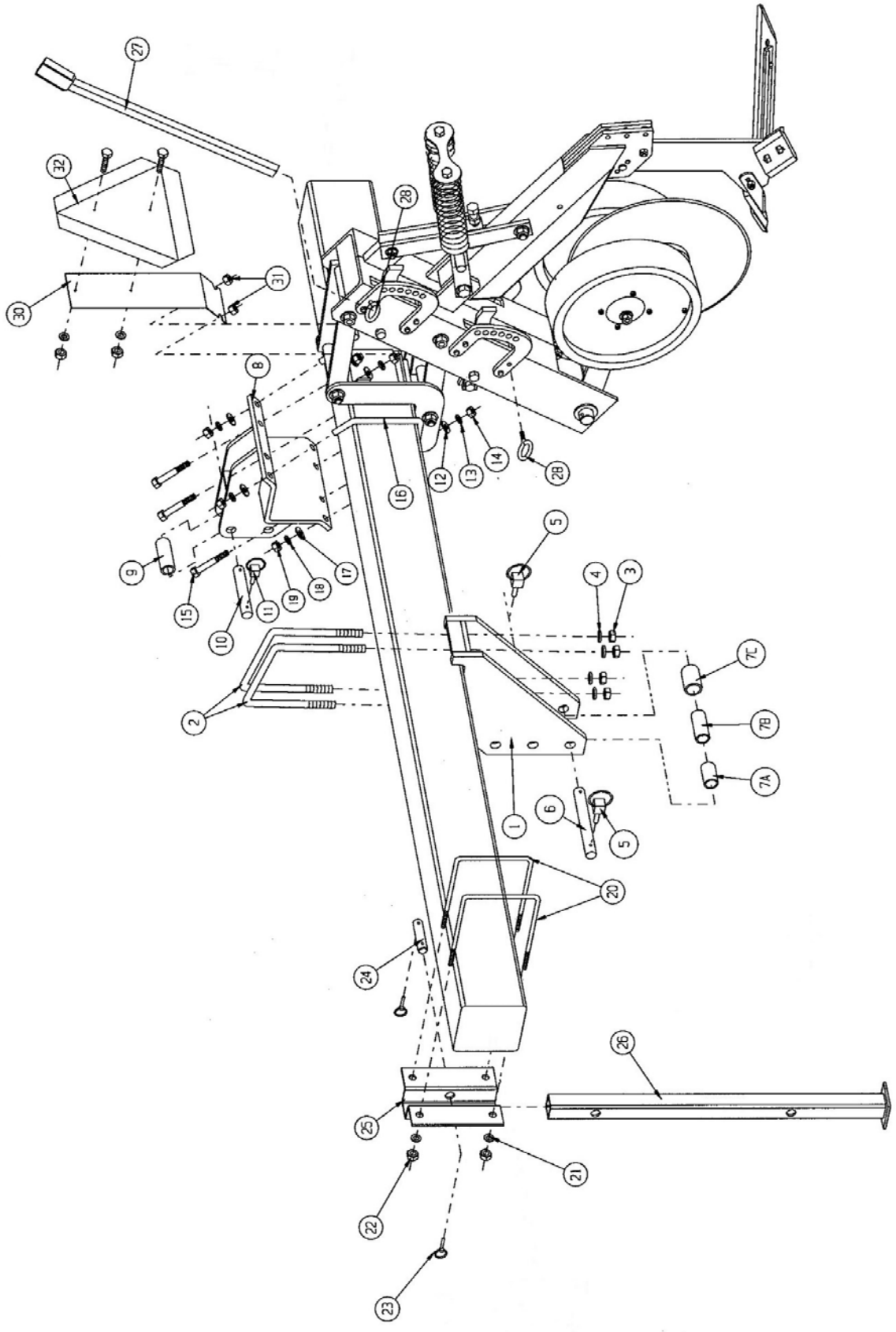
- Crank the tractor lift arms to the highest setting and level. This will ensure maximum lift and tool bar will not hang low on one end when raised.

- Remove the float pins from lift arms of tractor. This will allow for proper floating of the cultivator tool bar.

- Make sure that the tractor is properly ballast and will maneuver the cultivator properly for transport.



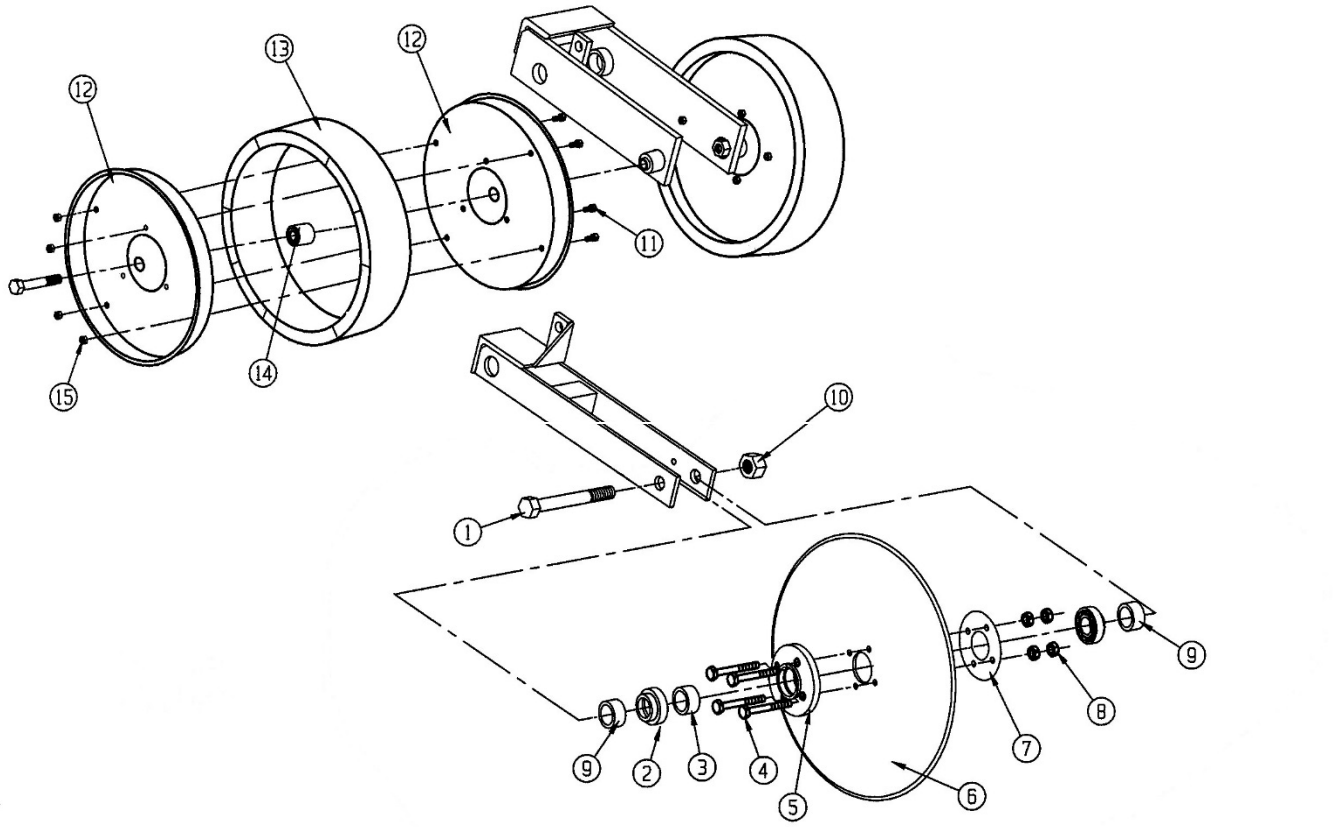
3 Point Hitch Assembly - Diagram



3 Point Hitch Assembly - Description

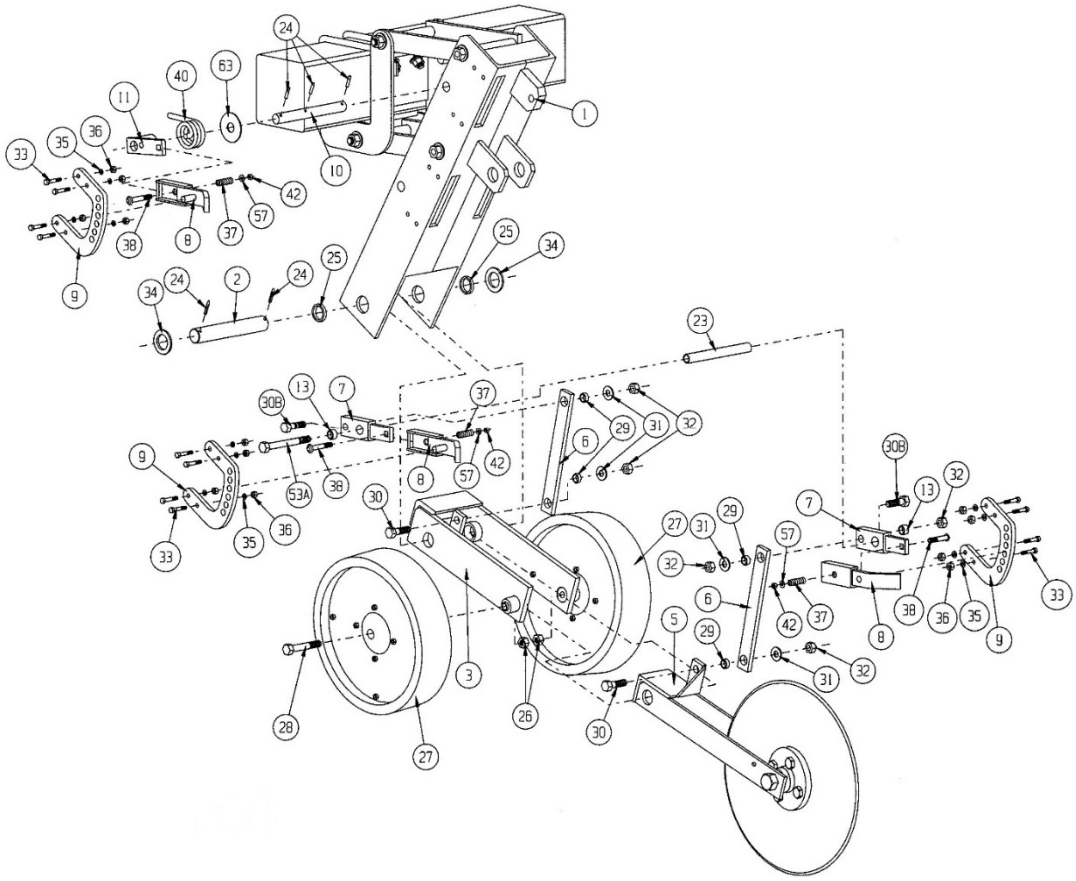
Ref #	Description	Qty	Part #
	Outer Hitch Assembly - Single Bar	**2**	**RM-M5247**
1	Lower 3 point hitch - Hi lift	2	RM-M5244
2	U-bolt, 3/4 x 7" Square	4	RM-J0833
3	Nut, hex 3/4" - 10 PLT	8	
4	Washer, Lock, 3/4", PLT Split	8	
5	Lynch Pin, 5/16 x 2"	4	RM-J1548
6	Pin, 1-1/8 Dia. X 7-9/16"	2	RM-M3309
7a	Bushing, 2" long	1	RM-M3317
7b	Bushing, 2-3/8" long	1	RM-M3318
7c	Bushing, 2" O.D. x 2-3/8" long	1	RM-M3313
	Outer Hitch Double Tool Bar (Not Shown)	**2**	**RM-M52471**
	Hitch Lower 3 Point HD Weldment	2	RM-M52441
	U-Bolt 3/4 x 7 Square	8	RM-J0833
	Nut, Hex 3/4" - 10 PLT	16	
	Washer, Lock, 3/4", PLT Split	16	
	Lynch Pin, 5/16 x 2"	4	RM-J1548
	Pin, Lower, 1-3/16"	2	RM-W510573
	Center Hitch Assembly Single Bar	**1**	**RM-M5235**
8	Center Hitch Weldment - Single Bar	1	RM-M5230
9	Bushing, 1-1/4 O.D. x 1" I.D. x 2-3/8 long	1	RM-M3315
10	Pin, 1" x 5" PLT	1	RM-M3301
11	Lynch Pin, 5/16 x 2"	2	RM-J1548
12	Washer, Flat, 5/8 PLT	4	
13	Washer, Lock, 5/8 PLT	4	
14	Nut, Hex, 5/8 - 11 PLT	4	
15	Bolt, 5/8 - 11 x 4-1/2 PLT Gr 8	4	
	These Items are used in Gang Assembly		
16	U-Bolt, 5/8 - 11 x 10-1/2 "V" shaped	2	RM-J07821
17	Washer, Flat, 5/8 PLT	4	
18	Washer, Lock, 5/8 PLT Split	4	
19	Nut, Hex, 5/8 - 11PLT	4	
	Center Hitch Double Bar (not shown)	**1**	**RM-M52351**
	U-Bolt	3	RM-J0833
	Hex Nut, 3/4"	6	
	Lock Washer, 3/4"	6	
	Lynch Pin	2	RM-J1548
	Pin	1	RM-M3186
	Center Hitch Weldment - Double Bar	1	RM-M4132
	Cultivator Stand Assembly	**1**	**RM-M3151**
20	U-Bolt, 3/4 x 7" Sq.	4	RM-J0833
21	Lock Washer, 3/4" PLT Split	8	
22	Nut, 3/4 - 10 PLT	8	
23	Pin, Lynch, 5/16 x 2"	4	RM-J1548
24	Pin, Cylinder Mount, 1" , 4.25" Long	2	RM-M3652
25	Jack Stand Bracket	2	RM-M3433
26	Support Leg Weldment	2	RM-M3434
27	Adjusting Tool	1	RM-M5228
28	Tool Holder Pipe	2	RM-J0862
29	End cap for Tool Bar	2	RM-J8028
	Packet, Safety, Cultivator M9400 - Decals, Manual, Small Sign	1	RM-M2992
30	Bracket for SMV sign	1	RM-M33311
31	Nut, Hex, 5/8 - 11 PLT	2	
32	Sign, Slow Moving Vehicle	1	RM-J2250
	Bolt, 1/4-20 x 3/4 PLT	2	
	Nut, Hex, 1/4 - 20, PLT	2	
	Lock Washer, 1/4, Split	2	

Gauge Wheel & Coulter Assembly
(Sealed Bearings)



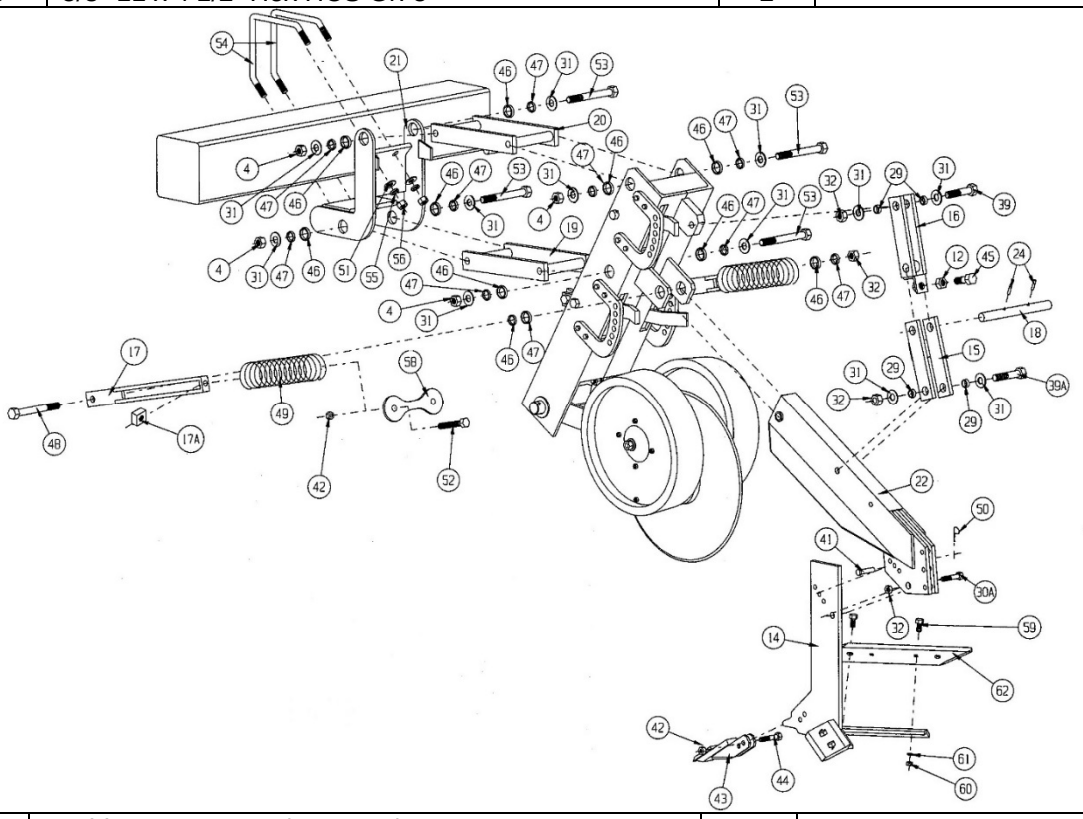
Ref #	Description Complete Coulter Blade & Hub Assembly	Qty	Part #
1	Bolt, 1-14 x 5, PLT Gr. 5 HHCS	1	
2	Bearing, 1" Fafnir	2	RM-00302
3	Spacer, 1.25 OD, 1 I.D x 1	1	RM-3344
4	Bolt, 1/2-13 x 1-3/4 PLT Gr. 5 HHCS	4	
5	Coulter Hub with sealed B Bearing	1	RM-M3385M
6	Coulter Blade 20"	1	RM-K5586
7	Coulter Backing Plate (4 hole)	1	RM-M33851
8	Nut, ,Lock, 1/2-13 PLT Gr. 5	1	
9	Spacer, Coulter hub sealed	2	RM-M3200
10	Nut, Lock, 1-8, PLT, Thin Nylon	1	
	Tire, 4x16, W/Rims & Bearings, Nylon	1	RM-J7262
11	Bolt, 5/16 x 3/4	7	
12	Rim, Split, Nylon, Clinch Rim, (1)	1	RM-J7263
13	Tire	1	RM-J7264
14	Bearing, FAFNIR - 40MM	1	RM-J0107
15	Locknut, 5/16	7	
	Tire, 4x16, W/Rims & Bearings, Steel	1	RM-J7256
11	Bolt, 5/16 x 3/4	7	
12	Rim, Split, Steel, Clinch Rim, (1)	1	RM-J7257
13	Tire	1	RM-J7258
14	Bearing, FAFNIR - 40MM	1	RM-J0107
15	Locknut, 5/16	7	

9400 Gang Assembly



Ref #	Description	Qty	Part #
1	Gang	1	RM-M5204
2	Gang Pivot Shaft	1	RM-M5205
3	Gauge Wheel Bracket	1	RM-M5208
4	3/4”-10 Hex Lock Nut	4	
5	Coulter Arm	1	RM-M5207
6	Linkage Bar	2	RM-M5219
7	Lever Linkage Bracket	2	RM-M5216
8	Adjustable Lever	3	RM-M5218
9	Adjusting Plate	3	RM-M5221
10	Down Pressure Pivot Pin	1	RM-M5215
11	Down Pressure Spring Bracket	1	RM-M5217
12	3/4”-10 Hex Jam Nut	1	
13	Bushing - 1” OD x 3/4” ID x 1.125 Long	2	RM-M5351
14	Sweep Mounting	1	RM-M5222
15	Trip Linkage - Bottom	1	RM-M5210
16	Trip Linkage - Top	1	RM-M5211
17	Trip Linkage Spring Bracket	2	RM-M5213
17A	5/8”-11 Square Lock Nut	2	RM-J10472
18	Trip Linkage Pivot Shaft	1	RM-M5212
19	Gang Linkage - Bottom	1	RM-M5202
20	Gang Linkage - Top	1	RM-M5203
21	Mounting Bracket	1	RM-M5200
22	Shank	1	RM-M5206
23	Lever Spacer	1	RM-M5231
24	5/16” x 2 1/4” Roll Pin	7	RM-J1510
25	Split Bushing – 1 3/4” x 1 1/2” x 1/2”	2	RM-J00852
26	5/8”-11 Hex Lock Nut	2	
27	4” x 16” Gauge Wheel Assembly – w/ Rim & Bearings	2	RM-J7262

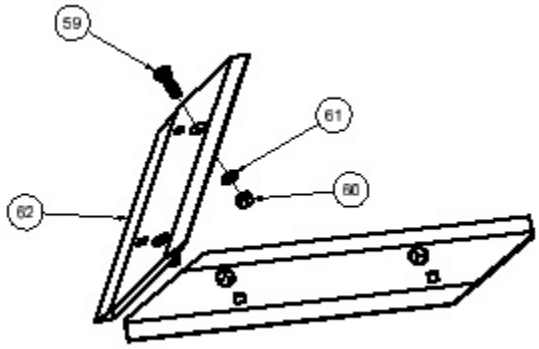
28	5/8”-11 x 4 1/2” Hex HCS Gr. 5	2	



29	Bushing – 1” OD x 3/4” ID x 5/8” Long	8	RM-M3211
30	3/4”-10 x 2 1/4” HCS Gr. 5	2	
30A	3/4”-10 x 2 1/2” HCS Gr. 5	1	
30B	3/4”-10 x 2 3/4” HCS Gr. 5	2	
31	3/4" Flat Washer	16	
32	3/4”-10 Hex Lock Nut	9	
33	3/8”-16 x 1 1/2” HCS Gr. 5	12	
34	10 Ga x 1 1/2” Machine Bushing	2	RM-J1285
35	3/8” Lock Washer	12	
36	3/8”-16 Hex Nut	12	
37	Die Spring – 1/2” ID x 1” OD x 1 1/4” Long	3	RM-J2364
38	1/2”-13 x 3” Carriage Bolt Gr. 5	3	
39	3/4”-10 x 3 1/2” HCS Gr. 5	1	
39A	3/4”-10 x 5” HCS Gr. 5	1	
40	Torsion Spring – 1/2” Wire	1	RM-J23421
41	1/2" x 2” Picker Pin	1	RM-J1555
42	1/2”-13 Hex Lock Nut	4	
43	Ripper Point	1	RM-J8216
44	1/2“-13 x 1 1/2” HCS Gr. 5	1	
45	3/4”-10 x 3” HCS GR. 5 – Full Thread	1	
46	Split Bushing – 1 1/2” x 1 1/8” x 1/2”	10	RM-J00850
47	Bushing – 1 1/8” OD x 0.182” wall x 5/8” Long	10	RM-M33201
48	3/4”-10 x 6” HCS Gr. 5	1	
49	Compression Spring 3” OD x 3/8” Wire x 12” Long	2	RM-J2372
50	Bow Tie Clip	1	RM-J5412
51	5/8” Flat Washer	4	
52	5/8”-11 x 4” HCS Gr.5	2	
53	3/4”-10 x 9 1/2” HCS GR. 5	4	
53A	3/4”-10 x 9” HCS GR. 5	1	
54	5/8”-11 x 10 1/2” V-Bolt	2	RM-J07821
55	5/8” Lock Washer	4	
56	5/8” Hex Nut	4	
57	1/2” Flat Washer	3	

58	Spring Cap Casting	2	RM-K5576

Plow Shares

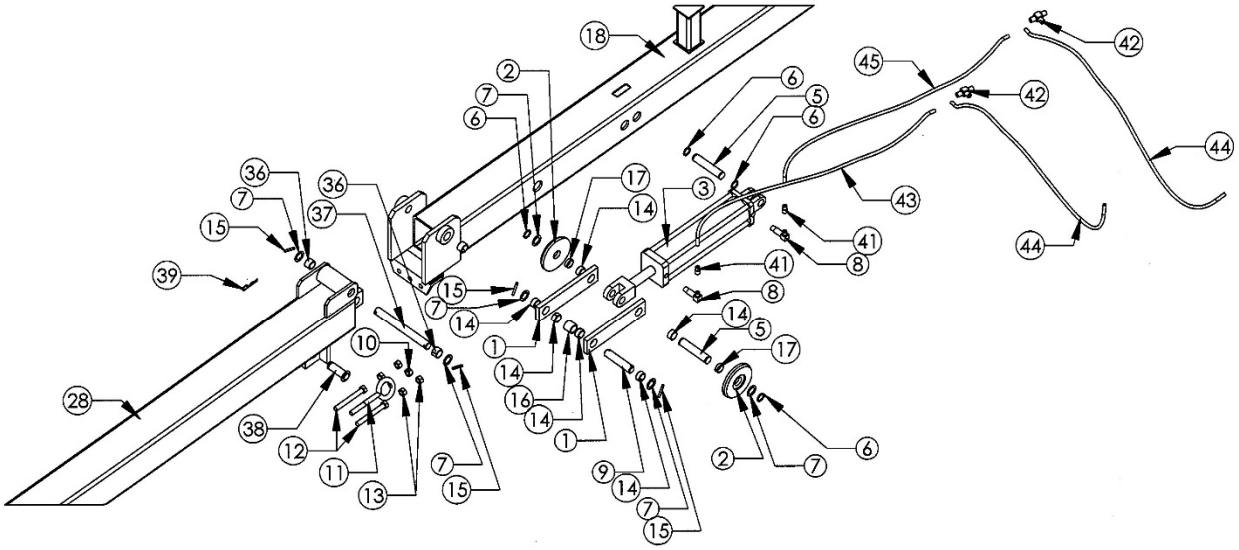


Ref #	Description	Qty	Part #
59	3/8”-16 x 1 1/4” Plow Bolt	4	
60	3/8”-16 Hex Nut	4	
61	3/8” Lock Washer	4	
62	14” Reversible Plow Share	2	RM-J8214
	17” Reversible Plow Share	2	RM-J8217
	19” Reversible Plow Share	2	RM-J8219
	21” Reversible Plow Share	2	RM-J8221
	23” Reversible Plow Share	2	RM-J8220
	25” Reversible Plow Share	2	RM-J8225
	27” Reversible Plow Share	2	RM-J8227
	30” LH Plow Share	1	RM-J8232
	30” RH Plow Share	1	RM-J8231
	42” LH Plow Share	1	RM-J8236
	42” RH Plow Share	1	RM-J8235

Note: Complete plow share packages are available. The package includes (4) plow bolts, (4) nuts, (4) lock washers and a pair of plow shares. Please specify plow share size when ordering.

Single Toolbar – Hidden Cylinder

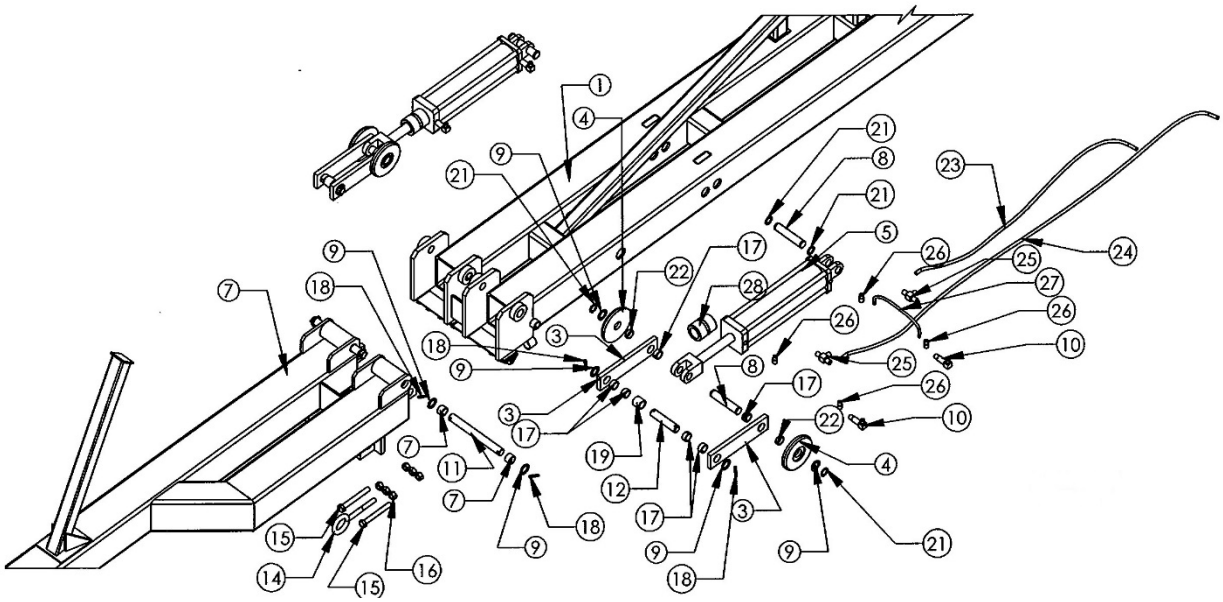
12 Row @ 30” (shown) – RM-M3043



Ref #	Description	Qty	Part #
1	Linkage Bar – 3/4” x 3” x 13 1/4"	4	RM-M3049
2	3/8” Toolbar Roller	4	RM-M3043-02
3	Cylinder – 4” x 16” (1 1/4” pin holes)	2	RM-J71055
5	Cylinder Pin – 1 1/4" x 6” Stress Proof Rod	4	RM-M3050
6	1 3/4” Snap Ring	8	RM-J35981
7	14 Ga x 1 1/4" Machine Bushing	14	
8	3/4”-16 MJIC x 3/4"-16 FJIC Swivel 90° Elbow	4	C5506x8x8
9	Top Fold-up & Lower Pin – 5 3/4" Stress Proof Rod	2	RM-M3186
10	3/4"-10 Hex Nut	4	
11	Eyebolt – 3/4"-10 x 6”	2	RM-J0864
12	3/4"-10 x 6” HCS Gr. 5	4	
13	3/4”-10 Hex Nut	8	
14	Split Bushing – 1 1/2” x 1 1/4” x 3/4”	16	RM-J00851
15	Roll Pin – 5/16” x 2 1/4"	8	RM-J1510
16	Cylinder Spacer	2	RM-M3044
17	Split Bushing – 1 1/2” x 1 1/4” x 1/2”	4	RM-J00841
18	Main Frame - 12 @ 30” (shown) Others Available - Specify # of Rows & Spacing	1 1	RM-M30432
28	Wing Frame - 12 @ 30” (shown) Others Available - Specify # of Rows & Spacing	2 2	RM-M30433
36	Split Bushing – 1 1/2” x 1 1/4” x 1”	8	RM-J00847
37	Main Pivot Pin – 1 1/4" x 11 3/4"	2	RM-M3185
38	1 1/2" Clevis Pin	2	RM-J70992
39	Bow Tie Clip	2	RM-J5416
41	3/4"-16 MJIC x 3/4"-16 MOR w/ 0.062” Orifice	4	C5315x8x8x0.062
42	3/4"-16 MJIC Bulkhead Branch Tee	2	C5725x8x8x8
43	Specify Length – (2) 3/4"-16 FJIC	2	
44	61 1/2" Hose – 3/4"-16 FJICX x 1/2"-14 MPipe	2	H14506Z-608108-61_50
45	Specify Length – (2) 3/4"-16 FJIC	2	
	1/2"-14 FPipe Quick Disconnect (not shown)	2	FD76-1002-08-10

Double Toolbar – Hidden Cylinder

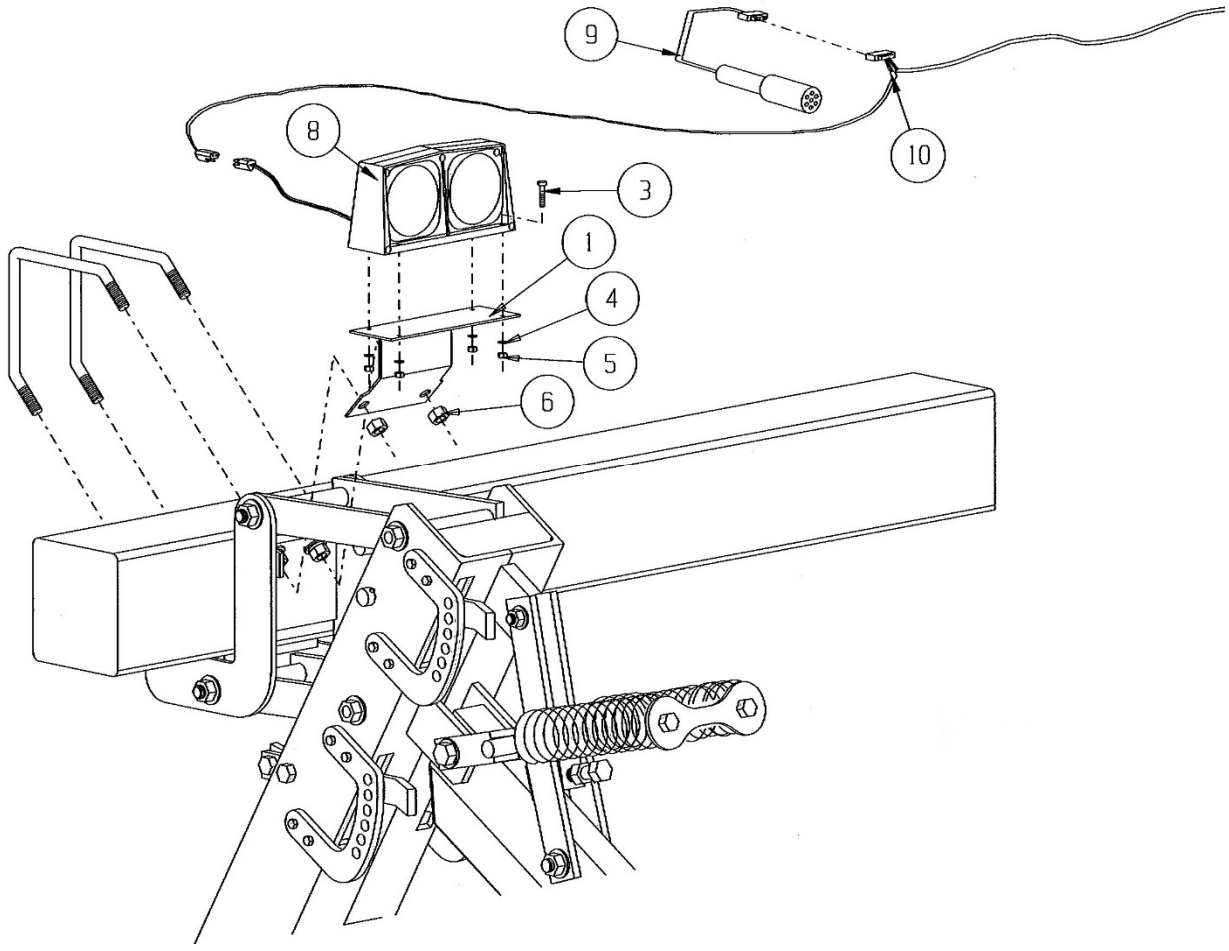
16 Row @ 30” (shown) – RM-M3052



Ref #	Description	Qty	Part #
1	Main Frame - 16 @ 30” (shown) Others Available - Specify # of Rows & Spacing	1 1	RM-M3046
2	Wing Frame LH - 16 @ 30” (shown) Others Available - Specify # of Rows & Spacing	1 1	RM-M3047
3	Linkage Bar – 3/4” x 3” x 13 1/4"	8	RM-M3049
4	Roller, Cylinder,1/4W Toolbar, Flat Fold	8	RM-M3088
5	Cylinder – 4” x 16” (1 1/4” pin holes)	4	RM-J71055
7	Wing Frame RH - 16 @ 30” (shown) Others Available - Specify # of Rows & Spacing	1 1	RM-M3048
8	Cylinder Pin – 1 1/4" x 6” Stress Proof Rod	8	RM-M3050
9	14 Ga x 1 1/4" Machine Bushing	22	
10	3/4”-16 MJIC x 3/4"-16 FJIC Swivel 90° Elbow	4	C5506x8x8
11	Main Pivot Pin – 1 1/4" x 11 3/4"	4	RM-M3185
12	Top Fold-up & Lower Pin – 5 3/4" Stress Proof Rod	4	RM-M3186
13	3/4"-10 Hex Nut	8	
14	Eyebolt – 3/4"-10 x 6”	4	RM-J0864
15	3/4"-10 x 6” HCS Gr. 5	8	
16	3/4"-10 Hex Nut	16	
17	Split Bushing, 1-1/2 x 1-1/4 x 1/2	24	RM-J00851
18	Roll Pin – 5/16” x 2 1/4"	16	RM-J1510
19	Cylinder Spacer	4	RM-M3044
20	Split Bushing – 1 1/2” x 1 1/4” x 1”	8	RM-J00847
21	1 3/4” Snap Ring	12	RM-J35981
22	Split Bushing – 1 1/2” x 1 1/4” x 1/2”	8	RM-J00841
23	Specify Length – (2) 3/4"-16 FJIC	2	
24	Specify Length – (2) 3/4"-16 FJIC	2	
25	(2) 3/4"-16 MJIC x 3/4"-16 FJICX Swivel Nut Run Tee	4	C5706x8
26	3/4"-16 MJIC x 3/4"-16 MOR w/ 0.062” Orifice	8	C5315x8x8x0.062
27	18" Hose – (2) 3/4"-16 FJICX	4	H14506Z-608108-18_00
28	Cylinder Stop, Flat Fold ID	2	RM-M3194
	61 1/2" Hose – 3/4"-16 FJICX x 1/2"-14 MPipe	2	H14506Z-608108-61_50
	3/4"-16 MJIC Bulkhead Branch Tee	2	C5725x8x8x8
	1/2"-14 FPipe Quick Disconnect (not shown)	2	FD76-1002-08-10

Light Kit – Rigid Toolbar

RM-M5248



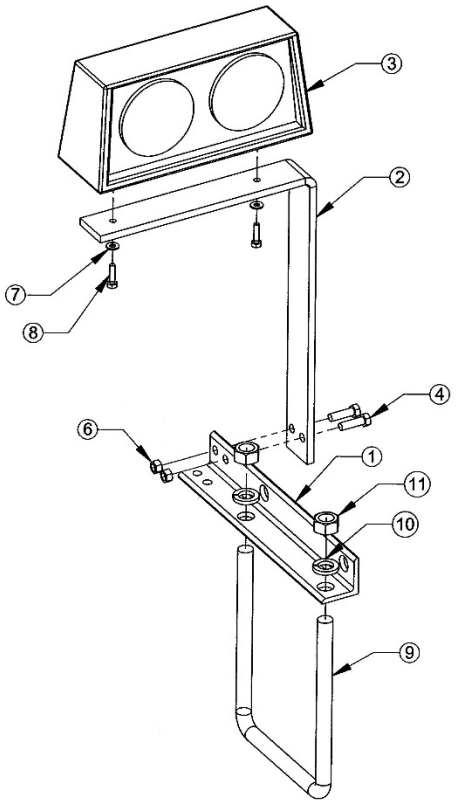
Ref #	Description	Qty	Part #
1	Light Mounting Bracket – Rigid Toolbar	2	RM-M5249
	Plastic Tie Wire 4” Lg. (Not shown)	10	RM-J5637
3	1/4"-20 x 1-1/4 HCS	8	
4	1/4" Lock Washer	8	
5	1/4”-20 Hex Nut	8	
6	5/8”-11 Hex Nut	4	
	Light Fixture RH – w/ Brake (not shown)	1	EL-0004
8	Light Fixture LH – w/ Brake	1	EL-0005
9	Ag Harness - 7’ Extension - 7 Rnd to 6 Sq	1	EL-0006
10	Ag Harness - 15’6” Wishbone - 6 Sq to (2) 4 Sq	1	EL-0007

Installation Instructions

1. The light brackets mount onto the outside row unit on each side.
2. The bracket uses the two existing row unit V-Bolts (do not remove the existing 5/8” nuts).
3. Align the holes in the bracket to the V-Bolts and rotate to its proper position.
4. This only required on the folding toolbars.

Light Kit – Folding Toolbar

RM-M5450



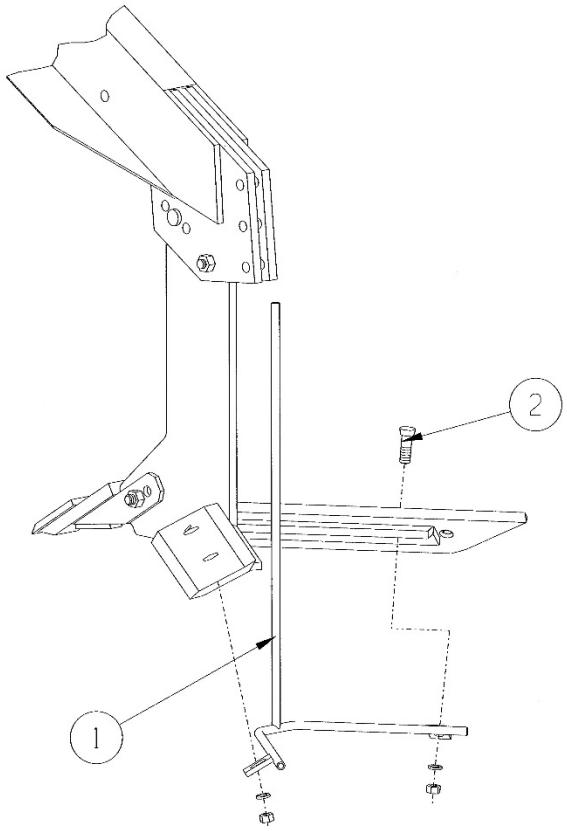
Ref #	Description	Qty	Part #
1	Light Mount Angle	2	RM-M5451
2	Light Mount Bracket	2	RM-M5452
3	Light Fixture LH – w/ Brake	1	EL-0005
	Light Fixture RH – w/ Brake (not shown)	1	EL-0004
4	3/8”-16 x 1 1/4" HCS	4	
6	3/8”-16 Hex Lock Nut	4	
7	1/4" Lock Washer	8	
8	1/4”-20 x 1 1/4" HCS	8	
	1/4”-20 Hex Nut (not shown)	8	
9	3/4"-10 x 7” x 8 3/4" Square U-Bolt	2	RM-J0833
10	3/4”-10 Lock Washer	4	
11	3/4"-10 Hex Nut	4	
	Plastic Tie Wire 4” Lg. (Not shown)	10	RM-J5637
	Ag Harness - 7’ Extension - 7 Rnd to 6 Sq	1	EL-0006
	Ag Harness - 15’6” Wishbone - 6 Sq to (2) 4 Sq	1	EL-0007

Installation Instructions

1. Mount the light brackets so that the light fixtures are in front of the toolbar.
2. Slide the brackets out as far as possible on the base towards the hinges.
3. This only required on the folding toolbars.

Liquid Fertilizer Tube - Optional

30” - RM-M5290
36-40” – RM-M52901



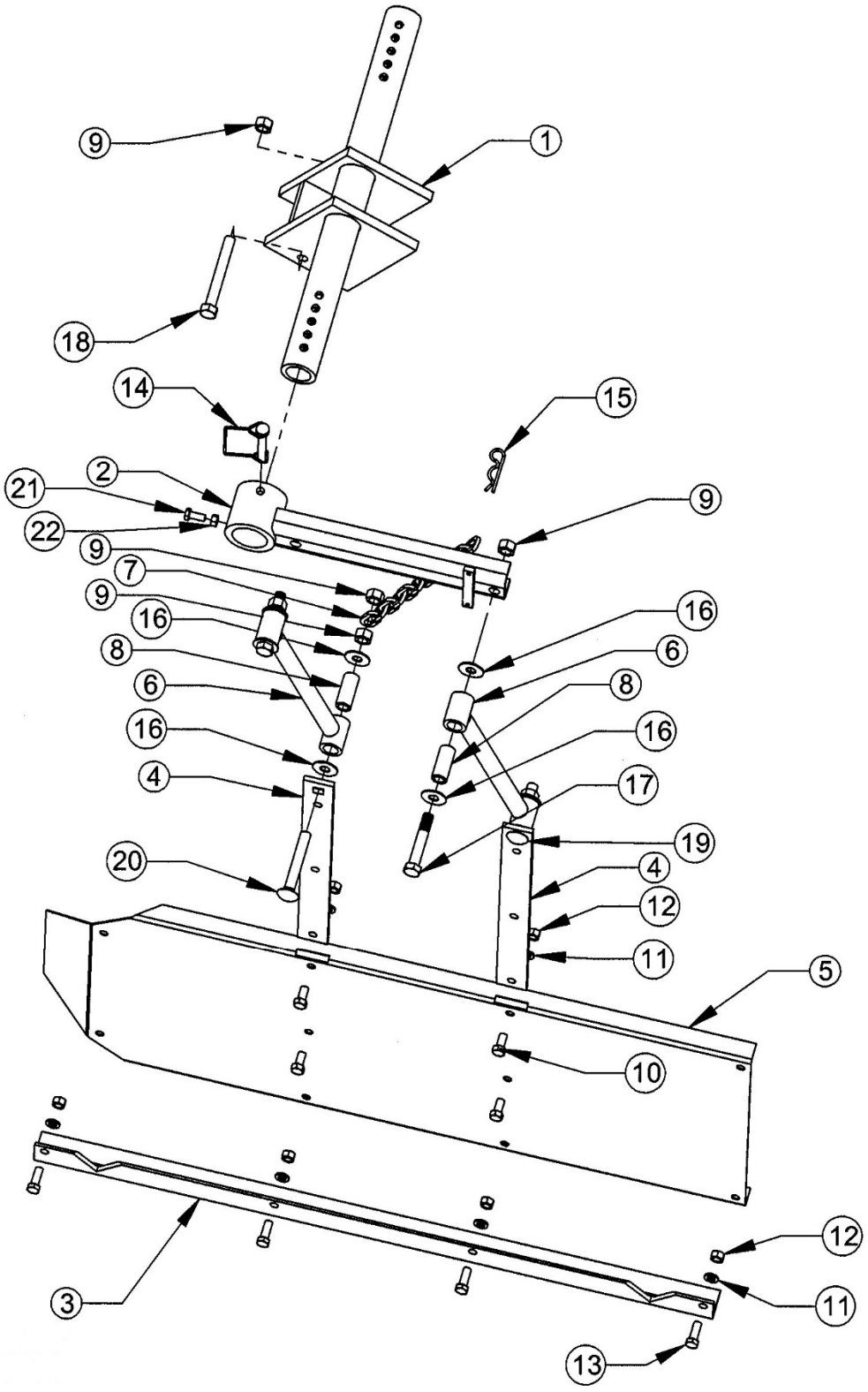
Ref #	Description	Qty	Part #
1	Fertilizer Tube Weldment for **30”**	1	RM-M5234
	Fertilizer Tube Weldment for **36-40”**	1	RM-M52341
2	3/8”-16 x 1 1/2” Plow Bolt	2	RM-J0628
	3/8”-16 Hex Nut	2	
	3/8” Lock washer	2	

Installation Instructions

1. Remove rear plow bolts from shares.
2. Slip liquid tube (item 1) up from bottom of shank with vertical leg of tube following up rear of sweep mount and in front of the cross brace.
3. Bolt in place using the new 3/8 x 1-1/2” plow bolts, lock washers & nuts.

Open Top Shield Diagram - Optional

20-22” - RM-M5590
30” - RM-M5390
36-40” - RM-M5391



Open Top Shield Description – Optional

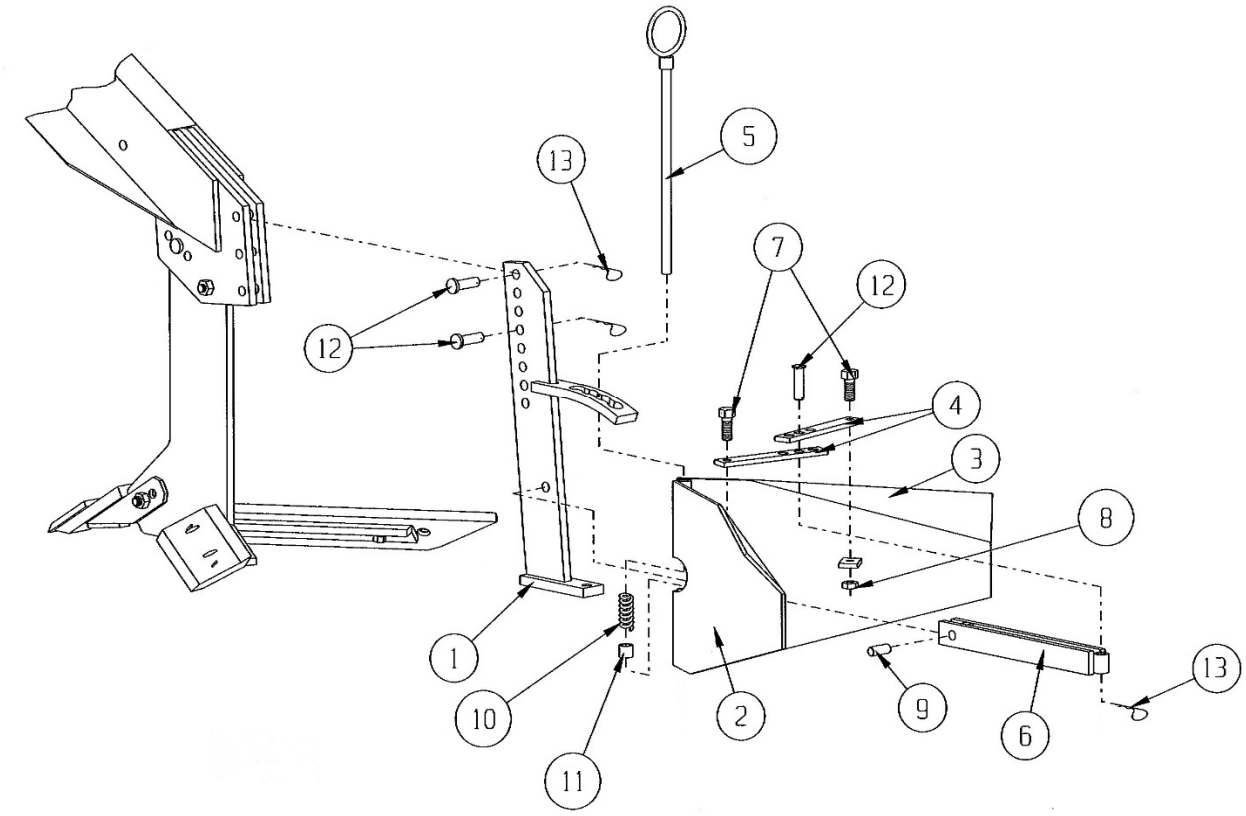
Ref #	Description	Qty	Part #
1	Shield Saddle Mount (20-22” Row)	1	RM-M5443
1	Shield Saddle Mount (30” Row)	1	RM-M5431
1	Shield Saddle Mount (36-40” Row)	1	RM-M5432
2	Shield Pivot Mount Weldment	2	RM-M5426
3	Shield Runner	2	RM-M5435
4	Shield Vertical Strap	4	RM-M5427
5	Shield, Skin Only	2	RM-M5421
6	Long Pivot Arm Weldment	4	RM-M5456
7	16” Link Chain	2	RM-M5433
8	Bronze Oillite Bushing – 1/2" x 3/4" x 1.75L	8	RM-J00741
9	1/2"-13 Hex Lock Nut	11	
10	3/8”-16 x 3/4” HCS Gr. 5	8	
11	3/8” Lock Washer	18	
12	3/8”-16 Hex Nut	18	
13	3/8”-16 x 1” HCS Gr. 5	10	
14	Snap Pin	2	RM-J5431
15	Bow Tie Clip	2	RM-J5412
16	7/16” Flat Washer	16	
17	1/2"-13 x 3” HCS Gr.5	4	
18	1/2"-13 x 4” HCS Gr.5	1	
19	1/2"-13 x 3” Carriage Bolt Gr. 5	2	
20	1/2"-13 x 3 1/2” Carriage Bolt Gr. 5	2	
21	5/16”-18 x 3/4” HCS Gr. 5	2	
22	5/16”-18 Hex Nut	2	

Installation Instructions

1. Mount saddle mount (1) to shank of main gang, using 1/2 x 4” bolt (18) and locknut.
2. Slide pivot mount (2) on saddle as shown and pin in place with snap pin (14). Lock pivot mount in place with 5/16 x 3/4” bolt (21) and nut. Arms should hang toward rear of cultivator.
3. Bolt pivot arms (6) to pivot mount using 1/2 x 3” bolts, (17) flat washer, oilite bushing (8), and lock nut (9). Note: Do not over-tighten bolt. Bronze oilite bushing will swell and seize up pivot arm.
4. Bolt shields and mounting straps (4, 5) to pivot arms using 1/2 x 3” carriage bolt (19) and a 1/2 x 3-1/2” (20) carriage bolt and an extra locknut are supplied to allow chain (7) to be attached to front shield bolt. Shields should swing free from front to rear after assembly.
5. Pull shield back and up to desired height and hook chain over chain stay on pivot mount. Pin in place with bow tie clip (15).

Ridging Wing Narrow - Optional

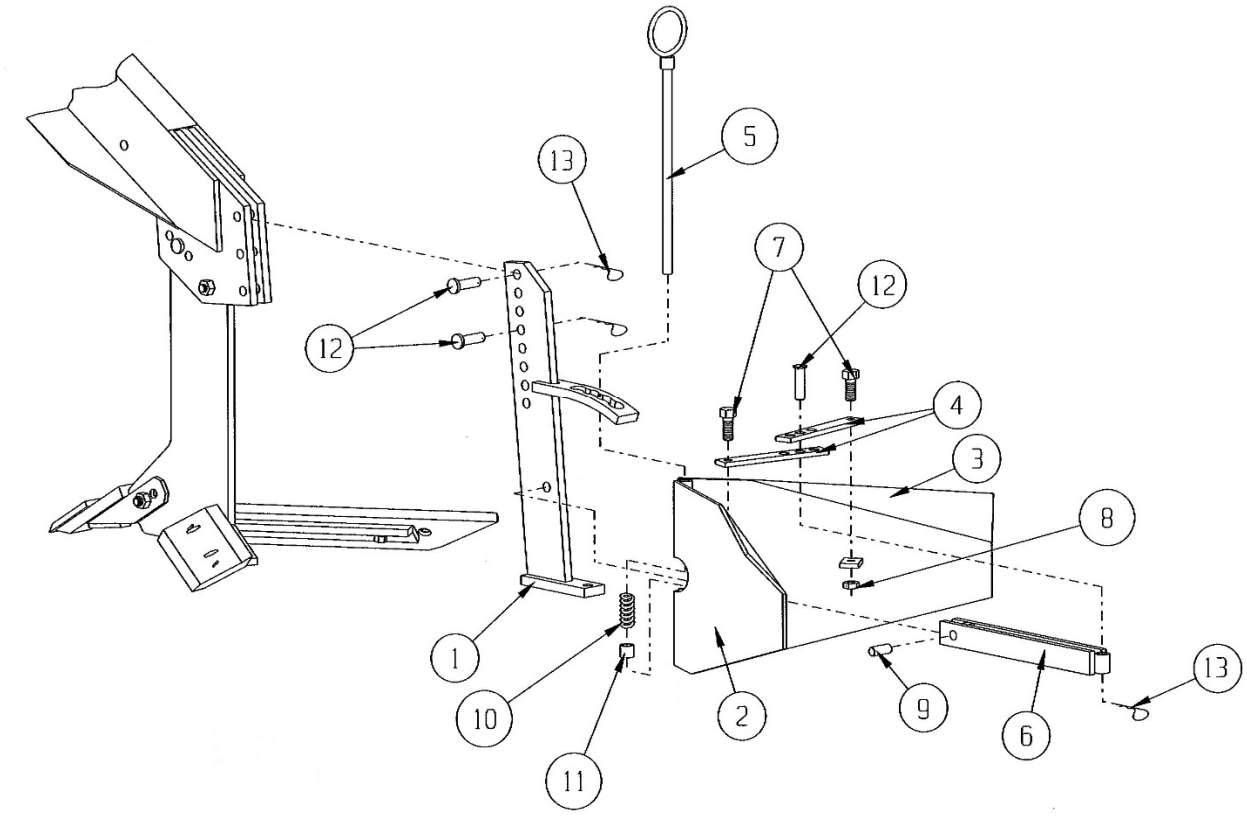
28-40” - RM-M5370



Ref #	Description	Qty	Part #
1	Frame, Ridger wing weldment	1	RM-M52231
2	Ridger wing weldment, Left	1	RM-M5224
3	Ridger wing weldment, Right	1	RM-M5225
4	Bracket, wing adjustment narrow	2	RM-M5395
5	Pivot pin, Silver PLT	1	RM-M52271
6	Frame, Ridger wing, center weldment	1	RM-M5229
7	1/2"-13 x 1 1/4" HCS Gr. 5	2	
8	1/2"-13 Hex Lock Nut	2	
9	1/2" x 1 1/4" Roll Pin	1	RM-J1473
10	Compression Spring	1	RM-J23651
11	Shaft Collar - 1/2	1	RM-M3709
12	1/2" x 2” Picker Pin	3	RM-J1555
13	Bow Tie Clip	3	RM-J5412

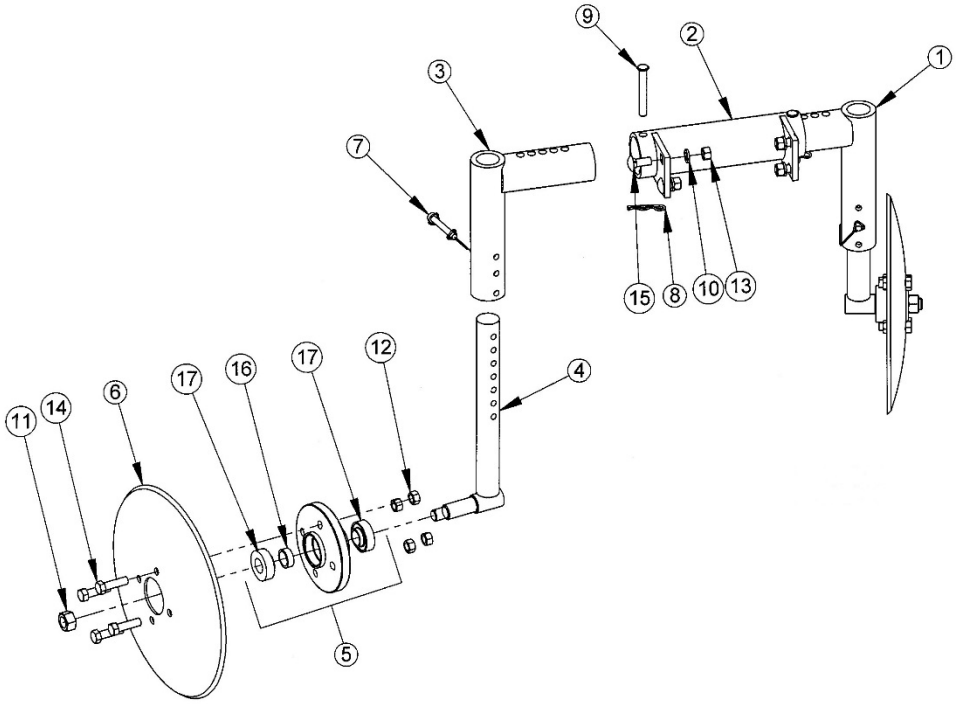
Ridging Wing Wide - Optional

40-48” - RM-M5375



Ref #	Description	Qty	Part #
1	Frame, Ridger wing weldment	1	RM-M52231
2	Ridger wing weldment, Left	1	RM-M5376
3	Ridger wing weldment, Right	1	RM-M5377
4	Bracket, wing adjusting (Wide)	2	RM-M5378
	Bracket, wing adjusting (Narrow)	2	RM-M5395
5	Pivot pin, clear gold PLT	1	RM-M52271
6	Frame, Ridger wing, Center Weld.	1	RM-M5229
7	1/2"-13 x 1 1/4" HCS Gr. 5	2	
8	1/2"-13 Hex Lock Nut	2	
9	1/2" x 1 1/4" Roll Pin	1	RM-J1473
10	Compression Spring	1	RM-J23651
11	Shaft Collar - 1/2"	1	RM-M3709
12	1/2" x 2” Picker Pin	3	RM-J1555
13	Bow Tie Clip	3	RM-J5412

Cutaway Disk Assembly - Optional



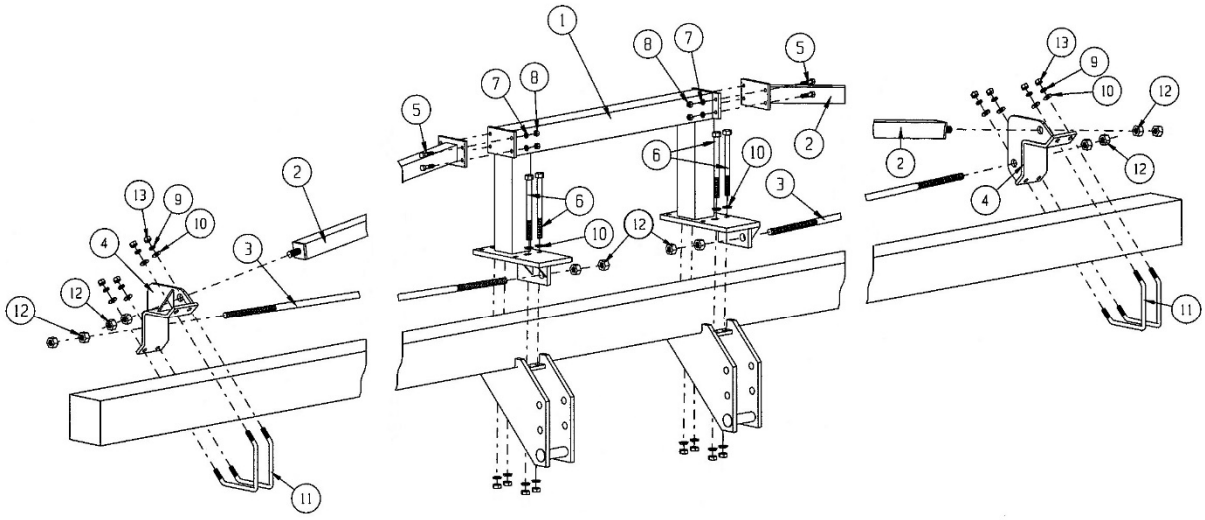
Ref #	Description	Qty	Part #
1	Inner Sleeve Weldment, Right	1	RM-M5258
2	Outer Sleeve Weldment - 30" Rows	1	RM-M5257
2	Outer Sleeve Weldment - 36-40" Rows	1	RM-M5269
3	Inner Sleeve Weldment, Left	1	RM-M5256
4	Arm, Vertical Weldment	2	RM-M5254
5	Hub Assembly, Cult. Cutaways	2	RM-M3390M
6	Blade, Disc, 14 x .157"	2	RM-K5579
7	Snap Pin	2	RM-J5431
8	Bow Tie Clip	2	RM-J5412
9	1/2" x 3 1/2" Picker Pin	2	RM-J1561
10	1/2" Lock Washer	4	
11	3/4"-16 Hex Lock Nut	2	
12	1/2"-13 Hex Lock Nut	8	
13	1/2"-13 Hex Nut	4	
14	1/2"-13 x 1 3/4" HCS Gr. 5	8	
15	1/2"-13 x 1 1/4" Carriage Bolt Gr. 5	4	
16	Bushing - 1.25 OD, 1" ID	1	RM-J0086
17	Bearing - 1" Sealed	2	RM-J00302

Installation Instructions

1. Mount outer sleeve (1) to front of gang using 4-1/2 x 1-1/4" carriage bolts, lock washers & nuts.
2. Slip inner sleeve (2) & (3) into outer sleeve such that holes in drop are tapered narrower in the rear. Pin in place with 1/2 x 3-1/2" picker pin and bow tie clip.
3. Slide disc and bar assembly (10) up into inner sleeve and pin in position with snapper pin (9). Discs should be extending in front of the gang and toed into the rear.
4. Set depth and width by using pinned adjustments provided.
5. Inner sleeves and disc and bar assemblies are not included for the outside of end gangs.

8 Row Ridged Truss Kit - Optional

36”, 38” & 48” - RM-M3857

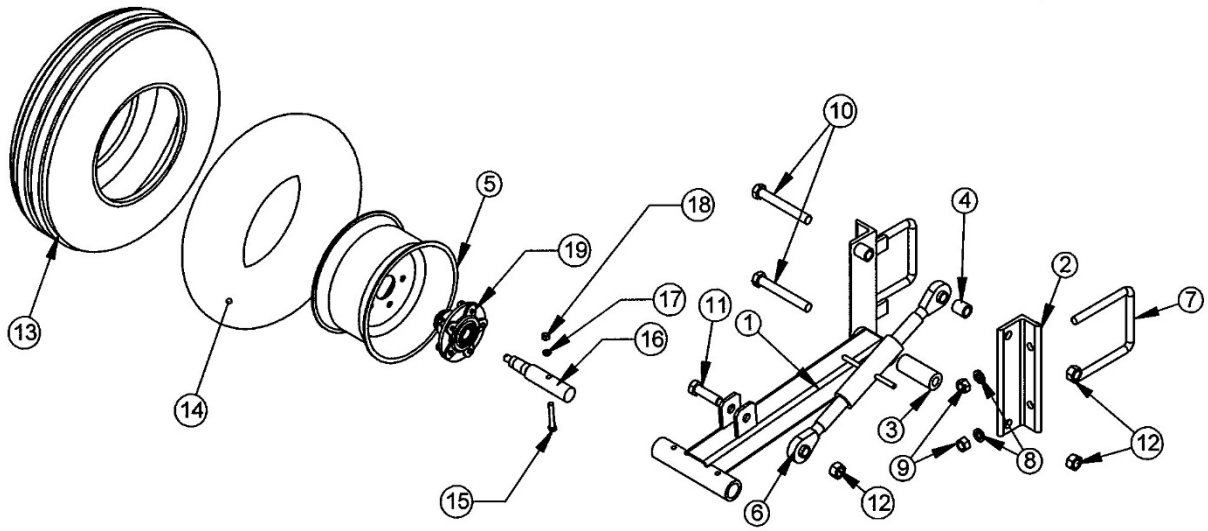


Ref #	Description	Qty	Part #
1	Center Truss Frame	1	RM-M3858
2	Top Brace Arm	2	RM-M3854
3	Support Rod 1” x 130”	2	RM-M3850
4	Truss kit Support	2	RM-M3861
5	1/2"-13 x 2” HCS Gr. 5	8	
6	3/4"-10 x 9 1/2" HCS Gr. 8	8	
7	1/2" Lock Washer	8	
8	1/2"-13 Hex Nut	8	
9	5/8” Lock Washer	8	
10	5/8” Washer	8	
11	5/8”-11 x 10 1/2” V-Bolt	4	RM-J07821
12	1”-8 Hex Nut	12	
13	5/8”-11 Hex Nut	8	

Note: Use nuts and lock washers from center hitch assembly to bolt on the center truss frame.

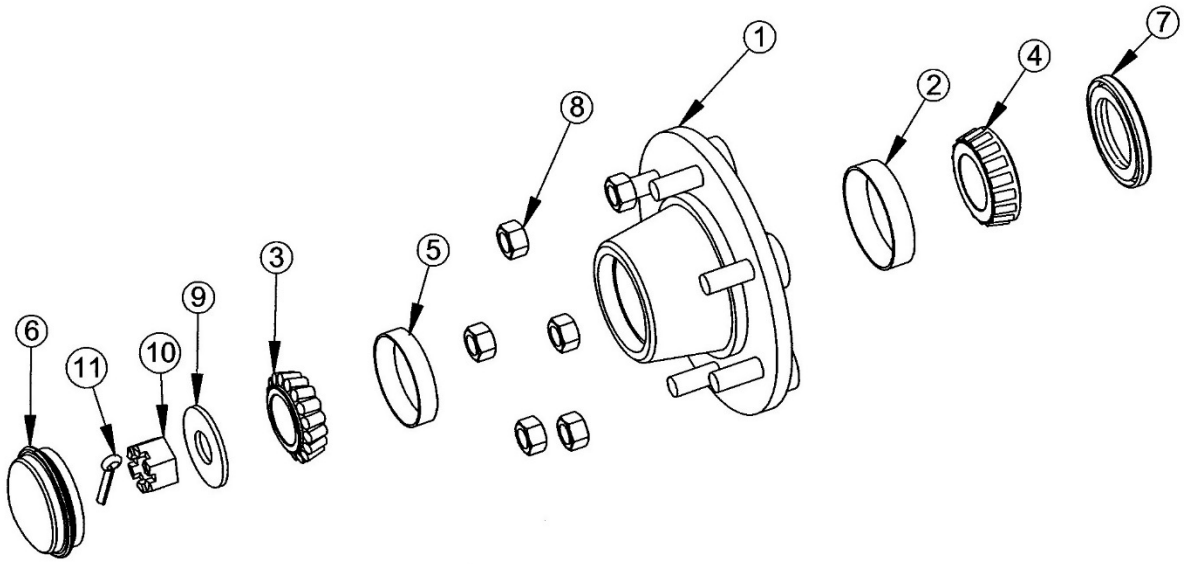
Gage Wheel Kit - Optional

RM-W0120 (2 required per Toolbar)



Ref #	Description	Qty	Part # (5 Bolt)	Part # (6 Bolt)
1	Gauge Wheel Weldment	1	RM-W20407	RM-W20407
2	Mounting Angle Weldment	2	RM-W20411	RM-W20411
3	Pivot Bushing	1	RM-W20527	RM-W20527
4	Spacer, 1.25OD x 1.03 ID x 1.475	2	RM-M3197	RM-M3197
5	Rim, Wheel, 5 Hole, 14 x 8”	1	RM-J7276	-----
	Rim, Wheel, 6 Hole, 15 x 8”	1	-----	RM-J72783
6	Turnbuckle, 20. 5-30, Top Link	1	RM-J0903	RM-J0903
7	7/8”-9 x 7” x 9” Square U-Bolt	2	RM-J0838	RM-J0838
8	7/8” Lock Washer	4		
9	7/8”-9 Hex Nut	4		
10	1”-8 x 7 1/2" HCS Gr. 5	2		
11	1”-8 x 3 1/2" HCS Gr. 5	1		
12	1”-8 Hex Lock Nut	3		
13	Tire, 9.5L x 14, 6 Ply, Tube Type	1	RM-J7254	
	Tire, 9.5L x 15, 6 Ply, Tube Type	1		RM-J72545
14	Tube, 9.5 x 14	1	RM-J7253	-----
	Tube, 9.5 x 15	1	-----	RM-J72546
15	1/2"-13 x 3 1/4” HCS Gr. 5	1		
16	Spindle	1	RM-S15394	-----
	Spindle	1	-----	RM-R305004
17	1/2" Lock Washer	1		
18	1/2"-13 Hex Nut	1		
19	Hub Assembly w/Studs & Cups (5 Bolt)	1	RM-J72801	-----
	Hub Assembly w/Studs & Cups (6 Bolt)	1	-----	RM-J723521

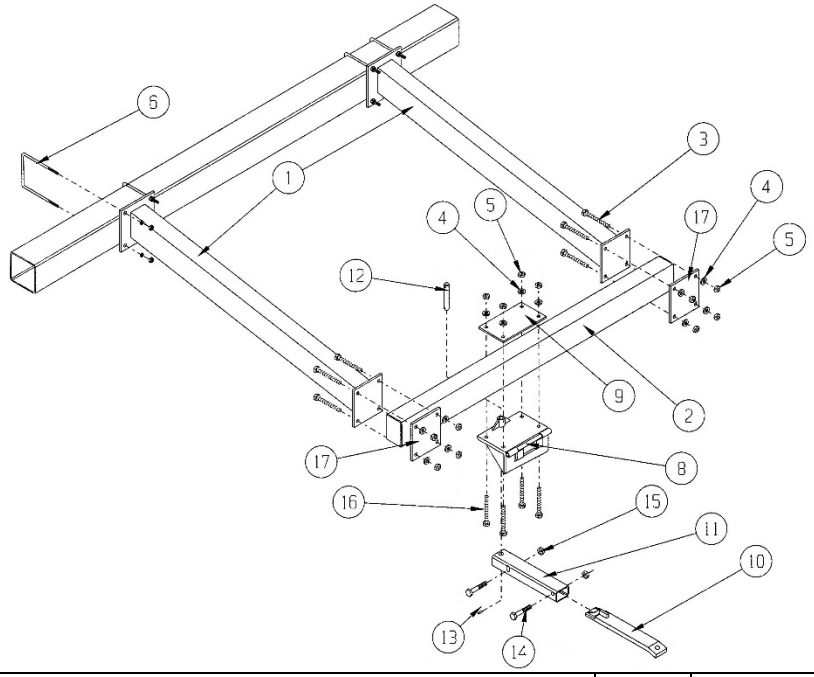
Hub Assembly - Optional



Ref #	Description	Qty	Part # (5 Bolt)	Part # (6 Bolt)
1	Hub Assembly W/Studs (includes Items 2 & 5)	1	RM-J72801	RM-J723521
2	Bearing Cup - LM485510	1	RM-J0114	-----
	Bearing Cup – LM29710		-----	RM-J01255
3	Tapered Roller Bearing – LM67048	1	RM-J0140	RM-J0140
4	Tapered Roller Bearing – LM48548	1	RMJ0113	-----
	Tapered Roller Bearing – LM29749		-----	RM-J01254
5	Bearing Cup – LM67010	1	RM-J0141	RM-J0141
6	Dust Cover – 2 7/16” OD	1	RM-J72331	RM-J72331
7	Dust Seal - CR17617 HB18	1	RM-J7018	RM-J7018
8	1/2"-20 Wheel Nut	6	RM-J1043	RM-J1043
9	3/4" Flat Washer	1		
10	3/4"-16, Slotted Hex Nut	1		
11	3/16” x 1 1/2” Cotter Pin	1		
12	Spindle (not shown)	1	RM-S15394	RM-R305004
	Complete Hub & Spindle Package (includes items 1-12)		RM-J7280	RM-J72352

Rear Hitch Kit - Optional

RM-M33761



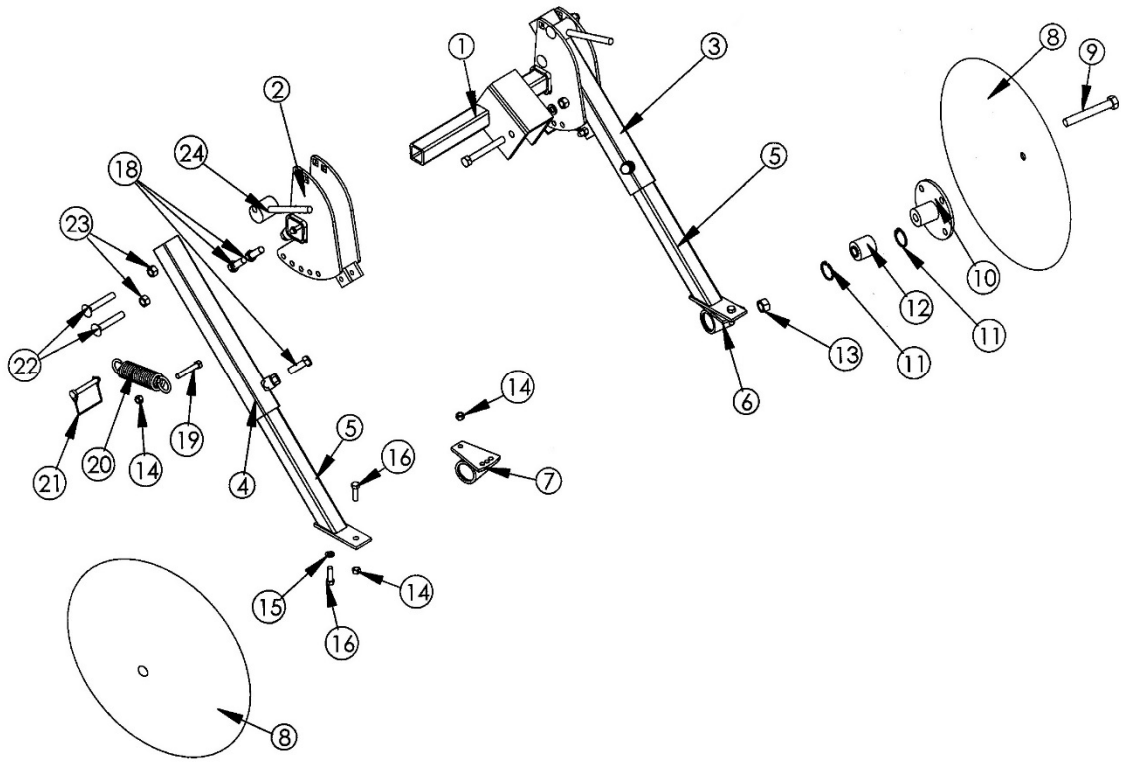
Ref #	Description	Qty	Part #
1	Arm Weldment	2	RM-M3550
2	Cross Arm Weldment	1	RM-M3551
3	Bolt, 3/4-10x6 PLT Gr5 HHCS	8	RM-J0819
4	3/4" Lock Washer	20	
5	Hex 3/4"-10 Hex Nut	20	
6	3/4"-10 x 7” x 8 3/4" Square U-Bolt	4	RM-J0833
	Complete Center Hitch Assembly	1	RM-M3552
8	Center Hitch Weldment	1	RM-M3554
9	Top Clamp Plate	1	RM-M3553
10	Tongue Weldment	1	RM-M3374
11	Hitch Weldment	1	RM-M3377
12	Hitch Pin 6” Long	1	RM-M3378
13	5/16” x 11/2” Roll Pin	1	RM-J1498
14	3/4"-10 x 4 1/2” HCS Gr. 5	2	
15	3/4”-10 Hex Lock Nut	2	
16	3/4"-10 x 8 1/2” HCS Gr. 5	4	
17	Clamp Plate	2	RM-M3147

Installation Instructions

1. If mounting center hitch assembly to lift assist, skip to step 5.
2. Find open area on tool bar which will miss lower three point brackets and wing stands.
3. Center between gangs and mount arm weldments (1) to tool bar using U-bolts (6), lock washers and nuts.
4. Center rear cross arm and clamp in place using clamp plate (17), 3/4 x 6” bolts, lock washers and nuts as shown.
5. Center the center hitch assembly (M3552) and clamp in place on cross arm weldment using top clamp plate (9), 3/4 x 8-1/2” bolts, lock washers, and nuts.
6. To swivel from side to side, flip up block swing retainers and swing to desired side.
7. To extend hitch (10), push 3/4 bolt up in slot at front of telescoping tube (11) and pull back on tongue weldment (10).
8. To reset for field use, back cultivator up until 3/4" bolt drops in slot and pull forward until sway blocks can drop for centering.

Cut Away Disk Shields - Optional

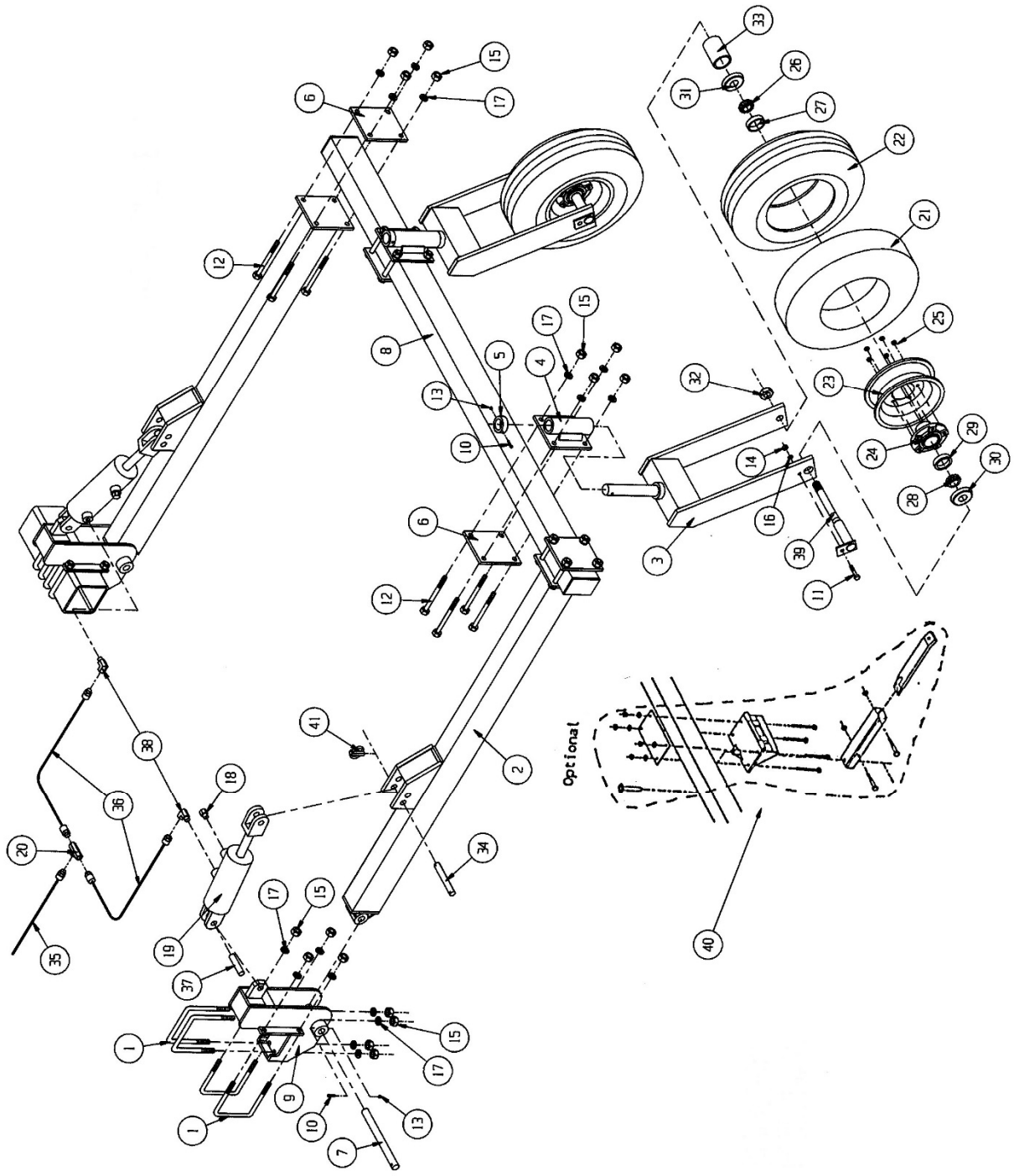
20-22” - RM-M5660 30” - RM-M56601



Ref #	Description	Qty	Part #
1	Mount, Shield, 20-22” Rows	1	RM-M5671
1	Mount, Shield, 30” Rows	1	RM-M5672
2	Mount, Head Cutaway Shield	2	RM-M5666
3	Arm Upper Weldment (Right)	1	RM-M5665
4	Arm Upper Weldment (Left)	1	RM-M56651
5	Arm Lower Weldment	2	RM-M5664
6	Holder Coulter, Cutaway (Right)	1	RM-M5663
7	Holder Coulter, Cutaway (Left)	1	RM-M5662
8	Blade Disc, 18”, 5/8”, Center Hole	2	RM-K5582
9	5/8”-11 x 4 1/2” HCS Gr. 5	2	
10	Hub Coulter	2	RM-M5668
11	Snap Ring, 1”, 5652, N5000-156TRC	4	RM-J3596
12	Bearing, Sealed, 40MM, FAFNIR 5203KYY2	2	RM-J0107
13	5/8” Hex Lock Nut	2	
14	3/8”-16 Hex Lock Nut	6	
15	5/8” Lock Washer	2	
16	3/8”-16 x 1 1/4” HCS Gr. 5	4	
17	1/2"-13 Hex Nut	7	
18	1/2”-13 x 1 1/2” HCS Gr. 5	6	
19	3/8”-16 x 2 1/4” HCS Gr. 5	2	
20	Spring, Ext., 1-1/2” x .207 x .25, 2826, 18 coils	2	RM-J2354
21	Snap Pin - 3/8” x 2-3/4” - Case Hardened	2	RM-J5431
22	1/2"-13 Carriage Bolt Gr. 5	4	
23	1/2”-13 Hex Lock Nut Gr. 5	4	
24	Cam Weldment	2	RM-M5667

25	Pivot Bushing	2	RM-M5674
26	1/2”-13 x 4” HCS Gr. 5	1	
27	1/2" Lock Washer	1	

Lift Assist Diagram - Optional



Lift Assist Description - Optional

Ref #	Description	Qty	Part #
1	3/4"-10 x 7” x 8 3/4" Square U-Bolt	8	RM-J0833
2	Assist Arm	2	RM-M31381
3	Assist Wheel Mount	2	RM-M4126
4	Axle Mounting	2	RM-M3141
5	Lock Collar	2	RM-M3146
6	Clamp Plate	4	RM-M3147
7	Lift Assist Pin - 8 1/4"	2	RM-M31551
8	Cross Tube - 8 Row (128” long)	1	RM-M3551
	Cross Tube - 10 Row (170” long)	1	RM-M31566
9	Mounting Bracket	2	RM-M31571
10	5/16”-18 x 3 1/2" HCS Gr. 5	4	
11	1/2"-13 x 1 3/4" Carriage Bolt Gr. 5	2	
12	3/4"-10 x 6” HCS Gr. 5	16	
13	5/16”-18 Hex Lock Nut	4	
14	1/2"-13 Hex Nut	2	
15	3/4”-10 Hex Nut	32	
16	1/2" Lock Washer	2	
17	3/4" Lock Washer	32	
18	Vented Plug – HD 1/2" Counter Sunk	2	RM-J2616
19	3 1/2” x 8” Hydraulic Cylinder	2	RM-J7107
20	3/4"-16 MJIC Bulkhead Branch Tee	1	C5725x8x8x8
21	9.5L x 14 Tube	2	RM-J7253
22	9.5L x 14 !6 ply Tire	2	RM-J7254
23	5H-148 Wheel # 106631	2	RM-J7276
24	Complete 5 Bolt Hub & Spindle Package	2	RM-J7280
25	1/2"-20 Wheel Nut	10	RM-J1043
26	Tapered Roller Bearing – LM67048	2	RM-J0140
27	Bearing Cup – LM67010	2	RM-J0141
28	Tapered Roller Bearing – LM48548	2	RM-J0113
29	Bearing Cup - LM485510	2	RM-J0114
30	Dust Seal - CR17617 HB18	2	RM-J7018
31	Dust Seal – NAT 43071S	2	RM-J70181
32	1 1/4"-12 Slotted Hex Nut	2	RM-J10691
33	Assist Wheel Spacer	2	RM-M4131
34	Hitch Pin - 6”	2	RM-M3378
35	Specify Length – (2) 3/4"-16 FJIC	1	
36	Specify Length – (2) 3/4"-16 FJIC	2	
37	Cylinder Pin – 1”	2	RM-J71072
38	3/4”-16 MJIC x 3/4"-16 FJIC Swivel 90° Elbow	2	C5506x8x8
39	Assist Wheel Axle	2	RM-M4127
40	Complete Center Hitch Assembly (optional)	1	RM-M3552
41	5/16” Lynch Pin	6	RM-J1548
	3/4"-16 MJIC x 3/4"-16 MOR w/ 0.062” Orifice (not shown)	2	C5315x8x8x0.062
	1/2"-14 FPipe Quick Disconnect (not shown)	1	FD76-1002-08-10

Lift Assist Installation

1. Find an open area on tool bar where mounts can be centered between two gangs and mounts will not interfere with 3-Point lower arms or wing stands.
2. Center the mounting brackets (9) between 2 gangs and fasten in place using U-bolts, lock washers and nuts.
3. Insert assist arms (2) into mounting brackets and pin in place. Using pin (7), 5/16 x 3-1/2” bolt and locknut.
4. Fasten cross arm (8) to rear of assist arms using clamp plate (6), 3/4 x 6” bolts, lock washers and nuts. Rear cross arm should be centered and may extend past assist arms on certain row spacing.
5. Mark cross arm so that axle mount assembly (4) can be placed directly behind a gang. Tires may be placed inside the assist arms or outside depending on row spacing.
6. Mount axle mount assembly (4) using a clamp plate (6) and 3/4 x 6” bolts, lock washers, and nuts.
7. Slide wheel mount up into sleeve of mount (4) and fasten in place using lock collar (5), 5/16 x 3-1/2” bolt and locknut.
8. Hook rod end (ram end) of hydraulic cylinders (19) to mounting bracket (9) ear, using cylinder pin and clips.
9. Remove plugs from front and back ports on each cylinder.
10. Install vented plug (18) in rod end port of cylinders.
11. Install O-ring adapter with orifice in base end port of each cylinder.
12. Attach 90° elbows (38) onto O-ring adaptors. Hook one end of short hose to elbow (38). Attach the other end of the hose to the tee (20).
13. Attach long hose to remaining port on the tee (20). Install quick disconnect adapter to the other end and connect to a tractor remote.
14. Bleed air from cylinders and lines.

Important: Grease hinge points and swivels before use.

15. Hook rod end of cylinder to assist arm (2) in front hole.

Warning: A Quick Hitch on tractor must be used.

16. Three point of tractor should be set to level tool bar when in working position with Quick Hitch pushing against top mast weldment.

Important: When using lift assist the top pin must be removed to allow cultivator to be semi-mounted.

17. Lift assist should also be on float in operation position. When the three point is fully raised and lift assist is raised, quick hitch should be fully disengaged from mast hitch weldment.
18. Adjustments can be made to the rear cylinder attachment points on lift assist to achieve clearance in fully raised transport position.

Lift Assist Special Notes

Use of a lift assist converts cultivator from being fully mounted on 3 point to being semi-mounted, using only the lower three-point links. A **quick hitch or guidance system is required** for operation with a lift assist to properly support the cultivator in operating position. The top three-point pin is removed from the cultivator when using a lift assist.

Operating Position Adjustments

1. Three point height stop should be set on tractor so that the paralleled linkage of gangs are nearly level when cultivating.
2. Cylinder stops should be placed on lift assist cylinders so the rear of the tool bar is supported and is level front to rear when in operating position.
3. Top link on tractor should be adjusted so that the quick hitch or guidance system is pushing against cultivator top mast to support the front of the cultivator.

Transport Position Adjustments

1. When cultivator is raised the quick hitch should be fully disengaged from the cultivator top mast.
2. This can be achieved by adjusting the tractor top link, by adjusting the lift assist cylinder attaching points or by adjusting the cylinder rod clevis length on the cylinder.
3. There must be room for the top mast to “float” in transport position in order to prevent damage to the tractor or the cultivator.

Troubleshooting Guide

Symptom	Description	Solution
Cultivator will not penetrate the ground.	Toolbar not leveled.	Level toolbar using 3rd arm.
Gang will not go to depth of gage wheels.	Shares badly worn. Point worn or hard ground. 3 point not lowering properly. Wing floating up. Lift assist holding unit up off ground. Gangs behind tires not penetrating.	Reverse shares or replace. Set point more aggressive or replace. Check tractor manual for proper draft control. Pin wings down. Lift assist must be in float. Add more down pressure.
Cultivator plugging in trash.	Point in ground, tips of wings out. Trash not getting cut in front of shank. Shank partially tripping. Shear pin sheared at top of lower shank. Shears skimming in and out of ground.	Level toolbar with 3rd arm. Set coulter deeper. Increase spring trip tension or reduce spring trip over center adjustment Replace picker pin. Set depth wheels 1” deeper or lengthen 3rd arm or increase down pressure
Cultivator is tearing out crop.	Not pulling straight. Shares too long. Guess rows too narrow.	Check 3 point centering or check for proper bushing in 3 point arm hookup or check for proper sway blocks or check 3 point arms locked length. Replace with smaller shares. Cut outer leg of lower shank or remove outer share
Levers will not hold position on coulter depth wheel.	Lack of spring pressure at the lever.	Tighten spring setting to just allow lever to disengage. 1. Check that toolbar is level and parallel linkage is level 2. Check that wings are pinned. 3. Replace Lever.
Shanks are tripping unnecessarily.	Over center setting too tight. Spring setting not tight enough. On sweep weldment, pin is sheared.	Back off setting on over center adjustment **Warning**: must maintain some offset. Increase spring trip pressure. Replace shear pin.
Coulter hubs have wobble.	Coulter bolt loose. Bearing is bad.	1. Remove nut. 2. Inspect bearings and spacers. 3. Replace necessary parts. 4. Reassemble & torque coulter nut to 120ft-lb

For more questions on set-up or troubleshooting, please feel free to contact your local dealer or talk with a Remlinger Service Representative at 1-800-537-7370.

Adjustments and Maintenance

Lubrication

- On Folding Bars, grease hinges 5 pumps every 12 hours.
- On Lift Assist, grease hinges and swivel brackets 5 pumps every 12 hours.
- All bearings on gangs are sealed and do not require additional lubrication.

Initial Settings

There are several adjustments on the Remlinger 9400 High Residue Cultivator that can be made before the cultivator is taken to the field. The suggested settings are a beginning point, and minor adjustments may need to be made for different field conditions.

Coulter

- The coulter is easily adjusted with the special 9400 adjusting tool.
- The **lower right lever** on each gang controls the coulter depth.
- The coulter can be adjusted from 0-6” below ground level.
- Initial settings would put the coulter one to two inches below the sweep.
- Initial setting would be bottom or 2nd hole from bottom.
- Note that this adjustment is made mainly to account for the wear in the coulter and that a new coulter may not be able to be adjusted deeper than 2 inches below the sweep point without interference.

Depth Wheels

- The coulter is easily adjusted with the special 9400 adjusting tool.
- The **lower left lever** on each gang controls the depth wheels.
- The wheels can be adjusted from 1-6” inch cutting depth.
- Initial setting would be in the 2nd or 3rd hole down from the top.
- Field variations such as ridges or beds may change these initial settings.

Down Pressure

- The down pressure is adjusted the 9400 adjusting tool on the upper lever on each gang.
- The **upper left lever** on each gang controls the depth wheels.
- The lower lever, the higher the down pressure, up to 1000 pounds per gang.
- The starting point for the down pressure springs is in top hole.
- The gangs behind the tractor tires will often need down pressure increased by one position over the other gangs.
- Other gangs may need less down less down pressure because those gangs are running in very loose, sometimes cultivated soil.
- In general, the down pressure springs should be adjusted so that the parallel linkage is running nearly level.
- If the down pressure is too great, the tool bar maybe held too high for optimum performance.
- In rocky conditions use the least amount of pressure possible.

Sweep

- Sweeps should be as flat as possible for best conservation cultivation.
- There are two separate adjustments for each sweep.
- The entire sweep can be angled up to six degrees from horizontal.
- For maximum flatness, set picker pin in rear hole.
- The angled back positions are only recommended for those occasions when more dirt needs to be loosened, such as building ridges.
- Most sweeps have a double wear edge and can be flipped over for longer wear.
- The point can be individually adjusted from the rest of the sweep.
- The shallower position offers better rock protection and disturbs less soil.
- It may be necessary to go to the deeper position in some conditions in order to get better sweep penetration.

Spring Trip Shank

- The over center mechanism does most of the work so the trip springs DO NOT have to be adjusted overly tight.
- The springs should be tightened so the distance between the bottom of the spring cap and the top of the trip pivot shaft is 10-1/2”.
- The over center adjusting bolt should be tightened 1 turn in from the point where it first touches the lower trip linkage.
- If excessive tripping occurs, tighten the spring tension or loosen the adjusting bolt slightly.
- If there is a tendency to shear the lower shear sweep adjusting bolt before the shank trips, tighten the over center adjusting bolt and/or loosen the spring tension.
- The top link should be adjusted so the tool bar is level when in cultivating position.

Folding Tool Bars

- The wing lock down pins must be installed when cultivating.
- Adjust the stop bolts in the hinge area to minimize down float.
- In rolling ground more down float may be required.

Important Reminders

- Remove float pins from lift arms of tractor.
- Shorten tractor lift arms to the shortest setting.
- If not using a quick hitch you will need spacers on 3-point pins.
- If cultivator has lift assist, the top mast must be allowed to float. (Remove top pin.)
- Set down stop for 3 point on tractor so cultivator parallel arms are level.
- Adjust top link so tool bar is level.
- If the ground is very hard, set point to the more aggressive setting.
- There are three settings for pitching the shank. If you want to leave the ground level, you will have to be in the back hole.
- Coulter adjusting should be started in the second hole from the bottom. Always be 1/2” below the point.
- Down pressure should be started in the top hole on all gangs except behind the tractor tire.
- Behind the tire, set in third hole.
- For depth adjustment start in second hole down.
- Now start by lowering cultivator to the ground and then lengthen the tractors top link until the shares are 2” in the ground.
- Regarding speed - start off at a slower speed and as you get the cultivator adjusted for depth, increase your speed as ground conditions allow.
- Pin the wings on folding bars.
- If using an Auto Guide you sometimes need to run the coulters deeper.
- On side hills you may need coulters deeper.
- If you run coulter too deep, they may cause slabbing.
- Don’t cultivate any deeper than necessary because you may waste moisture.
- The deeper you go, the more slabbing.
- It takes less power at a more shallow setting.
- If you go too deep you undercut the weeds and they re-root & regrow.
- If you throw more dirt in the row than you like, lengthen the top link a turn and set the gauge wheels a hole shallower.
- When the shares are worn out it is very difficult to set cultivator to go in the ground.

Registration Form
9400 Cultivator
Please Return With-in 30 Days of Purchase

Name:_____

Street Address:_____

City:_____ State:_____ Zip:_____

Email:_____

How did you hear about us:

☐Social Media ☐Google ☐Farm Show ☐Friend ☐Ad ☐Dealer

Other: _____

Serial Number:_____(located on side end of tool bar)

Dealer Purchased From

Name:_____

Street Address:_____

City:_____ State:_____ Zip:_____

Mail to: Remlinger Manufacturing Company, Inc.
16394 US 224
Kalida, OH 45853

Fax to: 1-419-532-2244

Email to: agsales@remlingermfg.com

Thank you for purchasing Remlinger Equipment!

Notes

Notes

REMLINGER

ISO9001:2015 certified

Remlinger Manufacturing
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PO Box 299
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