



ISO9001:2015 certified

Rolling Finisher Model 3500



Owner's Manual Installation and Parts Manual

Our Tradition is Quality Driven and Field Proven

Manual # - MAN-RF-NA-002

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Operating Tips

- Read and understand this manual before operating your Rolling Finisher (RF), please call with any questions before operating. Damage may occur if cart is improperly used or operated.
- Always place the front roller in the aggressive mode (position A). The rear roller can be set in either aggressive or passive mode. See page 8 for more information.
- We recommend raising your RF cart before turning on each end. Turning with the rollers on the ground creates side stresses and could cause damage to the rollers, bearings, and / or frames.
- Always look over your RF cart before each operation. Look for loose bolts, frayed hoses, damaged parts, or flat tires.
- Always place all transport locks in place when transporting or storing your Rolling Finisher. This machine is equipped with locks for all lift cylinders.
- **Unfolding the machine:** for field operation, keep the transport locks on all lift cylinders (including gage wheels). Unfold the wings and then remove the transport locks. If the transport locks are removed, the base will drop to the ground first. The rollers on the wings will be forced into the ground and could cause damage to the rollers, bearings, and / or frames.
- **Folding the machine:** for transport, the transport locks do not have to be in place to fold the wings. The cart will first raise and than the wings will fold. It is recommended that the transport locks be in place before transporting.
- **Caution:** Remember to rotate the rear jack stand into transport position after attaching the RF cart to your implement. Damage to the jack or mounting hardware can result.
- Make sure hitch pin with keeper, hose connections, and safety lighting (optional) plugs are all connected properly before operating.

Safety

1. Never attempt to operate or adjust the harrow without reading this manual.
2. Never allow anyone to ride on the harrow or other attachments.
3. Drive slowly over rough ground.
4. Always slow down when turning.
5. Always support the Rolling Finisher when mounting or working on the cart or other attachments.
6. Never attempt to adjust the harrow while it is in motion.
7. Periodically check bolts and replace worn ones.
8. Be careful around teeth, tines, sweeps, and blades; they get sharper with wear.
9. Periodically check tires for wear and proper inflation.
 - a. 7.60-15 8 ply 52 psi max
 - b. 9.5L-15 8 ply 44 psi max
10. Hydraulics:
 - a. When installing hydraulic hose, make sure all connections are tight and cylinders are full of hydraulic oil.
 - b. Relieve pressure in hydraulic lines before uncoupling hoses from source.
 - c. Check for and correct all points of abrasion of hydraulic hose. Do not use a partially damaged hose.

Pre-Assembly Instructions

1. All references to right hand and left-hand sides are determined by facing the implement from the rear.
2. Check your packing lists and report any missing parts within 30 days.
3. Lubricate all moving parts and bearings as recommended.
4. Follow assembly instructions in the order shown.
5. This setup & owners manual should be given to the owner for their reference.

Recommended Torque Specifications

THREAD SIZE	FT -LBS	N - M
1/4"-20	9 - 11	12 - 15
3/8"-16	35 - 42	48 - 57
7/16"-14	54 - 64	73 - 87
1/2"-13	80 - 96	109 - 130
5/8"-11	150 - 180	203 - 244
3/4"-10	270 - 324	366 - 439
1"-8	580 - 696	787 - 944

The above specifications apply to SAE Grade 5 Fasteners.

Rolling Finisher - Maintaining

Adjusting the Clevis Height

Major – Remove the two 3/4"-10 x 6" hex cap bolts and pull the telescoping hitch out and rotate 180°. Replace the 3/4" bolts and tighten. The clevis will also have to be rotated.

Minor – Remove the two 3/4" hitch bolts and move the clevis up or down. Replace the bolts.

Adjusting the Hitch Length

Loosen the two 3/4"-10 x 7" hex cap bolts and slide the telescoping hitch in or out to the desired length. Replace the 3/4" bolts and tighten. *(The proper hitch length is 1/2 of the leading implement width.)*

Lubrication

Use SAE Multi Purpose Grease

1. Transport axle (2 locations) - Every 15 hours
Zerk located inside the upper part of the wheel arm at the pivot pin.
2. Gage wheel axle - optional (2 locations) - Every 15 hours
Zerk located inside the upper part of the wheel arm at the pivot pin.
3. Front and Rear Wing Hinge (4 locations) - Every 15hours
Zerk located on the wing side of the hinge.
4. Transport & gage wheel bearings - Once a year or 50 hours
Raise the tires off the ground and check for end play. To eliminate, remove dust cap and cotter pin. Tighten slotted nuts until there is noticeable resistance and back off one slot. Replace cotter pin and dust cap.
5. Harrow attachments - refer to the proper section of this manual.

Single Bar Harrow - Maintaining

Adjusting Harrow Height

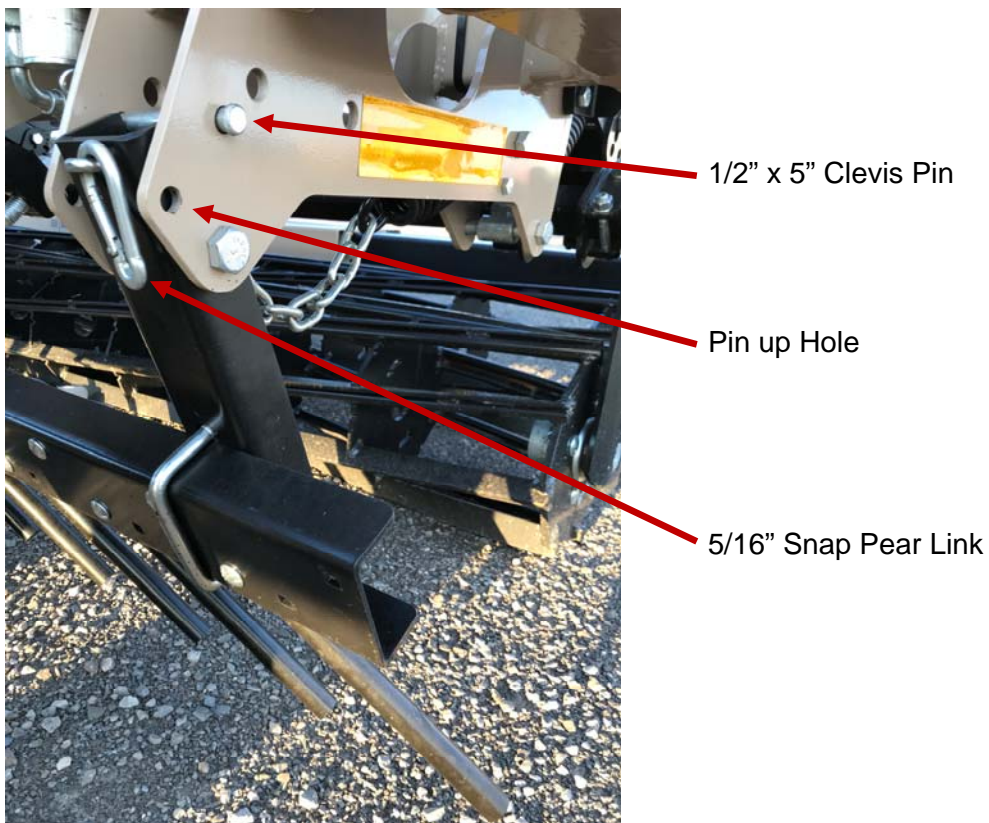
The harrow mounting arm height is fixed. The harrow can be angled back to adjust the depth the teeth penetrate the soil.

Adjusting Spring Tension

Use the 5/16" snap pear link to adjust the chain to the desired length (*remove any twist in the chain*). Refer to the photo below.

Pinning the Harrow Up

Remove the 1/2" x 5" clevis pin from behind the top part of the mounting arm and place the chain in the last link. Pull the harrow up and place the pin in the front hole. This will hold the harrow up and off the ground in the field. Refer to the photo below.



Refer to this photo for harrow adjustments. Angled Tooth Harrow shown.

Double Roller Harrow - Maintaining

Adjusting the Roller Height

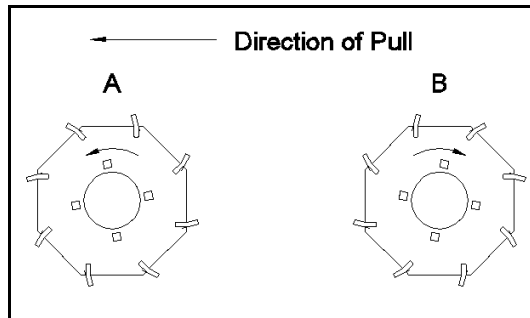
Front Roller – The front roller has three height adjustments. This will change the height relationship between the two rollers. Loosen the two 5/8"-11 x 4 1/2", remove the front bolt. Adjust to desired height and replace the bolt. Tighten both bolts.

Rear Roller – The rear roller is fixed and is not adjustable.

Adjusting Roller Aggression

Position A - Aggressive Mode produces maximum soil shattering.

Position B - Passive Mode provides a soil firming action.



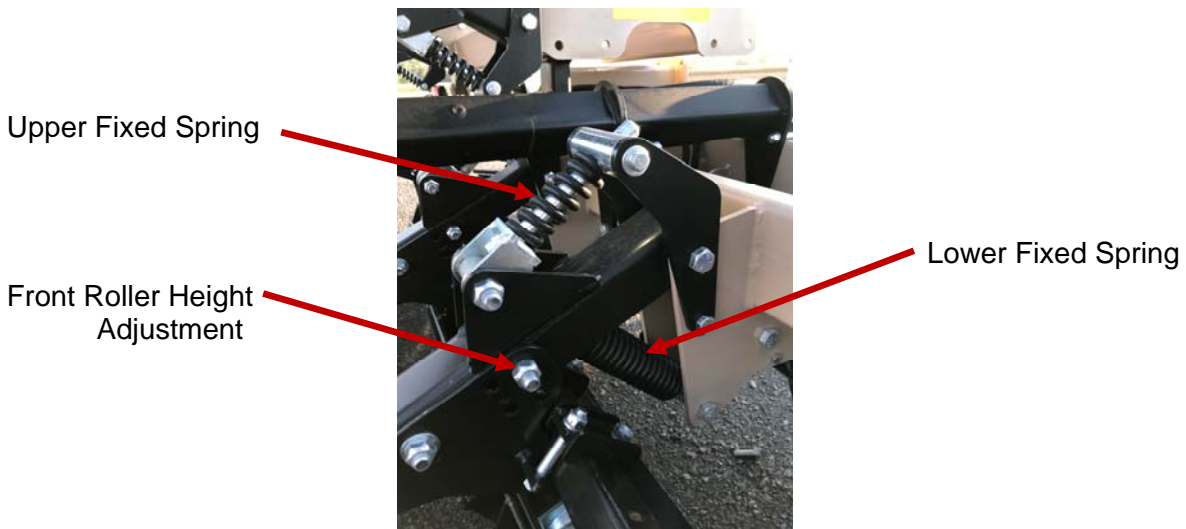
The front roller should always be placed in the Position A.

Adjusting the Spring Down Pressure

The spring has no adjustment, the weight of the cart preloads the springs.

Lubrication

Use #2 multi purpose lithium grease on bearings at least once a season or every 150 hours. Pump grease in *slowly* until old grease and dirt are forced out around seals. It is best to lubricate bearings just prior to prolonged storage.



Refer to this photo for roller adjustments.

Rolling Finisher - Assembly

Base / Axle Instructions (Diagram page 15)

1. The first step is to identify the proper parts to assemble this section of the cart. Set the base on saw horses or similar supports.
Note: The axle ears face the front of the cart.
2. Attach the axle assembly to the base. Use the (2) axle hinge pins, 1"-14 slotted hex nuts, and 3/16" x 2" cotter pins to secure the axle to the base. Secure the axle pins to the hinge ears with a 3/8"-16 x 1 1/4" hex cap bolt with locknut.
Note: The ears on the lower wheel arms should be pointed to the front.
3. Pin the 3" x 8" cylinders onto the cart. Use the standard pins and clips supplied with the cylinder. Open hydraulic ports on cylinders to relieve pressure. Extend the cylinders out, pin to the ear and place the cylinder locks over the cylinder rods. Use the 1/2" x 2 1/2" clevis pin and bow-tie keeper clip to secure locks in place.
Note: The hydraulic ports on cylinders must face out.
4. Place the (4) hub and spindle assemblies on the wheel arms. Use the 1/2"-13 x 3" hex cap bolt with locknut to secure the spindle into the spindle tube. Attach the four tire assemblies to the hubs using 6 hub bolts.
5. Bolt the jack stand mount to the base. Use the (2) 5/8"-11 x 3 1/2" hex cap bolt, (4) 1/2"-13 x 3 1/2" hex cap bolt, (2) back plates, lock washers and nuts to secure assembly to the base. Bolt the 5000# jack stand to the jack stand riser. Use a 5/8"-11 x 3 1/2" hex cap bolt and lock nut to secure the jack stand to the riser. Use the 5/8" pin supplied with the jack stand to pin the jack stand riser to the jack stand mount. Use the 1/4"-20 x 1 1/4" bolt, nut, lock washer, and flat washer to attach the chain to the jack stand riser.
Note: Mount jack stand assembly right of center on base.
6. **Flat Fold** - Place the (2) wing stand mounts on the base. Use (1) 1/2"-13 x 3 1/2" hex cap bolt, lock washer, and nut. The stands should be placed so that they catch the ends of the wings.
Stack Fold - Place the short wing stand mount on the LH side of the base. Use (1) 1/2"-13 x 3 1/2" hex cap bolt, lock washer, and nut. This stand should be placed so that it catches the end of the LH wing. The longer of the stands is for the RH stack fold wing. Bolt the stand to the hole closed to the center of the "RF" Cart. Use (1) 3/4"-10 x 3 1/2" hex cap bolt, locknut. Bolt the (2) supports to the stand and base using (2) 3/4"-10 x 3 1/2" hex cap bolts, locknuts.
Note: The wing stands on the stack-fold machines are not adjustable.

Base / A-Frame Instructions (Diagram page 17)

7. Next, the “A” frame can be attached to the base. Use (12) 5/8”-11 x 1 3/4” hex cap bolts, lock washers, and nuts to attach the “A” frame to the base. The “A” frame matches up to plates on the base. The short brace on the rear of the A-frame will be located the bottom when mounted properly.
8. Slide the hitch assembly into the “A” frame assembly. Use (2) 3/4”-10 x 7” hex cap bolts and lock nuts to secure the hitch in the “A” frame. The hitch length is measured from the hitch pin to the front of the transport tires.
Note 1: The proper hitch length is equal to 1/2 of the implement width.
Note 2: The plates on the front of the hitch should be offset down. If more hitch height is needed the hitch can be rotated 180°.
9. Bolt the clevis hitch assembly in to the hitch. Use (2) 3/4”-10 x 6” hex cap bolts and lock nuts. Bolt the hose holder on with 5/8”-11 x 2” hex cap bolt, flat washer and locknut. Slide the large ring of the safety chain over the threaded bushing on the hitch plate. Use the cap, 3/4”-10 x 1 1/2” hex cap bolt and lock washer to secure.

Wing Instructions (Diagram page 19)

10. Attach the wing assembly to the base. Use the (2) wing hinge pins, 1”-14 slotted hex nuts, and 3/16” x 2” cotter pins to secure the wing to the base. Secure the wing pins to the hinge ears with a 3/8”-16 x 1 1/4” hex cap bolt with locknut.
11. Attach the 4” or 4 1/2” x 16” cylinders to the ears on the base frame ear. Use the standard cylinder pin and clip supplied with each cylinder. The cylinder with plastic stop is for the RH side and is only used with stack fold wings.
12. Rotate the (2) linkage straps, (2) 1” UHMW plastic washers and place them on the wing frame ear as shown in diagram. Use a 1” pin with (2) machine bushings and 1/4” x 2” cotter pins to hold in place.
Note: The (2) 1” UHMW plastic washers should be placed between the linkage straps and the wing frame ear.
13. Open hydraulic ports on cylinders to relieve pressure. Extend cylinder rod out far enough to pin cylinder clevis to upper wing lever hole. Use the standard pins and clips supplied with cylinder.
Note: The wings will be self supporting.

Optional Gage Wheel Instructions (Diagram page 21)

14. Next, bolt the gauge wheel mount assembly and back plate assembly to wing extension. Use (4) 5/8"-11 x 3 1/2" hex cap bolts, lock washers and nuts. Location for gauge wheel mounting varies from cart to cart. The following are **maximum distances** from the center of the wing hinge pin.

12' Base - 66"

14' Base - 89"

16' Base - 112"

15. Attach the gauge wheel arm assembly to the gauge wheel mount. Use the axle hinge pins, 1"-14 slotted hex nut, and 3/16" x 2" cotter pin to secure the arm to the mount assembly. Secure the axle pins to the hinge ears with a 3/8"-16 x 1 1/4" hex cap bolt with locknut.

Note: The ears on the gauge wheel arms should be pointed to the front.

16. Pin the 3" x 8" cylinders onto the cart. Use the standard pins and clips supplied with the cylinder. Open hydraulic ports on cylinders to relieve pressure. Extend the cylinders out, pin to the ear and place the cylinder locks over the cylinder rods. Use the 1/2" x 2 1/2" clevis pin and bow-tie keeper clip to secure locks in place.

Note: The hydraulic ports on cylinders must face out.

17. Place the hub and spindle assemblies on the wheel arms. Use the 1/2"-13 x 3" hex cap bolt with locknut to secure the spindle into the spindle tube. Attach the tire assemblies to the hubs using 6 hub bolts.

Torque all bolts to specifications, refer to page 5. Periodically check for loose or worn bolts. Replace as necessary.

Hose Kit Layout - See Appendix page 43

18. The majority of the cart should be assembled. Locate and separate all hoses and fittings from kit. Follow the proper hose kit diagram that describes the base size and fold option on your cart. The 3" x 8" hydraulic cylinders are used for the lift system. The 4" or 4 1/2" x 16" hydraulic cylinders are used for the wing fold system. Run the pressure and return lines through the L.H. "A" frame tube. After hoses are placed on the cart and tightened to the correct cylinders, bolt hose holder clamps to hose holder bases. Use a 3/8"-16 x 1 1/4" hex cap bolt to secure clamp to base.

Single Bar Harrow - Mounting

1 Bar Harrow Instructions (Diagram page 23)

1. Refer to the harrow layout section of this manual for proper location.
2. Place the zinc coated bushings in the harrow arms and attach the arms in the proper holes on the frame. Use a 5/8"-11 x 4 1/2" hex cap bolt and lock nut to secure the arm in place.
Note: If there are wing extensions on your cart, the bolts for these areas need to be a 1/2" longer.
3. Place the tension spring eyelet in proper mounting hole location. Use a 5/8"-11 x 4 1/2" hex cap bolt and lock nut to secure spring in place. Next attach the chain of the tension spring to the slot in the harrow arm (*remove any twist in the chain*). Use a 5/16" snap pear link to secure the chain in the slot.
4. Next, lay the harrow sections under the harrow arm. The sections are tagged for proper location. Refer to the harrow layout section of this manual for proper harrow section location.
5. **Angled Tooth Harrow** - Attach the harrow section to harrow mounting arms. Use (2) 1/2-13" x 4" x 3" u-bolts, flat washers, lock washers and nuts to hold (formed channel) harrow to arms.
Note: Replace one of the end teeth at the center of the cart with the Y-tooth that was packed separate. Use the original bolts.

Straight Tooth Harrow - Attach the harrow section to harrow mounting arms. Use (2) 5/8-11" x 1 1/4" hex cap bolts, flat washers, lock washers and nuts to hold (angle iron) harrow to arms.

Coil Tine Harrow - Center the tine bars on the harrow mounting arms. Use (2) 3/8-16" x 1 1/2" x 2 1/4" u-bolts, lock washers and nuts to hold tine bar to arms. Slide the tine clamp onto the coil tine. Place the coil tine and clamp assembly onto the tine bars. Use (1) 3/8"-16 x 3 1/2" hex cap bolt, tine retainer washer, lock washer, & nut. Center the tine finger of the first coil tine and clamp assembly 2 1/2" from the end of the tine bar. Place the rest of the tines on 9" centers.

6. Refer to the harrow layout section of this manual for proper harrow location of bolts and u-bolts. Start with base sections first, and centered them under the cart. Tighten to secure harrow.

Torque all bolts to specifications, refer to page 5. Periodically check for loose or worn bolts. Replace as necessary.

Double Roller Harrow - Mounting

Double Roller Harrow Instructions (Diagram page 25)

Roller harrows are not recommended in rocky conditions!

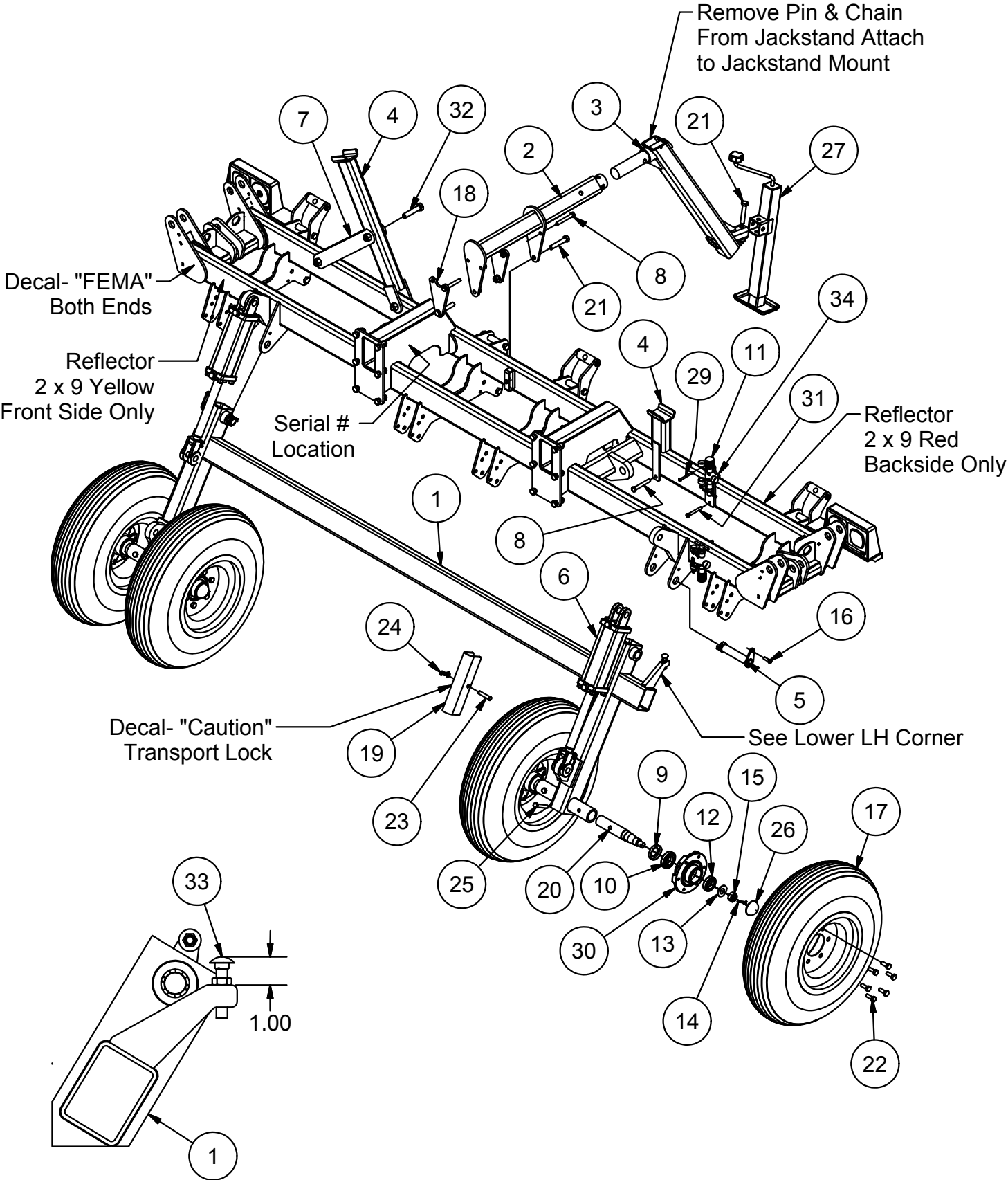
1. The roller harrow sections have the bearings factory installed. Refer to the harrow layout section of this manual for proper harrow section location.
2. The Double Roller Arms have been pre-assembled at the factory.
3. Place a zinc coated bushing in the roller mounting and mount to the rear of the cart. Use a 5/8"-11 x 4 1/2" hex cap bolt and lock nut. Attach the spring assembly to the rear of the cart. Use a 5/8"-11 x 4 1/2" hex cap bolt and lock nut.
Note: If there are wing extensions on your cart, the bolts for these areas are a 1/2" longer.
4. Attach the roller frame to the roller sections. Use the 1"-8 x 3 3/4" hex cap bolt with bearing spacer, lock washer, and nut.
Note: Place the 1" flat washer in the "Gap" between the bearing and the frame spacer block as needed. Refer to page 25.
5. Lay the roller sections out behind the harrow cart. Attach the roller sections to the roller mounting arms and the side plate assemblies. Use the 1/2"-13 x 2" x 3" u-bolt with lock washer and nut. Refer to the harrow layout section of this manual for proper harrow section location.
Note 1: Refer to page 7 for roller aggression.
Note 2: The front roller should always be placed in the Position A.
6. Bolt SMV sign and owner's manual canister to bracket using (3) 1/4"-20 x 1 1/4" hex cap bolts, lock washers and nuts. U-bolt SMV bracket to roller frame on rear of cart. Use a 1/2" x 2" x 3" u-bolt, lock washers and nuts to secure bracket to the roller frame.
Note: S.M.V sign must be in center or left-of-center on the "RF" Cart.
7. Place all product and warning decals in proper locations on roller cart.

Torque all bolts to specifications, refer to page 5. Periodically check for loose or worn bolts. Replace as necessary.

Parts Description - Base / Axle

Item	Part Number	Description
1	RF-1003	Base Axle Assembly
2	RF-1039	Jackstand Mount Weldment
3	RF-1040	Jackstand Riser Weldment
4	RF-1054 RF-1050 RF-1051	Flat Fold Wing Stand Wing Stand Weldment (12ft & 14ft Base) Stack Fold Wing Stand (16ft Base)
5	RF-1013-AS	Axle Hinge Pin Assembly w/ 1"-14 Hex Slotted Nut & Cotter Pin
6	RF-0108	3 x 8 Cylinder
7	RF-0118	Wing Stand Support Plate
8		1/2"-13 UNC x 3 1/2" Gr.5 Bolt w/ Lock Washer & Nut
9	RF-0037	STD Spindle Seal
10	RF-0038	Inner Tapered Roller Bearing
11	RF-0127	Stack-Fold Hydraulic Valve
12	RF-0039	Outer Tapered Roller Bearing
13	RF-0040	STD Spindle Washer
14	RF-0041	STD Spindle Cotter Pin
15	RF-0042	STD Spindle Nut
16		3/8-16 UNC x 1 1/4" Gr.5 Bolt
17	RF-0029 RF-0035	7.60L-15 Tire 15-6 6 on 6 Rim
18	RF-0092	Jackstand Back Plate
19	RF-0100	Cylinder Transport Lock
20	RF-0031	6 Bolt Spindle
21		5/8-11 UNC x 3 1/2" Gr.5 Bolt w/Lockwasher & Nut
22		1/2"-20 x 1 1/4" Hub Bolt
23	RF-0115	Transport Lock Pin
24	RF-0113	Bow Tie Keeper Pin
25		1/2-13 UNC x 3" Gr.5 Bolt w/ Locknut
26	RF-0043	STD Dust Cap
27	RF-0109	5000# Top Crank Jack Stand - Square Mnt
29		1/4-20 UNC x 2 3/4" Gr.5 Bolt w/ Lockwasher & Nut
30	RF-0030	STD 6-Bolt Hub
31		3/8-16 UNC x 3" Gr.5 Bolt w/ Lockwasher & Nut
32		3/4-10 UNC x 3 1/2" Gr.5 Bolt w/ Locknut
33		1/2-13 UNC x 2 1/2" Gr.5 Carriage Bolt
34	RF-1074	Valve Plate Weldment

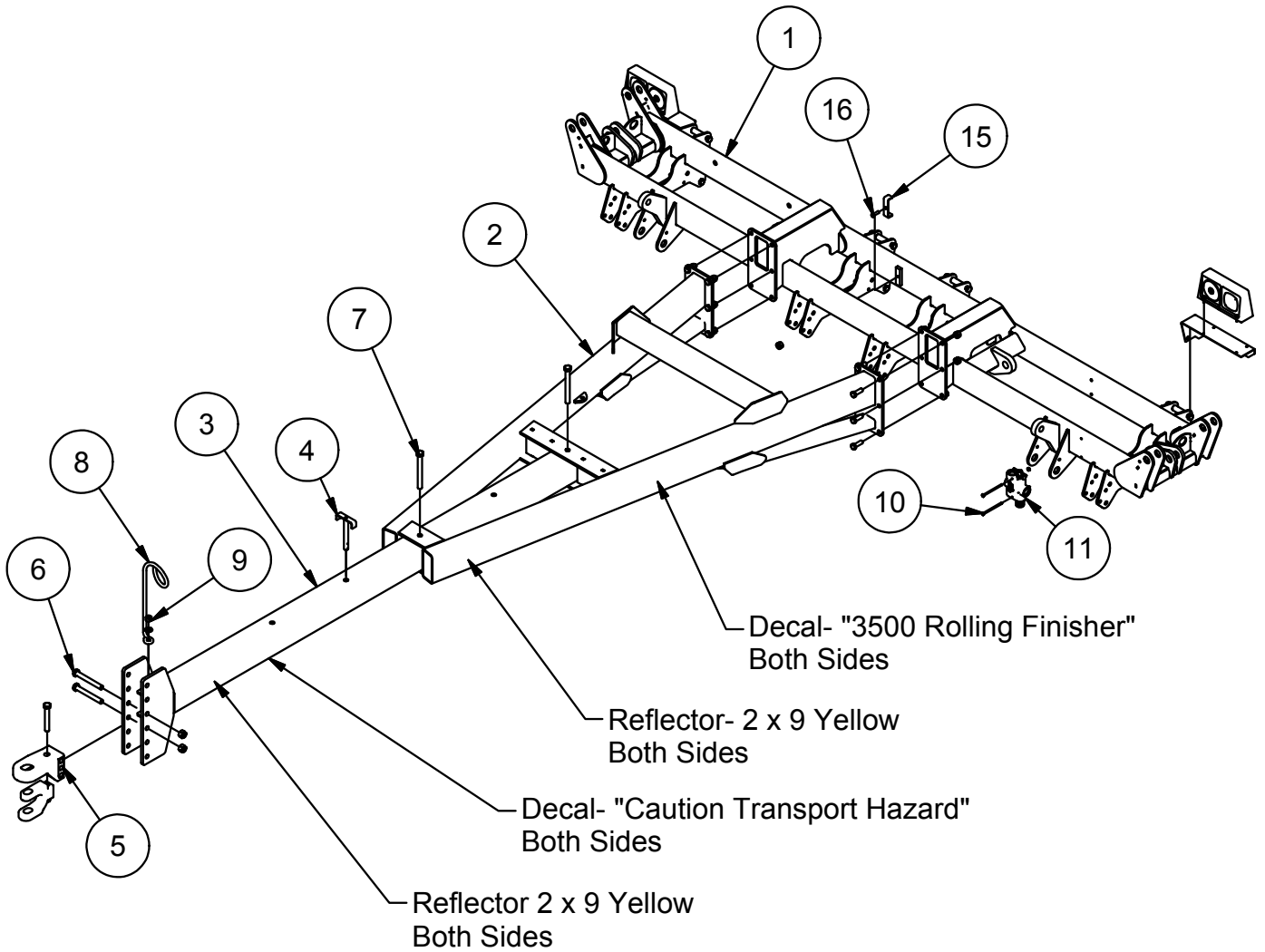
Parts Description - Base / Axle



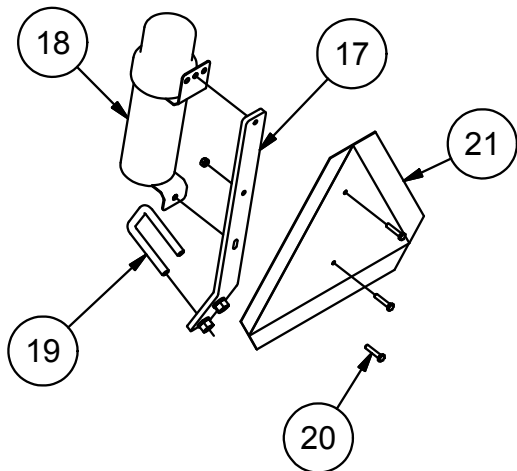
Parts Description - Base / Axle

Item	Part Number	Description
1	RF-1085 RF-1088 RF-1090	12ft Base Weldment 14ft Base Weldment 16ft Base Weldment
2	RF-1086 RF-1089	12ft A-Frame Weldment 14ft & 16ft A-Frame Weldment
3	RF-1091 RF-1087	12ft Base HD Telescoping Hitch Weldment 14ft & 16ft Base HD Telescoping Hitch Weldment
4	RF-1041-AS	Hose Holder Rod Assembly w/ 3/16" x 2" Cotter Pin
5	PUR-10001 PUR-00003 PUR-00004	CAT III Cast Hitch Assy Bolt on Cast Clevis Cast Base Hitch 3/4-10 UNC x 5" Gr.8 Bolt w/ Locknut
6		3/4-10 UNC x 6" Gr.5 Bolt w/ Locknut
7		3/4-10 UNC x 7" Gr.5 Bolt w/ Locknut
8	PUR-00005	Large Hose Holder
9		5/8-11 UNC x 2" GR. 5 Bolt w/ Washer & Locknut
10		1/4-20 UNC x 4.5" Gr.5 Bolt w/ Lockwasher & Nut
11	RF-0127	Stack-Fold Hydraulic Valve
12	RF-0168 RF-0169	R.H. Light Bracket L.H. Light Bracket
13		1/4-20 UNC x 1" Gr.5 Bolt w/ Lockwasher & Nut
14	EL-0004 EL-0005	R.H. Dual Light Box w/ Brake L.H. Dual Light Box w/ Brake
15	RF-0097	Hose Holder Clamp
16		3/8-16 UNC x 1 1/4" Gr.5 Bolt
17	RF-0121	SMV Bracket
18	RF-0142	Owner's Manual Canister
19	RB-0025-AS	1/2-13 X 2" X 3 1/2" U-Bolt w/ Lockwasher & Nut
20		1/4-20 UNC x 1.25" Gr.5 Bolt w/ Lockwasher & Nut
21	RF-0167	S.M.V. Sign

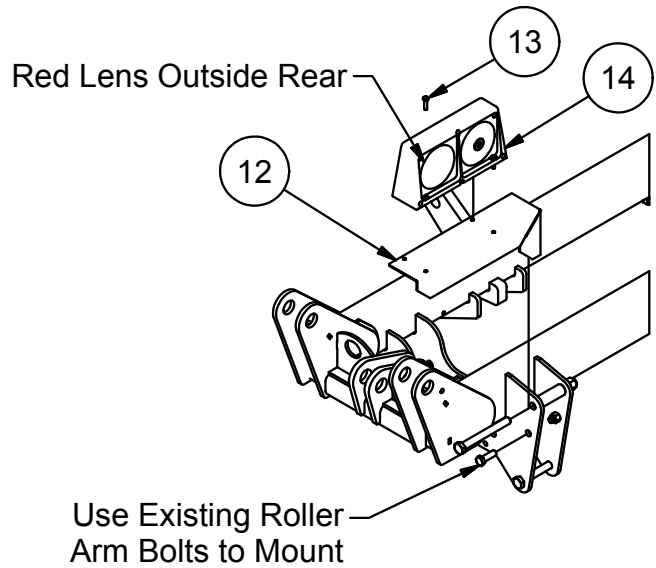
Parts Description - Base / A-Frame



SMV Sign



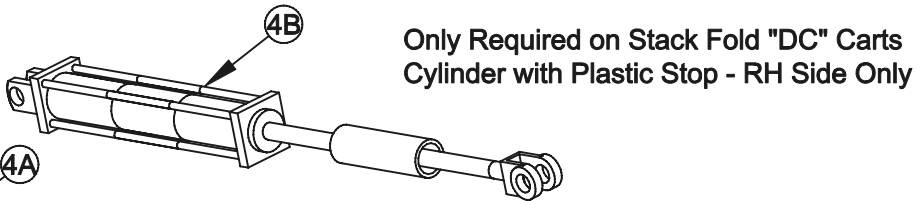
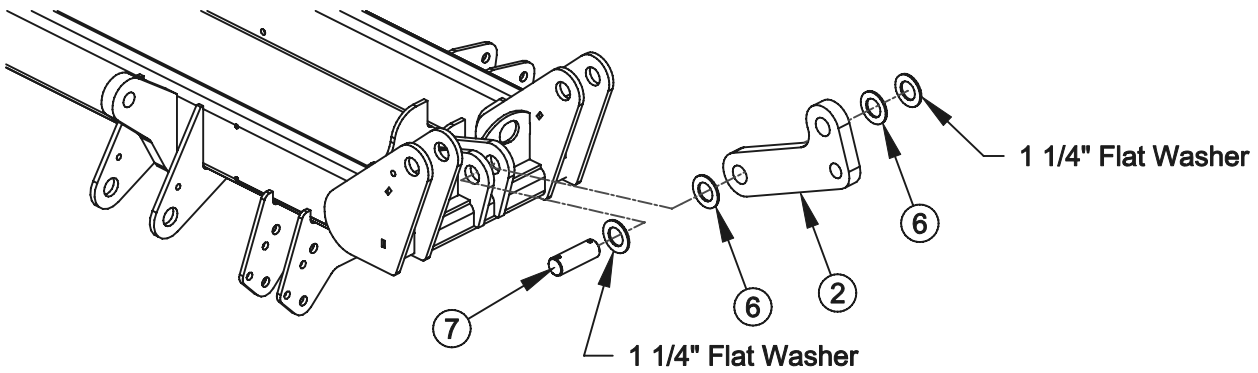
Light Kit



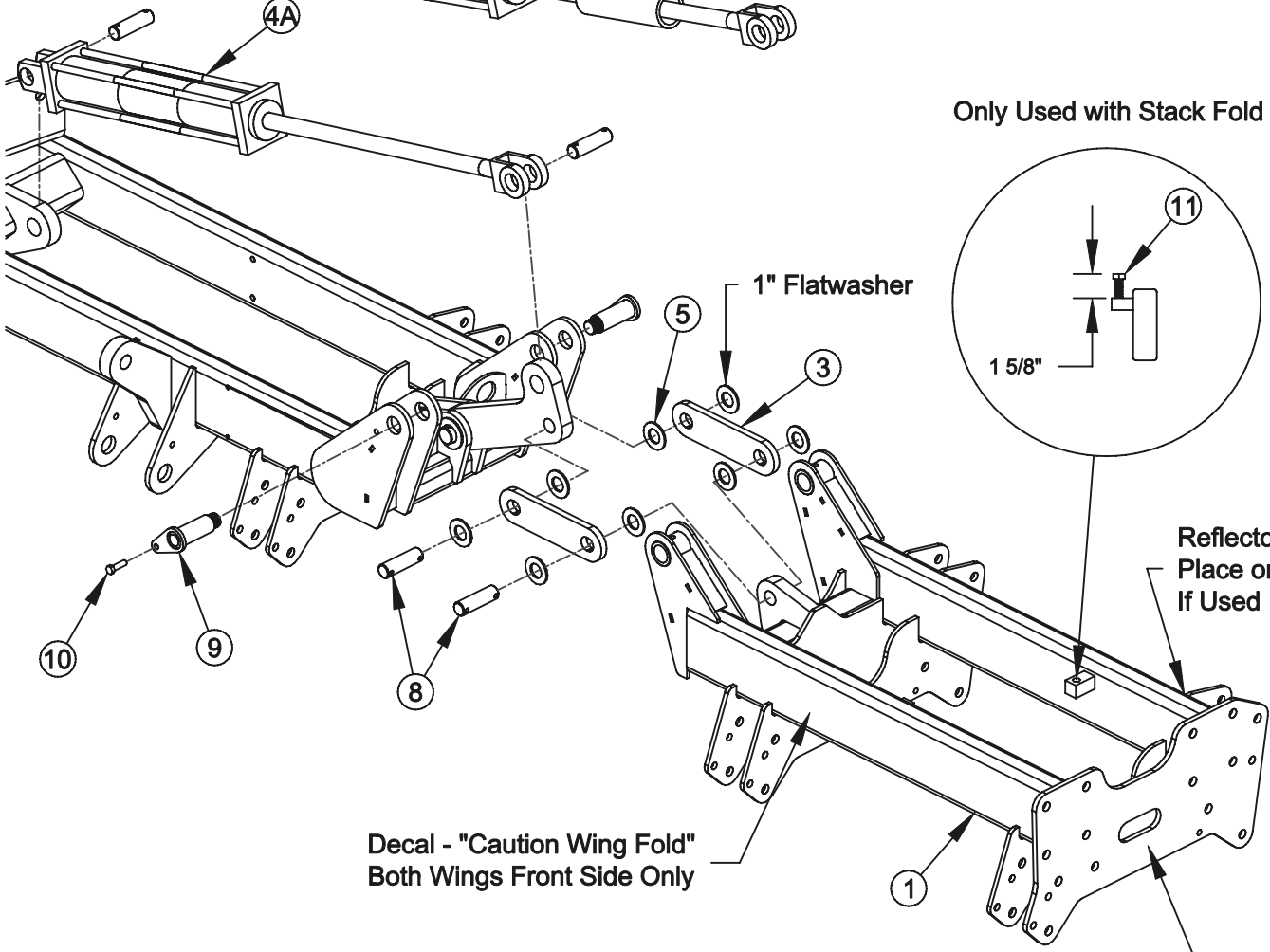
Parts Description – Wing

Item No.	Part No.	Part Name / Description
1	RF-1004 RF-1017 RF-1031 RF-1032 RF-1033 RF-1034 RF-1035 RF-1036	LH 6ft Wing Assembly RH 6ft Wing Assembly RH 5ft Wing Assembly LH 5ft Wing Assembly RH 4ft Wing Assembly LH 4ft Wing Assembly RH 3ft Wing Assembly LH 3ft Wing Assembly (shown)
2	RF-0048	Wing Pivot Lever
3	RF-0044	Linkage Strap
4A	RF-0110 RF-0134	4" x 16" Cylinder w/ Pins & Clips 4 1/2" x 16" Cylinder w/ Pins & Clips
4B	RF-1067 RF-1068	4" x 16" Cylinder w/ Pins, Clips, & Plastic Stop (stack fold only) 4 1/2" x 16" Cylinder w/ Pins, Clips, & Plastic Stop (stack fold only)
5	RF-0049	1" UHMW Plastic Washer
6	RF-0050	1 1/4" UHMW Plastic Washer
7	RF-0065-AS	1 1/4" Pivot Pin w/ (2) Flat washers & Cotter Pins
8	RF-0066-AS	1" Pivot Pin w/ (2) Machine Bushing & Cotter Pins
9	RF-1012-AS	Wing Hinge Pin Assembly w/ 1"-14 Hex Slotted Nut & Cotter Pin
10		3/8"-16 x 1 1/4" Gr. 5 Bolt w/ Locknut
11		5/8"-11 x 2" Gr. 5 Bolt w/ Jamb Nut (stack fold only)

Parts Diagram - Wing



Only Used with Stack Fold Valve



Reflector - 2 x 9 Yellow
Place on End of Wing Stub
If Used

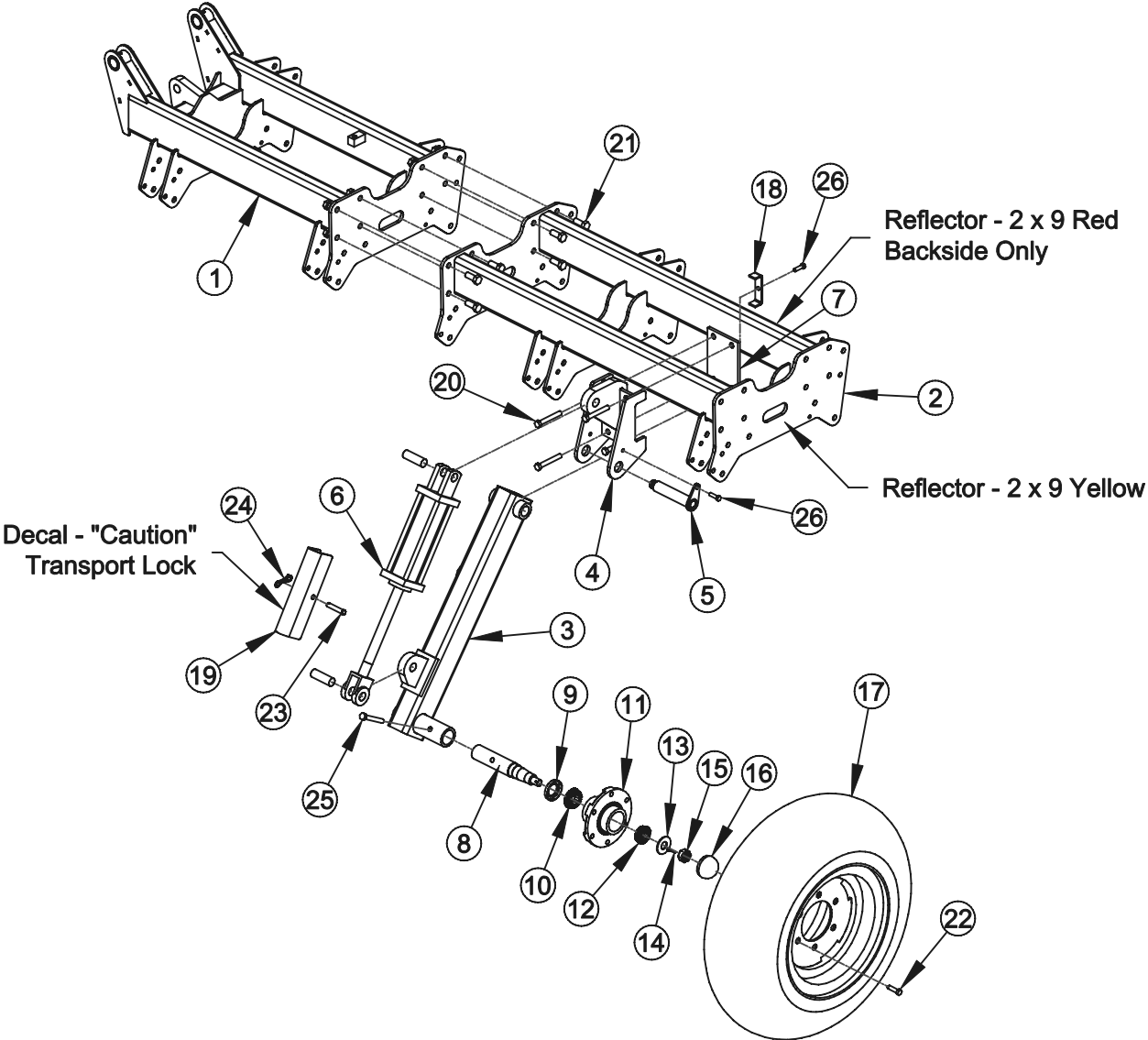
Decal - "Caution Wing Fold"
Both Wings Front Side Only

Reflector - 2 x 9 Yellow
Place on End of Wing Stub
If Used

Parts Description – Wing Extension / Gage Wheel

Item No.	Part No.	Part Name / Description
1		Wing Assembly
2	RF-1042 RF-1043 RF-1044 RF-1045 RF-1046 RF-1047	LH 4ft Wing Extension Assembly (shown) LH 4.5ft Wing Extension Assembly LH 5ft Wing Extension Assembly RH 4ft Wing Extension Assembly RH 4.5ft Wing Extension Assembly RH 5ft Wing Extension Assembly
3	RF-1010 RF-1011	LH Gage Wheel Arm Assembly (shown) RH Gage Wheel Arm Assembly
4	RF-1009	Gage Wheel Mount Assembly
5	RF-1013-AS	Axle Hinge Pin Assembly w/ 1"-14 Hex Slotted Nut & Cotter Pin
6	RF-0108	3 x 8 Cylinder w/ Pins & Clips
7	RF-1049	Gage Wheel Back Plate Assembly
8	RF-0031	Standard 6-Bolt Hub Spindle
9	RF-0037	6-Bolt Spindle Seal (CR16289)
10	RF-0038	6-Bolt Inner Bearing (JL69349)
11	RF-0030	Standard 6-Bolt Hub (GKN#888)
12	RF-0039	6-Bolt Outer Bearing (LM67048)
13	RF-0040	6-Bolt Spindle Washer (GKN #913607)
14	RF-0041	6-Bolt Spindle 5/32" x 2" Cotter Pin
15	RF-0042	6-Bolt Spindle Nut (GKN #912952)
16	RF-0043	6-Bolt Dust Cap (GKN #909905)
17	RF-0029 RF-0035	7.60L-15 Tire 15-6 6 on 6 Rim
18	RF-0097	Hose Holder Clamp
19	RF-0100	Cylinder Transport Lock
20		5/8"-11 x 3 1/2" Gr. 5 Bolt w/ Lock washer & Nut
21		5/8"-11 x 1 1/2" Gr. 5 Bolt w/ Lock washer & Nut
22		1/2"-20 x 1 1/4" Hub Bolt
23	RF-0115	1/2" x 2 1/2" Clevis Pin
24	RF-0113	Bow-Tie Keeper Clip
25		1/2"-13 x 3" Gr. 5 Bolt w/ Locknut
26		3/8"-16 x 1 1/4" Gr. 5 Bolt w/ Locknut

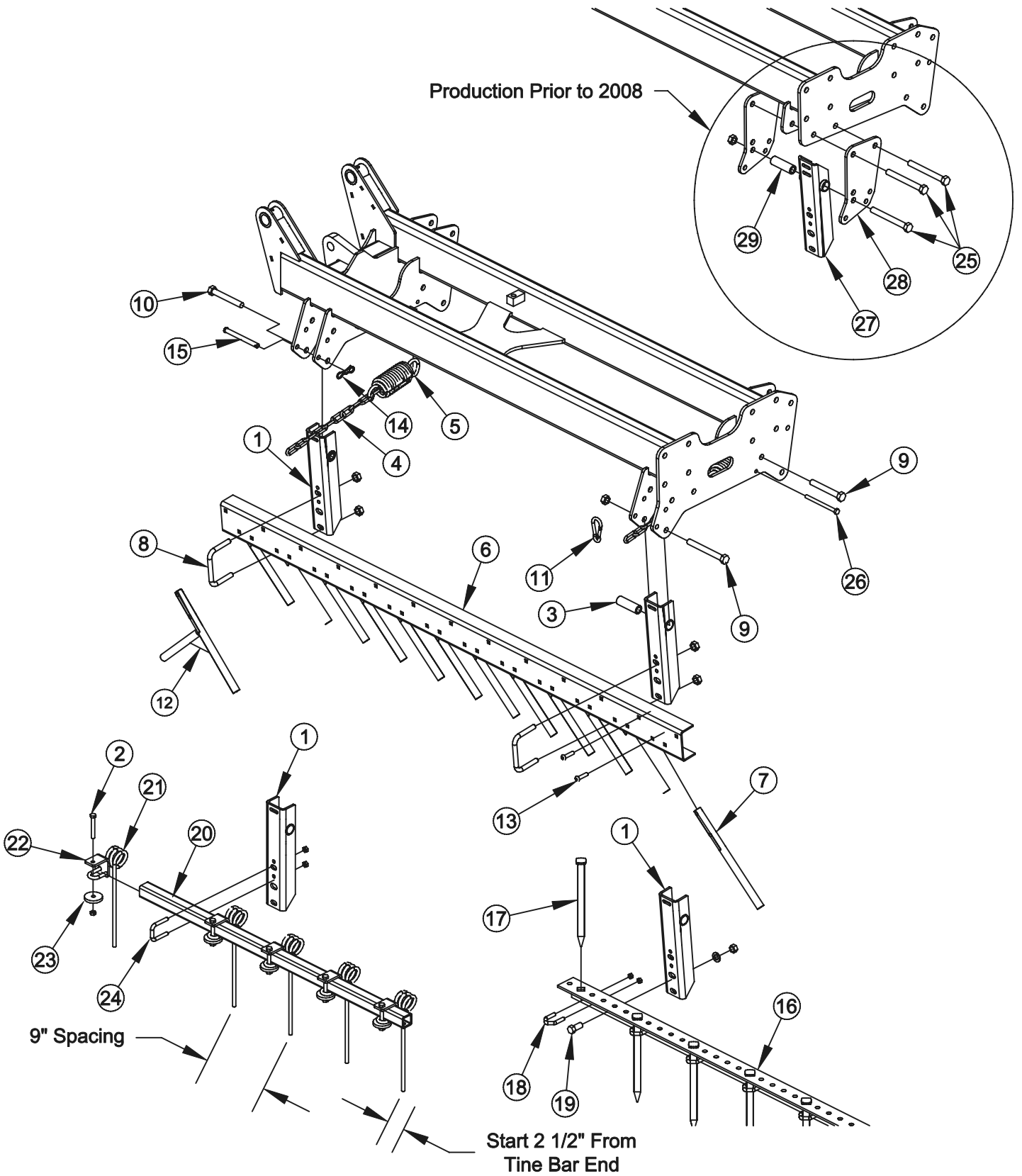
Parts Diagram - Wing Extension / Gage Wheel



Parts Description – Single Bar Harrow

Item No.	Part No.	Part Name / Description
1	RF-1022	Harrow Mount Bar Assembly
2		3/8"-16 x 2 1/2" Gr.5 Bolt w/ Locknut
3	RF-0107	Spacer
4	RF-0112	1/4" Proof Adjustment Chain (11 Link)
5	RF-0111	Tension Spring
6	RTB-0035 RTB-004 RTB-0045 RTB-005 RTB-0055 RTB-006 RTB-0065	3 1/2' Tool Bar – less 7 teeth – TB-3 1/2 4' Tool Bar – less 8 teeth – TB-4 4 1/2' Tool Bar – less 9 teeth – TB-4 1/2 5' Tool Bar – less 10 teeth – TB-5 5 1/2' Tool Bar – less 11 teeth – TB-5 1/2 6' Tool Bar – less 12 teeth – TB-6 6 1/2' Tool Bar – less 13 teeth – TB-6 1/2
7	RTB-010-AS	Regular Tooth (7/8" Round X 13 1/4" w/ bolts) – TB-10
8	RMB-022-AS	1/2" x 4" x 3 1/2" Gr.5 U-Bolt w/2 Lock washers, Nuts-MB-22
9		5/8"-11 x 5" Gr. 5 Bolt w/ Locknut
10		5/8"-11 x 4 1/2" Gr. 5 Bolt w/ Locknut
11		5/16" Snap Pear Link
12	RTB-020-AS	Center "Y" Tooth – TB-20
13		3/8"-16 X 1 1/2" Gr. 5 Carriage Bolt w/ Lock washer & Nut
14	RF-0113	Bow-Tie Keeper Clip
15	RF-0114	1/2" x 5" Clevis Pin
16	L-A0003 L-A0004 L-A0005 L-A0007 L-A0006	3'6" Tooth Bar – less 5 teeth 4'3" Tooth Bar – less 6 teeth 5' Tooth Bar – less 7 teeth 5'9" Tooth Bar – less 8 teeth 6'6" Tooth Bar – less 9 teeth
17	L-A0060	11" Spike Tooth
18	L-A0066-AS	"V" Shaped U-Bolt w/ (2) Locknuts
19		5/8"-11 X 1 1/4" Gr.5 Bolt w/ Flatwasher & Locknut
20	RF-0157 RF-0158 RF-0159 RF-0160 RF-0161	3ft-6in Tine Bar (42") 4ft-3in Tine Bar (51") 5ft Tine Bar (60") 5ft-9in Tine Bar (69") 6ft-6in Tine Bar (78")
21	RF-0162	Spring Tine
22	RF-0163	Spring Tine Bar Clamp
23	RF-0164	Spring Clamp Washer
24		3/8"-16 x 1 1/2" x 2 1/4" U-Bolt w/ (2) Flat washer & Locknut
25		5/8"-11 x 5 1/2" Gr.5 Bolt w/ Locknut
26		3/8"-16 x 4 1/2" Gr.5 Bolt w/ Locknut

Parts Diagram - Single Bar Harrow

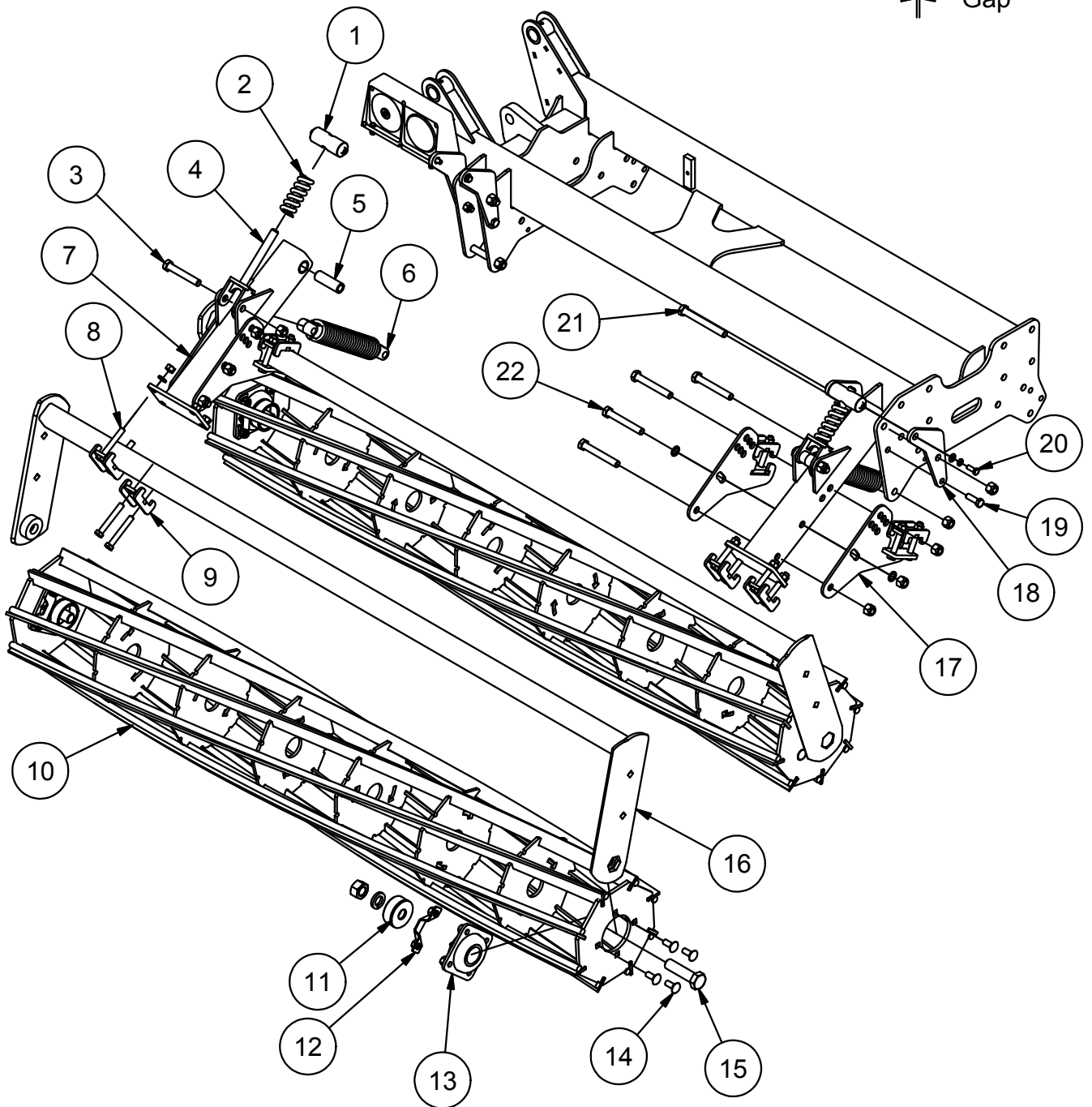
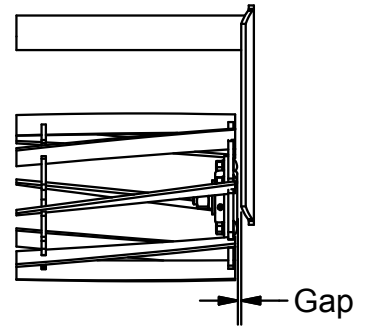


Parts Diagram - Base / Axle

Item	Part Number	Description
1	RF-0237	Upper Spring Pivot Block
2	F-00003	Close Whl Ten Spring
3		5/8"-11 UNC x 4" Gr.5 Bolt w/ Locknut
4	RF-1093	Top Spring Lower Mount Weldment
5	RF-0107	Spacer
6	RF-1015	Roller Spring Assy
7	RF-1014	Roller Arm Assembly
8		1/2"-13 UNC x 3 1/2" Gr.5 Bolt w/ Lock Washer & Nut
9	RF-1092	Roller Frame Mount Plate Weldment
10	HDRB-1008 HDRB-1017 HDRB-1009 HDRB-1018 HDRB-1010	3'6" Roller Weldment 4'3" Roller Weldment 5' Roller Weldment 5'9" Roller Weldment 6'6" Roller Weldment
11	RB-1055	Bearing Hex Nut Protector
12	RB-0069-AS	Weed & Rock Guard w/ Bolt and Locknut
13	RB-0007	Flanged Disk Bearing
14		1/2"-13 UNC x 1.25" Carriage Bolt w/ Lock Washer & Nut
15		1-8" UNC x 3.75" Bolt w/ Lock Washer & Nut
16	RB-1005 RB-1021 RB-1006 RB-1022 RB-1007	3'6" Frame Weldment 4'3" Frame Weldment 5' Frame Weldment 5'9" Frame Weldment 6'6" Frame Weldment
17	RF-1023 RF-1024	LH Roller Bracket Weldment RH Roller Bracket Weldment
18	RF-0236	Top Spring Side Plate
19		1/2"-13 UNC x 1.5" Gr.5 Bolt w/ Locknut
20		3/8"-16 UNC x 1"Gr.5 Bolt w/ Washer and Lock Washer
21		5/8"-11 UNC x 5.5" Gr.5 Bolt w/ Locknut
22		5/8-11 UNC x 4.5" Gr.5 Bolt w/ Locknut

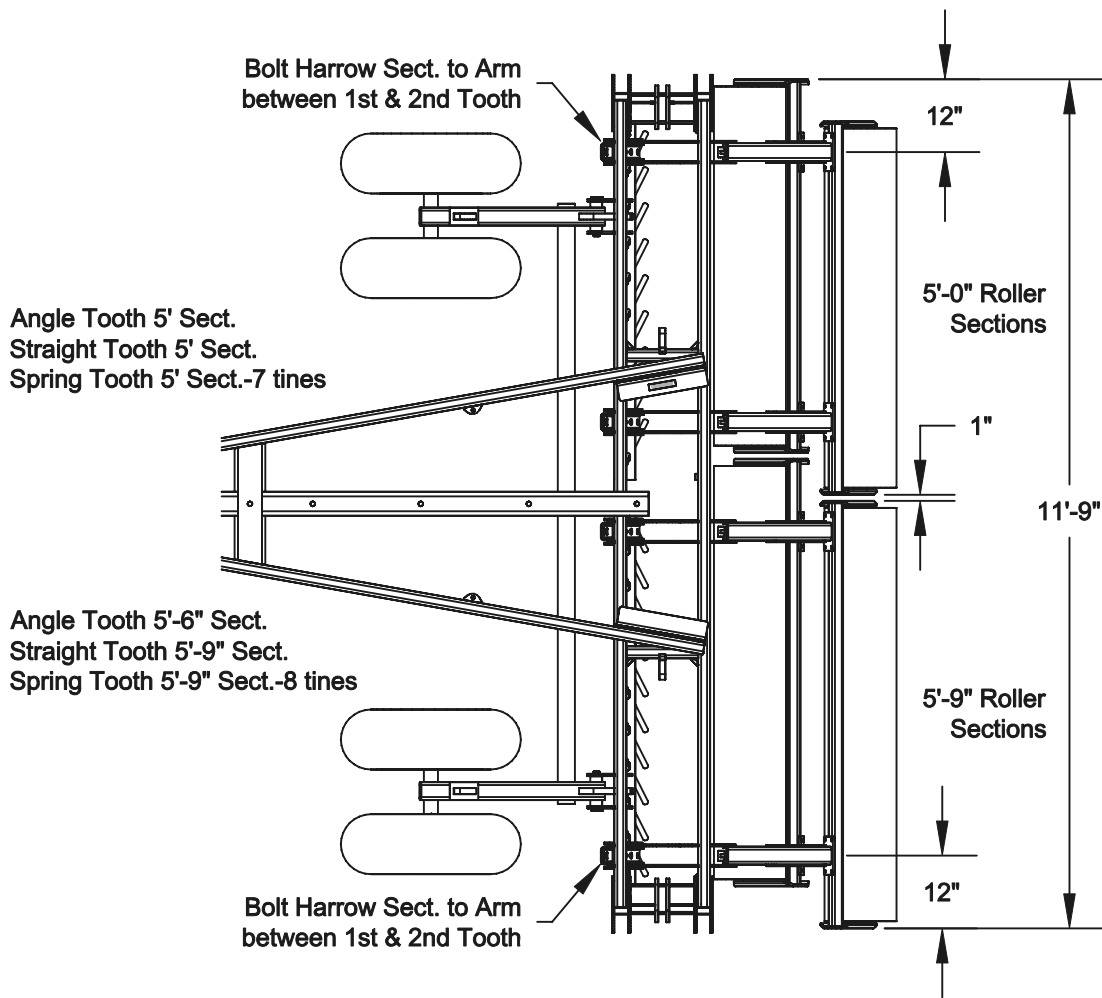
Parts Diagram - Double Roller Harrow

Snug 1"-8 Hex Cap Bolt on one Side.
Fill "Gap" with 1" flatwasher on other side as needed.
Do to frame inconsistency the flatwasher may or may not be needed.
Do not Force in the Flatwasher



Layout - 12' Base (Standard)

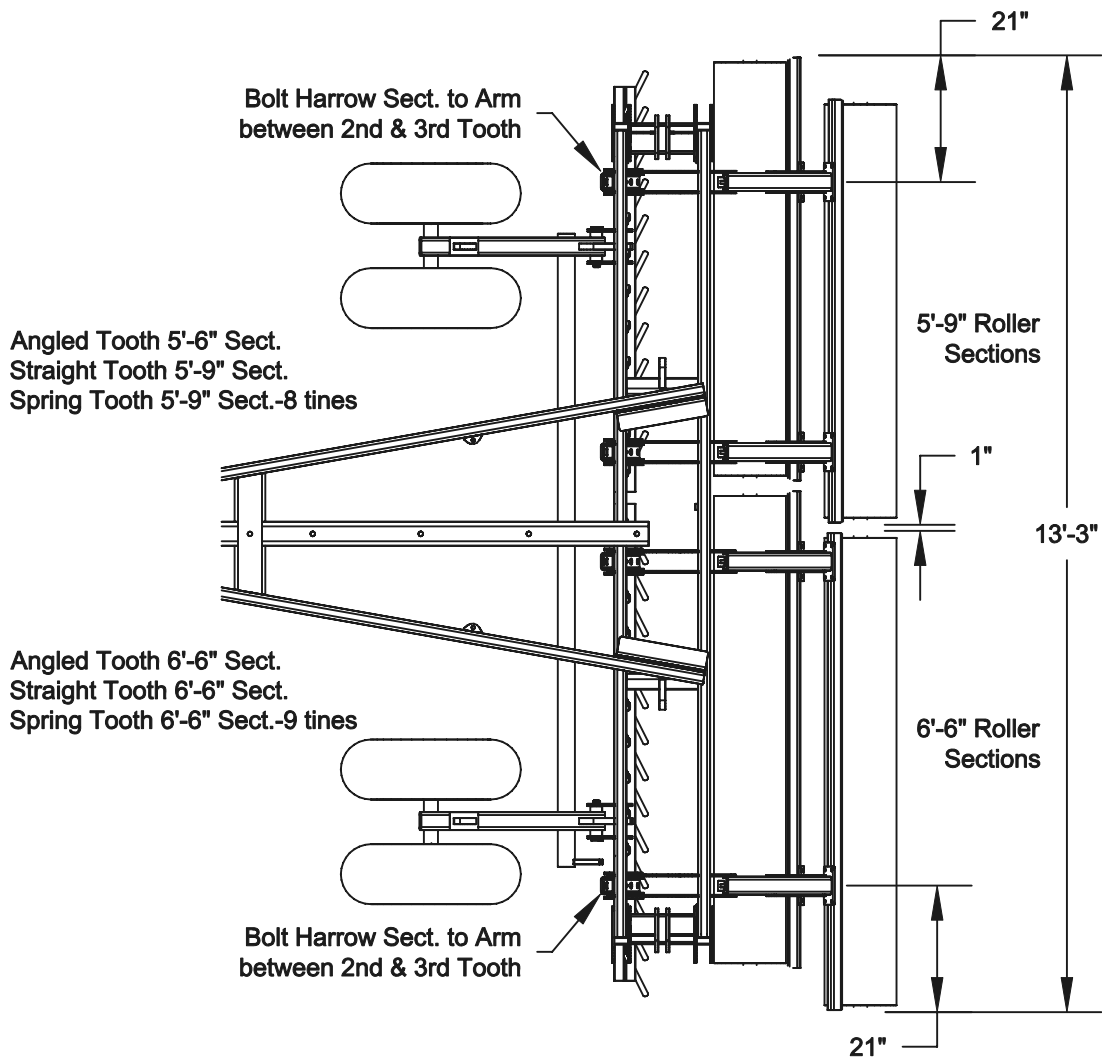
11'9" Harrow on a 12' Base



Layout - 12' Base

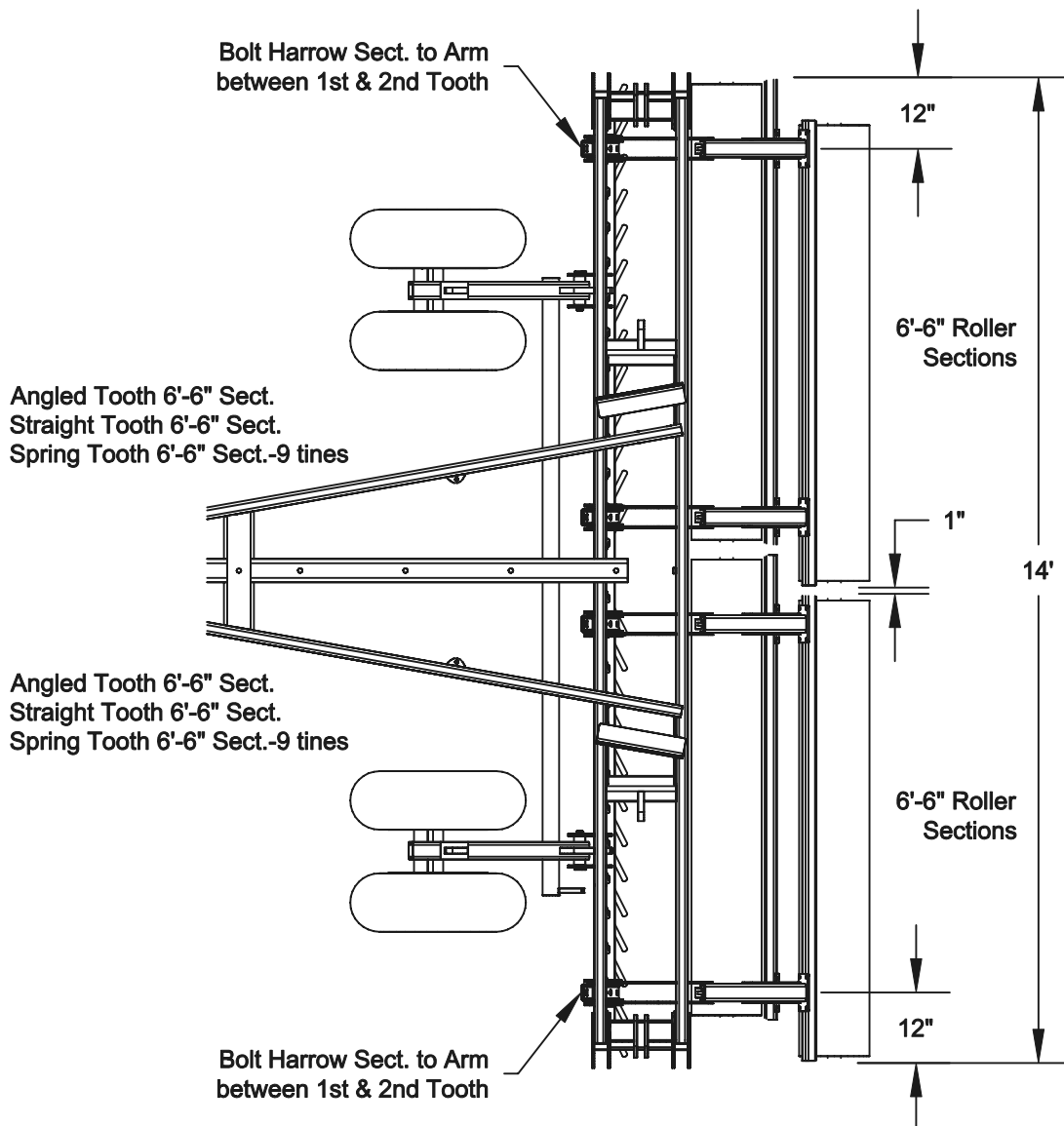
13'3" Harrow on a 12' Base

NOTE: Base configuration will not work with wings.



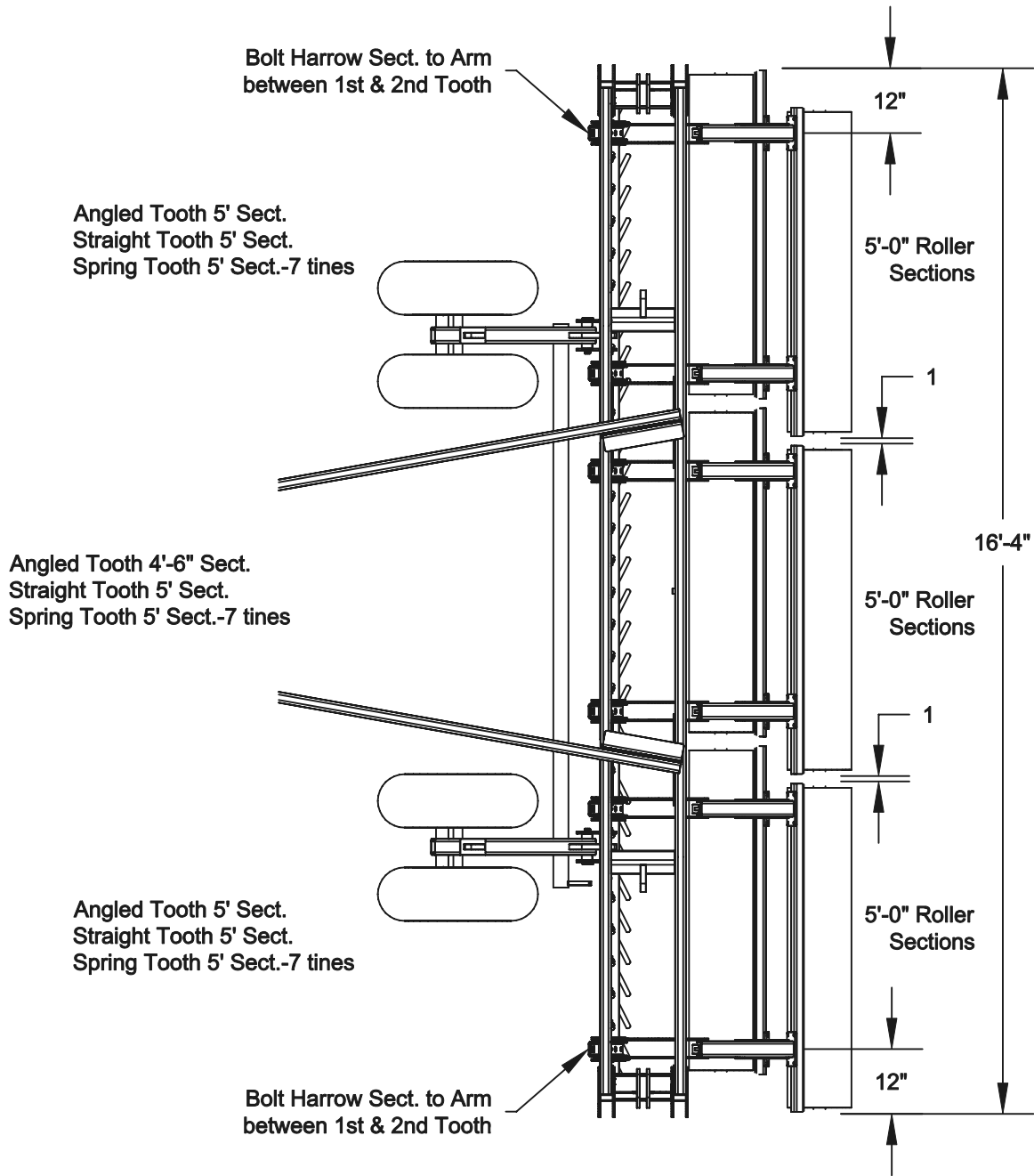
Layout - 14' Base (Standard)

14'0" Harrow on a 14' Base



Layout - 16' Base (Standard)

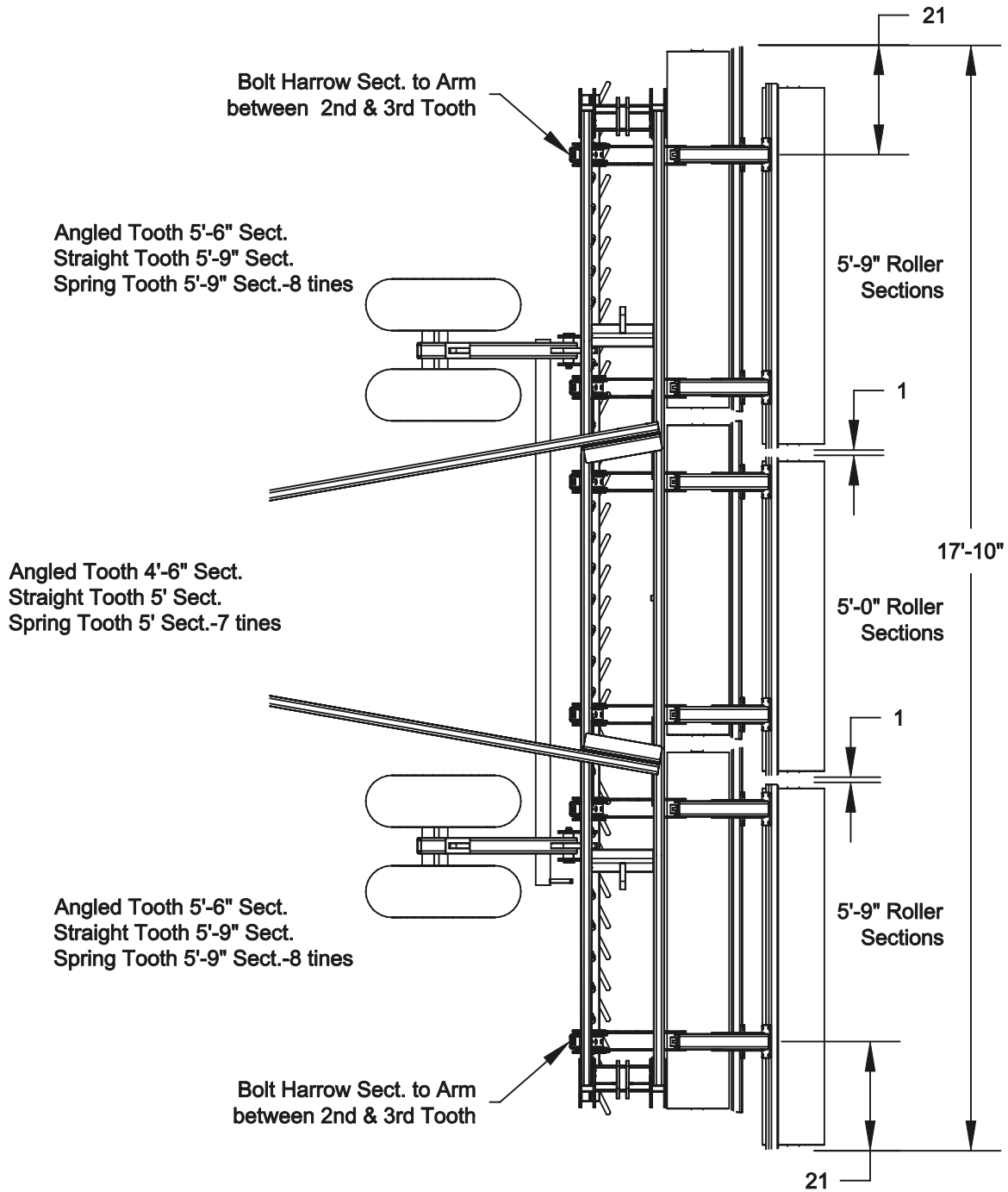
16'4" Harrow on a 16' Base



Layout - 16' Base

17'10" Harrow on a 16' Base

NOTE: Base configuration will not work with wings.

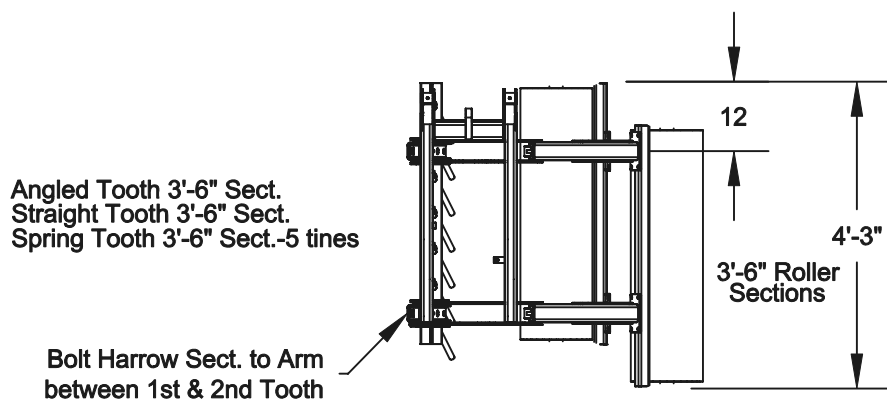
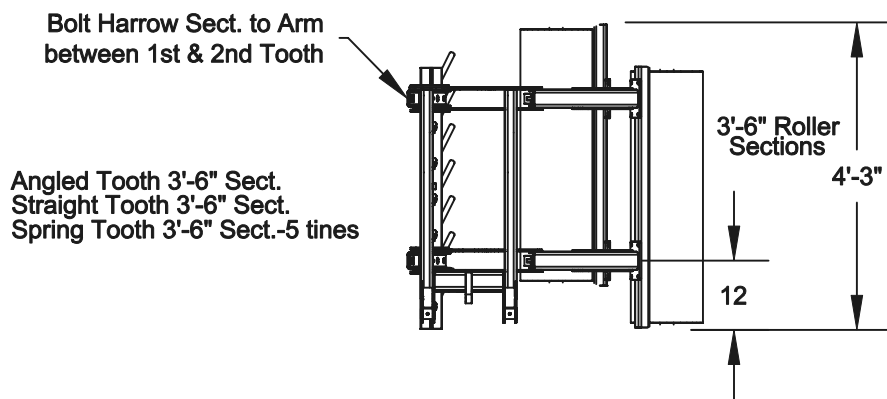


Layout - 3' Wing

19'8" Harrow on a 12' Base

21'11" Harrow on a 14' Base

24'2" Harrow on a 16' Base

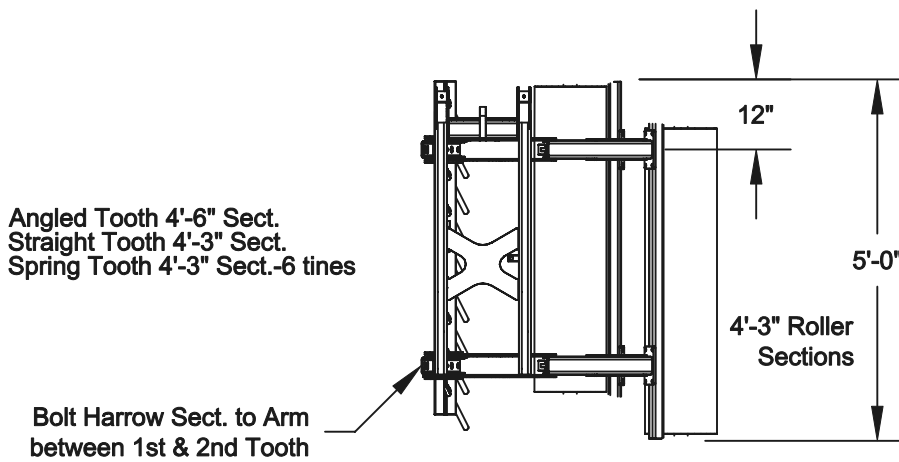
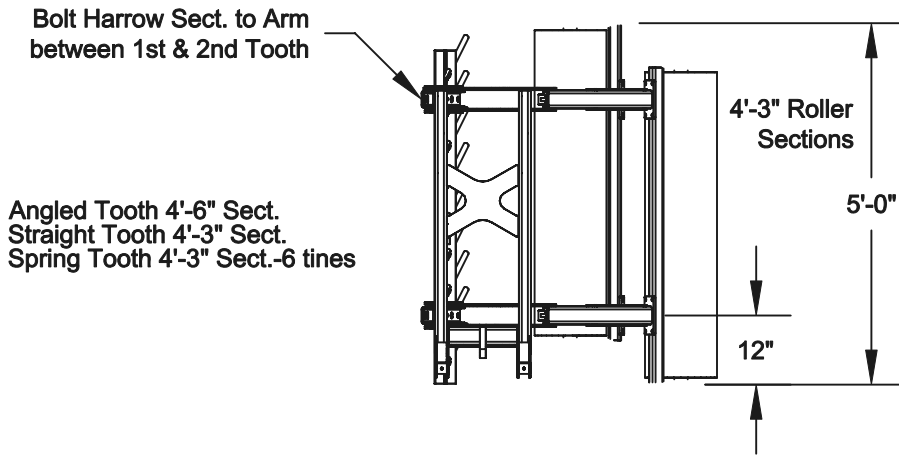


Layout - 4' Wing

21'2" Harrow on a 12' Base

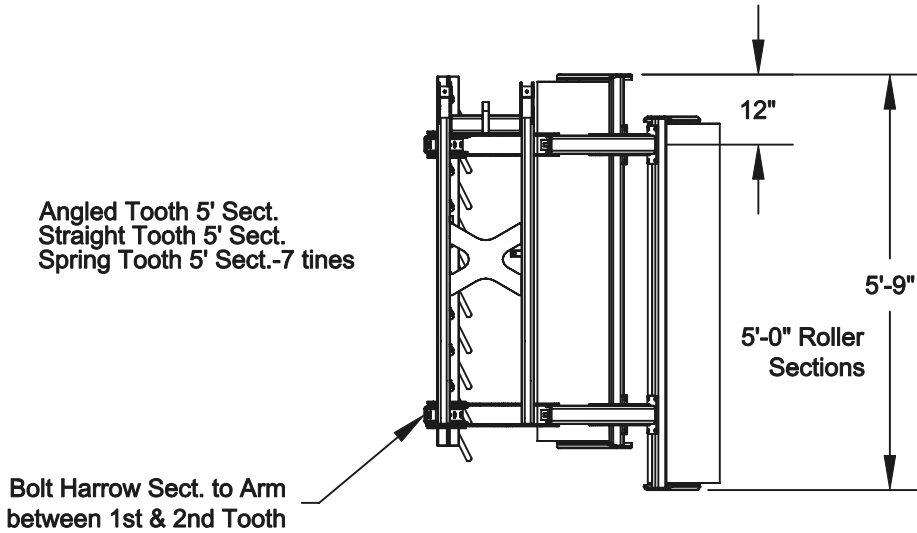
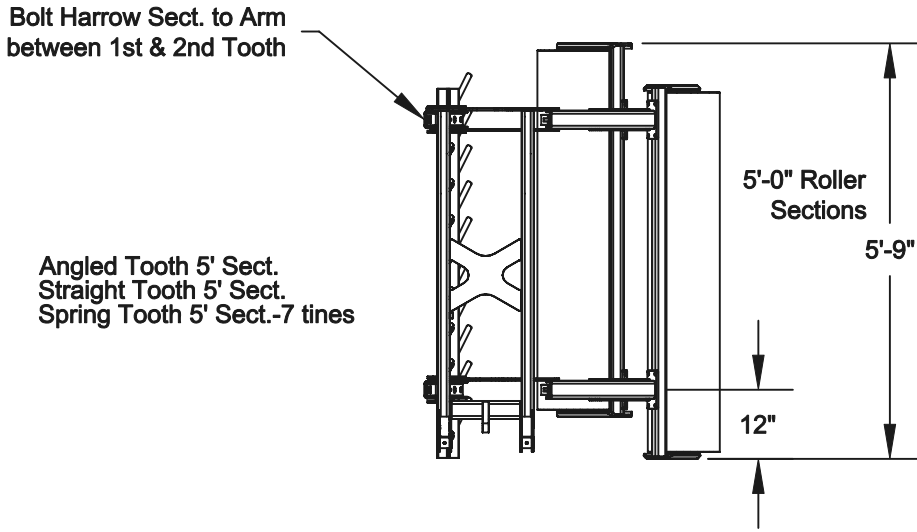
23'5" Harrow on a 14' Base

25'8" Harrow on a 16' Base



Layout - 5' Wing

- 22'8" Harrow on a 12' Base
- 24'11" Harrow on a 14' Base
- 27'2" Harrow on a 16' Base

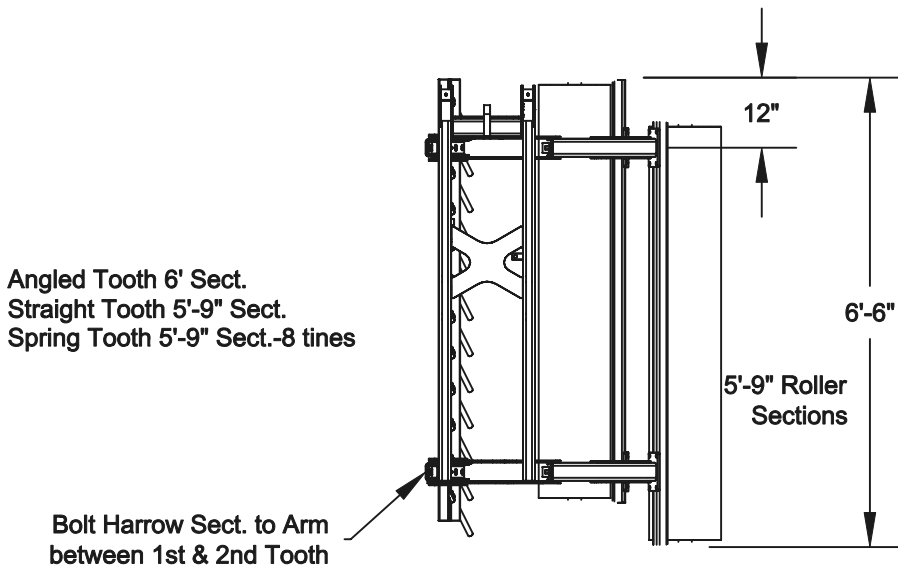
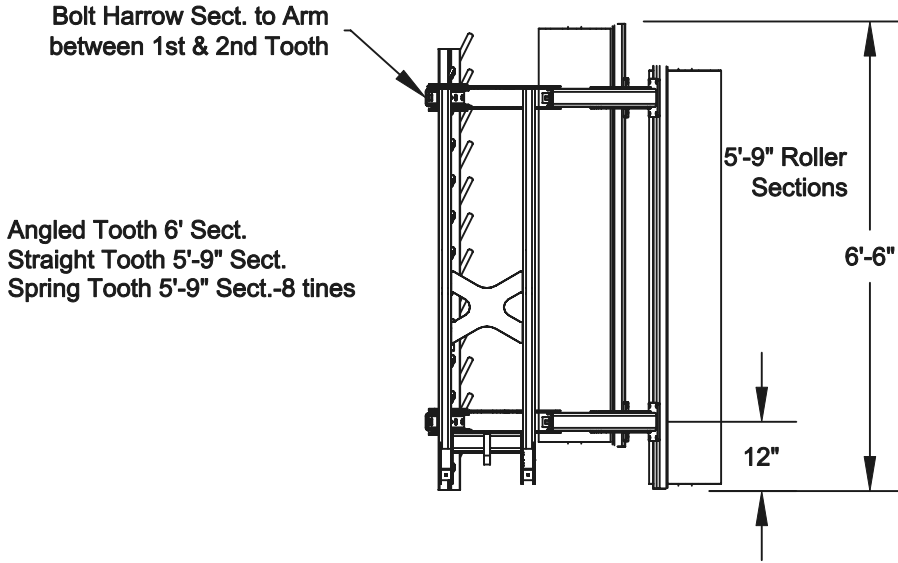


Layout - 6' Wing

24'2" Harrow on a 12' Base

26'5" Harrow on a 14' Base

28'8" Harrow on a 16' Base

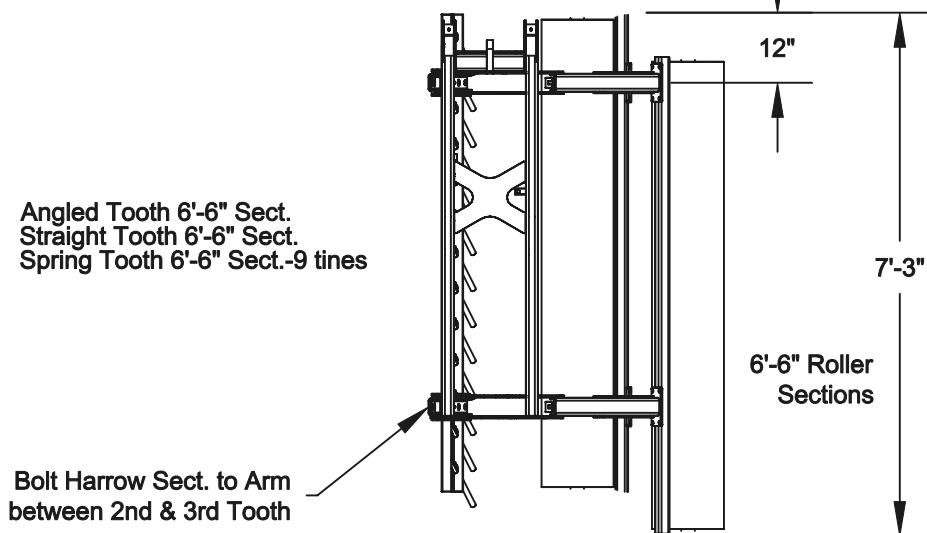
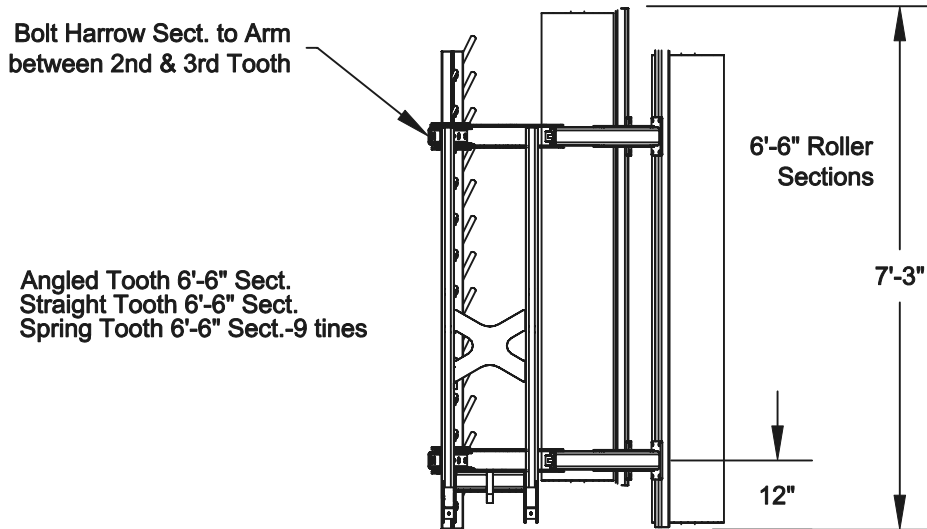


Layout - 6' Wing

25'8" Harrow on a 12' Base

27'11" Harrow on a 14' Base

30'2" Harrow on a 16' Base

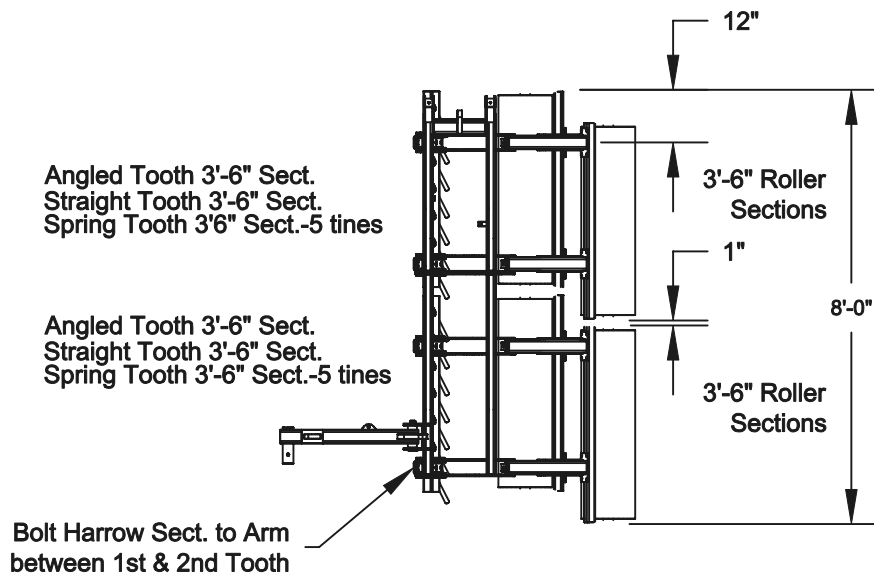
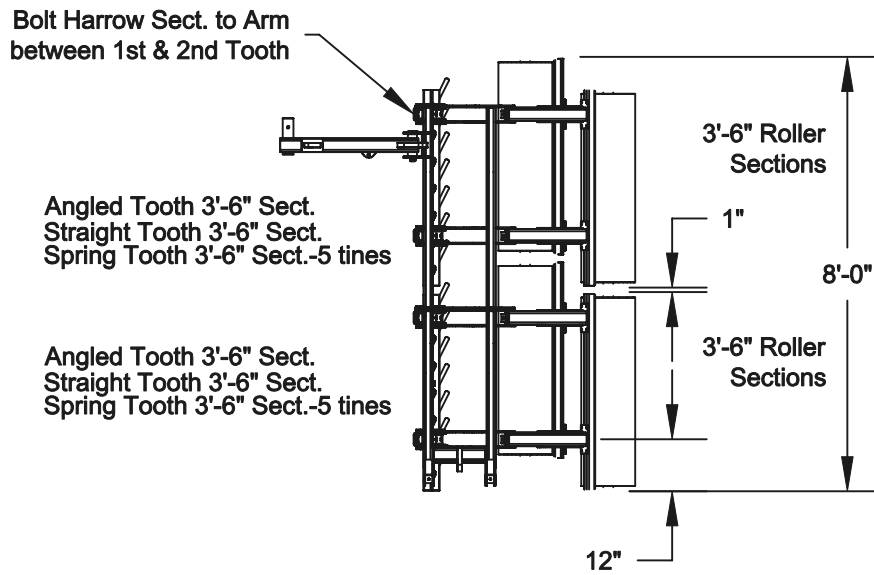


Layout - 3' Wing with 4' Stub

27'2" Harrow on a 12' Base

29'5" Harrow on a 14' Base

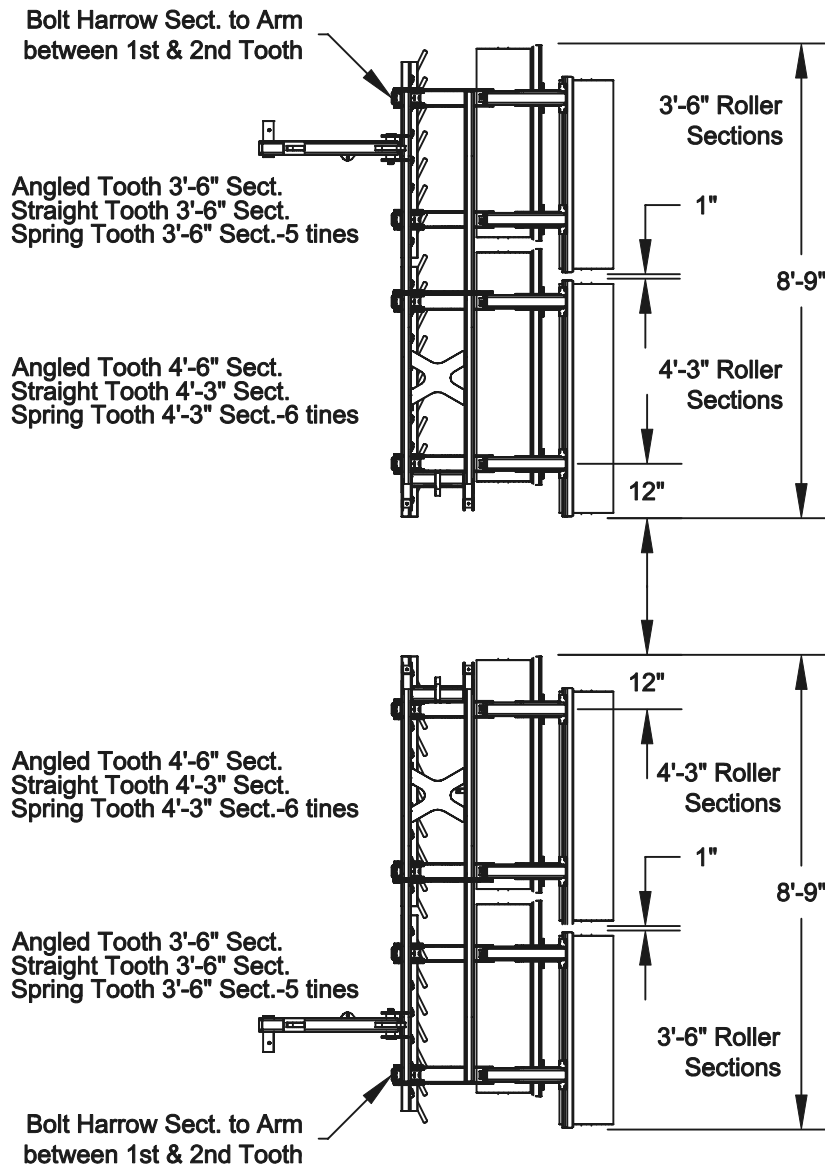
31'9" Harrow on a 16' Base



Layout - 4' Wing with 4' Stub

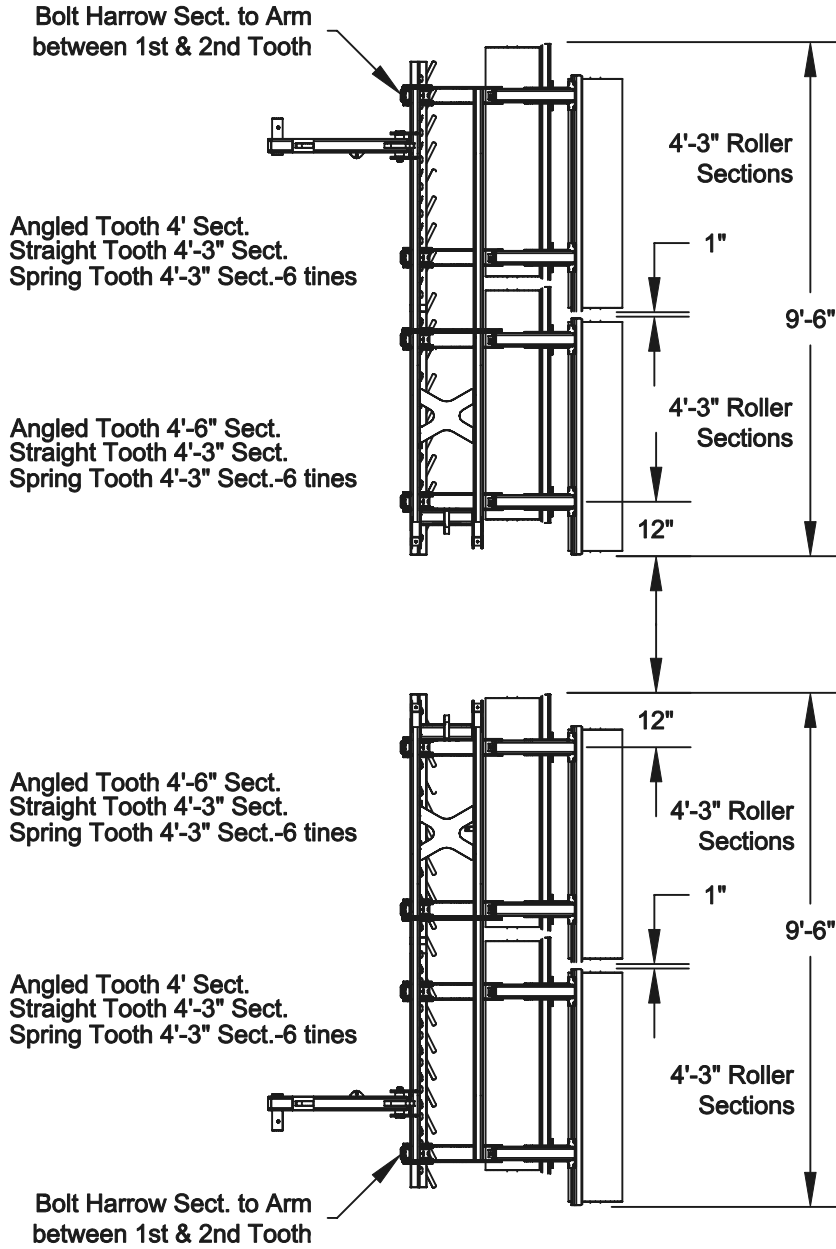
30'11" Harrow on a 14' Base

33'3" Harrow on a 16' Base



Layout - 4' Wing with 4'6" Stub

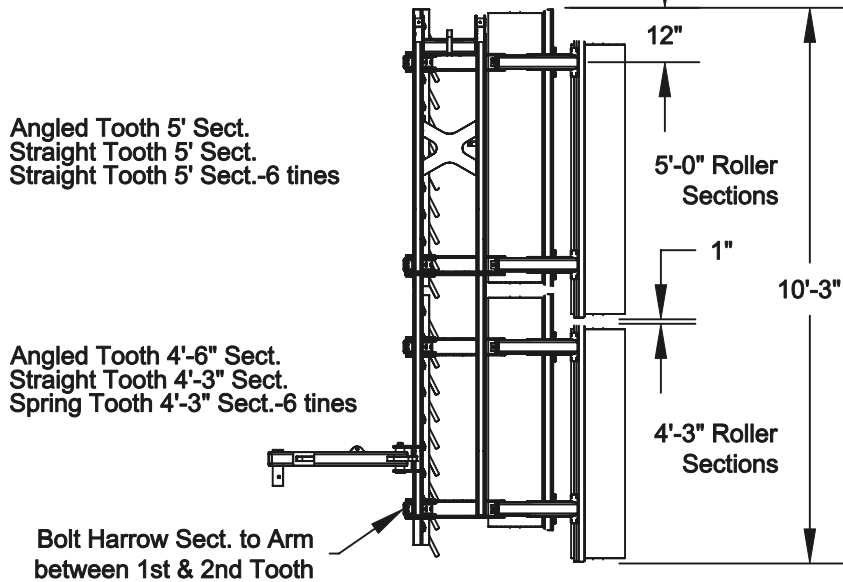
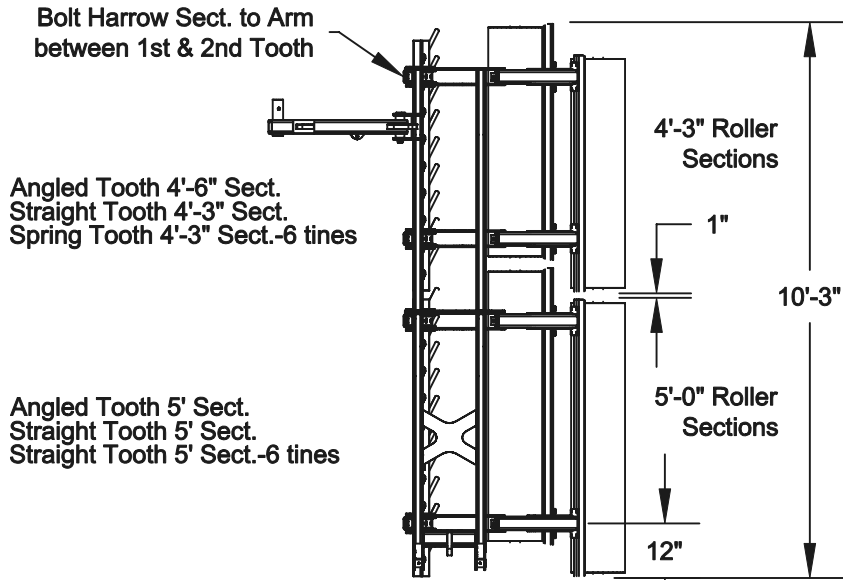
32'5" Harrow on a 14' Base
 34'9" Harrow on a 16' Base



Layout - 5' Wing with 4'6" Stub

33'11" Harrow on a 14' Base

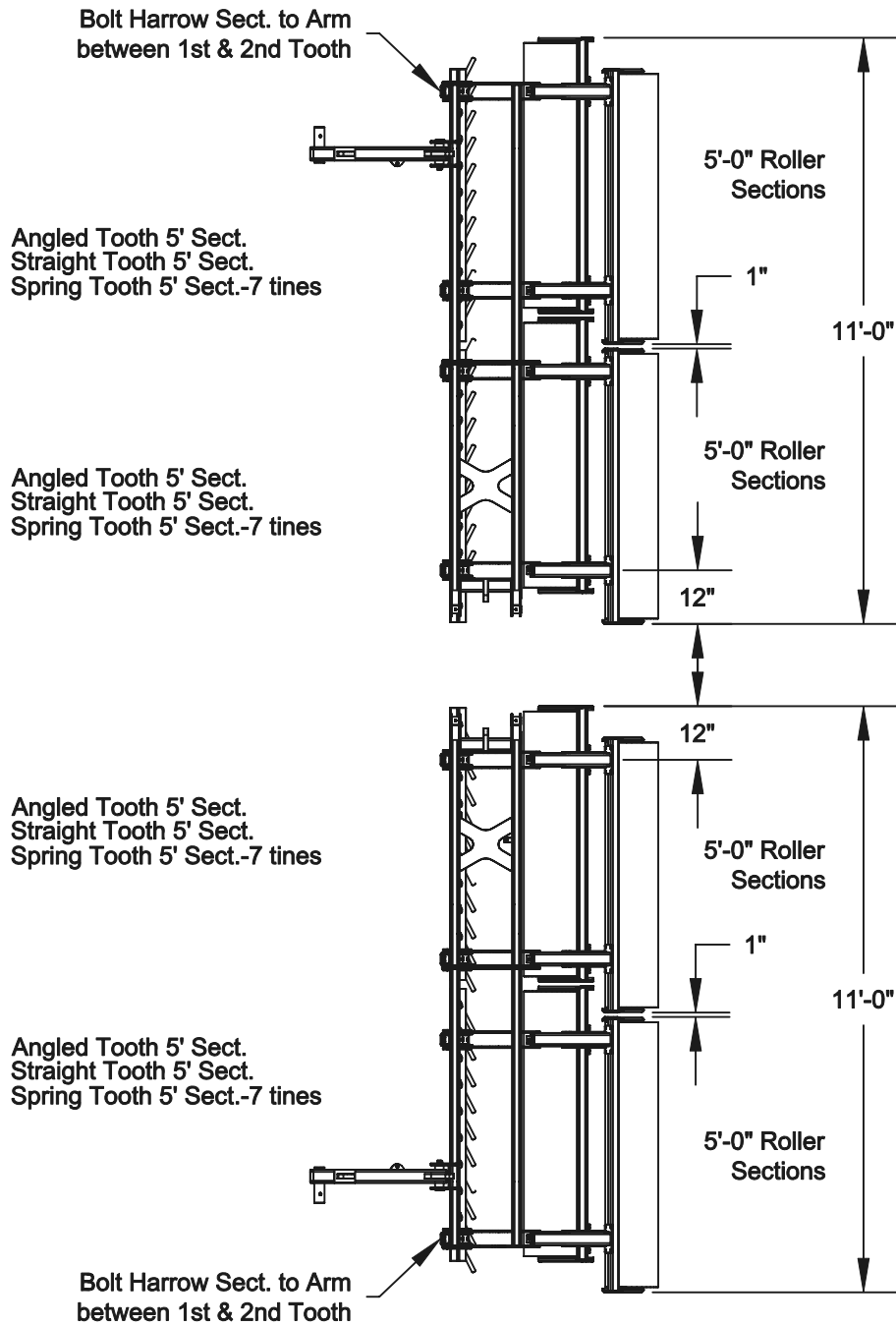
36'3" Harrow on a 16' Base



Layout - 5' Wing with 5' Stub

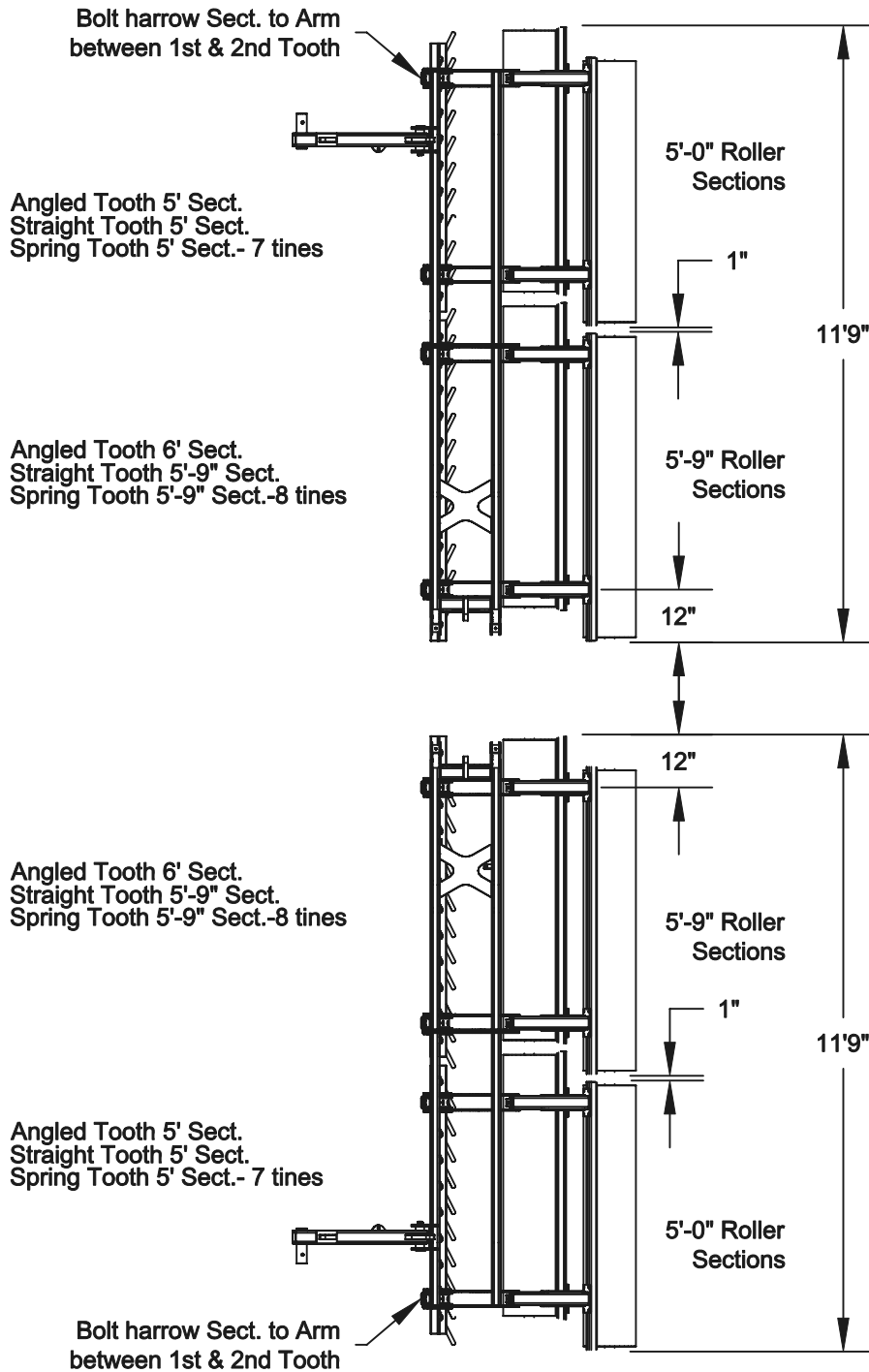
35'5" Harrow on a 14' Base

37'9" Harrow on a 16' Base



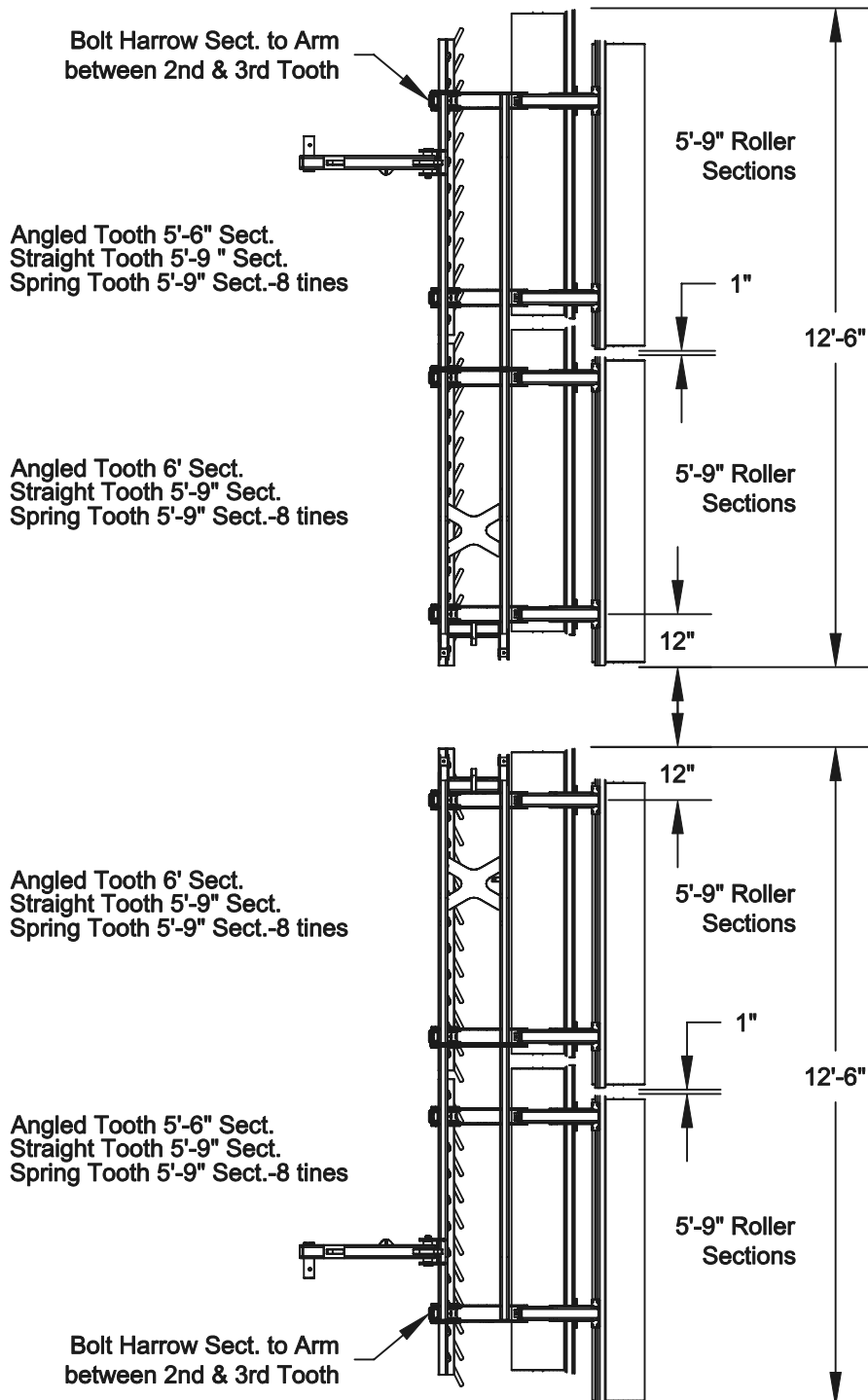
Layout - 6' Wing 5' Stub

39'3" Harrow on a 16' Base



Layout - 6' Wing with 5' Stub

40'9" Harrow on a 16' Base



Appendix

Hose Diagrams

Hose-001	Hose Diagram - 12' Base only
Hose-002	Hose Diagram - 12' Base Flatfold with Gage Wheels
Hose-003	Hose Diagram - 12' Base Stackfold with Gage Wheels
Hose-004	Hose Diagram - 14' Base only
Hose-005	Hose Diagram - 14' Base Flatfold with Gage Wheels
Hose-006	Hose Diagram - 14' Base Stackfold with Gage Wheels
Hose-007	Hose Diagram - 16' Base only
Hose-008	Hose Diagram - 16' Base Flatfold with Gage Wheels
Hose-009	Hose Diagram - 16' Base Stackfold with Gage Wheels

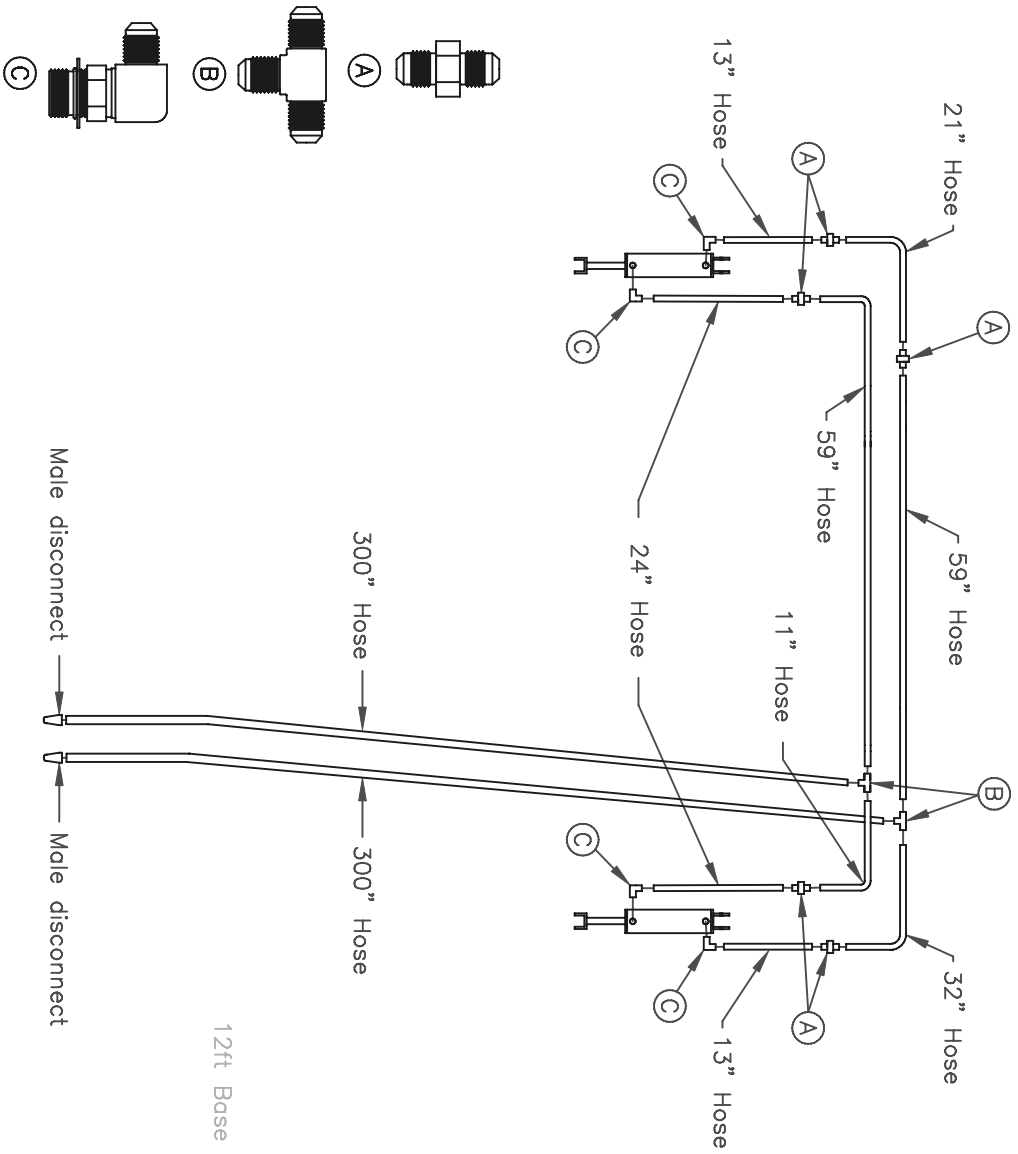


Wing Lock Valve mounted on front frame of RF Cart near LH axle ear.
(viewed from front of cart)



Stack Fold Valve mounted on rear frame of RF Cart near LH wing fold cylinder.
(viewed from rear of cart)

DATE	REV.	REVISION RECORD	DR.	CHK.
02-01-07	A	INITIAL RELEASE	NPR	



12ft Base Only Kit --- DC-1079-A

* LIFT CYLINDERS ARE 3" x 8"

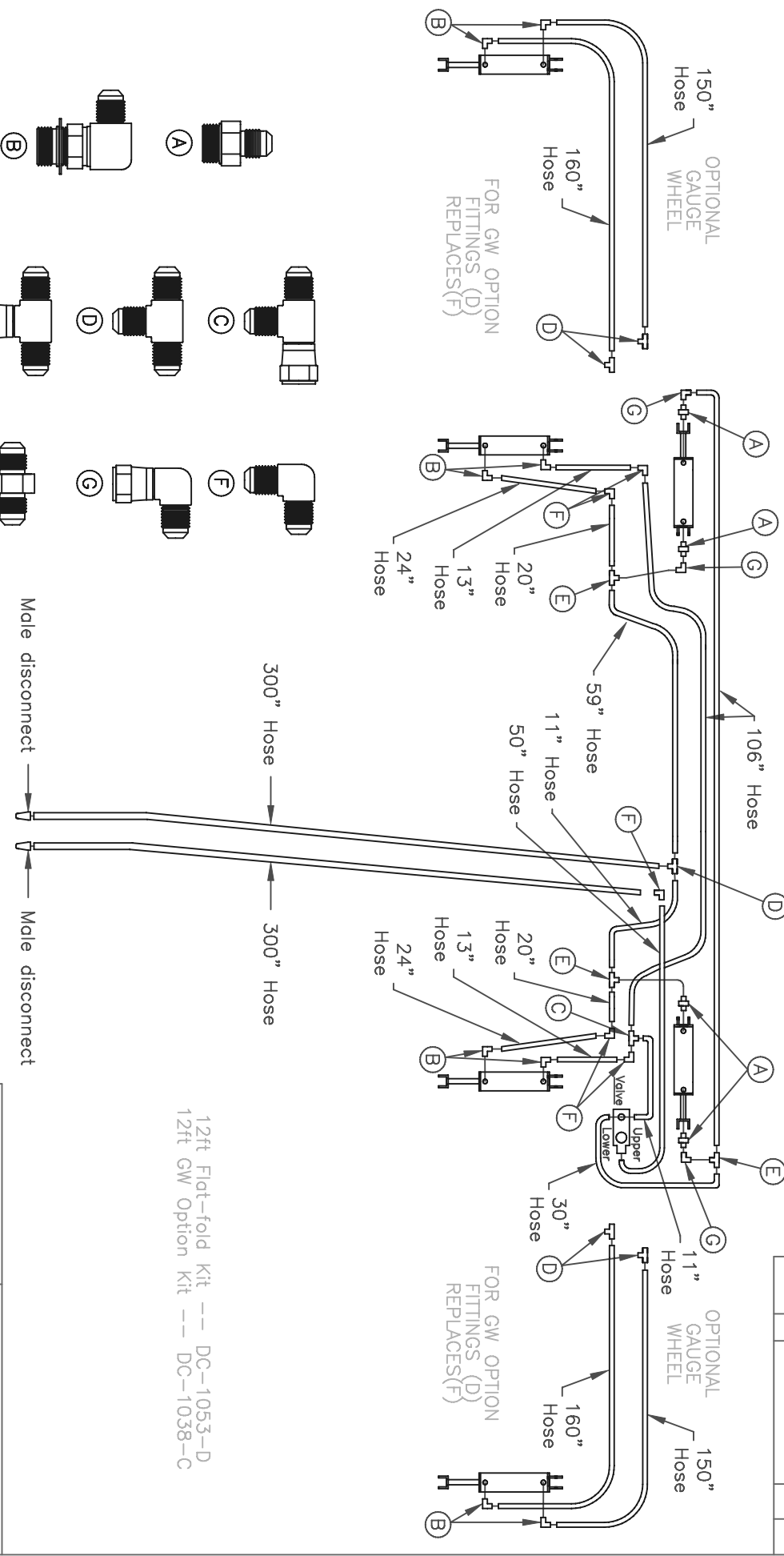
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES
DECIMALS ± .060
ANGULAR ± 1°
.XX ± .030
.XXX ± .010
DO NOT SCALE DRAWING

12' BASE ONLY
DRAWING NUMBER
HOSE-001

SCALE NTS
DATE 02-01-07
REV A

DATE	REV	REVISION RECORD	DR.	CHK.
02-01-07	A	INITIAL RELEASE	NPR	
09-25-07	D	DC-1053 KIT CHANGED	NPR	



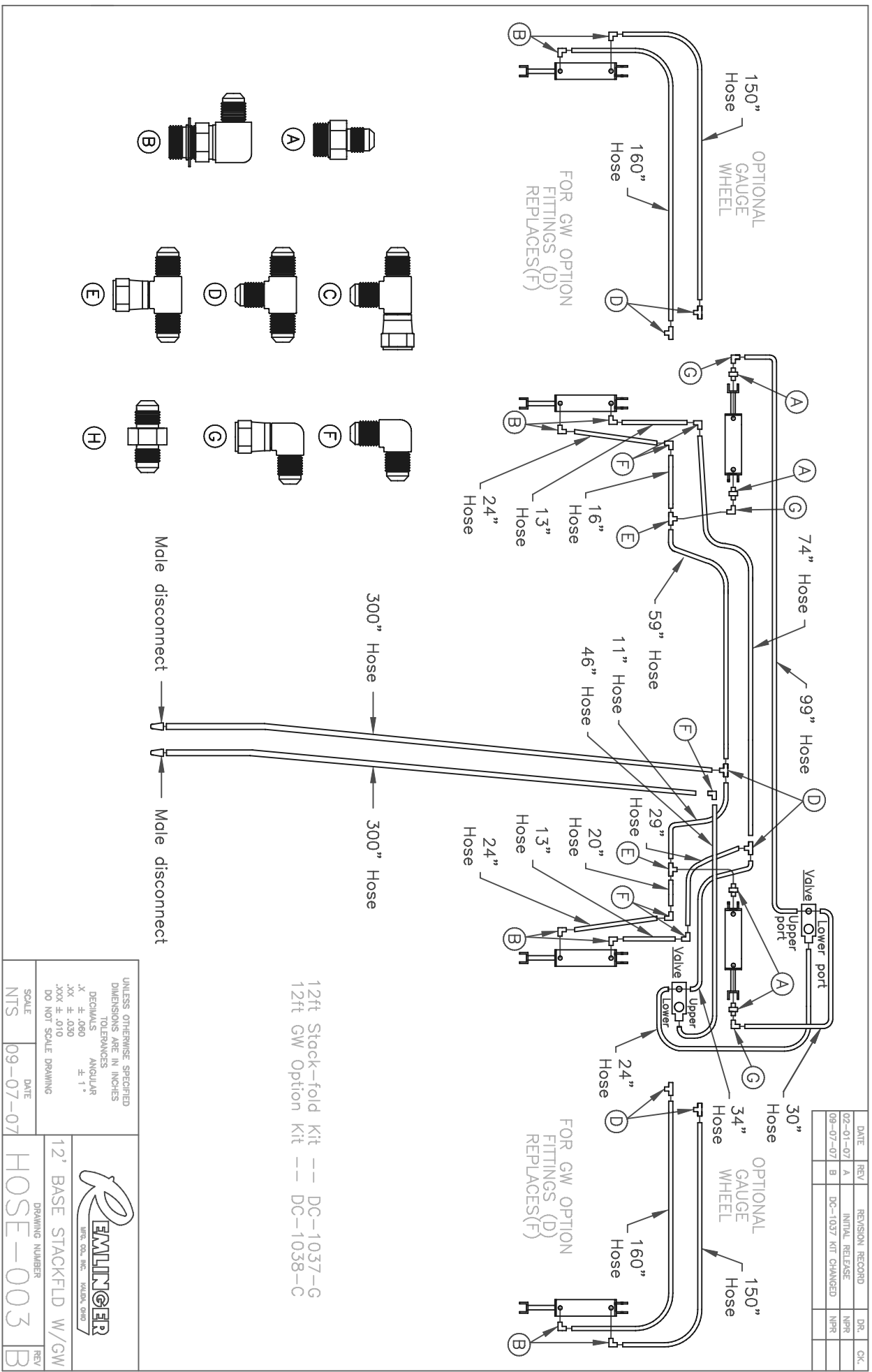
12ft Flat-fold Kit -- DC-1053-D
 12ft GW Option Kit -- DC-1038-C

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES
 DECIMALS ± .060
 ANGULAR ± 1°
 .XX ± .030
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 DO NOT SCALE DRAWING

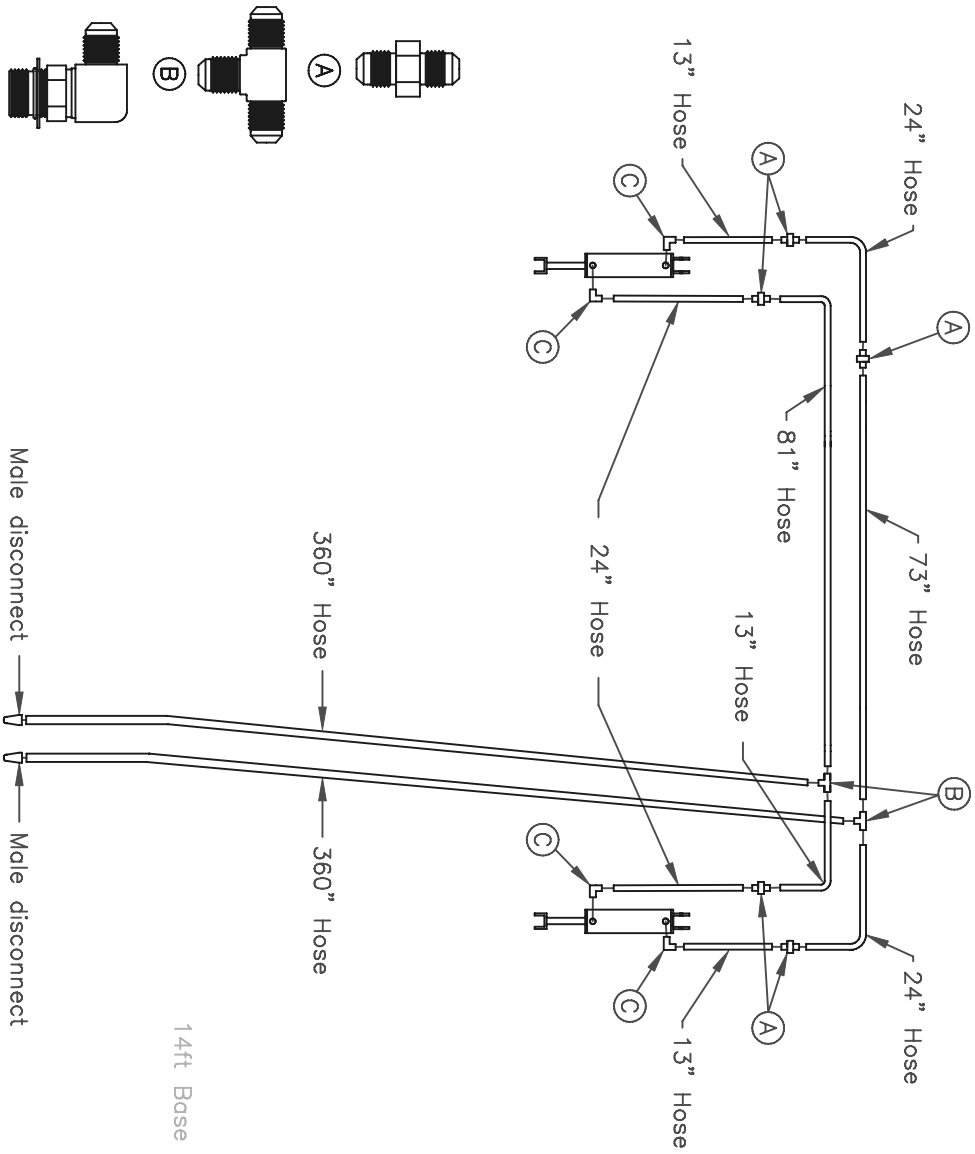
EMLINGER
WFL, CO., INC. WALKER, OHIO

12' BASE FLATFOLD W/GW
 DRAWING NUMBER
HOSE-002

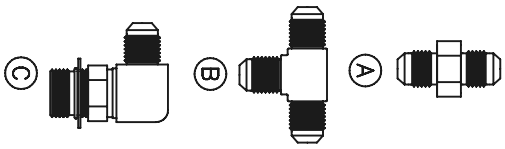
SCALE	DATE	REV
NTS	09-25-07	B



DATE	REV.	REVISION RECORD	DR.	CHK.
02-01-07	A	INITIAL RELEASE	NPR	



* LIFT CYLINDERS ARE 3" x 8"



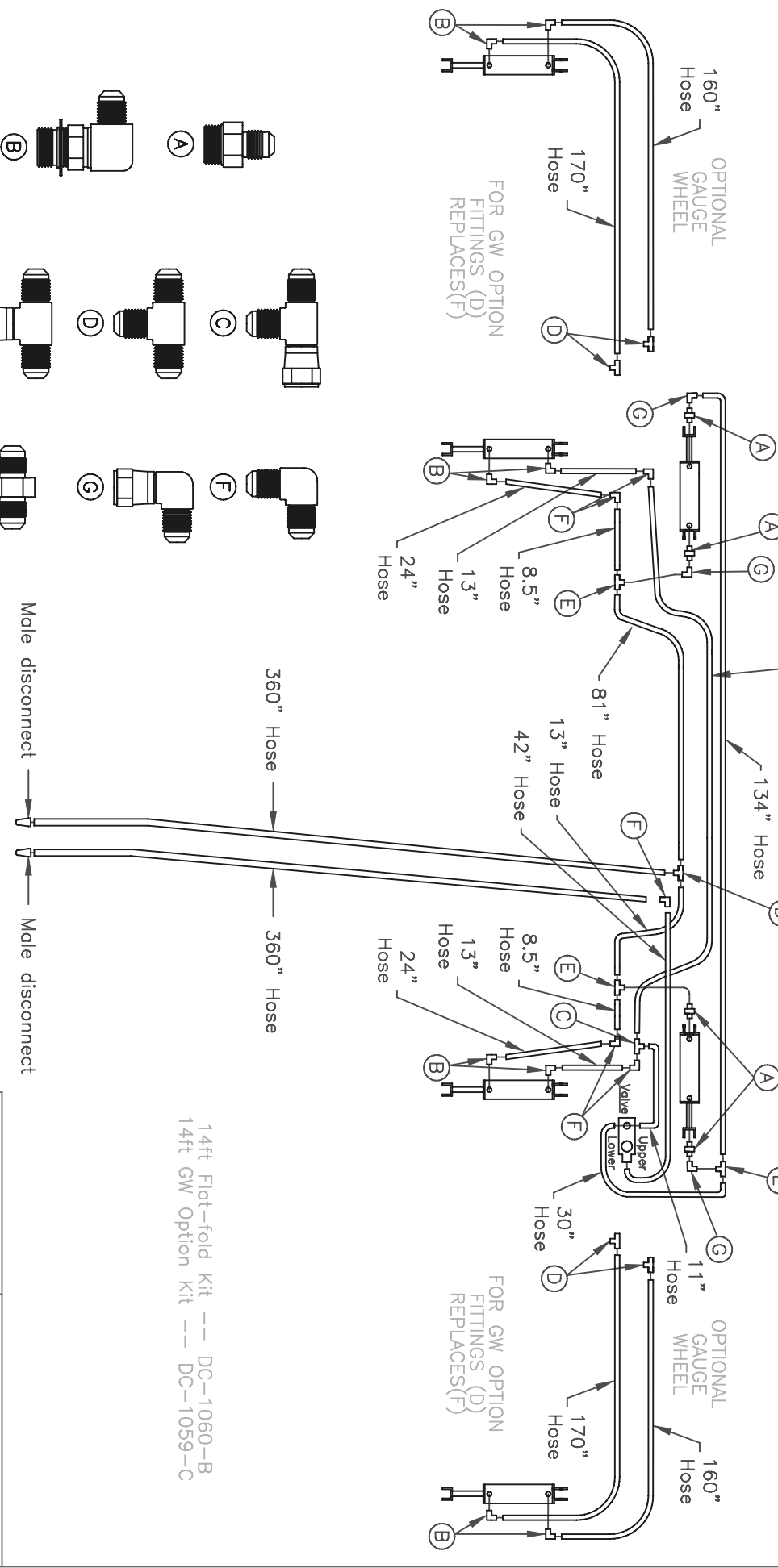
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
DECIMALS ANGULAR
.X ± .060 ± 1°
.XX ± .030
.XXX ± .010
DO NOT SCALE DRAWING

14' BASE ONLY
DRAWING NUMBER
HOSE-004

EMLINGER
MFG. CO., INC. WALKER, OHIO

SCALE	DATE	REV
NTS	02-01-07	A

DATE	REV	REVISION RECORD	DR.	CHK.
02-01-07	A	INITIAL RELEASE	NPR	
09-25-07	D	DC-1053 KIT CHANGED	NPR	



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

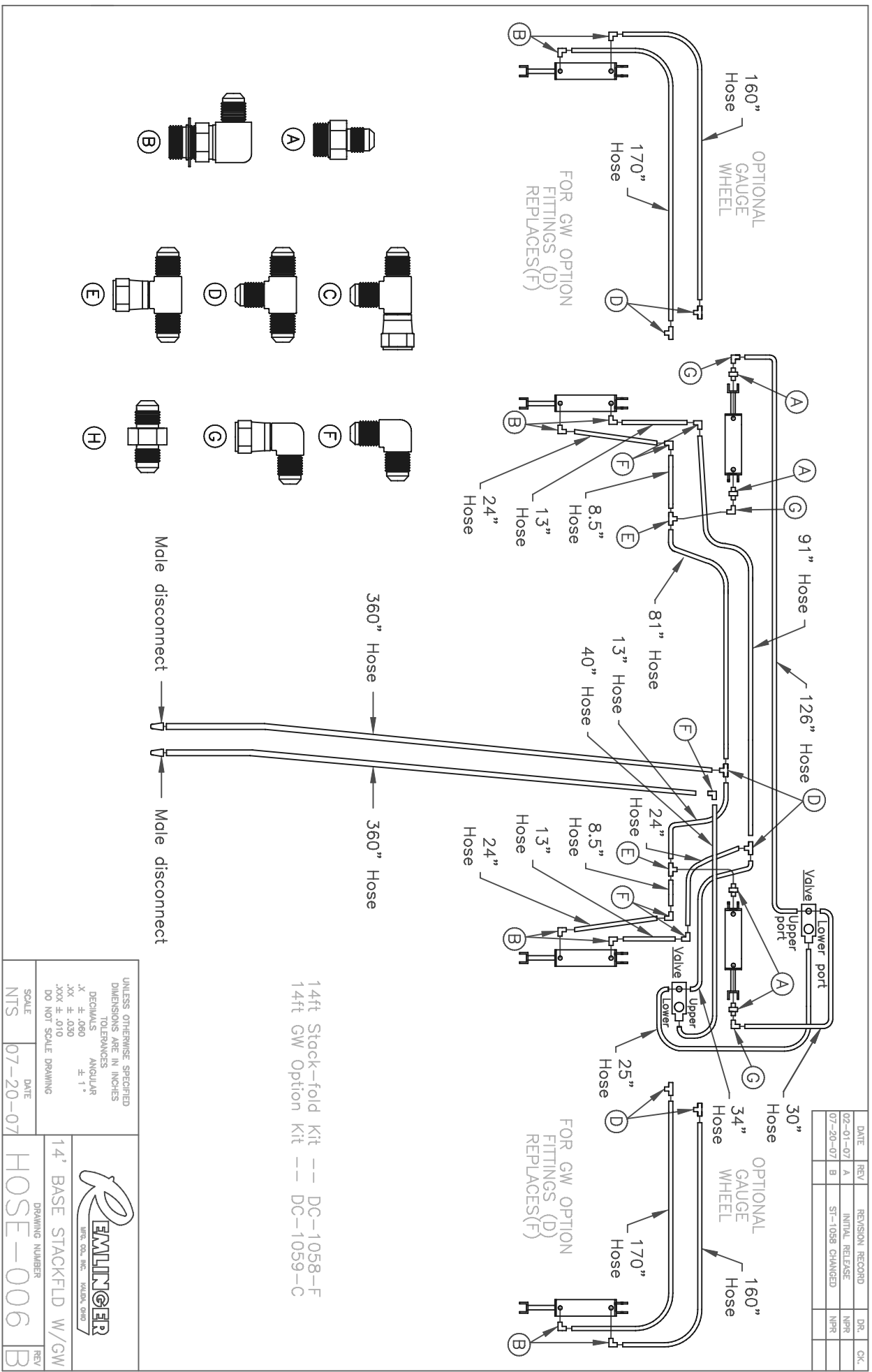
TOLERANCES
DECIMALS ± .060
ANGULAR ± 1°
.XX ± .030
.XXX ± .010
DO NOT SCALE DRAWING

EMLINGER
MFG. CO., INC. WALKER, OHIO

14' BASE FLATFOLD W/GW
DRAWING NUMBER
HOSE-005

SCALE DATE
NTS 09-25-07

REV
B



DATE	REV.	REVISION RECORD	DR.	CHK.
02-01-07	A	INITIAL RELEASE	NPR	
07-20-07	B	ST-1058 CHANGED	NPR	

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
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 ANGULAR ± 1°
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 DO NOT SCALE DRAWING

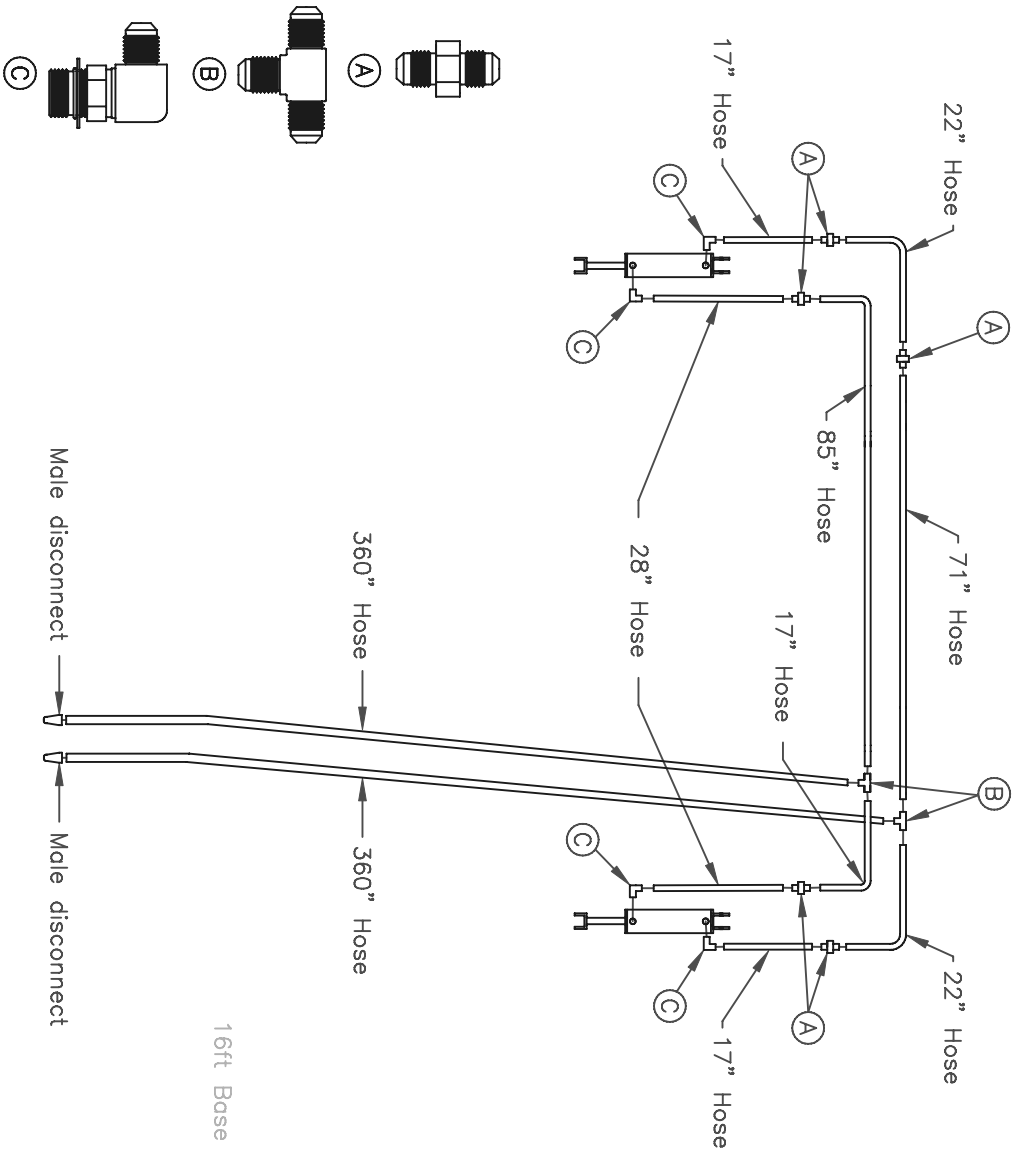
14' BASE STACKFLD W/GW
 DRAWING NUMBER
HOSE-006

SCALE DATE
 NTS 07-20-07

REV B

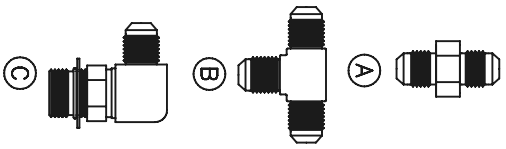


DATE	REV.	REVISION RECORD	DR.	CHK.
02-01-07	A	INITIAL RELEASE	MPR	



16ft Base Only Kit --- DC-1076-B

* LIFT CYLINDERS ARE 3" x 8"



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES
DECIMALS ANGULAR
.X ± .060 ± 1°
.XX ± .030
.XXX ± .010

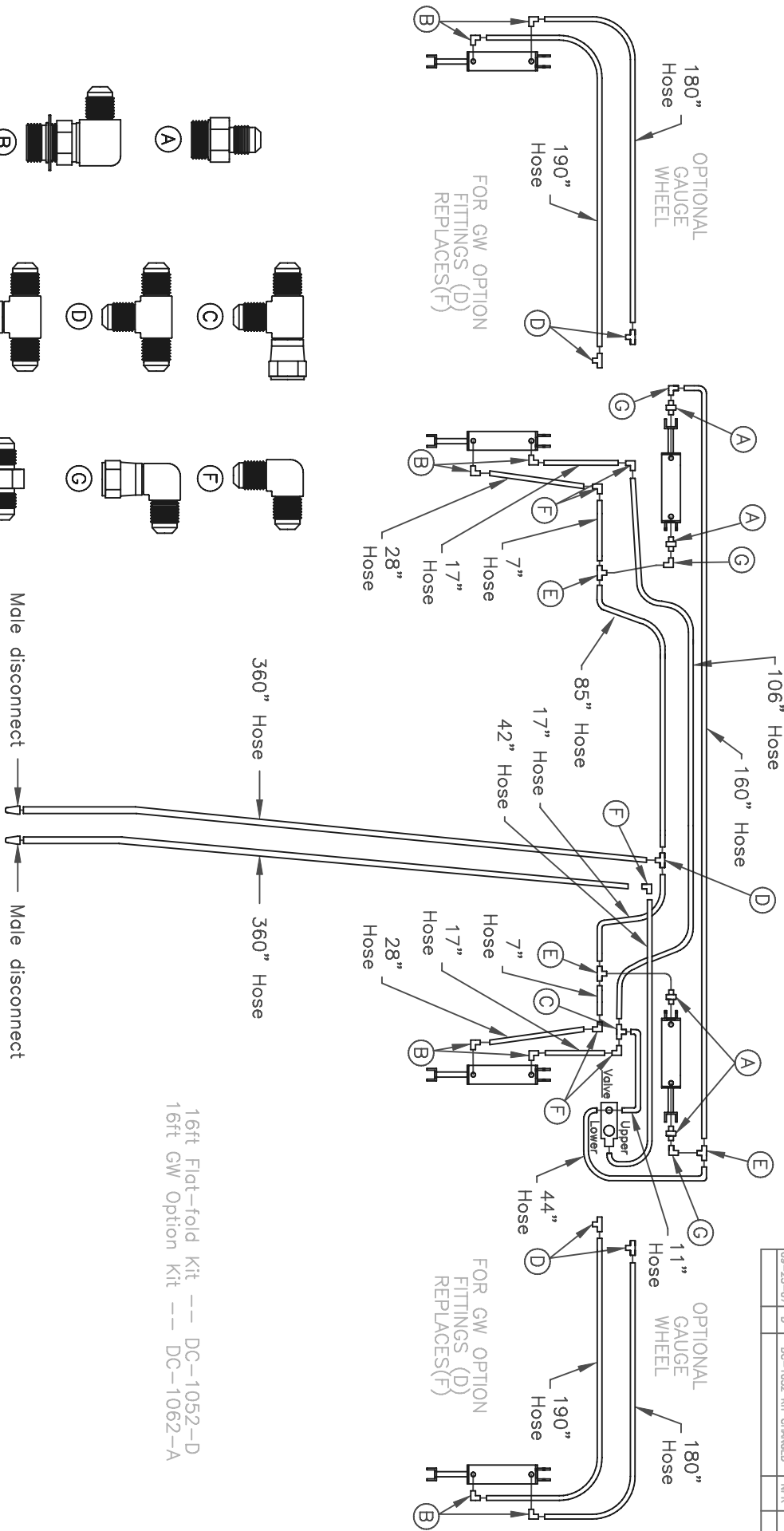
DO NOT SCALE DRAWING

EMLINGER
MFG. CO., INC. WALKER, OHIO

16' BASE ONLY
DRAWING NUMBER
HOSE-007

SCALE	DATE	REV
NTS	02-01-07	A

DATE	REV	REVISION RECORD	DR.	CHK.
02-01-07	A	INITIAL RELEASE	NPR	
09-25-07	D	DC-1052 KIT CHANGED	NPR	



16ft Flat-fold Kit -- DC-1052-D
 16ft GW Option Kit -- DC-1062-A

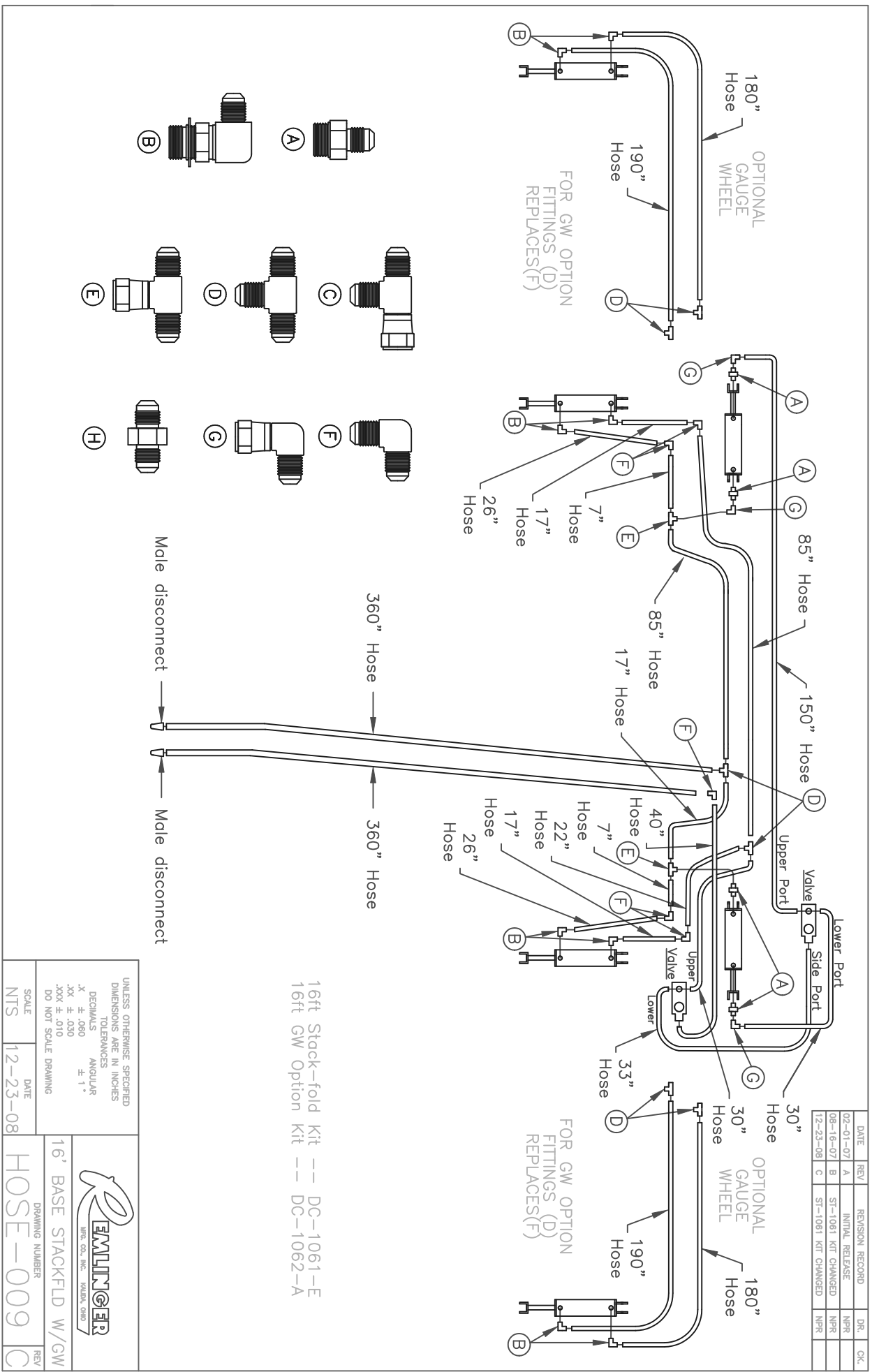
UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES
 DECIMALS ± .060
 ANGULAR ± 1°
 .XX ± .030
 .XXX ± .010
 DO NOT SCALE DRAWING

SCALE DATE
 NTS 09-25-07

16' BASE FLATFOLD W/GW
 DRAWING NUMBER
 HOSE-008

EMLINGER
WFL, CO., INC. WALKER, OHIO

REV B



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 55.

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.

Notes

Registration Form
3500 Rolling Finisher
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 RH "A" Frame Mount)

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



ISO9001:2015 certified

Remlinger Manufacturing

16394 US 224
PO Box 299
Kalida, OH 45853

Toll Free 1-800-537-7370

Phone (419) 532-3647

Fax (419) 532-2244

technicalsupport@remlingermfg.com

www.remlingermfg.com



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Email Tech Support