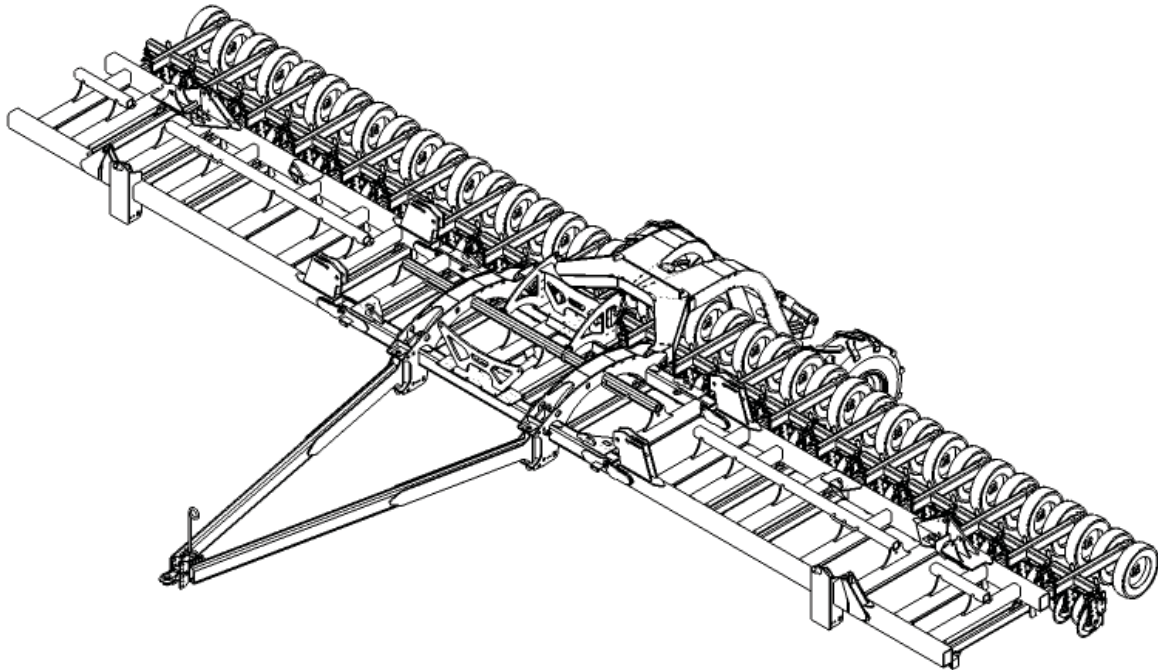


Amity

TECHNOLOGY



OWNERS OPERATING & PARTS MANUAL



MODEL YEAR 2010

50' & 60' Single Disc Drill

Amity Technology, LLC
2800 7th Avenue North
Fargo, ND 58102
(701) 232-4199
www.amitytech.com

AMITY TECHNOLOGY, LLC LIMITED WARRANTY FOR NEW PRODUCTS

1. **General Provisions.** This Warranty shall apply to the original purchaser of (1) any new and unused machine manufactured by Amity Technology, LLC ("Amity"), and (2) any new and unused part which is manufactured by Amity for use in an Amity machine, jointly referred to as "Products," whether such Product is purchased through a dealer or directly from Amity. Under this Warranty, Amity will repair or replace, as it chooses in its sole discretion, any covered Product, or any component thereof, which Amity determines to be defective. This Warranty shall be in effect for a period of twelve (12) months ("the Warranty Period"), beginning on the date of delivery of the covered machine or part by the dealer or Amity to the purchaser ("the Warranty Start Date"). The purchaser must pay the cost of transportation of a Product to be repaired or replaced to and from an authorized Amity dealer. This Warranty may not be transferred from the original purchaser of a Product to any other person. This Warranty does not give a purchaser the right to any relief other than repair or replacement of the Product, and it specifically does not allow for consequential or incidental damages, exemplary or punitive damages, or costs and fees.
2. **Scope and Limitations of Warranty.** With respect to machines, this Warranty is void if any part not supplied by Amity is used in assembly or repair of the machine, or if the machine has been altered, abused or neglected, as determined by Amity. With respect to parts, this Warranty is void if the part is used in any manner other than that for which it is intended. This Warranty does not extend in any way to tires and any other component of a Product warranted by another manufacturer, a copy of which warranty is provided herewith ("Third-Party Warranties"). In the event Amity determines that a Product is not defective, or that any other provision of this Paragraph 2 operates to limit the Warranty, this Warranty shall not apply and the purchaser shall be responsible for transporting the Product from the authorized Amity dealer's location within 10 days of notice by Amity.
3. **Procedures for Obtaining Service.** To secure Warranty service, a purchaser must (1) report the defect to an authorized dealer and request repair within 45 days of the failure and within the Warranty Period; (2) present evidence that this Warranty applies to the Product; (3) present evidence of the Warranty Start Date; and (4) bring the Product to an authorized Amity dealer within a reasonable period of time after reporting the defect.
4. **LIMITATION OF IMPLIED WARRANTIES AND OTHER REMEDIES.** To the extent allowed by law, neither Amity, its dealers, nor any company affiliated with Amity makes any warranties, representations, or promises as to the quality, performance, or freedom from defect of any Product covered by this Warranty.

AMITY HEREBY WAIVES, TO THE EXTENT APPLICABLE, ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. A PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THIS WARRANTY ARE THOSE SET FORTH ON THIS PAGE. IN NO EVENT WILL AMITY, ITS DEALERS, OR ANY COMPANY AFFILIATED WITH AMITY BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES.

Some states do not allow waivers of certain warranties, so the above waivers may not apply to you. You may also have other rights which vary from state to state.

5. **No Dealer Warranty.** This is the exclusive warranty applicable to Amity Products. No dealer has any authority to make any other warranty, modify, limit, or expand the terms of this Warranty in any fashion, or make any representation or promise on behalf of Amity.
6. **Dispute Resolution.** Any controversy or claim arising out of or relating to this Warranty must be settled by arbitration in Fargo, North Dakota, at a time and location designated by the arbitrator, but not exceeding 30 days after a demand for arbitration has been made, and may be conducted by electronic, video, or other technical means. Arbitration will be conducted by the American Arbitration Association in accordance with its Rules of Commercial Arbitration, and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The arbitrator will have the authority to order Amity to undertake a repair or replace any Product, at its election, if the arbitrator finds that this Warranty requires Amity to do so. The arbitrator will not have the authority to impose any other remedy against Amity, including without limitation consequential or incidental damages, exemplary or punitive damages, or costs and fees.

TABLE OF CONTENTS

PRODUCT IDENTIFICATION NUMBER.....	1
SINGLE DISC DRILL OPERATING	2
LEVELING.....	2
DEPTH SETTING.....	3
DEPTH CONTROL HYDRAULICS.....	3
DEPTH STOP PROGRESSION	4
HEADLAND TURNS	5
DOWN PRESSURE	5
SCRAPER ADJUSTMENT.....	6
SEED ROW OFFSET.....	8
PACKING SYSTEM.....	8
MID ROW FERTILIZER ATTACHMENT.....	9
LIFT ASSIST REAR HITCH.....	10
LOCKOUT VALVE POSITION.....	12
FLOW DIVIDER.....	12
CONNECTING TO TRACTOR.....	13
UNHOOKING THE DRILL FROM TRACTOR.....	13
TRANSPORT.....	14
FOLDING AND UNFOLDING WINGS.....	14
MAINTENANCE.....	15
STORAGE.....	15
REMOVING FROM STORAGE.....	15
SINGLE DISC SPECIFICATIONS.....	16
FRONT HITCH ASSEMBLY.....	18-19
TOOLBAR ASSEMBLY.....	20-21
REAR TOOLBAR ASSEMBLY #35134 & #35135	22-23
OPENER ASSEMBLY.....	24-25
HUB ASSEMBLY #34574	26-27
LIFT WHEEL ASSEMBLY.....	28-31
WING CYLINDER MOUNT.....	32-33
LIFT ASSIST ASSEMBLY.....	34-35
WING LIFT HYDRAULICS-LIFT ASSIST.....	36-39
DEPTH CONTROL HYDRAULICS.....	40-43
DOWN PRESSURE HYDRAULICS-LIFT ASSIST.....	44-51
LIFT ASSIST HYDRAULICS.....	52-55

TANK TO TRACTOR HYDRAULICS.....	56-57
SAFETY LIGHTS-LIFT ASSIST	58-59
SINGLE MANIFOLD 50' AND 60'	60-61
MANIFOLD COMPONENTS.....	62-63
MANIFOLD BLOCKAGE OPTIONS.....	64-65
ISO BLOCKAGE/WORK SWITCH HARNESS KIT.....	66
FERTILIZER BANDER ASSEMBLY	68-69
FERTILIZER BANDER OPTIONS	70-71

To the Owner

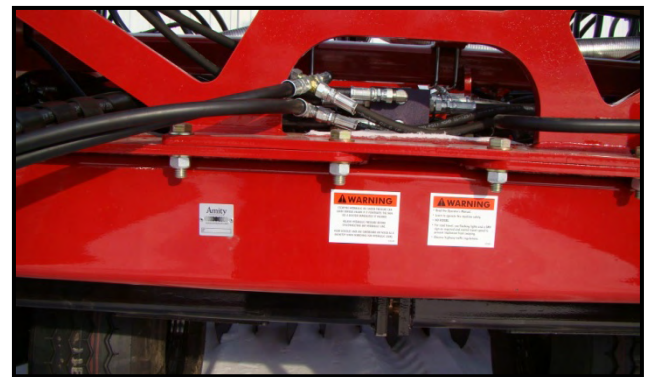
This manual contains important information about the safe operation, adjustments and maintenance of your implement. Refer to the Table of Contents at the front of this manual for locating specific items about your implement. If you need more information, see your dealer.

Product Identification Number

The Manufacturer has placed a Product Identification Number (P.I.N.) tag on your implement. **It is located on main frame tube in front.**

Record the Model and Identification Number of your implement below. You will reference this Number when ordering repair parts or when requesting information for your implement. When ordering parts or when requesting information or assistance, always give the model (30-40-50-60) and product identification number.

Model _____
P.I.N. _____



Single Disc Drill Operating Leveling

The Single Disc Drill requires no front to rear leveling as the entire row units are on a single rank. Side to side leveling is accomplished by adjustment rods on the wing cylinders.

NOTE: It is normal for the drill frame to be lower in the front. This allows for better ground clearance when the row units are raised.



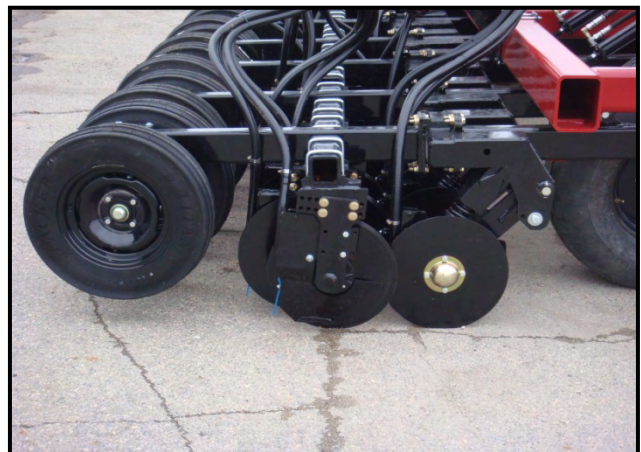
Adjustment rods

Leveling Procedure:

1. Park the drill on a level surface
2. Rephase the depth cylinders by holding the hydraulic lever in the raised position until all of the cylinders are fully extended.
3. Measure the distance from the ground to the top of the front frame bar of the drill on the main frame.
4. Adjust the threaded rods on the **wing** depth cylinders until all frame measurements are the same.
5. Make sure to tighten the jam nuts on all adjustment rods.

Depth Setting

The depth of the single disc row units is controlled by the packer wheels. Because the wheels are very close to the discs, depth control is very precise and will maintain an even depth for seeds planted at any depth. Each of the tool bars on the drill is totally independent so ground following is superior even on uneven terrain.



Packer system

Seeding depth is set by the height of the drill frame. As the drill is raised, the seeding depth is decreased. As the drill is lowered, the seeding depth is increased. Frame height is controlled by depth control collars in the lift cylinders. The same combination of collars needs to be used on each cylinder location.



Locate seed behind packer wheels



Seed finding tool 34569

Seeding depth needs to be determined by finding seeds in the furrow behind the drill. A seed finding tool with a ruler inscribed on it is available to help determine seed depth. Use the tool to uncover seeds in the seed furrow. Place the flat blade of the tool on the packer track and press the short end of the tool into the seed furrow next to the uncovered seed until the tool is level with the field surface. The seeding depth can be read on the inscribed ruler.

Depth setting tip:

When setting the depth, start at a shallow seeding depth and set deeper as needed. When starting at a depth deeper than the desired seeding depth will needlessly bring up muddy soil.

Depth control hydraulics

The wheels that carry the drill also set the depth for the drill. They are installed in a master, slave configuration. One feature of this design is the ability for the operator to “rephrase” or re-coordinate the cylinders so that they are all at the same level. Rephrasing purges any air out of the cylinders and raises all of the cylinders to their fully extended position.



Depth stops on cylinders

The procedure to rephrase the cylinders is to hold the hydraulic lever in the raised position for several seconds after the cylinders have reached their fully extended position. It is a good operating practice to rephrase the cylinders several times a day while making field end turns.

Depth Stop Progression

B	B	B	B	B	B	B	B	B	B	B	B	B	S	S	S	S	S
S	S	S	S	S	S	S	S	S	S	S	S	S	G	G	G	G	G
G	G	G	G	G	G	G	G	G	G	R	G	R	G	G	G	G	G
G	G	G	G	G	G	G	R	G	R	R			G	R	G	R	G
G	G	G	G	R	G	R	R						R	R	R	R	
R	R	R	R	R									R	R			
R	R	R															
R	R																
R																	
8.25	7.75	7.50	7.25	7.00	6.75	6.50	6.25	6.00	5.75	5.50	5.25	5.00	4.75	4.50	4.25	4.00	3.75
21.0	19.7	19.1	18.4	17.8	17.1	16.5	15.9	15.2	14.6	14.0	13.3	12.7	12.1	11.4	10.8	10.2	9.5

Total inches of depth stops installed

Total cm of depth stops installed

S	S	S	S	S	S	S	G	R	G	R	G	R
G	G	G	G	R	G	R	R	R	R	R		
G	R	G	R	R			R	R				
R	R											
3.50	3.25	3.00	2.75	2.50	2.25	2.00	1.75	1.50	1.25	1.00	0.75	0.50
8.9	8.3	7.6	7.0	6.4	5.7	5.1	4.4	3.8	3.2	2.5	1.9	1.3

Total inches of depth stops installed

Total cm of depth stops installed

When starting for small grains or beans the 5 inch-12.7cm combination (BLUE, SILVER, RED) would be a starting point. From there add or remove stops to obtain the seeding depth desired

When starting with canola, the 7 inch-17.8cm combination (BLUE, SILVER, GREEN, GREEN, RED, RED) would be a good starting point. From there add or remove stops to obtain the seeding depth desired

Equal number of stops should be installed in all depth cylinders. Refer to the rephrasing procedure if a cylinder(s) do not retract completely against stops when lowering drill.

Depth stop kits and individual stops are available through Amity Service Parts if replacements are needed.

S34693 kit depth stop, contains number of stops listed below

S66022 stop .50in-1.27cm Red-3

S66203 stop .75in-1.91cm Green-3

S54004 stop 1.5in-3.81cm Silver-1

S66025 stop 3.0in-7.62cm Blue-1

Headland turns

The preferred procedure when making field end turns is to raise the drill frame. By this method, the row units maintain down pressure. If the row units are raised on the turns, it is likely that you will be well into the next pass before down pressure is fully restored.

Down Pressure

The down pressure on the row units is controlled by a hydraulic cylinder on each tool bar. The cylinders provide a constant down pressure on the tool bars through their entire range of motion. An active hydraulic circuit maintains uniform pressure to each cylinder and is controlled on the go by the operator. The down pressure can be adjusted from 150 PSI to a pressure high enough to raise the drill in frame tires off of the ground (normally from 650-750 PSI. If less pressure is desired, put hydraulics in float.



Down pressure control box in cab



Toolbar down pressure gauge

Setting the down pressure

The down pressure on the drill has to be set high enough for disc penetration and proper packing. In hard conditions this may require an optional ballast kit to add weight to the wings frames.



Pressure control valve



Down pressure cylinders

To set maximum pressure on the row units, increase down pressure until you see the carrying wheels start to rise off of the ground. Slightly reduce the pressure to ensure that the frame wheels maintain contact with the ground. Carrying the frame so that the wheels are off of the ground will cause lack of depth control.

In very light soil conditions, the pressure can be reduced to approximately 200 pounds on the cylinders. If the packer tires still are making larger than desired furrows, the hydraulic lever can be set to float to take away all down pressure from the cylinders. With the tractor valve in float the openers operate only on their weight.

OPERATING TIP: If the drill is getting bogged down in mud, increasing the pressure to maximum will lift the frame wheels well off of the ground and transfer weight to the tractor drawbar to help you get out of trouble.

Scraper adjustment

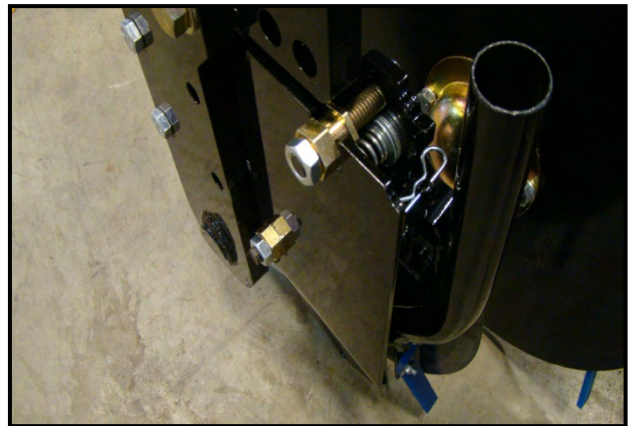
When properly set, the set scrapers will have contact along the entire leading edge of the scraper, but will not drag hard enough on the disc to inhibit turning.

Two adjustments on the scraper when properly set will keep the soil and crop residue from getting between scraper and disc blade yet operate at a low pressure so the scrapers obtain maximum life.

The lower bolt on the scraper will set the spring tension on the scraper and needs to be tightened until the scraper is against the disc along the entire leading edge. Make sure that the scraper is in the middle of the slot on the top nut while setting the bottom nut.



Seed scraper



Seed scraper adjustment points

Scraper adjustment procedure

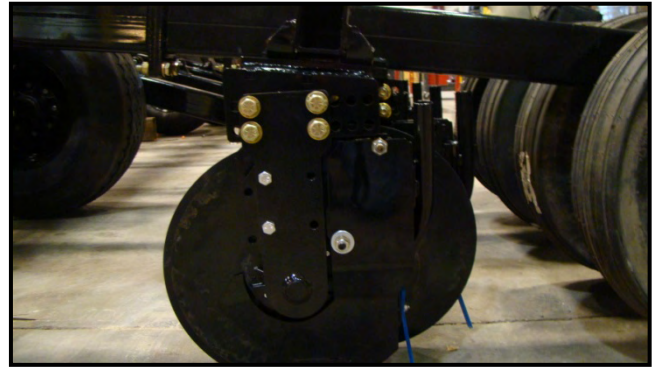
- Adjust the top nut as needed to keep pressure off of the scraper until the bottom bolt is properly set
- Tighten the top nut until you see the scraper begin to pull away from the disc at the bottom of the scraper
- Back off the top nut slightly just until the scraper is again in full contact. Use the ½ inch jam nut to lock the two adjusting nuts in place on all scrapers
- Spin the disc by hand to insure that it turns freely

Note:

Discs and scrapers have a coating of paint on them when shipped from the factory. It may take a few passes in the field before scrapers are wearing against discs properly. Some periodic adjustments to scrapers may be required depending on soil, residue conditions and scraper wear.

Seed row offset

The seeding disc pairs can be offset between a minimum of .5 inches to a maximum of 6.5 inches. They are preset at the factory to 4.5 inches. If the offset is too small, in wet sticky conditions, soil will be carried around with the discs causing an uneven seed bed. If offset is too large, the soil movement may not be enough for adequate packing. In very dry, sandy soils it may be beneficial to reduce the offset. In extremely wet, sticky soils, if soil rolls forward between the discs, increase the offset.



Seed strut assembly

Packing system

Each packer tire on the drill packs the two seeding rows in front of it as well as the fertilizer furrow if the optional fertilizer attachment is installed.

The packer tires are set to operate at a skewed angle. This has two benefits:

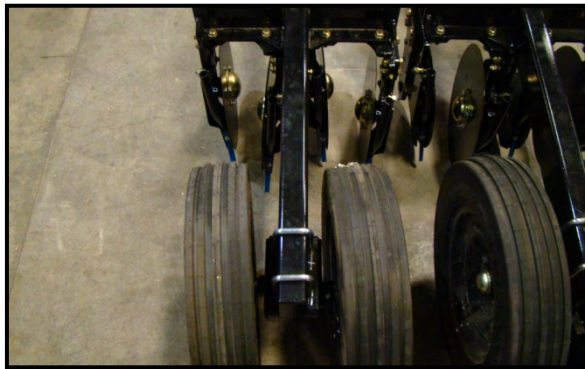
1. Soil loosened by the discs is pushed more reliably into the seed furrows.
2. In wet, sticky conditions, the scuffing action on the tires results in the tires running cleaner than if they ran straight.

Half of the tires are skewed to the right and half to the left to eliminate side draft on the drill

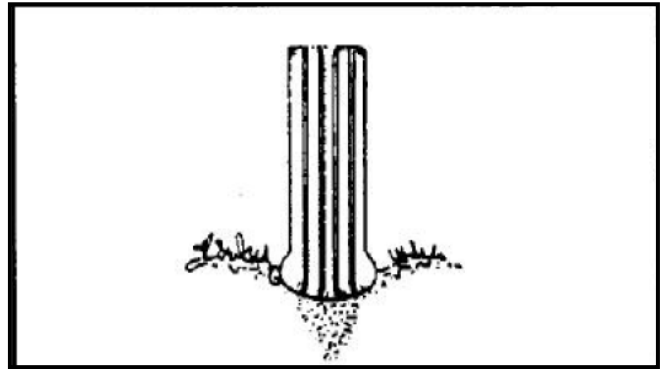
Packer tire pressure

Dry soil conditions – 10-15 PSI set at factory

Wet soil conditions – Pressure can be set as low as 8 PSI to allow tire to flex to shed mud



Packer tires skewed to the left



Packer tire at lower pressure

Fertilizer bander attachment

The addition of the fertilizer bander attachment allows placing ammonia, dry or liquid fertilizer between each pair of seed rows.

The depth on the fertilizer opener is set approximately 1 inch deeper than the seed openers when assembled at the factory.

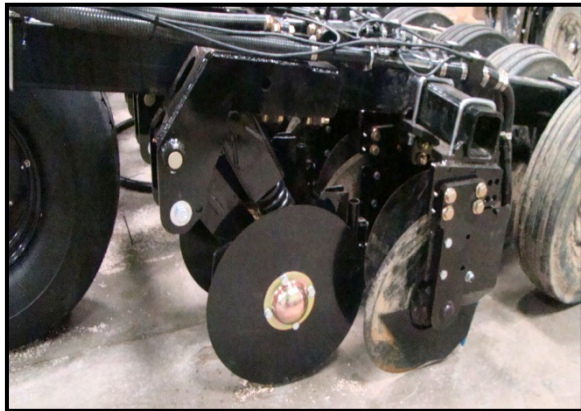
Adjusting fertilizer depth

Depth on the fertilizer opener is set by means of a cam block on the lower front of the fertilizer assembly.

Grooves in the cam block act as an adjustable stop for the fertilizer strut, setting the cam to a shallower slot reduces depth and setting the cam to a deeper slot increases depth.

To adjust the cam:

1. Raise tool bars fully off the ground
2. Place a wood block under the opener you wish to adjust
3. Lower the row unit to compress the spring on fertilizer bander
4. Remove bolt from one end of the cam bar
5. Slide cam bar out of the mount and rotate to new position
6. Insert cam bar and secure with bolt and washer



Fertilizer bander



Depth block fertilizer bander

Lift Assist Rear Hitch

A lift assist rear hitch is standard equipment on 50 and 60 ft drills and an option on 40 ft. drills. On the 40 ft drills, the lift assist hitch is required if the drill has the mid row fertilizer attachment or if the 5250 air system is used with the drill as a pull behind tank.

The purpose of the hitch is to assist carrying the drill when it is being transported. A hydraulic accumulator pressurizes the cylinders on the hitch in transport to carry a portion of the weight of the drill and to transfer a portion of the weight of the drill to the tractor.



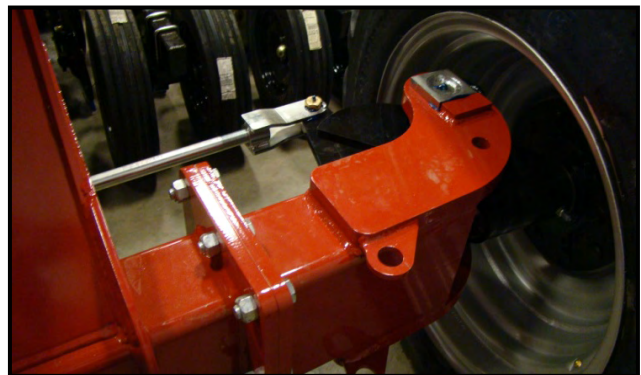
Rear hitch lift assist



Accumulator and control valve

When the drill wings are raised the accumulator will charge to the proper pressure automatically. The accumulator will automatically discharge when the drill wings are lowered.

As the lift assist wheels are free to turn, you cannot back up with the drill. Pins 35736 are supplied with the drill and need to be installed before backing up.



Rear lift assist pin locations, lock and storage

Lift Assist Rear Hitch Continued

The rear lift assist system utilizes a hydraulic control valve and a hydraulic accumulator to:

- Maintain constant pressure on the rear lift assist cylinders when transporting the Single Disc Drill.
- Minimize pressure for reduced weight transfer while seeding in the field.



Pressure gauge rear lift assist

The rear lift assist system is pressurized as the wings are folded. The rear lift assist lockout valve must be open for the system to be pressurized. **Ensure that the main lift system is in transport height before pressurizing the rear lift assist.** After the wings are folded, check the rear lift assist pressure gauge to ensure proper transport pressure is in the **Green** area on gauge and subsequently close the lockout valve to isolate the system from the tractor. If proper pressure is not met, the wings can be unfolded and folded again in order to achieve proper transport pressure.

The transport system is de-pressurized automatically when the wings are unfolded all the way. The rear lift assist lockout valve must be open for the system to be de-pressurized. If the pressure is not released from the system from un-folding the wings, hold the hydraulic remote in the lower position to fully extend the wing cylinders until the rear lift-assist pressure drops to zero. **The rear lift-assist system must be de-pressurized and the lockup valve must be open before the SDD can be used for seeding.** This allows the rear transport wheels to float over the field. The down pressure control circuit while seeding allows the rear transport wheels to float as the SDD is used on various terrains.

The rear lift-assist pressure gauge is marked with an optimum range that the pressure should be within for seeding. If the pressure is ever above the seeding range, check to ensure the rear lift-assist lockout valve is open. Also verify that the hydraulic flow for the toolbar down pressure function is below 5 GPM as the backpressure will affect the rear assist pressure while seeding. The lift-assist pressure can be relieved by extending the wing cylinders all the way and holding them out until the pressure drops within the seeding range.

If it is desired to put the toolbars in “Float” while seeding in very light soil conditions, the rear lift-assist needs to be put into float mode. This mode is activated by first activating the toolbar tractor remote to at least 500 psi down pressure for 5 seconds then by putting the toolbar tractor remote directly into float. This mode is deactivated automatically whenever the wings are folded or if the toolbars are raised to transport position.

The rear lift-assist control valve is calibrated at the factory and does not require adjustments.

Lock out valve positions

When tractor is Dis-Connected:

- Lift Assist –Closed
- Toolbar-Open

When Transporting:

- Lift Assist-Closed
- Toolbar-Closed (Optional)

When Seeding:

- Lift Assist-Open
- Toolbar-Open



Lock out valves in closed position

Valve on left is **Lift Assist**, valve on right is **Toolbars**

Flow Divider

The flow divider valve maintains equal height of the SDD as the drill is raised and lowered. If an unequal balance between the LH and RH side of the drill occurs, or if there is an uneven level between cylinders on one side of the drill, the system can be equalized by raising the main lift all the way up and maintaining continuous flow to the system for a period of time. This will allow the flow divider valve to synchronize the LH and RH side of the drill as well as allowing the phasing cylinders to flush and level out. This procedure can only be performed when raising the drill, not lowering.

If air is introduced into the main-lift circuit either from a hydraulic leak or from maintenance, the system must be purged. This can be accomplished by raising and lowering the main lift circuit many times while intermittently holding the pressure in the raise position.



Flow divider valve lower right in photo

Connecting to tractor

When hitching to tractor, connect the hydraulic hoses so that hydraulic power can be used to raise or lower the front hitch to match the tractor drawbar. Keep the drill frame lowered to the depth control collars and use the down pressure circuit to adjust the hitch level. Be sure to attach the safety chain before transporting drill. A jack is provided on the front hitch of the SDD with rear assist to aid in connecting tractor.

Unhooking the drill from tractor (Preferred method wings down)

WARNING!!! The Single Disc Drill with floating hitch has a large amount of up force with the row unit off of the ground. It is imperative to lower the drill frame completely and rest the row units on the ground when disconnecting from the tractor. Failure to do so may result in sudden upward movement of the hitch that could result in injury or death. Use extreme caution and stand well clear when moving tractor away from the drill.

Drills with floating rear hitch – Unhooking from Tractor Wings Down

- Lower the main frame until the cylinders are fully collapsed or resting on the depth stops.
- Lower the wings until the wings are down. Ensure the path where the wings will unfold is clear before unfolding.
- Use the toolbar hydraulic remote to lower the toolbars and push on the ground Position the hitch so it's floating in the tractor drawbar clevis.
- Unhook all hydraulic/electrical lines and unhook the safety chain from the tractor.

Drills with rear lift assist - Unhooking from Tractor Wings Up

- Lower the main frame until the cylinders are fully collapsed or resting on the depth stops.
- Ensure the Rear Lift Assist Pressure is in the proper "Transport" range and the Rear Lift Assist lock-out valve is closed. If not, refer to the procedure on winging up to obtain proper Rear Lift Assist Pressure.
- Open the Toolbar lock-out valve and engage the toolbar remote circuit into the Float position until the main frame (6) toolbars are on the ground. Leave this lock-out open.
- Unhook all hydraulic/electrical lines and unhook the safety chain from the tractor. Use the jack to raise the hitch off the tractor's drawbar.

Drills with rear lift assist - Unhooking from Tractor Wings Down

- Lower the main frame until the cylinders are fully collapsed or resting on the depth stops.
- With the Rear Lift Assist lock-out valve open, lower the wings until the wings are down and the rear lift assist pressure is 0 psi. Close the Rear Lift Assist lock-out valve. Ensure the path where the wings will unfold is clear before unfolding.
- Open the Toolbar lock-out valve and engage the toolbar remote circuit into the Float position until all the toolbars are on the ground. Leave this lock-out valve open.
- Unhook all hydraulic/electrical lines and un-hook the safety chain from the tractor. Use the jack to raise the hitch off the tractor's drawbar.

Transporting

WARNING!!! The 30 and 40 ft. Single Disc Drill without rear wheel assist have a large amount of up force on the front hitch with the row units off of the ground. Tow only with a tractor or truck with sufficient weight to counter the up force. Make sure toolbar lockup valve is in the closed position to transport. If SDD is equipped with rear assist, make sure pressure gauge dial is in the green area to transport.



WARNING!!! The Single Disc Drill transport tires are only rated to carry the weight of the drill at up to 20 miles per hour. Transporting at over 20 miles per hour will result in tire failure. There is no warranty for tire failure. When transporting the Single Disc Drill especially 50' 60' with air cart behind on roads with hills and curves, keep speed to a safe MPH. Slow up 8-10 MPH when approaching curves at bottom of the hill.

WARNING!!! Never transport fully loaded air cart behind Single Disc Drill, always fill air cart with product in the field being seeded.

WARNING!!! 50' and 60' Single Disc Drills are equipped with wing locks, make sure pins are installed before transporting. Always remove wing lock pins before unfolding.

Folding and Unfolding wings

CAUTION!!! Never fold and unfold Single Disc Drill while in motion. Always bring tractor and implement to a complete stop before doing so. Folding and unfolding while in motion may cause damage to the wing lift components and cylinders.

CAUTION!!! When folding wings up before transport, make sure the frame is at the height you will be transporting in. This will insure proper pressurization of the rear lift assist circuit.

Maintenance

The following lubrication points should be greased

Every 16 working hours

- Transport wheel walk beams
- Transport wheel struts
- Rear hitch pivots
- Fertilizer attachment pivots

Every 50 working hours

- Main frame wing hinge areas
- Wing fold link areas on 50'-60' machines

Weekly

- Check tire pressure on transport tires on main frame of drill. Maintain at 70 PSI

Seasonally

- Grease packer and disc hubs. It is acceptable to grease the hubs until grease appears at the seal. No damage to the seal will result. Once a few hubs have been greased and you know how many strokes it takes for grease to appear, grease remaining hubs 5 strokes less. Excess grease at the hubs will attract dirt.
- Check the Nitrogen Pressure on the Accumulator for the Rear Assist System. See your dealer for specifications and proper procedures for inspection and charging if required.

Storage

It is recommended to store drill with the wings down (field position) to prevent water from sitting on the wheel and disc bearing seals.

- Disconnect with lift cylinders and retract rods into cylinder
- Block cylinders up to avoid damage when retracting and extending rods
- If cylinder rods are left exposed, apply a rust preventative coating to the surfaces
- Remove pressure gauge and store inside

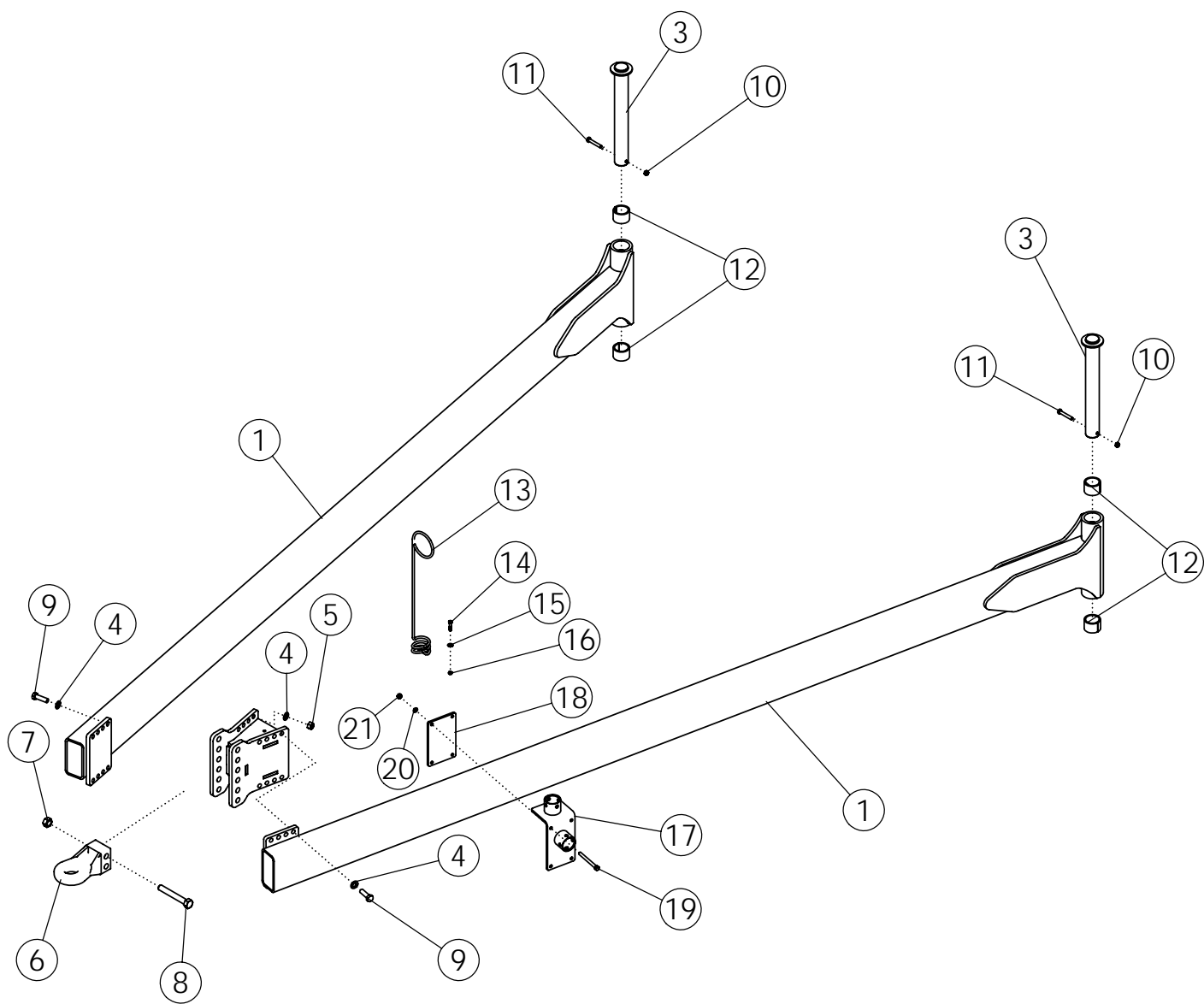
Removing from Storage

- Lubricate the implement
- Check tires for correct air pressure
- Inspect hydraulics
- Inspect scrapers, discs, air hoses
- Make sure warning and tail lamps are operating properly

Single Disc Drill Specifications

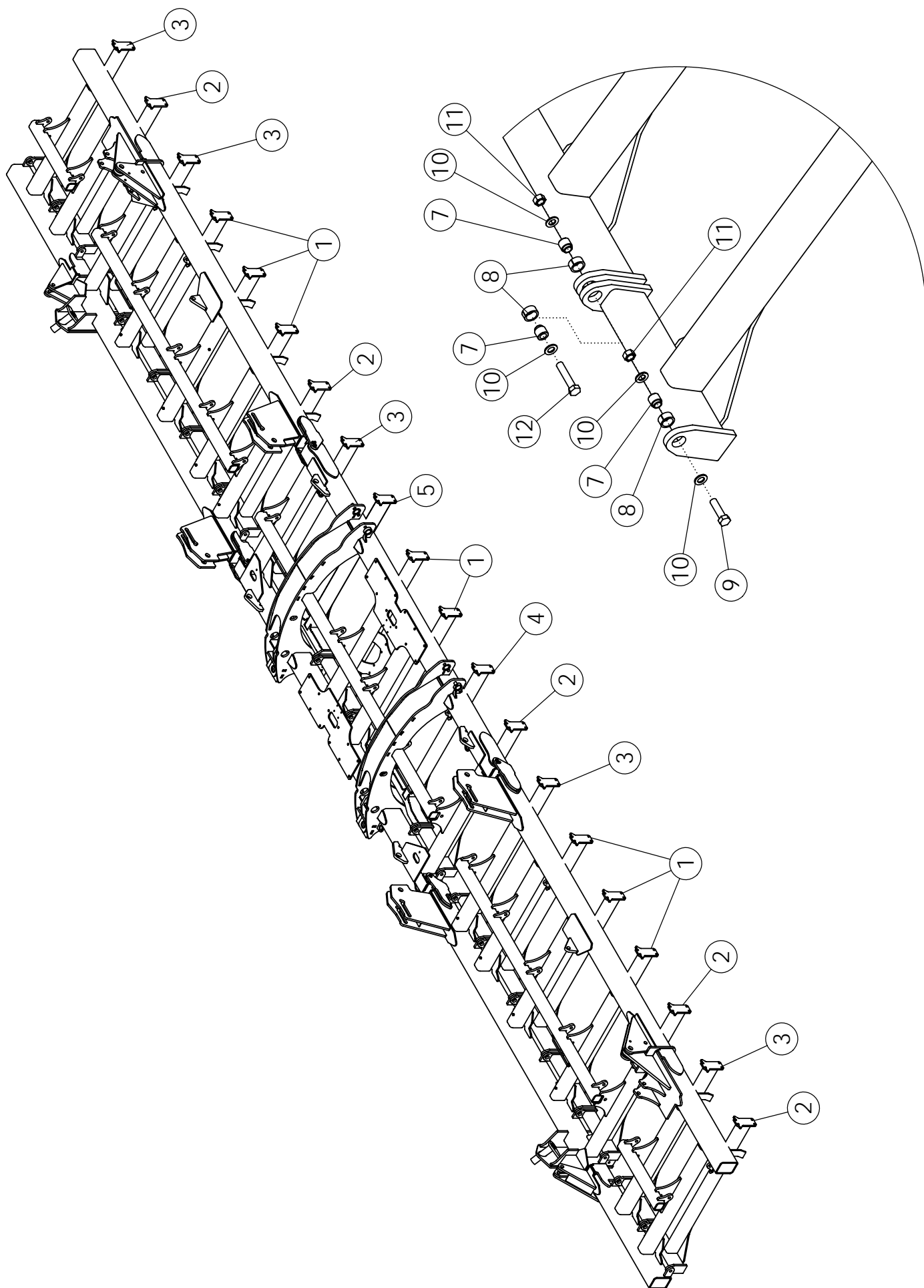
Width	30	40	50	60
Sections	3	3	3 in field-5 folded	5
Total weight	21,200lbs(9,616kg)	26,500lbs(12,020kg)	38,500lbs(17,46kg)	42,500lbs(19278kg)
Weight with banders	24,50lbs(11,113kg)	31,000lbs(14,06kg)	44,000lbs(19,95kg)	49,000lbs(22,226kg)
Weight of ballast kit	1,280 lbs (581 kg)	1,620 lbs (735 kg)	2,220 lbs (1.007kg)	2,900 lbs (1,315 kg)
Working Width	30 ft (9.1 m)	40 ft (12.2 m)	50 ft (15.2 m)	60 ft (18.3 m)
Transport Width	14 ft. 3 in. (4.3 m)	18 ft 11 in. (5.8 m)	21 ft 6 in. (6.6 m)	21 ft 6 in. (6.6 m)
Transport Clearance	0 - 20 in. (50.8 m)	0 - 20 in. (50.8 m)	0 - 20 in. (50.8 m)	0 - 20 in. (50.8 m)
Transport Height	14 ft. -15 ft 6 in (4.42-4.72 m)	16 ft - 17 ft. 10 in. (5.13-5.44 m)	16ft 4 in - 18 ft. 4 in (4.98-5.59 m)	16 ft - 17 ft. 10 in. (5.13-5.43 m)
Tires / Main frame	36 X 17.5 14 ply	36 X 17.5 14 ply	36 X 17.5 14 ply	36 X 17.5 14 ply
Tires / Wings	36 X 17.5 8 ply	36 X 17.5 8 ply	36 X 17.5 8 ply	36 X 17.5 8 ply
Weight transfer	N/A	Req'd with banders	Standard	Standard
Tractor Requirements	210-260 hp	250-320 hp	300-360 hp	360-425 hp
# of seed openers	48	64	80	96
# of fertilizer openers	24	32	40	48
disc size	18	18	18	18
Packing pressure	Operator adjusted	Operator adjusted	Operator adjusted	Operator adjusted
Seeding depth	0-3 in. (0-7.6 cm)	0-3 in. (0-7.6 cm)	0-3 in. (0-7.6 cm)	0-3 in. (0-7.6 cm)
Length of opener	N/A	N/A	N/A	N/A
Row spacing	6/9 in. (15-23 cm)	6/9 in. (15-23 cm)	6/9 in. (15-23 cm)	6/9 in. (15-23 cm)
	paired row	paired row	paired row	paired row

PARTS SECTION



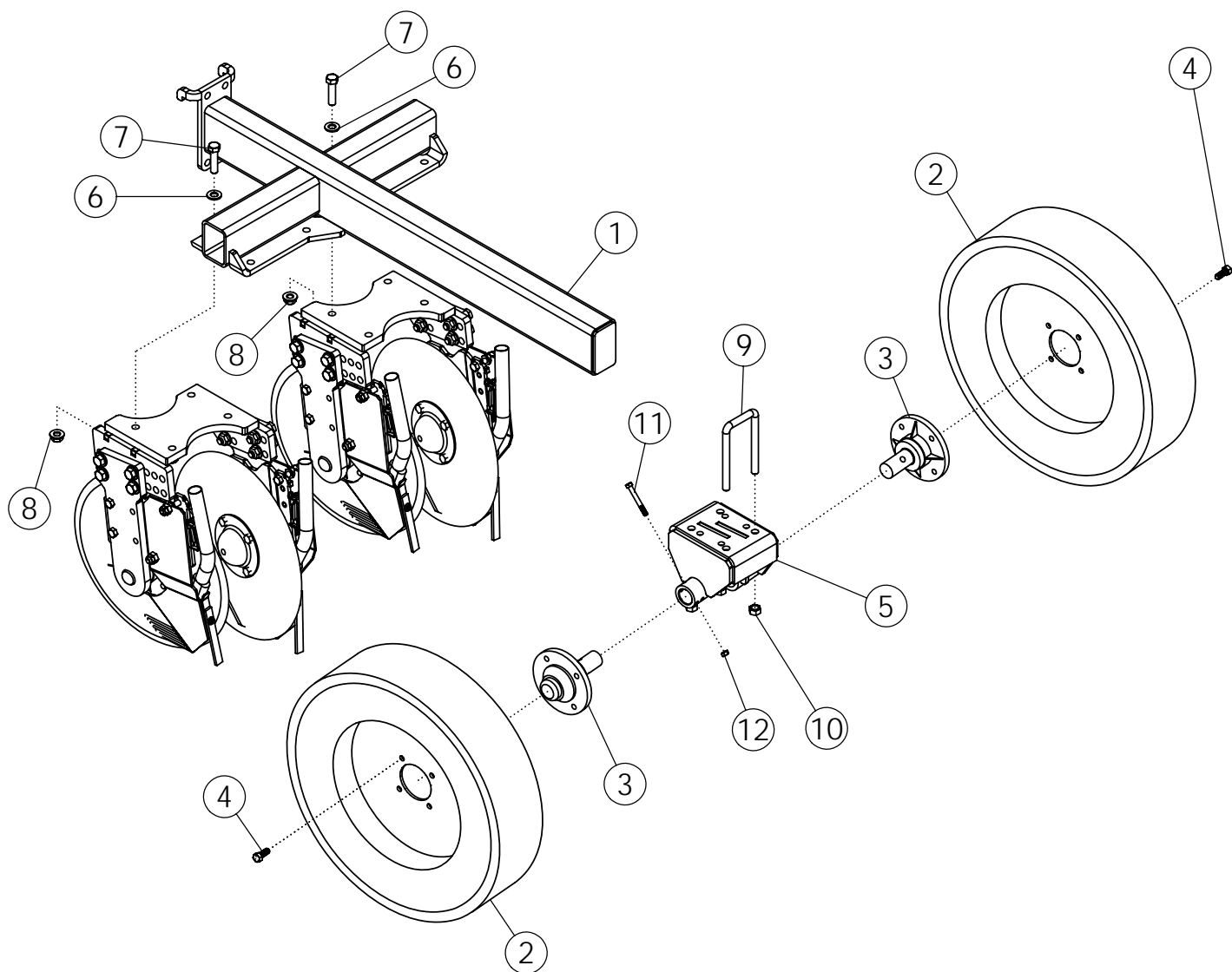
FRONT HITCH ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	35168	WLDMT, DRAWBAR	2
2	33354	WLDMT, HITCH	1
3	33462	PIN,WELD DRAWPOLE	2
4	35132	WASHER-FLAT: SAE .75 GR8 ZP	32
5	66501	NUT-HEX: .75 NC GR8 ZP	16
6	66053	HITCH-PERFECT	1
7	1016969	NUT-TOPLOCK: 1.00 NC GR5 ZP	3
8	65721	BOLT-HEX: 1.00 X 7.00 NC GR5 ZP	2
9	62096	BOLT-HEX: .75 X 2.50 NC GR8 ZP	16
10	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	2
11	1011611	BOLT-HEX: .50 X 3.00 GR5 ZP	2
12	33372	BUSHING-SPLIT 3.0 OD X 2.5 ID X 2.0	4
13	65176	HOSE HOLDER	1
14	1011603	BOLT-HEX: .38 X 1.75 NC GR5 ZP	1
15	1011828	WASHER-FLAT: .38 ZP	1
16	1016999	NUT-TOPLOCK: .38 NC GR5 ZP	1
17	35834	WLDMT-JACK MOUNT TDD	1
18	35843	PLATE-JACK MOUNT CLAMP	1
19	1016660	BOLT-HEX: .50 X 5.50 NC GR5 ZP	4
20	1011581	WASHER-LOCK: .50 ZP	4
21	1011577	NUT-HEX: .50 NC ZP	4
22	69256	CHAIN-SAFETY 41000# (NOT SHOWN)	1
23	1011626	BOLT-HEX: 1.00 X 3.50 NC GR5 ZP (NOT SHOWN)	1
24	65317	WASHER-1.125 X 3.50 X .375 ZP (NOT SHOWN)	1
25	65962	JACK-SIDEWIND (8000LB) SDD (NOT SHOWN)	1



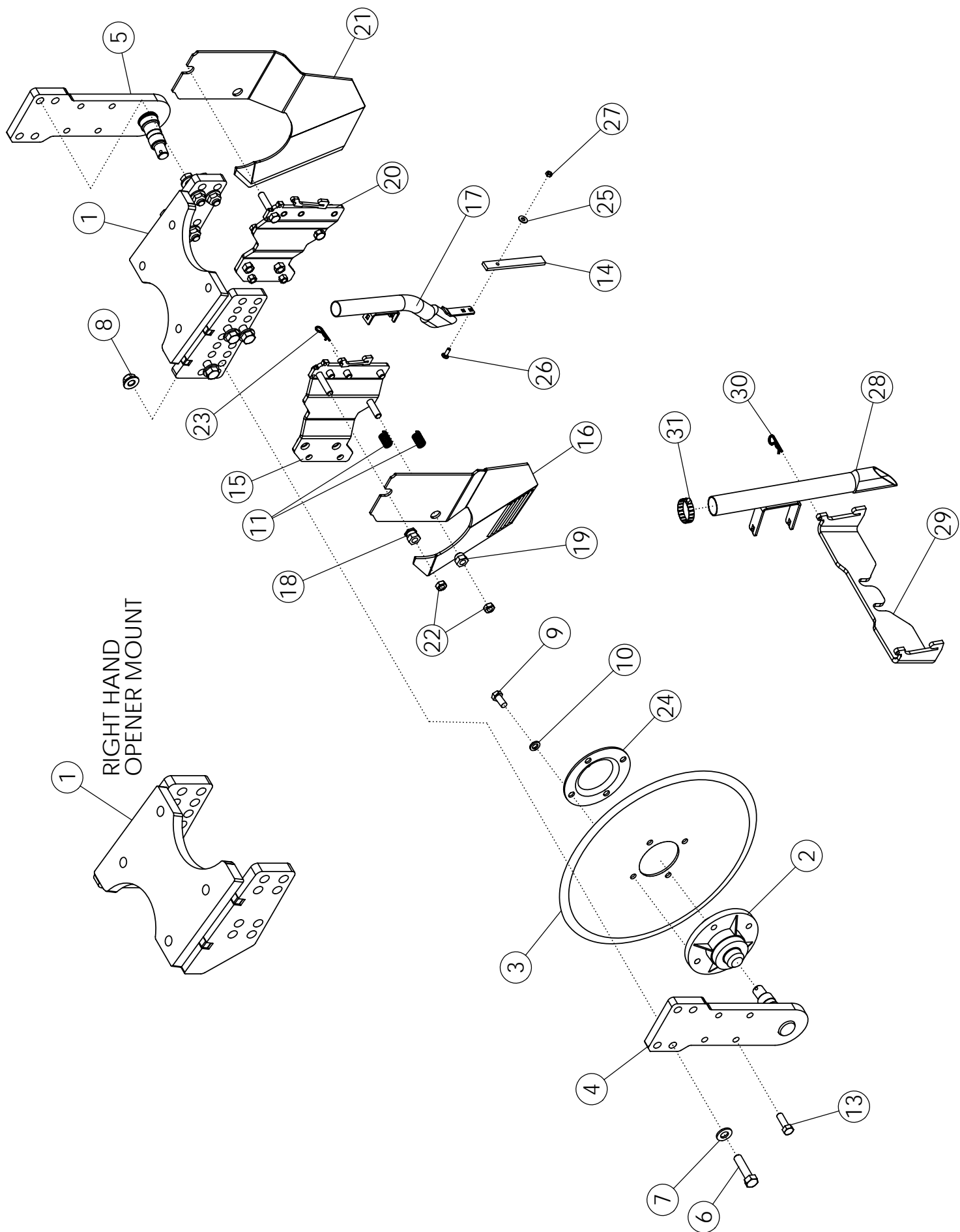
TOOLBAR ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY	
			50'	60'
1	35600	WLDMT-TOOLBAR CENTER	8	12
2	35601	WLDMT-TOOLBAR SHORT LH	5	5
3	35602	WLDMT-TOOLBAR SHORT RH	5	5
4	35489	WLDMT-BENT TOOLBAR LH	1	1
5	35490	WLDMT-BENT TOOLBAR RH	1	1
6	66496	BOLT-HEX: .75 X 3.75 NC GR8 YZP	15	19
7	33435	PIN-TOOL BAR PULL YZP	40	48
8	33434	BUSHING-SPLIT 1.63 OD X 1.25 IDX .75	40	48
9	66495	BOLT-HEX: .75 X 2.75 NC GR8 YZP	10	10
10	66497	WASHER-FLAT: .75 YZP GR8	50	58
11	1011434	NUT: .75 NC GR8 ZP	25	29



REAR TOOLBAR ASSEMBLY #35134 & #35135

ITEM	PART NO.	DESCRIPTION	QTY
1	35603	WLDMT-TOOLBAR REAR PC	1
2	34355	WHEEL & TIRE- PACKER	2
	241617	TIRE-26X6.50 15-4 I1 PACKER TL	1
	241616	WHEEL-15X4.5 4-5 .38+ VG PACKER	1
	34395	VALVE STEM- PACKER TIRE	1
3	243985	HUB & SPINDLE, DRILL-HDA423	2
4	34927	BOLT-WHEEL LUG: .50-20UNF X .75	8
5	35071	WLDMT-PACKER MT. LH	1
	35057	WLDMT-PACKER MT. RH	
6	66498	WASHER-SAE: .63 GR8 ZP	8
7	34906	BOLT-HEX: .63 X 2.50 NC GR8 ZP	8
8	34864	NUT-TOPLOCK FLANGE .63 NC GR8 ZP	8
9	34264	U-BOLT: .625 X 5.50 X 4 X 5.50	2
10	1016595	NUT-TOPLOCK: .63 NC GR5 ZP	4
11	1013239	BOLT-HEX: .38 X 3.00 NC GR5 ZP	2
12	1016999	NUT-TOPLOCK: .38 NC GR5 ZP	2

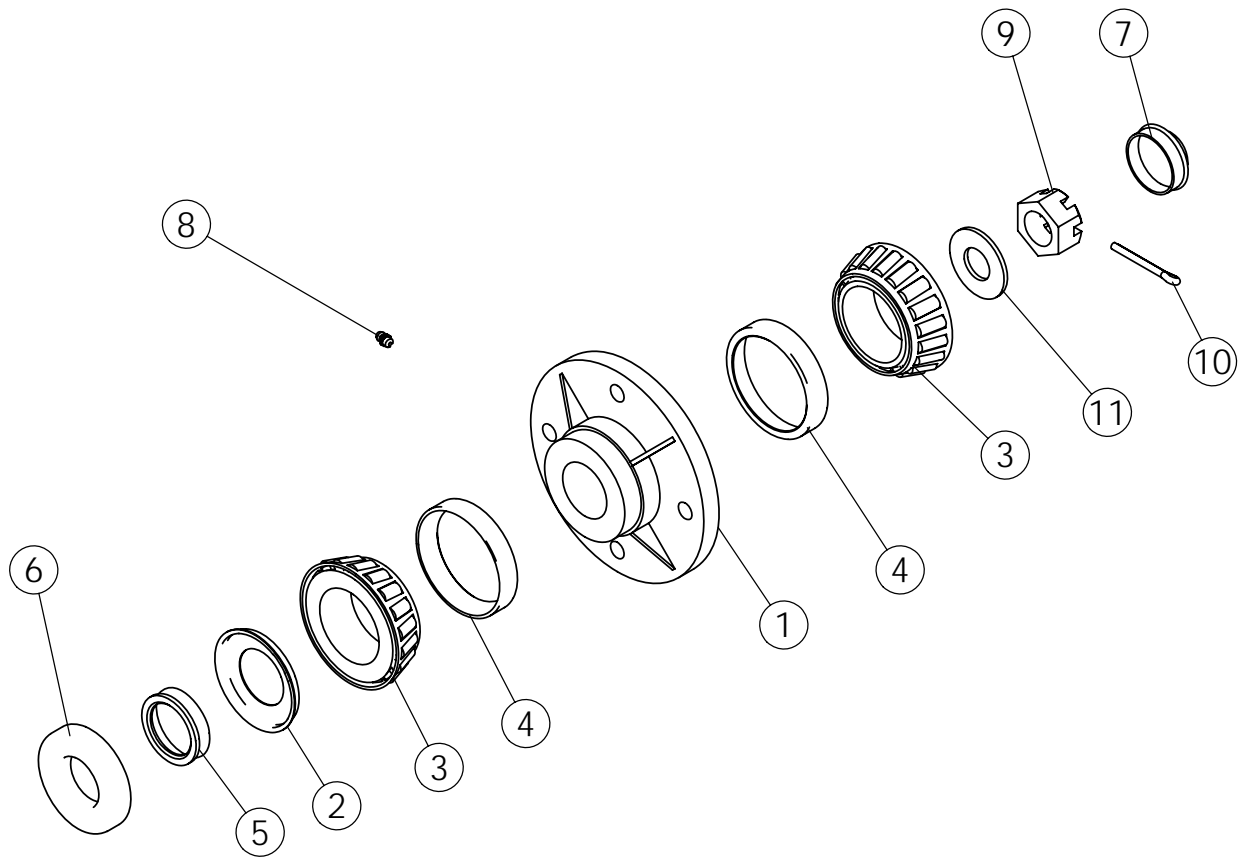


OPENER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	34835	WLDMT-OPENER MT. SDD ADJ LH	1
	34826	WLDMT-OPENER MT, SDD ADJ RH	
2	34574	ASSY-HUB GROUP (COULTER/SDD)	2
3	34354	DISC-TWIN DRILL	2
4	34832	WLDMT-OPENER STRUT ADJ LH	1
5	34834	WLDMT-OPENER STRUT ADJ RH	1
6	34906	BOLT-HEX: .63 X 2.50 NC GR8 ZP	8
7	66498	WASHER-SAE: .63 GR8 ZP	8
8	34864	NUT-TOPLOCK FLANGE .63 NC GR8 ZP	8
9	1015558	BOLT-HEX: .50 X 1.00 NF GR5 ZP	8
10	1011581	WASHER-LOCK: .50 ZP	8
11	34516	SPRING, COMPRESSION	4
12	1011599	BOLT-HEX: .38 X .75 NC GR5 ZP	2
13	1011607	BOLT-HEX: .50 x 1.50 NC GR5 ZP	4
14	33150	PLASTIC SEED LOCK FINGER	2
15	35375	WLDMT-SEED BACKING LH	1
16	35633	SCRAPER-SEED DISC LH PC	1
17	35377	WLDMT-SEED TUBE	2
18	35628	NUT-GROOVED SCRAPER	2
19	35629	NUT-COLLAR SCRAPER	2
20	35376	WLDMT-SEED BACKING RH	1
21	35632	SCRAPER-SEED DISC RH PC	1
22	1011591	NUT-JAM: .50 NC ZP	4
23	65380	PIN-HAIR: .109 X 1.63 ZP	2
24	34565	DUST CAP PROTECTOR YZP	2
25	1020416	WASHER-FLAT: .25 ZP	1
26	68602	BOLT-CRG: .25 X .75 NC GR5	1
27	1030946	NUT-TOPLOCK: .25 NC GR5 ZP	2

OPTIONAL DRY FERTILIZER TUBE

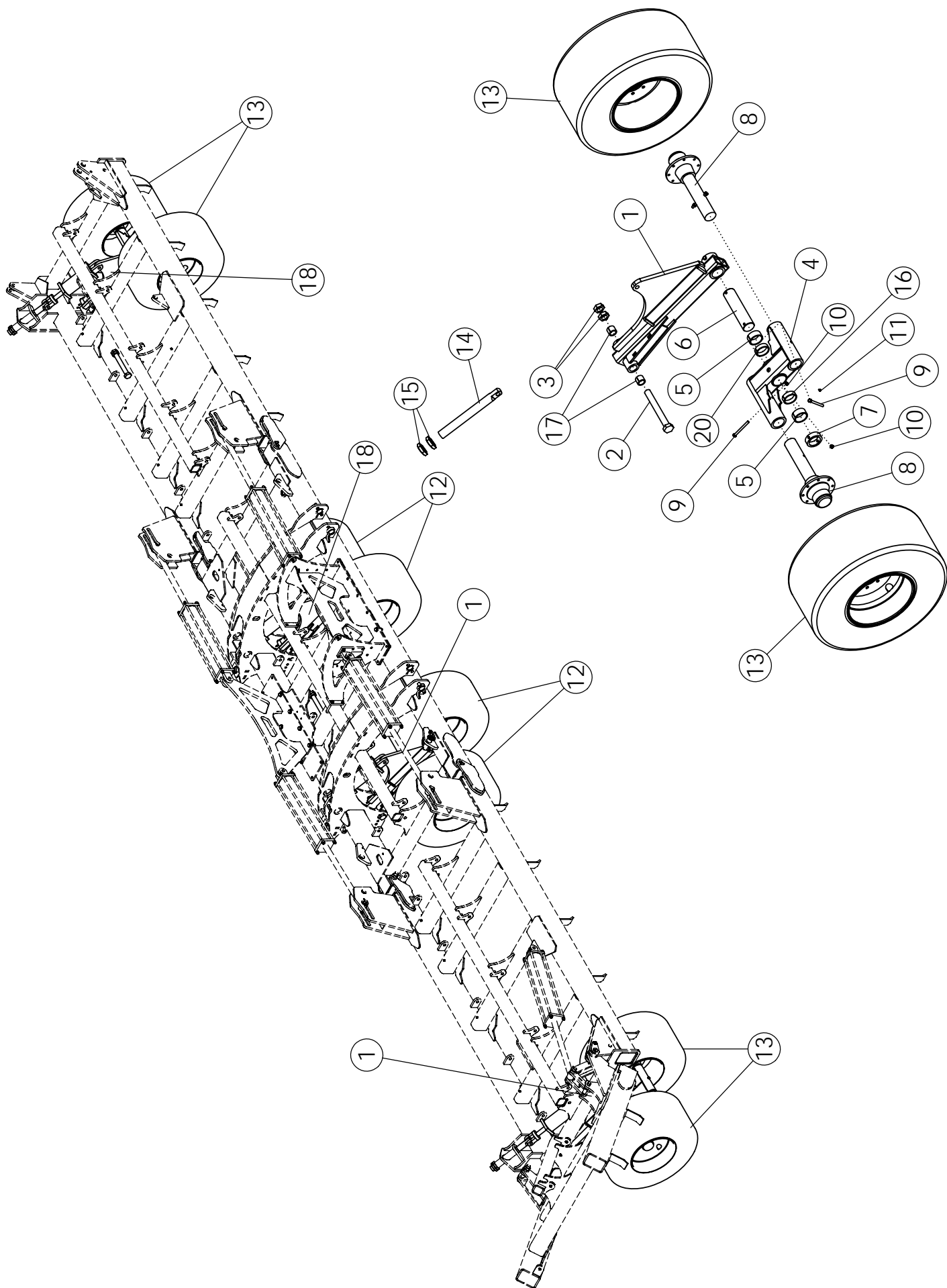
28	35613	WLDMT-MROW BANDER DRY TUBE	2
29	35930	BRACKET-SPLITTER MOUNT W HOOKS	1
30	65380	PIN-HAIR: .109 X 1.63 ZP	2
31	1026358	CLAMP-HOSE: #16 .081-1.50	2



HUB ASSEMBLY #34574

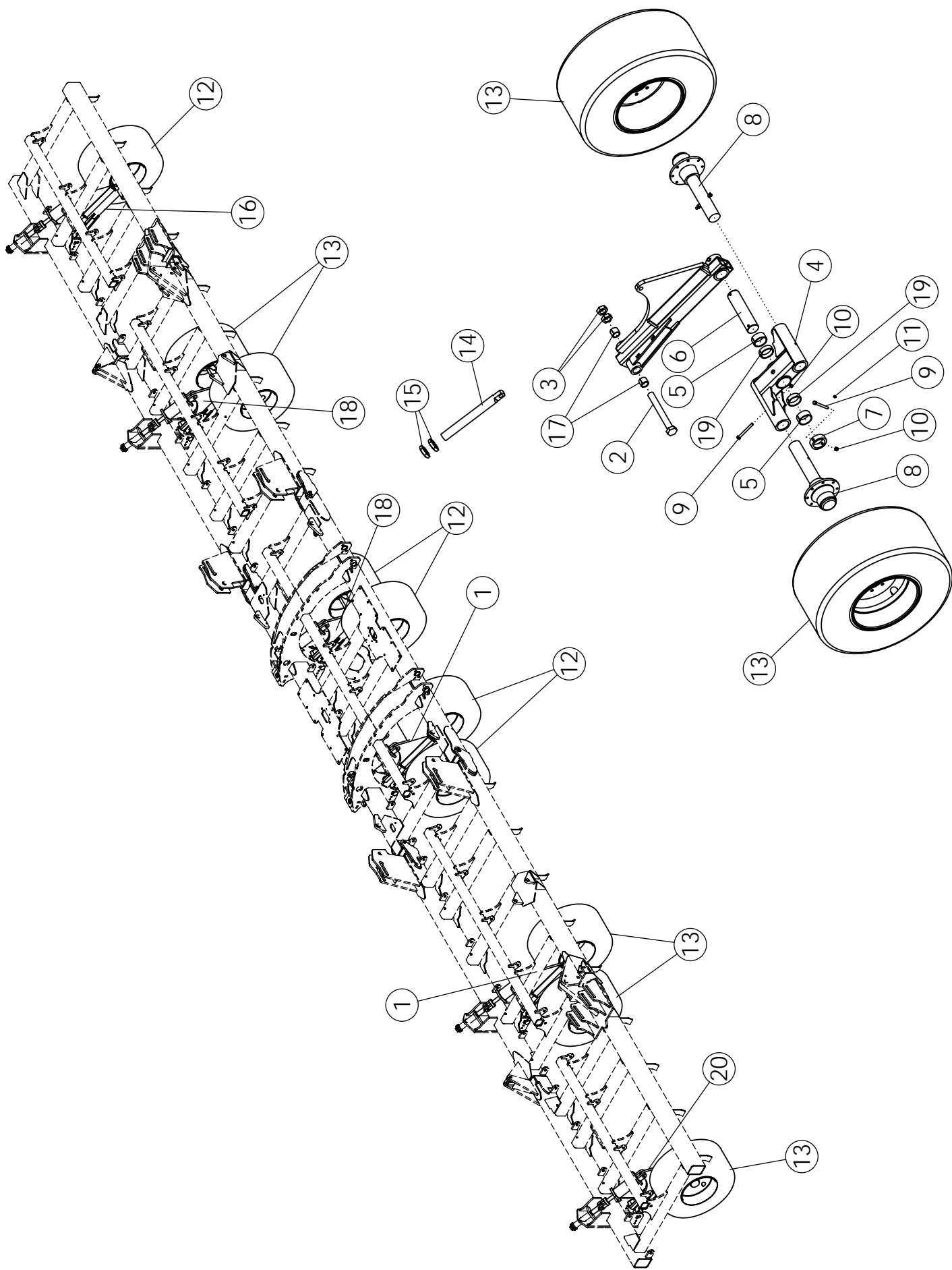
ITEM	PART NO.	DESCRIPTION	QTY
1	34545-1	HUB W/CUPS	1
2	33556	SEAL W COUNTERFACE	1
3	52245	CONE-BEARING INNER	2
4	1012360 *	CUP-BEARING	2
5	33557	V-SEAL	1
6	33555	SEAL RETAINER	1
7	33879	DUST CAP	1
8	1011748	ZERK - GREASE	1
9	34575	NUT-HEX: SLOT .875 NF GR2 NP	1
10	35128	PIN-COTTER: .19 X 1.50 NP	1
11	34564	WASHER-SPINDLE 2 X .937 X .188	1

* INCLUDED WITH ITEM 1



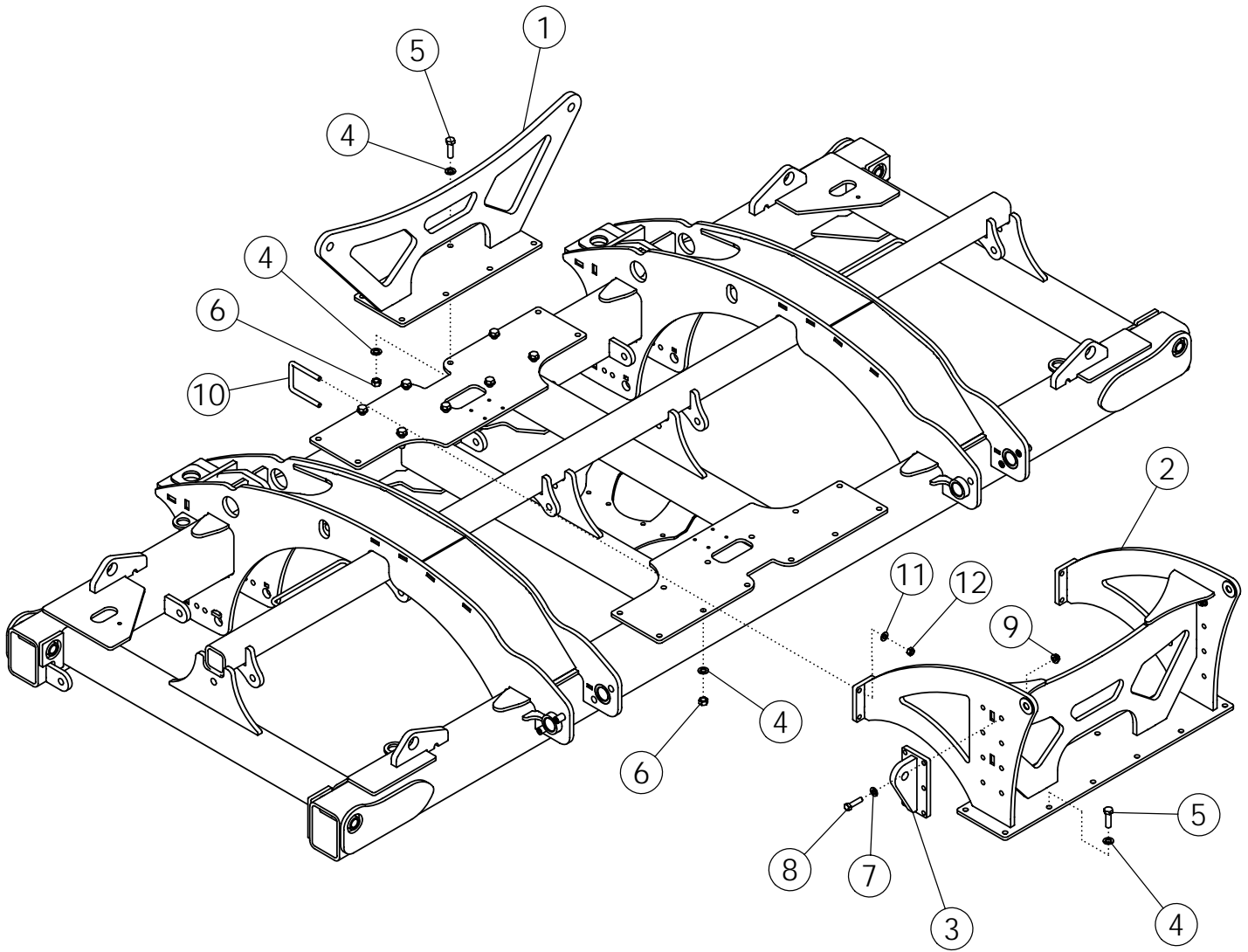
LIFT WHEEL ASSEMBLY 50'

ITEM	PART NO.	DESCRIPTION	QTY
1	35417	WLDMT-LIFT WHEEL MAIN LH	2
2	35055	BOLT-HEX: 1.50 X12.375 UNC GR5 ZP	4
3	66504	NUT-JAM: 1.50 NC GR8 YZP	8
4	33480	WLDMT-WALKING BEAM	4
5	33333	SPLIT BUSHING, WALK BEAM	8
6	33486	SHAFT, WALK BEAM	4
7	33361	COLLAR, WALK BEAM	4
8	33358	HUB & SPINDLE, LIFT DRILL	8
9	1011618	BOLT-HEX: .50 X 5.00 NC GR5 ZP	16
10	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	11
11	1030766	ZERK-GREASE: .13 NPT	12
12	34562	TIRE-MNTD: 36 X 17.5 14 PLY	4
	68943	TIRE-36X16-17.5 14 PLY (DUPLEX I-1)	4
	34469	WHEEL-SINGLE DISC CARRY	4
13	34563	TIRE-MNTD: 36 X 17.5 8 PLY	4
	68942	TIRE-36X16-17.5 8PLY (DUPLEX I-1)	4
	34471	WHEEL-SINGLE DISC CARRY W/HOLE	4
14	34383	SCREW-LEVELER TDD	2
15	66503	NUT-JAM: 2.00 NC GR8 YZP	4
16	35621	BUSHING-SPLIT 3.5 OD X 3 ID X 1.0	8
17	33489	BUSHING-SPLIT 2.0 OD X 1.5 ID X 1.5	8
18	35409	WLDMT-LIFT WHEEL MAIN RH	2



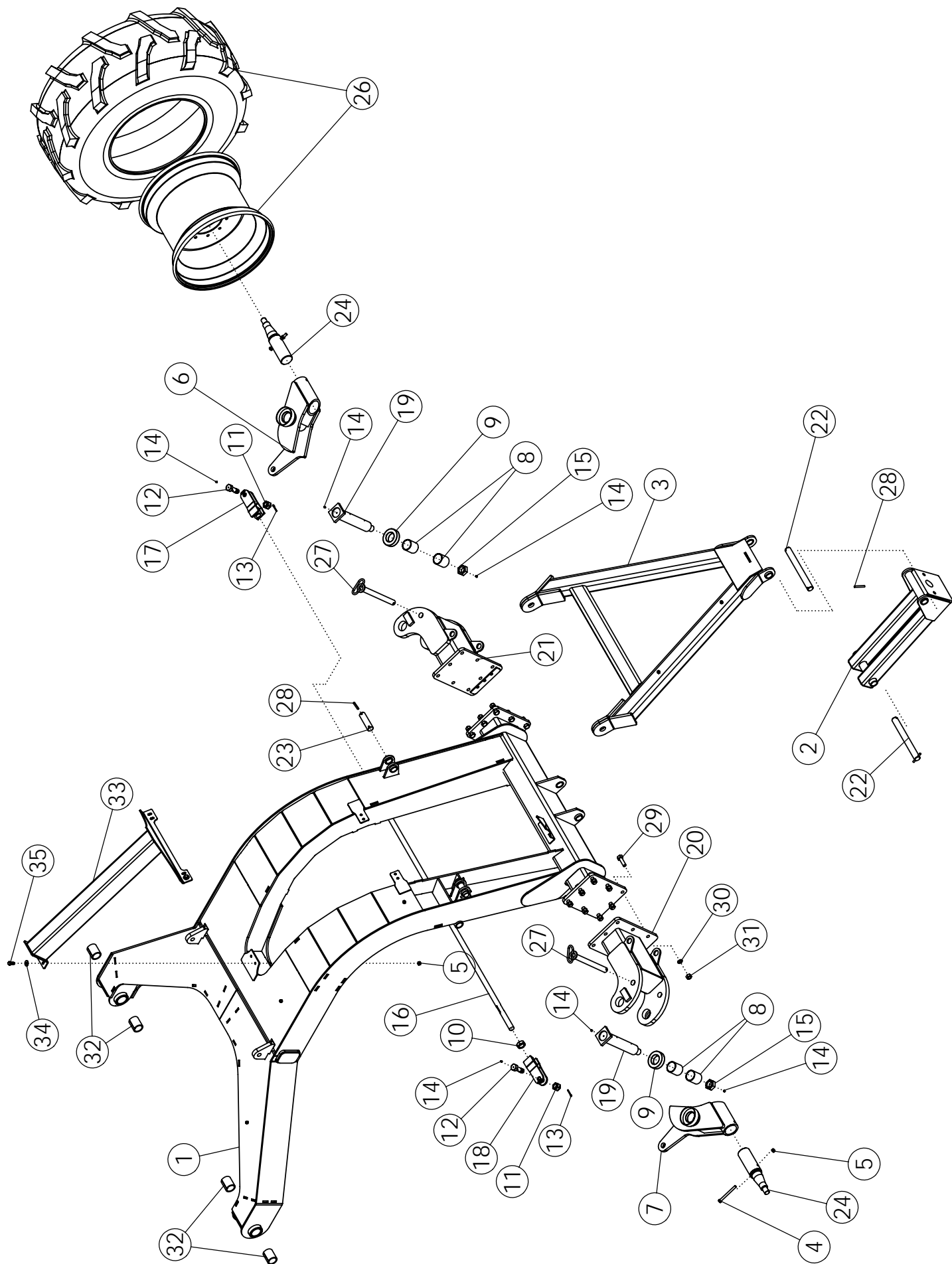
LIFT WHEEL ASSEMBLY - 60'

ITEM	PART NO.	DESCRIPTION	QTY
1	35417	WLDMT-LIFT WHEEL MAIN LH	2
2	35055	BOLT-HEX: 1.50 X12.375 UNC GR5 ZP	4
3	66504	NUT-JAM: 1.50 NC GR8 YZP	12
4	33480	WLDMT-WALKING BEAM	4
5	33333	SPLIT BUSHING, WALK BEAM	8
6	33486	SHAFT, WALK BEAM	4
7	33361	COLLAR, WALK BEAM	4
8	33358	HUB & SPINDLE, LIFT DRILL	8
9	1011618	BOLT-HEX: .50 X5.00 NC GR5 ZP	16
10	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	18
11	1030766	ZERK-GREASE: .13 NPT	16
12	34562	TIRE-MNTD: 36 X 17.5 14 PLY	4
	68943	TIRE-36X16-17.5 14 PLY (DUPLEX I-1)	4
	34469	WHEEL-SINGLE DISC CARRY	4
13	34563	TIRE-MNTD: 36 X 17.5 8 PLY	6
	68942	TIRE-36X16-17.5 8PLY (DUPLEX I-1)	4
	34471	WHEEL-SINGLE DISC CARRY W/HOLE	4
14	34383	SCREW-LEVELER TDD	2
15	66503	NUT-JAM: 2.00 NC GR8 YZP	2
16	35487	WLDMT-OUTER WING STRUT RH	1
17	33489	BUSHING-SPLIT 2.0 OD X 1.5 ID X 1.5	12
18	35409	WLDMT-LIFT WHEEL MAIN RH	2
19	35621	BUSHING-SPLIT 3.5 OD X 3 ID X 1.0	12
20	35485	WLDMT-OUTER WING STRUT LH	1



WING CYLINDER MOUNT ASSEMBLY

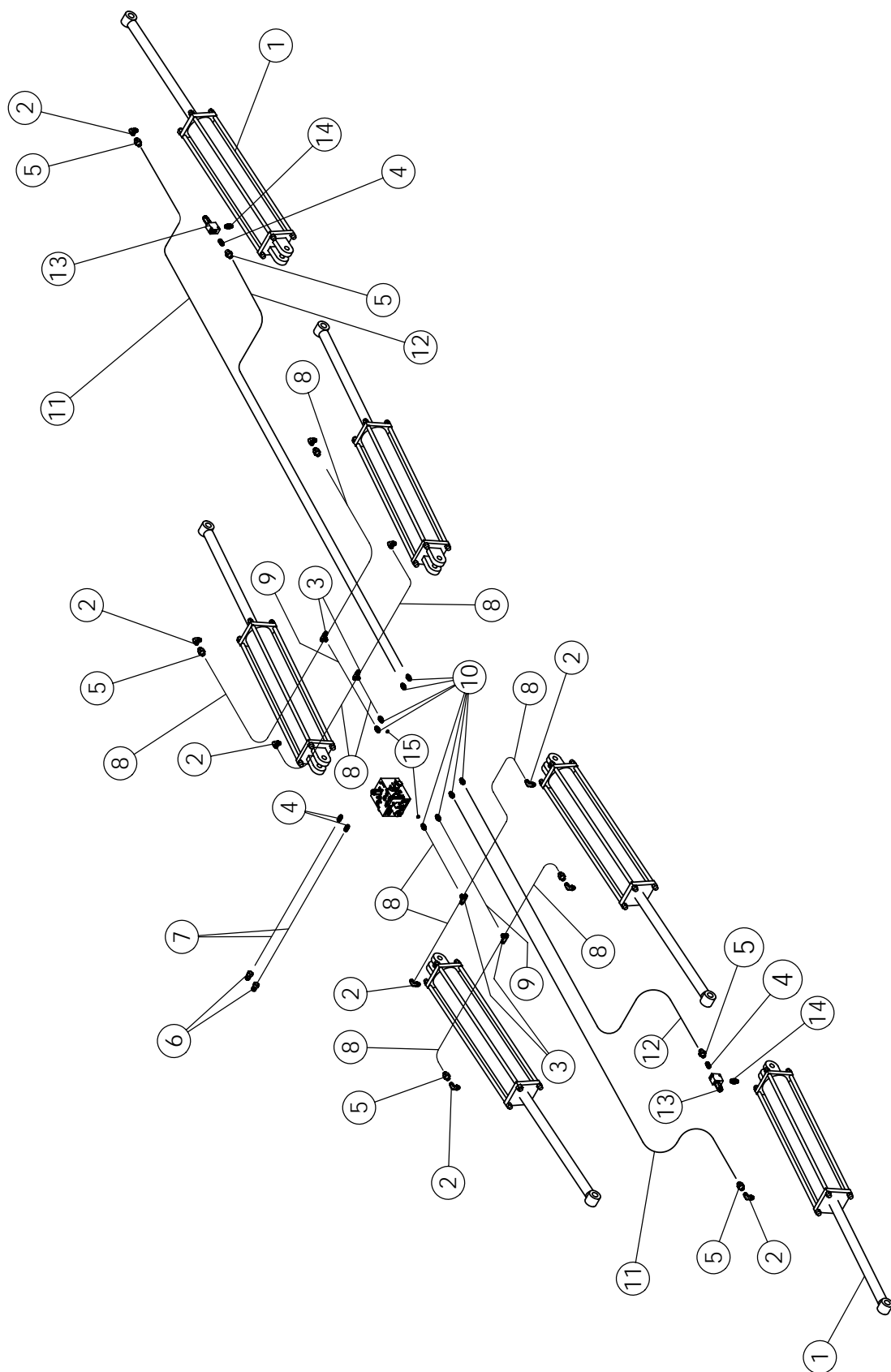
ITEM	PART NO.	DESCRIPTION	QTY
1	35310	WLDMT-CMF 50/60 FRT CYL MNT	1
2	35427	WLDMT-CMF SA REAR CYL MNT	1
3	35426	WLDMT-50/60 CYL MNT LUG	2
4	1012634	WASHER-FLAT: SAE .75 ZP	40
5	62096	BOLT-HEX: .75 X 2.50 NC GR8 ZP	20
6	1011434	NUT-TOPLOCK: .75 NC GR8 ZP	20
7	66498	WASHER-SAE: .63 GR8 ZP	12
8	34906	BOLT-HEX: .63 X 2.50 NC GR8 ZP	12
9	34864	NUT-TOPLOCK FLANGE .63 NC GR8 ZP	12
10	66631	U-BOLT: .625 X 5.50 X 4 X 5.50	4
11	1013004	WASHER-FLAT: SAE .63 ZP	8
12	1016595	NUT-TOPLOCK: .63 NC GR5 ZP	8



LIFT ASSIST ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	35437	WLDMT-CMF SWING ARM	1
2	35524	WLDMT-SA HITCH LOWER	1
3	35540	WLDMT-SA HITCH UPPER	1
4	1016660	BOLT-HEX: .50 x 5.50 NC GR5 ZP	2
5	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	8
6	35569	WLDMT-TRUNNION RH	1
7	35570	WLDMT-TRUNNION LH	1
8	35594	BUSHING-MACH 2.51 X 2.75 X 3.0L	4
9	35567	BUSHING-THRUST: TIMKEN T251	2
10	65864	NUT-JAM: 1.25 NF GR2 ZP	1
11	65680	NUT-HEX: 1.00 NC GR2 ZP	2
12	65438	BOLT-HEX	2
13	1013473	PIN-COTTER: .19 X 2.00 NP	2
14	1011748	ZERK - GREASE	6
15	1014849	NUT-JAM: 1.50 NC GR2 ZP RH	2
16	35547	SHAFT-TIE ROD 79.875" ZP	1
17	35544	WLDMT-TIE ROD CLEVIS LH ZP	1
18	65445	WLDMT-TIE ROD CLEVIS	1
19	35533	WLDMT-KING PIN	2
20	35587	WLDMT-SA OUTER AXLE LH	1
21	35586	WLDMT-SA OUTER AXLE RH	1
22	35599	PIN-HITCH 1.469 X 14.125L ZP	2
23	35650	PIN-HTCH 1.469 X 5.25L ZP	2
24	35519	ASSY-HUB&SPINDLE: 10-BOLT 12000#	2
	35519-1	ASSY-SPINDLE: 3.13 X 14.5 CRS	
	35519-2	ASSY-HUB 10 BOLT-11.25 BC-12000#	
25	35344	ASSY-RH TIRE & WHEEL 23.5/55-26 (NOT SHOWN)	1
26	35343	ASSY-LH TIRE & WHEEL 23.5/55-26	1
27	35736	WLDMT-PIVOT STOP PIN ZP	2
28	1024048	PIN-ROLL 3/8-3.00 ZP	6
29	1016598	BOLT- .75 X 2.50 NC GR5 ZP	16
30	1012061	WASHER-LOCK: .75 ZP	16
31	1011620	NUT-HEX: .75 NC GR2 ZP	16
32	35515	BUSHING-SPLIT 2.5 OD X 2.0 ID X 3.0	4
33	35880	WLDMT-FLOW DIV MOUNT	1
34	1014443	WASHER-FLAT: .50 ZP	6
35	10116606	BOLT-HEX: .50 X 1.25 NC GR5 ZP	6
36	35800	PINTLE 60000 LB (NOT SHOWN)	1

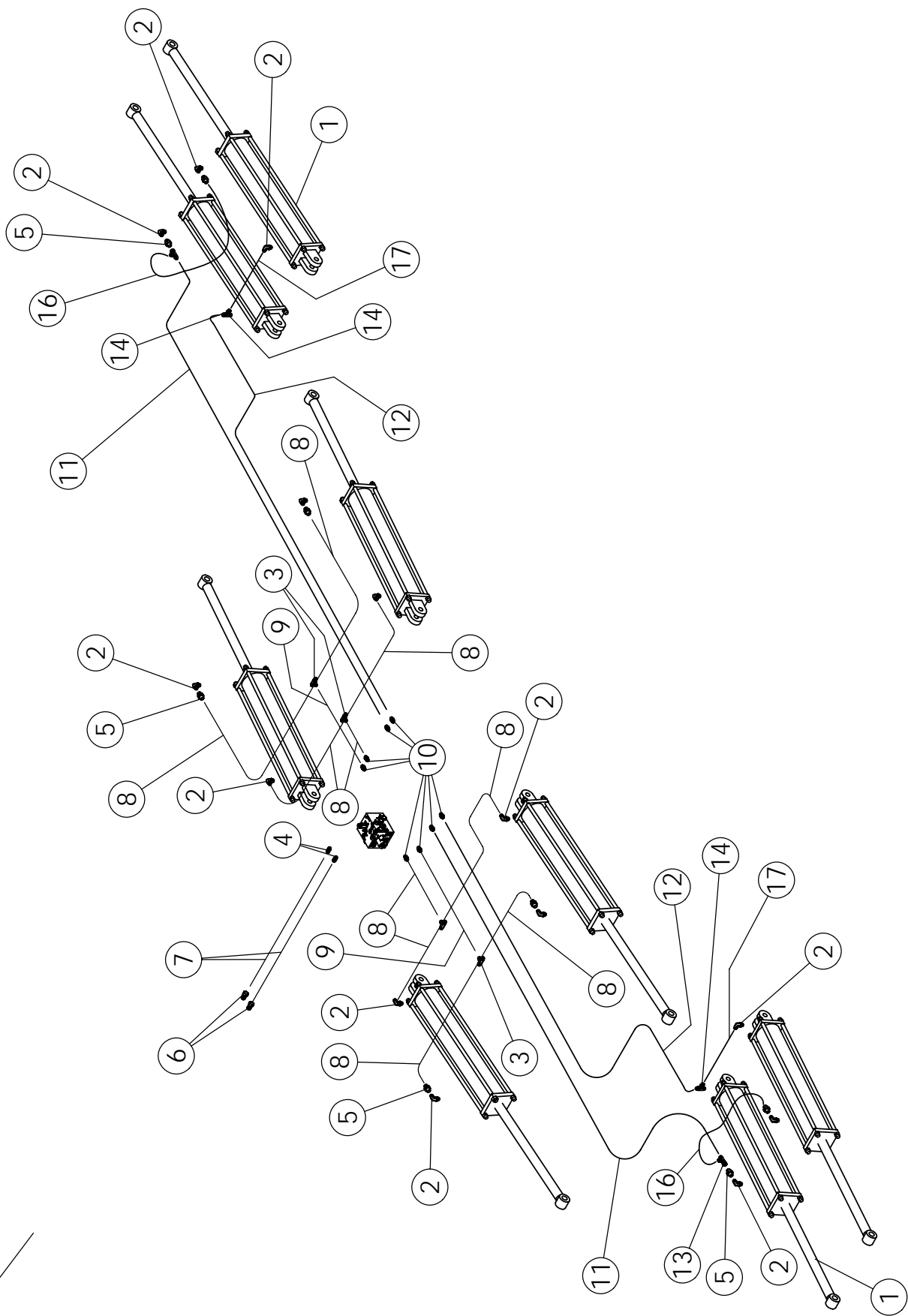
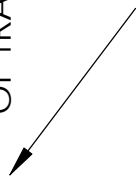
DIRECTION
OF TRAVEL



WING LIFT HYDRAULICS 50'

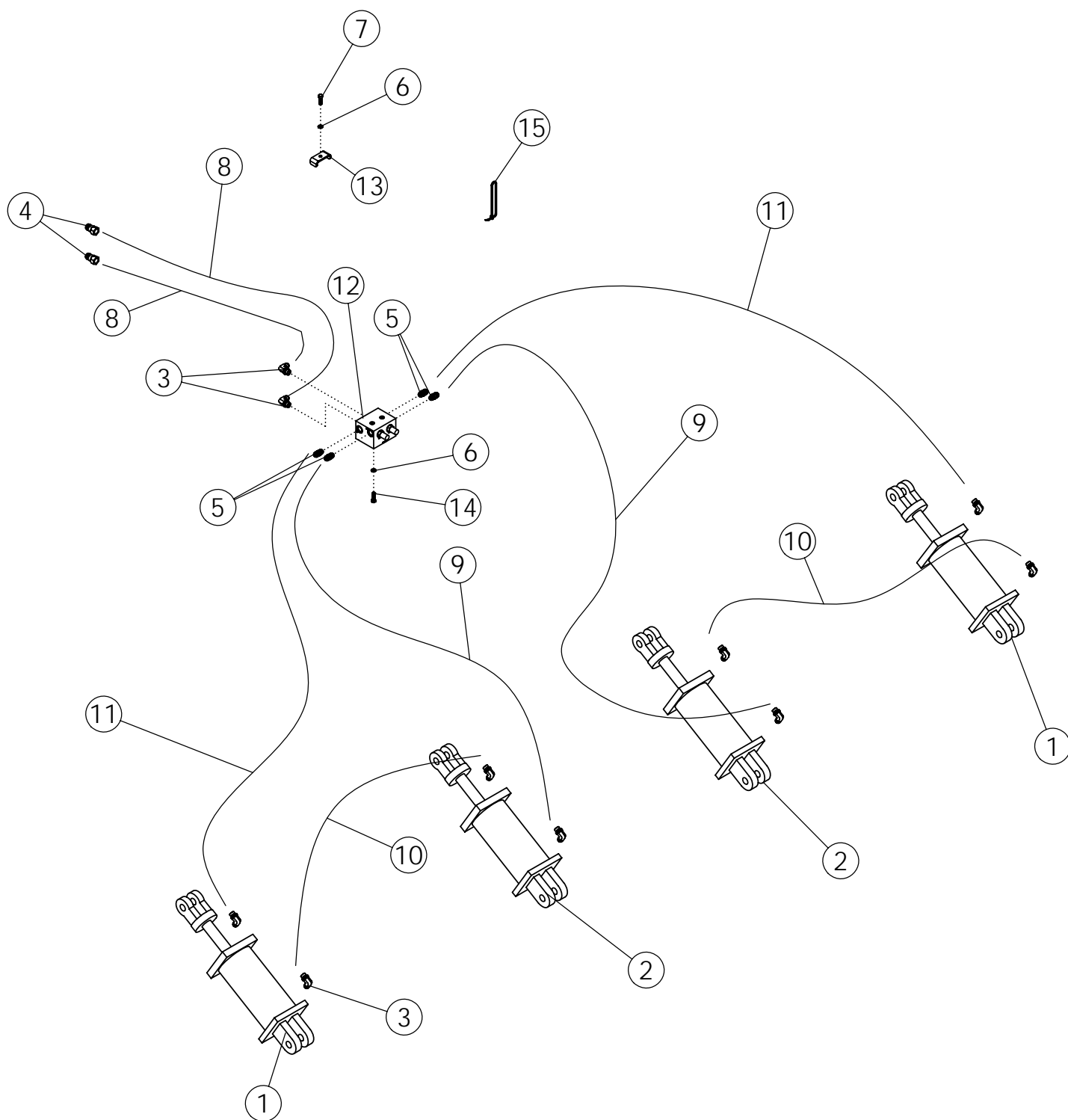
ITEM	PART NO.	DESCRIPTION	QTY
1	1028826	CYL-HYD: 5.00 X 30.00 (1.5" ROD)	6
	35235	SEAL KIT FOR 1028826	
2	58560	FTG-ELBOW: 8MB-8MJ-90	10
3	57667	FTG-TEE: 8MJ-8MJ-8MJ	4
4	56226	FTG-ADAPTER: 8MB-8MJ	2
5	1019844	FITTING-RESTRICTOR (8FJ-8MJ .090)	8
6	66199	PIONEER TIP 8010-15	2
7	35764	HOSE: .50 X 306 8FJX-8MB	2
8	63040	HOSE: .38 X 34 8FJX-8FJX	8
9	68247	HOSE: .38 X 60 8FJX-8FJX	4
10	62024	FTG-ADAPTER: 6MB-8MJ	8
11	35684	HOSE: .50 X 258 8FJX-8FJX	2
12	35683	HOSE: .50 X 228 8FJX-8FJX	2
13	36017	VALVE-WING SEQUENCE 1500 PSI	2
14	36016	FTG-ADAPTER: 8MB-8MB ADJ.	2
15	36019	ORIFICE-.125 DIA - DISC #6 ORB	2

DIRECTION
OF TRAVEL



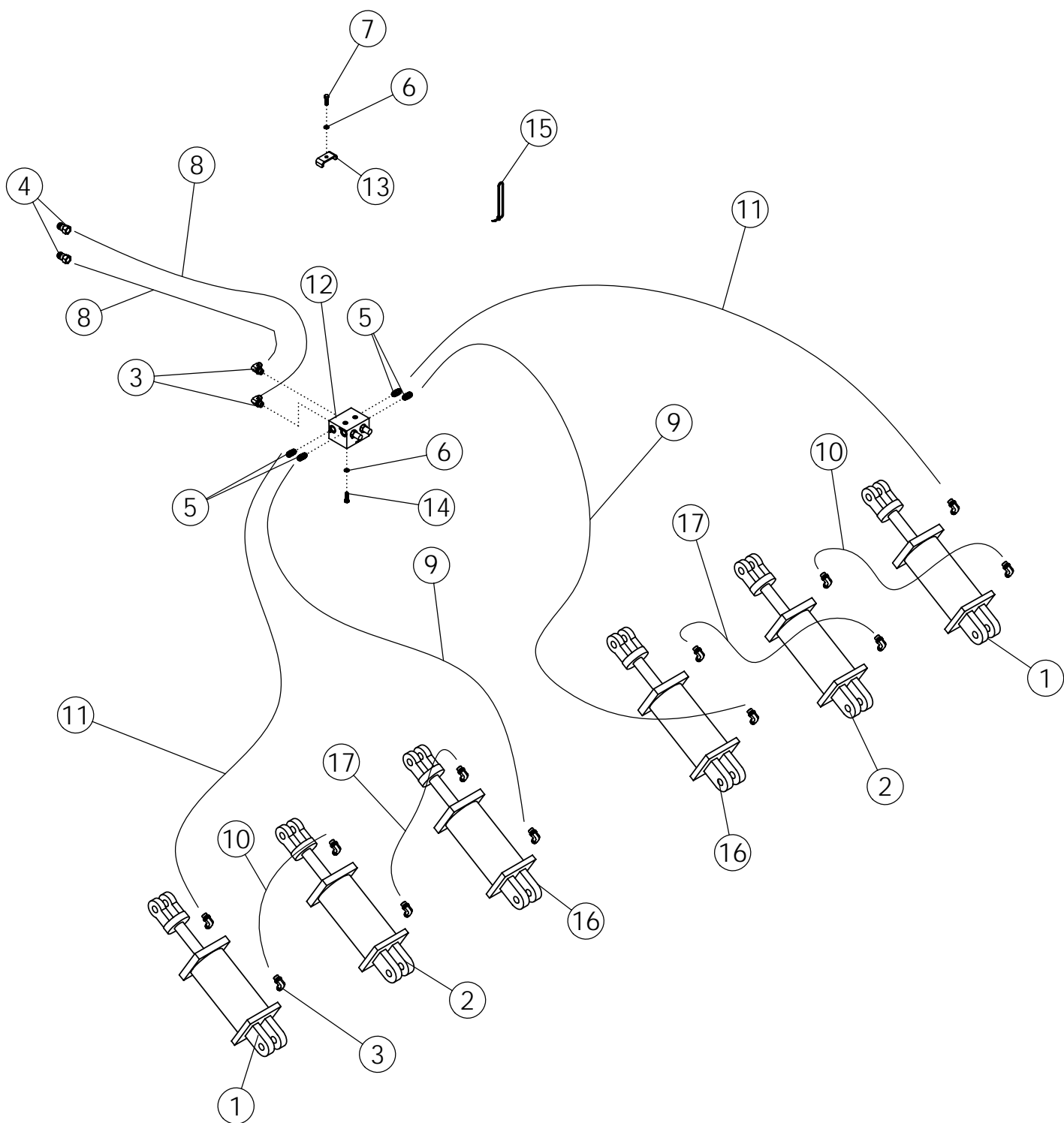
WING LIFT HYDRAULICS 60'

ITEM	PART NO.	DESCRIPTION	QTY
1	1028826	CYL-HYD: 5.00 X 30.00 (1.5" ROD)	8
	35235	SEAL KIT FOR 1028826	
2	58560	FTG-ELBOW: 8MB-8MJ-90	8
3	57667	FTG-TEE: 8MJ-8MJ-8MJ	4
4	56226	FTG-ADAPTER: 8MB-8MJ	2
5	1019844	FITTING-RESTRICTOR (8FJ-8MJ .090)	4
6	66199	PIONEER TIP 8010-15	2
7	35764	HOSE: .50 X 306 8FJX-8MB	2
8	63040	HOSE: .38 X 34 8FJX-8FJX	8
9	68247	HOSE: .38 X 60 8FJX-8FJX	4
10	62024	FTG-ADAPTER: 6MB-8MJ	8
11	35684	HOSE: .50 X 258 8FJX-8FJX	2
12	35683	HOSE: .50 X 228 8FJX-8FJX	2
13	63015	FTG-TEE: 8MJ-8FJX-8MJ	2
14	66602	FTG-TEE: 8MJ-8MJ-8MB	2
15	62998	HOSE: .38 X 20 8FJX-8FJX	2
16	35682	HOSE: .38 X 20 8FJX-8FJX90	2



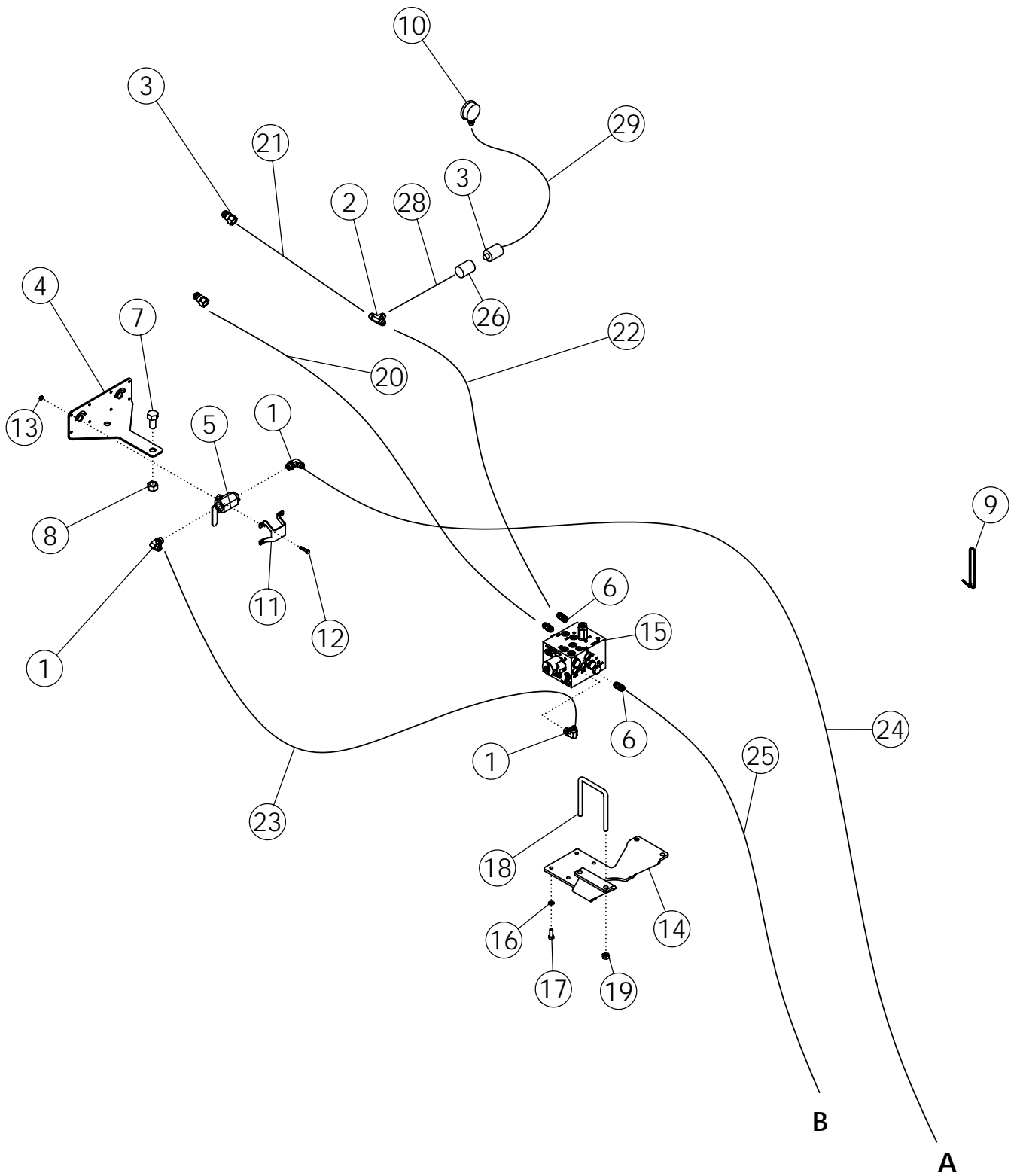
DEPTH CONTROL ASSEMBLY - 50'

ITEM	PART NO.	DESCRIPTION	QTY
1	35380	CYLINDER 40TP10-137ASAE	2
	35971	SEAL KIT FOR 35380	
2	35381	CYLINDER 42TP10-150ASAE	2
	35231	SEAL KIT FOR 35381	
3	58560	FTG-ELBOW: 8MB-8MJ-90	10
4	53631	PIONEER TIP 8010-4	2
5	56226	FTG-ADAPTER: 8MB-8MJ	4
6	1011586	WASHER-LOCK: .38 ZP	14
7	1011600	BOLT-HEX: .38 X 1.00 NC GR5 ZP	10
8	35764	HOSE: .50 X 306 8FJX-8MB	2
9	57011	HOSE: .50 X 048 8FJX-8FJX	2
10	36007	HOSE: .50 X 202 8FJX-8FJX	2
11	36008	HOSE: .50 X 237 8FJX-8FJX	2
12	35384	VALVE-FLOW DIVIDER W/PO CHECK	1
13	50714	CLAMP .50 ZP	10
14	1011601	BOLT-HEX: .38 X 1.25 NC GR5 ZP	4
15	65378	TIE-NLYON CABLE 50# X 11.75"	20



DEPTH CONTROL ASSEMBLY - 60'

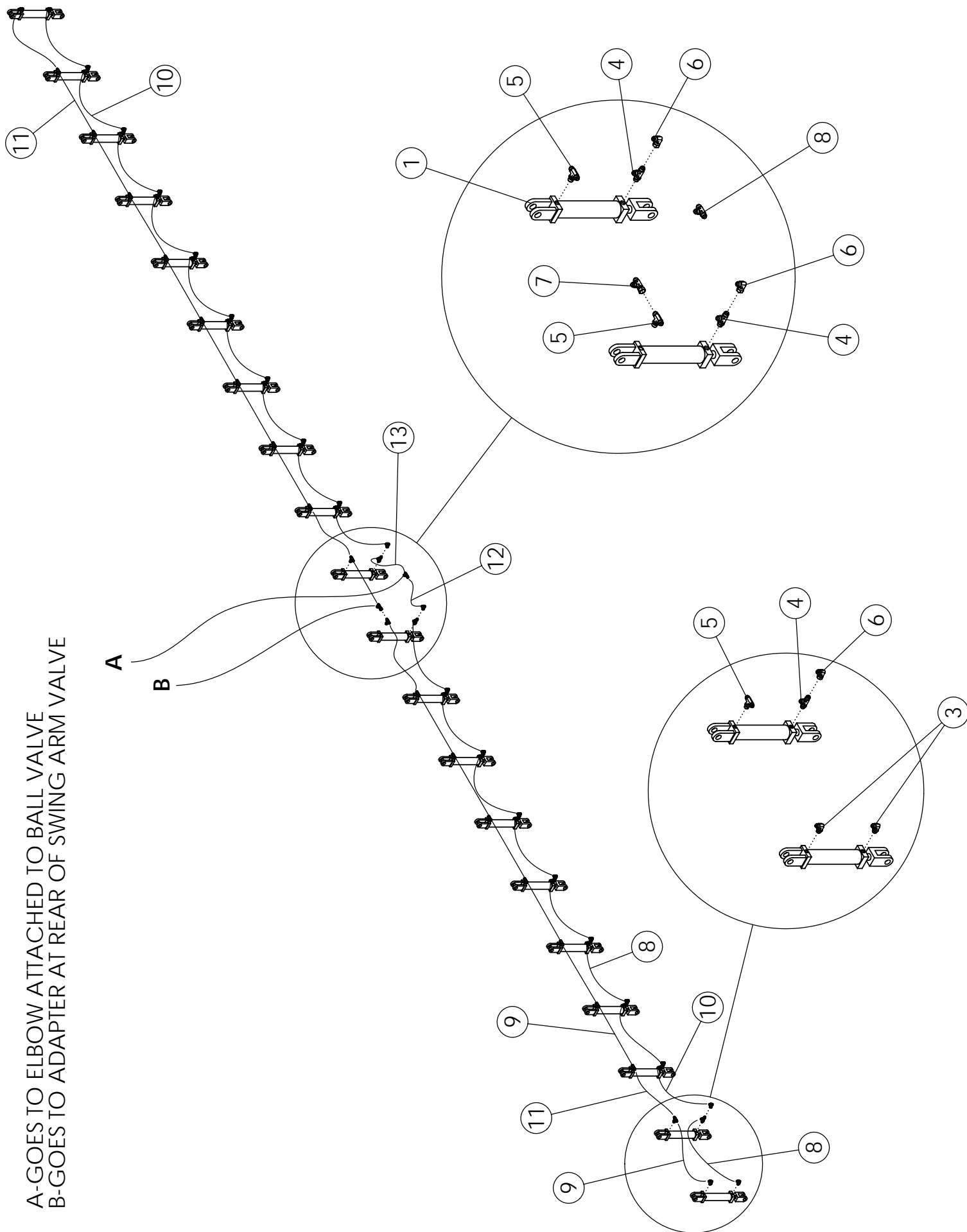
ITEM	PART NO.	DESCRIPTION	QTY
1	35380	CYLINDER 40TP10-137ASAE	2
	35971	SEAL KIT FOR 35380	
2	35381	CYLINDER 42TP10-150ASAE	2
	35231	SEAL KIT FOR 35381	
3	58560	FTG-ELBOW: 8MB-8MJ-90	14
4	53631	PIONEER TIP 8010-4	2
5	56226	FTG-ADAPTER: 8MB-8MJ	4
6	1011586	WASHER-LOCK: .38 ZP	14
7	1011600	BOLT-HEX: .38 X 1.00 NC GR5 ZP	10
8	35764	HOSE: .50 X 306 8FJX-8MB	2
9	57011	HOSE: .50 X 048 8FJX-8FJX	2
10	35679	HOSE: .50 X 152 8FJX-8FJX	2
11	35681	HOSE: .50 X 342 8FJX-8FJX	2
12	35384	VALVE-FLOW DIVIDER W/PO CHECK	1
13	50714	CLAMP .50 ZP	10
14	1011601	BOLT-HEX: .38 X 1.25 NC GR5 ZP	4
15	65378	TIE-NLYON CABLE 50# X 11.75"	20
16	35382	CYLINDER 45TP10-150ASAE	2
	35231	SEAL KIT FOR 35382	
17	58377	HOSE: .50 X 172 8FJX-8FJX	2



DOWN PRESSURE HYDRAULICS 50'

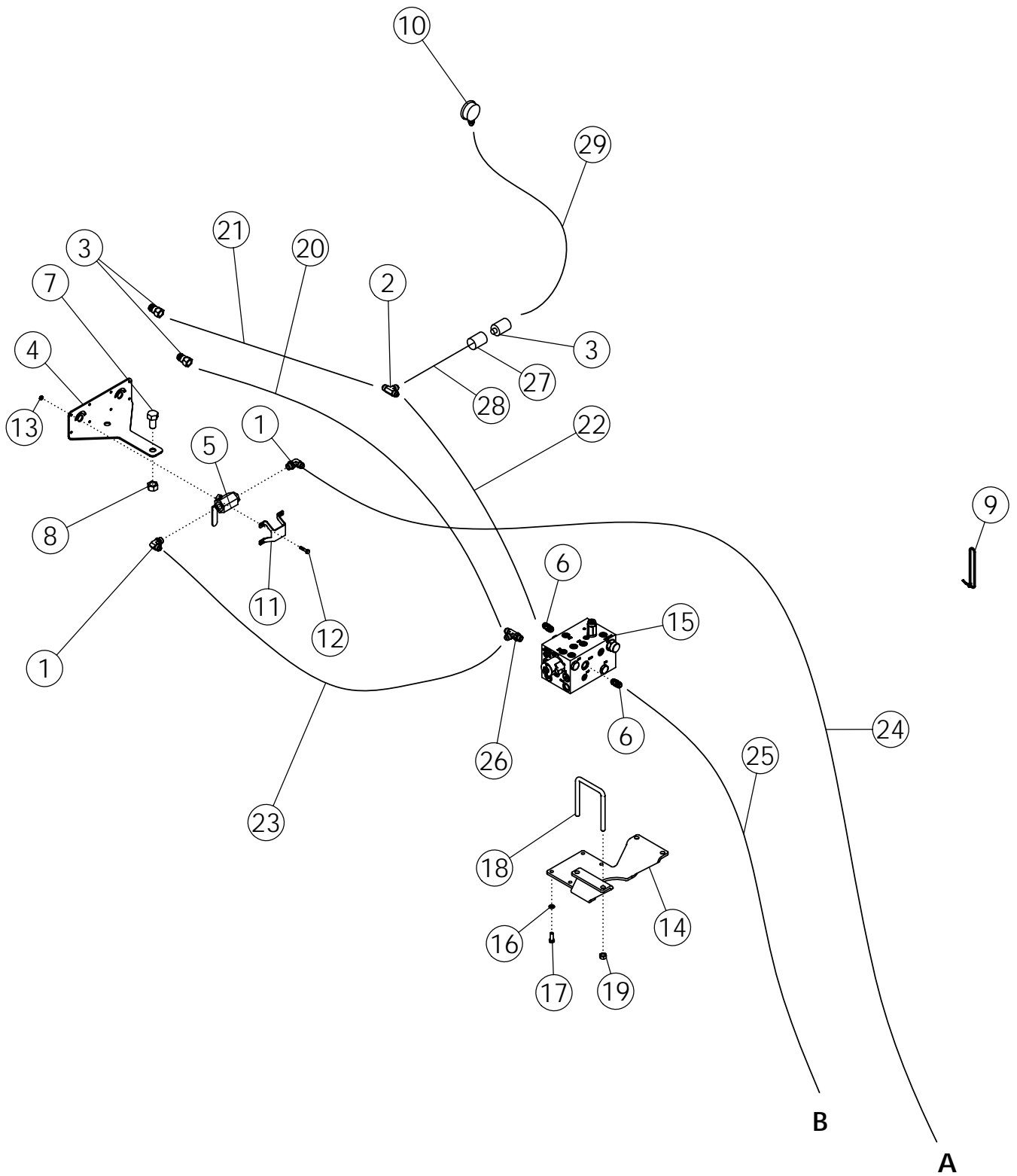
ITEM	PART NO.	DESCRIPTION	QTY
1	58560	FTG-ELBOW: 8MB-8MJ-90	3
2	57667	FTG-TEE: 8MJ-8MJ-8MJ	1
3	66199	PIONEER TIP 4050-15	3
4	35685	MOUNT-BALL VALVE	1
5	35554	VALVE-BALL 1/2" SAE	1
6	56226	FTG-ADAPTER: 8MB-8MJ	3
7	58367	BOLT-HEX: .75 X 1.50 NC GR5 ZP	1
8	1017000	NUT-TOPLOCK: .75 NC GR5 ZP	1
9	65378	TIE, CABLE	16
10	62518	GAUGE-PRESSURE: 1/4" MP 3000PSI	1
11	35686	CLAMP-BALL VALVE	1
12	1013940	BOLT-HEX: .25 X 1.25 NC GR5	1
13	1030946	NUT-TOPLOCK: .25 NC GR5 ZP	1
14	35771	MOUNT-SWINGARM VALVE	1
15	35385	VALVE-SWINGARM CONTROL (1350)	1
16	1011586	WASHER-LOCK: .38 ZP	4
17	1011600	BOLT-HEX: .38 X 1.00 NC GR5 ZP	4
18	33856	U-BOLT: .50 X 5.50 X 4 X 5.50	2
19	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	4
20	35764	HOSE: .50 X 306 8FJX-8MB	1
21	66609	HOSE: .50 X 096 8FJX-8FJX	1
22	35765	HOSE: .50 X 210 8FJX-8FJX	1
23	35769	HOSE: .50 X 046 8FJX-8FJX90	1
24	35770	HOSE: .50 X 052 8FJX-8FJX	1
25	64269	HOSE: .50 X 029 8FJX-8FJX90	1
26	66106	COUPLER-FEMALE #4050-15	1
28	66611	HOSE: .38 X 096 8FJX-8MB	1
29	66612	HOSE: .38 X 240 8MB-4FP	1

A-GOES TO ELBOW ATTACHED TO BALL VALVE
 B-GOES TO ADAPTER AT REAR OF SWING ARM VALVE



DOWN PRESSURE HYDRAULICS 50'

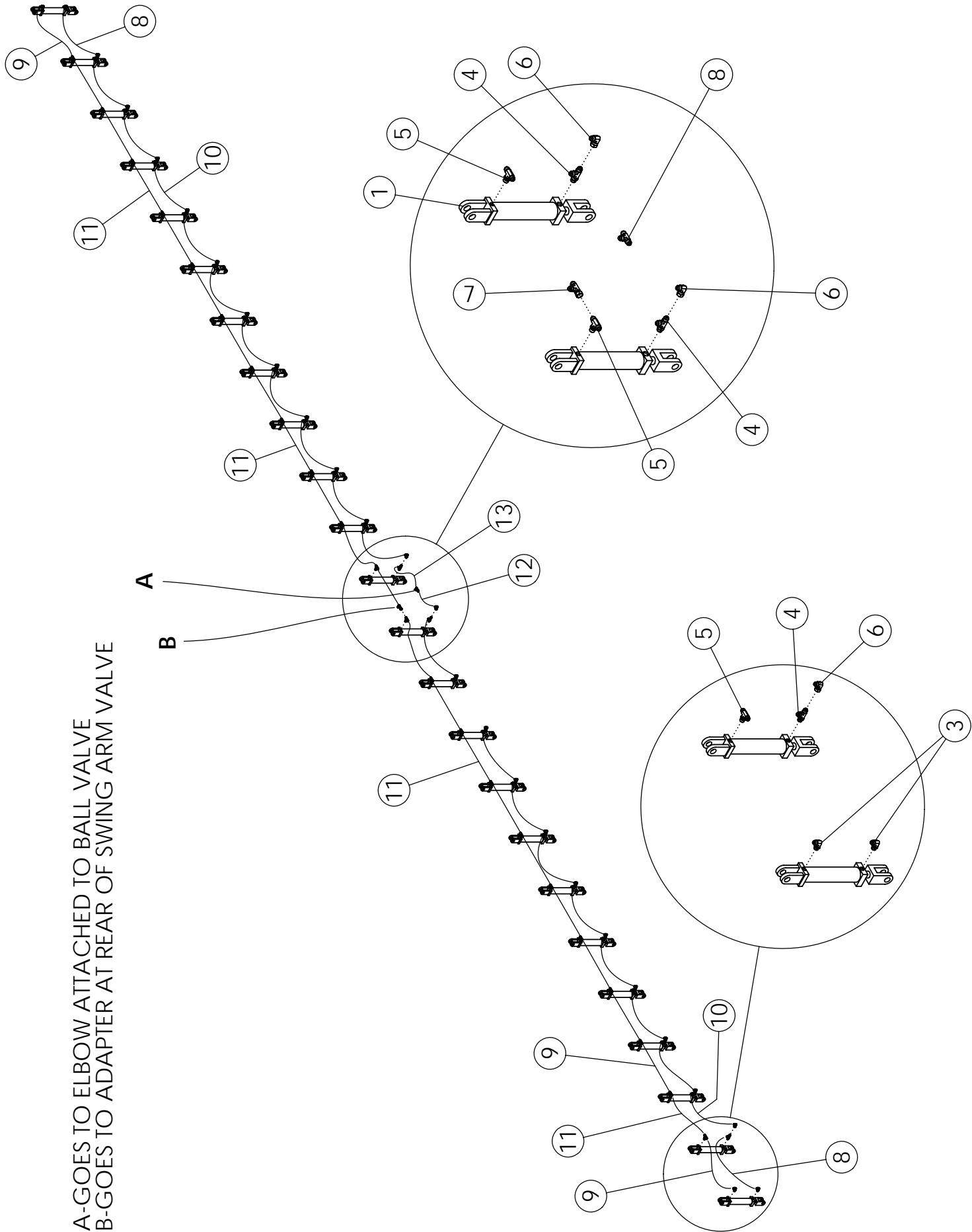
ITEM	PART NO.	DESCRIPTION	QTY
1	34384	CYLINDER- TOOLBAR	20
2	58560	FTG-ELBOW: 8MB-8MJ-90	4
3	63016	FTG-TEE: 8MB-8MJ-8MJ	18
4	66602	FTG-TEE: 8MJ-8MJ-8MB	18
5	57668	FTG-ELBOW: 8MJ-8FJX-90	18
6	63015	FTG-TEE: 8MJ-8FJX-8MJ	1
7	57667	FTG-TEE: 8MJ-8MJ-8MJ	1
8	66606	HOSE: .50 X 46 8FJX-8FJX	16
9	66607	HOSE: .50 X 29 8FJX-8FJX	17
10	1015802	HOSE: .50 X 50 8FJX-8FJX	2
11	36012	HOSE: .50 X 32 8FJX-8FJX45	2
12	66608	HOSE: .50 X 34 8FJX-8FJX	1
13	57000	HOSE: .50 X 12 8FJX-8FJX	1



DOWN PRESSURE HYDRAULICS 60'

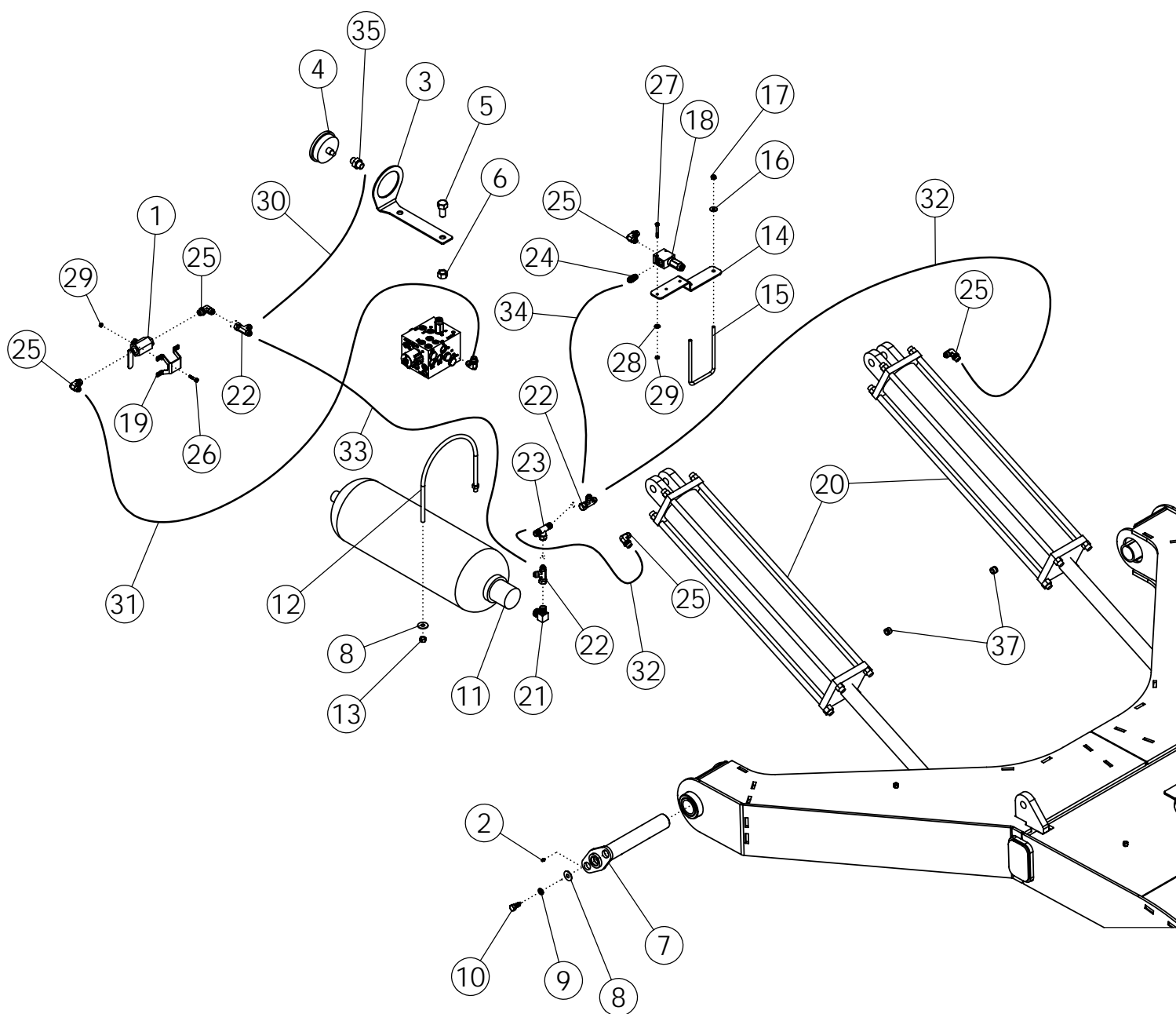
ITEM	PART NO.	DESCRIPTION	QTY
1	58560	FTG-ELBOW: 8MB-8MJ-90	2
2	57667	FTG-TEE: 8MJ-8MJ-8MJ	1
3	66199	PIONEER TIP 4050-15	3
4	35685	MOUNT-BALL VALVE	1
5	35554	VALVE-BALL 1/2" SAE	1
6	56226	FTG-ADAPTER: 8MB-8MJ	2
7	58367	BOLT-HEX: .75 X 1.50 NC GR5 ZP	1
8	1017000	NUT-TOPLOCK: .75 NC GR5 ZP	1
9	65378	TIE, CABLE	16
10	62518	GAUGE-PRESSURE: 1/4" MP 3000PSI	1
11	35686	CLAMP-BALL VALVE	1
12	1013940	BOLT-HEX: .25 X 1.25 NC GR5	1
13	1030946	NUT-TOPLOCK: .25 NC GR5 ZP	1
14	35771	MOUNT-SWINGARM VALVE	1
15	35385	VALVE-SWINGARM CONTROL (1350)	1
16	1011586	WASHER-LOCK: .38 ZP	4
17	1011600	BOLT-HEX: .38 X 1.00 NC GR5 ZP	4
18	33856	U-BOLT: .50 X 5.50 X 4 X 5.50	2
19	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	4
20	35764	HOSE: .50 X 306 8FJX-8MB	1
21	66609	HOSE: .50 X 096 8FJX-8FJX	1
22	35765	HOSE: .50 X 210 8FJX-8FJX	1
23	63901	HOSE: .50 X 038 8FJX-8FJX	1
24	35770	HOSE: .50 X 052 8FJX-8FJX	1
25	64269	HOSE: .50 X 029 8FJX-8FJX90	1
26	63016	FTG-TEE: 8MB-8MJ-8MJ	1
27	66106	COUPLER-FEMALE #4050-15	1
28	66611	HOSE: .38 X 096 8FJX-8MB	1
29	66612	HOSE: .38 X 240 8MB-4FP	1

A-GOES TO ELBOW ATTACHED TO BALL VALVE
 B-GOES TO ADAPTER AT REAR OF SWING ARM VALVE



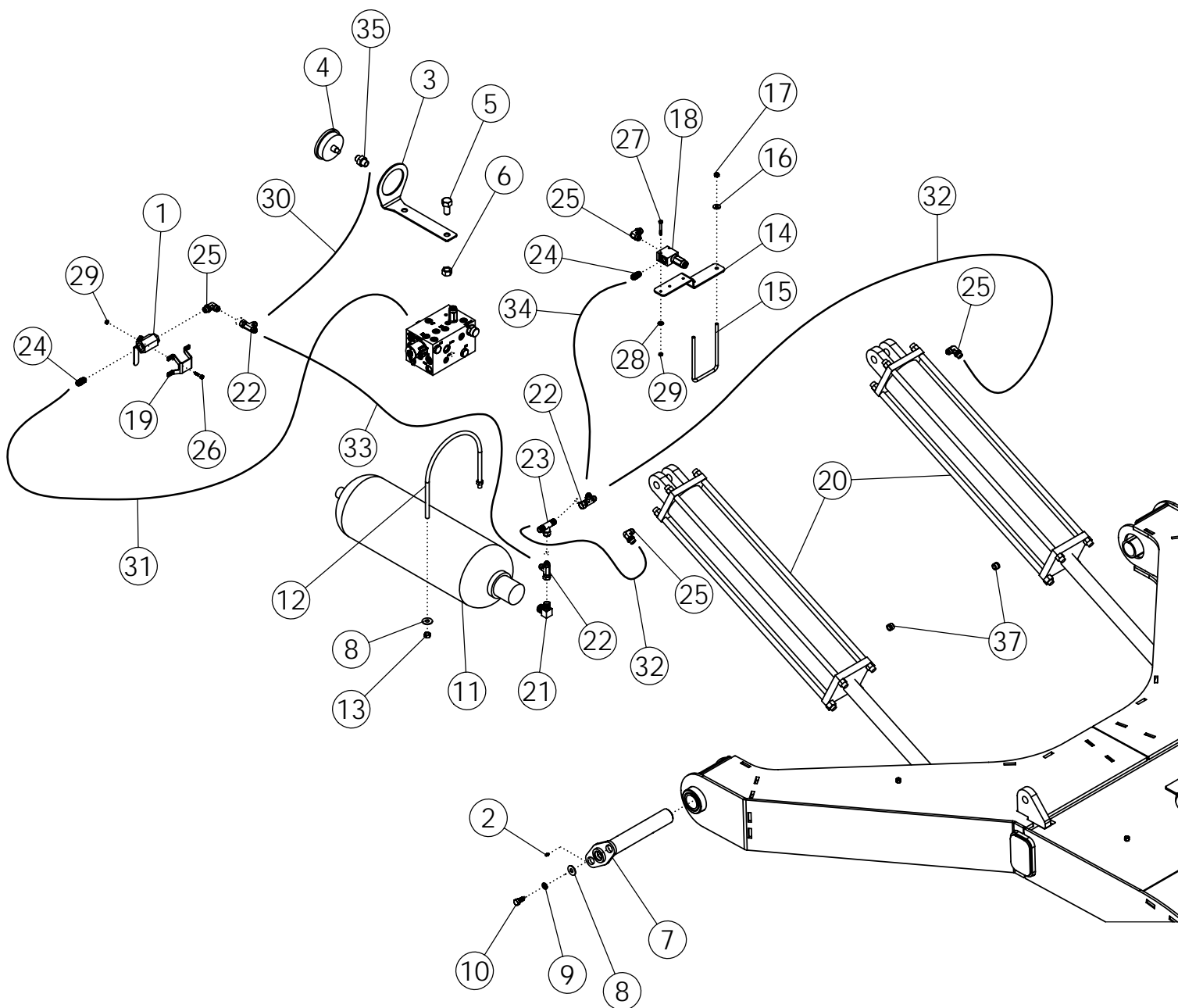
DOWN PRESSURE HYDRAULICS 60'

ITEM	PART NO.	DESCRIPTION	QTY
1	34384	CYLINDER- TOOLBAR	24
2	58560	FTG-ELBOW: 8MB-8MJ-90	4
3	63016	FTG-TEE: 8MB-8MJ-8MJ	23
4	66602	FTG-TEE: 8MJ-8MJ-8MB	22
5	57668	FTG-ELBOW: 8MJ-8FJX-90	22
6	63015	FTG-TEE: 8MJ-8FJX-8MJ	1
7	57667	FTG-TEE: 8MJ-8MJ-8MJ	1
8	66606	HOSE: .50 X 46 8FJX-8FJX	20
9	66607	HOSE: .50 X 29 8FJX-8FJX	19
10	1015802	HOSE: .50 X 50 8FJX-8FJX	2
11	36012	HOSE: .50 X 32 8FJX-8FJX45	4
12	66608	HOSE: .50 X 34 8FJX-8FJX	1
13	57000	HOSE: .50 X 12 8FJX-8FJX	1



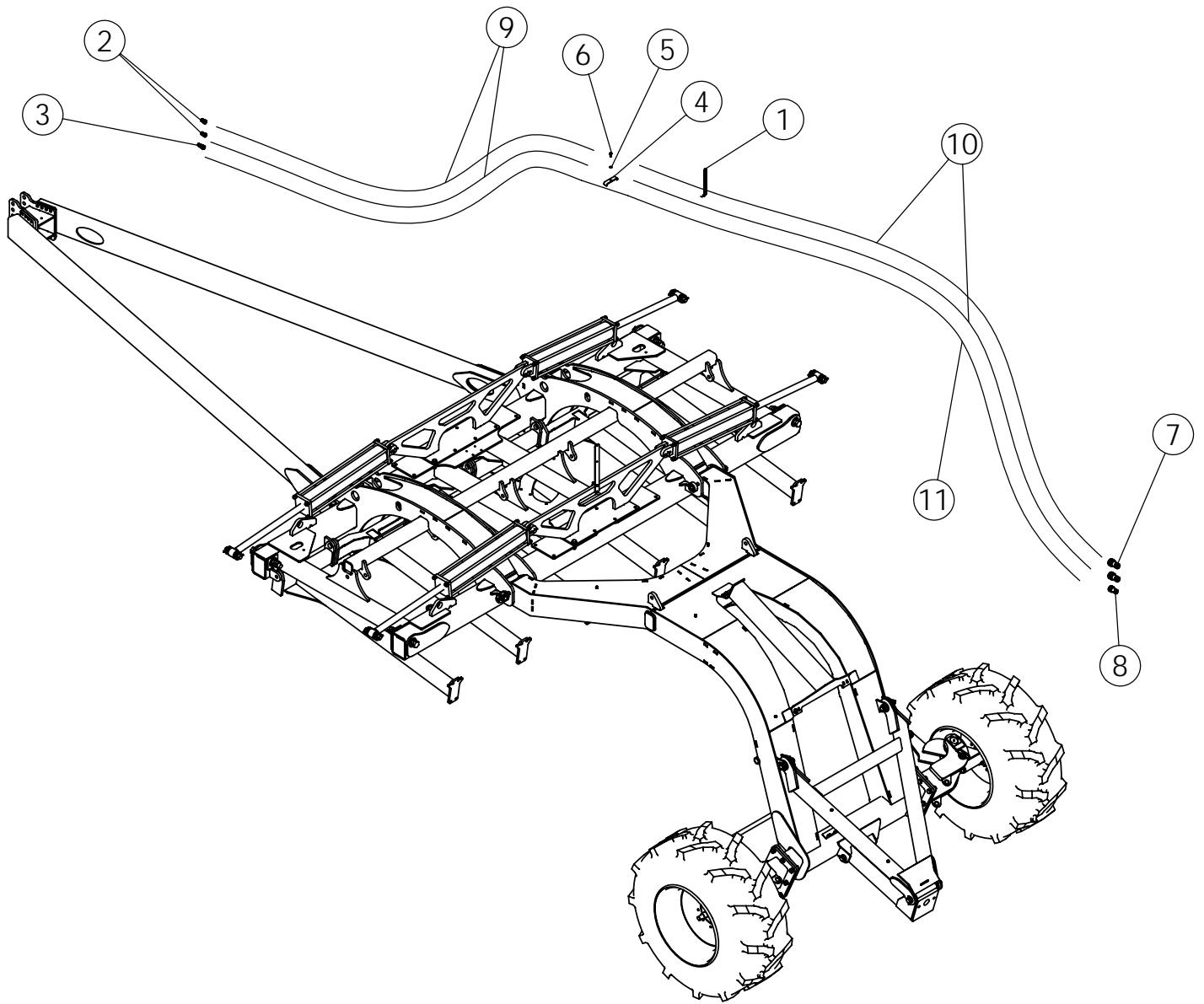
LIFT ASSIST HYDRAULICS - 50'

ITEM	PART NO.	DESCRIPTION	QTY
1	35554	VALVE-BALL #8 SAE	1
2	1011748	ZERK - GREASE	2
3	35687	MOUNT-PRESSURE GAUGE	1
4	35553	GAUGE-PRESSURE 4" PNL MNT	1
5	58367	BOLT-HEX: .75 X 1.50 NC GR5 ZP	1
6	1017000	NUT-TOPLOCK: .75 NC GR5 ZP	1
7	35210	WLDMT-PIN W/FLAG 12.5 X 2 ZP	2
8	1014443	WASHER-FLAT: .50 ZP	6
9	1011581	WASHER-LOCK: .50 ZP	2
10	1011096	BOLT-HEX: .50 X 1.00 NC GR5 ZP	2
11	35551	ACCUMULATOR-HYD 5 GAL	1
12	35781	U-BOLT: RND .50 X 9.40 X 10.50 ZP	2
13	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	4
14	67016	PLATE-VALVE MOUNT	1
15	66005	U-BOLT: .375 X 7.13 X 4 X 7.13	2
16	1011828	WASHER-FLAT .38 ZP	4
17	1016999	NUT-TOPLOCK: .38 NC GR5 ZP	4
18	35672	VALVE-RELIEF 3500 PSI	1
19	35686	CLAMP-BALL VALVE	1
20	35497	CYLINDER: 4 X 16" STROKE 1.5"	2
	36038	SEAL KIT FOR CYLINDER 35497	
21	35777	FTG-ELBOW: 16MB-8MJ-90	1
22	63015	FTG-TEE: 8MJ-8FJX-8MJ	3
23	66603	FTG-TEE: 8MJ-8MJ-8FJX	1
24	56226	FTG-ADAPTER: 8MB-8MJ	1
25	58560	FTG-ELBOW: 8MB-8MJ-90	6
26	1013940	BOLT-HEX: .25 X 1.25 NC GR5 ZP	4
27	1016211	BOLT-HEX: .25 X 2.00 NC GR5	2
28	1020416	WASHER-FLAT: .25 ZP	2
29	1030946	NUT-TOPLOCK: .25 NC GR5 ZP	6
30	35768	HOSE: .38 X 038 8FJX-6FJX 90	1
31	35769	HOSE: .50 X 046 8FJX-8FJX 90	1
32	66606	HOSE: .50 X 046 8FJX-8FJX	2
33	63675	HOSE: .50 X 055 8FJX-8FJX	1
34	66607	HOSE: .50 X 029 8FJX-8FJX	1
35	35557	FTG-ADAPTER: 4FP-6MJ	1
36	35556	DECAL-4" GAUGE 1200-1500 PSI (NOT SHOWN)	1
37	35552	FTG-PLUG: 8MB BREATHER 10 MICRON	2



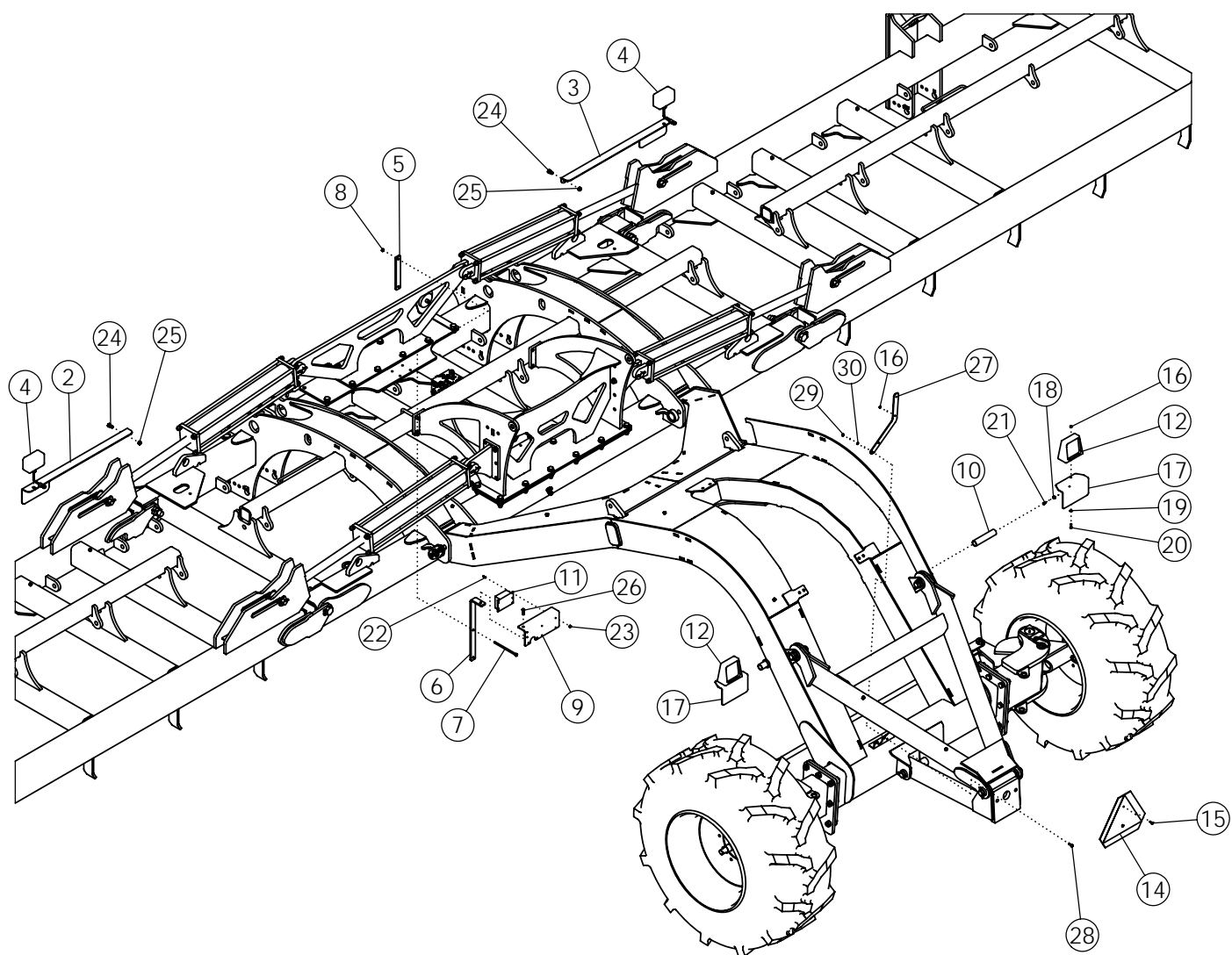
LIFT ASSIST HYDRAULICS - 60'

ITEM	PART NO.	DESCRIPTION	QTY
1	35554	VALVE-BALL #8 SAE	1
2	1011748	ZERK - GREASE	2
3	35687	MOUNT-PRESSURE GAUGE	1
4	35553	GAUGE-PRESSURE 4" PNL MNT	1
5	58367	BOLT-HEX: .75 X 1.50 NC GR5 ZP	1
6	1017000	NUT-TOPLOCK: .75 NC GR5 ZP	1
7	35210	WLDMT-PIN W/FLAG 12.5 X 2 ZP	2
8	1014443	WASHER-FLAT: .50 ZP	6
9	1011581	WASHER-LOCK: .50 ZP	2
10	1011096	BOLT-HEX: .50 X 1.00 NC GR5 ZP	2
11	35551	ACCUMULATOR-HYD 5 GAL	1
12	35781	U-BOLT: RND .50 X 9.40 X 10.50 ZP	2
13	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	4
14	67016	PLATE-VALVE MOUNT	1
15	66005	U-BOLT: .375 X 7.13 X 4 X 7.13	2
16	1011828	WASHER-FLAT .38 ZP	4
17	1016999	NUT-TOPLOCK: .38 NC GR5 ZP	4
18	35672	VALVE-RELIEF 3500 PSI	1
19	35686	CLAMP-BALL VALVE	1
20	35497	CYLINDER: 4 X 16" STROKE 1.5"	2
	36038	SEAL KIT FOR CYLINDER 35497	
21	35777	FTG-ELBOW: 16MB-8MJ-90	1
22	63015	FTG-TEE: 8MJ-8FJX-8MJ	3
23	66603	FTG-TEE: 8MJ-8MJ-8FJX	1
24	56226	FTG-ADAPTER: 8MB-8MJ	2
25	58560	FTG-ELBOW: 8MB-8MJ-90	5
26	1013940	BOLT-HEX: .25 X 1.25 NC GR5 ZP	4
27	1016211	BOLT-HEX: .25 X 2.00 NC GR5	2
28	1020416	WASHER-FLAT: .25 ZP	2
29	1030946	NUT-TOPLOCK: .25 NC GR5 ZP	6
30	35768	HOSE: .38 X 038 8FJX-6FJX 90	1
31	63901	HOSE: .50 X 038 8FJX-8FJX	1
32	66606	HOSE: .50 X 046 8FJX-8FJX	2
33	63675	HOSE: .50 X 055 8FJX-8FJX	1
34	66607	HOSE: .50 X 029 8FJX-8FJX	1
35	35557	FTG-ADAPTER: 4FP-6MJ	1
36	35556	DECAL-4" GAUGE 1200-1500 PSI (NOT SHOWN)	1
37	35552	FTG-PLUG: 8MB BREATHER 10 MICRON	2



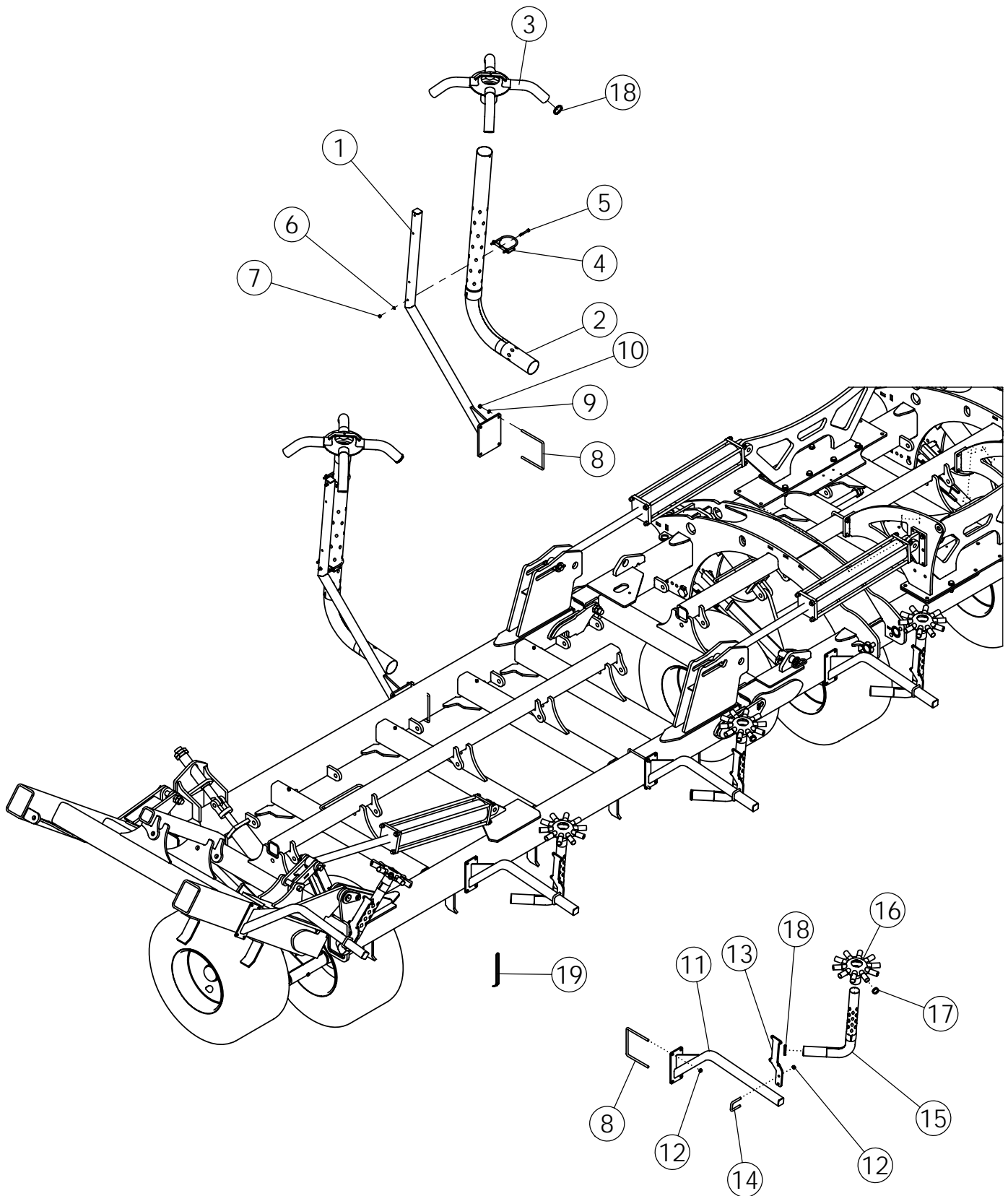
TANK TO TRACTOR HYDRAULICS

ITEM	PART NO.	DESCRIPTION	QTY
1	65388	TIE, CABLE	10
2	66199	PIONEER TIP 8010-15	2
3	69119	FTG-CASE DRAIN JD & CNH	1
4	65814	CLAMP-HOSE: 4.375 ZP	5
5	1011586	WASHER-LOCK: .38 ZP	5
6	1011600	BOLT-HEX: .38 X 1.00 NC GR5 ZP	5
7	65318	QUICK COUPLING-FEMALE	2
8	65319	QUICK COUPLING-FEMALE	1
9	66620	HOSE: .75 X 290 8MB-12MJ	2
10	66621	HOSE: .75 X 210 12FJX-12MP	2
11	66622	HOSE: .50 X 500 8MB-8FP	1
12	55763	FTG-ADAPTER: 8MP-8MP	1



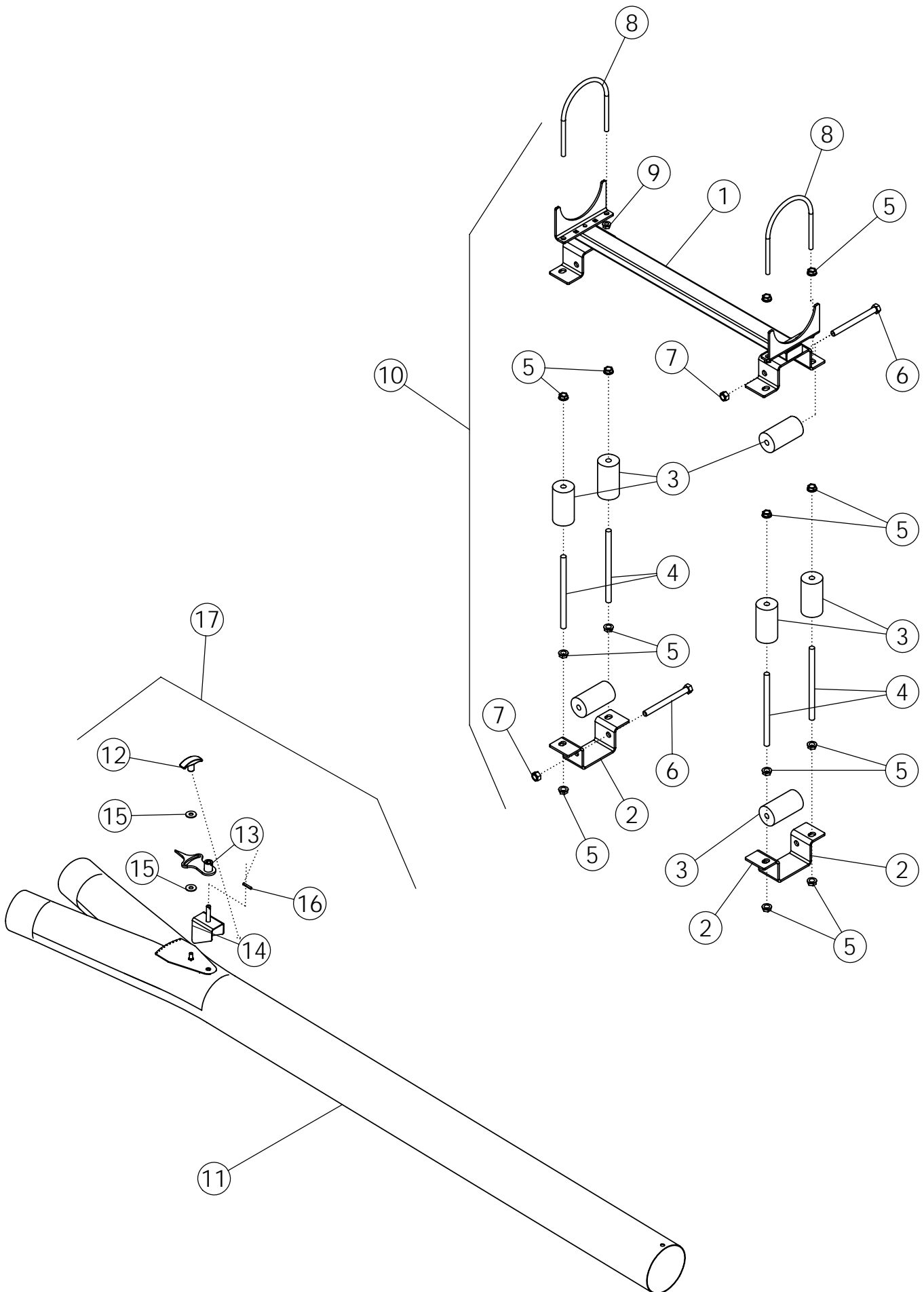
SAFETY LIGHTS - LIFT ASSIST

ITEM	PART NO.	DESCRIPTION	QTY
1	65340	HARNESS-SAFETY LIGHT (NOT SHOWN)	1
2	65832	BRACKET-LIGHT RH	1
3	65831	BRACKET-LIGHT LH	1
4	65334	ASSY - AMBER FLASHING LAMP	2
5	67025	PLATE-BACKING	1
6	67026	PLATE-BRACKET MOUNT	1
7	67027	BOLT-HEX: .38 X 7.50 NC GR5 ZP	2
8	1016999	NUT-TOPLOCK: .38 NC GR5 ZP	3
9	67024	PLATE-CON & MOD MOUNT	1
10	35836	TUBE-LIGHT MOUNT STRAIGHT	2
11	65341	MODULE-INTERFACE	1
12	65953	LAMP-RED TAIL	2
13	1030700	NUT-TOPLOCK: .31 NC GR5 ZP	2
14	65329	SIGN-SMV ASAE	1
15	1011595	BOLT-HEX: .25 X .75 NC GR5 ZP	2
16	1030946	NUT-TOPLOCK: .25 NC GR5 ZP	4
17	35827	WLDMT-LIGHT/REFLECTOR BRACKET	2
18	1013519	NUT-JAM: .38 NC GR2 ZP	2
19	"0100979	WASHER-FLAT: SAE .25 ZP	2
20	1013423	BOLT-HEX: .25 X 1.00 NC GR5 ZP	2
21	1032511	SCREW-SET: SQ HD .38 X .75 ZP	2
22	100615	BOLT-HEX: .19 X .75 NC GR5 ZP	4
23	1026591	NUT-K-LOCK: .19 NC GR2 ZP	4
24	1011096	BOLT-HEX: .50 X 1.00 NC GR5 ZP	4
25	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	4
26	1011601	BOLT-HEX: .38 X 1.25 NC GR5 ZP	1
27	35854	MOUNT-SMV	1
28	1011598	BOLT-HEX: .31 X 1.00 NC GR5 ZP	2
29	1011575	NUT-HEX: .31 NC GR2 ZP	2
30	1029115	WASHER-LOCK: .31 ZP	2
31	35823	HARNESS-EXTENSION 12FT 3 WIRE (NOT SHOWN)	2
32	34567	HARNESS-EXTENSION LIGHT 20FT (NOT SHOWN)	1
33	66323	CLIP WIRE HARNESS (NOT SHOWN)	4
34	65354	HARNESS-EXTENSION LIGHT (NOT SHOWN)	2



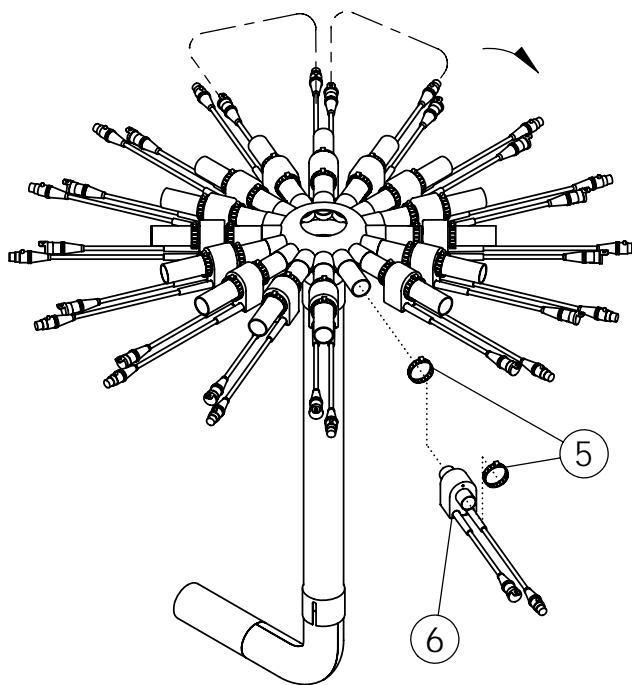
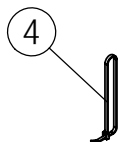
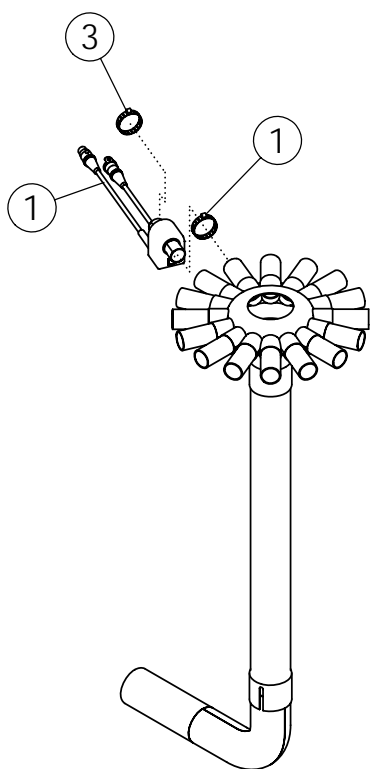
SINGLE MANIFOLD 50' AND 60'

ITEM	PART NO.	DESCRIPTION	QTY	
			50'	60'
1	35675	WLDMT-PRI TUBE MOUNT TDD	2	2
2	66150	PRIMARYI TUBE	2	2
3	33923-2	WLDMT-MANF PRI 4X4.00X2.50	2	2
4	66157	ASSY-4" VERTICAL TUBE CLAMP	6	6
5	1013239	BOLT-HEX: .38 X 3.00 NC GR5 ZP	2	2
6	1011586	WASHER-LOCK: .38 ZP	2	2
7	1011576	NUT-HEX: .38 NC GR2 ZP	2	2
8	35780	U-BOLT: .500 X 7.50 X 8 X 7.50 ZP	4	4
9	1011581	WASHER-LOCK: .50 ZP	8	8
10	1011577	NUT-HEX: .50 NC ZP	8	8
11	35772	WLDMT-MANIFOLD MOUNT	8	8
12	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	16	16
13	33473	MOUNT, MANIFOLD	8	8
14	65658	U-BOLT: .50 X 3 X 2.06 X 3	8	8
15	67524	WLDMT-ELBOW 2.50" SHORT PC	8	8
16	66760	WLDMT-MANF SEC 10 X 2.50 X 1.25	8	0
	66836	WLDMT-MANF SEC 12 X 2.50 X 1.25	0	8
17	1026358	CLAMP-HOSE: #16 .081-1.50	160	192
18	65917	CLAMP-HOSE: #40 2.06-3.00	16	16
19	1013122	TIE-NYLON CABLE	30	30
20	33828	HOSE-FLEX SS 4.00 X 17FT (NOT SHOWN)	2	2
21	34139	CLAMP-TORCTITE SS 4.00 (NOT SHOWN)	4	4
22	34483	HOSE-KNFLEX 112 2.50 BULK (NOT SHOWN)	200'	200'
23	33531	CLAMP-MUFFLER 2.50 ZP (NOT SHOWN)	24	24
24	65880	HOSE-KNFLEX 112 1.250 BULK (NOT SHOWN)	600'	750'



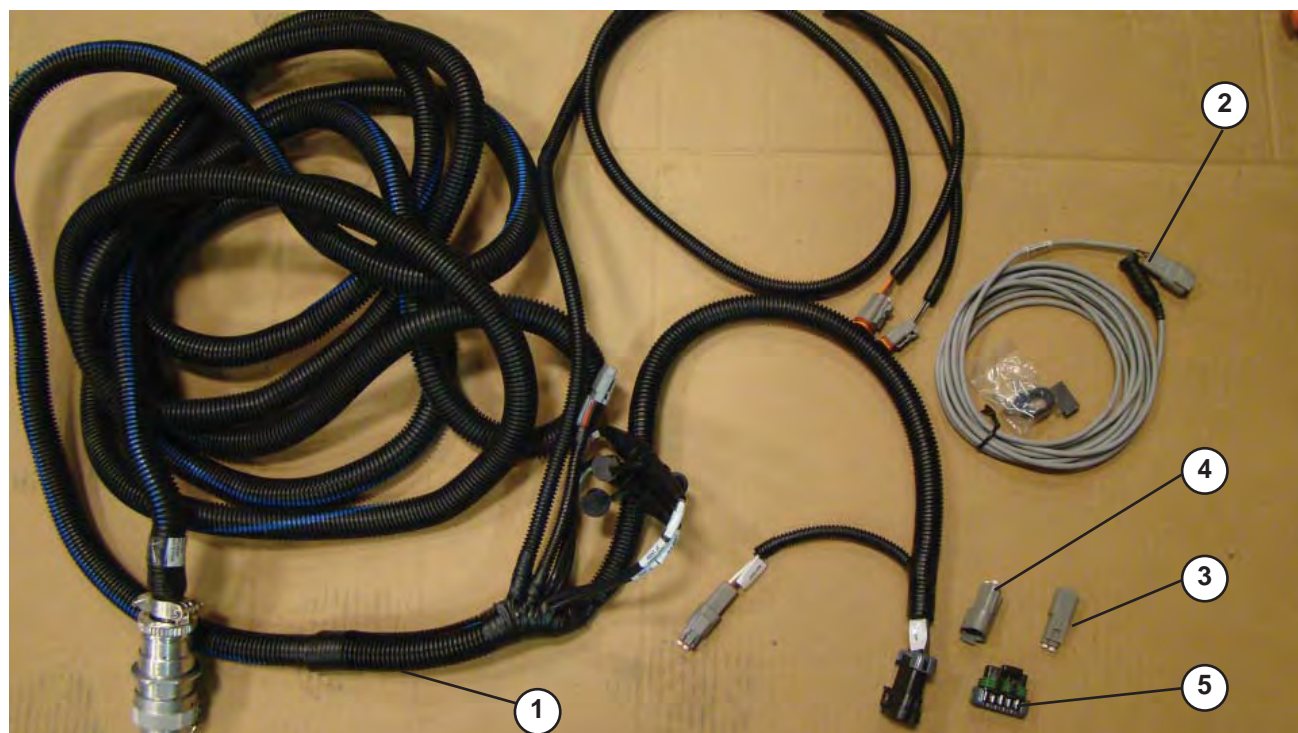
MANIFOLD COMPONENTS

ITEM	PART NO.	DESCRIPTION	QTY
1	66140	WLDMT-ROLLING MNT TOP PC	1
2	66141	BRACKET-ROLLING MNT BOTTOM PC	2
3	66142	ROLLER-HORIZONTAL & VERTICAL	8
4	66468	ROD-THREADED .500 X 8.00 ZP	4
5	1032506	NUT-FLANGE: .50 NC GR5 ZP	16
6	1016660	BOLT-HEX: .50 x 5.50 NC GR5 ZP	4
7	1027461	NUT-TOPLOCK: .50 NC GR5 ZP	4
8	1033298	U-BOLT: RND .38 X 5.00 X 6.63 ZP	2
9	65720	NUT-FLANGE: .38 NC GR2 ZP	4
10	33950	ASSY-ROLLING MNT GEN (FLOW DIVIDER)	1
11	66146	WLDMT-FLO DIV 5.00 X 4.00	1
12	65983	GRIP-ADJUSTER	1
13	66114	WLDMT-MANIFOLD POINTER	1
14	66166	WLDMT-MANIFOLD DEFLECTOR ZP	1
15	1011828	WASHER-FLAT .38 ZP	2
16	1025601	PIN-ROLL	1
17	66145	ASSY-FLOW DIVIDER 5 X 4 LONG	1
18	33829	HOSE-KANAFLEX 112 5.00 X 12.5FT (NOT SHOWN)	1
	34845	HOSE-URE 5.00 X 12.5FT SERVICE PART LONG LIFE	



MANIFOLD BLOCKAGE OPTIONS

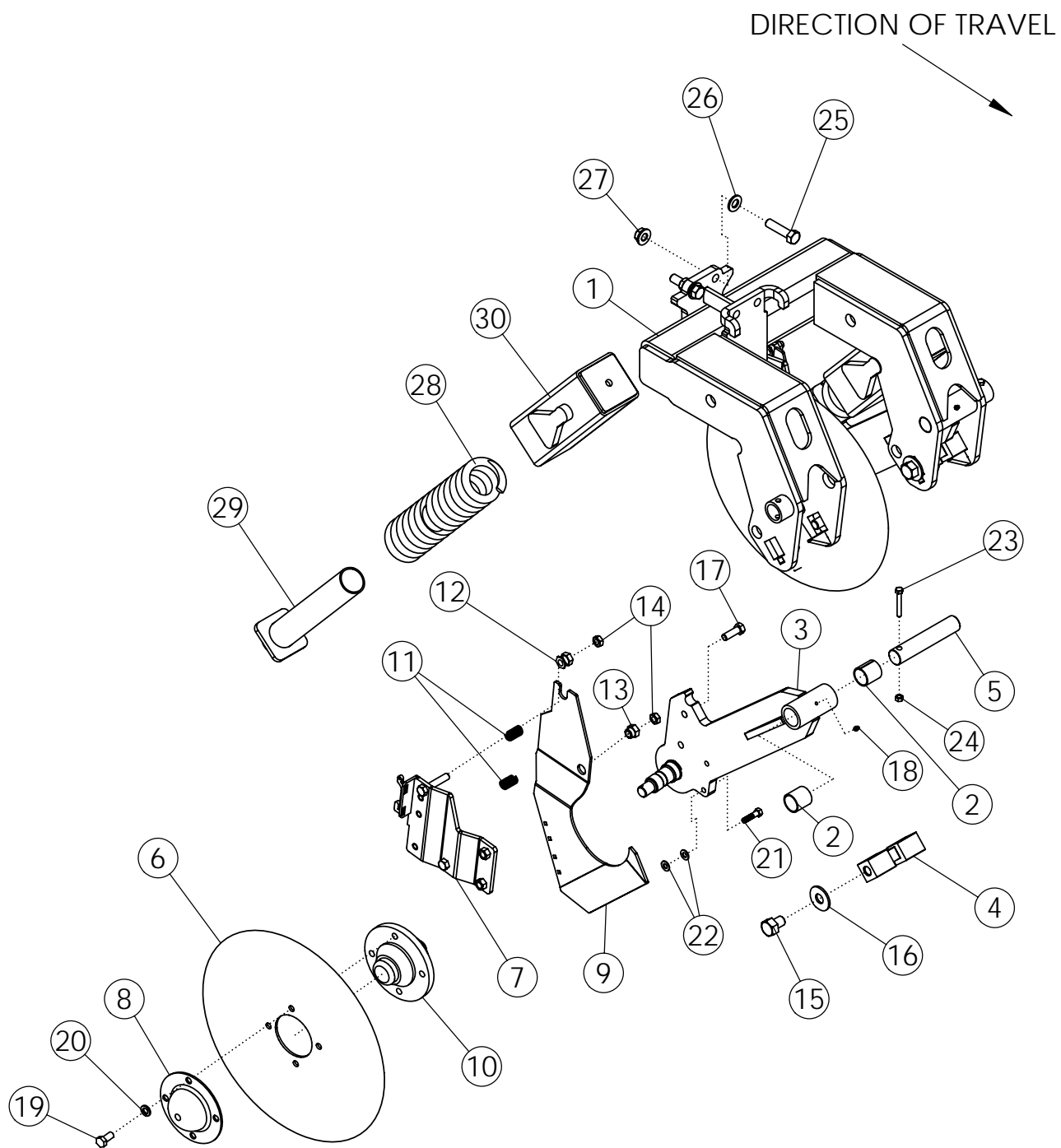
ITEM	PART NO.	DESCRIPTION	QTY
ZONE BLOCKAGE			
1	33689	SENSOR-POPULATION ART 1.25"	8
	33687	SENSOR-POPULATION ART 1.00"	
2	33718	CABLE-SENSOR LOOP 20 FT	9
3	1026358	CLAMP-HOSE: #16 0.81-1.50	16
4	65378	TIE-NYLON CABLE 50# X 11.75"	20
ALL-RUN BLOCKAGE			
5	1026538	CLAMP-HOSE: #16 0.81-1.50	AR
6	33689	SENSOR-POPULATION ART 1.25"	AR



ISO BLOCKAGE/WORK SWITCH HARNESS KIT

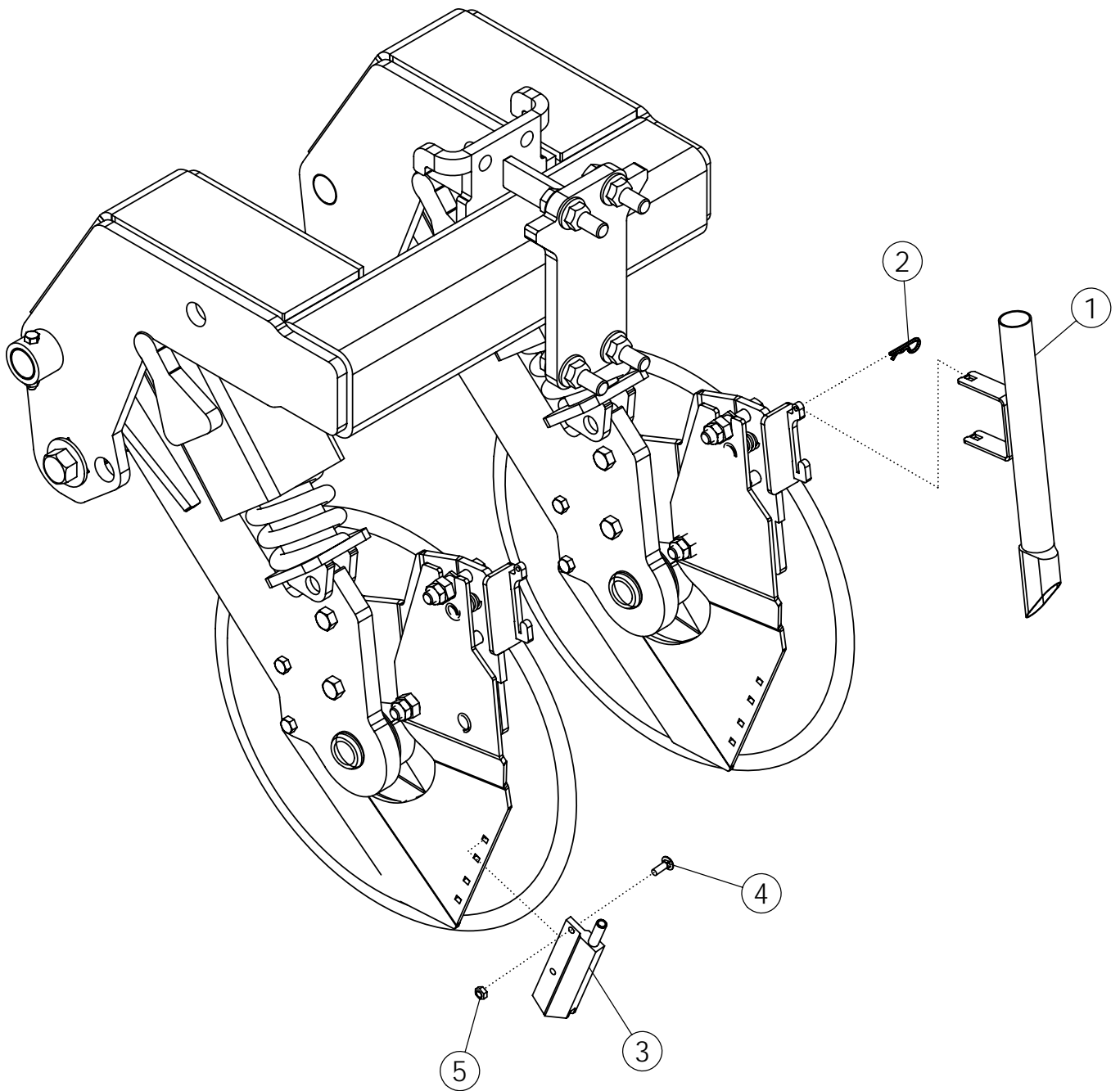
Ref.	Part No.	Description	Qty.
1	67089	HARNESS-TOOLBAR ISO`	1
2	66508	SENSOR-WORK SWITCH (ISO)	1
3	35717	PLUG-2PIN DEUTSCH FEMALE	1
4	35718	PLUG-3PIN DEUTSCH FEMALE	1
5	35719	PLUG-10 PIN METRIPACK MALE	1

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FERTILIZER BANDER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	34932	WLDMT-FERTILIZER BANDER SDD RH	1
	34933	WLDMT-FERTILIZER BANDER SDD LH (NOT SHOWN)	
2	60590	BUSHING-SPLIT 1.50 X 1.25 X 1.50	4
3	35637	WLDMT-STRUT MROW BANDER RH	2
	35638	WLDMT-STRUT MROW BANDER LH	
4	34976	BLOCK-ADJ. MROW BANDER	2
5	34963	PIN-STRUT MROW YZP	2
6	34354	DISC-TWIN DRILL	2
7	35794	WLDMT-FB SCRAPER BACKING RH	2
	35795	WLDMT-FB SCRAPER BACKING LH	
8	34565	DUST CAP PROTECTOR YZP	2
9	35813	SCRAPER-FB LH PC	2
	35812	SCRAPER-FB RH PC	
10	34574	ASSY-HUB GROUP (COULTER/SDD)	2
11	34516	SPRING, COMPRESSION	4
12	35628	NUT-GROOVED SCRAPER	2
13	35629	NUT-COLLAR SCRAPER	2
14	1011591	NUT-JAM: .50 NC ZP	4
15	34993	BOLT-HEX: .75 X 1.00 NC GR5 ZP	4
16	1030702	WASHER-FLAT .75 ZP	4
17	1011607	BOLT-HEX: .50 X 1.50 NC GR5 ZP	4
18	1011748	ZERK - GREASE	2
19	1015558	BOLT-HEX: .50 X 1.00 NF GR5 ZP	8
20	1011581	WASHER-LOCK: .50 ZP	8
21	1011602	BOLT-HEX: .38 X 1.50 NC GR5 ZP	4
22	1014608	WASHER-FLT: SAE .38 ZP	8
23	1016132	BOLT-HEX: .31 X 2.25 NC GR5 ZP	2
24	1030700	NUT-TOPLOCK: .31 NC GR5 ZP	2
25	34906	BOLT-HEX: .63 X 2.50 NC GR8 ZP	4
26	66498	WASHER-SAE: .63 GR8 ZP	4
27	34864	NUT-TOPLOCK FLANGE .63 NC GR8 ZP	4
28	34964	WLDMT-SPRING PIVOT	2
29	34957	SPRING-FERTILIZER BANDER	2
30	34958	WLDMT-SPRING TUBE	2



FERTILIZER BANDER OPTIONS

ITEM	PART NO.	DESCRIPTION	QTY
DRY FERTILIZER TUBE			
1	35613	WLDMT-MROW BANDER DRY TUBE	2
2	65380	PIN-HAIR: .109 X 1.63	2
NH3 BOOT			
3	35129	ASSY-ANHYDROUS INJECTOR NYLON	2
4	68602	BOLT-CRG: .25 X .75 NC GR5	4
5	1030946	NUT-TOPLOCK: .25 NC GR5 ZP	4