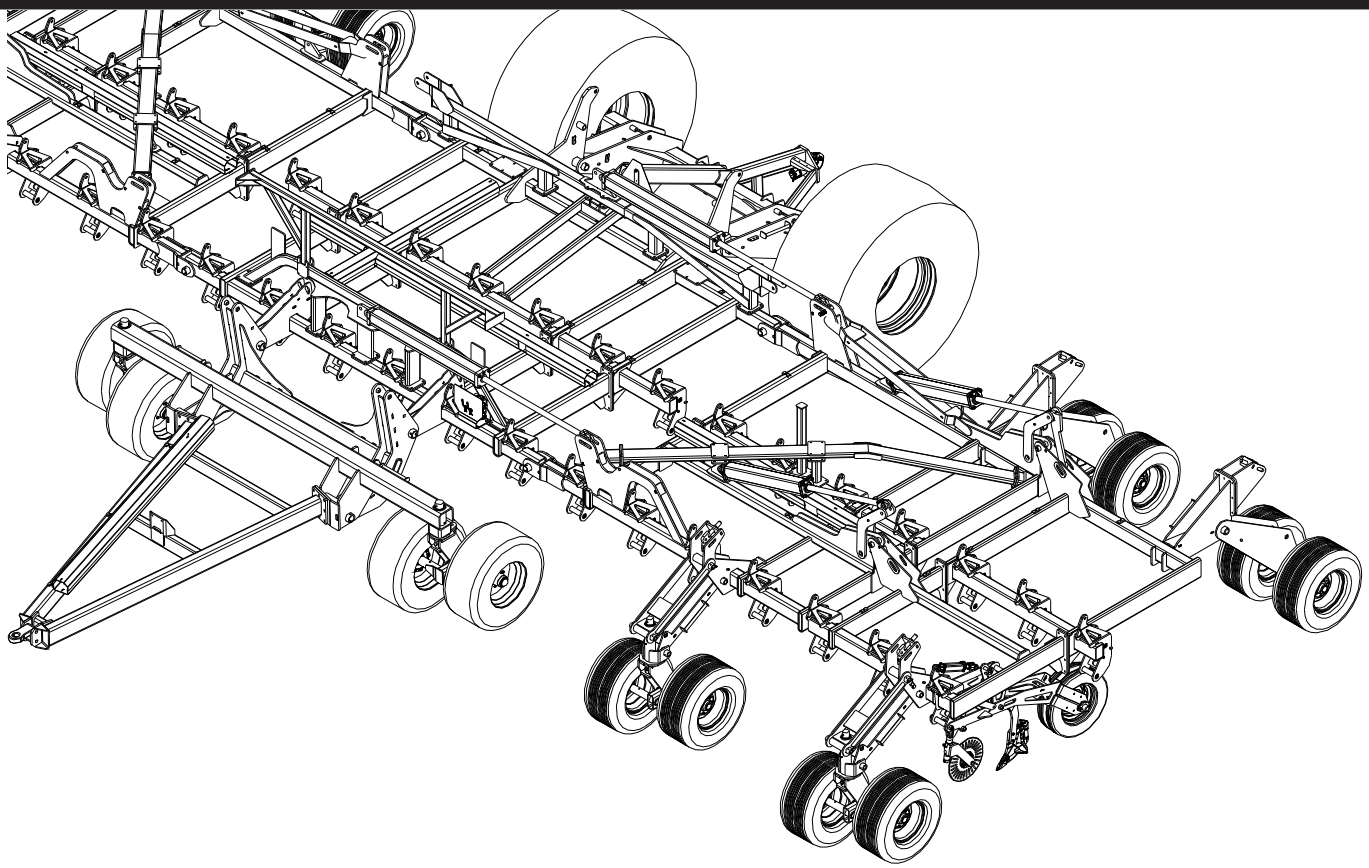
ASSEMBLY MANUAL



PRECISION SHANK DRILL

Printed in USA (74363) 6/19

AGCO-Amity JV LLC LIMITED WARRANTY TERMS AND CONDITIONS – UNITED STATES AND CANADA

EFFECTIVE FOR EQUIPMENT RETAILED AND DELIVERED AFTER JUNE 1, 2018

WHAT IS WARRANTED AGCO Amity JV warrants its new equipment to be free of defects in material and workmanship at time of delivery to the first retail purchaser, renter, or lessee. These terms apply to all Wishek, Wil-Rich, and Amity brands of new equipment originally marketed in the United States and Canada.

WARRANTY PERIOD

- 12 Months from the date of delivery to the first retail purchaser, renter or lessee.
- 483 Disk Chisel, Field Cultivator, and Disk Cultivators: 3 years on main frames, wing frames, and shank assemblies
- Precision Shank Drill: 3 years on main frame, wing frame, and rockshafts.

EXCEPTIONS FROM THIS WARRANTY

- **Freight Charges -** This warranty does not cover freight charges.
- **Improvements, Changes, or Discontinuance** AGCO Amity JV reserves the right to make changes and improvements in design or changes in specifications at any time to any product without incurring any obligations to owners of products previously sold.
- **Repairs and Maintenance Not Covered Under Warranty -** This warranty does not cover conditions resulting from misuse, natural calamities, use of non-AGCO-Amity JV parts, negligence, alteration, accident, use of unapproved attachments, usage which is contrary to the intended purposes, or conditions caused by failure to perform required maintenance. Replacement of Wear or Maintenance items (unless defective) such as but not limited to, filters, hoses, belts, lubricants, light bulbs, wheel alignment, tightening of nuts, belts, bolts, and fittings, service tune-up, computer parameter adjustments and general adjustments which may from time to time be required are not covered.
- **Rubber Tire Warranty -** Rubber tires are warranted directly by the respective manufacturer only and not by AGCO Amity JV.
- **Satellite Outages -** Interruptions in satellite interfaces and satellite communications are outside the control of this product and are not covered by this warranty. The company is not responsible for issues or degradation of system performance resulting from such interruptions in satellite interfaces and satellite communications where the issues are not related to defects in this product.

OWNER'S OBLIGATION

It is the responsibility of the Owner to transport the equipment or parts to the service shop of an authorized AGCO Amity JV Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty. This Warranty does NOT cover rental of replacement equipment during the repair period, damage to products which have been declared a total loss and subsequently salvaged, overtime labor charges, freight charges for replacement parts, or special handling requirements (such as, but not limited to, the use of cranes).

EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY

THIS WARRANTY IS IN LIEU OF ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PURPOSE OR OTHER REPRESENTATIONS, WARRANTIES OR CONDITIONS, EXPRESSED OR IMPLIED. The remedies of the Owner set forth herein are exclusive. The Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale of covered machines. Correction of defects, in the manner and for applicable period of time provided above, shall constitute fulfillment of all responsibilities of AGCO Amity JV to the Owner, and AGCO Amity JV shall not be liable for negligence under contract or in any manner with respect to such machines. IN NO EVENT SHALL THE OWNER BE ENTITLED TO RECOVER FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS BUT NOT LIMITED TO, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE OR COST OF RENTAL OR REPLACEMENT EQUIPMENT.

Some States or Provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.

"AGCO Amity JV" AS REFERRED TO HEREIN WITH RESPECT TO SALES IN: UNITED STATES and CANADA: AGCO Amity JV LLC
PO Box 1030
Wahpeton, ND 58074

Additional Warranty Information

New Equipment Warranty - Equipment is eligible for warranty service only if it qualifies under the provisions of the New Equipment Warranty. The selling dealer will deliver this Warranty to the original retail purchaser at the time of sale, and the dealer will register the sale and Warranty with AGCO Amity JV LLC.

Subsequent Owners - This Warranty covers the first retail purchaser and all subsequent owners of the equipment during the specified warranty period. Should the AGCO Amity JV Dealer sell this equipment to a subsequent owner, the Dealer must deliver the warranty document to the subsequent owner so the subsequent owner can register ownership with AGCO Amity JV and obtain the remaining warranty benefits, if available, with no intermission in the Warranty Period. Subsequent Owner Procedure will apply. It is the responsibility of the subsequent owner to transport the equipment to the service shop of an authorized AGCO Amity JV Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty. This Warranty does NOT cover charges for rental or replacement equipment during the repair period, products which have been declared a total loss and subsequently salvaged, overtime labor charges, freight charges for replacement parts, or units sold at auction.

Warranty Service - To be covered by Warranty, service must be performed by an authorized AGCO Amity JV Dealer. It is recommended that you obtain warranty service from the Dealer who sold you the equipment because of that Dealer's continued interest in you as a valued customer. In the event this is not possible, warranty service may be performed by any other authorized AGCO Amity JV Dealers in the United States or Canada. It is the responsibility of the Owner to transport the equipment to the service shop of an authorized AGCO Amity JV Dealer or alternatively to reimburse the Dealer for any travel or transportation expense involved in fulfilling this warranty.

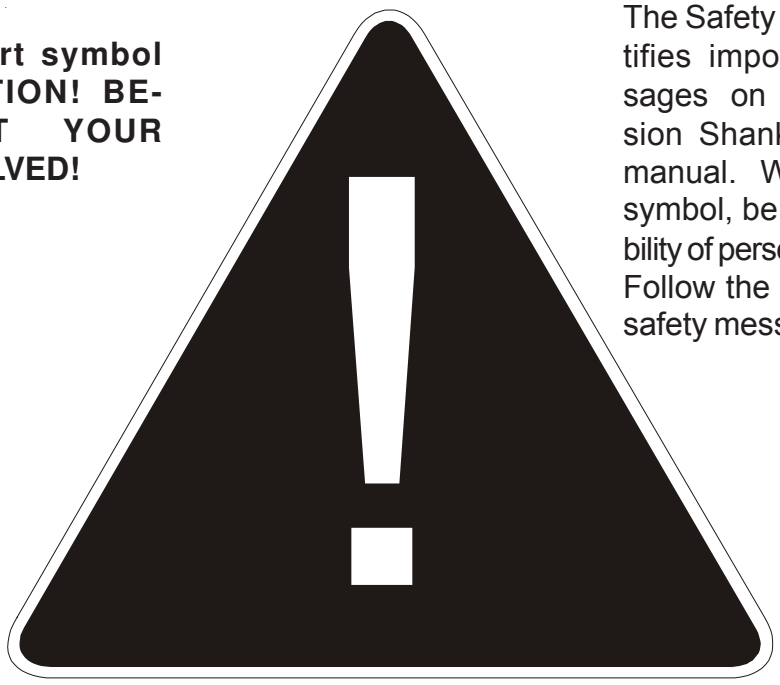
Maintenance Service - The Owner's Manual furnished to you with the equipment at the time of delivery contains important maintenance and service information. You must read the manual carefully and follow all the maintenance and service recommendations. Doing so will result in greater satisfaction with your equipment and help avoid service and warranty problems. Please remember that failures due to improper maintenance of your equipment are not covered by warranty.

Maintenance Inspections - To insure the continued best performance from your agricultural equipment, we recommend that you arrange to make your equipment available to your selling Dealer for a maintenance inspection 30 days prior to warranty expiration.

PERSONAL SAFETY IS IMPORTANT!

ALL PERSONNEL INVOLVED WITH THE ASSEMBLY AND/OR OPERATION OF THIS EQUIPMENT MUST BE INFORMED OF PROPER SAFETY PROCEDURES. OPERATOR'S/ ASSEMBLY MANUALS PROVIDE THE NECESSARY INFORMATION. IF THE MANUAL IS LOST FOR A PARTICULAR IMPLEMENT, ORDER A REPLACEMENT AT ONCE. OPERATOR'S AND ASSEMBLY MANUALS ARE AVAILABLE AT NO CHARGE UPON REQUEST.

This Safety Alert symbol means ATTENTION! BECOME ALERT YOUR SAFETY IS INVOLVED!



The Safety Alert symbol identifies important safety messages on the Amity Precision Shank Drill and in this manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

3 Big Reasons

Accidents Disable and Kill
Accidents Cost
Accidents Can Be Avoided

SIGNAL WORDS:

Note the use of the signal words **DANGER, WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines:

DANGER

An immediate and specific hazard which WILL result in severe personal injury or death if the proper precautions are not taken.

WARNING

A specific hazard or unsafe practice which COULD result in severe personal injury or death if the proper precautions are not taken

CAUTION

Unsafe practices which COULD result in personal injury if proper practices are not taken, or as a reminder of good safety practices.

ADDRESS INQUIRIES TO: AGCO Amity JV LLC
2800 7th Avenue North
Fargo, ND 58102
PH (701) 232-4199 FAX (701) 234-1716

Precision Shank Drill

3. Assembly-continued

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1.1 Introduction

1.1.1 Safety alert symbol

The safety alert symbol means Attention! Become Alert! Your Safety Is Involved!

Look for the safety alert symbol both in this manual and on safety signs on this machine. The safety alert symbol will direct your attention to information that involves your safety and the safety of others.

Fig. 1

1.1.2 Safety messages

The words DANGER, WARNING or CAUTION are used with the safety alert symbol. Learn to recognize these safety alerts and follow the recommended precautions and safety practices.

Fig. 2

DANGER:
Indicates an imminently hazardous situation that, if not avoided, will result in DEATH OR VERY SERIOUS INJURY.

WARNING:
Indicates a potentially hazardous situation that, if not avoided, could result in DEATH OR SERIOUS INJURY.

CAUTION:
Indicates a potentially hazardous situation that, if not avoided, may result in MINOR INJURY.

1.1.3 Informational messages

The words important and note are not related to personal safety, but are used to give additional information and tips for operating or servicing this equipment.

IMPORTANT: *Identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of the machine, process, or its surroundings*

NOTE: *Identifies points of particular interest for more efficient and convenient repair or operation.*

1.1.4 Safety signs

WARNING:
Do not remove or obscure safety signs. Replace any safety signs that are not readable or are missing. Replacement signs are available from your dealer in the event of loss or damage. The actual location of the safety signs is illustrated at the end of this section.

Keep signs clean by wiping off regularly. Use a mild soap and water solution if necessary.

If parts have been replaced or a used machine has been purchased, make sure all safety signs are present and in the correct location and can be read. Illustrations of safety sign locations are located at the rear of this section.

Replace any safety signs that can not be read, are damaged, or are missing. Clean the machine surface thoroughly with a mild soap and water solution before replacing signs. Replacement safety signs are available from your dealer.

1.1.5 A word to the operator

It is your responsibility to read and understand the safety section in this manual and the manual for all attachments before operating this machine. Remember you are the key to safety. Good safety practices not only protect you, but also the people around you.

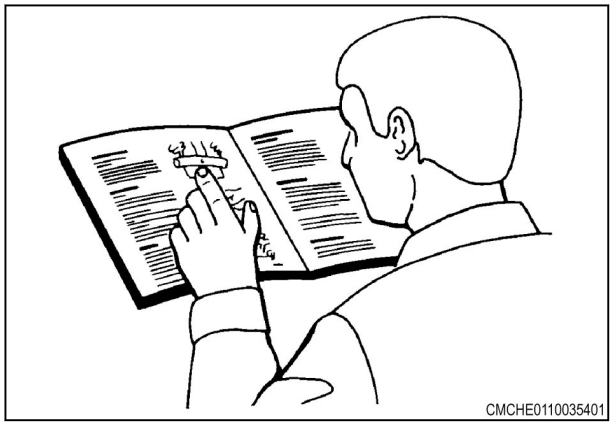


Fig. 3

Study the content in this manual and make the content a working part of your safety program. Keep in mind that this safety section is written only for this type of machine. Practice all other usual and customary safe working precautions, and above all remember - safety is your responsibility. You can prevent serious injury or death.

This safety section is intended to point out some of the basic safety situations that may be encountered during the normal operation and maintenance of your machine. This section also suggests possible ways of dealing with these situations. This section is not a replacement for other safety practices featured in other sections of this manual.

Personal injury or death may result if these precautions are not followed.

Learn how to operate the machine and how to use the controls properly.

Do not let anyone operate the machine without instruction and training.

For your personal safety and the personal safety of others, follow all safety precautions and instructions found in the manuals and on safety signs affixed to the machine and all attachments.

Use only approved attachments and equipment.

Make sure your machine has the correct equipment needed by the local regulations.

WARNING:
An operator should not use alcohol or drugs which can affect their alertness or coordination. An operator on prescription or 'over the counter' drugs needs medical advice on whether or not they can properly operate machines.

CAUTION:
If any attachments used on this equipment have a separate Operator Manual, see that manual for other important safety information.

1.1.6 This manual

This manual covers general safety practices for this machine. The operator manual must always be kept with the machine.

Right-hand and left-hand, as used in this manual, are determined by facing the direction the machine will travel when in use.

The photos, illustrations, and data used in this manual were current at the time of printing, but due to possible in-line production changes, your machine can vary slightly in detail. The manufacturer reserves the right to redesign and change the machine as necessary without notification.

WARNING:
In some of the illustrations and photos used in this manual, shields or guards may have been removed for clarity. Never operate the machine with any shields or guards removed. If the removal of shields or guards is necessary to make a repair, they must be replaced before operation.

1.2 Operation

1.2.1 Prepare for operation

Read and understand all operating instructions and precautions in this manual before operating or servicing the machine.

Make sure you know and understand the positions and operations of all controls. Make certain all controls are in neutral and the park brake is applied before starting the machine.

Make certain all people are well away from your area of work before starting and operating the machine. Check and learn all controls in an area clear of people and obstacles before starting your work. Be aware of the machine size and have enough space available to allow for operation. Never operate the machine at high speeds in crowded places.

Emphasize the importance of using correct procedures when working around and operating the machine. Do not let children or unqualified persons operate the machine. Keep others, especially children, away from your area of work. Do not permit others to ride on the machine.

Make sure the machine is in the proper operating condition as stated in the Operator Manual. Make sure the machine has the correct equipment required by local regulations.

1.2.2 General information

When parking, park the machine and the tractor on a solid level surface. put all controls in neutral and apply the tractor park brake. Stop the tractor engine and take the key with you.

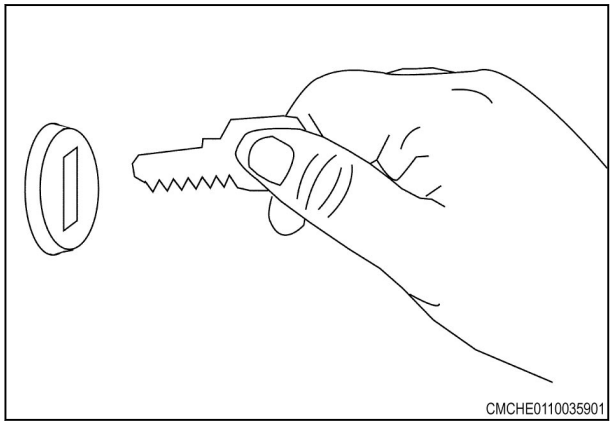


Fig. 4

Make sure the tractor and implement are in the proper operating condition according to the operator manuals. Make sure the tractor brakes and the machine brakes are adjusted correctly.

The tractor must have enough weight and braking capacity, especially when operating on roads and terrain that is not even. Use a tractor of recommended size and weight to tow the machine. See the machine specifications for the minimum tractor size and weight.

Tractor must be equipped with rollover protective structure (ROPS) and a seat belt. use seat belt during operation.

Do not dismount from moving machinery.

Always operate the machine with the terminal turned on.

Never start the tractor with the PTO engaged or terminal turned on.

Stay off slopes too steep for operation.

Where possible avoid operating the machine near ditches, embankments, and holes. Reduce ground speed when operating on rough, slippery, or muddy surfaces and when turning or crossing slopes.

Be aware of the size of the machine and have enough space available to allow for operation.

Always lower the machine when not in use and relieve the pressure in the hoses and cylinders.

Do not stand between the tractor and the implement to install the hitch pin when the tractor engine is running.

Avoid contact with electrical power lines. Contact with electrical power lines can cause electrical shock, resulting in very serious injury or death.

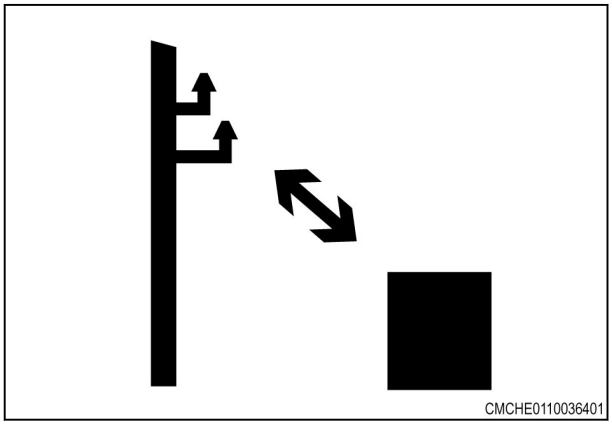


Fig. 5

1.2.3 Personal protective equipment

Wear all personal protective equipment (PPE) and protective clothing issued to you or called for by job conditions and country/local regulations. PPE includes, but is not limited to, equipment to protect eyes, lungs, ears, head, hands and feet when operating, servicing, or repairing equipment.

Always keep hands, feet, hair, and clothing away from moving parts. Do not wear loose clothing, jewelry, watches, or other items that could entangle in moving parts. Tie up long hair that can also entangle in moving parts.

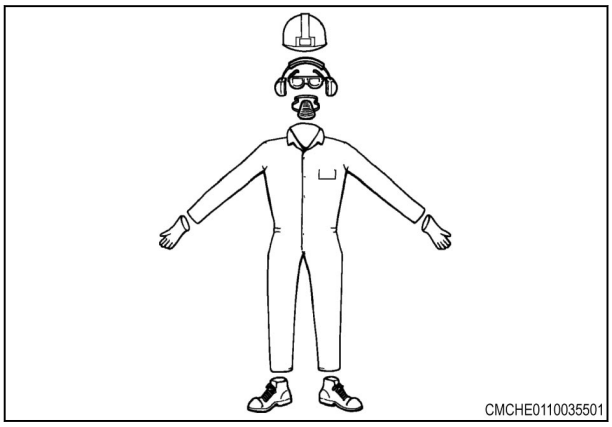


Fig. 6

1.2.4 Seat instructions

Securely fasten the seat belt before operating the machine. Always remain seated and have the seat belt fastened while operating the machine. Replace the seat belts when they become worn or broken.

Never wear a seat belt loosely or with slack in the belt system. Never wear the seat belt in a twisted condition or pinched between the seat structural members.

When using the instructional seat, if equipped, securely fasten the seat belt. The instructional seat is to be used only to train new operators or diagnose a problem. The instructional seat is only intended for short periods of use. Extra riders, especially children, are not permitted on the machine.

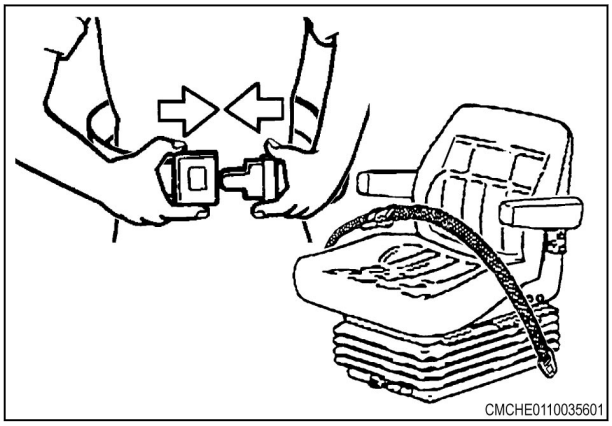


Fig. 7

When the instructional seat is used the machine must be driven at a slower speed and on level ground. Avoid quick starts, stops, and sharp turns. Avoid driving on highways or public roads.

1.2.5 Shield and guards

All shields and guards must be in the correct operating position and in good condition.

Do not open, remove, or reach around shields while the engine is operating. Entanglement in rotating belts and components can cause serious injury or death. Stay clear of rotating components.

Fig. 8

Do not operate the machine with the drive shaft shields open or removed. Entanglement in rotating drive shafts can cause serious injury or death. Stay clear of rotating components.

Make sure rotating guards turn freely.

Fig. 9

1.2.6 Exhaust warning

Never operate the engine in a closed building unless the exhaust is vented outside.

Do not tamper with or modify the exhaust system with unapproved extensions.

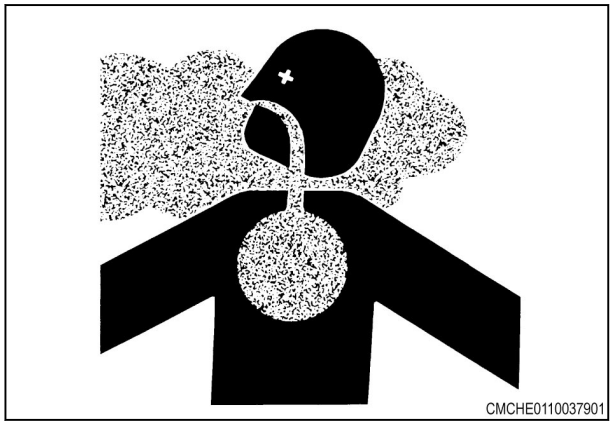


Fig. 10

1.2.7 Flying debris

WARNING:
Be careful when operating along the side of a road or building. Rocks or other debris can be thrown from the machine during operation possibly resulting in injury.

Never stand near the machine during operation. Debris can be thrown from the machine during operation possibly resulting in injury.

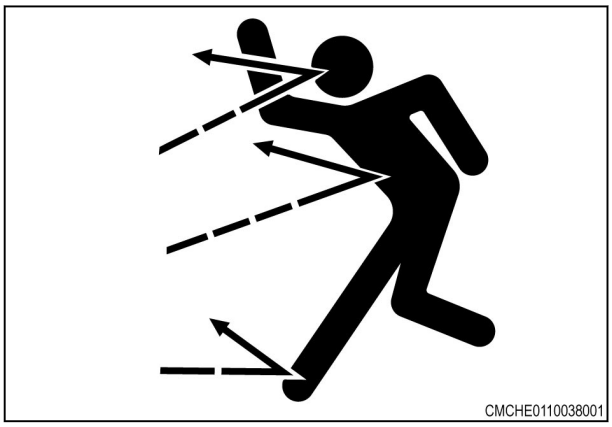


Fig. 11

1.2.8 Agricultural chemicals

Agricultural chemicals can be very hazardous. Improper use of fertilizer, fungicides, herbicides, insecticides and pesticides can injure people, plants, animals, soil and other people's property.

Always read and follow all manufacturers' instructions before opening any chemical container.

Even if you think you know the instructions, read and follow instructions each time you use a chemical.

Use the same precautions when adjusting, servicing, cleaning or storing the machine as used when installing chemicals into the hoppers or tanks.

Inform anyone who comes in contact with chemicals of the potential hazards involved and the safety precautions required.

Stand upwind and away from smoke from a chemical fire.

Store or dispose of all unused chemicals only in a manner as specified by the chemical manufacturer.

1.3 Travel on public roads

Make sure you understand the speed, brakes, steering, stability, and load characteristics of this machine before you travel on public roads.

Use good judgment when traveling on public roads. Maintain complete control of the machine at all times. Never coast down hills.

The maximum speed of farm equipment is governed by local regulations. Adjust travel speed to maintain control at all times.

Familiarize yourself with and obey all road regulations that apply to your machine. Consult your local law enforcement agency for local regulations regarding movement of farm equipment on public roads. Use head lamps, flashing warning lamps, tail lamps and turn signals, day and night, unless prohibited by local law.

Make sure all the flashers are operating prior to driving on the road. Make sure reflectors are correctly installed, in good condition, and wiped clean. Make sure the Slow Moving Vehicle (SMV) emblem is clean, visible, and correctly mounted on the rear of the machine.

Lock brake pedals together (if equipped with dual brake pedals) so both wheel brakes will be applied at the same time.

Raise implements to transport position and lock in place. Place all implements into narrowest transport configuration.

Disengage the power take-off and differential lock.

With towed implements, use a proper hitch pin with a clip retainer and safety transport chain.

Be aware of other traffic on the road. Keep well over to your own side of the road and pull over, whenever possible, to let faster traffic pass.

Be aware of the overall width, length, height, and weight of the machine. Be careful when transporting the machine on narrow roads and across narrow bridges.

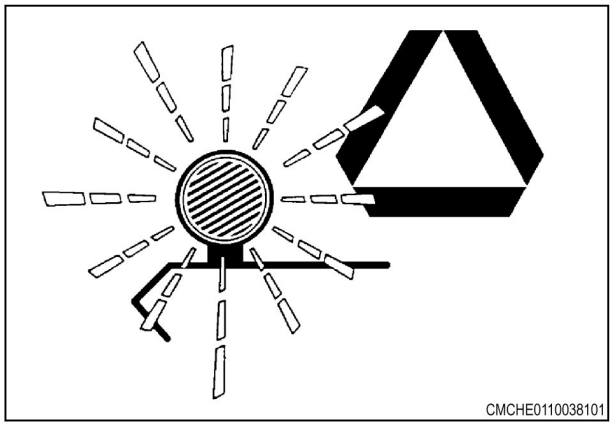


Fig. 12

Watch for overhead wires and other obstructions. Avoid contact with electrical power lines. Contact with electrical power lines can cause electrical shock, resulting in very serious injury or death.

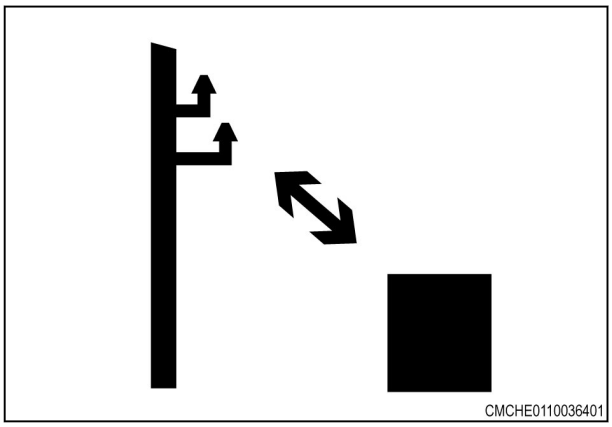


Fig. 13

1.4 Maintenance

1.4.1 General maintenance information

Before doing any unplugging, lubricating, servicing, cleaning, or adjusting:

- Park the machine on a solid level surface.
- Make sure all controls are in the neutral position and apply the park brake.
- Make sure all implements and attachments have been lowered to the ground.
- Stop the engine and take the key with you.
- Look and Listen! Make sure all moving parts have stopped.
- Put blocks in front of and behind the wheels of the machine before working on or under the machine.

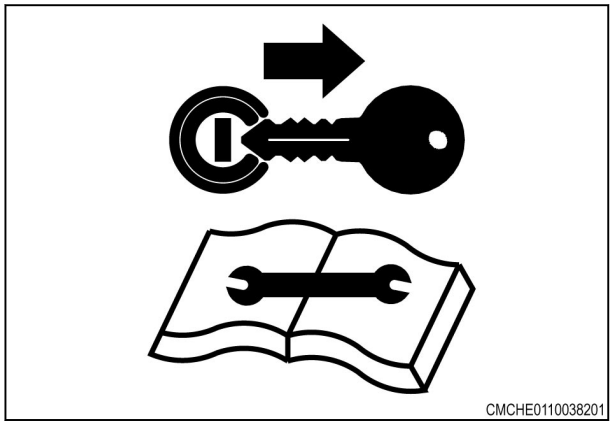


Fig. 14

Do not leave the tractor or implement unattended with the engine running.

Do not pull crop or any other object from the machine while the machine engine is running. Moving parts can pull you in faster than you can move away.

Check all nuts and bolts periodically for tightness, especially wheel mounting hardware.

Do not attempt to service or adjust the machine until all moving parts have stopped.

Check all nuts and bolts periodically for tightness, especially wheel mounting hardware.

Be aware of the size of parts when doing service work. Never stand under or near a part being moved with lifting equipment.

After unplugging, lubricating, servicing, cleaning, or adjusting the machine make sure all tools and equipment have been removed.

Make sure electrical connectors are clean and free of dirt or grease before connecting.

Check for loose, broken, missing, or damaged parts. Make sure the machine is in good repair. Make sure all guards and shields are in position.

Always raise implement, shut off tractor engine, apply the parking brake, shift to park position (or neutral) remove the key and install the cylinder stops channels before working around the machine.

Avoid working under the machine. However, if it becomes unavoidable to do so, make sure the machine is securely blocked and the cylinder lockup channels are in position.

When working around discs or shanks, be careful to not get cut on sharp edges.

Never service, check or adjust drive chains or belts while the engine is running.

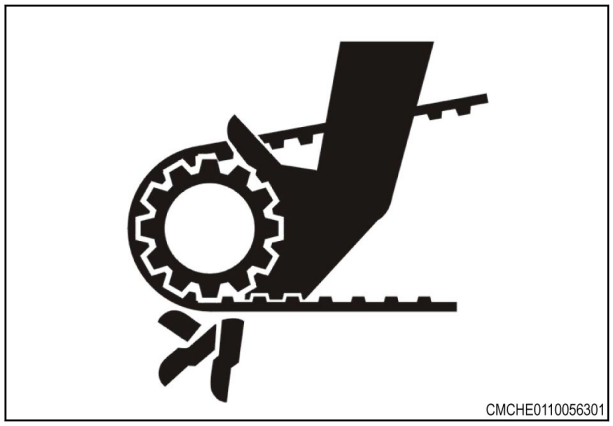


Fig. 15

Do not operate the machine with the drive shaft shields open or removed. Entanglement in rotating drive shafts can cause serious injury or death.

Stay clear of rotating components.

Make sure rotating guards turn freely.

A loose yoke can slip off a shaft and result in injury to persons or damage to the machine.

When installing a quick disconnect yoke, the spring activated locking pins must slide freely and be seated in the groove on the shaft. Pull on the driveline to make sure the quick disconnect yoke can not be pulled off the shaft.

Fig. 16

Remove spilled oil, antifreeze or fuel immediately from the steps, platform, and other access areas.

Keep all access areas clean and free of obstructions.

Fig. 17

1.4.2 Fire prevention and first aid

Be prepared for emergencies.

Keep a first aid kit handy for treatment of minor cuts and scratches.

Always carry one or more fire extinguishers of the correct type. Check fire extinguishers regularly as instructed by the manufacturer. Make sure fire extinguishers are properly charged and in operating condition.

Due to the nature of the crops this machine will operate in, the risk of fire is of concern. Use a water type fire extinguisher or other water source for a fire in crop.

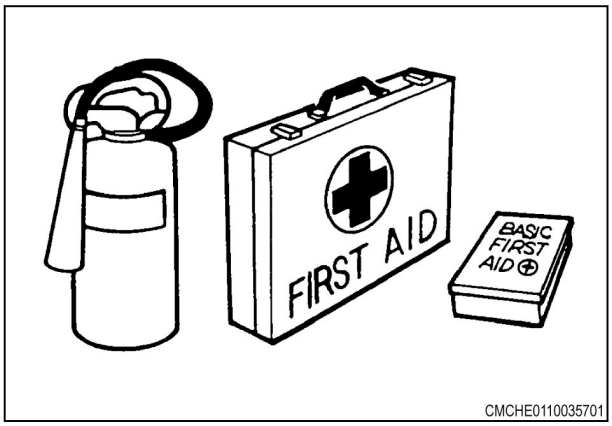


Fig. 18

For fires involving anything other than crop, such as oil or electrical components, use a dry chemical fire extinguisher with an ABC rating.

Mount fire extinguishers within easy reach of where fires can occur.

Frequently remove accumulated crop material from the machine and check for overheated components. Check the machine daily for any noises that are not normal. Such noises could indicate a failed component that can cause excess heat.

If any flame cutting, welding, or arc welding is to be done on the machine or attachments, make sure to clear any crop material or debris from around the area. Make sure the area below the work area is clear of any flammable material as falling molten metal or sparks can ignite the material.

If fire occurs stand upwind and away from smoke from the fire.

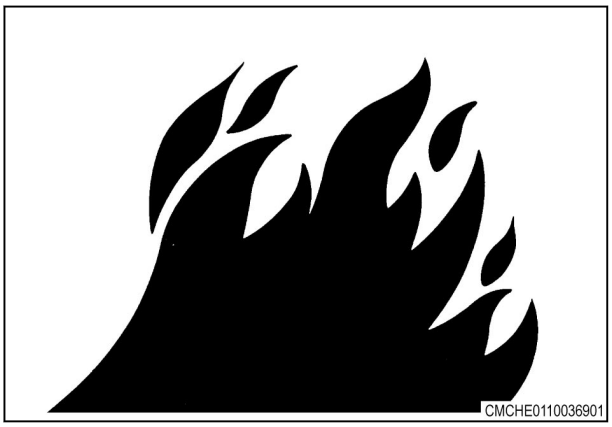


Fig. 19

1.4.3 High pressure leaks

Fluid leaking from the hydraulic system or the fuel injection system under high pressure can be very hard to see. The fluid can go into the skin causing serious injury.

Fluid injected into the skin must be surgically removed within a few hours. If not removed immediately, serious infection or reaction can develop. Go immediately to a doctor who knows about this type of injury.

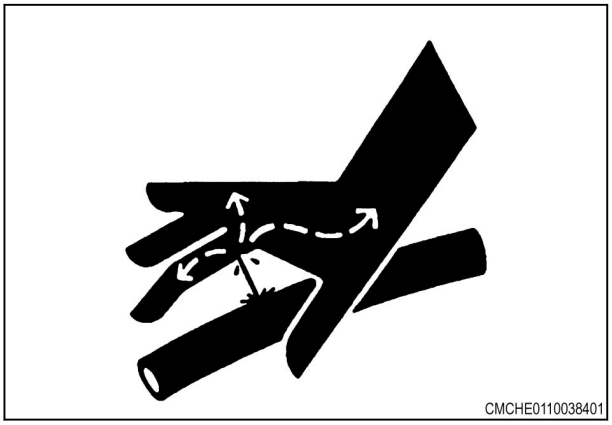


Fig. 20

Use a piece of cardboard or wood to search for possible leaks. Do not use your bare hand. Wear leather gloves for hand protection and safety goggles for eye protection.

Relieve all pressure before loosening any hydraulic lines. Relieve the pressure by lowering raised equipment, shutting off accumulator valve, if equipped, and shutting off the engine. Tighten all connections securely before applying pressure.

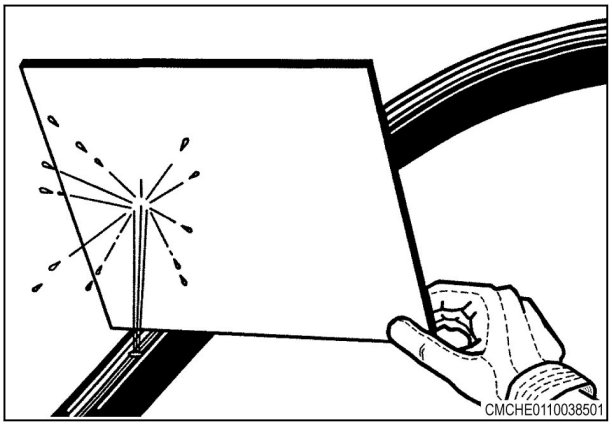


Fig. 21

1.4.4 Tire safety

Check tires for cuts, bulges, and correct pressure. Replace worn or damaged tires. When tire service is needed, have a qualified tire mechanic service the tire. Tire changing can be very hazardous and must be done by qualified tire mechanic using proper tools and equipment. See the Specifications Section for the correct tire size.

Tire explosion and/or serious injury can result from over inflation. Do not exceed the tire inflation pressures. See the Specifications Section for the correct tire pressure.

Do not inflate a tire that is seriously under inflated or has been run flat. Have the tire checked by qualified tire mechanic.

Do not weld on the rim when a tire is installed. Welding will make an air/gas mixture that can cause an explosion and burn with high temperatures. This danger applies to all tires, inflated or deflated. Removing air or breaking the bead is not enough. The tire must be completely removed from the rim prior to welding.

When preparing a calcium chloride solution for fluid ballast the tractor tires, never pour water onto the calcium chloride. A chlorine gas can be generated which is poisonous and explosive. This can be avoided by slowly adding calcium chloride flakes to water and stirring until they are dissolved.

When seating tire beads onto rims, never exceed 2.4 bar (35 psi) or the maximum inflation pressure specified on the tire. Inflation beyond this maximum pressure may break the bead, or even the rim, with explosive force.

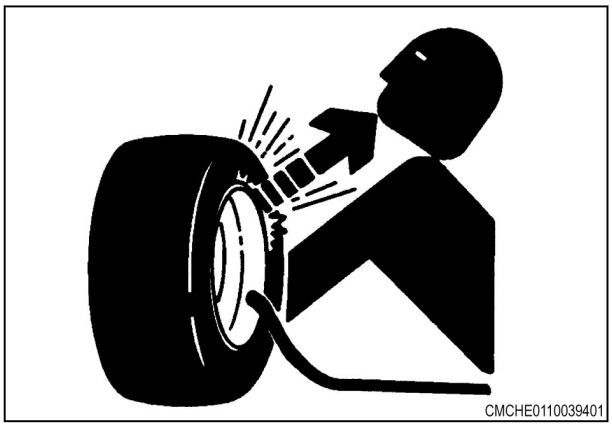


Fig. 22

1.4.5 Replacement parts

Where replacement parts are necessary for periodic maintenance and servicing, genuine replacement parts must be used to restore your equipment to original specifications.

The manufacturer will not accept responsibility for installation of unapproved parts and/or accessories and damages as a result of their usage.

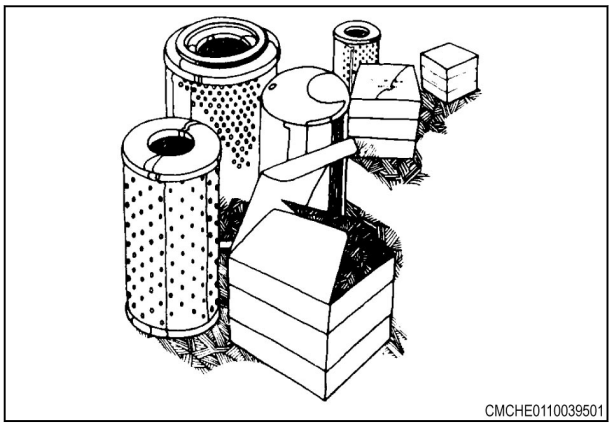
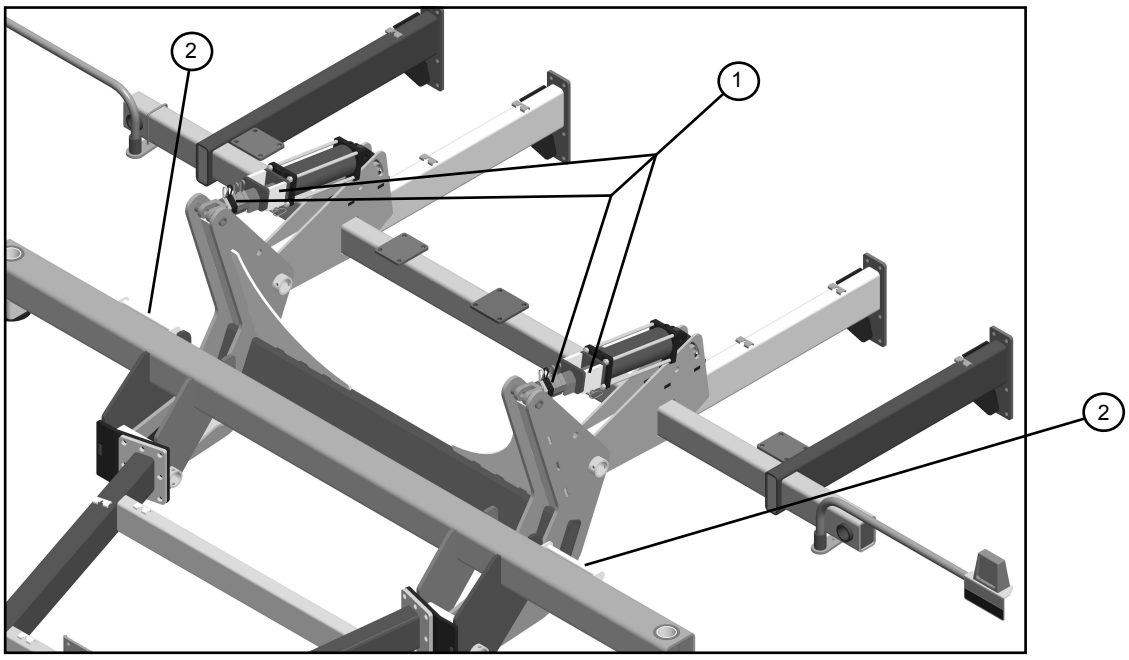


Fig. 23

1.5 Transport locks

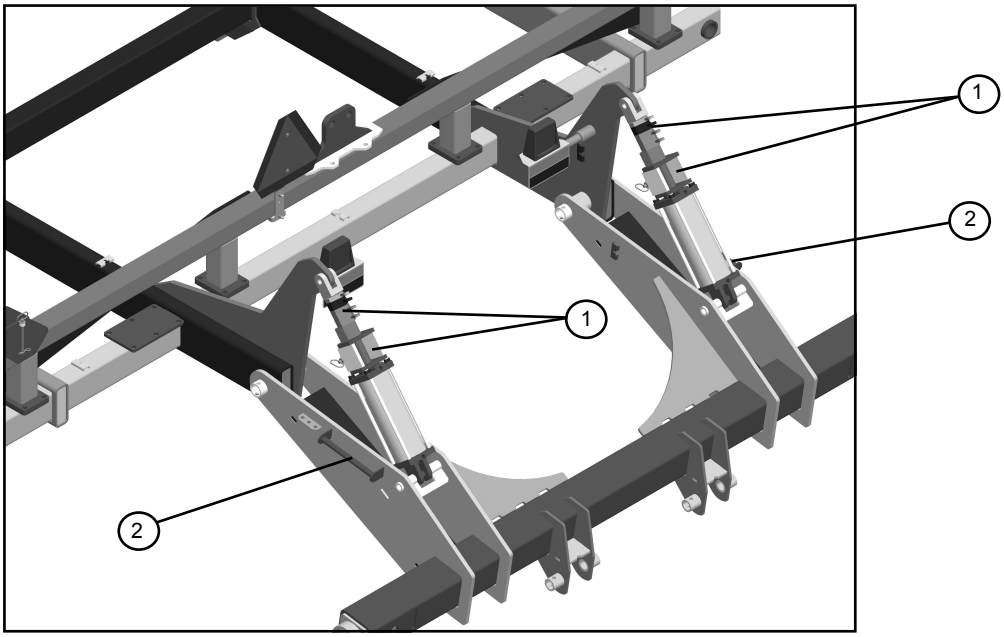
The machine is equipped with transport locks and depth stop collars. Use the transport locks and depth stop collars in the operating position (1) when moving the machine on roads. When not in use, keep the transport locks and depth stop collars in the storage position (2).

FRONT



701304

REAR



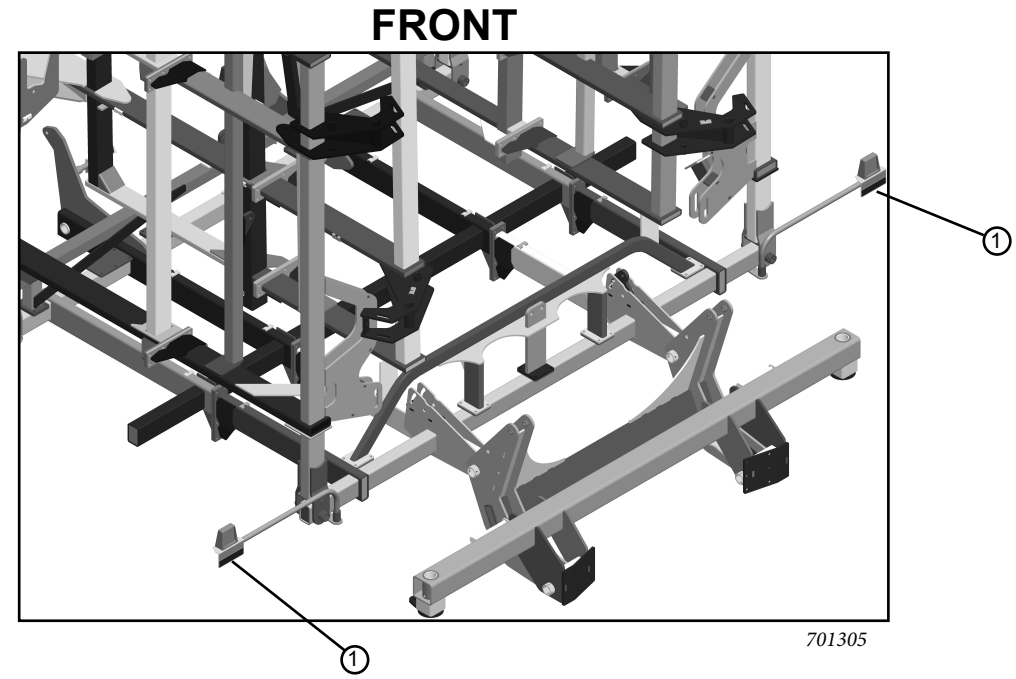
701303

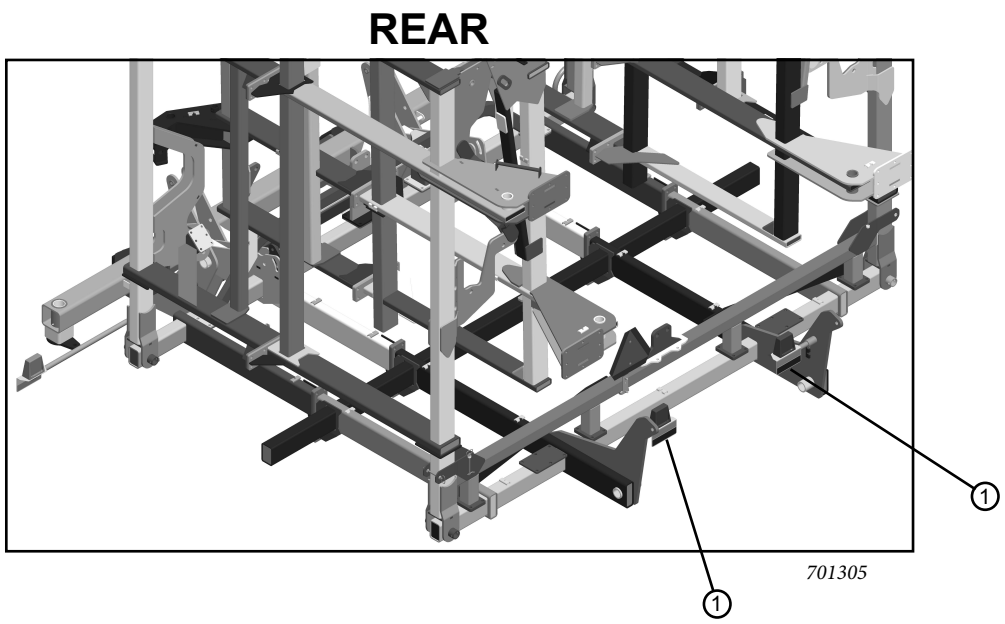
1.6 Marker lamps

The machine has marker lamps that must be used when moving the machine in the folded position on roads.

The machine is equipped with two red lamps (1) located toward the rear center of the machine.

The machine is equipped with two amber lamps (1) located at the front outside edges of the folded machine.





1.7 Safety sign location

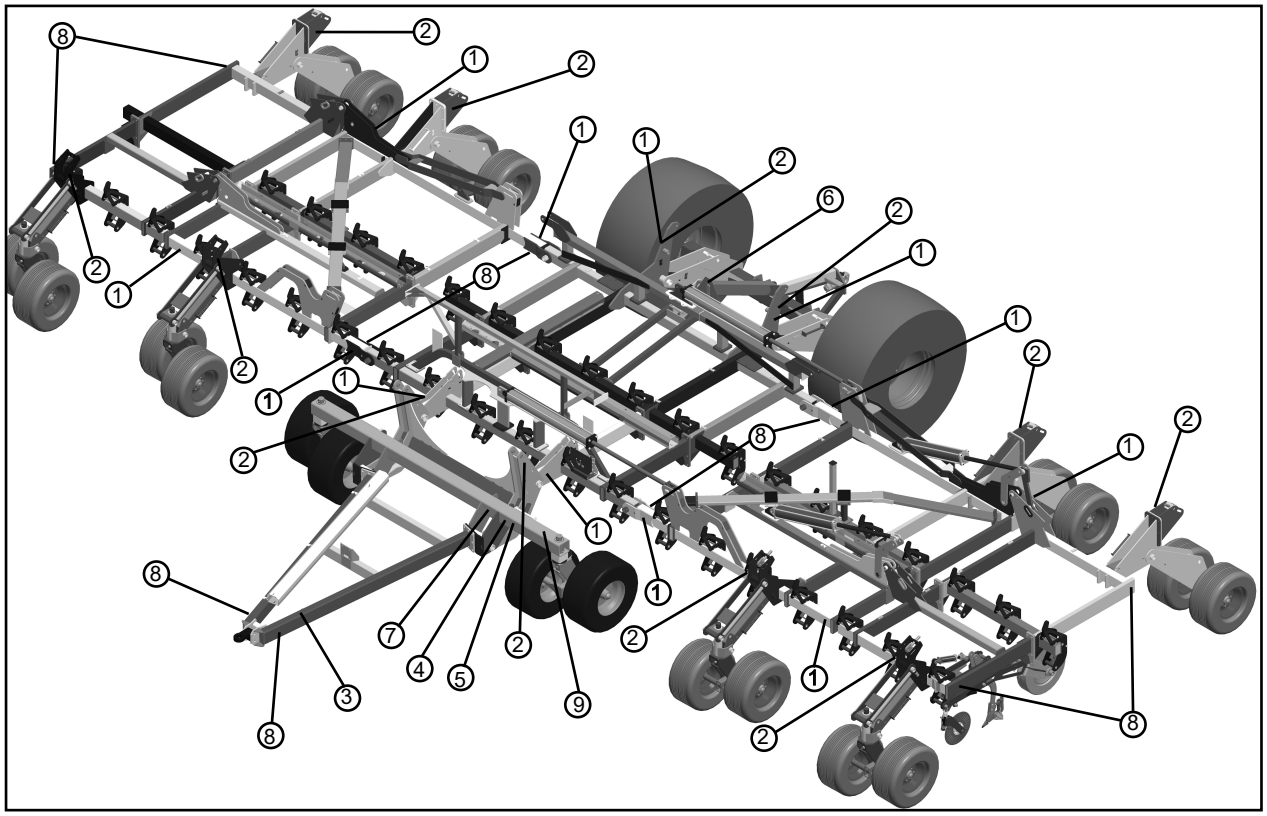


Fig. 26

(1) Danger/Folding Wings
(2) Warning/Lockout
(3) Safety Decal Set
(4) Warning/Read Operator Manual
(5) Danger/High Line
(6) Slow Moving Vehicle
(7) Maximum Speed
(8) Reflector/Amber
(9) Depth Indicator Decal

(1) Danger/folding wings

Hazard (A): Overhead crushing hazard from lowering or falling wing.

Avoidance (B): Stay clear of this area while engine and machine are operating. For service work, install the wing lock pins before getting under the wing.

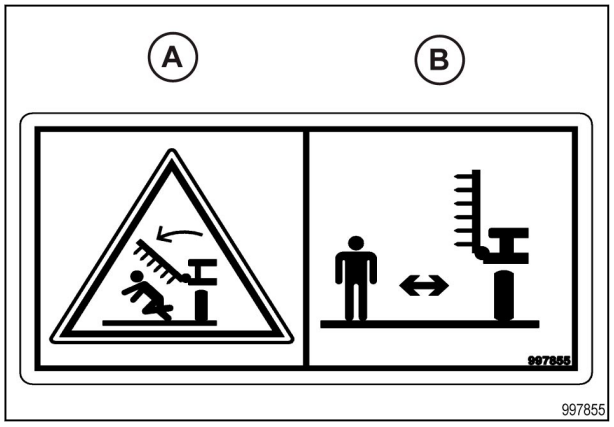


Fig. 27

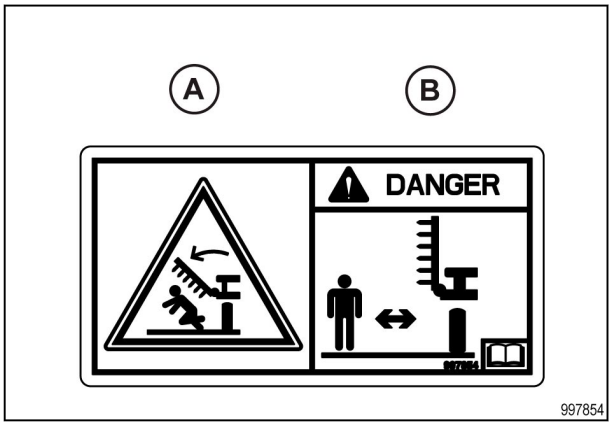


Fig. 27

(2) Warning/lockout

Hazard (A): Crushing hazard.

Avoidance (B): Stay clear of this area while engine and machine are operating. For service work, install the wing lock pins before getting under the wing.

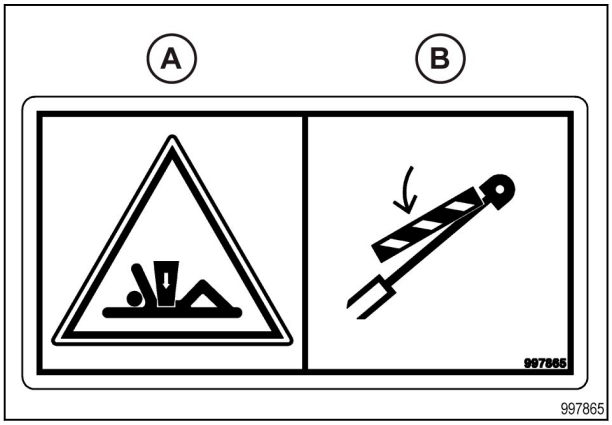


Fig. 28

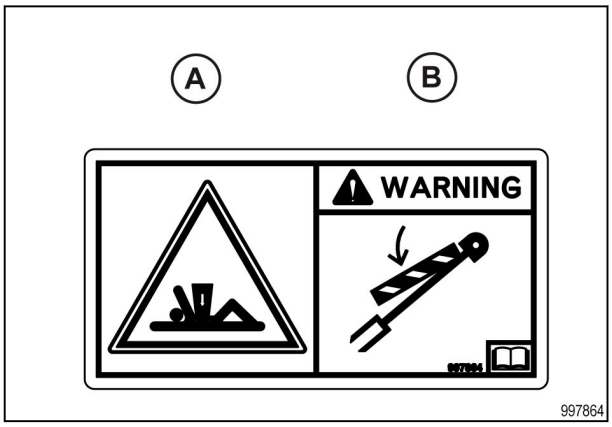


Fig. 28

(3) Caution/safety chains

Hazard (A): Loss of machine control.

Avoidance (B): Install the safety chains when connecting the machine to the tractor. Read the operators manual for safety information and the operating instruction before operating the machine.

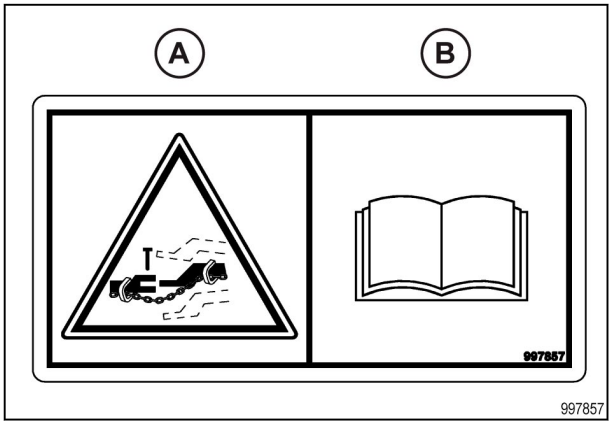


Fig. 29

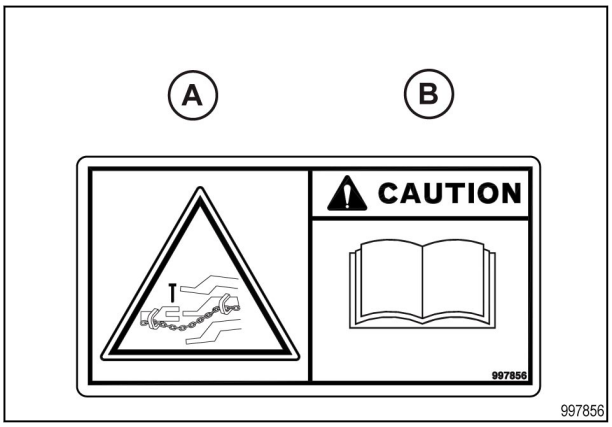


Fig. 29

(4) Warning/negative tongue weight

Hazard (A): Negative tongue weight will cause the tongue to rise immediately when disconnecting the machine.

Avoidance (B): Stay clear of the tongue when disconnecting the machine from the tractor. Read the operators manual for safety information and operating the instructions before operating the machine.

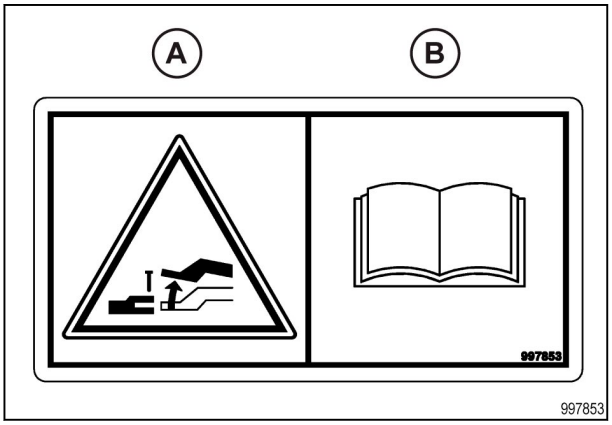


Fig. 30

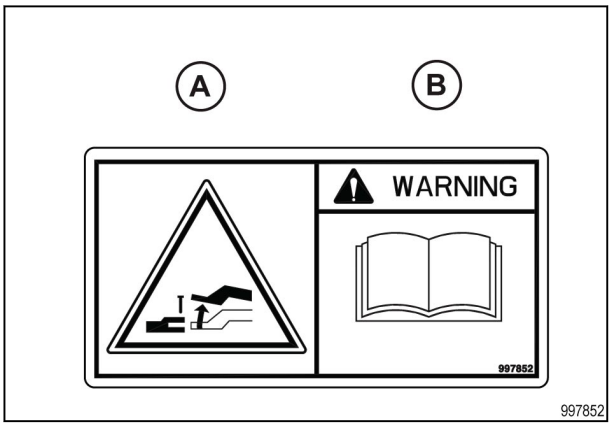


Fig. 30

(5) Warning/remove key

Hazard (A): General safety alert.

Avoidance (B): Turn off the machine and remove the key before maintenance or repair.

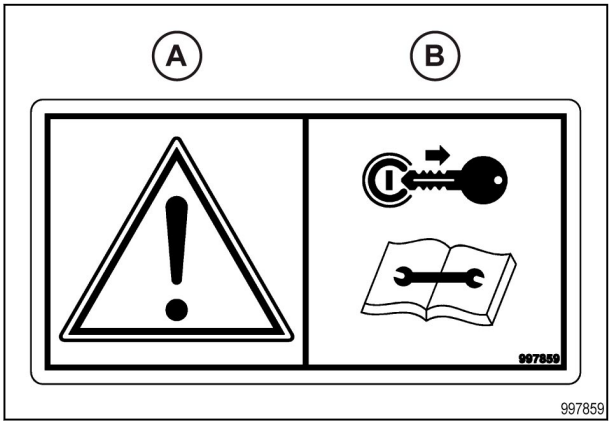


Fig. 31

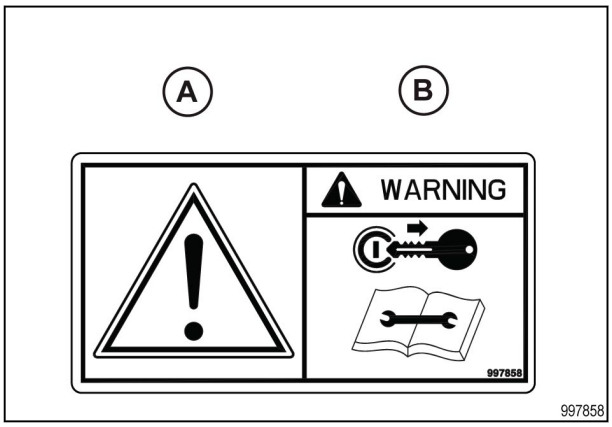


Fig. 31

(6) Warning/read operators manual

Hazard (A): General safety alert.

Avoidance (B): Read and understand the operators manual before operating the machine.

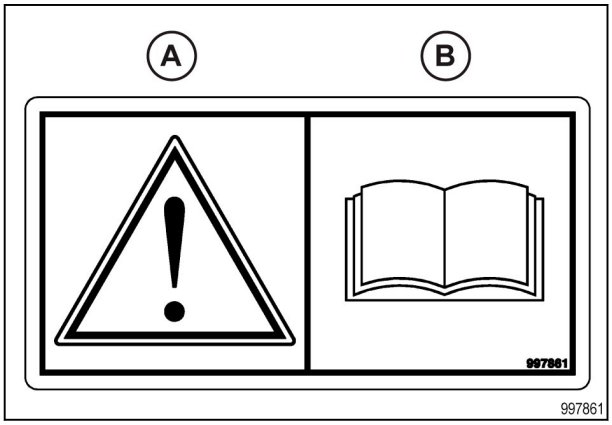


Fig. 32

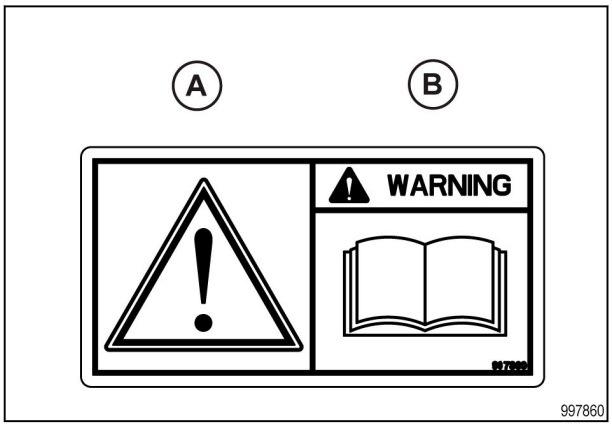


Fig. 32

(7) Danger/high line

Hazard (A): Electrical shock hazard - risk of personal injury and component damage.

Avoidance (B): Keep the correct distance away from electrical power lines.

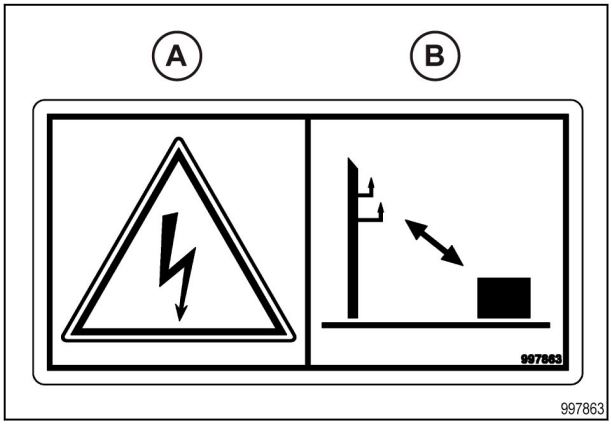


Fig. 33

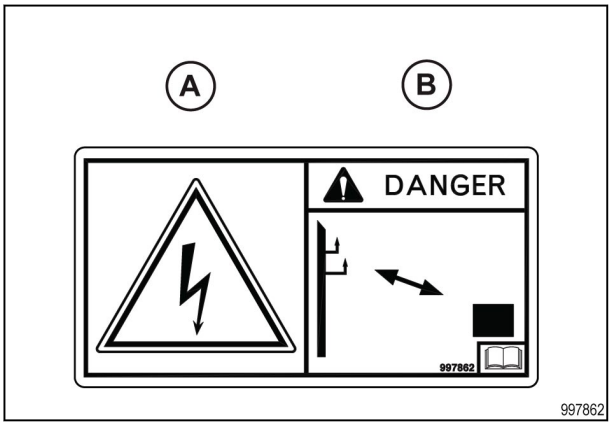


Fig. 33

(8) Warning/hydraulic fluid pressure

Hazard (A): Injection hazard into skin - escaping fluid under high pressure.

Avoidance (B): Turn off the engine, remove the key, relieve the pressure before maintenance or repair. Refer to the operator manual for the correct service procedures.

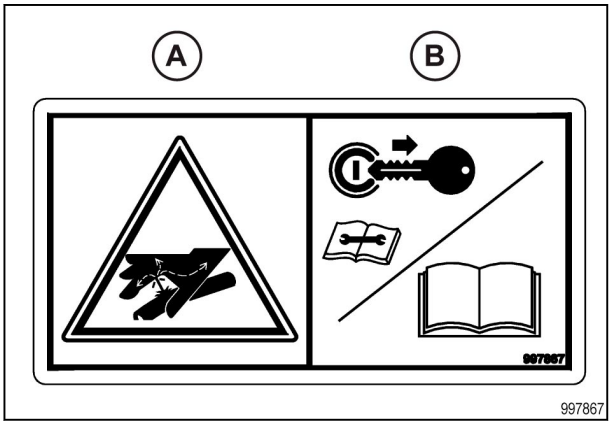


Fig. 34

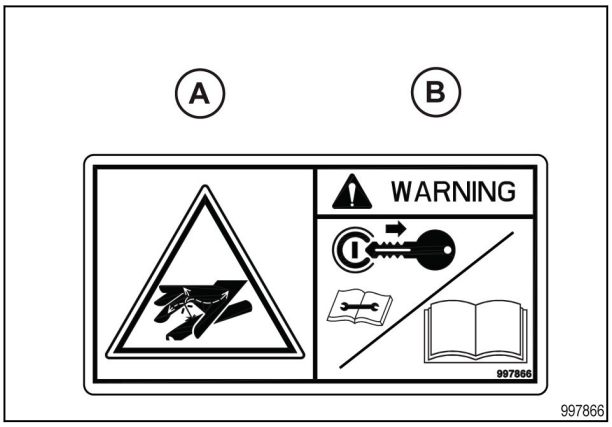


Fig. 34

(9) Maximum speed

The maximum speed safety sign displays the maximum speed to transport the machine.

Fig. 35

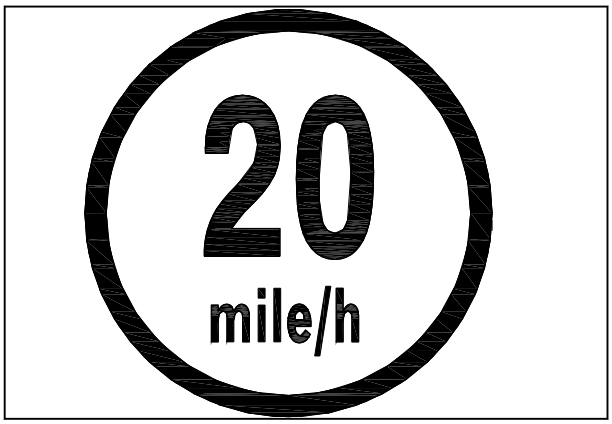


Fig. 35

(10) Reflector/yellow

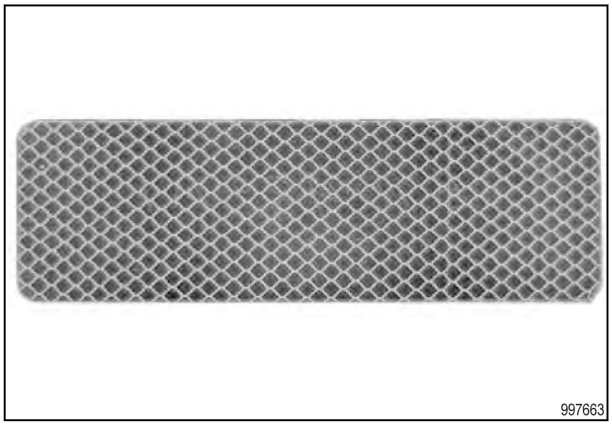


Fig. 36

2. Introduction

2.1 Introduction

CAUTION:
In some of the illustrations used in this Operator Manual, panels or guards may have been removed for clarity. Never operate the tractor with these panels and guards removed. If the removal of a shield is necessary to make a repair, it must be replaced before operation.

CAUTION:
Read this book in its entirety prior to operating machine. Use only genuine replacement parts for repairs and/or replacement.

This manual gives the operator the proper instructions needed for operation and maintenance. Read, understand, and follow these instructions for best machine performance and life. With proper maintenance and operation procedures, the machine will have better over all performance. Use normally available tools for maintenance on this machine.

All operators must read and understand this manual before operating this machine. Where possible, operators who have not operated the machine must receive instruction from an operator who has operated this machine. Your dealer can give instruction in machine operation. Keep this manual with the machine for future reference. If the original manual is damaged, order a replacement from your dealer.

See your dealer in for any service problems and adjustments. The dealer is equipped for all service work and to help with specific applications of the tractor in local conditions.

Left-hand and right-hand are determined by facing the direction the machine will travel when in use.

2.1.1 Units of measurement

Measurements are given in metric units followed by the equivalent in US units. Hardware sizes are given in millimeters for metric hardware and inches for US hardware.

2.1.2 Replacement parts

To receive prompt efficient service, remember to have the following information:

Correct part description and part number
Model number of the machine
Serial number of the machine

2.1.3 Intended use

This machine is designed solely for use in customary agricultural operations.

Do not use this machine for any application or purpose other than those described in this manual. The manufacturer accepts no liability for damage or injury resulting from misuse of this machine.

Compliance with the conditions of operation, service and repair as specified by the manufacturer constitute essential elements for the intended use of this machine.

This machine should be operated, serviced and repaired only by qualified persons familiar with its characteristics and familiar with the relevant safety rules and procedures.

All generally recognized safety regulations and road traffic regulations must be obeyed at all times.

Any unauthorized modifications performed on this machine will relieve the manufacturer of all liability for any resulting damage or injury.

2.1.4 Proper disposal of waste

Improper disposal of waste can pollute the environment and ecology. A few examples of potentially harmful equipment waste can include, but not limited to, items such as oil, fuel, coolant, brake fluid, filters, battery chemicals, tires, etc.

Use leak proof containers when draining fluids. Do not use food or beverage containers to collect waste fluids, as food or beverage container(s) may mislead someone into drinking from them.

Do not pour or spill waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire with local environmental or recycling center on the proper way to recycle or dispose waste.

2.2 Machine identification

Each machine is identified by a model and a serial number.

Record these numbers in the spaces given.

Give the model number and serial number to your dealer when parts or service are required.

Machine model number: _____

Machine serial number: _____

Date of delivery: _____

Dealer name: _____

Dealer address: _____

_____

_____

Dealer telephone number: _____

Dealer e-mail address: _____

Dealer fax number: _____

2.2.1 Serial number plate location

The serial number plate (1) is located on the side of the main frame tube.

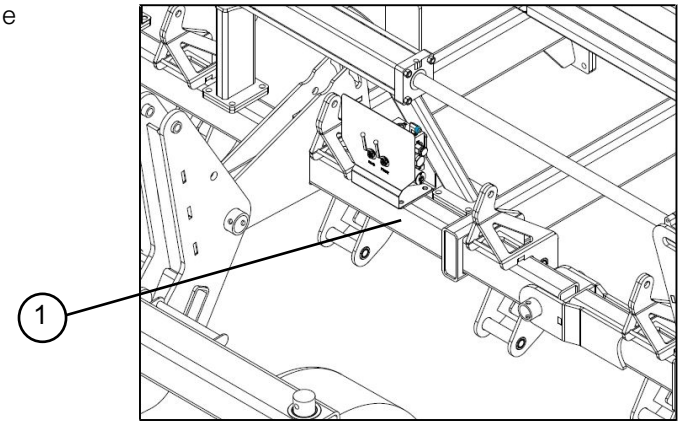


Fig. 1

2.2.2 Serial number description

Description of the serial number for model year 2010 and up.

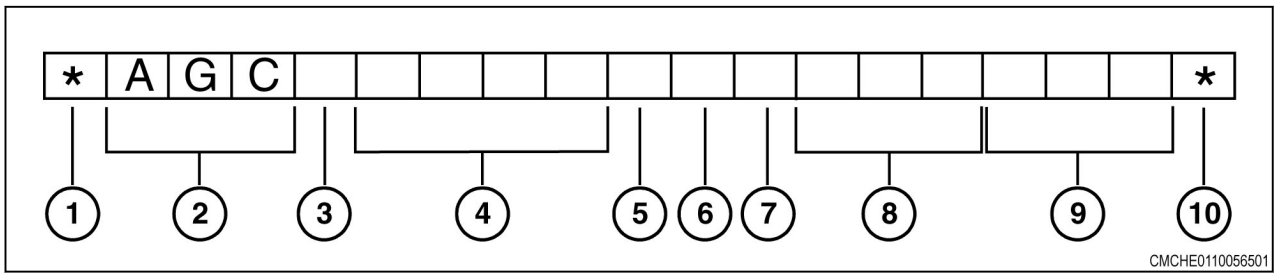
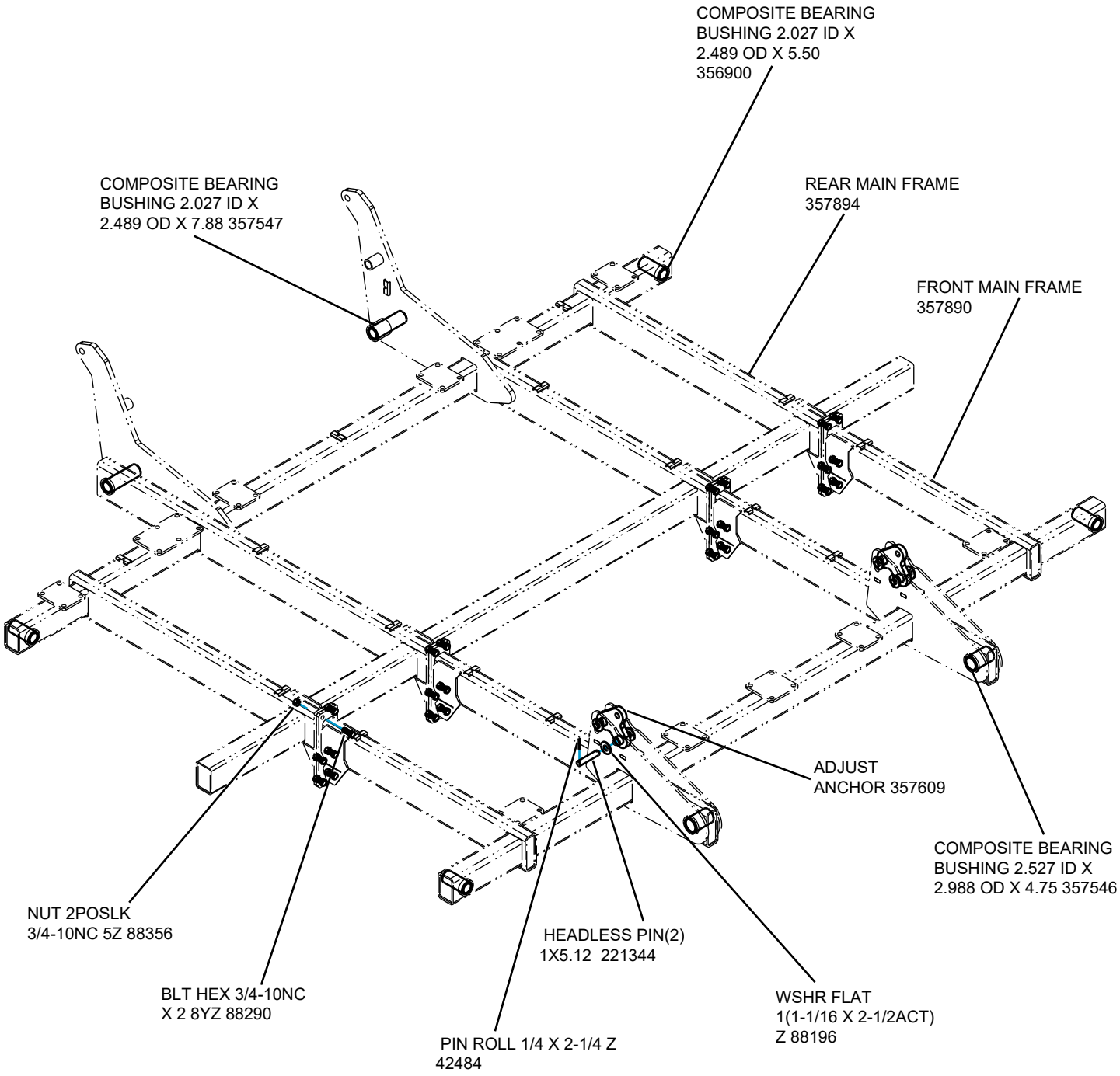


Fig. 2

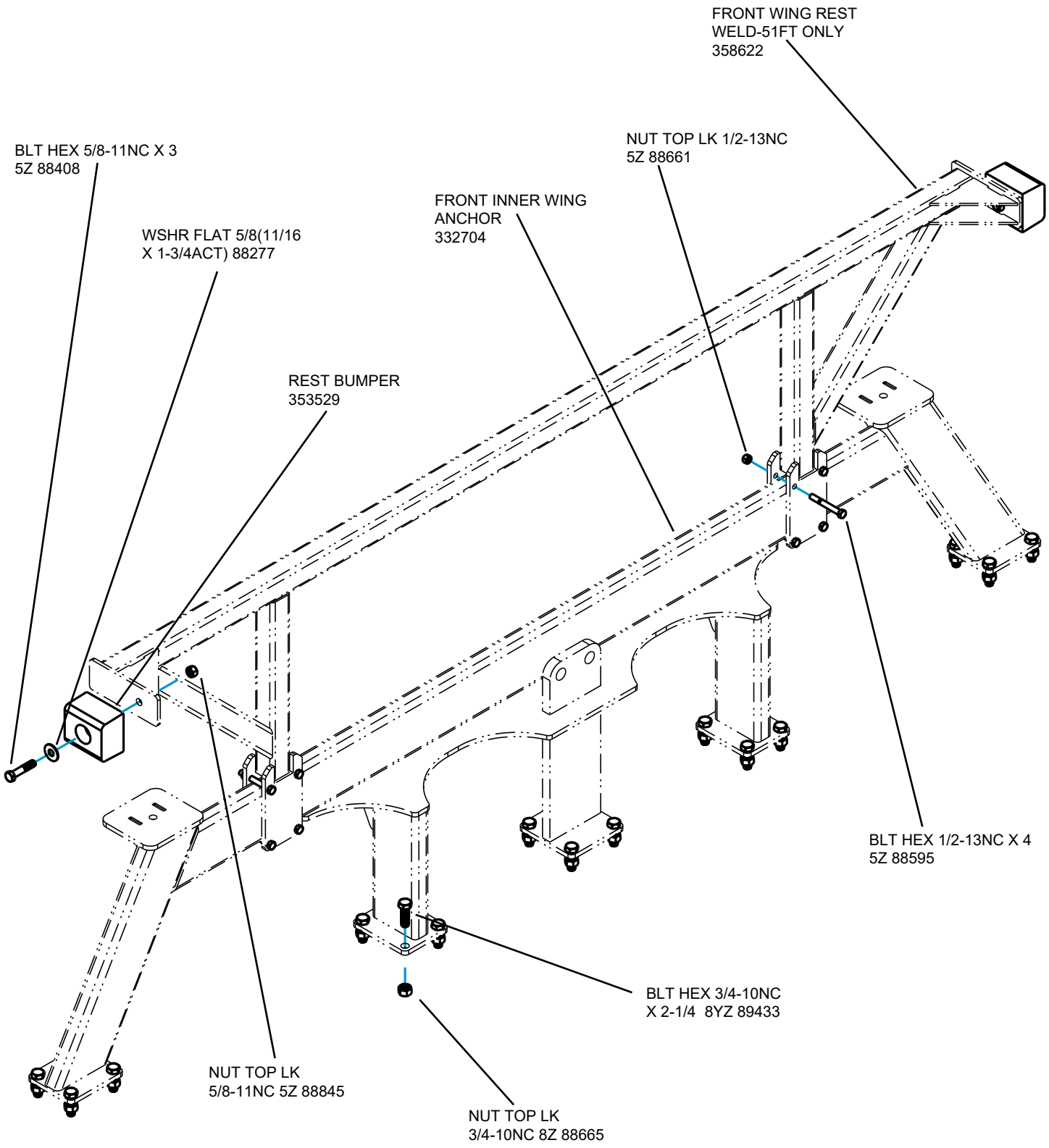
(1) Beginning symbol
(2) World manufacturer code
(3) Brand code
(4) Model identifier (model number)
(5) Check letter (0 or used if model identifier is five digits)
(6) Model year code (A=2010, B=2011, C=2012, and on)

(7) Plant code
(8) Family code
(9) Unit number for the year
(10) Ending symbol

3. Assembly-continued

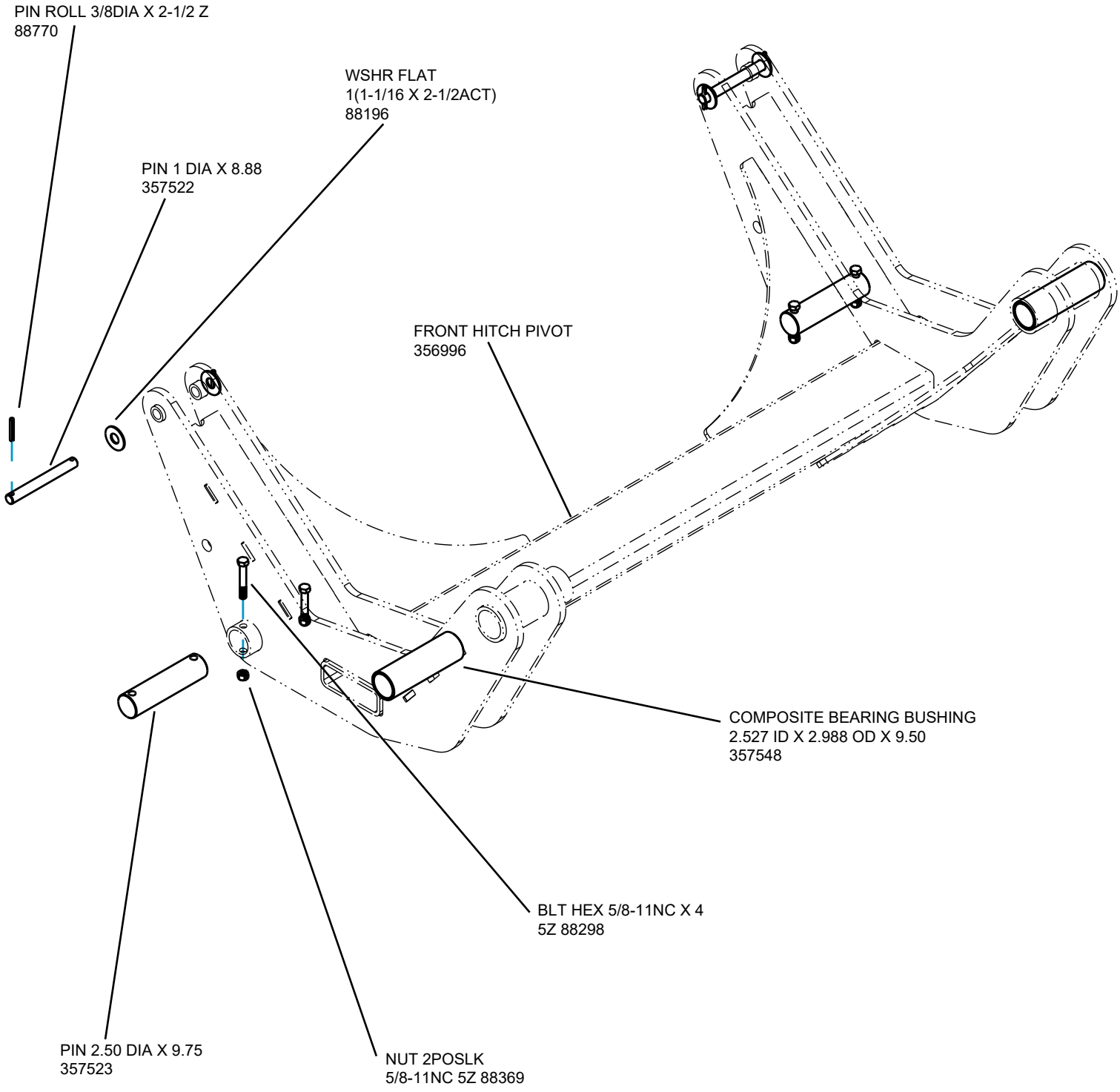

COMPOSITE BEARING
BUSHING 2.027 ID X
2.489 OD X 5.50
356900
COMPOSITE BEARING
BUSHING 2.027 ID X
2.489 OD X 7.88 357547
REAR MAIN FRAME
357894
FRONT MAIN FRAME
357890
ADJUST
ANCHOR 357609
COMPOSITE BEARING
BUSHING 2.527 ID X
2.988 OD X 4.75 357546
NUT 2POSLK
3/4-10NC 5Z 88356
BLT HEX 3/4-10NC
X 2 8YZ 88290
HEADLESS PIN(2)
1X5.12 221344
PIN ROLL 1/4 X 2-1/4 Z
42484
WSHR FLAT
1(1-1/16 X 2-1/2ACT)
Z 88196

FRONT INNER WING ANCHOR/REST

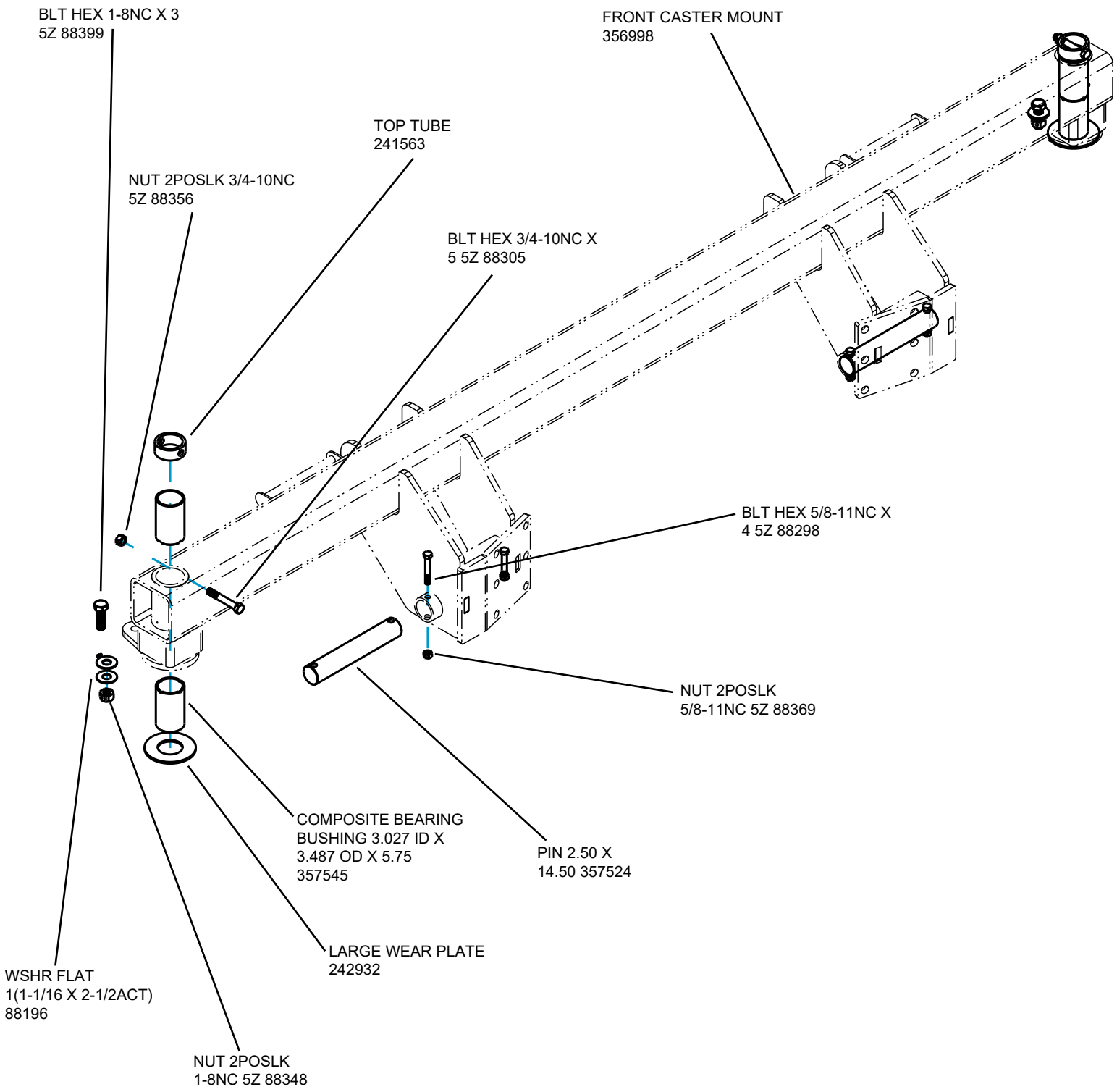


358622 IS BOLTED ON 51FT MODELS ONLY.
FOR 61FT MODELS THE RUBBER BUMPERS ARE BOLTED ONTO THE TOP PLATES ON ITEM 332704.

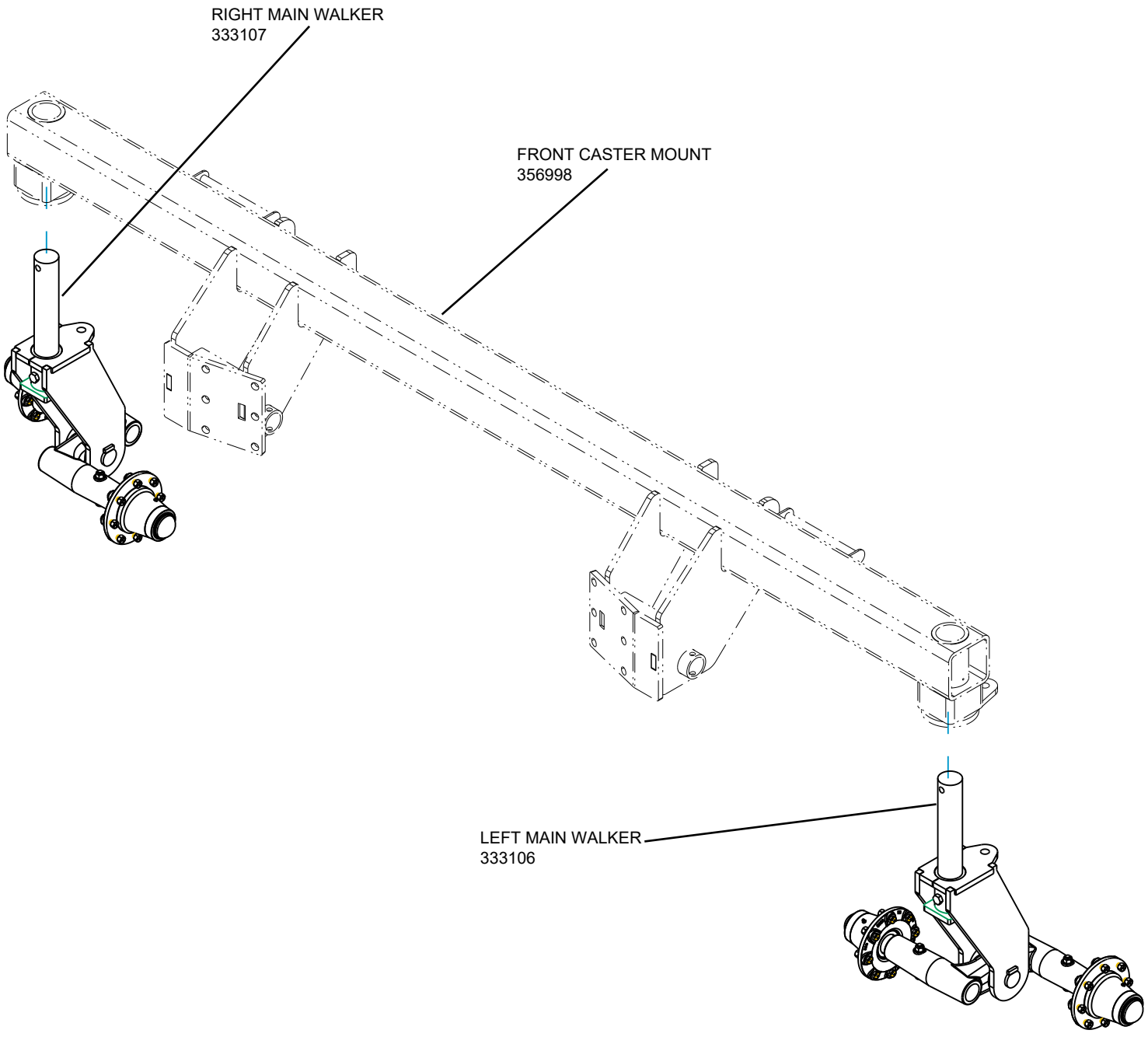
FRONT HITCH PIVOT



FRONT CASTER MOUNT

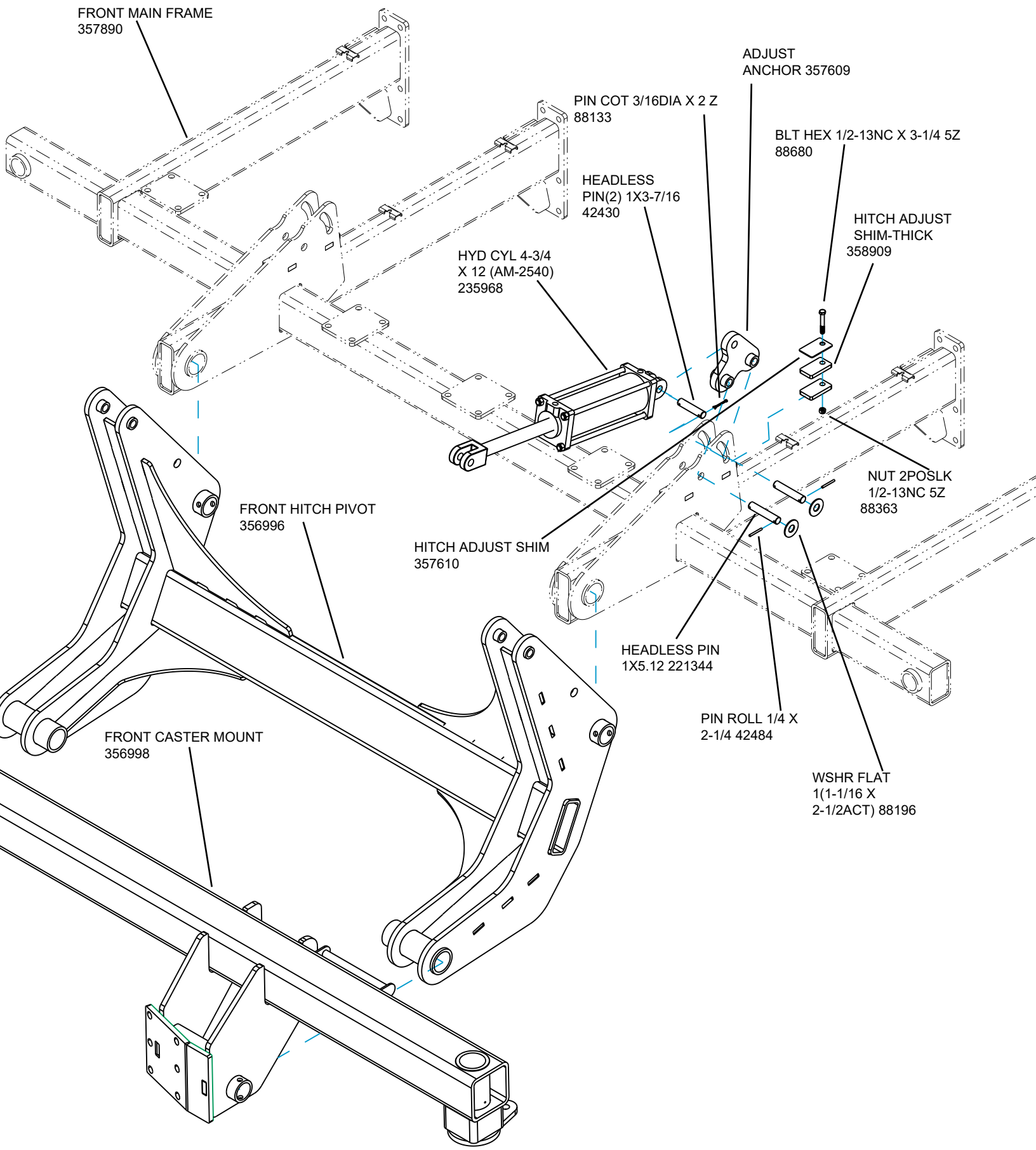


FRONT CASTER MOUNT MAIN FRAME



INSIDE WHEEL TO LEAD ON BOTH RIGHT WALKER & LEFT WALKER

FRONT HITCH PIVOT ASSEMBLY



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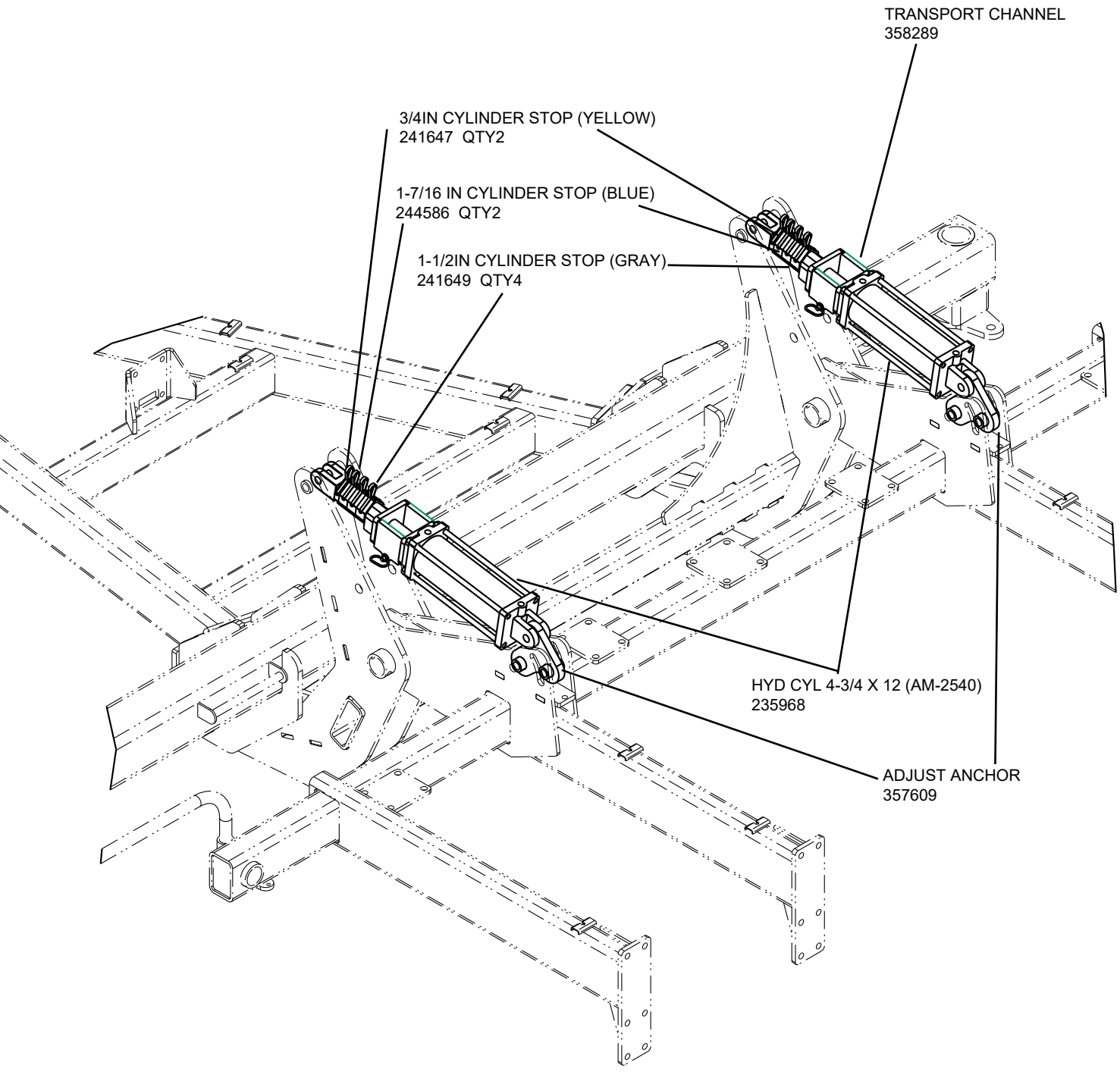
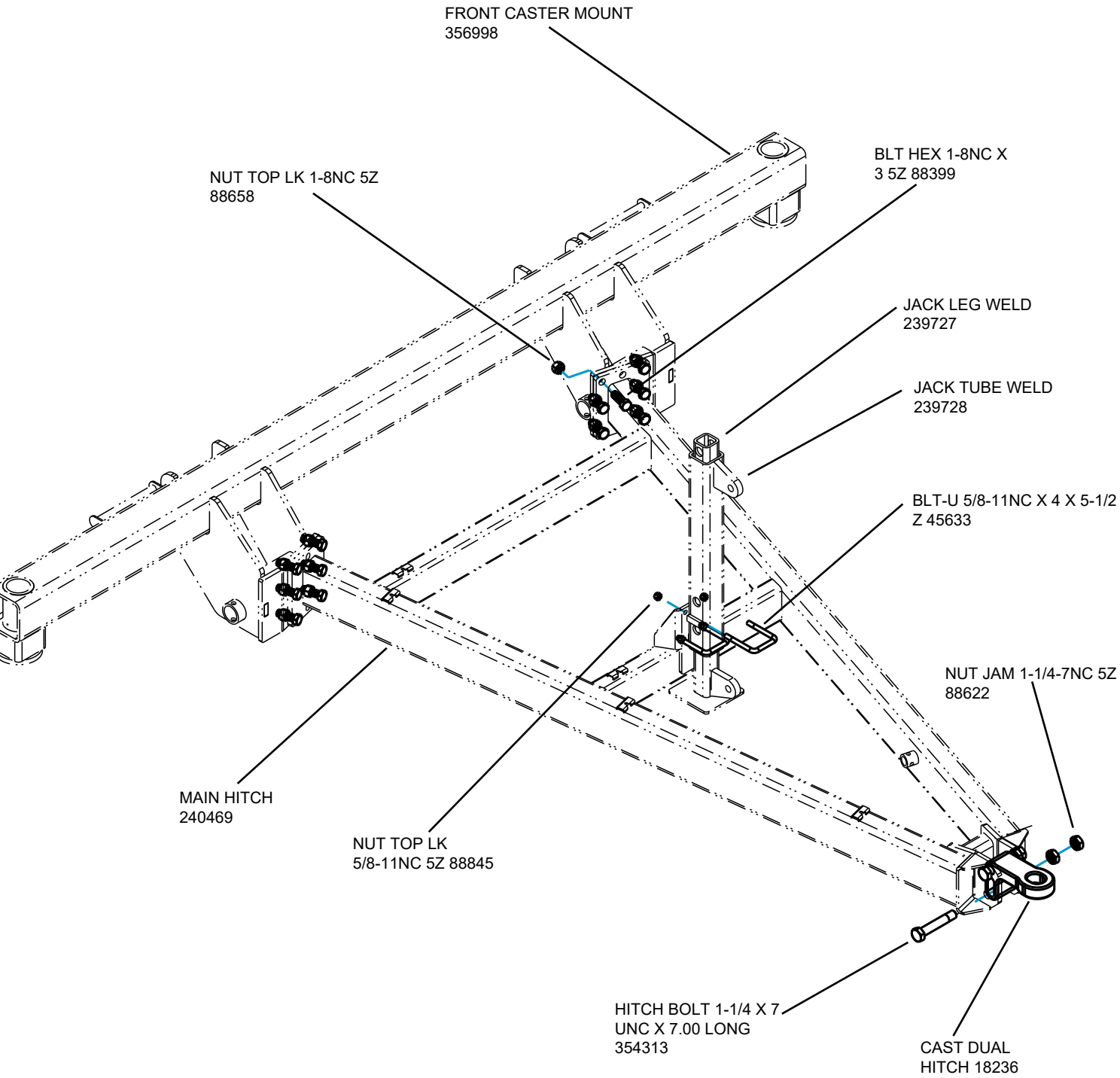
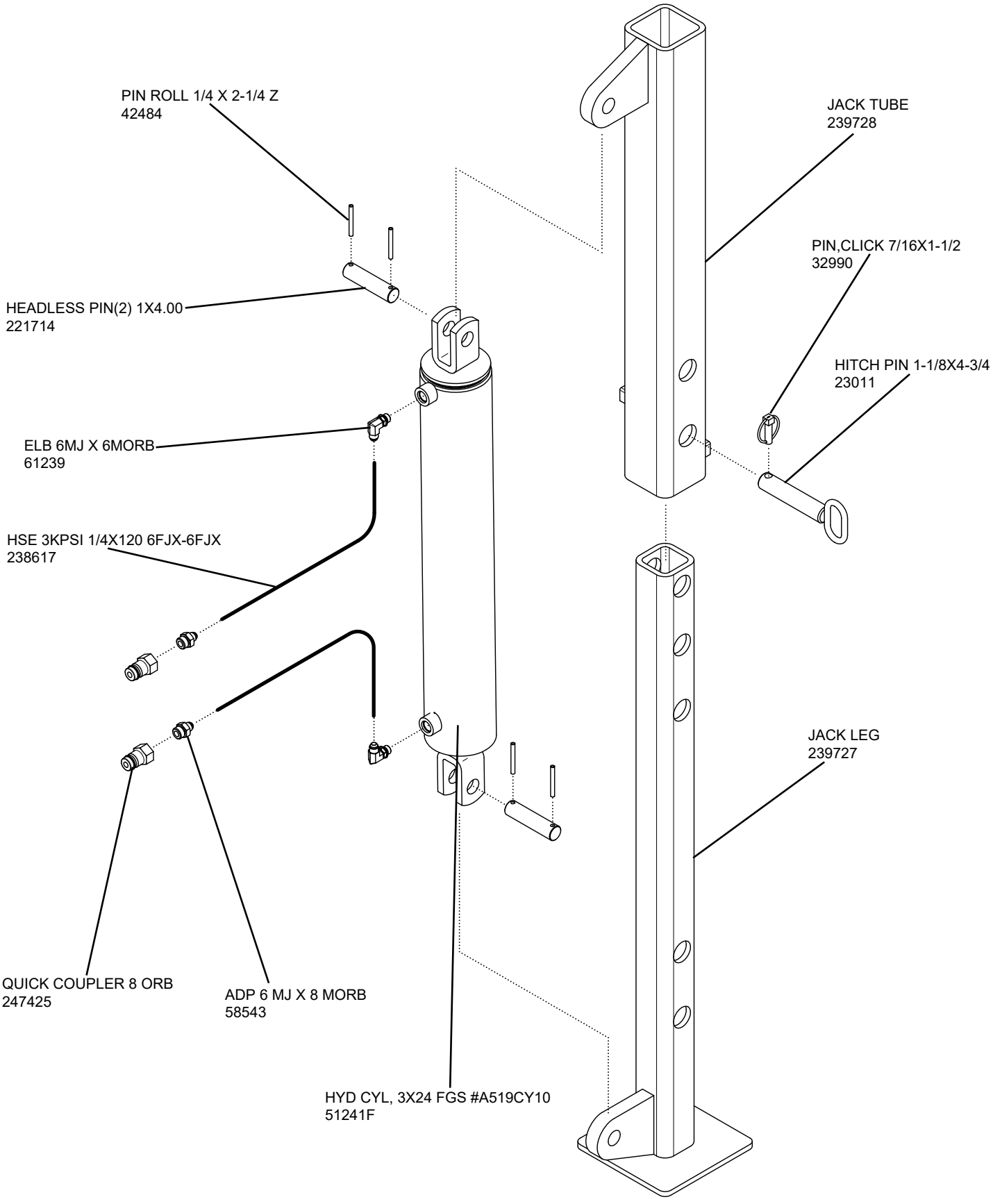
FRONT LIFT CYLINDERS-MAINFRAME

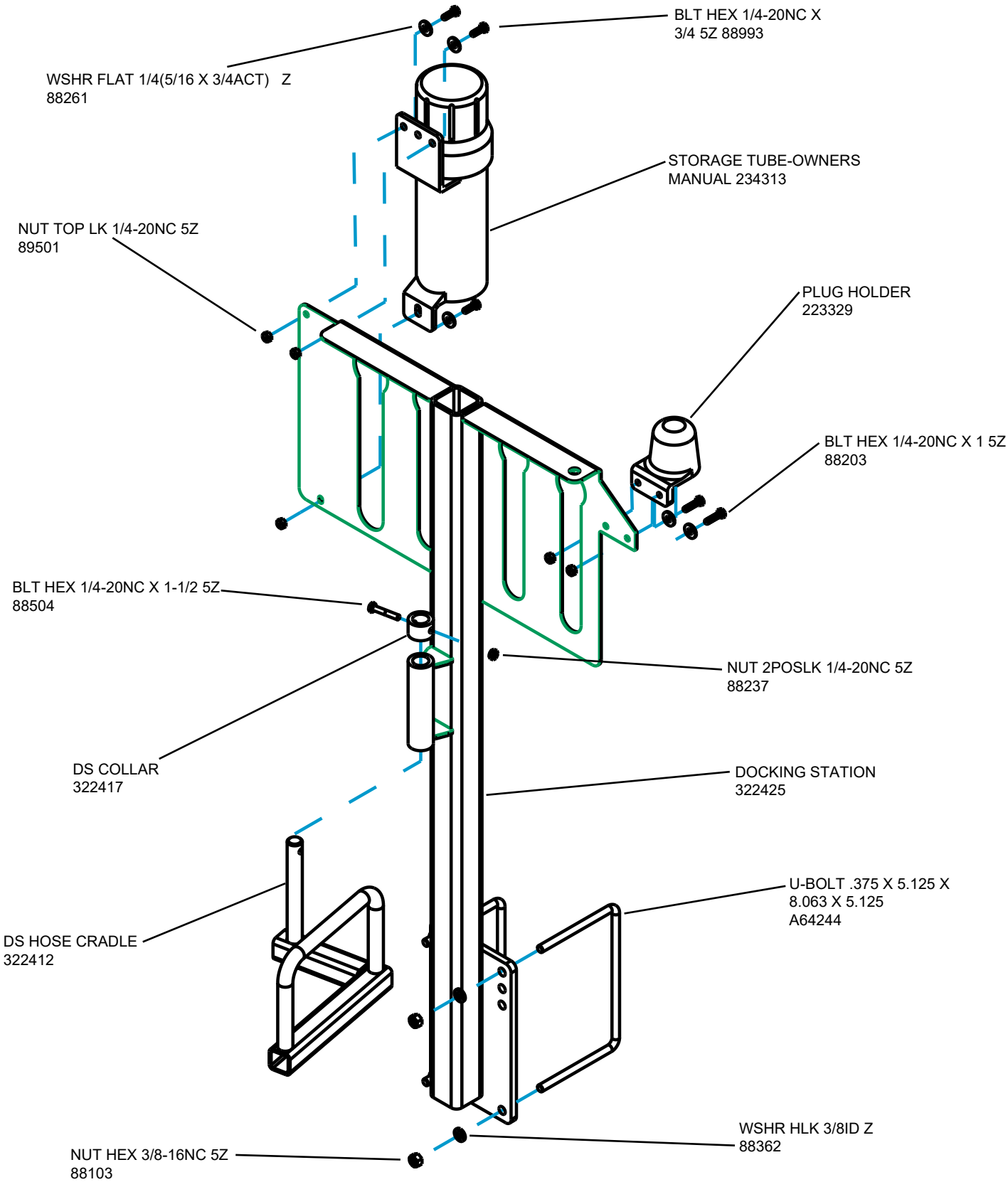


FRONT HITCH


FRONT CASTER MOUNT
356998
NUT TOP LK 1-8NC 5Z
88658
BLT HEX 1-8NC X
3 5Z 88399
JACK LEG WELD
239727
JACK TUBE WELD
239728
BLT-U 5/8-11NC X 4 X 5-1/2
Z 45633
NUT JAM 1-1/4-7NC 5Z
88622
MAIN HITCH
240469
NUT TOP LK
5/8-11NC 5Z 88845
HITCH BOLT 1-1/4 X 7
UNC X 7.00 LONG
354313
CAST DUAL
HITCH 18236


PIN ROLL 1/4 X 2-1/4 Z
42484
JACK TUBE
239728
PIN,CLICK 7/16X1-1/2
32990
HEADLESS PIN(2) 1X4.00
221714
HITCH PIN 1-1/8X4-3/4
23011
ELB 6MJ X 6MORB
61239
HSE 3KPSI 1/4X120 6FJX-6FJX
238617
JACK LEG
239727
QUICK COUPLER 8 ORB
247425
ADP 6 MJ X 8 MORB
58543
HYD CYL, 3X24 FGS #A519CY10
51241F

DOCKING STATION



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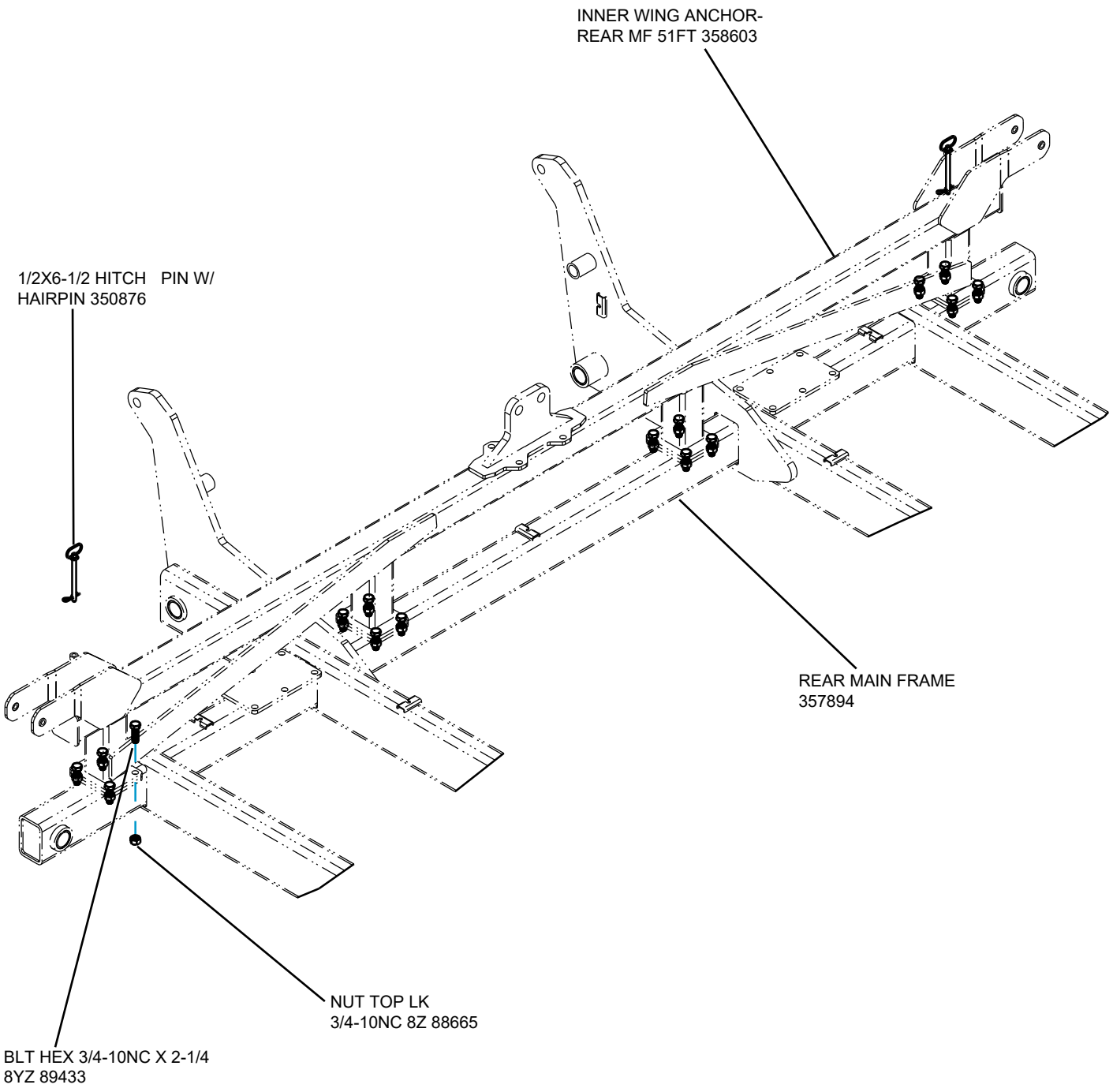
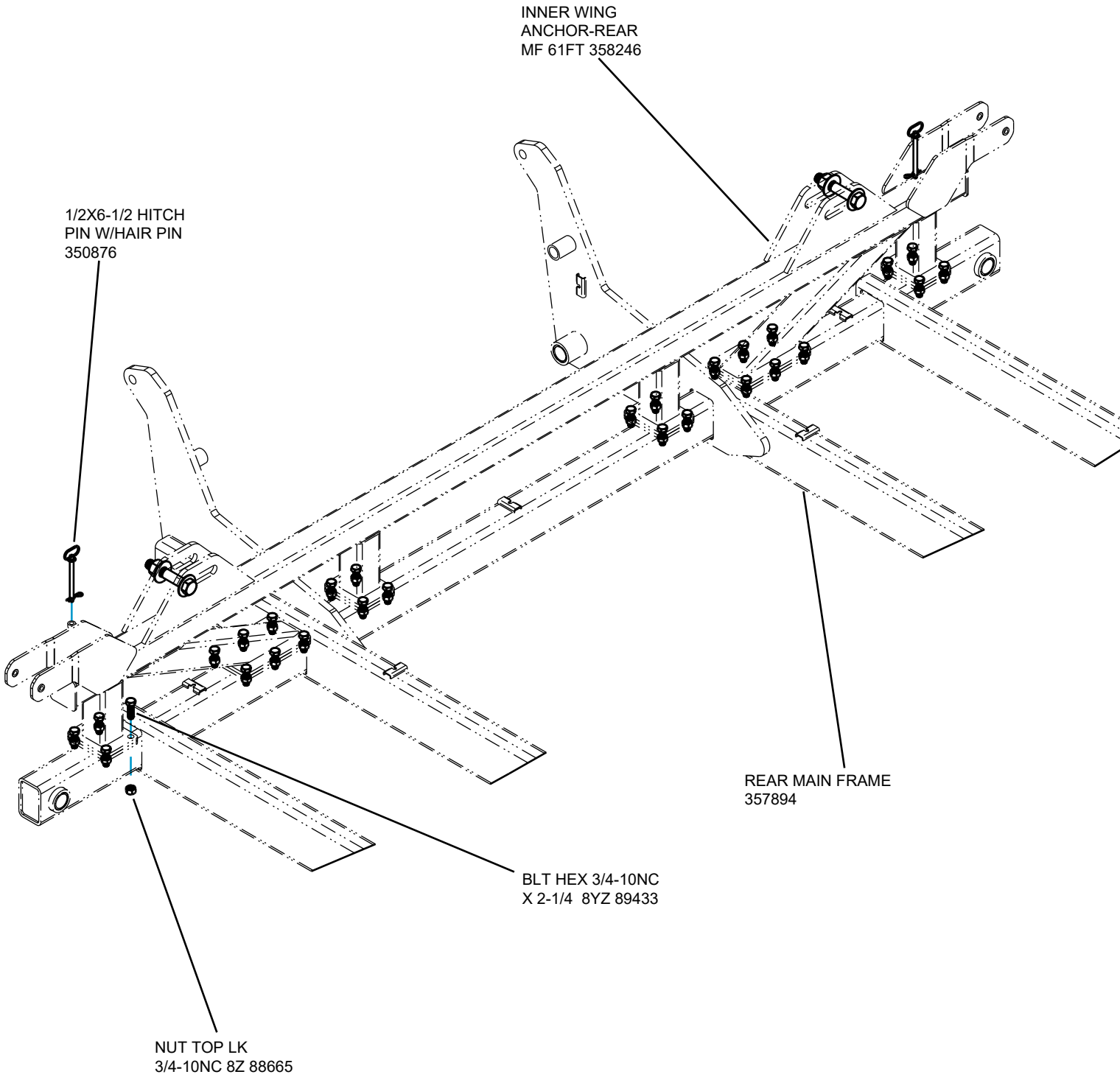
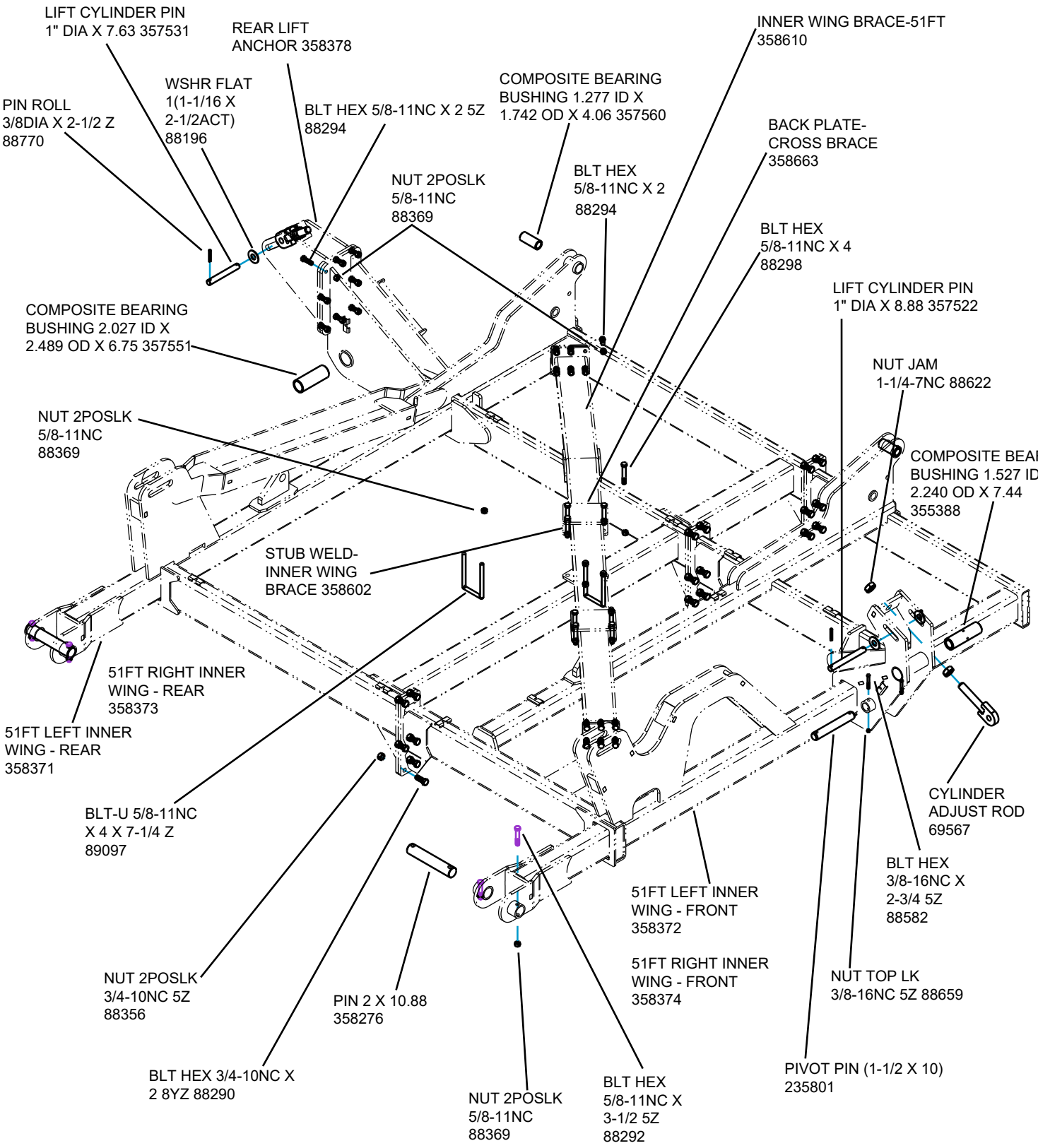
REAR INNER WING ANCHOR/REST 51FT



REAR INNER WING ANCHOR/REST 61FT

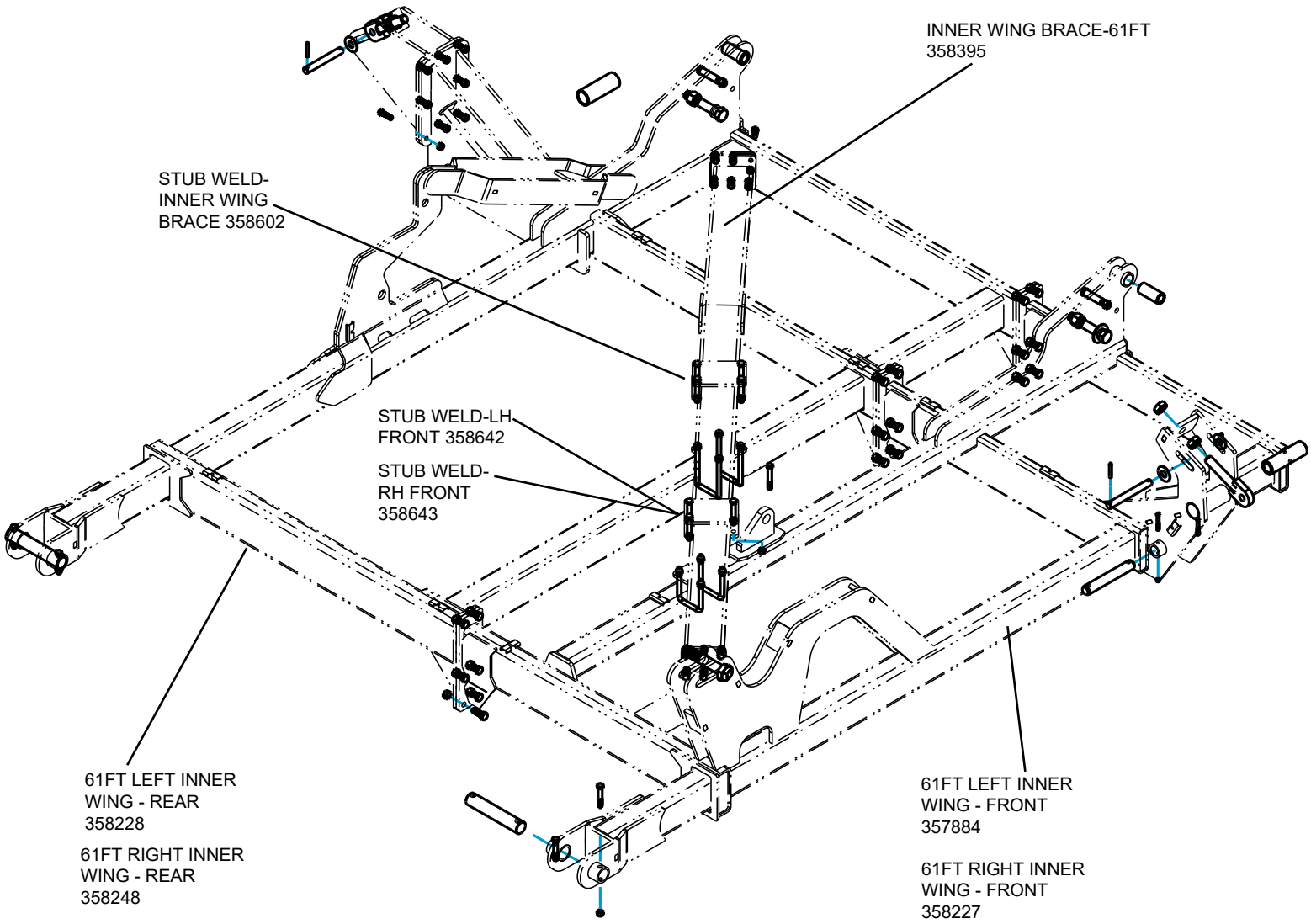


INNER WING 51FT

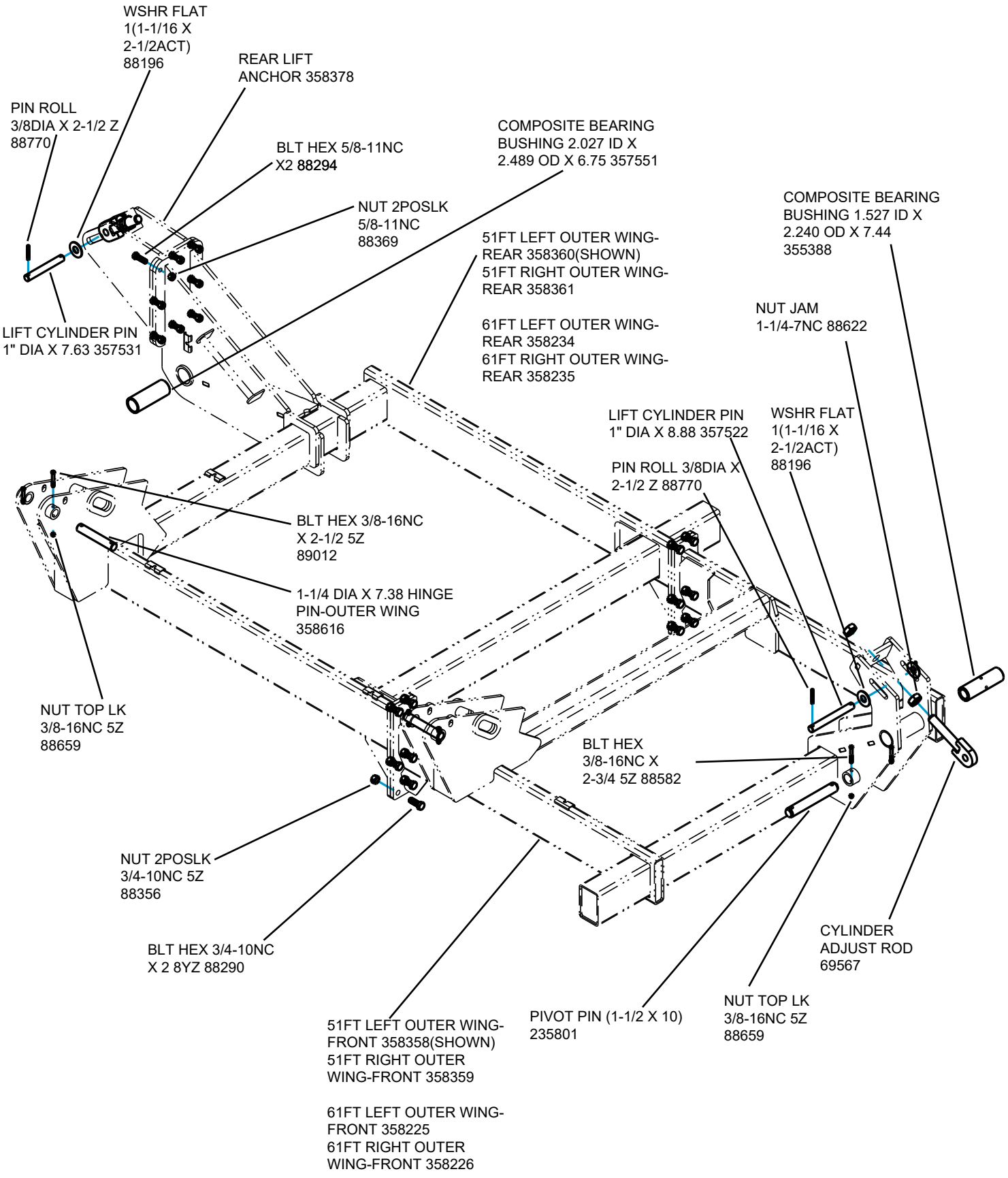


INNER WING 61FT

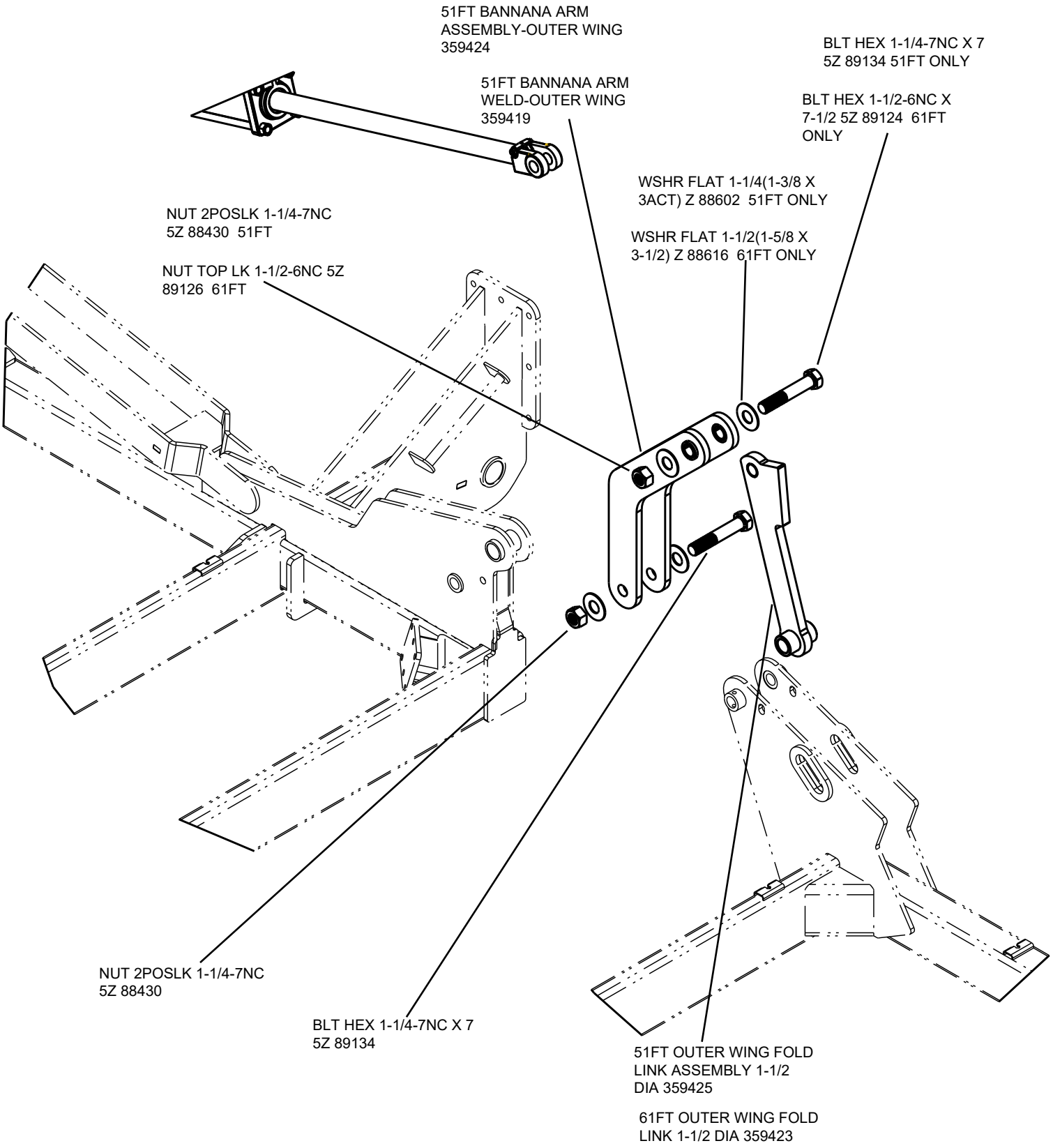
ALL COMPONENTS THE SAME AS PAGE 30 EXCEPT AS NOTED



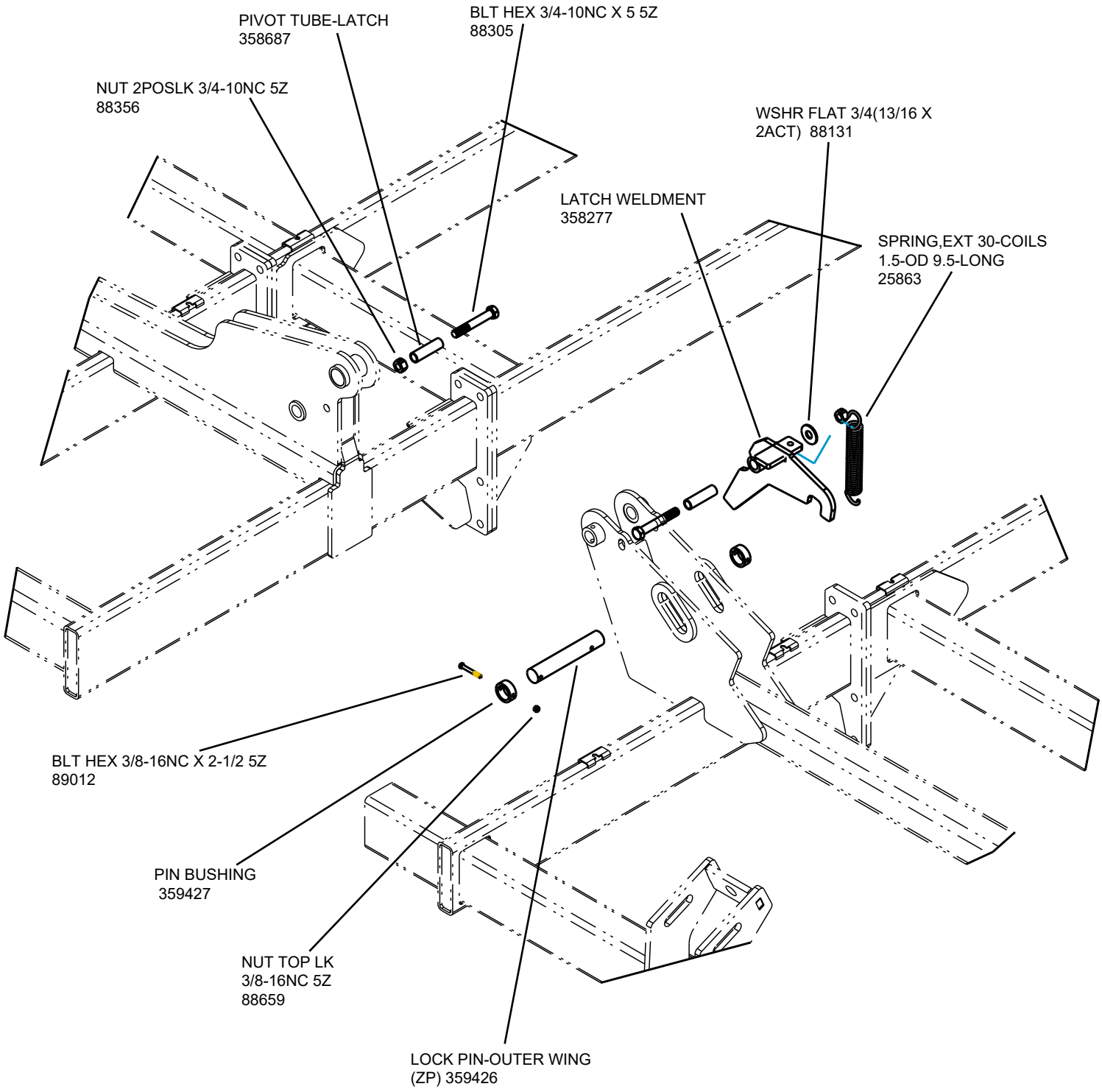
OUTER WINGS


WSHR FLAT
1(1-1/16 X
2-1/2ACT)
88196
REAR LIFT
ANCHOR 358378
PIN ROLL
3/8DIA X 2-1/2 Z
88770
BLT HEX 5/8-11NC
X2 88294
COMPOSITE BEARING
BUSHING 2.027 ID X
2.489 OD X 6.75 357551
NUT 2POSLK
5/8-11NC
88369
COMPOSITE BEARING
BUSHING 1.527 ID X
2.240 OD X 7.44
355388
51FT LEFT OUTER WING-
REAR 358360(SHOWN)
51FT RIGHT OUTER WING-
REAR 358361
NUT JAM
1-1/4-7NC 88622
LIFT CYLINDER PIN
1" DIA X 7.63 357531
61FT LEFT OUTER WING-
REAR 358234
61FT RIGHT OUTER WING-
REAR 358235
LIFT CYLINDER PIN
1" DIA X 8.88 357522
WSHR FLAT
1(1-1/16 X
2-1/2ACT)
88196
PIN ROLL 3/8DIA X
2-1/2 Z 88770
BLT HEX 3/8-16NC
X 2-1/2 5Z
89012
1-1/4 DIA X 7.38 HINGE
PIN-OUTER WING
358616
NUT TOP LK
3/8-16NC 5Z
88659
BLT HEX
3/8-16NC X
2-3/4 5Z 88582
NUT 2POSLK
3/4-10NC 5Z
88356
BLT HEX 3/4-10NC
X 2 8YZ 88290
CYLINDER
ADJUST ROD
69567
51FT LEFT OUTER WING-
FRONT 358358(SHOWN)
51FT RIGHT OUTER
WING-FRONT 358359
PIVOT PIN (1-1/2 X 10)
235801
NUT TOP LK
3/8-16NC 5Z
88659
61FT LEFT OUTER WING-
FRONT 358225
61FT RIGHT OUTER
WING-FRONT 358226

OUTER WING FOLD LINKAGE



OUTER WING LATCH



OUTER WING LATCH SYSTEM

(1) Latch
(2) Latch pin
(3) Spring
(4) Latch stop

Figure 1 shows the latch system with the outer wing unfolded. Make sure items 1 thru 4 are bolted tightly and secured before folding and unfolding the outer wing. The purpose of the latch system is to make sure the outer wing folds and unfolds smoothly without any abrupt changes in the folding speed during the fold process.

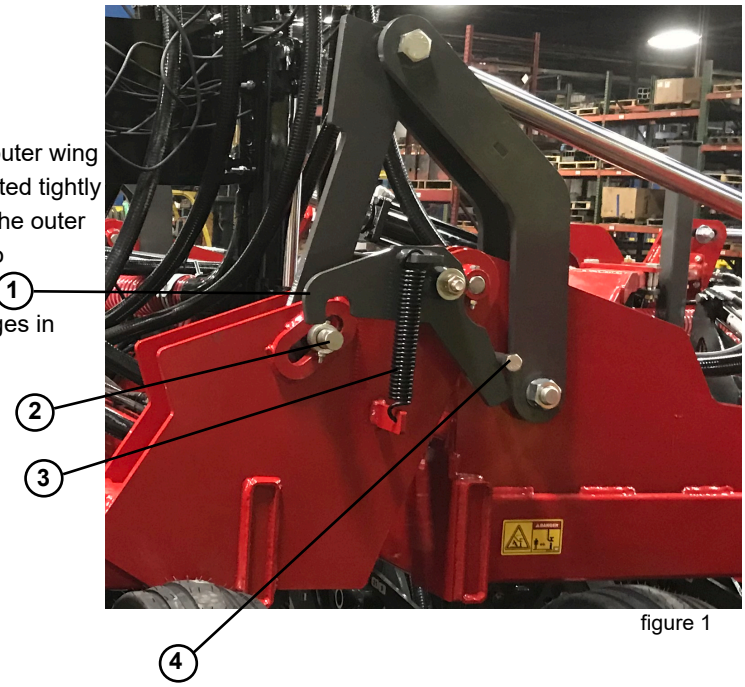
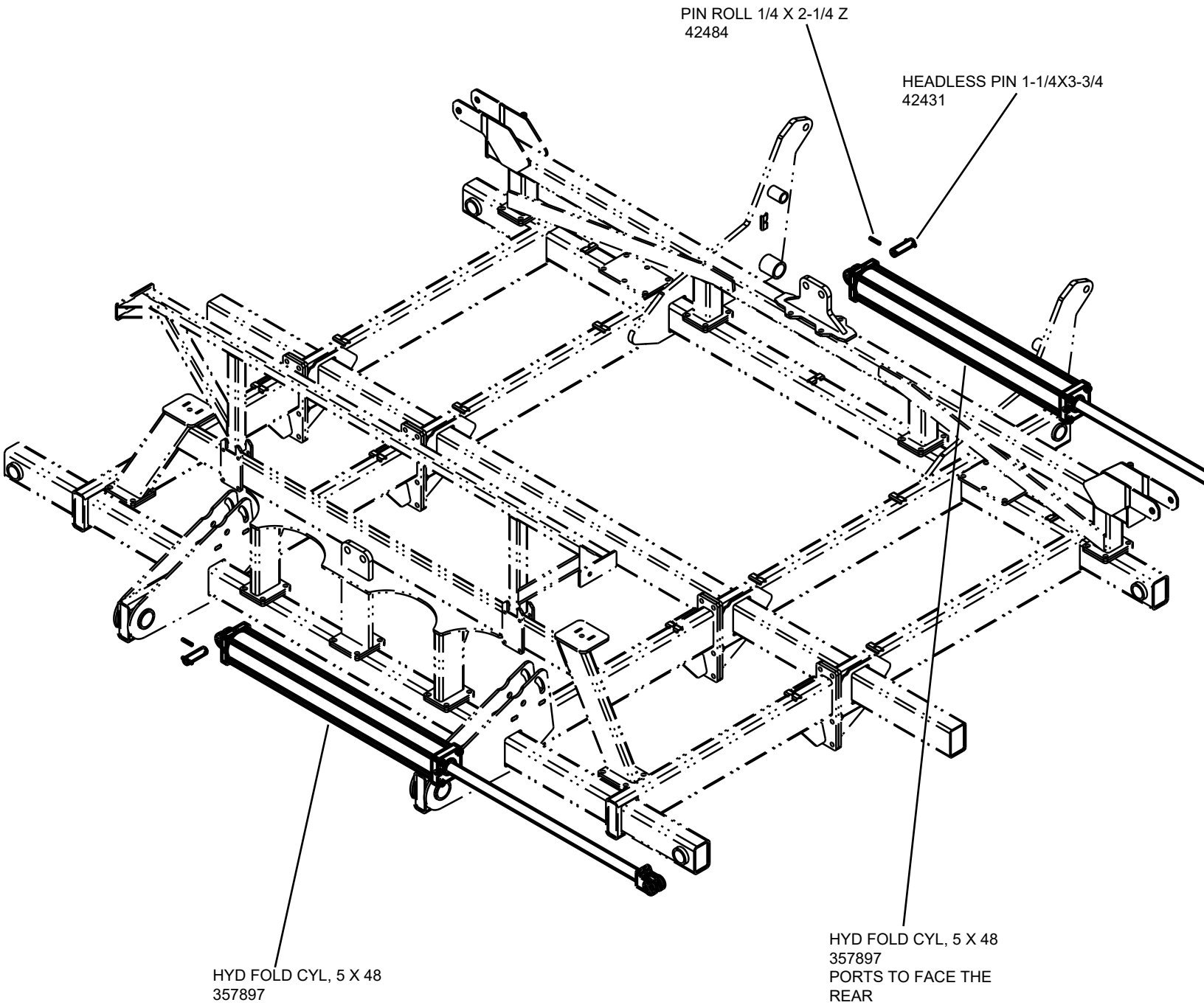


figure 1

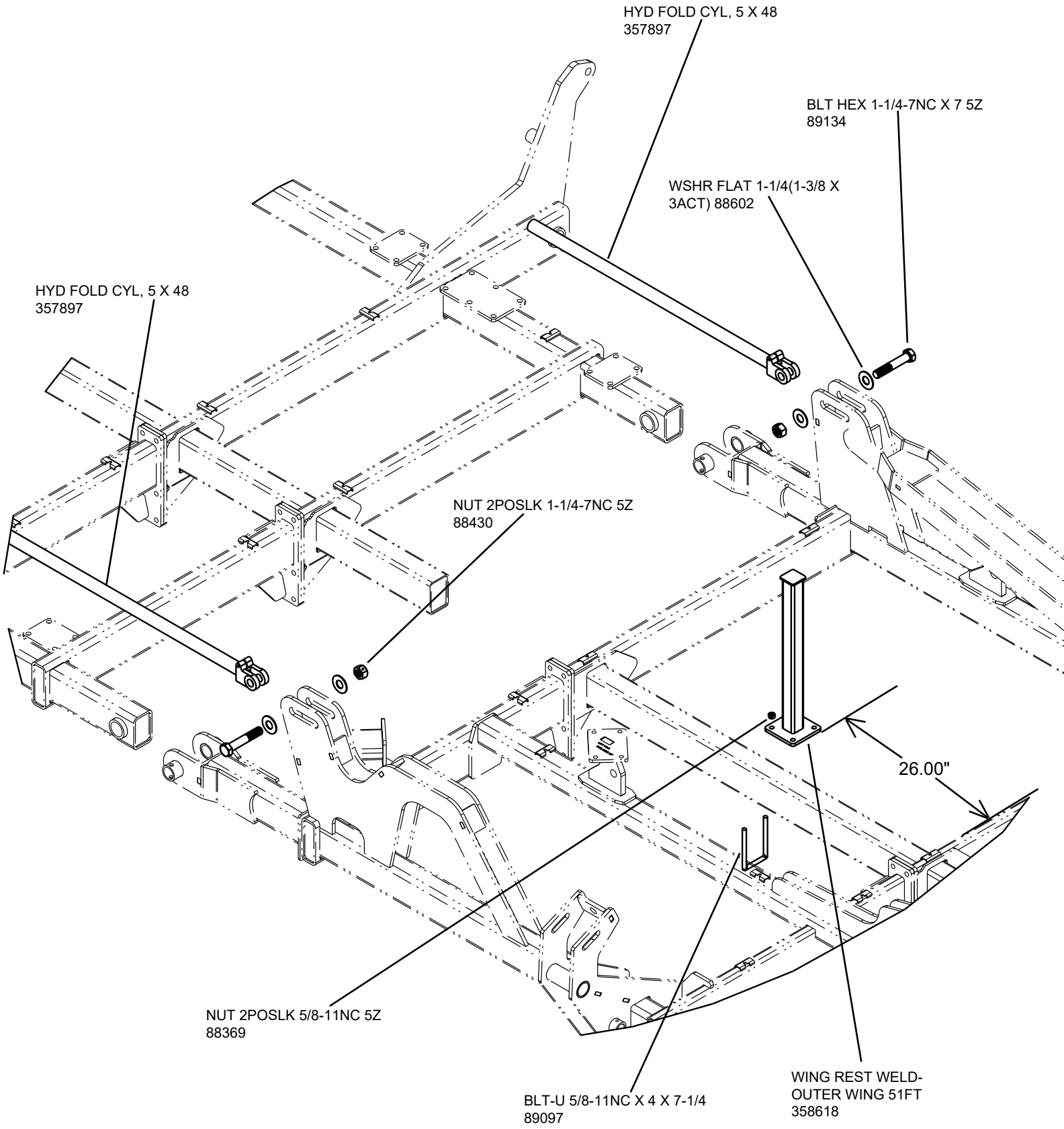
Figure 2 shows the outer wing and latch system in the folded position.

figure 2

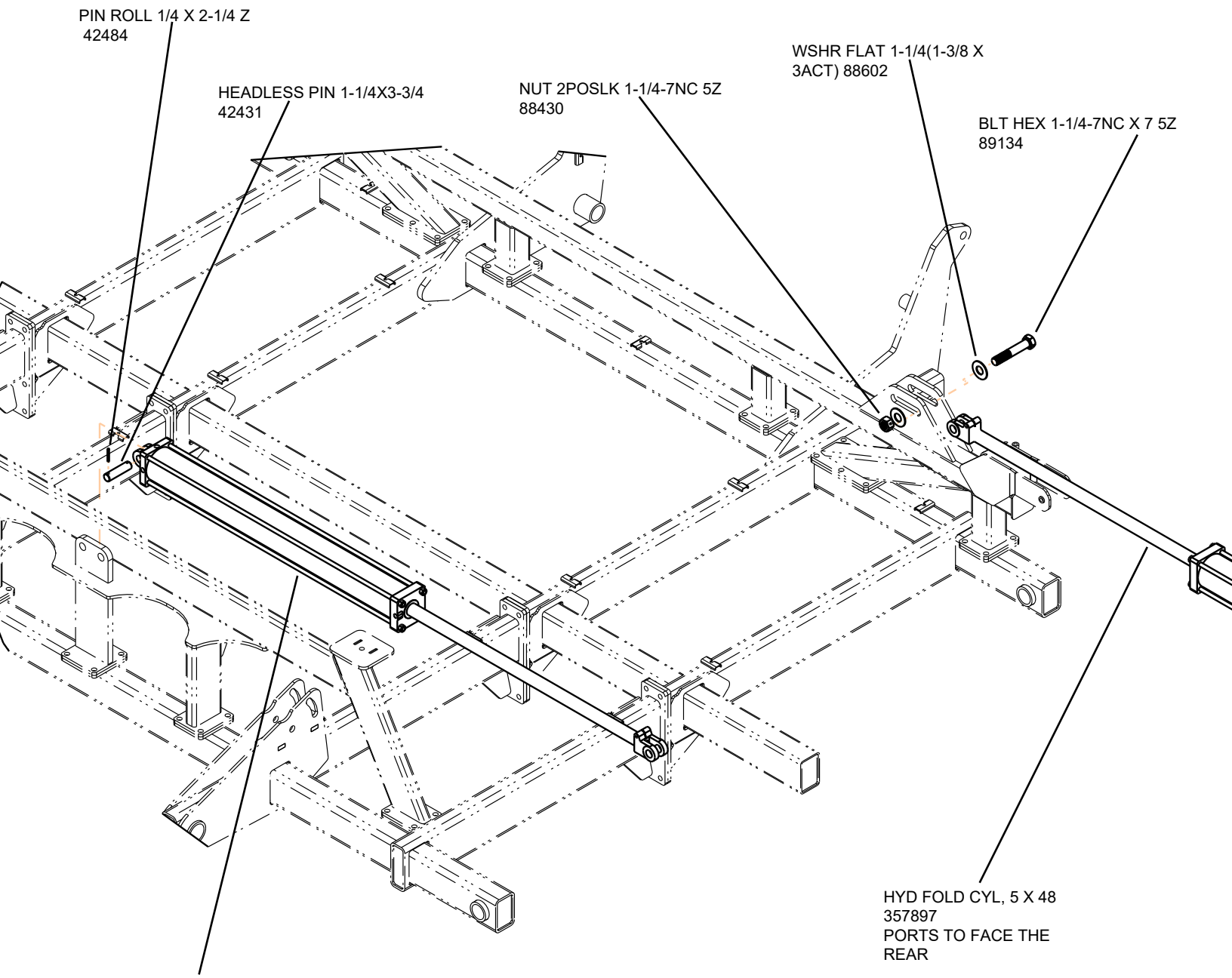


REAR INNER WING FOLD CYLINDER - PORTS TO FACE THE REAR

51FT WING REST

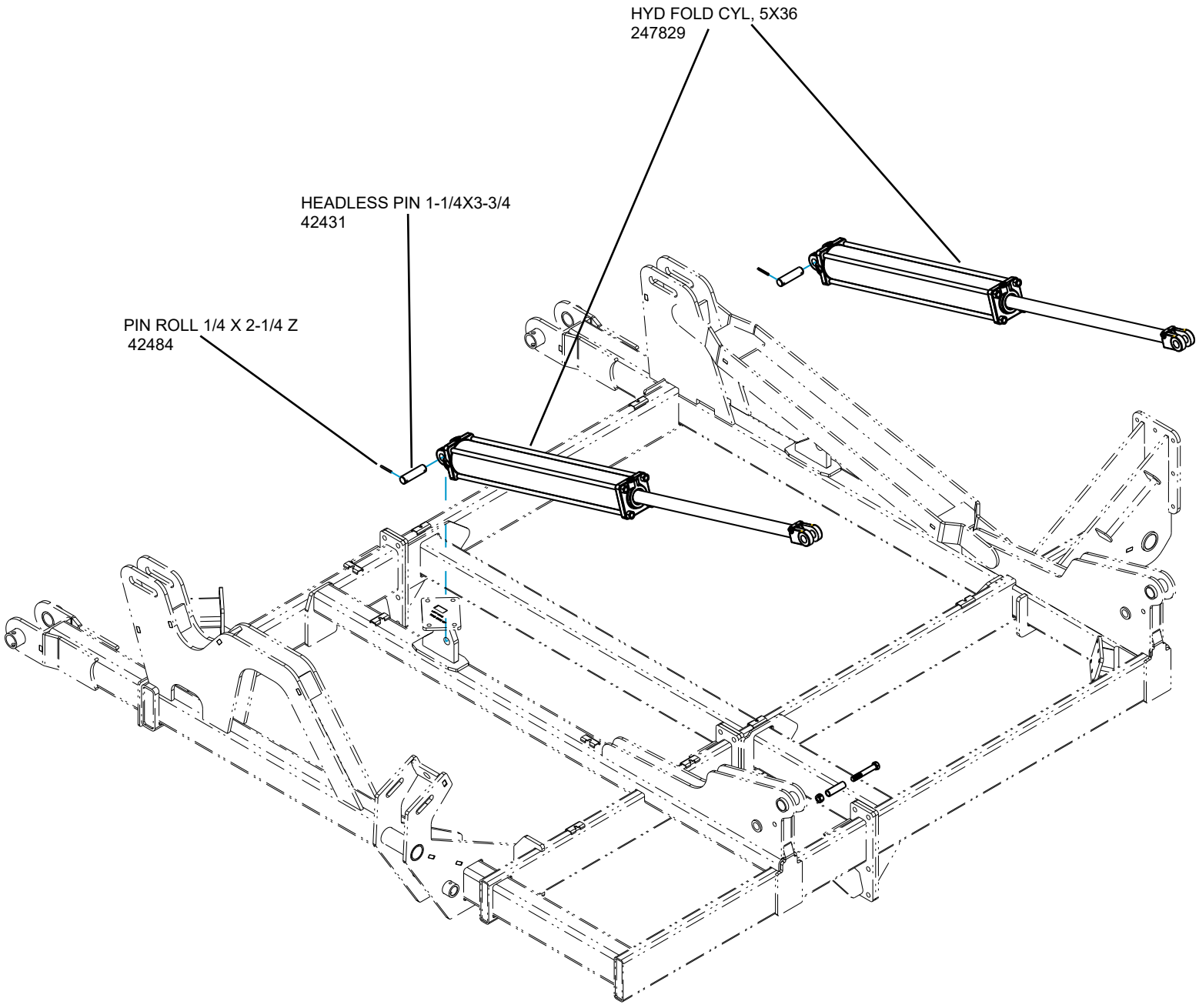


61FT INNER WING FOLD CYLINDERS



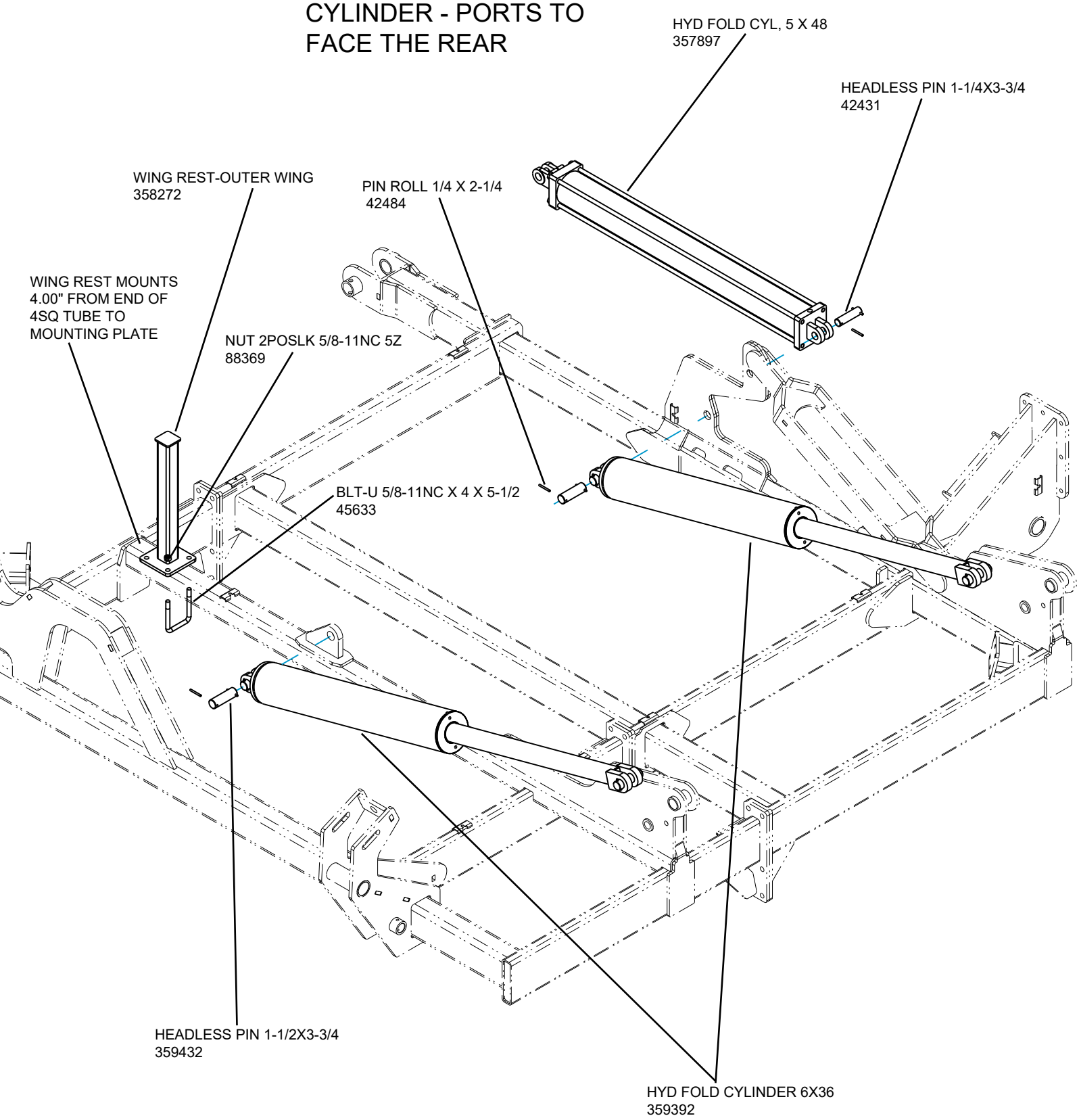
REAR INNER WING FOLD CYLINDER - PORTS TO FACE THE REAR

51FT OUTER WING FOLD CYLINDERS

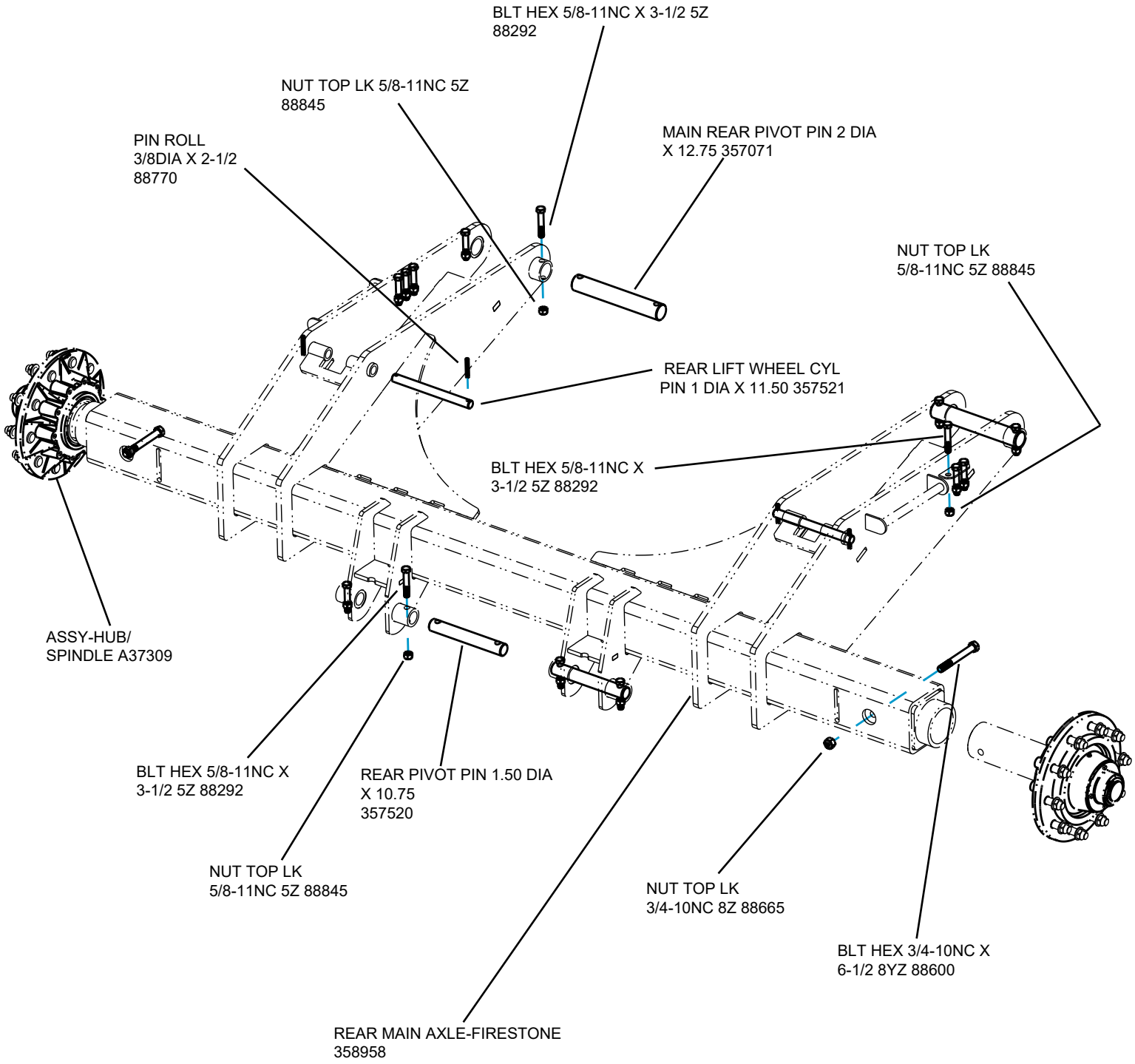


61FT OUTER WING FOLD CYLINDERS

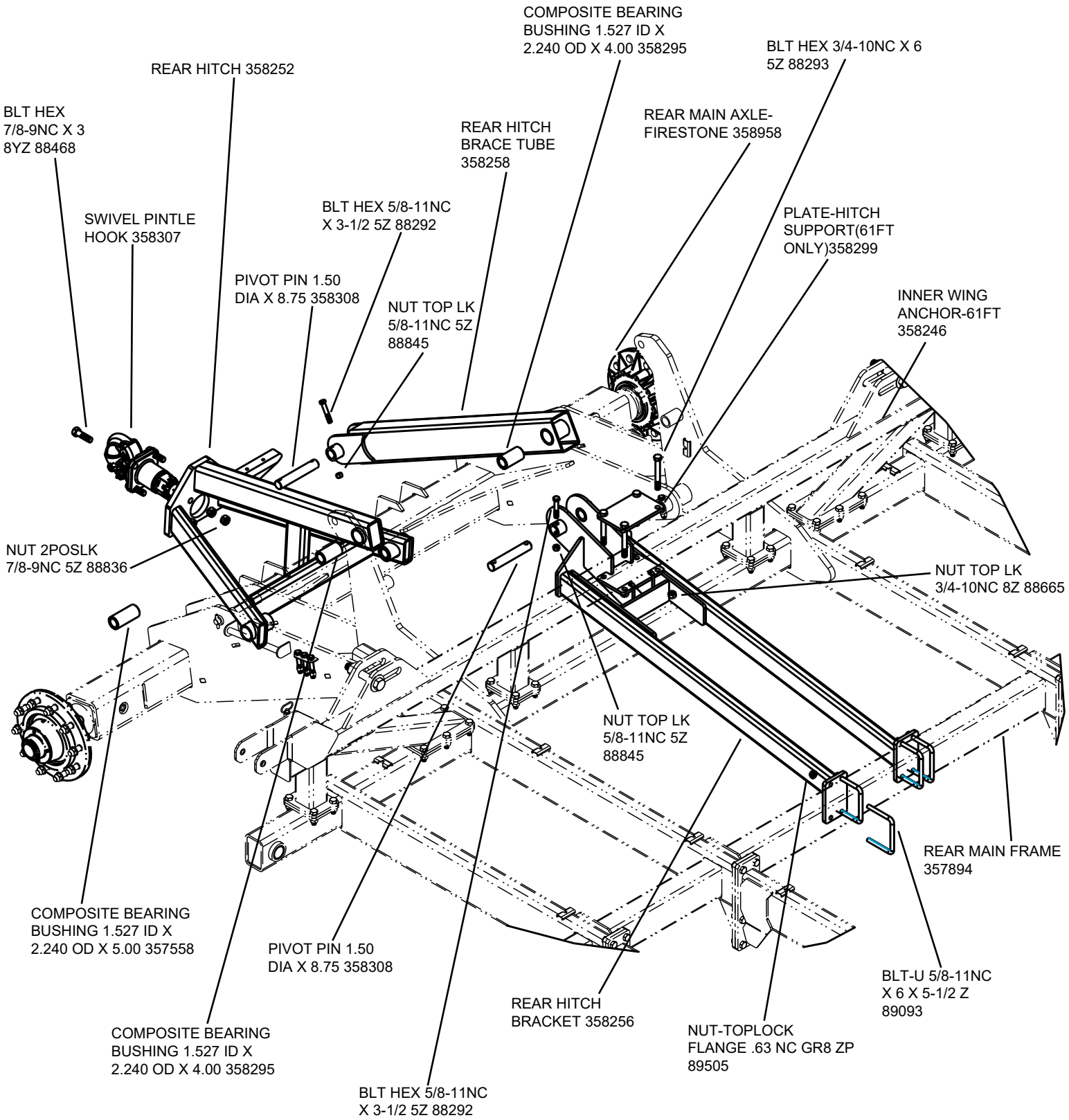
REAR INNER WING FOLD CYLINDER - PORTS TO FACE THE REAR



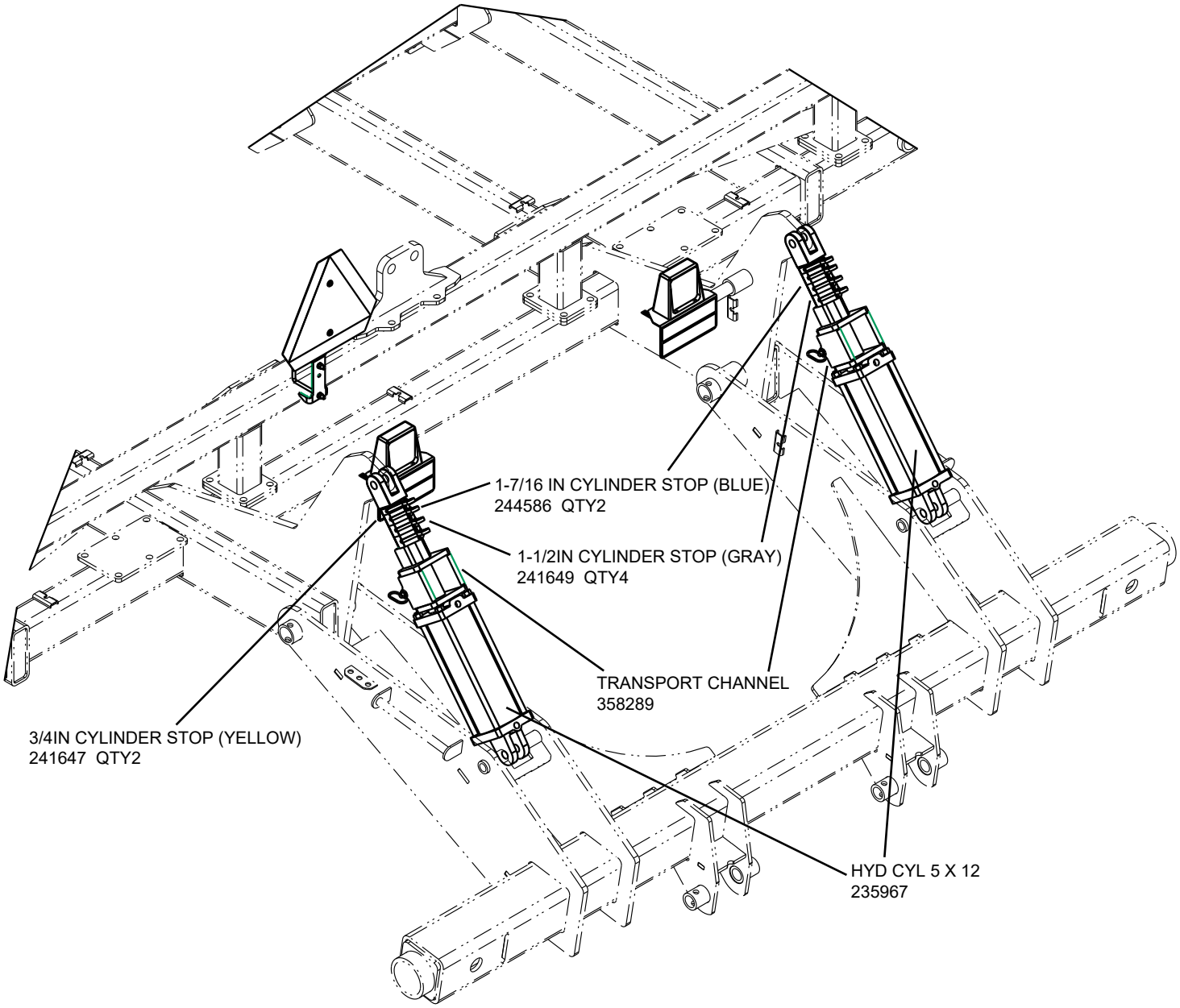
REAR AXLE


BLT HEX 5/8-11NC X 3-1/2 5Z
88292
NUT TOP LK 5/8-11NC 5Z
88845
PIN ROLL
3/8DIA X 2-1/2
88770
MAIN REAR PIVOT PIN 2 DIA
X 12.75 357071
NUT TOP LK
5/8-11NC 5Z 88845
REAR LIFT WHEEL CYL
PIN 1 DIA X 11.50 357521
BLT HEX 5/8-11NC X
3-1/2 5Z 88292
ASSY-HUB/
SPINDLE A37309
BLT HEX 5/8-11NC X
3-1/2 5Z 88292
REAR PIVOT PIN 1.50 DIA
X 10.75
357520
NUT TOP LK
5/8-11NC 5Z 88845
NUT TOP LK
3/4-10NC 8Z 88665
BLT HEX 3/4-10NC X
6-1/2 8YZ 88600
REAR MAIN AXLE-FIRESTONE
358958

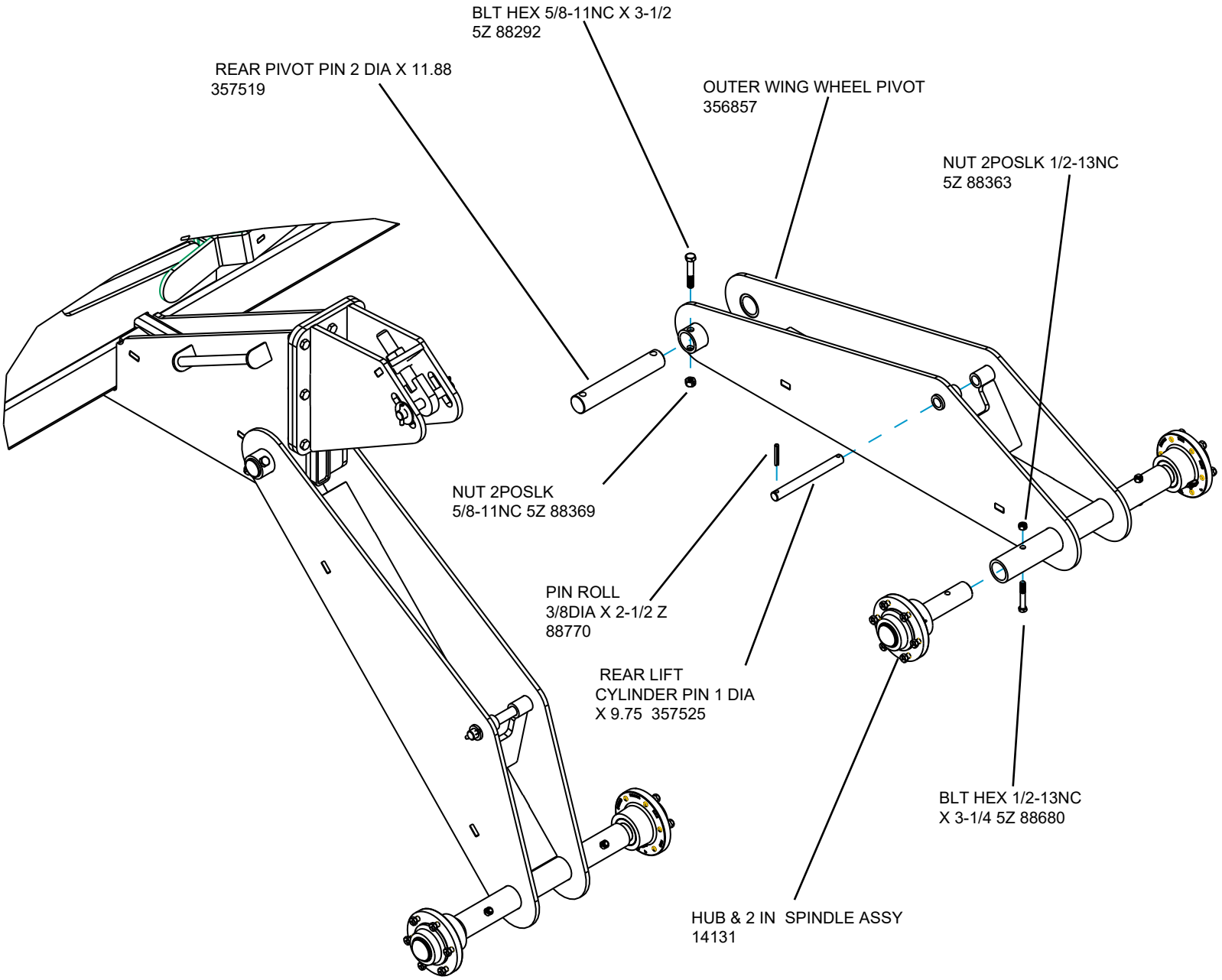
REAR HITCH


COMPOSITE BEARING BUSHING 1.527 ID X 2.240 OD X 4.00 358295
BLT HEX 3/4-10NC X 6 5Z 88293
REAR HITCH 358252
BLT HEX 7/8-9NC X 3 8YZ 88468
REAR MAIN AXLE-FIRESTONE 358958
REAR HITCH BRACE TUBE 358258
BLT HEX 5/8-11NC X 3-1/2 5Z 88292
SWIVEL PINTLE HOOK 358307
PLATE-HITCH SUPPORT(61FT ONLY)358299
PIVOT PIN 1.50 DIA X 8.75 358308
NUT TOP LK 5/8-11NC 5Z 88845
INNER WING ANCHOR-61FT 358246
NUT 2POSLK 7/8-9NC 5Z 88836
NUT TOP LK 3/4-10NC 8Z 88665
NUT TOP LK 5/8-11NC 5Z 88845
REAR MAIN FRAME 357894
COMPOSITE BEARING BUSHING 1.527 ID X 2.240 OD X 5.00 357558
PIVOT PIN 1.50 DIA X 8.75 358308
BLT-U 5/8-11NC X 6 X 5-1/2 Z 89093
REAR HITCH BRACKET 358256
NUT-TOPLOCK FLANGE .63 NC GR8 ZP 89505
COMPOSITE BEARING BUSHING 1.527 ID X 2.240 OD X 4.00 358295
BLT HEX 5/8-11NC X 3-1/2 5Z 88292

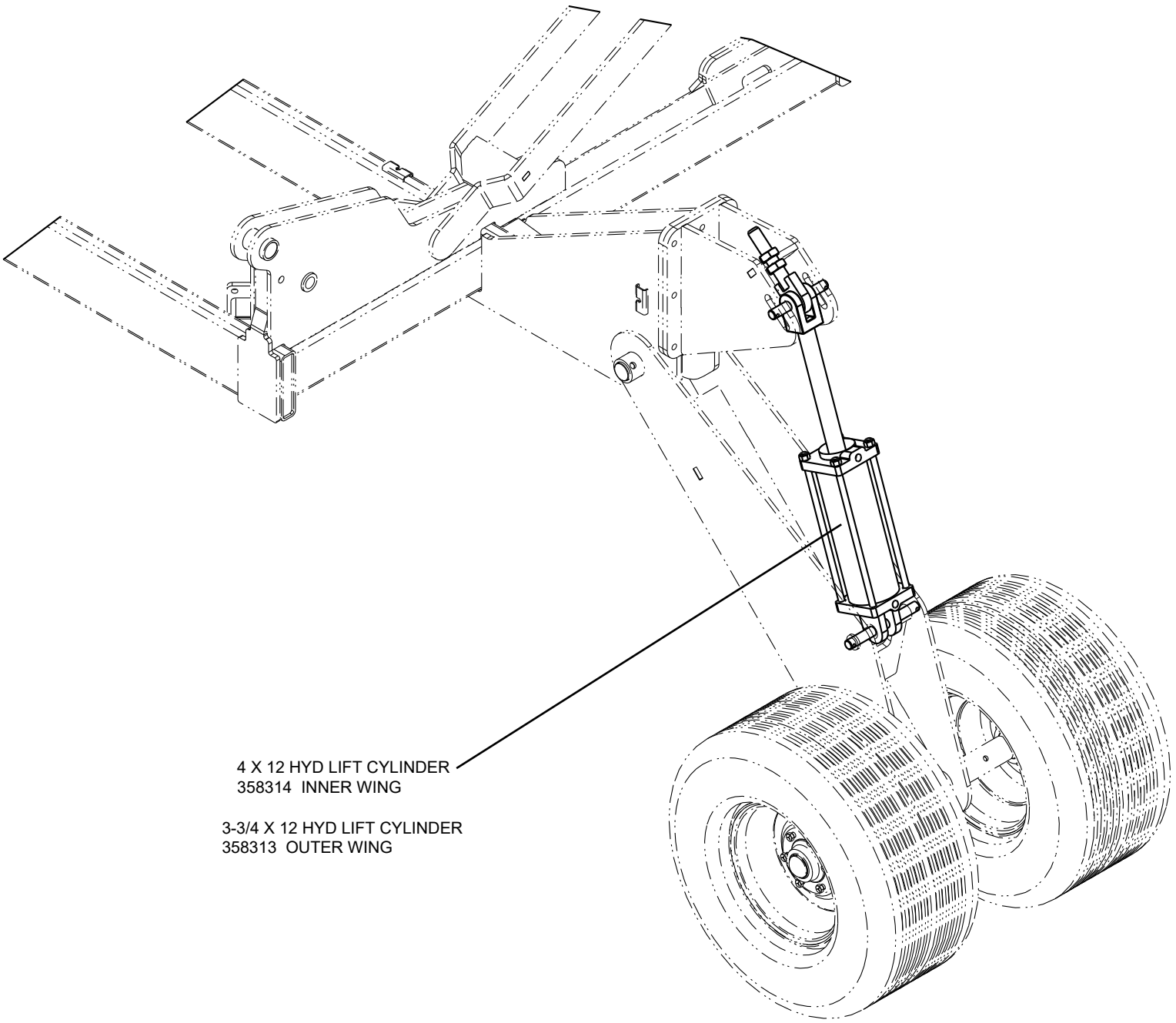
REAR LIFT CYLINDERS-MAINFRAME



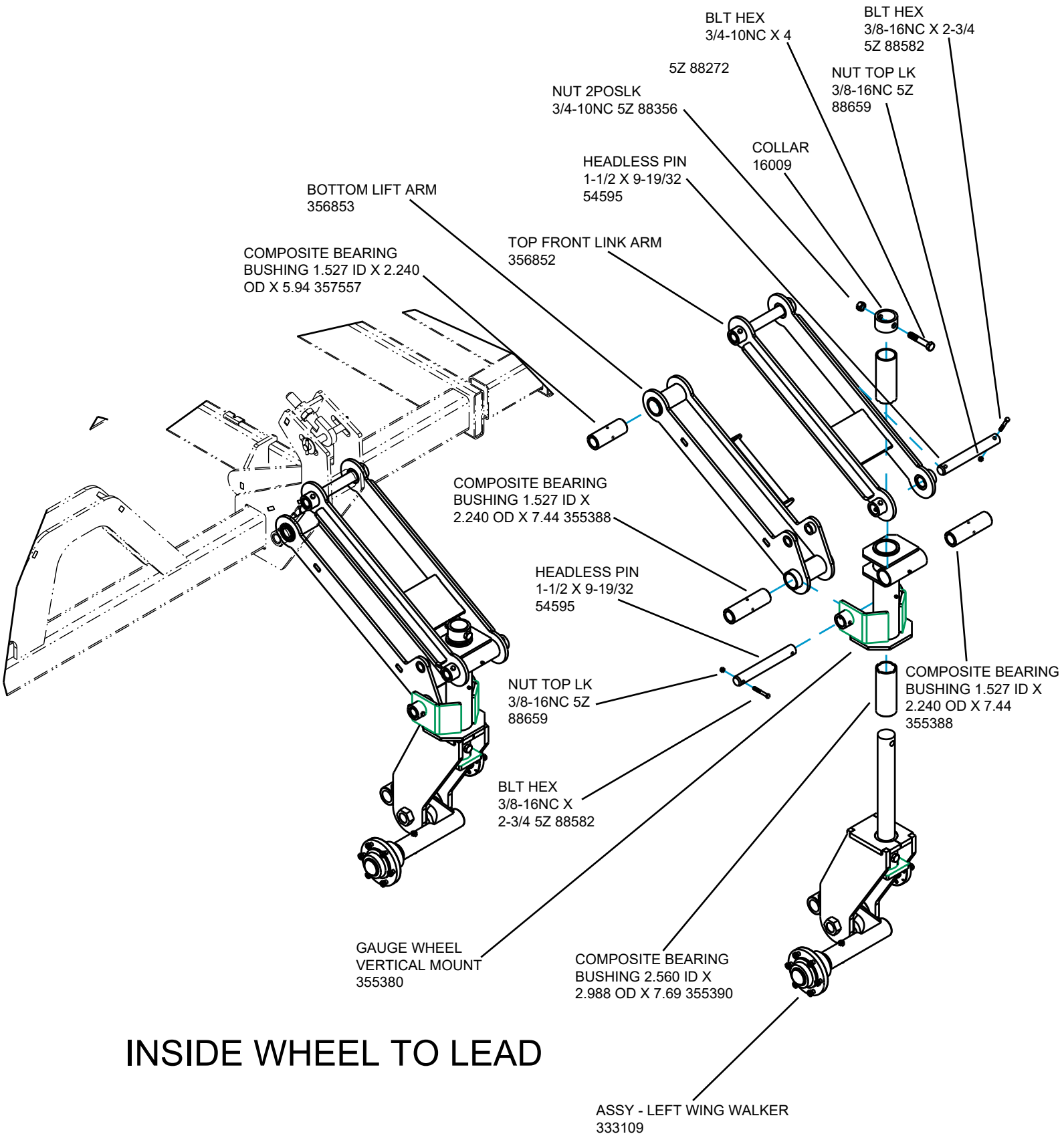
REAR WING AXLE



REAR LIFT CYLINDER-INNER & OUTER WING



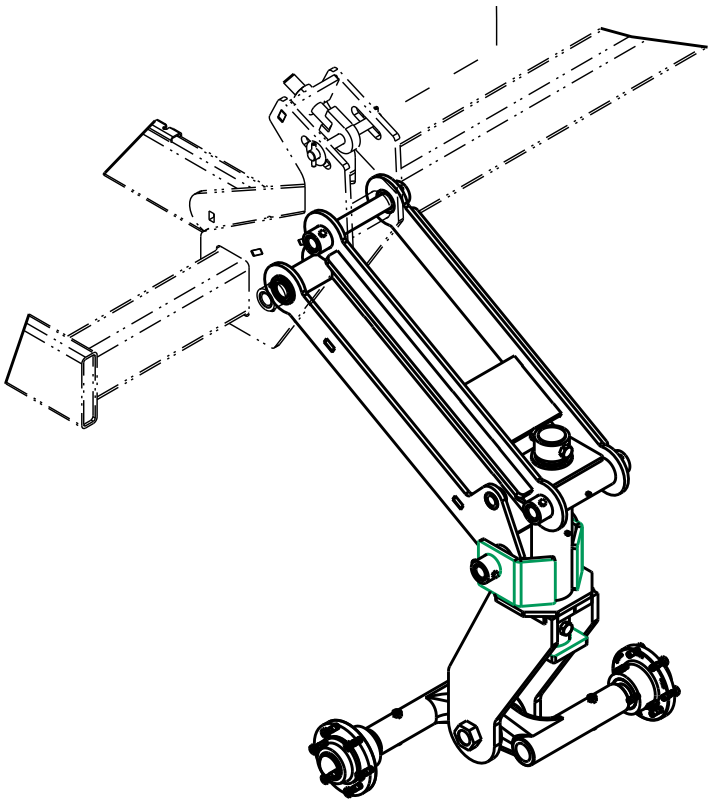
FRONT LIFT ASSEMBLY LEFT-WING

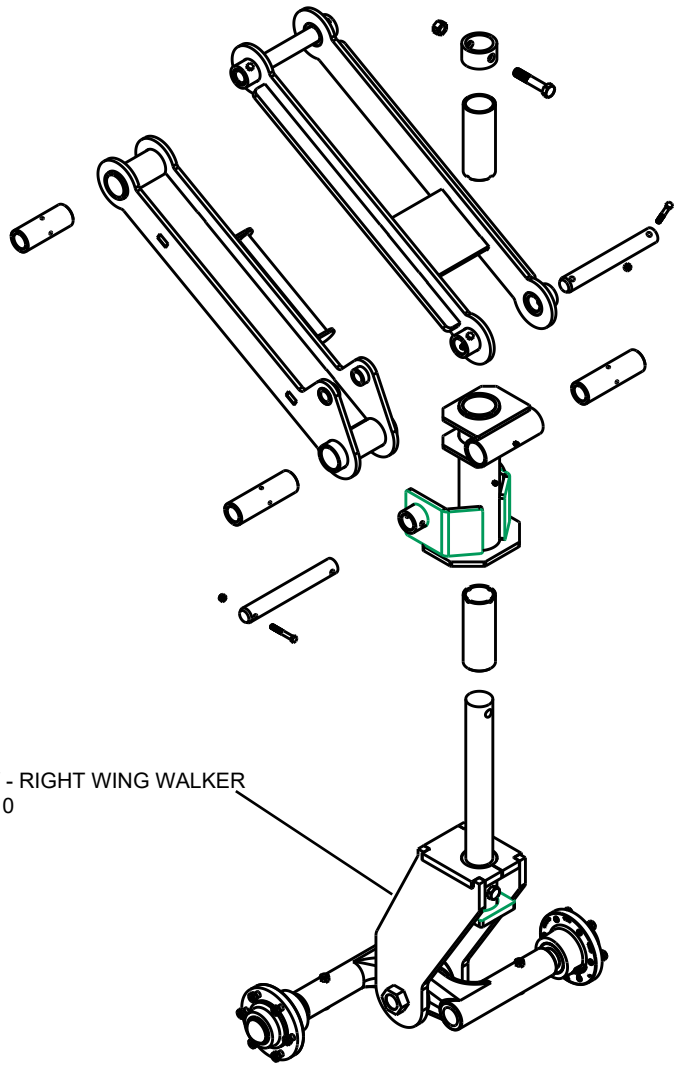


INSIDE WHEEL TO LEAD

FRONT LIFT ASSEMBLY RIGHT-WING

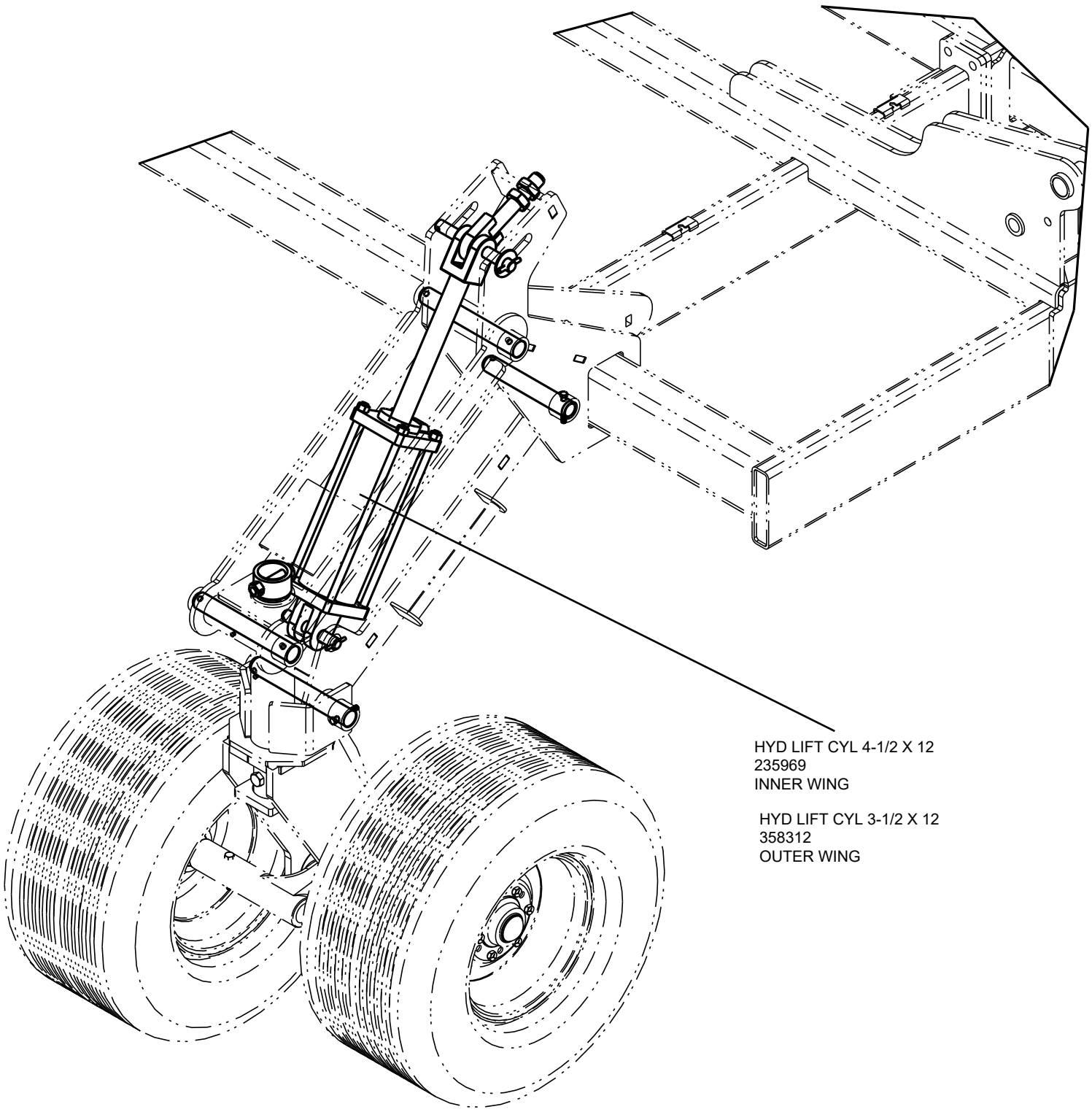
ALL COMPONENTS THE SAME AS PAGE 46 EXCEPT AS NOTED





INSIDE WHEEL TO LEAD

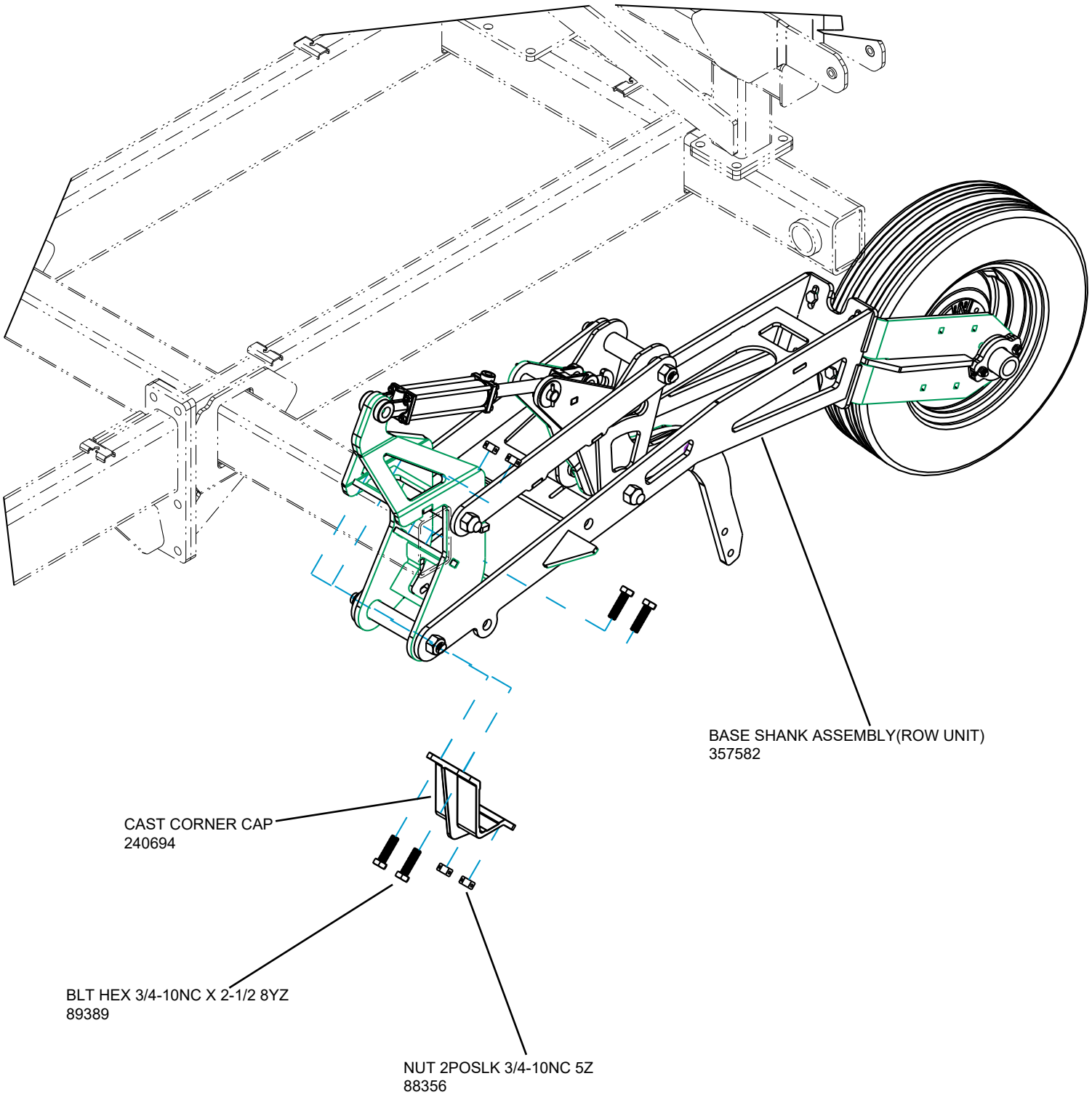
FRONT LIFT CYLINDER-INNER & OUTER WING

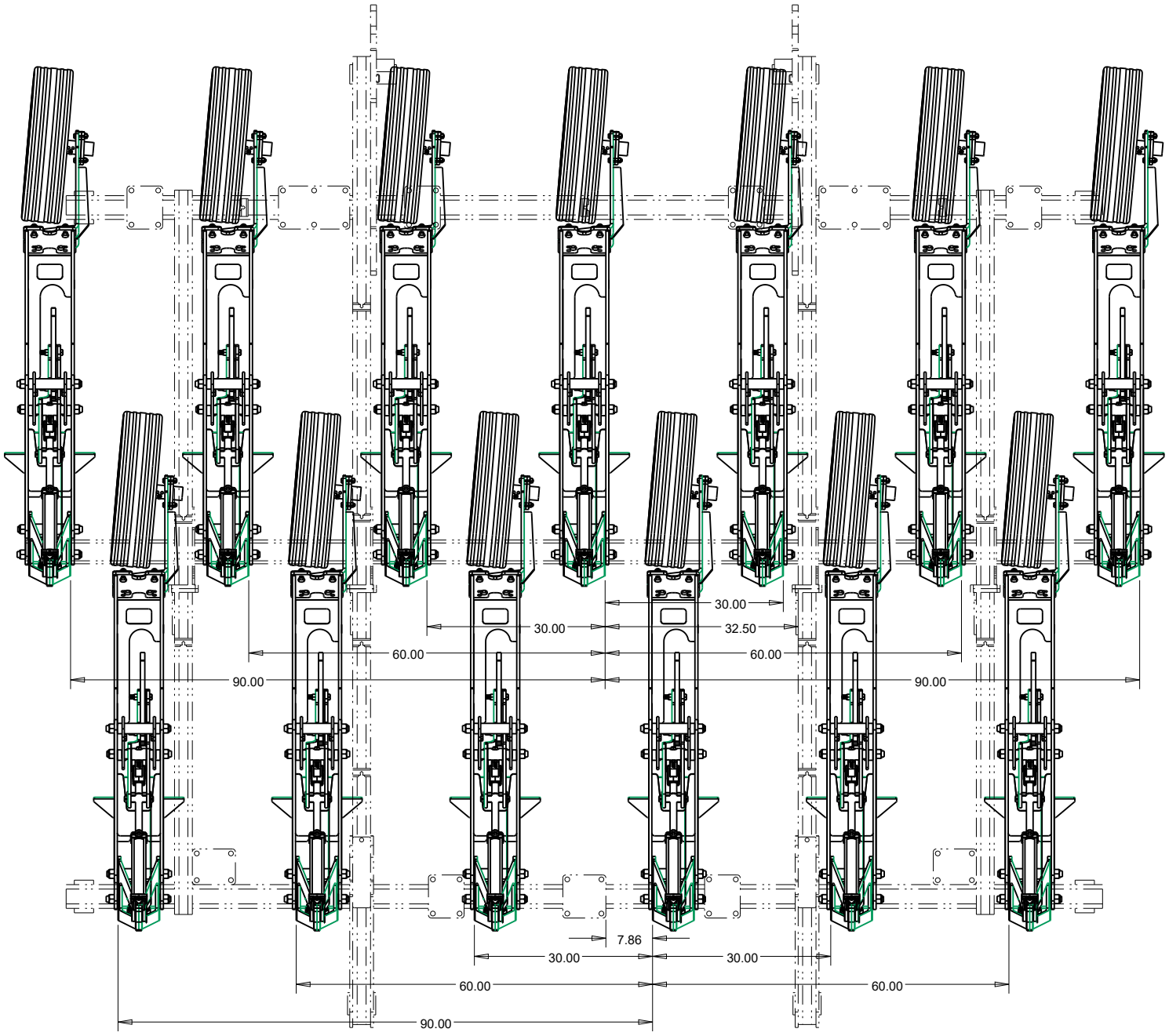


HYD LIFT CYL 4-1/2 X 12
235969
INNER WING

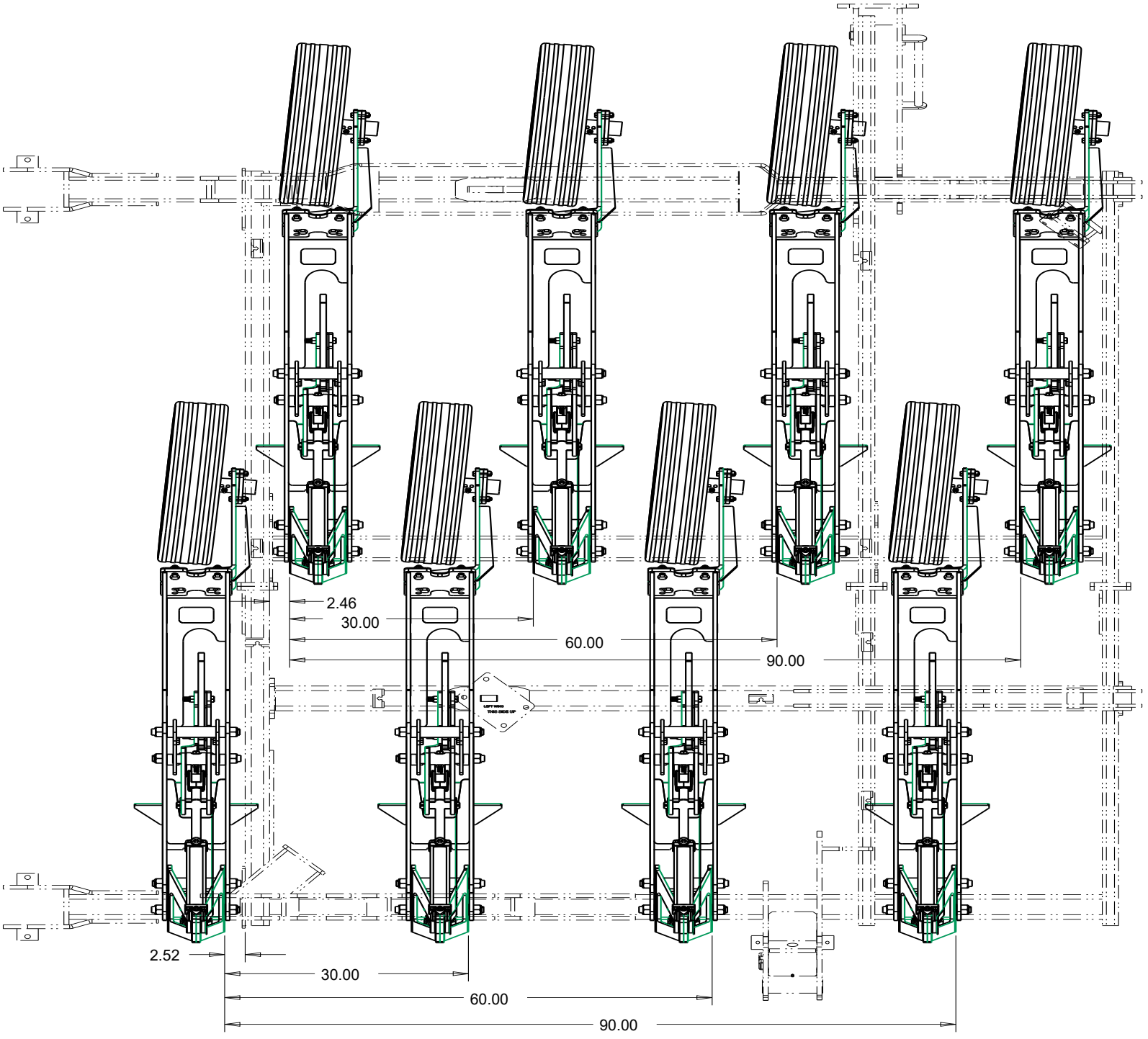
HYD LIFT CYL 3-1/2 X 12
358312
OUTER WING

ROW UNIT-FRAME MOUNT

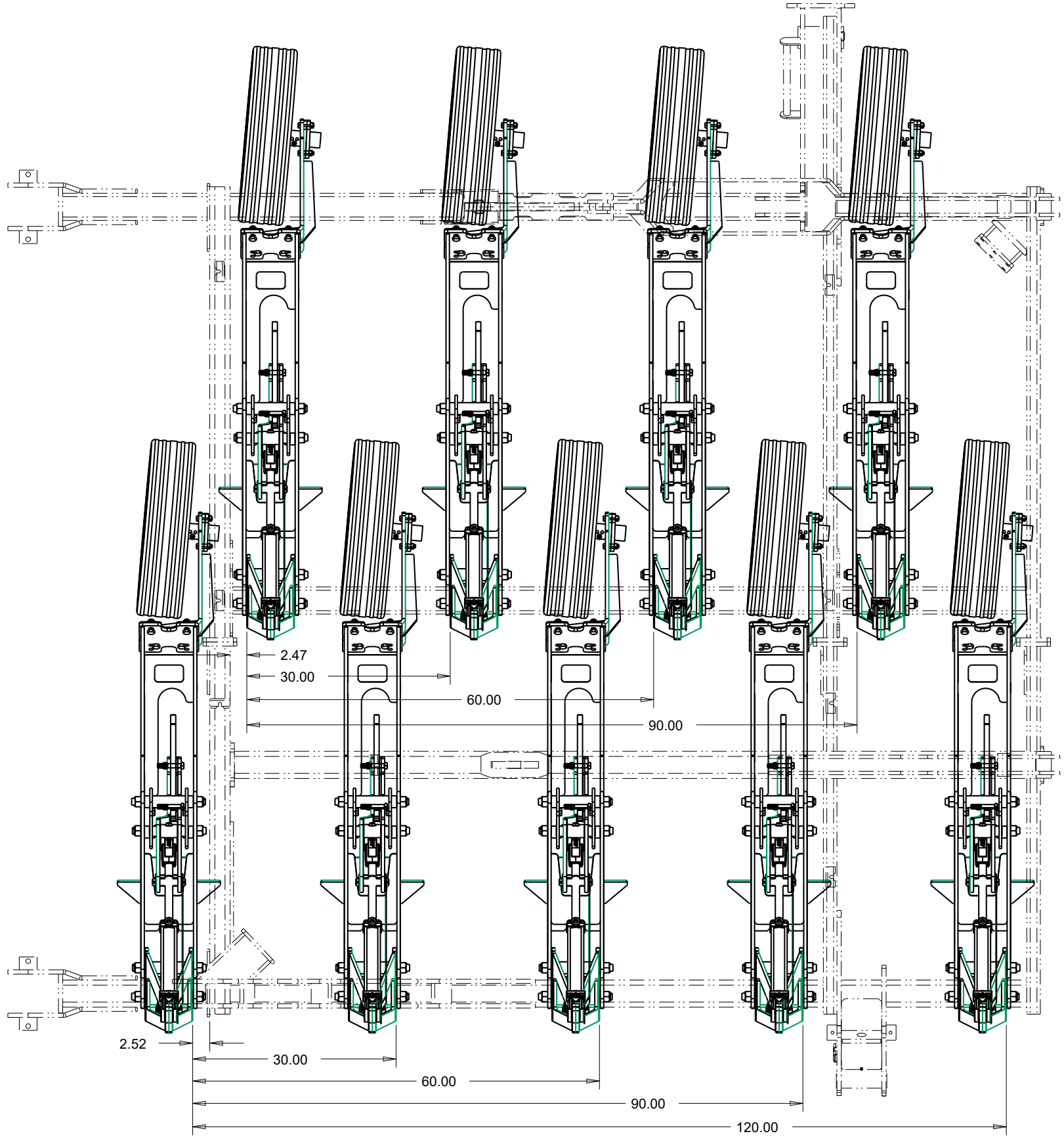



30.00
30.00
32.50
60.00
60.00
90.00
90.00
7.86
30.00
30.00
60.00
60.00
90.00

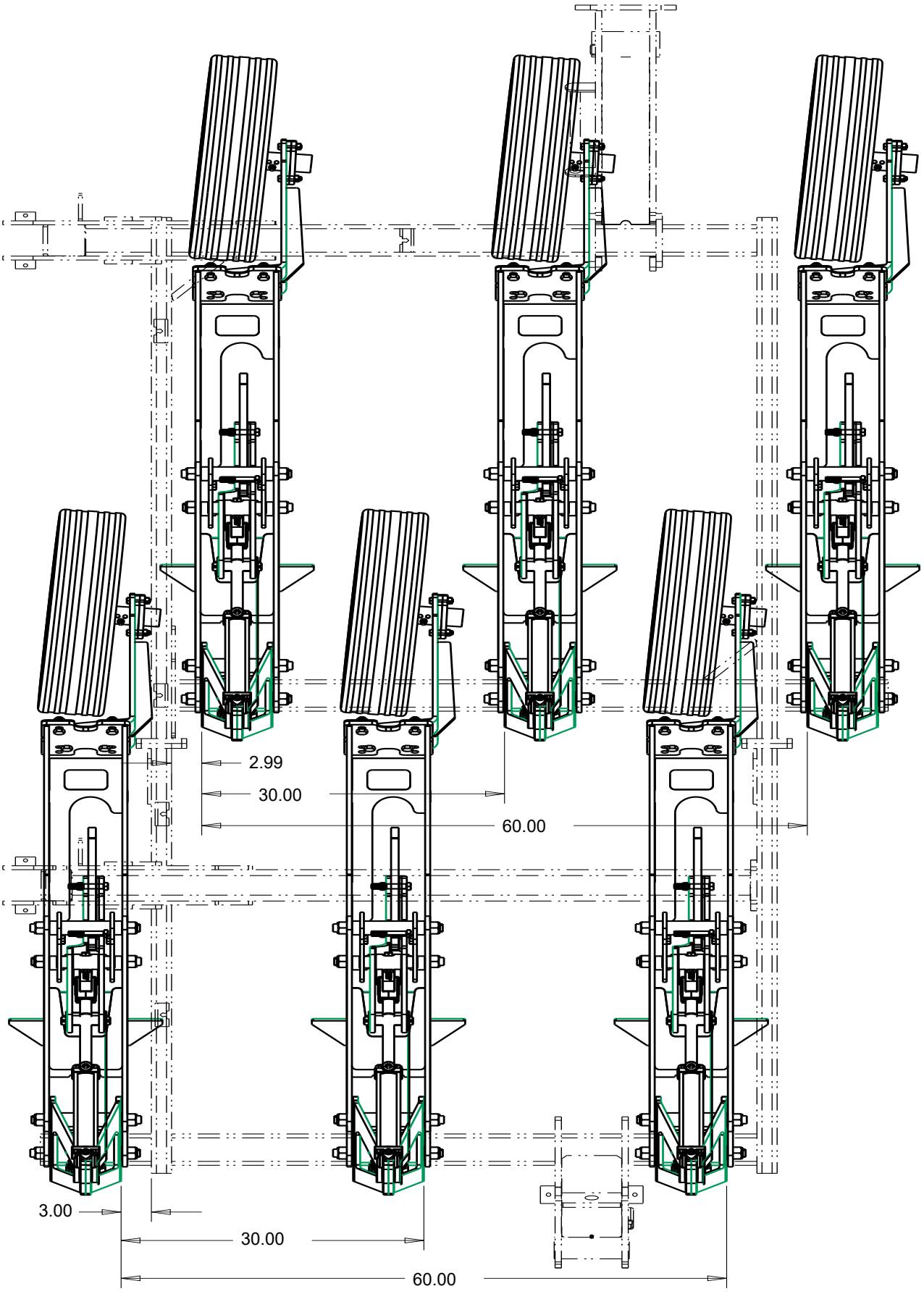
ROW UNIT PLACEMENT-51FT INNER WING



ROW UNIT PLACEMENT-61FT INNER WING

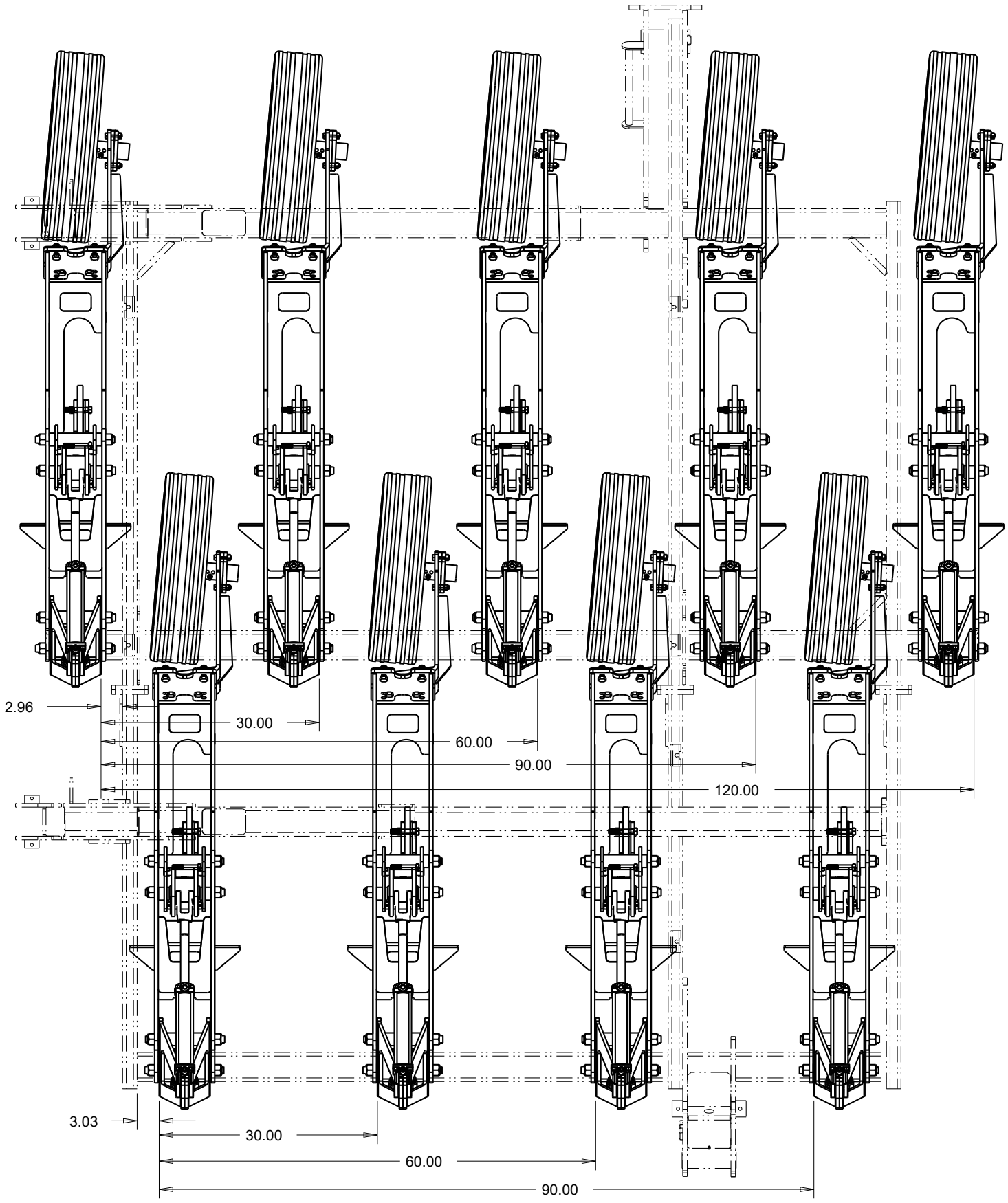


ROW UNIT PLACEMENT-51FT OUTER WING

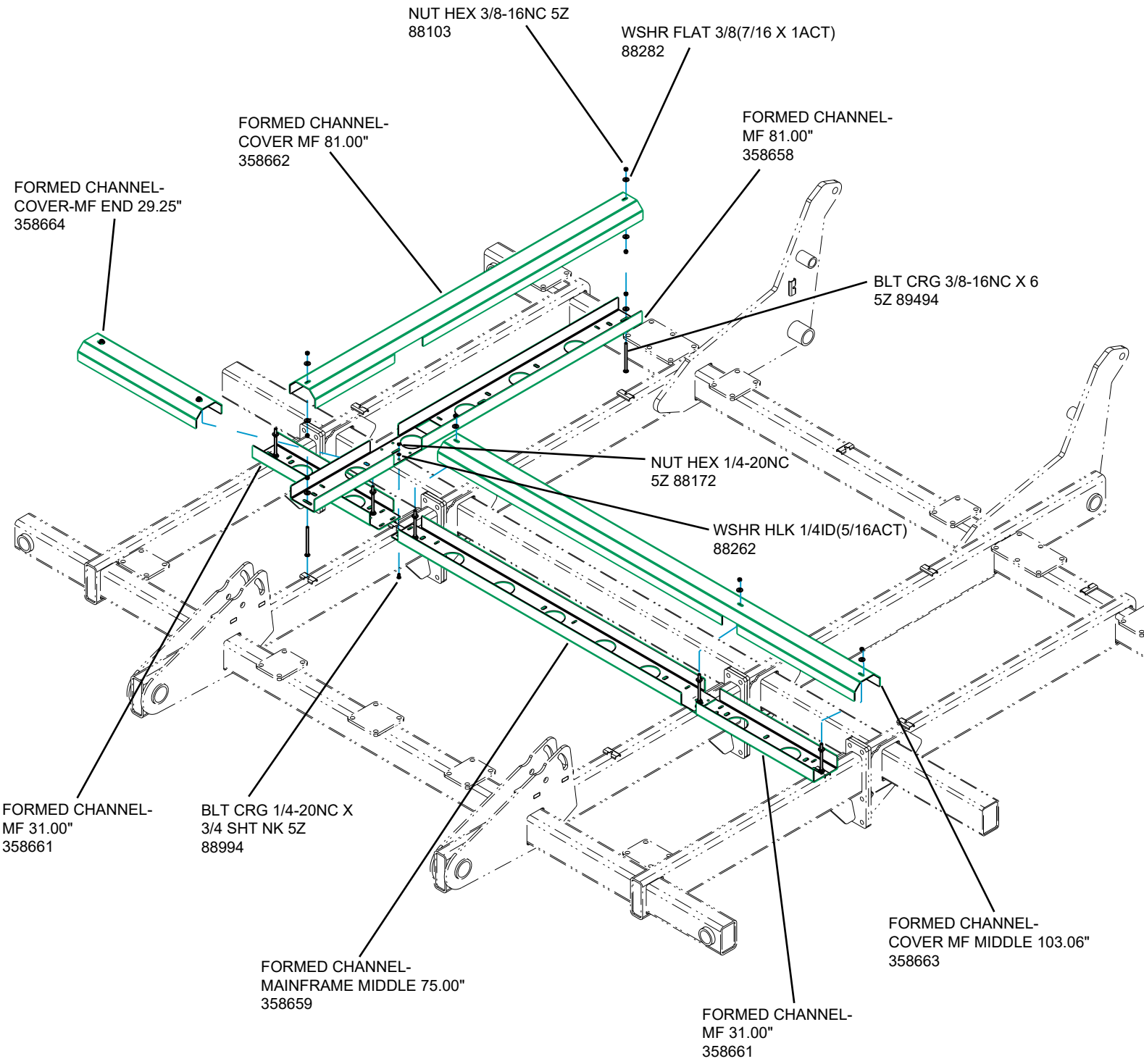


701389

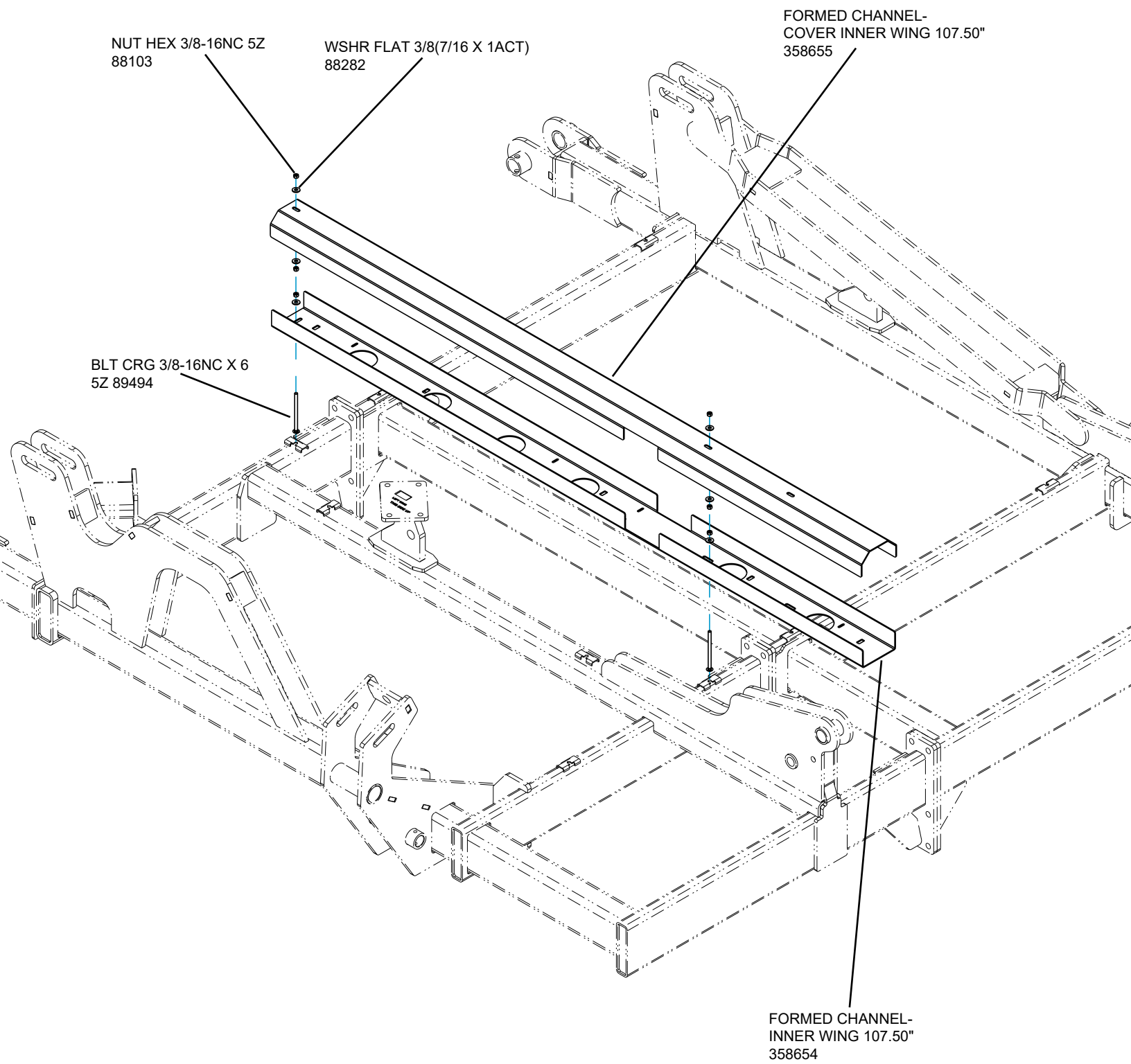
ROW UNIT PLACEMENT-61FT OUTER WING



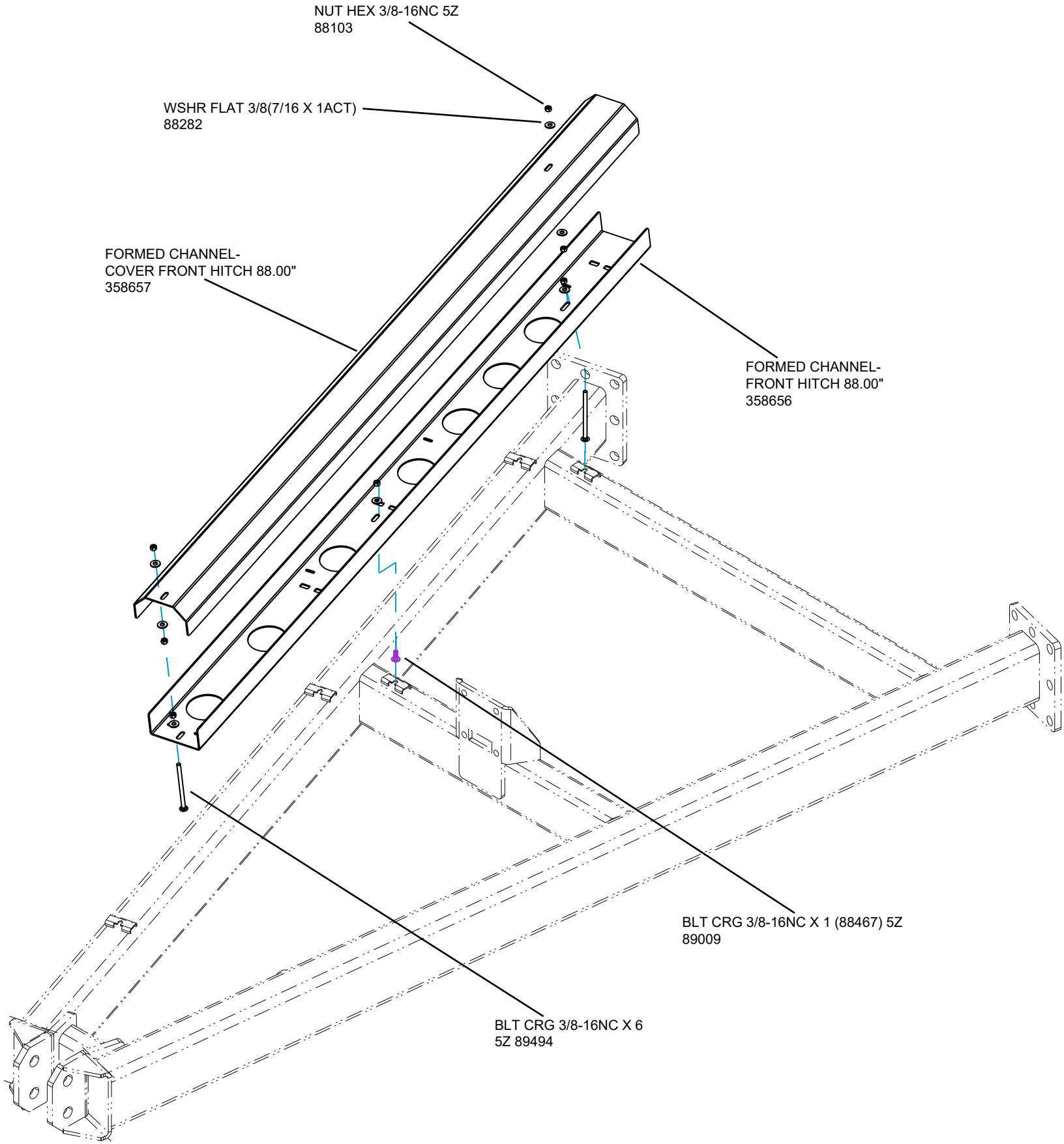
HOSE CHANNEL-MAINFRAME



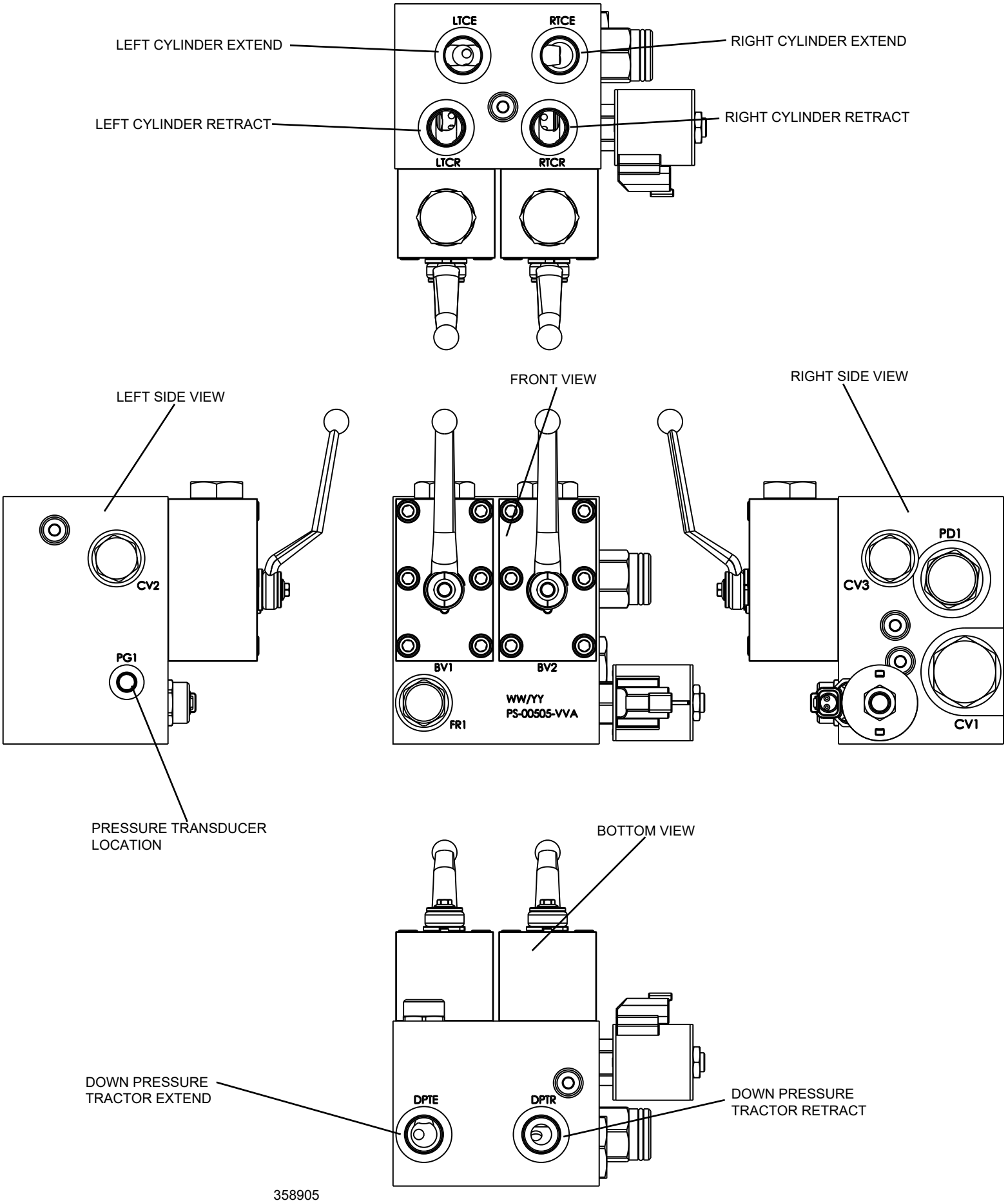
HOSE CHANNEL-INNER WING



HOSE CHANNEL-FRONT HITCH

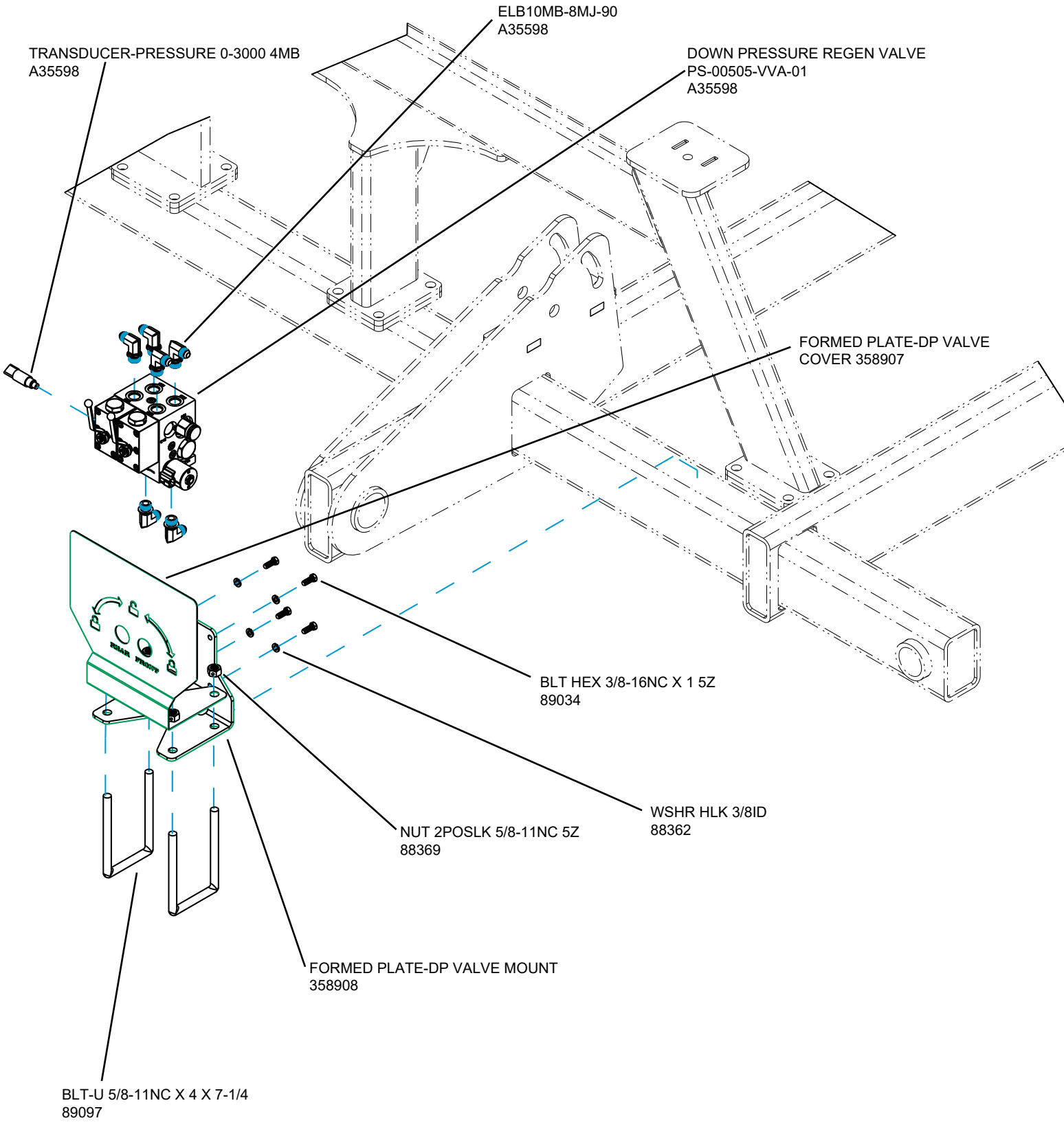


DOWN PRESSURE VALVE



358905

DOWN PRESSURE VALVE MOUNT



1) **BOTTOM** - HYDRAULIC FOLD HOSES

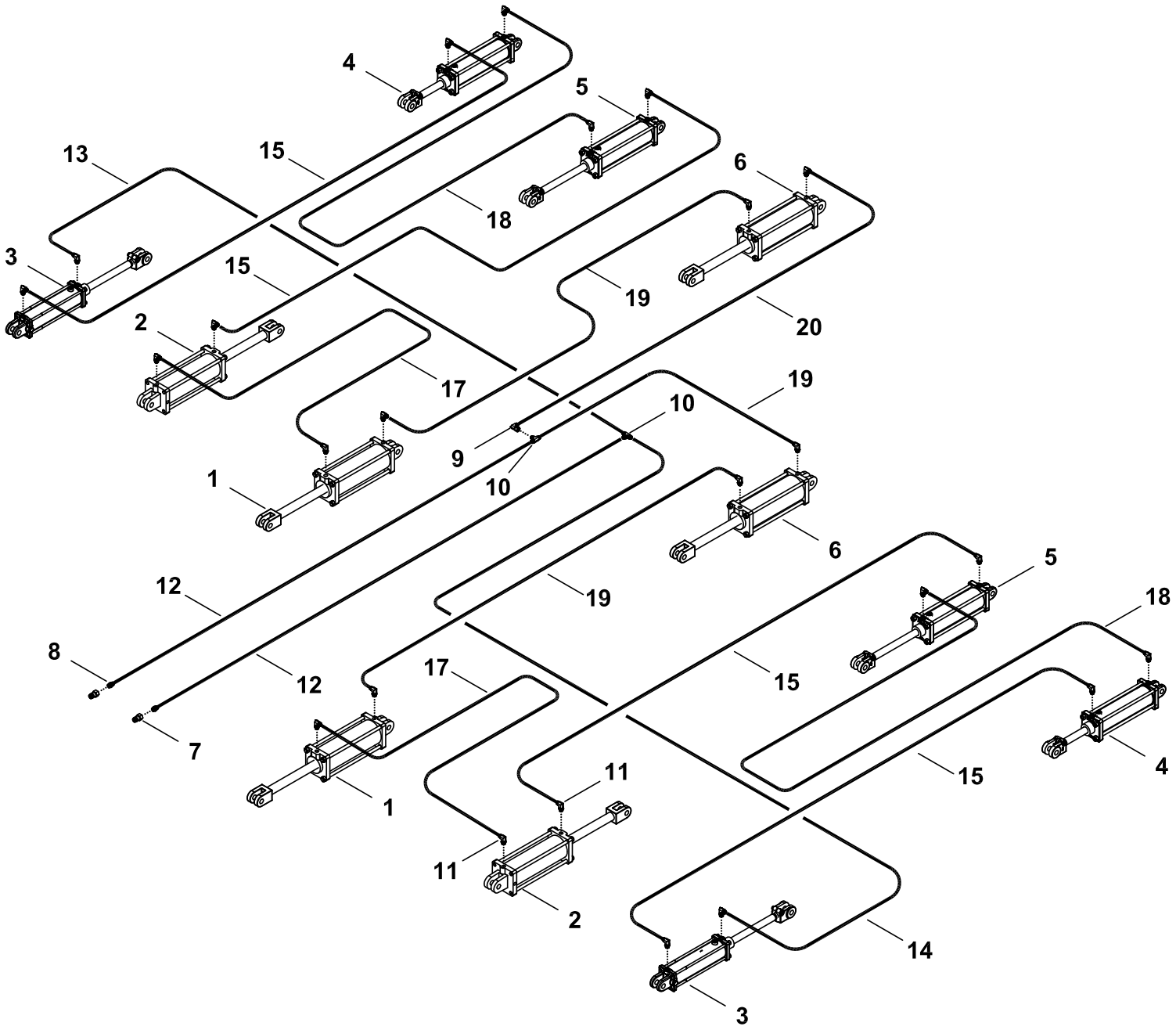
2) LIFT HYDRAULIC HOSES

3) DOWN PRESSURE HYDRAULIC HOSES

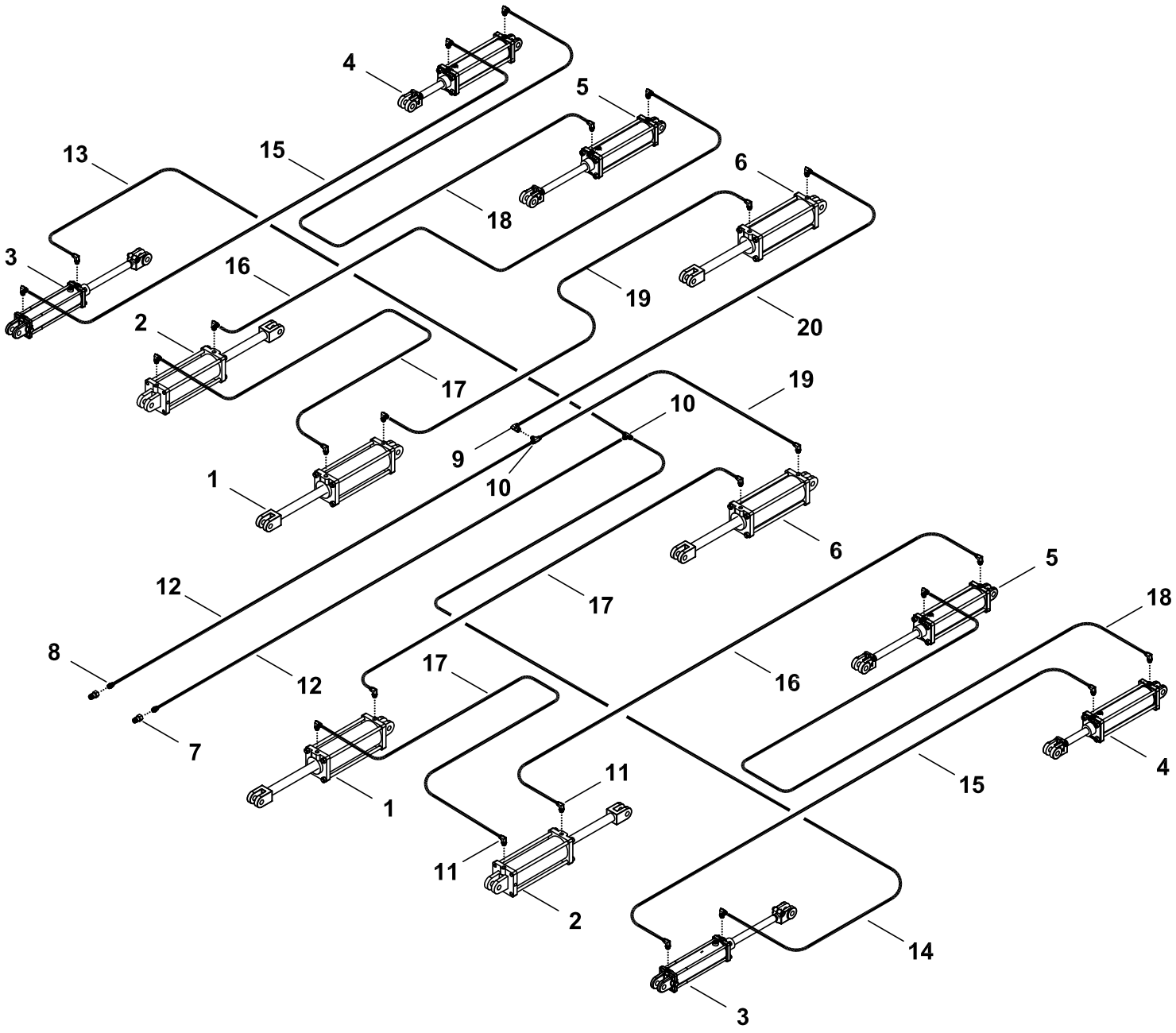
4) ELECTRICAL HARNESSES-DOWN PRESSURE & LIGHTS

5) **TOP** - HYDRAULIC HOSES - FRONT PULL HITCH TO REAR HITCH DISCONNECT

51FT LIFT HYDRAULICS



61FT LIFT HYDRAULICS



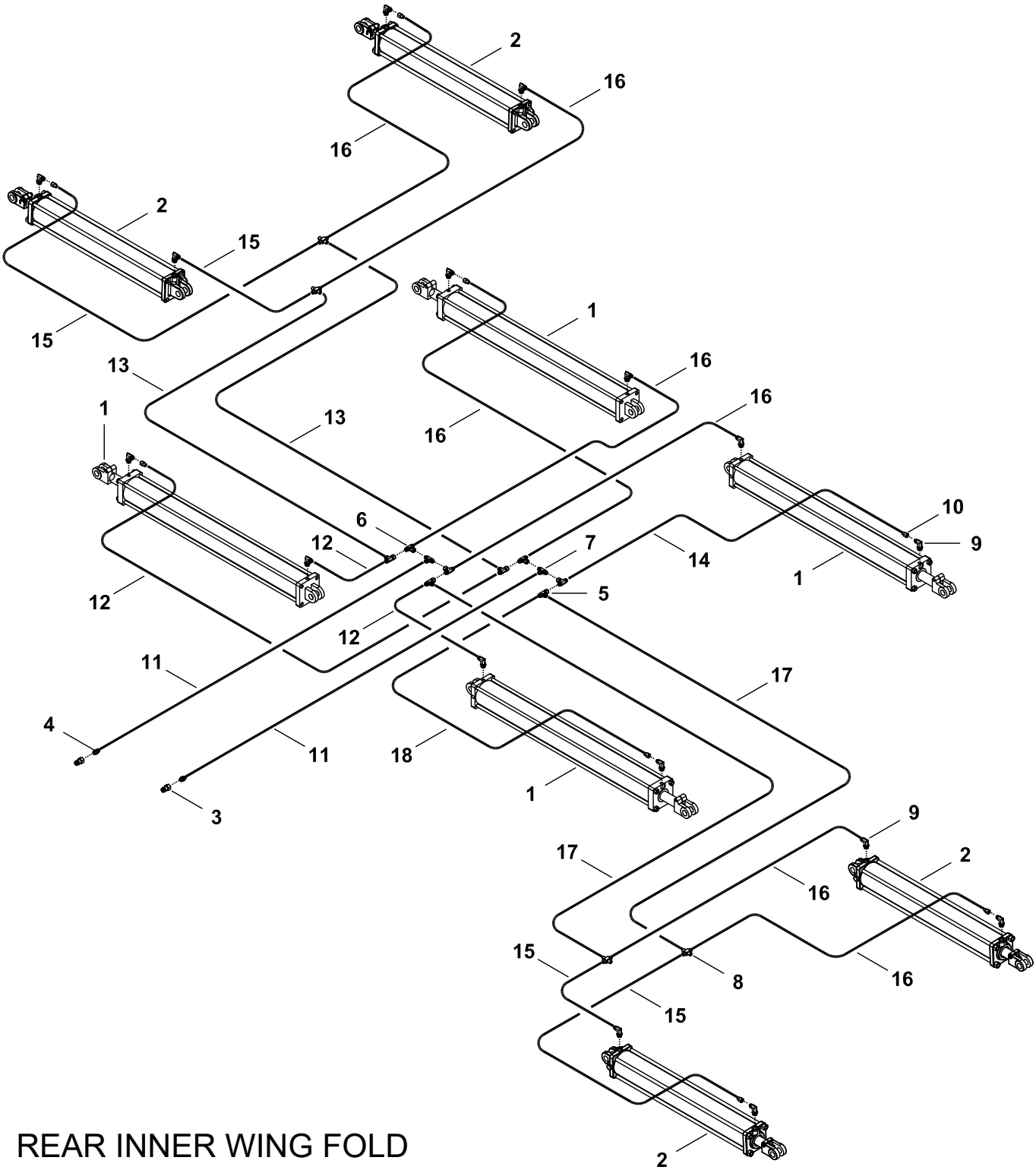
LIFT CYLINDER HYDRAULICS - 51'

ITEM	PART NO.	QTY	DESCRIPTION
1	235968	2	HYD CYL 4-3/4 X 12 (AM-2540)
2	235969	4	HYD CYL 4-1/2 X 12 (AM-2546)
3	358312	2	3-1/2 X 12 HYD CYLINDER ASSEMBLY
4	358313	2	3-3/4 X 12 HYD CYLINDER ASSEMBLY
5	358314	4	4 X 12 HYD CYLINDER ASSEMBLY
6	235967	2	HYD CYL 5 X 12 (AM-2534)
7	247425	2	QUICK COUPLER 8 ORB
8	24024	2	ADP 8MORB X 8MJ
9	25591	1	ELB 8MJ X 8FJX
10	13238	2	TEE 8MJ X 8MJ X 8MJ
11	25580	24	ELB 8MORB X 8MJ
12	241494	2	HSE 3KPSI 1/2X276 8FJX-8FJX
13	240609	1	HSE 3KPSI 3/8X324 8FJX-8FJX
14	247432	1	HSE 3KPSI 3/8X400 8FJX-8FJX
15	247431	4	HSE 3KPSI 3/8X232 8FJX-8FJX
17	240604	2	HSE 3KPSI 3/8X300 8FJX-8FJX
18	247432	2	HSE 3KPSI 3/8X400 8FJX-8FJX
19	234947	3	HSE 3KPSI 3/8X194 8FJX-8FJX
20	235386	1	HSE 3KPSI 3/8X137 8FJX-8FJX

LIFT CYLINDER HYDRAULICS - 61'

ITEM	PART NO.	QTY	DESCRIPTION
1	235968	2	HYD CYL 4-3/4 X 12 (AM-2540)
2	235969	2	HYD CYL 4-1/2 X 12 (AM-2546)
3	358312	2	3-1/2 X 12 HYD CYLINDER ASSEMBLY
4	358313	2	3-3/4 X 12 HYD CYLINDER ASSEMBLY
5	358314	2	4 X 12 HYD CYLINDER ASSEMBLY
6	235967	2	HYD CYL 5 X 12 (AM-2534)
7	247425	2	QUICK COUPLER 8 ORB
8	24024	2	ADP 8MORB X 8MJ
9	25591	1	ELB 8MJ X 8FJX
10	13238	2	TEE 8MJ X 8MJ X 8MJ
11	25580	24	ELB 8MORB X 8MJ
12	241494	2	HSE 3KPSI 1/2X276 8FJX-8FJX
13	240611	1	HSE 3KPSI 3/8X324 8FJX-8FJX
14	247427	1	HSE 3KPSI 3/8X440 8FJX-8FJX
15	247431	2	HSE 3KPSI 3/8X232 8FJX-8FJX
16	67576	2	HSE 3KPSI 3/8X276 8FJX-8FJX
17	240604	5	HSE 3KPSI 3/8X300 8FJX-8FJX
18	238618	2	HSE 3KPSI 3/8X420 8FJX-8FJX
19	234947	2	HSE 3KPSI 3/8X194 8FJX-8FJX
20	235386	1	HSE 3KPSI 3/8X137 8FJX-8FJX

51FT WING FOLD HYDRAULICS

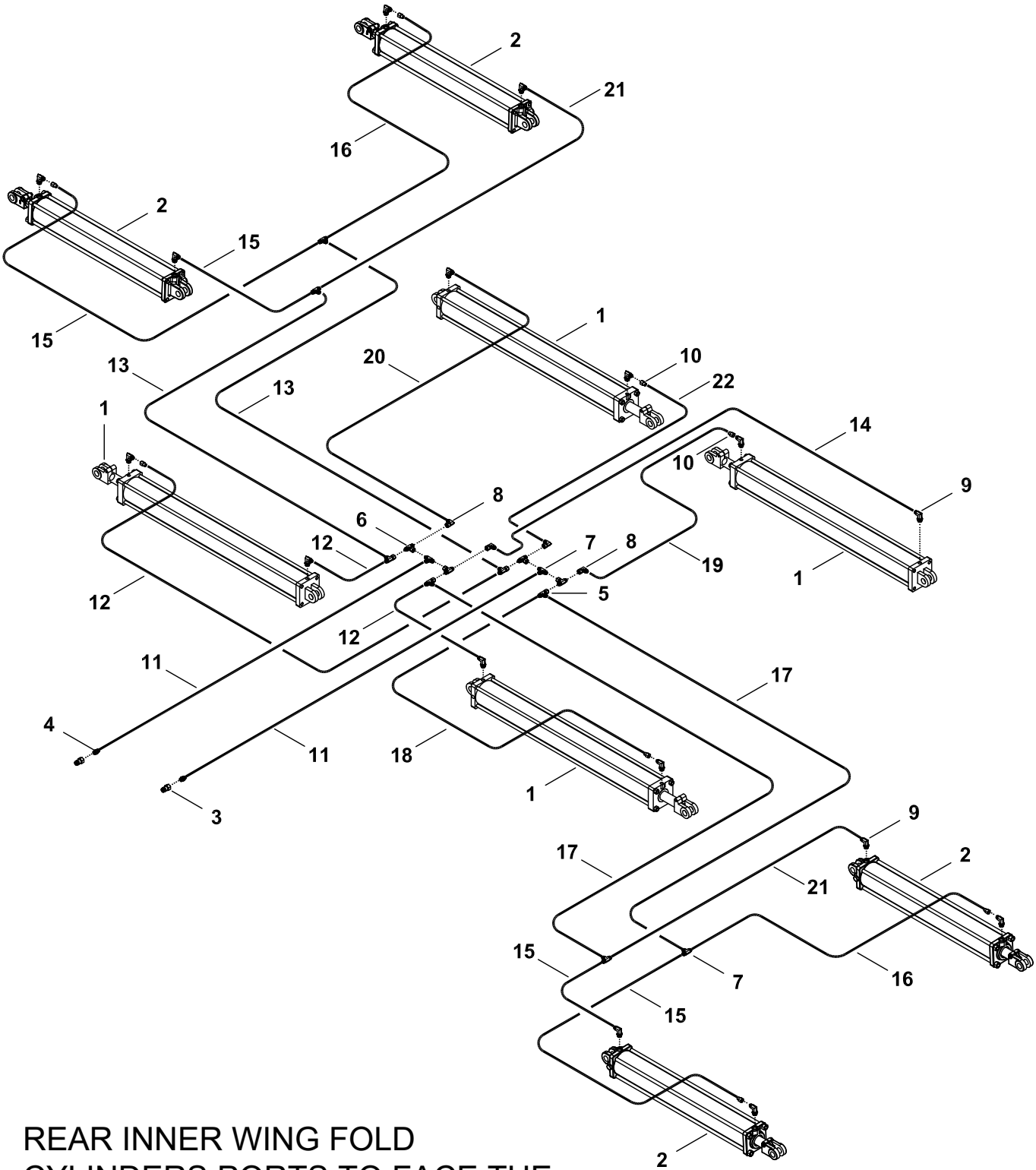


REAR INNER WING FOLD CYLINDERS PORTS TO FACE THE REAR

51FT WING FOLD HYDRAULICS

ITEM	PART NO.	QTY	DESCRIPTION
1	357897	4	HYD CYL, 5 X 48 (PRINCE B500480ACDDA07B) HYD
2	247829	4	CYL, 5X36 TIE ROD (PRINCE)
3	247425	2	QUICK COUPLER 8 ORB
4	24024	10	ADP 8MORB X 8MJ
5	A63015	4	TEE 8MJ X 8FJX X 8MJ
6	69080	4	TEE 8MJ X 8MJ X 8FJX
7	13238	2	TEE 8MJ X 8MJ X 8MJ
8	15910	4	CROSS 8MJ X 8MJ X 8MJ X 8MJ
9	A65901	16	ELB10MB-8MJ-90 (354405)
10	358980	8	RSTR ADP 8FJ-8MJ .075
11	241494	2	HSE 3KPSI 1/2X276 8FJX-8FJX
12	25603	3	HSE 3KPSI 3/8X75 8FJX-8FJX
13	235386	2	HSE 3KPSI 3/8X137 8FJX-8FJX
14	59909	1	HSE 3KPSI 3/8X168 8FJX-8FJX
15	25597	4	HSE 3KPSI 3/8X40 8FJX-8FJX
16	13482	7	HSE 3KPSI 3/8X108 8FJX-8FJX
17	238204	2	HSE 3KPSI 3/8X210 8FJX-8FJX
18	67634	1	HSE 3KPSI 3/8X132 8FJX-8FJX

61FT WING FOLD HYDRAULICS

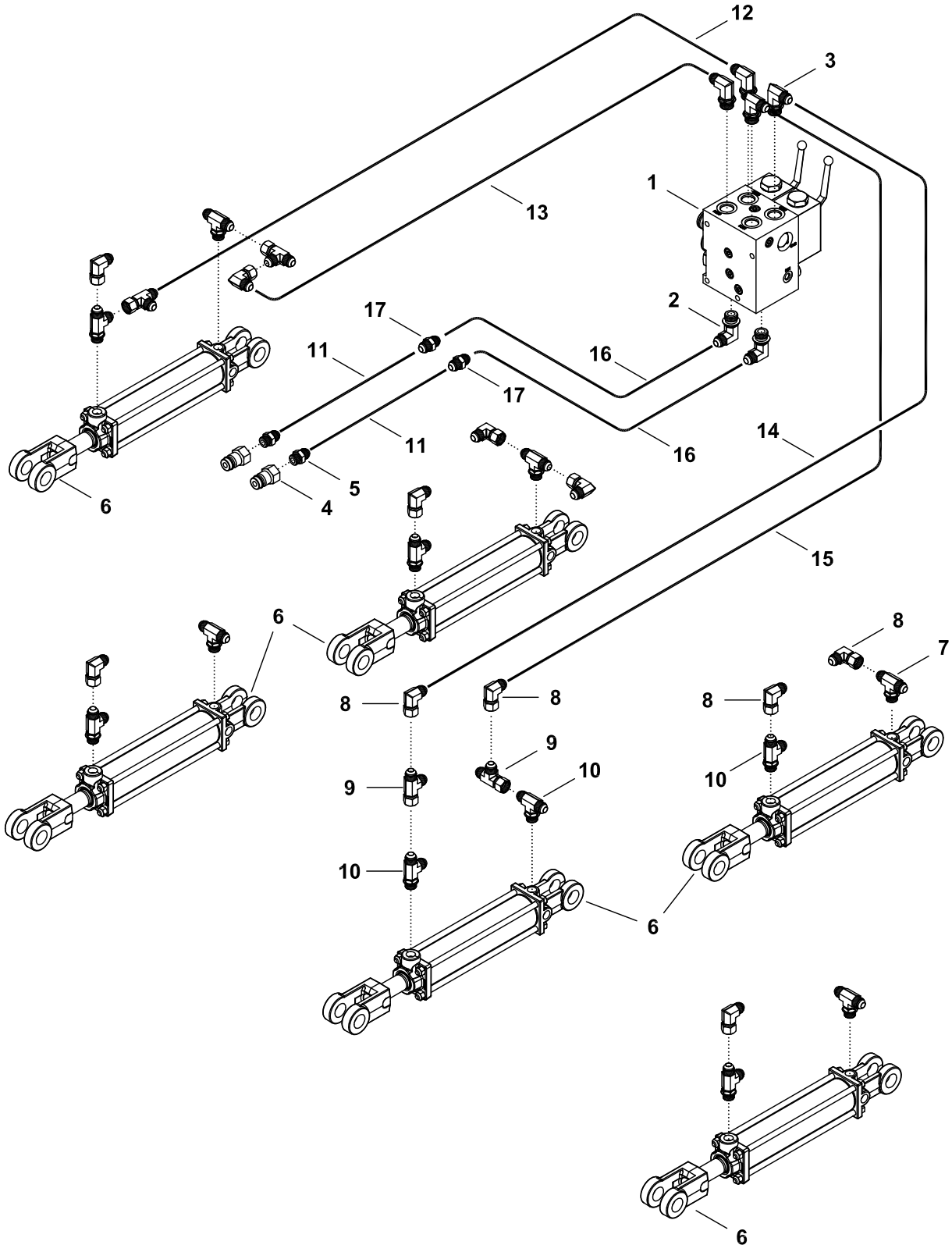


REAR INNER WING FOLD CYLINDERS PORTS TO FACE THE REAR

61FT WING FOLD HYDRAULICS

ITEM	PART NO.	QTY	DESCRIPTION
1	357897	4	HYD CYL, 5 X 48 (PRINCE B500480ACDDA07B)
2	247829	4	HYD CYL, 5X36 TIE ROD (PRINCE)
3	247425	2	QUICK COUPLER 8 ORB
4	24024	2	ADP 8MORB X 8MJ
5	A63015	4	TEE 8MJ X 8FJX X 8MJ
6	69080	4	TEE 8MJ X 8MJ X 8FJX
7	13238	6	TEE 8MJ X 8MJ X 8MJ
8	25591	4	ELB 8MJ X 8MJX
9	A65901	16	ELB10MB-8MJ-90 (354405)
10	358980	8	RSTR ADP 8FJ-8MJ .075
11	241494	2	HSE 3KPSI 1/2 X 276 8FJX-8FJX
12	25603	3	HSE 3KPSI 3/8 X 75 8FJX-8FJX
13	13484	2	HSE 3KPSI 3/8 X 156 8FJX-8FJX
14	240611	1	HSE 3KPSI 3/8 X 360 8FJX-8FJX
15	25597	4	HSE 3KPSI 3/8 X 40 8FJX-8FJX
16	13482	2	HSE 3KPSI 3/8 X 108 8FJX-8FJX
17	234939	2	HSE 3KPSI 3/8 X 220 8FJX-8FJX
18	67634	1	HSE 3KPSI 3/8 X 132 8FJX-8FJX
19	247432	1	HSE 3KPSI 3/8 X 400 8FJX-8FJX
20	240604	1	HSE 3KPSI 3/8 X 300 8FJX-8FJX
21	13483	1	HSE 3KPSI 3/8 X 120 8FJX-8FJX
22	240609	1	HSE 3KPSI 3/8 X 324 8FJX-8FJX

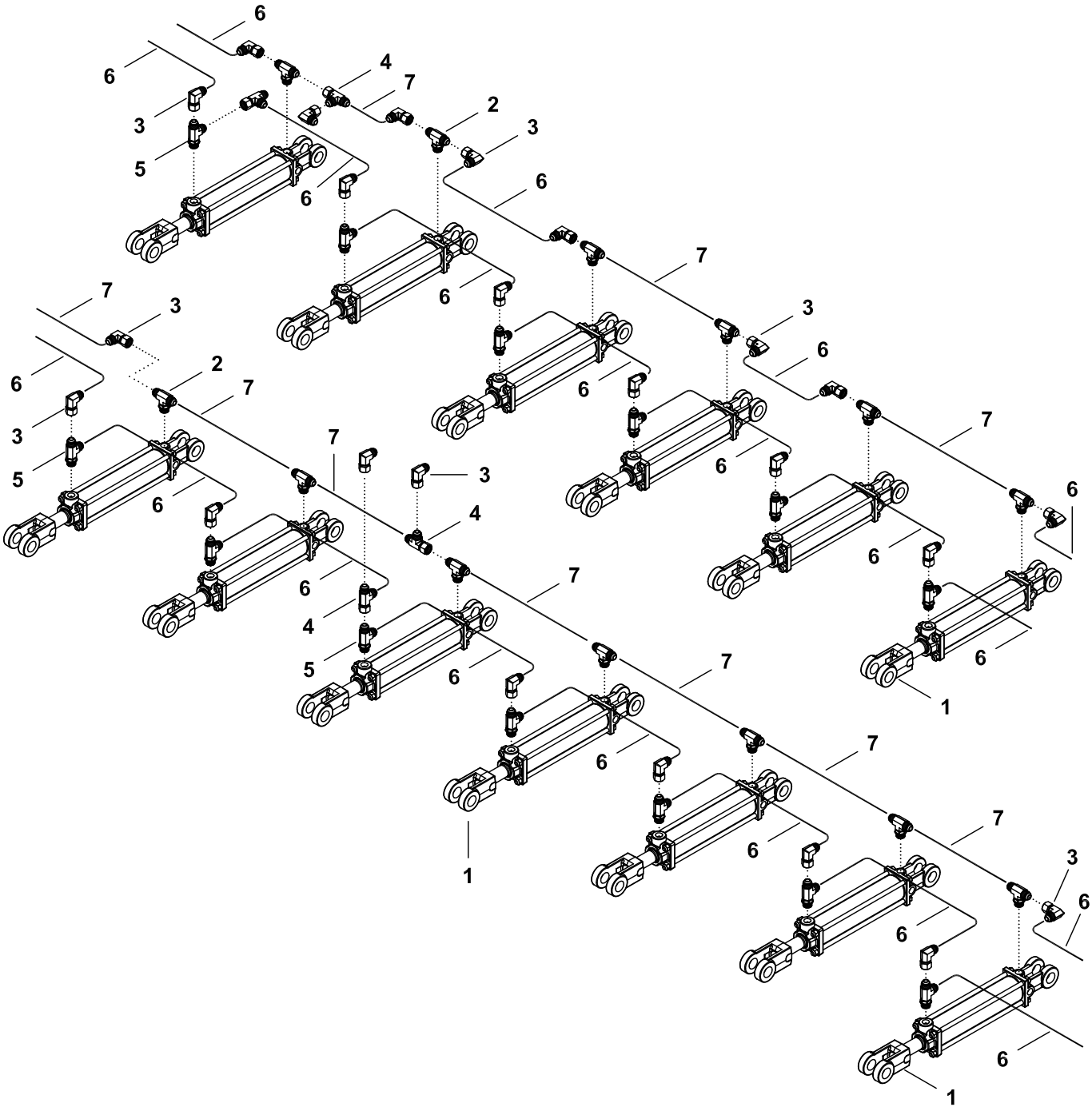
DOWN PRESSURE HYD DP BLOCK



DOWN PRESSURE HYD DP BLOCK

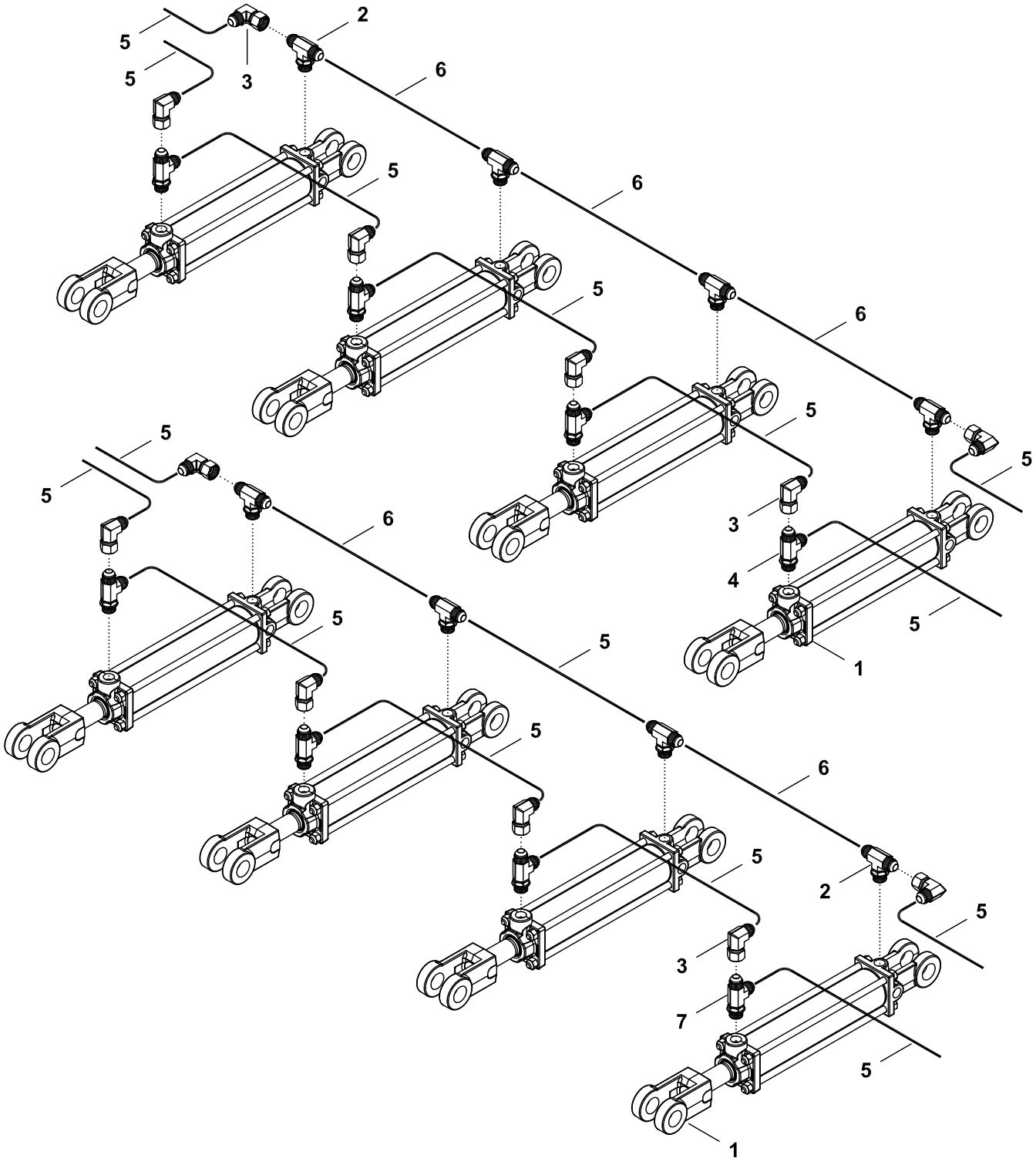
ITEM	PART NO.	QTY	DESCRIPTION
1	358905	1	DOWN PRESSURE REGEN VLAVE PS-00505-VVA-01
2	A65901	2	ELB10MB-8MJ-90 (354405)
3	25580	8	ELB 8MORB X 8MJ
4	247425	2	QUICK COUPLER 8 ORB
5	24024	2	ADP 8MORB X 8MJ
6	321936	6	HYD CYL 2 X 8
7	56534	6	TEE 8MJ X 8MJ X 8MORB
8	25591	12	ELB 8MJ X 8FJX
9	A63015	1	TEE 8MJ X 8FJX X 8MJ
10	A63016	6	TEE 8MORB X 8MJ X 8MJ
11	235237	2	HSE 3KPSI 1/2 X132 8FJX-8FJX
12	A36314	1	HSE 3KPSI 1/2 X 23 8FJX-8FJX
13	A36314	1	HSE 3KPSI 1/2 X 23 8FJX-8FJX
14	233250	1	HSE 3KPSI 1/2 X 80 8FJX-8FJX
15	233250	1	HSE 3KPSI 1/2X 80 8FJX-8FJX
16	241494	2	HSE 3KPSI 1/2 X 276 8FJX-8FJX
17	13239	2	UNION 8MJ X 8MJ

DOWN PRESSURE HYD-CENTER FRAME



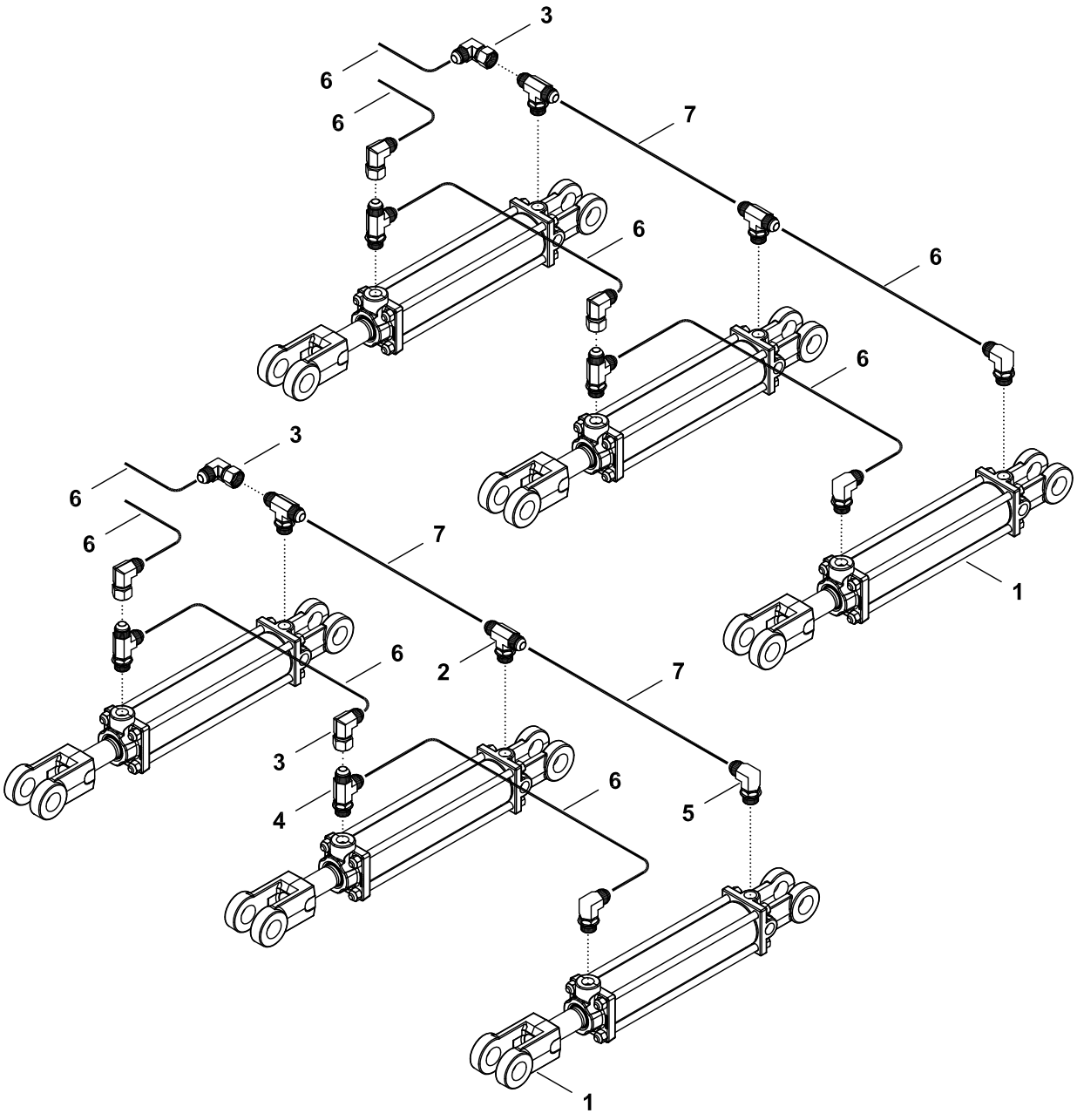
ITEM	PART NO.	QTY	DESCRIPTION
1	321936	13	HYD CYL 2 X 8
2	56534	13	TEE 8MJ X 8MJ X 8MORB
3	25591	23	ELB 8MJ X 8FJX
4	A63015	4	TEE 8MJ X 8FJX X 8MJ TEE
5	A63016	13	8MORB X 8MJ X 8MJ
6	A66606	21	HOSE: .50 X 046 8FJX-8FJX
7	A66607	9	HOSE: .50 X 029 8FJX-8FJX

DOWN PRESSURE HYD-INNER WING



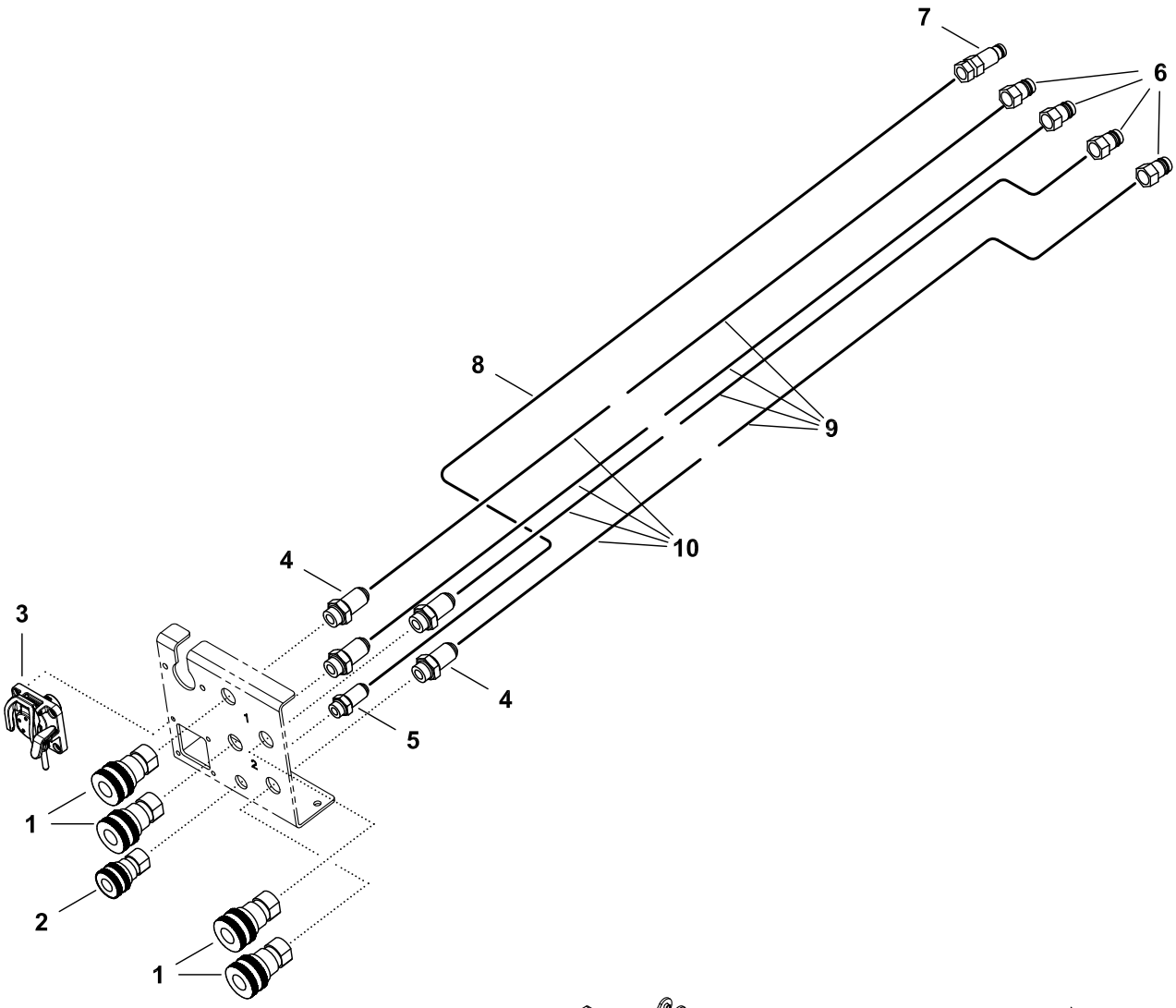
ITEM	PART NO.	QTY	DESCRIPTION
1	321936	8	HYD CYL 2 X 8
2	56534	8	TEE 8MJ X 8MJ X 8MORB
3	25591	12	ELB 8MJ X 8FJX
4	A63016	4	TEE 8MORB X 8MJ X 8MJ
5	A66606	15	HOSE: .50 X 046 8FJX-8FJX
6	A66607	5	HOSE: .50 X 029 8FJX-8FJX
7	A63015	4	TEE 8MJ X 8FJX X 8MJ

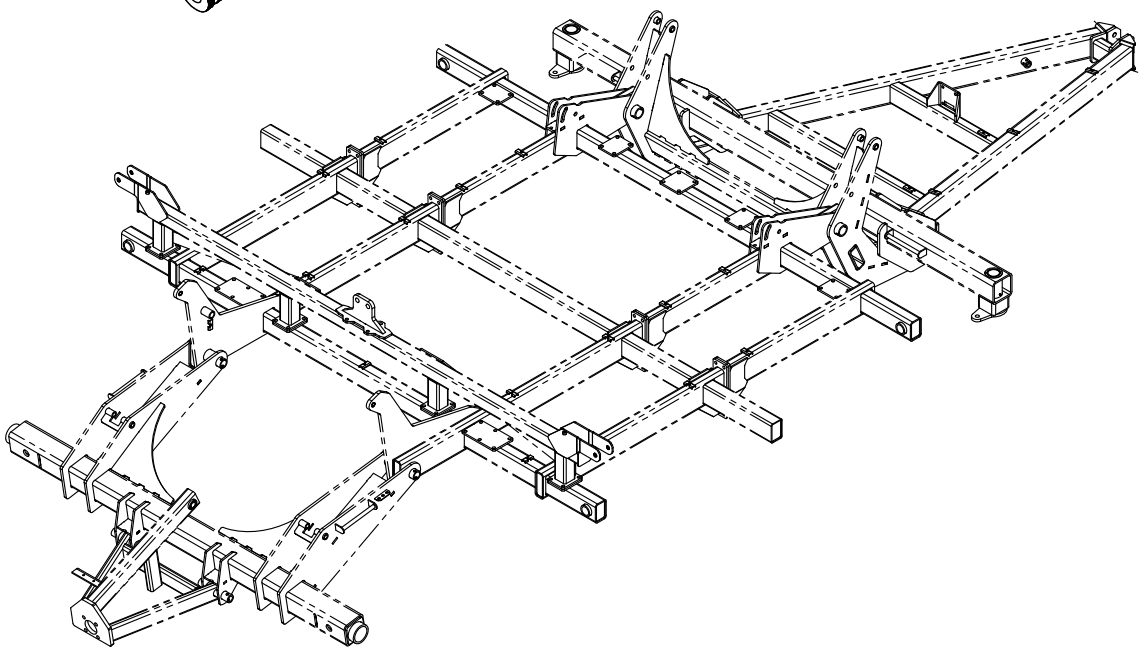
DOWN PRESSURE HYD-OUTER WING



ITEM	PART NO.	QTY	DESCRIPTION
1	321936	6	HYD CYL 2 X 8
2	56534	4	TEE 8MJ X 8MJ X 8MORB
3	25591	5	ELB 8MJ X 8FJX
4	A63016	4	TEE 8MORB X 8MJ X 8MJ
5	25580	4	ELB 8MORB X 8MJ
6	A66606	8	HOSE: .50 X 046 8FJX-8FJX
7	A66607	3	HOSE: .50 X 029 8FJX-8FJX

REAR HITCH HYDRAULICS

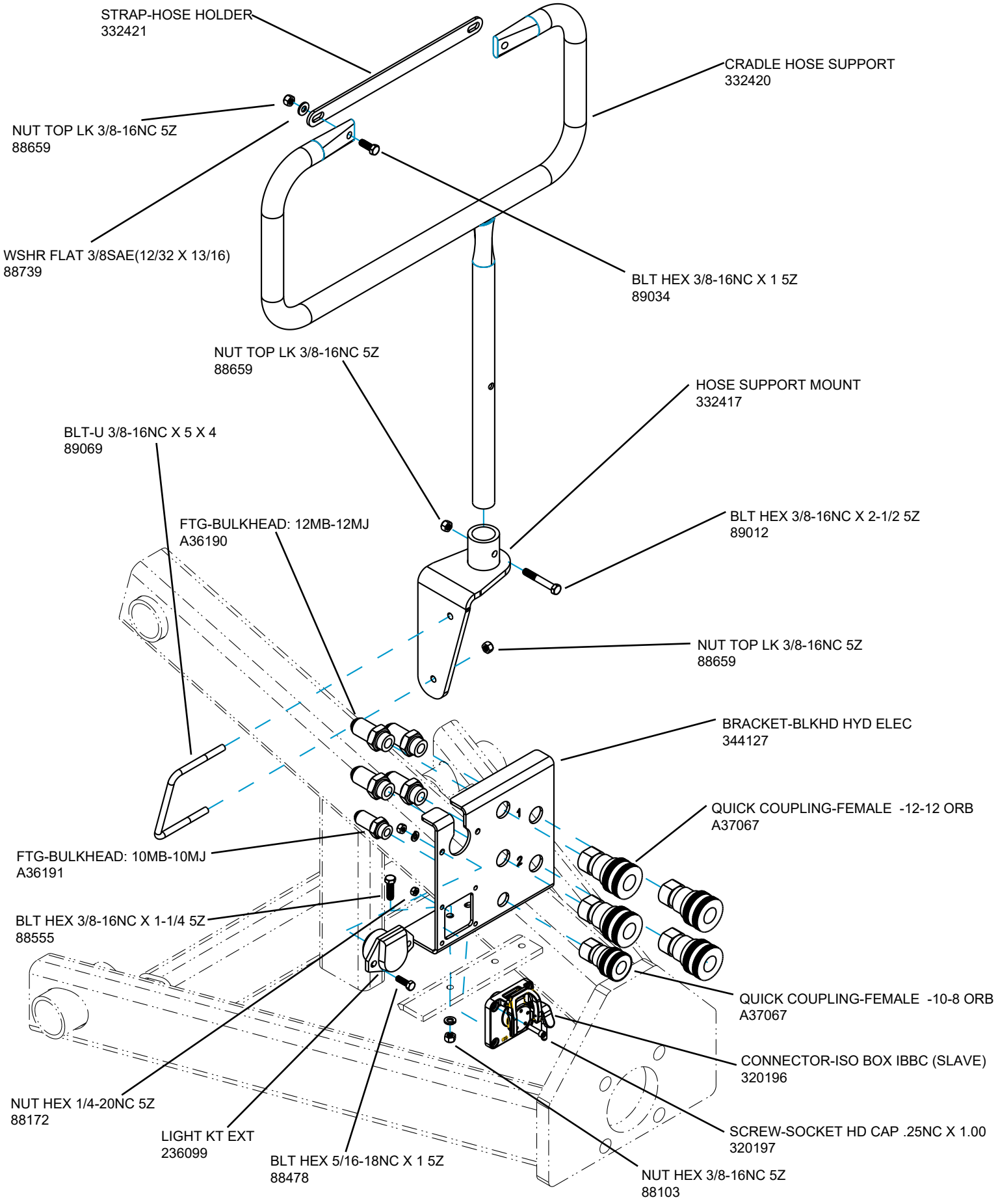




REAR HITCH HYDRAULICS

ITEM	PART NO.	QTY	DESCRIPTION
1	A37066	4	QUICK COUPLING-FEMALE - 12-12 ORB
2	A37067	1	QUICK COUPLING-FEMALE -10-8 ORB
3	320196	1	CONNECTOR-ISO BOX IBBC (SLAVE)
4	A36190	4	FTG-BULKHEAD: 12MB-12MJ
5	A36191	1	FTG-BULKHEAD: 10MB-10MJ
6	A36291	4	QUICK COUPLER 8010-16P (#10 ORB)
7	A69119	1	FTG-CASE DRAIN 3/8 FLAT FACE
8	A36221	1	HOSE: .50 X 500 8MB-10FJX (8AX)
9	A36219	4	HOSE: .75 X 290 10MB-12MJ
10	A36220	4	HOSE: .75 X 210 12FJX-12FJX

REAR HITCH HYDRAULIC & ELECTRICAL FITTINGS



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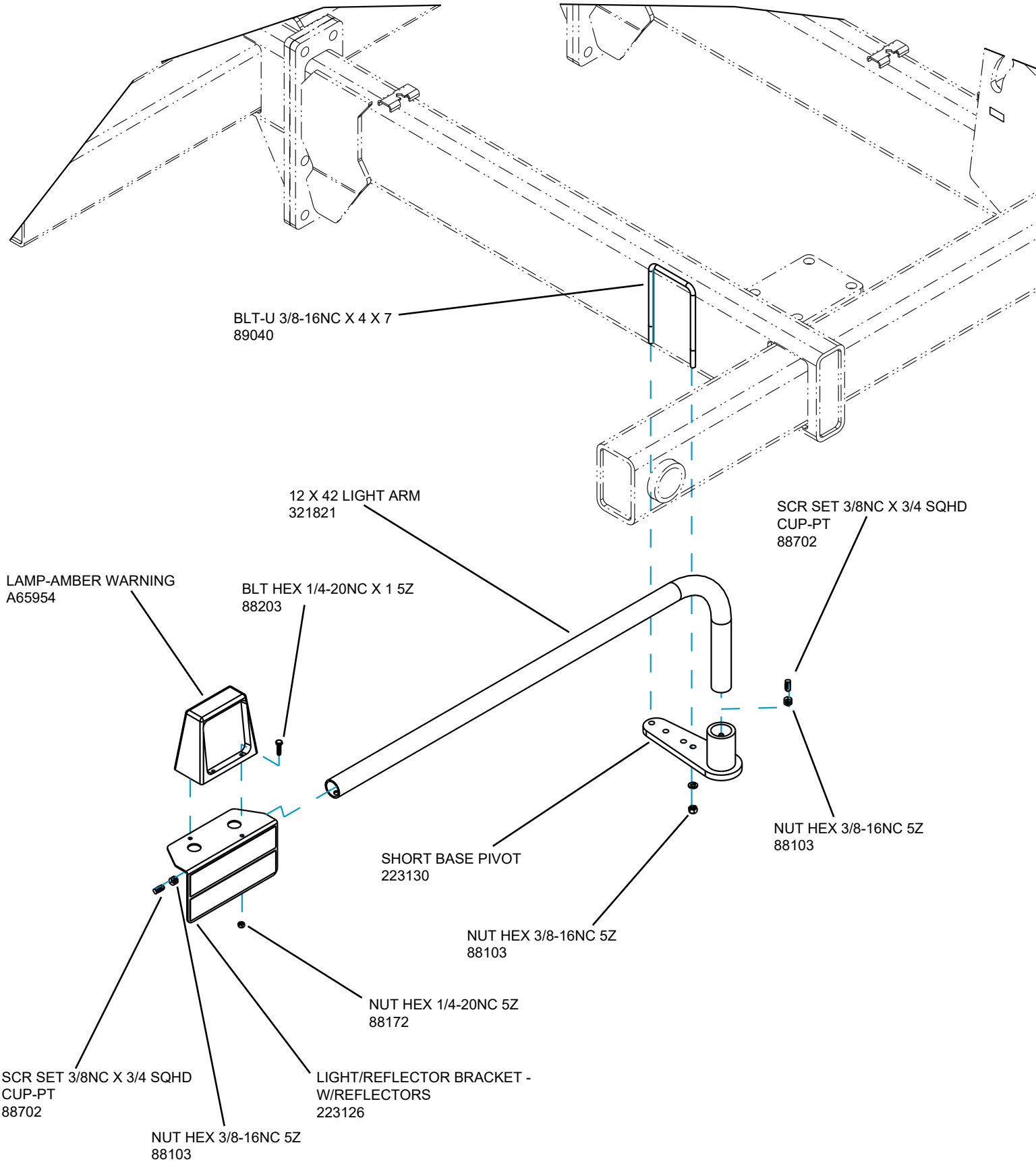
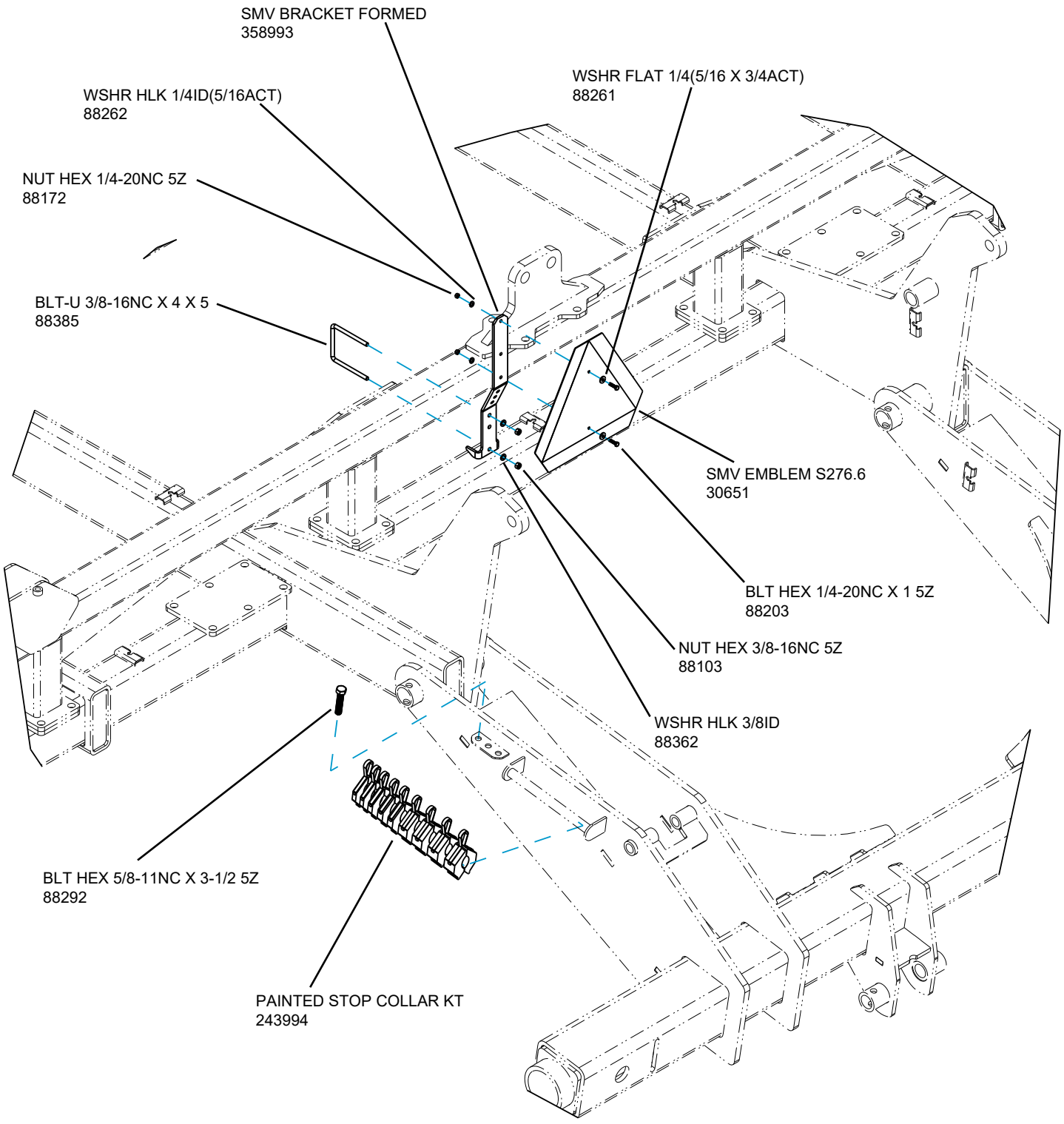
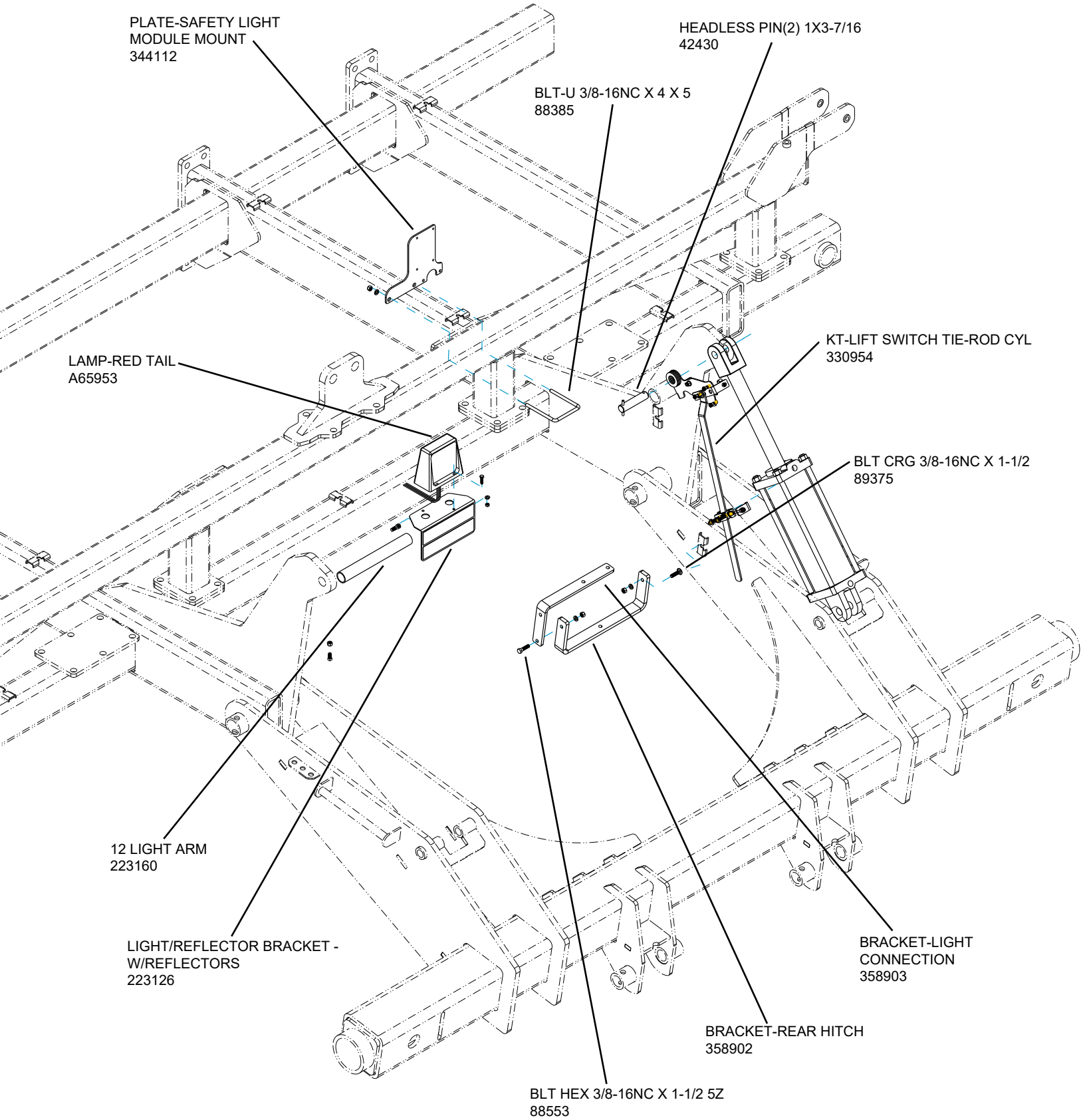
FRONT LIGHT MOUNT



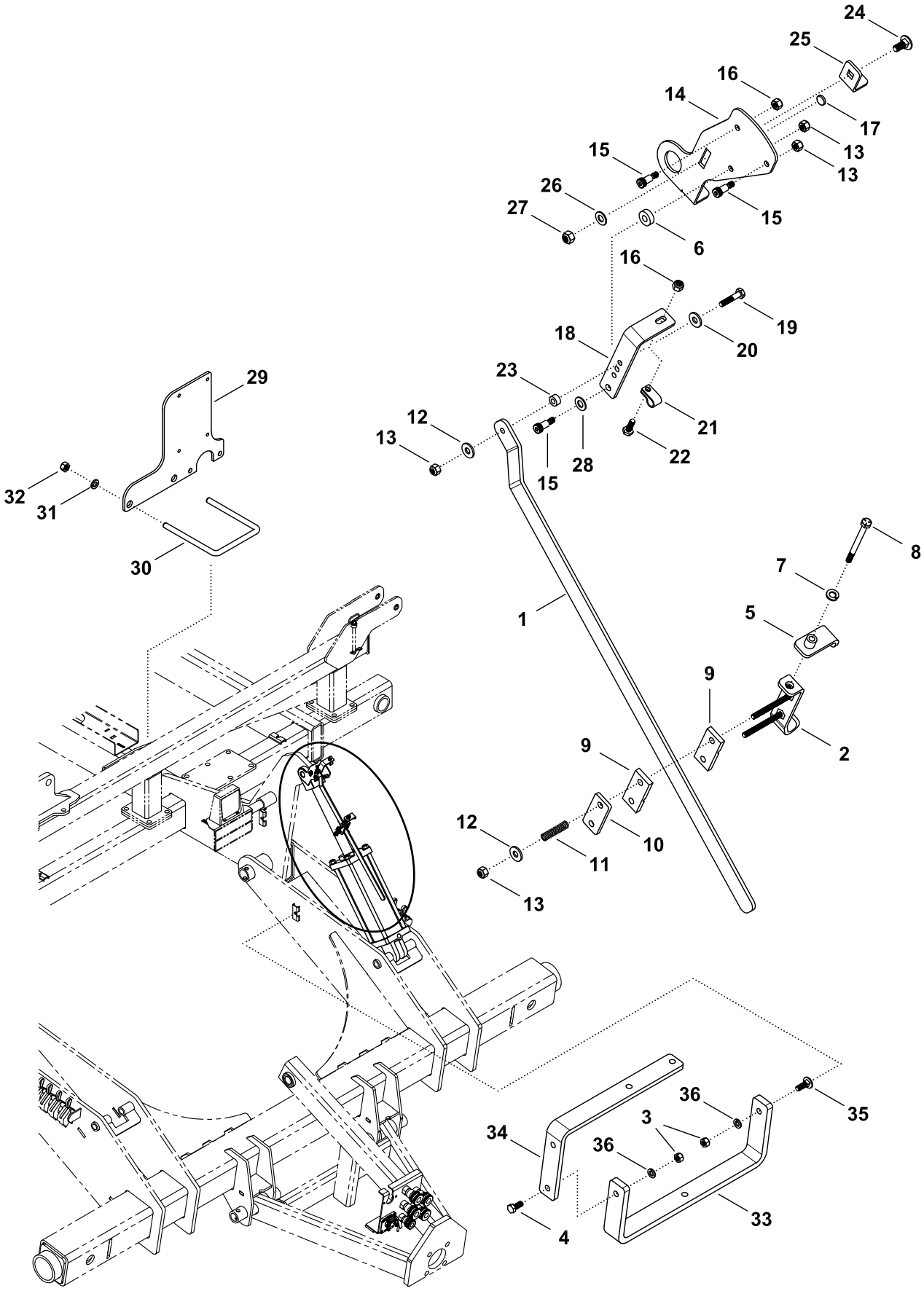
SMV SIGN, STOP COLLARS



REAR LIGHT, LIGHT MODULE, LIFT SWITCH



LIFT SWITCH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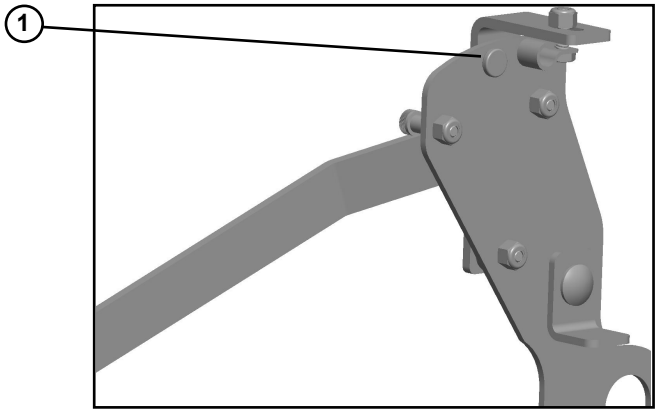
LIFT SWITCH ASSEMBLY

ITEM	PART NO.	QTY	DESCRIPTION
	330954	1	KT-LIFT SWITCH TIE-ROD CYL., Inc. 1-25
1	330947	1	PLATE - PUSH ARM (ZINC)
	330960	1	WLDMT - LIFT SWITCH SLIDER (ZINC)
2	330952	1	BRKT - SLIDER LOCK
3	88103	2	NUT HEX 3/8-16NC 5Z
4	88553	1	BLT HEX 3/8-16NC X 1-1/2 5Z
5	330959	1	WLDMT - SLIDER LOCK (ZINC)
6	330958	1	SPACER - ALM 5/16ID X 3/4OD X 1/4
7	88262	1	WSHR HLK 1/4ID(5/16ACT) Z
8	88285	1	BLT HEX 1/4-20NC X 3 5Z
9	330949	2	BLOCK - NYLON SLIDER
10	330951	1	PLATE - SLIDE BACKER (ZINC)
11	330955	2	SPRING - LIFT SWITCH
12	88261	3	WSHR FLAT 1/4(5/16 X 3/4ACT) Z
13	89056	4	NUT NLK 1/4-20NC 5Z
14	330945	1	PLATE - CLEVIS MOUNT (ZINC)
15	89596	3	BLT - SHOULDER 1/4-20 X 1/2
16	89056	3	NUT NLK 1/4-20NC 5Z
17	330950	1	MAGNET - 1/2 X 1/8
18	330946	1	PLATE - SWING ARM (ZINC)
19	89028	1	BLT HEX 1/4-20NC X 1-1/4 5Z
20	88261	1	WSHR FLAT 1/4(5/16 X 3/4ACT) Z
21	A66508	1	SENSOR-WORK SWITCH (ISO)
22	88993	1	BLT HEX 1/4-20NC X 3/4 5Z
23	330956	1	SPACER - NYLON 1/4 ID 1/2 OD X 1/2
24	89000	1	BLT CRG 5/16-18NC X 3/4 SHTNK 2Z
25	330997	1	SHEET - CLAMPING BOOT WORK SWITCH
26	88278	1	WSHR FLAT 5/16(3/8 X 7/8ACT) Z
27	89559	1	NUT NLK 5/16-18NC 5Z
28	88278	1	WSHR FLAT 5/16(3/8 X 7/8ACT) Z
29	344112	1	PLATE-SAFETY LIGHT MODULE MOUNT
30	88385	1	BLT-U 3/8-16NC X 4 X 5 Z
31	88362	2	WSHR HLK 3/8ID Z
32	88103	2	NUT HEX 3/8-16NC 5Z
33	358902	1	BRACKET-REAR HITCH
34	358903	1	BRACKET-LIGHT CONNECTION
35	89375	1	BLT CRG 3/8-16NC X 1-1/2 5Z
36	88362	2	WSHR HLK 3/8ID Z

LIFT SWITCH SYSTEM

1. Apply the magnet (1) as shown, centered under the work switch sensor c-clip (2). Install the sensor (not shown) into c-clip (2) at a distance of 1/8" (3mm) from the surface of the magnet.



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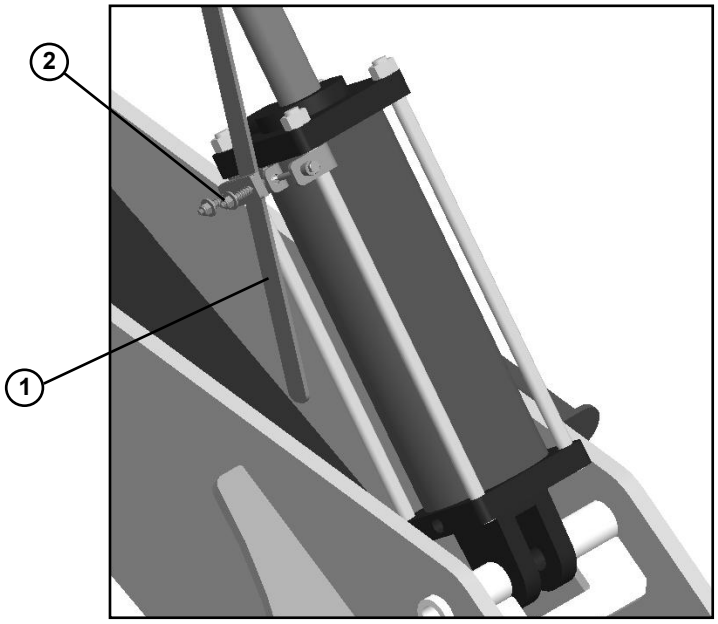
2. Adjust tension on the rod (1) by adjusting tension on the nuts. (2)



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Bleeding air from the hydraulic lift system

Before starting the procedure

WARNING:
Leaking fluid under pressure can enter the skin causing serious injury. Release pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Wear correct hand and correct eye protection when looking for leaks. Use a piece of cardboard or paper instead of your hand. Any fluid injected into the skin can cause gangrene. The fluid must be removed by a doctor familiar with this type of injury.

WARNING:
Be careful of sweeps or blades when folded to prevent serious injury. Never keep the machine with the wings in the folded position.

To bleed the air from the hydraulic lift system, connect the machine to a tractor that is the correct size to operate the machine. See the information for minimum tow vehicle weight.

Total volume of oil required to fill the lift system is 16 gallons(estimated).

Completely bleed the hydraulic system of air when:

The lift system is filled with hydraulic oil for the first time.

Air has entered the hydraulic system through a leak or through repair of the hydraulic system.

Procedure

1. Park the machine on a flat, level surface that is large enough for the machine when unfolded.
2. Set the tractor hydraulic flow to less than 75.7 L/min (20 gal/min).
   IMPORTANT: If the hydraulic flow is set to more than 75.7 L/min (20 gal/min) the hydraulics will not operate correctly.
3. Connect the lift system hoses to the tractor.
4. Make sure the tractor reservoir is full of the hydraulic oil required by the manufacturer. **IMPORTANT:**
   Do not loosen any hydraulic fittings to bleed air from the system.
5. Raise the machine. Continue to hold the tractor lever to let oil bypass and fill each wing lift cylinder.
6. Engage the hydraulics to remove any hydraulic transport locks if equipped.
7. Stop the engine, apply the park brake and take the key with you.
8. Remove the transport locks when all lift cylinders are fully extended.
9. Lower the unit.
   Make sure the cylinders move at the same time through the cycle.
10. Hold the hydraulic lever with the cylinders fully extended.
11. If the cylinders are not operating together, cycle the cylinders to remove the remaining air.
    IMPORTANT: Do not loosen any hydraulic fittings to bleed air from the system.
12. Stop the engine, apply the park brake, and take the key with you.
13. Check the tractor hydraulic oil reservoir to make sure the hydraulic oil is still within operating limits.
14. Make sure all lift cylinders are operating together before starting any field operation.
15. Fully raise the machine when making turns during field operation.
    This will make sure that the cylinders are operating together and keep the machine level during operation.

Bleeding air from the hydraulic fold system

Before starting the procedure

WARNING:
Leaking fluid under pressure can enter the skin causing serious injury. Release pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Wear correct hand and correct eye protection when looking for leaks. Use a piece of cardboard or paper instead of your hand. Any fluid injected into the skin can cause gangrene. The fluid must be removed by a doctor familiar with this type of injury.

WARNING:
Be careful of sweeps or blades when folded to prevent serious injury. Never keep the machine with the wings in the folded position.

IMPORTANT: Do not fold or unfold the fold system before bleeding air from the fold system.

To bleed the air from the hydraulic fold system, connect the machine to a tractor that is the correct size to operate the machine. See the information for minimum tow vehicle weight.

Total volume of oil required to fill the fold system is 24 gallons(estimated).

Completely bleed the hydraulic system of air when:

The fold system is filled with hydraulic oil for the first time.

Air has entered the hydraulic system through a leak or through repair of the hydraulic system.

Procedure

1. Set the tractor hydraulic flow to less than 75.7 L/min (20 gal/min).
   IMPORTANT: If the hydraulic flow is set to more than 75.7 L/min (20 gal/min), the hydraulics will not operate correctly.
   NOTE: Restrictors are installed in the fold cylinders to prevent falling of the wings. Never remove the restrictors, or the machine will not fold correctly.
2. Stop the engine, apply the park brake, and take the key with you.
3. Connect the fold system hoses to the tractor.
4. Make sure the tractor reservoir is full of the hydraulic oil required by the manufacturer. **IMPORTANT:**
   Do not loosen any hydraulic fittings to bleed air from the system.
5. Remove the pins from the rod ends of the fold cylinders.
6. Make sure the rod ends of the fold cylinders will not come into contact with any obstructions.
   If a blockage is present, lift the rod ends of the fold cylinders.
7. Use the remote lever in the tractor to fully extend and retract the fold cylinders.
   Extend and retract multiple times.
8. If the fold cylinders are not operating together, cycle the fold cylinders to remove the remaining air.
   IMPORTANT: Do not loosen any hydraulic fittings to bleed air from the system.
9. Stop the engine, apply the park brake, and take the key with you.
10. Check the tractor hydraulic oil reservoir to make sure the hydraulic oil reservoir is still within operating limits.
11. Connect the rod ends of the fold cylinders to the machine.
12. Find an area large enough for the machine when unfolded.
13. Park the machine on a solid, level surface. Stop the engine, apply the park brake, and take the key with you.
14. With the tractor at a low idle, slowly engage the hydraulics to fold and unfold the machine.
15. Fully extend the fold cylinders to let the wings flex freely.

Leveling the machine

Leveling a machine with the floating hitch front to rear

Before starting the procedure

The machine must be connected to a tractor that is the correct size for operation. See the information for the minimum tow vehicle weight.

Procedure

1. Find a solid, level surface large enough for the machine when unfolded.
2. Unfold the machine and fully raise the machine. Continue holding the hydraulic lever to let the oil cycle through the lift system.
3. Hold the lift cylinder hydraulic lever in the raised position for one to five minutes to make sure all cylinders are bled of air and fully extended.
4. Stop the tractor engine, apply the park brake, and take the key with you.
5. Remove the transport locks and pins from the center frame cylinders.
6. Put the transport locks in the storage location and fasten with pins.
7. Remove the stop collars from all of the main lift cylinders.
8. Use the tractor hydraulics to lower the machine so the front shovels or the spikes are 25 to 51 mm (1 to 2 in) above the ground.
9. Measure and record the frame height at the front corners from the ground to the bottom of the frame tube.
10. Measure and record the frame height at the rear corners from the ground to the of the frame tube.
11. Compare the front and rear measurements.
12. Set front frame height to the same as the rear frame height.
    a) If the front of the machine is higher than the rear, remove shims shown in fugure 8
    b) If the front of the machine is lower than the rear, add shims shown in figure 8
    c) Make sure both front adjustable cylinder anchors have the same number and thickness of shims.
    d) The gauge wheels will carry the weight of the machine.
13. Check the measurements again and adjust as necessary.
14. Tighten the nut and bolt holding shims.
15. Check the machine level in the operating position and adjusted as necessary.

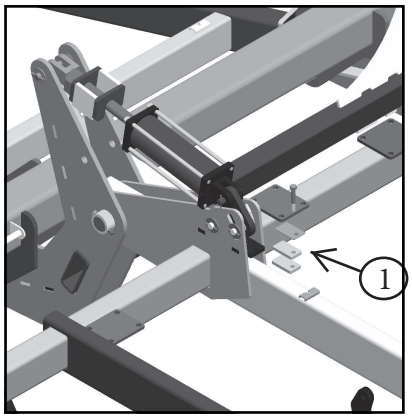


figure 8 701300

Leveling the wings to the center frame

Before starting the procedure

The machine must be connected to a tractor that is the correct size for operation. See the information for the minimum tow vehicle weight.

The wheels of the machine must always be in contact with the ground during field operation to operate correctly.

LEVELING WINGS

Procedure

1. Find a solid, level surface large enough for the machine when unfolded.
2. Unfold the machine and fully raise the machine. Continue holding the hydraulic lever to let the oil cycle through the lift system.
3. Hold the lift cylinder hydraulic lever in the raised position for one to five minutes to make sure all cylinders are bled of air and fully extended.
4. Stop the tractor engine, apply the park brake, and take the key with you.
5. Remove the transport locks.
6. Measure and record the height from the ground to the bottom of the wing frame tubes on the front and rear of the wing.
7. Compare the measurements of wing to the main frame.

   If the measurement for the wing is:

   - more than the main frame measurement, lower the wing
   - less than the main frame measurement, raise the wing.

figure 1

8. Adjust the adjusting screw (1) to raise or lower the wing.
   a) To raise the wing, loosen the jam nut (2) and tighten jam nut (3).
   b) To lower the wing, loosen the jam nut (3) and tighten jam nut (2).
9. Follow the same procedure for the wing on the other side.

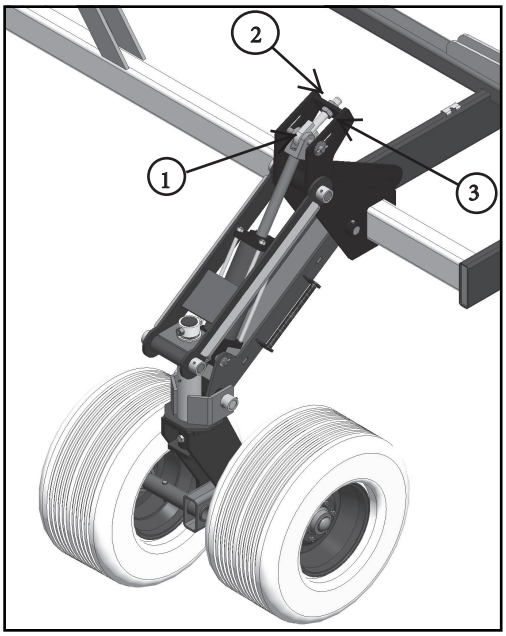


Fig. 1 701301

LEVELING WINGS

Procedure

1. Find a solid, level surface large enough for the machine when unfolded.
2. Unfold the machine and fully raise the machine. Continue holding the hydraulic lever to let the oil cycle through the lift system.
3. Hold the lift cylinder hydraulic lever in the raised position for one to five minutes to make sure all cylinders are bled of air and fully extended.
4. Stop the tractor engine, apply the park brake, and take the key with you.
5. Remove the transport locks.
6. Measure and record the height from the ground to the bottom of the wing frame tubes on the front and rear of the wing.
7. Compare the measurements of wing to the main frame.

   If the measurement for the wing is:

   - more than the main frame measurement, lower the wing
   - less than the main frame measurement, raise the wing.

   figure 1
8. Adjust the adjusting screw (1) to raise or lower the wing.
   a) To raise the wing, loosen the jam nut (2) and tighten jam nut (3).
   b) To lower the wing, loosen the jam nut (3) and tighen jam nut (2).
9. Follow the same procedure for the wing on the other side.

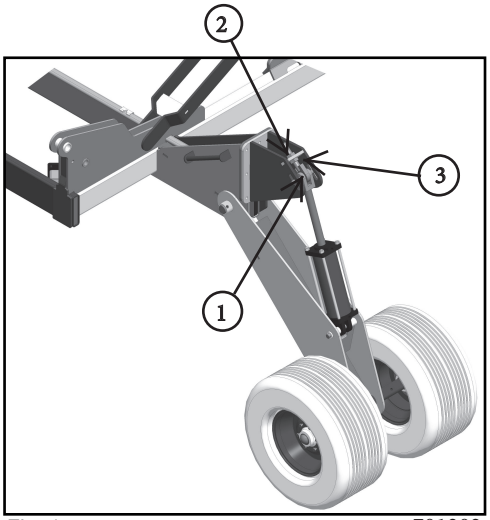
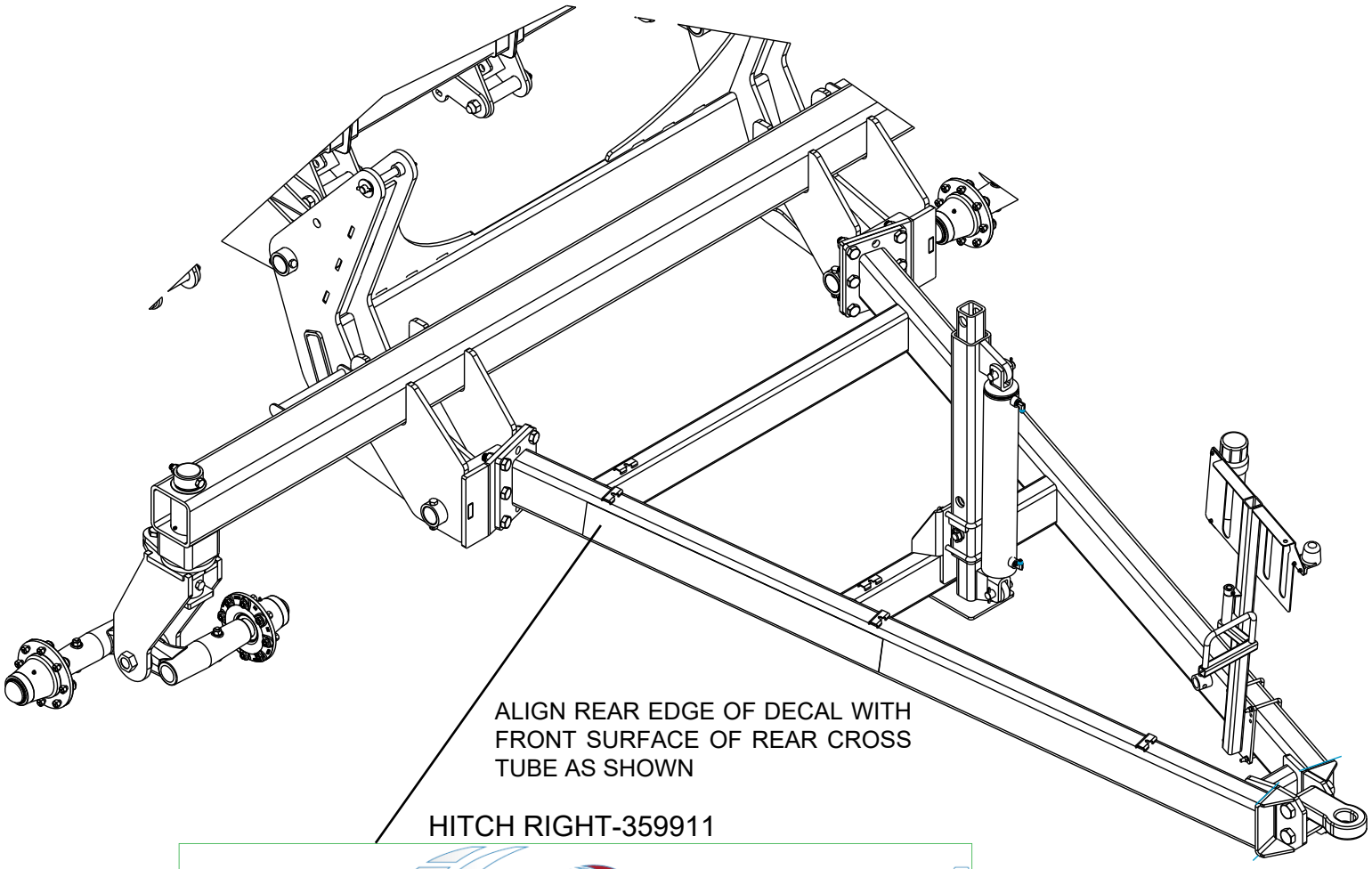


Fig. 1 701302

MODEL DECAL-FRONT HITCH



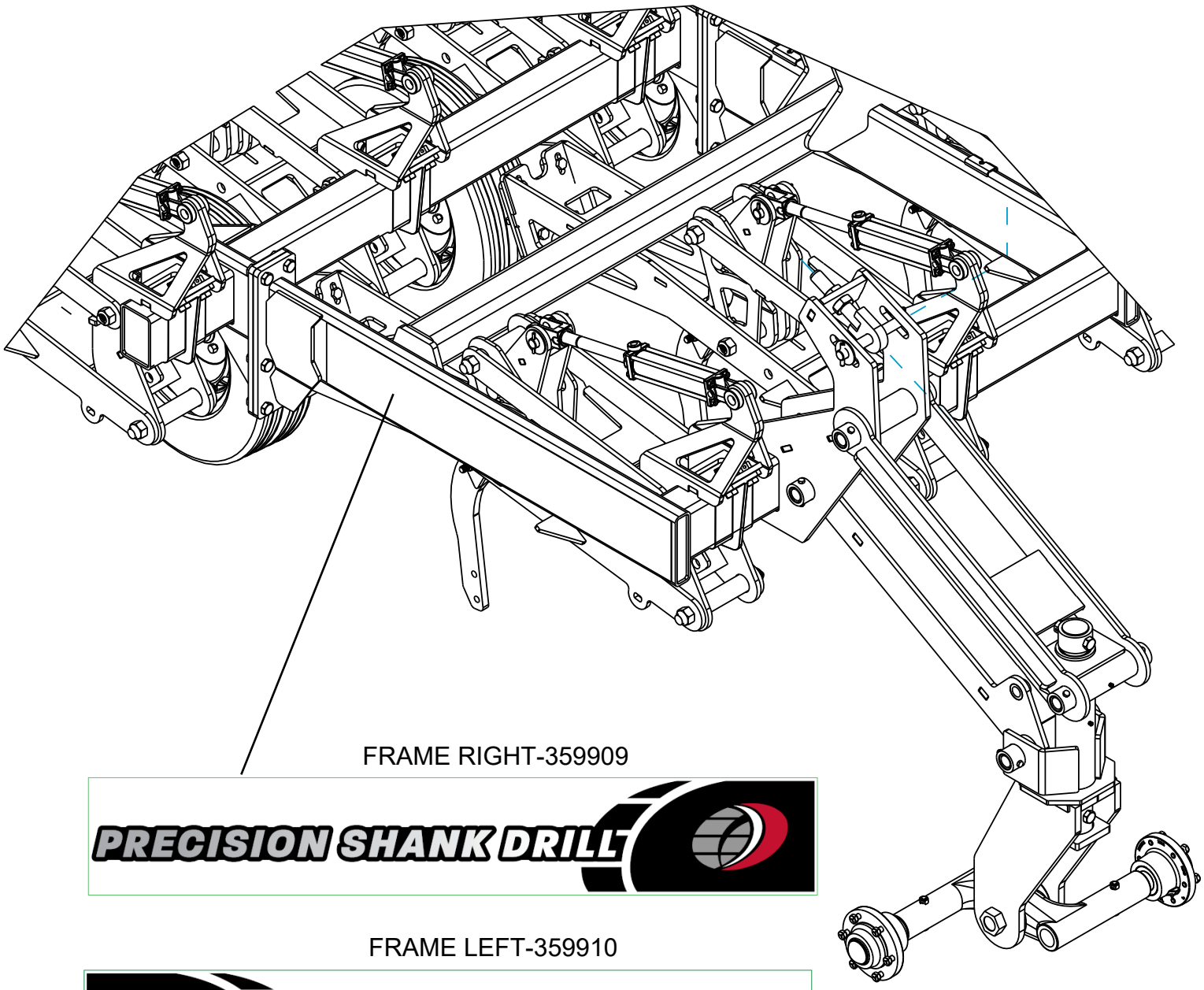
HITCH RIGHT-359911

HITCH LEFT-359912

HITCH RIGHT-359913

HITCH LEFT-359914

MODEL DECAL-OUTER WING



FRAME RIGHT-359909

FRAME LEFT-359910

Tire air pressure

WARNING:
Serious injury or death can result from tire failure because of misapplication, incorrect inflation, overloading, or exceeding the maximum speed.

Tire size	Ply/load rating	Maximum air pressure
IF900/60R32CFO		241 kPa (35 psi)
440/55R18		503 kPa (73 psi)
IF320/70R15		482 kPa (70 psi)
26/7.75X15	4	69 kPa (10 psi)