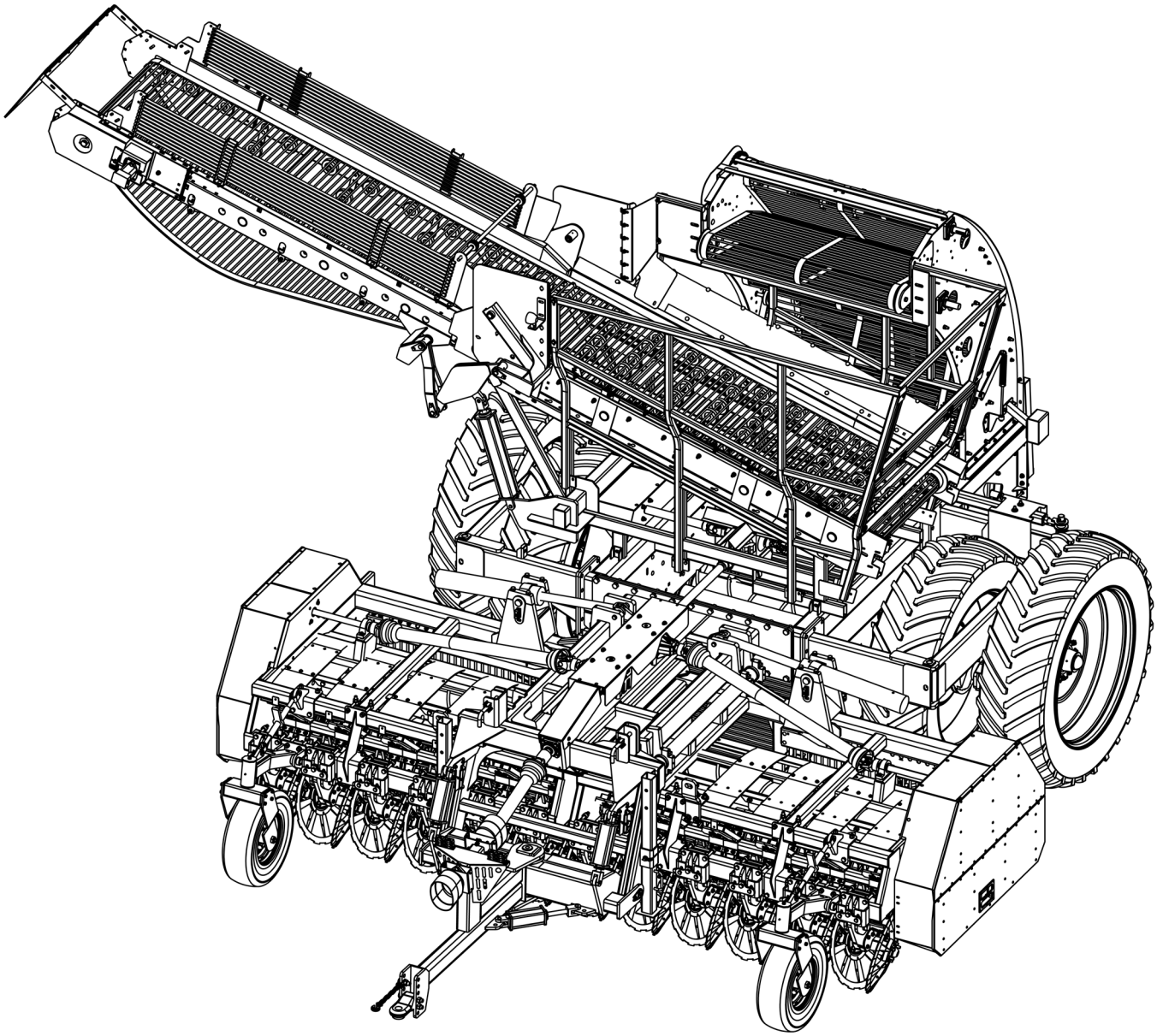
FOLDING
BEET HARVESTER
2017

ALLOWAY



OPERATOR'S MANUAL

TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Alloway dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

The dealer must complete the Warranty Registration included in this manual. Both dealer and customer must sign the registration which certifies that all Dealer Check List items have been completed. The dealer is to return the prepaid postage portion to Alloway, give one copy to the customer, and retain one copy.

Note: Warranty credit is subject to this form being completed and returned.

TO THE OWNER:

Read this manual before operating your Alloway equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your dealer.

The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment.

For service, your authorized Alloway dealer has trained mechanics, genuine Alloway service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine Alloway service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

Model:_____ **Date of Purchase** _____

Serial Number: (see Safety Decal section for location) _____

Provide this information to your dealer to obtain correct repair parts.

Throughout this manual, the term **IMPORTANT** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION, WARNING** and **DANGER** are used in conjunction with the Safety-Alert Symbol, (a triangle with an exclamation mark), to indicate the degree of hazard for items of personal safety.

This Safety-Alert Symbol indicates a hazard and means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

DANGER Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

WARNING Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed.

CAUTION Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

IMPORTANT Indicates that failure to observe can cause damage to equipment.

NOTE Indicates helpful information.

ALLOWAY

TABLE OF CONTENTS

GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your Beat Harvester. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.

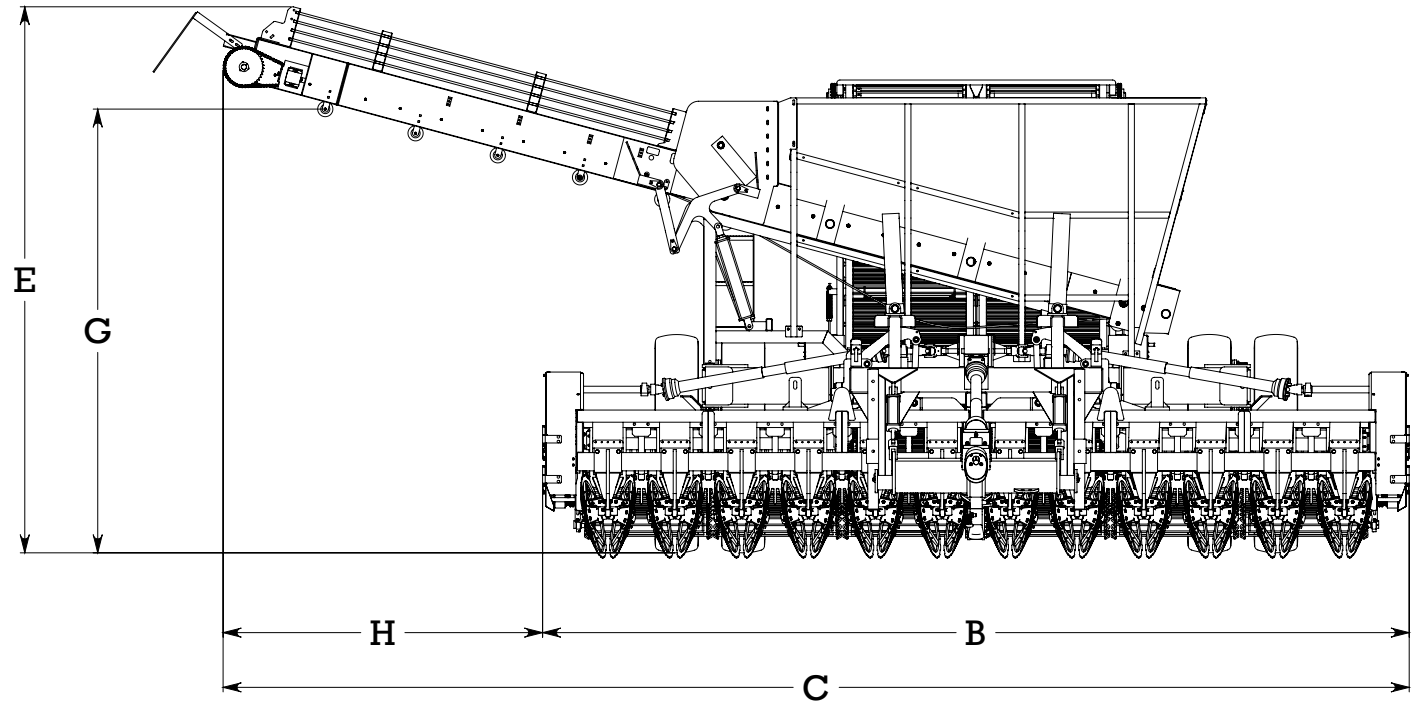
The illustrations and data used in this manual were current at the time of printing, but due to possible inline production changes, your machine may vary slightly in detail. We reserve the right to redesign and change the machines as may be necessary without notification.

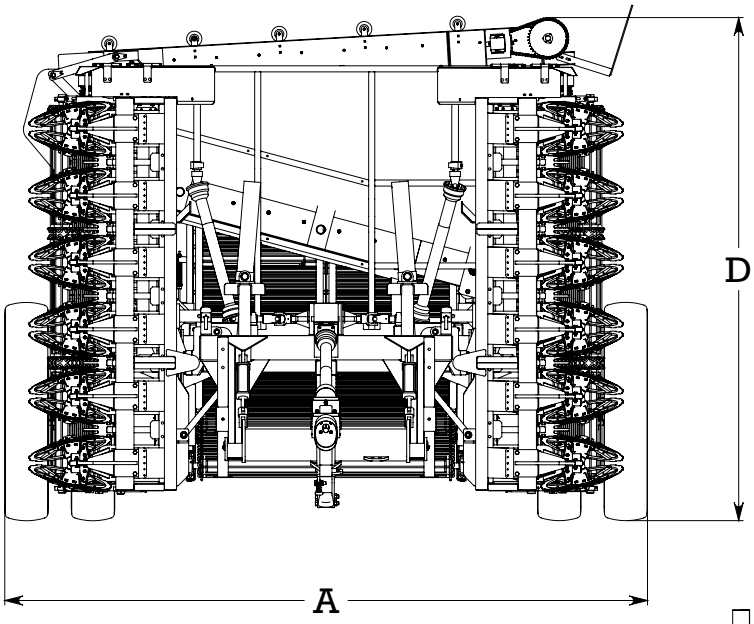
WARNING

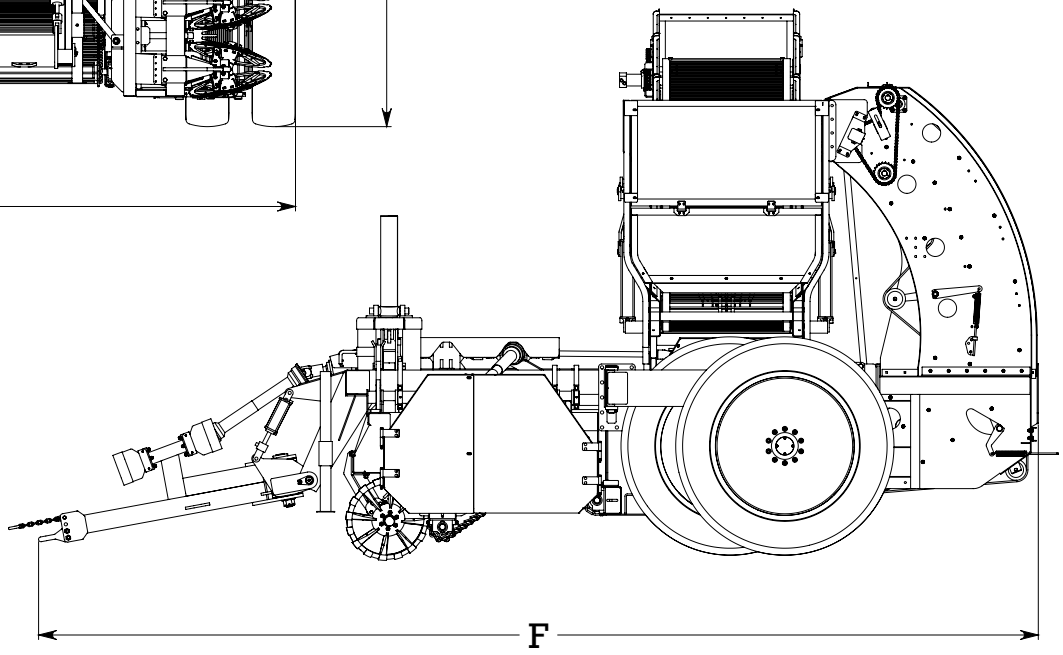
- **Some illustrations in this manual show the Beet Harvester with safety shields removed to provide a better view. The Beet Harvester should never be operated with any safety shielding removed.**

Throughout this manual, references are made to right and left direction. These are determined by standing behind the equipment facing the direction of forward travel.

SPECIFICATIONS







SPECIFICATIONS

Model	12 Row 22
A. Transport Width	17 ft 8 in (5.38 m)
B. Operation Width	23 ft 9 in (7.24 m)
C. Overall Width	32 ft 6 in (9.91 m)
D. Transport Height	13 ft 10 in (4.22 m)
E. Operation Height	15 ft 0 in (4.57 m)
F. Overall Length	27 ft 6 in (8.38 m)
G. Truck Height Clearance	12 ft 2 in (3.71 m)
H. Truck Width Clearance	8 ft 9 in (2.67 m)
Gearbox	250 HP
Belt Elevator Chain	Dual 42 in (107 cm)
1/2” Elevator Chain Rods	56 мм Pitch
Tank Capacity	3-1/2 Tons
Tractor PTO Speed	1000 RPM
Belt System	4B Power Band
Elevator Drive	Hydraulic
Grab Roll Bed	Rock Protected
Grab Rolls Adjustable	3 Full Length - Wing 5 Full Length - Center
Grab Roll Option	2 Stub Rollers - 1 Per Wing
Grab Roll Composition	Steel
Digger Struts	Fixed or Flexible
Tongue Weight (Drawbar)	10,000 lbs (4,500 kg)
Weight Empty	35,000 lbs (15,900 kg)
Wheel Struts	2 Walking Tandem Struts 2 Stabilizer Struts
Main Wheels	4
Tire Type	380 / 90R46 Traction
Tire Pressure	35 psi (241 kPa)
Tire Ply Rating	149A8
Tire Load Capacity	7,150 lbs (3,240 kg)
Stabilizer Wheels	2
Tire Type	9.5L - 15 Implement
Tire Pressure	44 psi (303 kPa)
Tire Ply Rating	8
Tire Load Capacity	2,470 lbs (1,120 kg)

CHECK LISTS

PRE-DELIVERY CHECK LIST
(DEALER'S RESPONSIBILITY)

Inspect the equipment thoroughly after assembly to ensure it is set up properly before delivering it to the customer.

The following check lists are a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

—— Check that all safety decals are installed and in good condition. Replace if damaged.

—— Check that shields and guards are properly installed and in good condition. Replace if damaged.

—— Check that PTO shaft is properly installed.

—— Properly attach implement to tractor and make all necessary adjustments.

—— Check all bolts to be sure they are tight.

—— Check wheel bolts for proper torque.

—— Check that all cotter pins and safety pins are properly installed. Replace if damaged.

—— Check and grease all lubrication points as identified in "Service, lubrication information."

—— Check the level of gearbox fluids before delivery. Service, if required, as specified in the "Service, lubrication information."

—— Check that tractor hydraulic reservoir has been serviced and that hydraulic system and all functions have been operated through full cylinder stroke to purge air from system.

—— After pressurizing and operating all harvester functions, stop tractor and make sure there are no leaks in the hydraulic system. Follow all safety rules when checking for leaks.

DELIVERY CHECK LIST
(DEALER'S RESPONSIBILITY)

—— Show customer how to make adjustments andselect proper PTO speed.

—— Show customer how to make adjustments.

—— Instruct customer how to lubricate and explain importance of lubrication.

—— Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.

—— Present Operator's Manual and request that customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings and emphasize the increased safety hazards that exist when safety rules are not followed.

—— Show customer how to make sure driveline is properly installed and that spring-activated locking pin or collar slides freely and is seated in groove on tractor PTO shaft.

—— Show customer the safe, proper procedures to be used when mounting, dismounting, and storing equipment.

—— Explain to customer that when equipment is transported on a road or highway, safety devices should be used to give adequate warning to operators of other vehicles.

—— Explain to customer that when equipment is transported on a road or highway, a Slow Moving Vehicle (SMV) sign should be used to provide adequate warning to operators of other vehicles.

—— Explain to customer that when towing on a public road to comply with all state and local lighting/ marking laws and to use a safety tow chain.

—— Make customer aware of optional equipment available so that customer can make proper choices as required.

—— Point out all guards and shields. Explain their importance and the safety hazards that exist when not kept in place and in good condition.

SAFETY RULES
ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said *"The best safety device is an informed, careful operator." We* ask you to be that kind of an operator.

The designed and tested safety of this equipment depends on it being operated within the limitations as explained in this manual.

TRAINING

■ **Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals are available from dealer or, in the United States. Failure to follow instructions or safety rules can result in serious injury or death.**

■ **If you do not understand any part of this manual and need assistance, see your dealer.**

■ **Know your controls and how to stop engine and attachment quickly in an emergency.**

■ **Operators must be instructed in and be capable of the safe operation of the equipment, its** attachments **and all controls. Do not allow anyone to operate this equipment without proper instructions.**

■ **Keep hands and body away from pressurized lines. Use paper or cardboard, not body parts to check for leaks. Wear safety goggles. Hydraulic fluid under pressure can easily penetrate skin and will cause serious injury or death.**

■ **Make sure that all operating and service personnel know that in the event hydraulic fluid penetrates skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury, or gangrene, serious injury or death will result. CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.**

■ **Do not allow children or untrained persons to operate equipment.**

PREPARATION

■ **Check that all hardware is tight and properly installed. Always tighten to torque chart specifications.**

■ **Air in hydraulic systems can cause erratic operation and allows loads or equipment components to drop unexpectedly. Before operating or allowing anyone to approach the equipment, purge any air in the system by operating all hydraulic functions several times after connecting equipment, connecting hoses, or doing any hydraulic maintenance.**

■ **Make sure all hydraulic hoses, fittings and valves are in good condition and not leaking before starting power unit or using equipment. Check and route hoses carefully to prevent damage. Hoses must not be twisted, bent sharply, kinked, frayed, pinched, or come into contact with any moving parts. Operate moveable components through full operational range to check clearances. Replace any damaged hoses immediately.**

■ **Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing and head.**

■ **Ensure implement is properly attached, adjusted and in good operating condition.**

■ **Make sure spring-activated locking pin or collar slides freely and is seated firmly in tractor PTO spline groove.**

■ **Before starting tractor, check all equipment driveline guards for damage and make sure they rotate freely on all drivelines. Replace any damaged guards. If guards do not rotate freely on drivelines, repair and replace bearings before operating.**

(Safety Rules continued on next page)

SAFETY RULES
ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

(Safety Rules continued from previous page)

- **Power unit must be equipped with ROPS or ROPS CAB and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.**

- **Connect PTO driveline directly to tractor PTO shaft. Never use adapter sleeves or adapter shafts. Adapters can cause driveline failures due to incorrect spline or incorrect operating length and result in personal injury or death.**

- **Remove accumulated debris from this equipment, tractor and engine to avoid fire hazard.**

- **Ensure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)**

- **Ensure shields and guards are properly installed and in good condition. Replace if damaged.**

- **A minimum 20% of tractor and equipment weight must be on tractor front wheels with attachments in transport position. Without this weight, tractor could tip over causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. When attaining the minimum 20% weight on the front wheels, you must not exceed the Roll Over Protection Structure (ROPS) weight certification. Weigh the tractor and equipment. Do not estimate.**

- **Make sure hydraulic hoses and cylinders are fully purged of air before operating. Keep all persons away and fill the system by raising and lowering all functions several times. Air in the system can allow components to fall unexpectedly.**

OPERATIONAL SAFETY

- **Do not allow other people in the area when operating, attaching, removing, assembling or servicing equipment.**

- **Keep bystanders away from equipment.**

- **Never go underneath equipment lowered to the ground or raised, unless it is properly blocked and secured. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death. Follow Operator's Manual instructions for working underneath and blocking requirements, or have work done by a qualified dealer.**

- **Do not operate equipment while under the influence of alcohol or drugs.**

- **Operate only in daylight or good artificial light.**

- **Avoid contact with electrical wires.**

- **Keep hands, feet, hair and clothing away from equipment while engine is running. Stay clear of all moving parts.**

- **Always comply with all state and local lighting and marking requirements.**

- **No riders are allowed on equipment.**

- **Power unit must be equipped with ROPS or ROPS CAB and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.**

- **Always sit in tractor seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake and ensure all other controls are disengaged before starting tractor engine.**

- **Operate tractor PTO at RPM speed stated in "Specifications" section.**

- **Do not operate tractor PTO during transport.**

- **Look down and to the rear and make sure area is clear before operating in reverse.**

- **Do not operate on steep slopes.**

(Safety Rules continued on next page)

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■ **Do not operate tractor PTO during transport.**

■ **Look down and to the rear and make sure area is clear before operating in reverse.**

■ **Do not operate on steep slopes.**

■ **Do not stop, start or change directions suddenly on slopes.**

■ **Watch for hidden hazards on the terrain during operation.**

■ **Stop tractor and implement immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operation.**

■ **Truck boom lock must be engaged when truck boom is in operating position. Do not operate unloader conveyor unless boom lock is engaged and in good repair. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.**

■ **Always connect safety chain from implement to towing vehicle when transporting.**

■ **AVOID INJURY OR DEATH FROM POWER LINES:**

- **Stay away from power lines.**
- **Electrocution can occur without direct contact.**
- **Check clearances before raising implement.**
- **Do not leave the operator's seat if any part of the tractor or implement contacts electric lines.**

■ **Before dismounting tractor, disengage tractor PTO power to implement, lower front lift cylinders so that lifter wheels are on the ground. Operate valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt.**

■ **Before performing any service or maintenance, disengage power to implement, lower front lift cylinders so that lifter wheels are on the ground, lower truck boom, lower 3-point hitch. Operate valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt. Disconnect driveline from tractor PTO. Chock (block) front and rear of implement wheels.**

■ **Before working underneath a raised implement, read and follow all operator's manual instructions and safety rules. Implement must be attached to tractor, lift cylinder locks must be installed, and lift cylinders lowered against locks. Hydraulic system leak down, hydraulic system failures, or movement of control levers can cause equipment to drop unexpectedly and cause severe injury or death.**

(Safety Rules continued on next page)

SAFETY RULES
ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

(Safety Rules continued from previous page)

MAINTENANCE SAFETY

■ **Service and maintenance work not covered in OWNER SERVICE must be done by a qualified dealership. Special skills, tools and safety procedures may be required. Failure to follow these instructions can result in serious injury or death.**

■ **Before dismounting tractor, disengage tractor PTO power to implement, lower front lift cylinders so that lifter wheels are on the ground. Operate valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt.**

■ **Before performing any service or maintenance, disengage power to implement, lower front lift cylinders so that lifter wheels are on the ground, lower truck boom, lower 3-point hitch. Operate valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt. Disconnect driveline from tractor PTO. Chock (block) front and rear of implement wheels.**

■ **Before working underneath a raised implement, read and follow all operator's manual instructions and safety rules. Implement must be attached to tractor, lift cylinder locks must be installed, and lift cylinders lowered against locks. Hydraulic system leak down, hydraulic system failures, or movement of control levers can cause equipment to drop unexpectedly and cause severe injury or death.**

■ **Do not modify or alter or permit anyone else to modify or alter the equipment or any of its components in any way.**

■ **Before performing any maintenance on the beet harvester. Do not work in or under the holding tank with the tank bottom in the raised (unload) position. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.**

■ **Before performing any maintenance on the beet harvester, the truck boom must be fully lowered into the transport position. Do not work on harvester with truck boom in any intermediate position. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.**

■ **Your dealer can supply original equipment hydraulic accessories and repair parts. Substitute parts may not meet original equipment specifications and may be dangerous.**

■ **Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing and head.**

■ **Do not allow other people in the area when operating, attaching, removing, assembling or servicing equipment.**

■ **Never go underneath equipment lowered to the ground or raised, unless it is properly blocked and secured. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death. Follow Operator's Manual instructions for working underneath and blocking requirements, or have work done by a qualified dealer.**

■ **Ensure implement is properly attached, adjusted and in good operating condition.**

■ **Never perform service or maintenance with engine running.**

■ **Make sure hydraulic hoses and cylinders are fully purged of air before operating. Keep all persons away and fill the system by raising and lowering all functions several times. Air in the system can allow components to fall unexpectedly.**

■ **Keep all persons away from operator control area while performing adjustments, service or maintenance.**

(Safety Rules continued on next page)

(Safety Rules continued from previous page)

- **Make certain all movement of implement components has stopped before approaching for service.**

- **Tighten all bolts, nuts and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before operating.**

- **Ensure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)**

- **Ensure shields and guards are properly installed and in good condition. Replace if damaged.**

- **Do not disconnect hydraulic lines until engine is stopped, tractor is properly secured, equipment and all components are lowered to the ground, and system pressure is released by operating all valve control levers.**

STORAGE

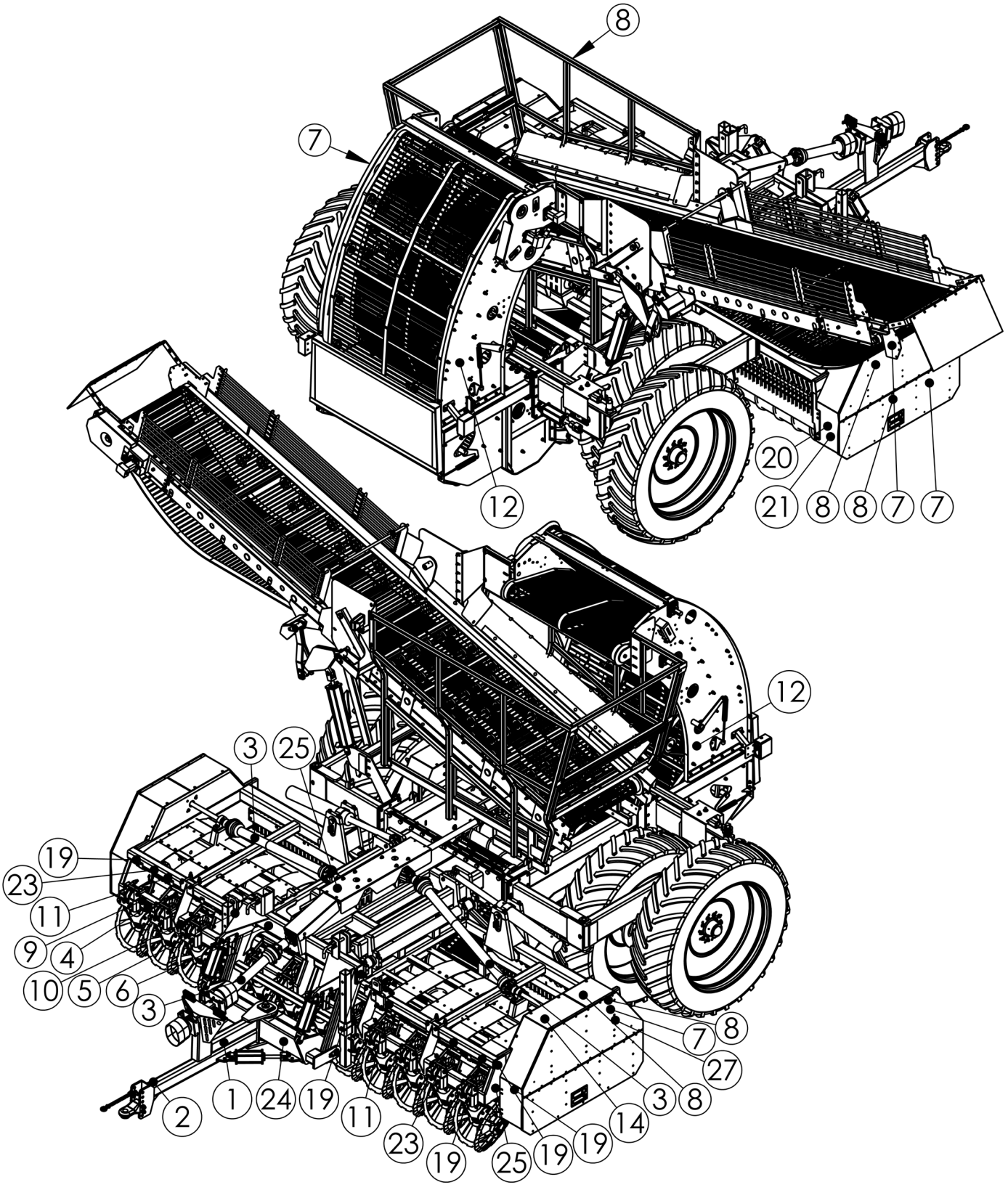
- **For storage, disengage tractor PTO power to harvester, lower front lift cylinders so that lifter wheels are on the ground, lower truck boom, lower 3-point hitch. Operate tractor valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt. Remove driveline from tractor PTO. Chock (block) front and rear of harvester wheels.**

- **Keep children and bystanders away from storage area.**

SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!



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SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!

(Safety Decals continued from previous page)

1. 506-3-0196 Rotating Driveline Warning

2. 700-3-0519 PTO Speed Warning

4. 200-3-1366 Serial Number Tag

3. 903-17456 Driveline Safety Sign

5. 700-3-0494 Fall Hazard Warning

(Safety Decals continued on next page)

SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!

(Safety Decals continued from previous page)

⚠ WARNING

TO AVOID SERIOUS INJURY OR DEATH:

- Read Operator's Manual before operating, servicing or repairing equipment. Follow all safety rules and instructions. (Manuals are available from dealer or, in the United States and Canada, call 1-800-319-6637.)
- Keep all guards in place, properly secured and in good condition. Replace if damaged.
- Operate from tractor seat only.
- Do not allow any other persons in the area when operating.
- Before dismounting tractor:
  - Disengage PTO.
  - Lower equipment and all raised components.
  - Stop engine, remove key and engage brake.
  - Operate hydraulic valve levers to release any pressure.
  - Allow no children or untrained persons to operate the equipment.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

PN 700-3-0493

6. 700-3-0493 Read Manual Warning

⚠ WARNING

TO AVOID SERIOUS INJURY OR DEATH:

- Read Operator's Manual before operating, servicing or repairing equipment. Follow all safety rules and instructions. (Manuals are available from dealer or, in the United States and Canada, call 1-800-319-6637.)
- Keep all guards in place, properly secured and in good condition. Replace if damaged.
- Operate from tractor seat only.
- Do not allow any other persons in the area when operating.

7. 700-3-0495 Rotating Drive Hazard

⚠ DANGER

SHIELD MISSING

DO NOT OPERATE - PUT SHIELD ON

18869-B

8. 506-3-0194 Shield Missing Warning

⚠ WARNING

HIGH-PRESSURE HYDRAULIC OIL LEAKS CAN PENETRATE SKIN RESULTING IN SERIOUS INJURY, GANGRENE OR DEATH.

- Check for leaks with cardboard; never use hand.
- Before loosening fittings: lower load, release pressure, and be sure oil is cool.
- Consult physician immediately if skin penetration occurs.

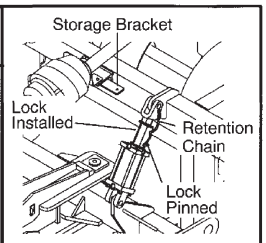
9. 506-3-0195 Hydraulic Pressure Warning

⚠ WARNING

RAISED EQUIPMENT CAN DROP AND CRUSH.

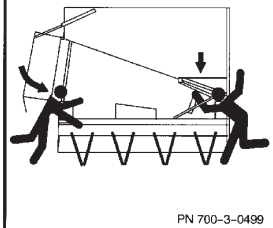
- Install both cylinder locks before transporting or working underneath raised harvester.
- Locks must be installed correctly, kept in good condition, and stored on harvester.
- Read and follow manual instructions.

FAILURE TO FOLLOW INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



CYLINDER LOCKS

10. 700-3-0498 Cylinder Lock Warning



⚠ WARNING

RAISED EQUIPMENT CAN DROP AND CRUSH.

- Truck boom and holding tank must be lowered before leaving tractor, or before servicing or storing harvester.
- Lowering components prevents crushing from hydraulic leak down, hydraulic system failures, movement of control levers or mechanical component failures.

FAILURE TO FOLLOW INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

11. 700-3-0499 Raised Equipment Warning

⚠ WARNING

KEEP AWAY FROM ELEVATOR CHAIN

- Never use service access holes while equipment is running.
- Before servicing elevator chain, tractor must be shut off and PTO shaft disconnected from tractor.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

12. 700-3-0497 Elevator Chain Warning

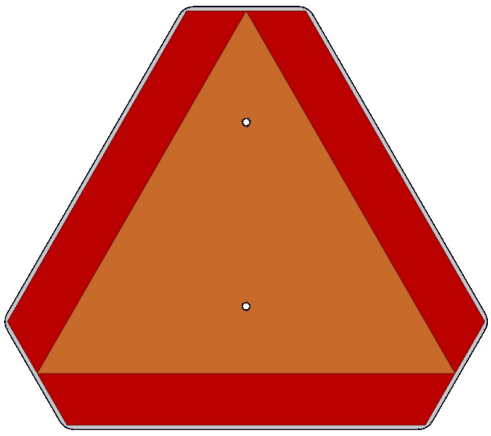
(Safety Decals continued on next page)

SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!

(Safety Decals continued from previous page)



13. 500-3-1696 SMV Sign

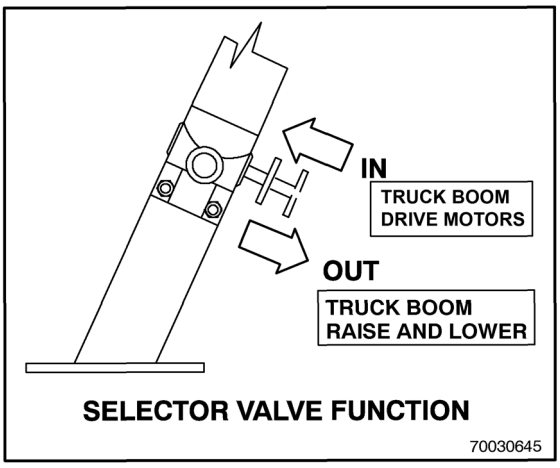
BOOM LOCK MUST BE ENGAGED WHEN TRUCK BOOM IS RAISED TO OPERATING POSITION:

1. Read manual and follow all instructions and safety rules.
2. Lock pin must be in lowered position.
3. Hydraulically raise truck boom.
4. Boom lock must fully rotate into engaged position as shown.
5. Check and do not operate unless boom lock is fully engaged and in good repair.

BOOM LOCK MUST BE RELEASED BEFORE TRUCK BOOM CAN BE LOWERED:

1. Read manual and follow all instructions and safety rules.
2. Hydraulically raise truck boom to full up position to remove boom weight from boom lock.
3. Stand behind truck boom and raise lock pin handle to raised position as shown.
4. Hydraulically lower truck boom to transport position.
5. The lock pin will automatically reset to the lowered position as the truck boom is lowered. If lock pin does not reset, have unit repaired before operating.

15. 700-3-0644 Boom Lock Warning



16. 700-3-0645 Selector Valve Function

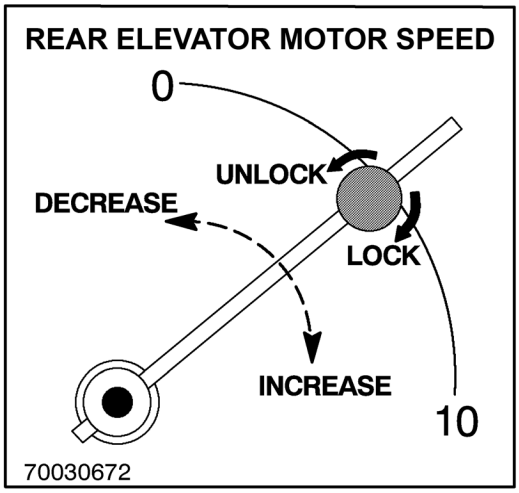
WARNING

MANUAL CONTAINER AND MANUAL ARE MISSING

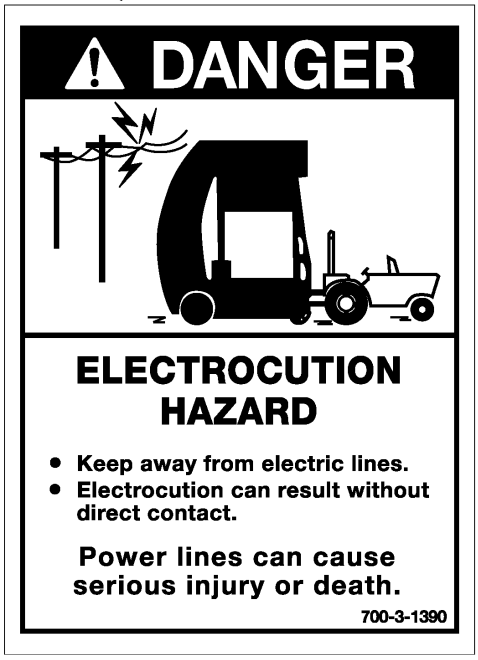
- REPLACE AND READ BEFORE OPERATING.
- KEEP MANUAL CONTAINER AND MANUAL MOUNTED IN THIS LOCATION. (Available from dealer or call 1-800-319-6637.)

FAILURE TO FOLLOW MANUAL INSTRUCTIONS AND SAFETY RULES CAN RESULT IN SERIOUS INJURY OR DEATH. 506-3-0192

14. 506-3-0192 Manual Container Warning



17. 700-3-0672 Rear Elevator Motor Speed



18. 700-3-1390 Electrocution Hazard

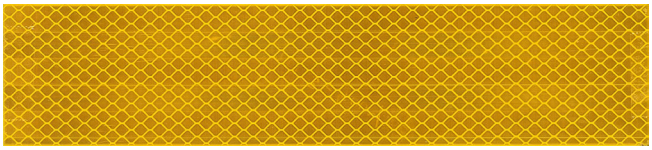
(Safety Decals continued on next page)

SAFETY & INSTRUCTIONAL DECALS

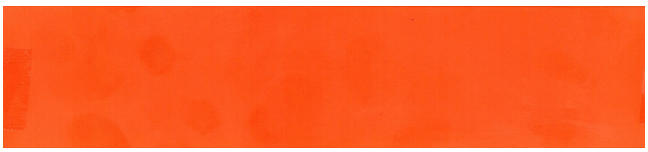
ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!

(Safety Decals continued from previous page)



19. 200-3-4004 Amber Reflector 9 x 2

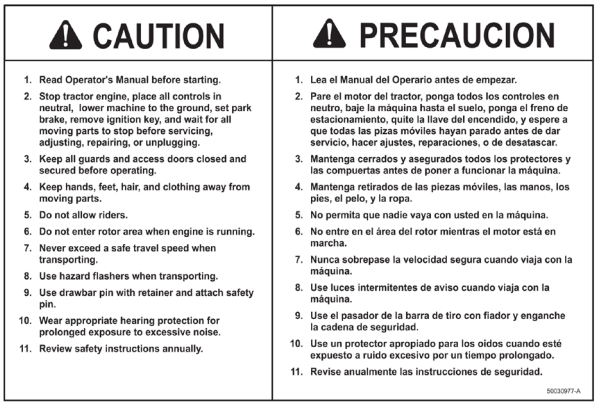


20. 200-3-4034 Orange Fluorescent Reflector 9 x 2

21. 200-3-4005 Red Reflector 9 x 2

22. 505-3-0315 High - Pressure Fluid Hazard

23. 902-15101 Alloway Standard Logo



24. 500-3-0977 Caution Manual Warning

25. 100-3-1367 Safety Guard

26. 507-3-0432 Alloway Standard Circular Large w/ Short Striping

27. 902-15100 Alloway Standard Circular Large w/ Long Striping

OPERATION

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said *"The best safety device is an informed, careful operator."* We ask you to be that kind of an operator.

WARNING

- **Operators must be instructed in and be capable of the safe operation of the equipment, its attachments and all controls. Do not allow anyone to operate this equipment without proper instructions.**
- **Do not allow children or untrained persons to operate equipment.**

CAUTION

- **Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing.**

WARNING

- **Make sure spring-activated locking pin or collar slides freely and is seated firmly in tractor PTO spline groove.**
- **Before starting tractor, check all equipment driveline guards for damage and make sure they rotate freely on all drive- lines. Replace any damaged guards. If guards do not rotate freely on drivelines, repair and replace bearings before operating.**
- **A minimum 20% of tractor and equipment weight must be on tractor front wheels with attachments in transport position. Without this weight, tractor could tip over causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. When attaining the minimum 20% weight on the front wheels, you must not exceed the Roll Over Protection Structure (ROPS) weight certification. Weigh the tractor and equipment. Do not estimate.**

WARNING

- **Ensure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)**
- **Ensure shields and guards are properly installed and in good condition. Replace if damaged.**
- **Do not allow other people in the area when operating, attaching, removing, assembling or servicing equipment.**
- **Keep bystanders away from equipment.**
- **Never go underneath equipment lowered to the ground or raised, unless it is properly blocked and secured. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death. Follow Operator's Manual instructions for working underneath and blocking requirements, or have work done by a qualified dealer.**

CAUTION

- **Operate only in daylight or good artificial light.**
- **Avoid contact with electrical wires.**

WARNING

- **Keep hands, feet, hair and clothing away from equipment while engine is running. Stay clear of all moving parts.**
- **Always comply with all state and local lighting and marking requirements.**
- **No riders are allowed on equipment.**
- **Power unit must be equipped with ROPS or ROPS CAB and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS systems in "locked up" position at all times.**

PRE-OPERATION CHECK LIST
(OWNER'S RESPONSIBILITY)

To assure safe and efficient operation it is essential, that each machine operator read and understand the operating procedures and related safety requirements outlined in this manual.

Complete the Pre-Operation Checklist before initial operation, after the first hour of field operation, and before each shift thereafter.

—— Review and follow all safety rules and safety decal instructions on pages 4 through 11.

—— Check that all safety decals are installed and in good condition. Replace if damaged.

—— Check that all shields and guards are properly installed and in good condition. Replace if damaged.

—— Check that all hardware and cotter pins are properly installed and secured.

—— Check alignment and spacing of digger wheels.

—— Check alignment of grab rolls and remove any obstructions.

—— Check that elevator chains, rollers and tensioners move freely and without obstruction

—— Check tractor and harvester tire pressures Service as necessary.

—— Check that boom lock is in good repair. Do not operate unless boom lock is fully engaged when truck boom is raised.

—— Check that equipment is properly and securely attached to tractor.

—— Make sure driveline spring-activated locking collar slides freely and is seated firmly in tractor PTO spline groove.

—— Before starting tractor, check all equipment driveline guards for damage and make sure they rotate freely on all drivelines. Replace any damaged guards. If guards do not rotate freely on drivelines, repair and replace bearings before operating.

—— Do not allow riders.

—— Check and keep all bystanders away from equipment working area.

—— Check all lubrication points and grease as instructed in "Service, lubrication information". Make sure the PTO slip joint is lubricated and that the gearbox fluid levels are correct.

—— Set tractor PTO at correct rpm for your equipment.

—— Check that all hydraulic connections are correct and all hydraulic control movements function as described in the Operator's Manual.

—— Check that all hydraulic hoses and fittings are in good condition and not leaking before starting tractor. Check that hoses are not twisted, bent sharply, kinked, frayed or pulled tight. Replace any damaged hoses immediately.

—— Raise and lower equipment to make sure air is purged from hydraulic cylinders and hoses.

—— Make sure tractor 3-point lift links do not interfere with hydraulic hoses or driveline throughout full turning range.

—— Make sure tractor ROPS or ROPS CAB and seat belt are in good condition. Keep seat belt securely fastened during operation.

—— Before starting engine, operator must be in tractor seat with seat belt fastened. Place transmission in neutral or park, engage brake and disengage tractor PTO.

HARVESTER COMPONENTS

The harvester consists of several components which will be referred to throughout this manual. They are as follows:

1. Center frame: This is the base structure to which all components of the harvester are attached.

2. Wing frame: This is the structure to which the lifter struts of the harvester are attached.

3. Hitch: Located on the front of the harvester, it is used to attach the harvester to a tractor. Hydraulic cylinders connect the Hitch to the Main Frame and are used to control the working depth and harvester steering.

4. Lifter struts: Lifter struts are attached to the wings of the harvester to align with each row of to remove the beets from the soil.

5. Paddle shaft: Shaft and paddle assemblies rotate through each lifter wheel assembly directing all materials from between the lifter wheels onto the grab roll bed.

6. Front Barrier: Structure attached to the front of the wings to keep beets from falling out.

7. Rear Barrier: Located on the back of the wings to keep beets from falling out the back while allowing easy access to the inside of the wing.

8. Wing Grab Rolls: Pairs of counter-rotating cleaning rolls to remove soil and debris from the beets while moving beets to the center frame.

9. Center Frame Grab Rolls: Pairs of counter-rotating cleaning rolls to remove soil and debris from the beets while moving beets to the vertical elevator.

14 Stabilizer Wheels (not shown)

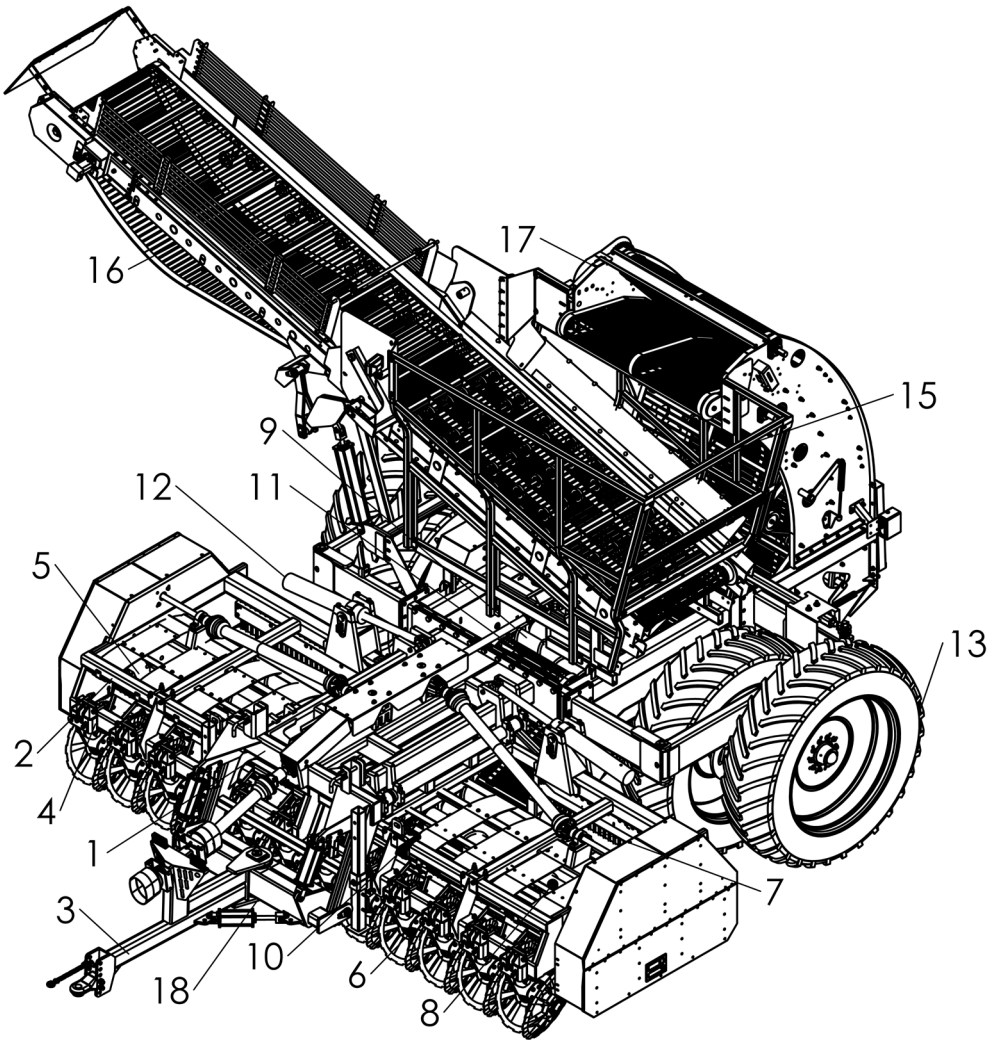


Figure 1. Beet Harvester Components

10. Wing Chain Bed: Chain that carries beets from lifter wheels to the wing grab roll bed.

11. Center Frame Chain Bed: Chain that carries beets from the wing grab roll bed to the center frame grab roll bed.

12. Trunion Hydraulic Cylinder: The main cylinder to lift the wings up.

13. Walking Tandem Wheels: Mounted on the sides of the center frame, designed to offer a smooth ride while increasing carrying weight.

14. Stabilizer Wheels: (not shown) Located on the front of each wing to keep the wings from dipping.

15. Holding tank: Beet holding area. Beets are dropped into the tank until truck arrives.

16. Truck boom: The foldable conveyor extension on the top right of the harvester used to convey beets to the truck.

17. Vertical elevator: Structure comprised of four powered belted chains moving the beets vertically from the grab rolls to the top of the holding tank.

18. Row Finder: Keeps the Harvestor digger wheels centered on the beets.

EQUIPMENT MATCHING

Harvester	Minimum HP
8 ROW 30”	240 HP
12 ROW 45 cm	250 HP
12 ROW 30”	290 HP
16 ROW 22”	300 HP

Use the above guidelines to select a tractor with adequate power and weight to operate the harvester.

Use tractor manufacturer ASAE HP ratings for tractor matching.

TRACTOR BALLAST

The tractor should be equipped with manufacturer’s maximum allowable front end ballast for operational and transport stability.

TIRE REQUIREMENTS

The loaded beet harvester will transfer 4000 to 6000 lbs. of static weight to the tractor drawbar. Tractor tires must be of adequate capacity to carry the additional load.

See your tractor operator’s manual for selecting tires of the proper capacity and the correct air pressure required.

Dual tractor wheels set to the correct row spacing may be used to increase load capacity.

Tractor tire spacing must be adjusted to match the harvester row spacing.

PTO

WARNING

- **Connect PTO driveline directly to tractor PTO shaft. Never use adapter sleeves or adapter shafts. Adapters can cause driveline failures due to incorrect spline or incorrect operating length and result in personal injury or death.**

Tractor must be equipped with a 1000 rpm PTO shaft. The harvester may be equipped with either a 1-3/8”-21 or 1-3/4”-20 spline driveline to match the tractor output shaft without using adapters.

The harvester may be equipped with optional CV driveline.

HITCH REQUIREMENTS

The drawbar length must be adjusted to a minimum of 16” to 18” between the end of the tractor PTO shaft and the center of the hitch pin.

IMPORTANT

- **Fasten support chains so that they support the drawbar equally.**
- **Raise the three-point hitch only high enough to support the drawbar. Do not bend the drawbar or hitch components.**

HYDRAULIC SYSTEM

Each outlet requires a minimum flow of 12-16 GPM at 2000 psi.

On certain tractors using a pressure/flow compensated system, a load sensing line may be required for proper hydraulic system operation. Consult your tractor dealer for the specific requirements of your tractor hydraulic system.

If *not* equiped with Hydraulic Manifold

The tractor must be equipped with a minimum of seven operator controlled remote outlets and one power-beyond circuit or eight operator controlled remote outlets if a power-beyond is not available.

- Tractor remote valve (1) supplies hydraulic power for the depth control/transport cylinders on the hitch.
- Tractor remote valve (2) supplies hydraulic power to the Boom lift/lower cylinders.
- Tractor remote valve (3) supplies hydraulic power to the Wing lift/lower cylinders.
- Tractor remote valve (4) supplies hydraulic power to the Hydraulic drive motors on Boom Unload Conveyor.
- Tractor remote valve (5) supplies hydraulic power to the Hydraulic drive motors on Rear Elevator.
- Tractor remote valve (6) supplies hydraulic power to the row finder override.
- Tractor remote valve (7) or power-beyond circuit supplies hydraulic power for row finder.
- Tractor remote valve (8) supplies hydraulic power to the Wing Stabilizer lift/lower cylinders.

If equiped with Hydraulic Manifold

The tractor must be equipped with a minimum of three operator-controlled remote outlets and one power-beyond circuit or four operator-controlled remote outlets on a closed center or pressure/flow compensated hydraulic system.

- Tractor remote valve (1) supplies hydraulic power to the row finder override.
- Tractor remote valve (3) supplies hydraulic power to the Wing lift/lower cylinders.
- Tractor remote valve (4) supplies hydraulic power to the Hydraulic drive motors on Boom Unload Conveyor and Rear Elevator.
- Tractor remote valve (4) or power-beyond circuit supplies hydraulic power for hydraulic Manifold Block.

ELECTRICAL SYSTEM

Tractor must be equipped with a SAE J560a 7-pin electrical connector. This will provide power for turn signals, warning flashers, and operating power for the optional rear steering selector switch.

The harvester is equipped with warning flashers and turn signals located on each corner. Warning lights must be functional whenever the harvester is transported on public highways.

See your tractor operator's manual for instructions on warning light and turn signal operation.

If warning lights and turn signals do not function correctly, contact your Alloway dealer.

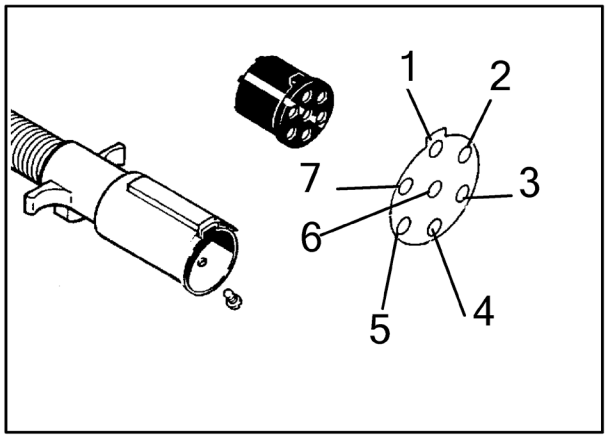


Figure 3. 7-Pin Electrical Connector

Position	Wire Color	Wire Function
1	White	Ground
2	Brown	Tail and Running Lights
3	Green	Right Turn and Hazard
4	Red	Stop Lamps
5	Yellow	Left Turn and Hazard
6	Black	Clearance / Marker
7	Blue	Auxiliary Circuit

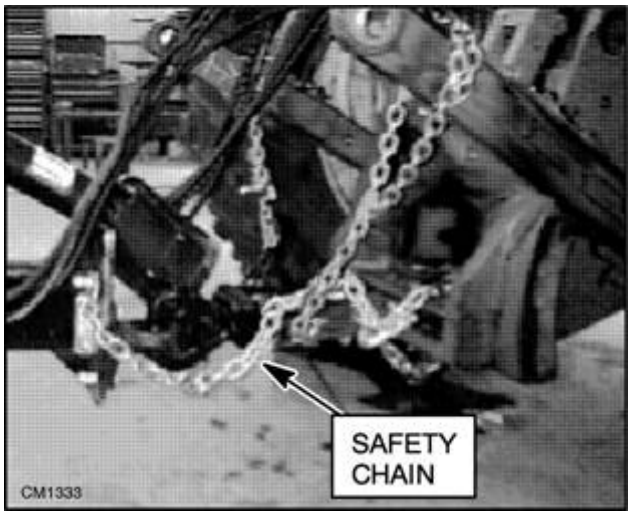


Figure 4. Lock Pin & Safety Chain

ATTACHING HARVESTER TO TRACTOR

Make sure there are no bystanders between tractor and harvester.

Carefully back up, until Pin on the tractor is directly in line with harvester clevis ring.

Stop engine, set parking brake, wait for all moving parts to stop and remove ignition key before dismounting.

Clean the hydraulic couplers and fittings to avoid oil contamination.

Connect the hydraulic hoses which control the front hitch cylinders to the tractor. Connect these hoses so that moving the control lever forward lowers the harvester (raises the hitch tongue) and moving the control lever rearward raises the harvester (lowers the hitch tongue).

Attach the safety chain to the drawbar support of the tractor. Attach Hydraulic Lines. Insert the 7-pin male harvester electrical cable into the tractor female connector.

The unloader conveyer motor is operated by tractor remote valve. Connect the hoses originating at the harvester so that moving lever forward causes the boom conveyor motor to run forward.

The Rear Elevator conveyer motor is operated by tractor remote valve. Connect the hoses originating at the harvester so that moving lever forward causes the beets to run into the tank.

Check the harvester PTO shaft for smooth telescoping action. Attach the harvester PTO shaft to the tractor PTO shaft. Make sure the locking collar is fully engaged in the lock groove of the tractor PTO.

Hydraulically raise front of the harvester, stop engine, set park brake, wait for all moving parts to stop and remove ignition key before dismounting.

Install transport locks on depth control cylinders.

UNHOOKING THE HARVESTER FROM THE TRACTOR

Locate the harvester on a hard level surface. Make sure area is free of bystanders.

Lower machine with the tractor hydraulics from tractor seat, until machine is resting in a level and stable position on the lifter wheels. Planks or blocking of a suitable size may be used to prevent the harvester from sinking into the soil or damaging the floor surface.

Move boom locks out of cradled position and fully lower the truck boom. Stop the engine, set parking brake, remove ignition key and wait for all moving parts to stop before dismounting the tractor. Block the rear wheels of the harvester to prevent the harvester from rolling. Disconnect PTO shaft from tractor. Disconnect the safety tow chain. Disconnect the electrical cable from the tractor and store in a safe and secure position on the hitch. Remove Pin from hitch.

Lower the hitch to the full extension of the lift cylinders. Stop the engine, release hydraulic pressure in all remotes, set parking brake, remove ignition key and wait for all moving parts to stop before dismounting the tractor.

Disconnect all hydraulic lines and the rear steering electrical connector.

FIELD OPERATION

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said *"The best safety device is an informed, careful operator."* We ask you to be that kind of an operator.

The Alloway harvester will give best performance only if it is properly set for individual field conditions. These setting requirements may change with changes in soil moisture, density and beet varieties. The following explains the operation and adjustment of the machine. Check with your dealer or Alloway for special conditions.

RAISING AND LOWERING THE HARVESTER

The harvester lift cylinders are attached to the harvester tongue and are used to raise the front of the harvester out of the ground. The lift cylinders are connected to tractor hydraulic outlet.

Harvester hydraulic connections should be made so that moving tractor control lever forward lowers the harvester and moving lever rearward raises the harvester.

Transport locks are included and must be installed whenever the harvester is attached to the tractor when not involved in digging operations.

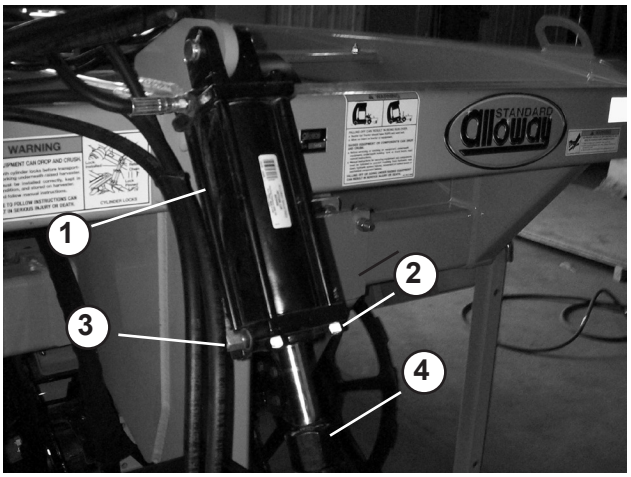
DEPTH STOPS AND TRANSPORT LOCKS

Digging depth is controlled with two hydraulic lift cylinders on the hitch. Adjustable stops are provided on these cylinders which are used to set and retain the desired machine working depth. These stops must be adjusted so both cylinders have the same stop length.

Adjust cylinder depth stops by turning stop nut. Lengthening stop will raise harvester out of the ground for shallower operation. Shortening the stop will lower the harvester into the ground for deeper operation.

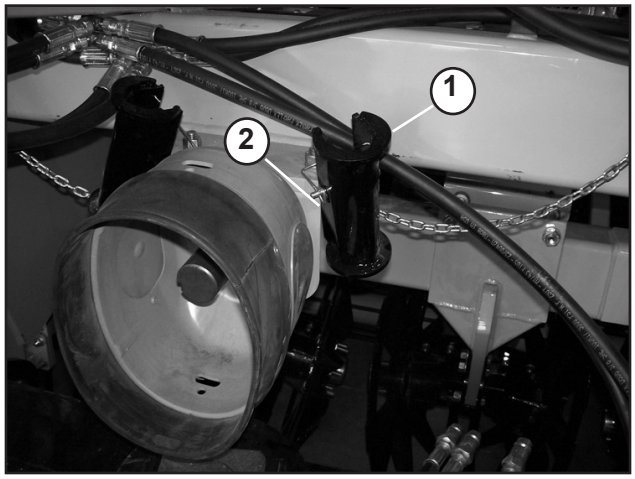
Transport locks are included and must be installed whenever the harvester is attached to the tractor when not involved in digging operations.

To install transport locks, depth stops must be adjusted equally. Raise harvester completely. Set tractor park brake, turn off tractor engine, remove key and exit tractor cab. Working from beside the lift cylinders, remove transport lock from storage bracket and install transport lock over cylinder rod. Install lock pin in transport lock to hold lock in place on cylinder rod. Install transport lock for both lift cylinders



1. Front Lift Cylinder
2. Transport Lock
3. Lock Pin
4. Adjustable Depth Stop

Figure 9. Transport Locks Installed



1. Transport Lock
2. Lock Pin

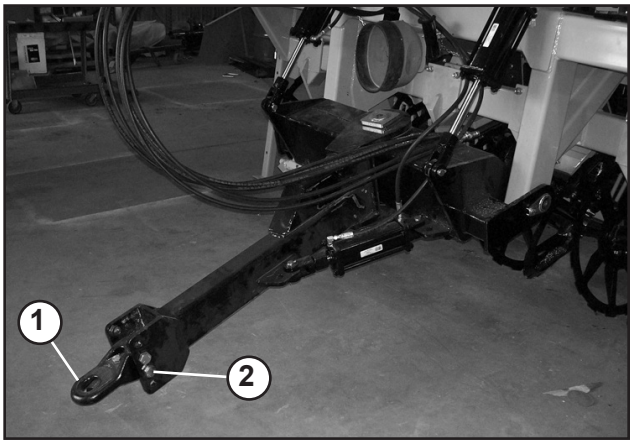
Figure 10. Transport Lock Storage Position

Transport locks should be attached to the storage brackets whenever locks are removed for digging operation. Replace any lost or damaged transport lock component immediately. Recommended operating depth is between 2” and 3” measured from cleared undisturbed soil to the bottom of the cut trench behind the harvester.

IMPORTANT

- **When operating in rocky conditions, the lift circuit should be placed in “float” position to allow the harvester to raise over rocks without lifting the tractor.**

Additional leveling adjustment is possible by moving the hitch ring attached to the harvester tongue.



1. Adjustable Hitch Ring 2. Hitch Adjustment Bolts

Figure 13. Hitch Ring Adjustment

Adjust Chain Bed spacing between lifter wheels and Chain Bed by adjusting Pivot Bracket with adjusting bolt. Try to keep a minimum distance of approximately 1/2” between lifter wheels and Chain Bed.

1. A 2. B

Figure 13. Chain Bed Adjustment

Cleaning capacity of the harvester can be affected by raising or lowering the adjustable grab roll bed. The front of the side sheet may be lowered (This allows beets more time on grabroll bed for better cleaning). The front of the side may be raised if less cleaning is needed.

1. A 2. B

Figure 13. Grab Roll Bed Adjustment

RAISE TRUCK BOOM TO OPERATING POSITION

The truck boom must be raised from the lowered transport position and locked in the raised operating position before operating the truck boom conveyor. The truck boom is raised into position with single acting cylinders and is lowered to rest on boom locks during operation.

WARNING

- **Truck boom lock must be engaged when truck boom is in operating position. Do not operate unloader conveyor unless boom lock is engaged and in good repair. Hydraulic system leak down, hydraulic sys tem failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.**

IMPORTANT

- **Operate unloader conveyer only with truck boom fully raised and with boom lock engaged. Hydraulic pressure on boom cyl inders must be relieved and hydraulic selector valve moved to the "in" position (row finder override function). Make sure all people and equipment are clear of the boom area.**

Move the hydraulic selector valve to the "out" position to activate the truck boom circuit.
Using tractor remote lever #3, move lever rearward to retract the boom cylinders. Raise the truck boom completely until the boom locks drop into place as shown in Figure 14. Move control lever #3 forward to lower the boom to rest on the boom locks.

Stop the engine, set parking brake, remove ignition key and wait for all moving parts to stop before dismounting the tractor. Move the hydraulic selector valve to the "in" position to activate the harvester truck boom hydraulic motors.

LOWER TRUCK BOOM TO TRANSPORT POSITION

Make sure all people and equipment are clear of the boom area.

The hydraulic selector valve must be in the "out" position to activate the truck boom circuit.

Using tractor remote lever #3, move lever rearward to retract the boom cylinders. This will raise the truck boom completely and remove the boom weight from the boom locks.

Stop the engine, set parking brake, remove ignition key and wait for all moving parts to stop before dismounting the tractor.

Stand behind truck boom and pull the lock pin handle to position the lock pin in raised position as shown in Figure 15. This releases the boom lock so the truck boom can be lowered. Move tractor control lever forward and fully lower the truck boom.

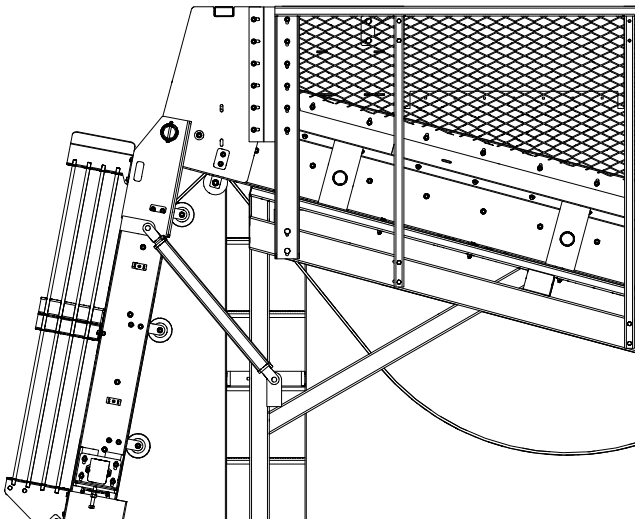


Figure 16. Truck Boom in Lowered Transport Position

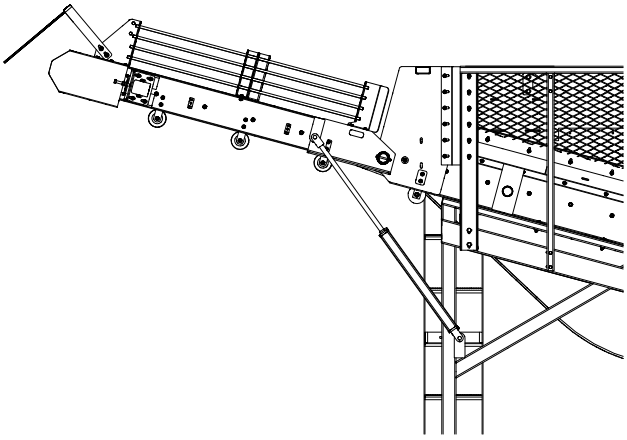


Figure 17. Truck Boom in Extended Field Position

TRUCK BOOM MOTOR SPEED, ADJUST

Adjust truck boom motor speed using the tractor remote. Start tractor and activate truck boom motor. Observe truck boom unloading speed.

ROW FINDER

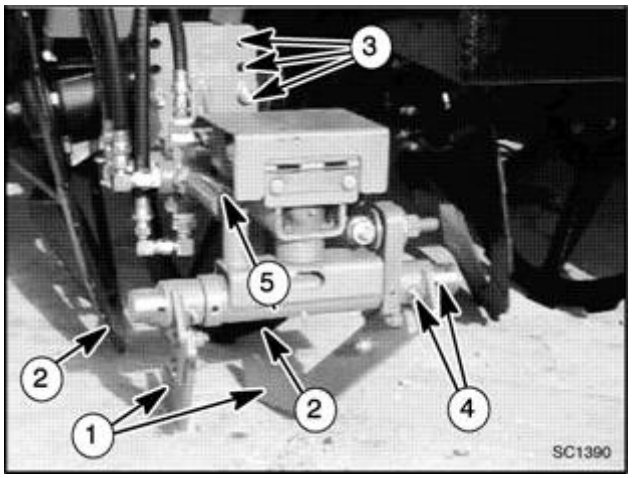
Automatic steering by the row finder requires constant hydraulic potential at the automatic steering valve. Hydraulic power for the row finder is provided by the tractor power-beyond kit or tractor remote #4 set for continuous operation.

Make sure the row finder assembly is level and the feeler arms are aligned with the center of the lifter wheels on the finder row.

With the harvester set at operating depth, adjust the row finder feeler arms to run as lightly on the soil as possible. Adjust the width of the feeler arms to the approximate diameter of the beets at ground level. Adjust the length of the valve control rod to center the feeler arms on the lifter wheel strut. Adjust the auxiliary centering springs to the same position as the centering spring in the row finder valve spool. It is generally more productive to adjust the row finder on level ground in the land and not on the head land.

IMPORTANT

- **Before backing up, raise harvester completely. The row finder may be damaged if it is allowed to contact the ground while backing.**



1. Feeler Arms
2. Lifter Wheels
3. Row Finder Height Adjustment
4. Feeler Arm with Adjustment
5. Steering Control Rod

Figure 18. Row Finder

ROW FINDER OVERRIDE

A row finder override control is powered by tractor control valve. This provides manual control of the steering system and can be used to override the row finder.

To operate the row finder override control: activate tractor control lever rearward to move the harvester left, and forward to move the harvester right.

PTO ENGAGEMENT

Set the tractor throttle to idle before engaging or disengaging the PTO.

WARNING

- **Connect PTO driveline directly to tractor PTO shaft. Never use adapter sleeves or adapter shafts. Adapters can cause driveline failures due to incorrect spline or incorrect operating length and result in personal injury or death.**

GRAB ROLLS

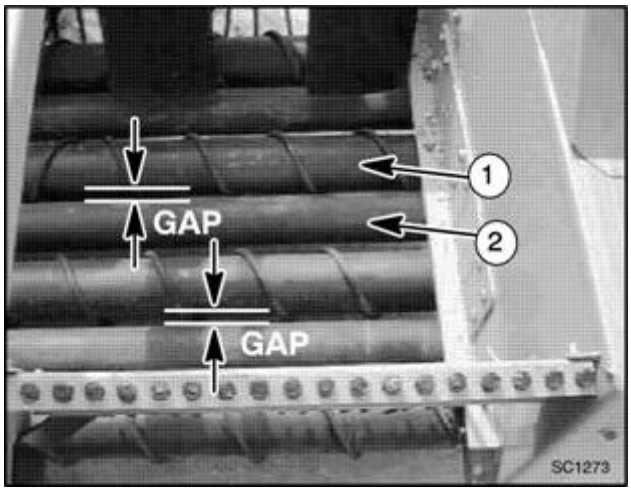
The grab roll bed is a series of counter-rotating roll pairs which help to clean the beets and move them to the elevator. The gap between roll pairs is adjustable for different cleaning requirements.

The grab roll bed is equipped with a system of cushions to help absorb shocks and permit small stones or other debris to pass between the grab rolls.

It is important to have an even space on the left and right sides of the harvester between the pairs of grab rolls; however, the individual pairs can have different gaps to accommodate conditions. For instance a wide gap may be helpful on the first pair of rollers to get rid of a lot of soil, and a narrow gap on the last pair may save tails. Spiral rolls are fixed in the grab roll bed. In 7-roll harvesters, the rear spiral roll has no paired smooth roll. Optional fixed-position rear stub rolls are available.

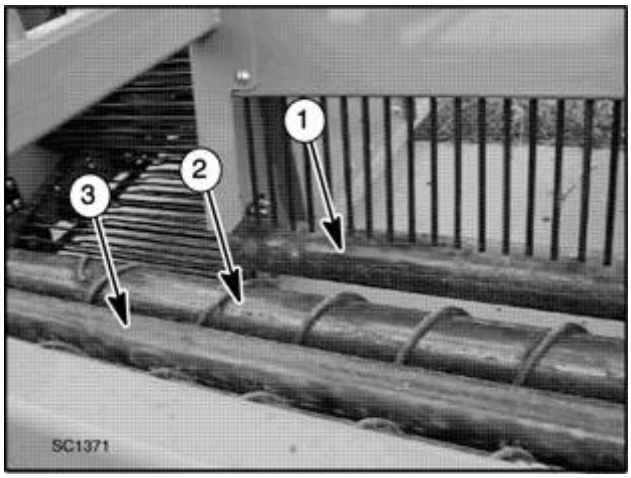
GRAB ROLL BED RODS

The grab roll rods are located at the rear of the roll bed, and may be removed for access to the bed.



1. Spiral Roll (Fixed)
2. Smooth Roll (Adjustable)

Figure 21. Grab Roll Gap



1. Stub Roll (Optional)
2. Rear Spiral Roll
3. Smooth Roll

Figure 22. Stub Roll (Optional)

LIFTER WHEELS

The pinch point width should be uniform across all rows of the harvester. The pinch point width can be adjusted by adding or removing pairs of spacers at each lifter wheel.

Raise harvester and install transport locks (see Blocking Method, page 32).

To remove or add spacers, loosen lifter wheel nuts and remove the bolt retaining each spacer (one bolt per spacer). Install or remove spacers as required to set the desired width and re-tighten the wheel nuts to 100 lb—ft.(without wheel cushions). With wheel cushions, tighten wheel nuts to compress wheel spring assemblies 1/4” from their free height.

Spacers must be installed as pairs. Multiple spacer pairs may be used at each wheel to increase the pinch point width.

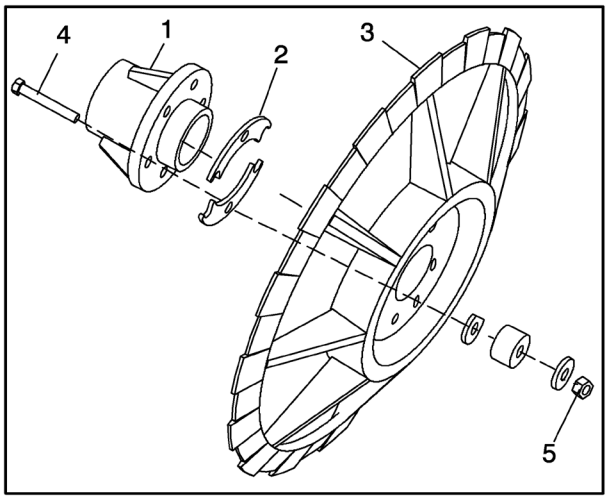
It is not necessary to remove the lifter wheels when adding or removing spacers.

WHEEL SCRAPERS

Wheel scraper blades are adjustable for digging conditions. To adjust scraper blades, loosen retaining bolts and slide scraper blades to place the scraper closer to the wheel or away from the wheel. Retighten scraper retaining bolts.

WHEEL FILLERS

Under certain digging conditions, beets may fall through the spokes of the lifter wheels during operation. This condition may require the installation of filler spokes on the lifter wheels. To install fillers, remove two wheel nuts (opposite from each other) and install wheel filler. Retighten wheel retaining nuts.



1. Hub
2. Spacer (Installed in pairs)
3. Lifter Wheel
4. Wheel Bolt
5. Wheel Nut

Figure 23. Install Lifter Wheel Spacers

FLEXING LIFTER STRUTS (Optional)

Flex struts are available for the lifter wheel struts for operation in rocky conditions.

Flex cushions on the lifter wheels will reduce damage to the lifter wheels in rocky conditions.

When operating in rocky conditions, the lift circuit should be run in “float” to allow the harvester to raise over rocks without lifting the tractor.

IMPORTANT

- **When operating in rocky conditions, the lift circuit should be placed in “float” position to allow the harvester to raise over rocks without lifting the tractor.**

PADDLE SHAFT

The paddle shaft provides a set of rotating paddles between each set of lifter wheels. Beets are moved onto the chain bed by the rotating paddles. The height of the paddle shaft may be raised or lowered to obtain the correct clearance for the harvesting conditions. With flex struts installed, the paddle shaft must be placed in the uppermost position to maintain adequate clearance between the paddle shaft and the lifter wheels. Keep front and rear paddle deflectors in place and in good condition; replace if damaged or missing.

VERTICAL ELEVATOR

A dual chain elevator moves the beets from the grab roll bed to the holding tank. A combination of straight and offset rods is used in the elevator to provide a pocket for carrying beets. All machines are equipped with 1:1 speeds for the vertical elevator chains. If scrubbing action is desired, the speed of the outside chain can be increased by replacing the 40 tooth “driven” sprocket with a 34 tooth sprocket. This will give a scrub ratio of approximately 15% between the two vertical elevator chains.

As the elevator fills with beets, spring loaded tensioner arms allow the chains to operate correctly. Tension adjustment springs for the outer chain are located on the both sides of the elevator. Tension adjustment spring for the inner chain is located on the right side of the elevator.

The vertical elevator is driven from the self contained hydraulic system or by 4th remote on tractor (optional). To speed up rear elevator use flow control. For more speed and power increase flow.

TRANSPORTING

Fully lower the elevator boom as instructed in “Truck Boom Lower”.

Raise the machine and insert the transport locks on the hitch lift cylinders.

Transport locks must be installed whenever the harvester is transported.

Replace any lost or damaged transport lock component immediately.

Do not transport the harvester with beets in the holding tank.

Make sure reflectors, lights and the SMV sign are clean and clearly visible to other traffic.

Do not allow riders.

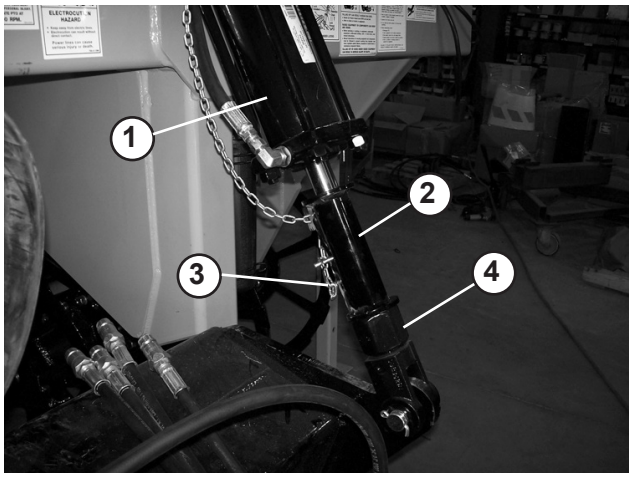
Use hazard flashers on the tractor and harvester when transporting.

Never exceed safe travel speed, slow down when making turns and traveling on rough roads or shoulders.

Only use a tractor of the recommended size and weight for transporting.

Lock foot brake pedals for even application during road travel.

Do not exceed 10 mph transport speed.



1. Lift Cylinder
2. Transport Lock
3. Lock Pin
4. Adjustable Depth Stop

Figure 24. Transport Locks Installed

FIELD OPERATION

STORAGE

WARNING

- **For storage, disengage tractor PTO power to harvester, lower front lift cylinders so that lifter wheels are on the ground, lower truck boom, lower 3-point hitch. Operate tractor valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt. Remove driveline from tractor PTO. Chock (block) front and rear of harvester wheels.**

CAUTION

- **Keep children and bystanders away from storage area.**

After the season's use, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent any unnecessary down time at the start of the next season.

To insure a long, trouble free life, this procedure should be followed when preparing the unit for storage.

Clear the area of bystanders.

Thoroughly wash the machine using a pressure washer to remove all dirt, mud, debris or residue.

Check the rotating components for damage or entangled material. Repair or replace damaged parts. Remove any entangled material.

Inspect all hydraulic hoses, fittings, lines and couplers. Tighten any loose fittings. Replace any hose that is cut, nicked or abraded or is separating from the crimped end of the fitting.

Change the oil in the gearbox.

Lubricate all grease fittings. Make sure that all grease cavities have been filled with grease to remove any water residue from the washings.

Touch up all paint nicks and scratches to prevent rusting.

Move to storage area.

Select an area that is dry, level and free of debris. Unhook from tractor.

Place PTO shaft on hitch to keep PTO off the ground.

Store the machine in an area away from human activity.

Do not allow children to play on or around the stored machine.

OWNER SERVICE

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said *"The best safety device is an informed, careful operator."* We ask you to be that kind of an operator.

The information in this section is written for operators who possess basic mechanical skills. Should you need help, your dealer has trained service technicians available. For your protection, read and follow all safety information in this manual.

WARNING

- **Before dismounting tractor, disengage tractor PTO power to implement, lower front lift cylinders so that lifter wheels are on the ground. Operate valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt.**
- **Before performing any service or maintenance, disengage power to implement, lower front lift cylinders so that lifter wheels are on the ground, lower truck boom, lower 3-point hitch. Operate valve control levers to release any hydraulic pressure. Stop engine, set parking brake, remove key and unfasten seat belt. Disconnect driveline from tractor PTO. Chock (block) front and rear of implement wheels.**
- **Before working underneath a raised implement, read and follow all operator's manual instructions and safety rules. Implement must be attached to tractor, lift cylinder locks must be installed, and lift cylinders lowered against locks. Hydraulic system leak down, hydraulic system failures, or movement of control levers can cause equipment to drop unexpectedly and cause severe injury or death.**

WARNING

- **Never perform service or maintenance with engine running.**
- **Do not disconnect hydraulic lines until engine is stopped, tractor is properly secured, equipment and all components are lowered to the ground, and system pressure is released by operating all valve control levers.**
- **Keep all persons away from operator control area while performing adjustments, service or maintenance.**

CAUTION

- **Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing and head.**

WARNING

- **Never go underneath equipment lowered to the ground or raised, unless it is properly blocked and secured. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death. Follow Operator's Manual instructions for working underneath and blocking requirements, or have work done by a qualified dealer.**

BLOCKING METHOD FOR LIFTER WHEELS AND ROW FINDER SERVICE

The only approved blocking devices for this harvester are the cylinder transport locks supplied with the unit. The harvester must be located on a hard level surface and the transport locks properly installed. Do not use a transport lock or retaining pin which is bent or damaged. Replace any damaged or lost transport lock component immediately.

Do not work underneath harvester unless it is properly attached to the tractor and blocked securely. When properly attached, the unit will be anchored to minimize front-to-rear movement.

Before blocking, ensure harvester is securely attached to tractor. Truck boom must be fully lowered into transport position. Do not work on harvester with truck boom in any intermediate position. Raise harvester completely, set park brake, shut off engine, remove key, and chock tractor wheels. Without going under the harvester, carefully install transport locks and retaining pins. Start tractor and lower harvester onto transport locks. Cylinder depth stops must be set equally before installing transport locks. Disconnect PTO driveline before performing any maintenance on the harvester.

TRUCK BOOM SERVICE

WARNING

- **Before performing any maintenance on the beet harvester, the truck boom must be fully lowered into the transport position. Do not work on harvester with truck boom in any intermediate position. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.**
- **Truck boom lock must be engaged when truck boom is in operating position. Do not operate unloader conveyor unless boom lock is engaged and in good repair. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.**

Before working on truck boom or any components on the right side of the harvester, the truck boom must be fully lowered into transport position. Do not work on harvester with truck boom in any intermediate position.

LUBRICATION

Figure 26 (Page 30) shows the lubrication points. The accompanying chart gives the frequency of lubrication in operating hours, based on normal conditions. Severe or unusual conditions may require more frequent lubrication.

Do not let excess grease collect on or around parts, particularly when operating in sandy areas.

Use SAE multi-purpose high temperature grease, or SAE multi-purpose lithium based grease.

Use a lithium grease of No. 2 consistency with a MOLY (molybdenum disulfide) additive for all locations. Be sure to clean fittings thoroughly before attaching grease gun. When applied according to the lubrication chart, one good pump of most guns is sufficient. Do not over grease. Grease the telescoping driveline. Daily lubrication of the PTO slip joint is necessary or damage to U-joints, gearboxes, tractor PTO and/or harvester driveline can result.Close and secure all removeable covers and guards before operating harvester.

Owner Service *Continued*

Lubrication Service Record

NOTE: See prior pages for details.
Copy this page to continue service record.

✔ = CHECK **C** = CHANGE
L = LUBRICATE **R** = REPACK

Date:	Serviced By:	10 Hours or Daily		20 Hours			40 Hours			Annually			
		L PTO Driveline	✔ Gearbox Oil Level	L PTO Driveline (Telescope Section)	L Rotor Splined Couplers	L Wheel Mounting Tube Bearings	L Rotor End Bearing	L U-Joint	L Overrunning Clutch	C Gearbox Oil	R Wheel Bearings	L Ratchets	L Center Hanger Bearings

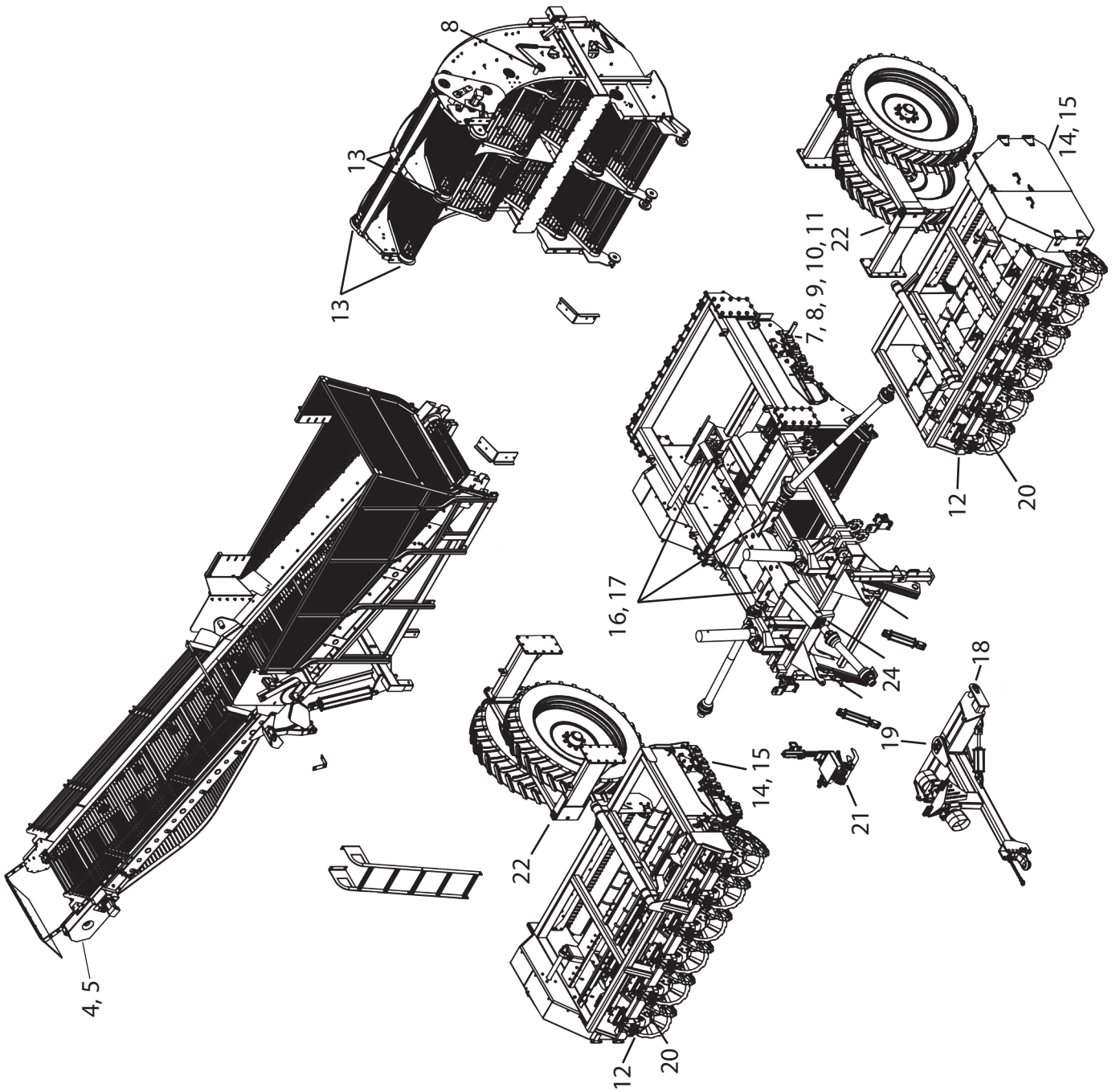


Figure 26. Lubrication Locations

LUBRICATION CHART

ITEM NO.	DESCRIPTION	FREQUENCY	NUMBER
1	U-Joint	24 hrs	2(std) or 3(CV)
2	Slip-Joint	24 hrs	1
3	Cv-Joint (Optional)	24 hrs	1
4	Cross Shaft	24 hrs	2
5	Motor Primary Shaft Bearing	24 hrs	1
6	Elevator Tensioner Pivots	8 hrs	2
7	Grab Roll Bearing	24 hrs	16
8	Cushion Pivot	8 hrs	6
9	Grab Roll Idler Pivots	Yearly	4
10	Grab Roll Drive Bearing	24 hrs	2
11	Paddle Shaft Primary Drive	24 hrs	4
12	Paddle Shaft Bearings	24 hrs	2 or 3
13	Elevator Upper Shafts	24 hrs	4
14	Chain Bed Shaft Bearings	24 hrs	1
15	Idler Pulley Hubs	24 hrs	2
16	Main Gearbox: Check Lube Level	24 hrs	1
17	Main Gearbox Output U-Joints	24 hrs	2
18	Hitch Lift Pivots	8 hrs	2
19	Hitch Steering Pivots	8 hrs	2
20	Lifter Wheel Bearing	24 hrs	1 (each wheel)
21	Row Finder Pivot Shafts	8 hrs	2
22	Rear Steering Pivot Shaft (Optional)	8 hrs	2
23	Rear Steering Level Adjuster (Optional)	8 hrs	4
24	PTO Carrier Bearing	24 hrs	1
25	Short Grab Roll Bearing	24 hrs	2

DAILY SERVICE

Inspect all drive belts for slippage, damage or accumulation of foreign materials. Adjust and clean as necessary.

Inspect all drive chains and adjust as necessary.

Inspect paddle shaft for loose or missing paddles and hardware.

Inspect grab roll bed for alignment, spacing, and roll damage. Check that grab roll shock cushions are in good condition.

Inspect the elevator and unloader structures for missing or damaged rollers. Inspect unloader chain slide bars on the tank bottom for damage or wear; replace if necessary.

Inspect hydraulic system for leaking or damaged components. Replace or repair leaking fittings immediately.

Inspect all conveyor chains for loose or missing cross rods. Check the splices on each belted chain, tighten chain as necessary.

Inspect lifter wheels and struts for alignment, loose or missing components, and proper setting.

Check tractor and harvester tire pressure. Service as necessary.

YEARLY SERVICE

Inspect PTO driveline components for wear or damage and repair as necessary.

Inspect all gearboxes for leaks or damage, and repair.
Drain and replace all gearbox lubricant and clean breathers.

Repack lifter wheel bearings and replace any worn or damaged components.

Inspect chain bed for damaged or bent chain and replace if necessary.

Inspect paddle shaft bearings, paddles, and deflectors. Replace as necessary.

Inspect grab rolls for proper alignment, bent rolls, or damaged flighting and replace if necessary. Inspect grab roll drive belts, sheaves and tighteners; repair any damaged components.

Inspect transport cylinder locks; replace any worn or damaged component.

Repack carrier wheel bearings and replace any damaged components.

MAINTENANCE

Before performing any maintenance or inspections on the harvester, shut off the tractor, set the parking brake, release all hydraulic system pressure with the tractor hydraulic controls and remove the key from the tractor.

GRAB ROLL DRIVE BELT ADJUSTMENT (Figure 28)

Open grab roll side door. Tighten the tension spring adjustment bolt so as to show approximately 1/8" gap between each of the spring coils.

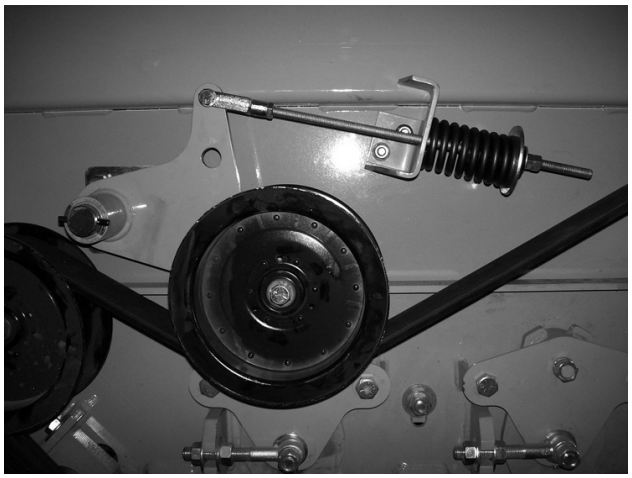


Figure 28. Grab Roll Drive

BELT REPLACEMENT (NEW BELT)

To remove belt, loosen the idler spring.

Install belt over grab roll sheaves as shown in Figure 29.

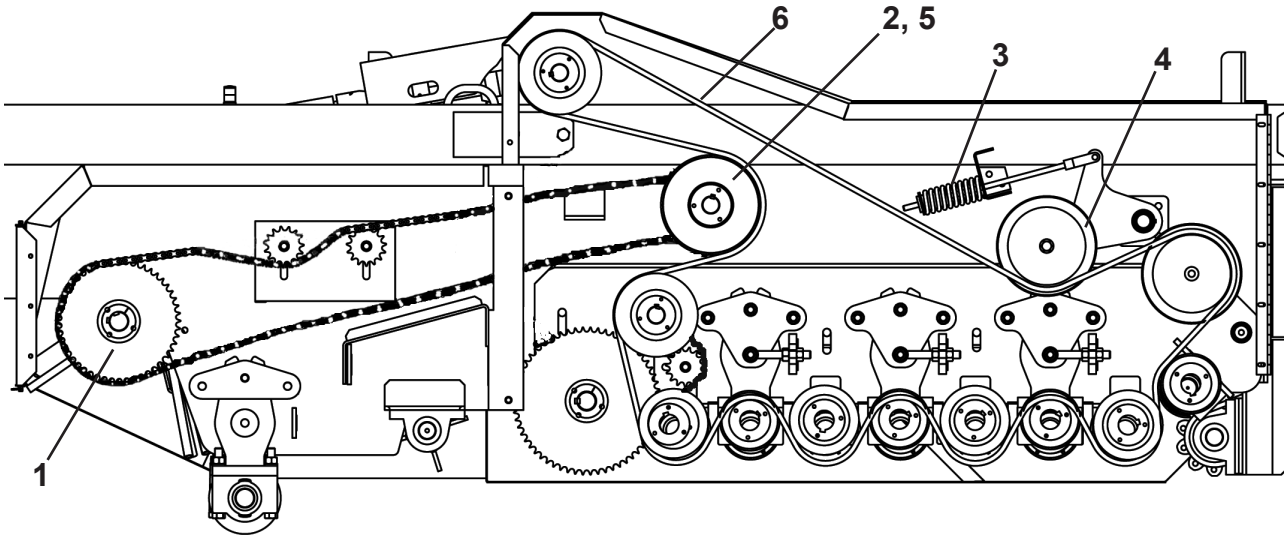
Route belt around drive sheaves and idlers as shown in Figure 31. Do not pry belt over sheaves as damage to the belt may result.

Tighten idler spring until belt does not slip under full load operation.Close and secure grab roll side door.

PADDLE SHAFT, ELEVATOR AND UNLOADER DRIVE CHAINS

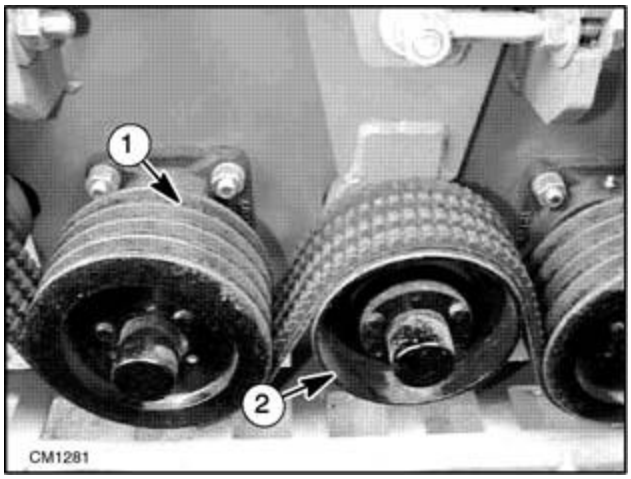
Adjust drive chains by moving idler sprocket untilchain has 3/8" slack in the long side of the chain. Elevator inner and outer chains are set at the factory to run at the same speed. In some conditions scrubbing action may be needed. By running the inner and outer chains at different speeds, beets are "rolled" up the elevator for additional cleaning.

A 34-tooth top sprocket (driven) is available to increase the outer elevator speed and provide a 15% scrubbing ratio between elevator chains.



1. Paddle Shaft Primary Drive
2. Grab Roll Drive Sheaves
3. Idler Spring
4. Belt Idler
5. Paddle Shaft Drive Sprocket
6. Grab Roll Drive Belt

Figure 29. Grab Roll Drive



1. Grab Roll Drive Sheave, Grooved (Fixed Position Spiral Roll)
2. Grab Roll Drive Sheave, Flat (Adjustable Postion Smooth Roll)

Figure 30. Belt Routing

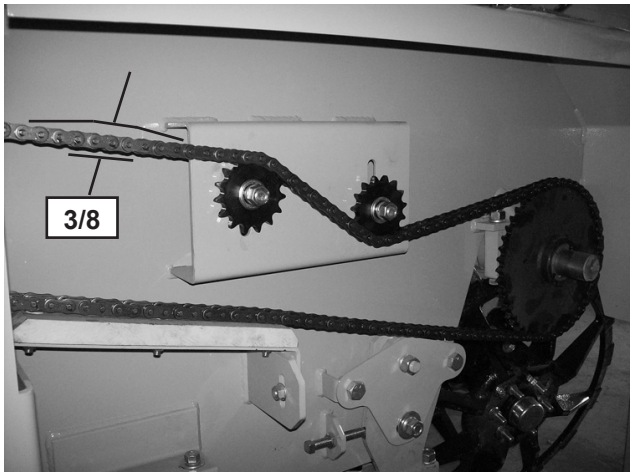


Figure 32. Drive Chain Adjustment

ELEVATOR SPEED ADJUSTMENT (Figure 33)

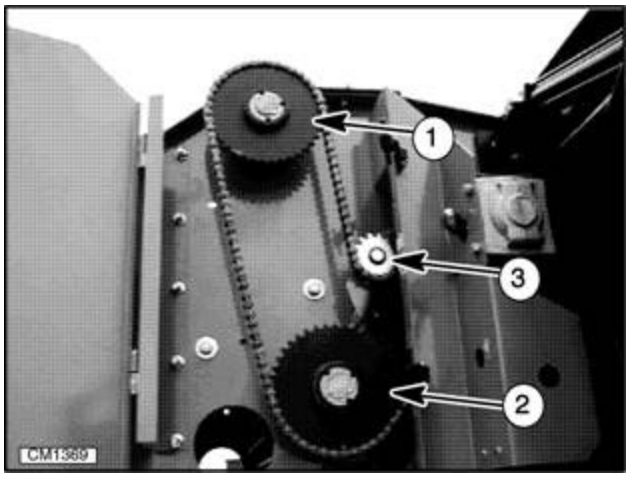
Working from the holding tank, remove shield and drive chain at top of elevator.

Remove outer elevator chain drive sprocket.

Install appropriate replacement drive sprocket (40-tooth standard or 34-tooth optional scrubber sprocket.)

Add or remove chain links to fit new sprockets Install drive chain and adjust.

Close and fasten drive shield.



1. Outer Elevator, “Driven” Sprocket, (40T Std, 34T Opt)
2. Inner Elevator, “Driven” Sprocket (40T)
3. Idler

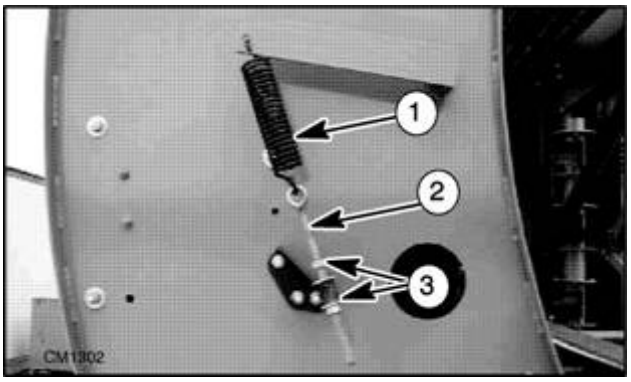
Figure 33. Elevator Upper Drive

ELEVATOR CHAIN ADJUSTMENT

Inspect all elevator drive sprockets and rollers for damage or missing components. Missing or damaged rollers will cause chain tension to be incorrect.

Replace any missing or damaged roller.

With the elevator empty of beets and free from accumulated dirt, adjust elevator tightener springs (both sides) so that they have 1/8” gap between coils.



1. Tension Spring
2. Adjustment Eyebolt
3. Jam Nuta

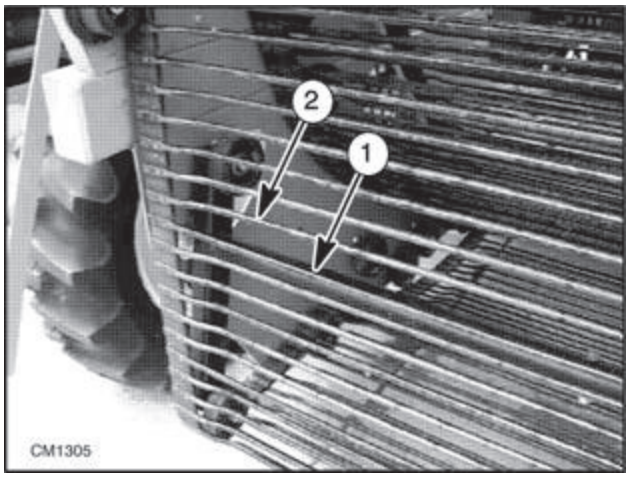
Figure 34. Elevator Tensioner

ELEVATOR CHAIN CROSS ROD REPLACEMENT

Elevator chains have a combination of straight and offset rods which are spaced for maximum performance. Truck boom conveyer has all straight rods. Do not operate the harvester with loose, bent or missing cross rods. Replace rods with the type removed. Install offset rods with the offset away from the beets as shown in Figure 35.

Remove rivets attaching rod to belt. Use caution to avoid damaging the belt.

Attach replacement rod to belt using bolts and threaded back-plate. Make sure offset portion of rod is away from the beets.

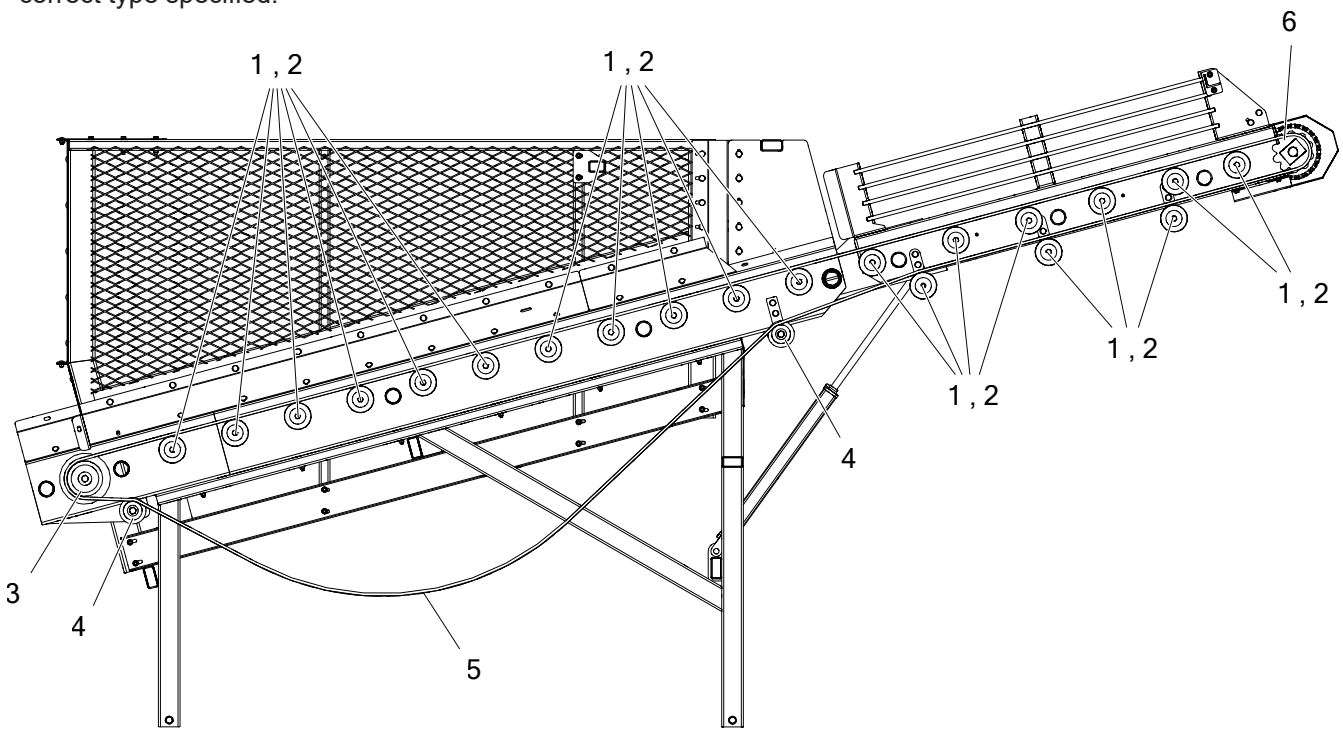


1. Straight Rod (1)
2. Offset Rod (5)

Figure 35. Elevator Cross Rods

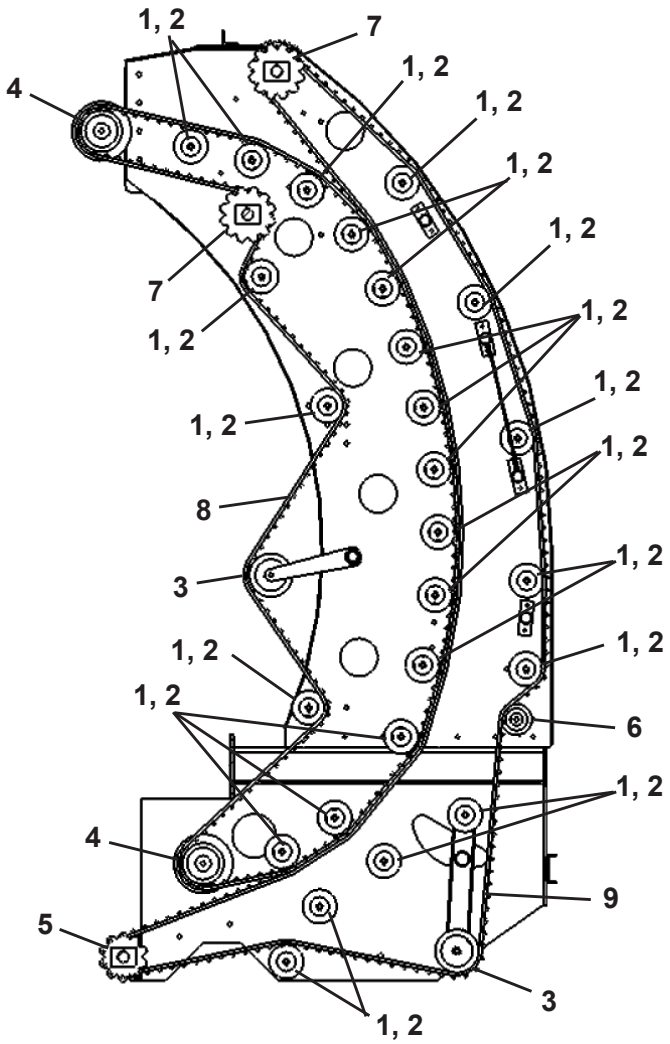
ELEVATOR CHAIN ROUTING AND ROLLER LOCATION (Figure 36 & Figure 37)

Roller location and elevator chain routing must be correct to provide proper tension during operation. Replace any damaged or missing rollers using the correct type specified.



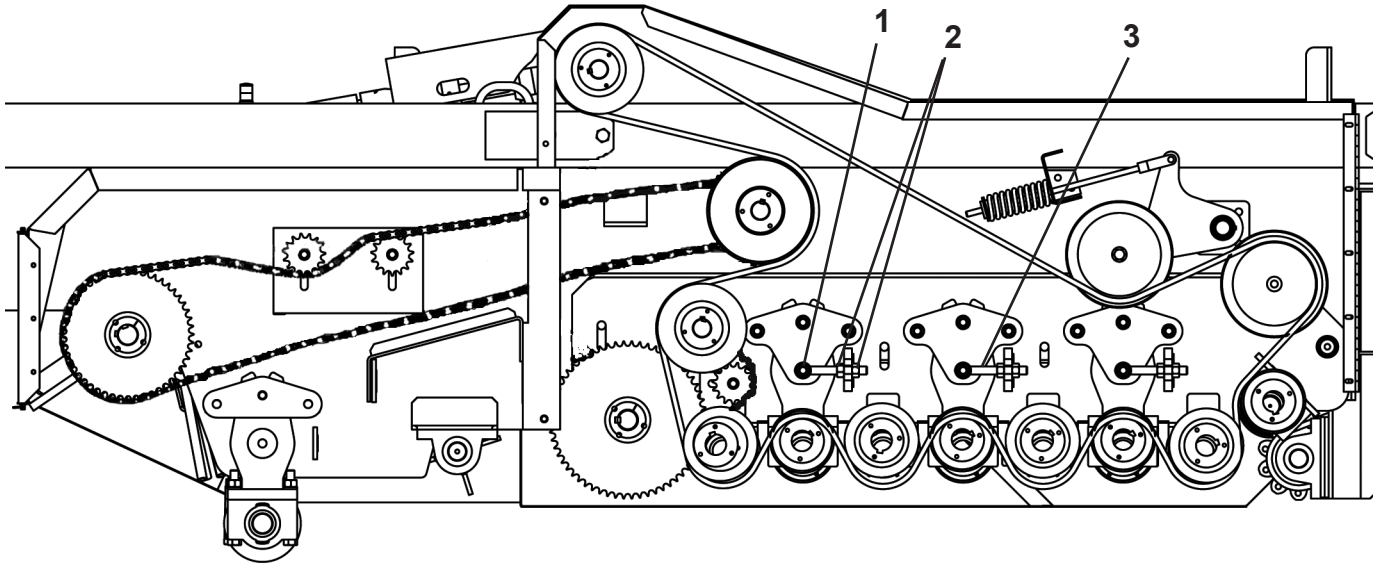
1. 5” Smooth Roller
2. Standoff
3. 6.5” Flanged Roller
4. 3.5” Flanged Roller
5. 10 Tooth, 50mm, 1-3/4” Sprocket
6. Unloader Conveyer (Belted Chain)

Figure 36. Roller Components (Boom - Tank Bottom)



1. 5” Roller
2. Standoff
3. 7” Smooth Sprocket
4. 6” Nose Roller
5. 10 Tooth, 50mm, 1-3/4” Sprocket
6. 5” Flanged Roller
7. 12 Tooth, 50mm, 1-3/4” Sprocket
8. Inner Chain (Belted)
9. Outer Chain (Belted)

Figure 37. Roller Components (Elevator)



1. Pivot Bolts
2. Jam Nuts
3. Eye-Bolts

Figure 38. Grab Roll Adjustment

HOLDING TANK CHAIN GLIDES

Replaceable glides in the tank bottom provide wear surfaces for the unloader conveyer chain.

Remove worn or damaged glides and install replacement glides using new hardware.

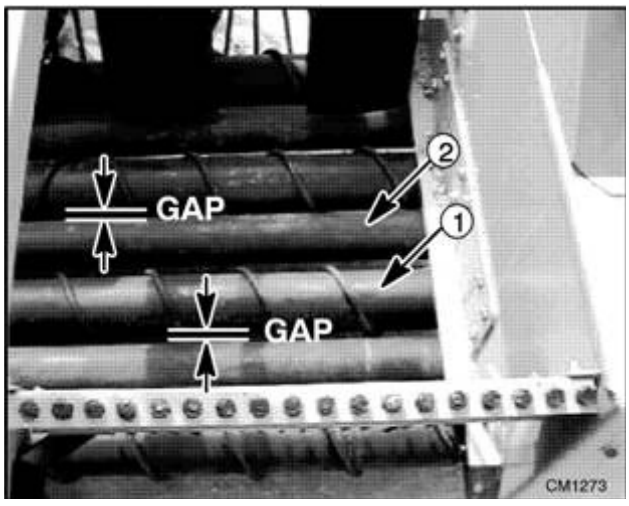
BED CHAIN ADJUSTMENT

To adjust bed chain open front door (both sides). Loosen center bolt in Pivot Bracket. Loosen Adjusting Bolt, adjust Bed Chain to allow 1/2” gap between Bed Chain and lifter wheels. Retighten Hardware.

GRAB ROLL ADJUSTMENT (Figure 38 and Figure 39)

Before working on any components on the right side of the harvester, the truck boom must be fully lowered into transport position with hydraulic pressure relieved or locked in unload position with boom locks installed. Do not work on harvester with truck boom in any intermediate position.

It is important to have an even space on the left and right sides of the harvester between the pairs of grab rolls; however, the individual pairs can have different gaps to accommodate conditions. For instance a wide gap may be helpful on the first pair of rolls to get rid of a lot of soil, and a narrow gap on the last pair may save tails. Spiral rolls are fixed in the grab roll bed.



1. Smooth Roll (Adjustable) 2. Spiral Roll (Fixed)

Figure 39. Grab Roll Gap

Open grab roll drive shields and secure. Loosen the 3/4” nut at the pivot point of the pivot arm bearing holder.

Loosen both 3/4” nuts on the eyebolt and move the smooth roll bearing housing to adjust the gap between the paired rollers. Adjust both sides of each roll pair to the same gap. When all roll pairs are adjusted to the desired gap, tighten all bolts to specifications in Bolt Torque Chart.

Check grab roll drive belt tension and adjust if necessary. (See Grab Roll Drive Belt.)

LIFTER STRUT ADJUSTMENT

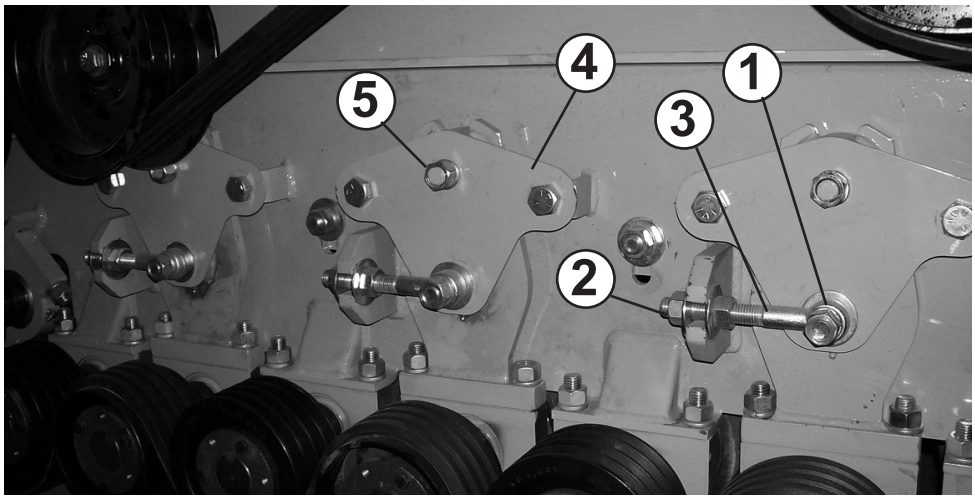
Lifter struts should be adjusted to match the row spacing of the beets being harvested. When struts are moved, paddles must be adjusted to prevent contact between paddles and lifter wheels.

Raise harvester and install transport locks (See Blocking Method).

Loosen strut mounting bolts. Slide strut to new location and tighten evenly. When moving strut, it may be necessary to loosen paddle support on paddle shaft to allow strut to be moved.

Measure to confirm correct row spacing and tighten to specifications in Bolt Torque Chart, page 13 (standard struts). Tighten optional flex strut cushion bolts to 100 lbs./ft.

Adjust paddles and paddle shaft (see Paddle Shaft Adjustment, page 42).



1. Pivot Bolts
2. Jam Nuts
3. Eye-Bolts
4. Tie Bar
5. Cushion Retaining Bolts

Figure 40. Grab Roll Cushions

LIFTER WHEEL FILLERS

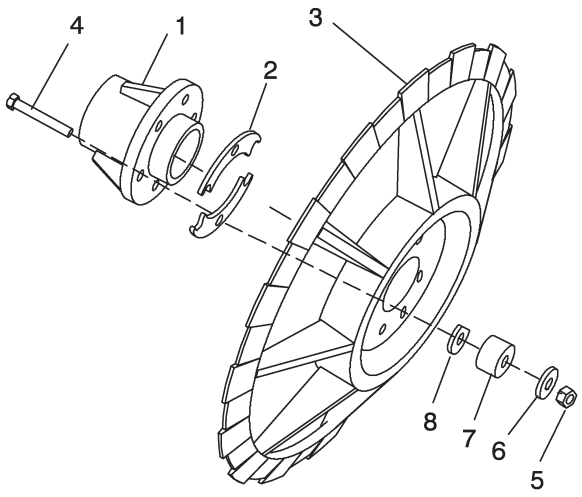
Harvesting small beets may require the use of optional fillers to prevent beets from being lost through lifter wheel spokes.

Raise harvester and install transport locks.

Remove two opposite wheel nuts from each lifter wheel.

Attach wheel fillers to the lifter wheel with a filler rod between each wheel spoke.

Re-install wheel nuts and tighten to specifications in Bolt Torque Chart.



1. Hub
2. Spacer
3. Lifter Wheel
4. Wheel Bolt
5. Wheel Nut
6. Washer
7. Wheel Cushion *
8. Notched Spacer *

* - Optional

Рис 41. Install LIfter Wheel Spacers

PADDLE SHAFT ADJUSTMENT

The paddle shaft may be adjusted to provide proper movement of beets onto the chain bed. Paddle assemblies are adjustable side-to-side to maintain an equal gap between lifter wheels. The paddle shaft may be adjusted vertically to move paddles closer to the lifter wheels. The paddle assemblies must be adjusted after any movement of lifter wheels or struts. When using flex struts, paddle shaft must be raised to the uppermost position so that wheels cannot contact paddle shaft when strut is moved rearward by contact with a rock.

Raise harvester and install transport locks (see Blocking Method, page 28). Loosen paddle assemblies on paddle shaft and adjust so that each paddle is centered between the lifter wheels.

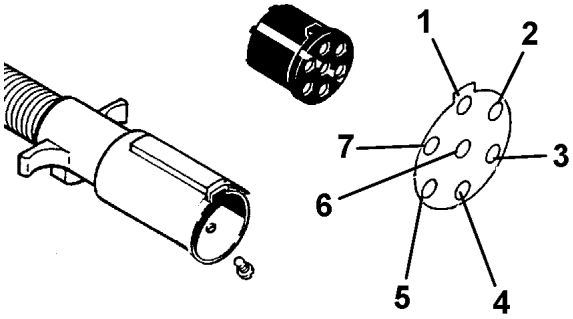
Tighten paddle assembly bolts to specifications in Bolt Torque Chart, page 15.

Loosen paddle shaft bearing housings and lift or lower shaft to provide 2-1/2" clearance between paddle shaft and lifter wheels. With flex struts installed, paddle shaft must be placed in the uppermost position. Clearance must be at least 2-1/2" to allow for strut movement.

Tighten paddle shaft bearing housings to specifications in Bolt Torque Chart, page 15.

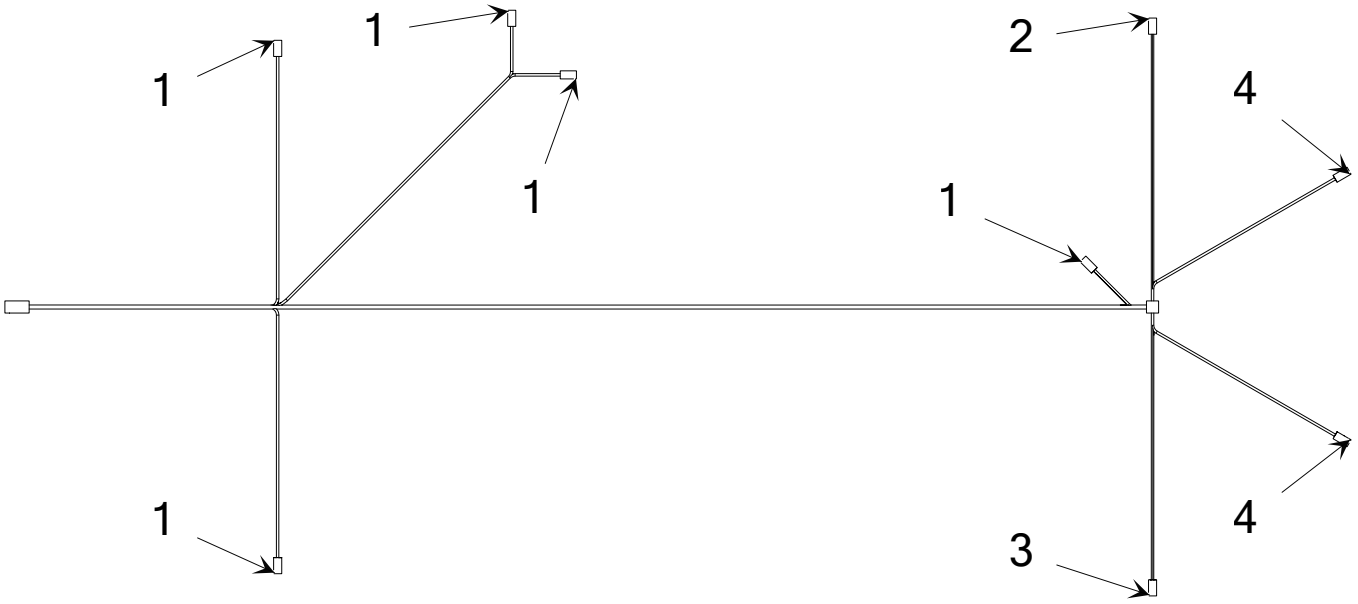
ELECTRICAL SYSTEM

The harvester is equipped with a SAE J560a 7-pin electrical connector. This provides power for turn signals, warning flashers, row finder override, boom fold selector switch, and optional rear steering switch.



1. White - Ground
2. Brown - Tail Lamp
3. Green - Right Turn Signal
4. Red - Auxiliary Power
5. Yellow - Left Turn Signal
6. Blue - Auxiliary Power
7. Black - Field Lights

Figure 45. 7-Pin Electrical Connector



1. White / Black - Field Light
2. White / Green - Right Warning Flasher
3. White / Yellow - Left Warning Flasher
4. White / Brown - Rear Tail Light

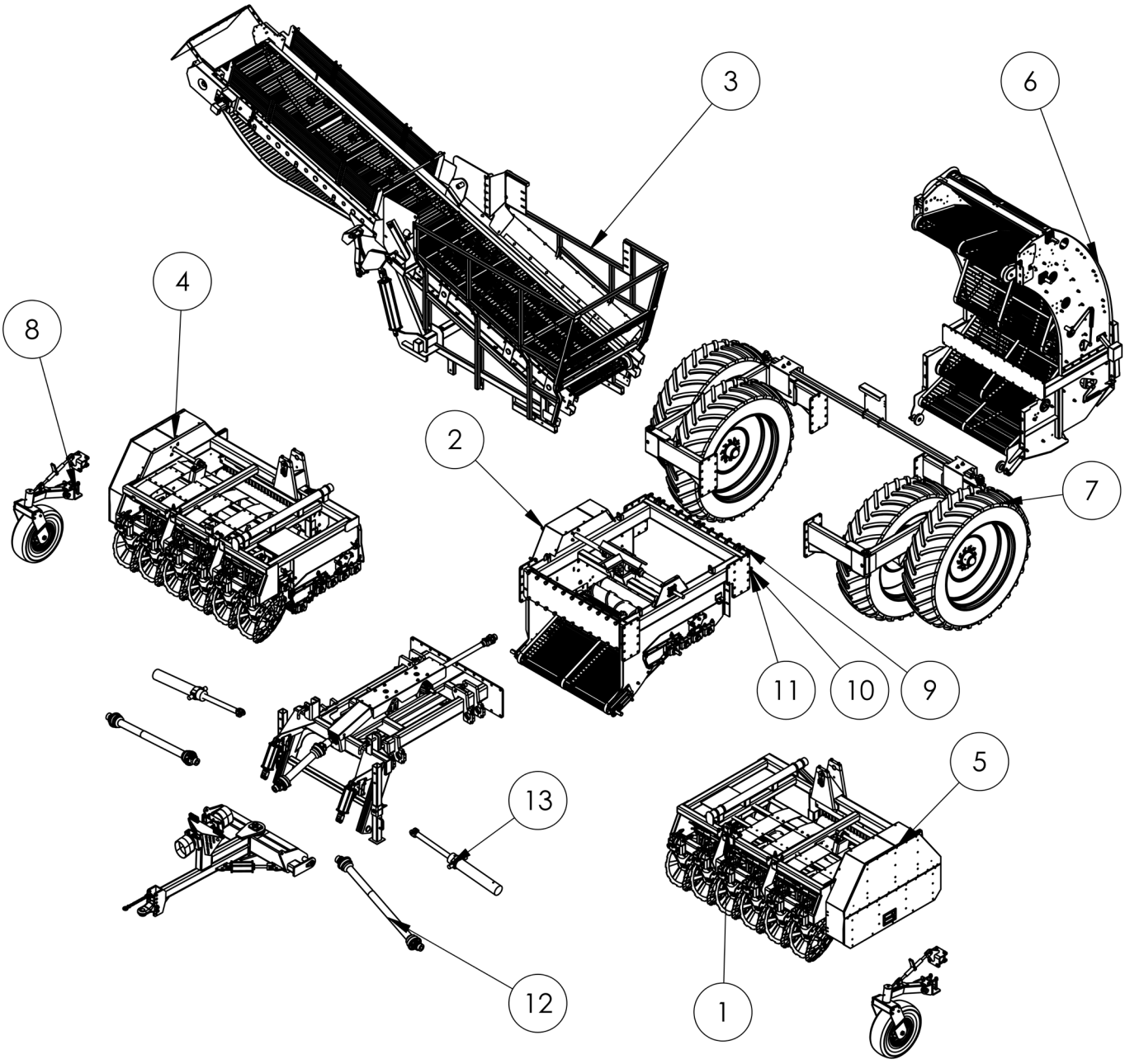
Figure 46. Harvester Wire Harness

ALLOWAY

PARTS INDEX

FOLDING BEET HARVESTER

HARVESTER COMPONENTS

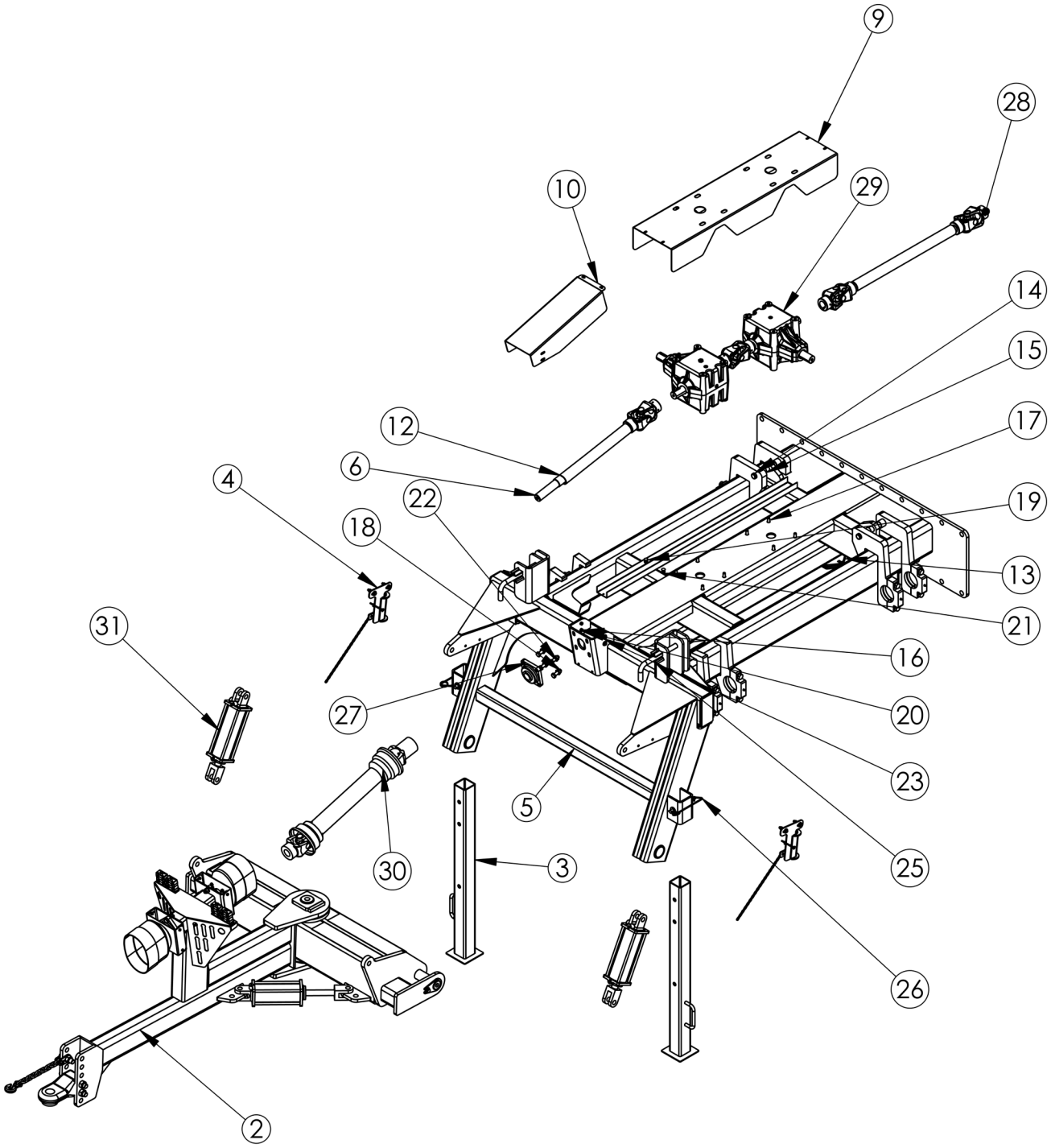


HARVESTER COMPONENTS

700-2-1380

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-1159	TRANSPORT LOCK MOUNT - WING	2
2	700-2-1365	CENTER FRAME ASSY- 12R45CM	1
3	700-2-1371	TANK & CONVEYOR ASSY - 12R45CM	1
4	700-2-1373	WING ASSY - 12R45CM RH	1
5	700-2-1375	WING ASSY LH 12R45CM	1
6	700-2-1429	ELEVATOR ASSEMBLY- 12R45CM	1
7	700-2-1464	REAR STEER ASSY 12R45CM	1
8	700-2-1488	FRONT STABILIZER WHEEL ASSY - 12R45	2
9	900-01519	BOLT, HH, 1-8 x 3, GR5 ZP	28
10	900-06019	1-8 HEX NUT	28
11	900-11021	LOCK WASHER - 1	28
12	903-18425	PTO SHAFT ASSY - WING	2
13	905-21435	HYD CYLINDER - 5 X 24 WELDED TRUNION STYLE	2

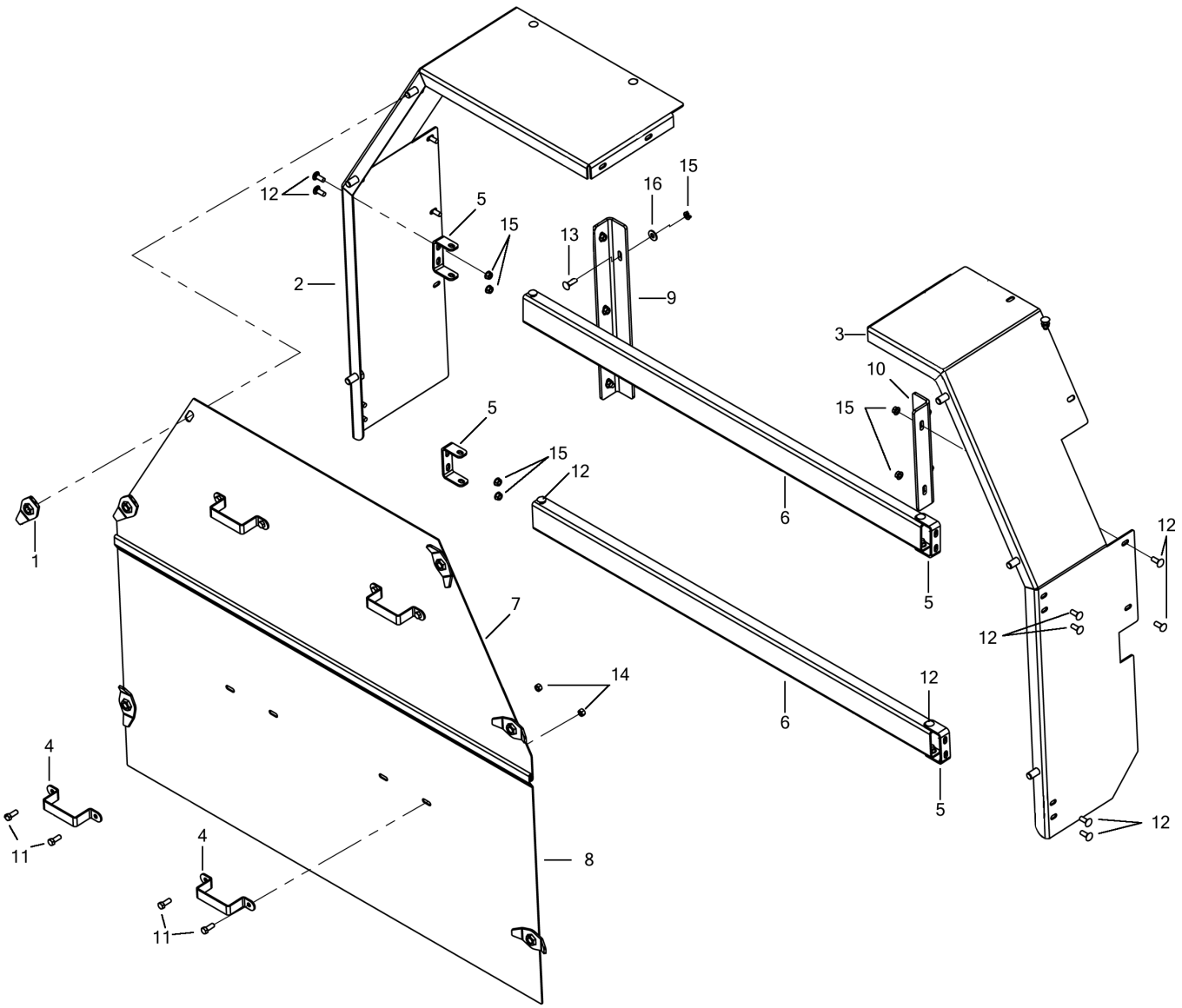
CENTER FRAME COMPONENTS



CENTER FRAME COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	100-3-3333	KEY - 3/8 X 3/8 X 2	8
2	700-2-0545	HITCH ASSY - 12 ROW	1
3	700-2-0990	PARKING STAND (12 ROW FOLD)	2
4	700-2-1154	CYLINDER STOP ASSY	2
5	700-2-1376	FRONT FRAME WELD - 12R45CM	1
6	700-3-2383	FRONT DRIVE SHAFT - 12 ROW MAINE FRAME	1
7	700-3-2403	REAR DRIVE SHAFT - 12 ROW MAIN FRAME	1
8	700-3-2484	SHAFT - HINGE PIN	2
9	700-3-2636	SHIELD - GEARBOX	1
10	700-3-2637	SHIELD - FRONT SHAFT	1
11	700-3-2856	REAR DRIVE SHAFT SHIELD	1
12	700-3-2861	FRONT DRIVE SHAFT SHIELD	1
13	700-3-3036	SPACER PLATE - HARV WING ANGLE W/ PAINT	4
14	700-3-3753	PIN- WING FOLD	2
15	700-3-3754	BUSHING- WING FOLD PIN	4
16	900-01109	BOLT HEX 3/8UNC X 1 GR 5	4
17	900-01225	BOLT HEX ½ X 1½ GR 5	16
18	900-01345	BOLT, HH, 5/8-11 X 2, GR5 ZP	4
19	900-01695	CARRIAGE BOLT 3/8 NC X 1 ZP	2
20	900-06005	NUT HEX 3/8	4
21	900-06139	3/8 NC FLANGED WHIZ NUT	2
22	900-06145	5/8 WHIZ NUT	4
23	900-11033	FLAT WASHER 3/8 ZP	4
24	900-11035	1/2 FLAT WASHER	16
25	900-29182	1/4 X 2 ROLL PIN	4
26	900-42066	LOCK UP PIN - 3/4 X 6	2
27	901-01185	BEARING - NANFS 209-28 1.75	1
28	903-05034	U-JOINT - 1.75 KEYED 44R	4
29	903-15581	GEARBOX	2
30	903-18424	PTO SHAFT 1-3/4" - W/OVERRUN CLUTCH	1
31	905-21416	HYD CYL - 4 X 10	1
32	905-21416	HYD CYL - 4 X 10	1
33	900-01417Rev2	3/4-10 X 3.75 HEX BOLT	8
33	900-01417Rev2	3/4-10 X 3.75 HEX BOLT	8
34	900-11017Rev2	3/4 LOCK WASHER	8
34	900-11017Rev2	3/4 LOCK WASHER	8
35	905-15024Rev2	ZERK 1/4-28 UNF STRAIGHT	4
	700-2-1377	FRONT FRAME ASSEMBLY - 12R45CM	

CENTER SECTION DOOR COMPONENTS

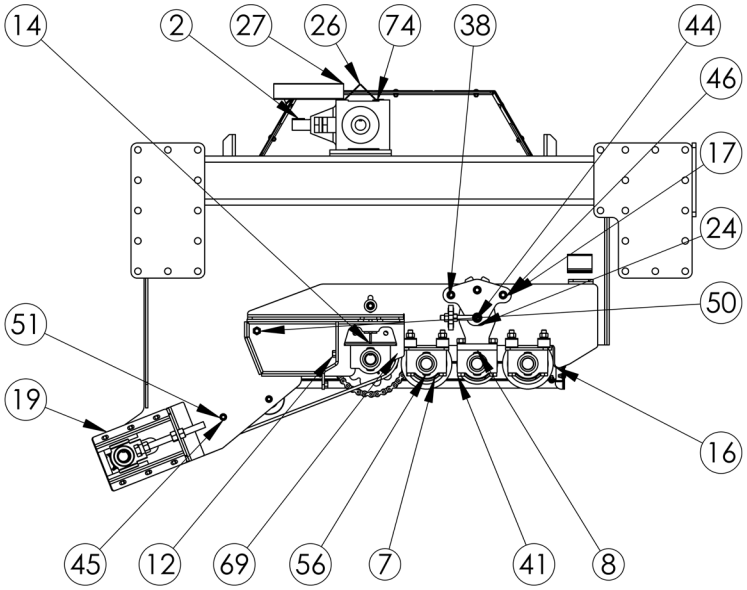


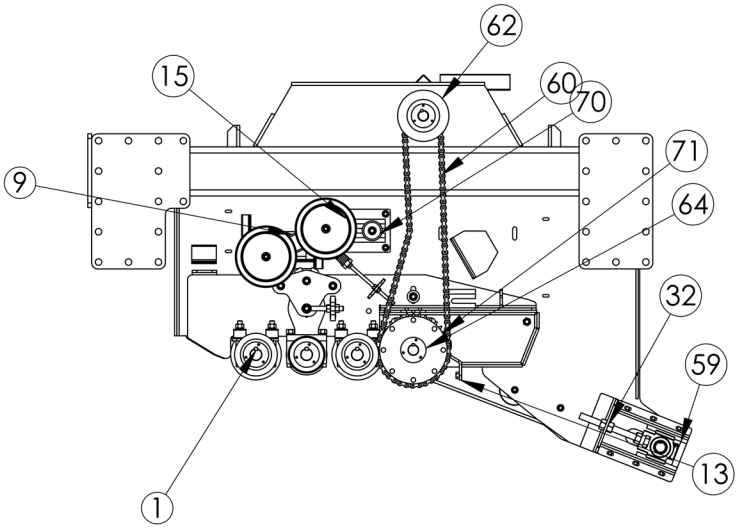
700-2-1100

CENTER SECTION DOOR COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-1051	SHIELD WING NUT	12
2	700-2-1101	FRONT SHIELD (RH)	1
3	700-2-1102	BACK SHIELD (RH)	1
4	700-3-2515	SHIELD HANDLE	8
5	700-3-2520	DOOR STOP	8
6	700-3-2878	SUPPORT CHANNEL	4
7	700-3-2887	TOP SHIELD (RH)	1
8	700-3-2888	BOTTOM SHIELD (RH)	1
9	700-3-2881	SHIELD BRACKET FRONT	2
10	700-3-2882	SHIELD BRACKET BACK	2
11	900-01109	BOLT, 3/8 NC x 1	-
12	900-01695	CARRIAGE BOLT, 3/8 NC x 1	-
13	900-01696	CARRIAGE BOLT, 3/8 NC x 1-1/4	-
14	900-06005	NUT, 3/8 NC	-
15	900-06139	SPIRALOCK NUT, 3/8 NC	-
16	900-11033	WASHER, 3/8	-
	700-2-1103	DOOR ASSEMBLY - GRAB ROLL SHIELD RH	

CENTER SECTION DRIVE COMPONENTS





CENTER SECTION DRIVE COMPONENTS

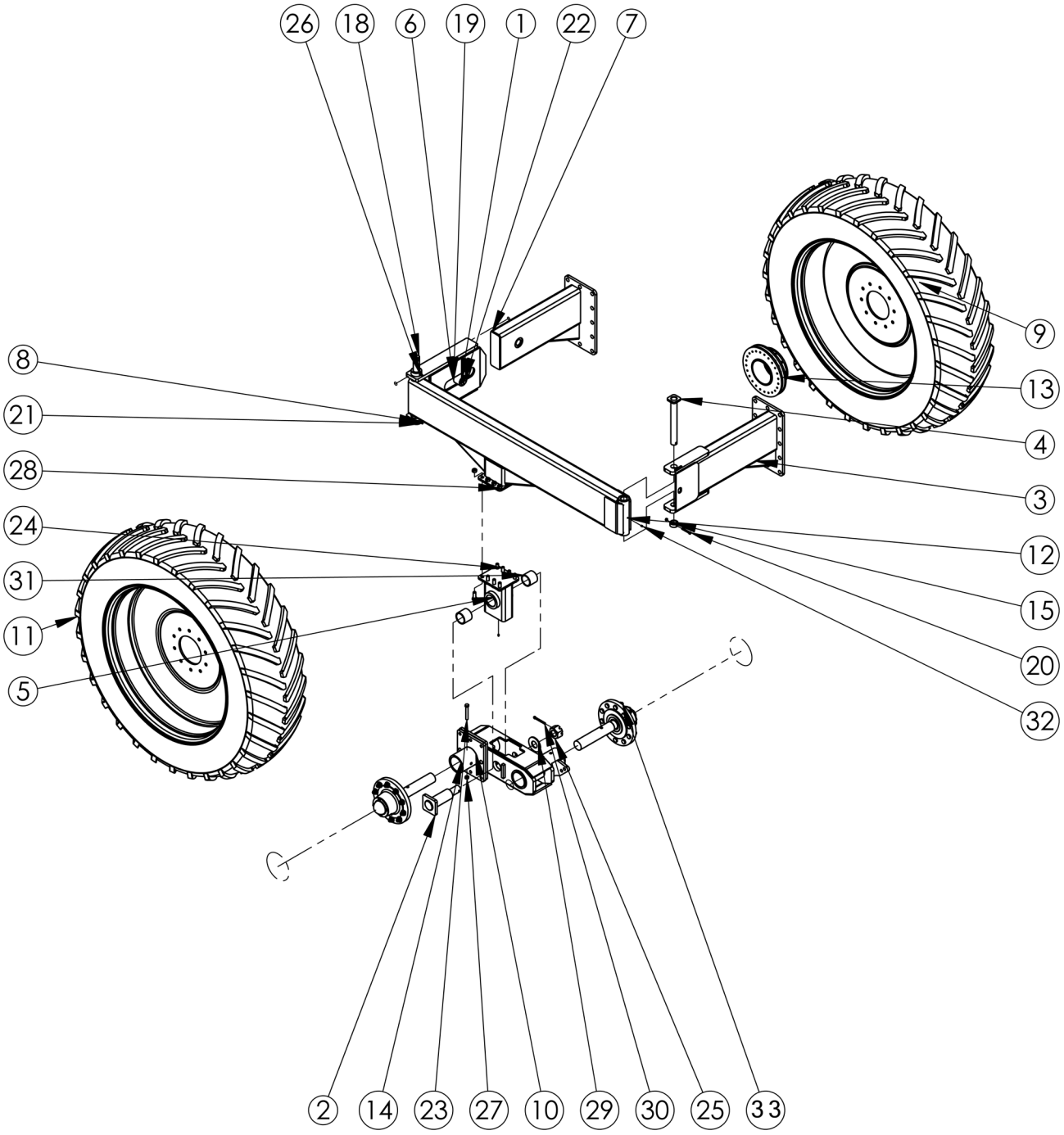
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	100-3-3331	KEY - 1/2 X 1/2 X 3	3
2	100-3-3333	KEY - 3/8 X 3/8 X 2	6
7	700-2-0377	BEARING BLOCK ASSY - 1.93	8
8	700-2-0465	SWING ARM ASSY (GRABROLLS) 1.93	2
9	700-2-0931	PIVOT ARM ASSY - TENSIONER	1
12	700-2-1265	LOWER PIVOT WELD - CHAIN BED LH	1
13	700-2-1266	LOWER PIVOT WELD - CHAIN BED RH	1
14	700-2-1269	CHAIN BED ADJUSTMENT WELD	2
15	700-2-1313	SPRING TENSIONER MOUNT WELD	1
16	700-2-1357	ADJUSTMENT PLATE WELD RH- LONG CHAIN BED	1
17	700-2-1358	ADJUSTMENT PLATE WELD LH- LONG CHAIN BED	1
19	700-2-1389	TAKE UP BEARING MOUNT ASSEMBLY	2
24	700-3-0753	TIE STRAP	2
26	700-3-3273	GUARD - U-JOINT	1
27	700-3-3274	GUARD - U-JOINT (FRONT)	1
32	700-3-3706	THREADED ROD- REAR BELTED CHAIN TAKE UP	2
38	900-01399	3/4-NC X 1-1/2 HEX BOLT	6
41	900-01425	HEX BOLT - 3/4NC X 5-1/2 GR5 ZP	5
44	900-03463	BOLT, EYE, 3/4" NC X 6"	3
45	900-06013	NUT, HH, 5/8-11, ZP	11
46	900-06015	NUT, HH, 3/4-10, ZP	30
50	900-06510	3/4 NUT, HEX TOP LOCK	2
51	900-11015	WASHER, LOCK, 5/8, ZP	9
56	901-01280	1-15/16 INSERT BRG NA-210-31	8
59	903-03210	BELTED CHAIN- REAR CENTER FRAME (107") 55 LINKS	1
60	903-03211	REAR CHAIN- 50 LINKS	1
62	903-08400	PULLEY - 4B80SK	1
64	903-08419	TYPE Q1 HUB 1-3/4 BORE	2
69	903-11067	SPROCKET - 12T 50MM PITCH 1.75 BORE	4
70	903-11106	3" IDLEMASTER TENSIONER	1
71	903-11135	#80 48 TOOTH TORQUE LIMITER (W/ 1 7/16 BORE)	1
74	903-15520	G-BOX - SUPERIOR	1
	700-2-1379	REAR FRAME ASSY - 12R45CM	

CENTER FRAME CHAIN BED & GRAB ROLL COMPONENTS

CENTER FRAME CHAIN BED & GRAB ROLL COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-1166	"PLASTIC" SPIRAL GRAB ROLL	3
	700-2-1121		
2	700-2-1422	SMOOTH PLASTIC GRAB ROLL WELD - 12 ROW MAIN FRAME (LONG SHAFT)	1
	700-2-1120	"STEEL" SMOOTH GRAB ROLL	
3	700-3-2813	GRAB ROLL SHAFT	6
4	903-08452	HUB, 1-15/16 (Q1)	-
5	700-3-2470	CHAIN BED DRIVE SHAFT	1
6	903-11067	CHAIN BED SPROCKET	4
7	901-01417	BEARING, 3-BOLT FLANGE (1-3/4)	1
8	903-03186	BELTED CHAIN (81")	2
9	903-08424	SPACER, 5/8 ID x 1-1/2	8
10	903-08433	ROLLER, 5"	8
11	903-08435	NOSE ROLLER, 6"	4
12		BOLT, 3/8 NC x 1-1/4	-
13	900-01177	BOLT, 7/16 NC x 1-3/4	-
14	900-01369	BOLT, 5/8 NC x 6	-
15	900-01433	BOLT, 3/4 NC x 7-1/2	-
16	900-01357	BOLT, 5/8 NC x 3-1/2	-
17	900-01421	BOLT, 3/4 NC x 4-1/2	-
18	900-11015	LOCK WASHER, 5/8	-
19	900-11017	LOCK WASHER, 3/4	-
20	900-06013	NUT, 5/8 NC	-
21	900-06015	NUT, 3/4 NC	-
22	900-06141	SPIRALOCK NUT, 7/16 NC	-
23	900-11034	7/16 FLAT WASHER	-
24	903-08449	BUSHING TAPER LOCK 2517 - 1.93 B	
25	100-3-3333	KEY - 3/8 X 3/8 X 2	40
	700-2-1379	REAR FRAME ASSY - 12R45CM	

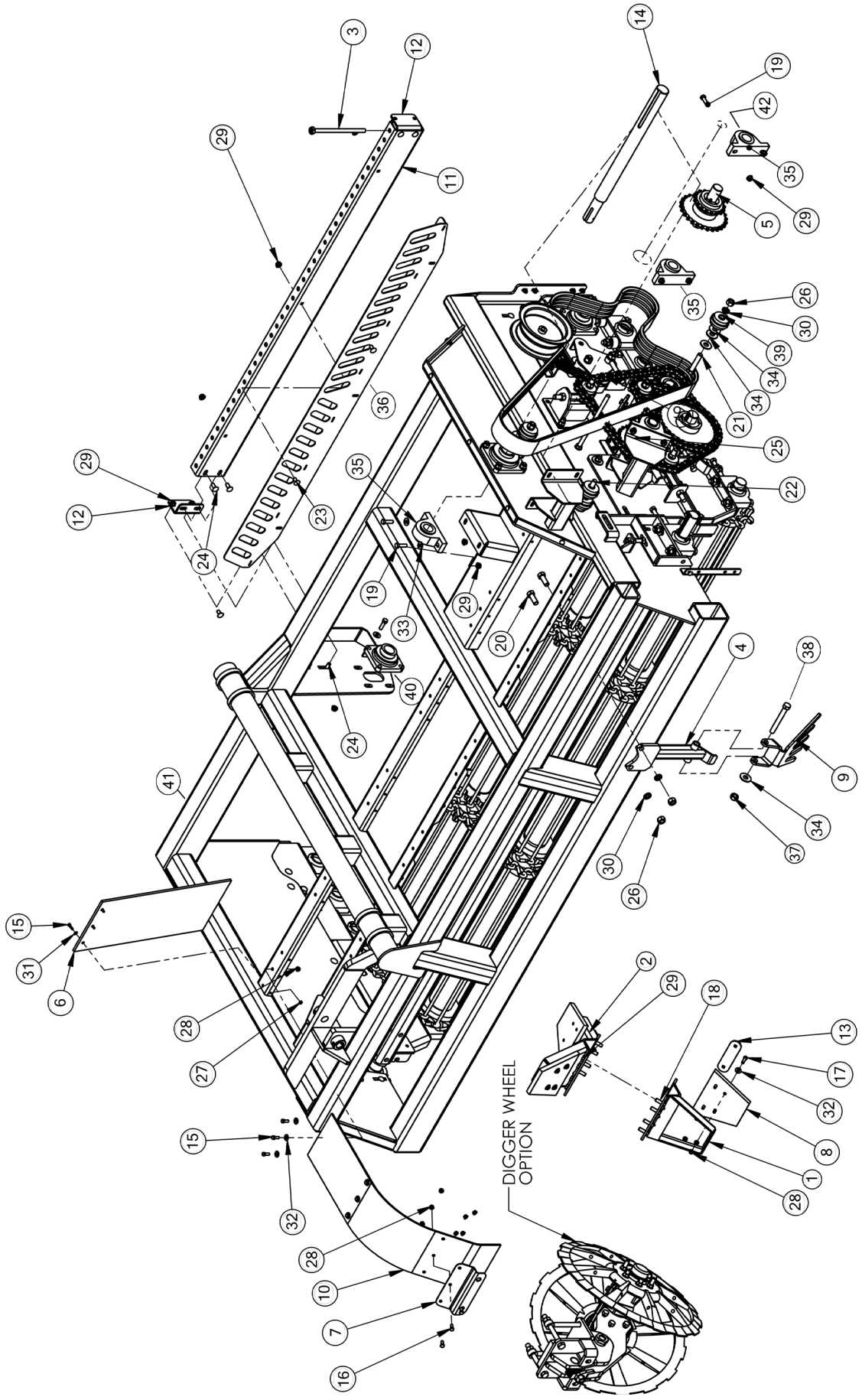
WALKING TANDEM REAR STEER ASSEMBLY



WALKING TANDEM REAR STEER ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	500-3-1246	SPECIAL WASHER	1
2	700-3-3381	SPINDLE - HUB ASSM 10-BOLT	2
3	700-2-0922	TANDEM AXLE PIVOT PIN WELD	1
4	700-2-1024	FRONT AXLE ANCHOR WELD - LH	1
	700-2-1025	FRONT AXLE ANCHOR WELD - RH	1
5	700-2-1032	PIVOT PIN WELD - TANDEM AXLE	1
6	700-2-1251	TANDEM PIVOT WELD - W/PLATE	1
7	700-2-1342	REAR STEER SLIDE PIN WELDMENT	1
8	700-2-1338	REAR STEER ANCHOR TUBE WELD	1
	700-2-1348	REAR STRUT ANCHOR TUBE WELD- RH	1
9	700-2-1341	REAR STEER SLIDE WELDMENT LH 2016	1
9	700-2-1350	REAR STEER SLIDE WELDMENT RH 2016	1
10	700-2-1455	TIRE ASSY RH - VF 520/85R42	1
11	700-2-1467	SPINDLE HOLDER WELD - TANDEM	1
12	700-2-1468	TIRE ASSY LH - VF 520/85R42	1
13	700-2-1469	REAR STEER PIVOT TUBE WELD - 12R45CM	1
14	700-2-1470	DISC BRAKE WELDMENT	1
15	700-2-1471	OUTSIDE SPINDLE TUBE WELDMENT	1
16	700-3-2707	COLLAR - 1.75"	1
17	700-3-3497	PIVOT PIN- REAR STEER	1
18	700-3-3498	SLIP ON BUSHING- SLIDE PIN	1
19	900-01125	3/8NC X 3 HEX BOLT GR5	1
20	900-01133	3/8NC X 4 HEX BOLT GR 5	2
21	900-01339	HEX BOLT 5/8 NC X 1 1/4 GD 5 ZP	1
22	900-01363	HEX BOLT 5/8 NC X 4 1/2 GD 5 ZP	2
23	900-01403	HEX BOLT - 3/4NC X 2 GR5 ZP	8
24	900-06239	2 NC HEAVY HEX STOTTED NUT G5 ZP	1
25	900-06500	NUT HEX 3/8 TOP LOCK	3
26	900-06508	NUT HEX 5/8 UNC TOP LOCK	2
27	900-06510	3/4 NUT, HEX TOP LOCK	8
28	900-11048	2 FLAT WASHER ZN	1
29	900-23084	PIN, COTTER, 3/8 X 3-1/2	1
30	901-01344	SPLIT BUSHING - 3 ID X 3.5OD X 3 LONG	2
31	905-15024	ZERK 1/4-28 UNF STRAIGHT	3
	700-2-1466	WALKING TANDEM REAR STEER ASSY- LH 12R45CM	
	700-2-1465	WALKING TANDEM REAR STEER ASSY - RH 12R45CM	

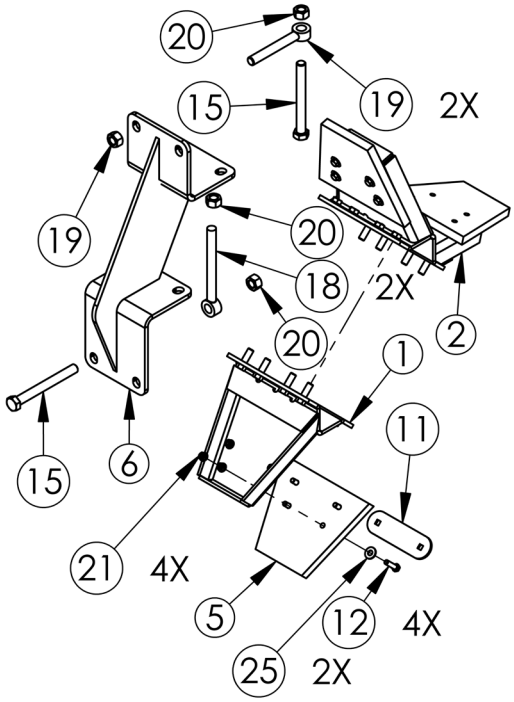
WING FRAME COMPONENTS

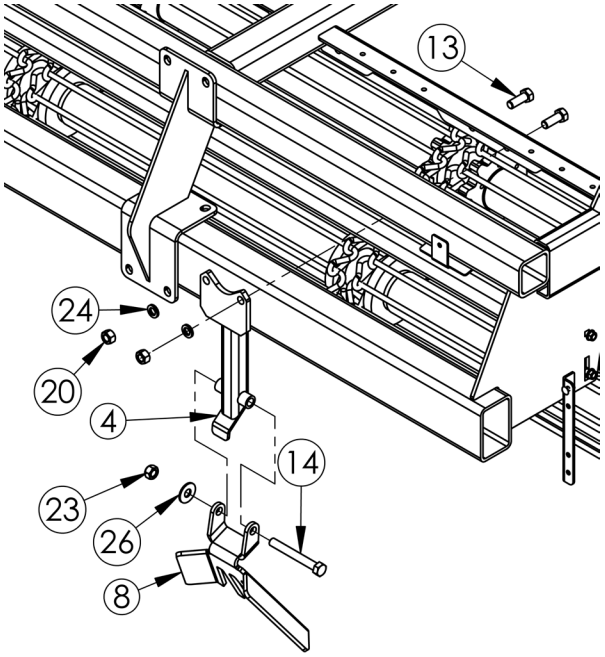


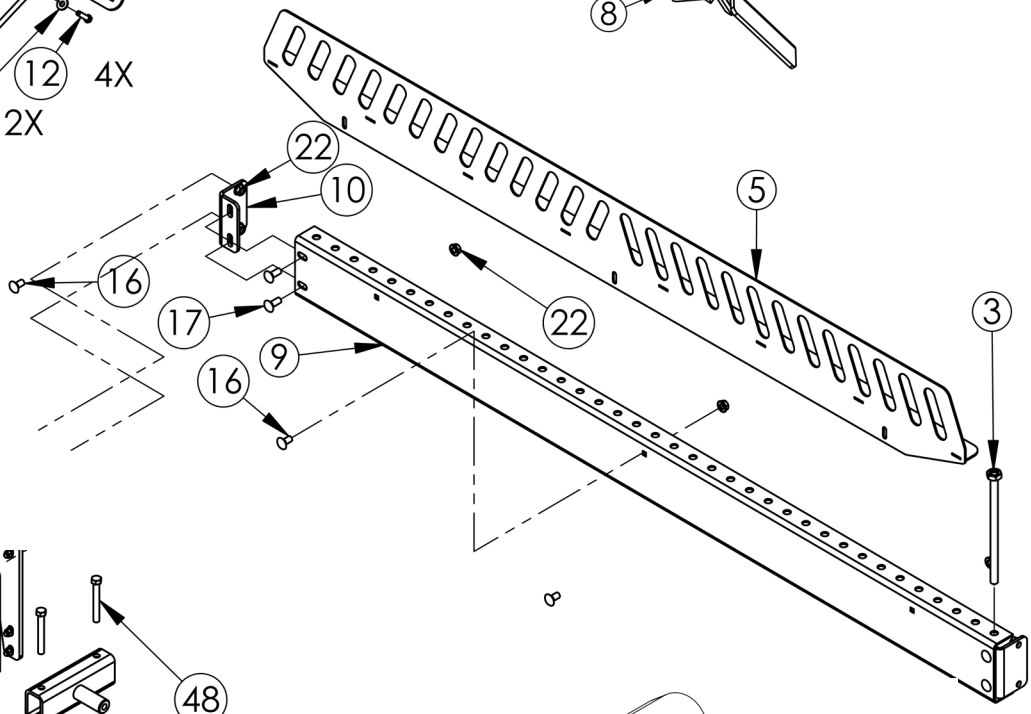
WING FRAME COMPONENTS

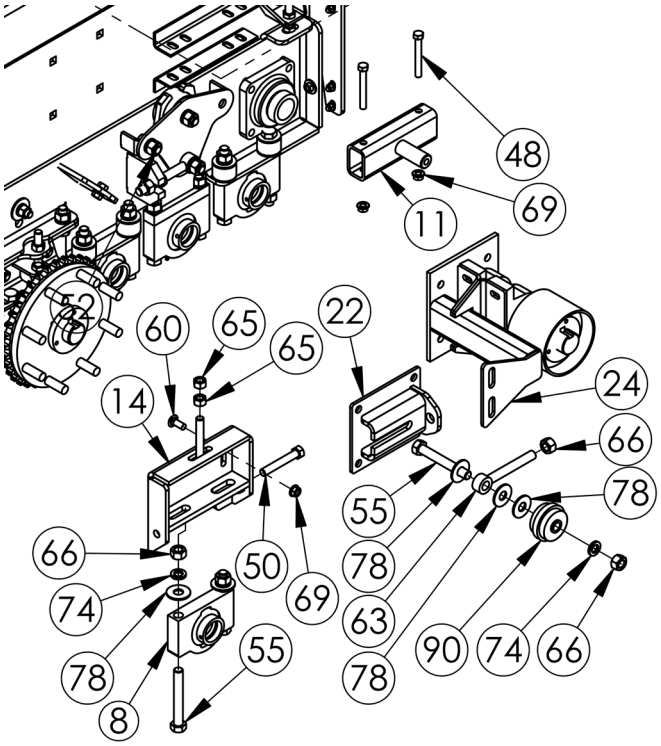
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-1055	WING WELD - LH 12 ROW (ALL G-ROLLS)	1
	700-2-1084	WING WELD - RH 12 ROW (ALL G-ROLLS)	1
5	700-2-1108	SPROCKET AXLE ASSY	1
6	700-3-0317	PADDLE DEFLECTOR	6
7	700-3-0807	MOUNT PLATE - FRONT PADDLE COVER	6
10	700-3-1762	PADDLE COVER	6
14	700-3-3287	OUTER WING DRIVE SHAFT - 12 ROW	1
15	900-01009	1/4-20 X 1 ZP HEX BOLT	18
16	900-01109	BOLT HEX 3/8UNC X 1 GR 5	56
17	900-01113	3/8NC X 1-½ HEX BOLT GR 5	72
18	900-01225	BOLT HEX ½ X 1½ GR 5	24
19	900-01227	BOLT HEX □ X 1 3/4 GR 5 ZP	18
21	900-01417	HEX BOLT-3/4NC X 3.75 GR5 ZP	1
22	900-01437	BOLT, HH, 3/4-10 X 8-1/2, GR5 ZP	1
23	900-01749	CARRIAGE BOLT 1/2 NC X 1	3
24	900-01750	CARRIAGE BOLT 1/2 NC X 1 1/4 GR 5 ZP	16
25	900-01786	CARRIAGE BOLT 5/8 NC X 2 NC	9
26	900-06015	NUT, HH, 3/4-10, ZP	46
27	900-06135	WHIZ NUT - 1/4 - 20	18
28	900-06139	3/8 NC FLANGED WHIZ NUT	141
29	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	89
30	900-11017	WASHER, LOCK, 3/4, ZP	40
31	900-11031	¼ FLAT WASHER	18
32	900-11033	FLAT WASHER 3/8 ZP	108
33	900-11035	1/2 FLAT WASHER	12
34	900-11038	3/4" FLAT WASHER	43
35	901-01272	BRG 1.75 PILLOW BLOCK (ECCENTRIC LOCK COLLAR)	2
37	900-06510	3/4 NUT, HEX TOP LOCK	1
39	903-11106	3" IDLEMASTER TENSIONER	7
40	901-01282	BEARING - 1-15/16 4-BOLT (F4B-SXR-115-FF)	2
42	905-15024	ZERK 1/4-28 UNF STRAIGHT	1
	700-2-1373	WING ASSY - 12R45CM RH	
	700-2-1375	WING ASSY - 12R45CM LH	

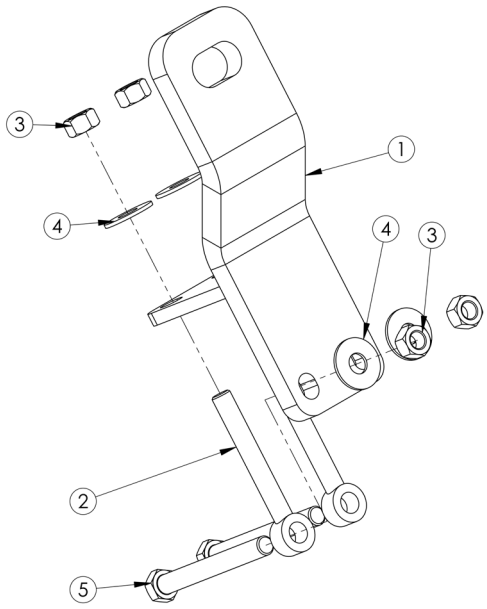
WING FRAME DETAIL











WING FRAME DETAIL

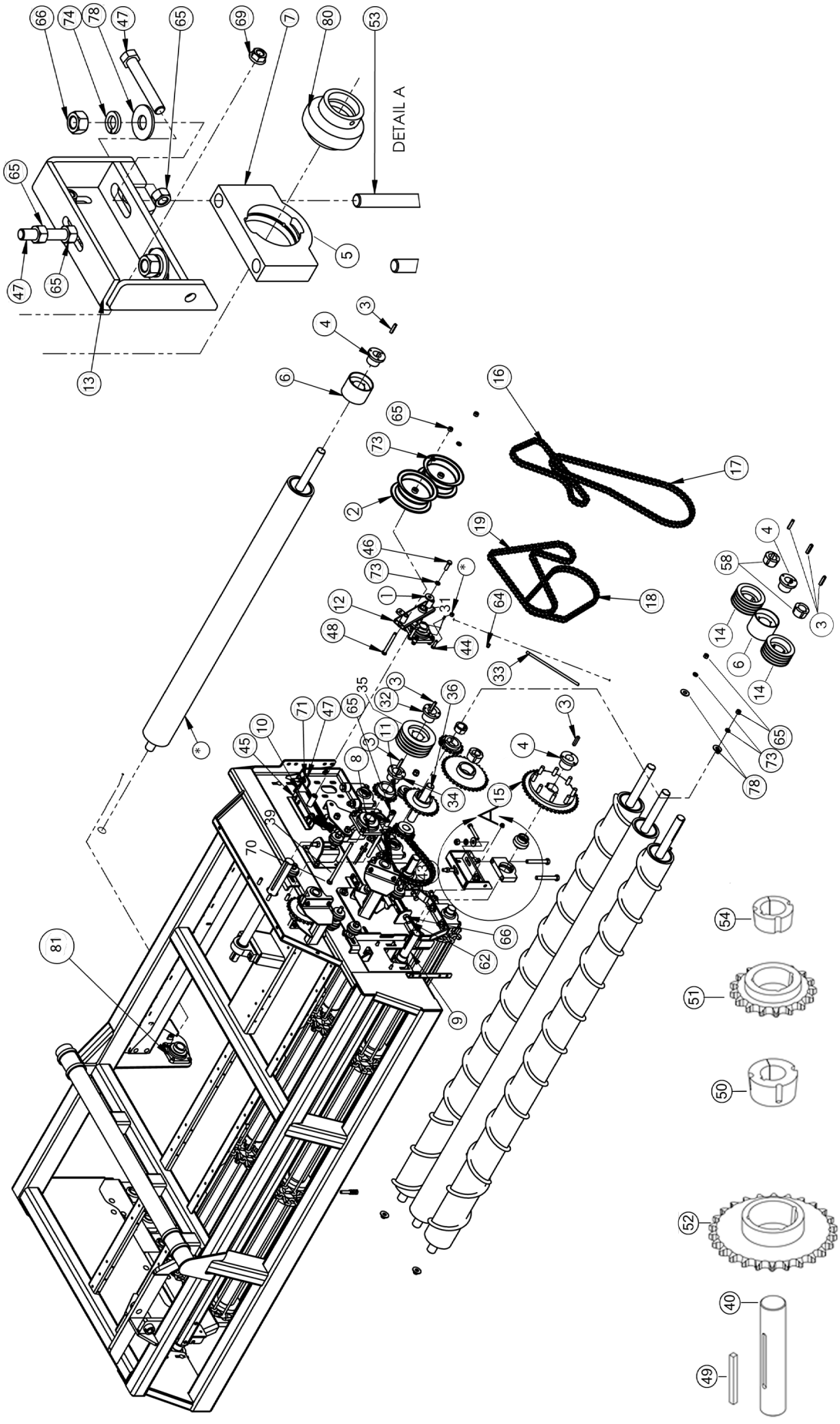
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
		brace	
		paddle wheel	
1	700-2-0069	PADDLE WELD (ONE PADDLE)	6
2	700-2-0070	PADDLE WELD (2 PADDLES)	6
6	700-2-1381	ANGLE BRACKET WELD- WING	0
12	900-01113	3/8NC X 1-½ HEX BOLT GR 5	72
15	900-01431	HEX BOLT - 3/4 NC X 7 GR5	8
18	900-03462	EYE BOLT 3/4 X 8	1
19	900-03463	BOLT, EYE, 3/4" NC X 6"	3
20	900-06015	NUT, HH, 3/4-10, ZP	46
21	900-06139	3/8 NC FLANGED WHIZ NUT	141
25	900-11033	FLAT WASHER 3/8 ZP	0
2		front barrier	
4	700-2-1088	MOUNT WELD - FRONT BARRIER 12 ROW WINGS (ALLG-ROLLS)	5
8	700-3-1483	NARROW FRONT BARRIER BRKT	5
13	900-01403	HEX BOLT - 3/4NC X 2 GR5 ZP	2
14	900-01427	HEX BOLT - 3/4NC X 6 GR5 ZP	5
20	900-06015	NUT, HH, 3/4-10, ZP	46
23	900-06510	3/4 NUT, HEX TOP LOCK	8
24	900-11017	WASHER, LOCK, 3/4, ZP	4
26	900-11038	3/4" FLAT WASHER	4
3		rear barrier	
3	700-2-0918	REAR BARRIER ROD WELDMENT - 12 ROW WING	37
5	700-2-1270	REAR BARRIER CAP WELD	1
7	700-3-1207	RUBBER FLAPS - NARROW	18
9	700-3-1996	CLIP - REAR BARRIER 12 ROW WING	1
10	700-3-2418	SUPPORT BRACKET - REAR BARRIER 12 ROW WING	2
11	700-3-2889	RUBBER PADDLE SPACER	18
16	900-01749	CARRIAGE BOLT 1/2 NC X 1	3
17	900-01750	CARRIAGE BOLT 1/2 NC X 1 1/4 GD 5 ZP	16
22	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	89
	700-2-1159	transport lock mount	
1	700-2-1096	TRANSPORT LOCK MOUNT - WING	1
5	900-01431	HEX BOLT - 3/4 NC X 7 GR5	2
2	900-03463	BOLT, EYE, 3/4" NC X 6"	2
3	900-06015	NUT, HH, 3/4-10, ZP	4
4	900-11038	3/4" FLAT WASHER	4
	700-2-1375	WING ASSY - 12R45CM LH CUSHION	
	700-2-1373	WING ASSY - 12R45CM RH CUSHION	

WING DOOR COMPONENTS

WING DOOR COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	500-2-1653	S-SERIES FUD UPPER LATCH WELD	
2	500-3-4799	S SERIES FLUSH GRAB HANDLE	
3	500-3-5083	PLATE- HANDLE	
4	500-3-5086	PLATE- GAS SPRING MOUNT	
5	700-2-1411	BI-FOLD DOOR - BOTTOM DOOR STIFFENER WELD	
6	700-2-1412	BI-FOLD DOOR - TOP DOOR STIFFENER WELD	
7	700-2-1414	BI-FOLD DOOR - RH FRONT SHOCK WELD	
8	700-2-1416	BI-FOLD DOOR - RH LATCH SUPPORT WELD	
9	700-2-1418	BI-FOLD DOOR - RH REAR SHOCK WELD	
10	700-3-3606	BIFFOLD INNER SHIELD - LEFT	
11	700-3-3607	BIFOLD INNER SHIELD - BACK	
12	700-3-3608	BIFOLD DOOR - TOP	
13	700-3-3609	BIFOLD DOOR - BOTTOM	
14	700-3-3621	BIFOLD DOOR - TOP HINGE	
15	700-3-3622	BIFOLD DOOR - BOTTOM HINGE	
16	900-01005	1/4-20 X 3/4 ZP HEX BOLT	
17	900-06135	WHIZ NUT - 1/4 - 20	
18	900-06137	WHIZ NUT - 5/16 NC	
19	905-06022	ROTARY LATCH- ALLEGIS PART #1-300 ZN RH	
20	905-06026	BALL STUD, GAS SPRING 10" STROKE	
22	700-3-3623	BIFOLD DOOR - LH LATCH SUPPORT	
23	700-3-3624	BIFOLD DOOR - RH LATCH SUPPORT	
24	700-2-1430	BI-FOLD DOOR - LATCH ROD WELD	
25	900-01784	CARRIAGE BOLT 5/8 NC X 1-1/2	
26	900-01749	CARRIAGE BOLT 1/2 NC X 1	
27	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	
28	900-06145	5/8 WHIZ NUT	
	700-2-1408	BI-FOLD DOOR ASSY - LEFT WING	
	700-2-1409	BI-FOLD DOOR ASSY - RIGHT WING	

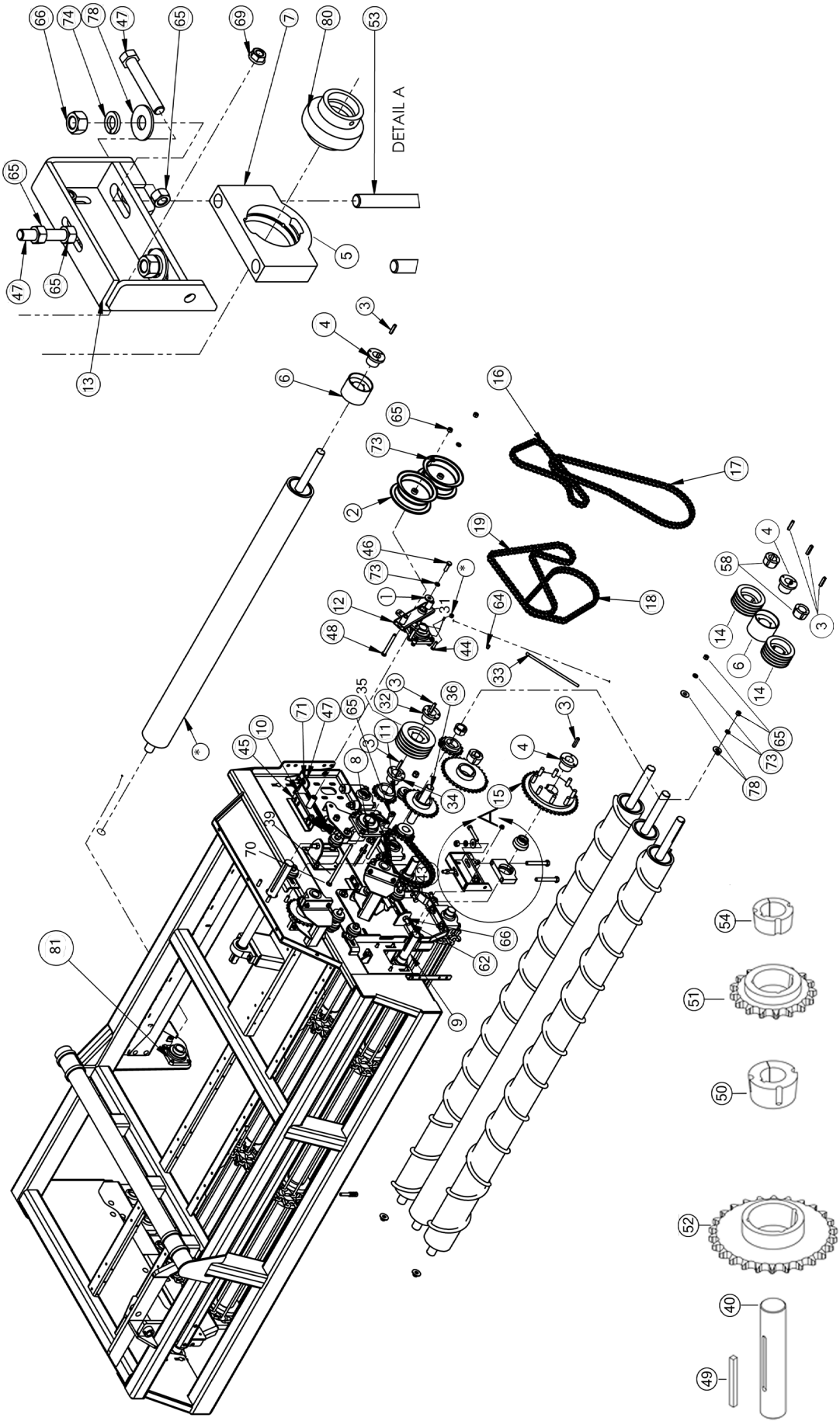
WING DRIVE COMPONENTS



WING DRIVE COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	500-3-1246	SPECIAL WASHER	1
2	500-3-1249	PULLEY - 8 OD X 3.25 X .63 ID FLANGED (DON DYE) PAINTED	2
3	500-3-1662	KEY - 1/2 X 2-1/2 SQUARE	7
4	903-08452	TYPE Q1 HUB 1-15/16 BORE	3
5	905-15024	ZERK 1/4-28 UNF STRAIGHT	-
6	700-2-0267	PULLEY WELD - 6 INCH	2
7	700-2-0377	BEARING BLOCK ASSY - 1.93 W/GREASE FITTING	8
8	901-01311	BEARING - UCF 211-35 2.19 4-BOLT	1
9	700-2-0566	PADDLE TUBE WELD - 1222 WING	1
10	700-2-0721	PIVOT BASE WELD - HARVESTER	1
11	903-11109	SPROCKET #H80Q17 (Q1 HUB)	1
12	700-2-0930	PIVOT ARM - TENSIONER	1
13	700-2-0938	PADDLE SHAFT BEARING PLATE - 12 ROW	2
14	903-08482	PULLEY - 4B66 (2517 TL)	2
15	903-11105	#80 42 TOOTH TORQUE LIMITER (W/ 1 7/16 BORE)	1
16	903-03192	PADDLE SHAFT CHAIN PRIMARY - 55"	1
17	903-03193	PADDLE SHAFT CHAIN SECONDARY 81"	1
18	903-03204	BED CHAIN	1
	903-03166_INNER	Chain Link - Inside	
	903-03166_OUTER	Chain Link - Outer Link	
19	903-03205	GRAB ROLL CHAIN	1
	903-03166_INNER	Chain Link - Inside	
	903-03166_OUTER	Chain Link - Outer Link	
20	700-2-1308	PIVOT PLATE WELD - OUTER WING LH CUSHION	1
	700-2-1314	PIVOT PLATE WELD - OUTER WING RH CUSHION	
21	700-2-1309	PIVOT PLATE WELD - INNER WING LH CUSHION	1
	700-2-1310	PIVOT PLATE WELD - INNER WING LH CUSHION	
22	700-2-1313	SPRING TENSIONER MOUNT WELD	1
23	700-3-0317	PADDLE DEFLECTOR	6
24	700-3-0366	TENSIONER SPRING ASSEMBLY	1
25	700-3-0458	BUSHING - KNURLED	2
26	700-3-0753	TIE STRAP	2
27	700-3-0807	MOUNT PLATE - FRONT PADDLE COVER	6
28	700-3-1207	RUBBER FLAPS - NARROW	18
29	700-3-1483	NARROW FRONT BARRIER BRKT	5
30	700-3-1762	PADDLE COVER	6
31	901-01122	BUSHING BRONZE	2
32	903-08476	TYPE SK HUB 2-3/16 BORE	1
33	700-3-2596	THREADED ROD	1
34	903-08475	TYPE Q1 HUB 2-3/16 BORE	1
35	903-08400	SHEAVE, 6/5V13.2	1
36	700-3-3452	SHAFT- PILLOW BLOCK	1
37	700-3-3456	IDLEMASTER TENSIONER SPACER	1
38	700-3-3457	CUSHION	8
39	700-3-3458	ROD, SIDE DOOR	1
40	700-3-2898	SHAFT - PADDLE SHAFT SPROCKET ASSY	1

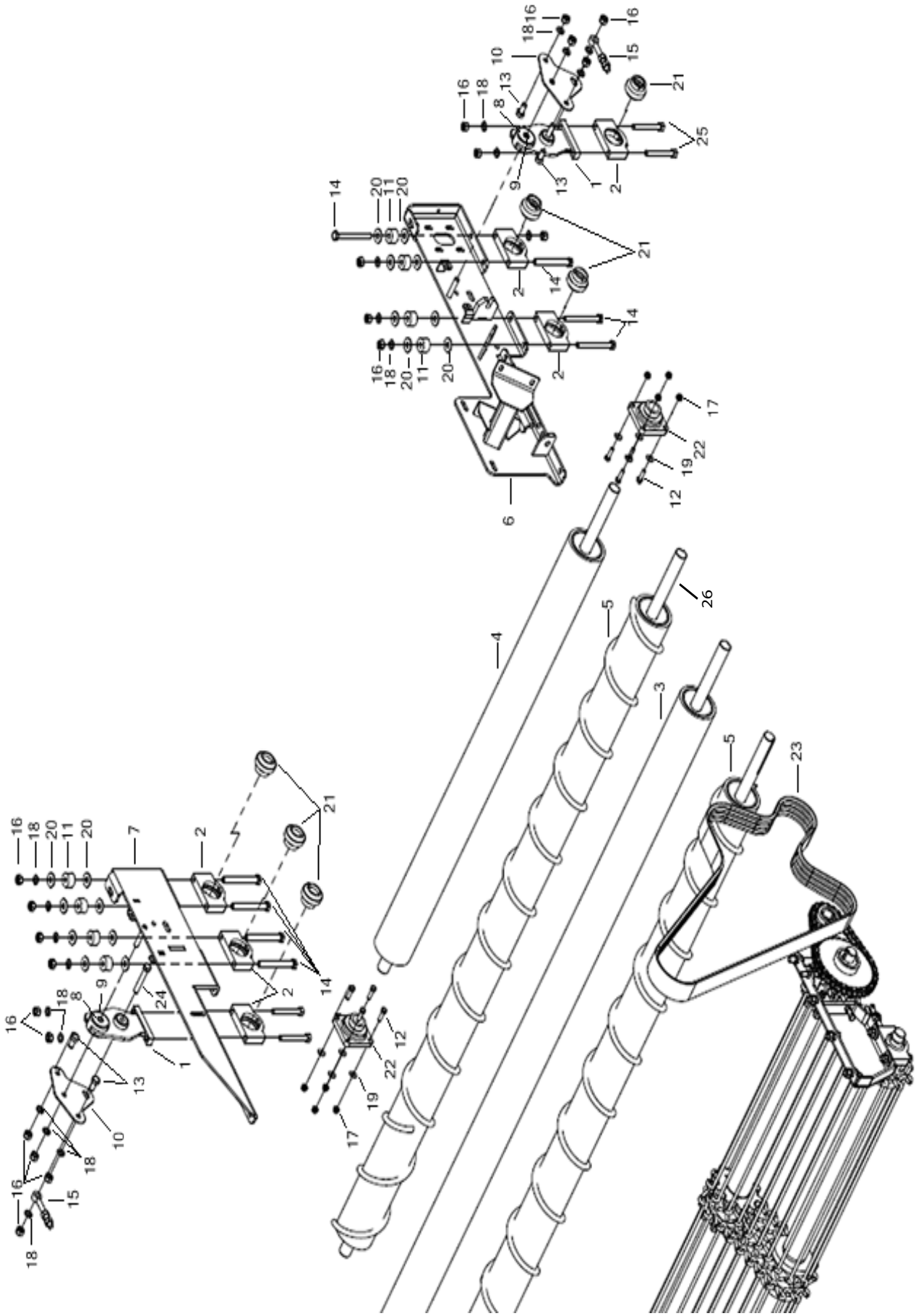
WING DRIVE COMPONENTS



WING DRIVE COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
41	900-01109	BOLT HEX 3/8UNC X 1 GR 5	56
42	900-01113	3/8NC X 1-½ HEX BOLT GR 5	72
43	900-01225	BOLT HEX ½ X 1½ GR 5	24
44	900-01227	BOLT HEX □ X 1 3/4 GR 5 ZP	18
45	900-01245	1/2 X 4 HEX BOLT GR5 ZP	2
46	900-01345	BOLT, HH, 5/8-11 X 2, GR5 ZP	5
47	900-01362	HEX BOLT 5/8 - 11 X 4 GRADE 5 (FULL THREAD)	6
48	900-01369	SCREW, CAP 5/8 X 6 UNC zp	2
49	700-3-1803	KEY 3/8 X 3/8 X 4	1
50	903-08471	BUSHING TAPER LOCK 2517 - 1.75 B	1
51	903-11098	SPROCKET 80BTL17H (2O12 HUB)	1
52	903-11103	SPROCKET 80BTL26H (2517 HUB)	1
53	900-01425	HEX BOLT - 3/4NC X 5-1/2 GR5 ZP	11
54	903-08412	BUSHING TAPER LOCK 2012 - 1.75 B	1
56	900-01435	3/4 NC X 8 HEX BOLT ZP	1
57	903-11106	3" IDLEMASTER TENSIONER	4
58	903-08449	BUSHING TAPER LOCK 2517 - 1.93 B	
62	900-03462	EYE BOLT 3/4 X 8	1
64	900-06009	NUT HEX 1/2 UNC	1
65	900-06013	NUT, HH, 5/8-11, ZP	25
66	900-06015	NUT, HH, 3/4-10, ZP	46
69	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	89
70	900-06145	NUT WHIZ 5/8-11 NC	2
71	900-06280	NUT HEX JAM 5/8 UNC	6
73	900-11015	WASHER, LOCK, 5/8, ZP	16
74	900-11017	WASHER, LOCK, 3/4, ZP	40
78	900-11038	3/4" FLAT WASHER	43
80	901-01280	1-15/16 INSERT BRG NA-210-31	8
81	901-01282	BEARING - 1-15/16 4-BOLT (F4B-SXR-115-FF)	2
	700-2-1375	WING ASSY - 12R45CM LH CUSHION	
	700-2-1373	WING ASSY - 12R45CM RH CUSHION	

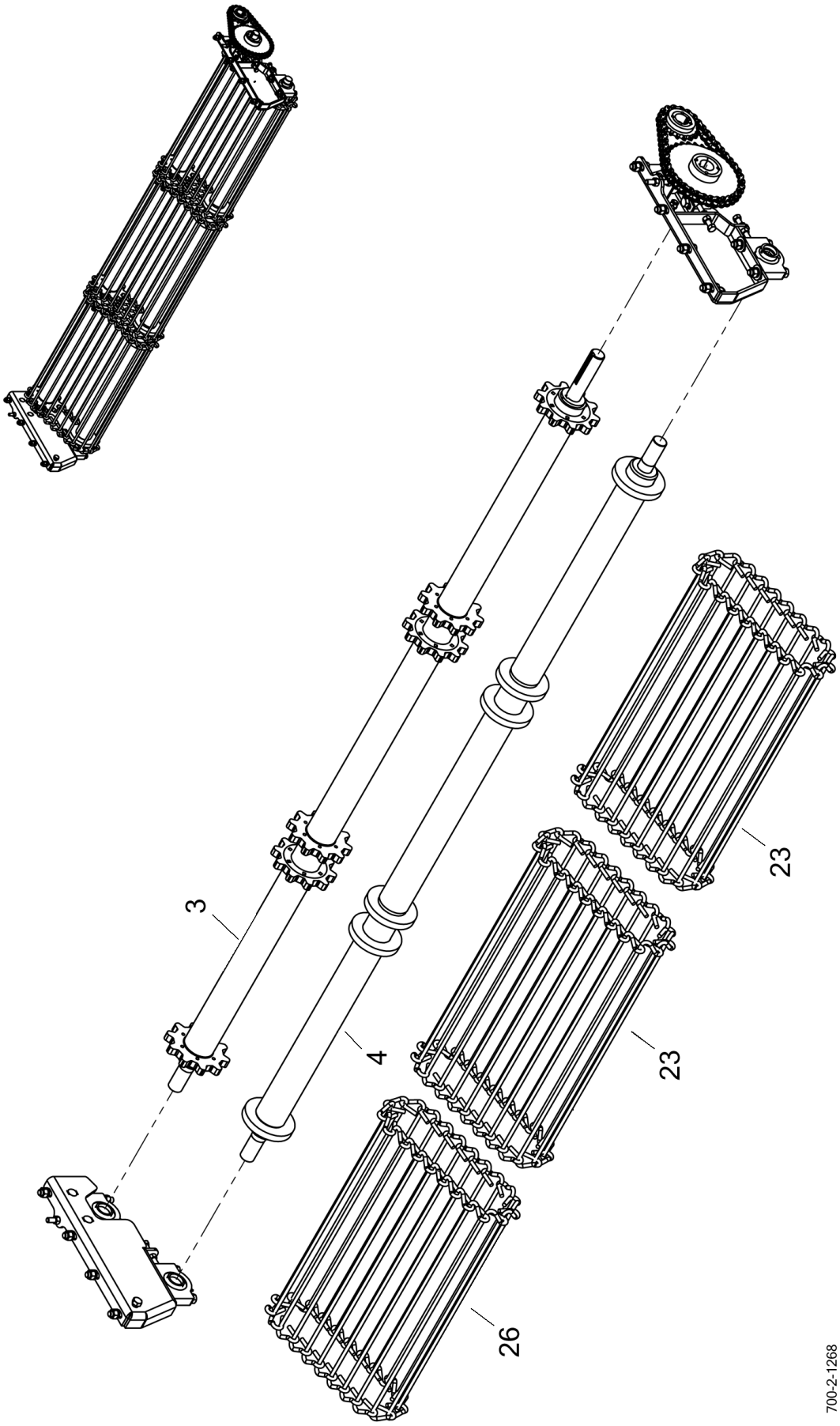
WING GRAB ROLL COMPONENTS



WING GRAB ROLL COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-0375	SWING ARM WELD (GRABROLL) 1.93	2
2	700-2-0377	BEARING BLOCK ASSY - 1.93	6
3	700-2-0900	SMOOTH GRAB ROLL WELD WING - LONG 1222 PLASTIC	1
	700-2-1116	SMOOTH GRAB ROLL WELD WING - LONG 1222 STEEL	1
4	700-2-0926	SHORT SMOOTH GRAB ROLL WELD - 1222 PLASTIC	1
	700-2-1118	SHORT SMOOTH GRAB ROLL WELD - 1222 STEEL	1
5	700-2-0939	FRONT SPIRAL GRAB ROLL WELD LH - 1222 PLASTIC WING	2
	700-2-1115	FRONT SPIRAL GRAB ROLL WELD LH - 1222 STEEL WING	2
	700-2-0608	FRONT SPIRAL GRAB ROLL WELD RH - 1222 PLASTIC	2
	700-2-1119	FRONT SPIRAL GRAB ROLL WELD RH - 1222 STEEL WING	2
6	700-2-1308	PIVOT PLATE WELD - OUTER WING LH CUSHION	1
	700-2-1314	PIVOT PLATE WELD - OUTER WING RH CUSHION	1
7	700-2-1309	PIVOT PLATE WELD - INNER WING LH CUSHION	1
	700-2-1310	PIVOT PLATE WELD - INNER WING RH CUSHION	1
8	700-3-0557	SPACER, GRAB ROLL ARM	2
9	700-3-0609	PIVOT BUSHING - SWING ARM	2
10	700-3-0753	TIE STRAP	2
11	700-3-3457	CUSHION	8
12	900-01227	BOLT HH 1/2-13 NC X 1-3/4 GRD 5 ZP	32
13	900-01399	3/4-NC X 1-1/2 HEX BOLT	2
14	900-01431	HEX BOLT - 3/4 NC X 7 GR5	6
15	900-03463	BOLT, EYE, 3/4" NC X 6"	2
16	900-06015	NUT HEX 3/4-10 NC ZP	6
17	900-06143	NUT WHIZ 1/2-13 NC GRD 5 ZP	32
18	900-11017	WASHER LOCK 3/4 ZP	10
19	900-11035	WASHER FLAT 1/2	32
20	900-11038	WASHER FLAT 3/4	8
21	901-01280	1-15/16 INSERT BRG NA-210-31	6
22	901-01282	BEARING - 1-15/16 4-BOLT (F4B-SXR-115-FF)	8
23	903-01454_1	BELT, 4B144	1
24	900-01421	3/4-10 X 4.5 HEX BOLT	2
25	900-01425	HEX BOLT - 3/4NC X 5-1/2 GR5 ZP	2
26	700-3-2813	DRIVE SHAFT - GRAB ROLLS 1.93 DIA (WELD IN)	8
	700-2-1375	WING ASSY - 12R45CM LH CUSHION	
	700-2-1373	WING ASSY - 12R45CM RH CUSHION	

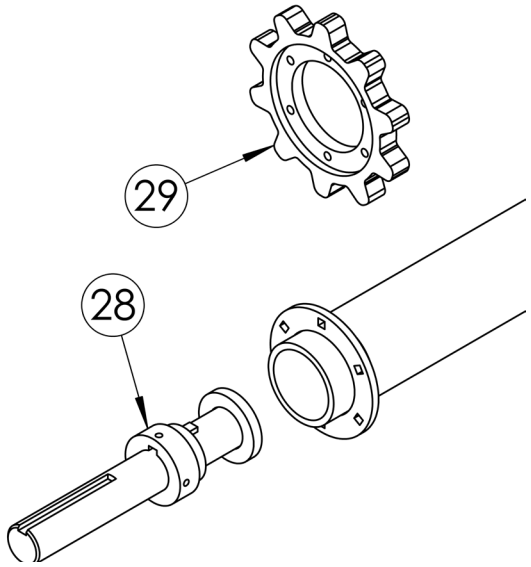
WING CHAIN BED ASSEMBLY - LEFT



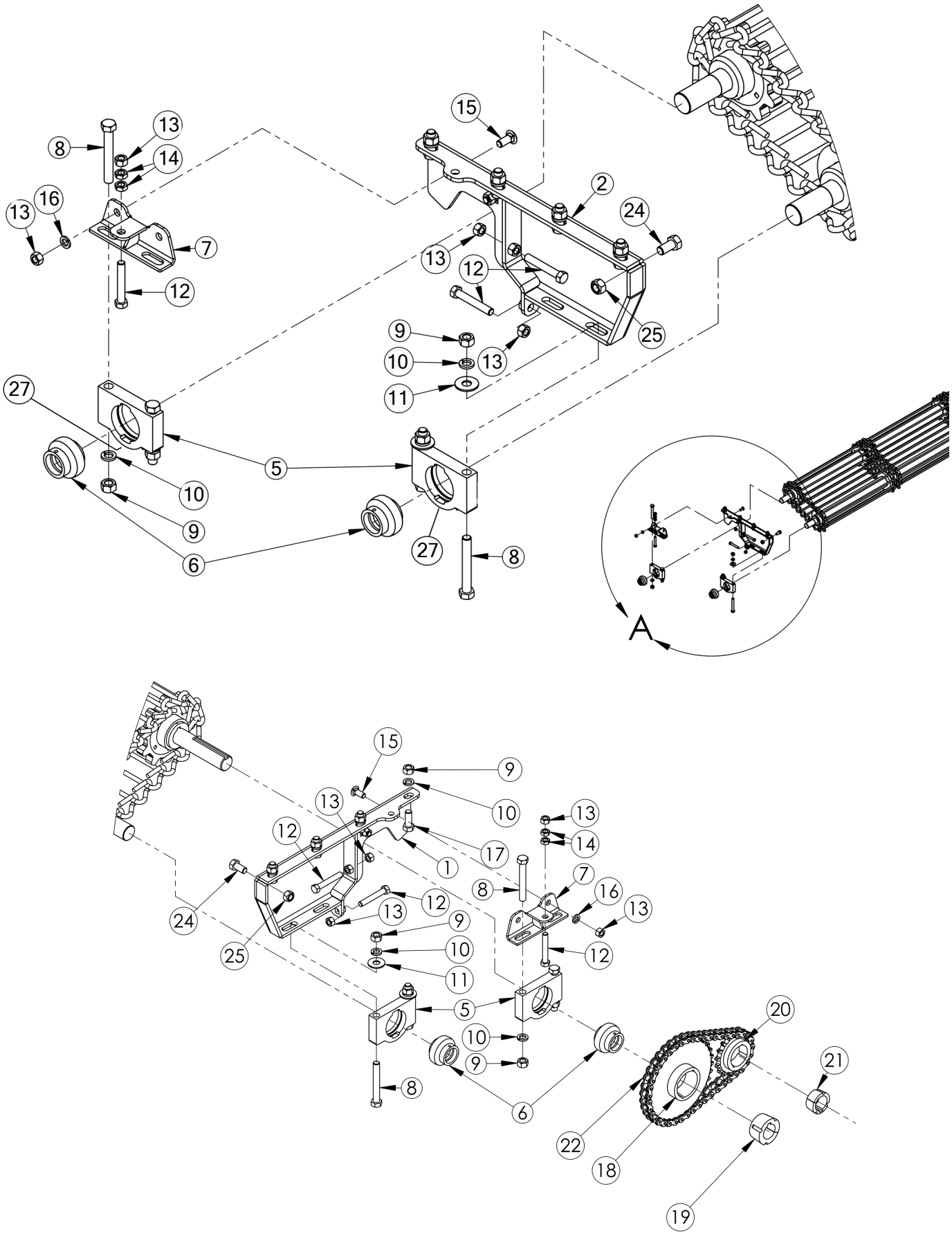
WING CHAIN BED ASSEMBLY - LEFT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.

700-2-1434 WING CHAIN BED ASSY (LH)



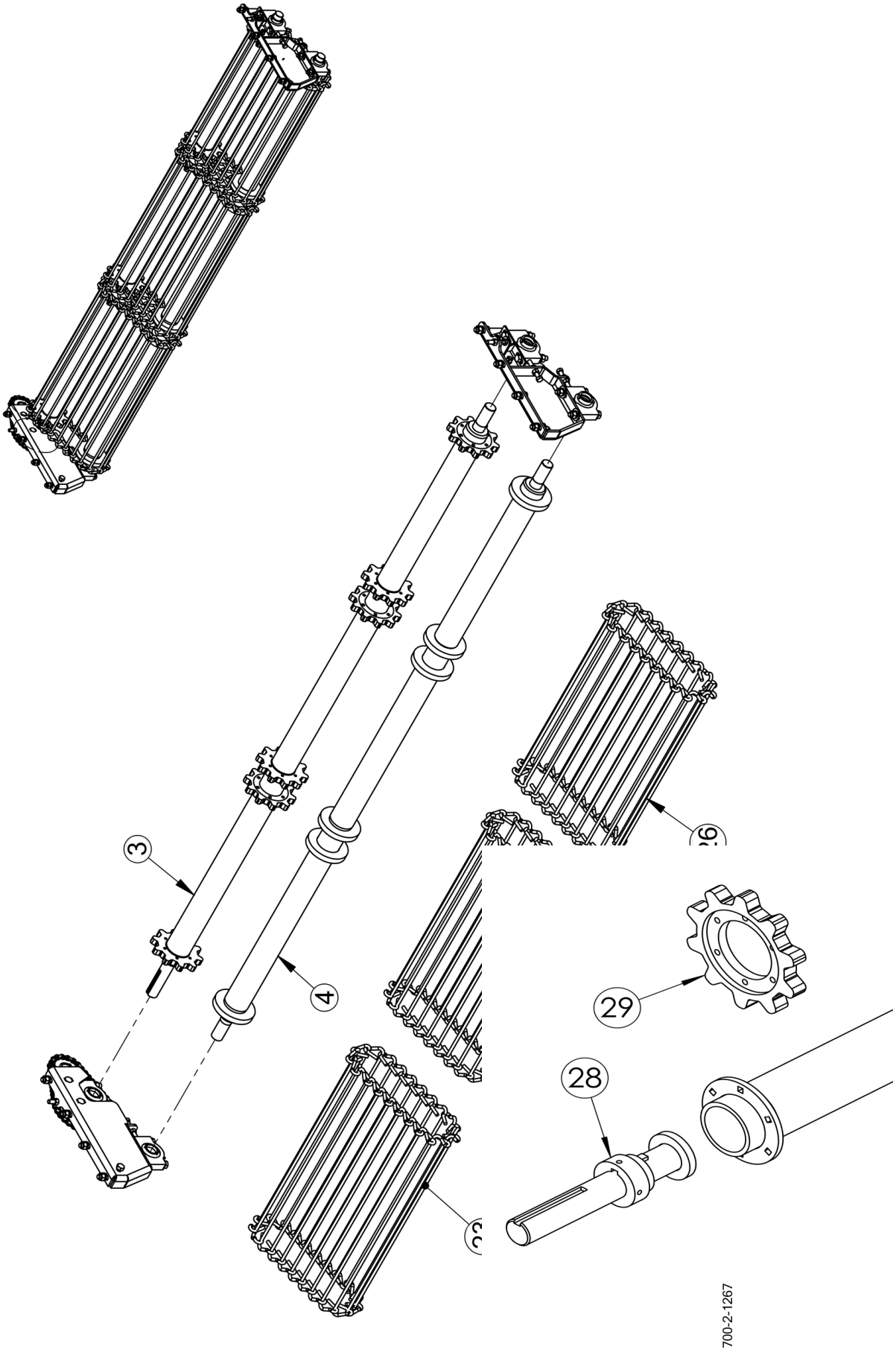
WING CHAIN BED ASSEMBLY - LEFT



WING CHAIN BED ASSEMBLY - LEFT

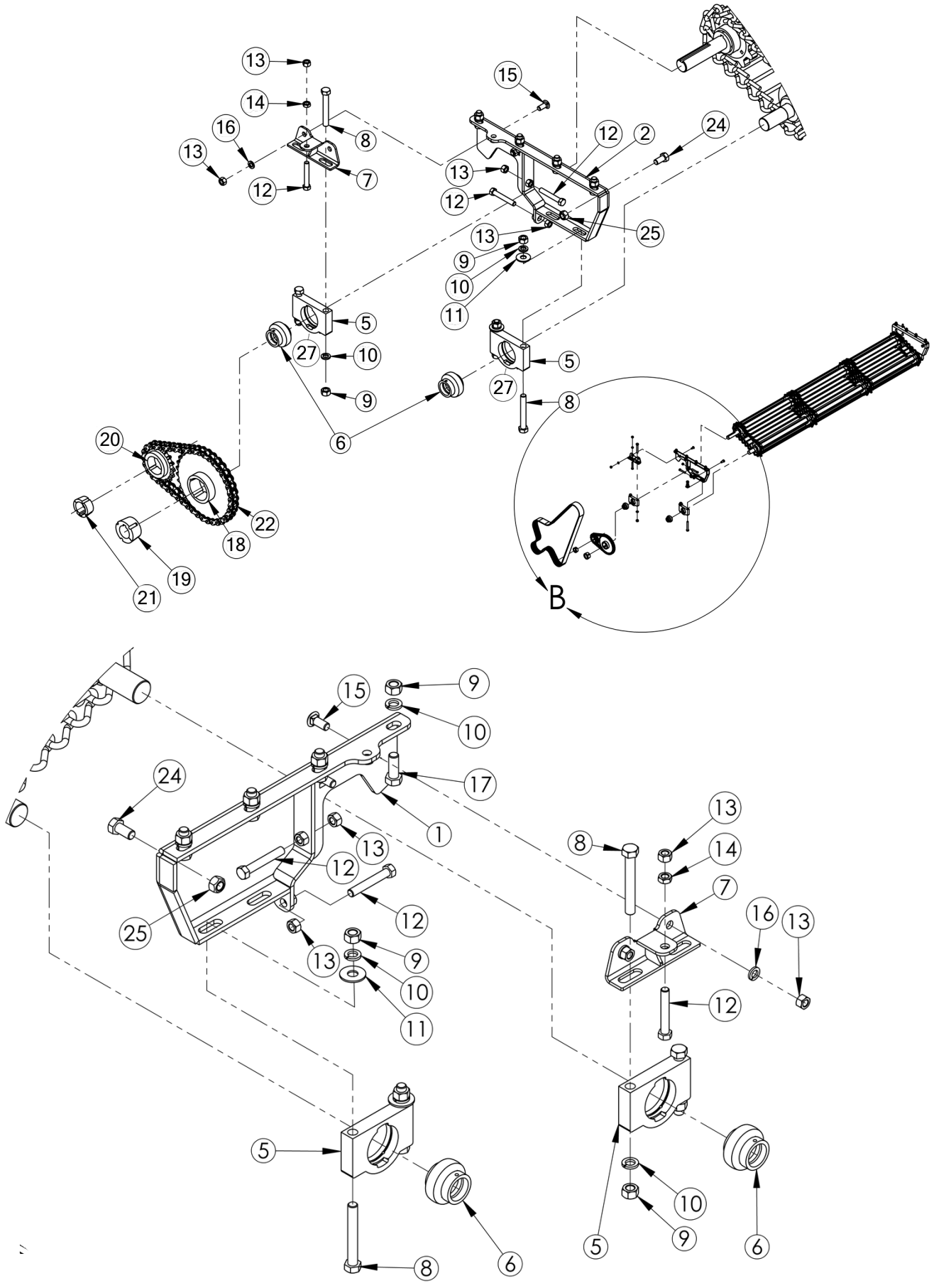
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.

WING CHAIN BED ASSEMBLY - RIGHT



WING CHAIN BED ASSEMBLY - RIGHT

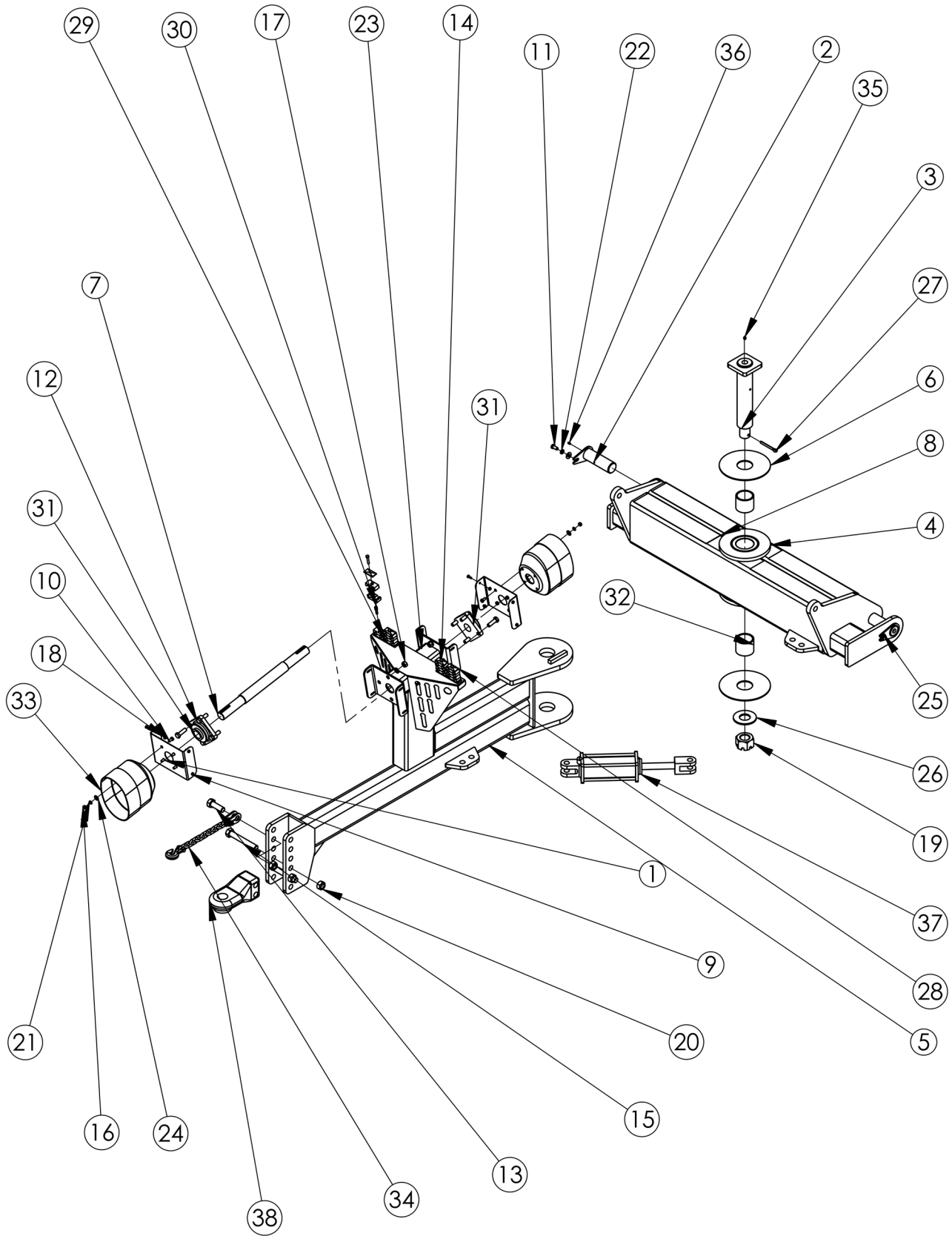
WING CHAIN BED ASSEMBLY - RIGHT



WING CHAIN BED ASSEMBLY - RIGHT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-1265	LOWER PIVOT WELD - CHAIN BED LH	1
2	700-2-1266	LOWER PIVOT WELD - CHAIN BED RH	1
3	700-2-0803	DRIVE TUBE ASSY - CHAIN BED 12 ROW WING	1
4	700-2-0904	FRONT CHAIN BED TUBE	1
5	700-2-0377	BEARING BLOCK ASSY - 1.93 W/GREASE FITTING	4
6	901-01280	1-15/16 INSERT BRG NA-210-31	4
7	700-2-1269	CHAIN BED ADJUSTMENT WELD	1
8	900-01425	HEX BOLT - 3/4NC X 5-1/2 GR5 ZP	4
9	900-06015	NUT, HH, 3/4-10, ZP	4
10	900-11017	WASHER, LOCK, 3/4, ZP	2
11	900-11038	3/4" FLAT WASHER	2
12	900-01362	HEX BOLT 5/8 - 11 X 4 GRADE 5 (FULL THREAD)	2
13	900-06013	NUT, HH, 5/8-11, ZP	5
14	900-06280	NUT HEX JAM 5/8 UNC	1
15	900-01784	CARRIAGE BOLT 5/8 NC X 2-1/2 NC	2
16	900-11015	WASHER, LOCK, 5/8, ZP	2
17	900-01403	HEX BOLT - 3/4NC X 2 GR5 ZP	-
18	903-11104	SPROCKET 80BTL34H (2517 HUB)	1
19	903-08449	BUSHING TAPER LOCK 2517 - 1.93 B	1
20	903-11098	SPROCKET 80BTL17H (2O12 HUB)	1
21	903-08450	BUSHING TAPER LOCK 2012 - 1.93 B	1
22	903-03185	FRAME DRIVE CHAIN - 46" #80	1
23	903-03199	WING HOOK CHAIN (42" x 21 LKS)	2
24	900-01399	3/4-NC X 1-1/2 HEX BOLT	1
25	900-06510	3/4 NUT, HEX TOP LOCK	1
26	903-03200	WING HOOK CHAIN (39" x 21 LKS)	1
27	905-15024	ZERK 1/4-28 UNF STRAIGHT	
28	700-2-0460	DRIVE SHAFT WELD - CHAIN BED	4
29	700-3-0809	SPROCKET - BED CHAIN	6
	700-2-1267	WING CHAIN BED ASSY (RH)	

HITCH COMPONENTS

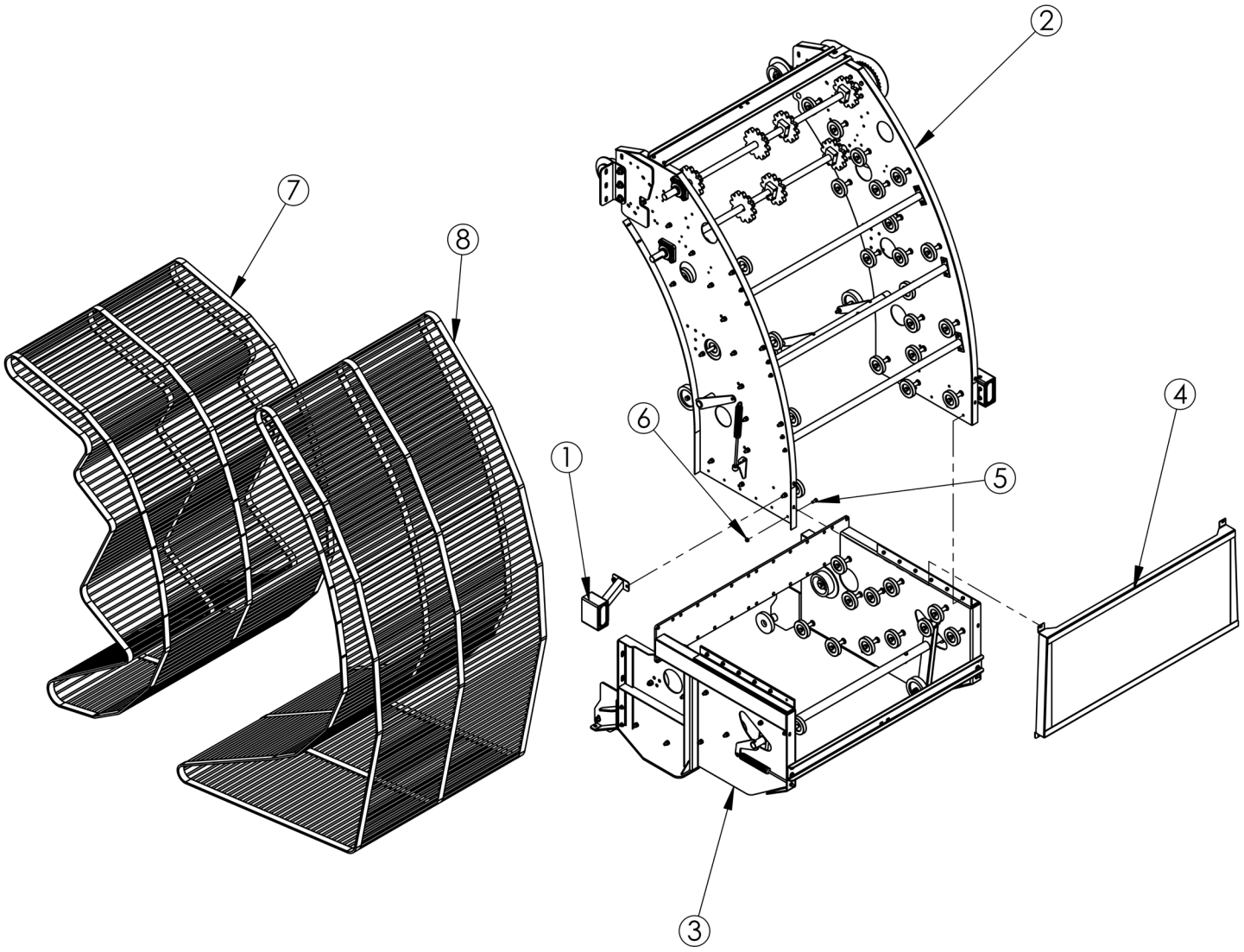


HITCH COMPONENTS

700-2-0545

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	500-3-2164	GUARD BRACKET	2
2	700-2-0019	PIN WELDMENT - HITCH MOUNT	2
3	700-2-0340	POLE PIN WELDMENT - HITCH	1
4	700-2-0546	INNER HITCH WELDMENT-12 ROW	1
5	700-2-0912	FRONT HITCH WELDMENT - 12 ROW	1
6	700-3-0741	THRUST WASHER - HITCH	2
7	700-3-2357	PTO TRANSFER SHAFT - 12 ROW HARVESTER	1
8	700-3-3034	ANTI-SKID STRIP HITCH	4
9	900-01005	1/4-20 X 3/4 ZP HEX BOLT	8
10	900-01105	3/8-16 X .75" HEX BOLT	8
11	900-01221	BOLT HEX ½" X 1"	2
12	900-01345	BOLT, HH, 5/8-11 X 2, GR5 ZP	8
13	900-01519	BOLT, HH, 1-8 x 3, GR5 ZP	1
14	900-02356	BOLT, HH 5/16 X 1-3/4, GR5 ZP	4
15	900-02930	BOLT, HH, 1-8 x 7, GR5 ZP	2
16	900-06005	NUT HEX 3/8	8
17	900-06013	NUT, HH, 5/8-11, ZP	8
18	900-06135	WHIZ NUT - 1/4 - 20	8
19	900-06239	2 NC HEAVY HEX STOTTED NUT G5 ZP	1
20	900-06514	NUT, LOCK, 1" NC, TOP, ZP	3
21	900-11011	WASHER LOCK 3/8"	8
22	900-11013	WASHER, LOCK 1/2	2
23	900-11015	WASHER, LOCK, 5/8, ZP	8
24	900-11033	FLAT WASHER 3/8 ZP	8
25	900-11035	1/2 FLAT WASHER	2
26	900-11048	2 FLAT WASHER ZN	1
27	900-23084	PIN, COTTER, 3/8 X 3-1/2	1
28	900-31068	COVER PLATE	4
29	900-31069	CLAMP BODY - HOSE HOLDER	16
30	900-31071	BOLT, STACKING 5/16 UNC	4
31	901-01185	BEARING - NANFS 209-28 1.75	2
32	901-01344	SPLIT BUSHING - 3 ID X 3.5OD X 3 LONG	2
33	903-18007	PTO BELL	2
34	905-07123	TOW CHAIN SAFETY 21,000 LB	1
35	905-15001	1/8 PTF STR GRS FTNG	1
36	905-15024	ZERK 1/4-28 UNF STRAIGHT	2
37	905-21456	HYD CYL - 3.5 X 8	1
38	905-23023	HITCH TONGUE (BULL PULL) CAT4	1

ELEVATOR COMPONENTS

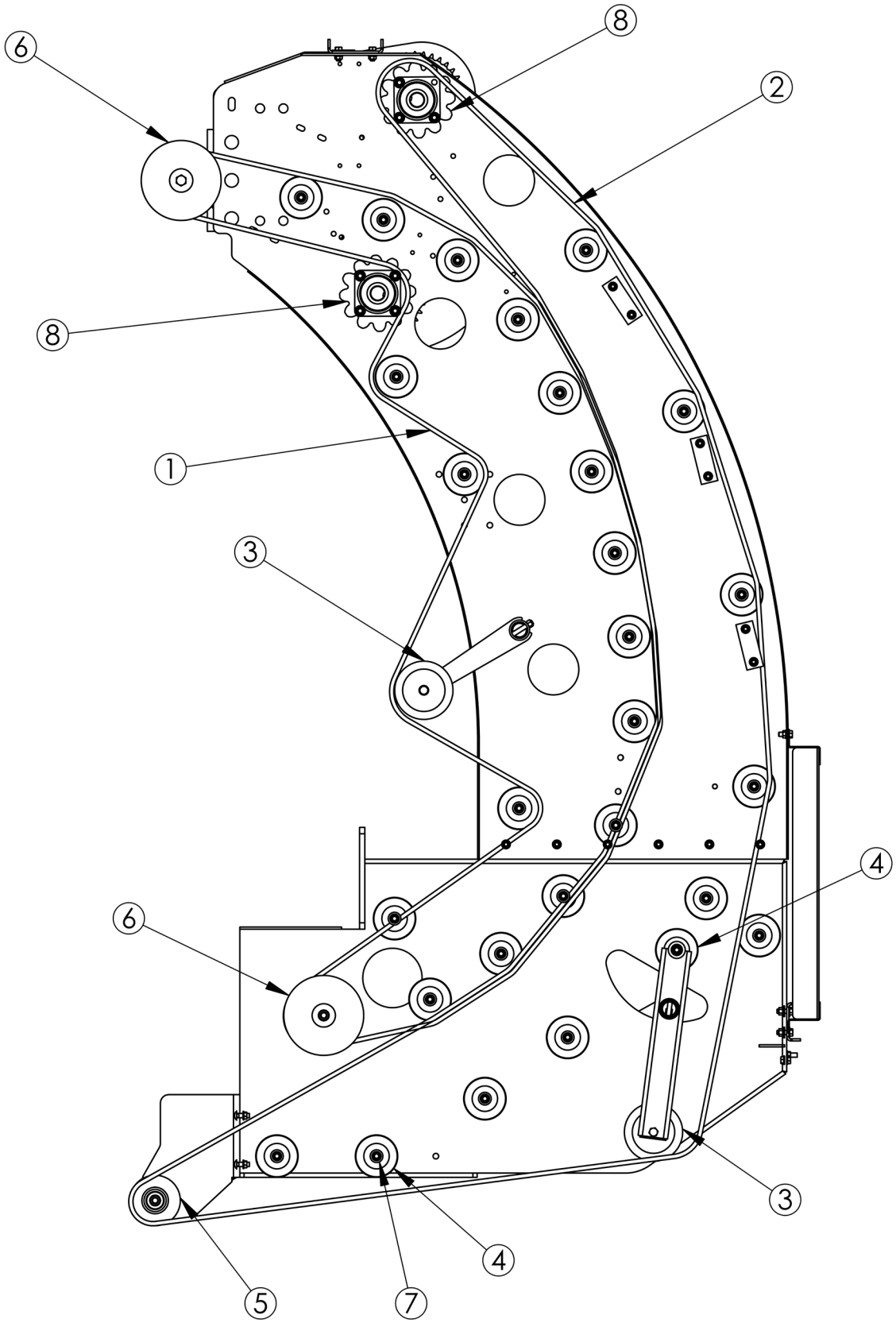


ELEVATOR COMPONENTS

700-2-1429

ITEM NO.	PART NUMBER	DESCRIPTION	Default/QTY.
1	500-2-1634	S SERIES LIGHT FIXTURE ASSEMBLY-RED	1
2	700-2-0888	SIDE PLATE WELD (RH) SHORT	1
3	700-2-1427	REAR ELEVATOR MOUNT WELD- 12R45CM	1
4	700-2-1428	REAR ELEVATOR SHIELD WELD 12R45CM	1
5	900-01223	BOLT, HEX HEAD, 1/2" X 1-1/4", GR5, ZP	28
6	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	52
7	903-03212	BELTED CHAIN- INSIDE ELEVATOR 64"	1
8	903-03213	BELTED CHAIN- OUTSIDE ELEVATOR 64"	1

ELEVATOR ROLLER COMPONENTS

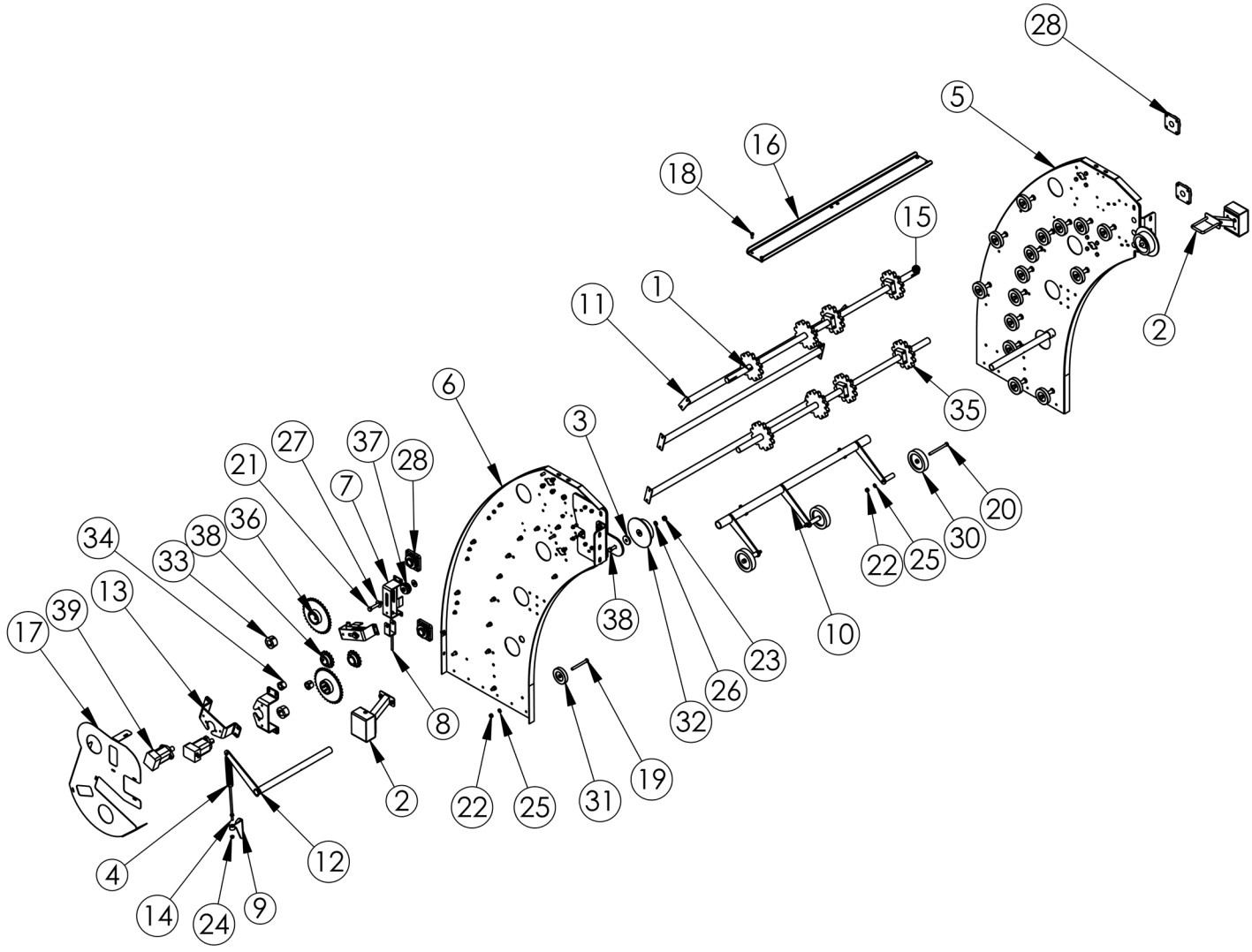


ELEVATOR ROLLER COMPONENTS

700-2-1429

ITEM NO.	PART NUMBER	DESCRIPTION	ROLLER COMPONENTS/QTY.
1	903-03212	BELTED CHAIN- INSIDE ELEVATOR 64"	1
2	903-03213	BELTED CHAIN- OUTSIDE ELEVATOR 64"	1
3	903-08425	7" CAST RUBBER WHEEL	5
4	903-08433	5" RUBBER ROLLER	56
5	903-08435	NOSE ROLLER, 6"	2
6	903-08437	6 INCH NOSE ROLLER	4
7	903-08494	SPACER- 5/8" ID X 4"	54
8	903-11067	SPROCKET - 12T 50MM PITCH 1.75 BORE	8

UPPER ELEVATOR COMPONENTS

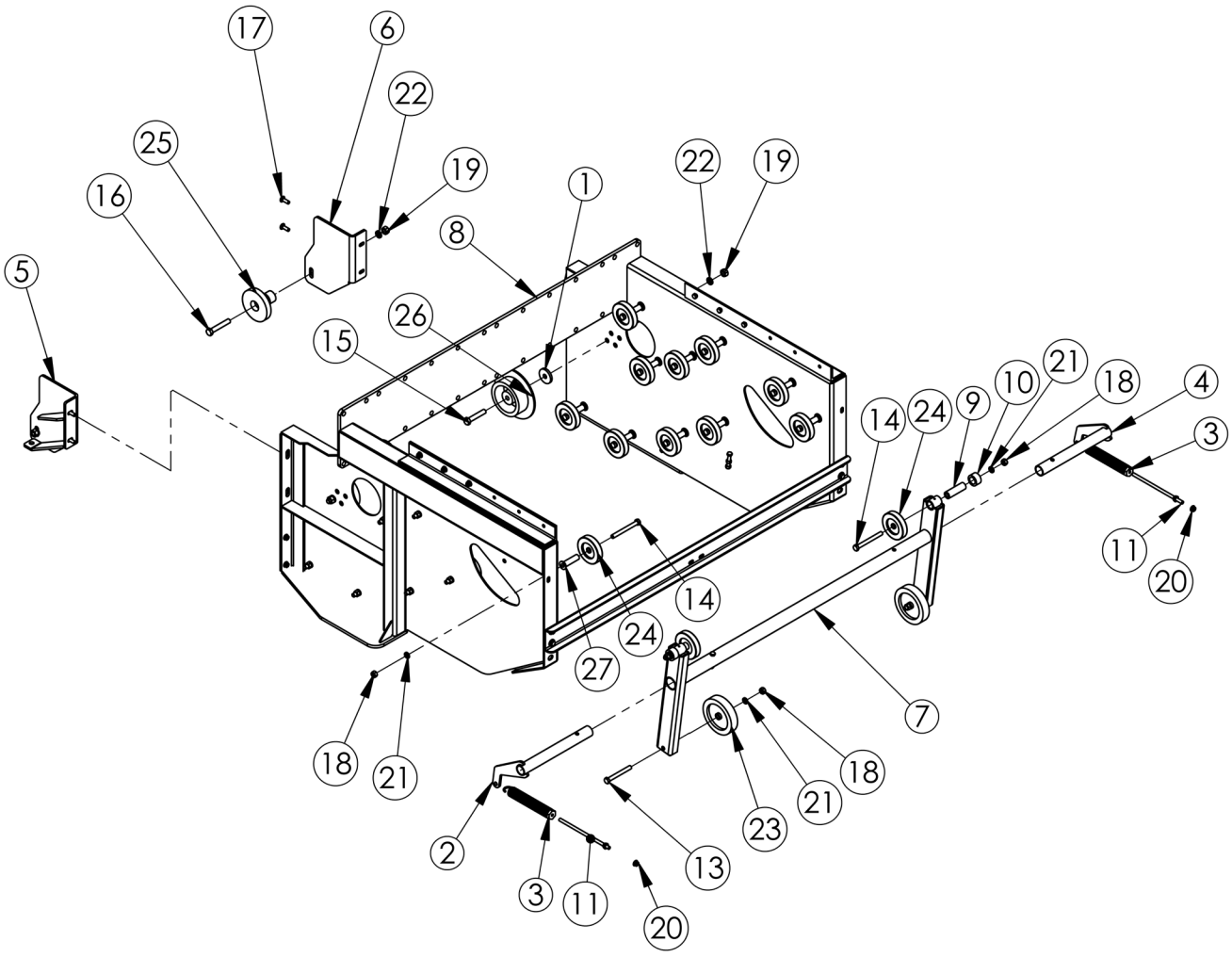


UPPER ELEVATOR COMPONENTS

700-2-1429

ITEM NO.	PART NUMBER	DESCRIPTION	UPPER ELEVATOR/QTY.
1	120-3-0192	KEY 3/8 X 3/8 X 3	8
2	500-2-1634	S SERIES LIGHT FIXTURE ASSEMBLY-RED	2
3	500-3-1463	WASHER	4
4	700-2-0550	SPRING TENSIONER ASSEMBLY	4
5	700-2-0887	SIDE PLATE WELD (LH) SHORT	1
6	700-2-0888	SIDE PLATE WELD (RH) SHORT	1
7	700-2-0946	CHAIN TIGHTENER BASE WELD	2
8	700-2-0947	CLEVIS WELD - IDLEMASTER TENSIONER	2
9	700-2-0972	SPRING TENSIONER BRACKET (LH)	2
10	700-2-1424	TENSION ARM WELD 12R45CM	1
11	700-2-1426	SPREADER BAR WELD 12R45CM	3
12	700-2-1431	TENSIONER ARM WELD- 12R45CM	2
13	700-2-1456	MOUNT PLATE WELDMENT-ELEVATOR HYD MOTOR	2
14	700-3-1255	1/2-13 TENSION ROD	4
15	700-3-3662	SHAFT- REAR BELTED CHAIN 12R45CM	2
16	700-3-3671	TOP CHANNEL-REAR ELEVATOR 12R45CM	1
17	700-3-3755	ELEVATOR CHAIN GUARD 2017	1
18	900-01223	BOLT, HEX HEAD, 1/2" X 1-1/4", GR5, ZP	28
19	900-01369	SCREW, CAP 5/8 X 6 UNC zp	56
20	900-01373	SCREW, CAP 5/8 X 7 UNC zp	3
21	900-01421	3/4-10 X 4.5 HEX BOLT	4
22	900-06013	NUT, HH, 5/8-11, ZP	61
23	900-06015	NUT, HH, 3/4-10, ZP	14
24	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	52
25	900-11015	WASHER, LOCK, 5/8, ZP	61
26	900-11017	WASHER, LOCK, 3/4, ZP	13
27	900-11038	3/4" FLAT WASHER	9
28	901-01185	BEARING - NANFS 209-28 1.75	4
29	903-03178	REAR ELEVATOR DRIVE CHAIN - 89" LENGTH (#80 CHAIN)	2
30	903-08425	7" CAST RUBBER WHEEL	5
31	903-08433	5" RUBBER ROLLER	56
32	903-08437	6 INCH NOSE ROLLER	4
33	903-08471	BUSHING TAPPER LOCK 2517 - 1.75 B	2
34	903-08474	BUSHING TAPPER LOCK 1615 - 1.25 B	2
35	903-11067	SPROCKET - 12T 50MM PITCH 1.75 BORE	8
36	903-11104	SPROCKET 80BTL34H (2517 HUB)	2
37	903-11106	3" IDLEMASTER TENSIONER	2
38	903-11107	SPROCKET - #80BTL15 (1615)	2
39	904-05256	HYD MOTOR - OMS200 W/ SENSOR	2

LOWER ELEVATOR COMPONENTS

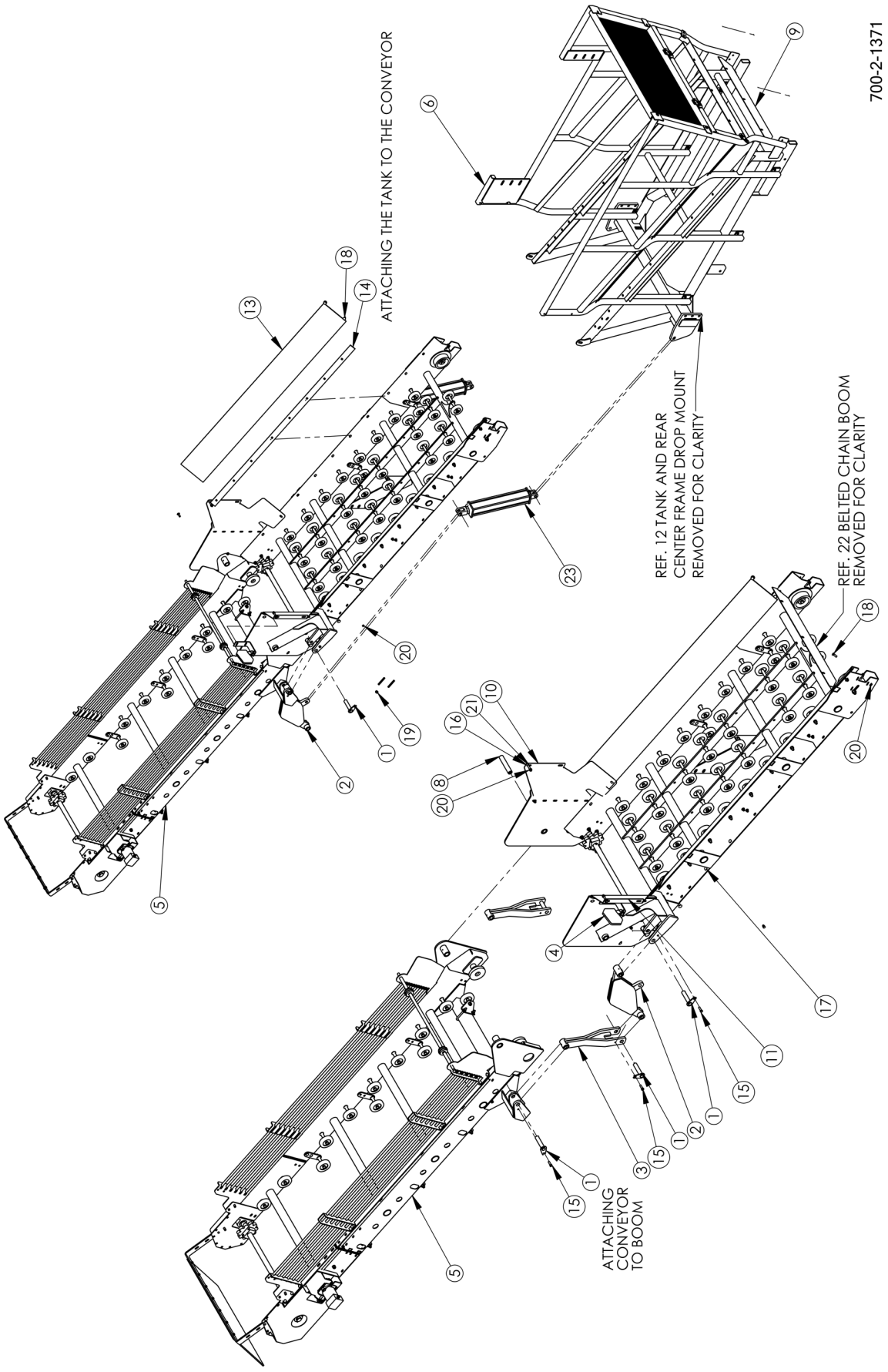


LOWER ELEVATOR COMPONENTS

700-2-1429

ITEM NO.	PART NUMBER	DESCRIPTION	LOWER ELEVATOR/QTY.
1	500-3-1463	WASHER	4
2	700-2-0381	TENSION ARM WELD (OUTSIDE)	1
3	700-2-0550	SPRING TENSIONER ASSEMBLY	4
4	700-2-0844	TENSION ARM WELD (RH OUTSIDE)	1
5	700-2-1391	OUTSIDE ROLLER MOUNT WELD LH - REAR ELEVATOR	1
6	700-2-1392	OUTSIDE ROLLER MOUNT WELD RH - REAR ELEVATOR	1
7	700-2-1425	OUTSIDE ARM WELD 12R45CM	1
8	700-2-1427	REAR ELEVATOR MOUNT WELD-12R45CM	1
9	700-3-0417	SLEEVE - OUTSIDE ARM	5
10	700-3-0547	SPACER - ELEVATOR H-WELD	2
11	700-3-1255	1/2-13 TENSION ROD	4
12	900-01341	HEX BOLT 5/8 NC X 1-1/2 NC GR5 ZP	12
13	900-01367	SCREW, CAP 5/8 X 5-½ UNC	2
14	900-01369	SCREW, CAP 5/8 X 6 UNC zp	56
15	900-01419	3/4-10 X 4 HEX BOLT	4
16	900-01421	3/4-10 X 4.5 HEX BOLT	4
17	900-01751	BOLT, CRG, 1/2-13 X 1-1/2, GR5 ZP	8
18	900-06013	NUT, HH, 5/8-11, ZP	61
19	900-06015	NUT, HH, 3/4-10, ZP	14
20	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	52
21	900-11015	WASHER, LOCK, 5/8, ZP	61
22	900-11017	WASHER, LOCK, 3/4, ZP	13
23	903-08425	7" CAST RUBBER WHEEL	5
24	903-08433	5" RUBBER ROLLER	56
25	903-08435	NOSE ROLLER, 6"	2
26	903-08437	6 INCH NOSE ROLLER	4
27	903-08494	SPACER- 5/8" ID X 4"	54

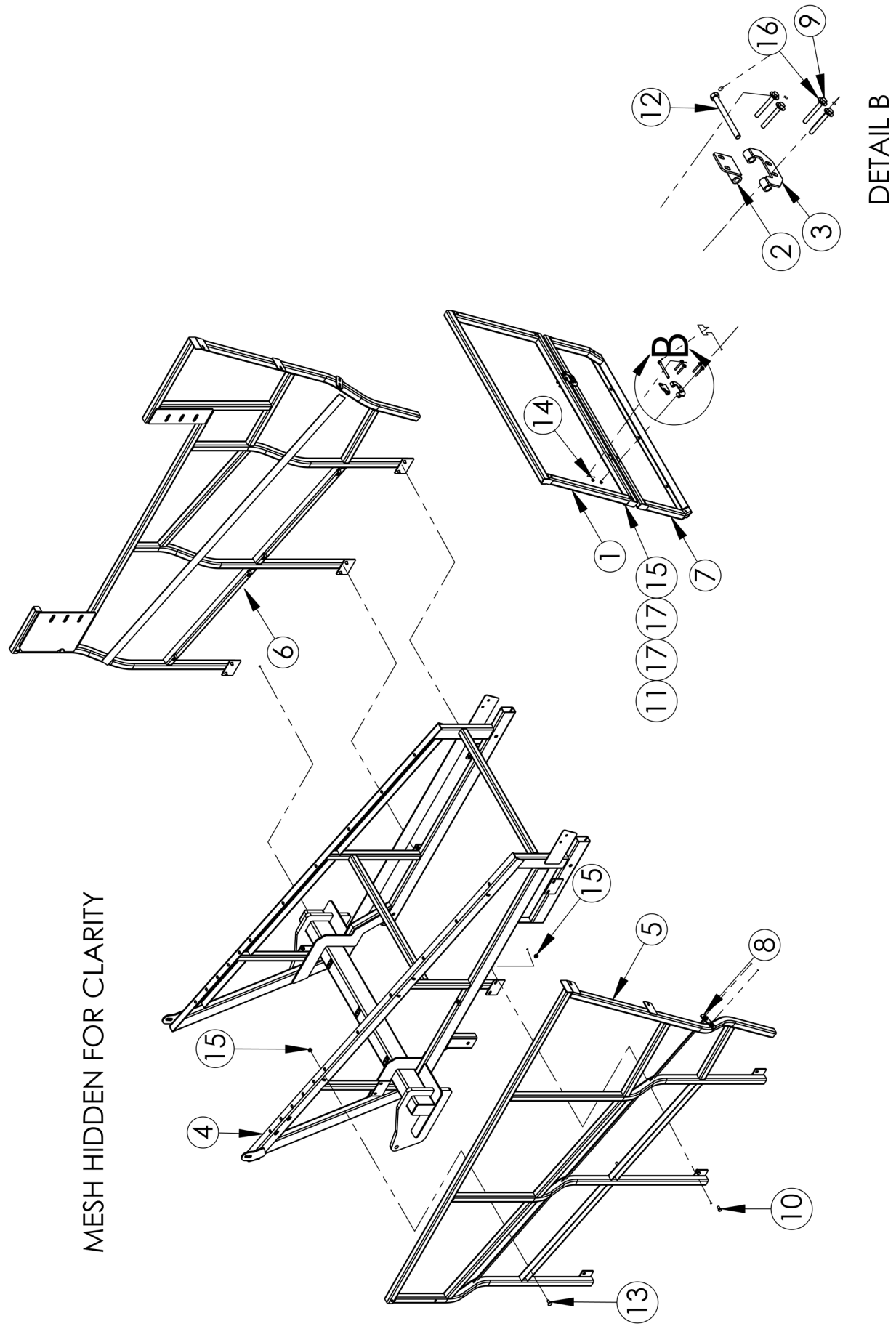
TANK COMPONENTS



TANK COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	500-2-0684	1-1/4" PIN WELDMENT	6
2	700-2-0967	PUSH ARM WELD - 12 ROW	2
3	700-2-0968	PIVOT BAR WELD - BOOM	2
4	700-2-1161	LIGHT MOUNT TANK ASSY	1
5	700-2-1367	OUTER BOOM ASSY - 12R45CM	1
6	700-2-1369	TANK HOPPER ASSY- 12R45CM	1
7	700-2-1447	TANK BOTTOM ASSY - 12R45CM	1
8	700-3-2117	PIVOT PIN - BOOM	2
9	700-3-2593	RETRACTABLE GATE FOR DOOR	1
10	700-3-2594	CORNER GUSSET - HOPPER REAR	1
11	700-3-2595	CORNER GUSSET - HOPPER FRONT	1
12	700-3-3586	TANK AND REAR CENTER FRAME DROP MOUNT	2
13	700-3-3727	UHMW FILLER SHEET	2
14	700-3-3728	SHEET - MESH HOLDER BOLT PLATE	2
15	900-01227	BOLT HEX ½ X 1 3/4 GR 5 ZP	6
16	900-01237	BOLT HEX ½-13 X 3	4
17	900-01750	CARRIAGE BOLT 1/2 NC X 1 1/4 GD 5 ZP	22
18	900-01751	BOLT, CRG, 1/2-13 X 1-1/2, GR5 ZP	54
19	900-06009	NUT HEX 1/2 UNC	4
20	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	80
21	900-11035	1/2 FLAT WASHER	44
22	903-03218	BELTED CHAIN BOOM 284 LINKS	1
23	905-21417	HYD CYL - 4 BORE X 24 SROKE	2
	700-2-1371	TANK & CONVEYOR ASSEMBLY - 12R45CM	

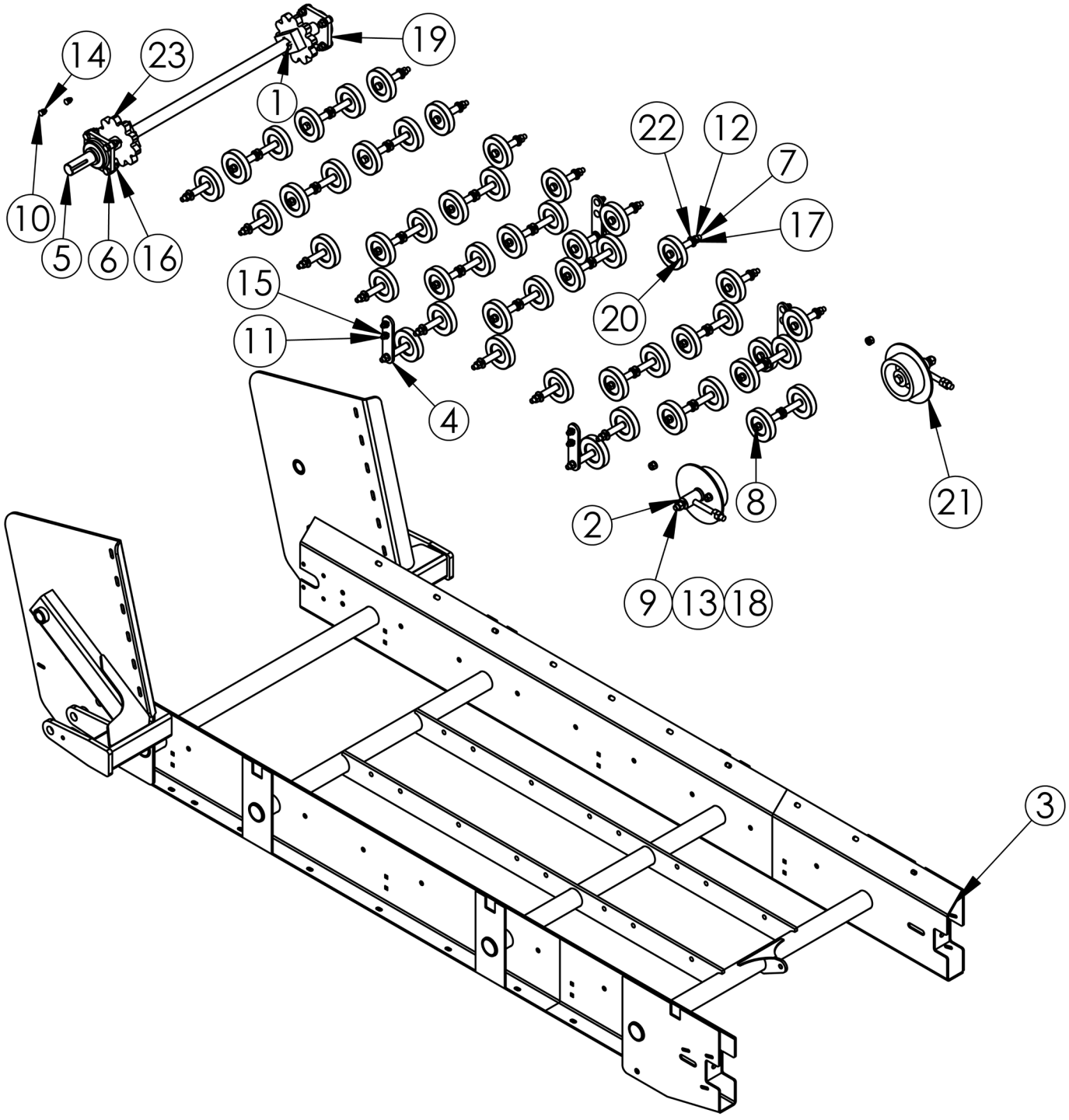
TANK FRAME COMPONENTS



TANK FRAME COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-0977	TANK GATE - UPPER SIDE	1
2	700-2-0978	DOOR HINGE WELD - TANK	2
3	700-2-0979	LOWER HINGE BRACKET WELD	2
4	700-2-1368	UNDERCARRIAGE WELD - TANK - 12R45cm	1
5	700-2-1444	TANK FRONT WELD - 12R45cm	1
6	700-2-1445	TANK BACK WELD BIG - 12 ROW (2016)	1
7	700-2-1452	HINGED GATE	1
8	700-3-3742	PLATE - BOLT ON TANK DOOR - 12R45cm	2
9	900-01125	BOLT HEX 3/8-16 X 2-3/4	8
10	900-01221	BOLT HEX 1/2-13 X 1	18
11	900-01237	BOLT HEX 1/2-13 X 3	2
12	900-01251	BOLT HEX 1/2-13 X 5-1/2, GR5 ZP	2
13	900-01750	CARRIAGE BOLT 1/2 NC X 1 1/4 GR 5 ZP	8
14	900-06139	3/8 NC FLANGED WHIZ NUT	8
15	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	28
16	900-11033	FLAT WASHER 3/8 ZP	8
17	900-11035	FLAT WASHER 1/2	3
	700-2-1369	TANK HOPPER ASSEMBLY - 12R45 cm	

TANK CONVEYOR COMPONENTS

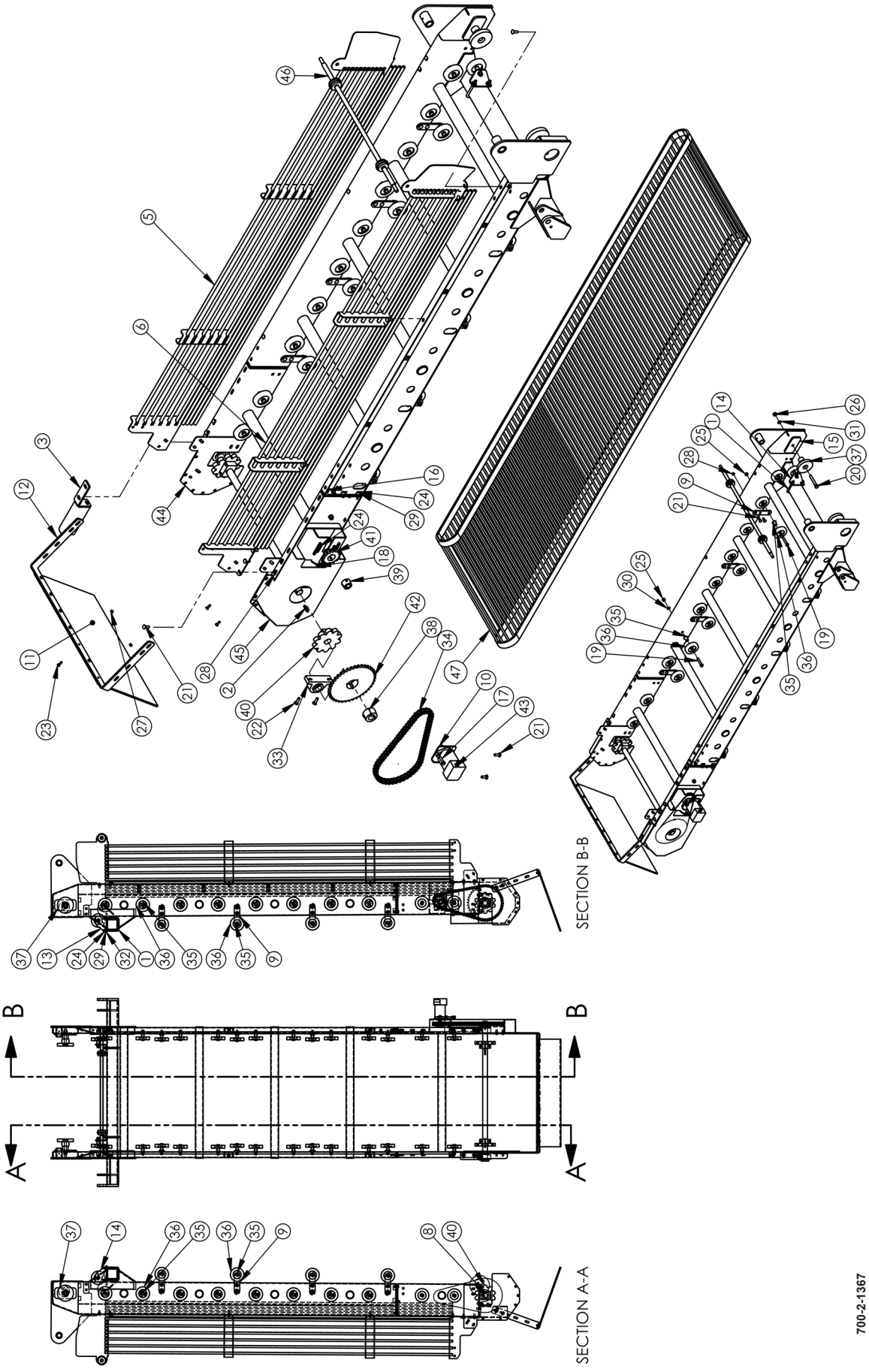


700-2-1447

TANK CONVEYOR COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	100-3-3333	KEY - 3/8 X 3/8 X 2	2
2	700-2-1070	LOWER PULLEY TENSIONER	2
3	700-2-1446	LOWER TANK WELD - 12R45cm	1
4	700-3-0230	ROLLER DROP STRAP	4
5	700-3-2768	DRIVE SHAFT - TANK	1
6	900-01345	BOLT HH 5/8-11 NC X 2 GRD 5 ZP	8
7	900-01369	SCREW, CAP 5/8 X 6 UNC zp	20
8	900-01385	BOLT, HH, 5/8 NC x 10, GR5, ZP	15
9	900-01431	HEX BOLT - 3/4 NC X 7 GR5	2
10	900-01695	CARRIAGE BOLT 3/8 NC X 1 ZP	2
11	900-01751	BOLT, CRG, 1/2-13 X 1-1/2, GR5 ZP	8
12	900-06013	NUT HEX 5/8-11 NC ZP	39
13	900-06015	NUT HEX 3/4-10 NC ZP	6
14	900-06139	NUT WHIZ 3/8-16 NC	2
15	900-06143	NUT WHIZ 1/2-13 NC GRD 5 ZP	8
16	900-06145	NUT WHIZ 5/8-11 NC	8
17	900-11015	WASHER LOCK 5/8 ZP	40
18	900-11017	WASHER LOCK 3/4 ZP	2
19	901-01185	BEARING - NANFS 209-28 1.75	2
20	903-08433	5" RUBBER ROLLER	50
21	903-08437	6” NOSE ROLLER	2
22	903-08483	SPACER - 5/8” ID X 3.625”	50
23	903-11068	SPROCKET - 10T 50MM PITCH 1.75 BORE	2
	700-2-1447	TANK BOTTOM ASSY - 12R45cm	

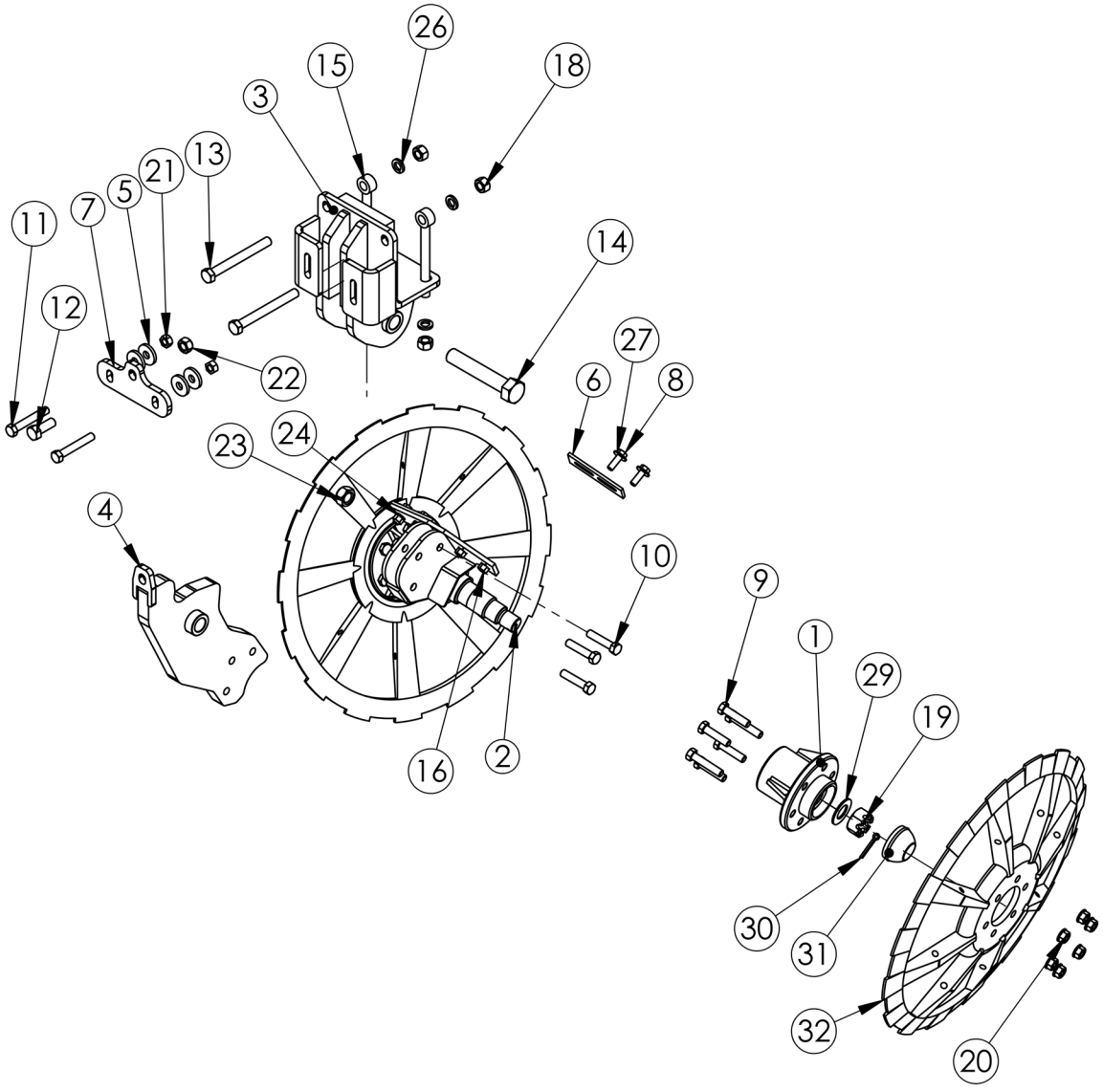
BOOM CONVEYOR COMPONENTS



BOOM CONVEYOR COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	100-3-2582	U-BOLT 1/2 X 4 X 5.5 long	2
2	100-3-3333	KEY - 3/8 X 3/8 X 2	2
3	700-2-0992	BOOM STOP WELD - RH	1
	700-2-0993	BOOM STOP WELD - LH	1
4	700-2-1366	OUTER BOOM WELD - 12 ROW	1
5	700-2-1449	SIDE RAIL RH - 12 ROW	1
6	700-2-1448	SIDE RAIL - LH 12 ROW	1
7	700-2-1069	BOOM EXTENSION - 12 ROW	1
8	700-3-0086	DRIVE SHAFT - ELEVATOR	1
9	700-3-0230	ROLLER DROP STRAP	8
10	700-3-0894	MOUNT PLATE - HYD MOTOR	1
11	700-3-1220	RUBBER FLAP - BOOM	1
12	700-3-1860	DEFLECTOR BAR - BOOM	1
13	700-3-2973	BRACKET - RUBBER WHEEL MOUNT LH	1
14	700-3-2975	BRACKET - RUBBER WHEEL MOUNT RH	1
15	700-3-2993	EXTENSION PAD	2
16	900-01225	BOLT HH 1/2-13 NC X 1-1/2 GRD 5	4
17	900-01229	BOLT HH 1/2-13 NC X 2 GRD 5	2
18	900-01353	5/8 NC X 3 HEX BOLT GRADE 5	1
19	900-01357	SCREW, CAP 5/8 X 3-½ UNC	27
20	900-01425	HEX BOLT - 3/4NC X 5-1/2 GR5 ZP	2
21	900-01751	BOLT, CRG, 1/2-13 X 1-1/2, GR5 ZP	41
22	900-01752	CARRIAGE BOLT 1/2 NC X 1 3/4 GD 5 ZP	4
23	900-03468	3/8 X 1-1/4 PLOW BOLT	7
24	900-06009	NUT HEX 1/2-13 NC	10
25	900-06013	NUT HEX 5/8-11 NC ZP	27
26	900-06015	NUT HEX 3/4-10 NC ZP	2
27	900-06139	NUT WHIZ 3/8-16 NC	7
28	900-06143	NUT WHIZ 1/2-13 NC GRD 5 ZP	45
29	900-11013	WASHER LOCK 1/2	8
30	900-11015	WASHER LOCK 5/8 ZP	27
31	900-11017	WASHER LOCK 3/4 ZP	2
32	900-11035	WASHER FLAT 1/2	4
33	901-01272	BRG 1.75 PILLOW BLOCK (ECCENTRIC LOCK COLLAR)	2
34	903-03183	BOOM DRIVE CHAIN (62")	1
35	903-08424	SPACER ROLLER STANDOFF	26
36	903-08433	5" RUBBER ROLLER	26
37	903-08435	NOSE ROLLER, 6"	2
38	903-08471	BUSHING TAPER LOCK 2517 - 1.75 B	1
39	903-08474	BUSHING TAPER LOCK 1615 - 1.25 B	1
40	903-11068	SPROCKET - 10T 50MM PITCH 1.75 BORE	2
41	903-11107	SPROCKET - #80BTL15 (1615)	1
42	903-11110	#80BTL40H SPROCKET FOR 24517 HUB	1
43	904-05256	HYD MOTOR - OMS200	1
44	700-3-3548	PLATE, BOOM SPROCKET	2
45	700-2-1386	GUARD-BOOM SPROCKET WELDMENT	1
46	700-2-1387	BOOM ROD ASSEMBLY	1
47	903-03190	BELTED CHAIN BOOM 288"	1
	700-2-1367	OUTER BOOM ASSY - 12R45cm	

ADJUSTABLE DIGGER STRUT COMPONENTS

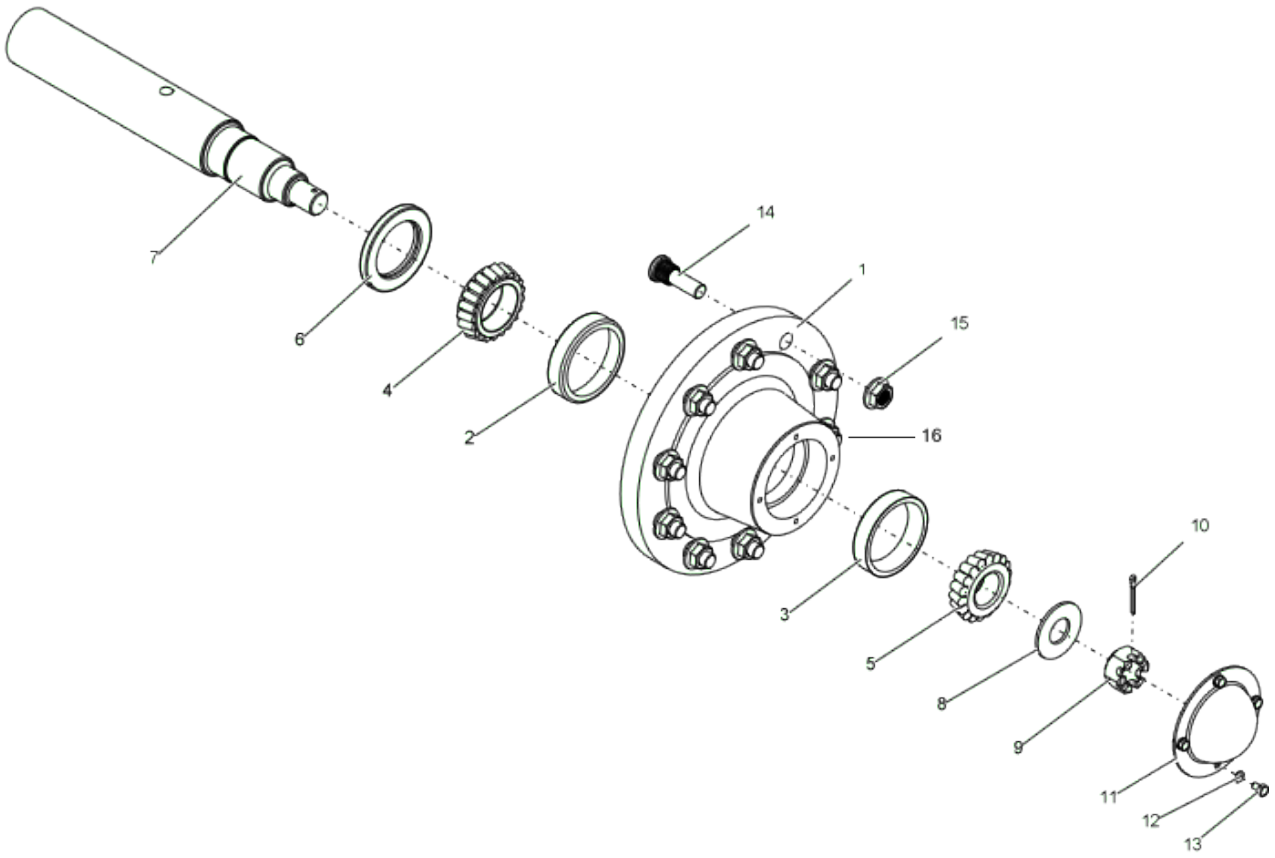


ADJUSTABLE DIGGER STRUT COMPONENTS

700-2-1395

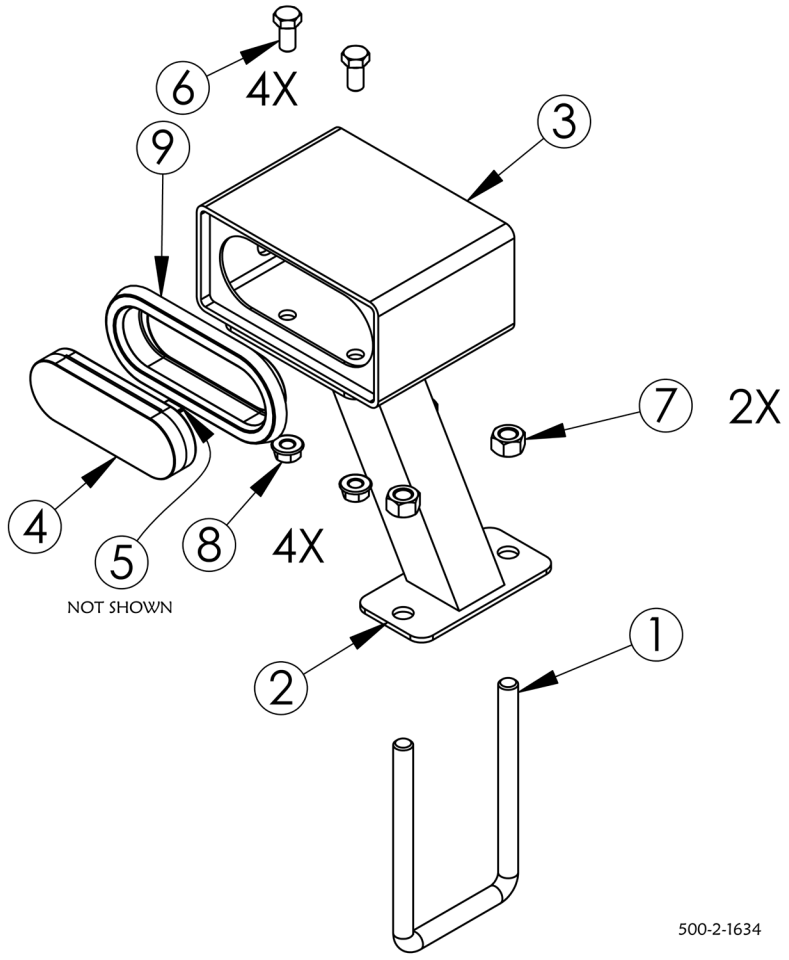
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-0410	HUB ASSY - DIGGER STRUT	2
2	700-2-1359	SPINDLE WELD - NARROW (1.25" PLATE) 2016	1
3	700-2-1397	PIVOT MOUNT WELD - ADJUSTABLE CUSHION STRUT	1
4	700-2-1420	CUSHION DIGGER STRUT SHANK WELD	1
5	700-3-0445	WASHER - STRUT	4
6	700-3-1056	SCRAPER BLADE - DIGGER STRUTS	2
7	700-3-2976	CUSHION STRUT DROP PLATE	1
8	900-01225	1/2 NC X 1-1/2 HEX BOLT GR 5	4
9	900-01347	5/8" X 2-1/2 NC HEX BOLT	8
10	900-01353	5/8 NC X 3 HEX BOLT GRADE 5	7
11	900-01361	HEX BOLT 5/8 - 11 X 4 GRADE 5	2
12	900-01403	HEX BOLT - 3/4NC X 2 GR5 ZP	1
13	900-01431	HEX BOLT - 3/4 NC X 7 GR5	2
14	900-01607	HEX BOLT 1-1/4 X 7 NC	1
15	900-03462	EYE BOLT 3/4 X 8	2
16	900-06009	NUT HEX 1/2 UNC	4
17	900-06013	NUT, HH, 5/8-11, ZP	3
18	900-06015	NUT, HH, 3/4-10, ZP	4
19	900-06068	1-3/8 - 12 SLOTTED HEX NUT	2
20	900-06145	5/8 WHIZ NUT	12
21	900-06508	NUT HEX 5/8 UNC TOP LOCK	2
22	900-06510	3/4 NUT, HEX TOP LOCK	1
23	900-06514	NUT, LOCK, 1" NC, TOP, ZP	1
24	900-11013	WASHER, LOCK 1/2	4
25	900-11015	WASHER, LOCK, 5/8, ZP	3
26	900-11017	WASHER, LOCK, 3/4, ZP	4
27	900-11035	1/2 FLAT WASHER	4
28	900-11040	WASHER, FLAT, 1	1
29	900-11143	WASHER, FLAT 1-1/4" ZP (SAE)	2
30	900-23064	COTTER PIN - 1/4 X 2	2
31	905-98054	DUST CAP- 3.12 OD X 1.69 DP VALLEY BEET	2
32	905-98055	LIFTER WHEEL - VALLEY BEET	2

WHEEL HUB COMPONENTS



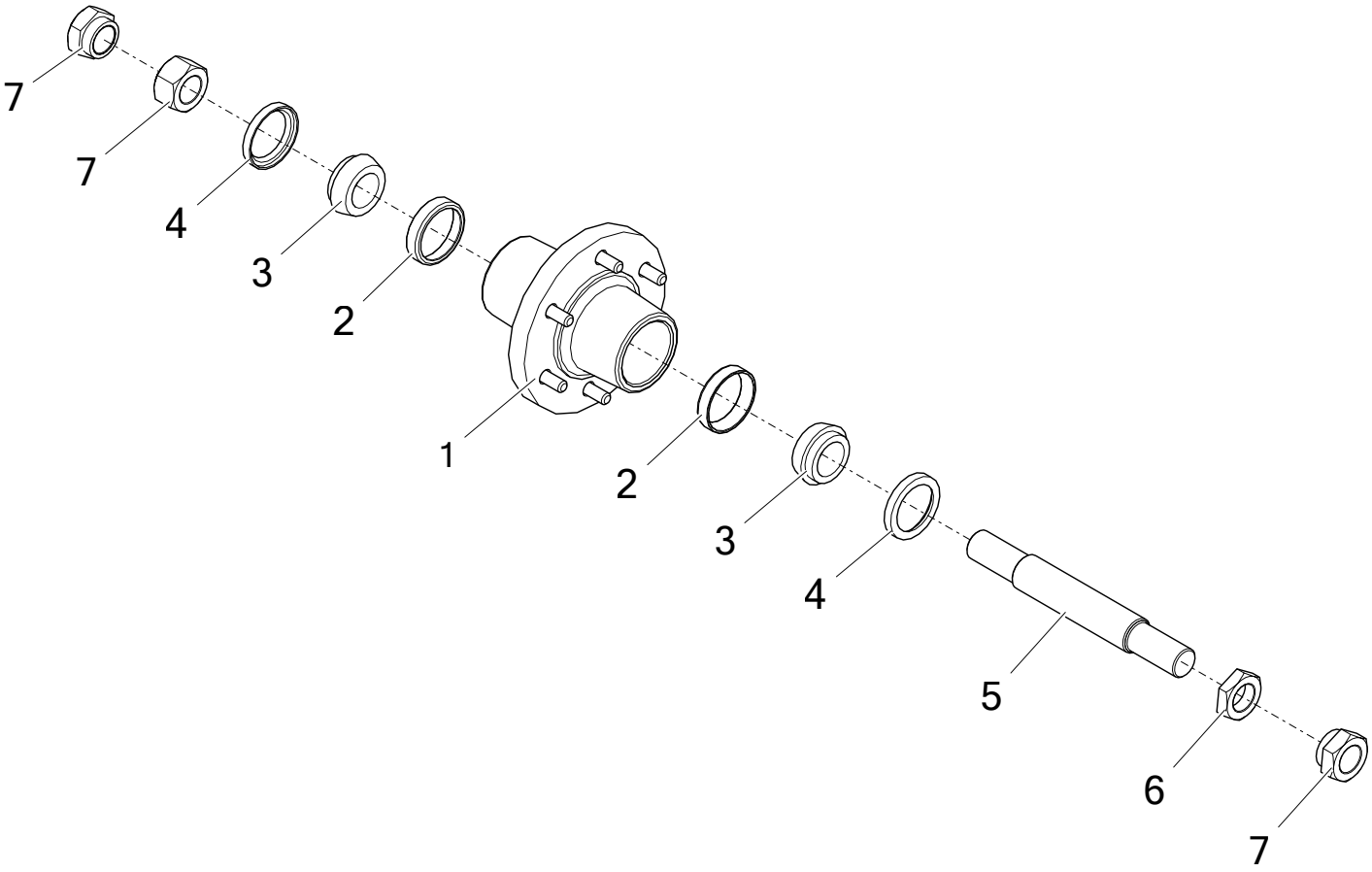
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	905-09187	HUB - 10 BOLT x 11.25 BC x 8.69 PILOT	1
2	901-01413	BEARING CUP #39520	1
3	901-01414	BEARING CUP #453A	1
4	901-01411	BEARING CONE #39585	1
5	901-01412	BEARING CONE #460	1
6	901-09240	GREASE SEAL #415088	1
7	700-3-1259	SPINDLE	1
8	900-11042	FLAT WASHER, 1-1/4”	1
9	900-06066	SLOTTED NUT, 1-1/4” NF	1
10	900-23045	COTTER PIN, 3/16” x 2”	1
11	700-3-2921	DUST CAP	1
12	900-11010	LOCK WASHER, 5/16”	4
13	900-02342	BOLT, 5/16” NC x 1/2”	4
14	905-09188	WHEEL STUD, 3/4” NF	10
15	905-09185	WHEEL NUT, 3/4” NF	10
16	905-15024	ZERK 1/4-28 UNF STRAIGHT	1
-	905-09160	HUB W/ CUPS & STUDS	-
-	700-2-1021	HUB W/ CUPS, BEARINGS, STUDS, & SEAL	-
-	700-2-0553	HUB & SPINDLE (COMPLETE KIT)	-

LIGHT KIT COMPONENTS



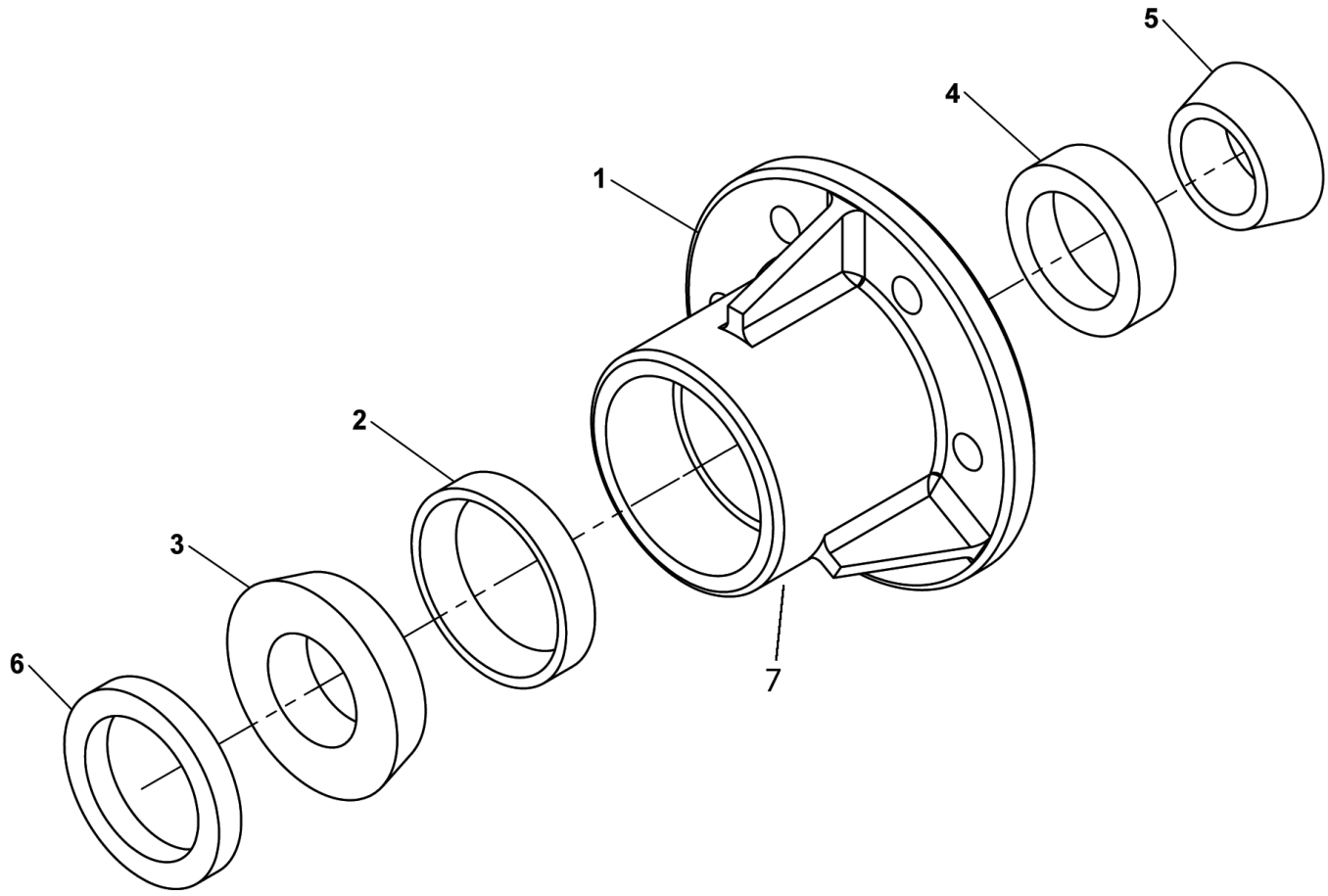
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	200-3-0017	U-BOLT 5/8 X 4 X 7.5 X 1.5	1
2	500-2-1535	S SERIES LIGHT FIXTURE BASE WELDMENT	1
3	500-2-1632	S-SERIES LIGHT CASE WELD	1
4	904-01341	RED LIGHT	1
5	507-2-0564	3-PIN TO 2-PIN WEATHER PACK PIGTAIL-YELLOW LIGHT	2
6	900-01221	BOLT HEX ½" X 1"	4
7	900-06013	NUT, HH, 5/8-11, ZP	2
8	900-06143	1/2 NC SPIRALOCK NUT ZP GR5	4
9	904-01343	RUBBER GROMMET	1
	500-2-1634	S SERIES LIGHT FIXTURE ASSEMBLY-RED	

STABILIZER WHEEL HUB COMPONENTS



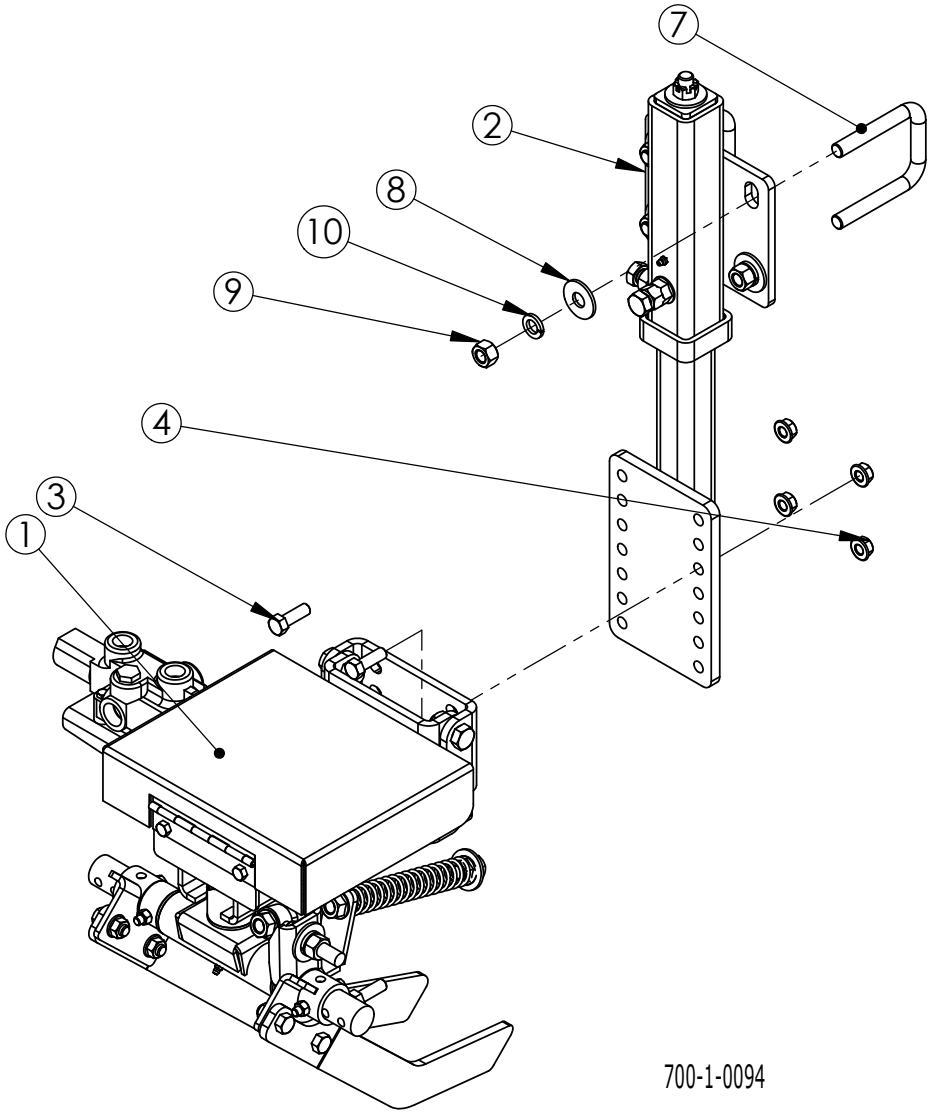
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	905-09082	HUB W/ CUPS	1
2	901-01148	BEARING CUP	2
3	901-01149	BEARING CONE	2
4	901-09127	SEAL	2
5	200-3-1240	FORK SPINDLE	1
6	200-3-2726	SHORT NUT, 1-1/4 NC	1
7	900-06024	NUT, 1-1/4 NC	3
-	200-2-0928	HUB & SPINDLE (COMPLETE KIT)	-

DIGGER STRUT HUB COMPONENTS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-3-0275	HUB - MACHINED (DIGGER)	1
2	901-01319	BEARING CUP #362A	1
3	901-01320	BEARING CONE #368A	1
4	901-01321	BEARING CUP #26823	1
5	901-01322	BEARING CONE #26884	1
6	901-09214	SEAL - NATIONAL #415302	1
7	905-15001	1/8 PTF STR GRS FTNG	1
-	700-2-0410	HUB ASSY - DIGGER STRUT	

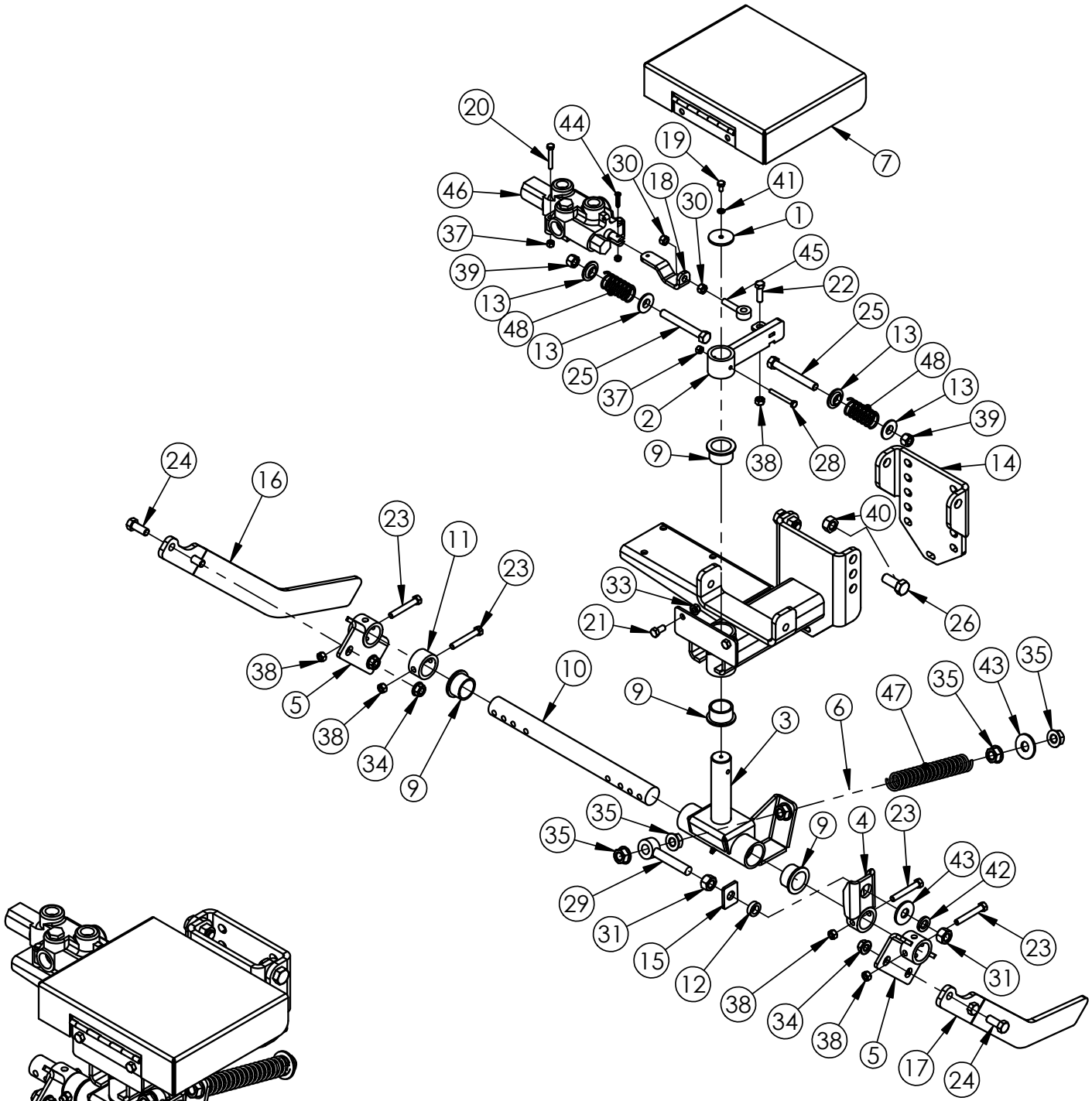
ROWFINDER ASSEMBLY



ROWFINDER ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-1044	ROWFINDER ASSEMBLY	1
2	700-2-1037	ADJUSTABLE MOUTING ASSEBLY	1
3	900-01225	BOLT HH 1/2-13 NC X 1-1/2 GRD 5	4
4	900-06143	NUT WHIZ 1/2-13 NC GRD 5 ZP	4
5	905-21441	CYLINDER, 3-1/2 X 8 (A350080ABAAA07B)	1
6	700-1-0023	ROWFINDER - HYDRAULIC COMPONENTS	1
7	900-35026	U-BOLT 5/8NC x 3 INSIDE x 4-1/2 LONG x 1-1/2 THDS	2
8	900-11037	WASHER FLAT 5/8	4
9	900-06013	NUT HEX 5/8-11 NC ZP	4
10	900-11015	WASHER LOCK 5/8 ZP	4
	700-1-0094	HYD ROW FINDER (w/CYL & HOSES)	

ROWFINDER COMPONENTS

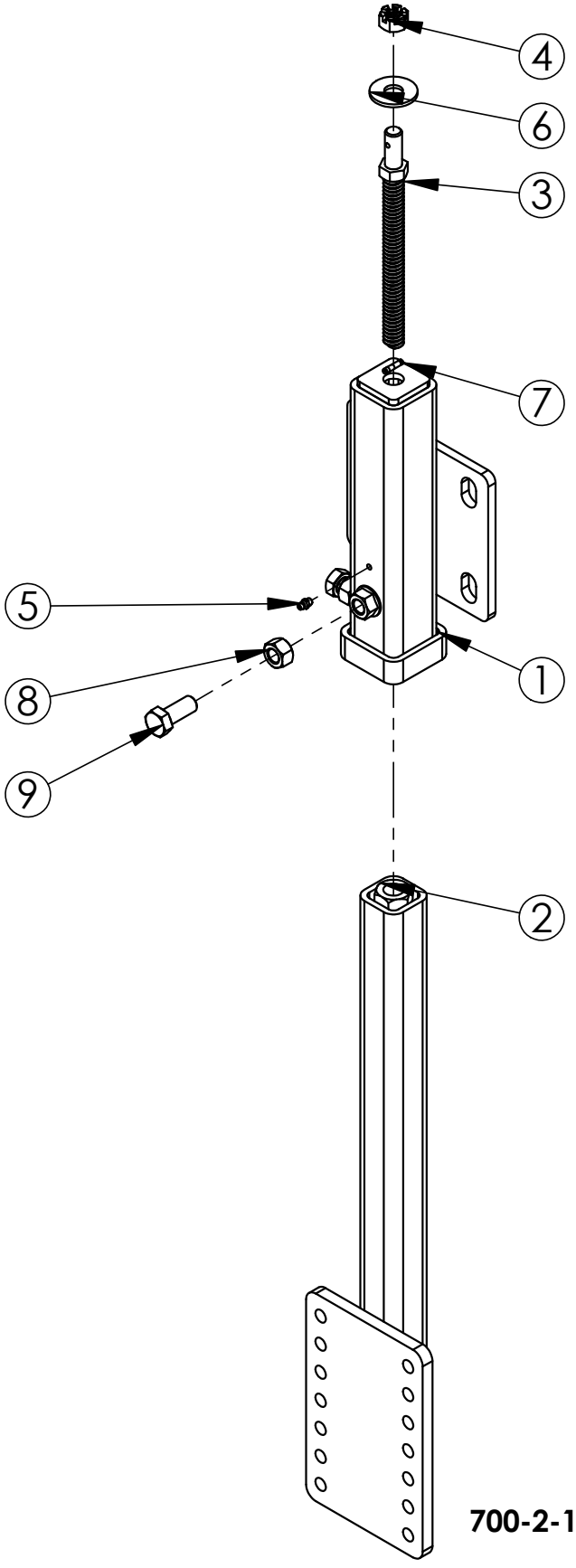


700-2-1044

ROWFINDER COMPONENTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	500-3-2705	PLATE - DROP PLATE	1
2	700-2-0850	STEERING PADDLE WELD	1
3	700-2-0851	PIVOT WELD	1
4	700-2-0853	SPRING TENSIONER WELD	1
5	700-2-0854	FINGER MOUNT WELD	2
6	700-2-0856	THREADED ROD - ROW FINDER	1
7	700-2-0862	TOP COVER - ROW FINDER (WIDE)	1
8	700-2-1043	PIVOT MOUNT WELD	1
9	700-3-0383	OILITE BUSHING - FF-1618-1	4
10	700-3-2170	SHAFT HORIZONTAL PIVOT	1
11	700-3-2182	TUBE-DOWN PRESURE BAR (PAINTED)	1
12	700-3-2183	BUSHING - DOWN PRESSURE SPRING	1
13	700-3-2185	COMPRESSION SPRING RETAINER	4
14	700-3-2186	INNER PIVOT BRACKET - ROW FINDER	1
15	700-3-2187	INSIDE WASHER - EYEBOLT	1
16	700-3-2188	FINGER - LH	1
17	700-3-2189	FINGER - RH	1
18	700-3-2663	ADJUSTMENT PLATE - ROWFINDER (3/16" HOLE)	1
19	900-01001	.25 UNC X 1/2 BOLT	1
20	900-01015	1/4 NC X 1-3/4 HEX BOLT	3
21	900-01105	BOLT HH 3/8-16 NC X 3/4	2
22	900-01111	BOLT HH 3/8-16 NC X 1-1/4 GRD 5	1
23	900-01121	3/8-16 NC X 3 HEX BOLT SS	4
24	900-01223	BOLT HH 1/2-13 NC X 1-1/4 GRD 5 ZP	4
25	900-01245	BOLT HH 1/2-13 NC X 4 GRD 5 ZP	2
26	900-01341	BOLT HH 5/8-11 NC X 1-1/2 GRD 5 ZP	2
27	900-03076	3/4-10 X 4.5 FULL THREAD HEX BOLT	1
28	900-03112	1/4-20 X 2 1/4 HEX HEAD GR8ZP	1
29	900-03465	EYE BOLT 5/8 X 3	1
30	900-06006	NUT HEX 3/8-24 NF ZP	2
31	900-06013	NUT HEX 5/8-11 NC ZP	2
32	900-06015	NUT HEX 3/4-10 NC ZP	1
33	900-06139	NUT WHIZ 3/8-16 NC	2
34	900-06143	NUT WHIZ 1/2-13 NC GRD 5 ZP	4
35	900-06145	NUT WHIZ 5/8-11 NC	4
36	900-06446	NUT, NYLOCK, #10-24	1
37	900-06496	1/4-20 TOP LOCK HEX NUT	4
38	900-06500	NUT HEX 3/8 TOP LOCK	5
39	900-06504	NUT, LOCK, TOP, 1/2-13, GR C ZP	2
40	900-06508	NUT HEX 5/8 UNC TOP LOCK	2
41	900-11009	¼ SPRING LOCK WASHER ZP	1
42	900-11015	WASHER LOCK 5/8 ZP	1
43	900-11037	WASHER FLAT 5/8	2
44	900-19083	MACHINE SCREW, #10-24 x 1", PAN HEAD PHILIPS	1
45	903-05044	EYEBOLT - ROD END	1
46	905-03258	PRINCE - 4 WAY VALVE	1
47	905-14007	SPRING - 1.245 OD X .148 WIRE X .4029 P X 7.75 LONG	1
48	905-14022	SPRING - 1.25 OD X .105 WIRE X 4.00 LONG X 12.5 COILS	2
49	905-15024	ZERK 1/4-28 UNF STRAIGHT	2
	700-2-1044	ROWFINDER ASSEMBLY	

ROWFINDER ADJUSTABLE MOUNT

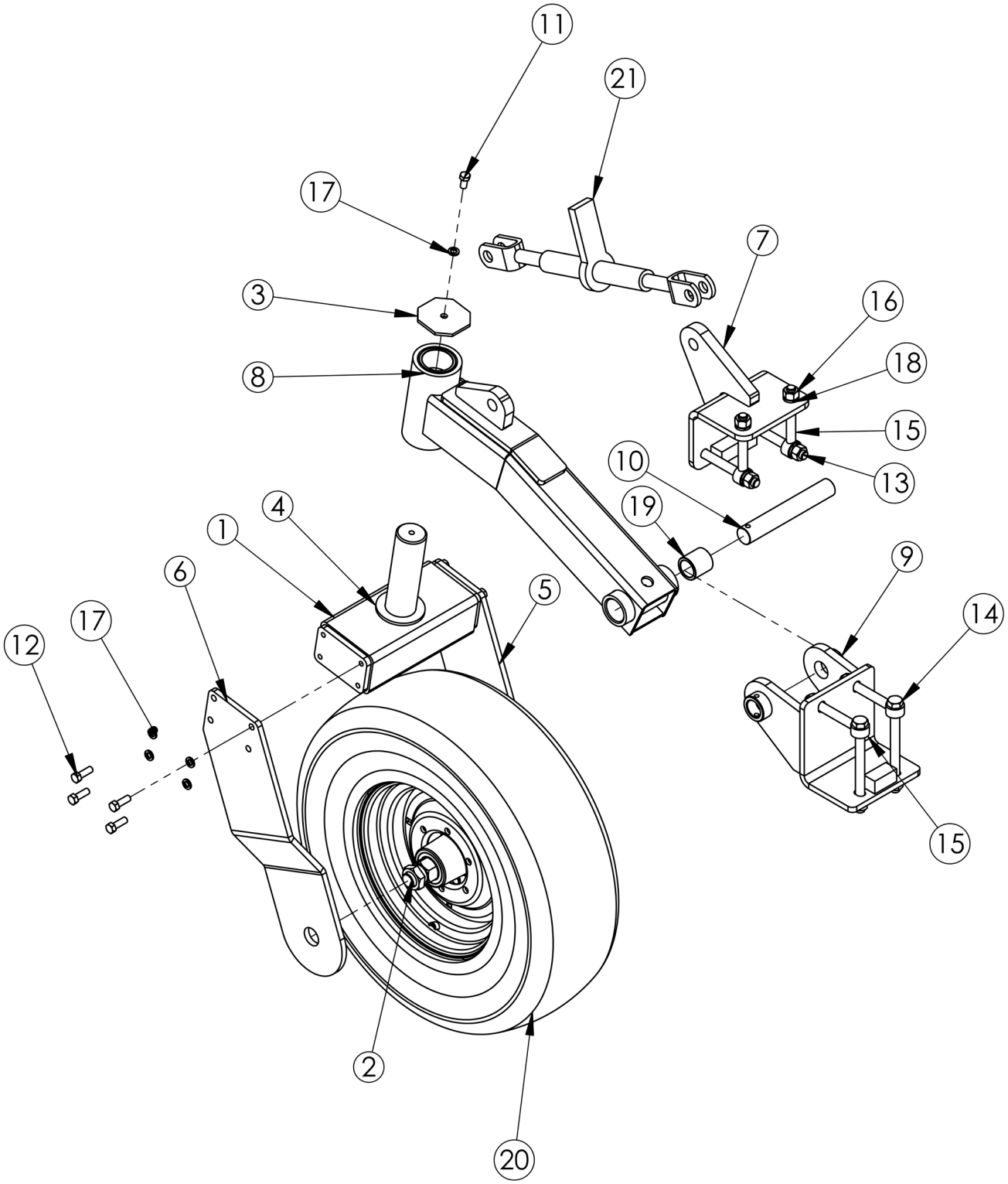


700-2-1037

ROWFINDER ADJUSTABLE MOUNT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700-2-1035	POWER SCREW CHAMBER WELD	1
2	700-2-1036	ADJUSTABLE ARM WELD	1
3	200-2-1945	MAST ADJUSTABLE SCREW WELD - ZP	1
4	900-06394	CASTLE NUT 5/8"	1
5	905-15024	ZERK 1/4-28 UNF STRAIGHT	1
6	900-11037	WASHER FLAT 5/8	1
7	900-29470	PIN 3/16 X 7/8 SHEAR PROOF DL	1
8	900-06013	NUT HEX 5/8-11 NC ZP	2
9	900-01341	BOLT HH 5/8-11 NC X 1-1/2 GRD 5 ZP	2
	700-2-1037	ADJUSTABLE MOUTING ASSEBLY	

STABILIZER WHEEL COMPONENTS

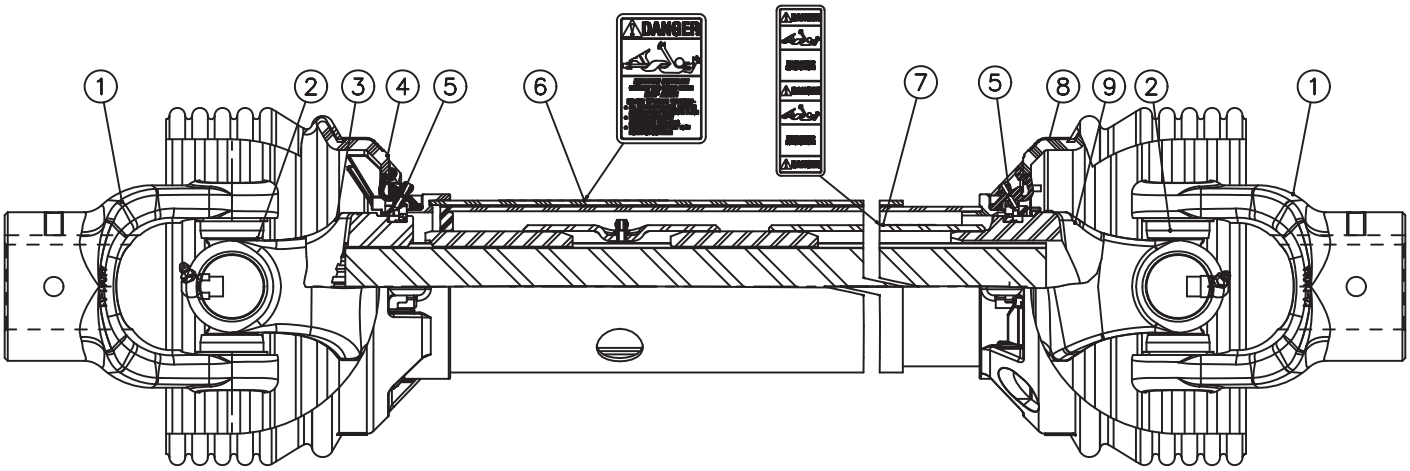


STABILIZER WHEEL COMPONENTS

700-2-1488

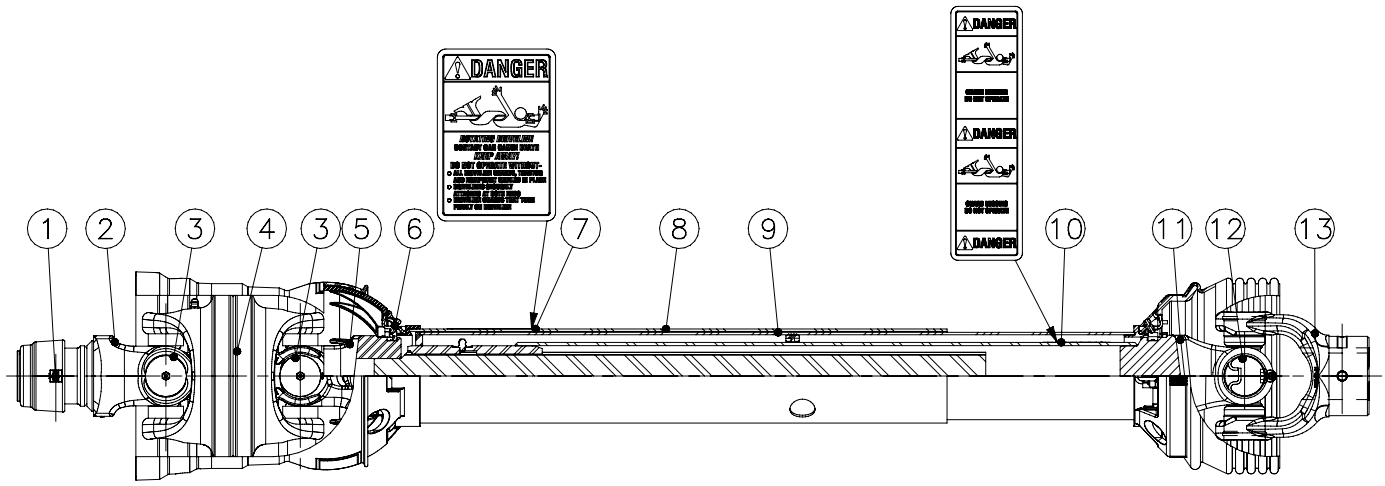
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	200-2-0689	CASTOR PIVOT SHAFT WELD	1
2	200-2-0928	HUB & SPINDLE ASSEMBLY	1
3	200-3-1219	PLATE, CASTER	1
4	200-3-1233	THRUST BEARING	1
5	200-3-2621	PLATE, SIDE (LH)	1
6	200-3-2622	PLATE, SIDE (RH)	1
7	700-2-0984	UPPER CYLINDER MOUNT - STABILIZER	1
8	700-2-1486	STABILIZER WHEEL ARM WELD 12R45	1
9	700-2-1487	FRONT STABILIZER MOUNT WELD 12R45	1
10	700-3-3816	PIN, PIVOT - STABILIZER 12R45	1
11	900-01221	BOLT HEX ½" X 1"	1
12	900-01225	1/2 NC X 1-1/2 HEX BOLT GR 5	8
13	900-01429	HEX BOLT - 3/4NC X 6-1/2 GR5 ZP	2
14	900-01437	BOLT, HH, 3/4-10 X 8-1/2, GR5 ZP	2
15	900-03463	BOLT, EYE, 3/4" NC X 6"	4
16	900-06015	NUT, HH, 3/4-10, ZP	8
17	900-11013	WASHER, LOCK 1/2	9
18	900-11017	WASHER, LOCK, 3/4, ZP	8
19	901-01146	BRONZE BUSHING 1.5 ID X 2.0 OD X 2 LONG	2
20	905-09177	WHEEL/TIRE ASSEMBLY - 9.50 X 15.00	1
21	905-23014	RATCHET JACK HEAVY DUTY	1

WING DRIVE SHAFT COMPONENTS *(44 Series)*



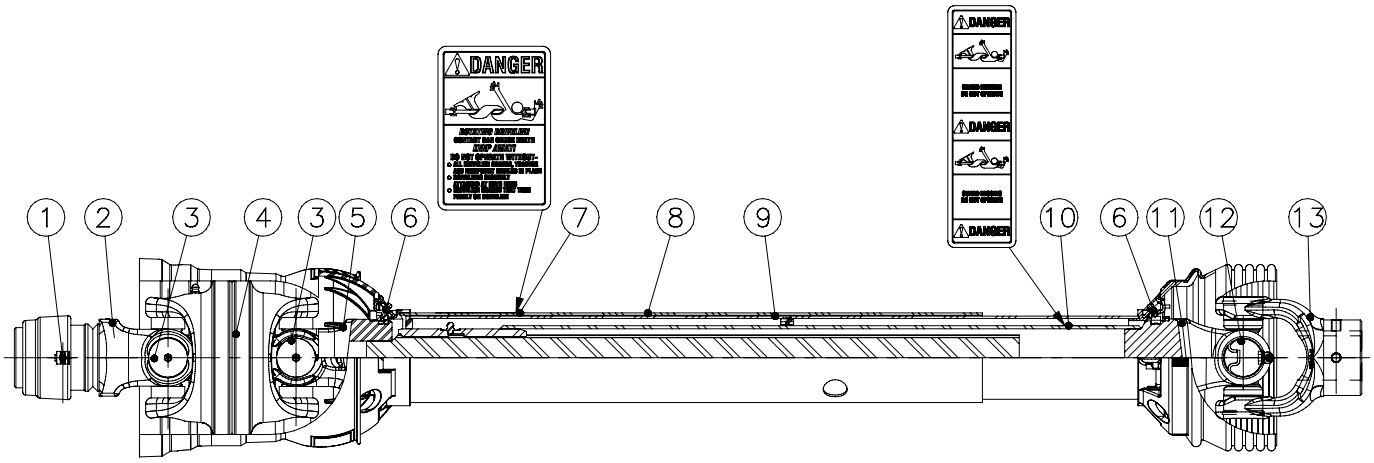
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	903-18473	YOKE	2
2	903-17525	44E CROSS KIT	2
3	903-18469	YOKE & SHAFT (1.69-20 SPLINE)	1
4	903-18470	OUTER GUARD	1
5	903-18248	GUARD REPAIR KIT	2
6	903-17455	SAFETY SIGN	1
7	903-17456	SAFETY SIGN	1
8	903-18471	INNER GUARD	1
9	903-18472	YOKE, TUBE, & SLIP SLEEVE	1
-	903-18425	WING DRIVE SHAFT, COMPLETE	-

1-3/8” PTO WWCV DRIVE SHAFT COMPONENTS *(55 Series)*



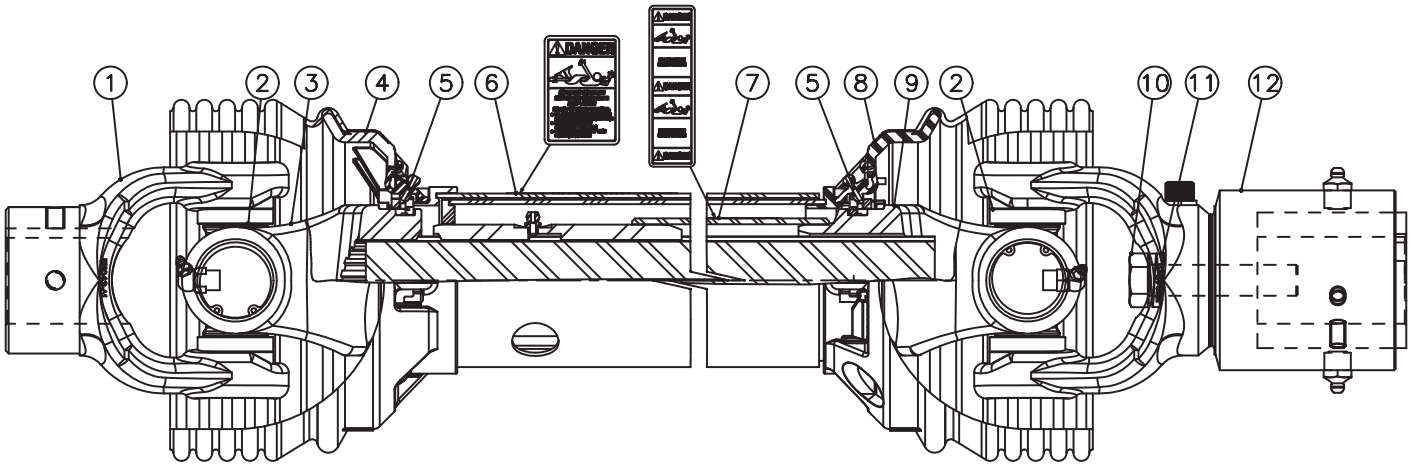
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	903-18106	SSL / AUTO-LOK REPAIR KIT	1
2	903-18334	WWCV AUTO-LOK YOKE ASSEMBLY	1
3	903-18328	AB8/AW24/CAT 6 80° EBL CROSS KIT	2
4	903-18329	WWCV CENTER HOUSING	1
5	903-18415	WWCV YOKE & SHAFT (1.69-20)	1
6	903-18248	GUARD REPAIR KIT	1
7	903-17455	SAFETY SIGN	1
8	903-18361	OUTER GUARD	1
9	903-18362	INNER GUARD	1
10	903-17456	SAFETY SIGN	1
11	903-18363	YOKE, TUBE & SLIP SLEEVE	1
12	903-17239	55E CROSS KIT	1
13	903-18364	YOKE	1
-	903-18411	WWCV PTO DRIVE SHAFT, 1-3/8”, COMPLETE	-

1-3/4” PTO WWCV DRIVE SHAFT COMPONENTS *(55 Series)*



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	903-17772	SSL / AUTO-LOK REPAIR KIT	1
2	903-18327	WWCV AUOT-LOK YOKE ASSEMBLY	1
3	903-18328	AB8/AW24/CAT 6 80° EBL CROSS & BEARING KIT	2
4	903-18329	WWCV CENTER HOUSING	1
5	903-18418	WWCV YOKE & SHAFT (1.69-20)	1
6	903-18248	GUARD REPAIR KIT	1
7	903-17455	SAFETY SIGN	1
8	903-18371	OUTER GUARD	1
9	903-18372	INNER GUARD	1
10	903-17456	SAFETY SIGN	1
11	903-18373	YOKE, TUBE & SLIP SLEEVE	1
12	903-17239	55E CROSS & BEARING KIT	1
13	903-18364	YOKE	1
-	903-18412	WWCV PTO DRIVE SHAFT, 1-3/4”, COMPLETE	-

HITCH JUMP DRIVE SHAFT COMPONENTS *(55 Series)*



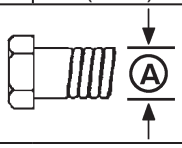
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	903-18364	YOKE	1
2	903-17239	55E CROSS KIT	2
3	903-18461	YOKE & SHAFT (1.69-20 SPLINE)	1
4	903-18462	OUTER GUARD	1
5	903-18248	GUARD REPAIR KIT	2
6	903-17455	SAFETY SIGN	1
7	903-17456	SAFETY SIGN	1
8	903-18463	INNER GUARD	1
9	903-18464	YOKE, TUBE, & SLIP SLEEVE	1
10	900-03117	BOLT, 5/8 NC x 3	1
11	900-11015	LOCK WASHER, 5/8	1
12	903-18382	OVERRUNNING CLUTCH ASM	1
-	903-18424	HITCH JUMP DRIVE SHAFT, COMPLETE	-

BOLT TORQUE CHART

SAE Series Torque Chart

Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application. Fasteners must always be replaced with the same grade as specified in the manual parts list.

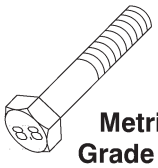
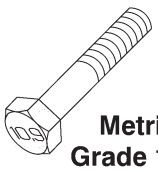
Make sure fastener threads are clean and you properly start thread engagement.

SAE Bolt Head Identification		 SAE Grade 2 (No Dashes)		 SAE Grade 5 (3 Radial Dashes)		 SAE Grade 8 (6 Radial Dashes)	
Ⓐ Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		ft./lb.	(Nm)	ft./lb.	(Nm)	ft./lb.	(Nm)
1/4”	7/16’	6	(8)	10	(13)	14	(18)
5/16’	1/2”	12	(17)	19	(26)	27	(37)
3/8”	9/16”	23	(31)	35	(47)	49	(67)
7/16”	5/8”	36	(48)	55	(75)	78	(106)
1/2”	3/4”	55	(75)	85	(115)	120	(163)
9/16”	13/16”	78	(106)	121	(164)	171	(232)
5/8”	15/16”	110	(149)	170	(230)	240	(325)
3/4”	1-1/8”	192	(261)	297	(403)	420	(569)
7/8”	1-5/16”	306	(416)	474	(642)	669	(907)
1”	1-1/2”	350	(475)	680	(925)	1020	(1383)
1-1/8”	1-11/16”	450	(610)	885	(1200)	 Bolt Diameter	
1-1/4”	1-7/8”	600	(815)	1255	(1700)		
1-3/8”	2-1/16”	675	(915)	1620	(2200)		
1-1/2”	2-1/4’	920	(1250)	2200	(2900)		

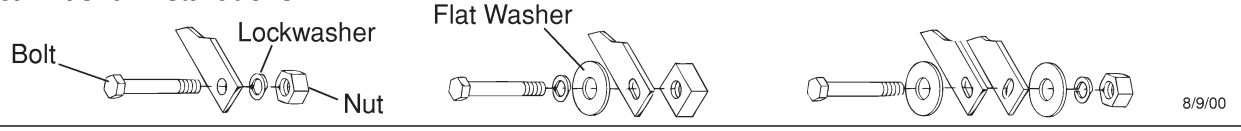
Metric Series Torque Chart

Use only metric tools on metric hardware. Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application. Fasteners must always be replaced with the same grade.

Make sure fastener threads are clean and you properly start thread engagement.

Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	COARSE THREAD				FINE THREAD				Ⓐ Diameter & Thread Pitch (Millimeters)	Metric Bolt Head Identification
		MARKING ON HEAD				MARKING ON HEAD					
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9			
		Nm	ft./lb.	Nm	ft./lb.	Nm	ft./lb.	Nm	ft./lb.		
6x1.0	10 mm	8	6	11	8	8	6	11	8	6x1.0	 Metric Grade 8.8
8x1.25	13 mm	20	15	27	20	21	16	29	22	8x1.0	
10x1.5	16 mm	39	29	54	40	41	30	57	42	10x1.25	
12x1.75	18 mm	68	50	94	70	75	55	103	76	12x1.25	
14x2.0	21 mm	109	80	151	111	118	87	163	120	14x1.5	
16x2.0	24 mm	169	125	234	173	181	133	250	184	16x1.5	
18x2.5	27 mm	234	172	323	239	263	194	363	268	18x1.5	
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20x1.5	 Metric Grade 10.9
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5	
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0	
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0	

Typical Washer Installations



ABBREVIATIONS

AG ..... Agriculture
ASAE ..... American Socity of Agricutural Engineers
ATF ..... Automatic Transmission Fluid
BSPP ..... British Standard Pipe Parallel
BSPTM ..... British Standard Pipe Tapered Male
CV ..... Constant Velocity
CCW ..... Counter-Clockwise
CW ..... Clockwise
DIA ..... Diameter
EP ..... Extreme Pressure
F ..... Female
FB ..... Female O-Ring Boss
FJ ..... Female Boss
FJX ..... Female Swivel JIC
FP ..... Female Pipe
ft./lb ..... Foot Pound
GA ..... Gauge
GR (5, etc.) ..... Grade (5, etc.)
HHCS ..... Hex Head Cap Screw
HT ..... Heat Treated
in ..... Inch
JIC ..... Joint Industry Counicl 37° Flare
kg ..... Kilogram
km/h ..... Kilometers Per Hour
lb ..... Pound
LH ..... Left Hand
LT ..... Left
in ..... Inches
m ..... Meter
mm ..... Millimeter
M ..... Male
MB ..... Male O-Ring Boss
MJ ..... Male JIC
MJX ..... Male Swivel JIC
MP ..... Male Pipe
MPa ..... Mega Pascal
MPH ..... Miles Per Hour
N ..... Newton
NC ..... National Course
NF ..... National Fine
NPSM ..... National Pipe Straight Mechanical
NPT ..... National Pipe Tapered
NPT SWF ..... National Pipe Tapered Swivel Female
Nm ..... Newton Meter
OSHA ... Occupational Safety and Health Administration
P ..... Pitch
PBY ..... Power Beyond
psi ..... Pounds per Square Inch
PTO ..... Power Take Off
QD ..... Quick Disconnect
RH ..... Right Hand
ROPS ..... Roll Over Protection Structure
RPM ..... Revolutions Per Minute
RT ..... Right
SAE ..... Society of Automotive Engineers
SMV ..... Slow Moving Vehicle
UNC ..... Unified Coarse
UNF ..... Unified Fine
UNS ..... Unified Special
ZP ..... Zinc Plate

INDEX

WARRANTY

Please Enter Information Below and Save For Future Reference.

Date Purchased: _____ From (Dealer): _____

Model Number:_____ Serial Number: _____

ALLOWAY STANDARD, d/b/a ALLOW AY, warrants this product to be free from defect in material and workmanship for TWELVE (12) MONTHS COMMENCING ON THE DATE OF DELIVERY OF THE PRODUCT TO THE ORIGINAL PURCHASER.

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of ALLOWAY, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not apply in the event that the product has been materially modified or repaired by someone other than ALLOWAY, a ALLOWAY authorized dealer or distributor, and/or a ALLOWAY authorized service center; This Warranty does not cover normal wear or tear, or normal maintenance items. This Warranty also does not cover repairs made with parts other than those obtainable through ALLOWAY.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

ALLOWAY makes no warranty, express or implied, with respect to tires or other parts or accessories not manufactured by ALLOWAY. Their respective manufacturers, if any, provide warranties for these items, separately. ALLOWAY'S' obligation under this Warranty is limited to, at ALLOWAYS' option, the repair or replacement, free of charge, of the product if ALLOWAY, in its sole discretion, deems it to be defective or in noncompliance with this Warranty. The product must be returned to ALLOWAY with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. ALLOWAY shall complete such repair or replacement within a reasonable time after ALLOWAY receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. ALLOWAY MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND ALLOWAY SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

ALLOWAY shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the generality of the foregoing. Alloway specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss Incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply, which may directly affect ALLOWAYS' ability to obtain materials or manufacture replacement parts.

No agent, representative, dealer, distributor, serviceperson, salesperson, or employee of any company; including without limitation, ALLOWAY, its authorized dealers, distributors, and service centers, is authorized to alter, modify, or enlarge this Warranty.

This Warranty is effective only if the warranty registration card is returned within ten (10) days.

Answers to any questions regarding warranty service and locations may be obtained by contacting:

Alloway
4230 14th Ave.NW
Fargo, North Dakota 58102
701-356-4983

ALLOWAY

WARRANTY

ALLOWAY STANDARD, d/b/a ALLOWAY, warrants this product to be free from defect in material and workmanship for a period of One (1) year, ninety (90) days for Service Parts, from the date of delivery of the product to the original purchaser.

Under no circumstances will this Warranty apply in the event that the product, in the good faith opinion of ALLOWAY, has been subjected to improper operation, improper maintenance, misuse, or an accident. This Warranty does not cover normal wear or tear, or normal maintenance items.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

ALLOWAY'S' obligation under this Warranty is limited to, at ALLOWAY'S option, the repair or replacement, free of charge, of the product If ALLOWAY, in its sole discretion, deems it, to be defective or in noncompliance with this Warranty. The product must be returned to ALLOWAY with proof of purchase within thirty (30) days after such defect or noncompliance is discovered or should have been discovered, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. ALLOWAY shall complete such repair or replacement within a reasonable time after ALLOWAY receives the product. THERE ARE NO OTHER REMEDIES UNDER THIS WARRANTY. THE REMEDY OF REPAIR OR REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. ALLOWAY MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND ALLOWAY SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND/OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

ALLOWAY shall not be liable for any incidental or consequential losses, damages or expenses, arising directly or indirectly from the product, whether such claim is based upon breach of contract, breach, of warranty, negligence, strict liability in tort or any other legal theory. Without limiting the generality of the foregoing, Alloway specifically disclaims any damages relating to (i) lost profits, business, revenues or goodwill; (ii) loss of crops; (iii) loss because of delay in harvesting; (iv) any expense or loss incurred for labor, supplies, substitute machinery or rental; or (v) any other type of damage to property or economic loss.

This Warranty is subject to any existing conditions of supply, which may directly affect ALLOWAYS' ability to obtain materials or manufacture replacement parts.

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Alloway
4230 14th Ave.NW
Fargo, North Dakota 58102
701-356-4983

ALLOWAY

SERIAL #

PART NUMBER

700-5-0013

ALLOWAY

Quality • Innovation

Alloway Standard Industries
4230 14th Avenue NW
Fargo, North Dakota 58102

Local/Intl: 1-701-356-4983
Toll Free: 1-877-275-8714
Fax: 1-701-356-4985