



# ***SHEYENNE / WESTGO***

***1405 and 1410***  
***8" and 10"***

**Owner / Operator Manual**  
**& Parts Book**

701 Lenham Ave. - P.O. Box 647 – Cooperstown, ND 58425  
(701) 797-2700 – Fax (701) 797-2584 – [www.sheyennemfg.com](http://www.sheyennemfg.com)



This manual includes the following sizes, models, lengths and hopper drive options

**8"**

**10"**

**1405                      1410                      1405                      1410**

**Lengths**

<b>60'</b>	MECH / HYD	MECH / HYD	MECH / HYD
<b>70'</b>	Not Available	N/A	MECH / HYD
<b>80'</b>	N/A	N/A	N/A MECH / HYD

**Descriptions:**

- 8" and 10"                      - Nominal auger diameter in inches
- 1405                              - Auger, flighting without hanger bearing support
- 1410                              - Auger, flighting with hanger bearing support
- Lengths                         - Nominal auger length in feet
- Mechanical Drive Hopper                      - Tractor power take off
- Hydraulic Drive Hopper                         - Tractor Hydraulics

Note: Special length augers ordered by request



## **ATTENTION DEALER**

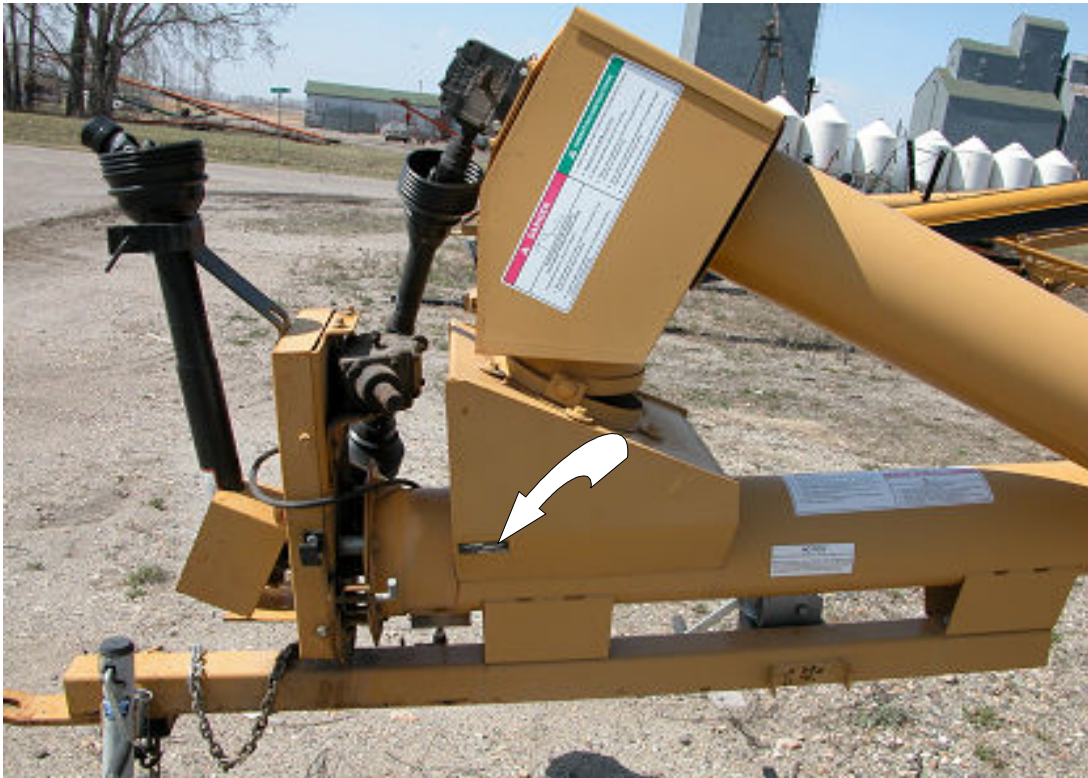
**Be sure the OWNERS MANUAL remains with the auger when sold. It contains important procedures for safe operation of the auger.**



## SERIAL NUMBER LOCATION

Always give your dealer the serial number of your Sheyenne/Wesgo portable auger when ordering parts, requesting service or for information.

The serial number plate is located where indicated. Please mark this number and other information in the spaces provided. It will be useful for future reference.



Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Production Year \_\_\_\_\_





Please enter information below and **SAVE FOR FUTURE REFERENCE**

## AUGER WARRANTY

SHEYENNE TOOLING & MANUFACTURING warrants each new product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the machine or components, not to exceed **twelve consecutive months** from the date of delivery of the new SHEYENNE TOOLING & MANUFACTURING product to the original purchaser.

Genuine SHEYENNE TOOLING & MANUFACTURING replacement parts and components will be warranted for 90 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Under no circumstances will it cover any merchandise or components thereof, which in the opinion of the company, has been subject to negligent handling, misuse, alteration, an accident, or if repairs have been made with parts other than those obtainable through SHEYENNE TOOLING & MANUFACTURING.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that in our judgment shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to SHEYENNE TOOLING & MANUFACTURING.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature to person or property.

Except as set forth above, **SHEYENNE TOOLING & MANUFACTURING shall have no obligation of liability of any kind on account of any of its equipment and shall not be liable for special or consequential damage. SHEYENNE TOOLING & MANUFACTURING makes no other warranty, express or implied, and, specifically, SHEYENNE TOOLING & MANUFACTURING disclaims any implied warranty of merchantability of fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties of incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.**

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

SHEYENNE TOOLING & MANUFACTURING reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify or enlarge neither this warranty nor the exclusions, limitations and reservations.

I have read and understand the above instructions and warranty. **Warranty is invalid until all three copies are completed and signed. Customer copy retained, dealer copy in dealer's possession and manufacturer's copy returned.**

---

Date Purchased \_\_\_\_\_

Dealership \_\_\_\_\_

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Customer Signature \_\_\_\_\_

Date \_\_\_\_\_

Dealer Signature \_\_\_\_\_

Date \_\_\_\_\_

**Customer Copy**

(Keep in this book)



Please enter information below and **SAVE FOR FUTURE REFERENCE**

## AUGER WARRANTY

SHEYENNE TOOLING & MANUFACTURING warrants each new product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the machine or components, not to exceed **twelve consecutive months** from the date of delivery of the new SHEYENNE TOOLING & MANUFACTURING product to the original purchaser.

Genuine SHEYENNE TOOLING & MANUFACTURING replacement parts and components will be warranted for 90 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Under no circumstances will it cover any merchandise or components thereof, which in the opinion of the company, has been subject to negligent handling, misuse, alteration, an accident, or if repairs have been made with parts other than those obtainable through SHEYENNE TOOLING & MANUFACTURING.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that in our judgment shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to SHEYENNE TOOLING & MANUFACTURING.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature to person or property.

Except as set forth above, **SHEYENNE TOOLING & MANUFACTURING shall have no obligation of liability of any kind on account of any of its equipment and shall not be liable for special or consequential damage. SHEYENNE TOOLING & MANUFACTURING makes no other warranty, express or implied, and, specifically, SHEYENNE TOOLING & MANUFACTURING disclaims any implied warranty of merchantability of fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties of incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.**

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

SHEYENNE TOOLING & MANUFACTURING reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify or enlarge neither this warranty nor the exclusions, limitations and reservations.

I have read and understand the above instructions and warranty. **Warranty is invalid until all three copies are completed and signed. Customer copy retained, dealer copy in dealer's possession and manufacturer's copy returned.**

---

Date Purchased \_\_\_\_\_

Dealership \_\_\_\_\_

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Customer Signature \_\_\_\_\_

Date \_\_\_\_\_

Dealer Signature \_\_\_\_\_

Date \_\_\_\_\_

**Dealer Copy**





**Manufacturer Copy**

**PLEASE ENTER INFORMATION BELOW AND RETURN TO SHEYENNE TOOLING AND MANUFACTURING**

## AUGER WARRANTY

**SHEYENNE TOOLING & MANUFACTURING warrants each new product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the machine or components, not to exceed twelve consecutive months from the date of delivery of the new SHEYENNE TOOLING & MANUFACTURING product to the original purchaser.**

Genuine SHEYENNE TOOLING & MANUFACTURING replacement parts and components will be warranted for 90 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer. Warranty is not applicable for normal wear and usage.

Under no circumstances will it cover any merchandise or components thereof, which in the opinion of the company, has been subject to negligent handling, misuse, alteration, an accident, or if repairs have been made with parts other than those obtainable through SHEYENNE TOOLING & MANUFACTURING.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that in our judgement shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to SHEYENNE TOOLING & MANUFACTURING.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature to person or property.

Except as set forth above, SHEYENNE TOOLING & MANUFACTURING shall have no obligation of liability of any kind on account of any of its equipment and shall not be liable for special or consequential damage. SHEYENNE TOOLING & MANUFACTURING makes no other warranty, express or implied, and, specifically, SHEYENNE TOOLING & MANUFACTURING disclaims any implied warranty of merchantability of fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties of incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.

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

SHEYENNE TOOLING & MANUFACTURING reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify or enlarge neither this warranty nor the exclusions, limitations and reservations.

I have read and understand the above instructions and warranty. I have also read the owner's manual and understand all safety precautions. **Warranty is invalid until all three copies are completed and signed. Customer copy retained, dealer copy in the dealer's possession and the manufacturer's copy returned.**

Date Purchased \_\_\_\_\_ Dealership \_\_\_\_\_

Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_

Customer Information: Name (Please Print) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_, State \_\_\_\_\_, Zip Code \_\_\_\_\_

E-Mail (If Applicable) \_\_\_\_\_

Signature \_\_\_\_\_, Date \_\_\_\_\_

Dealer Signature \_\_\_\_\_ Date \_\_\_\_\_

*Please return via; fax, regular mail or e-mail; to:*  
*fax number – (701) 797-2584*  
*address --*  
**Sheyenne Tooling and Manufacturing**  
**PO Box 647**  
**Cooperstown, ND 58425**  
*e-mail – warranty@sheyennemfg.com*



# 1400 AUGER MANUAL

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## 1 INTRODUCTION

Congratulations on your choice of a Sheyenne/Westgo Portable Auger to complement your farming operation. This equipment has been designed and manufactured to meet the needs of the discerning farmer for the efficient moving of grain.

Safe, efficient and trouble free operation of your Portable Auger requires that you and anyone else who will be operating or maintaining the Auger, read and understand the Safety, Operation, Maintenance and Trouble Shooting information contained within this Operator's Manual.



This manual covers the Model 1405 and 1410 Portable Auger made by Sheyenne/Westgo. Differences are explained where appropriate.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your Sheyenne/Westgo dealer if you need assistance, information or additional copies of this manual.

**OPERATOR ORIENTATION** - The directions left, right, and rear, as mentioned throughout the manual, are seen from the tractor driver's seat and facing in the direction of travel when the unit is being transported. The front is the intake end of the auger.

**THE SYMBOL SHOWN BELOW IS USED TO  
CALL YOUR ATTENTION TO INSTRUCTIONS  
CONCERNING YOUR PERSONAL SAFETY**



**BE ALERT! Your Safety Is Involved.**

## 2 SAFETY

### SAFETY ALERT SYMBOL



**Why is SAFETY so important to you?**

#### **3 Big Reasons**

**Accidents Disable and Kill**

**Accidents Are Costly**

**Accidents Can Be Avoided**

This safety alert symbol appears in this manual and on many of the decals on the auger. It is used to draw your attention to the possibility of personal injury or loss of life. We **urge** you to follow all safety instructions. Be alert to safety issues at **all** times!

In addition you will see the use of **signal words** with the safety messages. The appropriate signal word for each message has been selected using the following guide-lines:

**DANGER** – An immediate and specific hazard which **will** result is severe personal injury or death if the proper precautions are not taken.

**WARNING** – A specific hazard or unsafe practice which **could** result in severe personal injury or death if proper precautions are not taken.

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

## 2 SAFETY

YOU are responsible for the safe operation and maintenance of your Sheyenne/Westgo Portable Auger. YOU must ensure that you and anyone else who is going to operate, maintain or work around the Auger be familiar with the operating and maintenance procedures and related Safety information contained in this manual. This manual will take you step -by-step through your working days and alerts you to all good safety practices that should be adhered to while operating the Auger.

Remember, YOU are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that EVERYONE operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

\* Auger owners must give operating instructions to operators or employees before allowing them to operate the Auger, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.

\* The most important safety device on this equipment is a safe operator. It is the operators responsibility to read and understand All Safety and Operating instructions in the manual and to follow them. All accidents can be avoided.

\* A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.

\* Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.

### 2.1 GENERAL SAFETY

1. Read and understand the Operator's Manual before operating, maintaining or adjusting the Auger.



2. Only trained competent persons shall operate the Auger. An untrained operator is not qualified to operate this machine.

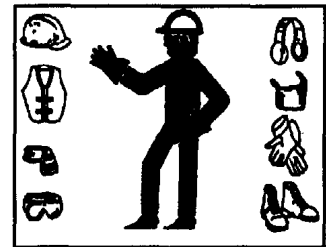
3. Have a first-aid kit available for use should the need arise and know how to use it.



4. Do not allow children, spectators or bystanders within hazard area of machine.

5. Wear appropriate protective gear. This list includes but is not limited to:

- A hard hat,
- Protective shoes with slip resistant soles
- Protective goggles
- Heavy gloves
- Hearing protection
- Respirator or filter mask



6. Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.

7. Review safety related items annually with all personnel who will be operating or maintaining the Auger.

8. Have another person nearby who can shut down the auger in case of an accident. It is good practice to always work with a second person around augers.

Work Safely !

Think SAFETY !

## 2.2 OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. PTO drives: Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
4. Clear the area of all bystanders, especially children, before starting.
5. Be familiar with machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear the area before restarting.
6. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
7. Do not allow riders on the Auger or tractor when transporting.
8. Stay away from overhead obstructions and power lines during operation and transporting. Electrocutation can occur without direct contact.
9. Do not operate machine when any guards are removed.
10. Set park brake on tractor before starting.
11. Lower Auger to its lowest position when transporting or when not in use.
12. Have another person nearby who can shut down the auger in case of an accident. It is good practice to always work with a second person around augers.
13. Inspect lift cable before using auger. Replace if frayed or damaged.
14. Make certain the lift cable is properly seated in cable pulleys.
15. Ensure that auger is empty before raising or lowering.

## 2.3 PLACEMENT SAFETY

1. Move only with a tractor. Never move by hand.
2. Stay away from overhead power lines when moving Auger. Electrocutation can occur without direct contact.
3. Keep Auger as low as possible.
4. Chock Auger and tractor wheels front and rear before operating.
5. Locate Auger to provide ample space for grain vehicles to unload.
6. Keep Auger as low as possible when moving. Raise only when it is next to storage facility.
7. Be familiar with the machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear, the area before restarting.
8. Operate the auger on level ground free of debris. If ground is uneven, anchor the auger to prevent tipping or upending.

### IMPORTANT

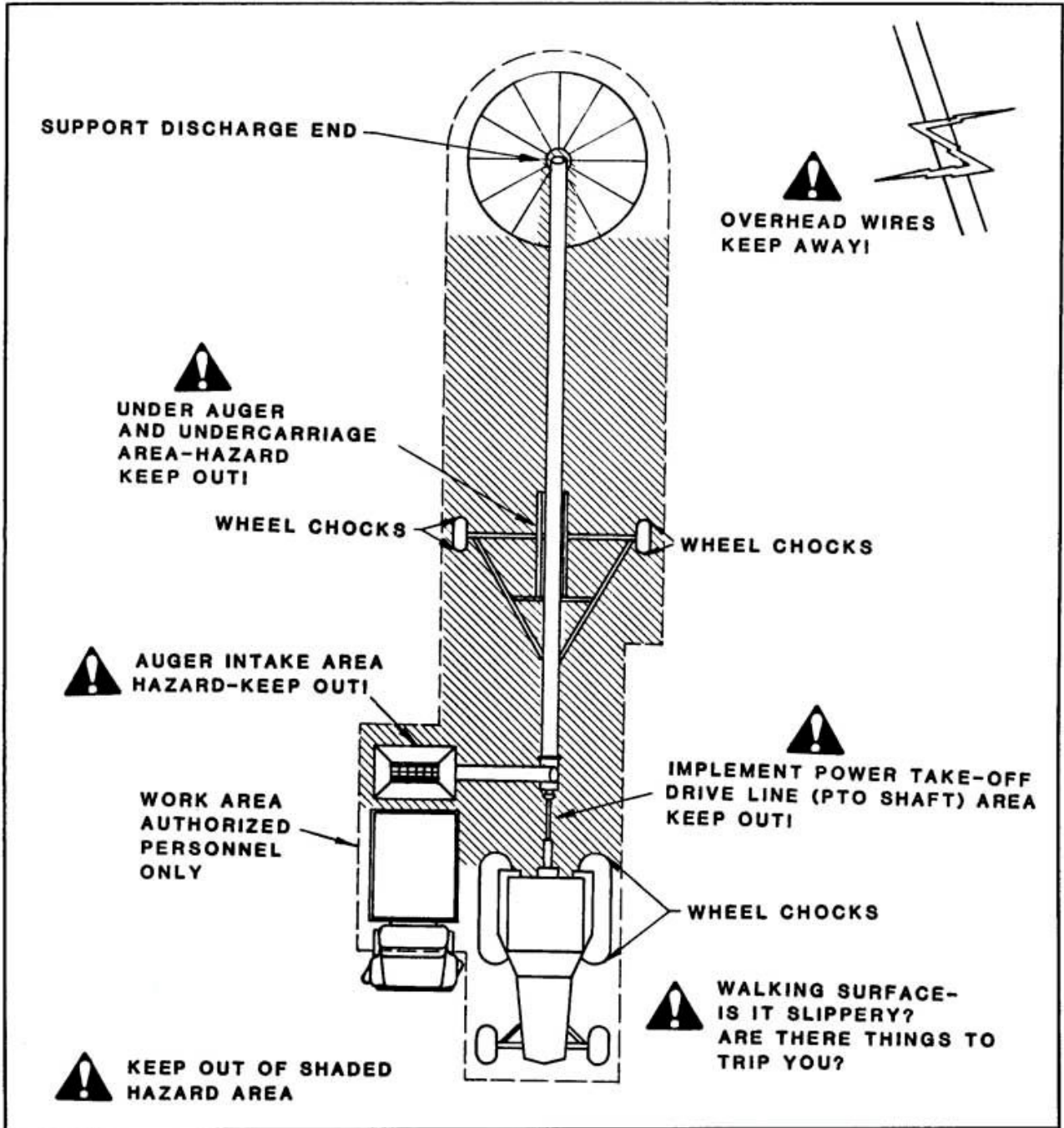
BEFORE RAISING OR PLACEMENT OF ENSURE THAT GROUND IS REASONABLY LEVEL. AUGER COULD TOPPLE IF GROUND IS TOO UNEVEN, DAMAGING EQUIPMENT AND/OR CAUSING PERSONAL INJURY.

**NOTE:** If auger wheels are partially or fully buried in snow or grain, do not attempt to move auger until snow or grain has been cleared away from auger wheels. Failure to heed may cause damage to auger and/or serious injury.

### IMPORTANT

WHEN RELEASING AUGER FROM THE TOWING VEHICLE, TEST THE INTAKE END FOR DOWNWARD WEIGHT. DO NOT RAISE THE INTAKE END ABOVE DRAW BAR HEIGHT. WHEN THE INTAKE END IS ELEVATED TOO HIGH WITH AUGER IN RAISED POSITION, THE BALANCE OF WEIGHT QUICKLY TRANSFERS TO THE DISCHARGE END, CAUSING THE AUGER TO UPEND.

**NOTE:** Winch must have clicking sound when raising auger. If clicking sound stops, retain grip on handle, lower the auger fully and repair ratchet.



**WORKPLACE HAZARD AREA**

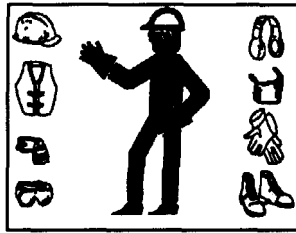
## 2.4 MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before working with, maintaining or operating the Auger.

2. Stop the engine, place all controls in neutral set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.

3. Wear appropriate protective gear. This list includes but is not limited to:

- A hard hat
- Protective shoes with slip resistant soles
- Protective goggles
- Heavy gloves
- Hearing protection
- Respirator or filter mask



4. Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.

5. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.

6. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.

7. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making adjustments.

8. Place stands or blocks under the frame before working beneath the machine.

9. Before resuming work, install and secure all guards when maintenance work is completed.

## 2.5 HYDRAULIC SAFETY

1. Always place all tractor hydraulic controls in neutral before disconnecting from tractor or working on hydraulic system.

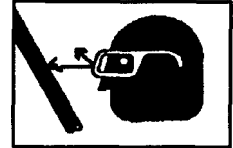
2. Make sure that all components in the hydraulic system are kept in good condition and are clean.

3. Replace any worn, cut, abraded, flattened or crimped hoses.

4. Do not attempt any makeshift repairs to the hydraulic fittings or hoses by using tape, clamps or cements. The hydraulic system operates under extremely high-pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.



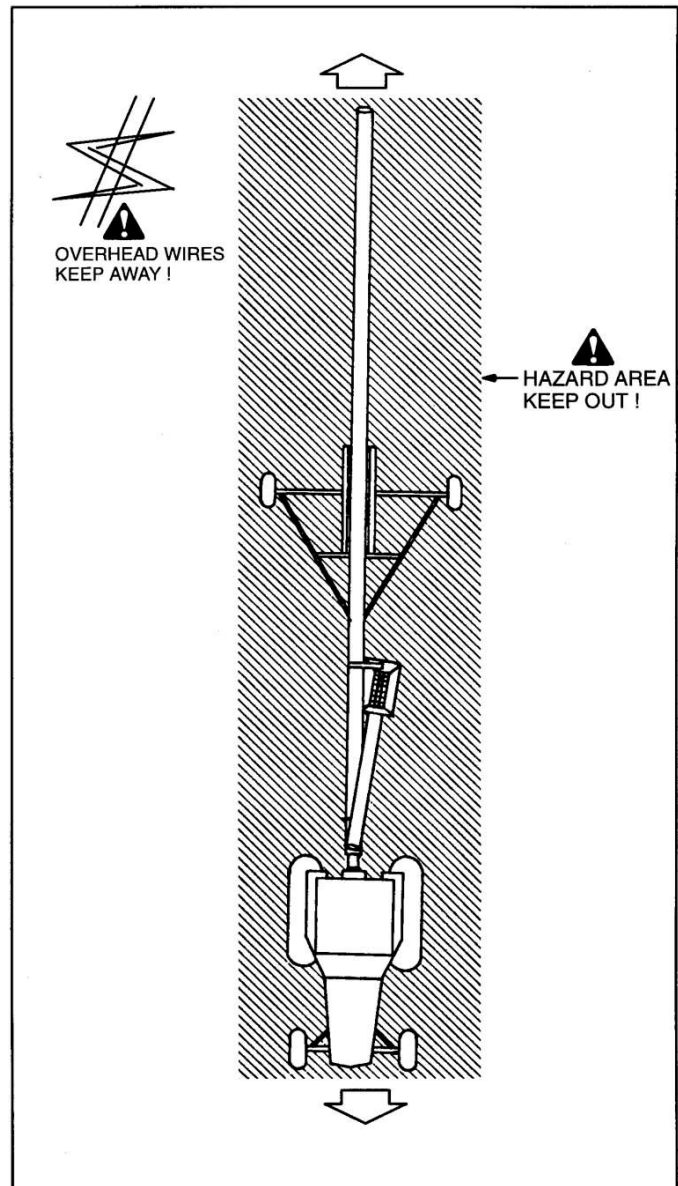
5. Wear proper hand and eye protection when searching for high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.



6. If injured by a concentrated high-pressure stream of hydraulic, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.

## 2.6 TRANSPORT SAFETY

1. Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY when moving or transporting the Auger.
2. Check with local authorities regarding Auger transport on public roads. Obey all applicable laws and regulations.
3. Always travel at a safe speed. Use caution when making corners or meeting traffic.
4. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
5. Do not allow riders on the Auger or the tractor when transporting.
6. Attach Auger to towing vehicle with a bolt, washer and double nut. Always attach the safety chain.
7. Lower Auger to its lowest position for transporting.
8. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the road shoulder, if permitted by law.
9. Do not exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
10. Stay away from overhead obstructions and power lines when transporting. Electrocutation can occur without direct contact.
11. Always use hazard warning flashers on tractor when transporting unless prohibited by law.



**TRANSPORTING HAZARD AREA**



## **2.7 STORAGE SAFETY**

1. Store the auger in an area away from human activity.
2. Do not permit children to play on or around the stored machine.
3. Lower the auger to its lowest position for storage unless placed in its operating position.

## **2.8 TIRE SAFETY**

1. Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death.
2. Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
3. Have a qualified tire dealer or repair service perform required tire maintenance.
4. When replacing worn tires, make sure they meet the original tire specifications. Never under-size.

## **2.9 SAFETY DECALS**

1. Keep safety decals and signs clean and legible at all times.
2. Replace safety decals that displayed a safety sign that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety decals or signs are available from your Dealers Parts Department or the factory.

### **How to Install Safety Decals:**

1. Be sure that the installation area is clean and dry.
2. Decide on the exact position before you remove the backing paper.
3. Remove the smallest portion of the split backing paper.
4. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
5. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
6. Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.

## 2.10 SIGN-OFF FORM

Sheyenne/Westgo follows the General Safety Standards specified by the American Society of Agricultural Engineers (ASAE) and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and/or maintaining the Portable Auger must read and clearly understand All Safety, Operating and Maintenance information presented in this manual.

Do not operate or allow anyone else to operate this equipment until such information has been reviewed. Annually review this information before the season start-up.

Make these periodic reviews of SAFETY and OPERATION a standard for all of your equipment. We feel that an untrained operator is unqualified to operate this machine.

A sign off sheet is provided for your record keeping to show that all personnel who will be working with the equipment have read and understand the information in the Operator's Manual and have been instructed in the operation of the equipment.

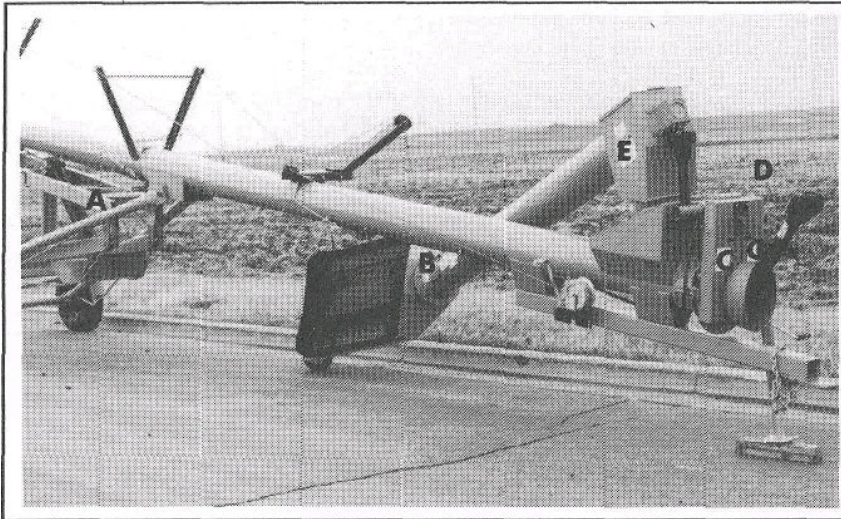
### SIGN-OFF FORM

DATE	EMPLOYEES SIGNATURE	EMPLOYERS SIGNATURE

### 3. SAFETY DECAL LOCATIONS

The types of decals and locations on the equipment are shown in the illustration below. Good safety requires that you familiarize yourself with the various Safety Decals, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.

\* Think SAFETY! Work SAFELY!



**A**

<b>WARNING</b>	
<b>HIGH-PRESSURE FLUID HAZARD</b>	
To prevent serious injury or death:	
<ol style="list-style-type: none"> <li>1. Relieve pressure on system before repairing or adjusting.</li> <li>2. Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.</li> <li>3. Keep all components in good repair.</li> </ol>	
<b>PELIGRO DE FLUIDO BAJO ALTA PRESION</b>	
Para evitar heridas graves o la muerte:	
<ol style="list-style-type: none"> <li>1. Alivie la presión del sistema antes de hacer reparaciones, ajustes o desconexiones.</li> <li>2. Use protección apropiada en las manos y en los ojos, cuando revise para ver si hay fugas. Utilice una tabla o un cartón en vez de las manos.</li> <li>3. Mantenga todos los componentes en buen estado.</li> </ol>	
<small>505-3-0315</small>	

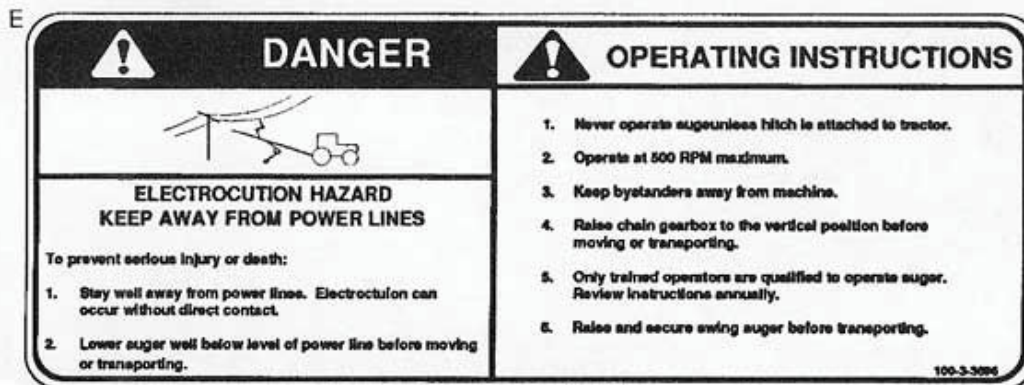
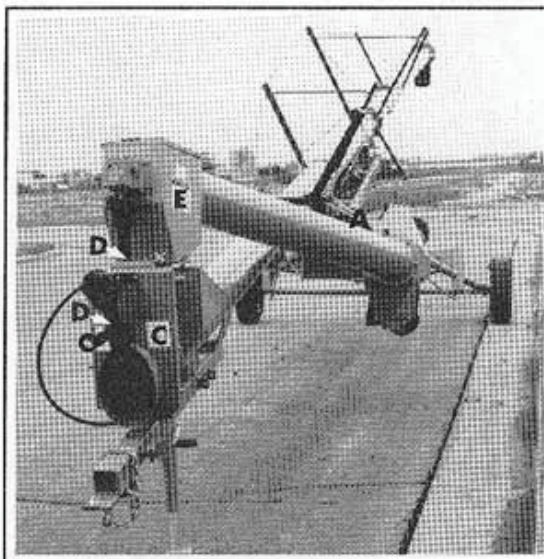
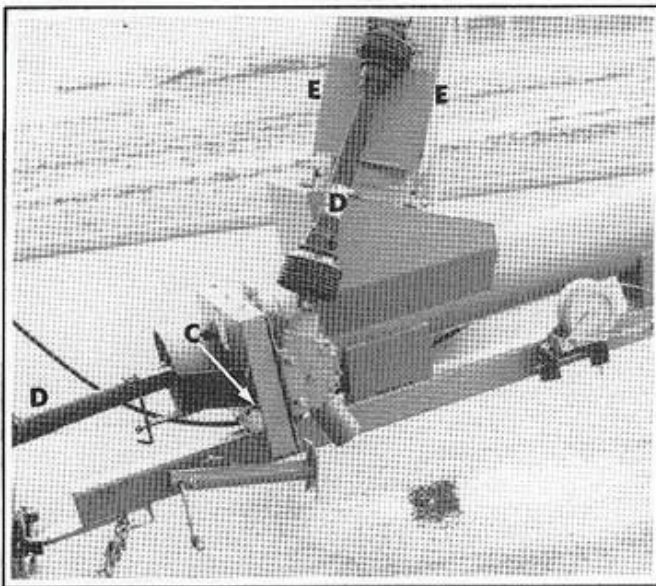
**B**

<b>CAUTION</b>	<b>DANGER</b>
<ol style="list-style-type: none"> <li>1. Read and understand the Operator's Manual before operating.</li> <li>2. Keep all safety shields and devices in place and in good working order.</li> <li>3. Make certain everyone is clear before operating or moving the machine. Keep children, visitors and untrained people away.</li> <li>4. Keep hands, feet, hair and clothing away from moving parts.</li> <li>5. Shut off power before adjusting, servicing or cleaning.</li> <li>6. Support discharge end or anchor intake end to prevent upending.</li> <li>7. Empty auger before moving to prevent upending.</li> <li>8. Lower auger to transport position before transporting. Use a vehicle when transporting.</li> <li>9. Lower auger well below level of power lines before moving or transporting.</li> <li>10. Keep away from intake fighting. Keep others away.</li> <li>11. Train operators annually.</li> </ol>	
	<b>ROTATING FLIGHT HAZARD KEEP AWAY</b>
	To prevent serious injury or death:
	<ol style="list-style-type: none"> <li>1. Keep all guards in place and in good condition when operating.</li> <li>2. Do not operate with fighting guard removed.</li> <li>3. Keep hands, feet, hair and clothing away from fighting.</li> <li>4. Keep children and bystanders away from intake.</li> </ol>
	<b>DANGER</b>
	<b>UPENDING HAZARD</b>
	To prevent serious injury or death:
	<ol style="list-style-type: none"> <li>1. Support discharge end or anchor intake end before using.</li> <li>2. Do not move auger by hand. Use towing vehicle.</li> <li>3. Empty auger before moving or transporting.</li> <li>4. Do not operate unless hitch is attached to the power unit.</li> <li>5. Do not hook unless hitch weight is down.</li> </ol>
	<small>100-3-3583</small>

REMEMBER - If Safety Decals have been damaged, removed, become illegible or parts replaced without decals. new decals must be applied. New decals are available from your authorized dealer.

The types of decals and locations on the equipment are shown in the illustration below. Good safety requires that you familiarize yourself with the various Safety Decals, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.

\* Think SAFETY! Work SAFETY!



REMEMBER – If safety decals have been damaged, removed, become illegible or parts replaced without decals, new decals must be applied. New decals are available from your authorized dealer.

## 4 OPERATION



### OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Clear the area of all bystanders, especially children, before starting.
4. Be familiar with machine hazard area. If anyone enters hazard area, shut down (machine immediately. Clear the area before restarting.
5. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
6. Do not allow riders on the Auger or tractor when transporting.
7. Stay away from overhead obstructions and power lines during operation and transporting. Electrocution can occur without direct contact.
8. Do not operate machine when any guards are removed.
9. Do not operate unless the flighting guard is installed and secure.
10. Set park brake on tractor before starting.
11. Attach Auger to tractor drawbar before operating.
12. Lower Auger to its lowest position when transporting or when not in use.

### 4.1 TO THE NEW OPERATOR OR OWNER

The Sheyenne/Westgo Portable Auger is designed to efficiently move grain from a truck, trailer, or wagon into a storage facility. Power is provided by a tractor PTO. Be familiar with the machine before starting.

**It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the machine. Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the work site. Untrained operators are not qualified to operate this machine.**

Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely and how to set it to provide maximum efficiency. By following the operating instructions in conjunction with a good maintenance program, your Auger will provide many years of trouble free service.

## 4.2 MACHINE COMPONENTS

The Portable Auger is a length of rotating flighting enclosed within a tube for moving grain. Grain enters the system through the short swing-away Auger at the lower end. A winch lifts the swing Auger for transport.

Power is provided from a tractor PTO that attaches to the lower end. The swing Auger is driven through a movable chain drive and gearbox to an auxiliary driveline or an optional hydraulic motor. The movable drive system swings from side-to-side and allows the swing Auger to be used on either side.

A hydraulic cylinder in the frame raises and lowers the machine. It uses hydraulic power from the tractor.

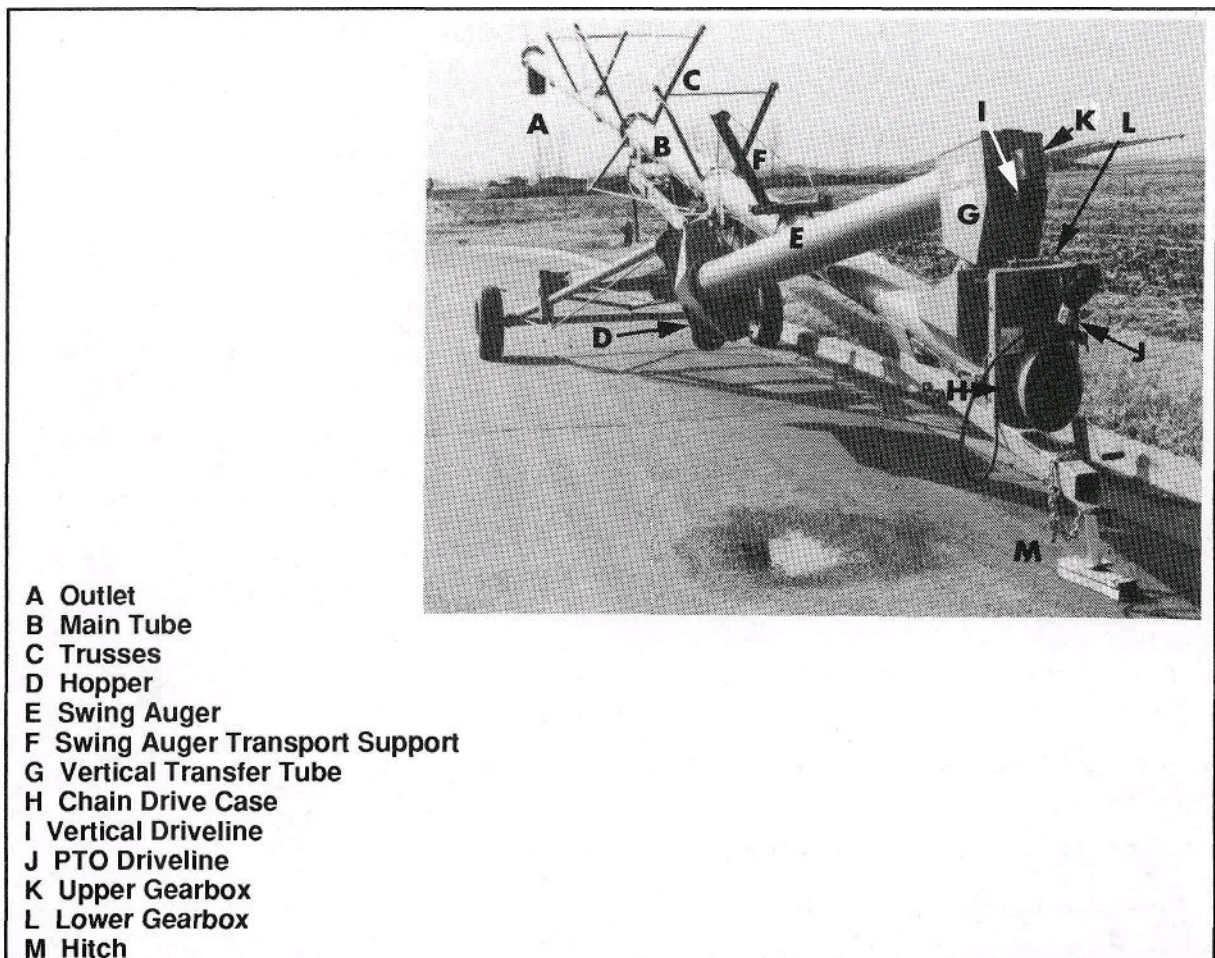


Fig. 1 MACHINE COMPONENTS

### 4.3 MACHINE BREAK-IN

Although there are no operational restrictions on the Auger when used for the first time, it is recommended that the following mechanical items be checked:

A. After operating or transporting for 1/2 hour:

1. Re-torque all the wheel bolts.
2. Re-torque fasteners and hardware.
3. Check that all safety decals are installed and legible. Apply new decals if required.
4. Check that no hoses are pinched or being crimped. Re-align as required.
5. Check that all guards are installed and working as intended.
6. Check oil level in gearboxes. Add as required.
7. Check drive chain and tension and alignment. Adjust as required.
8. Lubricate all grease fittings.

B. After operating for 5 hours and 10 hours:

1. Re-torque all wheel bolts, fasteners and hardware.
2. Check hose routing.
3. Check that all guards are installed and working properly.
4. Check safety decals. Install new ones if required.
5. Check gearbox oil level. Add as required.
6. Check drive chain tension and alignment.
7. Then go to the normal servicing and maintenance schedule as defined in the Maintenance Section.

### 4.4 PRE-OPERATION CHECKLIST

Efficient and safe operation of the Sheyenne/Westgo Portable Auger requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. It is important for both the personal safety and maintaining the good mechanical condition of the Auger that this checklist is followed.

Before operating the Auger and each time thereafter, the following area should be checked off:

1. Lubricate the machine per the schedule outlined in Section 5 Service and Maintenance.
2. Use only a tractor of adequate power to operate the Auger.
3. Ensure that the machine is properly attached to the tractor drawbar. Use a 5/8 inch bolt, washers and double nut.
4. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
5. Check work-site. Clean up working area to prevent slipping or tripping.

## 4.5 ATTACHING / UNHOOKING

It is recommended that the Auger be attached to a tractor whenever it is operated or moved. Follow this procedure when attaching to or unhooking from tractor:

1. Make sure that bystanders, especially small children are clear of the working area.
2. Be sure that there is sufficient room and clearance to back up to the machine.

### IMPORTANT !

*Do not use a tractor that is equipped with a Quick Hitch! Remove the Quick Hitch before attaching. A Quick Hitch will hit the auger when making turns or it can contact the PTO drive-line if lowered during operation.*

3. Align the draw-bar of the tractor with the hitch of the auger while backing up.
4. Set the park brake before dismounting.
5. Check the auger to tractor mounting dimensions per the drawing prior to attaching. See Fig. 2. The auger is designed to be attached to a tractor during any operation including transporting, moving, raising, lowering or working. Because the unit must operate throughout a wide range of geometry, each dimension must be within a specified range. Verify that these dimensions fall within the recommended ranges before attaching.

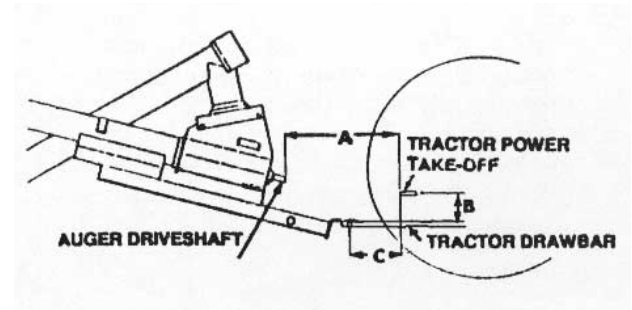
a. Dimension A: Must be within 34 and 36 inches. This works with the length of the PTO shaft supplied with the auger to allow telescoping and prevent bottoming out.

b. Dimension B: Must be within 6 to 10 inches. This will keep the angle of the universal joints equal and as small as possible. It also prevents bottoming out when the auger is raised.

c. Dimension C: Must be between 14 to 16 inches. This will prevent the PTO shaft from bottoming out when the auger is raised and prevent separation when the auger is lowered.

These dimensions are specified by Standards and most tractors comply. If your tractor does not comply, refer to your tractor manual and adjust to comply with these requirements.

6. Use the jack on the hitch to raise or lower the auger as required to match the draw-bar.



**Fig. 2 ATTACHING DIMENSIONS**



7. A 5/8 inch bolt as a pin. Use large flat washers above and below the hitch and a nut and jam nut on the bolt. Do not tighten to drawbar but jam the nuts together to hold. A bolt will allow free hitch movement whether the Auger is raised or lowered.

8. Attach the safety chains to the drawbar cage.

9. Attach the PTO shaft:

a. Clean the splines on the shaft and in the yoke if required.

b. Check that the guard rotates freely and the driveline telescopes easily. If not clean, lubricate or repair as required before installing.

c. Retract collar on yoke and slide the yoke over the tractor shaft. Stop when the lock pin clicks into position in the groove.

d. Pull on the yoke to make sure it is locked to the shaft.

### **IMPORTANT**

Never attach to tractor that is equipped with a PTO shaft adapter. It will change the required machine attaching dimensions and can lead to over speeding. Use only a tractor equipped with a 6 spline 540 RPM PTO shaft.

10. Attach the hydraulic lines:

a. Use a clean rag or paper towel to clean dirt from around the couplers on the hose ends and on the tractor.

b. Connect the hoses to the tractor couplers. Be sure the couplers are securely seated.

c. Route the hoses to prevent pinching rubbing or binding and allow enough slack for raising and lowering. Keep the hoses away from moving parts.

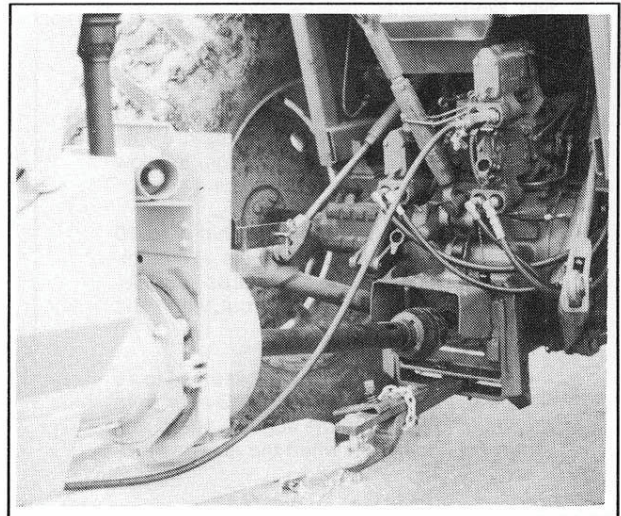


Fig. 3 ATTACHED

11. Open the valve in the hydraulic circuit to allow oil to flow to the cylinder for lowering or raising if required.



**DANGER**

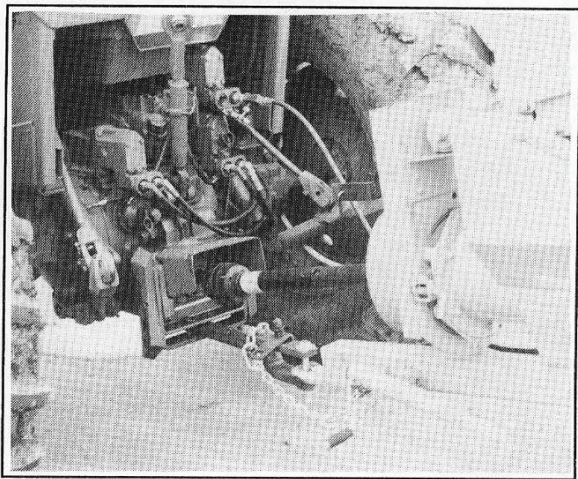
**Stay away from overhead power-lines. Electrocutation can occur without direct contact.**

12. Raise and pin swing auger if moving.

13. Unpin and lower swing auger if preparing to work.

14. Lower hitch and stow the jack into its horizontal position.

15. Reverse the above procedure when unhooking.



**Fig. 4 ATTACHED**

## 4.6 MACHINE PLACEMENT

Follow this procedure when placing the auger into its working position:

1. Clear the area of bystanders, especially small children, before starting.
2. Be sure there is enough clearance from overhead obstructions and power lines or other equipment to move the Auger into its working position.
3. Attach the Auger to the tractor (See Section 4.5).
4. Open the valve in the hydraulic circuit.
5. Back the Auger up to the storage facility while it is in its lowered configuration.
6. Remove the swing auger transport rod and stow on the support arm bracket. Install the retaining pins through the rod.

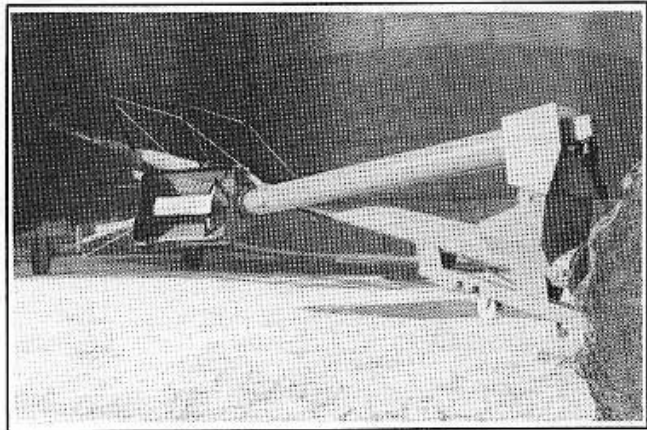


Fig. 5 MACHINE

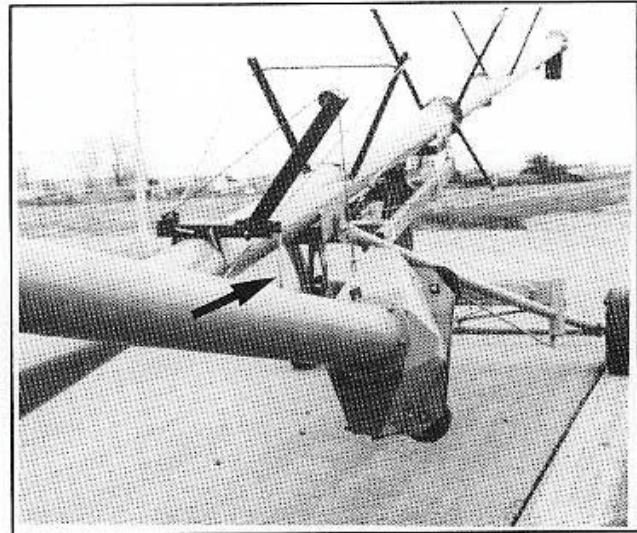


Fig. 6 TRANSPORT ROD

7. Use the tractor hydraulics to slowly raise the outlet end into position. Stay away from power lines.



**DANGER**

**Stay away from overhead power-lines. Electrocutation can occur without direct contact.**

8. Slowly back the Auger until the outlet is over the opening in the storage facility. Leave the hitch attached to the tractor.

9. Slowly lower the outlet end until it is resting on the storage facility. Leave the hitch attached to the tractor.

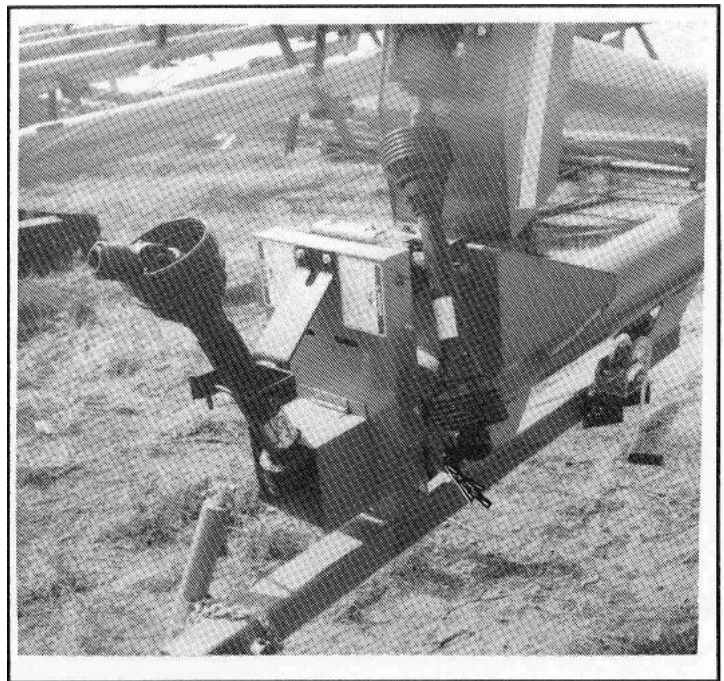
10. Place chocks in the front and rear of each Auger and tractor wheel.

11. Remove vertical driveline from transport holder.

12. Retract the lock pin holding the chain drive in the vertical position and rotate the assembly 90 degrees. Place the gearbox on the side opposite to where the swing auger will be located. Secure the lock pin on both sides.



**Fig. 7 RAISING**



**Fig. 8 LOCK PIN**

13. Place the tubular plastic guard over the gearbox output shaft that will not be used and tighten hose clamp.

14. Attach the vertical driveline to the gearbox.

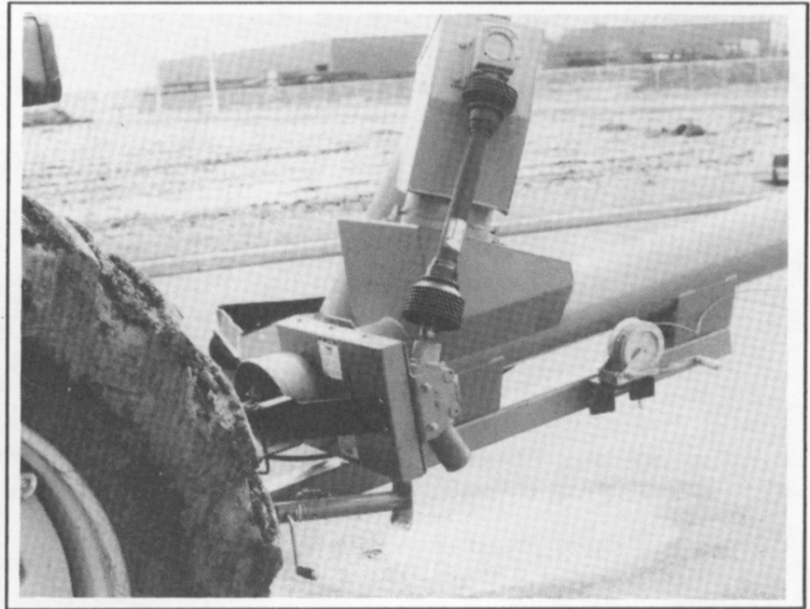


**WARNING**

Do not use bolts or square headed set screws in the yoke. They project from the yoke and create a hazard.

**NOTE**

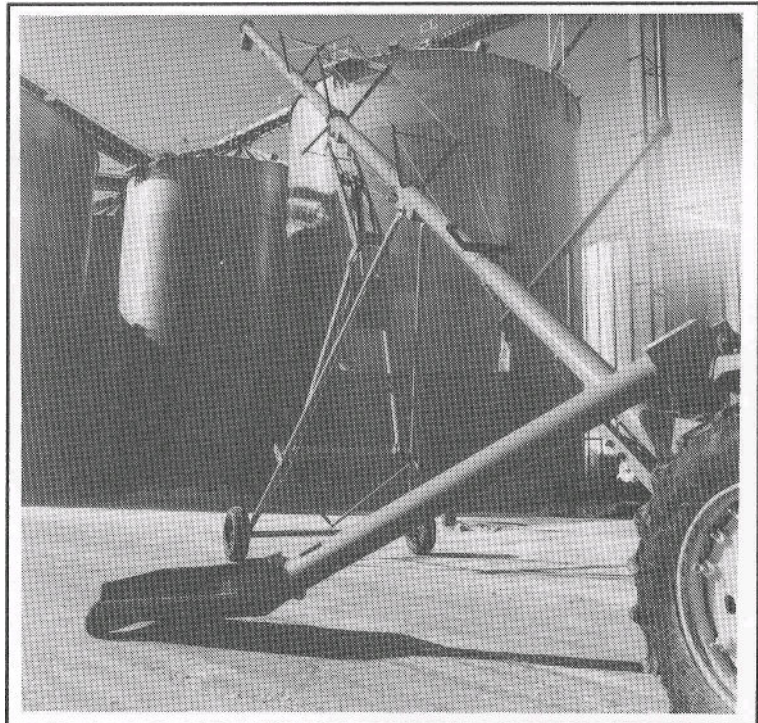
If your Auger is equipped with a hydraulic drive on the swing auger, attach the hydraulic lines to the tractor. Route them away from the PTO driveline and secure with clips, tape or plastic ties to prevent rubbing or snagging.



**Fig. 9 VERTICAL DRIVELINE**

15. Lower the swing auger to the ground and unhook the cable.

16. Close the valve in the hydraulic circuit.



**Fig. 10 RAISED**

## 4.7 OPERATING

When using the Auger, follow this procedure:

1. Clear the area of bystanders especially small children, before starting.
2. Review the Pre-Operation Checklist (Section 4.4) before starting.
3. Review the Workplace Hazards drawing and use extra care when inside the hazard area. Keep all spectators and bystanders out of this area. Should anyone enter this area, stop the machine immediately.
4. Check that the machine is placed per Section 4.6.
5. Back a tractor up to the inlet end and attach with a bolt, washers and double nuts. Attach the PTO driveline. Align the tractor axis with the Auger so the universal joints are equal and as small as possible. Place chocks next to tractor tires and set the park brake.
6. Check that the driveline out of the gearbox is secured to the output shaft.
7. Check that all guards are in place and working as intended.

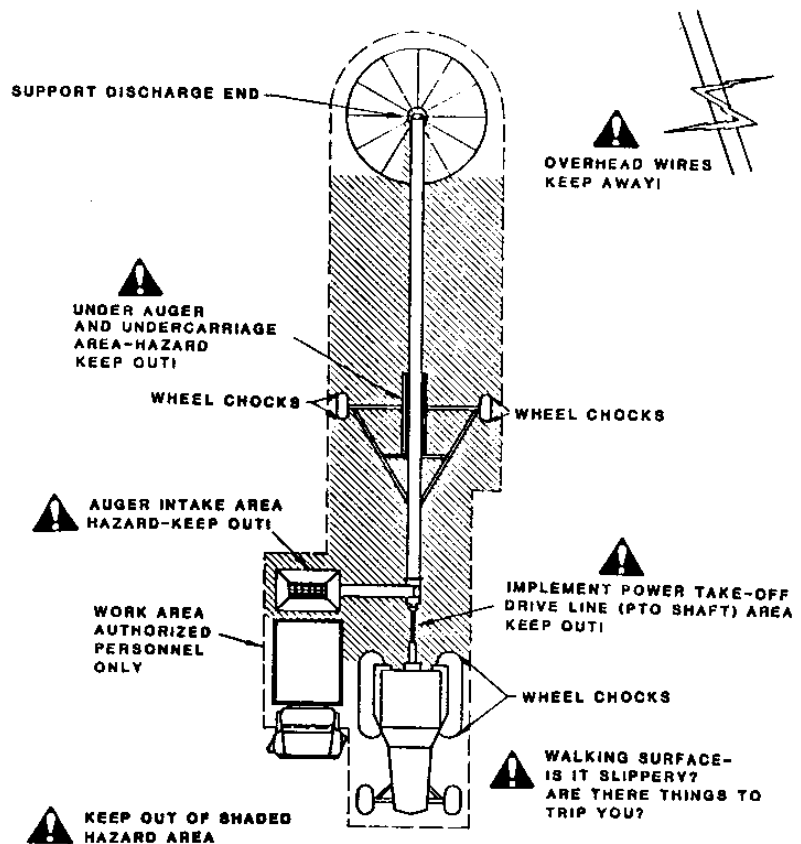
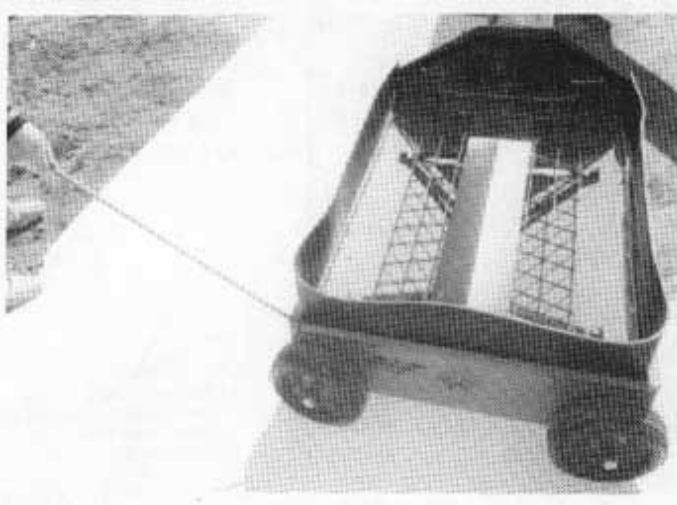


Fig. 11 WORKPLACE HAZARDS

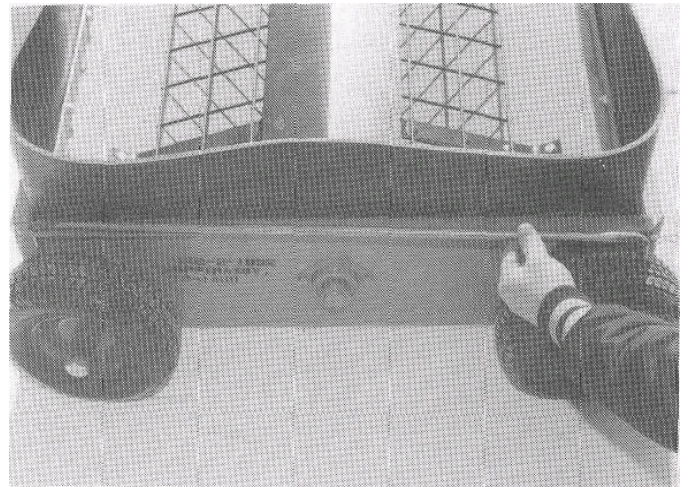
8. Move the swing away hopper and auger out of the way. Normally this will be up against the frame.
9. Drive or back the truck into position for unloading.
10. Use the handle on the hopper to move the swing auger into position under the truck.



**Fig 12a SWINGING THE HOPPER OUT**

**11. Starting:**

- a. Start the tractor engine and run at low idle.
  - b. Engage the PTO clutch.
  - c. Activate the circuit to the motor if equipped with the hydraulic drive option.
  - d. Increase engine speed to 500 RPM PTO speed.
12. Start the flow of grain and unload.
  13. When the truck is unloaded and PTO is shut off, move the swing auger out of the way.



**Fig. 12b STORING THE HANDLE**

#### 14. Stopping:

- a. Run the auger until the swing auger is empty.
- b. Slow the engine speed to low idle.
- c. Disengage PTO clutch.
- d. Shut off hydraulic motor if so equipped.
- e. Stop engine and remove ignition

#### 15. Operating Hints:

- a. Run the unit at approximately 500 RPM to obtain the most consistent results.
- b. Always listen for any unusual sounds or noises. If any are heard, stop the machine and determine the source. Correct the problem before resuming work.

c. Never allow anyone into the workplace hazard area. If anyone enters, stop immediately. Make them go before resuming work.

d. Do not run the machine for long periods of time with no grain in the tube. It is noisy and increases the wear. Try to run only when moving grain.

e. Do not move the machine by hand, Always use a tractor.

f. Always locate the swing auger within 20 degrees of a right angle to the main tube for optimum performance.

g. When the auger is used to put grain in a pile, the grain can build up and cover the wheels. It is recommended that the operator attach a log chain to each axle when the auger is positioned. Before pulling the auger out of the pile, pull the chains tight and attach to the drawbar. This will prevent axle or frame bending.

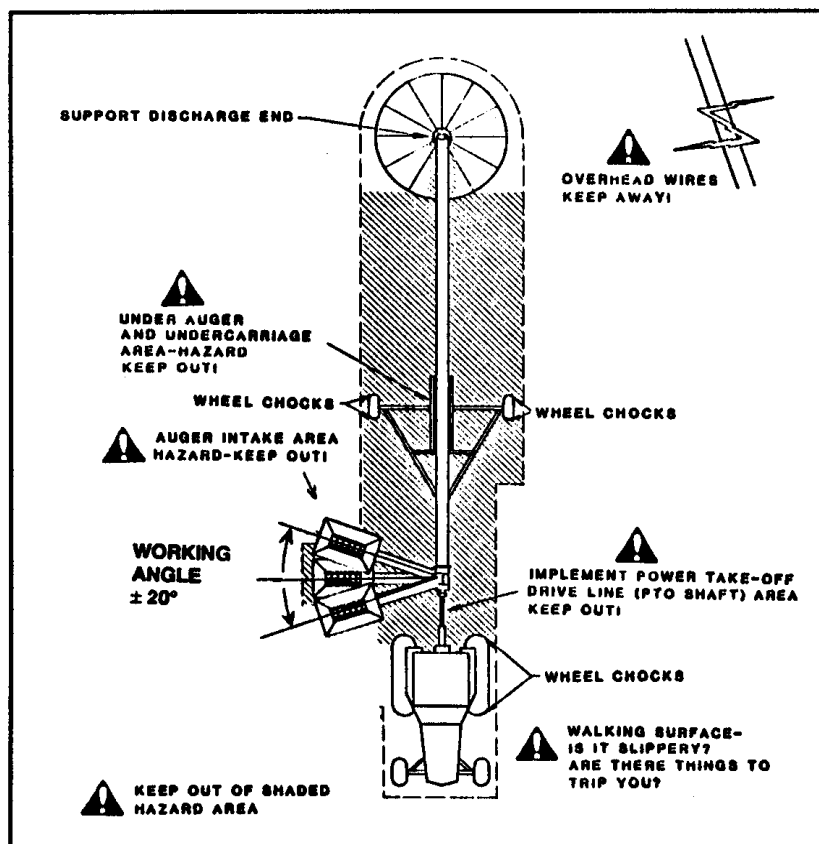


Fig. 13 SWING AWAY HOPPER & AUGER POSITION



## 4.8 TRANSPORTING

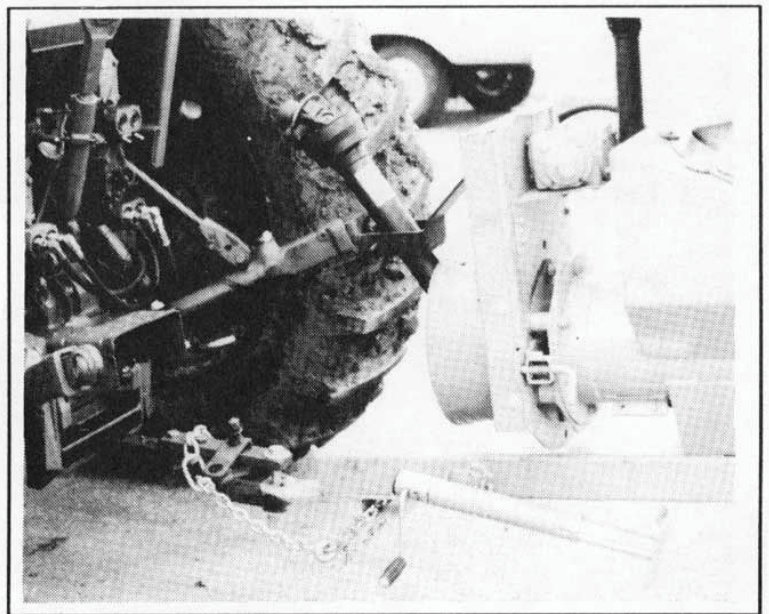


### TRANSPORT SAFETY

1. Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY when moving or transporting the Auger.
2. Check with local authorities regarding Auger transport on public roads. Obey all applicable laws and regulations.
3. Always travel at a safe speed. Use caution when making corners or meeting traffic.
4. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
5. Do not allow riders on the Auger or the tractor when transporting.
6. Attach Auger to towing vehicle with a bolt, washer and double nut. Always attach the safety chain.
7. Lower Auger to its lowest position for transporting.
8. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the road shoulder, if permitted by law.
9. Do not exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
10. Stay away from overhead obstructions and power lines when transporting. Electrocutation can occur without direct contact.
11. Always use hazard warning flashers on tractor when transporting unless prohibited by law.

Sheyenne/Westgo Portable Augers are designed to be easily and conveniently moved from place to place. When transporting, follow this procedure:

1. Be sure all bystanders are clear of the machine.
2. Attach loosely to the tractor using a bolt with a double nut and a safety chain.
3. Disconnect the vertical driveline out of the gearbox and place the loose end in the transport holder.
4. Move the chain drive front frame into its vertical position so it will not contact the towing vehicle when turning.



**Fig. 14 HITCH**

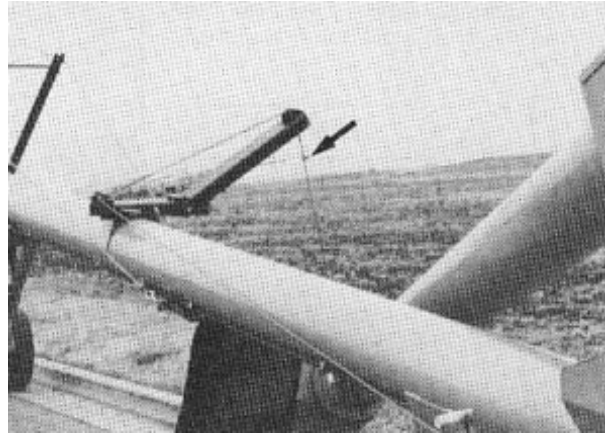
5. Use the winch to raise the swing auger off the ground. Attach the hook so the wire mesh and rubber belt are against the main tube.

6. Raise until the cable clamp contacts the support arm.

7. Raise the swing auger further until the support is against its stop and the hopper is against the main tube.

8. Install the swing auger transport rod and its retainers.

9. Place the hitch jack into its transport position.



**Fig. 15a CABLE CLAMP**



**Fig 15b HOPPER FULLY RAISED**

10. Attach the hydraulic line, open the valve and lower the machine if required. Transport only when auger is in its lowest position.



**DANGER**

**Stay away from overhead power-lines. Electrocutation can occur without direct contact.**

11. Stay away from overhead power lines. Electrocutation can occur without direct contact.

12. Never go across slopes of more than 20 degrees. It is better to go straight up or straight down.

13. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the road shoulder, if permitted by law.

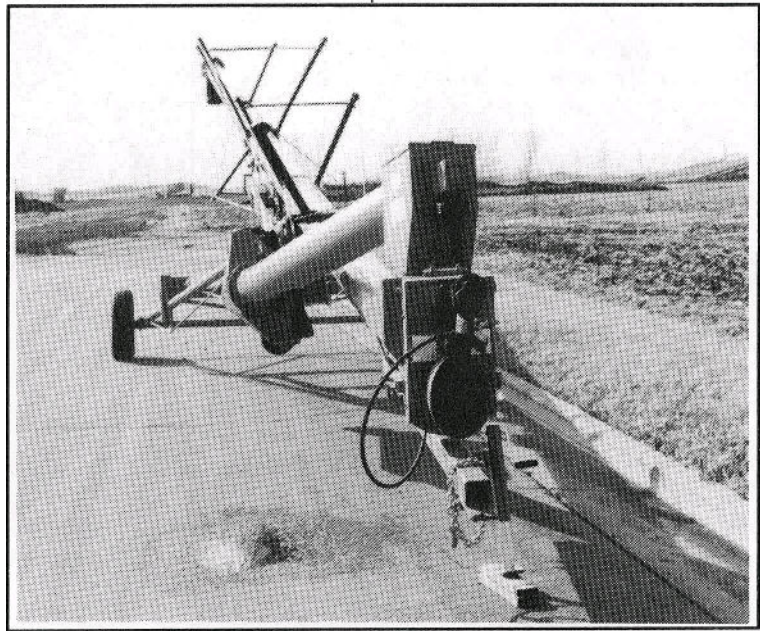
14. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that area required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic,

15. It is not recommended that the machine be transported faster than 20 mph (30 km/h). Table 1 gives the acceptable transport speed as the ratio of tractor weight to Auger weight.

16. Do not allow riders on the machine or tractor.

17. During periods of limited visibility, use pilot vehicles or add extra lights to the machine.

18. Always use hazard flashers on the tractor when transporting unless prohibited by law.




**Fig. 16 FRONT**

**Table 1 Speed vs Weight Ratio**

<u>Road Speed</u>	<u>Weight of fully equipped or loaded implement(s) relative to weight of towing machine</u>
Up to 32 km/h (20 mph)	1 to 1, or less
Up to 16 km/h (10 mph)	2 to 1, or less
Do not tow	More than 2 to 1

## 4.9 STORAGE

 <b>STORAGE SAFETY</b>
1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.
3. Lower Auger to its lowest position for storage unless placed in its operating position.

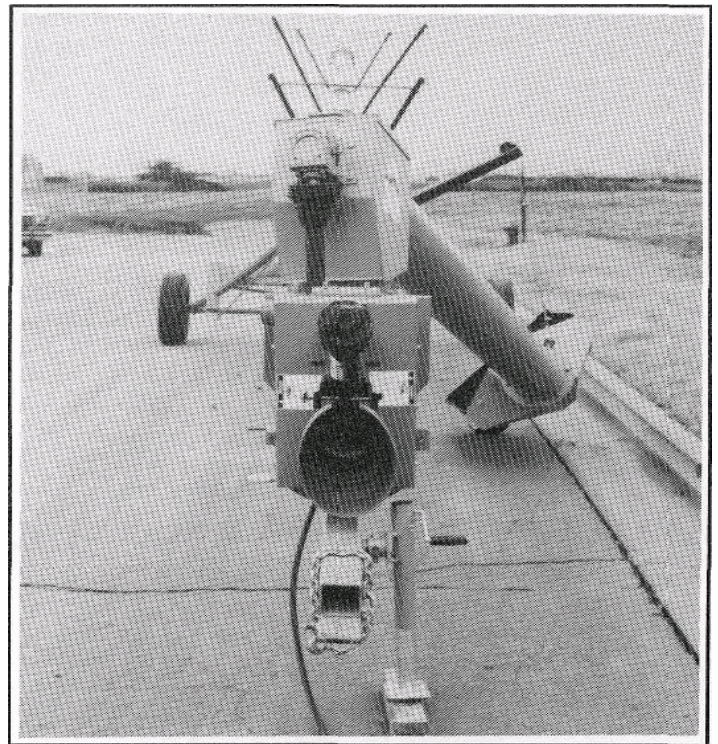
After the season's use, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent any unnecessary down time at the start of the next season. To insure a long, trouble free life, this procedure should be followed when preparing the unit for storage:

1. Wash the entire machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris or residue.
2. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove the entangled material.
3. Lubricate all grease fittings to remove any moisture in the bearings.
4. Run the machine slowly for 1 minute to distribute lubricant to all surfaces.
5. Apply a light coat of oil to the roller chain while the unit is running to prevent rusting.
6. Inspect all hydraulic hoses, fittings, lines, couplers and valves. Tighten any loose fittings. Replace any hose that is badly cut, nicked or abraded or is separating from the crimped end of the fitting.
7. Touch up all paint nicks and scratches to prevent rusting.
8. Select an area that is dry, level and free of debris. For those in northern climates, avoid storage areas where deep snow drifts occur.

9. If the auger is not being left at a storage facility, it should be placed in its lowest position.

10. It is recommended that the swing auger be lowered to rest on the ground for long term storage. This will release the twisting load on the frame from the swing auger support frame.

11. Follow the procedure given in Section 4.6 when unhooking.



**Fig. 17 STORAGE**

## 5 MAINTENANCE AND SERVICE



### MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before working with, maintaining or operating the Auger.
2. Stop the engine, place all controls in neutral set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Wear appropriate protective gear. This list includes but is not limited to:
  - A hard hat
  - Protective shoes with slip resistant soles
  - Protective goggles
  - Heavy gloves
  - Hearing protection
  - Respirator or filter mask
4. Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
5. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
6. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
7. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making adjustments.
8. Place stands or blocks under the frame before working beneath the machine.
9. Before resuming work, install and secure all guards when maintenance work is completed.

## 5.1 SERVICE

### 5.1.1 FLUIDS AND LUBRICANTS

#### 1. Grease

Use an SAE multi-purpose high temperature grease with extreme pressure (EP) performance. Also acceptable is an SAE multi-purpose lithium based grease.

#### 2. Lubricating oil

Use a standard automotive oil for all requirements.

#### 3. Gearbox oil

Use an SAE 85W90 gear oil for all operating conditions.

Gearbox Capacity: 1 U.S. quart (0.85 liter)

#### 4. Storing Lubricants

Your machine can operate at top efficiency only if clean lubricants are used. Use clean container to handle all lubricants. Store them in an area protected from dust, moisture and other contaminants.

### 5.1.2 GREASING

Use the Maintenance Checklist provided to keep a record of all scheduled maintenance.

1. Use a hand-held grease gun for all greasing.

2. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.

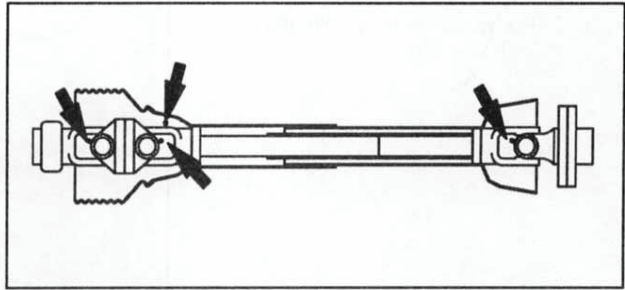
3. Replace and repair broken fittings immediately.

4. If fittings will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

### 5.1.3 SERVICING INTERVALS

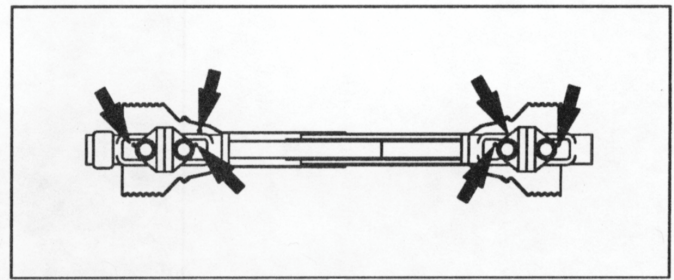
#### 8 HOURS OR DAILY

1. Grease PTO shaft (4 locations).



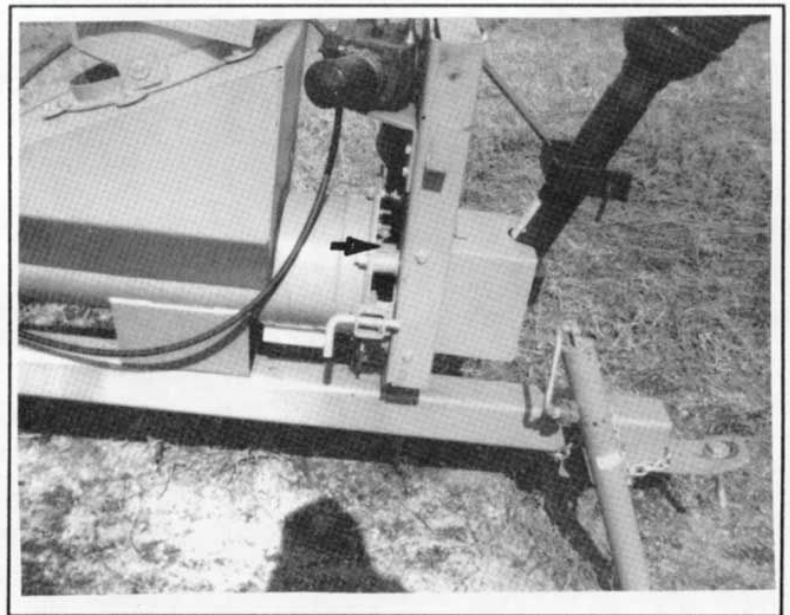
**Fig. 18 PTO SHAFT (HORIZONTAL SHAFT)**

2. Grease vertical drive shaft (6 locations).



**Fig. 19 DRIVE SHAFT (VERTICAL SHAFT)**

3. Grease chain drive sprocket bearing (1 location)



**Fig. 20 SPROCKET BEARING**

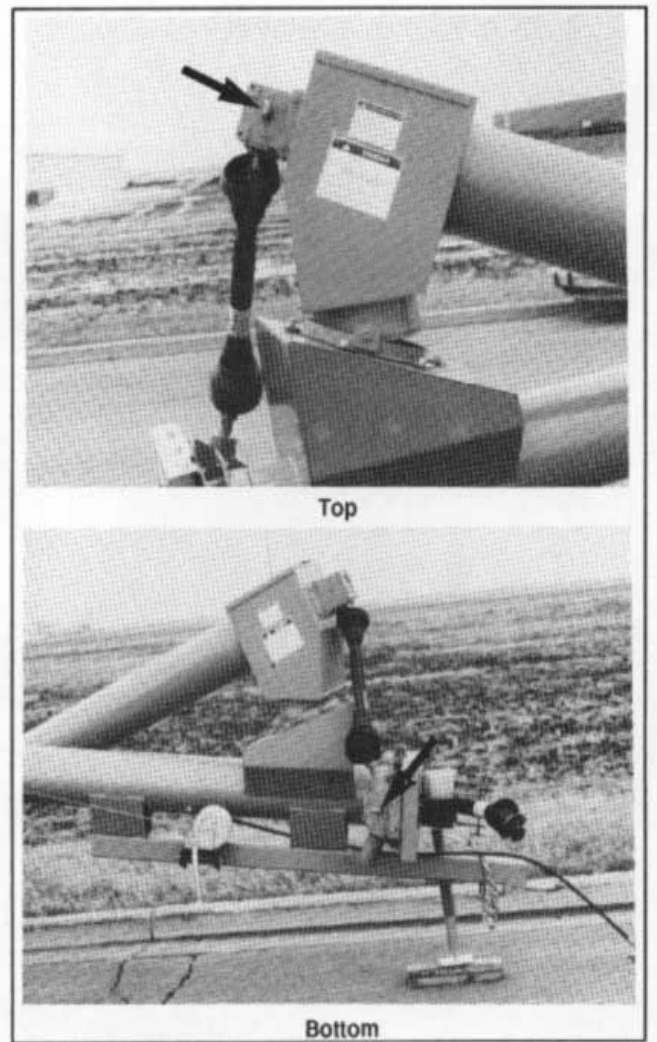
4. Check gearbox oil levels top and bottom (2 locations). Add as required. Fill to check plug level.

**Note**

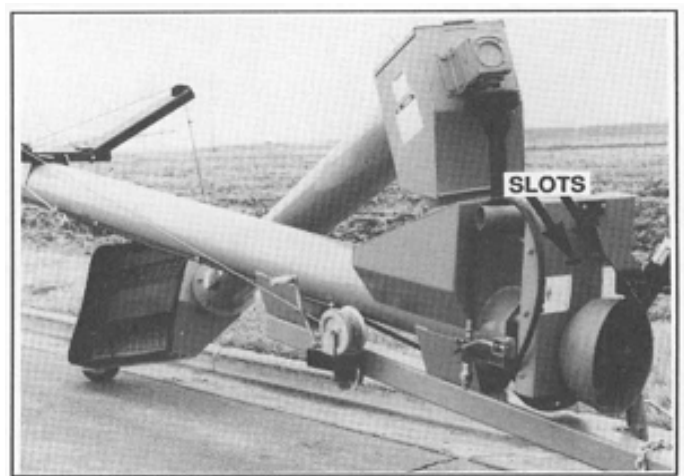
Check when the oil is cold and the machine is level.

**40 HOURS OR WEEKLY**

1. Oil the roller chain with a light coat of oil.
2. Grease Tapered Bearings in bottom bearing plate. Shown on page 50.
3. Grease all three grease fittings of the double constant velocity joint in the grain hopper. Avoid over greasing. Part shown on page 37



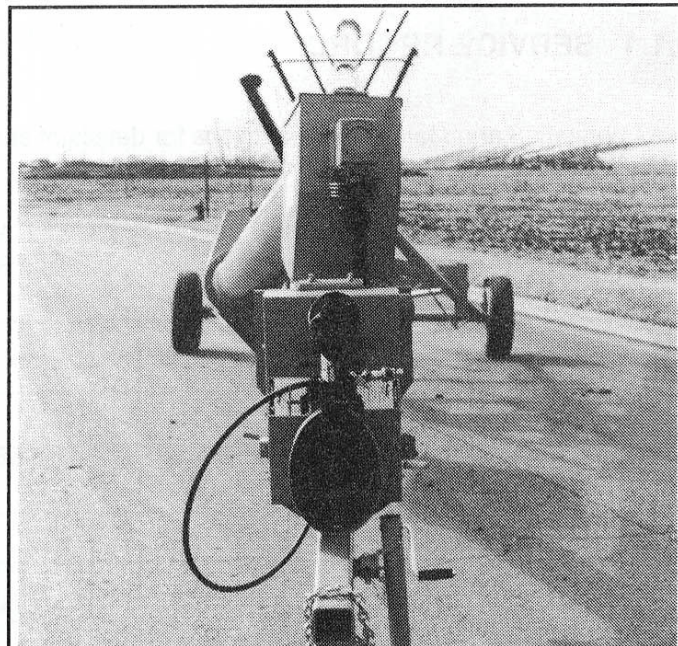
**Fig. 21 GEARBOXES**



**Fig. 22 ROLLER CHAIN**

**200 Hours or Annually**

1. Repack wheel bearings.



**Fig. 23 WHEELS**

2. Clean the gearbox breathers.



**Fig. 24 BREATHER**



### 5.1.4 SERVICE RECORD

See Lubrication and Maintenance sections for details of service. Copy this page to continue record.

ACTION CODE:    ✓ CHECK                    CL CLEAN  
                           L LUBRICATE                    R REPACK

MAINTENANCE	HOURS													
	SERVICED BY													
<b>8 Hours or Daily</b>														
L PTO Shaft (3)														
L Drive Shaft (4)														
L Chain Drive Sprocket Bearing														
✓ Gearbox oil levels (2)														
<b>40 Hours or Weekly</b>														
L Roller Chain														
<b>200 Hours or Annually</b>														
R Wheel Bearings (2)														
CL Gearbox Breathers														

## 5.2 MAINTENANCE

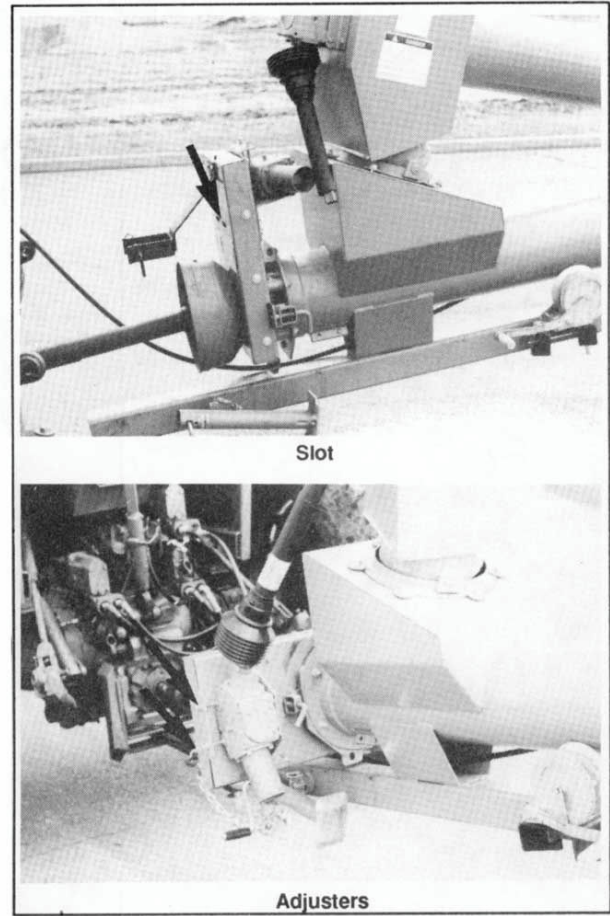
By following a careful service and maintenance program for your machine, you will enjoy many years of trouble free-service.

### 5.2.1 CHAIN TENSION

The roller chain on the input should always be adjusted so the chain is snug with only a slight amount of movement at the center of the span.

To adjust, follow this procedure:

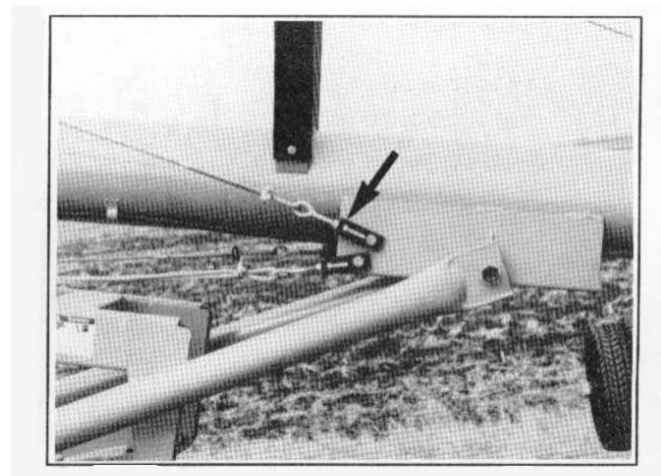
1. Stop engine and remove ignition key.
2. Loosen the jam nuts on the adjusting bolts on both sides.
3. Turn the adjusting bolts to adjust the tension. Turn both the same amount to maintain sprocket alignment.
4. Check the tension by inserting a screw driver into the slot. The center of the span should be just snug.
5. Tighten the jam nuts.



**Fig. 25 CHAIN DRIVE**

### 5.2.2 TRUSS CABLES

Adjust the cable anchor eye bolts to align the auger tube. Be sure to tighten the jam nut on the eye bolt.



**Fig. 26 ANCHOR EYE BOLTS**

### 5.2.3 SHEAR PIN

The input driveline is equipped with a shear pin to protect against overloads.

To replace pins, follow this procedure:

1. Stop engine and remove ignition key.
2. Remove the pin parts remaining in the yoke.
3. Install a new pin using genuine Sheyenne/Westgo parts and tighten.

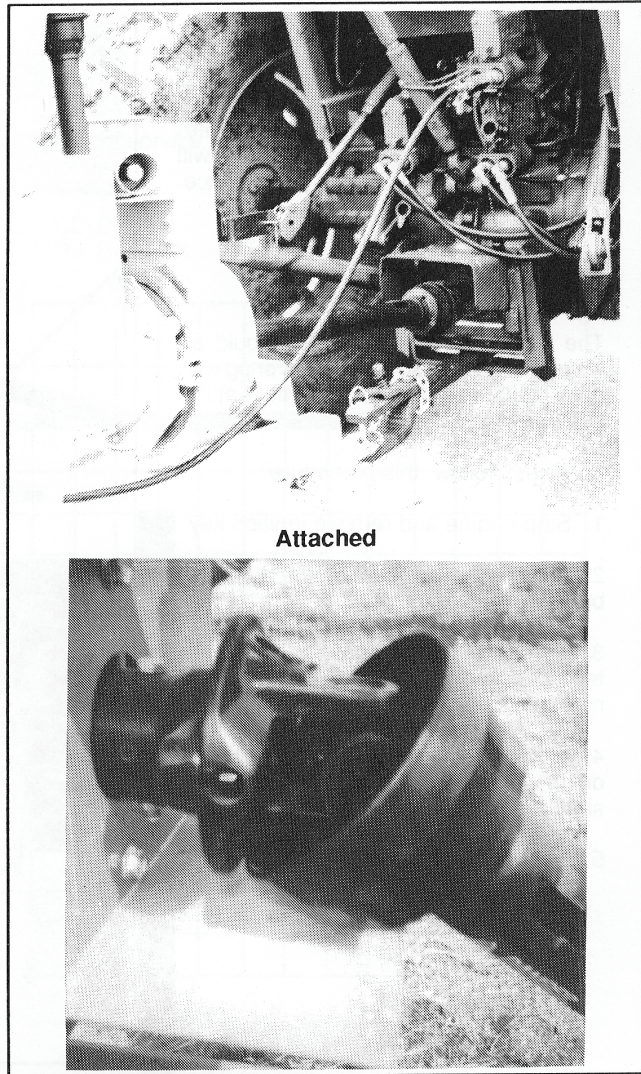


Fig. 27 SHEAR PIN

Universal

### 5.2.4 ACCESS DOOR

A small access door is located on the bottom of the tube at the lower end. Clean the tube by opening this access door. Stop engine and remove ignition key or remove PTO driveline before opening door.

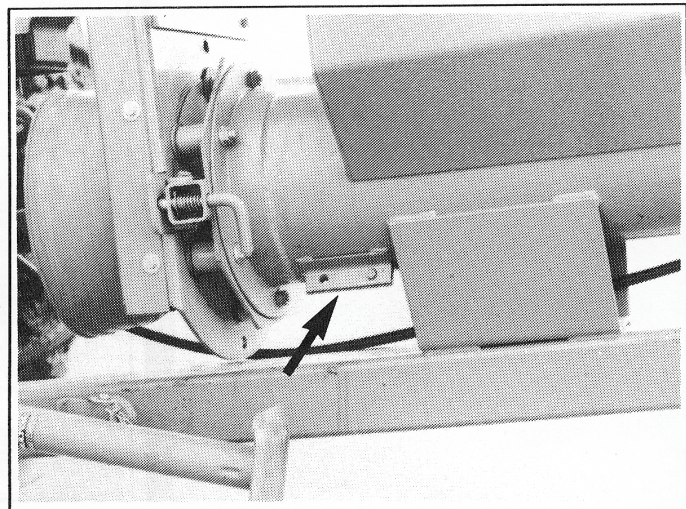


Fig. 28 ACCESS DOOR

## Instructions for Replacing the Double Constant Velocity Joint

1. Check that the support cross rod is properly adjusted. The rod should be tightened so dimension "B" is equal to dimension "A". See figure 29.

2. Remove the safety mesh. Note: After installing the constant velocity (CV) joint, it is important that the safety mesh be reinstalled (only remove for installation). The mesh provides required structural support to the hopper. Remove the 5/16 bolts that hold the CV joint to the helicoids. (Models prior to 1997 may have a flex shaft. Flex shafts are no longer available.) Do not use a hammer to remove bolts; the helicoids will bend causing vibration.

3. Remove hopper from inclined tube assembly.

4. Grease the inside end of the hopper helicoid; insert the hex connector so the holes align. Guide a 5/16 x 2 bolt through the hole in the hopper helicoid and tighten with a locknut.

5. Bolt tube connector to CV joint using 5/16 x 2 1/2 bolt and lock nut.

6. Grease inside end of inclined tube helicoid; insert end of tube connector into the helicoid. Fasten with 1/16 x 2 bolt and locknut. Do not tighten until final adjustment (see step 8).

7. Guide the incline tube on to the hopper, the angle ring spacer (use only for augers sold prior to 1994) held in between them. At the same time, the CV joint must be guided onto the hex connector, only guide the CV joint on to the hex connector where the helicoids will not interfere with each other (rotate the hopper helicoid to the desire position).

Where the end of the hopper flighting ends, the inclined tube flighting should begin. Use 1/2 x 2 1/2 bolts for a 10" auger and 7/16 x 2 1/2 bolts for an 8" auger to assemble the hopper to the inclined tube.

8. Adjust CV joint so that it is approximately 1/4" from bottoming out on the hex connector. Tighten locknut at inclined tube connection.

9. Slowly rotate the hopper helicoid and visually check that the flighting ends are at least 1/4" away from the CV joint in all positions. Torch flighting to remove any interfering material. Be careful not to cut the CV joint or connectors.

10. REMEMBER TO RE-INSTALL THE SAFETY MESH. THIS IS VERY IMPORTANT.

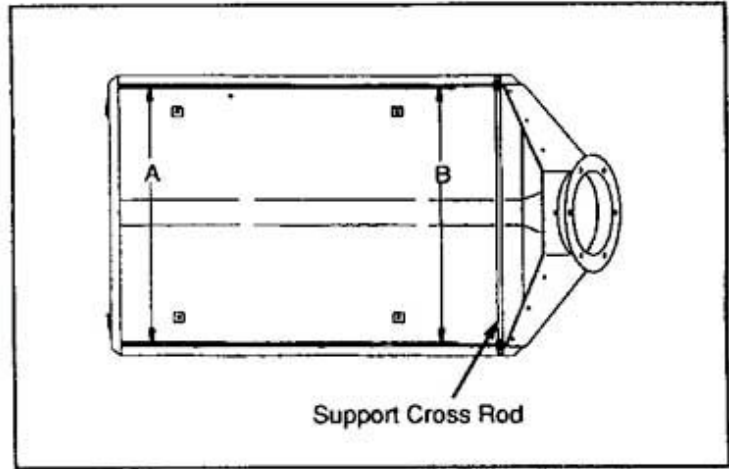


Fig. 29 HOPPER

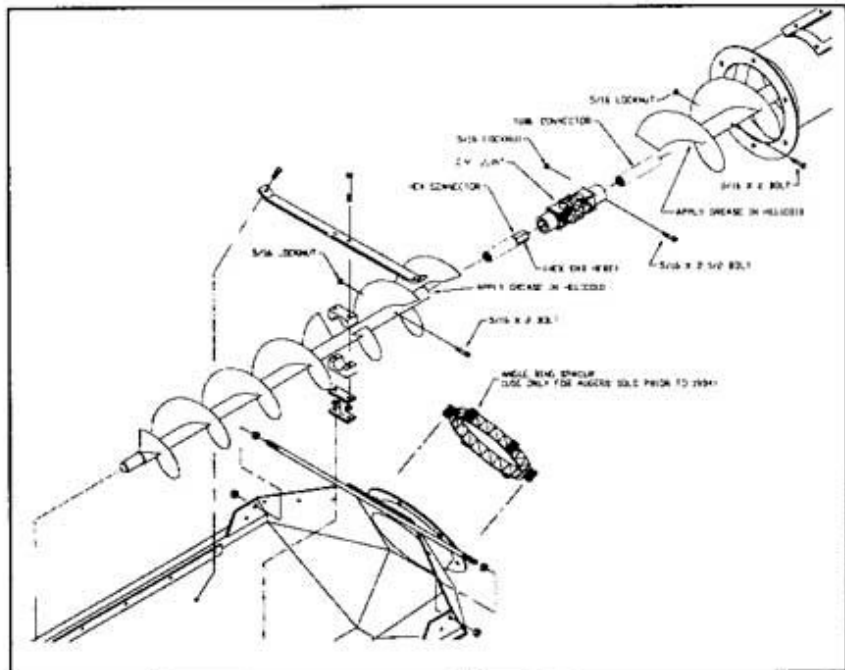
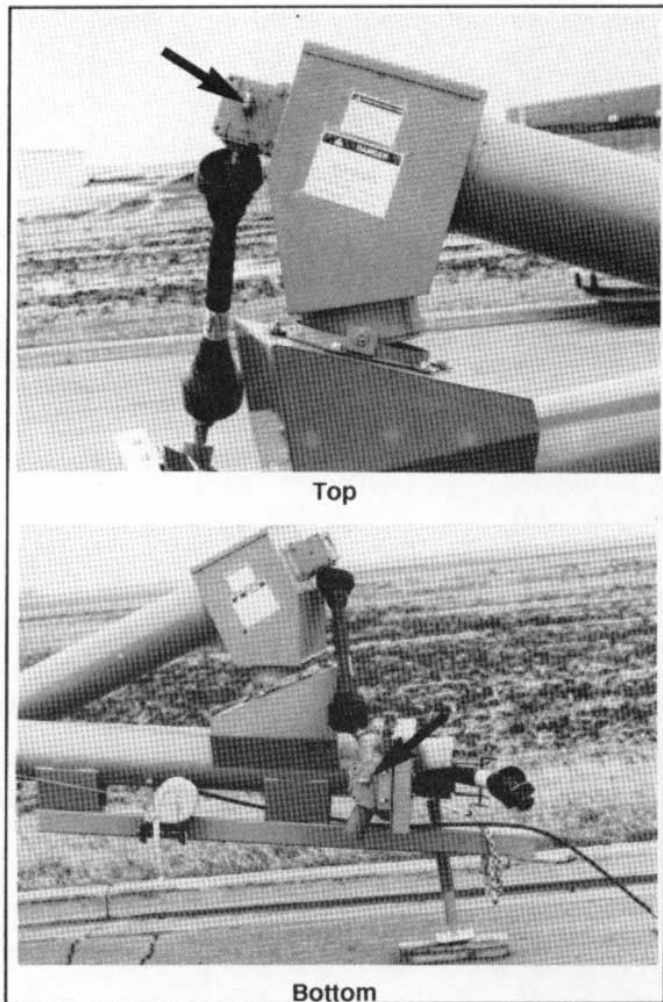


Fig. 30 DOUBLE CONSTANT VELOCITY JOINT

### 5.2.6 BREATHER CLEANING

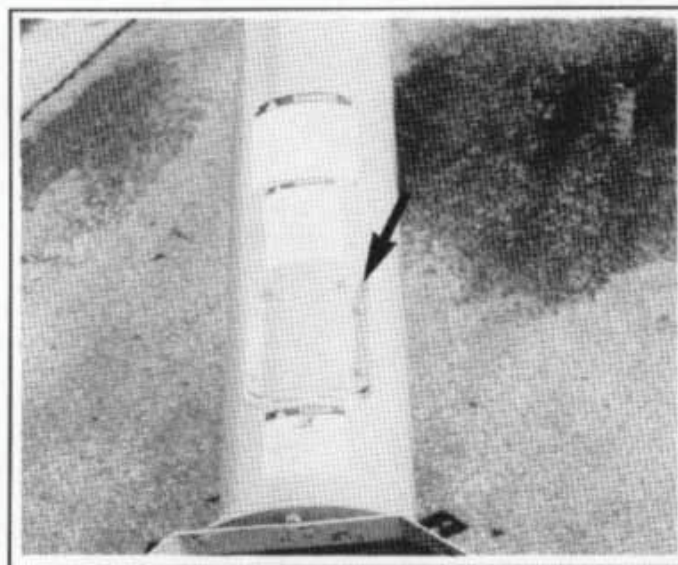
Annually clean the gearbox breather. Remove from the elbow and soak in solvent. Blow out with an air hose or use a wire to loosen the dirt.



**Fig. 31 BREATHER**

### 5.2.7 SWING AUGER BEARING

An access door is located on the swing auger to allow bearing replacement. Stop engine and remove ignition key or remove the PTO driveline before opening access door. Install and secure the door before resuming work.



**Fig. 32 ACCESS DOOR**

### 5.2.8 SWING AUGER SUPPORT

The winch and support frame for lifting and holding the swing auger can be mounted on either side of the machine.

Remove and mount to the opposite side if required. Remove the mounting pins for each component when moving. Install the retainers in the pins before raising the swing auger.

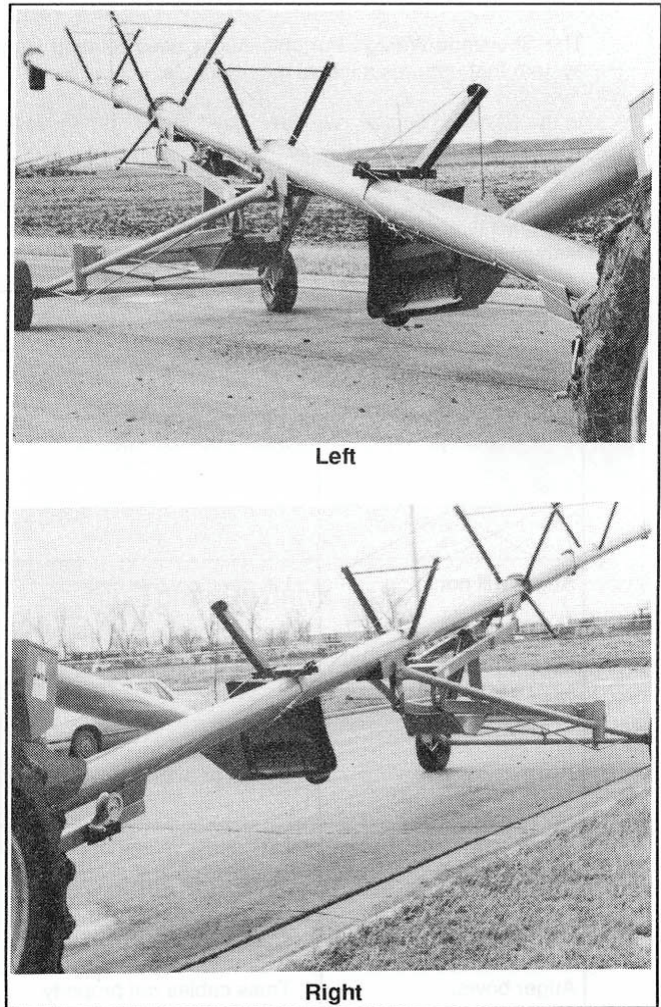


Fig. 33 SWING AUGER SUPPORT

## 6 TIMING THE FLIGHTING

### 6.1 HANGER BEARINGS, 1410 AUGER

On the 1410 augers the flighting is supported by hanger bearings every 10 feet (3 m). Although they do not require lubrication, they can fail after extended periods of use. Normally failure will be accompanied by an increase in noise level. Access covers on the top of the tubing allow access for bearing replacement.

To replace bearing, follow this procedure:

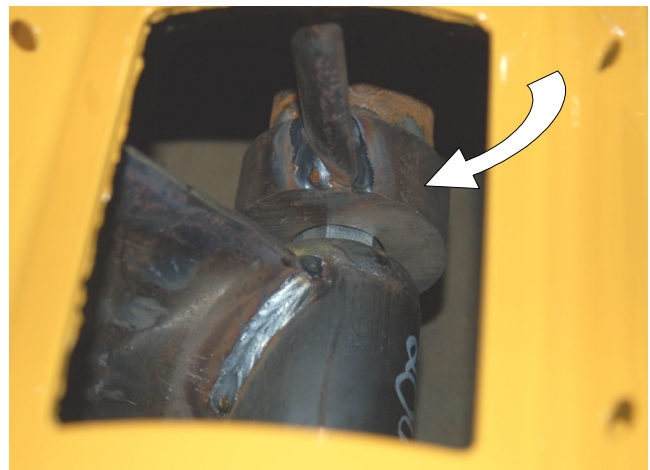
1. Clear the area of bystanders, especially small children.
2. Remove power as appropriate:
  - a. Disconnect PTO shaft from tractor.
  - b. Turn electric motor OFF and lock out power at master panel.
3. Remove access cover next to failed bearing and the access covers the rest of the way down the auger. See fig. 34.
4. Remove bolts from the hanger bearings next to the access cover holes.
5. Remove intake bearing assembly from the bottom of the auger.
6. Replace the hanger bearing that has failed. See fig. 35. Use **only genuine Sheyenne/Westgo replacement parts.**

#### **IMPORTANT TIMING INFORMATION!**

7. Slide flighting sections and bearing assemblies back into tube. The hex shafts and the flighting sockets to which they mate **“time”** the flighting. To do justice to this very important topic we direct you to page 39b.

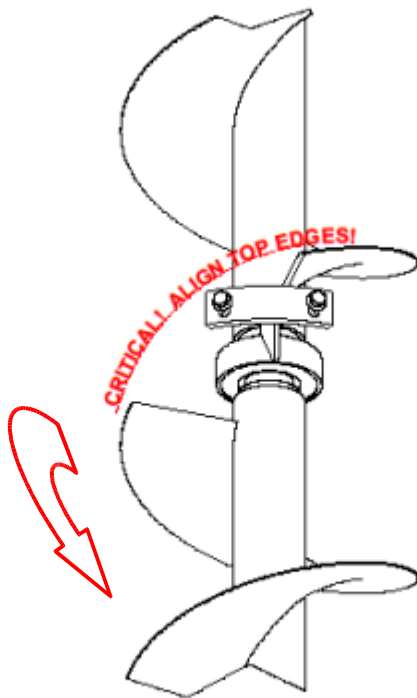


**Fig. 34 BEARING REPLACEMENT  
(Access Covers)**



**Fig. 35 BEARING REPLACEMENT  
(Hanger Bearing)**

## CORRECT TIMING

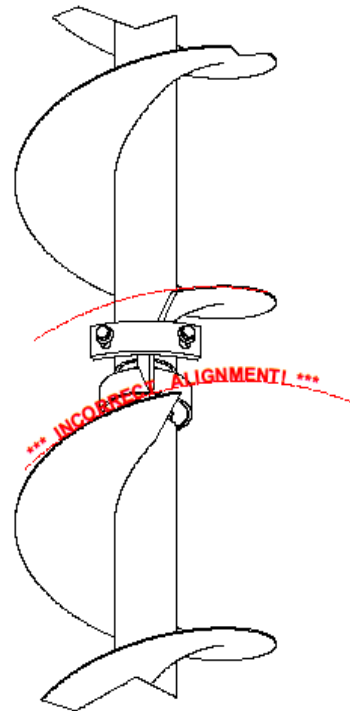


**Fig. 36**

The hex connecting shafts that engage adjacent flightings allow only six assembly options. Move the lower section all the way up to the hanger bearing and observe the alignment. It is likely that you will not be able to achieve the perfect “flow” shown above. If not, slide the section of flighting back down the tube enough to clear the hex shaft and rotate the outer edge left and down (as indicated by the arrow) until you can engage the next hex shaft corner. Move the flighting section back up to the hanger bearing and check again. If you have to be “advanced” a few degrees, that's OK.

We at Sheyenne/Westgo think it is worth your while to open all access covers and check for proper assembly. The auger capacity and life of the flighting are significantly affected.

## INCORRECT TIMING



**Fig. 37**

When flighting sections are assembled as shown here, grain is brought up from below and “packed” in behind the next flighting section. Again, this reduces capacity and increases flighting wear.

If you are the person assembling auger flighting sections and the above alignment happens, correct it. If you open access covers and find this, correct it.

8. With all sections properly timed, reinstall access covers and tighten mounting bolts to their specified torque.



## 7 TROUBLE SHOOTING

The Sheyenne/Westgo Portable Auger uses rotating flighting to move grain. It is a simple and reliable system that requires minimal maintenance.

In the following section, we have listed many of the problems, causes and solutions to the problems that you may encounter.

If you encounter a problem that is difficult to solve, even after having read through this trouble shooting section, please call your local Sheyenne/Westgo dealer. Before you call, please have this Operator's Manual and the serial number from your machine ready.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Auger doesn't turn	Broken shear pin	Replace shear pin
Poor capacity	Flighting sections not timed properly. (1410 Augers)	Open access covers and check alignment. If incorrect, disassemble and correct per pages 39a and 39b.
	Incorrect PTO speed	This auger should operate at 500 RPM. (Over speeding will reduce capacity as much as under speeding).
	Improper Feeding	Intake end should be completely covered with grain
	Worn flighting at intake end	Replace flighting
Auger will not raise	Lift needle valve closed	Open lift needle valve
	Restrictions in hydraulic line	Check hydraulic line for restriction. (This generally occurs at the restrictor valve located next to the hydraulic cylinder)
	Faulty quick couplers on tractor or auger	Replace quick couplers
Auger drops or settles after being positioned	Lift needle valve not closed	Close needle valve after positioning the auger.
	Tractor hydraulic valve faulty	Contact your tractor dealer.
Auger bows	Truss cables not properly adjusted	Adjust trussing

## 8 OPTIONS

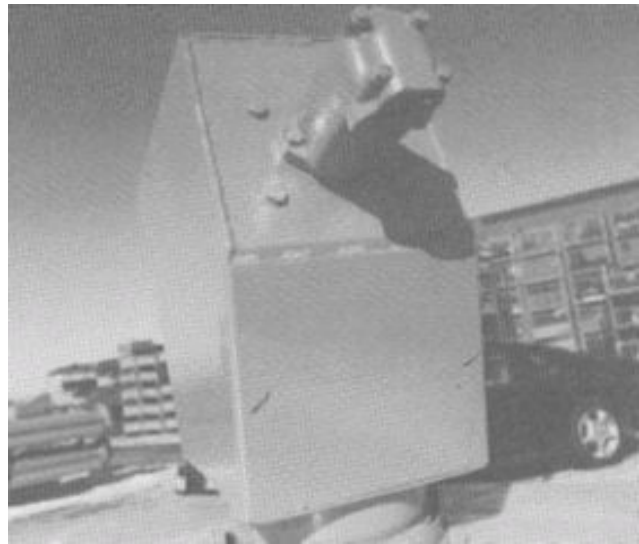
### 8.1 HYDRAULIC DRIVE

An optional drive is available for the swing auger. It is driven by the hydraulic system on the tractor.

It is the responsibility of the operator to set the hydraulic controls to turn the auger in the required direction. Earlier swing augers were equipped with a flex connector. Do not operate them in reverse.

#### **IMPORTANT**

Do not use the hydraulic circuit to change the rotational direction of the auger for unplugging. The flex connector on the lower end is not designed to carry a load in the reverse direction. It may unwind and require replacement with a constant velocity universal joint.



**Fig. 36 HYDRAULIC DRIVE**

## 9 SPECIFICATIONS

### 9.1 MECHANICAL

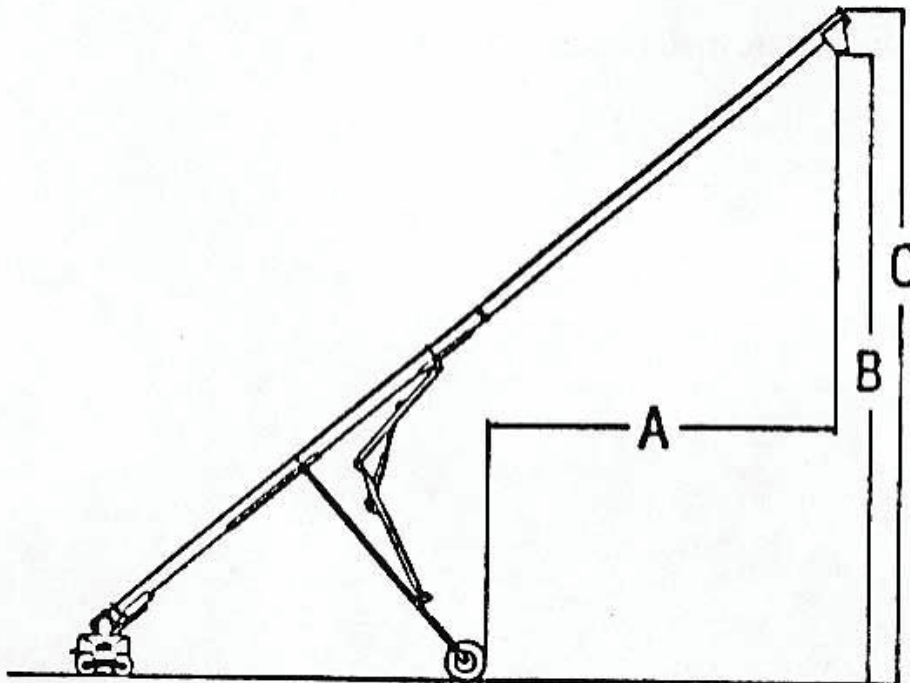
	<b>8" 1405</b>	<b>10" 1405</b>	<b>10" 1410</b>
<b>AUGER TUBE</b>	8" OD	10" OD	10" OD
<b>HELICOID TUBE</b>	1 1/2" OD	2" OD	2 3/8" OD
<b>FLIGHTING</b>	7 1/4" OD	9 1/4" OD	9" OD
<b>WHEEL SIZE</b>	15" – 4 Bolt	15" – 5 Bolt	15" – 5 Bolt
<b>TIRE PRESSURE</b>	30 psi	30 psi	30 psi
<b>REACH ARM TUBE</b>	3" OD x 10 Gauge	3 1/2" OD x 10 Gauge	3 1/2" OD x 10 Gauge
<b>TREAD WIDTH (CENTER TO CENTER)</b>	STD. – 112" WIDE – 142"	STD. – 112" WIDE – 142"	STD. – 112" WIDE – 142"
<b>HYDRAULIC CYLINDER</b>	3" x 36" Stroke	4" x 36" Stroke	4" x 36" Stroke
<b>SWING HOPPER TIRE SIZE</b>	10" OD	10" OD	10" OD
<b>HOPPER SIZE</b>	32" x 60"	32" x 60"	32" x 60"
<b>HOPPER TRANSPORT WINCH</b>	1000 # Cap. Brake Type	1000 # Cap. Brake Type	1000 # Cap. Brake Type
<b>WEIGHT</b>	8" x 61' = 2900 #	10" x 61' = 3700 # 10" x 71' = 4100 #	10" x 61' = 3750 # 10" x 71' = 4160#
<b>CAPACITY</b>	Up to 3800 B.P.H.	Up to 6000 B.P.H.	Up to 6000 B.P.H.
<b>POWER REQUIREMENTS</b>	Minimum 30 H.P.	Minimum 40 H.P.	Minimum 40 H.P.

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

## 9.2 DIMENSIONS

	Auger Angle	A	B	C
<b>60'</b>	10 (transport)	25'	11'	13'
	30	23'	24'	
	40 (fully raised)	24'	40'6"	
<b>70'</b>	10 (transport)	31'	11'6"	13'6"
	30	28'6"	37'6"	
	40 (fully raised)	26'6"	47'6"	
<b>80'</b>	10 (transport)	37'6"	12'6"	14'6"
	30	33'8"	42'5"	
	40 (fully raised)	31'6"	52'	

Transport Width: STD Axle = 10'      Wide Axle = 12'6"



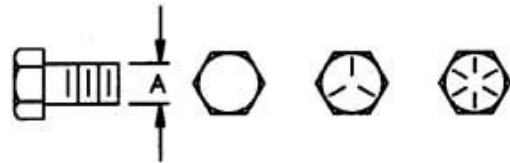
### 9.3 BOLT TORQUE

#### CHECKING BOLT TORQUE

The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as guide. Replace hardware with the same strength bolt.

#### ENGLISH TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*					
	SAE 2		SAE 5		SAE 8	
	N.m	(lb-ft)	N.m	(lb-ft)	N.m	(lb-ft)
1/4"	8	(6)	12	(9)	17	(12)
5/16"	13	(10)	25	(19)	36	(27)
3/8"	27	(20)	45	(33)	63	(45)
7/16"	41	(30)	72	(53)	100	(75)
1/2"	61	(45)	110	(80)	155	(115)
9/16"	95	(70)	155	(115)	220	(165)
5/8"	128	(95)	215	(160)	305	(220)
3/4"	225	(165)	390	(290)	540	(400)
7/8"	230	(170)	570	(420)	880	(650)
1"	345	(225)	850	(630)	1320	(970)



Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless specified in this manual. When using locking elements, increase torque values by 5%.

\*Torque value for bolts and capscrews are identified by their head markings.



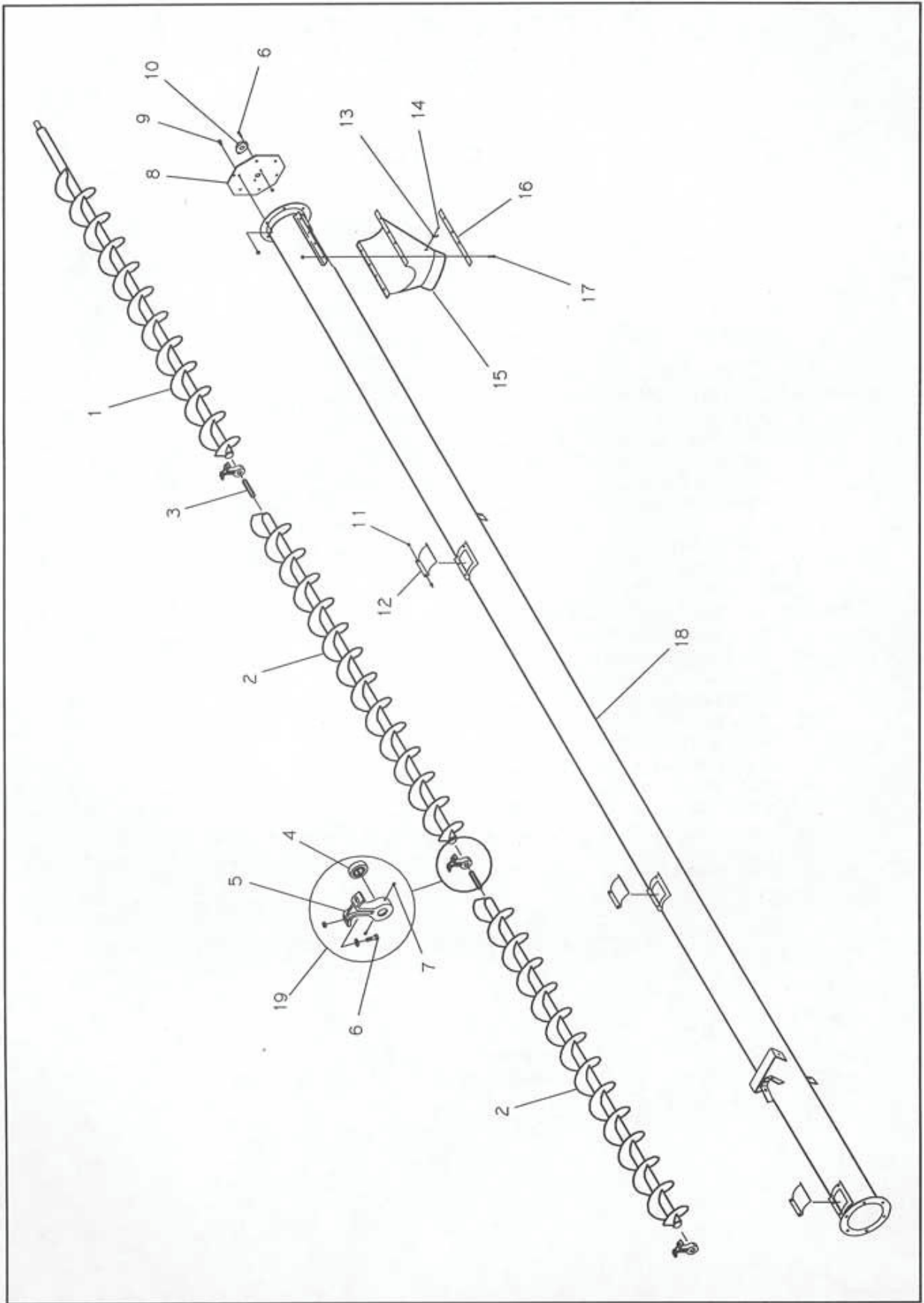
# PARTS SECTION

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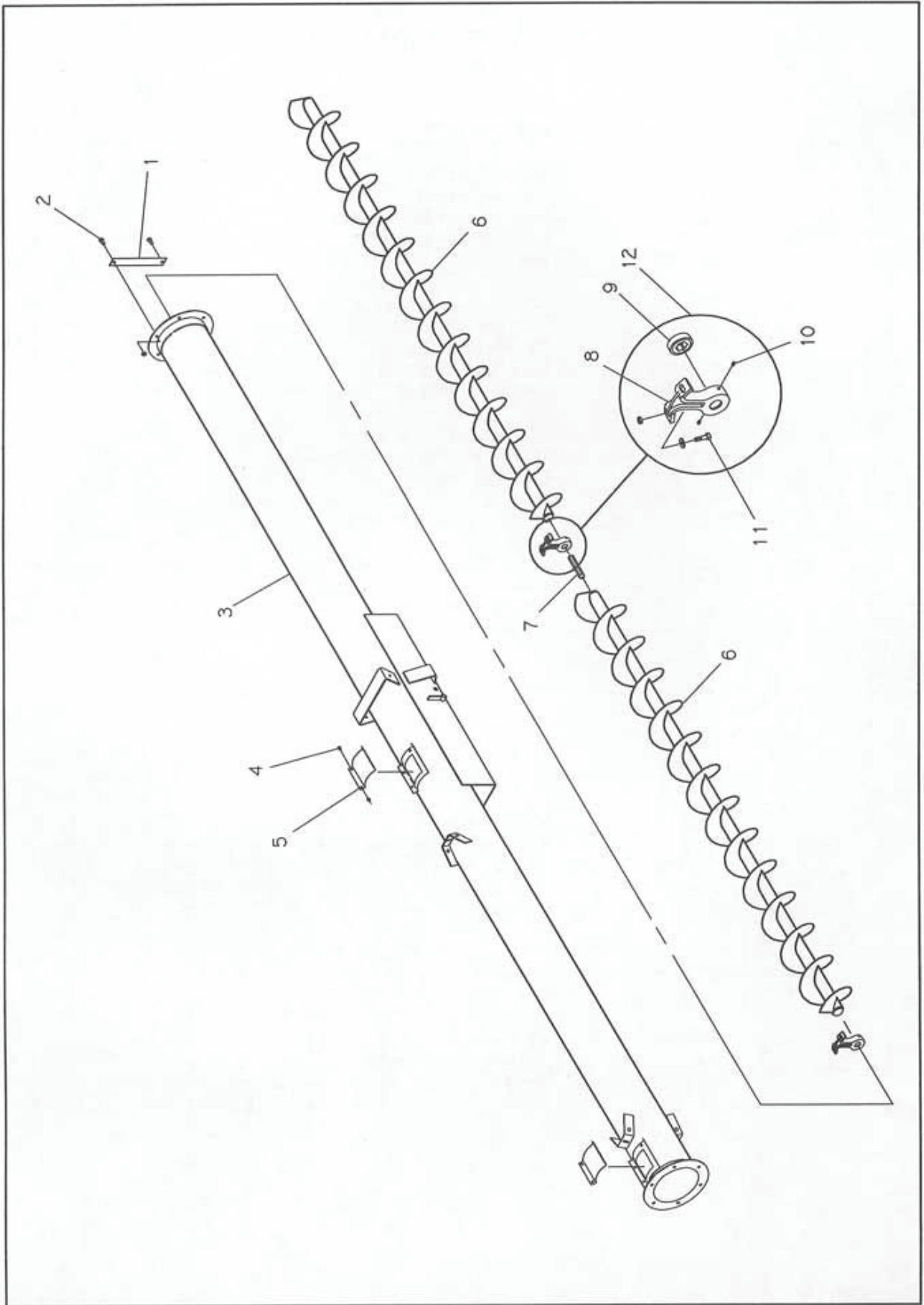




## TOP TUBE (MODEL 1410)

8" X 60"   10" X 60'   10" X 70'   10" X 80'

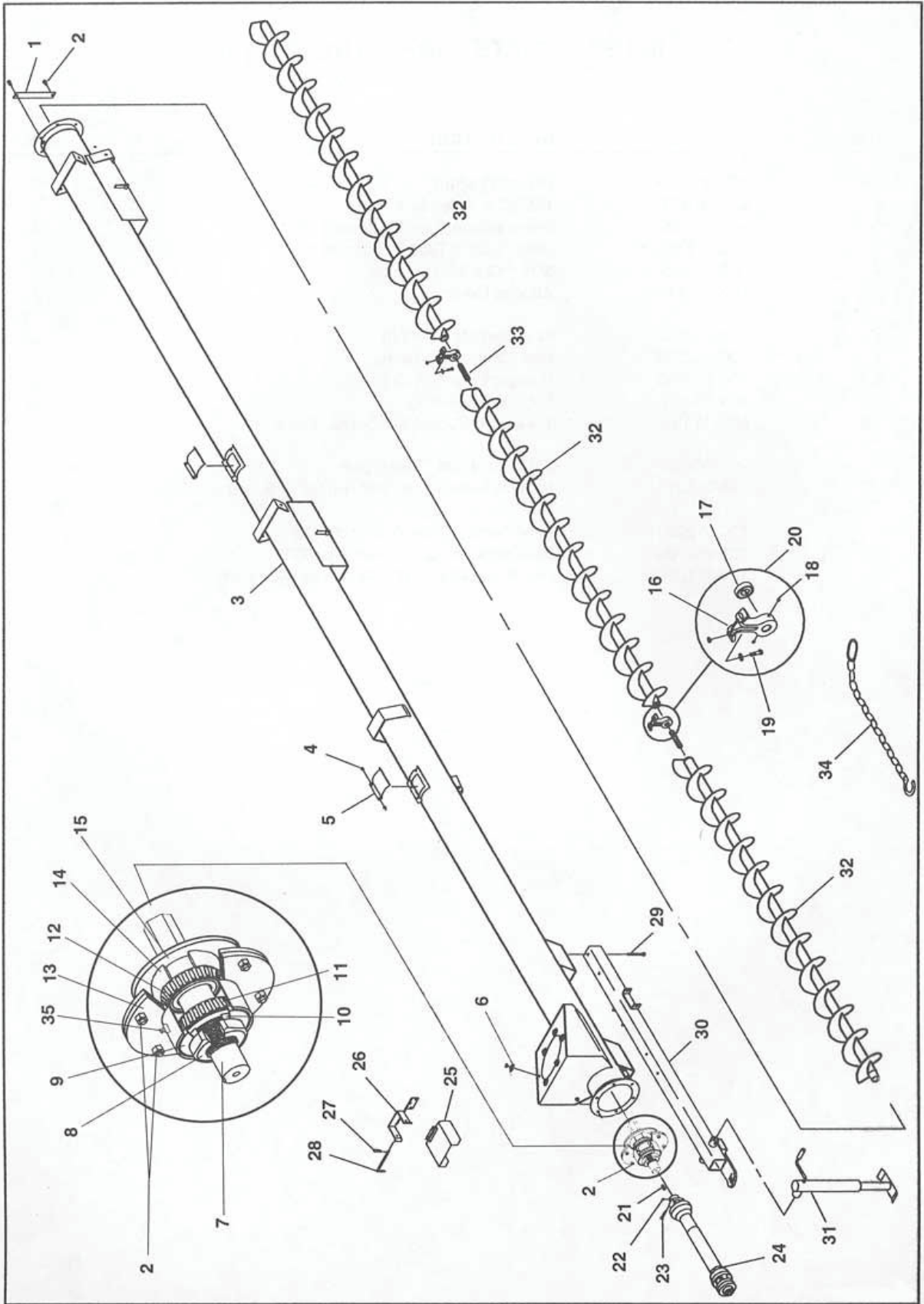
REF.	PART NO.	DESCRIPTION	QTY.
1	100-2-2001	Top Helicoid (10")	1
	100-2-2643	Top Helicoid (8")	1
2	100-2-2002	Intermediate Helicoid (10")	2
	100-2-1391	Intermediate Helicoid (8")	2
3	100-3-2396	Hex Connecting Shaft (10")	2
	100-3-2636	Hex Connecting Shaft (8")	2
4	901-01121	1-1/8 Hex Bearing (10")	1
	901-01136	7/8 Hex Bearing (8")	1
5	100-2-2833	Hanger Bearing (10")	1
	100-2-2834	Hanger Bearing (8")	1
6	900-00003	3/8 NCx 1-1/4 Flange Bolt	8
7	900-17193	1 /4 x 5/16 Socket Set Screw, Cone	2
8	100-3-3394	Bearing Plate (10")	1
	100-3-3725	Bearing Plate (8")	1
9	900-01221	1/2NCx1 Hex Bolt (10")	6
	900-01171	7/16NCx1 Hex Bolt (8")	6
10	901-01101	1/4 x 5/16 Economount Bearing	1
11	900-01055	5/16 NCx 3/4 Hex Bolt	12
12	100-3-1113	Access Cover	3
13	905-22012	Hook (Optional)	2
14	900-17068	#10 x 5/8 Hex Head Set Screw (optional)	4
15	100-3-2112	10" Spout	1
	100-3-2111	8" Spout	1
16	100-3-3864	10" Spout Straps	2
	100-3-2222	10" Spout Straps (prior to 1994)	2
	100-3-3865	8" Spout Straps	2
	100-3-2221	10" Spout Straps (prior to 1994)	2
17	900-01113	3/8 NCx 1-1/2 Hex Bolt	8
18	100-2-1998	Top Tube Weldment (10")	1
	100-2-2647	Top Tube Weldment (8")	1
19	100-2-1311	10" Hanger Bearing Assembly (Ref. 4, 5, 7)	3
	100-2-1908	8" Hanger Bearing Assembly (Ref. 4, 5, 7)	3
	100-2-2005	10" Top Tube Assembly (Ref. 1-12,18)	1
	100-2-2648	8" Top Tube Assembly (Ref. 1-12,18)	1
	100-2-1290	Hex Plug Weldment (Weld in service part) 10"	1
	100-2-1390	Hex Plug Weldment (Weld in service part) 8"	1



## INTERMEDIATE TUBE (MODEL 1410)

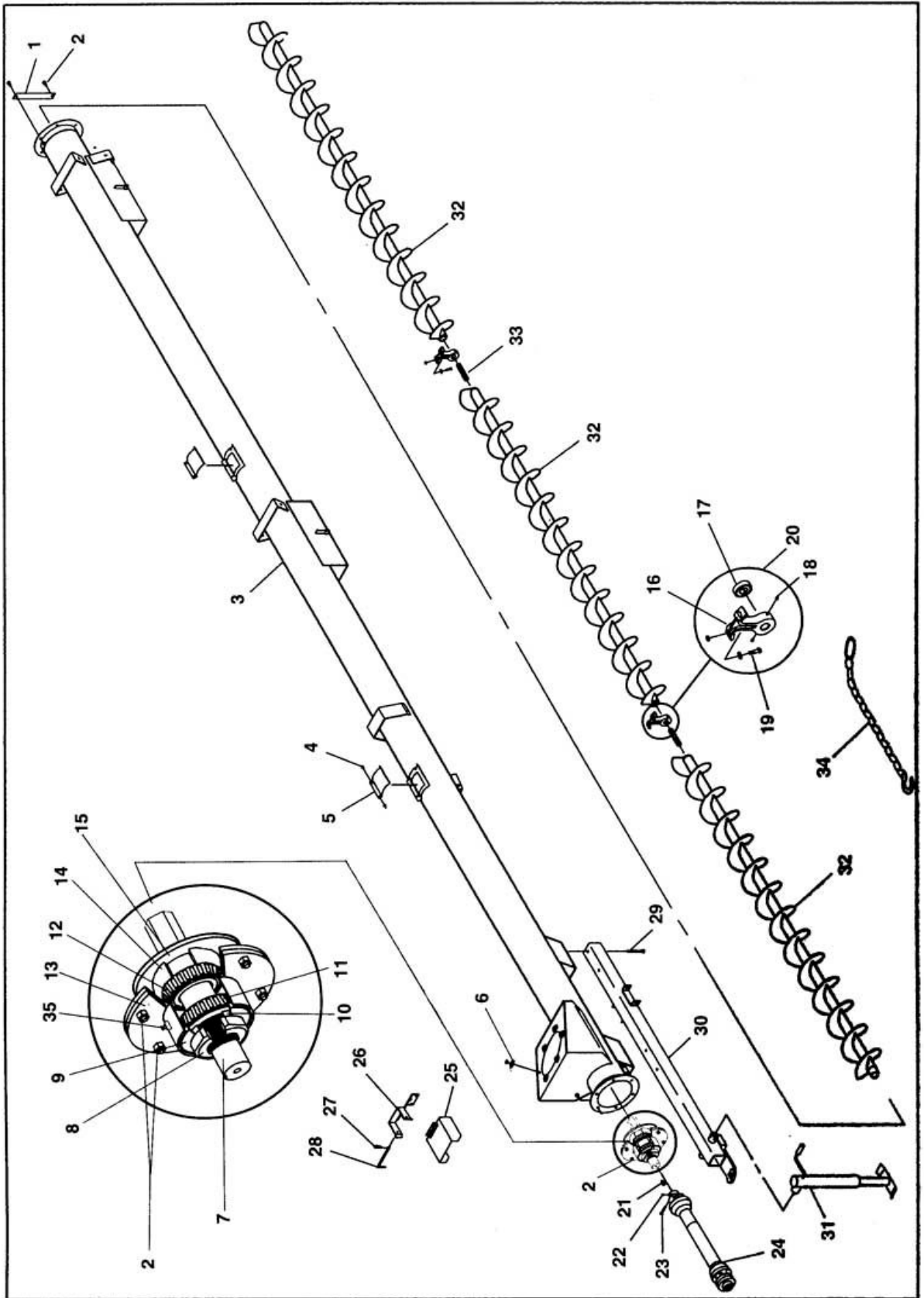
10"X70'    10"X80'

REF.	DESCRIPTION	PART	NO. QTY.
1	100-3-2579	Shipping Strap	1
2	900-01221	1/2NCx1 Hex Bolt (10")	2
3	100-2-2022	Intermediate Tube Weldment (70')	1
	100-2-2783	Intermediate Tube Weldment (80')	1
4	900-01055	5/16 NCx 3/4 Hex Bolt	8
5	100-3-1113	Access Cover	2
6	100-2-2002	Intermediate Helicoid	2
7	100-3-2396	Hex Connecting Shaft	1
8	100-3-2833	Hanger Bearing (10")	1
9	901-01121	1-1/8 Hex Bearing	1
10	900-17193	1/4 x 5/16 Socket Set Screw, Cone	2
11	900-00003	3/8 nc x 1-1/4 Flange Bolt	4
12	100-2-1311	Hanger Bearing Assembly (Ref. 8,9 ,10)	2
	100-2-2021	Intermediate Tube Assembly (70')	1
	100-2-2784	Intermediate Tube Assembly (80')	1
	100-2-1290	Hex Plug Weldment (Weld-in service part) 10"	1



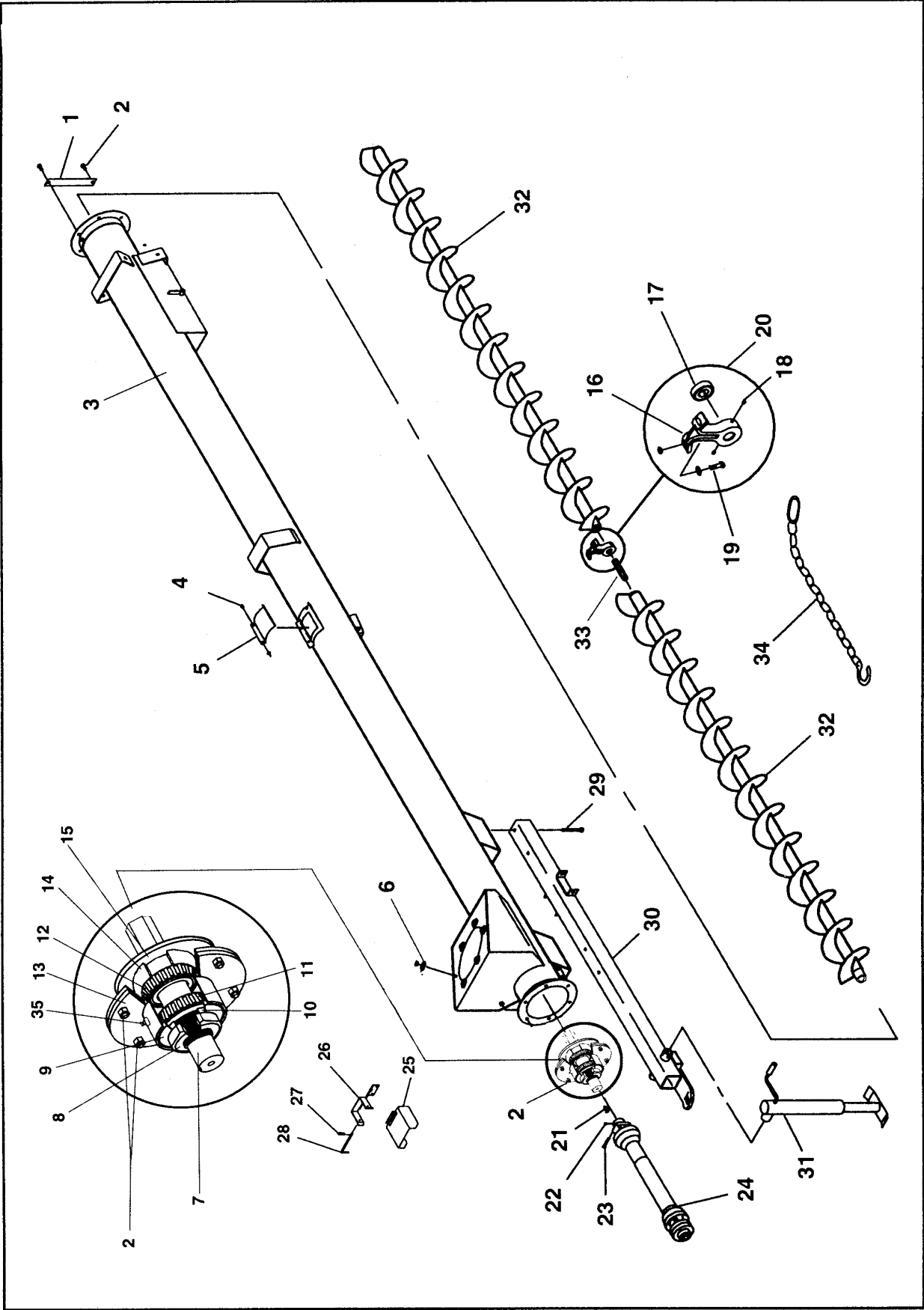
## 10" X 60' BOTTOM TUBE (MODEL 1410)

REF.	PART NO.	DESCRIPTION	QTY.
1	100-3-2579	Shipping Strap	1
2	900-01221	1/2 NC x 1 Hex Bolt	8
3	100-2-2065	Bottom Tube Weldment	1
4	900-01055	5/16 NCx 3/4 Hex Bolt, Nut	8
5	100-3-1113	Access Cover	2
6	100-3-3631	Spacer Washer	6
7	100-3-4280	10" Hex PTO Driveshaft	1
8	100-3-4287	1400 Bottom Brg Nut	1
9	901-09220	Seal	2
10	100-3-4283	Dust Cap, Locking	1
11	901-01301	Bearing Cup	2
12	901-01311	Taper Bearing	2
13	100-2-2812	10" Brg Plate Weldment	1
14	100-3-4278	Collar, Tapered Brg	1
15	100-3-4291	Dust Cap	1
	100-2-2825	Tapered Bearing Kit (10") (Ref. 7-15)	1
16	100-2-2833	Hanger Bearing (10")	1
17	901-01121	1-1/8 Hex Bearing	1
18	900-17193	1 /4 x 5/16 Socket Set Screw, Cone	2
19	900-00003	3/8 NCx 1-1/4 Flange Bolt	2
20	100-2-1311	Hanger Bearing Assembly (Ref. 16,17, 18,19)	2
21	100-3-1318	3/8x3/8x1-1/2 Key	1
22	900-16251	3/8 NC x 3/8 Socket Set Screw	1
23	900-01075	5/16x3 Hex Bolt	1
24	903-17664	PTO Shaft, CV (See Page 83)	1
25	100-2-1361	PTO Shield (Hydraulic Drive Only)	1
26	100-2-1360	PTO Rest	1
27	900-25005	Hair Pin Cotter	1
28	100-3-1020	Hold Down Pin	1
29	900-01249	1/2 NCx 5 Hex Bolt	4
30	100-2-2055	Hitch	1
31	905-23004	Jack, 2000 lb. (Fulton)	1
	905-23012	Repair Kit, Jack	1
32	100-2-2002	Intermediate Helicoid	3
33	100-3-2396	Hex Connecting Shaft	2
34	905-07111	Tow Chain	1
35	905-15024	Zerk, Straight, 1/4-28UNF	1
	100-3-4937	Decal, Caution PTO Damage	2
	100-3-4939	Decal, Caution Hopper Damage	2
	100-2-2070	Bottom Tube Assembly	1
	100-2-1290	Hex Plug Weldment (Weld-in service part)	1



## 8" X 60' BOTTOM TUBE (MODEL 1410)

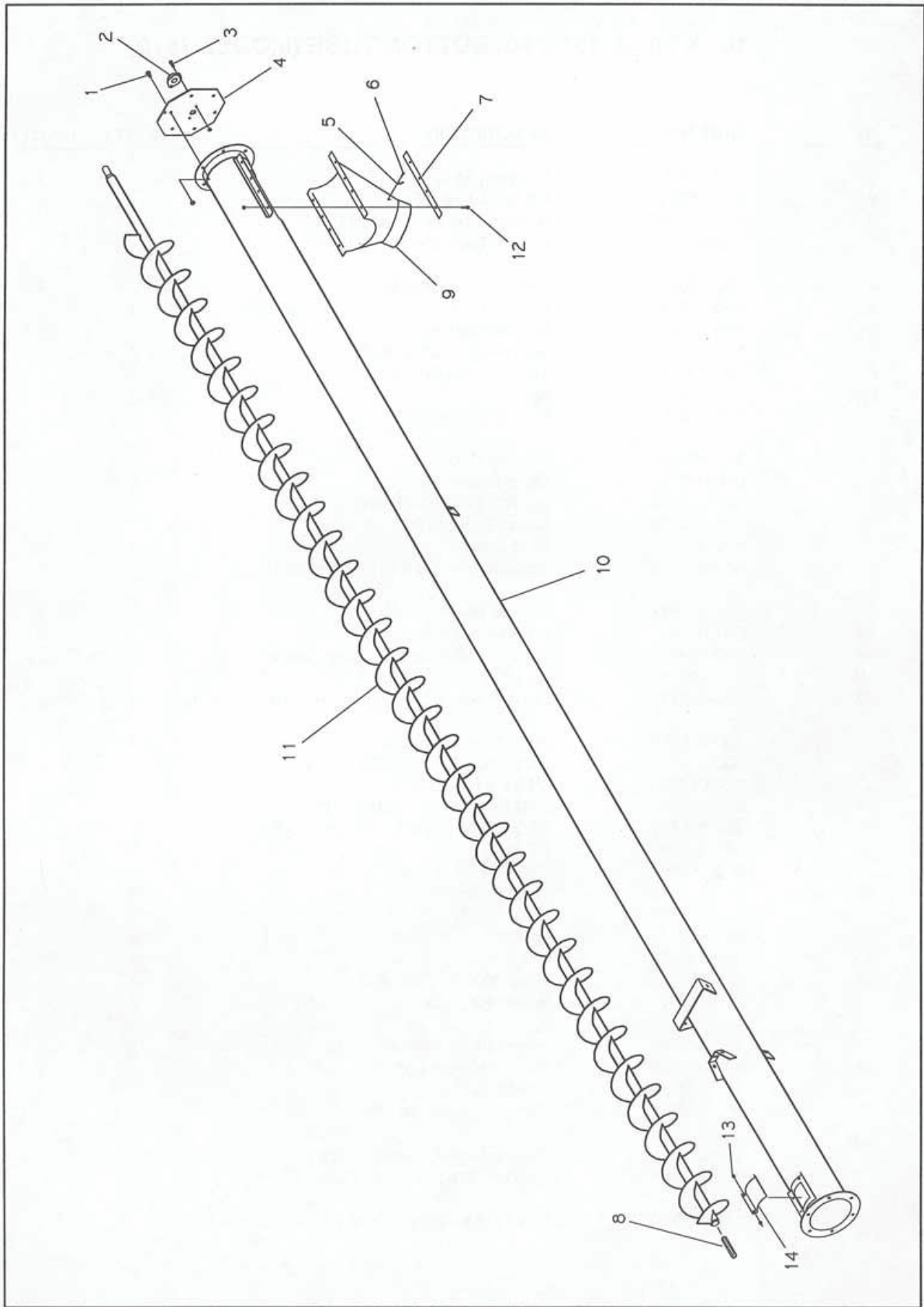
REF.	PART NO.	DESCRIPTION	QTY.
1	100-3-2671	Shipping Strap	1
2	900-01171	7/16NCx1 Hex Bolt	8
3	100-2-2646	Bottom Tube Weldment	1
4	900-01055	5/16 NCx 3/4 Hex Bolt	8
5	100-3-1113	Access Cover	2
6	100-3-3631	Spacer Washer	6
7	100-3-4279	8" Hex PTO Driveshaft	1
8	100-3-4287	1400 Bottom Brq Nut	1
9	901-09220	Seal	2
10	100-3-4283	Dust Cap, Locking	1
11	901-01301	Bearing Cup	2
12	901-01311	Taper Bearing	2
13	100-2-2813	8" Bra Plate Weldment	1
14	100-3-4278	Collar. Tapered Bra	1
15	100-3-4291	Dust Cap	1
	100-2-2826	Tapered Bearing Kit (8") (Ref. 7-15)	1
16	100-2-2834	Hanger Bearing (8")	1
17	901-01136	7/8 Hex Bearing	1
18	900-17193	1/4 x 5/16 Socket Set Screw, Cone	2
19	900-00003	3/8 NCx 1-1/4 Flange Bolt	2
20	100-2-1908	Hanger Bearing Assembly (Ref. 16, 17,18,19)	2
21	100-3-1318	3/8x3/8x1-1/2 Key	1
22	900-16251	3/8 NC x 3/8 Socket Set Screw	1
23	900-01075	5/16x3 Hex Bolt	1
24	903-17664	PTO Shaft. CV (See Page 83)	1
25	100-2-1361	PTO Shield (Hydraulic Drive Only)	1
26	100-2-1362	PTO Rest	1
27	900-25005	5/32 Hair Pin Cotter	1
28	100-3-1020	Hold Down Pin	1
29	900-01249	1/2 NC x 5 Hex Bolt	4
30	100-2-2055	Hitch	1
31	905-23004	Jack, 2000 lb. (Fulton)	1
	905-23012	Repair Kit, Jack	1
32	100-2-1391	Intermediate Helicoid	3
33	100-3-2636	Hex Connecting Shaft	2
34	905-07111	Tow Chain	1
35	905-15024	Zerk,Strgt, 1/4-28UNF	1
	100-3-4937	Decal, Caution PTO Damage	2
	100-3-4939	Decal, Caution Hopper Damage	2
	100-2-2649	Bottom Tube Assembly	1
	100-2-1390	Hex Plug Weldment (Weld-in service part 8")	1





## 10" X 70' & 10" x 80' BOTTOM TUBE (MODEL 1410)

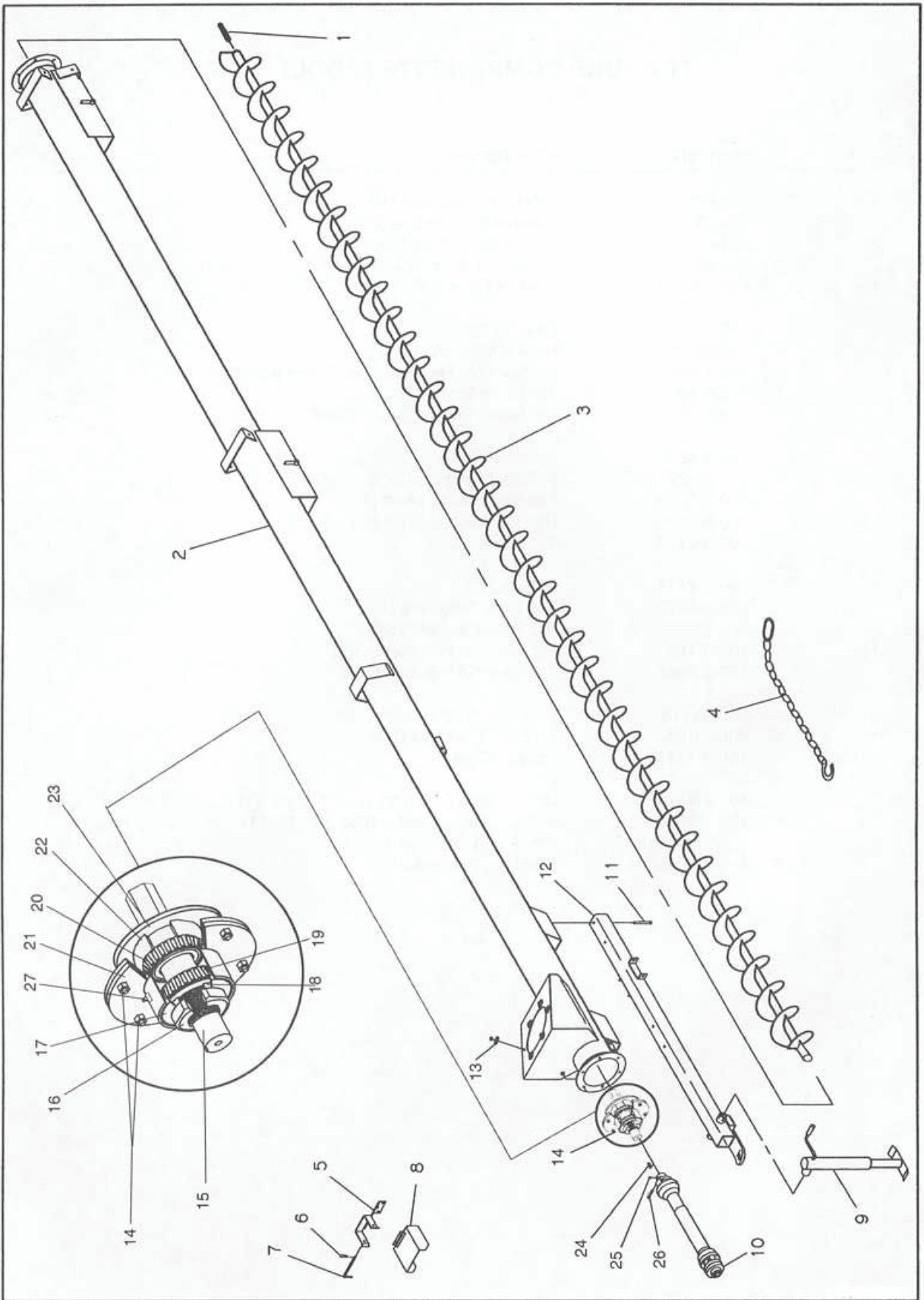
REF.	PART NO.	DESCRIPTION	70' QTY.	80' QTY.
1	100-3-2579	Shipping Strap	1	1
2	900-01221	1/2 NC x 1 Hex Bolt	8	8
3	100-2-2063	Bottom Tube Weldment (70')	1	-
	100-2-2785	Bottom Tube Weldment (80')	-	1
4	900-01055	5/16 NCx 3/4 Hex Bolt	4	4
5	100-3-1113	Access Cover	1	2
6	100-3-3631	Spacer Washer	6	6
7	100-3-4280	10" HexPTO Driveshaft	1	1
8	100-3-4287	1400 Bottom Brq Nut	1	1
9	901-09220	Seal	2	2
10	100-3-4283	Dust Cap, Locking	1	1
11	901-01301	Bearing Cup	2	2
12	901-01311	Taper Bearing	2	2
13	100-2-2812	10" Brq Plate Weldment	1	1
14	100-3-4278	Collar, Tapered Brq	1	1
15	100-3-4291	Dust Cap	1	1
	100-2-2825	Tapered Bearing Kit (10") (Ref. 7-15)	1	1
16	100-2-2833	Hanger Bearing (10")	1	1
17	901-01121	1-1/8 Hex Bearing	1	1
18	900-17193	1/4 x 5/16 Socket Set Screw. Cone	2	2
19	900-00003	3/8 NCx 1-1/4 Flange Bolt	2	2
20	100-2-1311	Hanger Bearing Assembly (Ref. 16, 17, 18, 19)	1	2
21	100-3-1318	3/8x3/8x1-1/2 Key	1	1
22	900-16251	3/8 NC x 3/8 Socket Set Screw	1	1
23	900-01075	5/16x3 Hex Bolt	1	1
24	903-17664	PTO Shaft, CV (See Page 83)	1	1
25	100-2-1361	PTO Shield (Hydraulic Drive Only)	1	1
26	100-2-1360	PTO Rest	1	1
27	900-25005	5/32 Hair Pin Cotter	1	1
28	100-3-1020	Hold Down Pin	1	1
29	900-01249	1/2 NC x 5 Hex Bolt	4	4
30	100-2-2055	Hitch	1	1
31	905-23004	Jack, 2000 lb. (Fulton)	1	1
	905-23012	Repair Kit. Jack	1	1
32	100-2-2002	Intermediate Helicoid	2	3
33	100-3-2396	Hex Connecting Shaft	1	2
34	905-07111	Tow Chain	1	1
35	905-15024	Zerk, Strgt, 1/4-28UNF	1	1
	100-3-4937	Decal, Caution PTO Damage	2	2
	100-3-4949	Decal, Caution Hopper Damage	2	2
	100-2-2068	Bottom Tube Assembly (70')	1	-
	100-2-2786	Bottom Tube Assembly (80')	-	-
	100-2-1290	Hex Plug Weldment (Weld-in service part 10")	1	1



## TOP TUBE COMPONENTS (MODEL 1405)

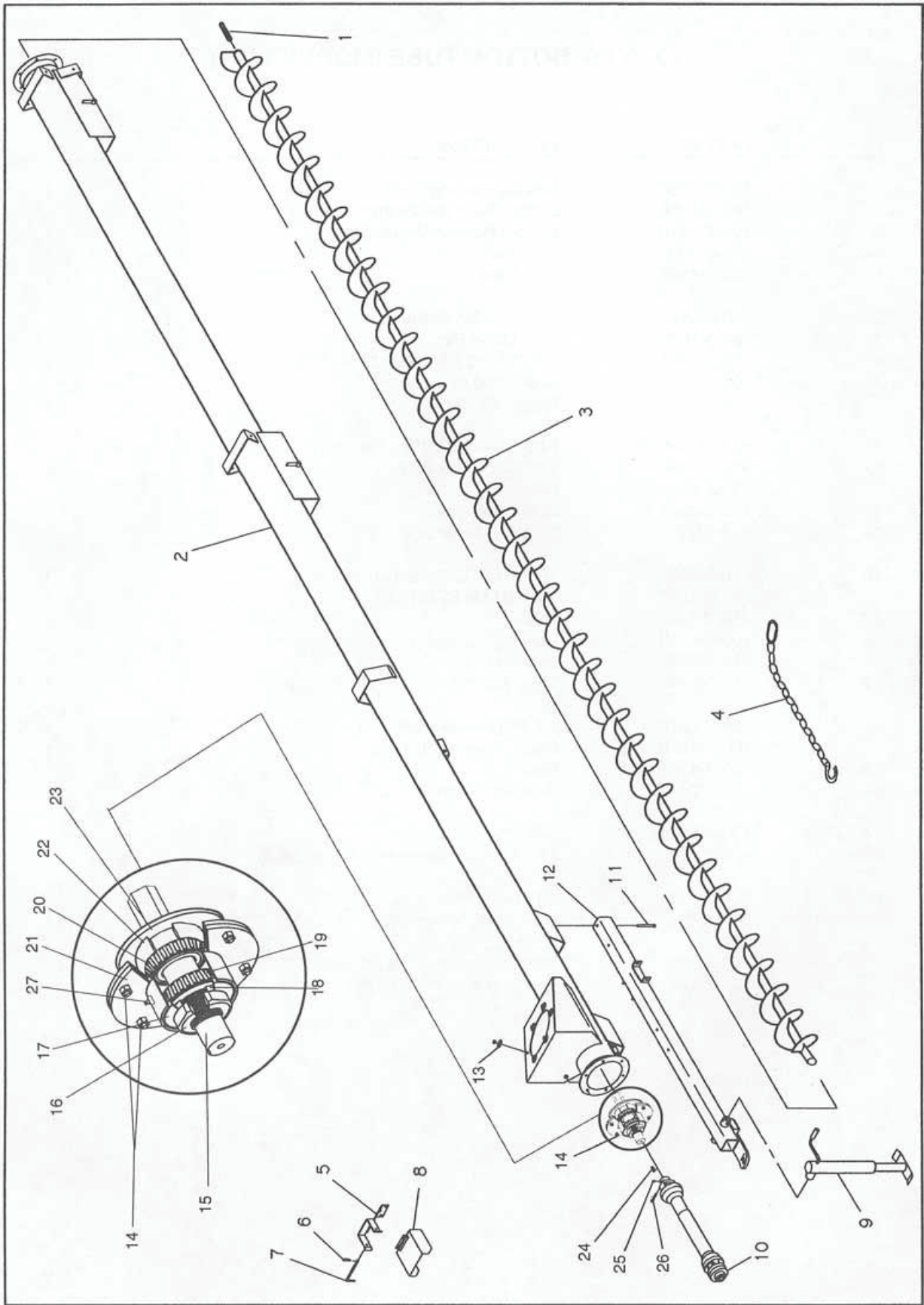
8"X60' 10"X60' 10"X70'

REF.	PART NO.	DESCRIPTION	QTY.
1	900-01221	1/2NCx1 Hex Bolt (10")	6
	900-01171	7/16NCx1 Hex Bolt (8")	6
2	901-01101	1-1/4 Economount Bearing	1
3	900-01111	3/8 NCx 1-1/4 Hex Bolt	2
4	100-3-3394	Bearing Plate (10")	1
	100-3-3725	Bearing Plate (8")	1
5	905-22012	Hook (Optional)	2
6	900-17068	10 - 24 x 5/8 Hex Head Set Screw (optional)	4
7	100-3-3864	10" Spout Straps	2
	100-3-2222	10" Spout Straps (prior to 1994)	2
	100-3-3865	8" Spout Straps	2
	100-3-2221	8" Spout Straps (prior to 1994)	2
8	100-3-2396	Hex Connecting Shaft (10")	1
	100-3-2636	Hex Connecting Shaft (8")	1
9	100-3-2112	10" Spout	1
	100-3-2111	8" Spout	1
10	100-2-1971	Top Tube Weldment(10")	1
	100-2-2036	Top Tube Weldment (8")	1
11	100-2-1967	Top Helicoid Weldment (10")	1
	100-2-2049	Top-Helicoid Weldment (8")	1
12	900-01113	3/8 NCx 1-1/2 Hex Bolt	8
13	900-01055	5/16 NCx 3/4 Hex Bolt	4
14	100-3-1113	Access Cover	1
	100-2-1972	10" Top Tube Assembly (Ref. 1 -4, 10, 11)	1
	100-2-2050	8" Top Tube Assembly (Ref. 1-4,10,11)	1
	100-2-1964	Hex Plug Weldment 10"	1
	100-2-2046	Hex Plug Weldment 8"	1



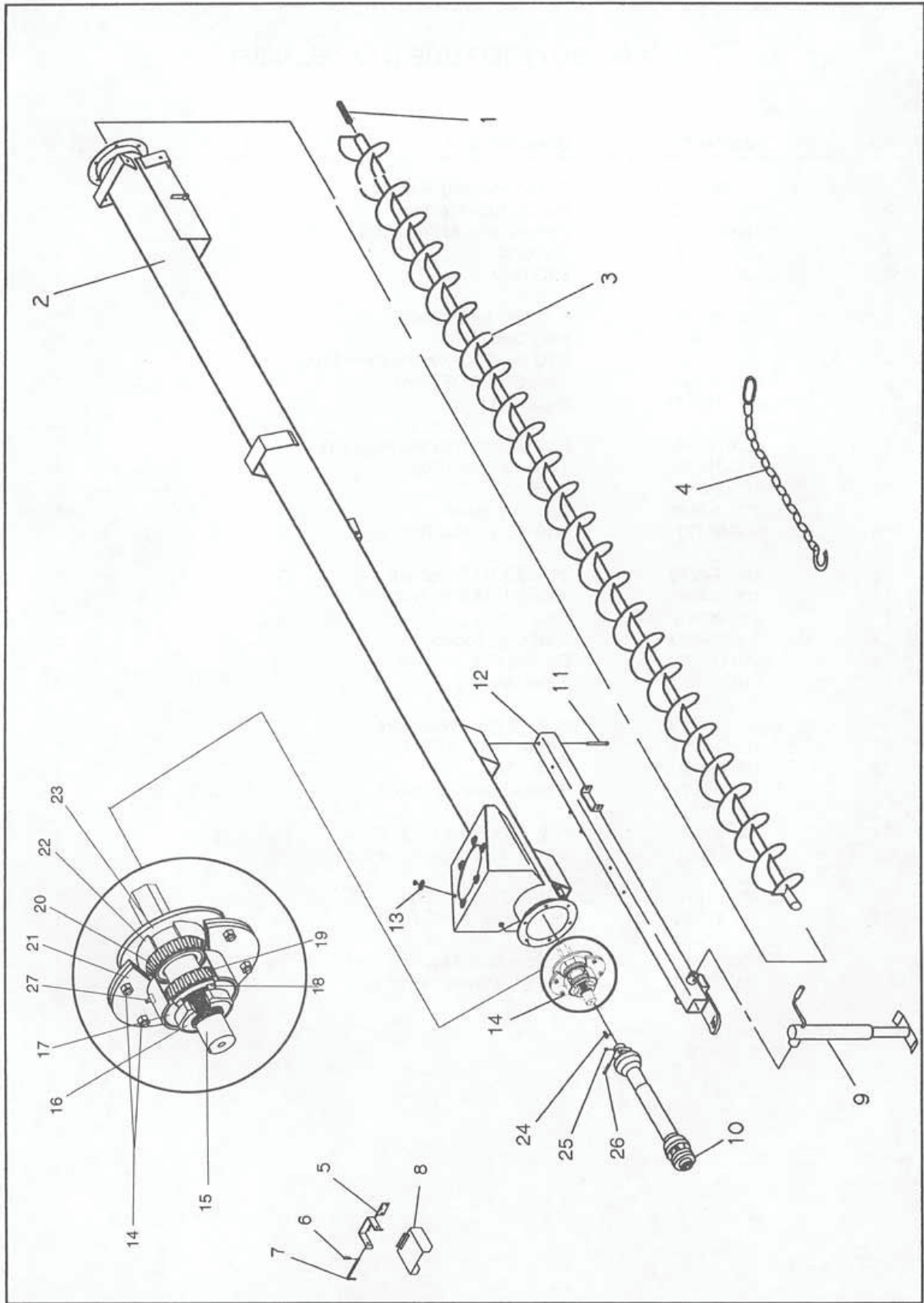
## 10" X 60' BOTTOM TUBE (MODEL 1405)

REF.	PART NO.	DESCRIPTION	QTY.
1	100-3-2396	Hex Connecting Shaft	1
2	100-2-2066	Bottom Tube Weldment	1
3	100-2-1970	Bottom Helicoid Weldment (Service part only)	1
	100-2-2815	Bottom Helicoid Weldment (New Part )	1
4	905-07111	Tow Chain	1
5	100-2-1360	PTO Rest	1
6	900-25005	5/32 Hair Pin Cotter	1
7	100-3-1020	Hold Down Pin	1
8	100-2-1361	PTO Shield (Hydraulic Drive Only)	1
9	905-23004	Jack, 2000 lb. (Fulton)	1
	905-23012	Repair Kit, Jack	1
10	903-17664	PTO Shafts, CV (See Page 83)	1
11	900-01249	1/2 NC x 5 Hex Bolt	4
12	100-2-2055	Hitch	1
13	100-3-3631	Spacer Washer	6
14	900-01221	1/2 NC x 1 Hex Bolt	6
15	100-3-4280	10"HexPTODriveshaft	1
16	100-3-4287	1400BTTMBRGNut	1
17	901-09220	Seal	2
18	100-3-4283	Dust Cap, Locking	1
19	901-01301	Bearing Cup	2
20	901-01311	Taper Bearing	2
21	100-2-2812	10"BRG Plate Weldment	1
22	100-3-4278	Collar, Tapered BRG	1
23	100-3-4291	Dust Cap	1
	100-2-2825	Tapered Bearing Kit (10") (Ref. 15 – 23)	1
24	100-3-1318	Key, 3/8x3/8x1-1/2	1
25	900-16251	3/8 NC x 3/8 Socket Set Screw (cone)	1
26	900-01075	5/16 NCx 3 Hex Bolt	1
27	905-15024	Zerk, Strgt, 1/4-28 UNF	1
	100-3-4937	Decal, Caution PTO Damage	2
	100-3-4939	Decal, Caution Hopper Damage	2
	100-2-2071	Bottom Tube Assembly (Ref. 2, 3,13-23, 27)	1
	100-2-1964	Hex Plug Weldment (10")	1



## 8" X 60' BOTTOM TUBE (MODEL 1405)

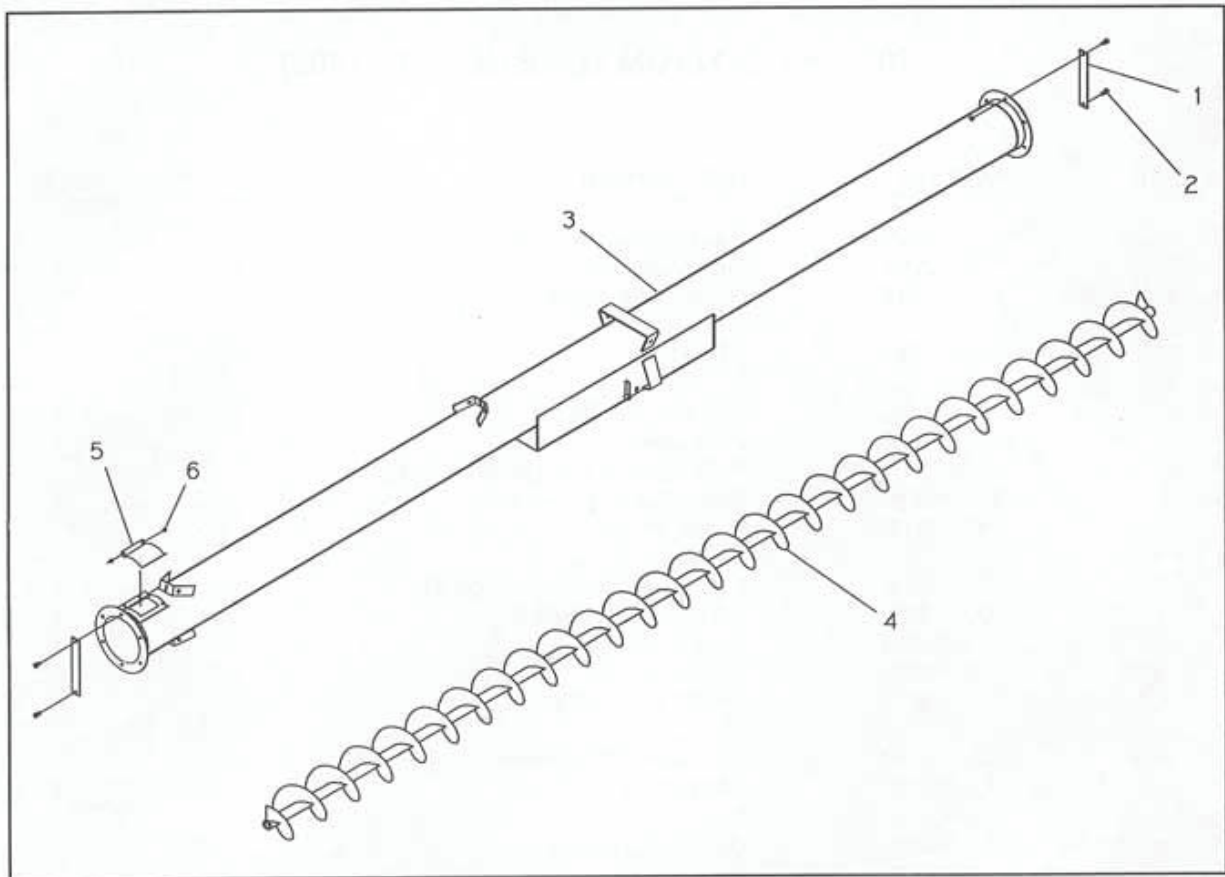
REF.	PART NO.	DESCRIPTION	QTY.
1	100-3-2636	Hex Connecting Shaft	1
2	100-3-2062	Bottom Tube Weldment	1
3	100-2-2052	Bottom Helicoid Weldment	1
4	905-07111	Tow Chain	1
5	100-2-1360	PTO Rest	1
6	900-25005	5/32 Hair Pin Cotter	1
7	100-3-1020	Hold Down Pin	1
8	100-2-2716	PTO Shield (Hydraulic Drive Only)	1
9	905-23004	Jack, 2000 lb. (Fulton)	1
	905-23012	Repair Kit, Jack	1
10	903-17664	PTO Shafts, CV (See Page 83)	1
11	900-01249	1/2NCx5HexBolt	4
12	100-2-2055	Hitch	1
13	100-3-3631	Spacer Washer	6
14	900-01171	7/16NCx1 Hex Bolt	6
15	100-3-4279	8" Hex PTO Driveshaft	1
16	100-3-4287	1400 Bottom Bearing Nut	1
17	901-09220	Seal	2
18	100-3-4283	Dust Cap, Locking	1
19	901-01301	Bearing Cup	2
20	901-01311	Taper Bearing	2
21	100-2-2813	8" BRG Plate Weldment	1
22	100-3-4278	Collar, Tapered BRG	1
23	100-3-4291	Dust Cap	1
	100-2-2826	Tapered Bearing Kit (8") (Ref. 15 – 23)	1
24	100-3-1318	Key, 3/8x3/8x1-1/2	1
25	900-16251	3/8 NC x 3/8 Socket Set Screw (cone)	1
26	900-01075	5/16 NCx 3 Hex Bolt	1
27	905-15024	Zerk, Strgt, 1/4-28 UNF	1
	100-3-4937	Decal, Caution PTO Damage	2
	100-3-4939	Decal, Caution Hopper Damage	2
	100-2-2067	Bottom Tube Assembly (Ref. 2, 3,13-23, 27)	1
	100-2-2046	Hex Plug Weldment (8")	1





## 10" X 70' BOTTOM TUBE (MODEL 1405)

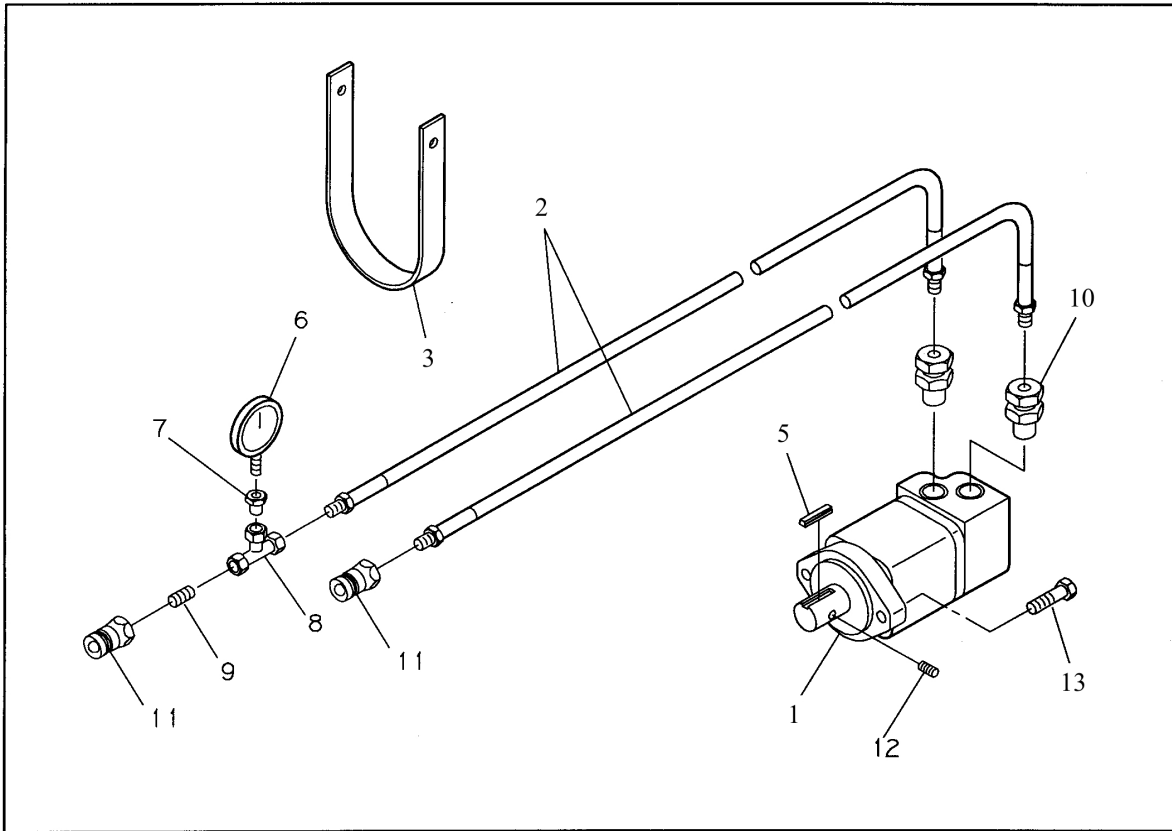
REF.	PART NO.	DESCRIPTION	QTY.
1	100-3-2396	Hex Connecting Shaft	1
2	100-3-2064	Tube Weldment	1
3	100-2-2873	Helicoid Weldment	1
4	905-07111	Tow Chain	1
5	100-2-1360	PTO Rest	1
6	900-25005	5/32 Hair Pin Cotter	1
7	100-3-1020	Hold Down Pin	1
8	100-2-1361	PTO Shield (Hvdraulic Drive Only)	1
9	905-23004	Jack, 2000 lb. (Fulton)	1
	905-23012	Repair Kit, Jack	1
10	903-17664	PTO Shafts, CV (See Page 83)	1
11	900-01249	1/2NCx5HexBolt	4
12	100-2-2055	Hitch	1
13	100-3-3631	Spacer Washer	6
14	900-01221	1/2 NC x 1 Hex Bolt	6
15	100-3-4280	10"HexPTODriveshaft	1
16	100-3-4287	1400 Bottom Bearing Nut	1
17	901-09220	Seal	2
18	100-3-4283	Dust Cap, Locking	1
19	901-01301	Bearing Cup	2
20	901-01311	Taper Bearing	2
21	100-2-2812	10"BRG Plate Weldment	1
22	100-3-4278	Collar, Tapered BRG	1
23	100-3-4291	Dust Cap	1
	100-2-2825	Tapered Bearing Kit (10") (Ref. 15 – 23)	1
24	100-3-1318	Key, 3/8x3/8x1-1/2	1
25	900-16251	3/8 NC x 3/8 Socket Set Screw (cone)	1
26	900-01075	5/16 NCx 3 Hex Bolt	1
27	905-15024	Zerk, Strgt, 1/4-28 UNF	1
	100-3-4937	Decal, Caution PTO Damage	2
	100-3-4939	Decal, Caution Hopper Damage	2
	100-2-2069	Bottom Tube Assembly (Ref. 2, 3, 13-23, 27)	1
	100-2-1946	Hex Plug Weldment (10")	1



## 10" X 70' INTERMEDIATE TUBE

(Model 1405)

REF.	PART NO.	DESCRIPTION	QTY.
1	100-3-2579	Shipping Strap 1/2 NC x 1 Hex Bolt	2
2	900-01221	1/2 NC x 1 Hex Bolt	4
3	100-2-2010	Center Tube Weldment	1
4	100-2-2011	Center Helicoid Weldment	1
5	100-3-1113	Access Cover	1
6	900-01055	5/16 NC x 3/4 Hex Bolt	4
	100-2-2009	Center Tube Assembly	1
	100-2-1964	Hex Plug Weldment (Weld-in service part) (10")	1

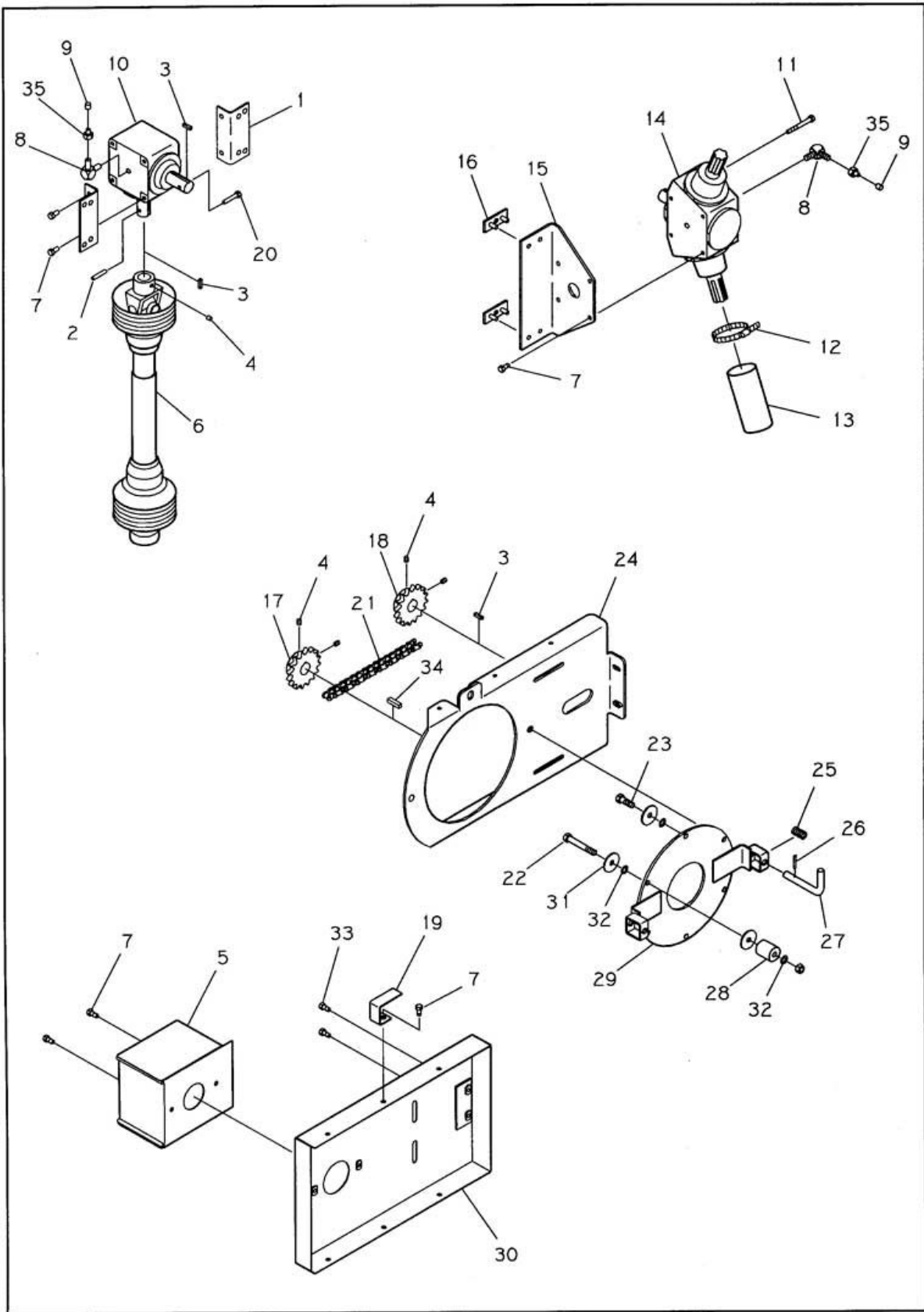


## HYDRAULIC DRIVE KIT - 8 & 10"

Kit part number - 100-1-0659

REF	PART NO.	DESCRIPTION	QTY
1	100-2-1370	Hydraulic Motor (see page 79)	1
2	210-2-0255	½ Hose, 1/2MP/MP x 108"	2
3	100-3-3543	Lock Strap, PTO – constant velocity	1
4	100-2-2716	PTO Shield (not shown)	1
-	100-1-0656	Bolt Bag (if packaged separately)	1
-	902-01002	Plastic Bag ( " " " )	1
5	100-3-3676	Stepped Key, .25 x .31 x 1.50	1
6	905-03039	Pressure Gauge	1
7	905-01140	Bushing, ½ x ¼ NPT	1
8	905-01358	Tee, ½ NPT (Steel)	1
9	905-01228	Nipple, ½ NPT closed	1
10	905-19034	7/8-14 MORB x ½ FM Adapter	2
11	905-19003	Quick Coupler, Male Tip	2
12	900-16365*	5/16 NC x ¾ Socket Set Screw, Cup Point	1
13	900-01225	½ NC x 1" Hex Bolt	2
14	900-06003	5/16 NC Hex Nut, Zinc – Standard (not shown)	1
15	900-06143	½ NC Serrated Flange Nut (not shown)	2

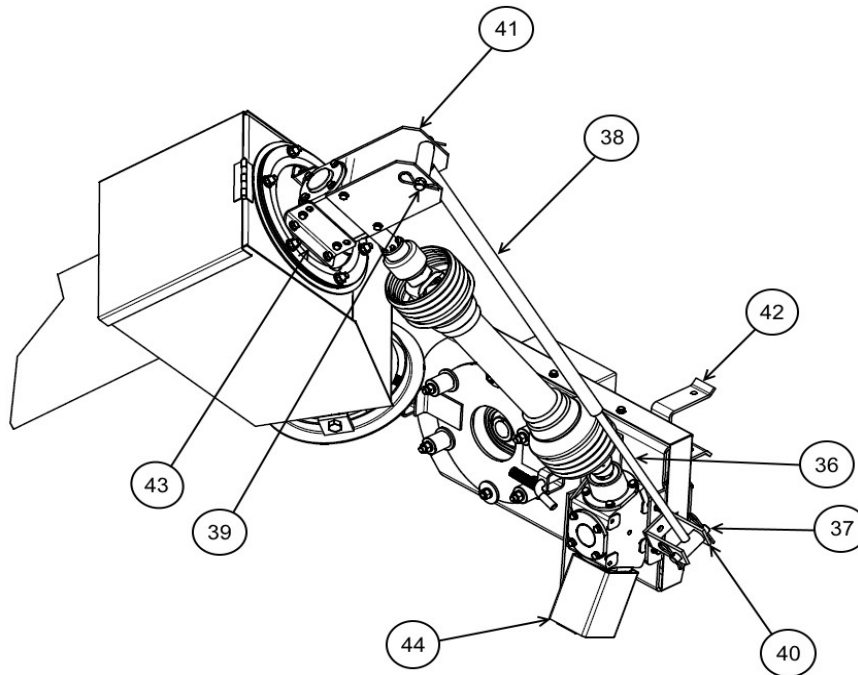
- was part number 900-16242



**MECHANICAL DRIVE KIT**  
**Component Parts Common to 8" & 10"**  
**Kit Number 100-1-0670**

REF.	PART NO.	DESCRIPTION	QTY.
1	100-3-4099	Angle, Gearbox Mount (replaced by 100-3-5699, Mar 2010, see page 67a)	2
2	900-29205	5/16x1-3/4 Roll Pin	1
3	100-3-2545	Key, 1/4x1/4x1	3
4	900-16251	3/8 NC x 3/8 Set Screw (replaced by 900-16387)	5
5	100-2-2086	PTO Shield Weldment	1
6	903-17741	PTO Shaft, 6N Series CV (See Page 82)	1
7	900-03436	3/8 NC x 3/4 Serrated Hex Bolt	12
8	905-01305	Elbow, 1/4NPTx90 Deg.	2
9	905-03080	Vent Cap, 1/8NPT	2
10	100-3-3634	Gearbox (See Page 85)	1
11	100-3-2322	3/8 NC x 3 Hex Bolt, Full Thread	2
12	900-31060	3" Quick Clamp (used prior to Oct 2008)	1
13	100-3-3729	Plastic Shaft Protector (replaced by 100-2-3351 Oct 2008, see page 67a)	1
14	100-3-3742	Gearbox (See Page 84)	1
15	100-3-3582	Plate, Gearbox Mount (replaced by 100-3-4954, Mar 2006, see page 67a)	1
16	100-2-1963	Strap Weldment	2
17	100-3-3750	Sprocket, #60B16, 1.50, key, 2 Set Screws	1
18	100-3-3749	Sprocket, #60B16, 1.25, key, 2 Set Screws	1
19	100-3-3767	PTO Bracket (replaced by 100-3-5380, June 2009, see page 67a)	2
20	900-01071	5/16 NCx2-1/2 Hex Bolt	1
21	903-03126	Chain, #60 x 56 Links and Conn.	1
22	900-01241	1/2 NC x 3 1/2 Hex Bolt	4
23	900-01225	1/2 NC x 1 1/2 Hex Bolt	2
24	100-2-1979	Plate Weldment	1
25	200-3-2735	Spring	2
26	900-29134	3/16x1 1/2 Roll Pin	2
27	200-3-2736	Pin	2
28	100-3-3632	Spacer	4
29	100-2-1980	Slip Ring Weldment	1
30	100-2-2056	Cover Weldment	1
31	100-3-3648	Washer, 2" Special	12
32	100-3-3649	Washer, 7/8" Special	12
33	900-03438	3/8 NC x 1 Serrated Hex Bolt	2
34	100-3-1318	3/8x3/8x1-1/2 Key	1
35	905-01137	Bushing, 1/4x 1/8NPT	2

**(See page 67a for revisions made after March 2006)**



To completely raise the swing away hopper for transport; remove item 39 (pin) and disassemble items 38 and 36. Disconnect the lower end of the PTO from the lower gear box and rest it on item 42 (old part shown here). Without reassembling items 38 and 36 - assemble items 38 and 39. Items 38 and 36 should hang free of each other until the swing away hopper is lowered again.

## MECHANICAL DRIVE KIT

Component Parts Common to 8" & 10"

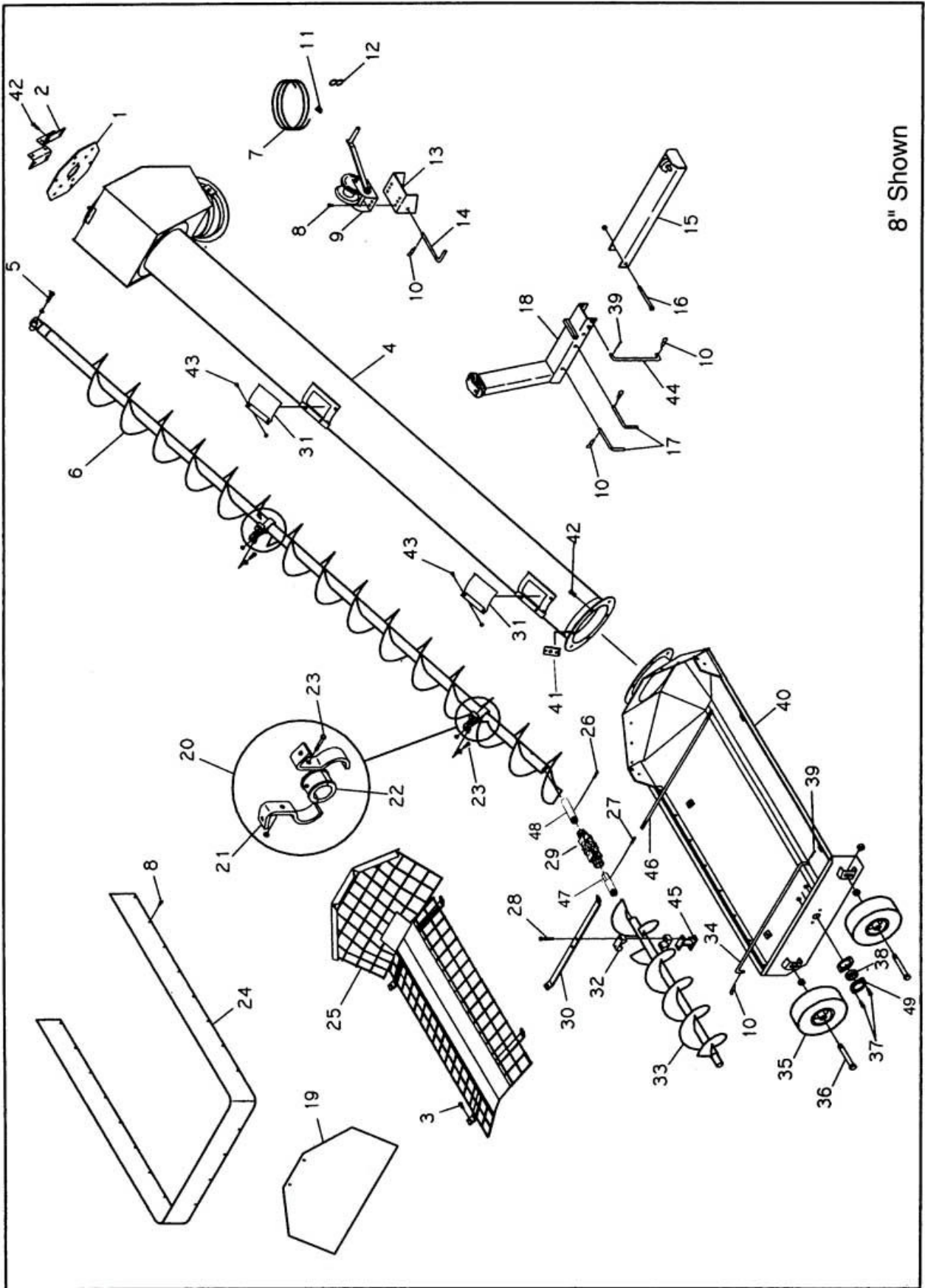
Kit Number 100-1-0670

This page shows engineering changes made since March of 2006.

Refer to pages 66 & 67 for the majority of this kit.

REF	PART NO.	DESCRIPTION	QTY
36	100-2-3136	Telescope W/A, Lower	1
37	100-3-4961	Pin, Telescope - Lower	1
38	100-2-3137	Telescope W/A, Upper	1
39	100-3-4960	Pin, Telescope - Upper	1
40	100-2-3140	Bracket, Mounting - Telescope	1
41	100-3-4954	Side Plate, Gearbox (replaces item 15)	2
42	100-3-5380	Bracket, PTO (replaces item 19) (old part shown)	2
43	100-3-5699	Angle, Mounting - Gearbox (replaces item 1)	2
44	100-3-3351	Guard, Gearbox shaft W/A (replaces item 13)	1
	900-16387	3/8 x 3/8 Set Screw, Cup Point (replaces item 4)	5
	900-03436	3/8 NC x 3/4 Serrated Hex Bolt (increase quantity to)	16
	100-3-3649	Washer, 7/8" Special (decrease quantity to)	8
	900-06139	3/8-16NC Serrated Flange Nut (not shown)	10
	900-06496	5/16 NC Top Lock Nut " "	1
	900-06009	1/2 NC Hex Nut, Zinc " "	6
	900-11013	1/2 Split Lock Washer " "	6





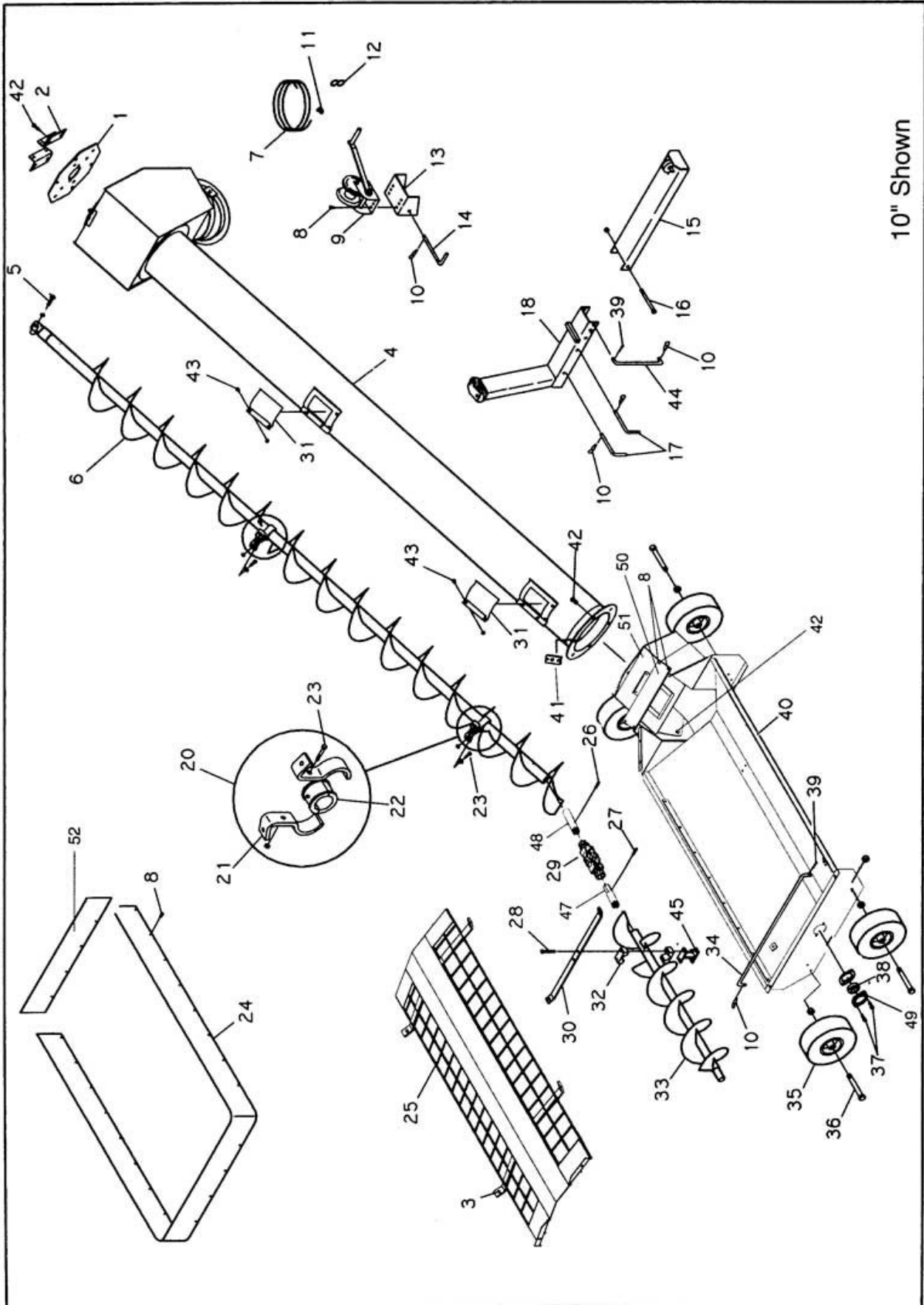
8" Shown



## HOPPER COMPONENTS

REF.	PART NO.	DESCRIPTION	QTY.
<b>8" COMPONENTS</b>			
1	100-3-4098	Head Plate, Inclined Tube (8")	1
4	100-2-2730	Inclined Tube Weldment (8")	1
6	100-2-2729	Inclined Helicoid (8")	1
8	900-03438	3/8 NC x 1 Serrated Flange Bolt	35
19	100-3-3766	Rubber Hopper Cover (8" Only)	1
20	100-2-2084	Split Bearing Assembly (8") (Ref. 21, 22, 23)	2
21	100-3-3763	Hanger Bearing Half (8")	2
22	100-3-3762	Split Bearing. 1-1/2"(8")	1
25	100-2-2654	Mesh Weldment, 60" Long (8")	1
26	900-01067	5/16x2 Hex Bolt (8")	1
29	910-00002	Constant Velocity Joint	1
	910-00017	Constant Velocity Cross Kit	1
	100-5-0100	Constant Velocity Joint Assy. (Replacement Kit '95 forward)	1
	100-5-0101	8" CV Joint Kit with Spacer Ring ('94 and Prior)	1
33	100-2-2656	Hopper Helicoid. Long (8")	1
35	905-09125	Rubber Wheel	2
36	900-01423	3/4 NC x 5 Hex Bolt	2
40	100-2-2653	8" Hopper Weld (60" long)	1
42	900-01171	7/16NCx1 Hex Bolt (8")	10
46	100-3-3757	Reinforcing Rod	1
	100-2-2651	8" Hopper Assembly (60" long)	1
	100-2-2731	8" Inclined Tube Assembly (Ref. 1, 2, 4-6, 20-23, 31, 42, 43)	1
<b>COMMON COMPONENTS</b>			
2	100-3-4099	Angle, Gearbox Mount	2
3	900-01113	3/8 NCx 1-1/2 Hex Bolt	4
5	900-01229	1/2NCx2HexBolt	1
7	100-3-2457	Cable, 1/4x24'	1
9	905-12140	Winch, Fulton K1051	1
	905-12110	Keeper Kit, Fulton #5621-501	1
	905-12124	11" Handle Assembly	1
10	900-25005	5/32 Hair Pin Cotter	5
11	900-31003	1/4 Cable Clamp	2
12	100-3-2630	S-Hook	1
13	100-3-3003	Winch Bracket	1
14	100-3-3000	Winch Pin	1
15	100-2-2610	Hopper Lift Arm	1
16	900-01253	1/2 NCx 6 Hex Bolt	1
17	100-3-2999	Hopper Arm Mounting Pin	2
18	100-2-2704	Hopper Lift Arm Mount	1
23	910-00003	3/8 NC x 1-1/4 Serrated Flange Bolt	4
24	100-3-3967	Rubber Flap, 6" x 148"	1
27	900-01067	5/16x2 Hex Bolt	1
28	900-01129	3/8 NC x 3-1/2 Hex Bolt	2
30	100-3-3669	Strap, Hanger Bearing Support	1
31	100-3-1113	Access Cover	2
32	100-3-3675	1-1/2 Split Bearing	1
34	100-3-3728	Pull Rod	1
37	900-01105	3/8 NC x 3/4 Hex Bolt	2
38	901-01002	1-1/4 Insert Bearing	1
39	900-23043	3/16x1-1/2 Cotter Pin	2

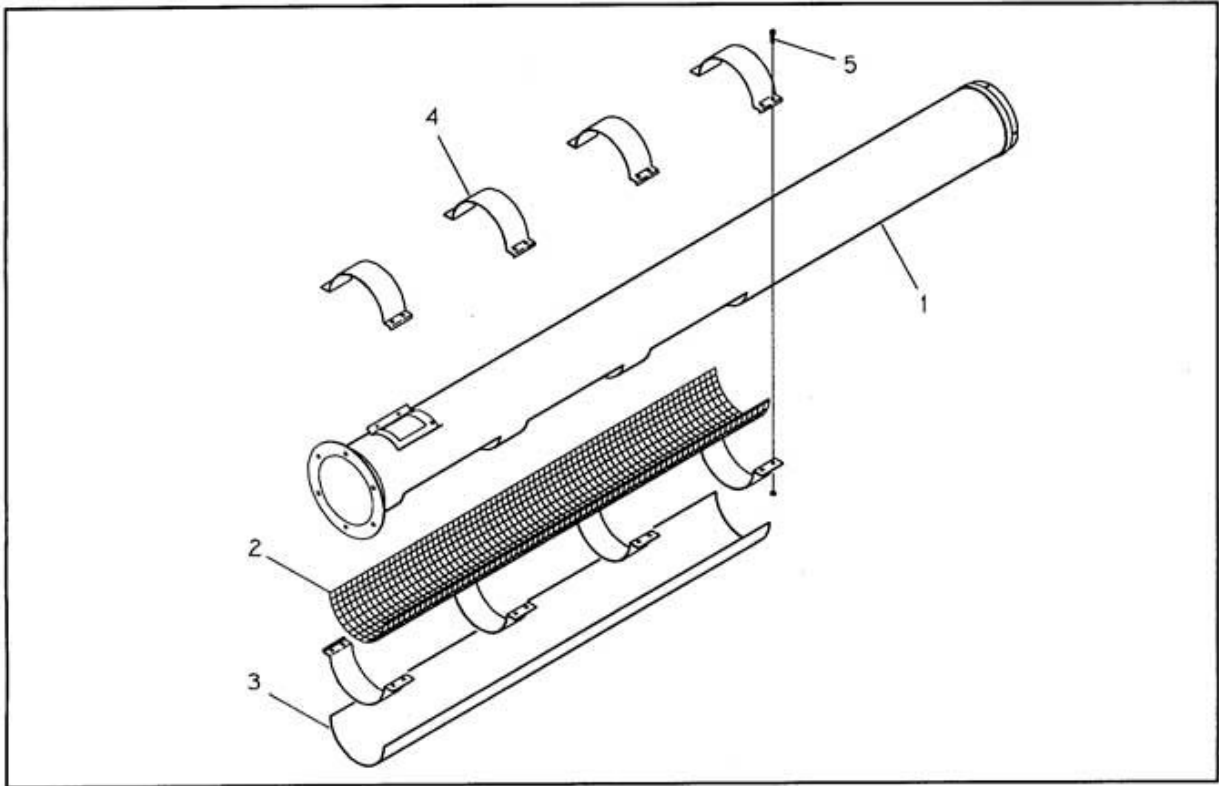
(continued on Page 71)



10" Shown

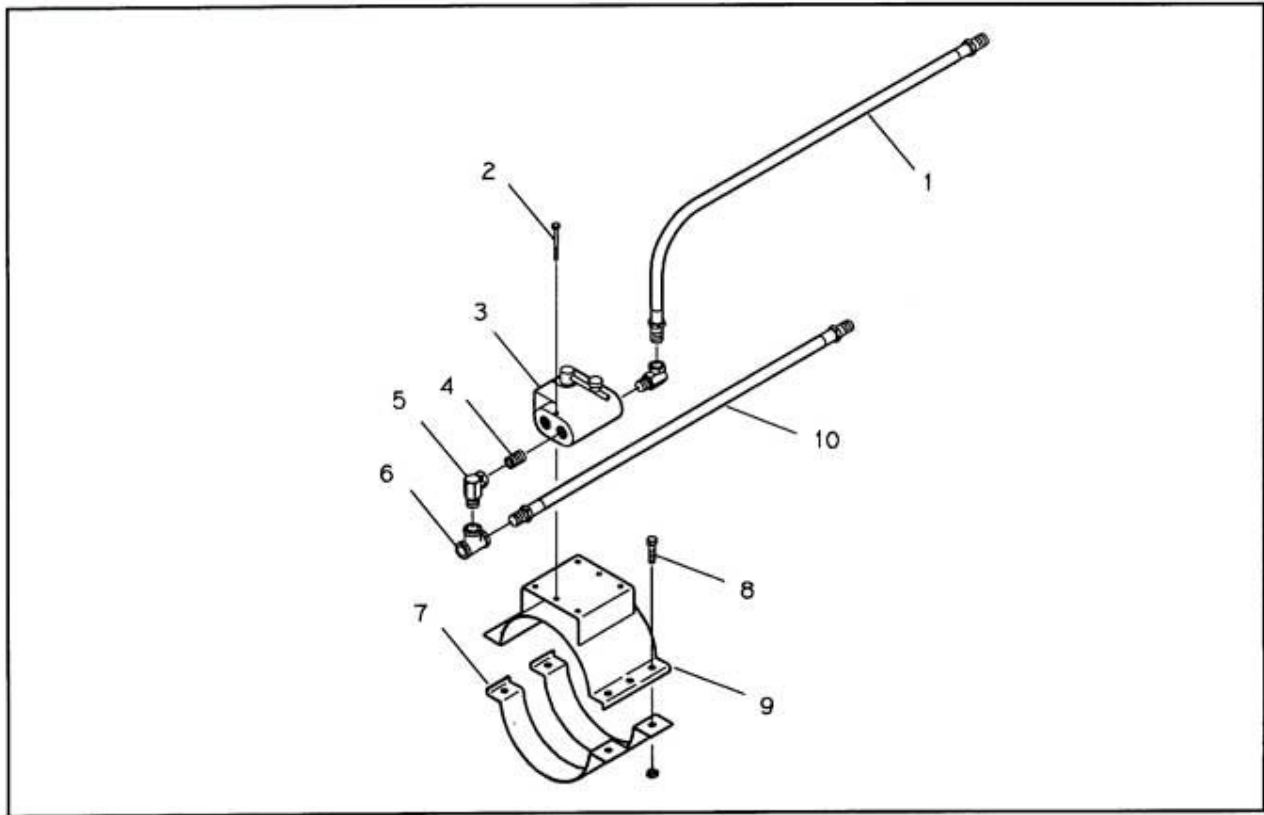
## HOPPER COMPONENTS (continued)

REF.	PART NO.	DESCRIPTION	QTY.
<b>COMMON COMPONENTS</b>			
41	100-3-4109	Hopper Lift Tab	1
43	900-01055	5/16 NCx ¾ Hex Bolt	8
44	100-3-2960	Transport Bar	1
45	100-2-2709	Spacer Weldment	1
47	100-5-1100	Hex Connector	1
48	100-5-1201	Tube Connector	1
49	901-01011	2 Hole Flange	2
<b>10" COMPONENTS</b>			
1	100-3-4089	Head Plate, Inclined Tube (10")	1
4	100-2-2718	Inclined Tube Weldment (10")	1
6	100-2-2720	Inclined Helicoid (10")	1
8	900-03438	3/8 NC x 1 Serrated Flange Bolt	39
20	100-2-2085	Split Bearing Assembly (10") (Ref. 21, 22, 23)	2
21	100-3-3765	Hanger Bearing Half (10")	2
22	100-3-3764	Split Bearing, 2" (10")	1
25	100-2-2789	Mesh Weldment, Flex (10")	1
26	900-01071	5/16 x 2-1/2 Hex Bolt (10")	1
29	903-18047	Constant Velocity Joint	1
	903-18050	Constant Velocity Joint Cross Kit	1
	100-5-0100	C.V. Joint Assembly (Replacement Kit '95 Forward)	1
	100-5-0102	10" C.V. Joint Kit w/ Spacer Ring ('94 and Prior)	1
33	100-2-2794	Hopper Helicoid, Long (10")	1
40	100-2-2790	10" Flex Hopper Weld (60" Long)	1
42	900-01221	½ NC x 1 Hex Bolt (10")	12
50	100-3-4305	10" Flex Head, Stop	1
51	100-2-2788	10" Hopper Flex Head	1
52	100-3-4380	Rubber Flap, 6" x 42"	1
	100-2-2791	10" Flex Hopper Assembly (60" Long)	1
	100-2-2721	10" Inclined Tube Assy (Ref. 1,2,4-6,20-23,31,42,43)	1



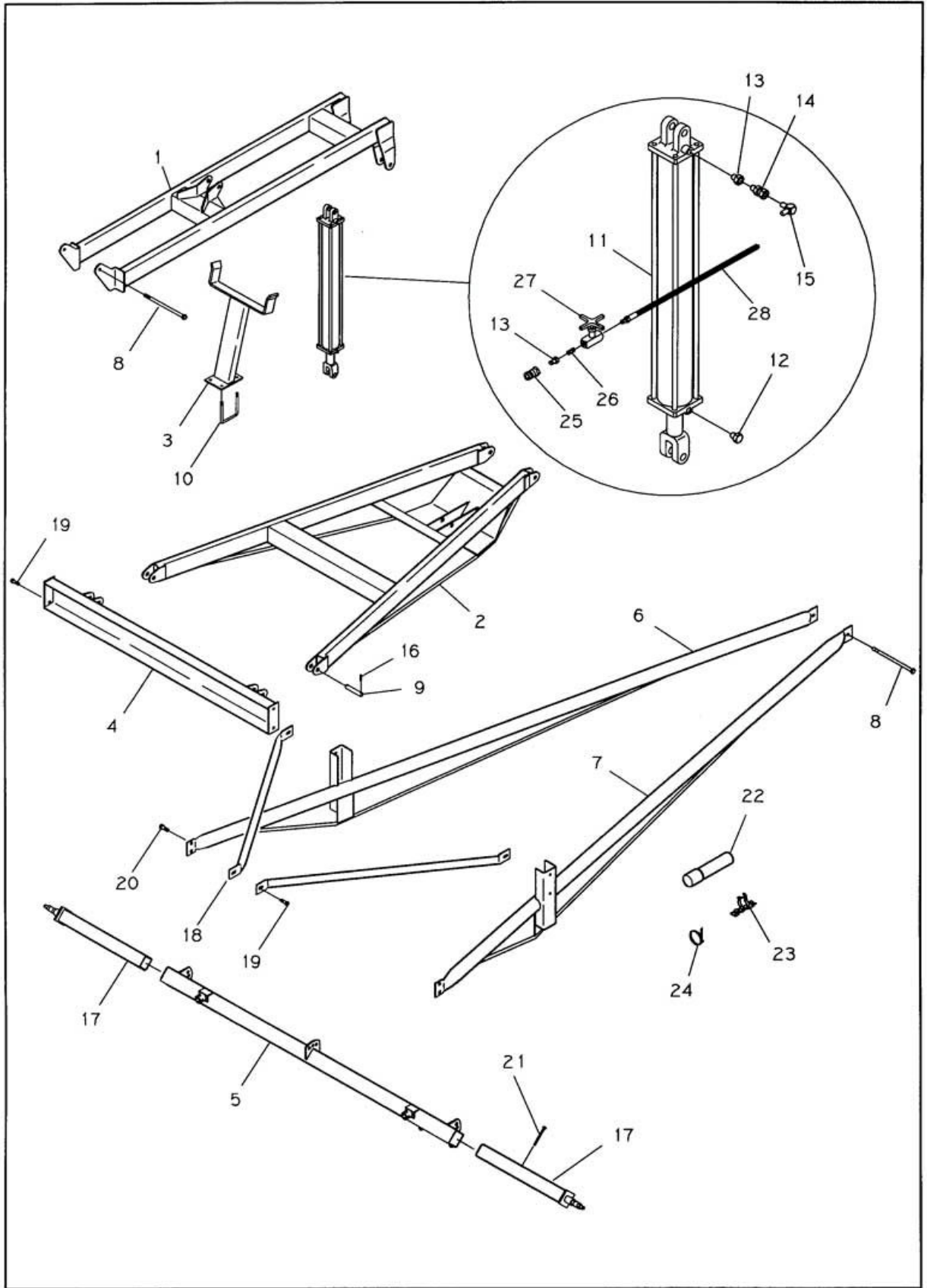
### CORN SCREEN COMPONENTS

REF.	PART NO.	DESCRIPTION	QTY.
1	100-2-2124	Inclined Tube Assembly (10")	1
	100-2-2007	Inclined Tube Weldment – 10" (Prior 1995 Shown)	1
	100-2-2123	Inclined Tube Weldment – 8" (Prior 1995 Shown)	1
	100-2-2054	Inclined Tube Weldment (8")	1
2	100-3-3156	Screen (10")	1
	100-3-3398	Screen (8")	1
3	100-3-3157	Screen Hole Cover (10")	1
	100-3-3397	Screen Hole Cover (8")	1
4	100-3-3679	Half Band (10")	8
	100-3-3944	Half Band (8")	8
5	900-01113	3/8 NC x 1-1/2 Hex Bolt (10")	16
	900-01117	3/8 NC x 2 Hex Bolt (8")	16
	100-2-2726	Corn Screen Kit (10")	1
		Corn Screen Kit (8")	1



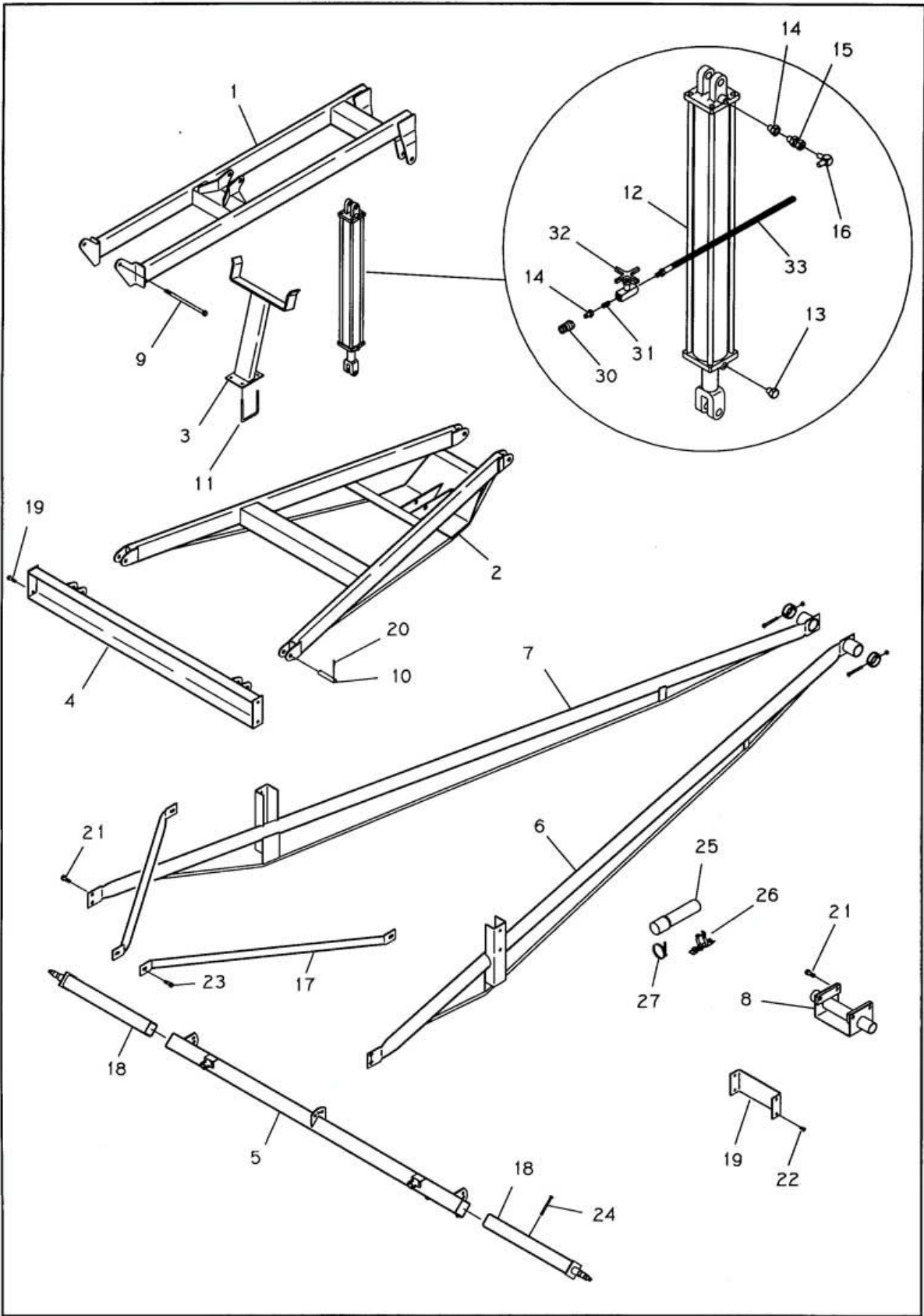
### FLOW CONTROL KIT

REF.	PART NO.	DESCRIPTION	QTY.
1	210-2-0191	1/2 Hose, 1/2 MP x 1/2 MP x 60	1
2	900-01021	1/4 x 2-1/2 Hex Bolt	2
3	905-03019	Flow Control Valve	1
	905-03101	Handle With Nut	1
4	905-01228	Nipple, 1/2 NPT Closed	1
5	905-01329	Elbow, 1/2 NPT x 1/2 FPTX	2
6	905-01358	Tee, 1/2 NPT (Steel)	1
7	100-3-3228	Half Band (10")	2
	100-3-2899	Half Band (8")	2
8	900-01113	3/8 x 1-1/2 Hex Bolt	4
9	100-2-1978	Flow Control Mount (10")	1
	100-2-1977	Flow Control Mount (8")	1
10	210-2-0253	1/2 Hose, 1/2 MP x 1/2 MPX x 48	1



## 60' TRANSPORT COMPONENTS

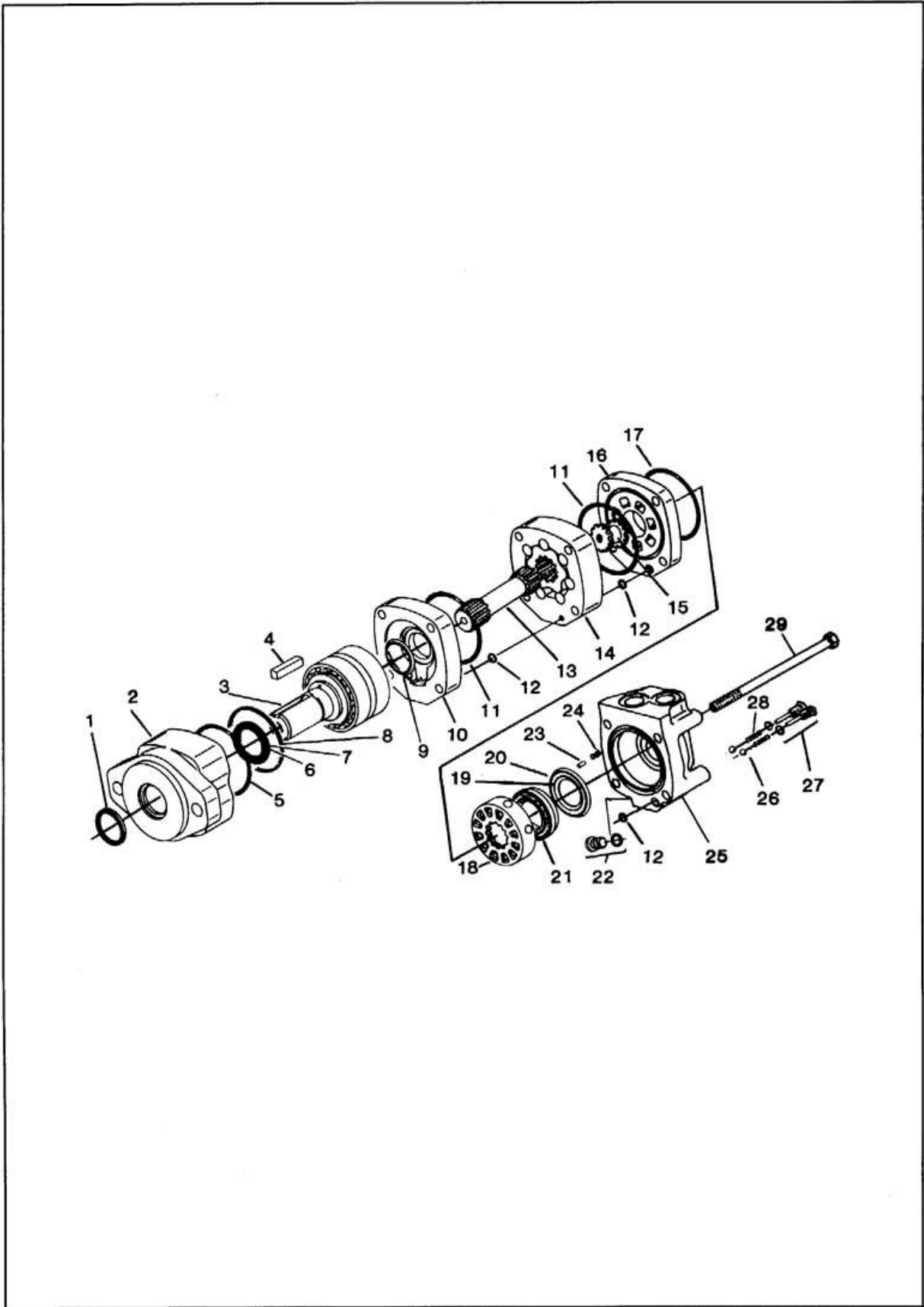
REF.	PART NO.	DESCRIPTION	QTY.
1	100-2-1378	8" Upper Lift Arm	1
	100-2-1307	10" Upper Lift Arm	1
2	100-2-1381	8" Lower Lift Arm	1
	100-2-1308	10" Lower Lift Arm	1
3	100-2-1397	8" Transport Rest	1
	100-2-1295	10" Transport Rest	1
4	100-2-1396	8" Cross Brace	1
	100-2-1305	10" Cross Brace	1
5	100-2-2059	Axle Weldment	1
6	100-2-1373	8" Reach Arm (Right) 192" OAL x 3" OD	1
	100-2-1300	10" Reach Arm (Right) 192" OAL x 3-1/2" OD	1
7	100-2-1374	8" Reach Arm (Left) 192" OAL x 3" OD	1
	100-2-1299	10" Reach Arm (Left) 192" OAL x 3-1/2" OD	1
8	100-2-1314	Transport Mounting Bolt	2
9	100-3-2400	Pin	6
10	100-3-2582	1/2" U-Bolt, 4" Inside x 5-1/2" Long (8")	2
	100-3-2454	1/2" U-Bolt, 5" Inside x 6-1/4" Long (10")	2
11	905-21154	4" Bore x 36" Stroke Cylinder (10")	1
	905-21165	Seal Kit (10")	1
	905-21167	3" Bore x 36" Stroke Cylinder (8")	1
	905-21175	Seal Kit (8")	1
12	905-19065	Breather	1
13	905-01139	Bushing, 1/2x3/8NPT	2
14	905-19043	Flow Restrictor	1
15	905-01328	3/8 NPT Street Elbow	1
16	900-29205	5/16x1-3/4 Roll Pin	12
17	100-2-2058	Axle Extension	2
18	100-3-3122	Support Bar (10")	2
19	900-01345	5/8 NC x 2 Hex Bolt	5
20	900-01403	3/4 NC x 2 Hex Bolt	4
21	900-01197	7/16 NCx4-1/2 Hex Bolt	4
22	100-3-3957	Tube, Manual Storage	1
23	100-3-3958	Tube Mount	1
24	900-31062	Hose Clamp, Worm, #88	2
25	905-19003	Quick Coupler, Male Tip	1
26	905-01217	Nipple, 3/8 NPT Closed	1
27	905-03063	Needle Valve	1
	905-03101	Handle for Needle Valve	1
28	100-2-1957	1/4 Hose, 3/8 MP x 3/8 MP x 480"	1
	100-2-2060	Axle Assembly (Ref. 5, 17, 21)	1





## 70' & 80' TRANSPORT COMPONENTS

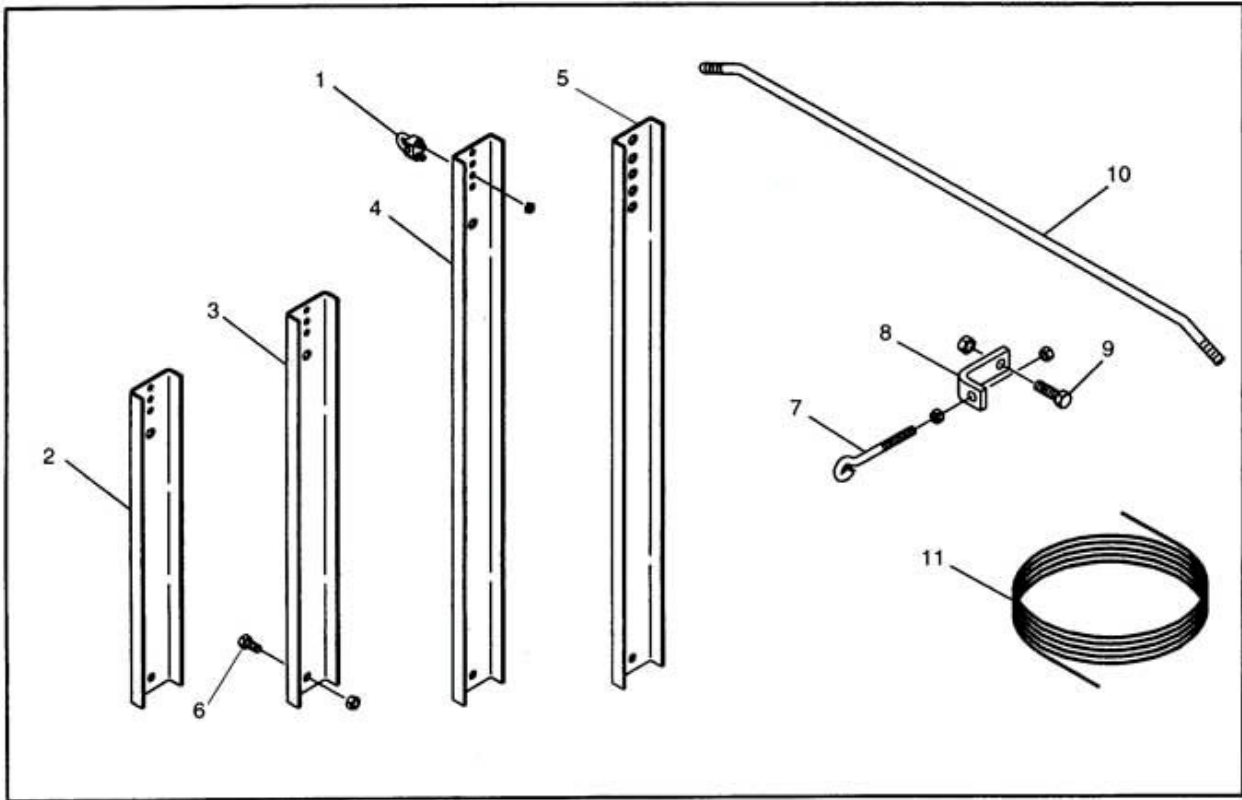
REF.	PART NO.	DESCRIPTION	QTY.
1	100-2-1337	Upper Lift Arm	1
2	100-2-1336	Lower Lift Arm	1
3	100-2-1295	Transport Rest	1
4	100-2-1305	Cross Brace	1
5	100-2-2059	Axle Weldment	1
6	100-2-1366	Reach Arm (Right) 222" OAL	1
7	100-2-1367	Reach Arm (Left) 222" OAL	1
8	100-2-1983	Reach Arm Pivot (Prior 1995)	1
9	100-2-1314	Transport Mounting Bolt	1
10	100-3-2400	Pin	6
11	100-3-2454	U-Bolt	2
12	905-21154	4" x 36" Stroke Hydraulic Cylinder	1
	905-21165	Seal Kit, Hydraulic Cylinder	1
13	905-19065	Breather	1
14	905-01139	Reducer Bushing, 3/8 NPT to 1/2 NPT	1
15	905-19043	Flow Restrictor	1
16	905-01328	3/8 NPT Street Elbow	1
17	100-3-2571	Support Arms	2
18	100-2-2058	Axle Extension	2
19	100-3-2568	Cross Brace - Upper (Prior 1995)	1
20	900-29205	5/16x1-3/4 Roll Pin	12
21	900-01403	3/4 NC x 2 Hex Bolt	4
22	900-01221	1/2NCx1 Hex Bolt	4
23	900-01345	5/8 NC x 2 Hex Bolt	5
24	900-01197	7/16 NCx4-1/2 Hex Bolt	4
25	100-3-3957	Tube, Manual Storage	1
26	100-3-3958	Tube, Mount	1
27	900-31062	Hose Clamp	2
28	100-3-4050	Collar, Transport	2
29	900-01247	1/2 NC 4-1/2 Hex Bolt	2
30	905-19003	Quick Coupler, Male Tip	1
31	905-01217	Nipple, 3/8 NPT Closed	1
32	905-03063	Needle Valve	1
	905-03101	Handle For Neddie Valve	1
33	100-2-1957	1/4 Hose, 3/8 MP x 3/8 MP x 480	1
	100-2-2060	Axle Assembly (Ref. 5, 18, 24)	1



**HYDRAULIC MOTOR (CHAR-LYNN) 2000 SERIES  
(MODELS 005 & 006)**

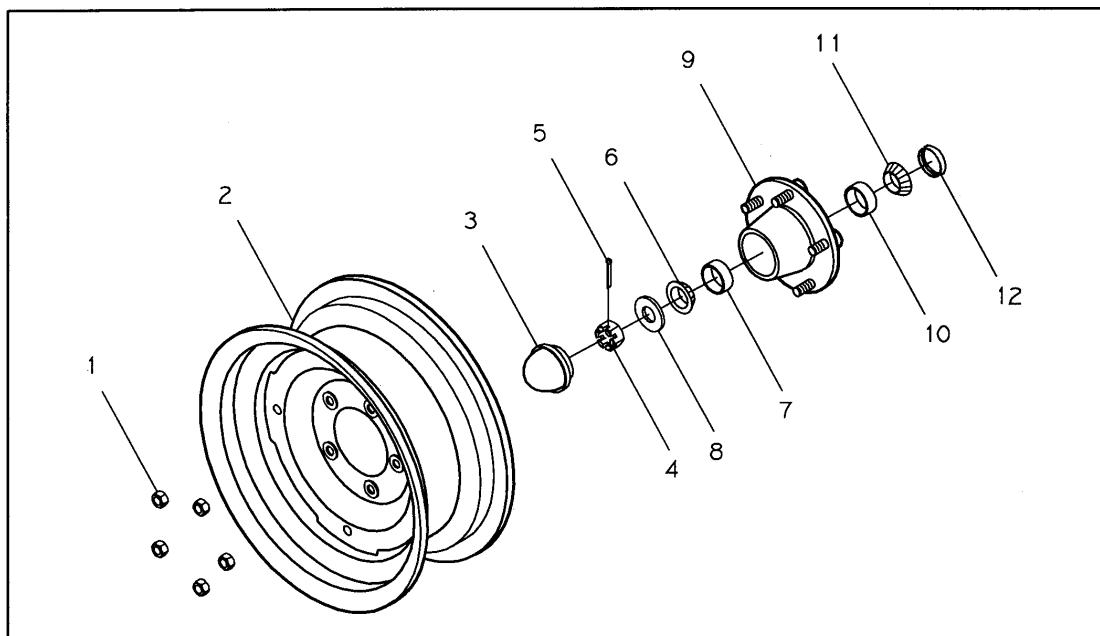
REF.	PART NO.	DESCRIPTION	QTY.
1	*	Seal#9121-1	1
2	904-05086	Bearing Housing #8537 (Model 005)	1
	904-05201	Bearing Housing #21578-4 (Model 006)	1
3	904-05087	Shaft & Bearing Kit #7404-3 (Model 005)	1
	904-05202	Shaft & Bearing Kit #21618-2 (Model 006)	1
4	100-3-3676	1/4 X 5/16 X 1-1/2 Stepped Key	1
5	*	Seal#9022-6	1
6	*	Seal#9057-9	1
7	*	Back Up Washer #7382	1
9	*	Seal #9050	1
10	904-05090	Wear Plate #7390 (Model 005)	1
	904-05203	Wear Plate #21623 (Model 006)	1
11	*	Seal #9022-6	2
12	*	O-Fring #15006 (Model 005)	3
13	904-05091	Drive #21371-10	1
14	904-05092	Geroler #8789-2 (Model 005)	1
	904-05204	Geroler #21625-2 (Model 006)	1
15	904-05093	Drive Valve #8433	1
16	904-05094	Plate Valve #8432 (Model 005)	1
	904-05205	Plate Valve #21622 (Model 006)	1
17	*	Seal, #9022-2 (Model 005)	1
	*	Seal #9022-6 (Model 006)	1
18	904-05095	Valve #8435 (Model 005)	1
	904-05206	Valve #21466 (Model 006)	1
19	*	Seal, Face, Inner #9049-1	1
20	*	Seal, Face, Outer #9048-1 (Model 005)	1
	*	Seal. Face. Outer #9135-2 (Model 006)	1
21	904-05096	Balance Ring #8915	1
22	904-05097	Plug Assy. #9072-3	1
23	904-05098	Pin #14351	2
24	904-05099	Spring #7383	2
25	904-05207	Housing Valve #8355 (Model 005)	1
	904-05208	Housing Valve #21564-1 (Model 006)	1
26	904-05101	Ball #18026 (Model 005)	2
27	904-05102	Check Plug Assy. #8350 (Model 005)	2
28	904-05103	Spring #6464 (Model 005)	2
29	904-05209	Bolt #14384-7 (Model 005)	4
	904-05210	Bolt #14384-605 (Model 006)	4
	904-05122	Seal Kit #61252 (Model 005 104-1023) 6.2	1
	904-05211	Seal Kit #61258 (Model 006 104-1024) 8.0	1
	904-05083	Motor, Complete	1

\* Included in Seal Kit



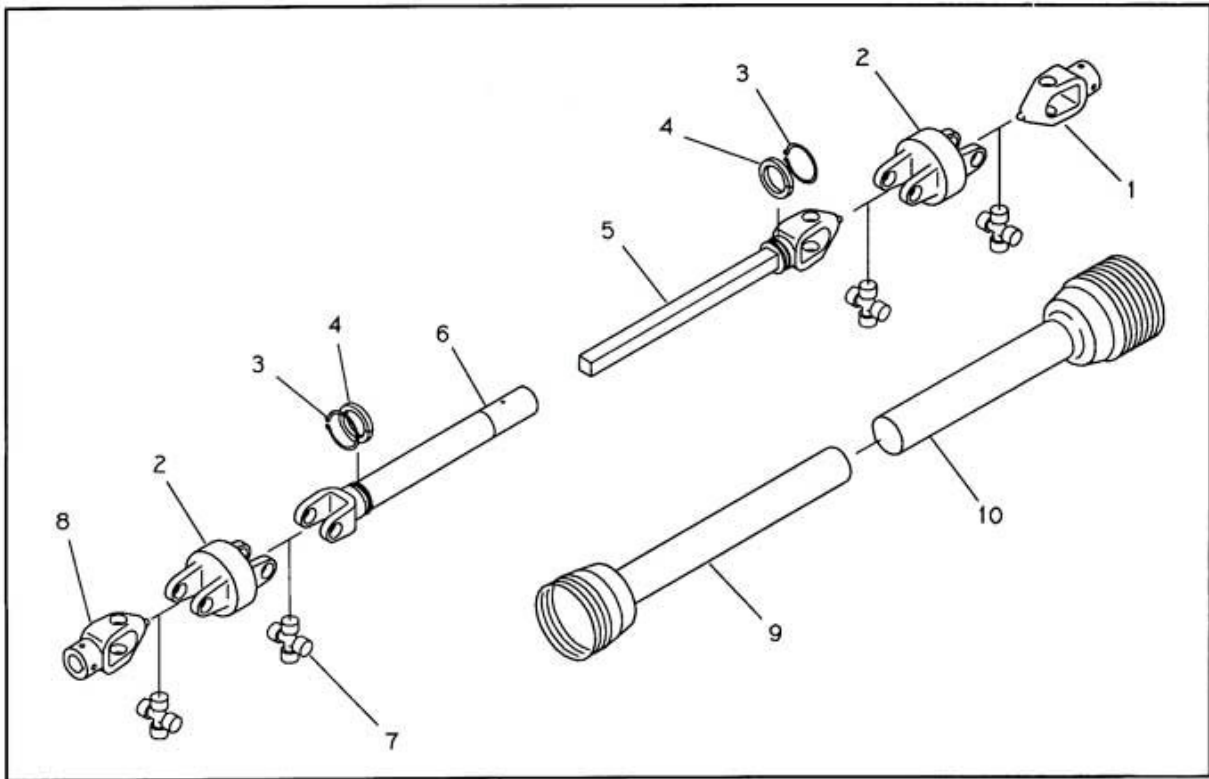
## TRUSSING COMPONENTS

REF.	PART NO.	DESCRIPTION	QTY.		
			60'	70'	80'
1	900-31005	3/8 Cable Clamp	19	24	39
2	100-3-2560	Truss Bracket Channel. 24" long	-	4	4
3	100-3-2404	Truss Bracket Channel. 30" long	4	4	6
4	100-3-2405	Truss Bracket Channel. 42" long	2	2	-
5	100-3-4270	Truss Bracket Channel, 42" long	-	-	2
6	900-01221	1/2 UNC x 1 Hex Bolt	6	10	12
7	100-3-0148	Eye Bolt. 1/2 UNC	4	8	10
8	100-3-3613	Truss Anchor Strap. 80 Degree	4	8	10
9	900-01345	5/8 UNC x 2 Hex bolt	4	8	10
10	100-3-2413	Brace Rod. 36" long	2	4	5
	100-3-2414	Brace Rod, 46" long	1	1	1
11	100-3-3628	Cable 3/8 x 37' long	2	-	-
	100-3-3627	Cable 3/8 x 86' long	1	-	-
	100-3-3674	Cable 3/8 x 104' long	-	1	-
	100-3-2502	Cable 3/8 x 50' long	-	2	-
	100-3-3731	Cable 3/8 x 40' long	-	1	-
	100-3-4356	Cable 3/8 x 33' long	-	-	1
	100-3-4357	Cable 3/8 x 55' long	-	-	2
	100-3-4358	Cable 3/8 x 82' long	-	-	1
	100-3-4359	Cable 3/8 x 125' long	-	-	1



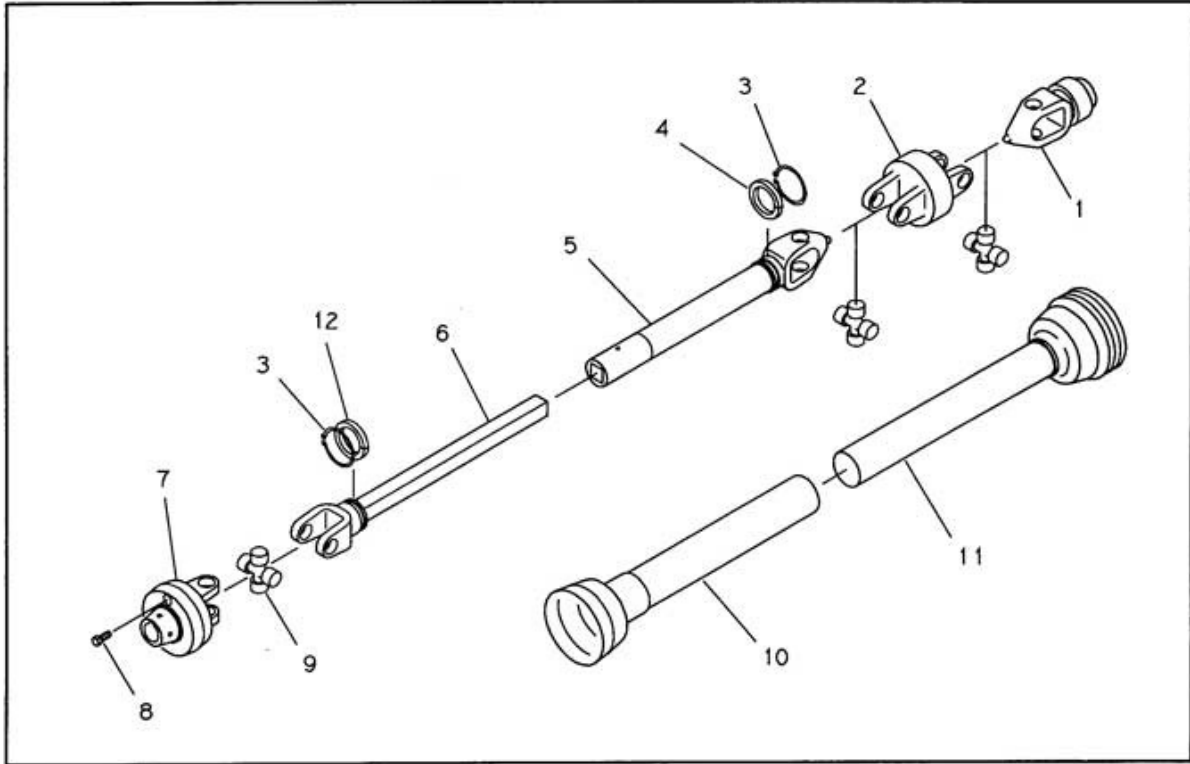
### 5-BOLT WHEEL COMPONENTS

REF.	PART NO.	DESCRIPTION	QTY.
1	905-09011	Wheel Nuts. 1/2" NF	5
2	905-09078	Rim, 15", 5 Bolt	1
3	905-09009	Dust Cap	1
4	900-06060	Nut, 7/8" NF Slotted	1
5	900-23043	Cotter Pin, 3/16x1-1/2 Long	1
6	901-01015	Bearing Cone	1
7	901-01016	Bearing Cup	1
8	905-09067	7/8 Washer	1
9	905-09003	5 Bolt Hub With Cups	1
10	901-01022	Bearing Cup	1
11	901-01023	Bearing Cone	1
12	901-09002	Seal	1
	100-2-1051	Hub Assembly (Ref. 3,4,6,7,8,9,10,11,12)	2



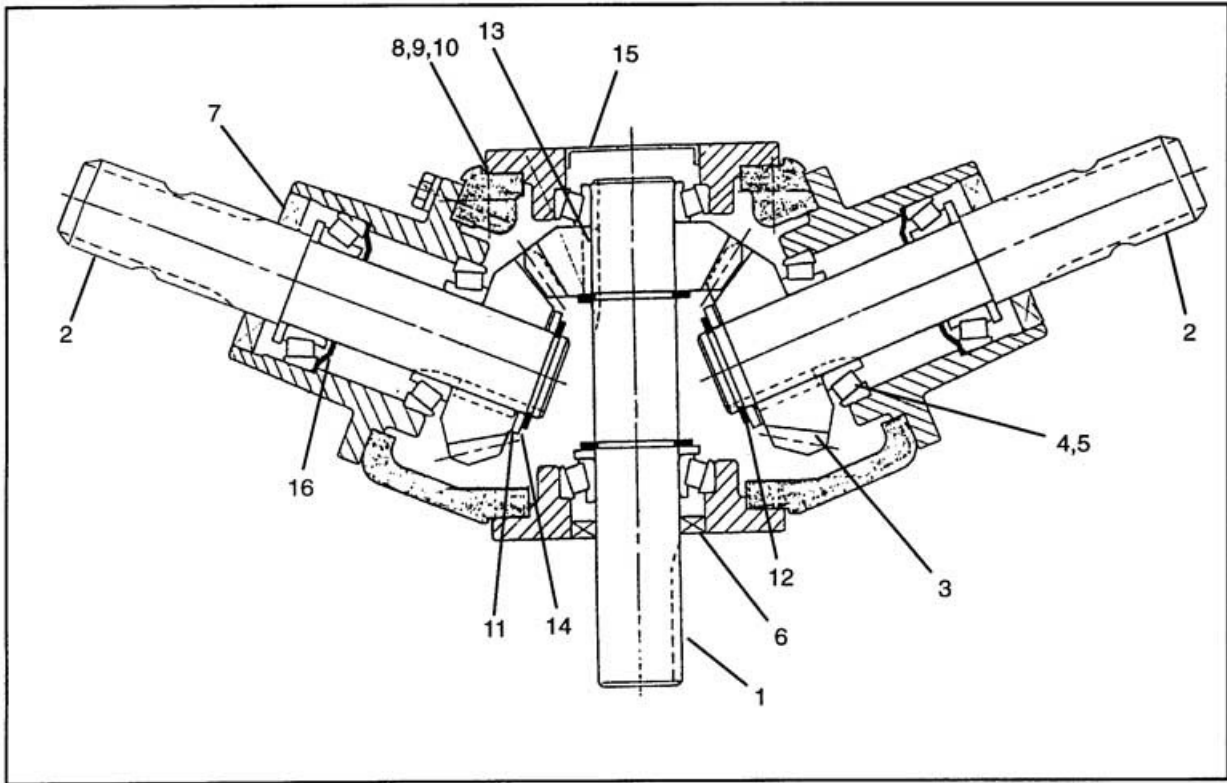
**PTO SHAFT - C.V.**  
(Weasler 6R)

REF.	PART NO.	DESCRIPTION	QTY.
1	903-17755	Spring – Lock Yoke Assembly #06351-1311	1
	903-17694	Spring – Lock Repair Kit #26-10070	1
2	903-17701	Center Housing #06361-1071	2
3	903-17706	Bearing Retainer #24-10030	1
4	903-17707	Nylon Bearing #04-10003	1
5	903-17756	Yoke & Shaft #99-16321	1
6	903-17757	Yoke & Tube #98-16321	1
7	903-17709	Cross Kit #03-10002	4
8	903-17758	Yoke, 1-1/4" #06351-2698	1
9	903-17759	Inner Shield #96-16321	1
10	903-17760	Outer Shield #97-16321	1
	903-17741	PTO Shaft (Complete)	1
	903-18001	PTO, Tractor Half (Ref. 1-5, 10)	1
	903-18002	PTO, Implement Half (Ref. 2-4, 6-9)	1



**PTO SHAFT - C.V.**  
(Weasler 14R)

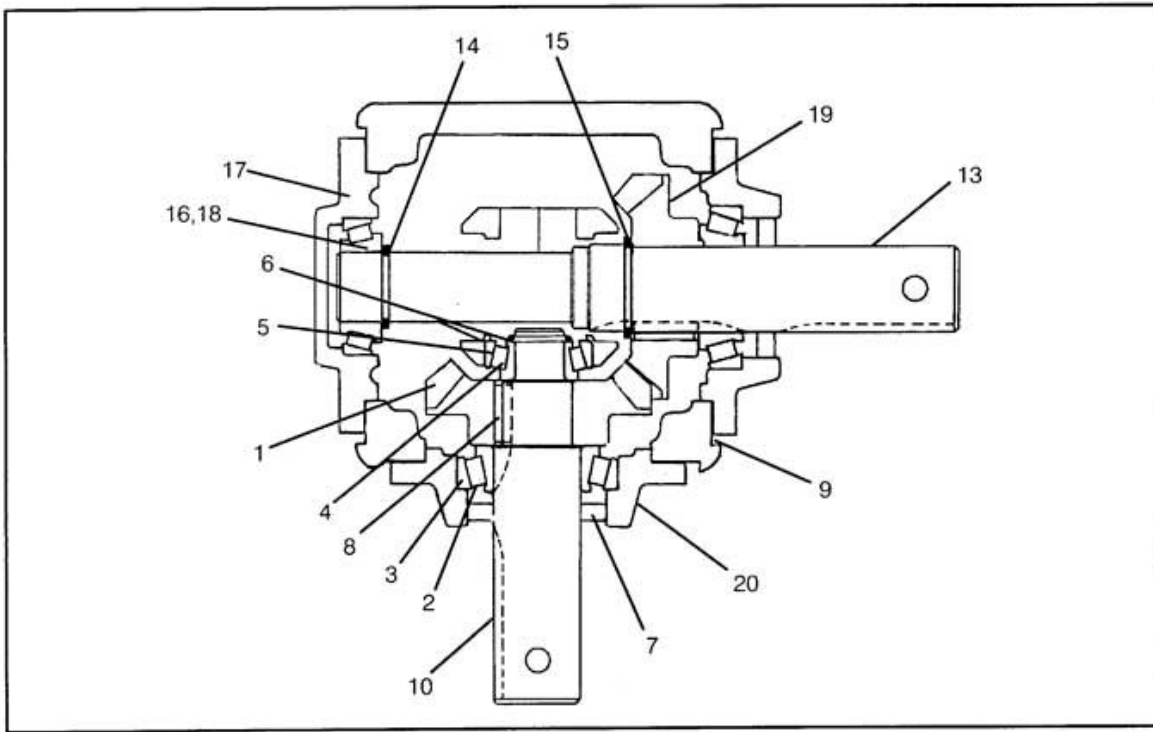
REF. QTY.	PART NO.	DESCRIPTION	
1	903-17693	CV Spring - Lock Yoke Assembly #14131-1013	1
	903-17694	Spring - Lock Repair Kit #26-10070	1
2	903-17592	CV Center Housing #14141-1018	2
3	903-39027	Bearing Retainer #24-10018	1
4	903-01220	Nylon Bearing #04-10067 (Replaces 903-17686)	1
5	903-17695	Yoke, Tube & Slip Sleeve Assembly #98-16134	1
6	903-17696	Yoke & Shaft Assembly #99-16134	1
7	903-17697	Ball Shear Assembly (Ref. 7 & 8) #26-11683	4
8	900-01109	Hex Bolt, 3/8 NC x 1	1
9	903-17121	Cross Kit, 14R #03-10134	1
10	903-17698	Outer Shield #97-16134	1
11	903-17699	Inner Shield #96-16134	1
12	903-17686	Nylon Bearing #04-10085	1
	903-17664	PTO Shaft (Complete)	1
	903-18051	PTO, Implement Half (Ref. 3, 6-10,12)	1
	903-18052	PTO, Tractor Half (Ref. 1 -5,11)	1



**GEARBOX, 3 WAY  
(Prairie)**

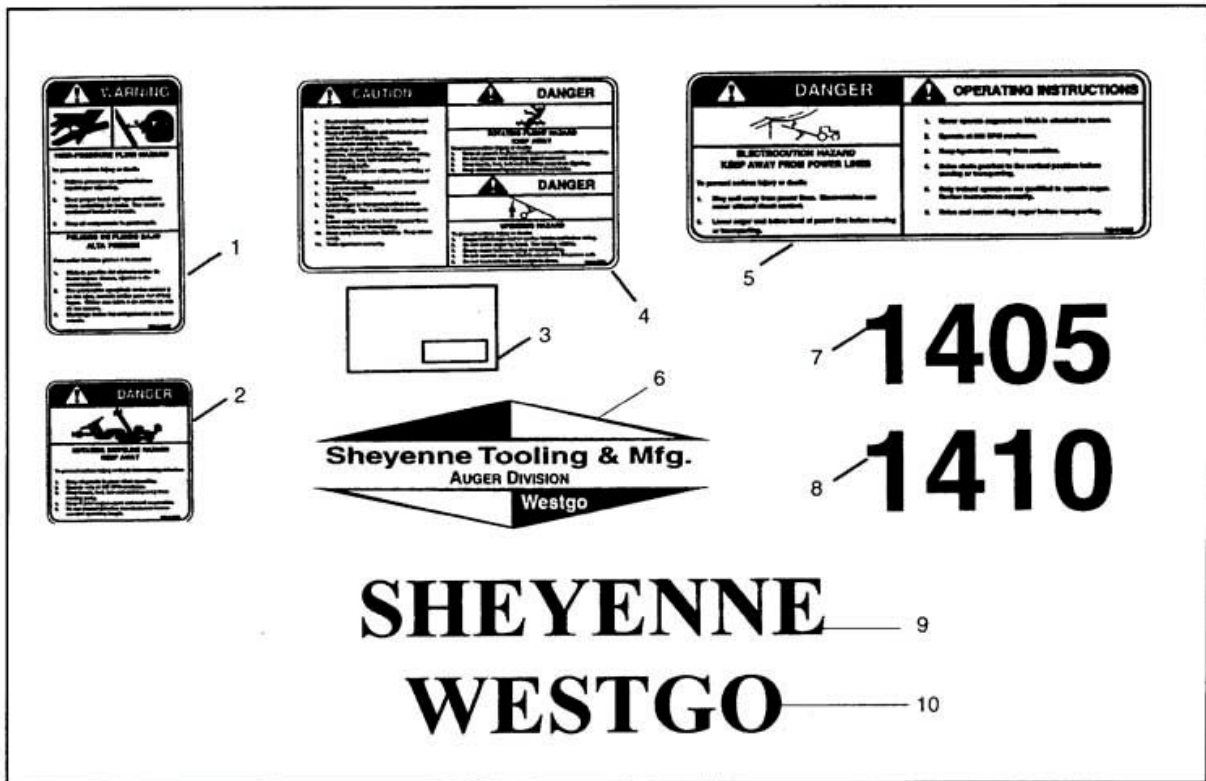
REF.	PART NO.	DESCRIPTION	QTY.
1	903-15420	Shaft, Cross #4482	1
2	903-15429	Shaft, Pinion (Splined) #4526	2
3	903-15419	Gear, 68 Deg #1246	3
4	901-01015	Bearing Cone #1404	6
5	901-01016	Bearing Cup #1405	6
6	901-09092	Seal #1471	2
7	901-09093	Seal #1480	2
8	903-15246	Shim .005 #1501	A/R
9	903-15245	Shim .0075 #1502	A/R
10	903-15244	Shim .010 #1503	A/R
11	903-15426	Shim.007x1.25ID #1537	A/R
12	903-15427	Snap Ring #1600	6
13	903-15422	Key #1650	3
14	903-15233	Washer #1805	5
15	903-15237	Expansion Plug #1855	1
16	903-15428	Grease Washer #2816	2
17	903-15039	1/4 NPT Pipe Plug (not Shown)	2
	100-3-3742	Gearbox, Complete	1





**GEARBOX  
(Prairie)**

REF.	PART NO.	DESCRIPTION	QTY.
1	903-15255	Gear. 19 Tooth #4200	1
2	901-01015	Cone, 1-1/4" #1404	2
3	901-01016	Cup #1405	2
4	901-01099	Cone 11/16" #1400	1
5	901-01098	Cup #1401	1
6	900-39024	Retaining Ring #1601	1
7	901-09092	Seal #1471	2
8	903-15422	Kev #1654	2
9	903-15246	Shim .005 #1501 (Blue)	A/R
	903-15245	Shim .0075 #1502 (Natural)	A/R
	903-15244	Shim .010 #1503 (Yellow)	A/R
10	903-15423	Shaft-Cross #4487	1
11	903-15425	Vent - 5 PSI, 1/8 #1853 (Not Shown)	1
12	903-15262	Pipe Plug, 1/4 NPT #1850 (Not Shown)	1
13	903-15483	Shaft-Cross #4699	1
14	903-15485	Retaining Ring 1" #1602	1
15	903-15484	Retaining Ring 1-1/4" #1600	1
16	903-15482	Cup #1403	1
17	903-15486	Bearing Cap #1103	1
18	903-15481	Cone 1" #1402	1
19	903-15480	Gear, 19T 1-1/4 Bore #1201	1
20	903-15479	Bearing Cap #1118	2
	100-3-3634	Gearbox, Complete	1



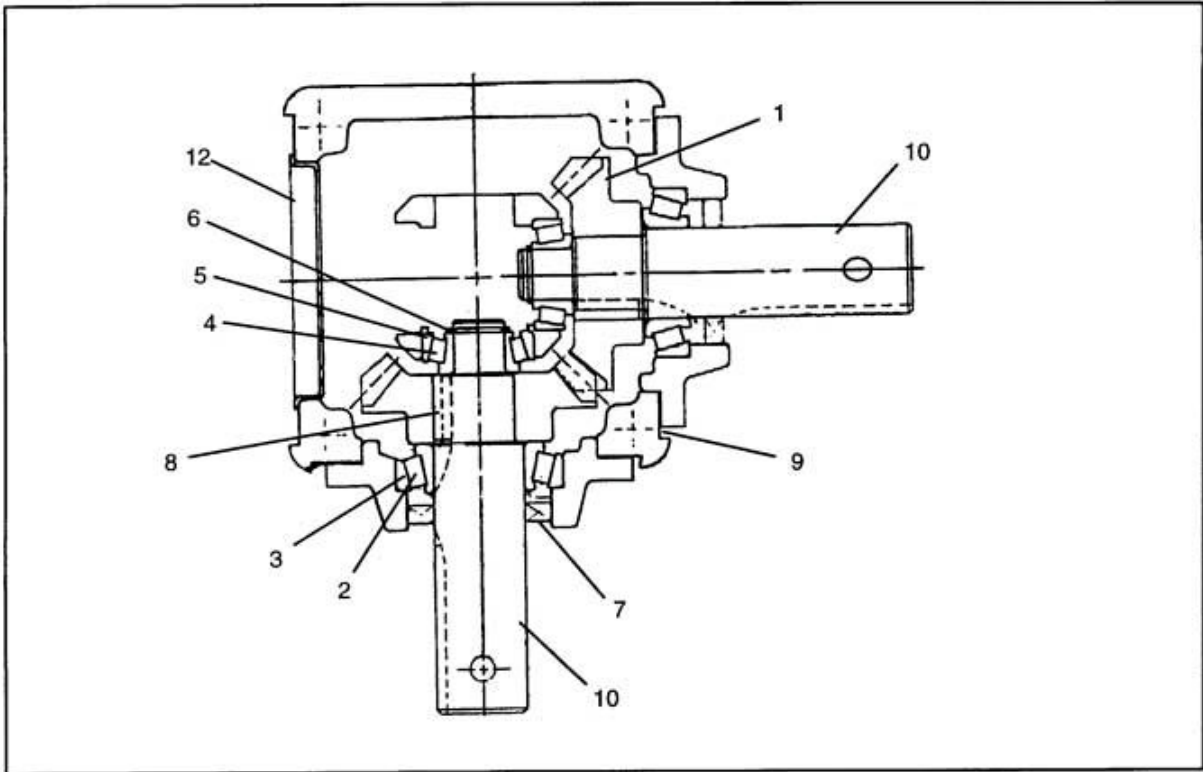
### DECALS

REF.	PART NO.	DESCRIPTION	QTY.
1	505-3-0315	Decal, High Pressure Fluid Hazard	As Reqd
2	100-3-3623	Decal, 1400 Mechanical Drive Warning	
3	100-3-1372	Decal, Serial No.	
4	100-3-3593	Decal, 1400 Cation	
5	100-3-3696	Decal, Operating Instructions	
6	100-3-4460	Decal, Sheyenne Logo	
7	100-3-3591	Decal, 1405	
8	100-3-3692	Decal, 1410	
9	100-3-4462	Decal, Sheyenne	
10	100-3-4466	Decal, Westgo	
11	100-3-4937	Decal, Caution PTO Damage	
12	100-3-4939	Decal, Caution Hopper Damage	
	906-01030	Yellow Paint, Aerosol	
	906-01065	Yellow Paint, Quart	
	906-01064	Yellow Paint, Gallon	
	906-01015	Black Paint, Aerosol	
	906-01043	Black Paint, Quart	
	906-01063	Black Paint, Gallon	

# **Parts Section**

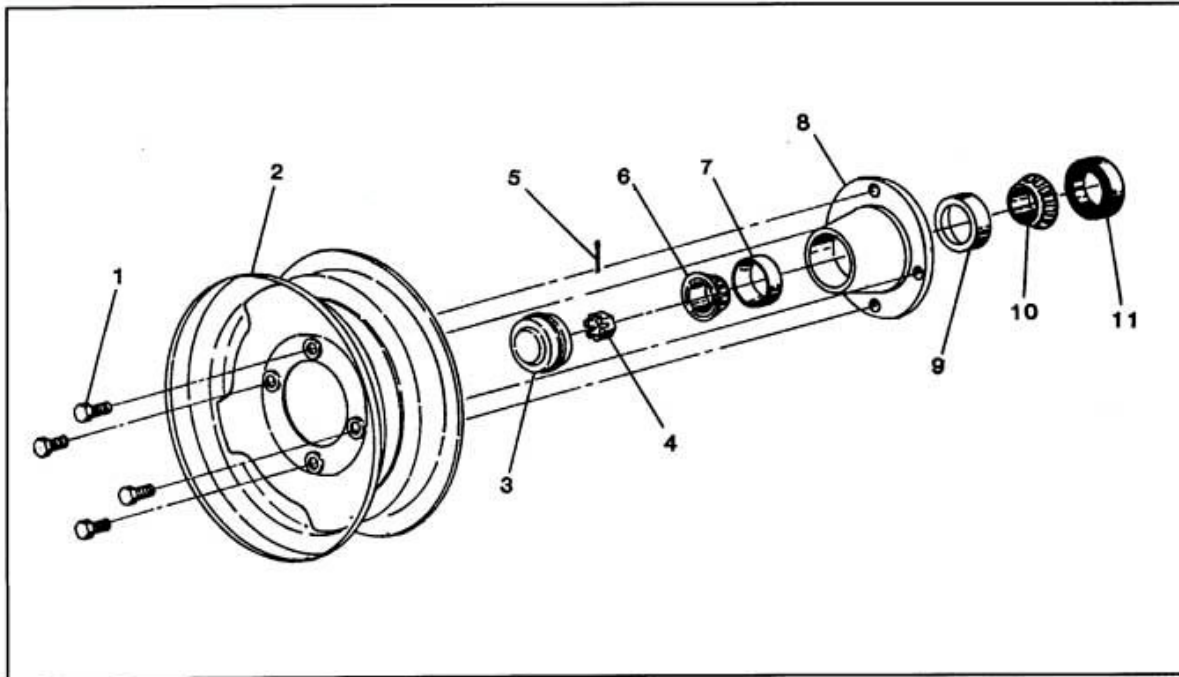
**(Prior 1994)**

**Items not listed are common to  
current Production Models  
preceding this section.**



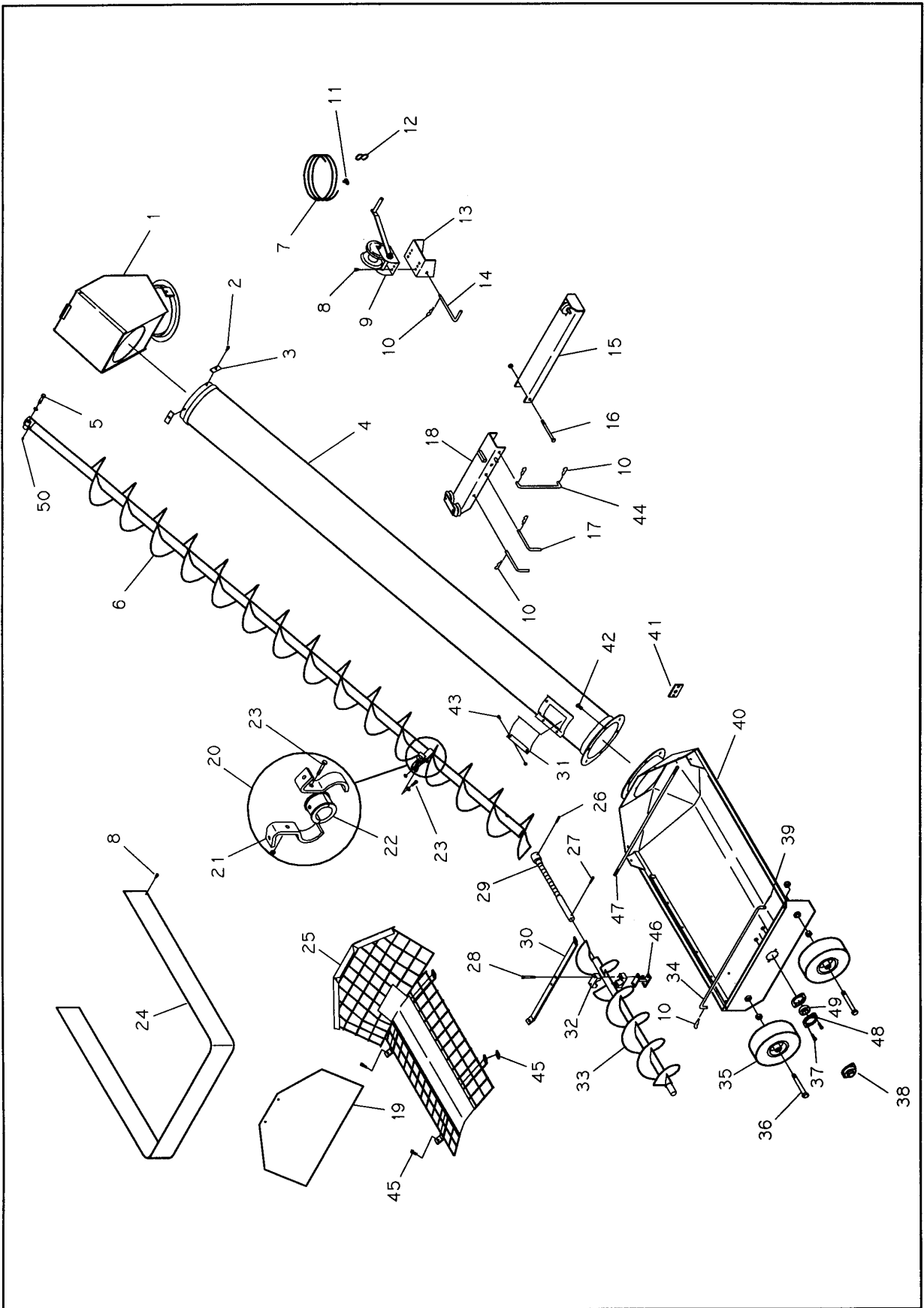
**GEARBOX  
(Prairie)**

REF.	PART NO.	DESCRIPTION	QTY.
1	903-15255	Gear, 19 Tooth #1200	2
2	901-01015	Cone, 1-1/4" #1404	2
3	901-01016	Cup #1405	2
4	901-01099	Cone #1400	2
5	901-01098	Cup #1401	2
6	900-39024	Retaining Ring #1601	2
7	901-09092	Seal #1471	2
8	903-15422	Key #1654	2
9	903-15246	Shim .005 #1501 (Blue)	A/R
	903-15245	Shim .0075 #1502 (Natural)	A/R
	903-15244	Shim .020 #1503 (Yellow)	A/R
10	903-15423	Shaft-Cross #4487	2
11	903-15425	Vent - 5 PSI, 1/8 #1853 (Not Shown)	1
12	903-15266	Cover-Hole Plug #1154	1
13	903-15262	Pipe Plug, 1/4 NPT #1850 (Not Shown)	1
	100-3-3634	Gearbox, Complete	1



**4-BOLT WHEEL COMPONENTS  
(8" Augers Prior to 1992)**

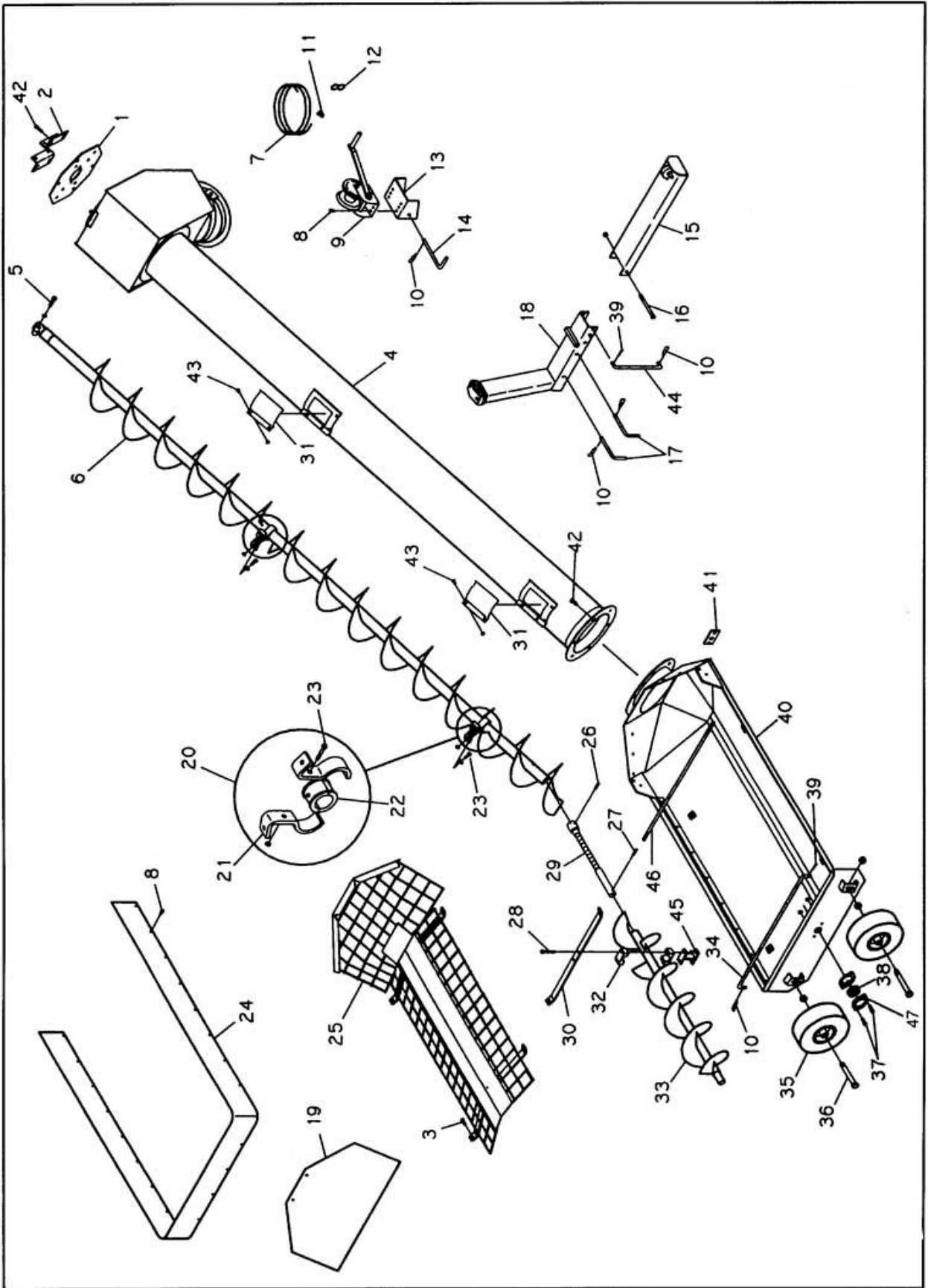
<b>REF.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	905-09010	Wheel Bolts, 1/2 NF x 1-1/16 Long	4
2	905-09015	Rim, 15", 4-Bolt	1
3	905-09008	Dust Cap	1
4	900-06058	Nut, 3/4 NF Slotted	1
5	900-23043	Cotter Pin, 3/16 x 1-1/2 Long	1
6	901-01026	Bearing Cone	1
7	901-01027	Bearing Cup	1
8	905-09002	Hub, 4-Bolt	1
9	901-01016	Bearing Cup	1
10	901-01015	Bearing Cone	1
11	901-09001	Seal	1
	100-2-0859	Hub Assembly (Ref. 3, 6 – 11)	1



## HOPPER COMPONENTS

REF.	PART NO.	DESCRIPTION	QTY.
1	100-2-1981	Inclined Tube Head (10")	1
	100-2-2035	Inclined Tube Head (8")	1
2	900-03419	5/16 NC x 3/4 Serrated Flange Bolt	4
3	100-3-3598	Tab	4
4	100-2-1985	Inclined Tube Weldment (10")	1
	100-2-2041	Inclined Tube Weldment (8")	1
6	100-2-2076	Inclined Helicoid (10")	1
	100-2-2045	Inclined Helicoid (8")	1
11	900-31002	3/16 Cable Clamp	2
18	100-2-1984	Hopper Lift Arm Mount	1
24	100-3-3629	Rubber Flap, 6" x 124"	1
25	100-2-1991	Mesh Weldment, Short	1
29	100-3-3595*	Flex Shaft, 1-1/4 x 1-1/4 ends (prior to 1997)	1
	100-1-0674*	Flex Shaft with sleeve (prior to 1997)	1
	100-5-0100	Constant Velocity Joint Assy (replaced flex shaft in 1997)	1
33	100-2-1990	Hopper Helicoid, Short	1
38	901-01101	1-1/4 Economount Bearing (prior to 1992)	1
40	100-2-1988	Hopper Weld (10") Short	1
	100-2-2038	Hopper Weld (8") Short	1
45	900-01113	3/8 x 1-1/2 Hex Bolt	4
46	100-2-2073	Spacer Weldment	1
50	900-16237	5/16 NC x 5/16 Socket Set Screw	2
	100-2-2079	Hopper Assembly (10") 48" Long	1
	100-2-2039	Hopper Assembly (8") 48" Long	1
	100-2-2080	10" Inclined Tube Assembly (Ref. 1-6,20-23,31,42,43,50)	1
	100-2-2006	8" Inclined Tube Assembly (Ref. 1-6,20-23,31,42,43,50)	1

\* These parts are no longer available





# Parts Section

(1994 to 1999)

**Items not listed are common to  
current Production Models  
proceeding this section.**

## 10" HOPPER COMPONENTS

REF.	PART NO.	DESCRIPTION	QTY.
19	100-3-3766	Rubber Hopper Cover	1
23	900-01111	3/8 NC x 1-1/4 Hex Bolt	4
25	100-2-2654	Mesh Weldment, 60" Long	1
29	100-3-3595*	Flex Shaft, 1-1/4 x 1-1/4 ends (prior to 1997)	1
	100-1-0674*	Flex Shaft with sleeve (prior to 1997)	1
	<b>100-5-0100</b>	Constant Velocity Joint Assembly (Replaced Above in 1997)	1
	100-5-0102	10" CV Joint Kit w/spacer Ring ('94 and prior)	1
33	100-2-2656	Hopper Helicoid, Long	1
40	100-2-2652	10" Hopper Weldment (60" Long)	1
41	100-3-3637	Hopper Lift Tab	2
46	100-3-3757	Reinforcing Rod	1
	100-2-2650	10" Hopper Assembly (60" Long)	1

\* These parts no longer available



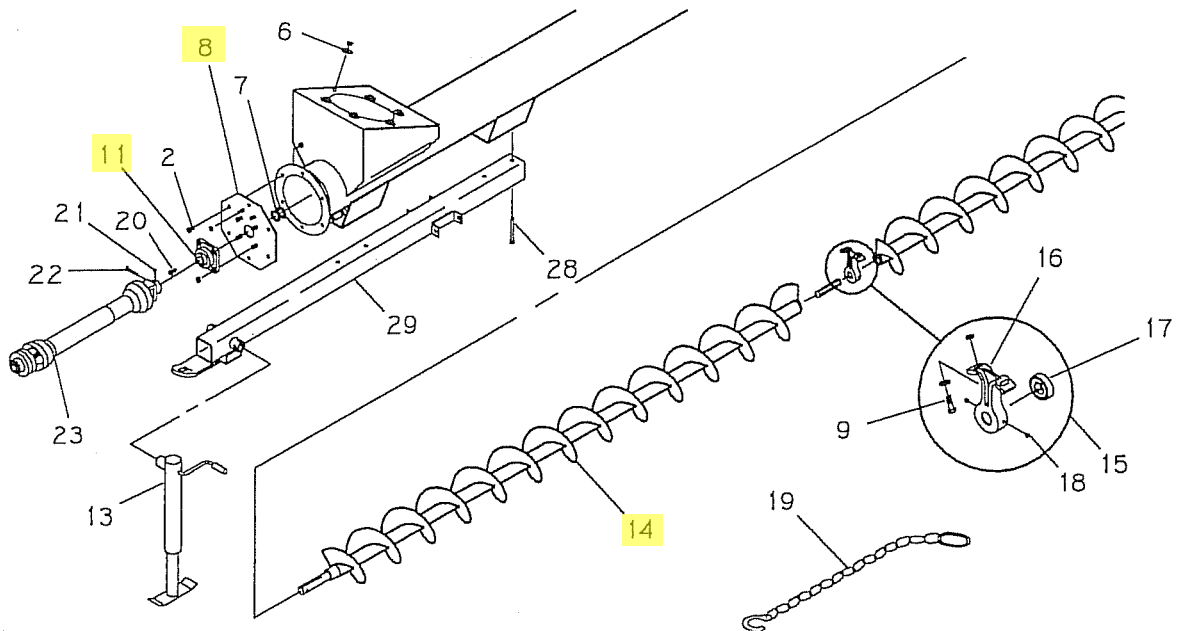
# Four Bolt Flanged Bearing

Changed to:

# Double Tapered Bearing

May 20, 2002

Models 1405 and 1410, sizes 8" and 10" built before May 20, 2002 have the four bolt flanged bearing at the lower end of the bottom tube. The factory still stocks that bearing. You may be able to purchase it through your dealer also. This manual covers the double tapered bearing system which upgraded and replaced it on the date mentioned and forward. See pages 50 thru 55 and 58 thru 63. The view below and the companion chart cover the old parts and the new ones that can be used to upgrade older models and sizes.



Ref No.	Part No.	Description	Qty	Available
11	901-01006	1-1/2 Four Bolt flanged bearing (Common to 8" & 10")	1	Yes
8	100-2-2612	8" Bearing plate weldment	1	No
8	100-2-2611	10" Bearing plate weldment	1	No
Augers built before May 2002 can be upgraded to the double tapered bearing system by the following				
11 & 8	100-2-2826	8" Tapered bearing kit	1	Yes
11 & 8	100-2-2825	10" Tapered bearing kit	1	Yes
14	100-2-1391	8" Helicoid (w/ Hex socket) (1410 Model)	1	Yes
14	100-2-2002	10" Helicoid (w/ Hex socket) (1410 Model)	1	Yes
14	100-2-2052	8" Helicoid (w/ Hex socket) (1405 Model)	1	Yes
14	100-2-2815	10" Helicoid (w/ Hex socket) (1405 Model)	1	Yes

## HARDWARE

<b>NUTS</b>		<b>WASHERS</b>	
<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
900-06194	3/16 NC Hex Nut	900-11007	3/16 Lock Washer
900-06001	1/4 NC Hex Nut	900-11009	1/4 Lock Washer
900-06003	5/16 NC Hex Nut	900-11010	5/16 Lock Washer
900-06005	3/8 NC Hex Nut	900-11011	3/8 Lock Washer
900-06007	7/16 NC Hex Nut	900-11012	7/16 Lock Washer
900-06009	1/2 NC Hex Nut	900-11013	1/2 Lock Washer
900-06010	1/2 NF Hex Nut	900-11014	9/16 Lock Washer
900-06011	9/16 NC Hex Nut	900-11015	5/8 Lock Washer
900-06013	5/8 NC Hex Nut	900-11017	3/4 Lock Washer
900-06015	3/4 NC Hex Nut	900-11019	7/8 Lock Washer
900-06017	7/8 NC Hex Nut	900-11021	1" Lock Washer
900-06019	1" NC Hex Nut	900-11023	1-1/8 Lock Washer
900-06023	1-1/4 NC Hex Nut	900-11025	1-1/4 Lock Washer
900-06025	1-3/8 NC Hex Nut	900-11029	1-1/2 Lock Washer
900-06027	1-1/2 NC Hex Nut		
900-06056	5/8 NF Slotted Hex Nut	900-11030	3/16 Flat Washer
900-06058	3/4 NF Slotted Hex Nut	900-11031	1/4 Flat Washer
900-06060	7/8 NF Slotted Hex Nut	900-11032	5/16 Flat Washer
900-06062	1" NF Slotted Hex Nut	900-11033	3/8 Flat Washer
900-06065	1-1/4 NC Slotted Hex Nut	900-11034	7/16 Flat Washer
900-06066	1-1/4 NF Slotted Hex Nut	900-11035	1/2 Flat Washer
900-06070	1-1/2 NF Slotted Hex Nut	900-11036	9/16 Flat Washer
		900-11037	5/8 Flat Washer
900-06135	1/4 NC Flanged Whiz Lock Nut	900-11038	3/4 Flat Washer
900-06137	5/16 NC Flanged Whiz Lock Nut	900-11039	7/8 Flat Washer
900-06139	3/8 NC Flanged Whiz Lock Nut	900-11040	1" Flat Washer
900-06141	7/16 NC Flanged Whiz Lock Nut	900-11041	1-1/8 Flat Washer
900-06143	1/2 NC Flanged Whiz Lock Nut	900-11042	1-1/4 Flat Washer
900-06145	5/8 NC Flanged Whiz Lock Nut	900-11044	1-1/2 Flat Washer
900-06270	3/8 NC Jam Nut		
900-06276	1/2 NC Jam Nut		
900-06280	5/8 NC Jam Nut		
900-06282	3/4 NC Jam Nut		
900-06284	7/8 NC Jam Nut		
900-06286	1" NC Jam Nut		
900-06288	1-1/8 NC Jam Nut		
900-06292	1-3/8 NC Jam Nut		
900-06496	1/4 NC Top Lock Nut		
900-06498	5/16 NC Top Lock Nut		
900-06500	3/8 NC Top Lock Nut		
900-06502	7/16 NC Top Lock Nut		
900-06504	1/2 NC Top Lock Nut		
900-06508	5/8 NC Top Lock Nut		
900-06510	3/4 NC Top Lock Nut		
900-06512	7/8 NC Top Lock Nut		
900-06514	1" NC Top Lock Nut		
900-06518	1-1/4 NC Top Lock Nut		

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