



SHEYENNE / WESTGO
GOLD SERIES
13"

**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

This manual includes the following size, model, lengths and drive options - all with standard transport.

13" GS20

Lengths

30'	PTO, ETM
40'	PTO, ETM
50'	PTO, ETM
60'	PTO
70'	PTO
80' / special	PTO

Descriptions:

13" - Nominal auger diameter in inches

GS20 - Gold Series auger, fighting with hanger bearing support

Lengths - Nominal auger length in feet

PTO - Tractor power take off

ETM - Electric motor

Note: Special length augers ordered by request

Note: Special option – Walking tandem wheels available, see page 70

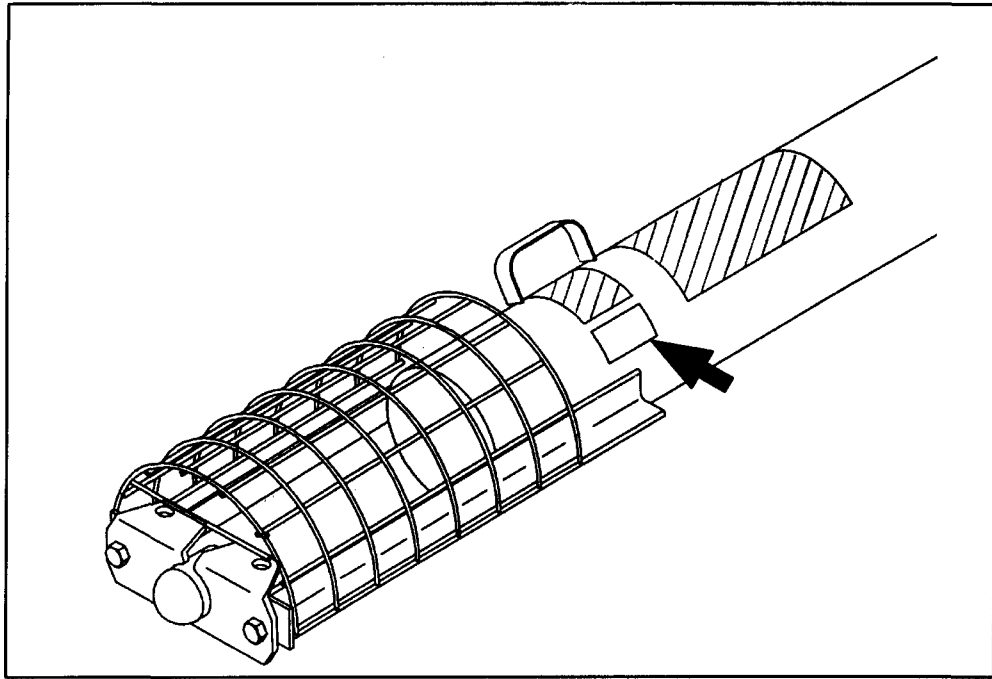
ATTENTION DEALER

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/Westgo Portable Auger when ordering parts or requesting service or other information.

The serial number plate is located as indicated. For future reference, please write the serial number in the space provided below and complete the other information.



SERIAL NUMBER LOCATION

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

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1 INTRODUCTION

Congratulations on your choice of a Sheyenne/Westgo Portable Auger to compliment 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 the Operator's Manual.



GS20 13" x 70', PTO Drive, Hydraulic Winch

This manual covers the 13" Gold Series Auger made by Sheyenne/Westgo. Included are lengths from 30' to 80', drive options PTO or electric motor and the standard transport or under carriage.

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, front 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.

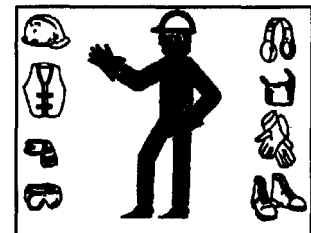
3. Have a first-aid kit available for use should the need arise and know how to use it.



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

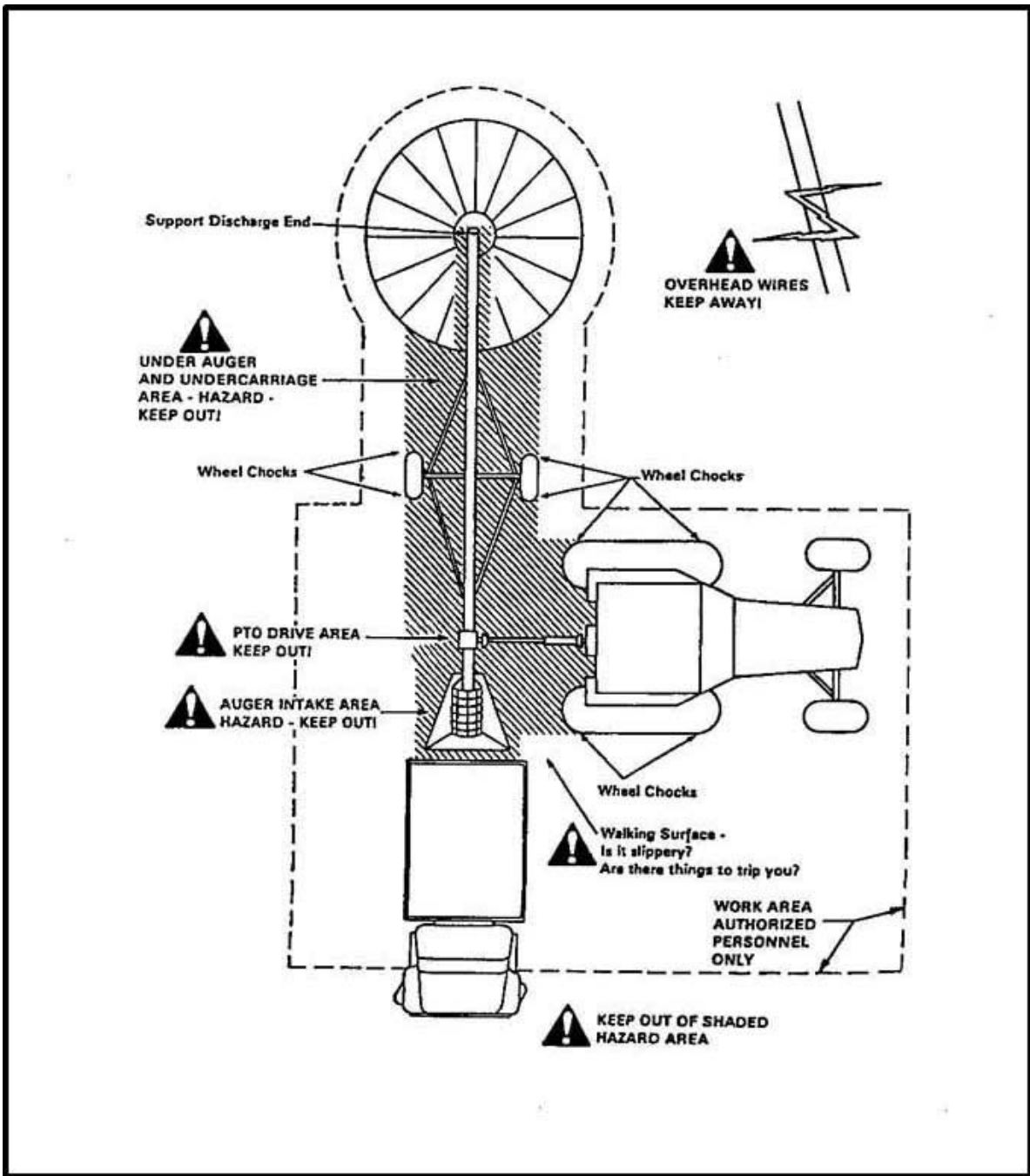
BEFORE RAISING OR PLACEMENT OF ENSURE THAT GROUND IS REASONABLY LEVEL. AUGER COULD TOPPLE IF GROUND IS TOO UNEVEN, DAMAGING EQUIPMENT AND/OR CAUSING PERSONAL INJURY.

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.

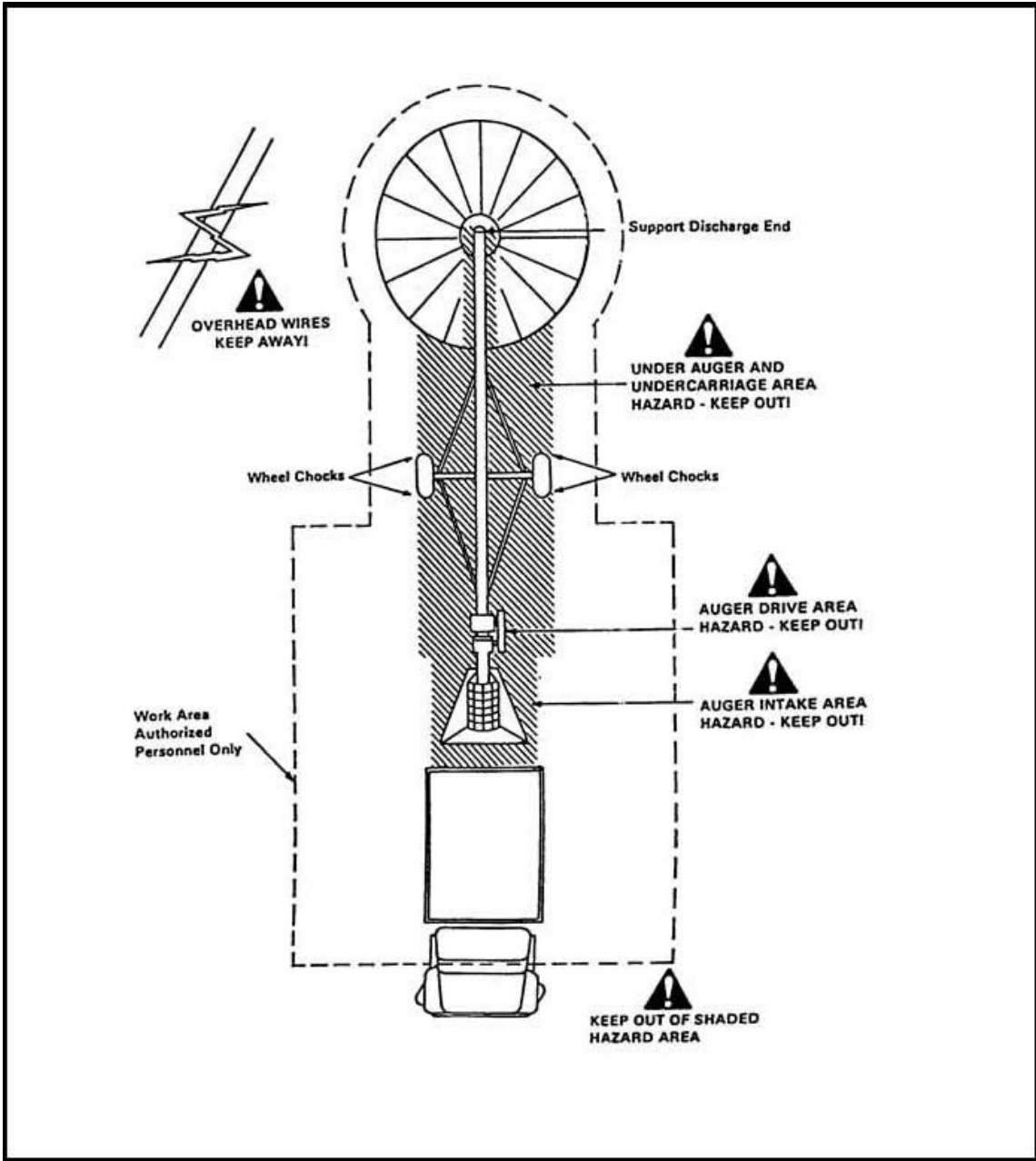
IMPORTANT

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
TRACTOR PTO DRIVE



WORKPLACE HAZARD AREA
ELECTRIC DRIVE

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. Follow good shop practices:

-Keep service area clean and dry.

-Be sure electrical outlets and tools are properly grounded.

-Use adequate light for the job at hand.



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.

10. Support auger tube before attempting maintenance on the under carriage assembly. Where possible auger should be in the full down position.

11. Keep decals clean. Replace any decal that is damaged or not clearly visible.

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.

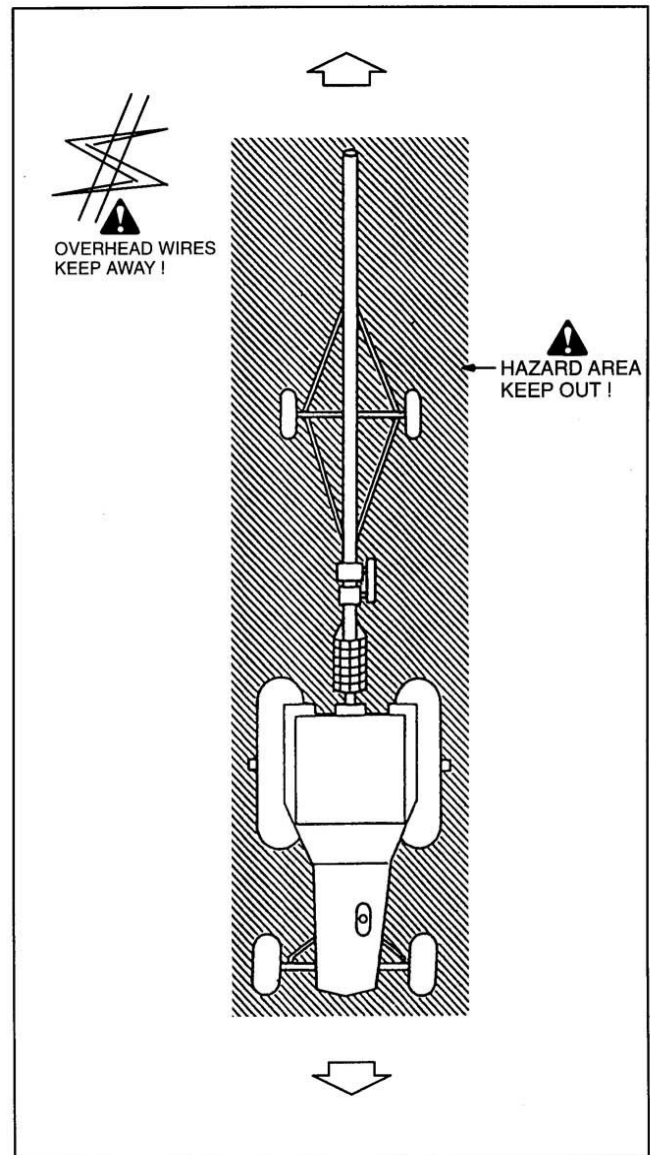
5. Wear proper hand and eye protection when searching for high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.



6. If injured by a concentrated high-pressure stream of hydraulic oil, 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 procedure and SAFETY when moving or transporting the auger.
2. Check with local authorities regarding auger transport on public roads. Obey 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. Electrocution can occur without direct contact.
11. Always use hazard warning flashers on tractor when transporting unless prohibited by law.



TRANSPORT HAZARD AREA

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 the wheels. Failure to heed may cause damage to auger and/or serious injury.

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:

- * Be sure that the installation area is clean and dry.
- * Decide on the exact position before you remove the backing paper.
- * Remove the smallest portion of the split backing paper.
- * Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- * Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- * 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

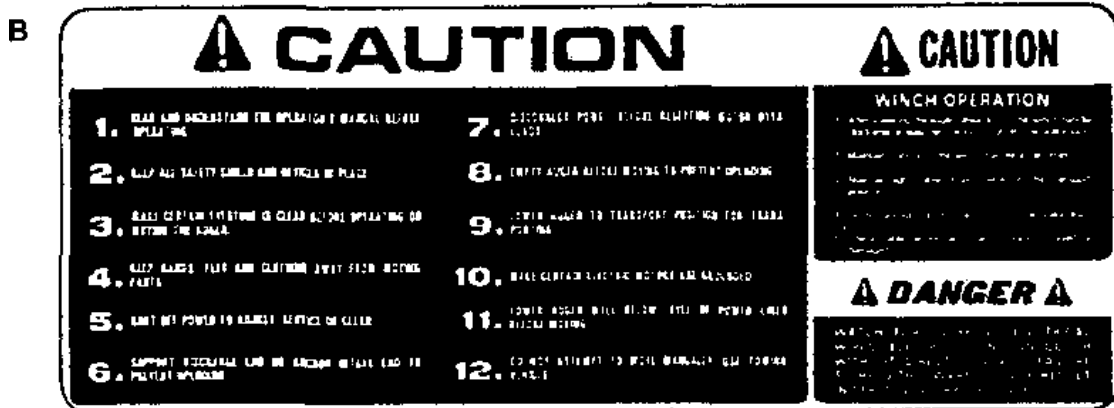
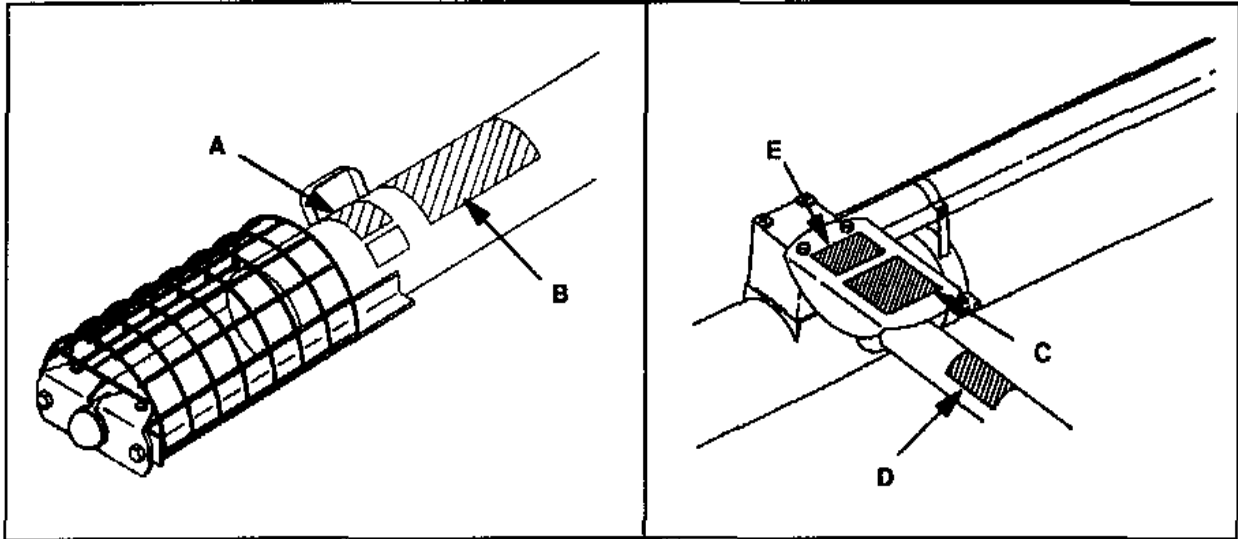
3 SAFETY DECAL LOCATIONS

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!

TUBES

STANDARD PTO DRIVE



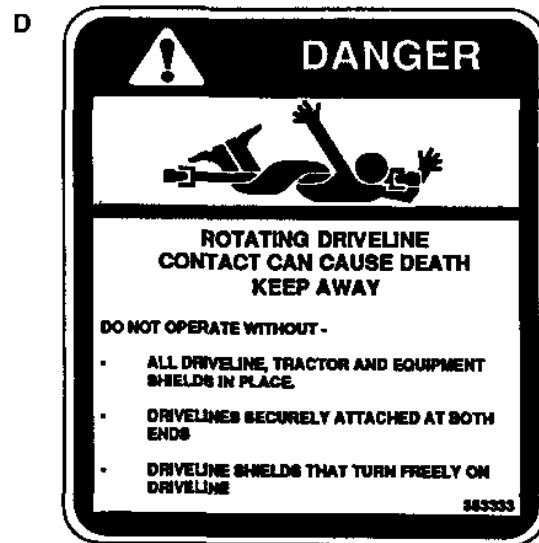
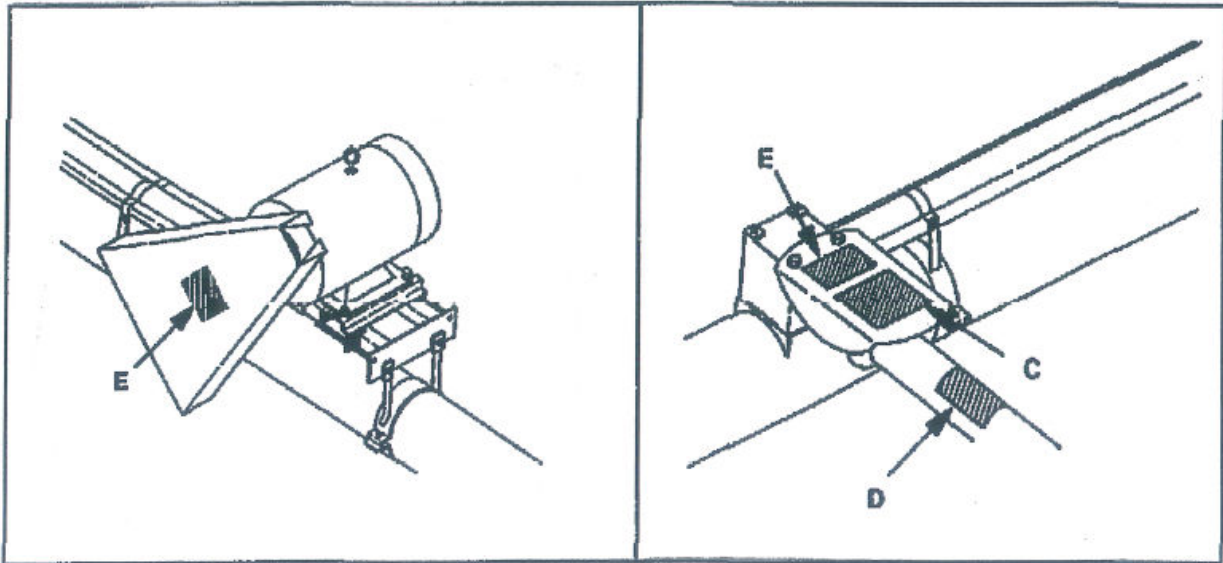
REMEMBER – If Safety Decals have been damaged, removed, become illegible or parts replaced without decals, new decals must be applied. New decals are available from your authorized dealer.

Continued on next page

3 SAFETY DECAL LOCATIONS - Continued

ELECTRIC DRIVE

STANDARD PTO DRIVE



NOTES

4 OPERATION



OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. PTO drive: 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 lift cable is properly seated in cable pulleys.
15. Ensure that auger is empty before raising or lowering.

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.

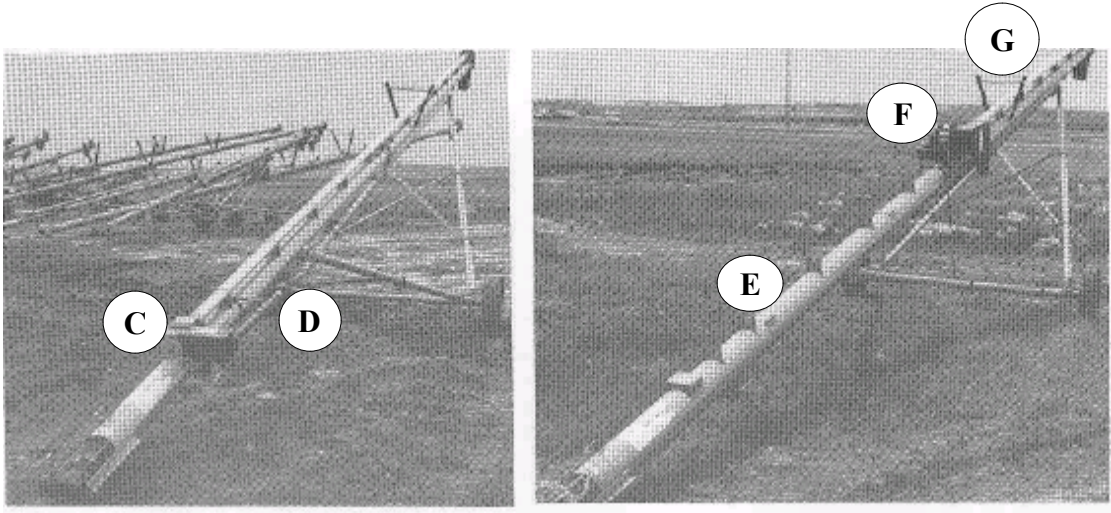
It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with machine. Follow all safety instructions exactly. Safety is every-ones business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the work-site. Untrained operators are not qualified to operate the 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 Grain Auger is a length of rotating flighting enclosed within a tube for moving grain. Grain enters the system through the intake at the lower end. A winch raises and lowers the machine.

Power is provided from a tractor PTO drive or an electric motor.



- A Intake**
- B Outlet**
- C Gearbox**
- D PTO Drive**
- E Main Tube**
- F Electric Motor**
- G Trusses**

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. Before starting:

1. Apply oil or spray lubricant to wood lineshaft bearings
2. Check oil level in gearbox.

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

1. Retorque all the wheel bolts.
2. Retorque fasteners and hardware.
3. Check that all safety decals are installed and legible. Apply new decals if required.
4. Check that all guards are installed and working as intended.
5. Lubricate all grease fittings.
6. Apply oil or spray lubricant to wood lineshaft bearings.

C. After operating for 5 hours and 10 hours:

1. Retorque all wheel bolts, fasteners and hardware.
2. Check that all guards are installed and working properly.
3. Check safety decals. Install new ones if required.
4. Check gearbox oil level. Add as required.
5. Then go to the normal servicing and maintenance schedule as defined in the Maintenance Section.

D. Do not run auger at full capacity until several hundred bushels have been augered to polish the flighting and tube.

IMPORTANT

ANCHORING AND/OR SUPPORT OF AUGER DURING OPERATION IS NECESSARY. WHEN LOWER HALF OF AUGER EMPTIES OF GRAIN, THE WEIGHT BALANCE TRANSFERS TO THE UPPER END OF AUGER, WHICH CAN CAUSE UPENDING!

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. Always use a retainer or hitch pin.
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.
6. Check winch and cable for security and operation. There should be at least 3 complete wraps of cable around winch drum in full down position. Cable anchor on winch drum must be tight.
7. Cable clamps are secure,
8. Drive belts are not frayed or damaged.
9. Drive belts are properly adjusted and aligned.
10. Auger wheels are chocked.
11. Discharge spout and intake area are free of obstructions.

4.5 CONTROLS

Controls are conveniently positioned next to the Operator's station to allow easy operation. Review this section to familiarize yourself with the location and function of each control. Each is shown and explained.

Winch (Raising and Lowering)

A winch is located on the front lower end of the machine and is used to raise and lower the auger. Turn the handle clockwise to raise and counterclockwise to lower.



Fig. 1 MANUAL WINCH

IMPORTANT

Do not lower the auger so far that the cable becomes slack. If the cable goes slack, it can be taken up in the wrong direction on the spool.

4.6 HYDRAULIC WINCH (OPTIONAL)

An optional hydraulic winch is available for raising or lowering the auger. It replaces the standard manual winch and fits on the existing mounting brackets.

1. To install optional hydraulic winch:

- a. Clear the area of bystanders, especially small children.
- b. Remove, disconnect and disable power to machine.
- c. Lower machine to its lowest position with a slack cable.
- d. Disconnect cable from winch spool.
- e. Remove winch from mounting brackets.
- f. Install hydraulic winch and tighten mounting bolts to their specified torque.
- g. Connect and secure cable to the spool.

2. Set hydraulic valves to match tractor. There are three valves on the valve body to set:

- a. Lifting rate.
- b. System operating pressure.
- c. Relief pressure.

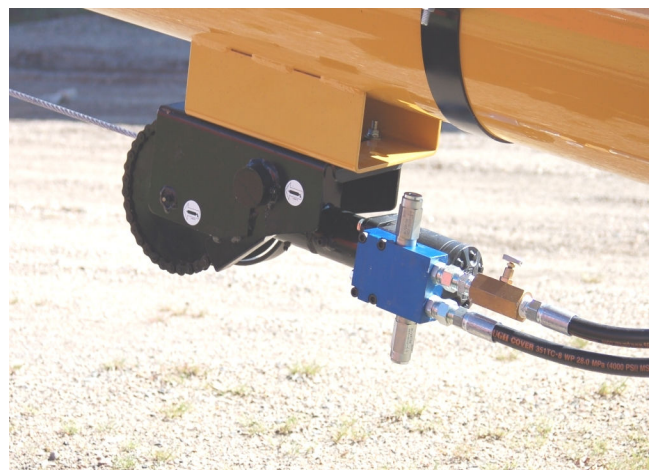


Fig. 2 HYDRAULIC WINCH

4.7 ATTACHING / UNHOOKING

It is recommended that the Auger be attached to a tractor whenever it is moved. Follow this procedure when attaching to or unhooking from a 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.
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. The hitch is normally removed from the intake end for operation. As a result, it must be installed on the intake and prior to attaching to the tractor.
6. If attached to a hopper, disconnect the mounting straps and remove the hopper.

IMPORTANT

The machine is closely balanced. Do not remove the hopper unless there is downward weight on the intake end. Without downward weight on the intake end, the auger may upend!

Raise only high enough to remove the hopper and install the hitch.

7. To install the hitch, raise the intake a few inches above the ground.
8. Slide the hitch assembly over the front of the intake. Install the anchor pins and their retainers. See figure 3.
9. If the auger is in its working position next to a bin and resting on the bin, it will have to be raised slightly to allow the intake end to come up.

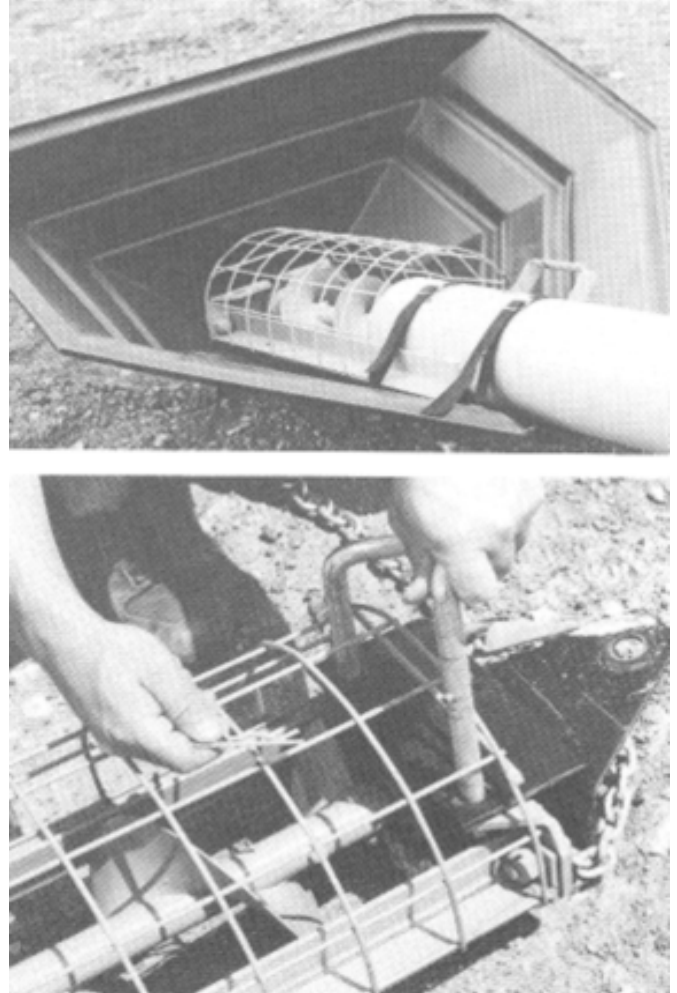


Fig. 3 HITCH ASSEMBLY

4.7 ATTACHING/UNHOOKING (CONT.)

10. Raise the intake end to the drawbar height and install the pin with its retainer.

11. Secure the safety chain around the draw-bar cage to prevent unexpected separation. See figure 4.

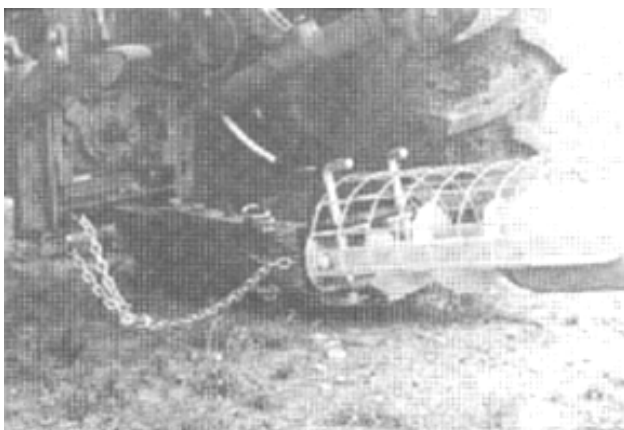


Fig. 4 ATTACHING

12. If equipped with the optional hydraulic winch, (see figure 5) attach the hydraulic lines:

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

b. Connect the hose to the tractor coupler. Be sure the coupler is securely seated.

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

13. Use the hydraulic lever on the tractor to raise or lower the auger.

14. Remove chock(s) from auger wheels.

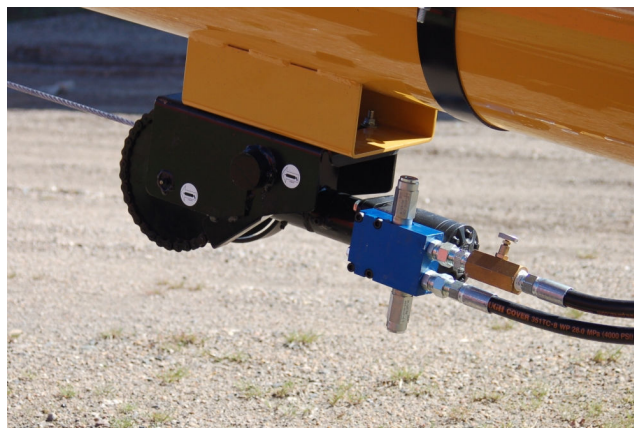
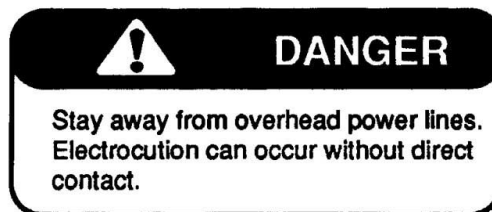


Fig. 5 HYDRAULIC WINCH

15. If auger is next to a storage facility, move forward until the outlet end clears the facility. Then lower auger to its lowest position before moving.



16. Move to new location.

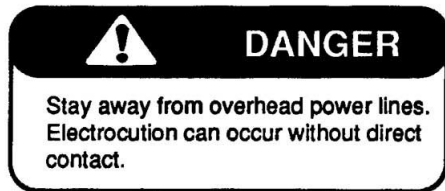
17. Refer to Section 4.10 ,Transporting.

18. Reverse the above procedure when unhooking.

4.8 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. Back the auger up to the storage facility while it is in its lowered configuration.
5. Set the park brake on the tractor before dismounting.
6. Use the winch to raise the auger so it clears the storage facility. Stay away from power lines.



7. If equipped with the optional hydraulic winch, use the tractor hydraulics to slowly raise the auger into position. Stay away from power lines.
8. Slowly back the auger until the outlet is over the opening in the storage facility.
9. Use the winch or hydraulics to slowly lower the outlet end of the auger until it is resting on the storage facility.
10. Place chocks in the front and rear of each wheel.



Fig. 6 MACHINE, LOWERED

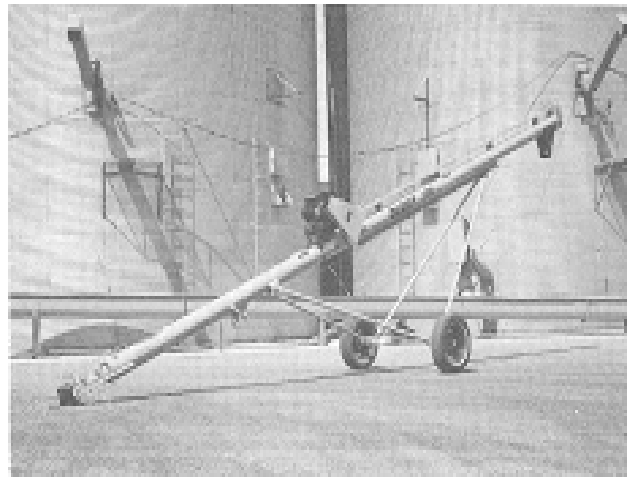


FIG. 7 RAISING

4.8 MACHINE PLACEMENT (CONT)

11. Unhook the auger from the tractor or towing vehicle and lower to the ground.

12. Remove the hitch from the auger.

13. Install a hopper under the intake and secure with the straps.

14. Lower the auger again so the outlet end is resting on the storage facility.

15. If the auger is not being used with a storage facility, it will be necessary to stake or weight the intake end to prevent upending when the auger is emptying.

16. Review the Workplace Safety Diagram for your model prior to starting work. Follow all set-up instructions and do not allow any unauthorized people into the working area.

17. For the PTO Drive Models:

- a. Back tractor into position.
- b. Chock tractor wheels.
- c. Attach PTO shaft.

4.9 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.
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 4.5
5. On the electric drive models, be sure a certified electrician is used to provide power and shutdown switches are conveniently positioned for the operator.
6. On the PTO models:
 - a. Back a tractor up to the input shaft (see Section 4.4). Align the tractor axis with the input shaft so the universal joints are equal and as small as possible.
 - b. Place chocks next to tractor tires and set the park brake.
 - c. Attach the PTO shaft:
 - i. Clean the splines on the shaft and in the yoke if required.
 - ii. Check that the guard rotates freely and the drive-line telescopes easily. If not clean, lubricate or repair as required before installing.



Fig 8 PTO SHAFTS

4.9 OPERATING (CONT)

- iii. Retract collar on the yoke and slide yoke over the tractor shaft. Stop when the lock pin clicks into position in the groove.
 - iv. Pull on the yoke to make sure it is locked to the shaft.
 - d. Check that the yokes on each drive-line are secured to their respective shafts.
7. Check that all guards are in place and working as intended.
8. Check belt tension on electric motor models. During 'run-in' time there may be rapid decrease in tension. The correct operating tension is the lowest tension at which the belts will not slip under peak load conditions.
9. Drive or back the truck into position for unloading.
10. Starting
 - A. PTO Models:
 - a. Place all controls in neutral.
 - b. Start tractor and run at low idle.
 - c. Slowly engage the PTO clutch.
 - d. Start the flow of grain and unload.
 - e. Increase engine speed to have a PTO speed of 500 RPM.
 - B. Electric Motor Models:
 - a. Turn the electric motor ON.
 - b. Start the flow of grain and unload.
11. Stopping
 - A. PTO Models:
 - a. Run until the tube is empty.
 - b. Reduce engine speed to low idle.
 - c. Disengage PTO clutch.
 - d. Shut off engine.

B. Electric Motor Models:

- a. Run until the tube is empty.
- b. Turn off motor and lock out power source.

12. Emergency Stopping:

It is strongly recommended that the tube be emptied before stopping. In an emergency situation, stop or shut-down the power source immediately. Correct the emergency before resuming work.

13. Restarting (full tube):

When the auger is shut down inadvertently or for an emergency, the tube will still be filled with grain. The start-up torque loads are much higher than normal when the tube is full. Restart at low idle engine speed for the PTO models. For electric motor models it may be necessary to tighten the drive belts slightly to handle the heavier than normal loads.

14. Piling:

When piling grain in the open, keep the spout as low as possible to minimize wind effects. Also, the grain can build up over the transport wheels. It is recommended that the operator attach a log chain to each axle plate 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 damage from bending. Be sure the intake end is staked to prevent upending when emptying the auger.

15. Operating Hints:

a. Run the unit up to 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.

Pay particular attention to the wood lineshaft bearings on top of the tube. Lubricate or replace lineshaft bearings or replace flighting hanger bearings to eliminate the noise. See figure 9.

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. Set the intake end of the auger in a hopper. This reduces wasted grain and is safer because it prevents feet from getting too close to the intake end. See figure 10.

g. Keep intake end of auger completely covered with grain for maximum capacity.

h. On the PTO drive models, align the tractor axis with the auger input shaft to minimize the angles of the universal joints on the PTO driveline.

i. When the auger is used to put grain in a pile, the grain can build up and cover the wheels. Again, 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 draw-bar. This will prevent axle or frame bending.

j. The PTO driveline is equipped with a shear pin in the input yoke. It will shear to protect the auger drive components should the machine plug or something jams in the flighting. Use only genuine Sheyenne/Westgo replacement parts when the pin has sheared. See figure 11.

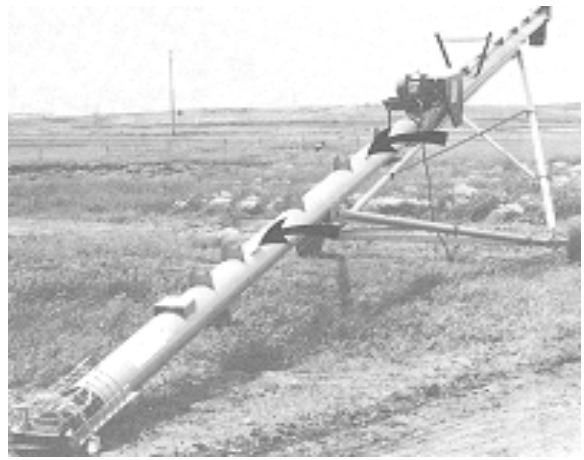


Fig. 9 BEARING ACCESS COVERS




Fig. 10 INTAKE HOPPER



Fig. 11 SHEAR PIN

4.10 TRANSPORTING

 TRANSPORT SAFETY	
<ol style="list-style-type: none">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.	<ol style="list-style-type: none">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 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 hitch pin with retainer and a safety chain.



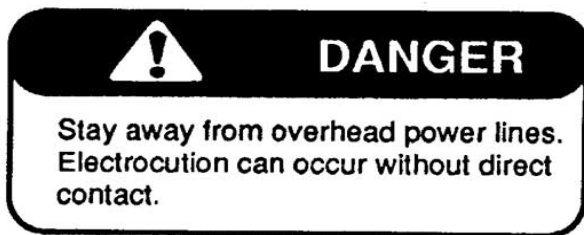
Fig. 12 ATTACHED TO TRACTOR

3. On the PTO drive models, place the driveline in its stowed position before moving or transporting.



Fig. 13 STOWED PTO SHAFT

4. Remove chocks from the wheels.
5. Lower the machine if required. Transport only when auger is in its lowest position.
6. Keep some tension on winch cable during transport.
7. Stay away from overhead power lines. Electrocutation can occur without direct contact.



8. Never go across slopes of more than 20 degrees. It is better to go straight up or down. See figure 14
9. 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.

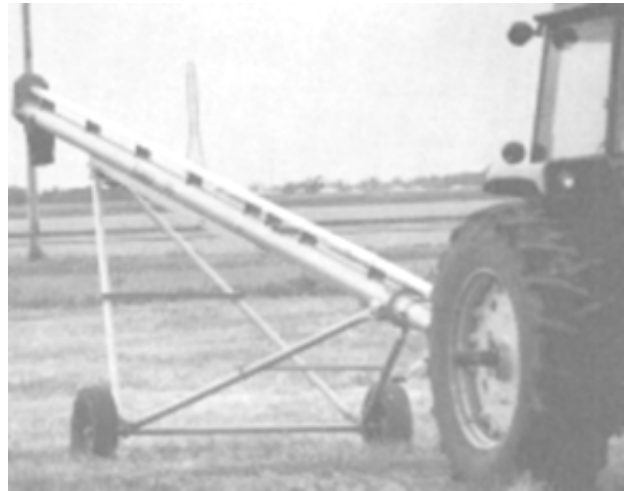


Fig. 14 TRACTOR TRANSPORT

10. 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.
11. 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.

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>
20 mph (Up to 32 km/h)	1 to 1, or less
10 mph (Up to 16 km/h)	2 to 1, or less
Do not tow	More than 2 to 1

12. Do not allow riders on the machine or tractor.
13. During periods of limited visibility, use pilot vehicles or add extra lights to the machine.
14. Always use hazard flashers on the tractor when transporting unless prohibited by law.

5 STORAGE

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. Remove all residual grain from the hopper and the tubes.
2. Wash the entire machine thoroughly using a water hose or a pressure washer to remove all dirt, mud, debris or residue.
3. Inspect all moving or rotating parts to see if anything has become entangled in them.
4. Lubricate all grease fittings to remove any moisture in the bearings.
5. Run the machine slowly for 1 minute to distribute lubricant to all surfaces.
6. If equipped with the optional hydraulic winch, 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.
9. If the auger is not being left in a storage facility, it should be placed in its lowest position with a slight tension on the cable. The lowered position makes the auger more stable and less vulnerable to severe winds. Sheltered areas are preferred unless excessive snow accumulates during winter months.
10. On the electric motor model, cover the motor with plastic to protect against the elements.

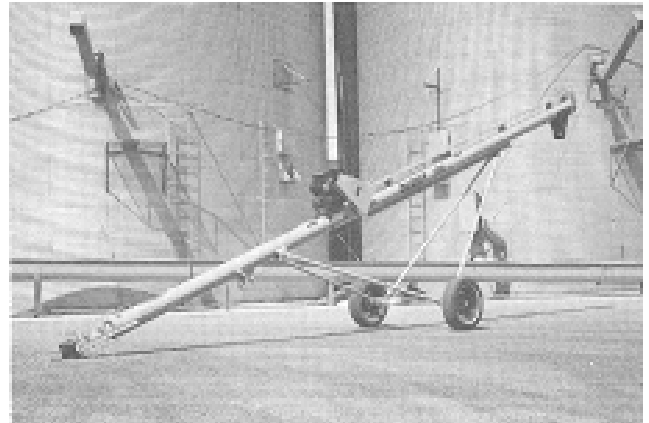



Fig. 15 STORAGE

	STORAGE SAFETY
<ol style="list-style-type: none">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.	

6 SERVICE AND MAINTENANCE



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
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.
10. Support discharge end of auger before removing or replacing any parts on the undercarriage.
11. Keep decals clean. Replace any that are damaged or not clearly visible.

6.1 SERVICE

6.1.1 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.

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.

6.1.2 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.

6.1.3 SERVICING INTERVALS

8 HOURS OR DAILY

1. Grease PTO shaft (3 locations) with 1 shot of grease.

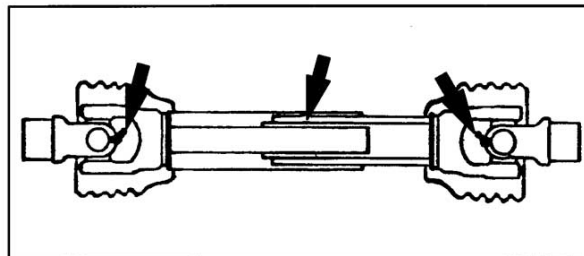


Fig. 16 GREASE PTO SHAFT

2. Grease intake bearing with 2-3 shots of grease.

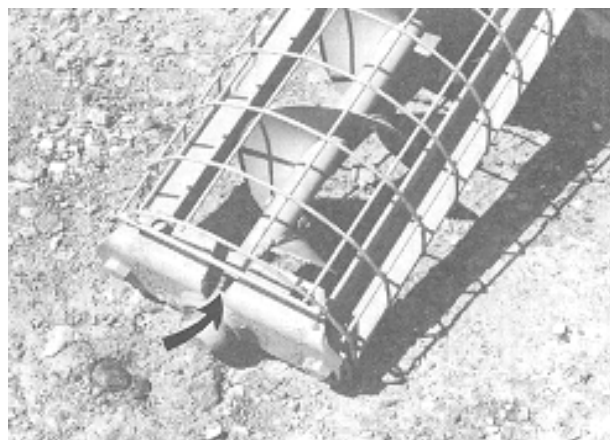


Fig. 17 GREASE INTAKE BEARING

3. Check gearbox oil levels. Add as required. Use SAE 80/90 lube oil.

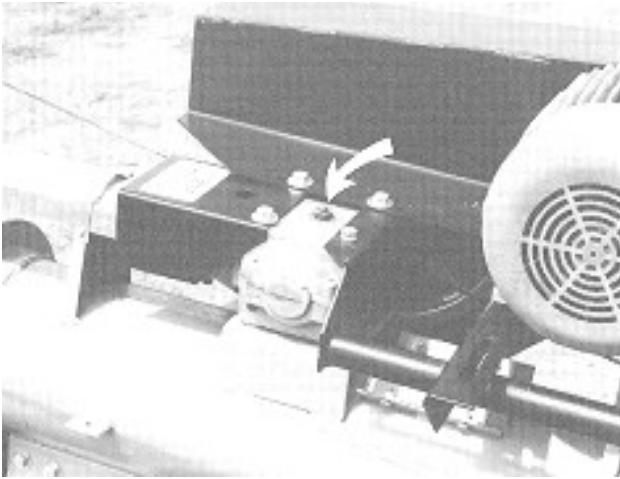


Fig. 18 GEARBOX, ETM



Fig. 19b GEARBOX, PTO (SMALLER SIZE)

4. Initial oil fill of chain drive box requires about one quart. Do not over fill.

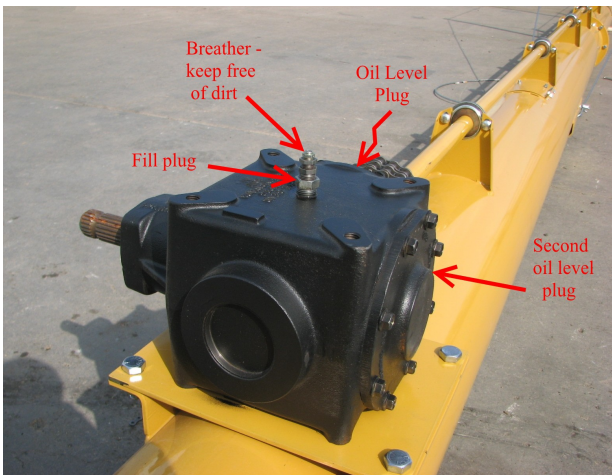


Fig. 19a GEARBOX, PTO (LARGER SIZE FOR 13 X 80 AUGER)

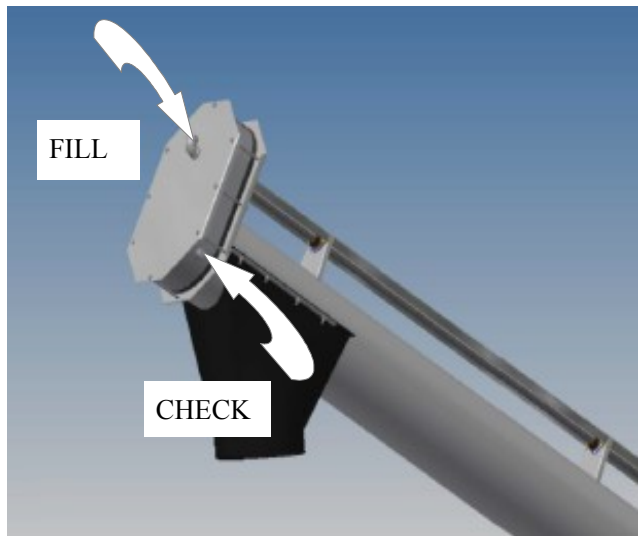


Fig. 20 FILL & OIL LEVEL CHECK PLUGS

Weekly or 40 Hours

1. Grease gearbox input and output bearings with 1 shot of grease each.

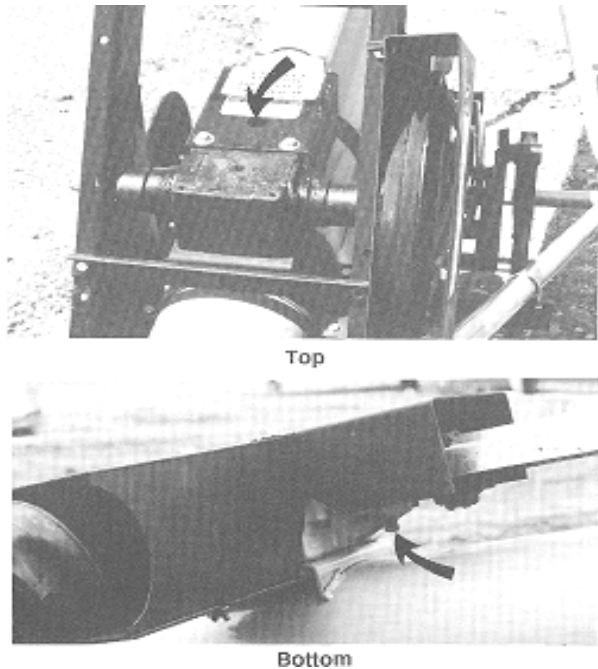


Fig. 21 GEARBOX GREASING

Annually

1. Grease wheels with 5 shots of grease (2 locations).

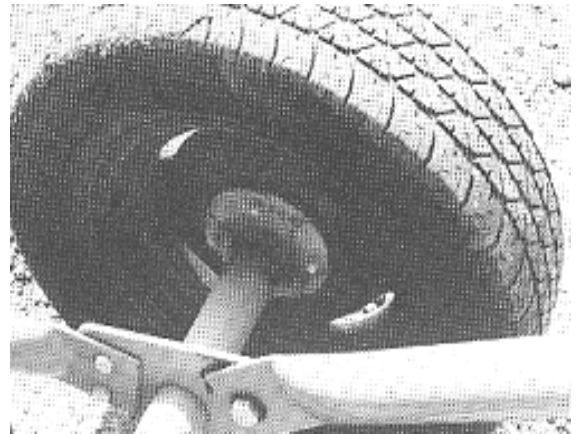


Fig. 22 WHEEL BEARINGS

2. Clean gearbox breathers. Electric motor model shown, PTO model uses same gearbox.

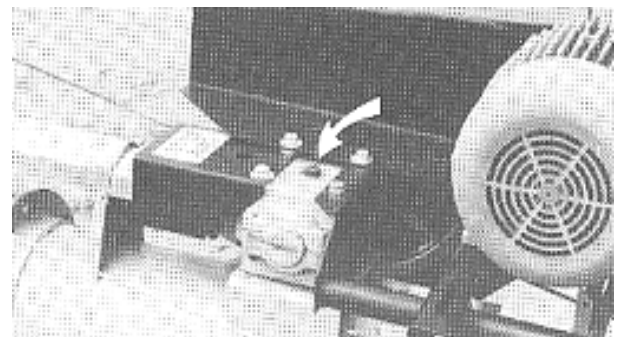


Fig. 23 GEARBOX BREATHER

3. Lubricate chain coupler at gearbox output on larger augers.

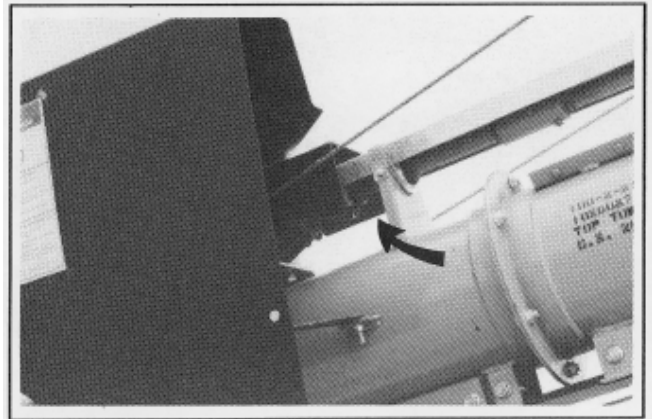


Fig. 24 CHAIN COUPLER

4. Apply oil or a spray lubricant to wood lineshaft bearings.

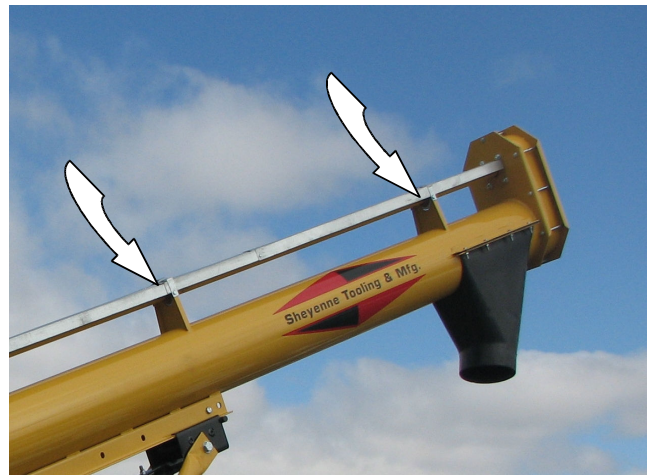


Fig. 25 LINESHAFT BEARINGS

5. For increased winch life, grease gears and hub shaft and apply a drop of oil on drive shaft bearings. Inspect shafts and bearings for wear.



Fig. 26 WINCH

6.1.4 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												
8 Hours or Daily													
L PTO Shaft													
L Intake Bearing													
✓ Gearbox oil levels													
✓ Chain Case oil level													
Weekly or 40 Hours													
L Gearbox Output Bearing (1)													
200 Hours or Annually													
R Wheel Bearings (2)													
CL Gearbox Breathers													
L Winch													

6.2 MAINTENANCE

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

6.2.1 CHAIN TENSION

The roller chain on the top end should always be adjusted so the chain has between 1/4 to 1/2 inch (6 to 12 mm) deflection in the center of the span.

To adjust, follow this procedure:

1. Stop engine and remove ignition key to stop engine and disengage drive belt or turn off motor and lock out power as appropriate.
2. Loosen the bolts in the upper bearing and head plate.
3. Loosen the bolts in two lineshaft bearings.
4. Tap or slide the upper bearing to give the required chain tension.
5. Check the tension. Again, the center of the span should deflect 1 /4 to 1/2 inch (6 to 12 mm).
6. Tighten the head plate bolts and the lineshaft bearing bolts to their specified torque.
7. By adjusting the lineshaft bearings, the bow in the lineshaft will be minimized. See Fig. 27.

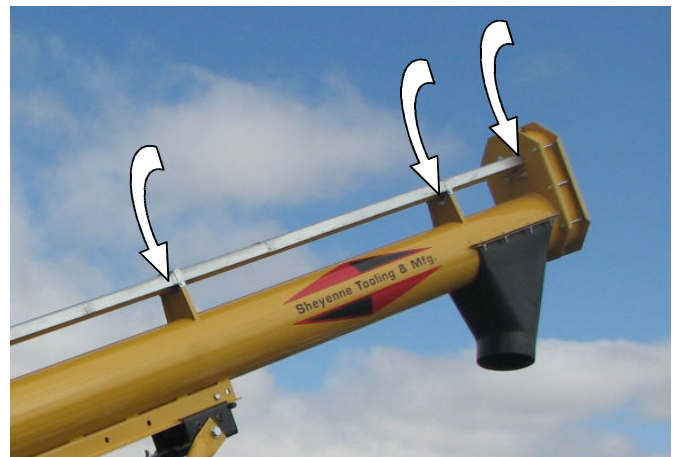


Fig. 27 ADJUST LINESHAFT BEARINGS

6.2.2 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 yoke from the shaft on the tractor.
3. Remove the pin parts remaining in the yoke.
4. Install a new pin using genuine Sheyenne/Westgo parts and tighten.
5. Install yoke on the shaft. Be sure it is locked in place.

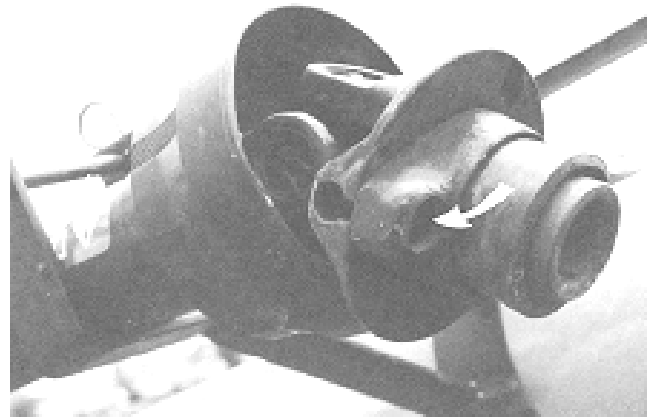


Fig. 28 SHEAR PIN

6.2.3 TRUSS CABLES

The longer augers are equipped with a set of truss cables to keep it straight. Adjust the eyebolts on the end of each cable as required to keep the tube straight.



Cables



Eye Bolts

Fig. 29 TRUSS CABLES

6.2.4 BELT TENSION

On electric motor models, power is transmitted to the auger through a drive belt(s) that must have the proper tension and be in good condition. The belt drive must be checked frequently and adjusted as required during break-in. Wear and age can cause the belts to stretch and require adjusting. Set the tension so the belts will not slip when the auger is loaded.

To set the tension or replace the belt(s), follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Remove power as appropriate:
 - a. Turn electric motor OFF and lock out power at master panel.
3. Loosen power source mounting frame:
 - a. On electric motor frame.
4. Slide or tap the assembly into the required position. Be sure to keep the pulleys in alignment. The correct belt tension is when the belt does not slip under its heaviest load.
5. Tighten mounting bolts to their specified torque. drive
6. When replacing the belt(s).
 - a. Remove the guard over the pulleys if required.
 - b. move power source frame so belt is in its loosest position.
 - c. Remove old belt(s) and replace with genuine Sheyenne-Westgo replacement parts.
 - d. Move power source assembly to its required position.
 - e. Be sure the pulleys are aligned.
 - f. Tighten mounting bolts to their specified torque.
 - g. Install and tighten guard mounting bolts.
 - h. Check belt tension every couple of hours during break-in.

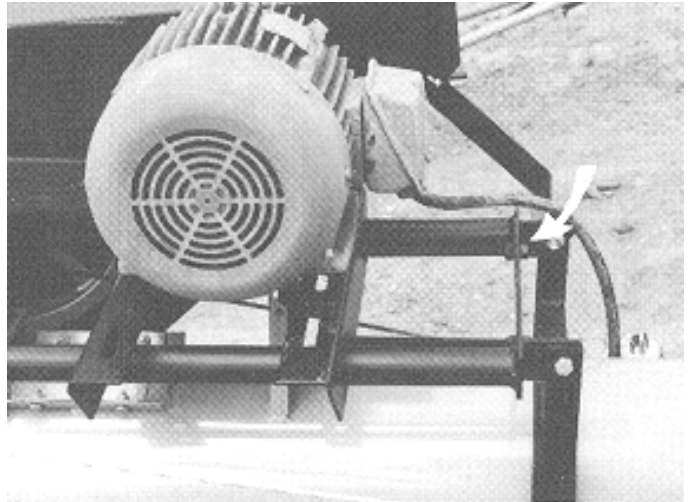


Fig. 30 ELECTRIC MOTOR MOUNTING FRAME

7. The drive pulleys must be kept in alignment when adjusting belt tension or replacing a belt to minimize belt wear.
 - a. Remove guards if required from the belt system.
 - b. Sight along the pulleys or use straight edge.
 - c. If the edges of a pulley is out by more than 1/16 inch (1.3 mm), loosen the pulley assembly and realign.
 - d. Tighten assembly mounting bolts to their specified torque.
 - e. Install guards and tighten mounting bolts to their specified torque.

6.2.5 PTO DRIVELINE GUARD

The shield must turn freely on the PTO shaft. Daily lubrication of both shield bearings and periodic cleaning will ensure safe operation of the shield.

If the shield is damaged or worn, replace the components with original brand name parts.

DISASSEMBLY AND ASSEMBLY

See pages XX and XX for reference drawings and parts list.

1. Keep the cone pressed down and release the collar catches by pushing in with a screw driver.
2. Spread the collar bearing and remove from the tube. Clean the collar and the bearing groove. Grease the bearing groove.
3. Fit the collar bearing into the groove and the plastic tube. The collar catches must be centered over the matching holes. The plastic tube and bearing must rotate freely in the bearing groove.
4. To fasten the cone, line up the cone grease fitting over the grease filling hole on the collar bearing. Check that all catches are engaged. The shield must turn freely over shaft. See fig. 31.

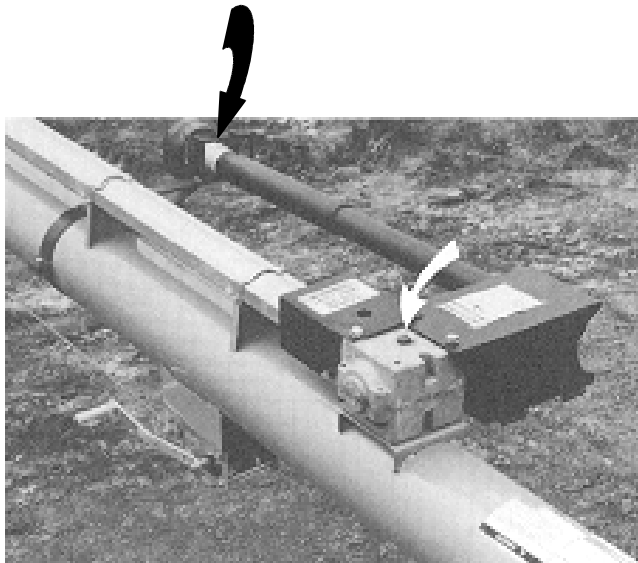


Fig. 31 PTO DRIVE

6.2.6 BREATHER CLEANING

Each gearbox is equipped with a breather that allows the gearbox to vent to atmosphere as the internal temperature changes. If the breather is plugged, it can cause a pressure build-up inside and lead to leaking seals.

To clean the breather, follow this procedure:

1. Remove breather from the gearbox.
2. Soak in a good solvent for an hour.
3. Blow out with an air hose.
4. Be sure the passage is clear.
5. Install breather in gearbox and tighten. See fig. 31 and 32.

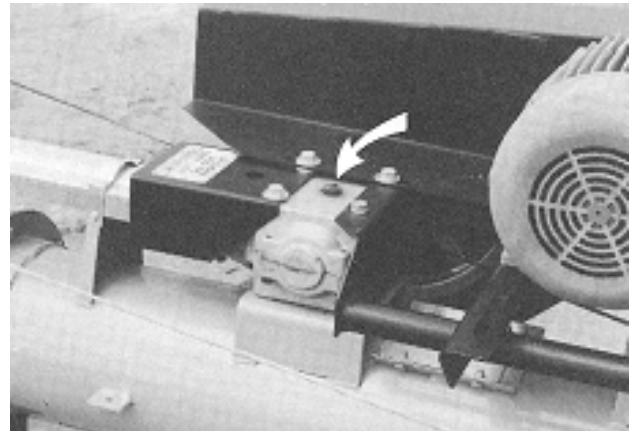


Fig 32 BREATHER

6.2.7 HANGER BEARINGS, GS20 SERIES

On the GS20 Series auger 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:

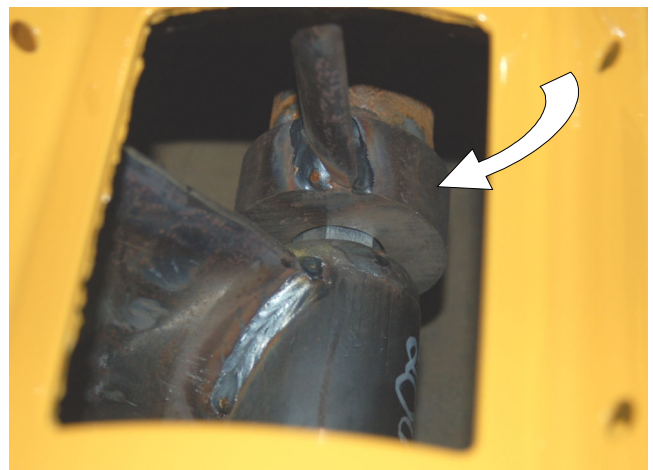
1. Clear the area of bystanders, especially small children.
2. Remove power as appropriate:
 - a. Disconnect PTO shaft from tractor.
 - b. Turn electric motor OFF and lock out power at master panel.
3. Remove access cover next to failed bearing and the access covers the rest of the way down the auger. See fig. 33.
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. 34. **Use only genuine Shyenne/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 43.



**Fig. 33 BEARING REPLACEMENT
(Access Covers)**



**Fig. 34 BEARING REPLACEMENT
(Hanger Bearing)**

CORRECT TIMING

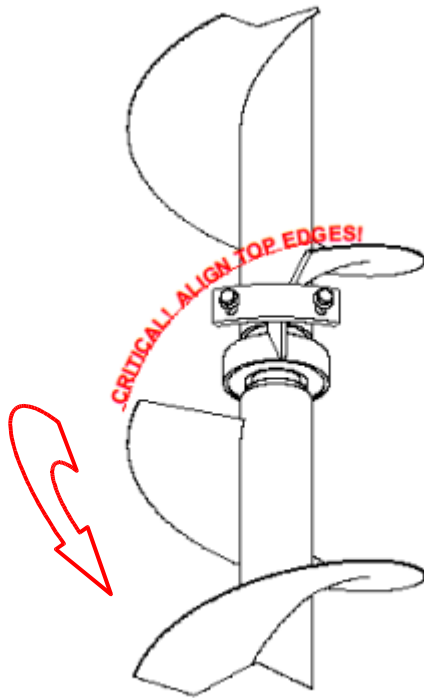


Fig. 35a

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

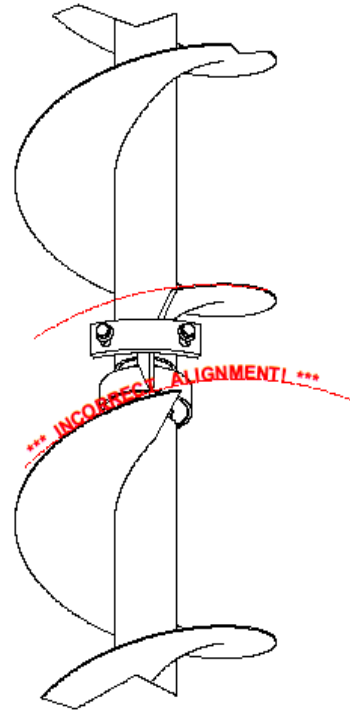


Fig. 35b

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

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.

PROBLEM	CAUSE	SOLUTION
Auger doesn't turn	Broken shear pin Bad belt	Replace shear pin Adjust belt tension or replace belt
Poor capacity	Flighting sections not timed properly. (GS20 Augers)	Open access covers and check alignment. If incorrect, disassemble and correct per pages 42 and 43.
	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	Winch worn or broken	Replace winch
	Cable not in pulley	Put cable in cable groove
	Restriction in hydraulic (Optional hydraulic winch)	Check hydraulic line for restriction
Auger bows	Truss cables not properly adjusted	Adjust trussing
Excessive belt wear	Pulleys not aligned Loose belts	Align pulleys Adjust pulleys
Excessive chain wear	Sprockets misaligned	Align sprockets
	Chain too tight or too loose	Adjust chain tension until it can be deflected about 1/4" with your thumb
Auger chatters or makes noise upon starting	Lineshaft wood bearing is dry	Spray WD40 or equivalent on lineshaft between lineshaft and wood

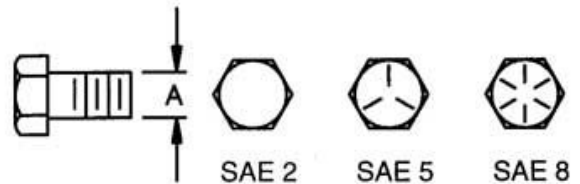
8 SPECIFICATIONS

8.1 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 a 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)

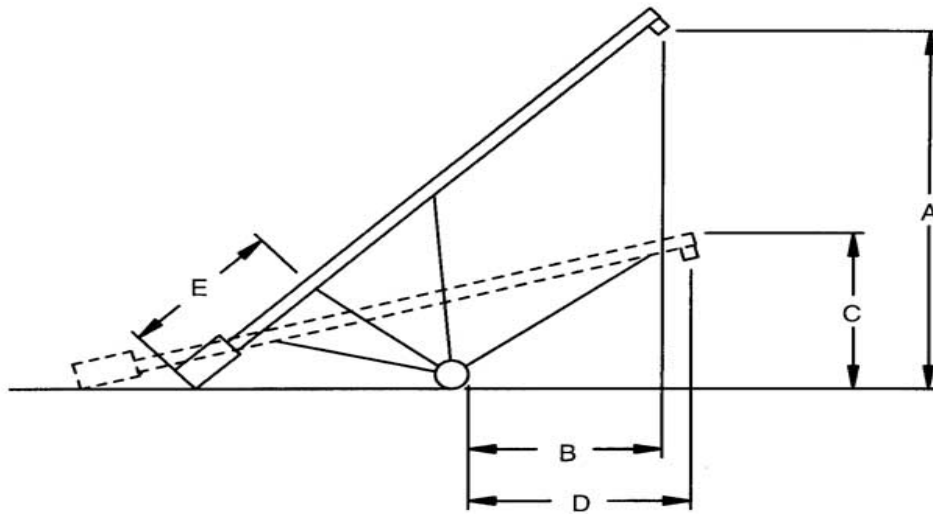


Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless specified in this manual. When using locking elements, increase torque values by 5%.

- Torque value for bolts and cap screws are identified by their head markings.

9 MECHANICAL

AUGER LENGTH	A	B	C	D	E	AXLE WIDTH
30'	19' 2"	9' 0"	10' 2"	12' 0"	9' 3"	6' 3"
40'	25' 10"	13' 6"	11' 6"	14' 10"	12' 1"	7' 8"
50'	33' 4"	15' 0"	12' 6"	20' 4"	14' 11"	7' 10"
60'	40' 6"	19' 8"	13' 0"	26' 2"	15' 9"	12' - 14' 6"
70'	48' 6"	23' 5"	13' 8"	31' 1"	20' 4"	12' - 14' 6"
80'	-	-	-	-	-	-



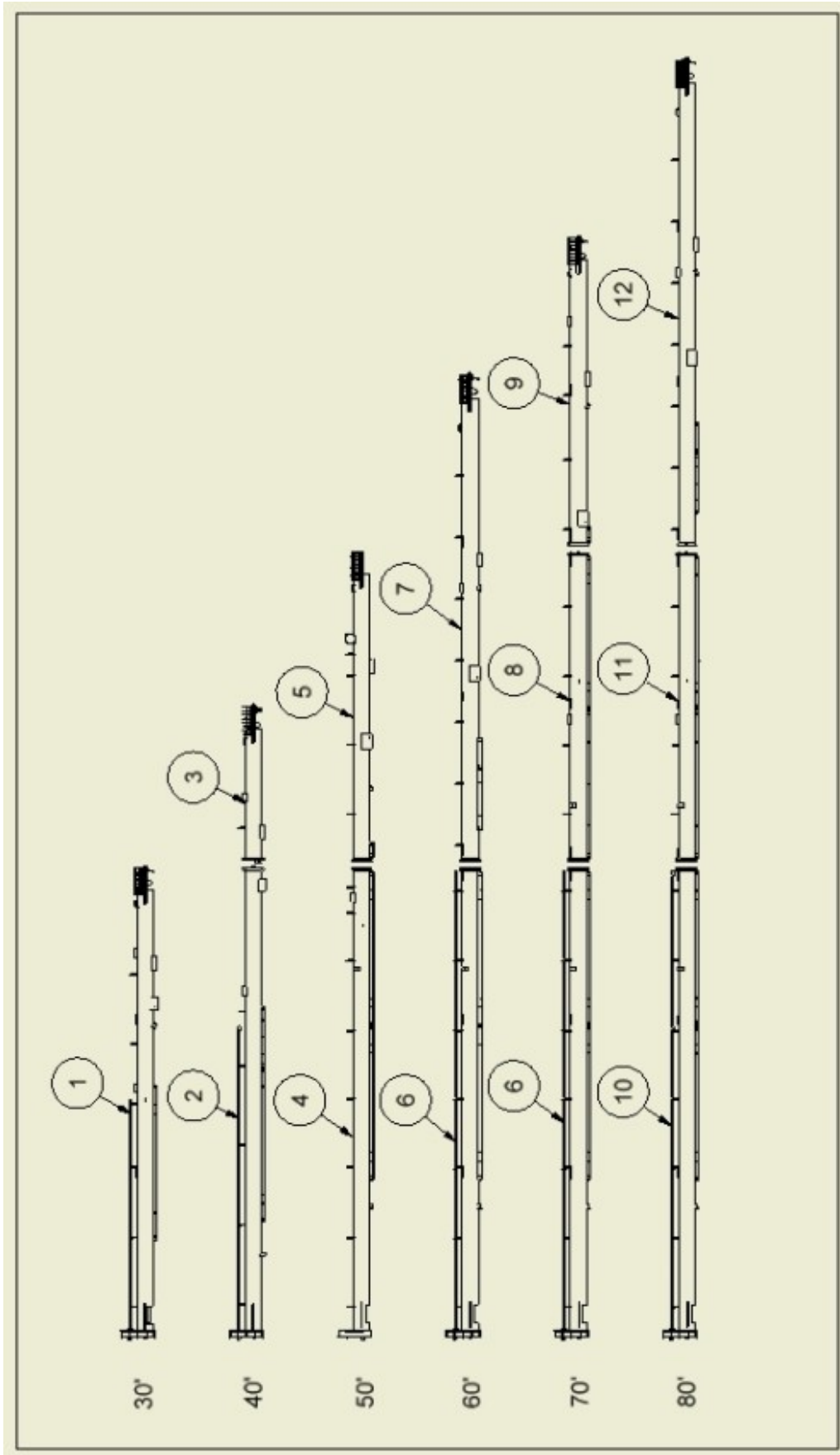
HORSEPOWER REQUIREMENTS	
Auger Length	13" Electric
30'	-
40'	-
50'	-
60'	-
70'	X
80'	X

PARTS

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13 INCH TUBES

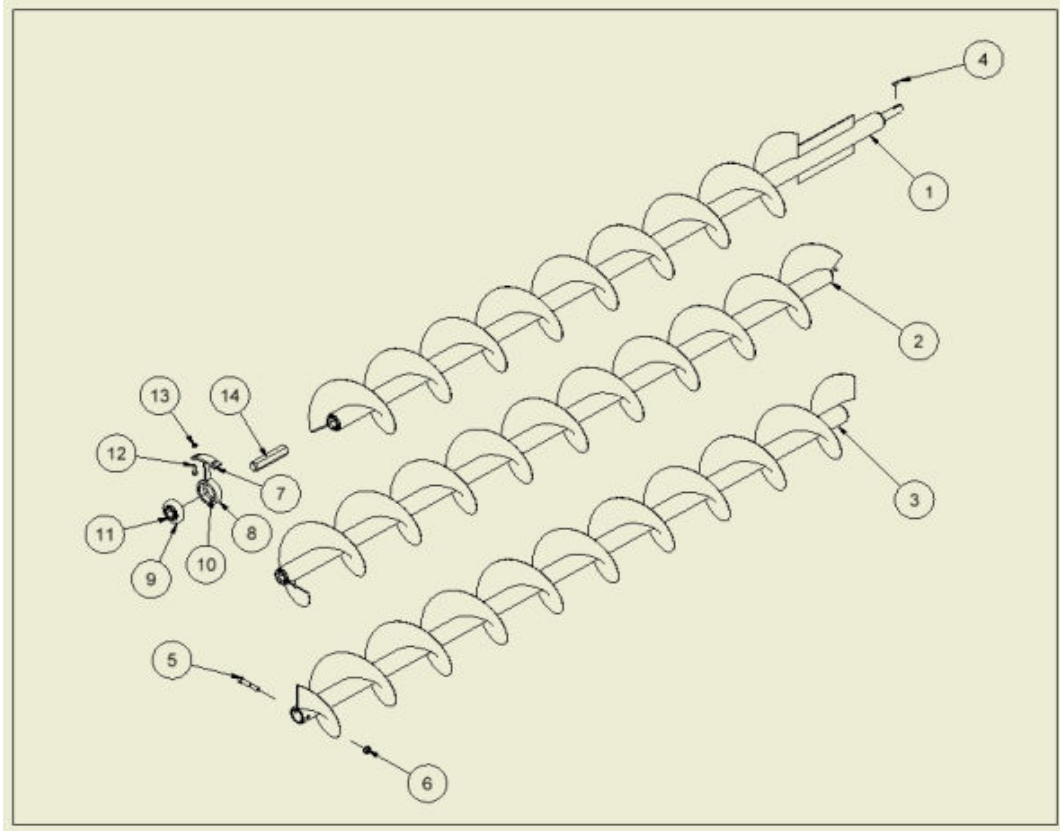
TUBE SECTIONS - 13" AUGERS

GS20

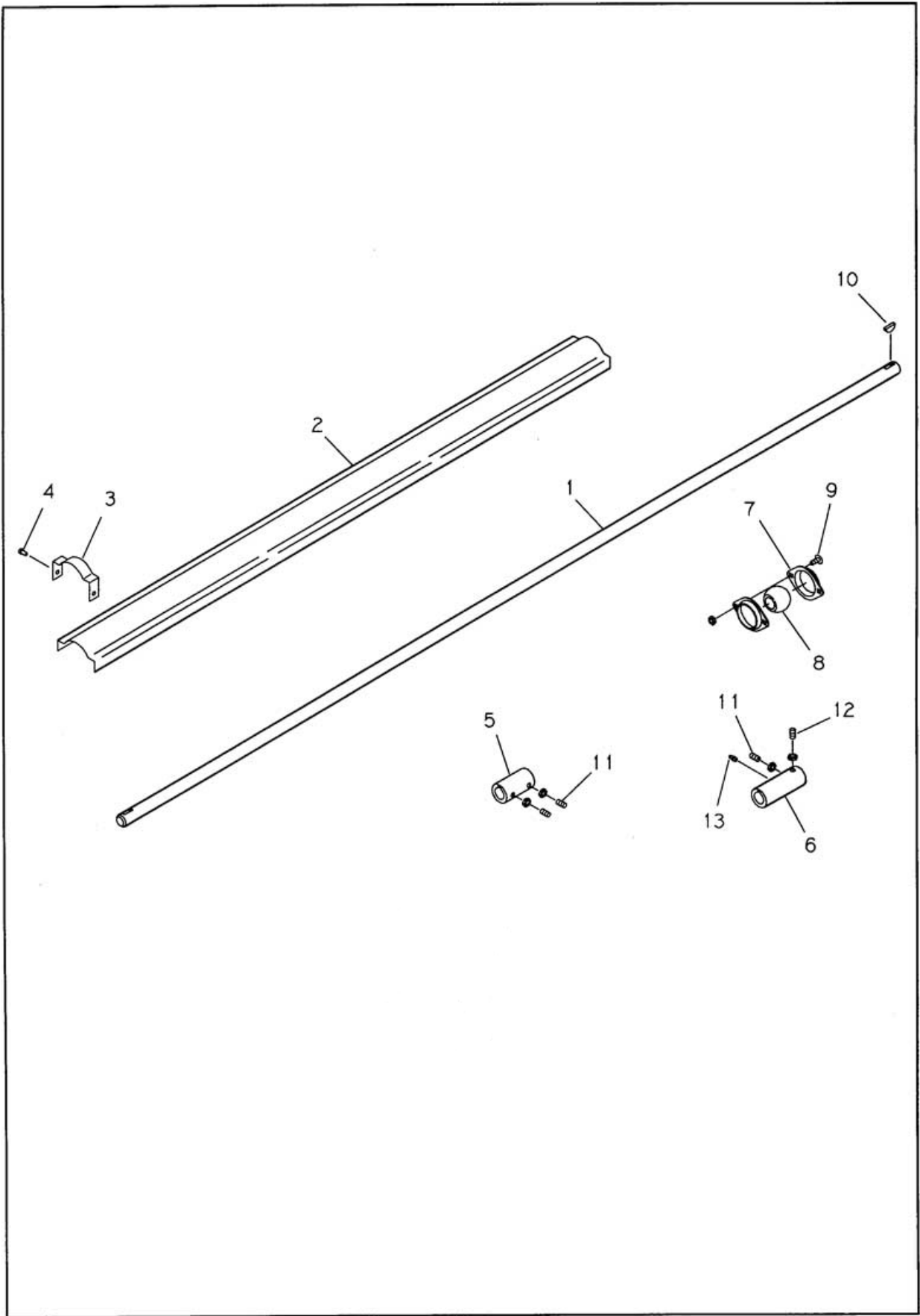
REF	PART NO.	DESCRIPTION	QTY
1	100-2-2957	Tube Weldment, 30'	1
	100-2-2956	Tube Assembly, 30'	1
2	100-2-3300	Top Tube Weldment, 40'	1
	100-2-3299	Top Tube Assembly, 40'	1
3	100-2-3302	Bottom Tube Weldment, 40'	1
	100-2-3301	Bottom Tube Assembly, 40'	1
4	100-2-2943	Top Tube Weldment, 50',	1
	100-2-2942	Top Tube Assembly, 50',	1
5	100-2-2945	Bottom Tube Weldment, 50'	1
	100-2-2944	Bottom Tube Assembly, 50'	1
6	100-2-2947	Top Tube Weldment, 60', & 70'	1
	100-2-2946	Top Tube Assembly, 60', & 70'	1
7	100-2-3298	Bottom Tube Weldment, 60'	1
	100-2-3297	Bottom Tube Assembly, 60'	1
8	100-2-2949	Center Tube Weldment, 70'	1
	100-2-2948	Center Tube Assembly, 70'	1
9	100-2-2951	Bottom Tube Weldment, 70'	1
	100-2-2950	Bottom Tube Assembly, 70'	1
10	Not assigned	Top Tube Weldment, 80'	1
	Not assigned	Top Tube Assembly, 80'	1
11	Not assigned	Center Tube Weldment, 80'	1
	Not assigned	Center Tube Assembly, 80'	1
12	Not assigned	Bottom Tube Weldment, 80'	1
	Not assigned	Bottom Tube Assembly, 80'	1

Note: All tube assembly part numbers include helicoids. Top tube assemblies add chain case components and the upper lineshaft. All other tube assemblies ship lineshafts separately.

13" GS20 HELICOIDS

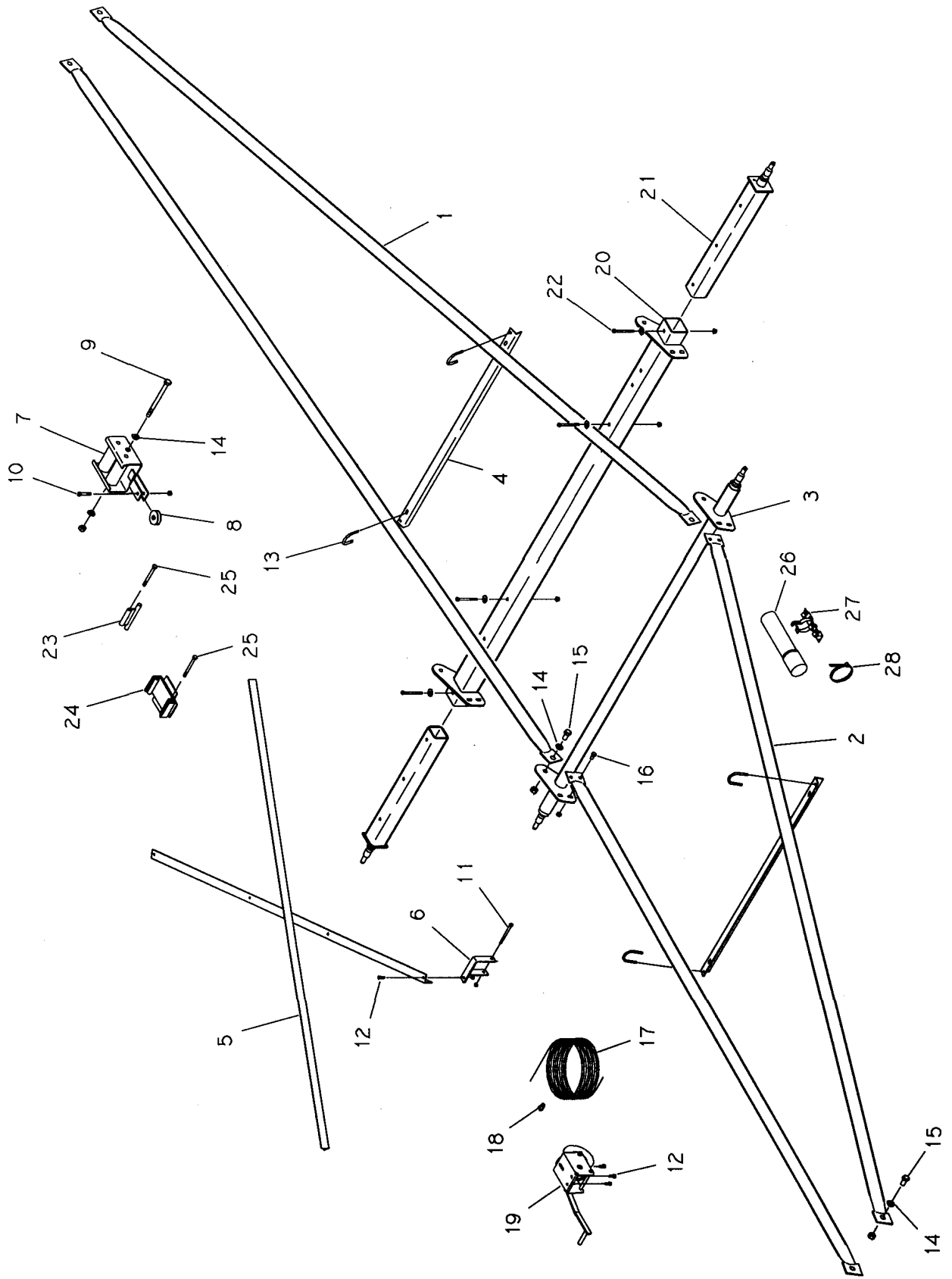


REF	PART NO.	DESCRIPTION	QTY
1	100-2-2775	Top Helicoid, 13" 30, 40 & 50' Augers	1
	100-2-3390	Top Helicoid, 13" 60, & 70' Augers	1
	100-2-3366	Top Helicoid, 13" 80'	1
2	100-2-2818	Center Helicoid 13", all Augers	AR
3	100-2-2831	Bottom Helicoid 13", all Augers	1
4	900-27033	# 21 Woodruff Key .25 x 1.25	1
5	900-01357	5/8NC x 3-1/2 Hex Bolt, Gr 5	2
6	900-06145	5/8NC Serrated Flange Nut	2
7	106-2-0712	Hanger Bearing Assy with Hex Insert	A/R
7b	106-2-0711	Hanger Bearing Assy without Hex Insert	-
8	106-2-0710	Hanger Bearing Body (welded)	-
9	901-01079	2 Inch Bearing	A/R
10	900-11129	2-1/2 x 14G WR Machine Bushing (Tack Welded)	A/R
11	100-3-4208	13" Hex Insert (Press In)	A/R
12	900-03439	3/8NC x 1-1/4 Serrated Flange Bolt	A/R
13	900-06139	3/8NC Serrated Flange Nut	A/R
14	100-3-4209	13" Hex Connecting Shaft	A/R



13" LINESHAFT COMPONENTS

REF	PART NO.	DESCRIPTION	QTY
1	100-3-3799	Lineshaft, 1-1/4" x 184", painted (13" x 30')	1
	100-3-3798	Lineshaft, 1-1/4" x 240", painted (13" x 40' - 70')	1
	100-3-3800	Lineshaft, 1-1/4" x 120", painted (13" x 60' & 70')	1
	100-3-3831	Lineshaft, 1-1/4" x 105", painted (13" x 30' PTO & 70' ETM)	
	100-3-3829	Lineshaft, 1-1/4" x 20", painted (13" x 30' & 40' ETM)	1
	100-3-3832	Lineshaft, 1-1/4" x 169", painted (13" x 40' & 70' PTO)	1
	100-3-3885	Lineshaft, 1-1/4" x 92", painted (13" x 60' PTO)	1
	100-3-3886	Lineshaft, 1-1/4" x 196", painted (13" x 60' PTO)	1
	2	100-3-3208	Lineshaft Shield, 56" long
3	100-3-3207	Lineshaft Shield Clamp	A/R
4	900-01001	1/4" NC x 1/2" Hex Bolt	A/R
5	100-3-3219	Lineshaft Coupler, 1-1/4"	1
6	100-3-3230	Slip Coupler, 1-1/4"	1
7	901-01270	Flangette, 62m-2	A/R
8	901-01266	Wood Bearing, 1-1/4" solid	A/R
8b	901-01268	Wood Bearing, 1-1/4" split – replacement parts	A/R
9	900-01694	3/8" NC x 3/4" Carriage Bolt	A/R
10	900-27033	#21 Woodfuff Key	A/R
11	900-16255	3/8" NC x 3/4" Socket Set Screw	A/R
12	900-16253	3/8" NC x 1/2" Socket Set Screw	A/R
13	905-15024	Zerk, Straight, 1/4"-28 UNF	1

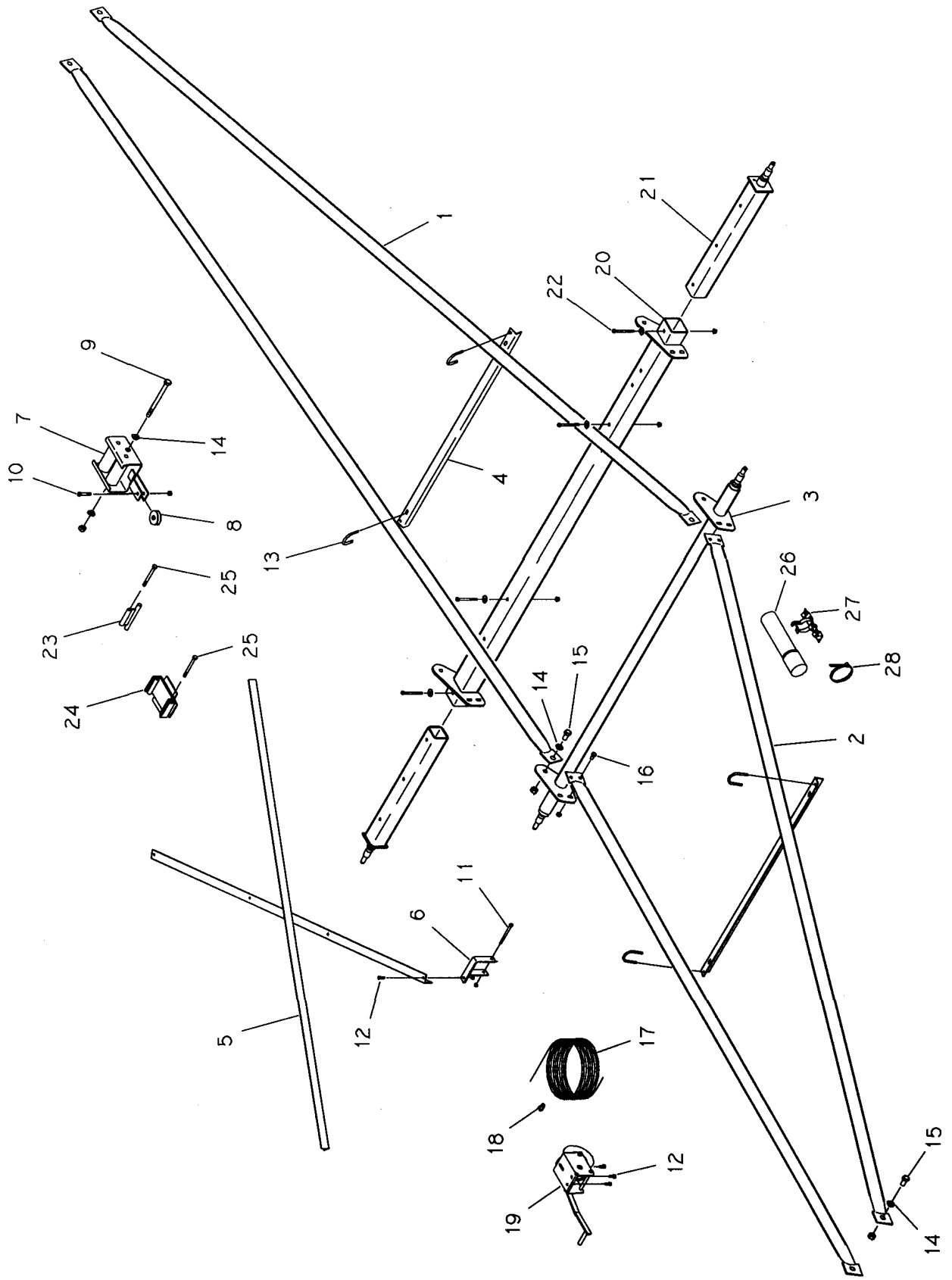


TRANSPORT COMPONENTS

13" GS20

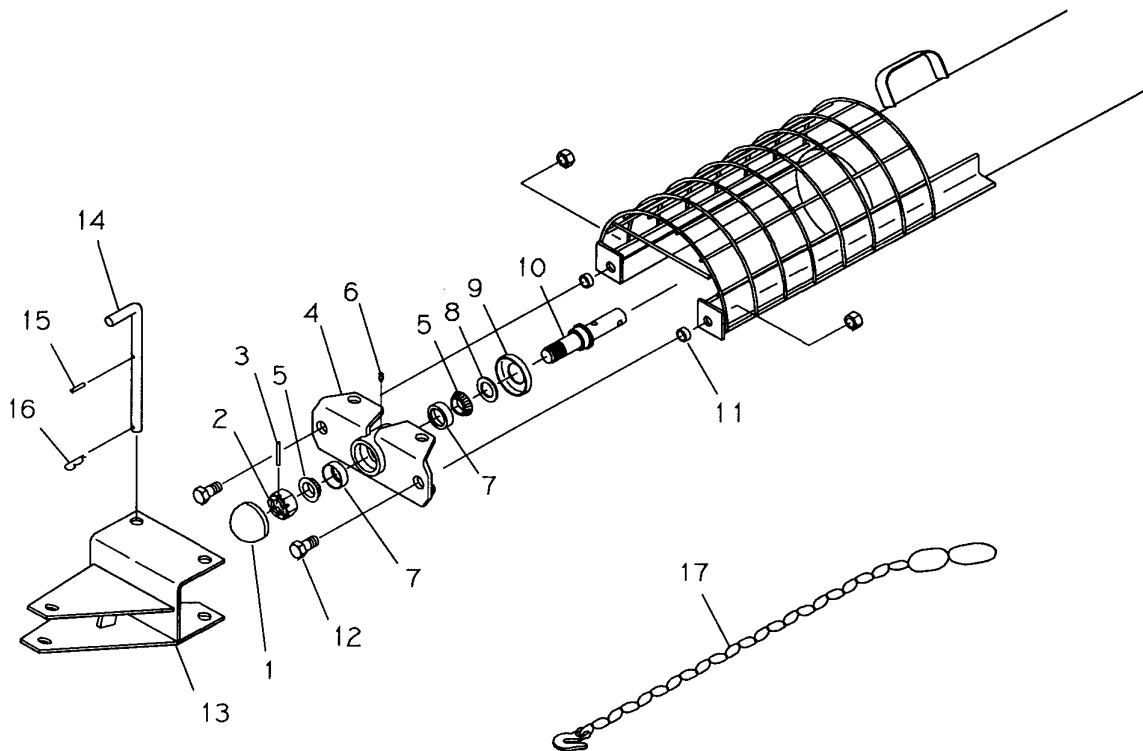
REF	PART NO.	DESCRIPTION	QTY
1	100-2-3486	Lift Arm, (30' augers)	2
	100-2-3476	Lift Arm, (40' augers)	2
	100-2-3474	Lift Arm, (50' augers)	2
	100-2-3475	Lift Arm, (60' augers)	2
	100-2-3498	Lift Arm, (70' augers)	2
	-	Lift Arm, (80' auger)	-
2	100-2-3468	Reach Arm, (30' augers)	2
	100-2-3472	Reach Arm, (40' augers)	2
	100-2-3467	Reach Arm, (50' augers)	2
	100-2-3465	Reach Arm, (60' augers)	2
	100-2-3500	Reach Arm, RH, (70' augers)	1
	100-2-3507	Reach Arm, LH, (70' augers)	1
	100-2-3342	Reach Arm, RH, (80' augers)	1
	100-2-3349	Reach Arm, LH, (80' augers)	1
3	100-2-3326	Axle, 80" Tube, (30' & 40' augers)	1
	100-2-2923	Axle, 90" Tube, (50' augers)	1
	100-2-2708	Adjustable Axle, 106" Tube, (60' augers)	1
	-	Adjustable Axle ? (70' & 80' augers)	-
4	100-3-3108	Brace Angle 44" long, (40' augers)	2
	100-3-3110	Brace Angle 46" long, (50' augers)	2
5	100-3-3265	X-Brace Angle, 96" long, (60' & 70' augers)	4
6	100-2-1781	Transport Brace Clamp, (60' & 70' augers)	8
	100-2-3508	Transport Brace Clamp. (70' & 80' augers)	8
7	100-2-2172	Traveler, Track	1
8	100-3-3045	3" Cable Sheave (painted)	1
9	900-01443	3/4" NC x 10" Hex Bolt, Gr 5	1
10	900-01233	1/2" NC x 2-1/2 Hex Bolt, Gr 5	1
11	900-01137	3/8" NC x 5" Hex Bolt, Gr 5	1
12	900-01109	3/8" NC x 1" Hex Bolt, Gr 5	A/R
13	100-3-2896	U-Bolt, 3/8" Round, 2-3/8" I.D.	4
14	100-3-5717	Flanged Bushing, 3/4" I.D.x 1" O.D. x .406 (body length)	6
14b	100-3-2890	Flanged Bushing, 3/4" I.D.x 1" O.D. (Used Prior to 2010)	6
15	900-01399	3/4" NC x 1-1/2" Hex Bolt, Gr 5	4
16	900-01221	1/2" NC x 1-1/2" Hex Bolt, Gr 5	A/R
17	-	Cable. 5/16" x 33', (30' augers)	1
	100-3-5640	Cable, 5/16" x 48', (40' augers)	1
	100-3-4580	Cable, 5/16" x 59', (50' augers)	1
	100-3-4570	Cable, 5/16" x 89', (60' & 70' augers)	1
	100-3-4569	Cable, 3/8" x 89', (60' & 70' augers)	1
18	900-31003	1/4" Cable Clamp	2

Continued on Page 56



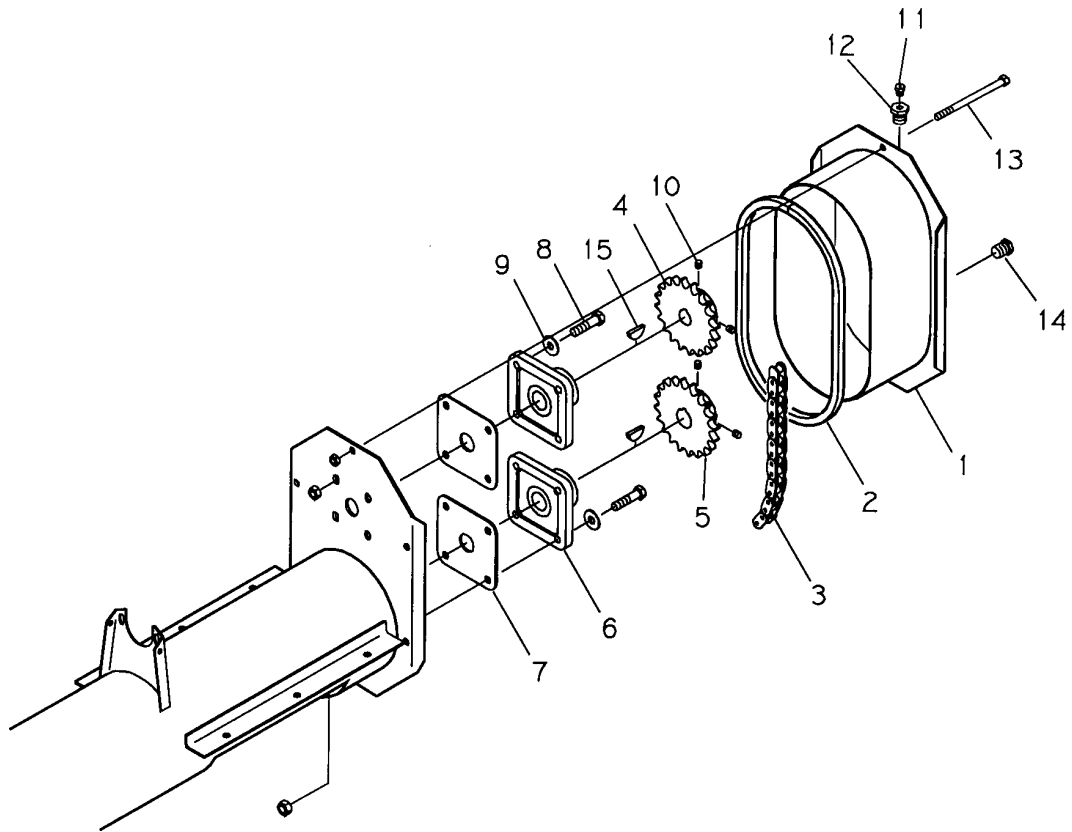
TRANSPORT COMPONENTS
13" GS20 (continued)

REF	PART NO.	DESCRIPTION	QTY
19	905-12084	Winch, # 2500	1
	905-12110	Keeper Kit, # 2500 Winches	1
21	100-2-2613	Adjustable Axle Extension, (60' & 70' augers) Optional	2
22	900-01197	7/16" NC x 4-1/2" Hex Bolt	4
23	100-2-2171	Track Stop (30' – 50' augers)	2
	100-2-3341	Track Stop (60' – 80' augers)	2
24	100-2-2170	Track Splice (50', 60' & 70' augers)	2
25	900-01249	1/2" NC x 5" Hex Bolt	A/R
	900-01253	1/2" NC x 6" Hex Bolt (70' Auger Only)	1
26	100-3-3957	Tube, Manual Storage	1
27	100-3-3958	Mounting Bracket, Tube	1
28	900-31062	Hose Clamp, # 88 Worm	2
	100-2-2708	Adjustable Axle Assembly (Ref. 21 & 22)	1



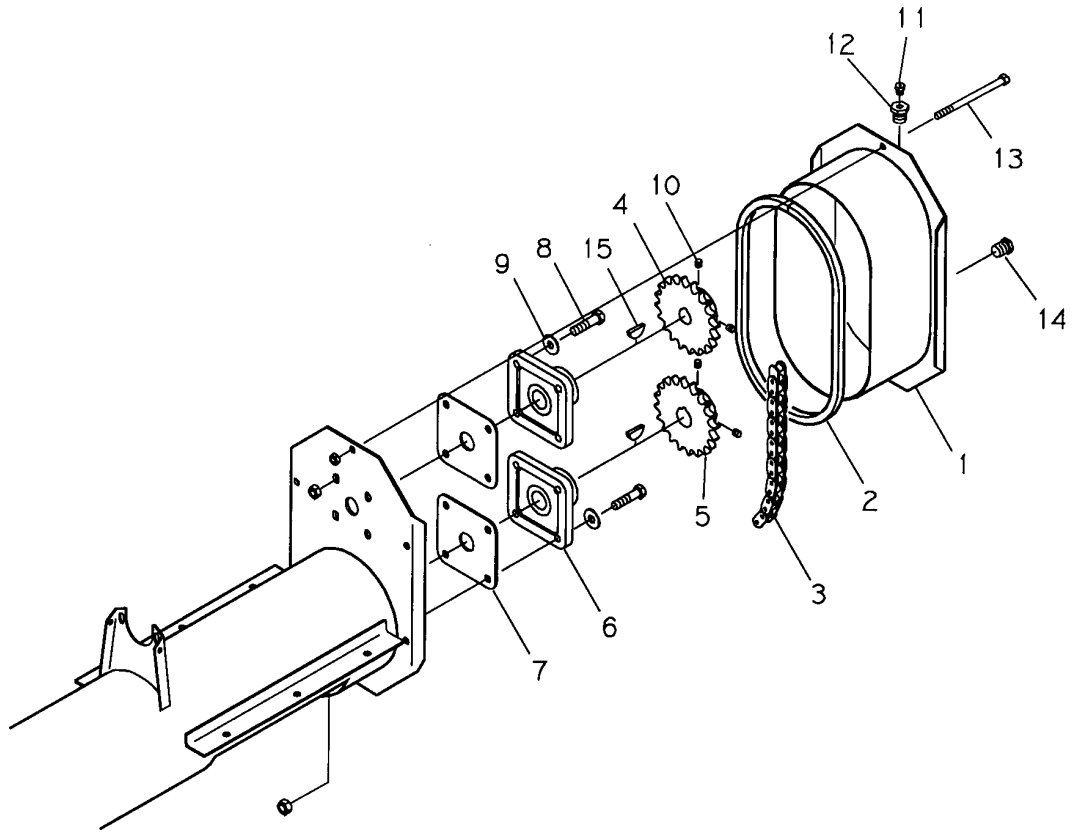
INTAKE END COMPONENTS

REF	PART NO.	DESCRIPTION	QTY
1	905-09009	Cap, Hub	1
2	900-06066	1-1/4 UNF Slotted Hex Nut	1
3	900-29182	1/4" x 2" Roll Pin	1
4	100-2-1919	Hitch Mount Sub-Assy, 13" GS20	1
	100-2-1918	Hitch Mount Weldment, 13"	1
5	901-01015	Bearing Cone	2
6	905-15024	Zerk, 1/4"-28 UNF	1
7	901-01016	Bearing Cup, LM67010	2
8	901-09203	Seal	1
9	100-3-3492	Cap, Bearing	1
10	100-3-3487	Shaft, 2-18	1
11	100-3-3898	Spacer	2
12	900-01403	3/4" UNC x 2" Hex Bolt (Used with Item 18 Below)	2
13	100-2-1911	Hitch Weldment	1
14	100-3-3500	Hitch Pin	2
15	900-29176	1/4" x 1-1/4" Roll Pin	2
16	900-25005	5/32" Hair Pin, Cotter	2
17	905-07111	Tow Chain, 6400 lb.	1
18	900-11038	3/4" USS Flat Washer (Used under the head of Item 12 Above)	2
	100-2-1920	Hitch Mount Assembly, (13" GS20) (Ref. 1-10)	1
	100-2-1910	Pin Assembly (Ref. 14-16)	2



CHAIN CASE COMPONENTS (13" GS20)

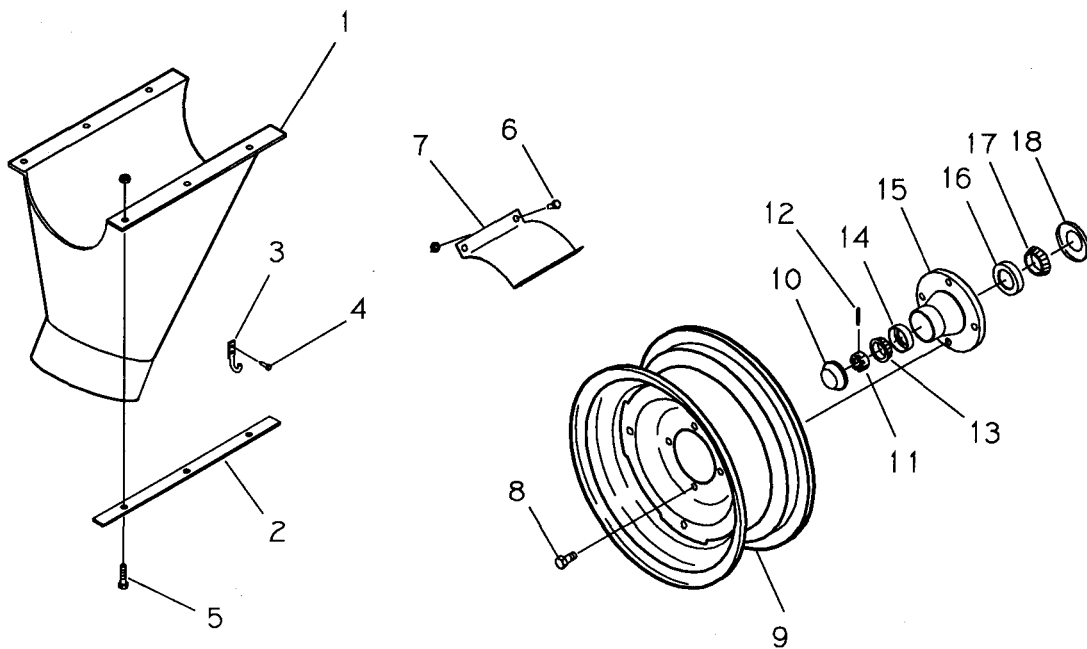
REF	PART NO.	DESCRIPTION	QTY
1	100-2-3303	Cover, Chain, 30' & 40' augers	1
	100-2-xxxx	Cover, Chain, 50'	1
2	100-3-4440	Gasket, Head Cover, 13" GS	1
3	100-3-3203	Chain, #80-1 x 39 (Incl. Conn. & Half) 30' & 40' augers	1
	100-3-4769	Chain, #100-2 x32 (Incl. Conn. & Half) 50'	1
4	100-3-3801	Sprocket, #80-1 x 19 Tooth, 1-1/4" Bore 30' & 40' augers	1
	100-3-4401	Sprocket, #100-2 x 19 Tooth, 1-1/4" Bore 50'	1
5	100-3-3802	Sprocket, #80-1 x 20 Tooth, 1-1/4" Bore 30' & 40' augers	1
	100-3-4402	Sprocket, #100-2 x 11 Tooth, 1-1/4" Bore 50'	1
6	901-01005	1-1/4" 4 Bolt Bearing, FB220, 30' & 40' augers	2
7	100-3-1894	Gasket, 1-1/4" Bearing	2
8	900-01227	1/2" UNC x 1-3/4" Hex Bolt	8
9	900-11157	1/2" Washer with Neoprene Backing	8
10	900-16387	3/8 x 3/8 Socket Set Screw, Cup Point	4
11	905-03080	Vent Plug, 18" NPT	1
12	905-01159	Bushing, 1/2" x 1/8" NPT	1
13	900-01141	3/8" UNC x 6" Hex Bolt	8
14	905-01548	Pipe Plug, 1/2" MPT	1
15	900-27033	#21 Woodruff Key	2



CHAIN CASE COMPONENTS (13" GS20)

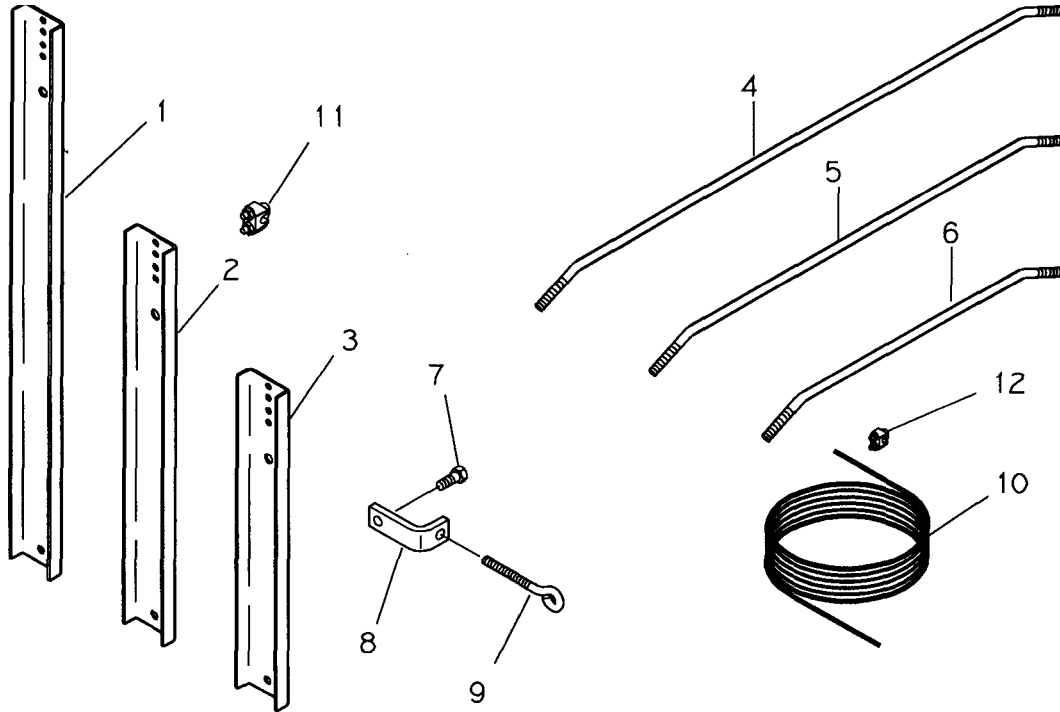
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This page reserved for chain case component part numbers not yet assigned.



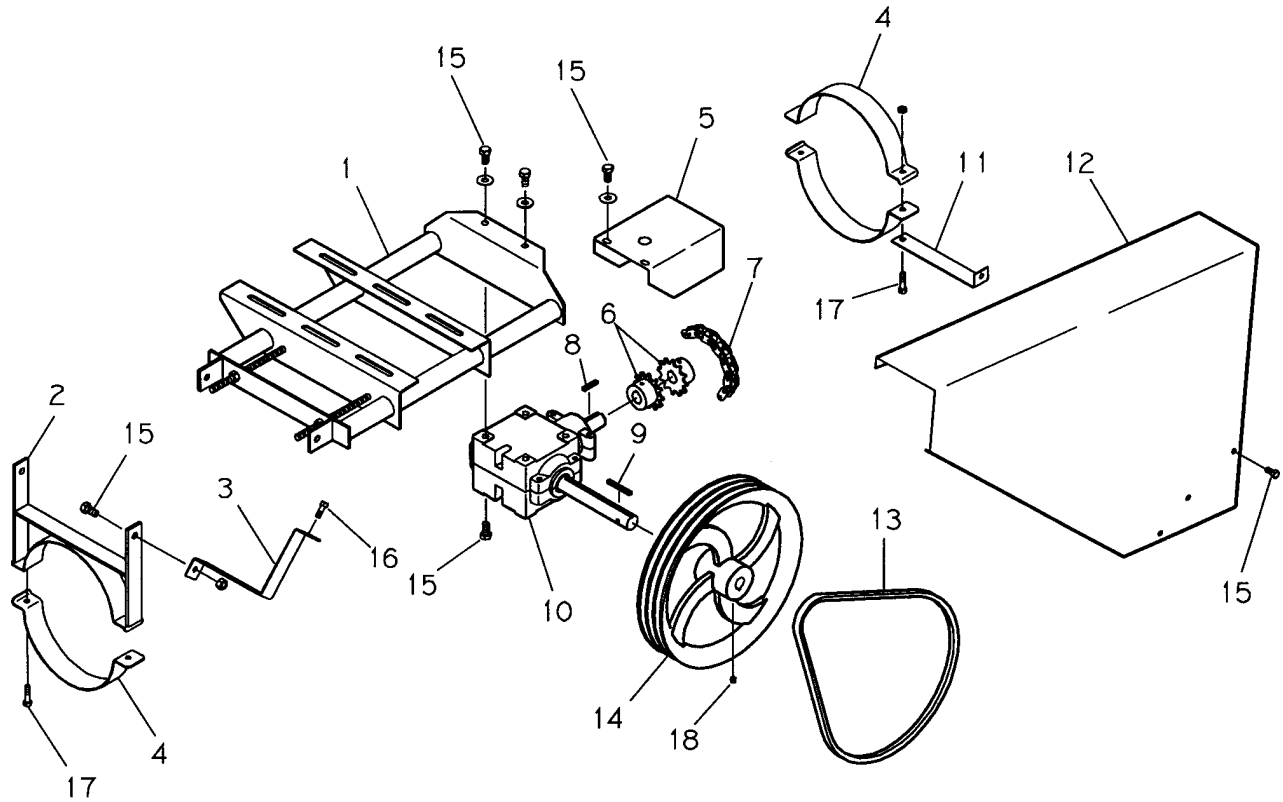
MISCELLANEOUS

REF	PART NO.	DESCRIPTION	QTY
1	100-3-5377	Spout, 13" Discharge, Drilled	1
2	100-3-3864	Strap, Spout Reinforcing	2
3	905-22012	Hook, Bucket Spout (Optional)	2
4	900-17068	10-24 x 5/8 Hex Washer Head Set Screw (Optional)	2
5	900-01113	3/8 UNC x 1-1/2 Hex Bolt	8
6	900-01055	5/16 UNC x 3/4 Hex Bolt	A/R
7	100-3-1113	Access Cover	A/R
8a	905-09010	Wheel Bolt, 1/2 NF x 1-1/16 (for 4 Bolt)	4
8b	905-09011	Wheel Nuts, 1/2 NF (for 5 Bolt)	5
9a	905-09015	Rim, 15 x 4.5 x 4 Bolt	1
9b	905-09078	Rim, 15 x 6 x 5 Bolt	1
10a	905-09008	Dust Cap (for 5 Bolt)	1
10b	905-09009	Dust Cap (for 5 Bolt)	1
11	900-06058	3/4 NF Slotted Hex Nut	1
12	900-23034	5/32 x 1-1/4 Cotter Pin	1
13a	901-01026	Bearing Cone, Outer (for 4 Bolt)	1
13b	901-01023	Bearing Cone, Outer (for 5 Bolt)	1
14	901-01027	Bearing Cup, Outer	1
15a	905-09002	4 Bolt Hub with Cups	1
15b	905-09003	5 Bolt hub with Cups and Lug Bolts	1
16	901-01016	Bearing Cup, Inner	1
17	901-01015	Bearing Cone, Inner	1
18a	901-09001	Seal (for 4 Bolt)	1
18b	901-09002	Seal (for 5 Bolt)	1
	100-2-0859	4 Bolt Hub Assy (Ref No's 8a,10a,13a,15a,17&18a) (30'-50')	2
	100-2-1051	5 Bolt Hub Assy (Ref No's 8b,10b, 13b,15b,17&18b) (60'-80')	2



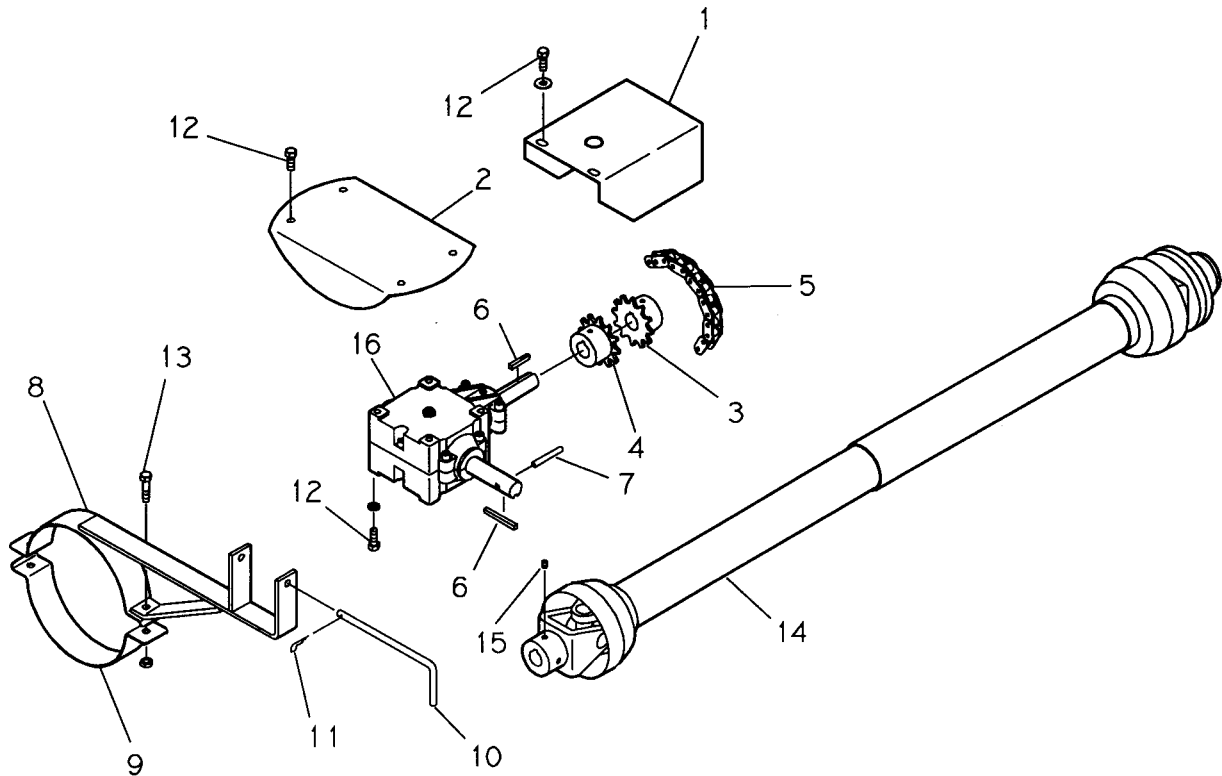
13" TRUSSING COMPONENTS

REF	PART NO.	DESCRIPTION	QTY
1	100-3-2405	Truss Standoff, 42" long (70' & 80' augers)	4
2	100-3-2404	Truss Standoff, 30" long (50' & 60' augers)	2
3	100-3-2560	Truss Standoff, 24" long (Used prior to 2010)	-
4	100-3-2414	Brace Rod, 46" long (70' & 80' augers)	4
5	100-3-2413	Brace Rod, 36" long (50' & 60' augers)	2
6	100-3-3902	Brace Rod, 29" long (Used prior to 2010)	-
7	900-01341	5/8" x 1-1/2" Hex Bolt	2
8	100-3-3613	Truss Anchor Strap	2
9	100-3-0148	Eye Bolt, 1/2" NC	2
10	100-3-4579	Cable, 5/16" x 62' (50' augers)	2
	Not Assigned	Cable, 3/8" x 68' (60' augers)	2
	100-3-4569	Cable, 3/8" x 89' (70' augers)	2
	Not Assigned	Cable, 3/8" x xx' (80' augers)	2
11	900-31005	3/8" Cable Clamp	A/R
12	900-31004	1/2" Cable Clamp	A/R



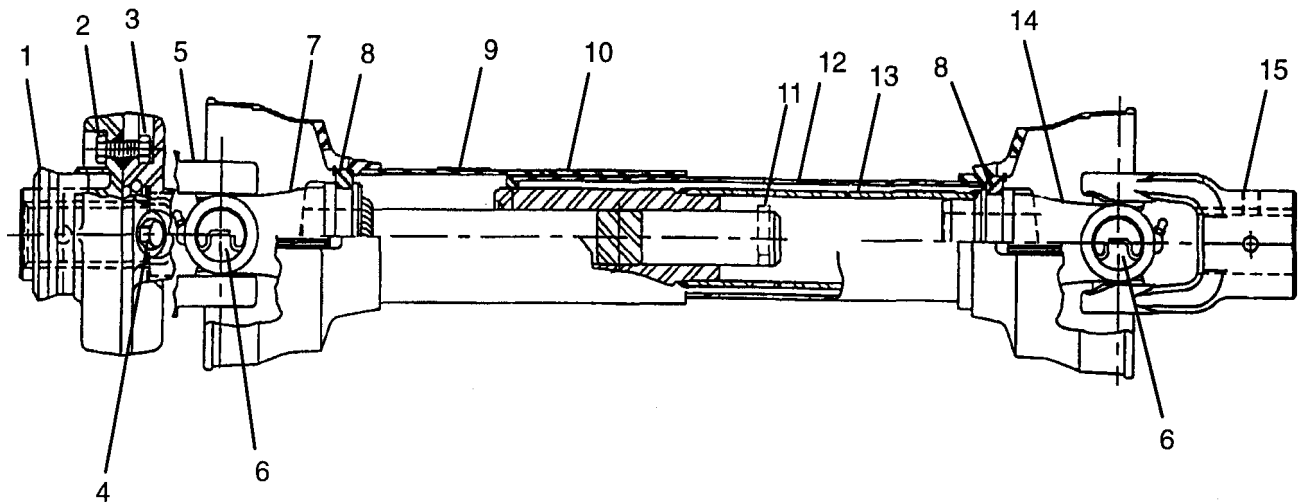
ELECTRIC MOTOR DRIVE (13" AUGERS)

REF	PART NO.	DESCRIPTION	QTY
1	100-2-1762	Electric Motor Mount Weldment	1
2	100-2-1764	Mount Bracket	1
3	100-3-3246	Shield Brace	1
4	100-3-4220	13" Half Band – 2" wide	3
5	100-3-3901	Shield	1
6	903-05043	Coupler Sprocket, 60B12, 1-1/4" Bore	2
7	903-03147	Coupler Chain, 60-2 x 12 Pitch	1
8	106-3-0529	Key, 1/4x1/4x1-1/2	1
9	100-3-0989	Key, 1/4x1/4x2-1/2	1
10	903-15643	Gearbox	1
11	100-3-3245	Shield Brace	1
12	100-2-1034	Shield, Electric Motor	1
13	903-01109	B-66 V-Belt	3
14	903-07996	Aluminum Pulley, 3 Groove, B x 16, 1-1/4" Bore	1
15	900-01221	1/2 NC x 1 Hex Bolt	11
16	900-01109	3/8 NC x 1 Hex Bolt	3
17	900-01113	3/8 NCx1-1/2 Hex Bolt	4
18	900-16251	3/8 NC x 3/8 Socket Set Screw	2



STANDARD 13" PTO DRIVE COMPONENTS

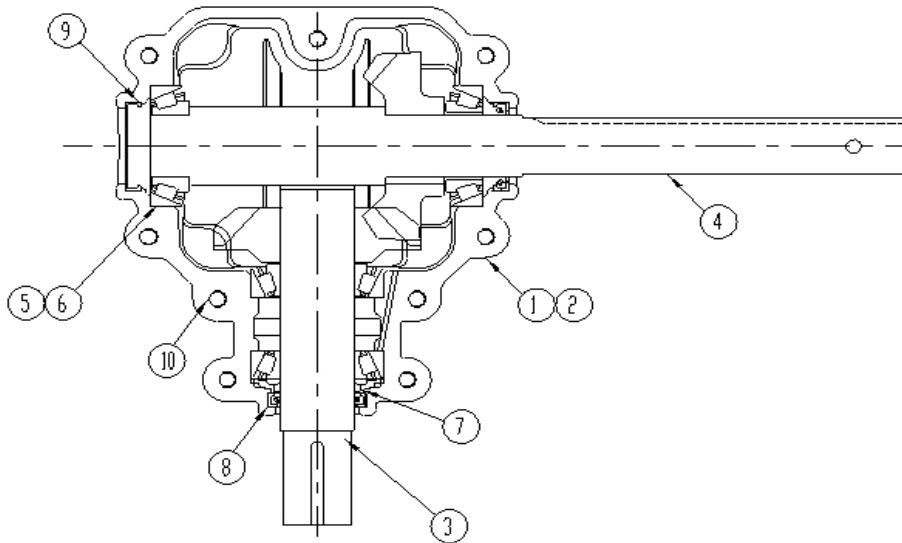
REF	PART NO.	DESCRIPTION	QTY
1	100-3-3901	Shield, lineshaft	1
2	100-3-3051	PTO Shaft Shield	1
3	903-05043	Coupler Sprocket, 60B12, 1-1/4" Bore	2
4	"	" (Common)	-
5	903-03147	Coupler Chain, 60-2 x 12 Pitch	1
6	106-3-0529	Key, 1/4x1/4x1-1/2	2
7	900-29208	Roll Pin, 5/16x2-1/4	1
8	100-2-2787	PTO Rest, 13"	1
9	100-3-4220	13" Half Band	1
10	100-3-1020	Hold Down Pin	1
11	900-25005	5/32 Hair Pin Cotter	1
12	900-01221	1/2 NC x 1 Hex Bolt	7
13	900-01113	3/8 NC x 1-1/2 Hex Bolt	2
14	903-17003	PTO Shaft, 14R	1
15	900-16251	3/8 NC x 3/8 Socket Set Screw	1
16	903-15643	Gearbox , R500	1



**PTO SHAFT
(Weasler 14R)**

REF	PART NO.	DESCRIPTION	QTY
1	903-17544	Spring-Lok Repair Kit #26-10133	1
2	900-01109	Bolt, 3/8-16 x 1.00 Lg. Grade 5	1
3	900-06005	Nut, 3/8-16	1
4	-	(This part no longer available - 3/2010)	-
5	903-17853	Ball Shear Assy. #40-40011	1
6	903-17121	14R Cross & Bearing Kit #03-10134	2
7	903-17854	Yoke & Shaft #99-16156	1
8	903-17855	Nylon Bearing Kit #19-11104	2
9	903-17856	Safety Sign #13-10021	1
10	903-17857	Outer Guard #97-16156	1
11	900-29170	Roll Pin (.25 Dia x 1.00 Lg.)	1
12	903-17858	Inner Guard #96-16156	1
13	903-17859	Safety Sign #13-10022	1
14	903-17860	Yoke, Tube & Slip Sleeve #98-16156	1
15	903-17405	Yoke #14011-1339	1
	903-17861	PTO Half, Tractor End #93-16156	1
	903-17862	PTO Half, Implement End #92-16156	1
	903-17003	PTO Shaft, Complete #232-16156	1

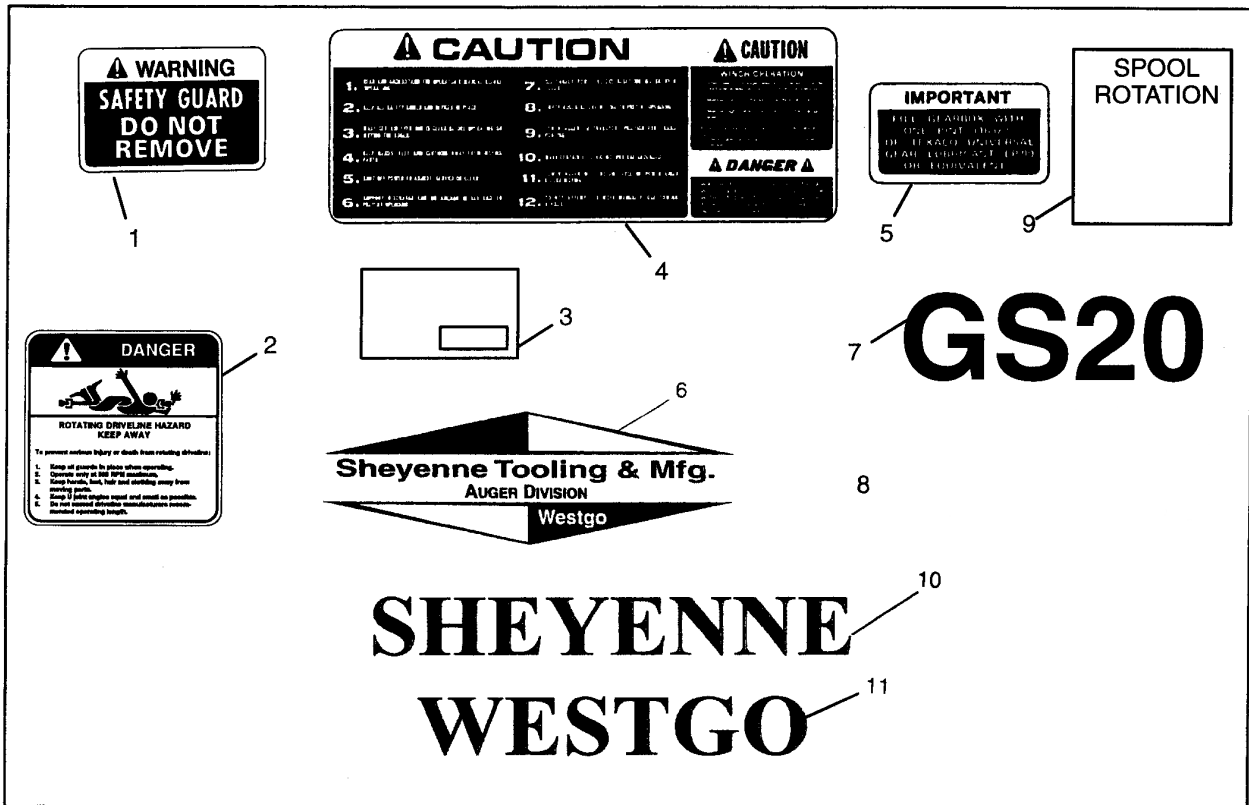
PTO For 13 x 80 Auger



GEAR BOX – SUPERIOR

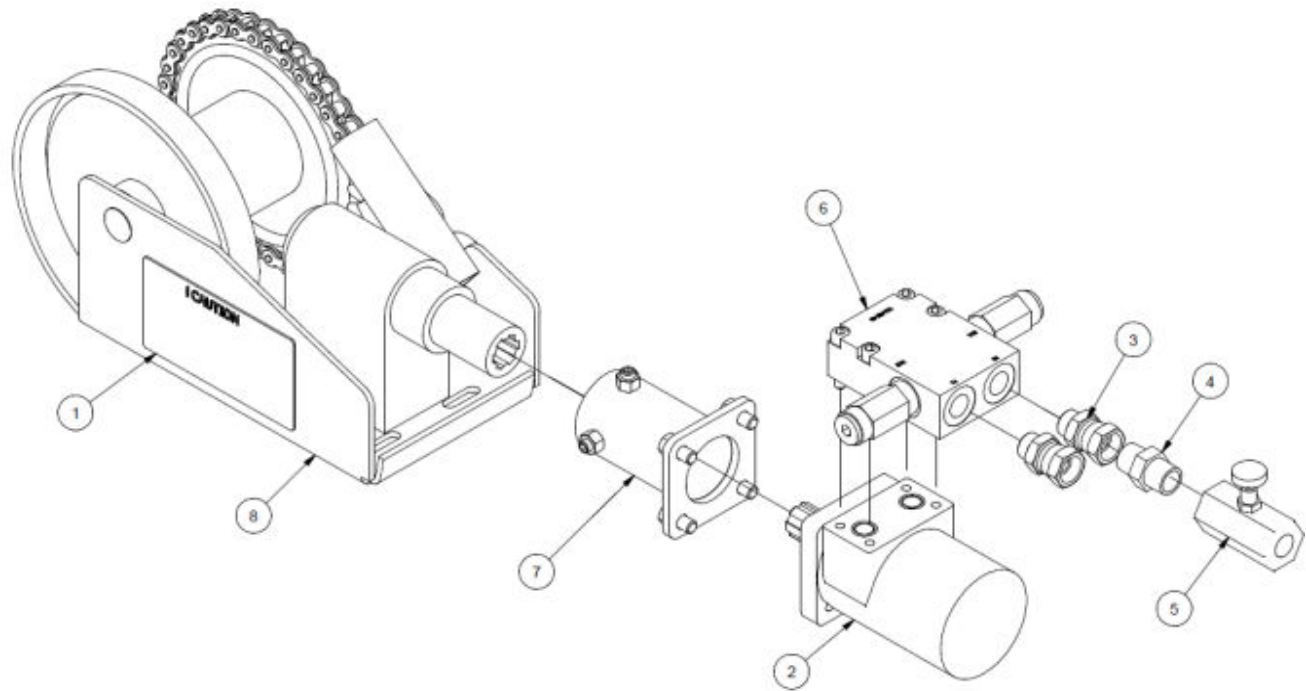
REF	PART NO.	DESCRIPTION	QTY
1			
2	903-15644	Casting (Threaded Holes) #500-004M-B0240	1
3	903-15645	Pinion Shaft/Gear Assy #R500-8B00-B0241	1
4	903-15646	Cross Shaft/Gear Assy #R500-8B00-B0243	1
5	901-01236	Bearing Cup #414276	4
6	901-01112	Bearing Cone #514137	4
7	903-15622	Retaining Ring #4503413	1
8	903-15623	Seal 1-3/8" Shaft #513569	2
9	903-15687	End Cap #400301	1
10	S8SH.375x1.5	Bolt, 3/8 x 1-1/2 SHCS #203815	9
11	903-15388	Solid Plug, 1/2"-NPT #400300	Not Shown
12	905-15003	90 Deg Grease Zerk 1/8-NPT #205400	" "
13	905-01137	Bushing 1/2-NPT to 1/8-NPT	" "
14	905-03080	Vent Plug – 5 psi #2003PR	" "
	903-15643	Gearbox Complete #R500-9AAE-B0239	1

New Gearbox For 13 x 80 Auger



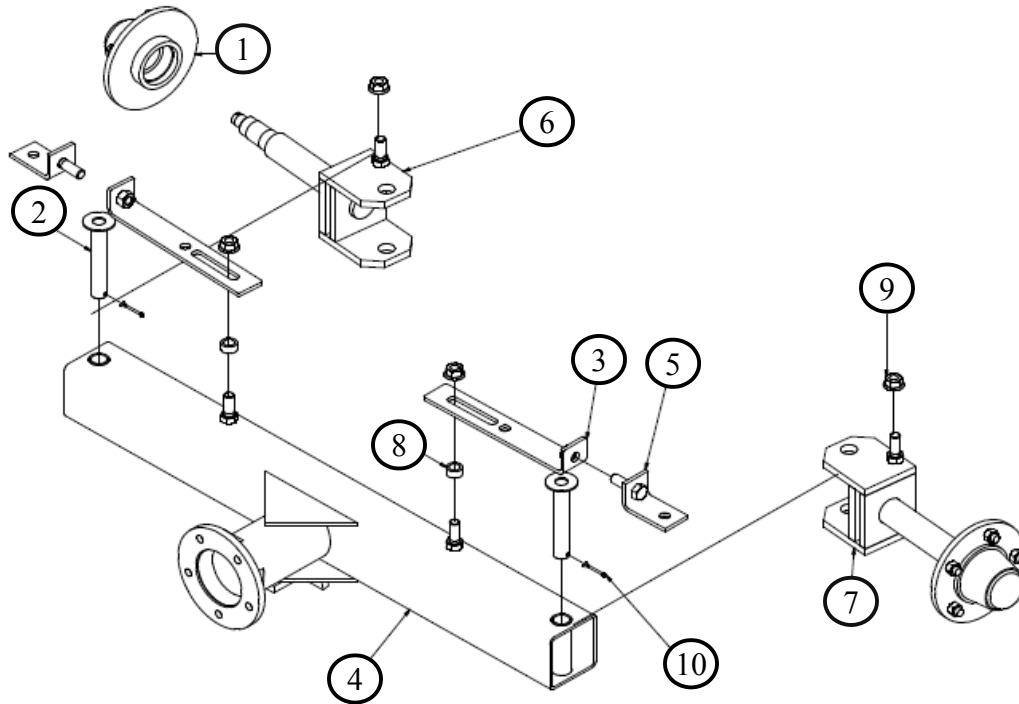
DECALS

REF	PART NO.	DESCRIPTION	QTY
1	100-3-1367	Decal, Safety Guard	1
2	100-3-2451	Decal, Rotating Driveline Hazard	1
3	100-3-1372	Decal, Serial No.	1
4	100-3-3342	Decal, Auger Caution	1
5	100-3-2032	Decal, Gearbox Oil Fill Notice	1
6	100-3-4460	Decal, Sheyenne Logo	2
7	100-3-3803	Decal, GS20	2
8		(Item not Used)	
9	100-3-3905	Decal, Caution Spool Rotation	1
10	100-3-4462	Decal, Sheyenne	2
11	100-3-4466	Decal, Westgo	2
	906-01030	Yellow Paint, Aerosol	1
	906-01065	Yellow Paint, Quart	1
	906-01064	Yellow Paint, Gallon	1
	906-01015	Black Paint, Aerosol	1
	906-01015	Black Paint, Quart	1
	906-01063	Black Paint, Gallon	1



HYDRAULIC WINCH

REF	PART NO.	DESCRIPTION	QTY
1	100-3-3947	Decal, Hyd Winch	1
2	904-05225	Hyd Motor, Char-Lynn 101-1857	1
3	904-08089	Adapter, 8MB-8FPX	2
4	905-01228	Hex Nipple, 1/2 MP X 1/2 MP	1
5	905-03089	Needle Valve, KLN500S	1
6	905-03110	Manifold, Cross Over Relief	1
7	905-12142	Motor Mount W/A	1
8	905-12146	Winch Assy	1



WALKING TANDEM OPTION

REF	PART NO.	DESCRIPTION	QTY *
1	100-2-1051	5 Bolt hub assembly (See page 60 for exploded view, part numbers, descriptions and quantities of the 5 bolt hub assy)	2
	905-09078	Rim, 5 bolt - 15 x 6 (Also shown on page 60)	2
2	100-2-2842	Pin W/A	2
3	100-2-2971	Linkage ear W/A	2
4	100-2-2972	Axle, walking tandem	1
5	100-2-2973	Linkage bar W/A	2
6	100-2-2974	Swivel axle head, left hand	1
7	100-2-2975	Swivel axle head, right hand	1
8	100-3-4587	Spacer	2
9	900-06145	Nut, serrated flange – 5/8NC	4
10	900-23027	Pin, cotter -1/8 x 1-1/2	2

- The above exploded view is of **one** side of the auger. All quantities need to be doubled for a complete assembly. Complete assembly part number is 100-2-2841.

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