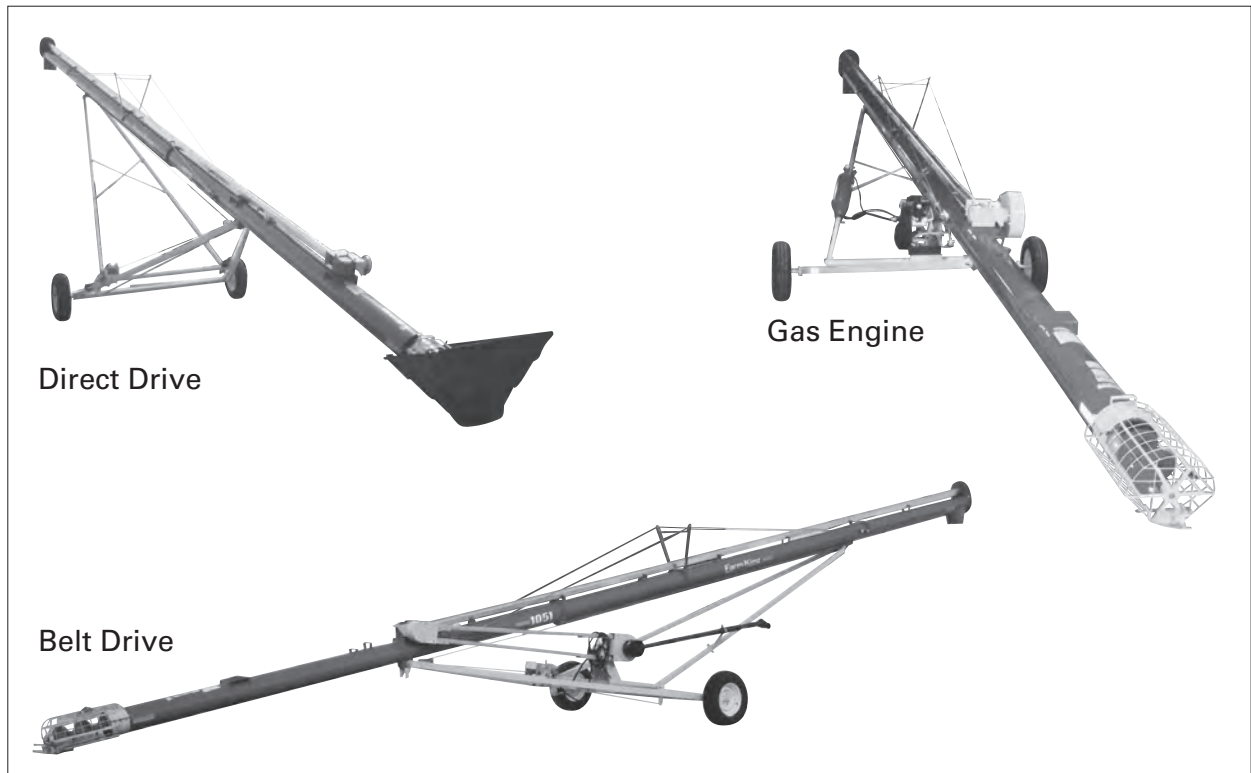


Farm King

OPERATOR'S MANUAL

Conventional Auger

8" & 10" x 41', 51' & 61' Model CX Series



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TO THE OWNER

The warranty coverage that is extended to your CX Series Conventional Auger is explained in the Warranty and Limitation of Liability Form. Your dealer will provide you with a copy of the warranty and retain a copy that you have signed. You are advised to read the warranty and have your dealer explain any points that you may not understand.

 This symbol is used throughout this manual in conjunction with **DANGER**, **WARNING** and **CAUTION** signal banners when potential for personal injury may be present. When you see this symbol take time to read the content and comply accordingly. Pictures in this manual may show protective shielding open or removed to better illustrate a particular feature or adjustment. Close or replace all shielding before operating the machine.

HAVE ALL OPERATORS READ THIS MANUAL CAREFULLY AND KEEP IT AVAILABLE FOR READY REFERENCE

This CX Series Conventional Auger is designed to be towed with an agricultural tractor. It is intended for use in normal and customary agricultural applications. DO NOT modify or alter or permit anyone else to modify or alter this CX Series Conventional Auger or any of its components or any function of the CX Series Conventional Auger without first consulting an authorized Farm King dealer. You may contact **Farm King at 301 Mountain St. S., Morden, Manitoba, Canada R6M 1X7, E-mail: info@buhler.com, Web: www.farm-king.com**

Your safety and the safety of those around you depend on the care and good judgement used while operating the equipment. If you have any doubt about the safety equipment you can call your Farm King dealer. Read the safety precautions and operators instructions carefully.

For a complete list of the delivery service checks performed by your dealer, refer to the delivery report. The first copy is your record and the second copy is the dealers copy to be retained by the dealer.

MAKE SURE THAT BOTH YOU AND THE DEALER SIGN BOTH COPIES.

All information and data in this manual is subject to variations in production. All dimensions and weights are approximate and illustrations may not show standard configurations. Your Farm King dealer can provide exact information about your CX Series Conventional Auger.

IMPROVEMENTS

Farm King is continually working to improve its products. We reserve the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

DISCLAIMER

Farm King, makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Farm King assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

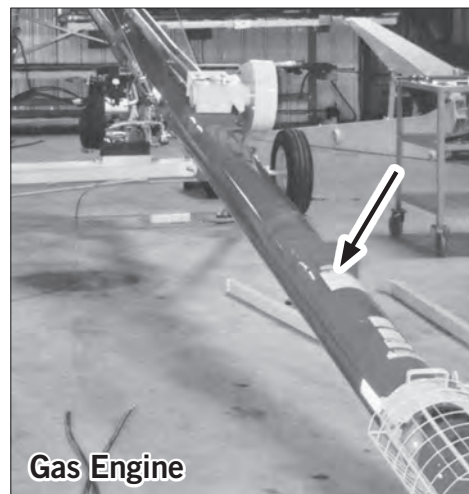
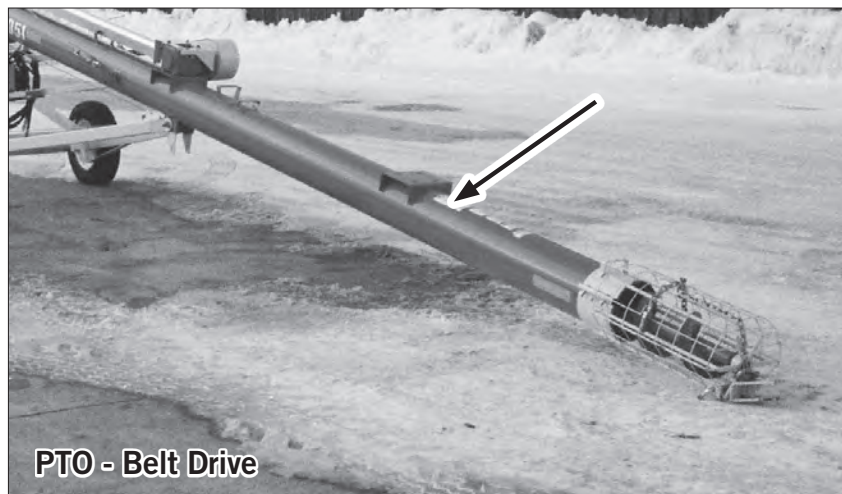
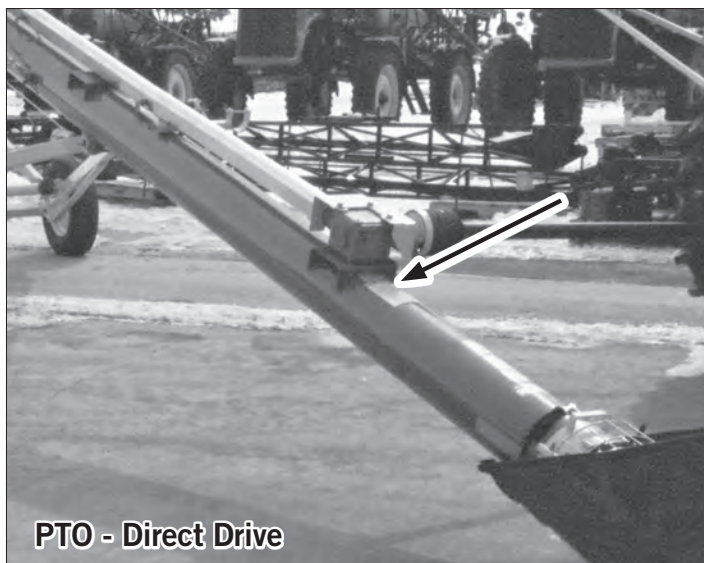
Farm King reserves the right to make changes to this manual at any time without obligation or notice.

Serial Number Location

Serial Number Location

Always give your dealer the serial number of your Farm King CX Series Conventional Auger when ordering parts or requesting service or other information.

The serial number plate is located where indicated. Please mark the number in the space provided for easy reference.



Model Number _____

Auger Serial Number _____

Production Year _____

Introduction

Congratulations on your choice of a Farm King CX Series Conventional Auger to compliment your agricultural operation. This equipment has been designed to meet the needs of you, our customer for the efficient moving of grain.

Safe, efficient and trouble free operation of your 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.



This manual covers the CX Series Conventional Augers manufactured by Farm King. Use the Index or Tables of Contents as a guide when searching for specific information.

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

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

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SAFETY ALERT SYMBOL

This Safety Alert symbol means

ATTENTION!

BECOME ALERT!

YOUR SAFETY IS INVOLVED!



The Safety Alert symbol identifies important safety messages on the Farm King Model CX Series Conventional Auger and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

3 Big Reasons

Accidents Disable and Kill

Accidents Cost

Accidents Can Be Avoided

SIGNAL WORDS:

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

DANGER Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer.

General Safety

YOU are responsible for the SAFE operation and maintenance of your Farm King CX Series Conventional 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 day 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 machine, and at least annually thereafter.
- The most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. Most 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.
- Think SAFETY! Work SAFELY!

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the auger.



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



3. Have a fire extinguisher available for use should the need arise and know how to use it.



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

- A hard hat
- Protective boots with slip resistant soles
- Protective glasses or goggles
- Protective clothing
- Hearing protection
- Respirator or filter mask



5. Install and secure all guards before starting.
6. Do not allow riders.
7. Place all controls in neutral, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
8. Clear the area of people, especially small children, before starting the unit.
9. Review safety related items annually with all personnel who will operating or maintaining the auger.

Equipment Safety Guidelines

1. Safety of the operator and bystanders is one of the main concerns in designing and developing a machine. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you, follow them.
2. In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.
3. Replace any safety sign or instruction sign that is not readable or is missing. Location of such safety signs is indicated in this manual.
4. Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
5. **Under no circumstances should young children be allowed to work with this equipment. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.** Review the safety instructions with all users annually.
6. This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained and physically able person familiar with machinery and trained in this equipment's operations. If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
7. Use a tractor equipped with a Roll Over Protective Structure (ROPS). Always wear the seat belt provided in the cab.
8. Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**
9. Do not modify the equipment in any way. Unauthorized modification can result in serious injury or death and may impair the function and life of the equipment.
10. In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the Tractor and machine Manuals. Pay close attention to the Safety Signs affixed to the Tractor and the machine.

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 undersize.

Safety Training

1. Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.
2. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of this equipment.
3. It has been said, "The best safety feature is an informed, careful operator". We ask you to be that kind of an operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. Accidents can be avoided.
4. **Working with unfamiliar equipment can lead to care-less injuries. Read this manual, and the manual for your tractor, before assembly or operating, to acquaint yourself with the machines. If this machine is used by any person other than yourself, or is loaned or rented, it is the machine owner's responsibility to make certain that the operator, prior to operating:**
 - a. **Reads and understands the operator's manuals.**
 - b. **Is instructed in safe and proper use.**
5. Know your controls and how to stop tractor, engine, and machine quickly in an emergency. Read this manual and the one provided with your tractor.
6. Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will operate the machinery. 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. If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.

Safety Signs

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

How to Install Safety Signs

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 10° C (50° F).
- Determine exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign 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 sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.

Preparation

1. Never operate the tractor and machine until you have read and completely understand this manual, the Tractor Operator's Manual, and each of the Safety Messages found on the safety signs on the tractor and machine.

2. Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing or jewelry to be around equipment.



3. **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!**

Tractors with or without equipment attached can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the Operator's position exceeds 80 dB. Noise over 85 dB on a long-term basis can cause severe hearing loss. Noise over 90 dB adjacent to the Operator over a long-term basis may cause permanent, total hearing loss.



NOTE: Hearing loss from loud noise (from tractors, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime without hope of natural recovery.

4. Operate the machine only with a tractor equipped with an approved Roll-Over-Protective Structure (ROPS). Always wear your seat belt. Serious injury or even death could result from falling off the tractor - particularly during a turnover when the operator could be pinned under the ROPS or the tractor.



5. Clear working area of stones, branches or hidden obstacles that might be hooked or snagged, causing injury or damage.
6. Operate only in daylight or good artificial light.

7. Be sure machine is properly attached, adjusted and in good operating condition.
8. Ensure that all safety shielding and safety signs are properly installed and in good condition.

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 a 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 fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.

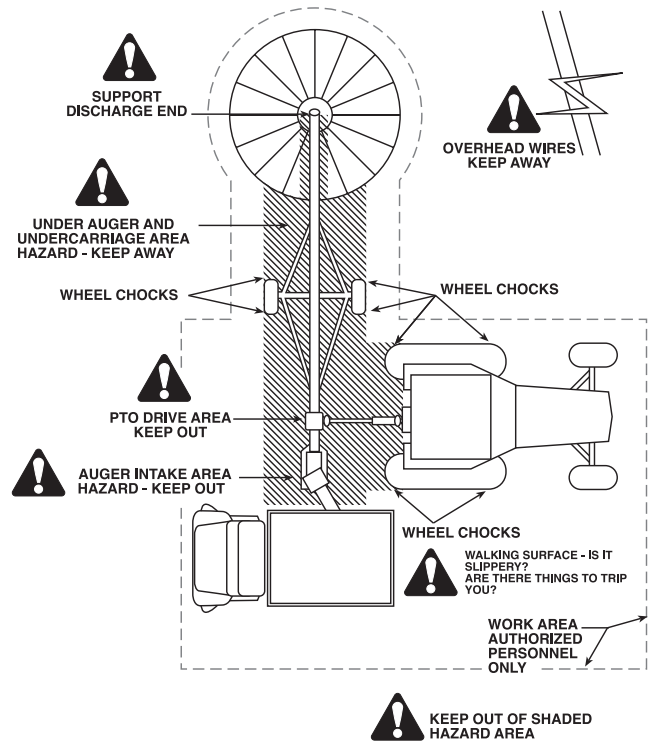


Operating Safety

1. Please remember it is important that you read and heed the safety signs on the auger. Clean or replace all safety signs if they cannot be clearly read and understood. They are there for your safety, as well as the safety of others. The safe use of this machine is strictly up to you, the operator.
2. All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows reasonable safety practices. The manufacturer has designed this auger to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.
3. If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.
4. On the gas and PTO models 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.
5. Clear the area of bystanders, especially children, before starting.
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. Electrocution can occur without direct contact.
9. Set park brake on tractor before starting.
10. Lower auger to its lowest position before moving or transporting or when not in use.
11. Be sure that auger is empty before raising or lowering.

Placement Safety

1. Stay away from overhead power lines when moving auger. Electrocution can occur without direct contact.
2. Chock auger and tractor wheels front and rear before operating.
3. Position auger to provide ample space for trucks to unload.
4. Keep auger as low as possible when moving. Raise only when it is next to storage facility.
5. Be familiar with the machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear the area before restarting.
6. Position / operate the auger on level ground free of debris.



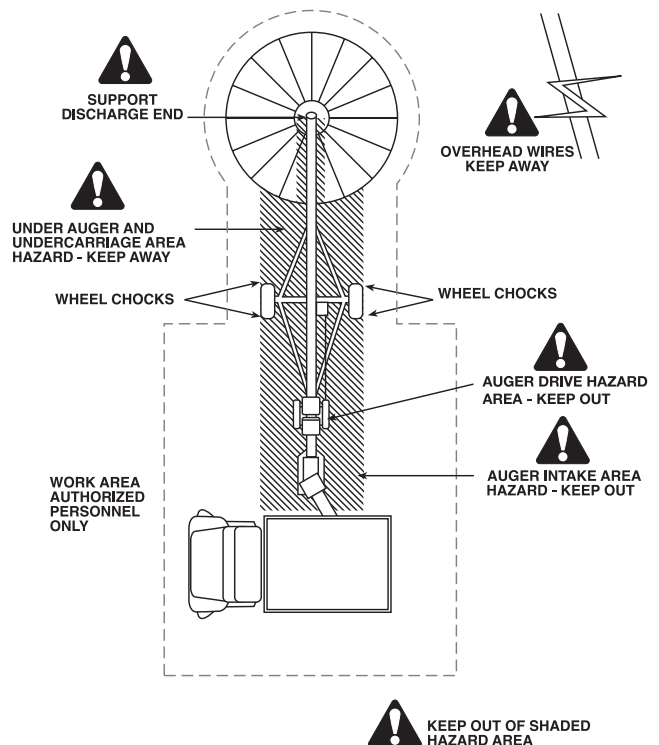
Workplace Hazard Area - PTO

IMPORTANT

Before raising or placement of auger be sure that ground is reasonably level. Auger could topple if ground is too uneven damaging equipment and/or causing personal injury.

WARNING

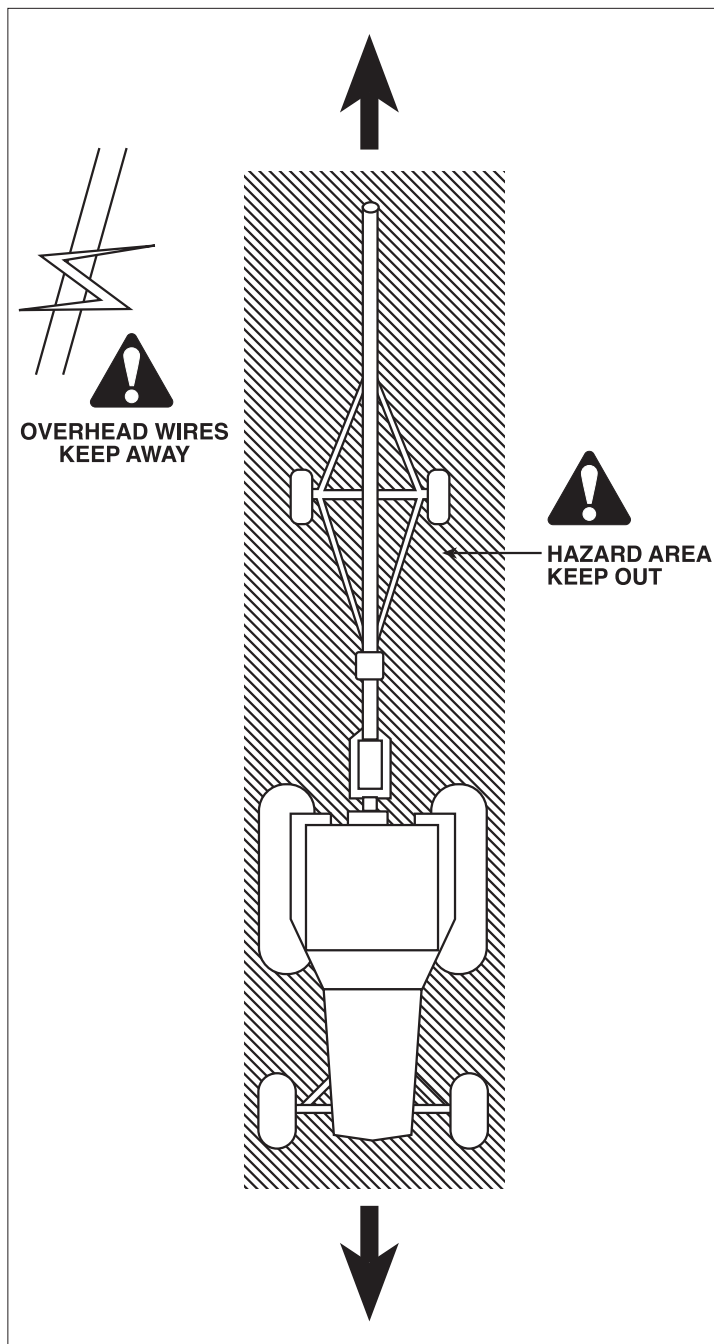
When releasing auger from the towing vehicle, test the intake end for downward weight. Do not raise the intake end above drawbar height. When the intake end is elevated too high with machine in raised position, the balance of weight quickly transfers to the discharge end, causing the machine to upend.



Workplace Hazard Area - Gas Engine

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 pin and retainer. 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.



Maintenance Safety

1. Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
2. 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.



3. Make sure there is plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
4. Before working on this machine, shut off the engine, set the brakes, and remove the ignition keys.
5. Never work under equipment unless it is blocked securely.
6. Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance work. Use heavy gloves when handling sharp components.
7. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.

8. A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.



9. Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
10. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.
11. Keep safety signs clean. Replace any sign that is damaged or not clearly visible.

Storage Safety

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. Store the unit in a dry, level area. Support the frame with planks if required.

Refuelling Safety

1. Handle fuel with care. It is highly flammable.
2. Allow engine to cool for 5 minutes before refuelling. Clean up spilled fuel before restarting engine.
3. Do not refuel the machine while smoking or when near open flame or sparks.
4. Fill fuel tank outdoors.
5. Prevent fires by keeping machine clean of accumulated trash, grease and debris.



Battery Safety

1. Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive.
2. Avoid contact with battery electrolyte: wash off any spilled electrolyte immediately.
3. Wear safety glasses when working near batteries.
4. Do not tip batteries more than 45° to avoid electrolyte loss.
5. To avoid injury from spark or short circuit, disconnect battery ground cable before servicing any part of the electrical system.

Gas Engine Safety

Before starting engine, read and understand the operating and maintenance instructions that came with your engine.

WARNING: DO NOT

1. DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odourless and deadly poison.
2. DO NOT place hands or feet near moving or rotating parts.
3. DO NOT store, spill, or use gasoline near an open flame, or devices such as a stove, furnace, or water heater which use a pilot light or devices which can create a spark.
4. DO NOT refuel indoors where area is not well ventilated. Outdoor refuelling is preferred.
5. DO NOT refuel while engine is running. Allow engine to cool for 5 minutes before refuelling. Store fuel in approved safety containers.
6. DO NOT remove fuel tank cap while engine is running.
7. DO NOT operate engine if gasoline is spilled. Move machine away from the spill and avoid creating any ignition until gasoline has evaporated.
8. DO NOT smoke while filling fuel tank.
9. DO NOT choke carburetor to stop engine. Whenever possible, gradually reduce engine speed before stopping.
10. DO NOT run engine above rated speeds. This may result in injury.
11. DO NOT tamper with governor springs, governor links or other parts which may increase the governed speed.
12. DO NOT tamper with the engine speed selected by the original equipment manufacturer.
13. DO NOT check for spark with spark plug or spark plug wire removed.
14. DO NOT crank engine with spark plug removed. If engine is flooded, crank until engine starts.
15. DO NOT strike flywheel with a hard object or metal tool as this may cause flywheel to shatter in operation. Use proper tools to service engine.
16. DO NOT operate engine without a muffler. Inspect periodically and replace, if necessary. If engine is equipped with a muffler deflector, inspect periodically and replace, if necessary with correct deflector.
17. DO NOT operate engine with an accumulation of grass, leaves, dirt or other combustible materials in the muffler area.
18. DO NOT use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on the muffler. The arrester must be maintained in effective working order by the operator. In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal land.
19. DO NOT touch hot muffler, cylinder or fins because contact may cause burns.
20. DO NOT run engine with air cleaner or air cleaner cover removed.

WARNING: DO

1. ALWAYS DO remove the wire from the spark plug when servicing the engine or equipment to prevent accidental starting. Disconnect the negative wire from the battery terminal if equipped with a 12 volt starting system.
2. DO keep cylinder fins and governor parts free of grass and other debris which can affect engine speed.
3. DO examine muffler periodically to be sure it is functioning effectively. A worn or leaking muffler should be repaired or replaced as necessary.
4. DO use fresh gasoline. Stale fuel can gum carburetor and cause leakage.
5. DO check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.

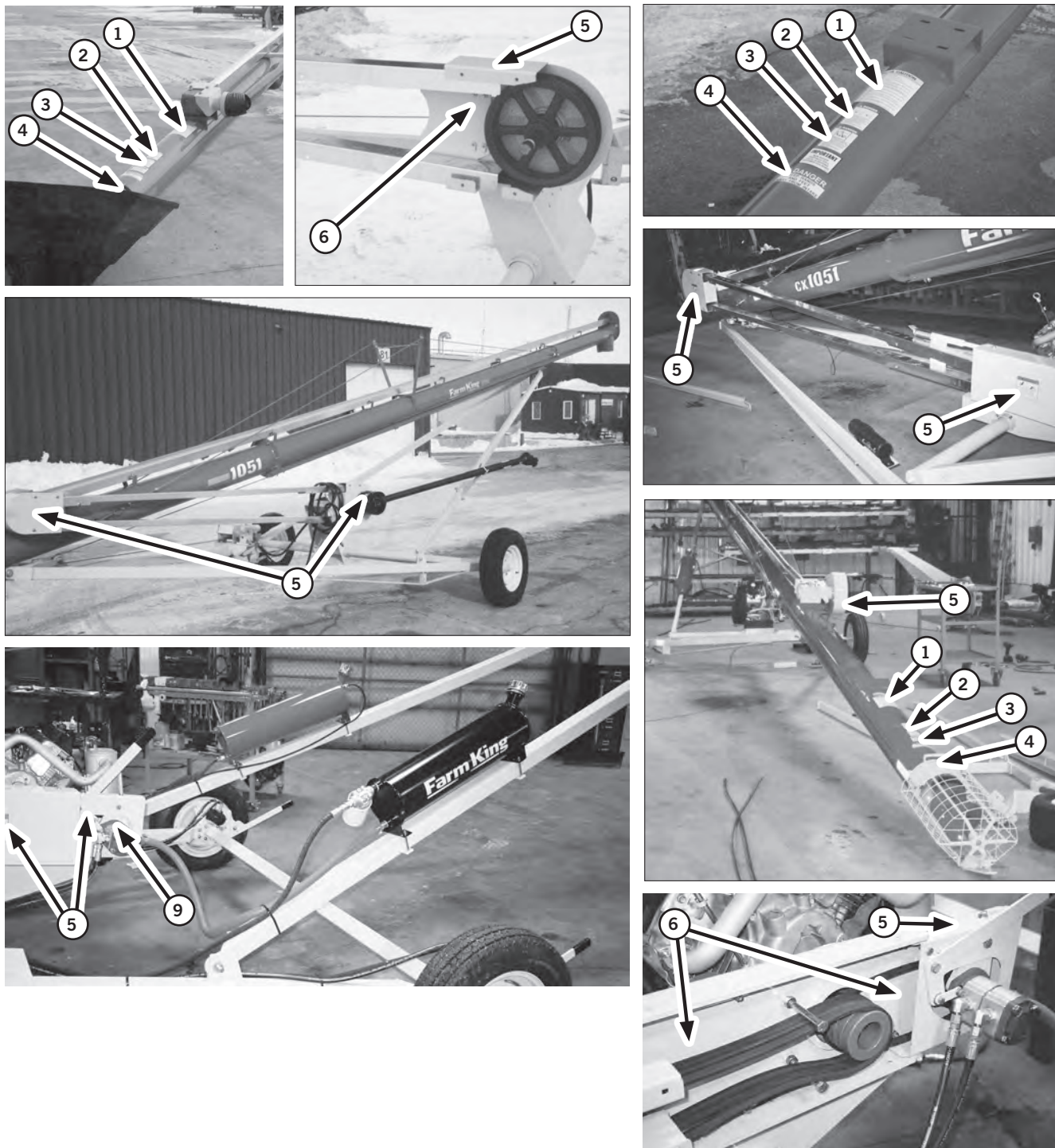
A sign-off sheet is provided for your record keeping to show that all personnel who will be working with the equipment have read and understand the information in the Operator's Manual and have been instructed in the operation of the equipment.

[illegible]

Safety Sign Locations

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

- Think SAFETY! Work SAFELY!



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

- Think SAFETY! Work SAFELY!

1

CAUTION

- Read Operator's Manual before starting. Review safety instructions annually.
- Keep all safety devices in place.
- Keep off of the equipment at all times.
- Keep hands, feet, clothing and hair away from moving parts while in operation.
- Make certain everyone is clear of the equipment before applying power or moving the machine.
- Do not adjust, service, lubricate, clean, unplug or move the mechanism until all power is off and all moving parts have stopped.
- While in operation, always support the discharge end or provide adequate anchorage of the intake end to prevent sudden tipping.
- To avoid tipping, make sure unit is empty before attempting to move.
- Keep wheels of undercarriage level and on firm ground.
- Lower unit to the recommended transport position before transporting.
- Keep children, visitors, and all untrained personnel away from machine while in operation.
- Lower unit when moving close to overhead power lines. Electrocutation can occur without direct contact.

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3

DANGER

UPENDING HAZARD
TO PREVENT SERIOUS INJURY
OR DEATH FROM ROTATING
FLIGHTING:

- SUPPORT DISCHARGE END OR ANCHOR INTAKE END BEFORE USING.
- DO NOT MOVE UNIT BY HAND.
- DO NOT HOOK OR UNHOOK UNLESS HITCH WEIGHT IS DOWN.

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2

DANGER

ELECTROCUTION HAZARD
KEEP AWAY FROM POWER LINES
TO PREVENT SERIOUS INJURY OR
DEATH FROM ELECTROCUTION:

- STAY WELL AWAY FROM POWER LINES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.
- LOWER UNIT WELL BELOW LEVEL OF POWER LINES BEFORE MOVING OR TRANSPORTING.

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4

DANGER

ROTATING FLIGHTING HAZARD
KEEP AWAY

To prevent serious injury or death from rotating flighting:

- Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Close and secure all guards before operating.
- Keep hands, feet, hair and clothing away from moving parts.

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

- Think SAFETY! Work SAFELY!

5



6



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

Machine Components

Overview and Function

The CX Series Conventional Auger is designed to efficiently move grain between a truck, trailer or wagon and a storage facility. Power is provided by a tractor PTO or a gas engine. Be familiar with the machine before starting.

The machine is portable and can be raised or lowered as required for filling storage facilities.

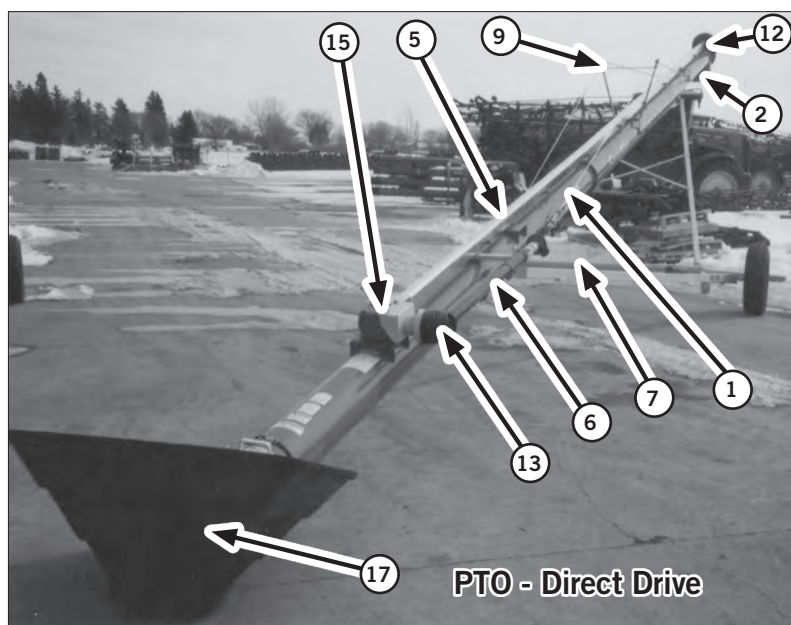
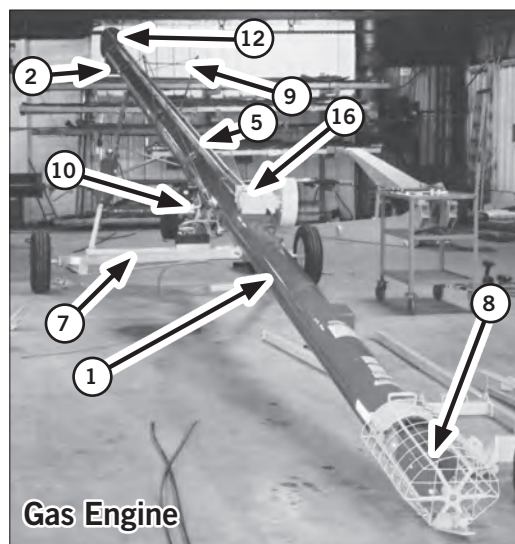
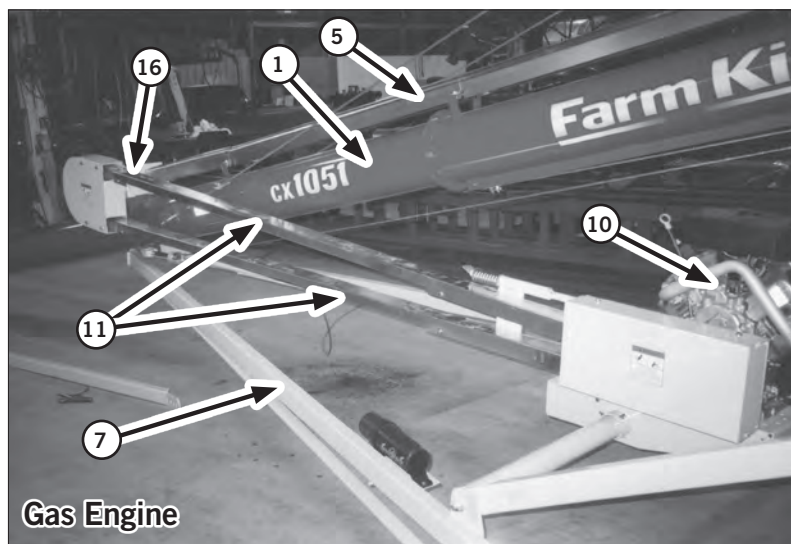
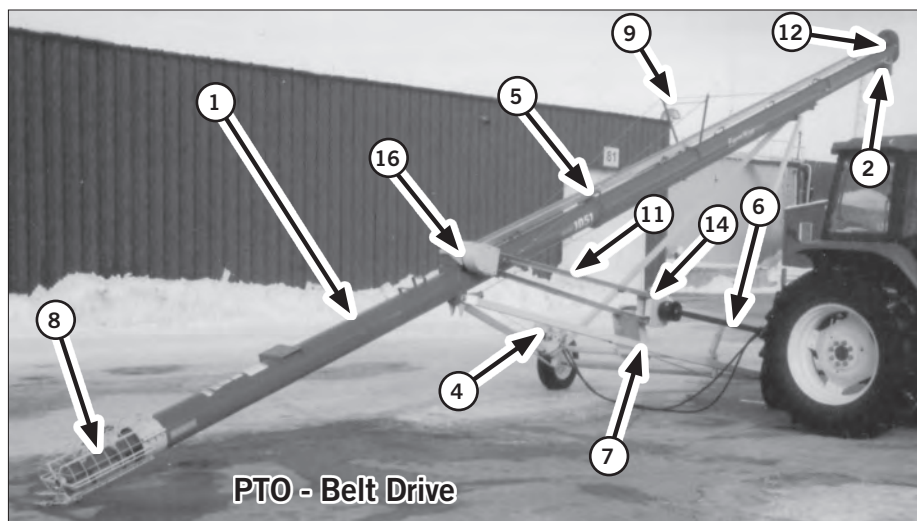
A PTO or gas engine supplies power to the drive shaft located on top of the tube. Material enters the system through an intake on the bottom end and exits through the discharge on the top end.

A hand or hydraulically operated winch is used to raise or lower the frame. The tractor or a self-contained hydraulic pump supplies pressurized oil to the hydraulic system.

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.

 **CAUTION** 

Ensure all operators are familiar with all the components and functions of this unit before attempting to proceed with the Operation Section of this manual.



- 1 Main Tube
- 2 Discharge
- 3 Hand-Operated Winch (Not Shown)
- 4 Hydraulic Winch Drive
- 5 Top Drive
- 6 PTO Shaft
- 7 Undercarriage
- 8 Intake
- 9 Truss Bridging
- 10 Gas Engine
- 11 Drive Belts
- 12 Sprocket/Chain Drive
- 13 PTO Direct Drive
- 14 PTO Belt Drive
- 15 Gearbox - Standard
- 16 Gearbox - Shiftable
- 17 Hopper (Optional)

1. Main Tube

The auger tube (1) with an intake or hopper at one end and a discharge at the other uses internal flighting (driven by either a PTO drive or a gas engine) to move material from ground level up into a storage or transport unit.

2. Discharge

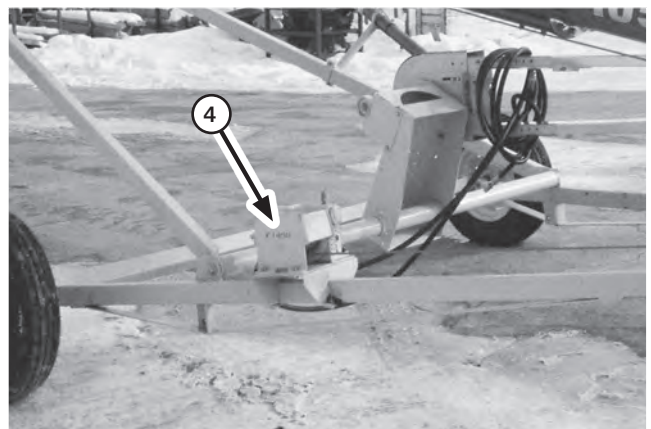
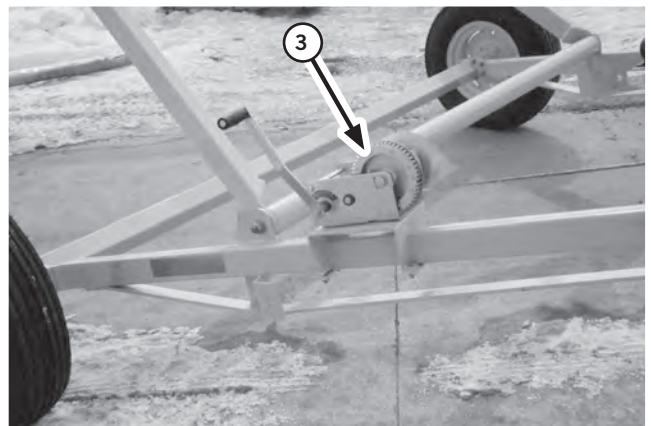
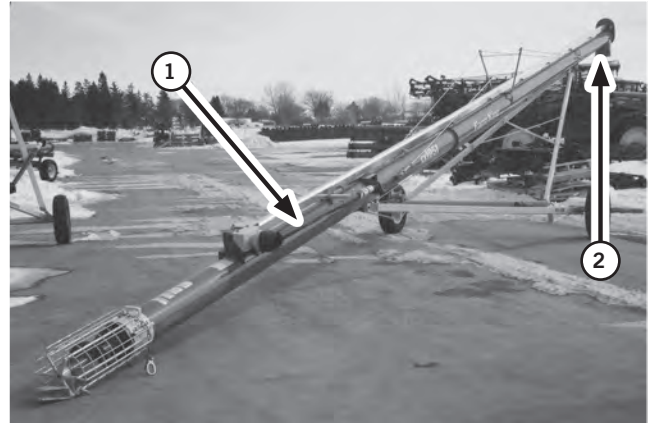
The discharge (2) directs the flow of material from the auger tube to the storage or transport unit.

3. Hand-Operated Winch

This winch (3) adjusts the height of the discharge end of the auger and utilizes a hand crank to raise and lower the tube.

4. Hydraulic Winch Drive

This winch (4) utilizes hydraulic power to adjust the height of the discharge end of the auger.



CAUTION



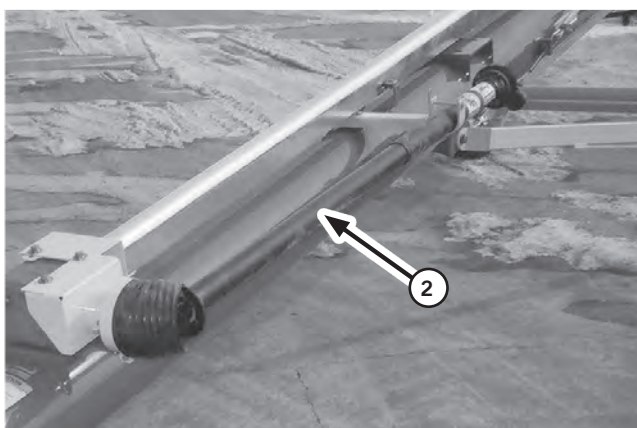
Ensure all operators are familiar with all the components and functions of this unit before attempting to proceed with the Operation Section of this manual.

5. Top Drive

This drive (1) runs along the outside top of the auger tube and transmits rotational power from a PTO drive or gas engine to the sprocket/chain drive.

**6. PTO Shaft**

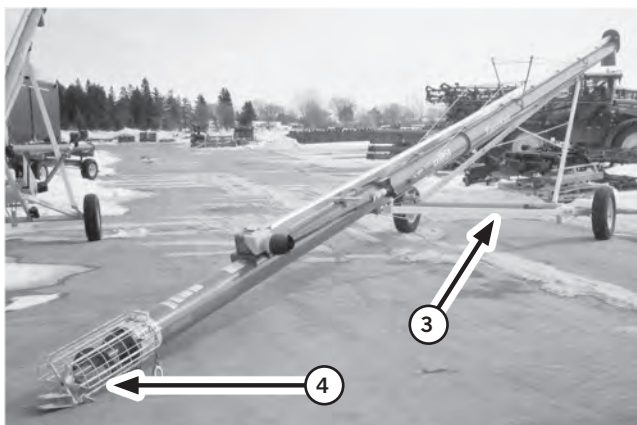
A power take-off or PTO (2) is used to provide power to the system that rotates the auger flighting which moves material up the auger to the discharge end of the tube.

**7. Undercarriage**

The undercarriage (3) is the framework which supports the auger tube, the raise/lower mechanism and the axles and wheels.

8. Intake

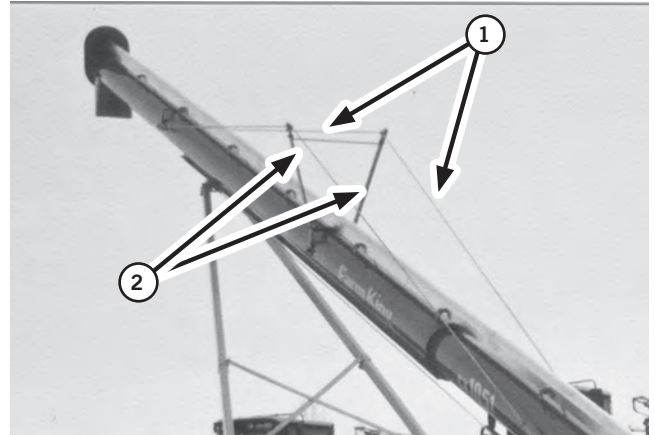
The intake (4) is at the lower end of the auger tube and is the means by which material is moved into the tube for transfer into a storage or transport unit.

**CAUTION**

Ensure all operators are familiar with all the components and functions of this unit before attempting to proceed with the Operation Section of this manual.

9. Truss Bridging

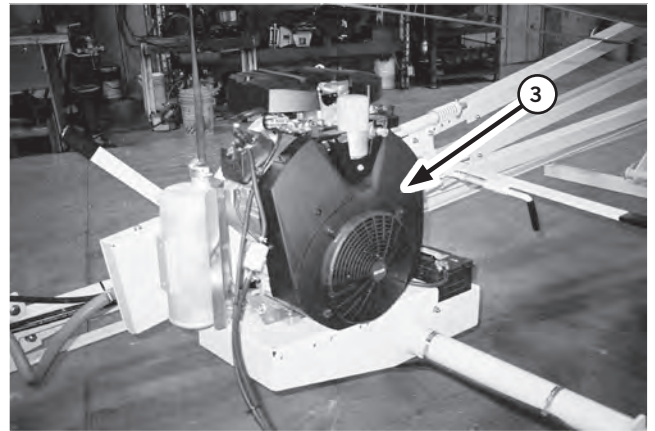
This is a system of tensioned steel cables (1) and a bridging frame (2) which helps support and stabilize the auger tube.



10. Gas Engine

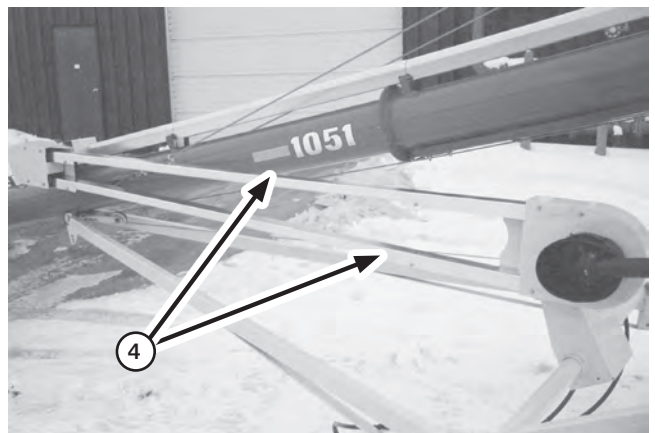
The gas engine (3) is part of a system for providing power to the driving mechanism of the CX Series auger on certain models.

NOTE: Engine sold separately. See your dealer to source an appropriate engine for your market area.



11. Drive Belts

Drive belts (4) are used to transmit power from the PTO belt drive or gas engine to the sprocket/chain drive on front of the top drive shaft.

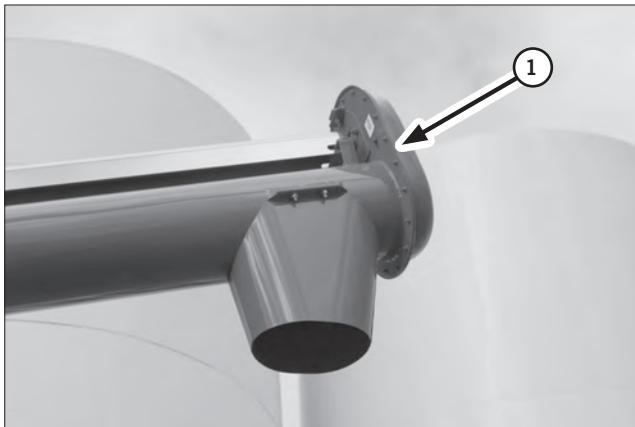


 **CAUTION** 

Ensure all operators are familiar with all the components and functions of this unit before attempting to proceed with the Operation Section of this manual.

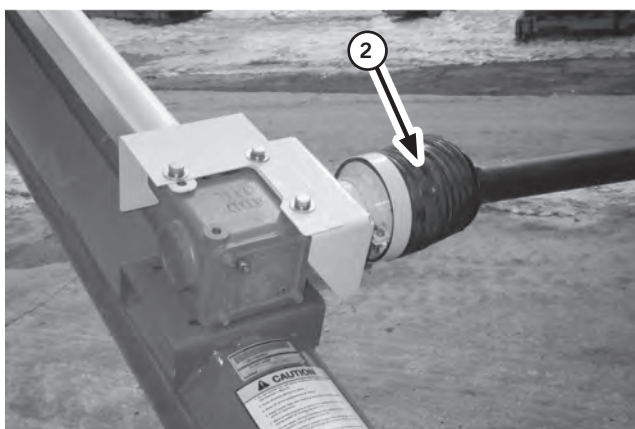
12. Sprocket/Chain Drive

The sprocket/chain drive (1) is a roller chain system that conveys rotational power from the top drive shaft to the auger flighting.



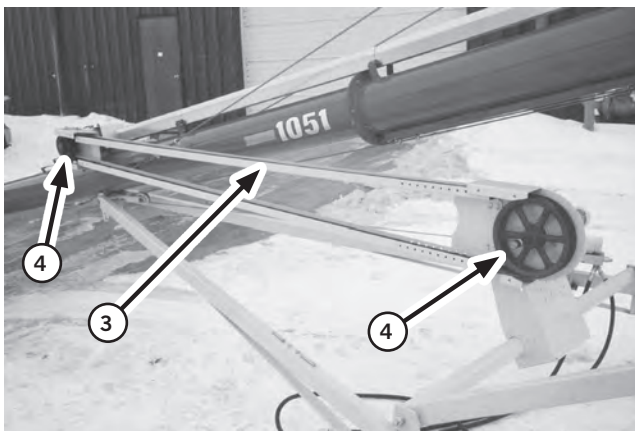
13. PTO Direct Drive

A power take-off or PTO is used for driving the system that rotates the auger flighting which moves material up the auger to the discharge end of the tube. A direct drive system (2) transmits power directly to the gearbox on the lower end of the top drive shaft.



14. PTO Belt Drive

This system uses a series of V-belts (3) and pulleys (4) to transmit power to the gearbox on the lower end of the top drive shaft.



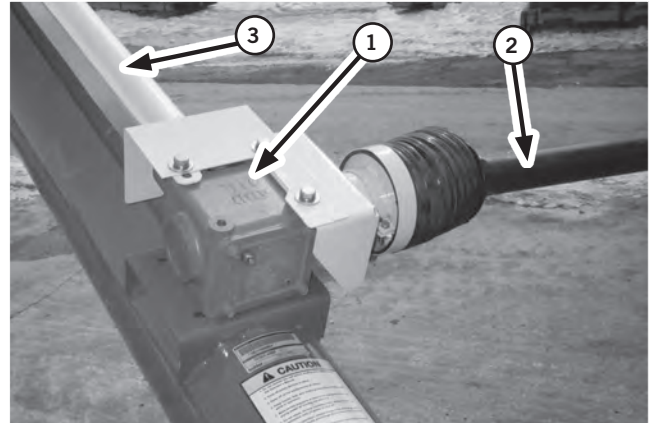
CAUTION



Ensure all operators are familiar with all the components and functions of this unit before attempting to proceed with the Operation Section of this manual.

15. Gearbox - Standard

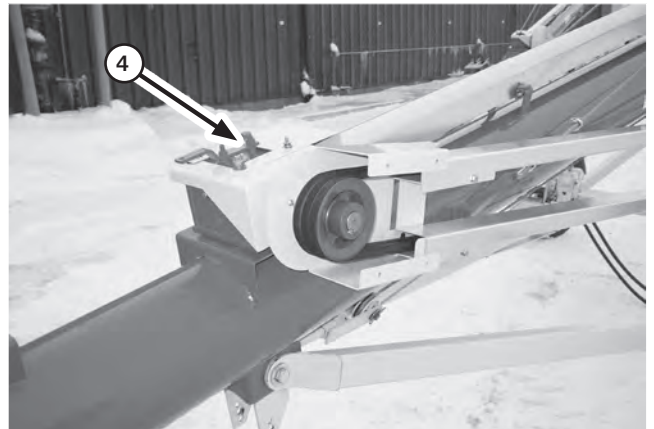
This gearbox (1) transmits power from the PTO (2) or gas engine to the gear box at the rear of the top drive shaft (3).



16. Gearbox - Shiftable

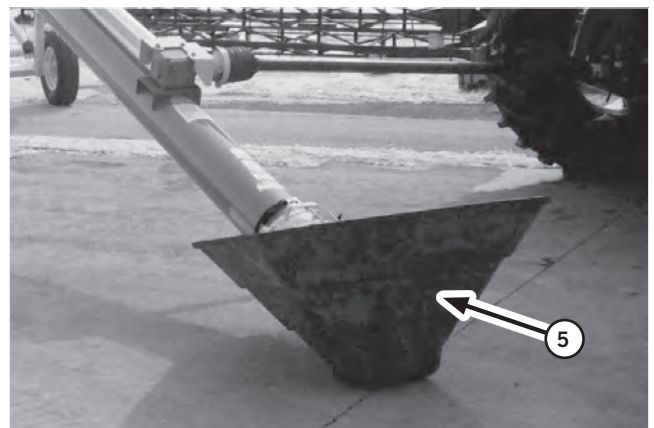
This is a shiftable gearbox (4) and is located at the bottom of the top drive shaft which takes rotational power from a PTO or gas engine and transmits it to the top shaft.

The gearbox can be set to operate in the standard configuration, neutral or reverse. Set according to your application requirements.



17. Hopper (Optional)

An optional poly hopper (5) is used to transfer material into the auger tube. It is a poly basket into which material is placed to be picked up by the flighting in the auger tube.



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Operation

Safety

-  Read and understand the Operator's Manual and all safety signs before starting, operating, maintaining, adjusting or repairing the CX Series Conventional Auger. Review safety instructions annually.
-  On the gas and PTO models 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.
-  Clear the area of bystanders, especially children, before starting.
-  Be familiar with machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
-  Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
-  Do not allow riders on the auger or tractor when transporting.
-  Stay away from overhead obstructions and power lines during operation and transporting. Electrocution can occur without direct contact.
-  Do not operate machine when any guards are removed.
-  Set park brake on tractor before starting.
-  Lower auger to its lowest position with cable tensioned before moving or transporting or when not in use.
-  Be sure that auger is empty before raising or lowering.

Pre-Operation Checklist

Efficient and safe operation of the 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 areas should be checked off:

1. Service the machine per the schedule outlined in Section 5 Service and Maintenance.
2. Use only a tractor or engine of adequate power to operate the machine.
3. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
4. Check worksite. Clean up working area to prevent slipping or tripping.
5. Check the drive belt tension and alignment. Tension or align as required.
6. Be sure auger wheels are chocked.
7. Check that discharge and intake areas are free of obstructions.

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 work:

1. Read the auger and power unit Operator's Manuals.

B. After operating for 1/2 hour:

1. Re-torque wheel bolts after moving 5 miles.
2. Re-torque all fasteners and hardware.
2. Check the drive and belt tension and alignment. Tension or align as required (See Section 4-10).
3. During the auger's first few minutes of operation, check drive belt alignment to ensure pre-set alignment and tension does not vary under loaded conditions.
4. Check the condition of all hydraulic lines, hoses, fittings and couplers for damage or leaks. Tighten leaking fittings and repair or replace any damaged components.
5. Check the condition of all electrical lines, wires and connections. Repair or replace any damaged system or component.
6. Check that all guards are installed and working as intended.

C. After operating for 5 hours and 10 hours:

1. Repeat items 1 through 5 above.
2. Then go to the normal servicing and maintenance schedule as defined in the Maintenance Section.

Equipment Matching

The CX Series Conventional Auger is designed to be used with an agricultural tractor and operated at a speed of 540 PTO rpm. The following tractor specifications must be maintained when selecting a power unit.

1. Horsepower

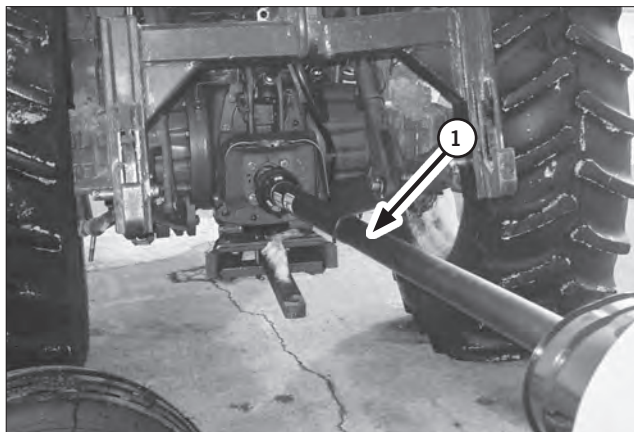
The CX Series Conventional Auger is designed to be powered by a tractor (minimum horsepower 30 hp) and one functional remote for the hydraulic winch.

Table 1 - Minimum Horsepower Requirements

Model Tube Diameter	PTO		Gas Engine	
	8"	10"	8"	10"
41 foot	16 hp	28 hp	16 hp	28 hp
51 foot	20 hp	32 hp	20 hp	32 hp
61 foot	24 hp	38 hp	24 hp	38 hp

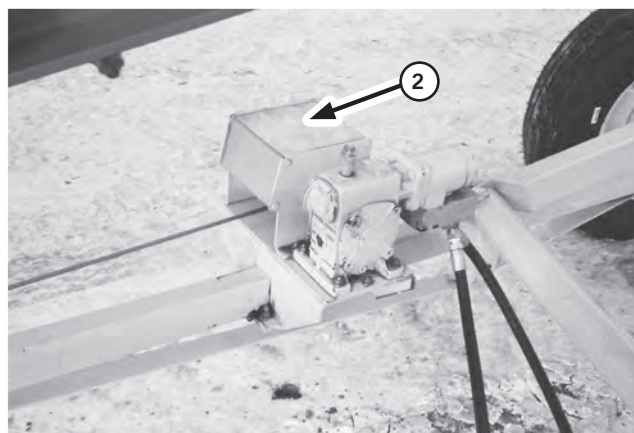
2. PTO Driveline

The tractor must be equipped with a 6 spline 1 3/8" (38 mm) PTO shaft (1) when used with a PTO powered machine. It should never be operated faster than 540 rpm. Never operate the tractor at maximum rpm but only at rated PTO speed.



3. Hydraulic System

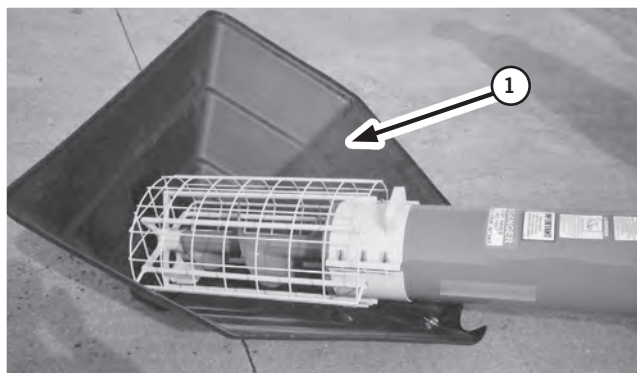
The tractor hydraulic system must be capable of 5 gpm (19 lpm) at 2800 psi (19329 kPa) if equipped with an optional hydraulic winch (2).



Attaching/Unhooking

It is recommended that the auger be attached to a tractor whenever it is moved around a yard or into working position. It may be towed by a truck when transporting over long distances. Follow this procedure when attaching to or unhooking from a tow unit:

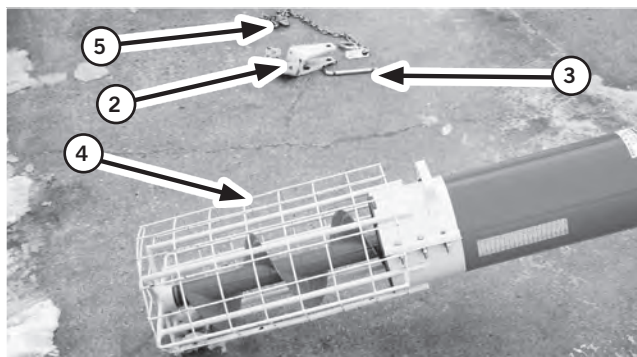
1. Make sure that bystanders, especially small children, are clear of the working area.
2. Be sure that there is sufficient room and clearance to back up to the machine.
3. Align the drawbar with the hitch of the auger while backing up.
4. Set the park brake before dismounting.
5. Remove the optional plastic hopper (1) from the intake if so equipped.



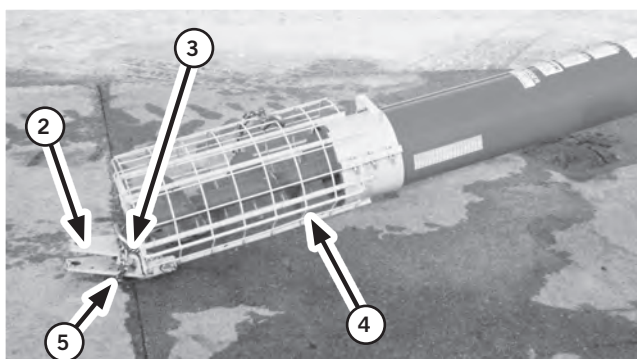
6. Install and secure the hitch (2) to the front of the frame with the anchor pins and retainers (3) if it was removed for operation.
 - a. Raise the intake end only high enough to install the hitch.


DANGER

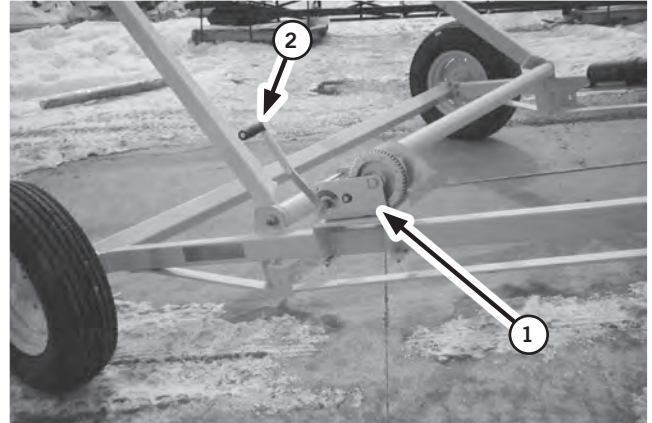

The machine is closely balanced. Do not lift unless there is downward weight on the intake end to prevent upending.



- b. Slide the hitch around the front of the guard framework (4).
 - c. Install the anchor pin and retainer (3).
 - d. Attach and secure the safety chain (5).



7. 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.
8. Use the winch to raise the frame as required.
 - a. For the manual winch (1), turn the handle (2) as required.



- b. For the hydraulic winch, connect hydraulic hoses and use hydraulic system to raise the frame.

NOTE: It will be necessary to connect hydraulic system hose to raise and lower machine if equipped with hydraulic lift.

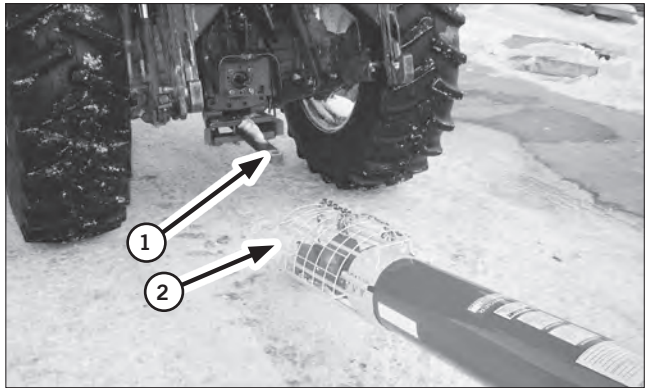
- i. Clean the dirt from around the couplers on the hose end and on the tractor.
 - ii. Connect the hoses to the tractor couplers. Be sure the couplers are securely seated.
 - iii. Route the hose to prevent pinching rubbing or binding and allow movement in hose for raising and lowering.
 - iv. Use the control lever in the tractor to raise or lower the frame.

NOTE: If equipped with Auger Mover Kit, use winch control to raise and lower. Refer to mover manual for details.

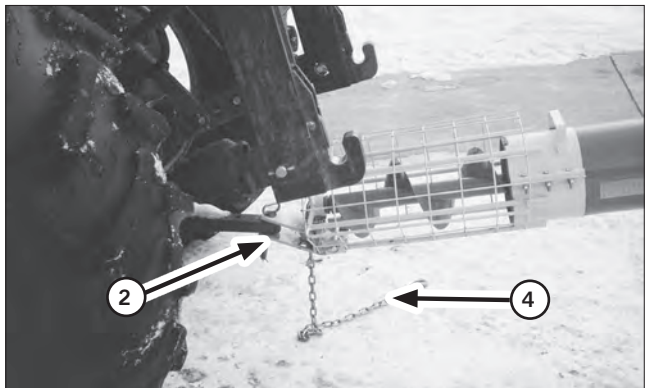
Attaching / Unhooking

9. To hook up:

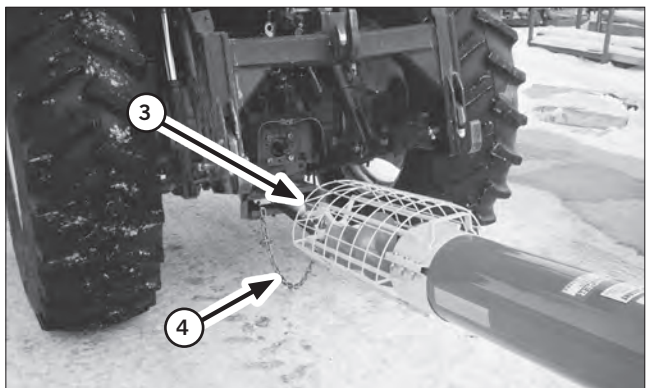
- a. Align the drawbar (1) with the hitch (2) while backing up to the machine.



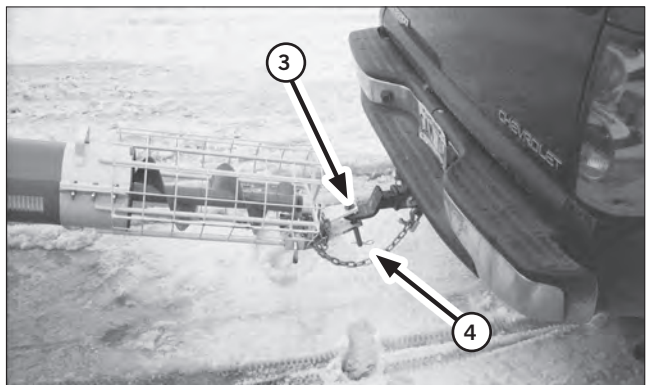
- b. Lift the intake end to the drawbar height.



- c. Install the drawbar pin and retainer (3).



- d. Attach safety chain (4) to prevent unexpected separation.

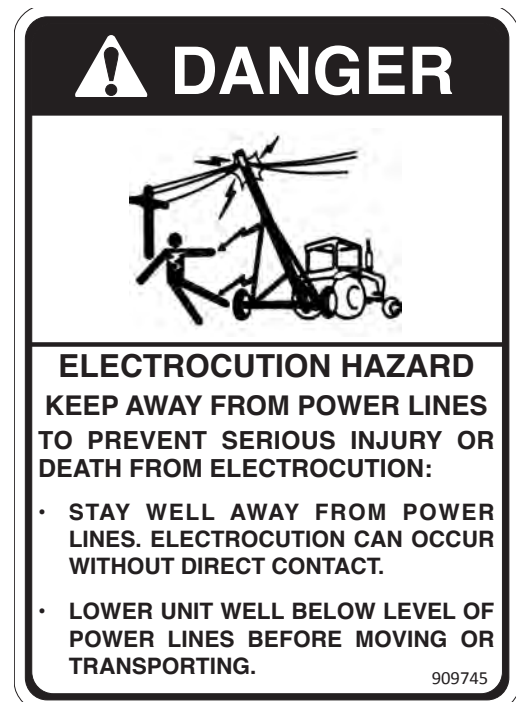


10. If the hydraulic hoses have not been connected already, connect them to the tractor hydraulic system.
11. Secure the hydraulic hoses. Allow sufficient movement in hoses for turning.

12. If auger is next to a storage facility, move forward until the discharge end clears the facility. Then lower machine to its lowest position while still maintaining tension on the winch cable before transport.



13. Move to new location.
14. Refer to Section 3-22 Transporting before moving the machine.
15. Reverse the above procedure when unhooking.



Controls

Before starting to work, all operators should familiarize themselves with the location and function of the controls.

1. Winch

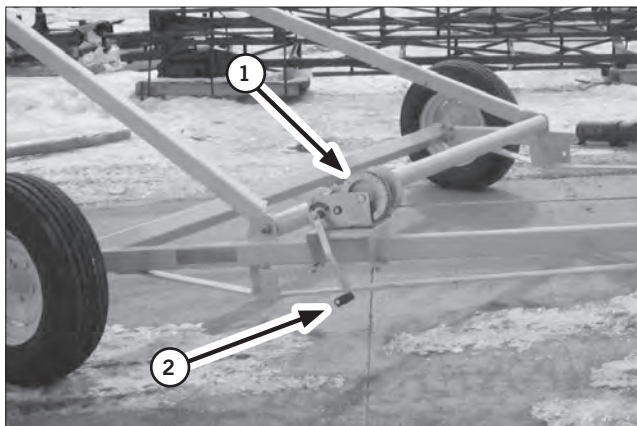
Augers that are designed with a winch and cable pulley system to raise and lower the frame.

When equipped with a manual winch (1), turn the handle (2) clockwise to raise the frame and counterclockwise to lower.

When equipped with a hydraulically powered winch, use the control lever in the hydraulic system to engage the motor on the winch to raise or lower the frame.

a. Tractor Hydraulic System

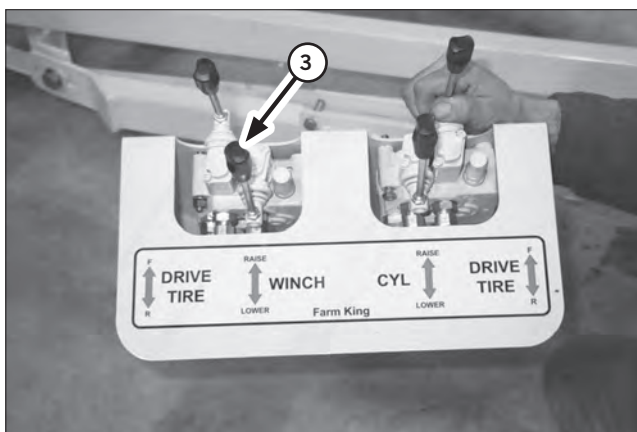
Use the control on the tractor which is connected by hydraulic lines to the auger to operate the hydraulic winch.



IMPORTANT: *Insure hoses are long enough to allow for turning.*

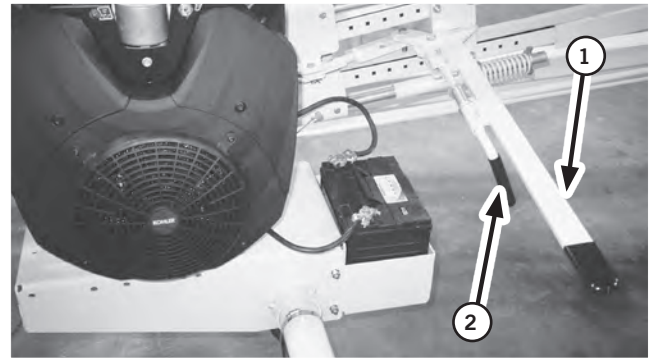
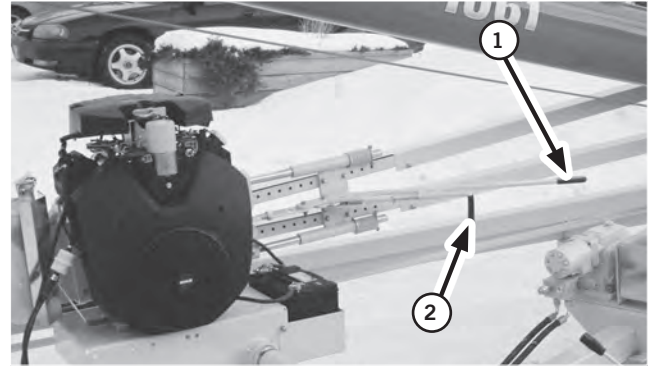
b. Auger Mover Kit (optional)

Use the winch lever (3) on the control panel mounted on the auger mover frame to raise and lower the frame. For more details, refer to the Auger Mover manual.



2. **Drive Belt Engage Lever (Gas engine models only)**
This lever (1) moves the engine mounting platform for engaging and disengaging the drive system. Release the lever lock (2) and move the lever away from the engine to engage the drive system and toward the engine to disengage.

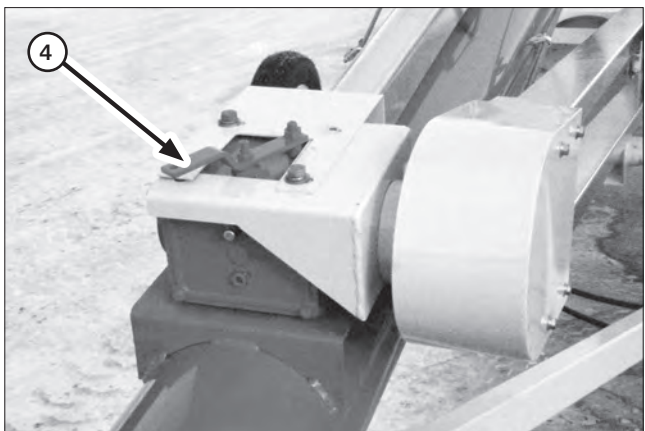
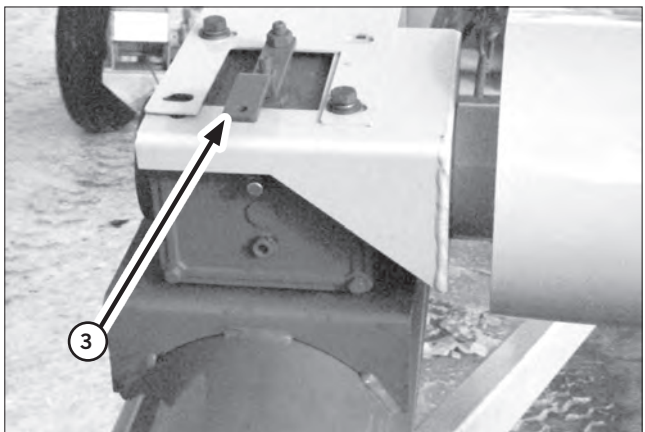
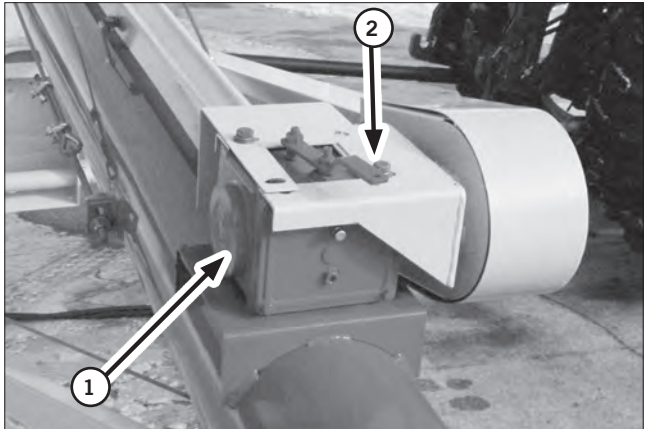
IMPORTANT: Always lock the lever in position, engaged or disengaged.



Controls**3. Gearbox**

This auger is available with an optional, shiftable gearbox (1) at the lower end of the top drive shaft that has three settings. It can be set to operate normally (2) with the flighting moving material from the intake to the discharge. In neutral (3) the flighting is stopped. In reverse (4), the flighting reverses the direction of the material.

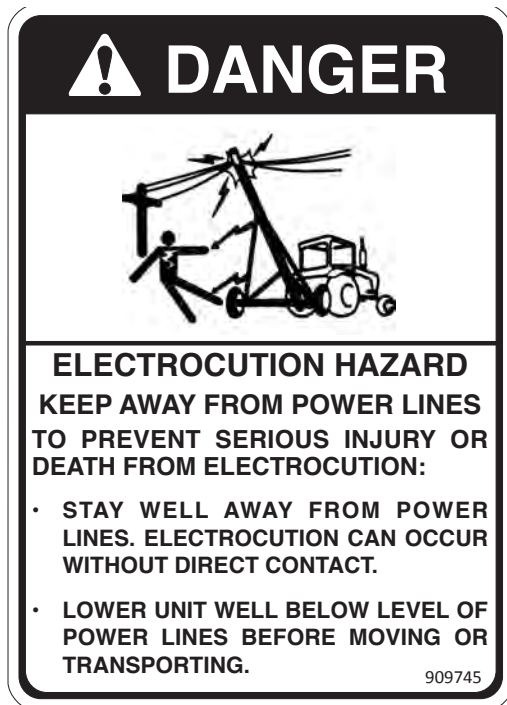
NOTE: Always disengage power before shifting. It may be necessary to manually turn the intake slightly to allow the internal gears to mesh.



Machine Placement

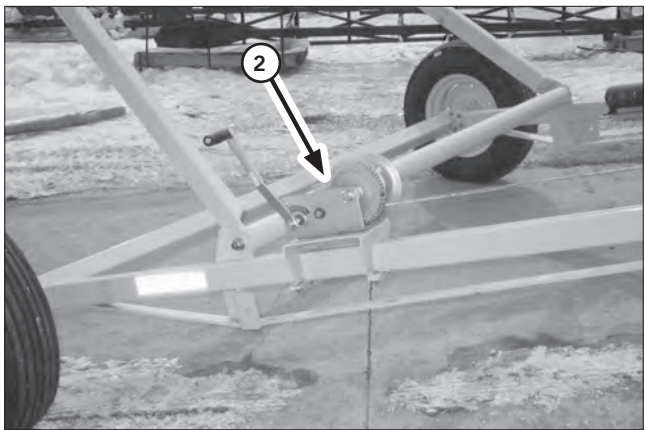
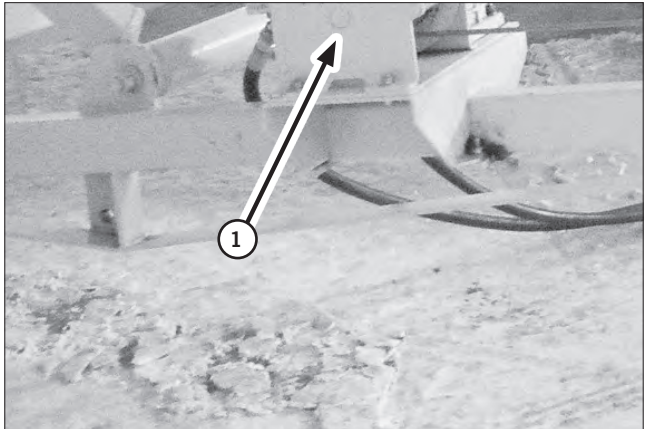
Follow this procedure when placing the auger into its working position:

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 machine into its working position.
3. Attach the auger to the tractor (See Section 3-6).
4. Back the machine up to the storage facility while it is in its lowered configuration.
5. Set the park brake on the tractor before dismounting.

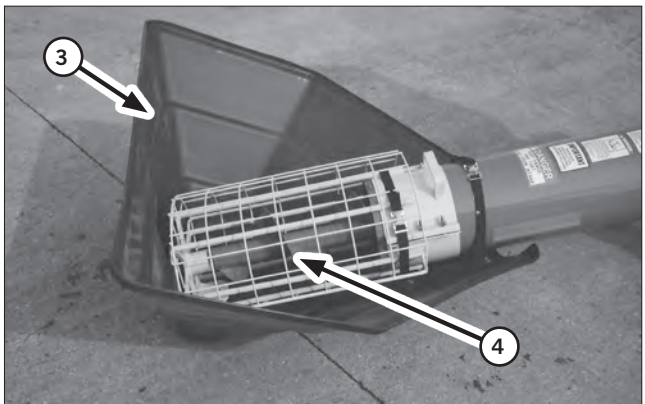


Machine Placement

6. Use the hydraulic (1) or manual (2) winch to slowly raise the machine into position. Stay away from power lines.
7. Slowly back the machine until the discharge is over the opening in the storage facility.
8. Use the hydraulic or manual winch to slowly lower the discharge end of the machine until it is just above the storage facility.
9. Place chocks in the front and rear of each wheel.
10. Unhook the unit from the tractor or towing vehicle and lower to the ground.



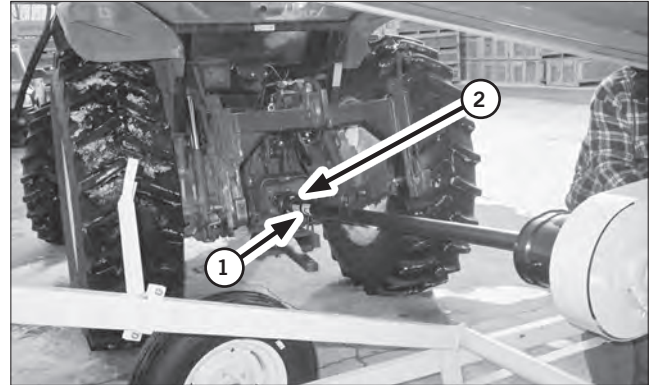
11. Remove the hitch and safety chain from the machine to prevent interfering with the optional plastic hopper (3) under the intake flighting (4).
12. Raise the intake end slightly and slide the optional plastic hopper (3) under the intake. Nest the intake flighting frame in the bottom of the hopper.
13. Lower machine until discharge end is just above the storage facility. To prevent auger or storage facility damage, be sure the tube does not rest on the storage facility.
14. Disconnect hydraulic hoses if equipped with hydraulic winch.



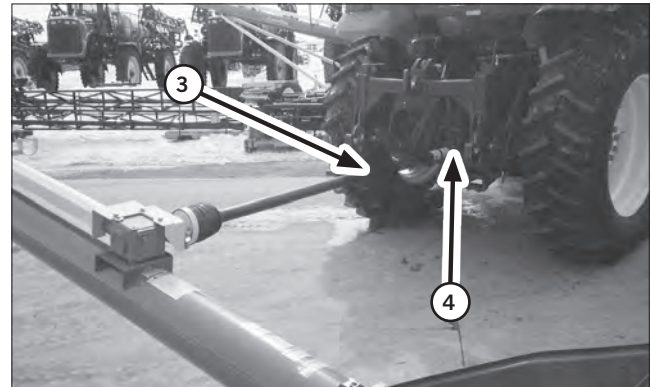
15. Attach driveline to tractor.

a. **PTO - Belt Drive**

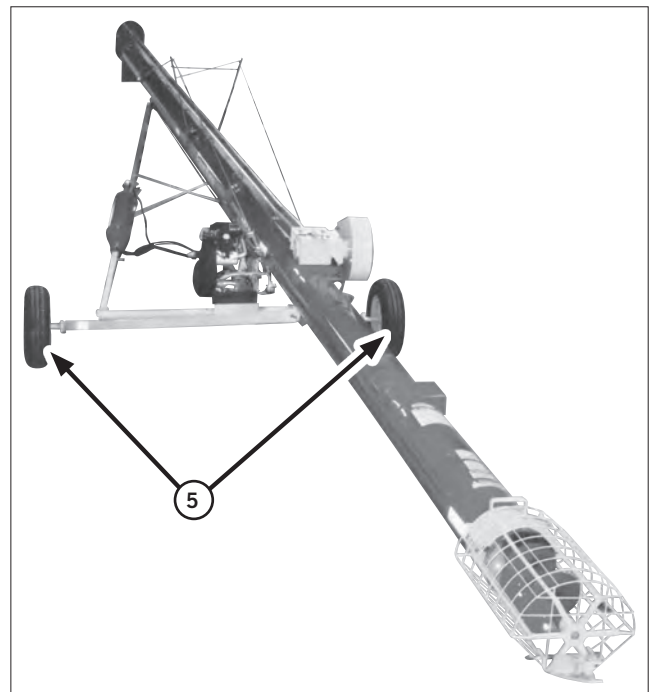
- i Position tractor next to auger frame.
- ii Retract collar (1) on yoke to retract lock pin and slide yoke over tractor shaft (2).
- iii Pull on yoke to make sure lock pin clicks into place.

b. **PTO - Direct Drive**

- i Position tractor next to auger frame.
- ii Retract collar (3) on yoke to retract lock pin and slide yoke over tractor shaft (4).
- iii Pull on yoke to make sure lock pin clicks into position.



16. Chock auger tires (5).



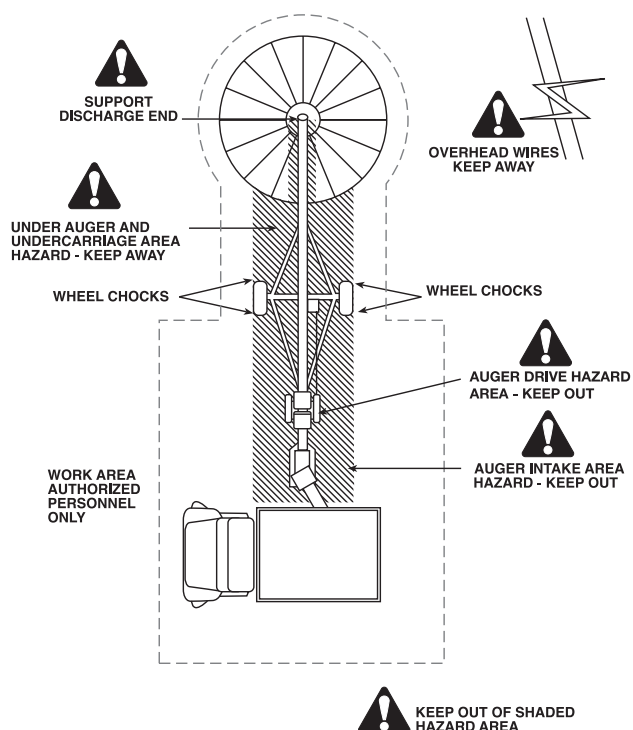
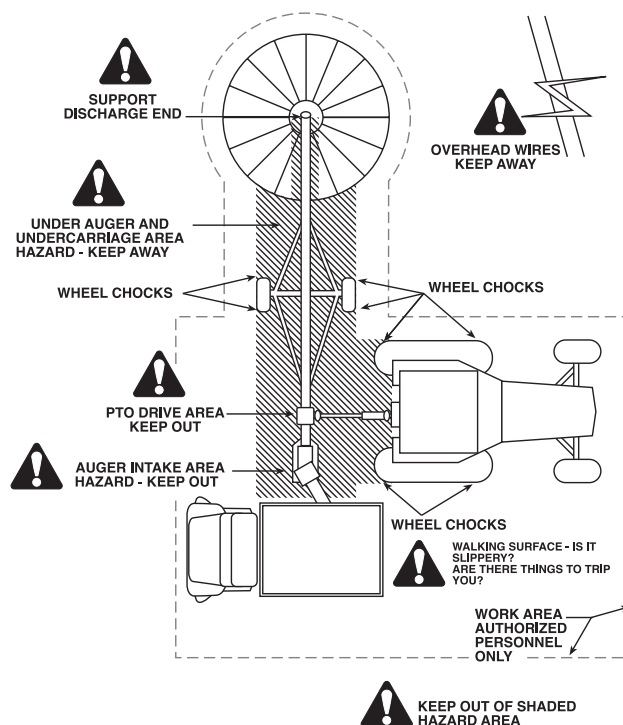
17. Reverse the above procedure when removing the machine from its working position.

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

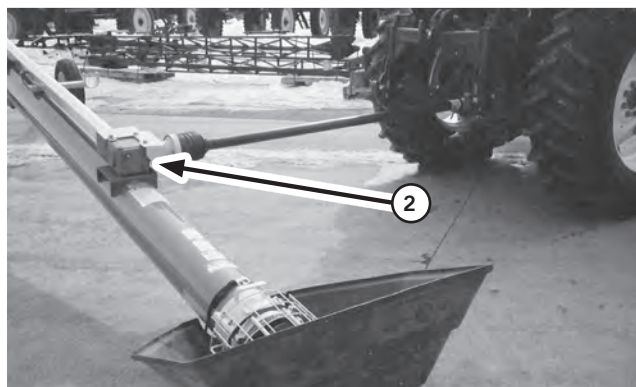
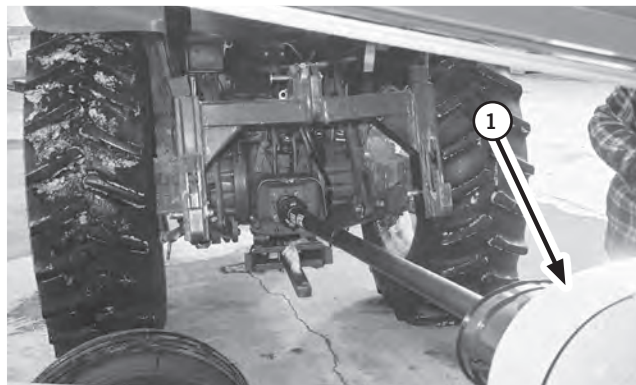
Auger Operation

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 1-7) before starting.
3. Review the Workplace Hazards schematics 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 3-13.
5. **Attach PTO Shaft** (Belt and Direct Drive models). Refer to Section 3-13 for correct PTO attachment procedure.
 - a. Belt drive (1).
 - b. Direct drive (2).



IMPORTANT: *Position tractor to insure U joint working angles are equal (15 degrees or less is recommended) and that PTO shaft is “retracted” enough to insure and prevent disengagement of PTO.*

6. Check that all guards are in place and working as intended.

Auger Operation**7. Starting****a. PTO Models**

- i Place all controls in neutral.
- ii Start tractor and run at low idle.
- iii Slowly engage the PTO clutch.
- iv Start the flow of material and unload.
- v Increase engine speed to a rated PTO speed of 540 rpm.

b. Gas Engine Model

- i Disengage auger drive.
- ii Move the throttle to its mid-range position.
- iii Close the choke if the engine is cold or if the unit has not been run for a while.
- iv Turn the ignition key clockwise to start the engine. Release the key when the engine starts.
- v Run for 2-3 minutes to allow the engine to warm.
- vi Engage the auger drive.
- vii Start the flow of material and unload.
- viii Increase engine speed to maximum rpm.

**8. Stopping****a. PTO Model**

- i Stop unloading.
- ii Run until the auger is empty.
- iii Reduce engine speed to low idle.
- iv Disengage PTO clutch.
- v Shut off engine and remove ignition key.

b. Gas Engine Model

- i Stop unloading.
- ii Run until the auger is empty.
- iii Move the throttle to its 1/4 position.
- iv Disengage auger drive.
- v Shut off engine and remove ignition key.



9. **Emergency Stopping**

Although it is 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.

10. **Restarting** (full tube)

When the machine is shut down inadvertently or for an emergency, the auger tube will still be filled with material. Since the start-up torque loads are much higher than normal when the auger is full, restart at low idle engine speed.

Also remove material from the hopper to reduce the starting load even further.

11. **Checking Drive Belt Tension**

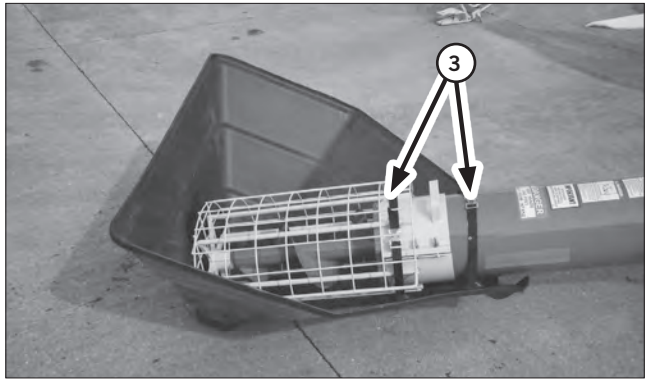
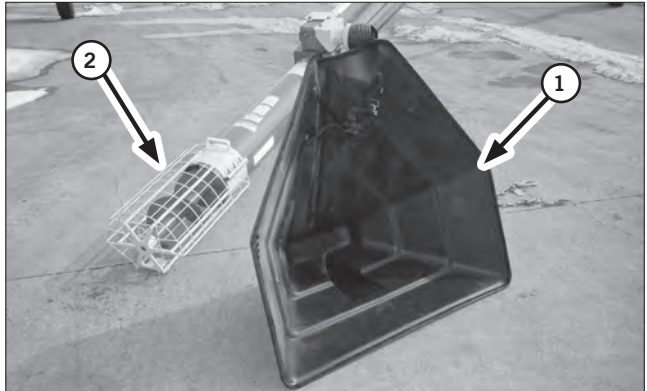
The tension of the drive belts should be set so they do not slip during operation. Refer to the Maintenance Section for detailed instructions on how to check and set the belt tension.



Auger Operation

12. Optional Plastic Hopper

An optional plastic hopper (1) that fits under the auger intake (2) and helps to direct material into the flighting is available. Remove the hitch and safety chain from the intake before attaching hopper. Secure the hopper to the intake with the 2 straps (3). Be sure they are tight.



13. Operating Angle

The hydraulic or manual winch can set the auger tube angle at any position between 15° and 60° when operating. Although the machine will continue to move material through the tube, it will have greater capacity at a lower angle.

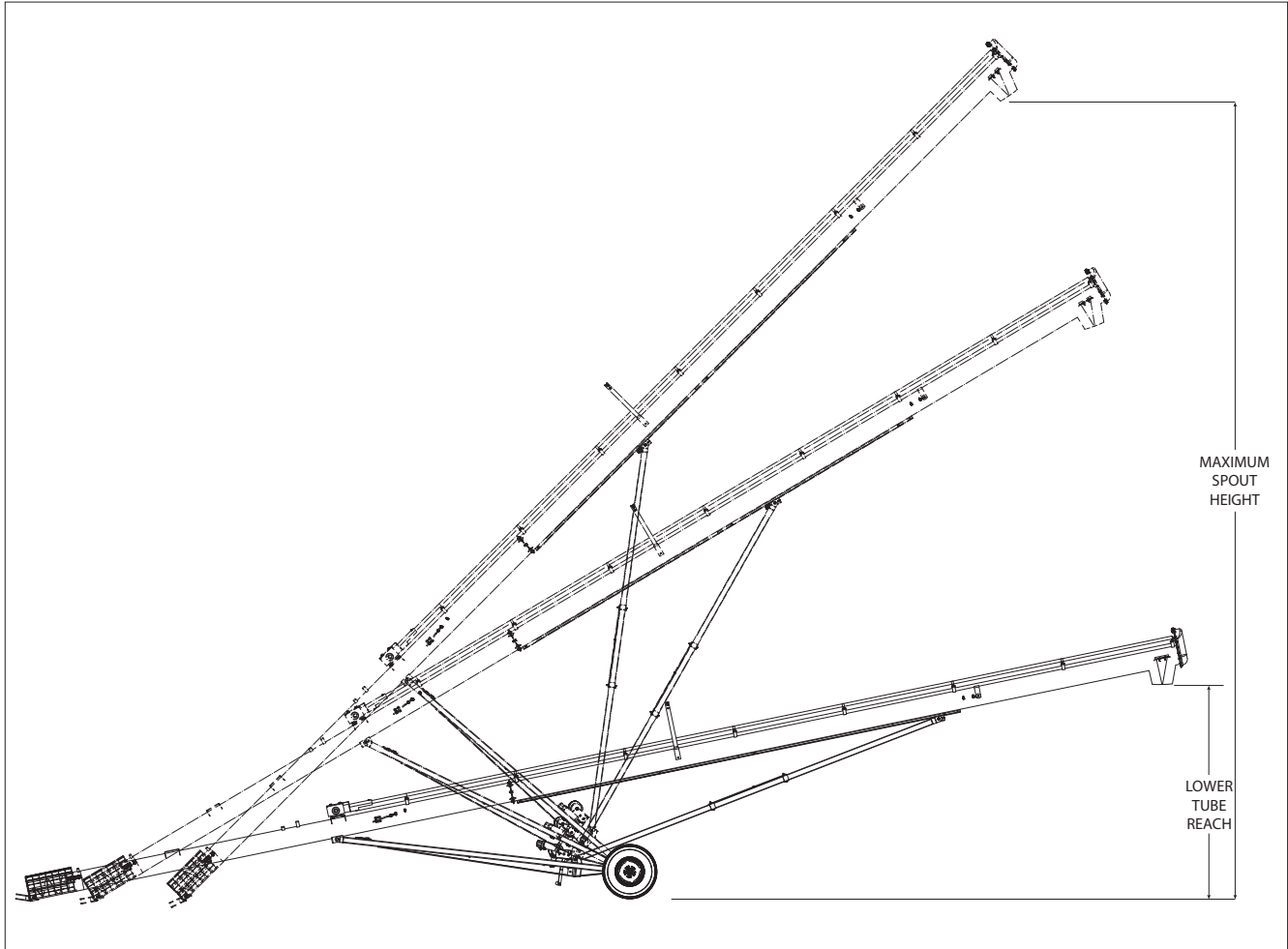


Table 1

Model	CX841	CX851	CX861	CX1041	CX1051	CX1061
Lower Tube Reach	12' 2"	13' 0"	13' 2"	10' 5"	12' 10"	13' 0"
Maximum Spout Height	28' 3"	35' 2"	42' 0"	28' 3"	35' 2"	42' 0"

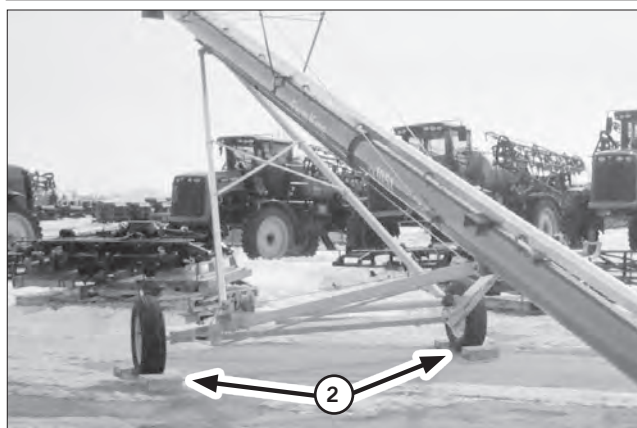
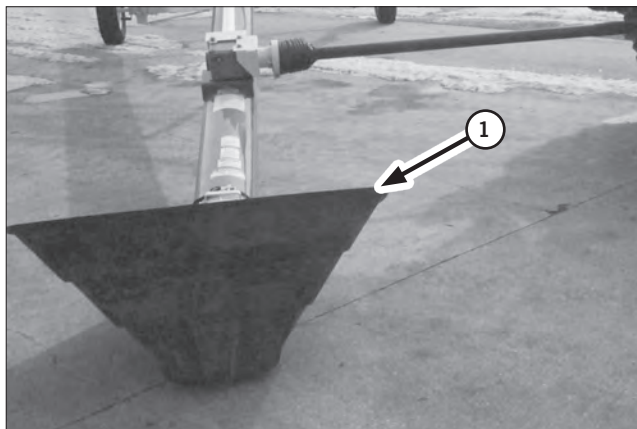
Auger Operation

14. Operating Speed

The best results are obtained when the PTO input speed is set at rated 540 rpm. On the gas engine model, operate engine at maximum rpm.

15. Operating hints

- a. Direct the flow of material into the input hopper (1) when operating. Best results will be obtained when flow of incoming materials keeps the hopper full.
- 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 LEAVE before resuming work.
- d. Always chock (2) the front and back of the wheels to prevent machine movement when operating.
- e. Do not run the machine for long periods of time with no material in the flighting. It increases the wear. Try to run only when moving material.



- f. Position the hopper under the grain bin discharge (1) when emptying storage bins to minimize spillage.



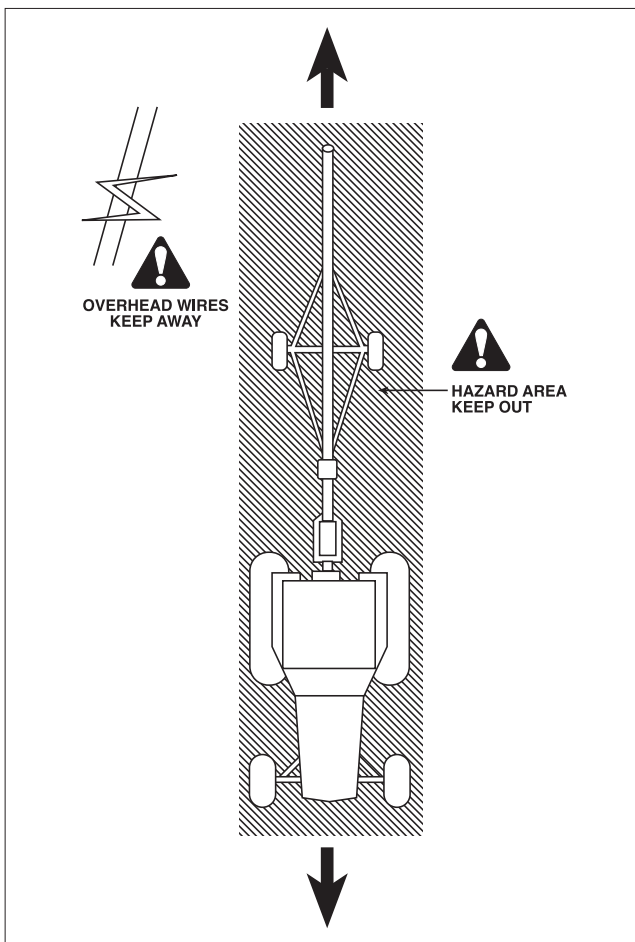
Transport Safety

- Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY when moving or transporting the auger.
- Check with local authorities regarding auger transport on public roads. Obey all applicable laws and regulations.
- Always travel at a safe speed. Use caution when making corners or meeting traffic.
- 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.
- Do not allow riders on the auger or the tractor when transporting.
- Attach auger to towing vehicle with a pin and retainer. Always attach the safety chain.
- Lower auger to its lowest position with cable tensioned for transporting.
- 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.
- Do not exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
- Stay away from overhead obstructions and power lines when transporting. Electrocution can occur without direct contact.
- Always use hazard warning flashers on tractor when transporting unless prohibited by law.

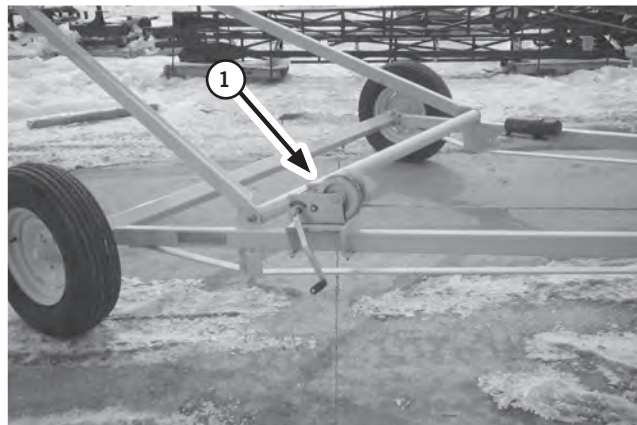
Transport

Farm King CX Series Conventional Augers are designed to be easily and conveniently moved from place to place. When transporting, follow this procedure:

1. Review the Transport Safety Schematic before starting.
2. Be sure all bystanders are clear of the machine.
3. Retorque wheel bolts before transporting.



4. Raise the auger to clear storage facility.
 - a. Use the manual winch (1) or, if so equipped connect the hydraulic lines from the tractor to the hydraulic winch.
 - b. Raise the auger.

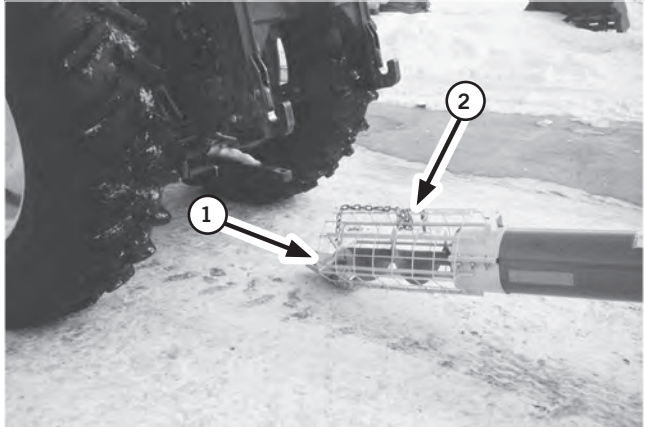


5. Raise the intake end and remove the hopper (2) from intake. Lay to one side.

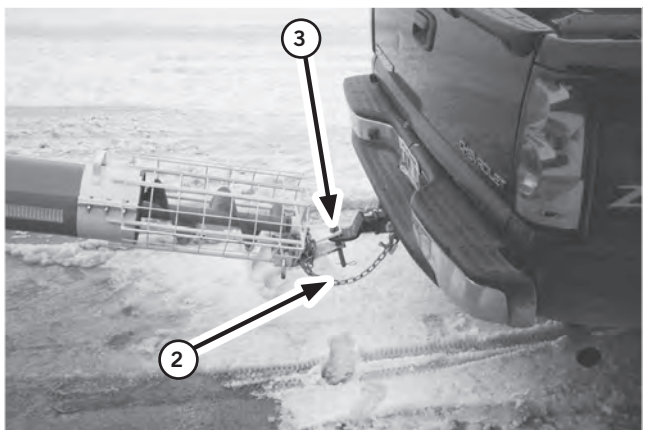
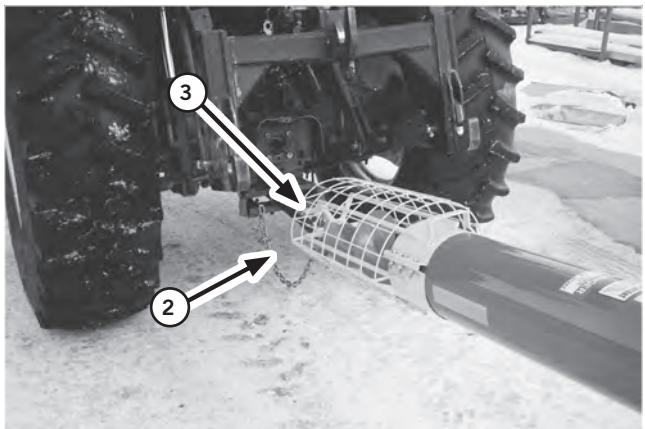


Transport

6. Install the hitch (1) and secure with pin and retainer. Attach safety chain (2).



7. Attach to a tractor or truck using a hitch pin (3) with a retainer and a safety chain. (Refer to Section 4.6 Attaching/Unhooking).



NOTE: It may be necessary to raise the discharge end above the storage facility to provide clearance to raise the intake end.

8. Remove chocks from the wheels.
9. Slowly pull away from the storage facility and stop as soon as the discharge end clears the storage facility.

10. Stop and lower the auger into its fully down position while maintaining tension on winch cable before transporting.

IMPORTANT: Transport only when machine is in its lowest position with cable tensioned.

11. Avoid overhead power lines. Electrocutation can occur without direct contact.



12. Never go across slopes of more than 20°. It is better to go straight up or straight down.
13. Make sure the SMV (Slow Moving Vehicle) emblem is installed when towing with a tractor. Insure 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.
14. 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.
15. Do not allow riders on the machine or tractor.
16. During periods of limited visibility, use pilot vehicles or add extra lights to the machine.
17. Always use hazard flashers on the tractor when transporting unless prohibited by law.



Storage Safety

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 with cable tensioned for storage unless supported by a storage facility.

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

1. Remove all residual material from the hopper and the flighting.
2. Wash the entire machine thoroughly using a water hose or 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. Remove the entangled material.

NOTE: If configured with an optional hopper, remove hopper and store inside. This will prevent an accumulation of water if stored outside.

4. 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.
5. Lubricate all grease fittings.
6. Touch up all paint nicks and scratches to prevent rusting.
7. Select an area that is dry, level and free of debris.
8. If the auger is not being left at a storage facility, it should be placed in its lowest position.
9. Follow the procedure given in Section 3-6 when unhooking.



Introduction

Safety Tips

-  Review the Operator's Manual and all safety items before working with, maintaining or operating the auger.
-  Place all controls in neutral, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
-  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.
-  Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
-  Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
-  Keep hands, feet, hair and clothing away from moving and/or rotating parts.
-  Clear the area of bystanders, especially small children, when carrying out any maintenance and repairs or making any adjustments.
-  Place stands or blocks under the frame before working beneath the machine.
-  Before resuming work, install and secure all guards when maintenance work is completed.
-  Support auger tube before attempting maintenance on undercarriage assembly. Where possible, the auger should be in the fully down position.
-  Keep safety signs clean. Replace any sign that is damaged or not clearly visible.

Fluids and Lubricants

1. **Grease**
Use an SAE multipurpose high temperature grease with extreme pressure (EP) performance. Also acceptable is an SAE multipurpose lithium base grease.
2. **Fuel** (Gas Engine model)
Use a regular unleaded automotive gasoline for all operating conditions.
Capacity: 6.5 US gal (26 liters).
2. **Hydraulic Oil** (Auger Mover models)
Use a heavy-duty hydraulic oil for all applications.
Reservoir capacity: 6.5 US Gal (26 liters).
3. **Gearbox Oil**
Use an SAE 80W90 gear oil or equivalent for all operating conditions.
Gearbox capacity: 8" = 0.3 L, 10" = 0.5 L.

Gearbox Part No.	Oil		QTY (L.)	Comments
	Part No.	Specific.		
961085 R07	908725	80W90	0.3	CA 8" Reversible Gearbox
961086 R08			0.3	CA 10" Reversible Gearbox
961092 R03			0.5	Used on 8" CA. In crate (customer oil)
BU50510 R06			0.5	Used on 10" CA. In crate (customer oil)

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

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.

Service Interval Table and Records

Initial Start-Up Servicing

As the belt alignment is preset to run true under a condition of no load, it is important to check alignment and make adjustments, if required during the first few minutes of loaded operation.

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

#	Description	Service Procedures						
		Check	Clean	Lube	Change	Cover	Repack	Locations
Daily Maintenance (or every 8 hours)								
1	PTO Shaft			•				5
2	PTO Jack Shaft			•				
Weekly (or every 40 hours)								
3	Gearbox Oil Level (Standard)	•						
4	Gearbox Oil Level (Shiftable)	•						
5	PTO Drive Belt Tension	•						
6	Gas Engine Drive Belt Tension	•						
Every 100 Hours								
7	Sprocket/Chain Drive			•				
8	Hydraulic Winch Gearbox	•						
Annually (or every 200 hours)								
9	Wheel Bearings						•	
10	Machine		•					
Two Years (or every 400 hours)								
11	Gearbox Oil (Standard)				•			
12	Gearbox Oil (Shiftable)				•			
13	Gearbox Oil (Hydraulic Winch)				•			

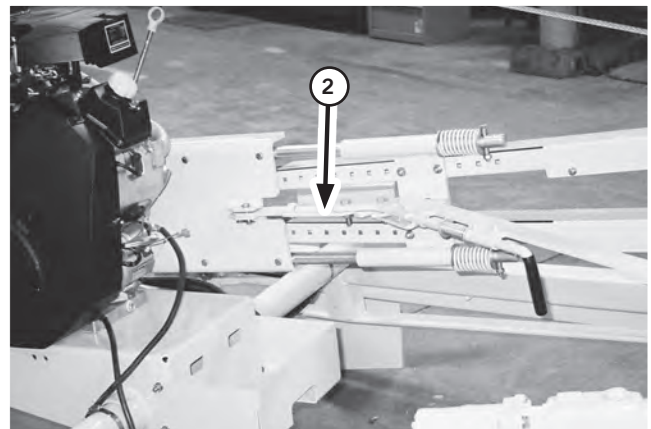
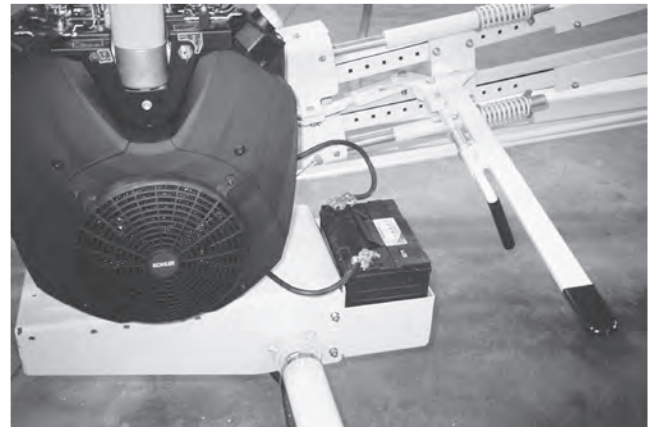
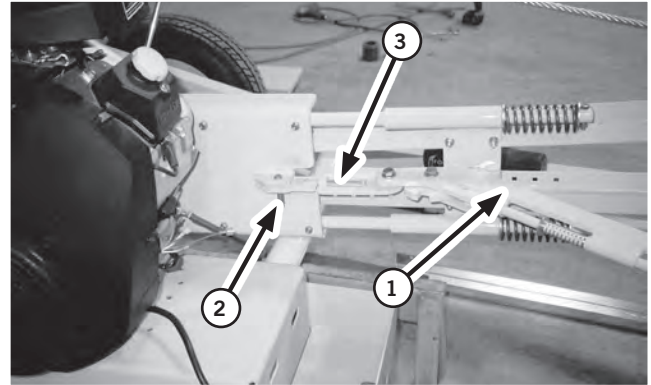
Maintenance

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

Drive Belt Tension and Alignment

To check the tension and alignment, follow this procedure:

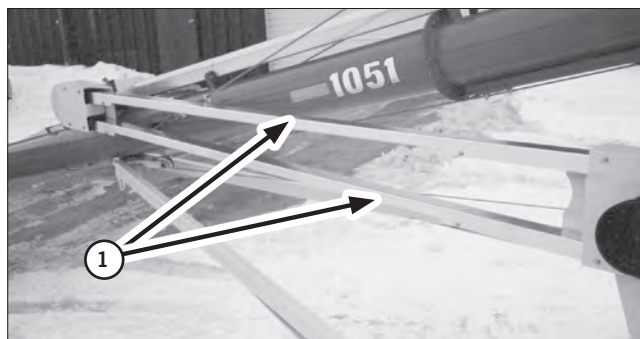
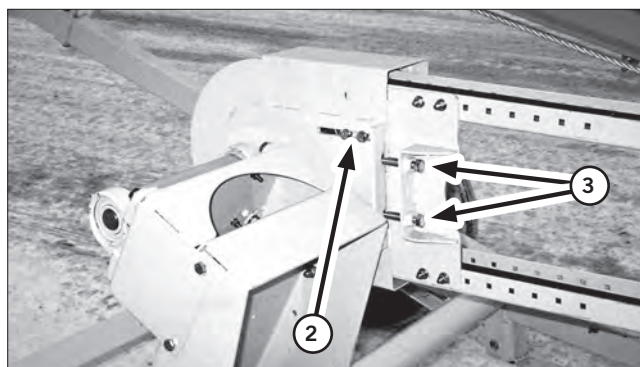
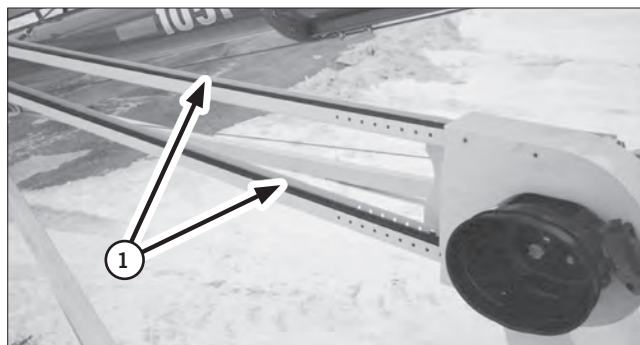
1. Clear the area of bystanders, especially small children.
2. Place all controls in neutral, stop engine, set park brake, remove ignition key and wait for all moving parts to stop.
3. The belts should not slip during operation. Tighten assembly if they slip.
4. To adjust drive belt tension (gas engine model):
 - a. Move engine engage lever (1) into its disengage position.
 - b. Remove anchor pin (2) on adjusting turnbuckle (3).
 - c. Extend turnbuckle to increase belt tension and shorten to decrease.
 - d. Install turnbuckle and secure with anchor pin and retainer.
 - e. Engage and disengage drive to check tension. Do not overtighten.
 - f. Readjust if required.



Drive Belt Tension and Alignment

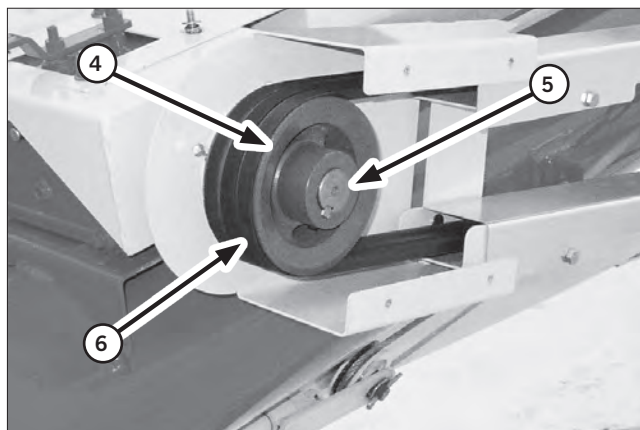
5. To adjust drive belt tension (PTO Belt Drive model):

- a. Unhook PTO shaft from tractor.
- b. Remove the guards over the top of the drive belt (1).
- c. Check the belt tension. Belt should be tight.
- d. Loosen pulley assembly anchor bolts (2).
- e. Loosen jam nuts on position bolts (3).
- f. Use the pulley assembly position bolts (3) to move the drive pulley into its required position.
- g. Tighten jam nuts on position bolts (3).
- h. Check belt tension and readjust if necessary.
- i. Tighten pulley assembly anchor bolts (2) to their specified torque.
- j. Install and secure guards over the top of the drive belt.



6. To check pulley alignment:

- a. Sight across both drive and driven pulleys (4) to check alignment.
- b. Use the tapered lock hub (5) in the center of the pulley to adjust the position of a pulley as required.
- c. Move a pulley to adjust alignment if the belts (6) run to one side or the other in their groove.

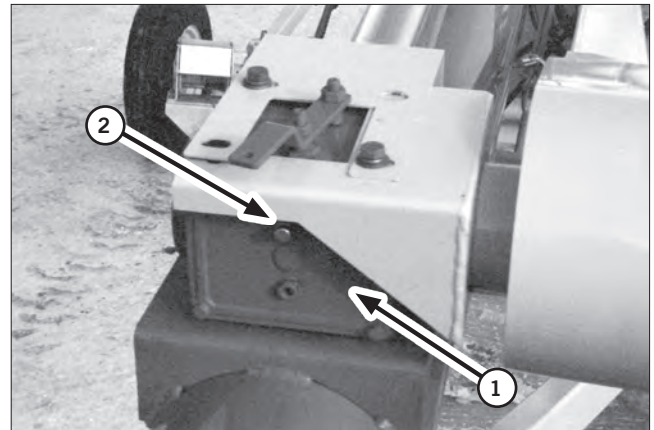
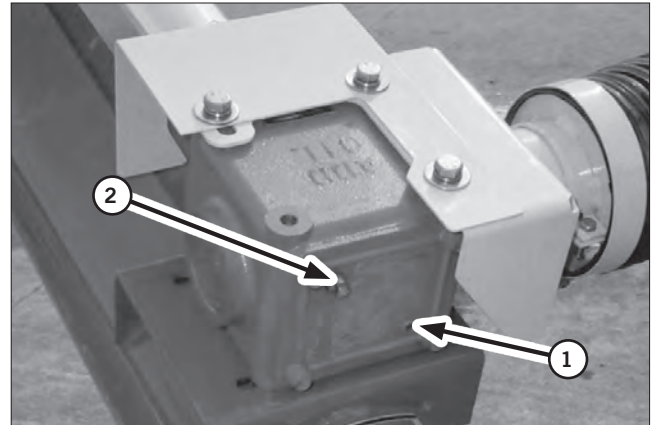


Gearbox Oil Change

Each auger is designed with a gearbox at the lower end of the shaft that provides rotational power to the top of the auger flighting. Each gearbox is equipped with a drain, level and fill plug. Every 40 hours, the oil level should be checked. Every 400 hours or two years, whichever comes first, the oil should be replaced. Check more frequently if there are leaks around any of the plugs or shaft seals.

When checking oil level or changing oil, follow this procedure:

1. Stop the machine.
2. Place all controls in their neutral or off position.
3. Stop engine and remove ignition key.
4. To check oil level:
 - a. When the gearbox is cold, remove the drain plug (1) from the side of the gearbox.
 - b. When the oil just fills the threads of the level plug hole it is at the correct level.
 - c. Add oil through the fill plug (2) as required.
 - d. Install and tighten level and fill plugs.
5. To change oil:
 - a. Run the auger until gearbox is warm. Warm oil will remove more contaminants than cold, stagnant oil.
 - b. Place pan under gearbox to catch oil and spills.
 - c. Remove drain, level and fill plugs.
 - d. Allow to drain.
 - e. Install and tighten drain plug.
 - f. Add 0.3 liters for 8" and 0.5 liters for 10" gearbox of an SAE 80W90 gear oil or equivalent as directed in adjacent table.
 - g. Check that the air passage to the breather is open.
 - h. Install and tighten level and fill plugs.
 - i. Dispose of the used oil in an environmentally safe manner.



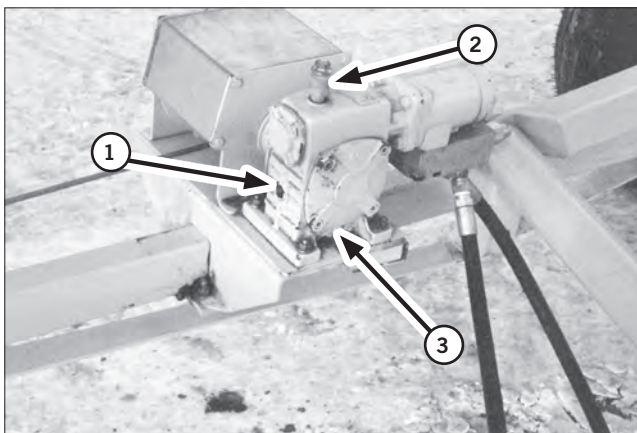
Gearbox		Oil		Comments
Part No.	Part No.	Specific.	QTY (L.)	
961085 R07	908725	80W90	0.3	CA 8" Reversible Gearbox
961086 R08			0.3	CA 10" Reversible Gearbox
961092 R03			0.5	Used on 8" CA. In crate (customer oil)
BU50510 R06			0.5	Used on 10" CA. In crate (customer oil)

Hydraulic Winch Gearbox Oil Change

Each hydraulic winch system is driven by a motor that is attached to a high ratio speed reducing gearbox to produce the required winch operating speed. Each gearbox is equipped with a drain, level and fill plug. Every 40 hours, the oil level should be checked. Every 400 hours or two years, whichever come first, the oil should be replaced. Check more frequently if there are leaks around any of the plugs or shaft seals.

When checking oil level or changing oil, follow this procedure:

1. Stop the machine.
2. Place all controls in their neutral or off position.
3. Stop engine and remove ignition key.
4. To check oil level:
 - a. When the gearbox is cold, remove the level plug (1) from the side of the gearbox.
 - b. When the oil just fills the threads of the level plug hole it is at the correct level.
 - c. Add oil through the fill plug (2) as required.
 - d. Install and tighten level and fill plugs.
5. To change oil:
 - a. Run the winch until gearbox is warm. Warm oil will remove more contaminants than cold, stagnant oil.
 - b. Place pan under gearbox to catch old oil and spills.
 - c. Remove drain (3), level (1) and fill (2) plugs.
 - d. Allow to drain.
 - e. Install and tighten drain plug.
 - f. Add 0.3 liters for 8" and 0.5 liters for 10" gearbox of an SAE 80W90 gear oil or equivalent.
 - g. Check that the air passage to the breather is open.
 - h. Install and tighten level and fill plugs.
 - i. Dispose of the oil in an environmentally safe manner.



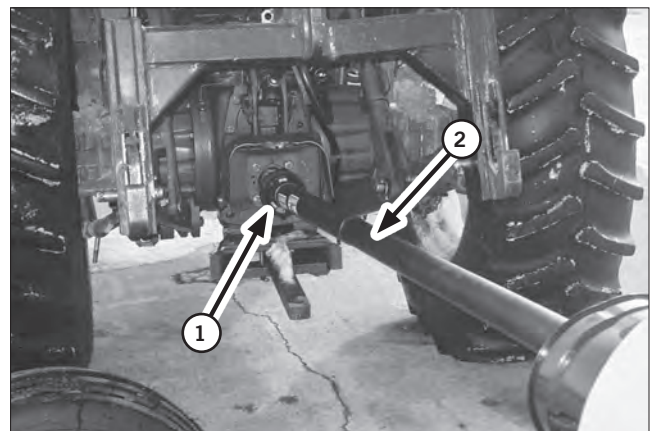
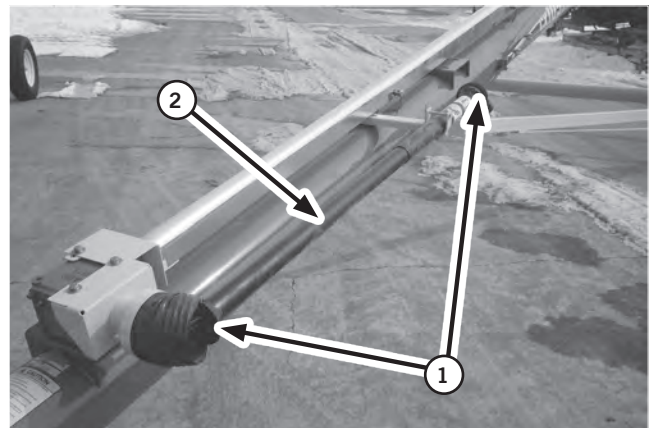
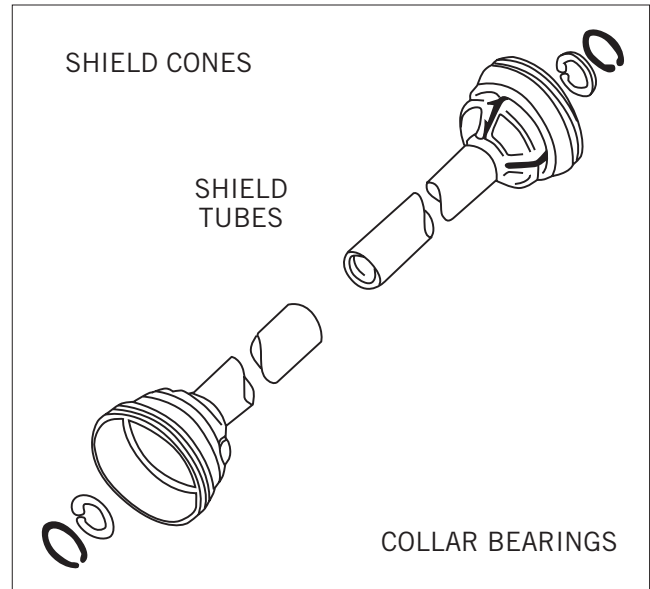
PTO Driveline Guard

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

1. Keep the cone (1) pressed down and release the collar catches by pushing in with a screw driver.
2. Spread the collar bearing and remove from the tube (2). 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 the shaft.



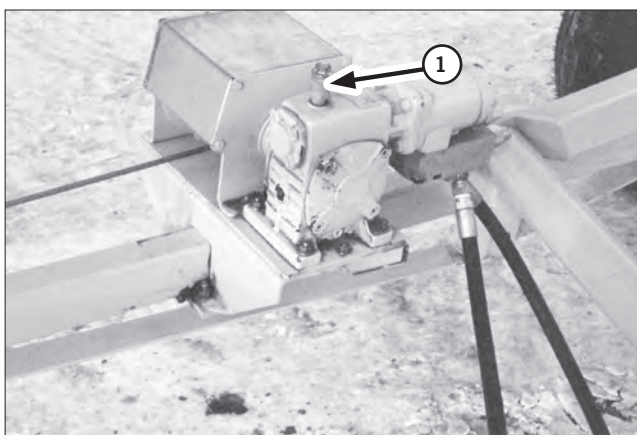
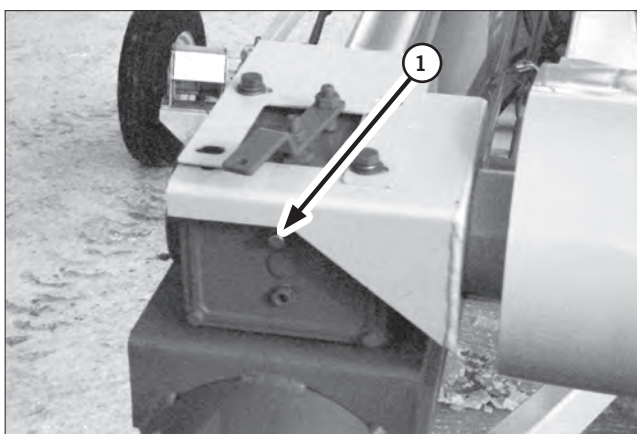
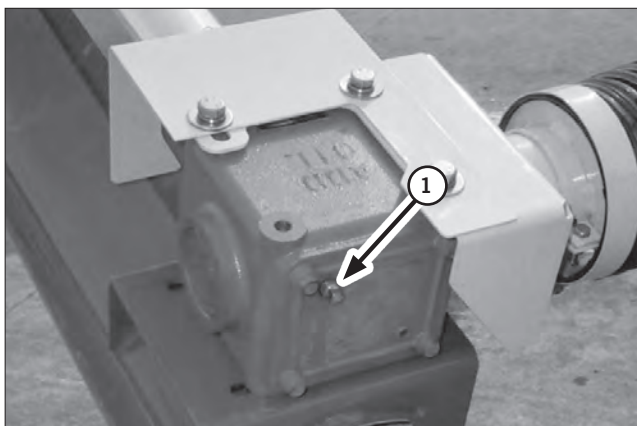
Breather Cleaning

Each gearbox is equipped with a breather that vents the internal pressure to atmosphere. As the gearbox temperature increases and decreases during the operating and stopped modes, the pressure in the gearbox will increase or decrease if it is not vented. An increase in internal pressure will cause the shaft seals to leak until the gearbox runs low or out of oil.

To check or clean the breather, follow this procedure:

1. Place all controls in their neutral or off position.
2. Stop engine and remove ignition key.
3. Remove the fill plug / breather (1) from the gearbox.
4. Check that the vent passage through the fill plug is open.
5. If blocked, soak in solvent.
6. Use a high-pressure air hose to blow the passage open. Carefully use a probe to clear the passage if the hole is caked with dirt.
7. Install and tighten the fill plug / breather.

IMPORTANT: Always clean the breather if any leaks are noticed around the shaft seals.



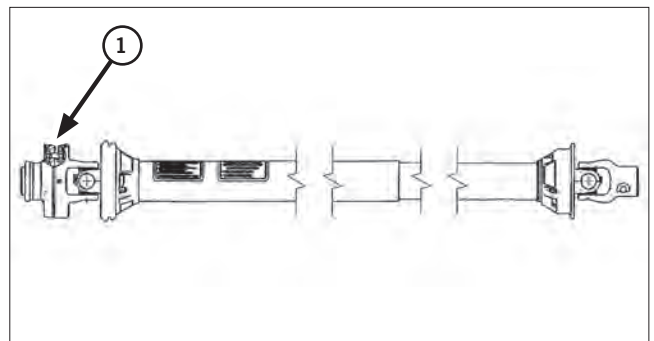
Shear Bolt

All PTO models are equipped with an input yoke that is designed with a shear bolt to protect the drive system from unexpected shock loads. Follow this procedure when a shear bolt fails.

1. Clear the area of bystanders, especially small children.
2. Place all controls in neutral, stop engine, set park brake and wait for all moving parts to stop before servicing, repairing or adjusting.
3. Disconnect driveline from tractor.
4. Remove ends of the broken bolt from the ends/sides of the yoke.

NOTE: Use a hammer and punch to remove the ends of the bolt if required but be careful not to damage the yoke.

5. Replace the shear bolt using genuine Farm King parts.
6. Tighten shear bolt (1) to its specified torque.
7. Determine the cause/source of the unexpected load and connect it or eliminate it before resuming work.



Sprocket/Chain Drive Chain Tension

Each machine is designed with a roller chain sealed gearbox (1) at the top of the auger tube to transmit rotational power to the auger flighting. The chain must be kept slightly loose to provide the expected life and performance. Check the chain tension when the flighting fails to start smoothly when power is applied.

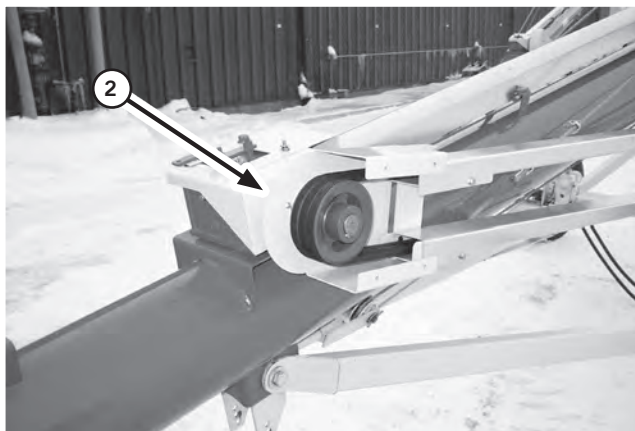
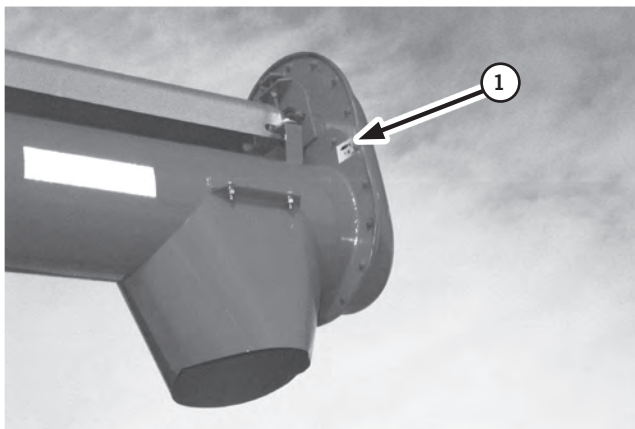
To check and adjust chain tension:

1. Stop machine.
2. Place all controls in their off or neutral position.
3. Stop engine and remove ignition key.
4. Turn the bottom gearbox (2) input shaft by hand.
5. Turn input shaft to each position where flighting starts to turn / move.

NOTE: The most convenient method is to remove the guard over the lower gearbox input shaft or pulley. Move them by hand to check tension.

6. The correct roller chain tension is achieved when the input shaft can turn between a 10° and 40° arc without turning flighting.
7. To adjust tension.
 - a. Loosen top bearing mount anchor bolts.
 - b. Loosen position bolt jam nut.
 - c. Use position bolt to move bearing mount to required position.
 - d. Check chain tension.
 - f. Tighten bearing mount anchor bolts to their specified torque.
 - g. Tighten position bolt jam nut to its specified torque.

NOTE: It may be more convenient to lower discharge end to ground level to adjust chain tension.



Troubleshooting

The Farm King CX Series Conventional Auger uses flighting to move grain or granular material from the intake to the discharge. It is a simple system that requires minimal maintenance.

In the following Trouble Shooting section, we have listed many of the problems, causes and solutions that can help you to solve the problems that you might encounter.

If you encounter a problem that is difficult to solve, even after having read through this trouble shooting section, please call your local Farm King dealer or distributor. Before you call, please have this Operator's Manual and the serial number of your machine at hand.

Problem	Possible Cause	Correction	Prevention
Auger will not run.	No power.	Move engage / disengage lever into position.	Always make sure engage / disengage lever is in position.
		Start gas engine or tractor and engage control.	Ensure gas engine or tractor is running and control engaged.
	Drive belt loose.	Adjust drive belt tension.	Check drive belt tension regularly.
	No fuel.	Refuel gas engine or tractor.	Check fuel level regularly.
	Broken shear bolt.	Replace shear bolt.	Inspect PTO shear bolts regularly.
Low capacity.	Auger frame angle is too steep.	Reposition to lower tube slope angle.	Check positioning before starting operation.
	Drive belt slipping.	Adjust drive belt tension.	Check drive belt tension regularly.
	Incorrect speed.	Increase speed to rated rpm.	Check speed settings.
	Low volume.	Keep hopper full.	Check hopper regularly.
Flighting won't turn.	Seized bearing.	Replace damaged bearing.	Check all bearings regularly.
	Flighting jammed.	Remove any foreign objects jammed in the flighting area.	Inspect flighting area for any foreign objects on a regular basis.

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General Dimensions

Table 2

Model	CX841	CX851	CX861	CX1041	CX1051	CX1061
Recommended HP	16	20	24	28	32	38
Capacity (bu/hr) ¹	-	-	-	4400	4400	4400
Rim Size	15"	15"	15"	15"	15"	15"
Hub Type	5 bolt	5 bolt	5 bolt	5 bolt	5 bolt	5 bolt
Fuel Tank Capacity ²	6.5 US gal	6.5 US gal	6.5 US gal	6.5 US gal	6.5 US gal	6.5 US gal
Lower Tube Reach	12' 2"	13' 0"	13' 2"	10' 5"	12' 10"	13' 0"
Maximum Spout Height ³	28' 3"	35' 2"	42' 0"	28' 3"	35' 2"	42' 0"

¹ Capacity will vary with field conditions. Tested on wheat, - 12.5% moisture using CX1041 model.

² Fuel/Oil tanks are supplied with gas engine configuration only.

³ Tube reach is measured along the auger tube, from the tip of the intake guard to the gearbox on the engine drive configurations.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Hardware Torque Values

Check the tightness of hardware periodically.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware on the auger.

IMPORTANT: DO NOT use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Make sure fastener threads are clean and not damaged.

IMPORTANT: Ensure the torque wrench that is being used is calibrated to specs.

NOTE: A torque wrench is necessary to properly tighten hardware.

Minimum Hardware Tightening Torques for Metric Bolt Sizes

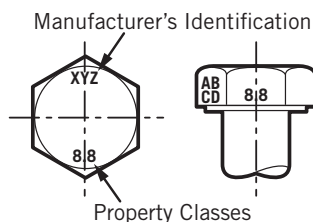
In newton-meters (foot pounds) for normal assembly applications.

Metric Hardware and Locknuts

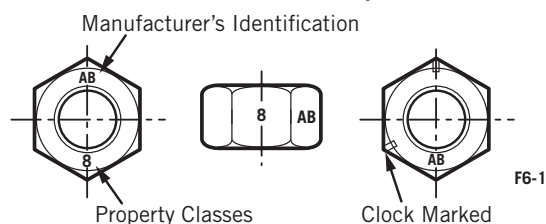
Nominal Size	Class 5.8		Class 8.8		Class 10.9		Locknut CL.8 w/ CL8.8 Bolt
	Unplated	Plated w/zncr	Unplated	Plated w/zncr	Unplated	Plated w/zncr	
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)
M8	14 (124*)	18 (159*)	22 (195*)	28 (248*)	31 (274*)	40 (354*)	15 (133*)
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	30 (22)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	53 (39)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	131 (97)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	265 (195)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	458 (338)

NOTE: Torque values shown with* are inch pounds.

Identification of Hex Cap Screws and Carriage Bolts - Classes 5, 6 and Up



Hex Nuts and Locknuts Classes 05 and Up



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

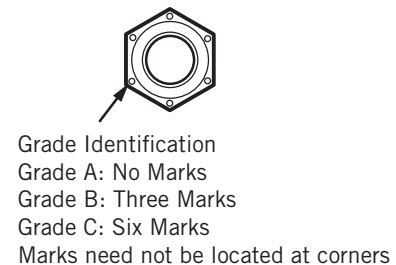
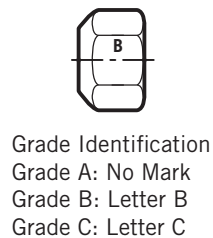
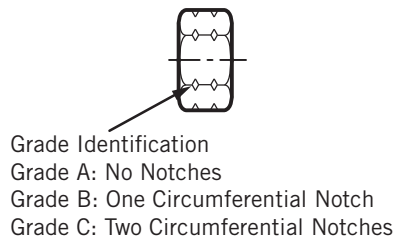
Minimum Hardware Tightening Torques for Imperial Bolt Sizes

In **newton-meters (foot pounds)** for normal assembly applications.

Inch Hardware and Locknuts

Nominal Size	SAE Grade 2		SAE Grade 5		SAE Grade 8		Locknuts	
	Unplated or Plated Silver	Plated w/zncr Gold	Unplated or Plated Silver	Plated w/zncr Gold	Unplated or Plated Silver	Plated w/zncr Gold	GR.B w/GR5 Bolts	GR.C w/GR5 Bolts
1/4	6.2 (55*)	8.1 (72*)	9.7 (86*)	13 (112*)	14 (121*)	18 (157*)	6.9 (61*)	9.8 (86*)
5/16	13 (115*)	17 (149*)	20 (178*)	26 (229*)	28 (250*)	37 (324*)	14 (125*)	20 (176*)
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	26 (19)	35 (26)
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	41 (30)	57 (42)
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	61 (45)	88 (64)
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	88 (65)	125 (92)
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	122 (90)	172 (127)
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	217 (160)	306 (226)
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	350 (258)	494 (364)
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	523 (386)	739 (545)

NOTE: Torque values shown with * are inch pounds.

Identification of Hex Cap Screws and Carriage Bolts**Locknuts**

F6-2

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Fittings and Hose/Tube Connection Torque Values for Imperial Sizes

Check the tightness of all fittings and hose/tube connections periodically.

Use the following charts to determine the correct torque when checking, adjusting or replacing fittings, hoses, and tubes.

IMPORTANT: DO NOT use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Minimum Hardware Tightening Torques for Imperial Fittings, Hose and Tube Connections

In newton-meters (foot pounds) for normal assembly applications.

Torque Requirements for all Flare Fittings

Thread Size	Torque (N·m)	Torque (ft-lb)
7/16 - 20	14	10
1/2 - 20	19	14
9/16 - 18	22	16
3/4 - 16	42	31
7/8 - 14	64	47
1 1/16 - 12	94	69
1 3/16 - 12	110	82
1 5/16 - 12	150	110
1 5/8 - 12	195	140

Torque Requirements for all SAE O-ring Fittings

Thread Size	Torque (N·m)	Torque (ft-lb)
7/16 - 20	9	7
1/2 - 20	14	10
9/16 - 18	19	14
3/4 - 16	29	21
7/8 - 14	40	29
1 1/16 - 12	80	59
1 3/16 - 12	90	66
1 5/16 - 12	100	74
1 5/8 - 12	150	110

Torque Requirements for all

O-ring Face Seal Fittings

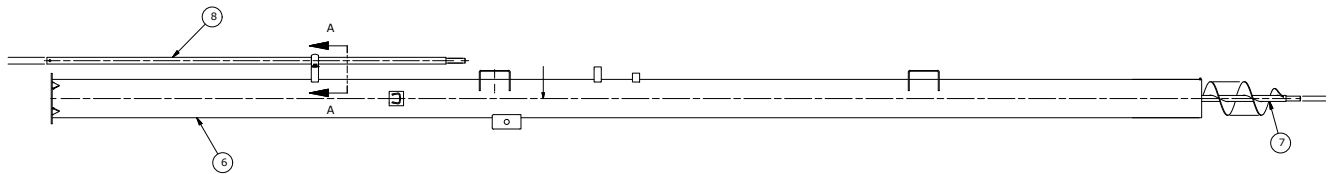
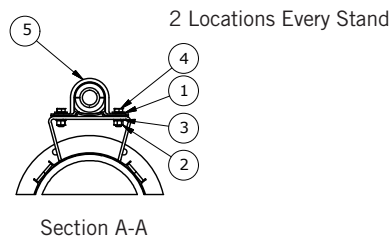
Thread Size	Torque (N·m)	Torque (ft-lb)
9/16 - 18	14	10
11/16 - 16	25	18
13/16 - 16	46	33
1 - 14	65	48
1 3/16 - 12	95	70
1 7/16 - 12	132	97
1 11/16 - 12	175	129
2 - 12	224	165

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

CX Conventional Auger Parts

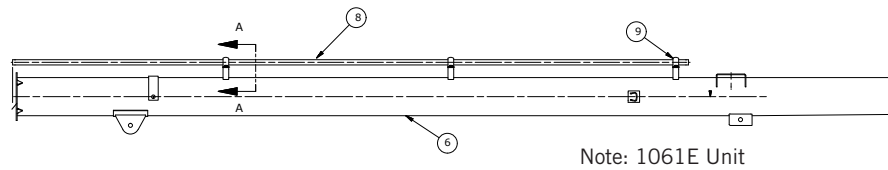
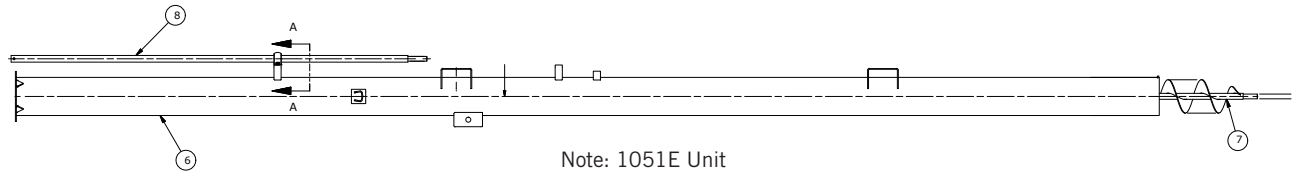
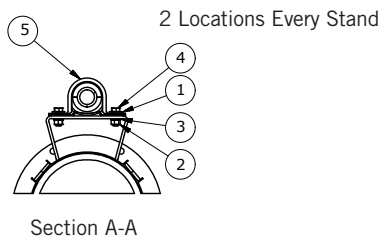
Legend

Abbreviation	Definition
SECT	Section
WELDT	Weldment
FLTG	Flighting
EXT	Extension
BRG	Bearing
CLEV	Clevis
BDGING	Bridging
ASSY	Assembly
GR	Grade
A/R	As Required
SCR	Screw
HNGR	Hanger
HLDR	Holder
CPLR	Coupler
CPLG	Coupling
GBOX	Gearbox
SQ	Square
SHFT	Shaft
BRKT	Bracket
CARR	Carriage
DBL	Double
TRPL	Triple

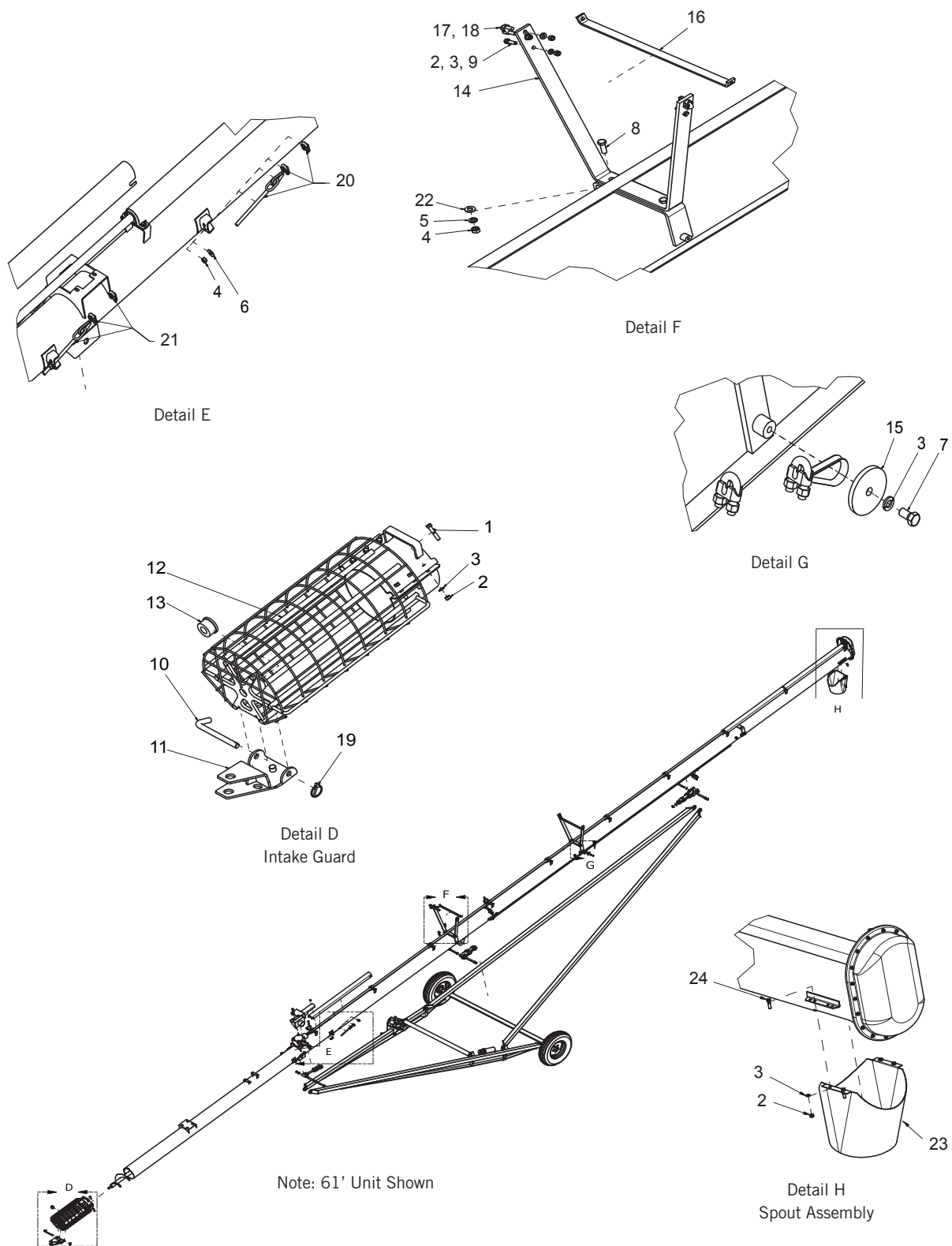


Note: 851E Unit Shown

			CX841D/E/P	CX851D	CX851E/P	CX861D
Item	Part #	Description	Qty	Qty	Qty	Qty
1	81570	Washer Flat Std 3/8" (PI)	-	4	2	8
2	81592	Nut Hex 3/8" (PI)	-	4	2	8
3	81593	Lock Washer 3/8" (PI)	-	4	2	8
4	86170	Bolt Hex 3/8" X 1.00 Gr5 (PL)	-	4	2	8
5	960789	Wooden Bearing (1-3/8")	-	2	1	4
6	912949	Bottom Section Weldt 8"X41'	1	-	-	-
6	913328	Bottom Section Weldt 8"X51'	-	1	1	-
6	913644	Bottom Sect Weld 8" X 61'	-	-	-	1
7	912950	Bottom Sect Fltg Weldt 8"X41'	1	-	-	-
7	913335	Bottom Sect Fltg Weldt 8"X51'	-	1	1	-
7	913647	Bottom Sect Fltg Weldt 8"X61'	-	-	-	1
8	913333	Driveline Weldt Ext 8"X51' D	-	1	-	-
8	913373	Driveline Weldt Ext 851 E/P	-	-	1	-
8	913649	Driveline Ext Weldt 8"X61' D	-	-	-	1

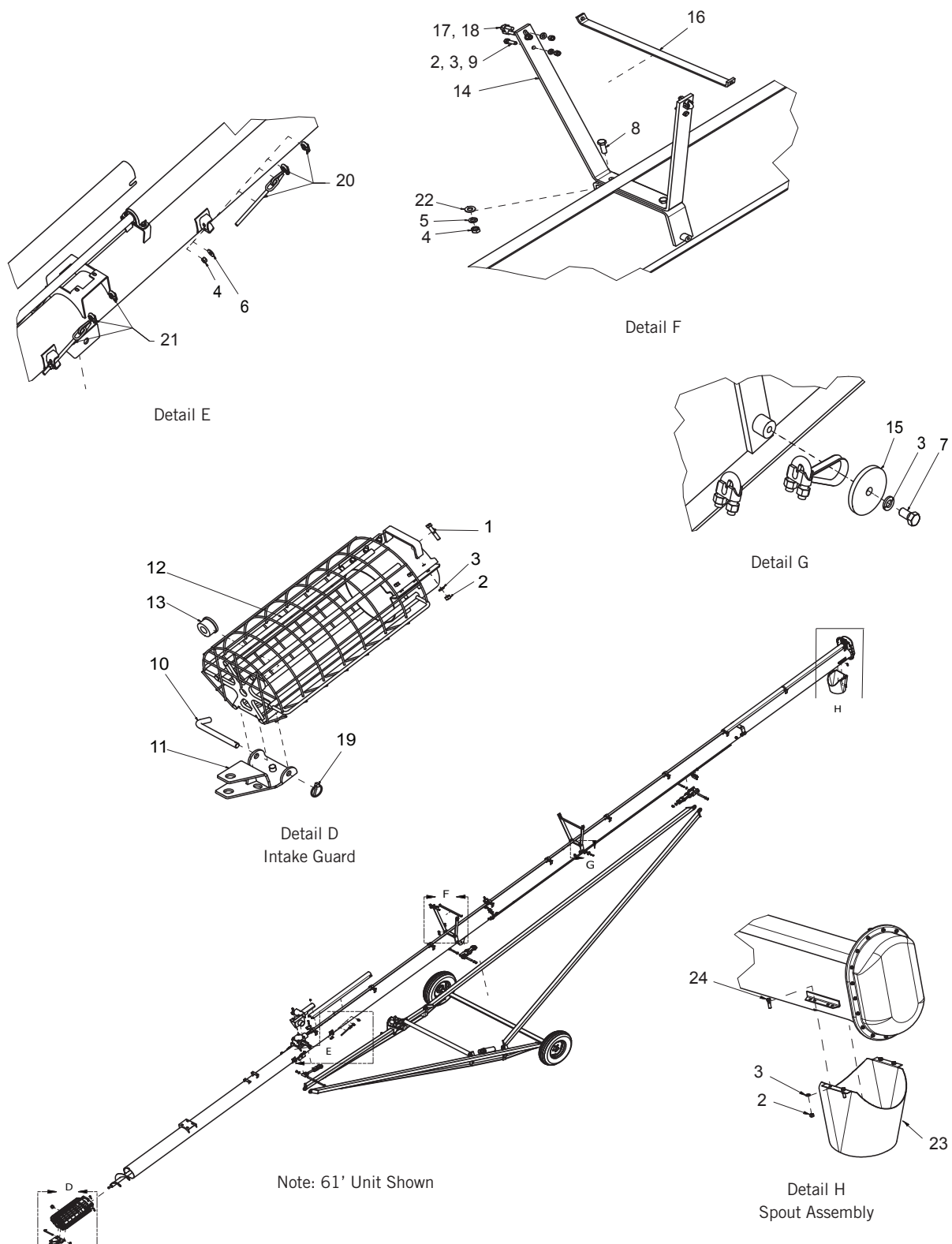


			CX1041D/E/P	CX1051D	CX1051E/P	CX1061D	CX1061E
Item	Part #	Description	Qty	Qty	Qty	Qty	Qty
1	81570	Washer Flat Std 3/8" (PI)	-	4	4	8	6
2	81592	Nut Hex 3/8" (PI)	-	4	4	8	6
3	81593	Lock Washer 3/8" (PI)	-	4	4	8	6
4	86170	Bolt Hex 3/8" X 1.00 Gr5 (PL)	-	4	4	8	6
5	960789	Wooden Bearing (1-3/8")	-	2	2	4	2
6	912237	Bottom Section Weldt 10"X41'	1	-	-	-	-
6	912239	Bottom Section Weldt 10"X51'	-	1	1	-	-
6	912241	Bottom Sect Weld 10" X 61'	-	-	-	1	1
7	912175	Bottom Sect Fltg Weldt 10"X41'	1	-	-	-	-
7	912176	Bottom Sect Fltg Weldt 10X51'	-	1	1	-	-
7	912177	Bottom Sect Fltg Weldt 10"X61'	-	-	-	1	1
8	912968	Driveline Tube Ext 1051D	-	1	-	-	-
8	912512	Driveline Tube Ext 1051E/P	-	-	1	-	-
8	912507	Driveline Tube Ext 1061D	-	-	-	1	-
8	913708	Driveline Tube Ext 1061E	-	-	-	-	1
9	912292	Flange Only 1 3/8" Wooden Brg	-	-	-	-	1

Bridging Assembly, Intake Guard & Spout Assembly 8"

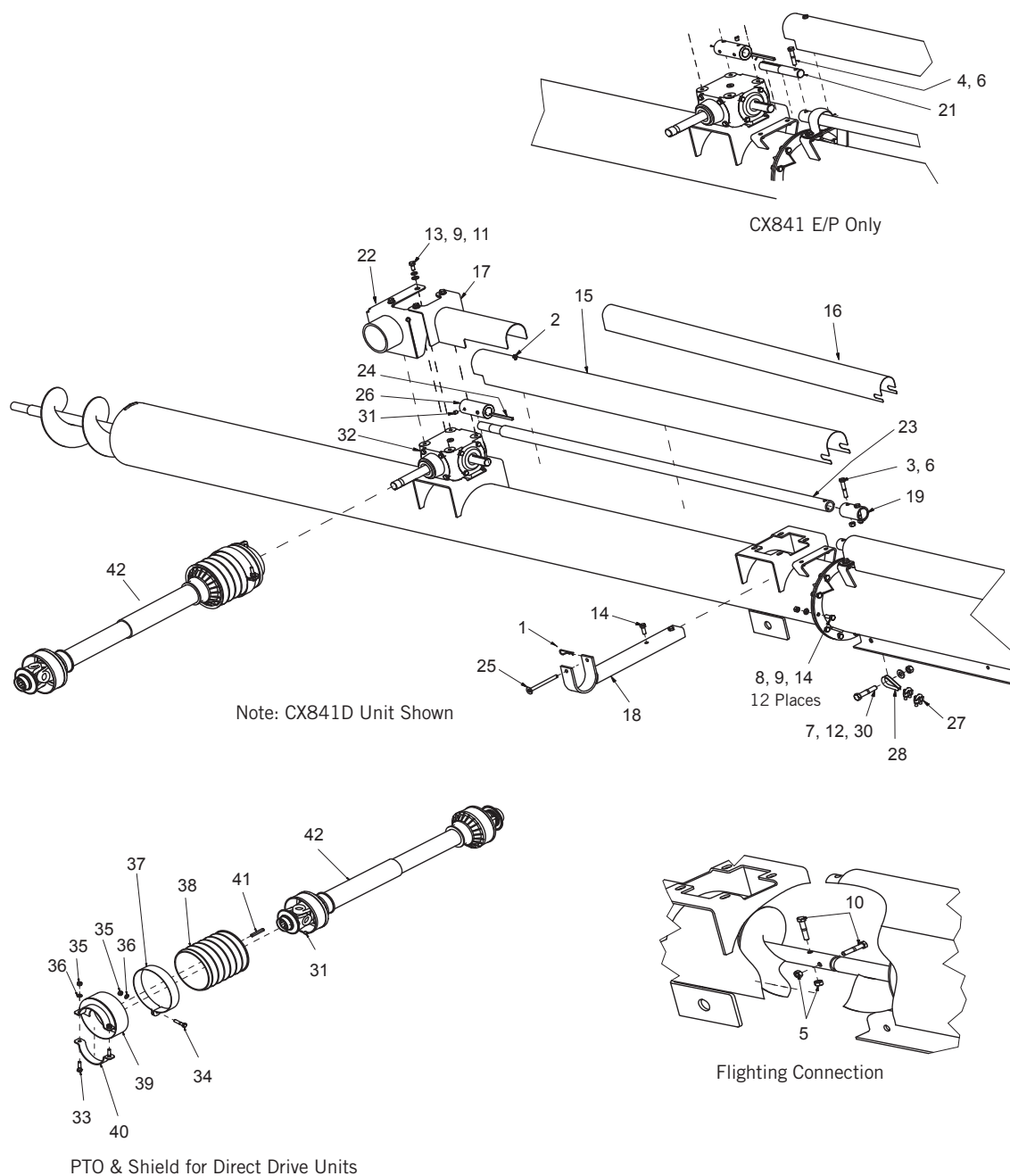
Bridging Assembly, Intake Guard & Spout Assembly 8"

			CX841D	CX841E/P	CX851D	CX851E/P	CX861D
Item	Part #	Description	Qty	Qty	Qty	Qty	Qty
1	811795	3/8" X 2" HEX BOLT (PL)	A/R	A/R	A/R	A/R	A/R
2	81592	3/8" HEX NUT (PL)	A/R	A/R	A/R	A/R	A/R
3	81593	3/8" LOCK WASHER (PL)	A/R	A/R	A/R	A/R	A/R
4	81636	1/2" HEX NUT (PL)	-	-	A/R	A/R	A/R
5	81637	1/2" LOCK WASHER (PL)	-	-	A/R	A/R	A/R
6	81638	1/2" BS FLAT WASHER (PL)	-	-	2	2	4
7	84072	3/8" X 3/4" HEX BOLT (PL)	-	-	A/R	A/R	A/R
8	84277	1/2" X 1 1/2" HEX BOLT (PL)	-	-	2	2	4
9	86171	3/8" X 1 1/4" HEX BOLT (PL)	-	-	2	2	4
10	903246	CLEV PIN 5/8" X 9"	1	1	1	1	1
11	903248	CLEVIS WELDMENT	1	1	1	1	1
12	912976	INTAKE WELDMENT 8"	1	1	1	1	1
13	913424	BEARING WOOD INTAKE	1	1	1	1	1
14	913428	BRIDGING BRACKET	-	-	1	1	2
15	960495	INPUT BOX RING CLAMP	-	-	2	2	4
16	961532	3/16" X 1" X 20" BDGING BRACE	-	-	1	1	2
17	964001	1" X 7/16" X 10GA FLAT WASHER (PL)	-	-	4	4	8
18	964264	3/8" CABLE CLAMP	-	-	2	2	4
19	966729	3/16" LINCH PIN (PL)	1	1	1	1	1
20	913824	ASSY-CABLE BRIDGING 51'	-	-	2	2	-
20	913825	ASSY-CABLE BRIDGING SHORT 61'	-	-	-	-	2
21	913826	ASSY-CABLE BRIDGING LONG 61'	-	-	-	-	2
22	84048	1/2" SAE FLAT WASHER (PL)	-	-	2	2	4
23	F9047	DISCHARGE SPOUT	1	1	1	1	1
24	811792	3/8" X 1-1/2" HEX BOLT GR 5 (PL)	4	4	4	4	4

Bridging Assembly, Intake Guard & Spout Assembly 10"

Bridging Assembly, Intake Guard & Spout Assembly 10"

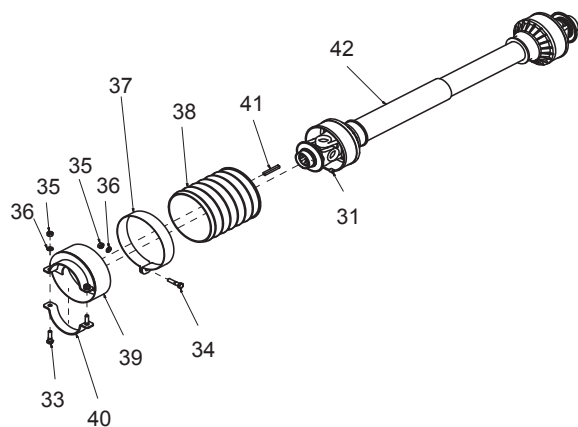
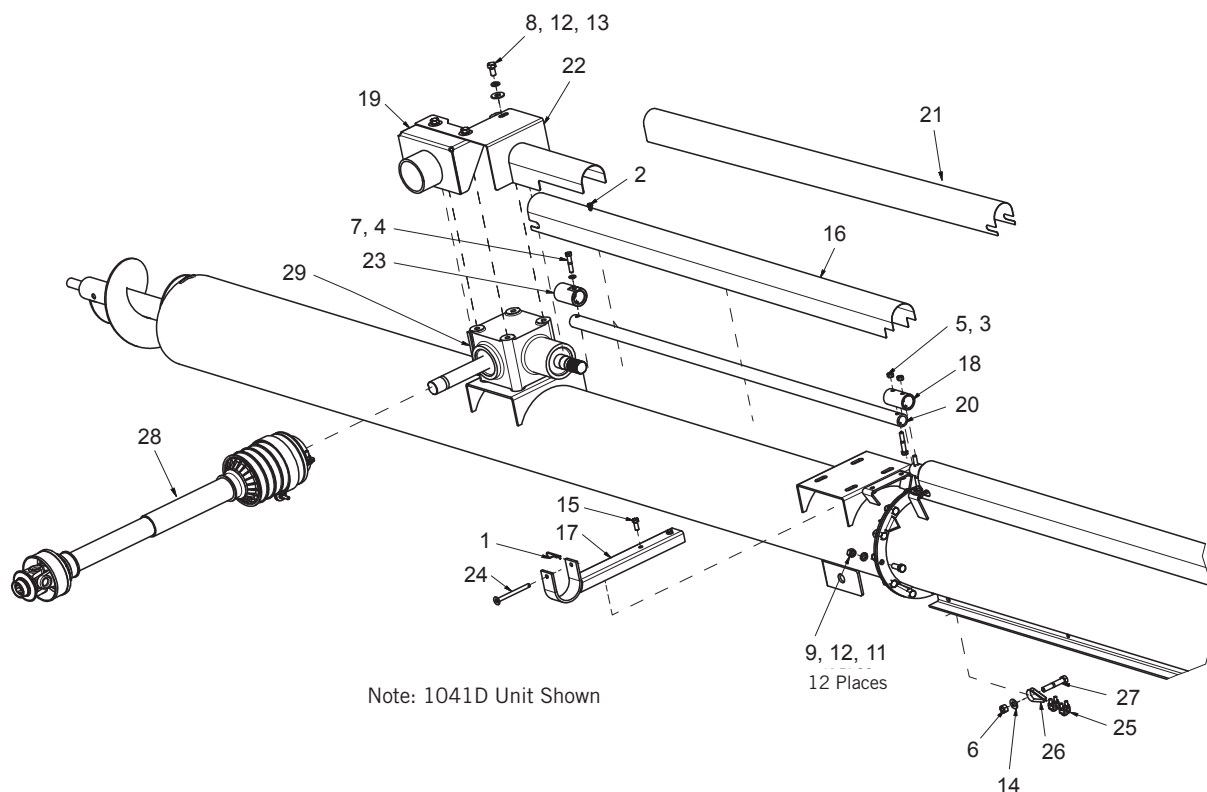
			CX1041D	CX1041E/P	CX1051D	CX1051E/P	CX1061D	CX1061E
Item	Part #	Description	Qty	Qty	Qty	Qty	Qty	Qty
1	811795	3/8" X 2" HEX BOLT (PL)	A/R	A/R	A/R	A/R	A/R	A/R
2	81592	3/8" HEX NUT (PL)	A/R	A/R	A/R	A/R	A/R	A/R
3	81593	3/8" LOCK WASHER (PL)	A/R	A/R	A/R	A/R	A/R	A/R
4	81636	1/2" HEX NUT (PL)	-	-	A/R	A/R	A/R	A/R
5	81637	1/2" LOCK WASHER (PL)	-	-	A/R	A/R	A/R	A/R
6	81638	1/2" BS FLAT WASHER (PL)	-	-	9	9	11	11
7	84072	3/8" X 3/4" HEX BOLT (PL)	-	-	A/R	A/R	A/R	A/R
8	87553	1/2" X 1.75 GR5 (PL) HEX BOLT	-	-	14	14	16	16
9	86171	3/8" X 1 1/4" HEX BOLT (PL)	-	-	2	2	4	4
10	903293	CLEVIS PIN 5/8" X 10.5" 10"Ca	1	1	1	1	1	1
11	903294	CLEVIS WELDMENT	1	1	1	1	1	1
12	912977	INTAKE WELDMENT 10	1	1	1	1	1	1
13	913424	BEARING WOOD INTAKE	1	1	1	1	1	1
14	962013	BRIDGING YOKE	-	-	1	1	2	2
15	960495	INPUT BOX RING CLAMP	-	-	2	2	4	4
16	962014	3/16" X 1" X 23" BDGING TIE BAR	-	-	1	1	2	2
17	84039	3/8" FLAT WASHER	-	-	4	4	9	9
18	964264	3/8" CABLE CLAMP	-	-	2	2	4	4
19	966729	3/16" LINCH PIN (PL)	1	1	1	1	1	1
20	913824	ASSY-CABLE BRIDGING 51'	-	-	2	2	-	-
20	913825	ASSY-CABLE BRIDGING SHORT 61'	-	-	-	-	2	2
21	913826	ASSY-CABLE BRIDGING LONG 61'	-	-	-	-	2	2
22	84048	1/2" SAE FLAT WASHER (PL)	-	-	2	2	4	4
23	F9047	DISCHARGE SPOUT	1	1	1	1	1	1
24	811792	3/8" X 1-1/2" HEX BOLT GR 5 (PL)	4	4	4	4	4	4



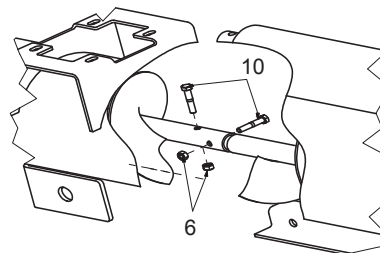
Item	Part#	Description	CX841D	CX851D	CX861D	CX841E/P	CX851E/P
1	12780	#7 HAIR PIN CLIP	1	1	1	-	-
2	81007	SCR HEX SELF DRILLING 1/4" X 3/4"	1	1	1	1	1
3	810958	3/8" X 2 1/4" HEX BOLT (PL)	2	2	2	-	2
4	811795	3/8" X 2" HEX BOLT (PL)	-	-	-	1	-
5	812362	5/16" LOCK NUT (PL)	2	2	2	2	2
6	812363	3/8" LOCK NUT (PL)	2	2	2	1	2
7	812364	1/2" LOCK NUT (PL)	1	1	-	1	1
8	81592	3/8" HEX NUT (PL)	CX841D	CX851D	CX861D	CX841E/P	CX851E/P

Driveline, Direct PTO, Gearbox & Connections 8"

Item	Part#	Description	CX841D	CX851D	CX861D	CX841E/P	CX851E/P
9	81593	3/8" LOCK WASHER (PL)	A/R	A/R	A/R	A/R	A/R
10	81925	HEX BOLT 5/16" X 1 3/4" (PL)	2	2	2	2	2
11	84039	3/8" FLAT WASHER (PL)	2	2	2	2	2
12	84048	1/2" SAE FLAT WASHER (PL)	1	1	-	1	1
13	84072	3/8" X 3/4" HEX BOLT (PL)	2	2	2	2	2
14	86170	3/8" X 1" HEX BOLT GR.5 (PL)	A/R	A/R	A/R	A/R	A/R
15	912225	DRIVELINE SHIELD	7	9	10	6	7
16	912307	DRIVELINE SHIELD	-	-	1	-	-
16	913334	DRIVELINE SHIELD EXT	-	-	-	-	1
17	912296	EXTENSION SHIELD HOLDER WELDT 8"	1	1	1	1	1
18	912445	PTO HNGR WELDT	1	1	1	-	-
19	912508	DRIVELINE CPLR	1	1	1	-	1
21	913379	SHAFT-STUB-DRIVELINE CPLR	-	-	-	1	-
22	913433	ASSY-GEARBOX BRACKET	1	1	1	1	1
23	913454	SHAFT-DRIVE LINE EXT WELDMNT 841D	1	See Bottom Tube Section			
24	961155	1/4" X 1/4" X 3 1/2" CPLG TUBE KEY	1	1	1	1	1
25	961539	PTO HLDR PIN WELDT	1	1	1	-	-
26	961611	GBOX CPLG 3/8" X 1 3/4" X 4"	1	1	1	1	1
27	961763	5/16" CABLE CLAMP	2	2	-	2	2
28	964267	3/8" CABLE THIMBLES	1	1	-	1	1
30	9812368	1/2" X 2 3/4" GR8 HEX BOLT (PL)	1	1	-	1	1
31	988999	3/8" X 3/8" SOCKET SET SCREW (BR)	3	3	3	2	2
32	961092	GEARBOX ASSY (S-242510)	1	1	1	1	1
32	961085	GEARBOX REV SHIFT	1	1	1	1	1
33	81552	5/16" X 1 1/4" HEX BOLT (PL)	2	2	2	-	-
34	81553	5/16" X 1 1/2" HEX BOLT (PL)	1	1	1	-	-
35	81568	5/16" HEX NUT (PL)	3	3	3	-	-
36	81569	5/16" LOCK WASHER PL	3	3	3	-	-
37	961200	GUARD CLAMP	1	1	1	-	-
38	961201	6"OD X 6 1/2" PTO GUARD	1	1	1	-	-
39	961202	PTO GUARD WELDT	1	1	1	-	-
40	961896	BELT GUARD CLAMP	1	1	1	-	-
41	968811	1/4" SQ X 2" KEY	1	1	1	-	-
42	F0444	PTO SHAFT 8" CA	1	1	1	1	1



PTO & Shield for Direct Drive Units

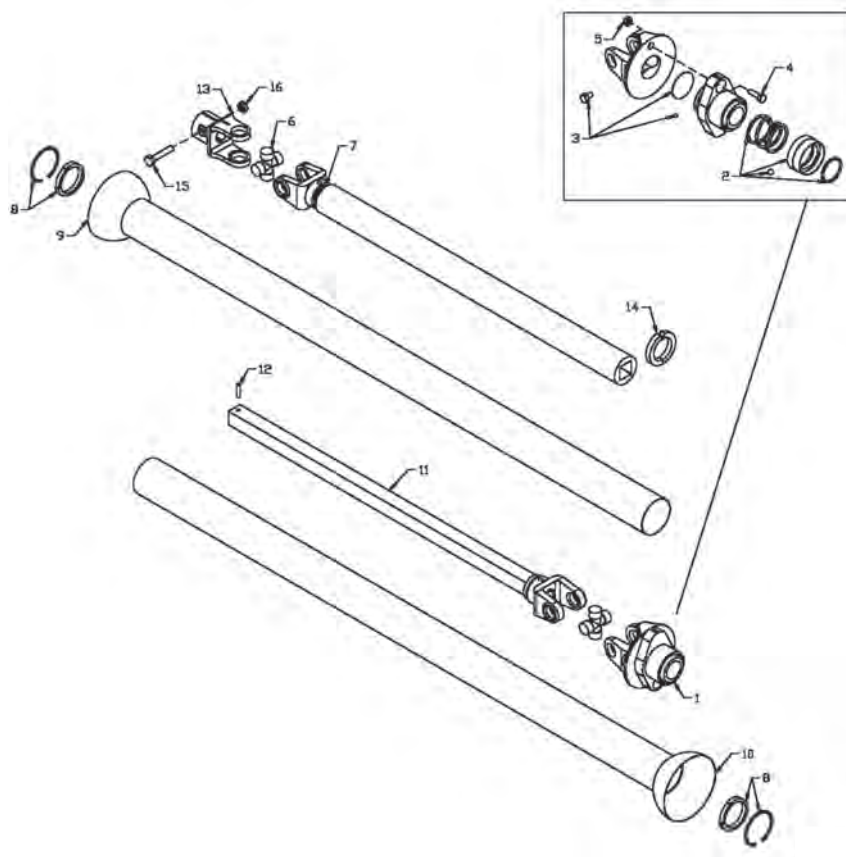


Flighting Connection

Item#	Parts	Description	CX1041D	CX1051D	CX1061D	CX1041E/P	CX1051E/P	CX1061E
1	12780	#7 HAIR PIN CLIP	1	1	1	-	-	-
2	81007	SCR HEX SELF DRILLING 1/4" X 3/4"	1	1	1	1	1	1
3	810958	3/8" X 2 1/4" HEX BOLT (PL)	3	3	3	-	3	3
4	811795	3/8" X 2" HEX BOLT (PL)	7	7	7	7	7	7
5	812363	3/8" LOCK NUT (PL)	2	2	2	-	2	2
6	812364	1/2" LOCK NUT (PL)	3	3	2	3	3	2

Driveline, Direct PTO, Gearbox & Connections 10"

Item#	Parts	Description	CX1041D	CX1051D	CX1061D	CX1041E/P	CX1051E/P	CX1061E
7	81593	3/8" LOCK WASHER (PL)	A/R	A/R	A/R	A/R	A/R	A/R
8	81619	1/2" X 1" HEX BOLT (PL)	7	7	7	7	7	7
9	81620	1/2" X 1 1/4" HEX BOLT PL	A/R	A/R	A/R	A/R	A/R	A/R
10	81627	1/2" X 3" HEX BOLT (PL)	-	2	2	-	2	2
10	81628	1/2" X 3 1/4" HEX BOLT (PL)	2	-	-	2	-	-
11	81636	1/2" HEX NUT (PL)	A/R	A/R	A/R	A/R	A/R	A/R
12	81637	1/2" LOCK WASHER (PL)	A/R	A/R	A/R	A/R	A/R	A/R
13	81638	1/2" BS FLAT WASHER (PL)	7	9	11	7	9	11
14	84048	1/2" SAE FLAT WASHER (PL)	1	3	-	1	3	-
15	86170	3/8" X 1" HEX BOLT GR.5 (PL)	4	5	4	-	-	-
16	912225	DRIVELINE SHIELD	7	9	11	6	7	9
17	912445	PTO HNGR WELDT	1	1	1	-	-	-
18	912508	DRIVELINE CPLR	1	1	1	-	1	1
19	912774	ASSY-GEARBOX BRKT 10"	1	1	1	1	1	1
20	912982	DRIVELINE TUBE	1	See Bottom Tube Section				
21	913334	DRIVELINE SHIELD EXT	-	-	-	-	1	-
22	913501	EXTENSION SHIELD HOLDER WELDT 10"	1	1	1	1	1	1
23	915549	GEARBOX COUPLER	1	1	1	1	1	1
24	961539	PTO HLDR PIN WELDT	1	1	1	-	-	-
25	961763	5/16" CABLE CLAMP	2	2	-	2	2	-
26	964267	3/8" CABLE THIMBLES	1	1	-	1	1	-
27	9812368	1/2" X 2 3/4" GR 8 HEX BOLT (PL)	1	1	-	1	1	-
28	F0466	PTO SHAFT 1 1/2" Bore 10" DIRECT	1	1	1	-	-	-
29	BU50510	GEARBOX ASSY 10"	1	1	1	1	1	1
29	961086	GEARBOX REV SHIFT	1	1	1	1	1	1
32	988999	3/8" X 3/8" SOCKET SET SCREW (BR)	1	1	1	-	-	-
33	81552	5/16" X 1 1/4" HEX BOLT (PL)	2	2	2	-	-	-
34	81553	5/16" X 1 1/2" HEX BOLT (PL)	1	1	1	-	-	-
35	81568	5/16" HEX NUT (PL)	3	3	3	-	-	-
36	81569	5/16" LOCK WASHER PL	3	3	3	-	-	-
37	961200	GUARD CLAMP	1	1	1	-	-	-
38	961201	6"OD X 6 1/2" PTO GUARD	1	1	1	-	-	-
39	961202	PTO GUARD WELDT	1	1	1	-	-	-
40	961896	BELT GUARD CLAMP	1	1	1	-	-	-
41	965814	3/8" X 3/8" X4-1/4" FAN SHFT KEY	1	1	1	-	-	-



Item	Part#	Description	Qty
	F0444	Shaft Complete	1
1	936308	Shear Assembly	1
2	936168	Spring-Lok Repair Kit	1
		(Collar, Spring, Ret. Ring, 2-2/8" Balls)	
3	936249	Shear Assembly Repair Kit	1
		(3/8" X 1/2" Bolt, Blank, 24-1/4" Balls	
4	812026	5/16" X 1" Shear Bolt (Gr 5) - one required	1
5	812362	5/16" Lock Nut	1
6	906547	Repair Kit	1
7	936309	Yoke & Tube	1
8	936387	Bearing & Snap Ring Kit	2
9	908951	Inner Guard	1
10	907399	Outer Guard	1
11	936314	Yoke & Shaft	1
12	936315	1/4" X 1" Roll Pin	1
13	936374	Clamp Yoke	1
14	936316	Shield Bearing	1
15	811795	3/8" X 2" Hex Bolt	1
16	812363	3/8" Lock Nut	1

F0444, F0466, F0467 PTO Shafts

Item	Part#	Description	Qty
	F0466	Shaft Complete	1
1	936324	Shear Assembly	1
2	936168	Spring-Lok Repair Kit	1
		(Collar, Spring, Ret. Ring, 2-2/8" Balls)	
3	936249	Shear Assembly Repair Kit	1
		(3/8" X 1/2" Bolt, (Gr 5) - one required	
4	86170	3/8" X 1" Shear Bolt (Gr 5) one required	1
5	812363	3/8" Lock Nut	1
6	906503	Repair Kit	1
7	936325	Yoke & Tube	1
8	936319	Nylon Bearing Repair Kit	2
9	908956	Inner Guard	1
10	907397	Outer Guard	1
11	936329	Yoke & Shaft	1
12	936315	1/4" X 1" Roll Pin	1
13	936376	Clamp Yoke	1
14	936316	Shield Bearing	1
15	81628	1/2" X 3-1/4" Hex Bolt	1
16	812364	1/2" Lock Nut	1

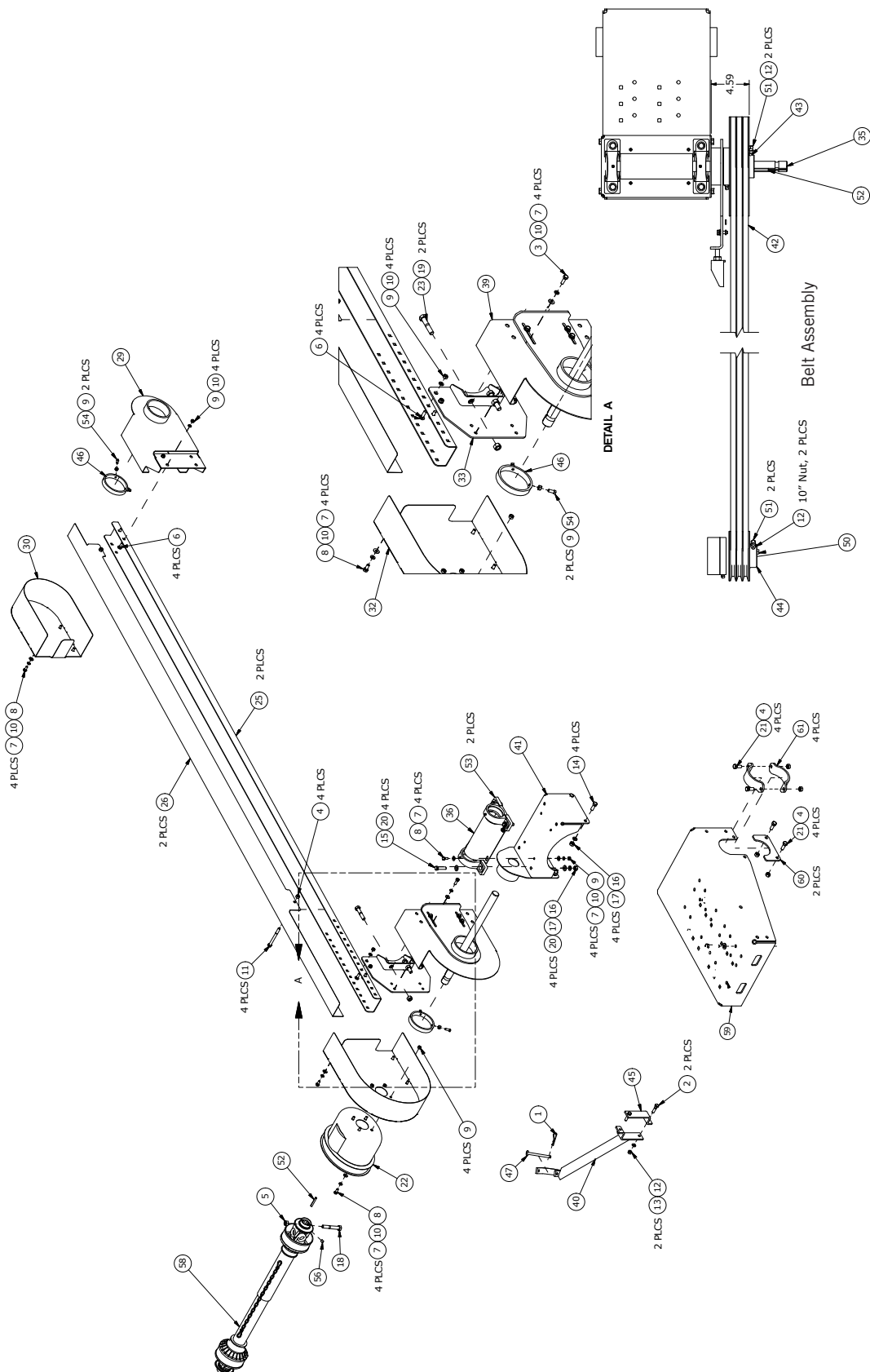
Item	Part#	Description	Qty
	F0467	Shaft Complete	1
1	936324	Shear Assembly	1
2	936168	Spring-Lok Repair Kit	1
		(Collar, Spring, Ret. Ring, 2-2/8" Balls)	
3	936249	Shear Assembly Repair Kit	1
		(3/8" X 1/2" Bolt, (Gr 5) - one required	
4	86170	3/8" X 1" Shear Bolt (Gr 5) one required	1
5	812363	3/8" Lock Nut	1
6	906503	Repair Kit	1
7	936325	Yoke & Tube	1
8	936319	Nylon Bearing Repair Kit	2
9	908956	Inner Guard	1
10	907397	Outer Guard	1
11	936329	Yoke & Shaft	1
12	936315	1/4" X 1" Roll Pin	1
13	936262	Clamp Yoke	1
14	936316	Shield Bearing	1
15	81628	1/2" X 3-1/4" Hex Bolt	1
16	812364	1/2" Lock Nut	1



			CX841P	CX851P
Item	Part #	Description	Qty	Qty
1	12780	#7 HAIR PIN CLIP	1	1
2	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	2	2
3	812026	5/16" X 1" HEX BOLT (PL)	4	4
4	812363	3/8" LOCK NUT (PL)	4	4
5	812364	1/2" LOCK NUT (PL)	1	1
6	812626	BOLT CARR 0.313NC X 1.00GR5PL	8	8
7	81546	5/16" FLAT WASHER (PL)	24	24
8	81549	5/16" X 3/4" HEX BOLT (PL)	16	16
9	81568	5/16" HEX NUT (PL)	22	22
10	81569	5/16" LOCK WASHER PL	28	28
11	81587	3/8" X 4" HEX BOLT (PL)	4	4
12	81592	3/8" HEX NUT (PL)	4	4
13	81593	3/8" LOCK WASHER (PL)	2	2
14	81598	7/16" X 1 1/4" HEX BOLT (PL)	4	4
15	81600	7/16" X 1 3/4" HEX BOLT GR5 PL	4	4
16	81614	7/16" HEX NUT (PL)	8	8
17	81615	7/16" LOCK WASHER (PL)	8	8
18	81628	1/2" X 3 1/4" HEX BOLT (PL)	1	1
19	81636	1/2" HEX NUT (PL)	2	2
20	84041	7/16" SAE FLAT WASHER (PL)	8	8
21	86170	3/8' X 1" HEX BOLT GR5 (PL)	8	8
22	907349	FRONT PTO GUARD	1	1
23	907986	1/2" X 2 1/2" HEX BOLT FULL THREAD (PL)	2	2
25	913763	GUARD-TRAY, PTO, 41FT	2	-
25	913359	GUARD-LOWER TRAY 51 FT	-	2
26	913765	GUARD-COVER, PTO, 41FT	2	-
26	913366	GUARD-TRAY COVER 51 FT	-	2
29	913608	WELDT-CA MOVER BELT GUARD	1	1
30	913609	ASSY-BELT GUARD COVER	1	1
32	913617	WELDT-BELT GUARD COVER	1	1
33	913621	WELDT-BELT GUARD	1	1
35	913631	PTO ARBOR SHFT 1.00 X 20.75	1	1
36	913634	PTO KIT SHIELD	1	1
39	913769	WELDT-CA MOVER BELT GUARD	1	1
40	913770	WELDT-PTO HOLDER	1	1
41	913613	WELDT-PTO BELT DRIVE MOUNT	1	1
42	906565	B-230 V-BELT 41'	2	-
42	961002	B-287 V-BELT 51'	-	2
43	961567	12" DBL SHEAVE	1	1
44	909014	6" DOUBLE SHEAVE	1	1

PTO Belt Kit 841 & 851

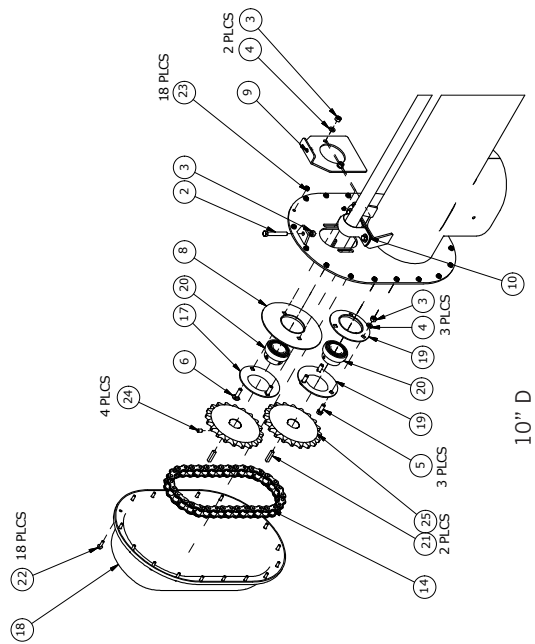
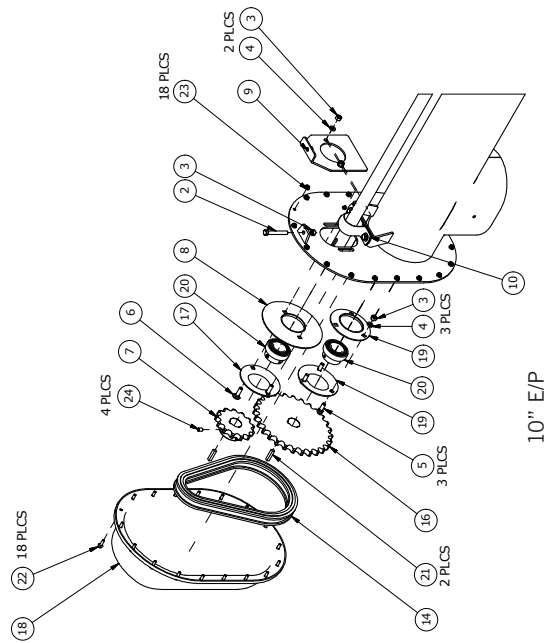
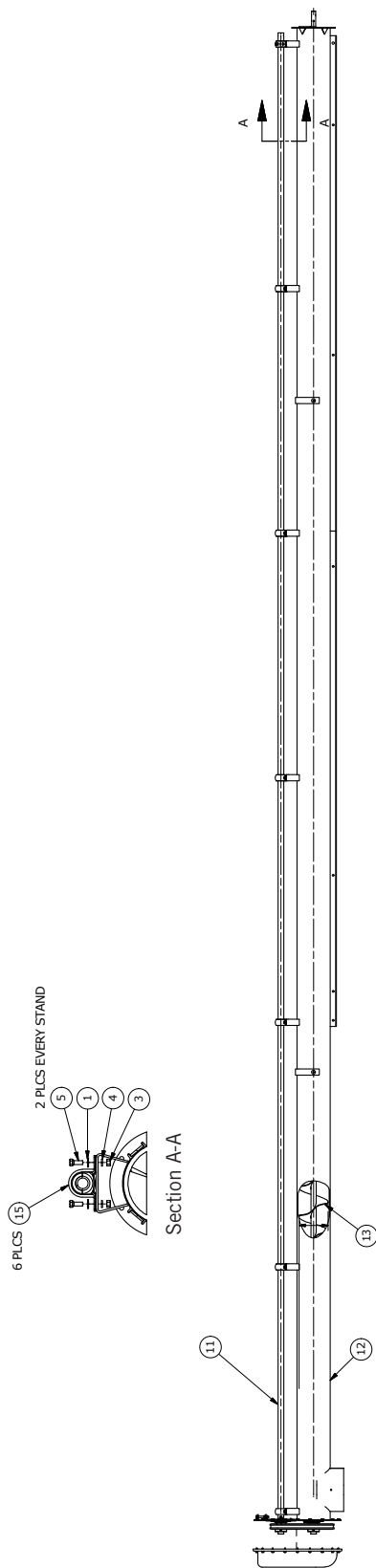
			CX841P	CX851P
Item	Part #	Description	Qty	Qty
45	961381	PTO HLDR BRKT 1/4 X 1 1/2 X 7"	1	1
46	961383	GUARD HOLDER RING 4 1/2"OD	2	2
47	961539	PTO HLDR PIN WELDT	1	1
51	967464	3/8" X 1 1/4" SQ HD SET SCREW (BR)	4	4
52	968811	1/4" SQ X 2" KEY	3	3
53	961792	1" PILLOW BRG W/ COLLAR (P205)	2	2
54	9812377	5/16" X 3/4" SQ HEAD	4	4
55	981461	5/16" X 1" SQ. HD. SET SCREW (BR)	2	2
56	988999	3/8" X 3/8" SOCKET SET SCREW (BR)	1	1
58	F0444	PTO SHAFT 8" CA	1	1
59	915244	BRKT - ENGINE MOUNT CA MOVER	1	1
60	915245L	PLATE-ENGINE MOUNT PIVOT	2	2
61	915251	BRKT - ENGINE MOUNT STOP	4	4



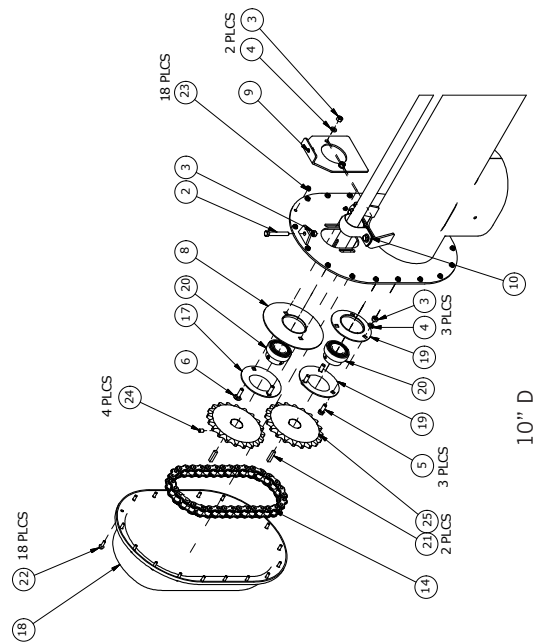
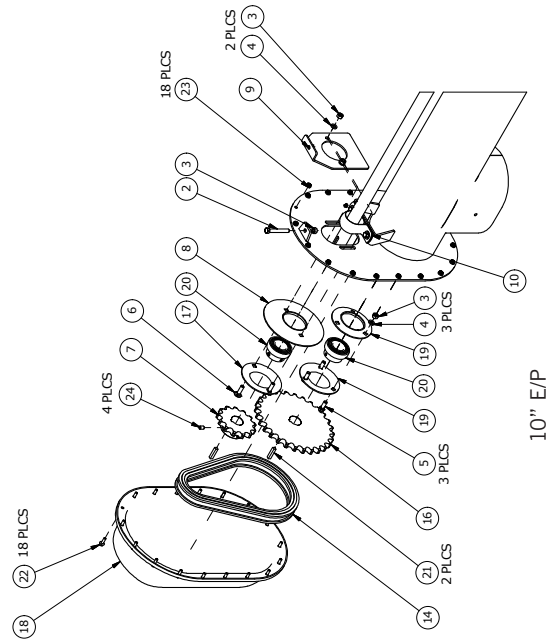
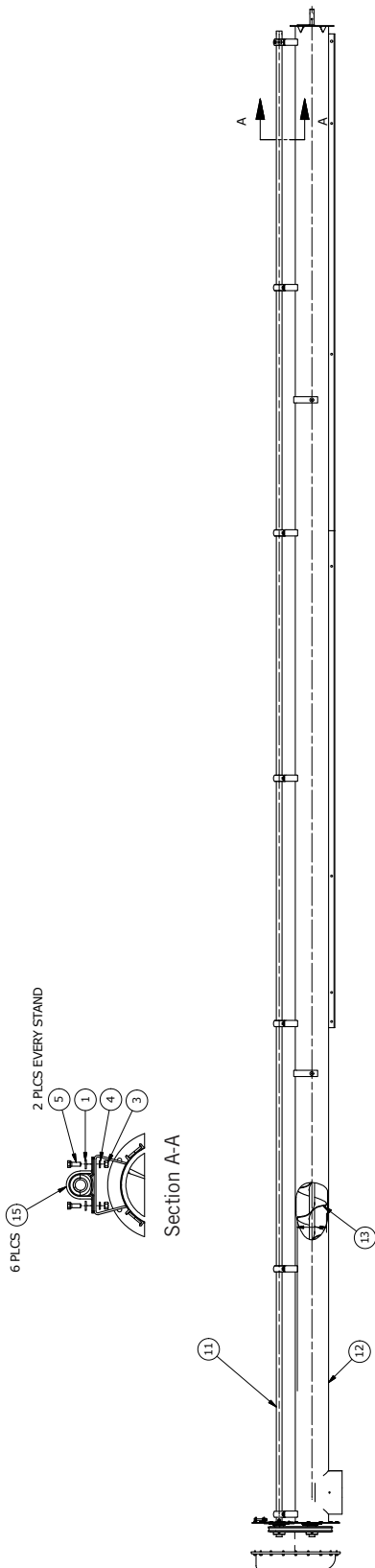
PTO Belt Kit 1041 & 1051

			CX1041P	CX1051P
Item	Part #	Description	Qty	Qty
1	12780	#7 HAIR PIN CLIP	1	1
2	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	2	2
3	812026	5/16" X 1" HEX BOLT (PL)	4	4
4	812363	3/8" LOCK NUT (PL)	12	12
5	812364	1/2" LOCK NUT (PL)	1	1
6	812626	BOLT CARR 0.313NC X 1.00GR5PL	8	8
7	81546	5/16" FLAT WASHER (PL)	24	24
8	81549	5/16" X 3/4" HEX BOLT (PL)	16	16
9	81568	5/16" HEX NUT (PL)	22	22
10	81569	5/16" LOCK WASHER PL	28	28
11	81587	3/8" X 4" HEX BOLT (PL)	4	4
12	81592	3/8" HEX NUT (PL)	6	6
13	81593	3/8" LOCK WASHER (PL)	2	2
14	81598	7/16" X 1 1/4" HEX BOLT (PL)	4	4
15	81600	7/16" X 1 3/4" HEX BOLT GR5 PL	4	4
16	81614	7/16" HEX NUT (PL)	8	8
17	81615	7/16" LOCK WASHER (PL)	8	8
18	81628	1/2" X 3 1/4" HEX BOLT (PL)	1	1
19	81636	1/2" HEX NUT (PL)	2	2
20	84041	7/16" SAE FLAT WASHER (PL)	8	8
21	86170	3/8' X 1" HEX BOLT GR5 (PL)	8	8
22	907349	FRONT PTO GUARD	1	1
23	907986	1/2" X 2 1/2" HEX BOLT FULL THREAD (PL)	2	2
25	913763	GUARD-TRAY, PTO, 41FT	2	-
25	913359	GUARD-LOWER TRAY 51 FT	-	2
26	913765	GUARD-COVER, PTO, 41FT	2	-
26	913366	GUARD-TRAY COVER 51 FT	-	2
29	913608	WELDT-CA MOVER BELT GUARD	1	1
30	913609	ASSY-BELT GUARD COVER	1	1
32	913617	WELDT-BELT GUARD COVER	1	1
33	913621	WELDT-BELT GUARD	1	1
35	913632	PTO ARBOR SHAFT 1.25 CX	1	1
36	913634	PTO KIT SHIELD	1	1
39	913769	WELDT-CA MOVER BELT GUARD	1	1
40	913770	WELDT-PTO HOLDER	1	1
41	914664	WELDT-PTO BELT DRIVE MOUNT 10"	1	1
42	906565	B-230 V-BELT CX1041	3	-
42	961002	B-287 V-BELT CX1051	-	3
43	961004	SHEAVE 12" TRPL 1.25"B	1	1
44	961074	SHEAVE 6" TRPL 1.5" BORE	1	1

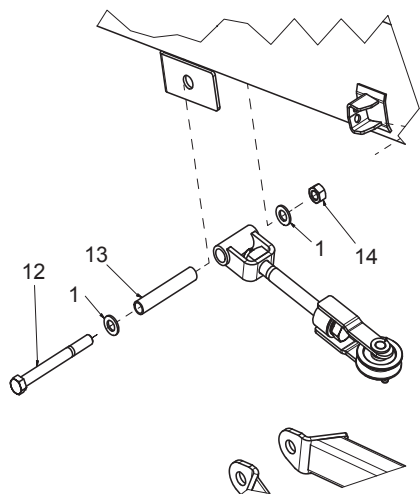
			CX1041P	CX1051P
Item	Part #	Description	Qty	Qty
45	961381	PTO HLDR BRKT 1/4 X 1 1/2 X 7"	1	1
46	961383	GUARD HOLDER RING 4 1/2"OD	2	2
47	961539	PTO HLDR PIN WELDT	1	1
50	967044	KEY 3/8" SQ X 3 3/8"	1	1
51	967464	3/8" X 1 1/4" SQ HD SET SCREW (BR)	4	4
52	968811	1/4" SQ X 2" KEY	1	1
53	973223	1-1/4" PILLOW BRG W/COLLAR	2	2
54	9812377	5/16" X 3/4" SQ HEAD	4	4
56	988999	3/8" X 3/8" SOCKET SET SCREW (BR)	1	1
58	F0467	PTO SHAFT 10"	1	1
59	915244	BRKT - ENGINE MOUNT CA MOVER	1	1
60	915245L	PLATE-ENGINE MOUNT PIVOT	2	2
61	915251	BRKT - ENGINE MOUNT STOP	4	4



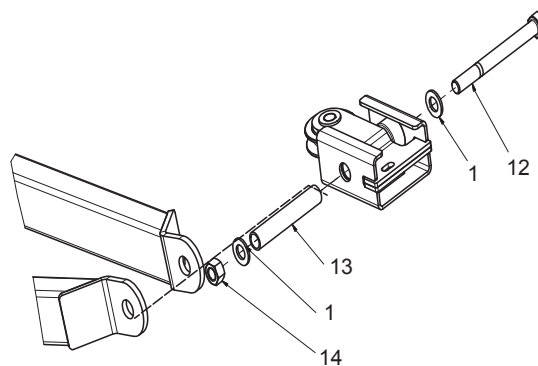
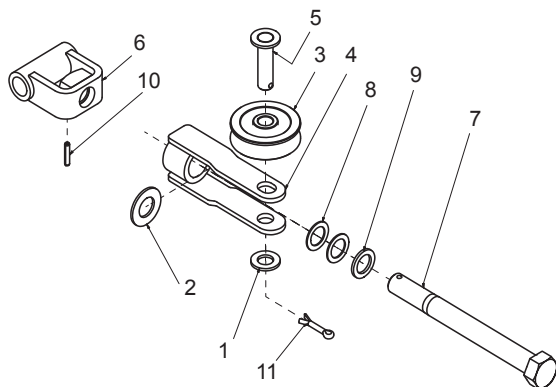
			CX841/51/61D	CX841/51/61E/P
Item	Part #	Description	Qty	Qty
1	81570	Washer Flat Std 3/8" (PI)	14	14
2	81582	Bolt Full 3/8" X 2-3/4 gr5 (PI)	1	1
3	81592	Nut Hex 3/8" (PI)	20	20
4	81593	Lock Washer 3/8" (PI)	19	19
5	86170	Bolt Hex 3/8" X 1.00 Gr5 (PL)	17	17
6	86182	Bolt Carr 3/8" X 1 1/4 Gr5 (PL)	2	2
7	910071	#80 X 13T Sprocket w/1-3/8" Bore	-	1
8	912280	2-Hole 1-3/8" Brg Flg	1	1
9	912282	Chain Tghtnr Brkt Weldt	1	1
10	912292	Steel Flange (Wooden Bearing 1 3/8")	1	1
11	912484	Driveline Weldt - Top Section	1	1
12	912933	Top Section Weldt 8"	1	1
13	912934	Top Section Fighting Weldt 8"	1	1
14	961997	#80 Chain (36 Link)	1	-
14	913676	#80 Chain 37 Link w/Conn & Offset	-	1
15	960789	Wooden Bearing (1-3/8")	6	6
16	961042	28 T Sprocket #80 (1-3/8" Bore)	-	1
17	961091	Flange Brg (72mm-4x2hl)	1	1
18	961098	Top End Cover	1	1
19	961675	Bearing Flange 72MS	2	2
20	965917	1 3/8" Bearing	2	2
21	967041	5/16" X 5/16" X 1-1/2" Sprkt Key	2	2
22	967473	Bolt Flange 1/4" x 3/4" gr5 (PL)	18	18
23	967474	Nut Hex Flange 1/4" (PI)	18	18
24	985639	Setscrew Scktser 3/8" x1/2" (BR)	4	4
25	961998	20T Sprkt #80 (1-3/8" Bore)	2	-



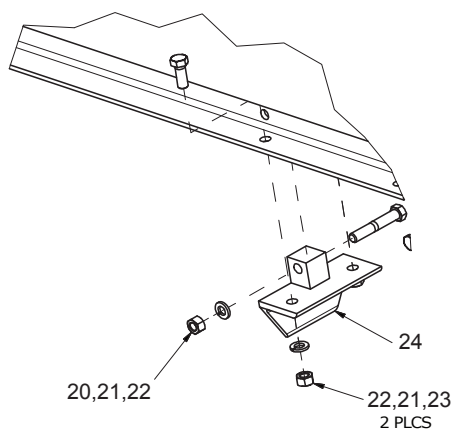
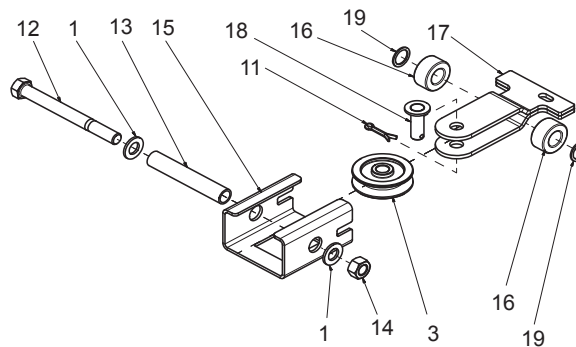
			CX1041/51/61D	CX1041/51/61E/P
Item	Part #	Description	Qty	Qty
1	81570	Washer Flat Std 3/8" (PI)	14	14
2	967291	Bolt Full 3/8" X 2-3/4 gr5 (PI)	1	1
3	81592	Nut Hex 3/8" (PI)	20	20
4	81593	Lock Washer 3/8" (PI)	19	19
5	86170	Bolt Hex 3/8" X 1.00 Gr5 (PL)	17	17
6	86182	Bolt Carr 3/8" X 1 1/4 Gr5 (PL)	2	2
7	910071	#80 X 13T Sprocket w/1-3/8" Bore	-	1
8	912280	2-Hole 1-3/8" Brg Flg	1	1
9	912282	Chain Tghtnr Brkt Weldt	1	1
10	912292	Steel Flange (Wooden Bearing 1 3/8")	1	1
11	912484	Driveline Weldt - Top Section	1	1
12	912235	Top Section Weldt 10"	1	1
13	912179	Top Section Fighting Weldt 10"	1	1
14	961181	#80 Chain (38 Link)	1	-
15	960789	Wooden Bearing (1-3/8")	6	6
16	961042	28 T Sprocket #80 (1-3/8" Bore)	-	1
17	961091	Flange Brg (72mm-4x2hl)	1	1
18	961098	Top End Cover	1	1
19	961675	Bearing Flange 72MS	2	2
20	965917	1 3/8" Bearing	2	2
21	967041	5/16" X 5/16" X 1-1/2" Sprkt Key	2	2
22	967473	Bolt Flange 1/4" x 3/4" Gr 5 (PL)	18	18
23	967474	Nut Hex Flange 1/4" (PI)	18	18
24	985639	Setscrew Scktser 3/8" x 1/2" (BR)	4	4
25	961998	20T Sprkt #80 (1-3/8" Bore)	2	-



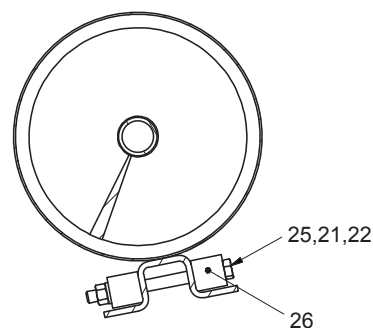
Pulley Holder
Detail Below



Track Roller
Detail Below

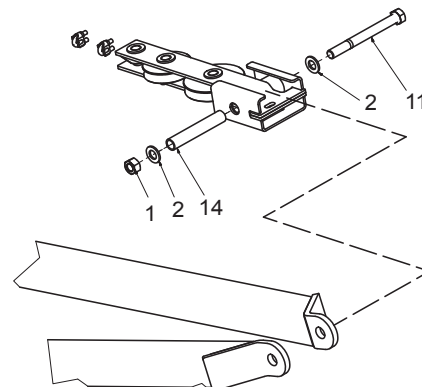
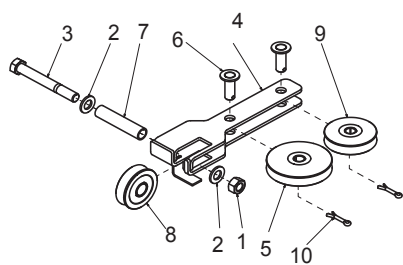
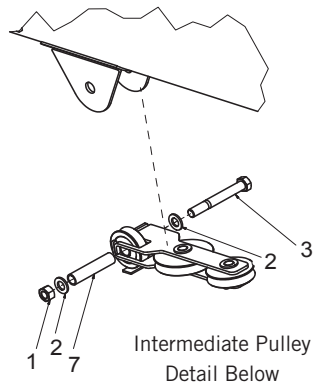


Top Track Stop

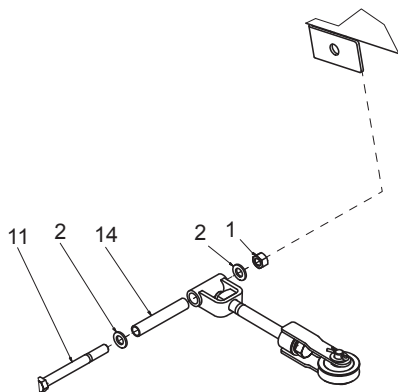
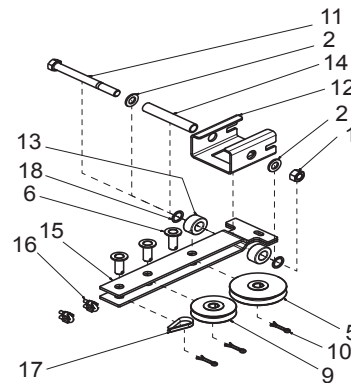


Bottom Track Stop

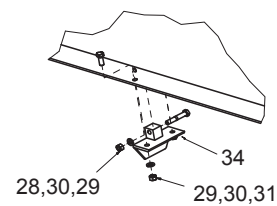
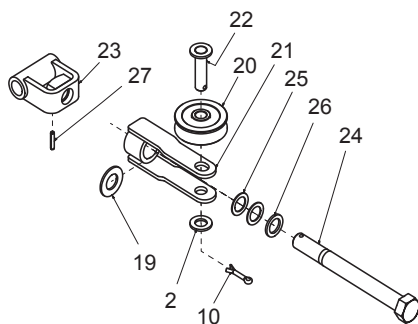
			CX841, CX851, CX1041 & CX1051
Item	Part #	Description	Qty
1	84050	3/4" SAE FLAT WASHER (PL)	5
2	84522	1" ID SAE FLAT WASHER (PL)	1
3	912946	PULLEY-CABLE 3-1/2"OD X 3/4"ID	2
4	912966	PULLEY HOLDER (ROTATION)	1
5	913331	PIN WELDT (3/4 OD X 2 7/8)	1
6	913575	PULLEY PIVOT WELDMENT	1
7	913577	1" X 10" HEX BOLT (PL) W/ PIN HOLE	1
8	913578	BRONZE THRUST BEARING 1" ID X 1 1/2 OD	2
9	967140	1" X 10GA NARROW RIM WASH (PL)	1
10	9812425	1/4" X 1 1/4" SPRING PIN (PL)	1
11	9812434	1/4" X 1 1/2" COTTER PIN (PL)	2
12	811746	3/4" X 7.5" HEX BOLT	3
13	912437	UNDERCARRIAGE PIVOT BUSHING	3
14	812365	3/4" LOCK NUT (PL)	2
15	912314	TRACK ROLLER FRAME	1
16	912315	TRACK ROLLER	2
17	912317	PULLEY HOLDER WELDMENT	1
18	913702	PIN WELDT (3/4 OD X 2 1/4)	1
19	9812438	1" I.D. X 14GA #8 NARROW RIM WASHER (PL)	2
20	810958	3/8" X 2 1/4" HEX BOLT (PL)	1
21	81593	3/8" LOCK WASHER (PL)	3
22	81592	3/8" HEX NUT (PL)	3
23	86170	3/8" X 1" HEX BOLT GR.5 (PL)	2
24	915334	ASSY-TRACK STOP	1
25	81588	3/8" X 4 1/2" HEX BOLT (PL)	1
26	913369	TRACK STOP	2

Track Roller & Pulley CX61

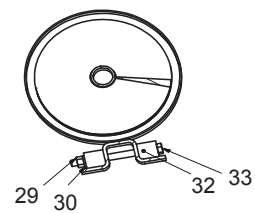
Track Roller
Detail Below



Pulley Holder
Detail Below

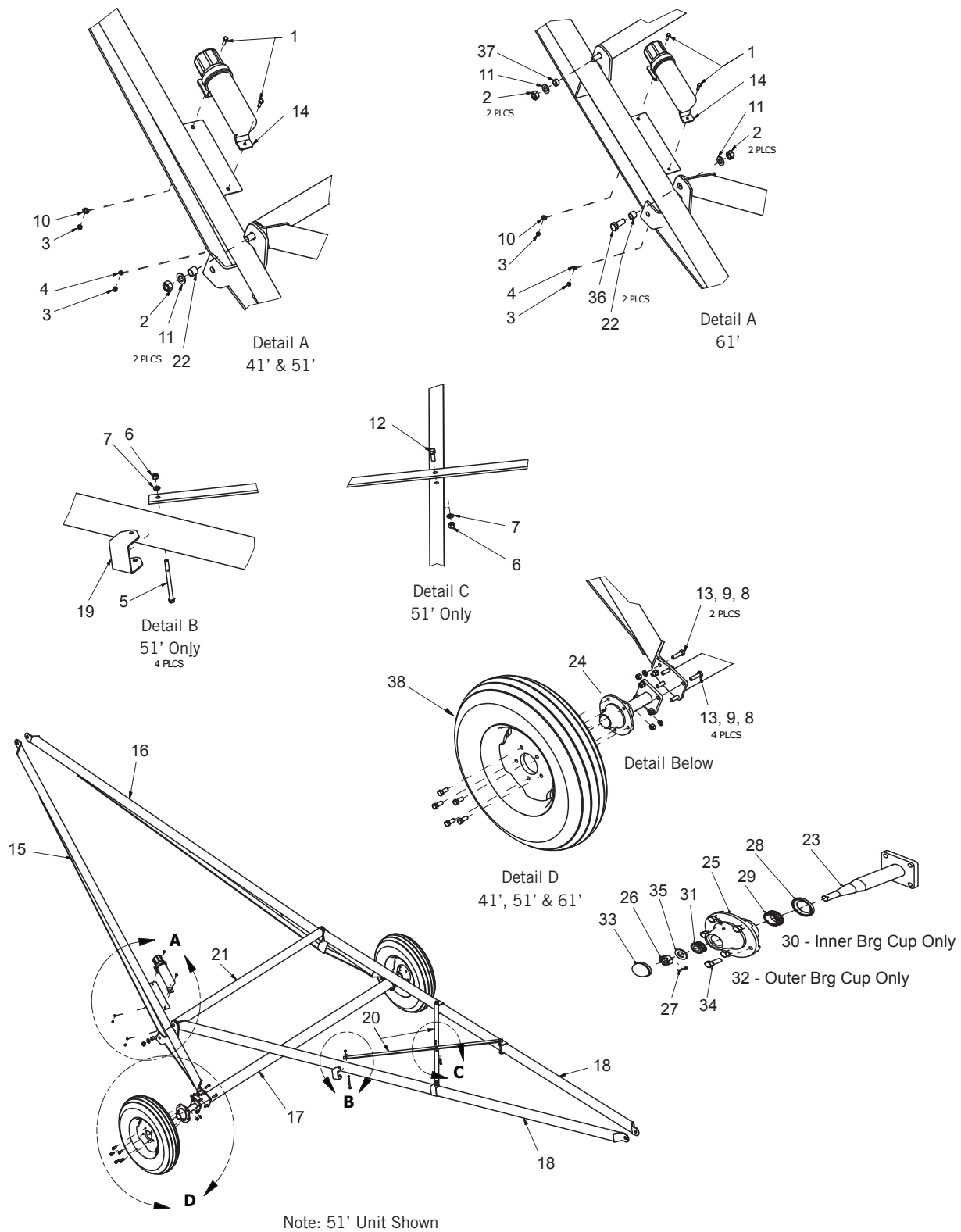


Top Track Stop



Bottom Track Stop

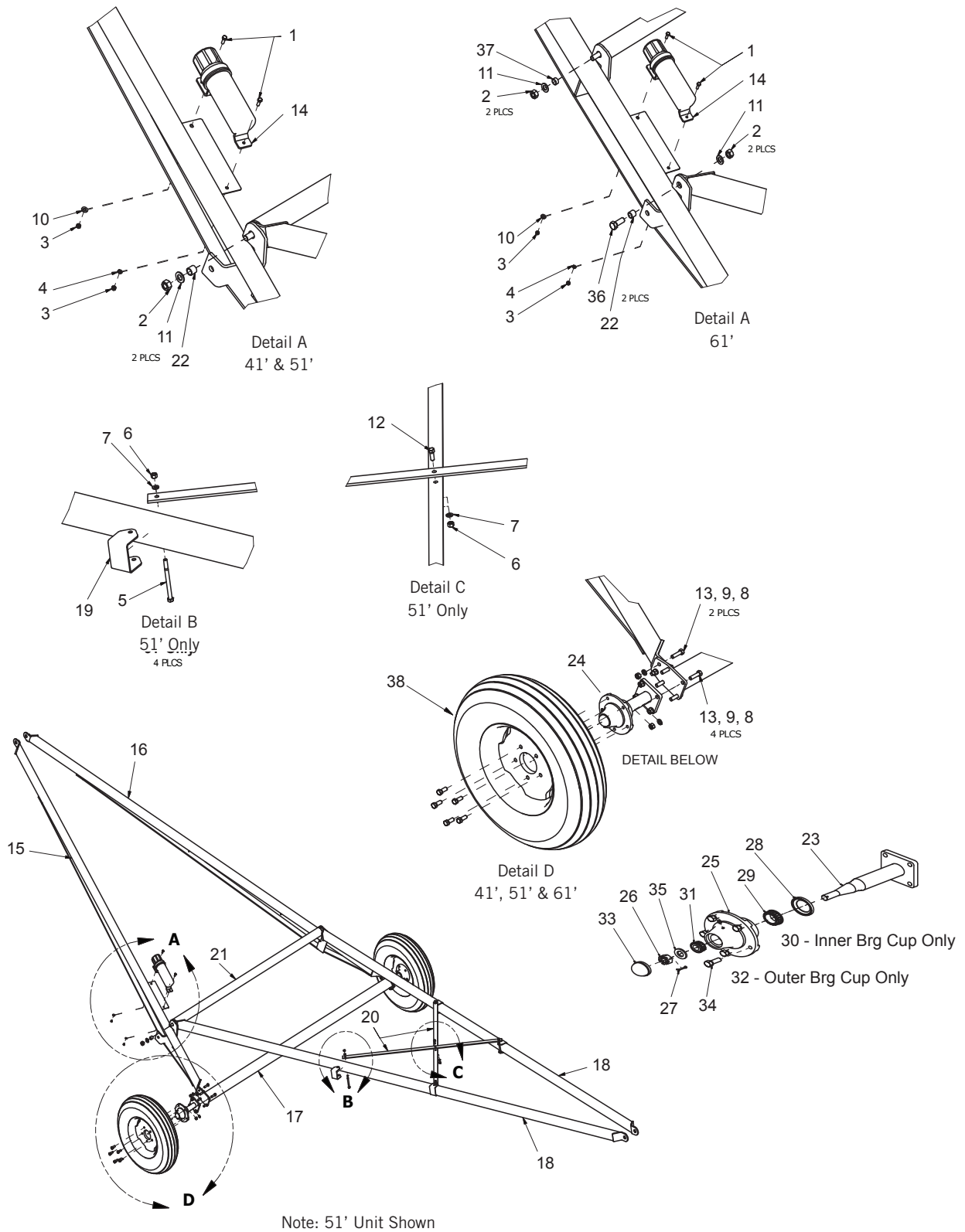
			CX861
Item	Part #	Description	Qty
1	812365	3/4" LOCK NUT (PL)	2
2	84050	3/4" S.A.E. FLAT WASHER (PL)	5
3	84215	3/4" X 6" HEX BOLT (PL)	1
4	913665	WELDT-INTERMEDIATE PULLEY HOLDER	1
5	913668	ASSY- PULLEY CABLE 5" OD X .75" BORE	2
6	913702	PIN WELDT (3/4 OD X 2 1/4)	5
7	913719	BUSHING-INTMEDIATE PULLEY PIVOT	1
8	913720	PULLEY-CABLE 3-1/2"OD X 1"ID	1
9	965907	PULLEY-CABLE 4" OD X .75" BORE	2
10	9812434	1/4" X 1 1/2" COTTER PIN (PL)	6
11	811746	3/4" X 7.5" HEX BOLT	2
12	912314	TRACK ROLLER FRAME	1
13	912315	TRACK ROLLER	2
14	912437	UNDERCARRIAGE PIVOT BUSHING	2
15	912516	WELDT-PULLEY HOLDER DOUBLE SHEAVES	1
16	961763	5/16" CABLE CLAMP	2
17	964267	3/8" CABLE THIMBLES	1
18	9812438	1" I.D. X 14GA #8 NARROW RIM WASHER (PL)	2
19	84522	1" ID SAE FLAT WASHER (PL)	1
20	912946	PULLEY-CABLE 3-1/2"OD X 3/4"ID	1
21	912966	PULLEY HOLDER (ROTATION)	1
22	913331	PIN WELDT (3/4 OD X 2 7/8)	1
23	913575	PULLEY PIVOT WELDMENT	1
24	913577	1" X 10" HEX BOLT (PL) W/ PIN HOLE	1
25	913578	BRONZE THRUST BEARING 1" ID X 1 1/2 OD	2
26	967140	1" X 10GA NARROW RIM WASH (PL)	1
27	9812425	1/4" X 1 1/4" SPRING PIN (PL)	1
28	810958	3/8" X 2 1/4" HEX BOLT (PL)	1
29	81592	3/8" HEX NUT (PL)	3
30	81593	3/8" LOCK WASHER (PL)	3
31	86170	3/8" X 1" HEX BOLT GR.5 (PL)	2
32	913369	TRACK STOP	2
33	81588	3/8" X 4 1/2" HEX BOLT (PL)	1
34	915334	ASSY-TRACK STOP	1

Undercarriage Assembly

			CX841D/E/P	CX851D/E/P	CX861D/E
Item	Part #	Description	Qty	Qty	Qty
1	812026	5/16" X 1" HEX BOLT (PL)	2	2	2
2	812365	3/4" LOCK NUT (PL)	2	2	4
3	81568	5/16" HEX NUT (PL)	2	2	2
4	81569	5/16" LOCK WASHER PL	1	1	1
5	81588	3/8" X 4 1/2" HEX BOLT (PL)	-	4	-
6	81592	3/8" HEX NUT (PL)	-	5	-
7	81593	3/8" LOCK WASHER (PL)	-	5	-
8	81636	1/2" HEX NUT (PL)	12	12	12
9	81637	1/2" LOCK WASHER (PL)	12	12	12
10	84039	3/8" FLAT WASHER (PL)	1	1	1
11	84050	3/4" S.A.E. FLAT WASHER (PL)	2	2	4
12	86170	3/8" X 1" HEX BOLT GR.5 (PL)	-	1	-
13	87553	1/2" X 1.75" HEX BOLT UNC GR5 (PL)	12	12	12
14	909277	MANUAL HOLDER 3 1/2" X 12"	1	1	1
15	912475	UNDERCARRIAGE WELDT - LH 41'	1	-	-
15	912421	UNDERCARRIAGE WELDT - LH 51'	-	1	
15	912485	UNDERCARRIAGE WELDT - LH 61'	-	-	1
16	912476	UNDERCARRIAGE WELDT - RH 41'	1	-	-
16	912422	UNDERCARRIAGE WELDT - RH 51'	-	1	-
16	912486	UNDERCARRIAGE WELDT - RH 61'	-	-	1
17	912429	AXLE WELDMENT 41'	1	-	-
17	912430	AXLE WELDMENT 51'	-	1	-
17	912487	AXLE WELDMENT 61'	-	-	1
18	912477	LIFT ARM WELDT 41'	2	-	-
18	912441	LIFT ARM WELDT 51'	-	2	-
18	912491	LIFT ARM WELDT 61'	-	-	2
19	912443	CROSS BRACE CLAMP	-	4	-
20	912444	CROSS BRACE	-	2	-
21	912947	CROSS BRACE WELDMENT 41'	1	-	-
21	912448	CROSS BRACE WELDMENT 51'	-	1	-
21	912497	CROSS BRACE WELDMENT 61'	-	-	1
22	912503	UNDERCARRIAGE SPACER	2	2	2
23	912435	STUB AXLE WELDT	1	1	1
24	968431	HUB CTD H516 COMPLETE ASSY	1	1	1
25	968403	HUP w/BEARING CUPS ONLY	1	1	1
26	81834	3/4" SLOTTED HEX NUT	1	1	1
27	9812486	1/8" X 1-1/2" COTTER PIN (BR)	1	1	1
28	968430	SEAL (SE14X)	1	1	1
29	967208	INNER BRG CONE (LM48548)	1	1	1
30	968412	INNER BRG CUP (LM48510)	1	1	1

Undercarriage Assembly

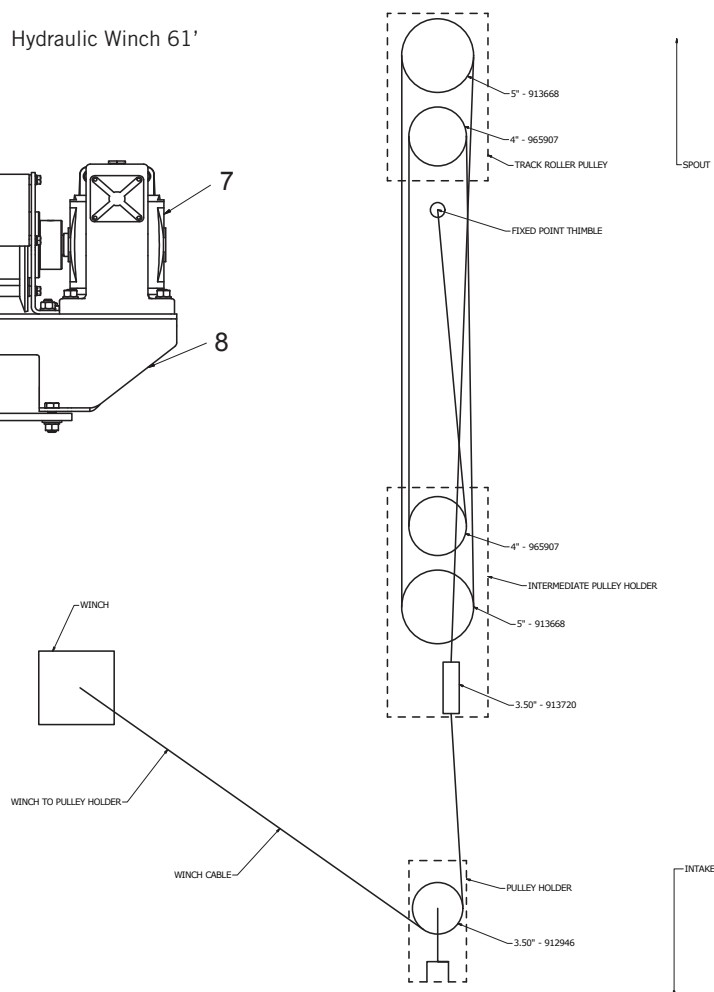
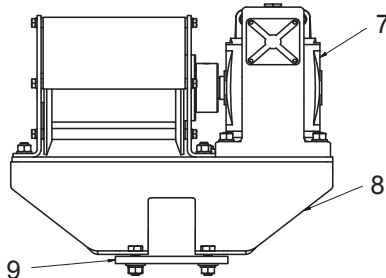
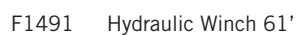
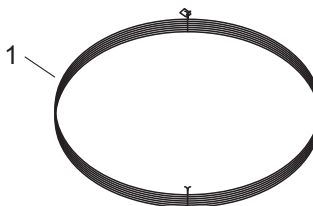
			CX841D/E/P	CX851D/E/P	CX861D/E
Item	Part #	Description	Qty	Qty	Qty
31	968406	OUTER BRG CONE (LM11949)	1	1	1
32	968405	OUTER BRG CUP (ML11910)	1	1	1
33	968409	DUST CAP (DC12)	1	1	1
34	968404	WHEEL BOLT	5	5	5
35	9812416	3/4" SAE FLAT WASHER	1	1	1
36	84467	3/4" X 2" HEX BOLT (PL)	-	-	2
37	913677	UNDERCARRIAGE SPACER (1/2" LG.)	-	-	2
38	913698	TIRE - St205/75d15	2	2	2
38	959202	TIRE, 7.60 X 15" X 6 Ply	2	2	2
38	F0110	WHEEL 15" X 5" X 5 Bolt	2	2	2
38	913545	GEARED RIM - 5 BOLT	2	2	2



Undercarriage Assembly

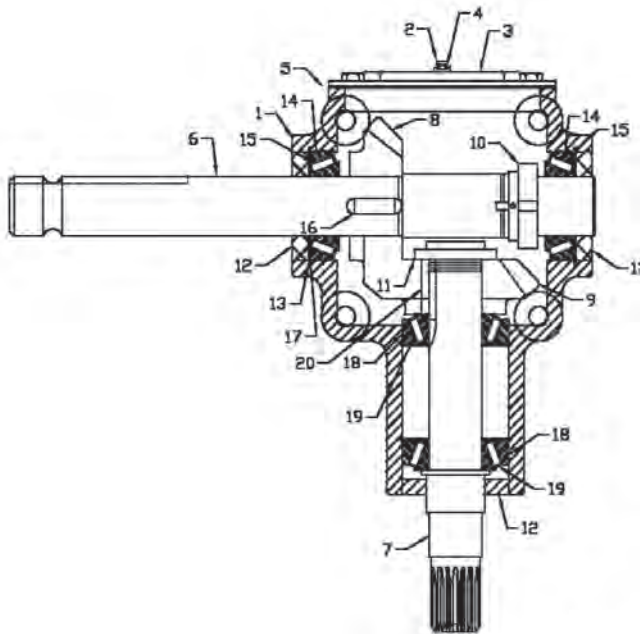
			CX1041D/E/P	CX1051D/E/P	CX1061D/E
Item	Part #	Description	Qty	Qty	Qty
1	812026	5/16" X 1" HEX BOLT (PL)	2	2	2
2	812365	3/4" LOCK NUT (PL)	2	2	4
3	81568	5/16" HEX NUT (PL)	2	2	2
4	81569	5/16" LOCK WASHER PL	1	1	1
5	81588	3/8" X 4 1/2" HEX BOLT (PL)	-	4	-
6	81592	3/8" HEX NUT (PL)	-	5	-
7	81593	3/8" LOCK WASHER (PL)	-	5	-
8	81636	1/2" HEX NUT (PL)	12	12	12
9	81637	1/2" LOCK WASHER (PL)	12	12	12
10	84039	3/8" FLAT WASHER (PL)	1	1	1
11	84050	3/4" S.A.E. FLAT WASHER (PL)	2	2	4
12	86170	3/8" X 1" HEX BOLT GR.5 (PL)	-	1	-
13	87553	1/2" X 1.75" HEX BOLT UNC GR5 (PL)	12	12	12
14	909277	MANUAL HOLDER 3 1/2" X 12"	1	1	1
15	912475	UNDERCARRIAGE WELDT - LH 41'	1	-	-
15	912421	UNDERCARRIAGE WELDT - LH 51'	-	1	
15	912485	UNDERCARRIAGE WELDT - LH 61'	-	-	1
16	912476	UNDERCARRIAGE WELDT - RH 41'	1	-	-
16	912422	UNDERCARRIAGE WELDT - RH 51'	-	1	-
16	912486	UNDERCARRIAGE WELDT - RH 61'	-	-	1
17	912429	AXLE WELDMENT 41'	1	-	-
17	912430	AXLE WELDMENT 51'	-	1	-
17	912487	AXLE WELDMENT 61'	-	-	1
18	912477	LIFT ARM WELDT 41'	2	-	-
18	912441	LIFT ARM WELDT 51'	-	2	-
18	912491	LIFT ARM WELDT 61'	-	-	2
19	912443	CROSS BRACE CLAMP	-	4	-
20	912444	CROSS BRACE	-	2	-
21	912947	CROSS BRACE WELDMENT 41'	1	-	-
21	912448	CROSS BRACE WELDMENT 51'	-	1	-
21	912497	CROSS BRACE WELDMENT 61'	-	-	1
22	912503	UNDERCARRIAGE SPACER	2	2	2
23	912435	STUB AXLE WELDT	1	1	1
24	968431	HUB CTD H516 COMPLETE ASSY	1	1	1
25	968403	HUP w/BEARING CUPS ONLY	1	1	1
26	81834	3/4" SLOTTED HEX NUT	1	1	1
27	9812486	1/8" X 1-1/2" COTTER PIN (BR)	1	1	1
28	968430	SEAL (SE14X)	1	1	1
29	967208	INNER BRG CONE (LM48548)	1	1	1
30	968412	INNER BRG CUP (LM48510)	1	1	1

			CX1041D/E/P	CX1051D/E/P	CX1061D/E
Item	Part #	Description	Qty	Qty	Qty
31	968406	OUTER BRG CONE (LM11949)	1	1	1
32	968405	OUTER BRG CUP (ML11910)	1	1	1
33	968409	DUST CAP (DC12)	1	1	1
34	968404	WHEEL BOLT	5	5	5
35	9812416	3/4" SAE FLAT WASHER	1	1	1
36	84467	3/4" X 2" HEX BOLT (PL)	-	-	2
37	913677	UNDERCARRIAGE SPACER (1/2" LG.)	-	-	2
38	913698	TIRE - St205/75d15	2	2	2
38	959202	TIRE, 7.60 X 15" X 6 Ply	2	2	2
38	F0110	WHEEL 15" X 5" X 5 Bolt	2	2	2
38	913545	GEARED RIM - 5 BOLT	2	2	2

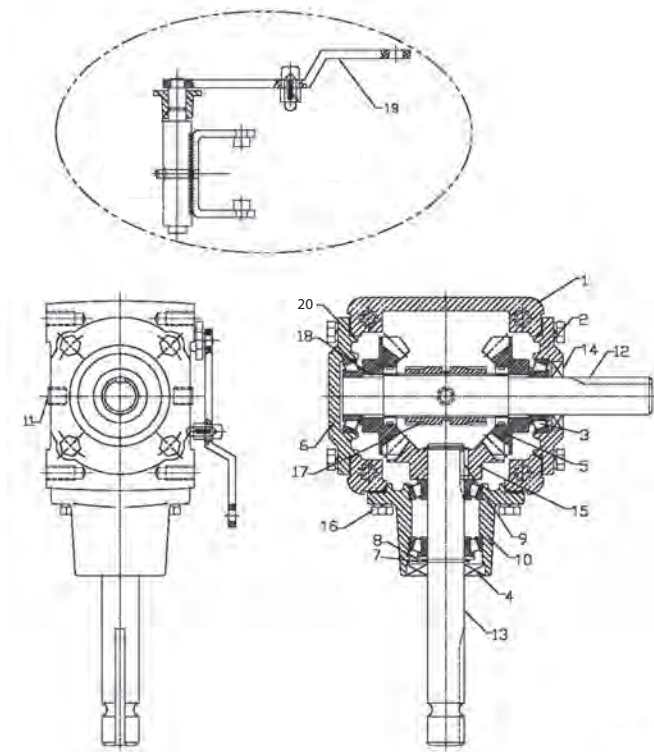


Winch Cable & Pulley Configuration for 61' Only

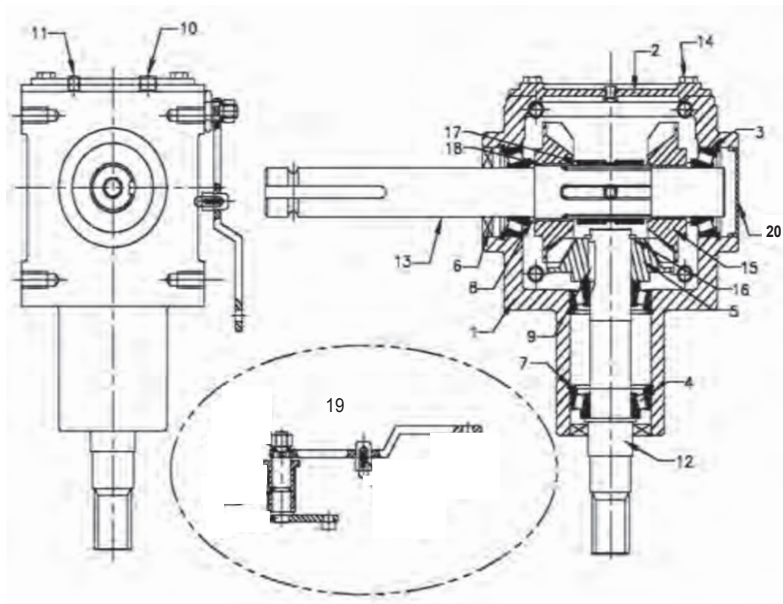
Item	Part#	Part#	Description	CX841 & CX851	CX861
1	962084		Cable-Winch 41' & 51'	1	-
1	913667		Cable-Winch 61'	-	1
2	F1593		Manual Winch Assembly 41' & 51'	1	-
3		961945	Winch Assy K2550	1	-
4		903401	Winch Brkt Ca (01&Up)	1	-
5		903402	Connector Plate	2	-
		81592	Nut Hex 0.375nc Gr2 Pl	7	-
		81593	Washer 0.375 Lock Pl	4	-
		81914	Bolt Carr 0.375nc X 1.00gr5pl	3	-
		84039	Washer Flat SAE 0.375 Bs Pl	7	-
		86171	Bolt Hex 0.375nc X 1.25gr5pl	4	-
2	F1594		Manual Winch 61'	-	1
3		961945	Winch Assy K2550	-	1
4		903413	Winch Brkt 8" & 10" X 61' ca (01&Up)	-	1
5		903414	Connector Plate	-	2
		81592	Nut Hex 0.375nc Gr2 Pl	-	7
		81593	Washer 0.375 Lock Pl	-	4
		81914	Bolt Carr 0.375nc X 1.00gr5pl	-	3
		84039	Washer Flat SAE 0.375 Bs Pl	-	7
		86171	Bolt Hex 0.375nc X 1.25gr5pl	-	4
6	F1490		Hydraulic Winch, 2" Tube Brkt- 41' & 51'	1	-
7		FKW 3000	Fkw 3000 Hydraulic Winch	1	-
8		912404	Pl Hyd. Winch Mt	1	-
9		903402	Connector Plate	2	-
		81570	Washer Flat Std 0.375 Hs Pl	7	-
		81592	Nut Hex 0.375nc Gr2 Pl	8	-
		81593	Washer 0.375 Lock Pl	8	-
		86170	Bolt Hex 0.375nc X 1.00gr5pl	2	-
		86171	Bolt Hex 0.375nc X 1.25gr5pl	6	-
6	F1491		Hydraulic Winch, 3" Tube Brkt 61'	-	1
7		FKW 3000	Fkw 3000 Hydraulic Winch	-	1
8		912520	Pl Hyd. Winch Mt	-	1
9		903414	Connector Plate	-	2
		81570	Washer Flat Std 0.375 Hs Pl	-	7
		81592	Nut Hex 0.375nc Gr2 Pl	-	8
		81593	Washer 0.375 Lock Pl	-	8
		86170	Bolt Hex 0.375nc X 1.00gr5pl	-	2
		86171	Bolt Hex 0.375nc X 1.25gr5pl	-	6



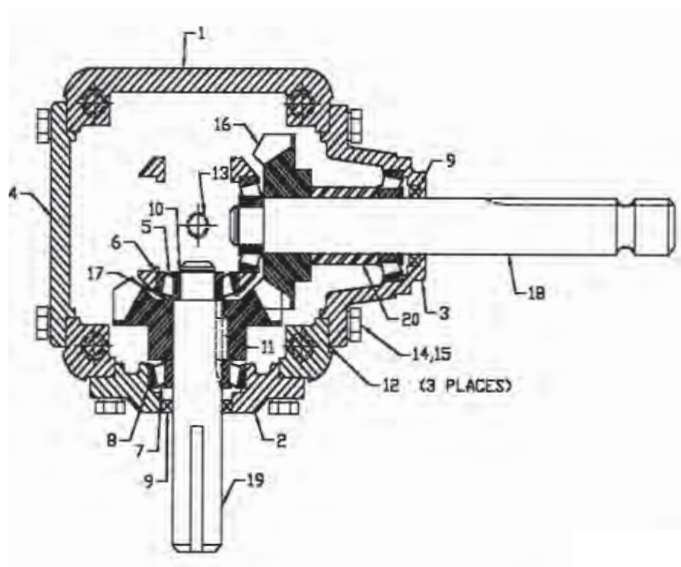
BU50510 Gearbox



961085 Gearbox



961086 Gearbox



961092 Gearbox

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