

# PRO GRAIN

EQUIPMENT



## PRO GRAIN TRANSFER AUGER Models T-1425 and T-1423 OPERATOR'S MANUAL

## WARRANTY DURATION

Pro Grain Equipment (hereafter referred to as 'Pro Grain') products are designed to provide years of dependable service when proper use and maintenance is followed.

The Limited Warranty Period shall start on the date of delivery of the new Pro Grain product to the original customer.

Pro Grain provides a 2 year limited warranty on all bagger and extractor models, and a 1 year limited warranty on all transfer augers, transfer conveyors, and bagger attachments.

If any Pro Grain product is used as rental equipment or on a commercial basis, the warranty period extends for 30 days from the delivery date to the original customer.

## WARRANTY LIMITATIONS

Machinery and / or attachment warranty covers defects in materials and workmanship. Machinery and / or attachment must be properly set up and operated in accordance with the recommendations set forth in the Pro Grain operator's manual as well as Pro Grain videos, brochures, or other operator training material found at [www.prograinequip.com](http://www.prograinequip.com).

This Limited Warranty provides no coverage for common wear or maintenance items, product misuse, negligence, accident, environmental condition and/or contamination. Common wear items are excluded from warranty, as their life span is dependent on what material is being conveyed.

Common wear or maintenance items include but are not limited to;

- Auger tubes
- Auger flighting
- Auger flighting wear plates
- Conveyor belts
- Bearings
- Chain
- Brakes and brake pads
- Blade or knife parts

Items of product misuse, negligence, accident, environmental condition and/or contamination include but are not limited to;

- Lack of lubrication
- Striking foreign objects, physical abuse, or accidental impact
- Operating product beyond rated capacity or operating guidelines (such as speeds or pressures)
- Operating equipment in adverse environmental conditions
- Use of product in manner for which it was not designed or not intended
- Modification and alterations to design or components
- Removal of components

Tires are the warranty of the manufacturer of the tire.

## WARRANTY REQUIREMENTS & COVERAGE

This warranty shall only apply to any machine or attachment which has or will be repaired at the Pro Grain factory, an authorized Pro Grain dealership, or through replacing them as Pro Grain shall elect.

All warranty claims and repairs must be approved by Pro Grain. A warranty registration form must be completed and returned to Pro Grain to start any warranty claim. Registration forms are available in the operator manual or on the company website [www.prograinequip.com](http://www.prograinequip.com). Pro Grain may elect to have an area representative evaluate the condition of the machine before warranty is considered.

Warranty parts must be approved by Pro Grain prior to repair or replacement. Labor rate and time must be approved by Pro Grain prior to warranty repair. At Pro Grain's discretion, failed parts must be returned to the manufacturer. Shipping fees on parts are the responsibility of the customer. Warranty does not include freight or delivery charges incurred when returning machinery for servicing. Other charges such as dealer mileage, pick up / delivery fees, third party service calls are the responsibility of the customer

If the product is sold by the first owner within the Limited Warranty Period, the warranty will transfer to the new owner provided written notice or warranty registration is provided to Pro Grain along with proof of original delivery and proof of sale to new owner.

## EXCLUSION OF WARRANTY

Except as otherwise expressly stated herein, Pro Grain makes no representation or warranty of any kind, ex-pressed or implied, and makes no warranty of merchantability in respect to its machinery and/or attachments and makes no warranty that its machinery and/or attachments are fit for any particular purpose other than that which is described in this manual.

Pro Grain shall not be liable for incidental or consequential damages for any breach of warranty, including but not limited to inconvenience, rental or re-placement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability, all personal injury and property damage resulting from the handling, possession or use of the goods by the buyer. No agent, employee, or representative of Pro Grain has any authority to bind Pro Grain to any affirmation, representation or warranty concerning its machinery and/or attachments except as specifically set forth here-in. Pro Grain reserves the rights to modify the warranty terms, product specifications, product designs, product operating procedure without previous notice and without obligation to the product already delivered.

# WARRANTY REGISTRATION FORM & INSPECTION REPORT

## WARRANTY REGISTRATION

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery.

Customer's Name \_\_\_\_\_

Dealer Name \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

City, State/Prov., Code \_\_\_\_\_

City, State/Prov., Code \_\_\_\_\_

Phone Number (\_\_\_\_) \_\_\_\_\_

Transfer Auger Model \_\_\_\_\_

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

Delivery Date \_\_\_\_\_

## DEALER INSPECTION REPORT

- \_\_\_\_\_ All Fasteners Tight
- \_\_\_\_\_ Auger Turns Freely
- \_\_\_\_\_ Auger Moves and Telescopes Freely
- \_\_\_\_\_ Appropriate Tire Pressure
- \_\_\_\_\_ Check Hydraulic System
- \_\_\_\_\_ Tighten Any Leaking Fittings

## SAFETY

- \_\_\_\_\_ Safety Chain on Hitch
- \_\_\_\_\_ All Decals Installed
- \_\_\_\_\_ Guards and Shields Installed and Secured
- \_\_\_\_\_ Review Operating and Safety Instructions

I have thoroughly instructed the buyer on the above described equipment which review included the Operator's Manual content, equipment care, adjustments, safe operation and applicable warranty policy.

Date \_\_\_\_\_ Dealer's Rep. Signature \_\_\_\_\_

Signature \_\_\_\_\_

The above equipment and Operator's Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date \_\_\_\_\_ Owner's Signature \_\_\_\_\_

WARRANTY CLAIM FORM (Request for Credit)						
DEALER NAME:				DATE:		
DEALER ADDRESS:						
CUSTOMER NAME:				DATE OF INVOICE (Purchase):		
CUSTOMER ADDRESS:						
PRODUCT:				PURCHASE INVOICE NO.:		
MODEL NO.:				DATE OF DELIVERY:		
SERIAL NO.:				DATE OF REPAIR:		
BRIEF DESCRIPTION OF PROBLEM & STEPS TAKEN TO REPAIR OR PREVENT REOCCURANCE:						
<p>** if possible, please provide pictures, copies of shop tickets and/or repair invoices.</p>						
PARTS:						
Parts installed. Replaced items must be returned	Quantity	Part#	Descr. Of Part	Unit Price	Amount	Factory Use Only
LABOUR (Rate and Time subject to approval by Pro Grain Equipment):						
Labour Hours	Labour Rate	Explanation	Total Charged	Factory Use Only		
Total Parts:		Total Labour:		Total:		
DEALER SIGNATURE:				DATE:		
PRO GRAIN EQUIPMENT SERVICE DEPARTMENT ONLY				CLAIM NUMBER:		
Approved		Parts Credit:		Comments:		
Partial Approved		Labour Credit:				
Not Approved		Total Credit:				
PRO GRAIN EQUIPMENT SIGNATURE:				DATE:		

**IMPORTANT:**

Spoken promises are difficult to remember.

Pro Grain Equipment will only accept written confirmation and subsequent authorization of work.

Warranty claims will not be accepted without an original warranty registration form.

Email form to [info@prograinequip.com](mailto:info@prograinequip.com) or fax to 1-306-255-2113.

Always give your dealer the serial number of your Pro Grain Equipment Ltd. Pro Grain transfer 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.



Conveyor/Auger Serial Number \_\_\_\_\_

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Congratulations on your choice of a Pro Grain Equipment Ltd. Pro Grain Transfer Auger on a Grain Bagger to complement your grain storage operation. This equipment has been designed and manufactured to meet the need for the efficient loading of grain or pulse crops into plastic storage bags.

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



This manual covers the Pro Grain Transfer Auger made by Pro Grain Equipment Ltd. Use the Index or Table 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 Pro Grain Equipment Ltd. 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 when standing at the hydraulic controls between the conveyor and tractor. Hopper is front and discharge is rear. Tractor is on the left side of conveyor.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or Pro Grain Equipment Ltd., Box 188, Colonsay, SK S0K 0Z0, Ph. 306-255-2112, Fax 306-255-2113.



### SAFETY ALERT SYMBOL

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



The Safety Alert symbol identifies important safety messages on your Pro Grain Equipment Ltd. Pro Grain Transfer 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 You Money**  
**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 guide-lines:

- 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 that, 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 distributor, dealer or Pro Grain Equipment Ltd., Box 188, Colonsay, SK S0K 0Z0, Ph. 306-255-2112, Fax 306-255-2113.

YOU are responsible for the SAFE operation and maintenance of your Pro Grain Equipment Ltd. Pro Grain Transfer Auger. YOU must ensure that you and anyone else who is going to operate, maintain or work around the Transfer 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 Pro Grain Transfer 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.

- Pro Grain Transfer 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 them. 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!

## 2.1 GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the Pro Grain Transfer Auger. 
2. Only trained competent persons shall operate the Pro Grain Transfer Auger.. An untrained operator is not qualified to operate the machine. 
3. Have a first-aid kit available for use should the need arise and know how to use it.
4. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
5. Do not allow children, spectators or bystanders within hazard area of machine.
6. Wear appropriate protective gear. This list includes but is not limited to:
  - A hard hat
  - Protective shoes with slip resistant soles
  - Protective goggles
  - Heavy gloves
  - Hearing protection
  - Respirator or filter mask
7. Place all controls in neutral or off, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
8. Review safety related items annually with all personnel who will be operating or maintaining the Pro Grain Transfer Auger.

## 2.2 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. Use a tractor equipped with a Roll Over Protective Structure (ROPS).
7. 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 farm machinery and trained in this equipment's operations. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.
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 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 auxiliary equipment and machine Manuals. Pay close attention to the Safety Signs affixed to the auxiliary equipment and the machine.

## 2.3 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 careless injuries. Read this manual, and the manual for your auxiliary equipment, before assembly or operating, to acquaint yourself with the machines. If this machine is used by any person other than yourself. It is the machine owner’s responsibility to make certain that the operator, prior to operating:**

- Reads and understands the operator’s manuals.
  - Is instructed in safe and proper use.
5. Know your controls and how to stop conveyors, PTO, hydraulic system and any other auxiliary equipment quickly in an emergency. Read this manual and the one provided with your other equipment.
  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 farm work, their physical limitations need to be recognized and accommodated.

## 2.4 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 displayed in Section 3 each have a part number in the lower right hand corner. Use this part number when ordering replacement parts.
5. 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 50° F (10° C).
- Determine exact position before you remove the backing paper. (See Section 3).
- 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.

## 2.5 PREPARATION

1. Never operate the Pro Grain Transfer Auger and auxiliary equipment until you have read and completely understand this manual, the auxiliary equipment Operator's Manual, and each of the Safety Messages found on the safety signs on the tractor, auger, bagger and auxiliary equipment.
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!**  
Motors or 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. Clear working area of debris, trash or hidden obstacles that might be hooked or snagged, causing injury, damage or tripping.
5. Operate only in daylight or good artificial light.
6. Be sure machine is properly pinned to the tractor, adjusted and in good operating condition.
7. Ensure that all safety shielding and safety signs are properly installed and in good condition.

8. Before starting, give the machine a "once over" for any loose bolts, worn parts, cracks, leaks, loose auger and make necessary repairs. Always follow maintenance instructions.

## 2.6 OPERATING SAFETY

1. Make sure that anyone who will be operating the Pro Grain Transfer Auger or working on or around the unit reads and understands all the operating, maintenance and safety information in the operator's manual. Also read and follow the instructions in the manuals of other equipment in the system.
2. Keep all bystanders, especially children, away from the machine when loading or unloading is being done, or when authorized personnel are carrying out maintenance work.
3. Establish a lock-out tag-out policy for the work site. Be sure all personnel are trained in and follow all procedures. Lock-out tag-out all power sources before servicing the unit or working around loading/unloading equipment.
4. Place all controls in neutral or off, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
5. Keep working area clean and free of debris to prevent slipping or tripping.
6. Do not enter bag unless PTO and hydraulic hoses are disconnected and stowed.
7. Keep hands, feet, hair and clothing away from rotating flighting and moving parts. Keep others away.
8. Install and secure all guards before starting.

9. Keep all hydraulic components in good condition before operating.
10. Clear the area of bystanders before moving bag mounting cradle.
11. Mount jack to the rear of the frame before removing drawbar pin to prevent hitch upending.
12. Raise hitch and secure before transporting on a public highway with a truck.
13. Install all transport lights and reflectors required by the highway authorities before transporting or install the optional light bar.
14. Review safety related items annually with all personnel who will operating, using or maintaining the Pro Grain Transfer Auger.

## 2.7 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 in a closed building. The exhaust fumes may cause asphyxiation.
4. Before working on this machine, shut off the engine, 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.

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.

## 2.8 LOCK-OUT TAG-OUT SAFETY

1. Establish a formal Lock-Out Tag-Out program for your operation.
2. Train all operators and service personnel before allowing them to work around the unloading system.
3. Provide tags on the machine and a sign-up sheet to record tag out details.

## 2.9 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.

## 2.10 TRANSPORT SAFETY

1. Comply with state and local laws governing safety and transporting of farm machinery on public roads.
2. Check that all the lights, reflectors and other lighting requirements are installed and in good working condition.
3. Do not exceed a safe travel speed. Slow down for rough terrain and when cornering.
4. Remove auger from auger tube and attach to rear hitch of Bagger or pickup before transporting.
5. Be sure that the machine is hitched positively to the towing vehicle and a retainer is used through the drawbar pin. Always attach a safety chain between the hitch and the towing vehicle.
6. Stay away from overhead power lines. Electrocutation can occur without direct contact.
7. Plan your route to avoid heavy traffic.
8. Do not drink and drive.
9. Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing roadways.
10. Never allow riders on the hitch or frame when transporting.

## 2.11 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 and steel lines.
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.



## 2.12 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.

## 2.13 DRIVELINE SAFETY

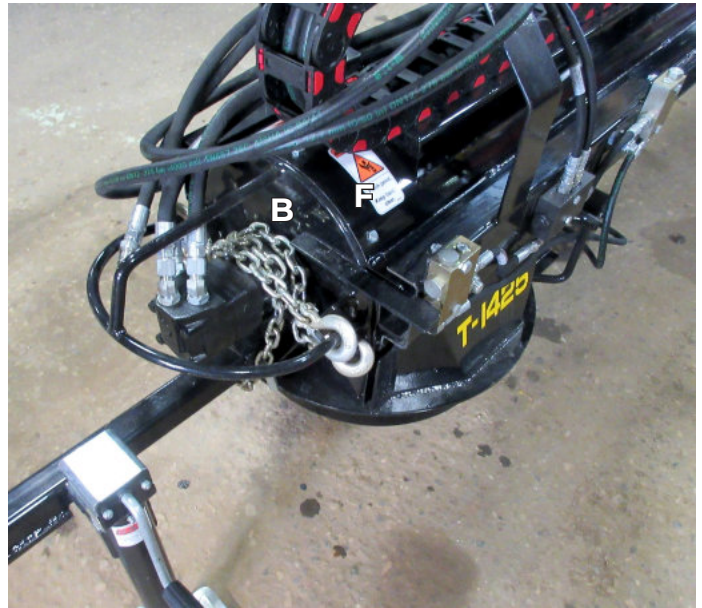
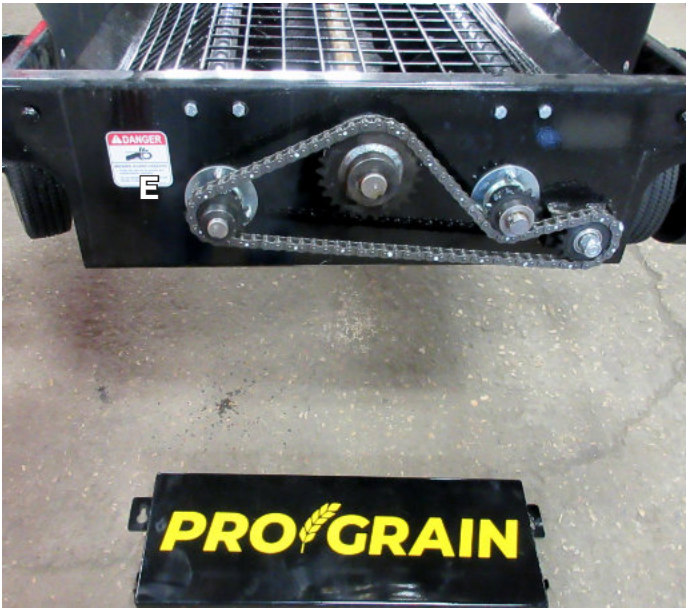
1. Do not allow children near equipment that is running or engaged.
2. Do not exceed 540 rpm PTO speed.
3. Disengage the PTO, move hydraulic lever out of detent, stop the tractor engine and remove the ignition key before making inspections or performing maintenance and repairs.
4. Lubricate the driveline as recommended in the Maintenance section.
5. Keep hoses, wiring, ropes, etc. from dangling too close to the driveline.
6. Install driveline and shields according to recommended lengths and attaching methods with recommended hardware. The driveline shield should rotate independently and telescope freely. The retaining chain must be secured to the implement safety shield.
7. Check the length of the telescoping members to insure the driveline will not bottom out or separate when operating.
8. Proper extended and collapsed lengths of the telescoping PTO shaft must be verified before first operation with each and every tractor. If the extended length of the PTO shaft is insufficient, it may become uncoupled during operation and cause serious injury or death from contact with uncontrolled flailing of PTO shaft assembly components.
9. Do not use PTO adaptors with this machine.





The types of safety signs and locations on the equipment are shown in the illustration below. Good safety requires your SAFETY AWARENESS in the following areas:

- That you familiarize yourself with the various Safety Signs
- The type of warning and the area.
- Particular function related to area.



A

B

C

CAUTION

- Read and understand Operator's Manual before starting.
- Place all controls in neutral, stop engine set park brake and wait for all moving parts to stop before servicing, adjusting, repairing or maintaining.
- Install and secure all guards and shields before starting.
- Keep hands, feet, hair and clothing away from moving parts. Keep others away.
- Do not enter bag conveyor unless PTO and hydraulic lines are disconnected.
- Stay away from rotating flying and moving parts. Keep others away.
- Clear the area of bystanders before moving bag mounting cradle.
- Fully retract conveyor to reduce footprint before storing.
- Remove conveyor from auger tube and attach to rear hitch before transporting.
- Keep hydraulic lines and fittings tight, in good condition and free of leaks.
- Review safety instructions annually.

AAW-10

WARNING

HIGH PRESSURE FLUID HAZARD

To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.

AAW-46

DANGER

ROTATING FLIGHTING HAZARD

KEEP AWAY

To prevent serious injury or death from rotating flying:

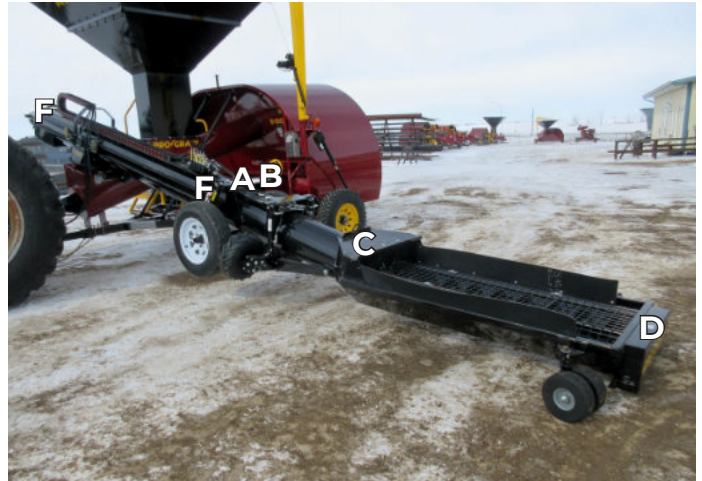
- Place all controls in neutral, stop engine, remove ignition key, set park brake and wait for all moving parts to stop before adjusting, servicing, repairing or maintaining.
- Do not enter bag or approach auger unless PTO and hydraulic lines are disconnected.
- Keep hands, feet, hair and clothing away from moving parts.

AAW-58

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.

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D



E



F



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.



## OPERATING SAFETY

- Make sure that anyone who will be operating the Pro Grain Transfer Auger or working on or around the unit reads and understands all the operating, maintenance and safety information in the operator's manual. Also read and follow the instructions in the manuals of other equipment in the system.
- Keep all bystanders, especially children, away from the machine when loading or unloading is being done, or when authorized personnel are carrying out maintenance work.
- Establish a lock-out tag-out policy for the work site. Be sure all personnel are trained in and follow all procedures. Lock-out tag-out all power sources before servicing the unit or working around loading/unloading equipment.
- Place all controls in neutral or off, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
- Keep working area clean and free of debris to prevent slipping or tripping.
- Do not enter bag unless PTO and hydraulic hoses are disconnected and stowed.
- Keep hands, feet, hair and clothing away from rotating flighting and moving parts. Keep others away.
- Install and secure all guards before starting.
- Keep all hydraulic components in good condition before operating.
- Clear the area of bystanders before moving bag mounting cradle.
- Mount jack to the rear of the frame before removing drawbar pin to prevent hitch upending.
- Raise hitch and secure before transporting on a public highway with a truck.
- Install all transport lights and reflectors required by the highway authorities before transporting or install the optional light bar.
- Review safety related items annually with all personnel who will operating, using or maintaining the Pro Grain Bagger.
- Review safety related items annually with all personnel who will operating, using or maintaining the Pro Grain Transfer Auger.

### 4.1 TO THE NEW OPERATOR OR OWNER

The Pro Grain Transfer Auger is designed to efficiently move grain or pulse crops into plastic storage bags. PTO and hydraulic power is provided by a tractor on the front of the machine. Be familiar with the machine before starting.

It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the machine. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, and prudence of personnel involved in the operation, transport, maintenance and storage of equipment or in the

use and maintenance of facilities.

Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the worksite. Untrained operators are not qualified to operate the machine.

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

## 4.2 MACHINE COMPONENTS

The Pro Grain Equipment Ltd. Pro Grain Transfer Auger is a machine designed to receive grain from the discharge of transport truck and move it to the centre auger of a Bagger. The Bagger in turn moves the grain into a large plastic bag.

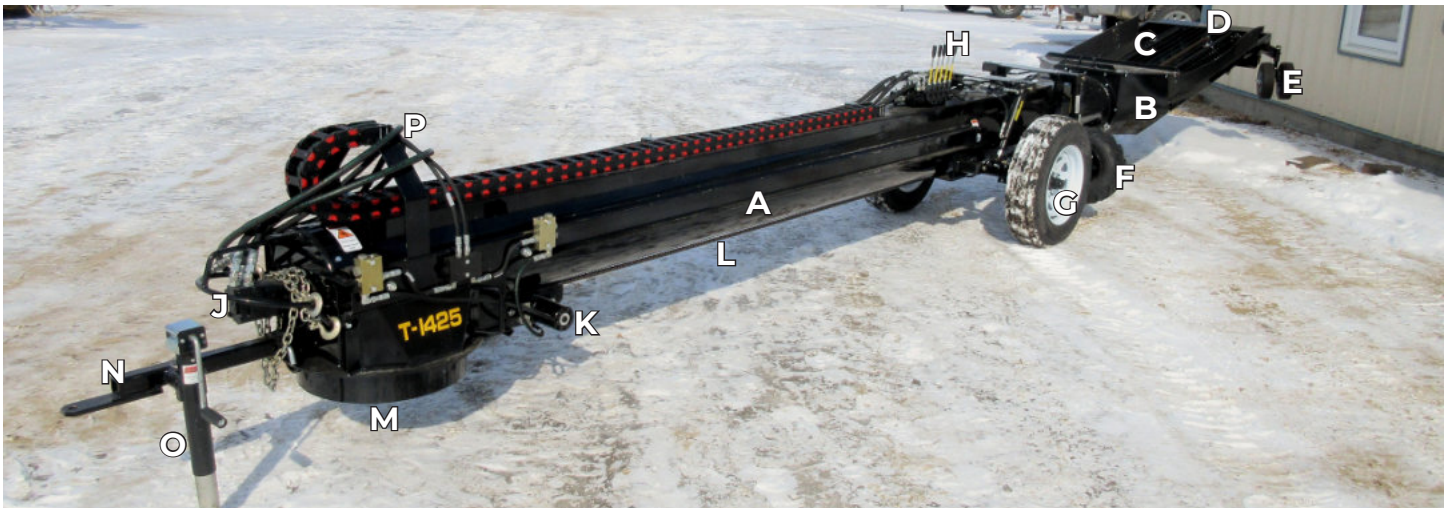
The tractor provides PTO power for the auger on the Bagger and hydraulic power to run the Transfer Auger. The Transfer Auger is designed with a hitch and jack for transporting and transport and swing wheels for moving. Castor wheels on the end of the hopper allow the machine to move under the truck discharge as the bag fills. The frame telescopes as required to move in and out from under the truck discharge. All the hydraulic controls are mounted on top of the tube convenient to the operator.

Always use the Bagger manual with this manual to obtain the recommended safe operating and servicing instructions for the equipment.

**Fig. 1 MACHINE COMPONENTS**

- A Transfer Auger
- B Hopper
- C Hopper Flighting
- D Hopper Drive
- E Castor Wheels
- F Swing Wheels
- G Transport Wheels
- H Hydraulic Controls
- J Flighting Drive Motor
- K Telescoping Drive Motor
- L Telescoping Chain
- M Discharge
- N Hitch
- O Jack
- P Hydraulic Hoses

**Fig. 1 MACHINE COMPONENTS**



### 4.3 PRE-OPERATION CHECKLIST

Efficient and safe operation of the Pro Grain Transfer 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 Pro Grain Transfer Auger that this checklist is followed.

Before operating the Pro Grain Transfer 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 that provides oil at the required pressure and flow to operate the machine. Transfer Auger needs one outlet with 84 lpm (22 gpm) at 2200 psi (11,000 kpa).
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 flighting. Remove any twine, plastic or other material that has become entangled.
6. Check that all bearings turn freely. Replace any that are rough or seized.
7. Check for hydraulic leaks. Tighten any leaking fittings.
8. Check flighting for excessive wear.

### 4.4 MACHINE BREAK-IN

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

#### A. Before starting work:

1. Read the Pro Grain Transfer Auger Operator's Manual.

#### B. After operating or for the first 1/2 hour:

1. Re-torque all the fasteners and hardware.
2. Check that all safety signs are installed and legible. Apply new signs if required.
3. Check the hopper drive chain tension and alignment. Tension or align as required.
4. Check that all guards are installed and working as intended.
5. Check condition of auger bearings.
6. Check the conveyor augers for entangled material. Remove any entangled material.
7. Lubricate all grease fittings.

#### C. After operating for 5 hours and 10 hours:

1. Repeat items 1 through 7 above.
2. Then go to the normal servicing and maintenance schedule as defined in the Maintenance Section.

## 4.5 CONTROLS

Before starting to operate the Pro Grain Transport Auger, all operators should familiarize themselves with the location and function of all controls.

Each machine is equipped with a bank of hydraulic controls mounted on top or side of the conveyor frame.

### 1. Augers On/Off:

This 3 position valve in the circuit to the auger motor controls the flow of oil to the hydraulic drive motor. Pull the lever to place it in its detent and run the augers in their operating direction. Push to run the auger in its reverse direction. Move the lever into its centre position to stop the augers.

### 2. Frame Telescoping:

This 3 position lever controls the flow of oil to the frame telescoping hydraulic motor. Pull and hold (this position is spring-loaded to centre-neutral) to retract the frame. Push and hold (spring-loaded to centre-neutral) to extend the frame. Release the lever and the frame will stop and stay in position.

### 3. Transport Wheel Height:

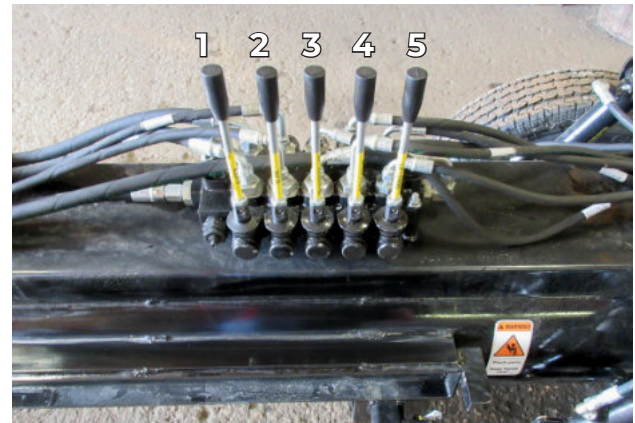
This 3 position spring-loaded to centre-neutral lever controls the flow of oil to the transport wheel height hydraulic cylinder. Pull and hold the lever to raise the wheel frame. Push and hold to lower the wheels. Release the lever and the wheel frame will stop moving.

### 4. Auger Swing Angle:

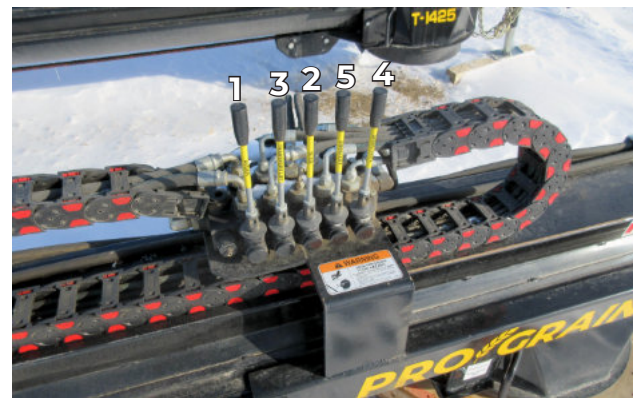
This 3 position spring-loaded to centre-neutral lever controls the flow of oil to the radial drive wheels. Pull and hold the lever to move the frame toward you (away from the bag). Push and hold to hold the frame away from you (toward the bag). Release the lever and the drive wheels will stop moving.

### 5. Swing Wheel Height:

This 3 position spring-loaded to centre-neutral lever controls the flow of oil to the swing drive wheel height hydraulic cylinder. Pull and hold to raise the frame and hopper. Push and hold to lower the frame. Release the lever and the frame will stop moving up and down.



T-1450



T-1415

FIG. 2 CONVEYOR HYDRAULIC CONTROLS



## 4.6 ATTACHING/UNHOOKING

The Pro Grain Transfer Auger uses a tractor for operation and at times for moving or transporting.

### 4.6.1 TRACTOR

When attaching the machine to a tractor, follow this procedure.

1. Clear the area of bystanders, especially small children.
2. Make sure there is enough room and clearance to safely move the conveyor up to the tractor and Bagger.
3. While moving the auger into position, align the hydraulic hoses on the end of the frame with the outlets on the tractor.



**FIG. 3 ALIGNING**

4. Remove the cover over the Bagger auger tube and place in a safe place.



**FIG. 4 COVER REMOVED**

5. Unpin and remove hitch and jack and store in a secure place.



**Anchor Pin**



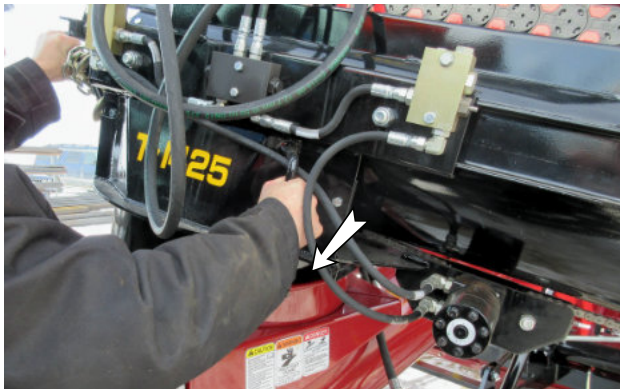
**Removed**

**FIG. 5 HITCH REMOVAL**

- 6. Move the auger discharge over the intake opening on the Bagger tube.



**Handle**



**Discharge**

**FIG. 6 MOVING AUGER**

- 7. Remove the hydraulic hoses from the auger frame and connect to the tractor outlets.



**First**



**Both**

**FIG. 7 ATTACHING HOSES**

**IMPORTANT**

Use a clean cloth or paper towel to clean both the male tips and female outlets to prevent contaminating system.

8. Use the position of the transport wheels to transfer weight discharge end and seat it completely in the tube opening.



**FIG. 8 SEATED**

#### 4.6.2 POSITIONING CONVEYOR

1. **Extending/Retracting Telescoping:**  
The conveyor frame is designed to telescope in and out to enable it to move under a transport truck when unloading and retract when truck needs to move.
  - a. Raise the transport and swing wheel assemblies up off the ground.
  - b. Use the appropriate control lever to telescope frame. Refer to section 4.5 Controls.



**Wheels Up**



**Retracted**



**Extended**

**FIG. 9 TELESCOPING**

2. **Swing Angle:**

The auger is designed to move the hopper from side to side as required to fit under a transport truck discharge. Although the auger swing angle is limited only by the position of the tractor and Bagger. The best results are swinging +/- 20° from perpendicular.

- a. Use the appropriate control lever to raise the transport wheels into their fully up position. Refer to section 4.5 Controls.
- b. Lower the swing wheel frame into its fully down position or sufficient to swing frame but not interfere with truck discharge frame.

**NOTE**

Monitor the clearance between the truck discharge and the hopper to prevent contact.

- c. Use the appropriate control lever to move the hopper to the left or right as desired with the swing wheels.

**IMPORTANT**

It is recommended that the auger be positioned forward (next to tractor) when starting to unload a transport truck. In that way, the operator can move the hopper so that it can remain under the truck discharge as the Bagger moves forward while filling the bag.

- d. Stand next to the hydraulic controls and monitor the position of the hopper under the truck discharge.
- e. Use the swing function as required to keep the hopper centered under the truck discharge.



**Wheels Down**



**Forward**



**Back**

**FIG. 10 SWING**

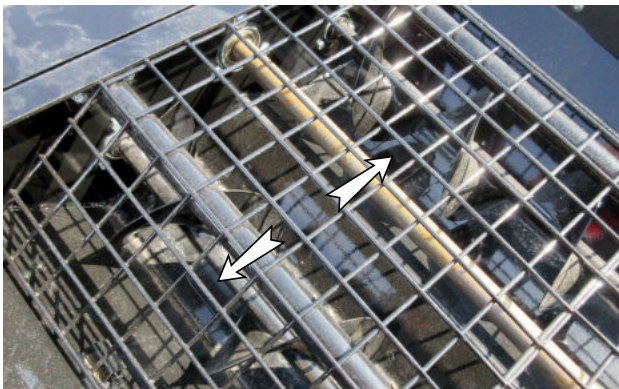
**4.6.3 FEATURES**

**1. Hopper Drain:**

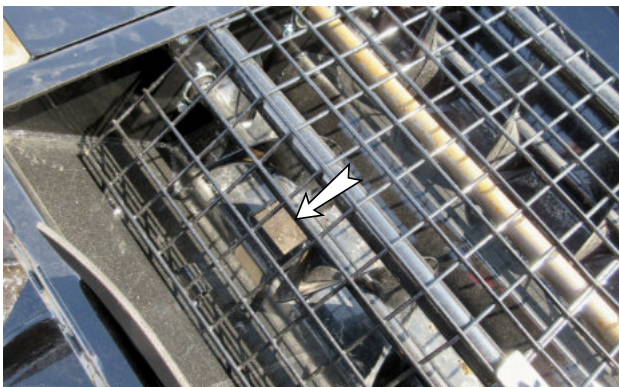
Each hopper is designed with a drain hole on the bottom of each auger in the hopper. Pull the slide out to open the hole and allow the water to drain out.



**Slide Closed**



**Closed**



**Open**

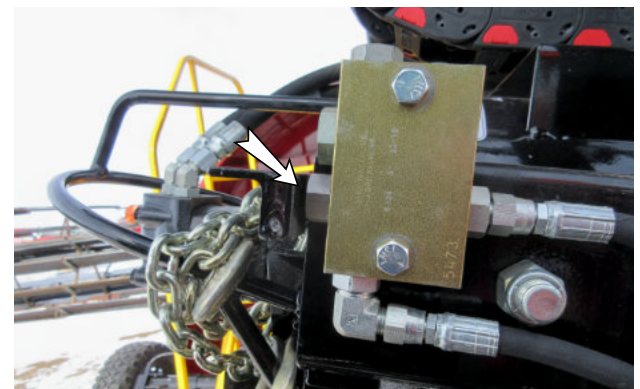
**FIG. 11 HOPPER DRAIN**

**2. Telescoping Stop Switches:**

The frame is designed to telescope freely into its fully extended and retracted configuration. A valve is mounted on the frame with a stop switch on either side that stops the frame movement prior to bottoming out. Always keep the push button switches free from trash and debris that could interfere with their operation.



**Switches**



**Engaged**

**FIG. 12 STOP SWITCHES**

2. **Lifting Frame:**

The auger frame is equipped with a loop on the lower end of the tube that can be used to lift the machine with the winch on the Bagger.

- a. Move the winch anchor locations into the arm detent closest to the boom mast.
- b. Place winch in free-wheeling configuration and pull the pulley/hook down.
- c. Attach hook to loop on auger frame.
- d. Convert winch into its lift configuration.
- e. Raise the auger and move into its desired position.
- f. Use the auger telescoping feature as required to balance the frame weight.
- g. Lower auger to the ground, release hook and stow boom as appropriate when auger is positioned.



**FIG. 13 ANCHOR LOCATION**



**Pulley/Hook**



**Lifted**

**FIG. 14 LIFTING**

#### 4.6.4 OPERATING HINTS:

Although the auger is easy to use, the operator should read and follow all the instructions in this manual to obtain maximum operator safety and efficiency.



1. Move auger next to tractor and Bagger.
2. Remove hitch and Bagger intake auger tube cover.
3. Move auger discharge over tube intake.
4. Connect hydraulic hoses to tractor and place tractor circuit in detent.
5. Swing and telescope as required to place hopper under truck discharge.
6. Start Bagger and then auger.
7. Open truck discharge to load hopper.
8. Swing auger as required to keep the hopper under the truck discharge.
9. When truck box is empty or bag is full, close discharge and wait for auger to empty
10. Turn auger off.
11. Turn PTO off.
12. Retract auger and swing as required out of the way.
13. Move truck or bring a new one into position.
14. Move hopper back under truck discharge.
15. Start auger and repeat unloading process.



**FIG. 15 OPERATING (TYPICAL)**

## 4.7 STORAGE



### STORAGE SAFETY

- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored machine.
- Store the unit in a dry, level area. Support the wheels with planks if required.

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. Clear the area of bystanders, especially small children.
2. Remove all residual material from the auger, flighting and auger tube.
3. Thoroughly wash the entire machine using a pressure washer to remove all dirt, mud, debris or residue but avoid bearings.
4. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove entangled material.
5. Lubricate all grease fittings to remove any moisture in the bearings.
6. Run the machine slowly for 1 minute to distribute lubricant to all surfaces.
7. Install the hitch and jack assembly on the front of the frame and secure with its anchor pin and retainer



**FIG. 16 HITCH ASSEMBLY**

8. Unhook auger from Bagger and disconnect hydraulic hoses from tractor.
9. Touch up all paint nicks and scratches to prevent rusting.
10. Select an area that is dry, level and free of debris.
11. Store machine inside if possible.
12. Do not allow children to play on or around the stored machine.
13. Unhook from tractor or truck if transported (see section 4.6.1 or 4.6.2 respectively)



**FIG. 17 STORED**



## 4.8 TRANSPORTING



### TRANSPORT SAFETY

- Comply with state, provincial and local laws governing safety and transporting of farm machinery on public roads.
- Check that all the lights, reflectors and other lighting requirements are installed and in good working condition.
- Do not exceed a safe travel speed. Slow down for rough terrain and when cornering.
- Remove auger from auger tube and attach to rear hitch before transporting.
- Be sure that the machine is hitched positively to the towing vehicle and a retainer is used through the hitch pin. Always attach a safety chain between the hitch and the towing vehicle.
- Stay away from overhead power lines. Electrocutation can occur without direct contact.
- Plan your route to avoid heavy traffic.
- Do not drink and drive.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing roadways.
- Never allow riders on the hitch or frame when transporting.

Pro Grain Transfer Augers are designed to be easily and conveniently moved from location to location.

When transporting, follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Be sure the Transfer Auger is hitched securely to the Bagger, tractor or truck. Always use a safety chain between the machine and the tow vehicle and a retainer on the drawbar pin.
3. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the shoulder if permitted by law.
4. Install optional lighting bar or turn on transport lights on tow vehicle.
5. Make sure all the lights and reflectors required by local highway and transport authorities are in place, clean, and in good working order and clearly visible to all overtaking and on-coming traffic.

- Remove auger from Bagger and connect to hitch at the bottom of the tunnel or connect to a truck.



**Bagger Hitch**



**Safety Chain/Jack**

**FIG. 18 BAGGER**

- Hook up to a truck for transport.



**Truck Hitch**



**Safety Chain/Jack**

**FIG. 19 TRUCK**

- Always use a pin with a retainer when attaching auger to the Bagger, tractor or truck.
- Do not allow riders on the machine or tractor.
- Always use a 3/4 ton or larger truck to provide sufficient control when transporting.



**FIG. 20 TRUCK TRANSPORTING (TYPICAL)**



## MAINTENANCE SAFETY

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- 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.
- Make sure there is plenty of ventilation. Never operate the engine in a closed building. The exhaust fumes may cause asphyxiation.
- Before working on this machine, shut off the engine, and remove the ignition keys.
- Never work under equipment unless it is blocked securely.
- Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance.
- 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.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.
- Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
- When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.

## 5.1 SERVICE

### 5.1.1 FLUIDS AND LUBRICANTS

#### 1. Grease:

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

#### 2. 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.

### 5.1.2 GREASING

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

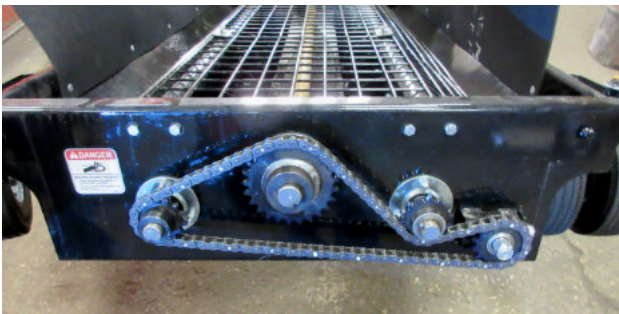
1. Use a hand-held grease gun for all greasing.
2. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
3. Replace and repair broken fittings immediately.
4. If fittings will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

### 5.1.3 SERVICING INTERVALS

The period recommended is based on normal operating conditions. Severe or unusual conditions may require more frequent lubrication or oil changes.

#### After First Use

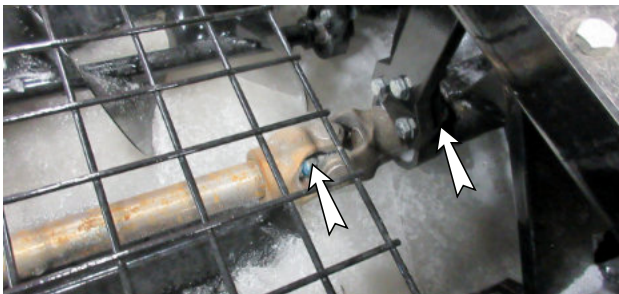
1. Check tension and alignment of hopper drive chain.



**FIG. 21 ROLLER CHAIN**

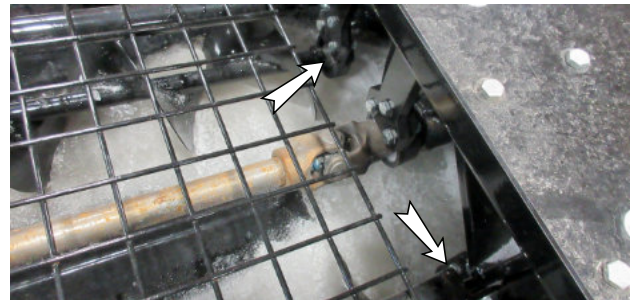
10 Hours, Daily or Every 5 Bags

2. Grease hopper shaft:



**FIG. 22 HOPPER SHAFT**

3. Grease flighting shafts:



**FIG. 23 FLIGHTING SHAFTS**

4. Grease castor wheels:

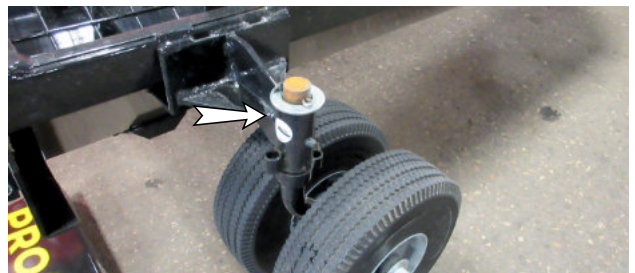


**FIG. 24 CASTOR WHEELS (TYPICAL)**

5. Grease castor wheel shafts:



**Castor Wheels - Left**

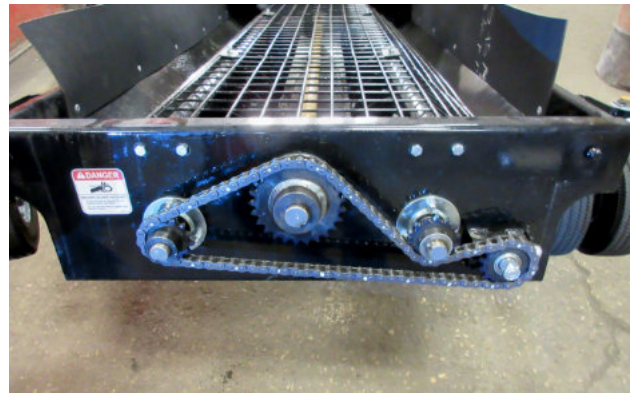


**Castor Wheels - Right**

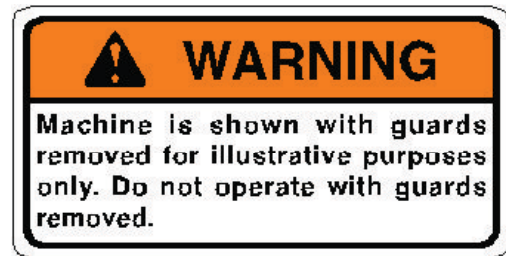
**FIG. 25 CASTOR WHEEL SHAFTS**

**40 Hours, Weekly or 50 Bags**

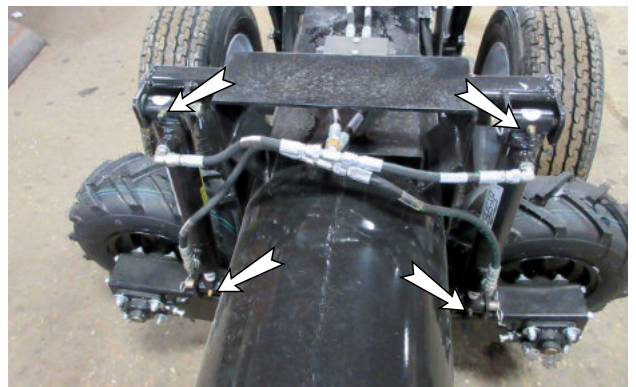
1. Check tension and alignment of hopper drive chain.



**FIG.26 ROLLER CHAIN**

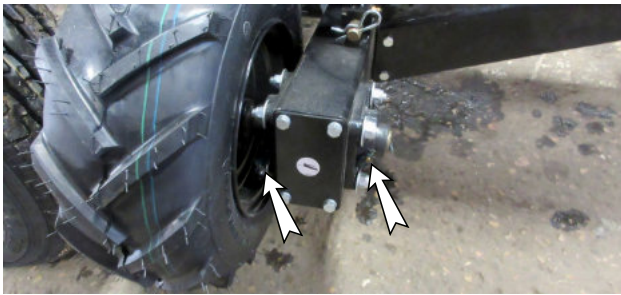


2. Grease the swing wheel assembly cylinder ends:

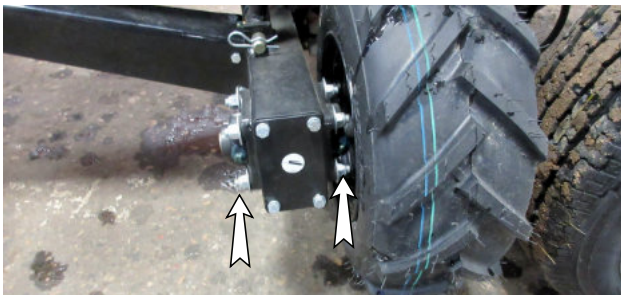


**FIG. 27 WHEEL ASSEMBLY CYLINDER ENDS BUSHINGS**

3. Grease swing wheel drive shaft bearings:



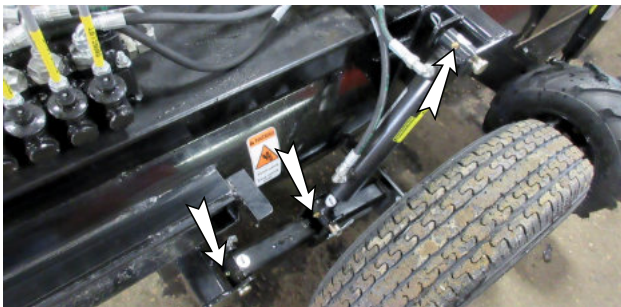
Left



Right

**FIG. 28 SWING WHEEL AXLE BEARINGS**

4. Grease swing wheel drive shaft bearings:



Left

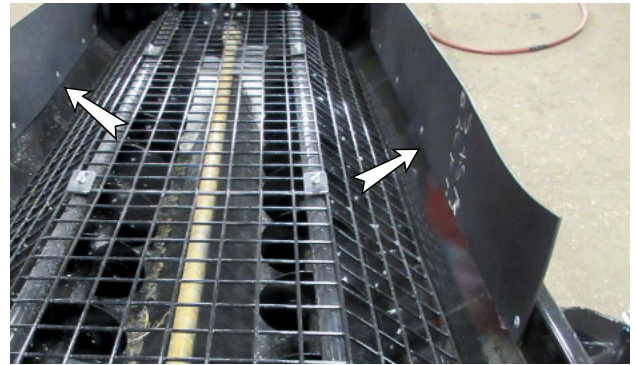


Right

**FIG. 29 TRANSPORT WHEEL LIFT ASSEMBLY BUSHINGS**

**Annually**

1. Check the condition of flashing in the hopper. Replace if worn grain. Replace if worn “and losing” grain.



**FIG. 30 FLASHING**

2. Repack wheel bearings.



**FIG. 31 WHEEL BEARING**

3. Clean machine.



**FIG. 32 CLEAN MACHINE**



## 5.2 MAINTENANCE

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

### 5.2.1 DRIVE CHAIN TENSION AND ALIGNMENT

A roller chain is used to transmit the primary input power to the side auger flighting in the hopper. It must be kept properly tensioned and the sprockets aligned to obtain the expected performance and life.

To check the tension and alignment, follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Turn machine off, stop engine, remove ignition key and place in your pocket or disconnect hydraulic hoses from tractor and wait for all moving parts to stop.
3. Remove guard over chain drive.



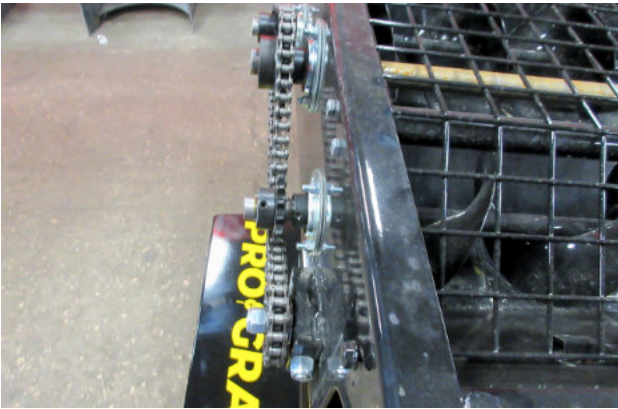
FIG. 33 HOPPER CHAIN DRIVE SYSTEM



4. The chain should have +/- 1/32 inch (0.7 mm) of play to be properly tensioned.
5. To adjust chain tension:
  - a. Loosen mounting bolts on idler bearing housing.
  - b. Move the idler to the required position to set chain tension.
  - c. Tighten bearing housing mounting bolts to their specified torque.
6. To replace chain:
  - a. Move idler sprocket to its loosest position.
  - b. Split and replace with genuine Pro Grain parts.
  - c. Set chain tension.
  - d. Tighten idler sprocket mounting bolts to their specified torque.
  - e. Install and secure guard.
  - f. Check frequently during the first ten hours and set chain tension as required.



7. To check and adjust sprocket alignment:
  - a. Remove guard over chain drive system.
  - b. Lay a straightedge across the faces of the sprockets or sight across them.



**FIG. 34 HOPPER CHAIN DRIVE SYSTEM**

- c. If the sprocket faces are more than 0.7 mm (1/32 inches) from the straightedge, the sprocket(s) must be aligned.
- d. Loosen the setscrew in the sprocket hub and move sprocket to the required position.
- e. Tighten set screws.
- f. Check alignment again.
- g. Install and secure guard.

## 6 TROUBLE SHOOTING

The Pro Grain Equipment Ltd. Pro Grain Transfer Auger uses augers to gather, raise and discharge grain into the Bagger loading auger. It is a simple and reliable system that requires minimal maintenance.

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

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

PROBLEM	CAUSE	SOLUTION
Auger will not run	Tractor hydraulics off.	Place tractor hydraulics in detent.
	Auger hydraulics off.	Place machine hydraulics in detent.
	Hydraulic flow too high.	Turn flow rate down on tractor.
Low capacity.	Low oil flow.	Increase engine RPM to increase hydraulic flow or open flow divider.

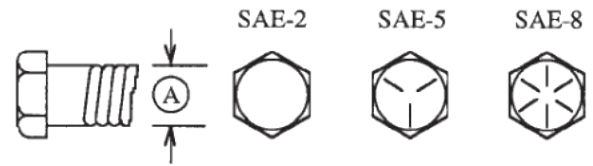
Parameter	Model			
	T-1423	T1425		
Width (feet)	4' 8"	4'		
Length - No Hitch (feet)	23'	25'		
Height (feet)	3'	3'		
Weight (lbs.)	1650	1765		
HP Required	80-100 depending on bagger			
Main Auger Size (inches)	14"	14"		
Auger/Telescoping Range (feet)	9'	9'		
Auger/Radial Range (feet)	15'	15'		
Auger Capacity (Bushels per hour)	11,500	11,500		
Swing Auger Drive	Hydraulic			
Hydraulics: Auger (GPM)	22	22		

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

## 7.2 BOLT TORQUE

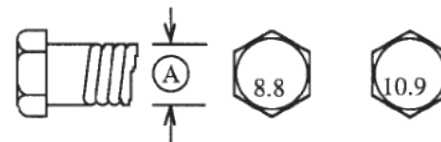
### CHECKING BOLT TORQUE

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



### ENGLISH TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*					
	SAE 2 (N.m) (lb-ft)		SAE 5 (N.m) (lb-ft)		SAE 8 (N.m) (lb-ft)	
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650
1"	345	225	850	630	1320	970



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

### METRIC TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*			
	8.8 (N.m) (lb-ft)		10.9 (N.m) (lb-ft)	
M3	.5	.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710

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

### 7.3 HYDRAULIC FITTING TORQUE

#### TIGHTENING FLARE TYPE TUBE FITTINGS \*

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut until snug.
4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

\* The torque values shown are based on lubricated connections as in reassembly.

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Value*		Recommended Turns To Tighten (After Finger Tightening) (Flats) (Turn)	
		(N.m)	(lb-ft)	(Flats)	(Turn)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4	1/8

#### TIGHTENING O-RING FITTINGS \*

1. Inspect O-ring and seat for dirt or obvious defects.
2. On angle fittings, back the lock nut off until washer bottoms out at top of groove.
3. Hand tighten fitting until back-up washer or washer face (if straight fitting) bottoms on face and O-ring is seated.
4. Position angle fittings by unscrewing no more than one turn.
5. Tighten straight fittings to torque shown.
6. Tighten while holding body of fitting with a wrench.

\* The torque values shown are based on lubricated connections as in reassembly.

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Value*		Recommended Turns To Tighten (After Finger Tightening) (Flats) (Turn)	
		(N.m)	(lb-ft)	(Flats)	(Turn)
3/8	1/2	8	6	2	1/3
7/16	9/16	12	9	2	1/3
1/2	5/8	16	12	2	1/3
9/16	11/16	24	18	2	1/3
3/4	7/8	46	34	2	1/3
7/8	1	62	46	1-1/2	1/4
1-1/16	1-1/4	102	75	1	1/6
1-3/16	1-3/8	122	90	1	1/6
1-5/16	1-1/2	142	105	3/4	1/8
1-5/8	1-7/8	190	140	3/4	1/8
1-7/8	2-1/8	217	160	1/2	1/12

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