

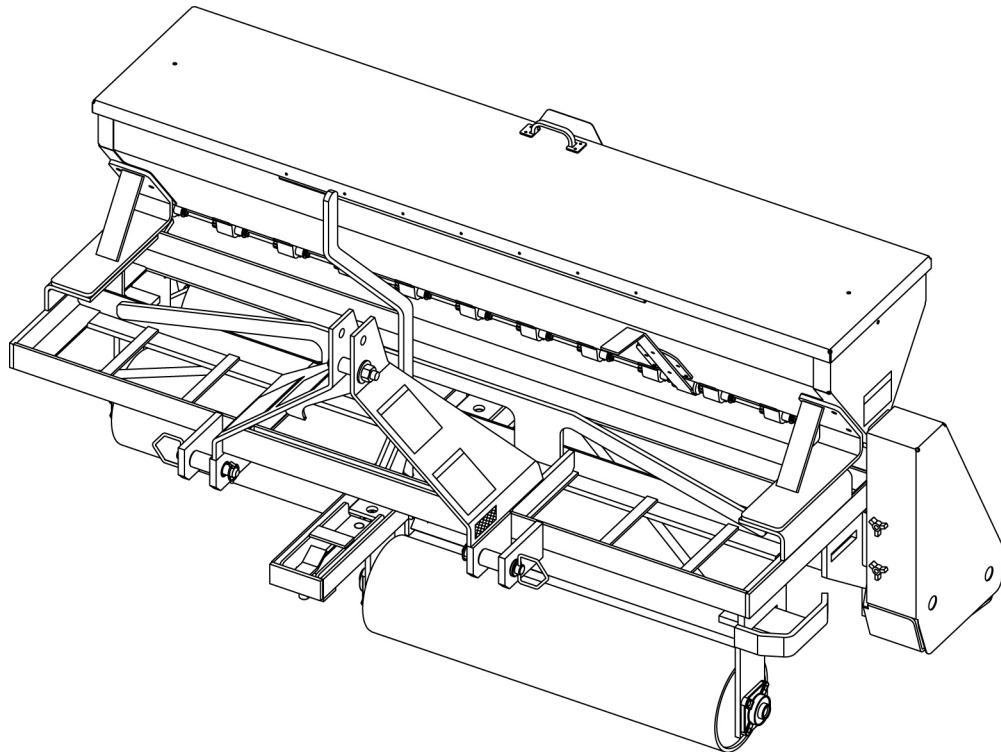
O P E R A T O R ' S M A N U A L

OVERSEEDER

TR1048

TR1060

TR1072



FRONTIER
EQUIPMENT™

TO THE DEALER:

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

TO THE OWNER:

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

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

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

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

Model: _____ **Date of Purchase:** _____

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

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

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



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

IMPORTANT
or **NOTICE**

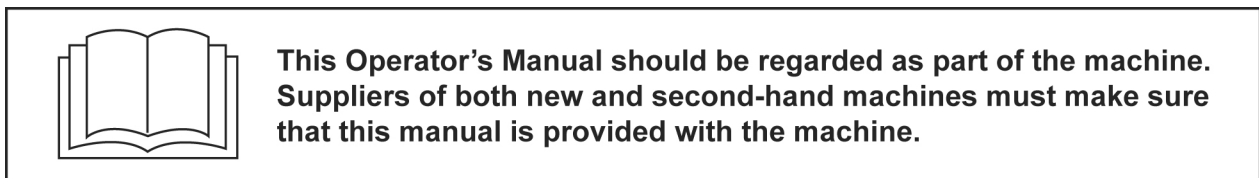
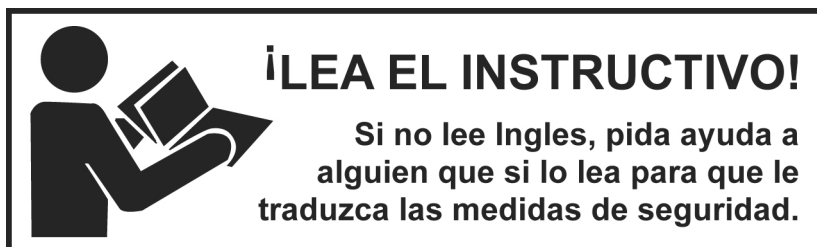
Is used to address practices not related to personal injury.

NOTE

Indicates helpful information.

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SPECIFICATIONS

OVERSEEDER	TR1048	TR1060	TR1072
Working Width	47" (119 cm)	59" (150 cm)	71" (180 cm)
Overall Width	58" (147 cm)	70" (178 cm)	82" (208 cm)
Roller Pins	1/2" x 1-3/4" (13 x 44 mm)	1/2" x 1-3/4" (13 x 44 mm)	1/2" x 1-3/4" (13 x 44 mm)
Bearing (Self-Aligning)	Six 1" (25 mm)	Six 1" (25 mm)	Six 1" (25 mm)
Front Roller Positions	Adjustable for increased agitation		
Roller Diameter: Front & Rear	8" (20 cm)	8" (20 cm)	8" (20 cm)
Hitch	Cat. 1	Cat. 1	Cat. 1
Implement Code for Tractor Ballast	34.8	43.4	52.0
Tractor HP Requirement	65 hp Max. (48 kw)	65 hp Max. (48 kw)	65 hp Max. (48 kw)
Weight W/Seedbox (Mass)	690 lbs. (314 kg)	860 lbs. (391 kg)	1030 lbs. (468 kg)
Seedbox Capacity (Liter)	3 Bushel (91 l)	4 Bushel (121 l)	5 Bushel (151 l)
Seed Distribution Method	Metered gear with flow adjustment lever		

GENERAL INFORMATION

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

The illustrations and data used in this manual were current at the time of printing but, due to possible inline production changes, your machine may vary slightly in

detail. We reserve the right to redesign and change the machines as may be necessary without notification.

WARNING

■ **Some illustrations in this manual show the equipment with safety shields removed to provide a better view. This equipment should never be operated with any necessary safety shielding removed.**

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

4 Introduction

5WPMAN0100 (Rev. 2/16/2009)

SAFETY RULES



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



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

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

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



¡LEA EL INSTRUCTIVO!

Si no lee Ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.

TRAINING

- Safety instructions are important! Read all attachment and power unit manuals; follow all safety rules and safety decal information. (Replacement manuals and safety decals are available from your dealer.) Failure to follow instructions or safety rules can result in serious injury or death.
- If you do not understand any part of this manual and need assistance, see your dealer.
- Know your controls and how to stop engine and attachment quickly in an emergency.
- Operators must be instructed in and be capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.
- Never allow children or untrained persons to operate equipment.

PREPARATION

- Check that all hardware is properly installed. Always tighten to torque chart specifications unless instructed otherwise in this manual.
- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in "locked up" position at all times.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)
- A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and equipment. Do not estimate.
- Inspect and clear area of stones, branches, or other hard objects that might be thrown, causing injury or damage.

TRANSPORTATION

- Always comply with all state and local lighting and marking requirements.
- Never allow riders on power unit or attachment.
- Do not operate or transport on steep slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Do not operate or transport equipment while under the influence of alcohol or drugs.

OPERATION

- Keep bystanders away from equipment.
- Do not operate or transport equipment while under the influence of alcohol or drugs.
- Operate only in daylight or good artificial light.
- Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.
- Never allow riders on power unit or attachment.

(Safety Rules continued on next page)



SAFETY RULES

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



(Safety Rules continued from previous page)

- Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.
- Always sit in power unit seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting power unit engine.
- Look down and to the rear and make sure area is clear before operating in reverse.
- Use extreme care when working close to fences, ditches, other obstructions, or on hillsides.
- Do not operate or transport on steep slopes.
- Do not stop, start, or change directions suddenly on slopes.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Watch for hidden hazards on the terrain during operation.
- Stop power unit and equipment immediately upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation.
- Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.
- NEVER GO UNDERNEATH EQUIPMENT. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.
 - Service work does not require going underneath.
 - Read Operator's Manual for service instructions or have service performed by a qualified dealer.

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

MAINTENANCE

- Before dismounting power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.
- NEVER GO UNDERNEATH EQUIPMENT. Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.
 - Service work does not require going underneath.
 - Read Operator's Manual for service instructions or have service performed by a qualified dealer.
- Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.
- Make sure attachment is properly secured, adjusted, and in good operating condition.
- Keep all persons away from operator control area while performing adjustments, service, or maintenance.
- Tighten all bolts, nuts, and screws to torque chart specifications. Check that all cotter pins are installed securely to ensure equipment is in a safe condition before putting unit into service.
- Make sure all safety decals are installed. Replace if damaged. (See Safety Decals section for location.)

STORAGE

- Block equipment securely for storage.
- Keep children and bystanders away from storage area.



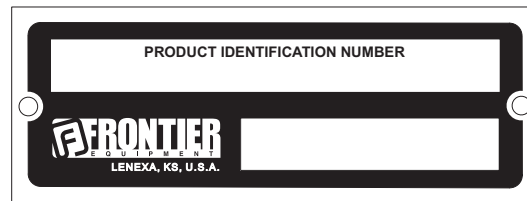
SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

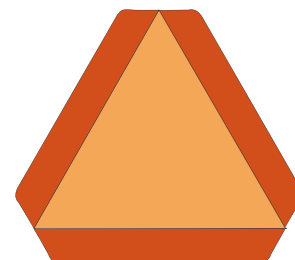
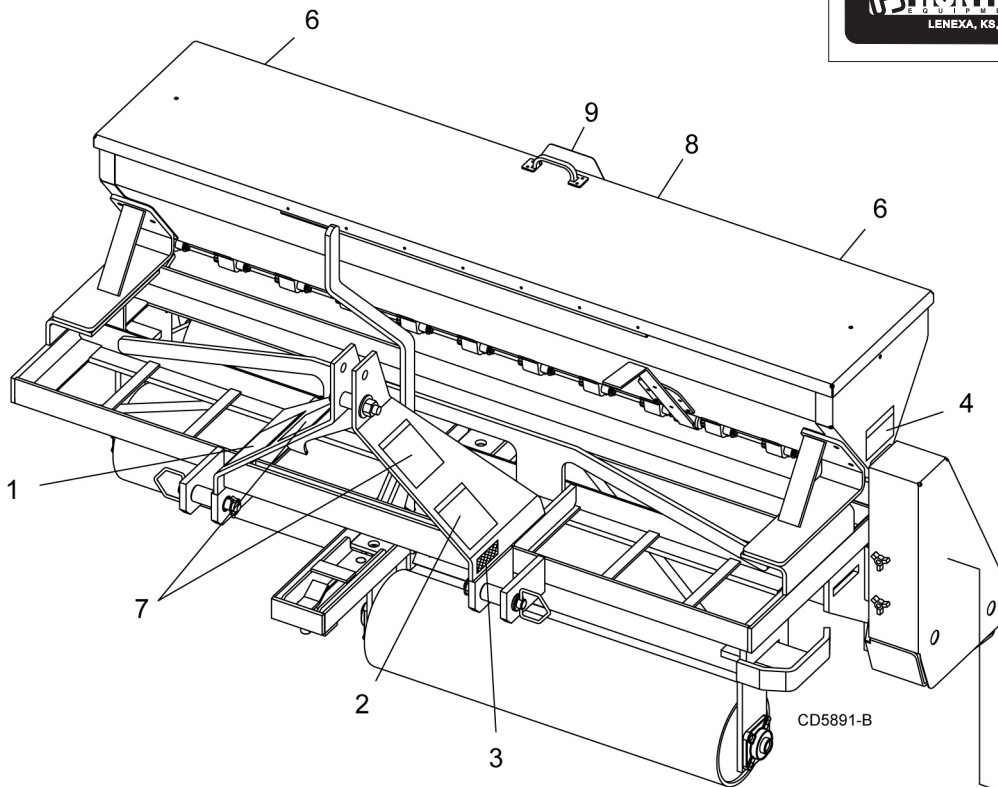


Replace Immediately If Damaged!

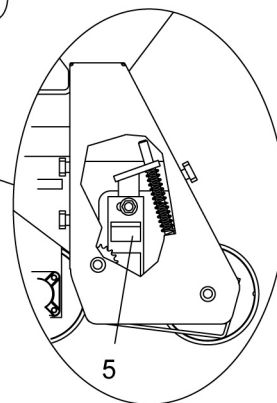
6 - PN 5WP20106
Red Reflector



3 - Serial Number Plate



9 - PN 5WP24611
SMV Sign



2 - PN 5WP1002423

⚠ WARNING

TO AVOID SERIOUS INJURY OR DEATH:

- Read Operator's Manual before operating, servicing or repairing equipment. Follow all safety rules and instructions. (Manuals are available from your selling dealer.)
- Never allow riders.
- Keep bystanders away from equipment during operation.
- Operate from tractor seat only.
- Keep all shields in place and in good condition.
- Lower equipment to ground, stop engine, remove key and set brake before dismounting tractor.
- Never allow children or untrained persons to operate equipment.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH. 1002423-A

⚠ DANGER

SHIELD MISSING

Do not operate.
Put shield on.

18868-B

5 - PN 5WP18868

4 - PN 5WP15502

⚠ WARNING

ROTATING COMPONENTS

Do not operate without cover in place. Look and listen for rotation. Do not open cover until all components have stopped.

CONTACT WITH ROTATING PARTS CAN CAUSE SERIOUS INJURY. 15502-B

(Safety Decals continued on next page)



SAFETY & INSTRUCTIONAL DECALS

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Replace Immediately If Damaged!



(Safety Decals continued from previous page)

WARNING	
	<p>FALLING OFF CAN RESULT IN BEING RUN OVER.</p> <ul style="list-style-type: none"> ■ Tractor must be equipped with ROPS (or ROPS CAB) and seat belt. Keep foldable ROPS systems in "locked up" position at all times. ■ Buckle Up! Keep seat belt securely fastened. ■ Allow no riders.
	<p>RAISED IMPLEMENT CAN DROP AND CRUSH.</p> <ul style="list-style-type: none"> ■ Never go underneath raised implement which can drop from equipment or tractor 3-point hitch hydraulic leak down, hydraulic system failures, movement of control levers or mechanical linkage failures. ■ Service work does not require going underneath implement. Read manual instructions.
<p>FALLING OFF OR GOING UNDERNEATH IMPLEMENT CAN RESULT IN SERIOUS INJURY OR DEATH.</p>	
55121-C	

1 - PN 5WP55121

7 - PN 5WP1003751

8 - PN 5WP1003750

WARNING
<p>ENTANGLEMENT AND FALLING HAZARD</p>
<p>Do not stand on rollers while machine is in operation or parked.</p> <p>Failure to follow these instructions could result in serious injury or death.</p>
1003750

WARNING	
<p>CRUSHING AND PINCHING HAZARD</p>	
<ul style="list-style-type: none"> ■ Be extremely careful handling various parts of the machine. They are heavy and hands, fingers, feet, and other body parts could be crushed or pinched between tractor and implement. ■ Operate tractor controls from tractor seat only. ■ Do not stand between tractor and implement when tractor is in gear. ■ Make sure parking brake is engaged before going between tractor and implement. ■ Stand clear of machine while in operation or when it is being raised or lowered. 	
<p>FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.</p>	
1003751-A	

BE CAREFUL!

Use a clean, damp cloth to clean safety decals.

Avoid spraying too close to decals when using a pressure washer; high-pressure water can enter through very small scratches or under edges of decals causing them to peel or come off.

Replacement safety decals can be ordered free from your dealer.

DEALER CHECK LISTS

PRE-DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

Inspect the equipment thoroughly after assembly to be certain it is set up properly before delivering it to the customer. The following check list is a reminder of points to inspect. Check off each item if it is found satisfactory or after proper adjustment is made.

- ___ Check that all safety decals are installed and in good condition. Replace if damaged.
- ___ Check all bolts to be sure they are properly torqued.
- ___ Check that all cotter pins and safety pins are properly installed. Replace if damaged.

DELIVERY CHECK LIST

(DEALER'S RESPONSIBILITY)

- ___ Show customer the safe, proper procedures to be used when mounting, dismounting, and storing equipment.
- ___ For mounted units, add wheel weights, ballast in front tires, and/or front tractor weight to enhance front end stability. A minimum 20% of tractor and equipment gross weight must be on front tractor wheels. When adding weight to attain 20% of tractor and equipment weight on front tractor wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. Do not estimate!
- ___ Show customer how to make adjustments.
- ___ Present Operator's Manual and request that customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings and emphasize the increased safety hazards that exist when safety rules are not followed.
- ___ Point out the safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.
- ___ Explain to customer the potential crushing hazards of going underneath raised equipment. Instruct customer that service work does not require going underneath unit and never to do so.

OPERATION

The operator is responsible for the safe operation of this overseeder. The operator must be properly trained. Operators should be familiar with the equipment, the tractor, and all safety practices before starting operation. Read the safety rules and safety decals on pages 5 to 8.

Recommended tractor ground speed is from 2 to 5 mph (3 - 8 kph).

WARNING

■ Power unit must be equipped with ROPS or ROPS cab and seat belt. Keep seat belt securely fastened. Falling off power unit can result in death from being run over or crushed. Keep foldable ROPS system in “locked up” position at all times.

■ Never allow children or untrained persons to operate equipment.

■ Keep bystanders away from equipment.

■ **NEVER GO UNDERNEATH EQUIPMENT.** Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

- Service work does not require going underneath.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

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

CAUTION

■ Stop power unit and equipment immediately upon striking an obstruction. Turn off engine,

remove key, inspect, and repair any damage before resuming operation.

CAUTION

■ Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

OVERSEEDER ROLLER OPERATION

The Overseeder is an excellent turf reconditioning tool. Its ground penetration promotes a healthy root system by allowing water, air, and sunlight to enter the roots.

For best results, adjust the overseeder level front to back so that the front and rear rollers work together. Control fore and aft pitch by adjusting the tractor's top link length.

Front Rollers

When the front rollers are straight (Figure 1) and the overseeder is pulled forward, the large front pins will penetrate the soil in a straight pushing action, and little disturbance is caused to the turf.



Figure 1. Front Roller in Straight Position

The front rollers can be angled to promote a more aggressive tearing action of the turf. The more the angle, the more tearing action is applied by the front roller pins. For severe turf conditions, the maximum angle position may be desired (Figure 2).

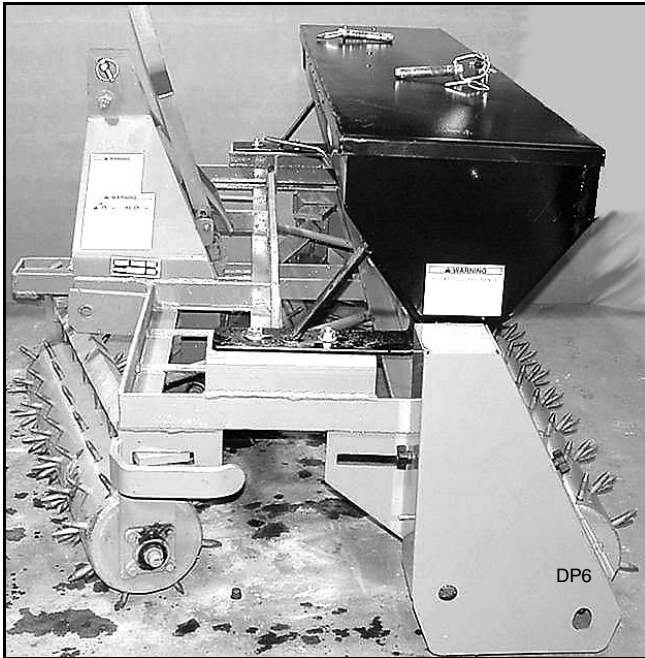


Figure 2. Maximum Angle Front Roller Position

Rear Rollers

The rear roller firms and presses soil kicked up by the front roller. This creates a uniform seedbed with the loose soil needed for proper seed germination. The spring tension on the rear roller can be adjusted to deliver the desired down pressure and roller action and achieve the desired seedbed appearance.

When the situation permits, making a second pass 90 degrees to the first is an effective way for the roller pins to penetrate areas where uneven soil conditions exist.

In extremely compacted soil conditions, add extra weight to the overseeder to help the roller pins penetrate the turf and soil sufficiently.

To Begin Operation

The power for operating the overseeder comes from contact between the overseeder rollers and the turf.

Know how to stop the tractor and overseeder quickly in an emergency.

Survey the area to be worked and remove any obstructions that may affect the performance of the equipment.

TRACTOR STABILITY

WARNING

■ A minimum 20% of tractor and equipment weight must be on the tractor front wheels when attachments are in transport position. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires or front tractor weights. Weigh the tractor and equipment. Do not estimate.

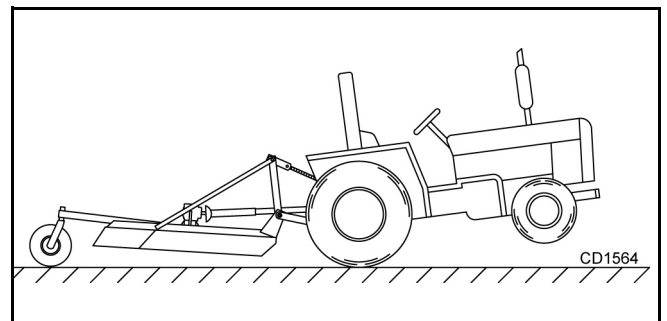


Figure 3. Tractor Stability

ATTACHING OVERSEEDER TO TRACTOR

NOTE: This overseeder is designed for use on Category 1, 3-point tractors. See page 4 for specifications.

1. Attach the tractor's lower lift arms to the overseeder and secure with mounting pins (11) and klik pins. See Figure 4.

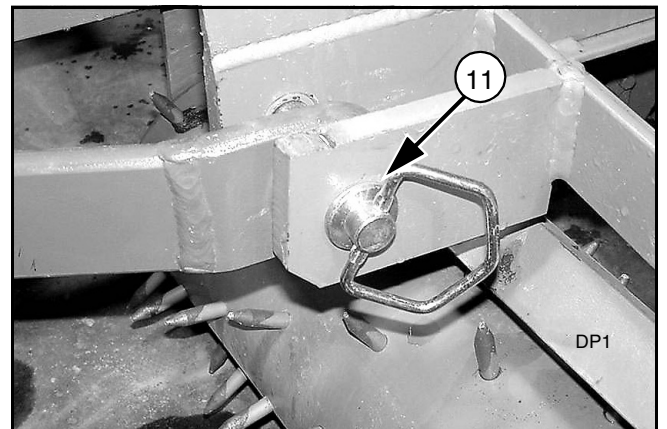


Figure 4. Lift Arms Attached to Overseeder

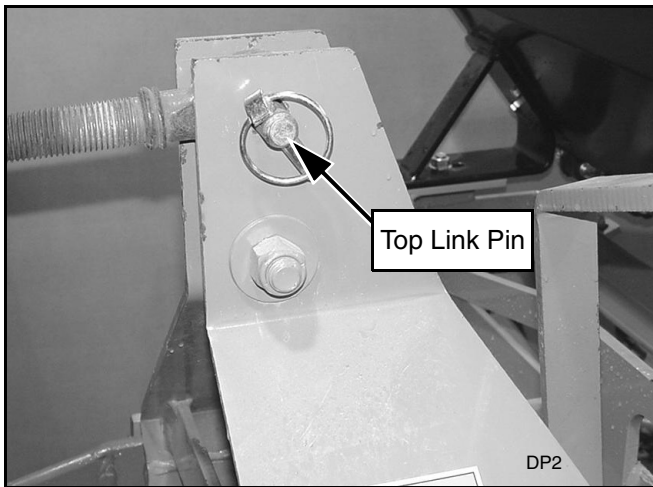


Figure 5. Top Link Attached to Overseeder

2. Attach the tractor's top link to the upper mast of the overseeder. Secure with high-strength top link pin and retaining pin provided with the tractor. See Figure 5.
3. Adjust top link as needed to level the overseeder fore and aft.
4. Adjust the lower lift arm anti-sway device to prevent the overseeder from excessive side-to-side movement.

QUICK HITCH BUSHING KIT (OPTIONAL)

NOTE: An optional quick hitch bushing kit (5WP1002019) is available through your dealer.

1. Use bushing kit when using a quick hitch.
2. Place .94 x 1.44 x 2.44 bushings (5WP1001702) over mounting pins and secure into position.

ADJUST FRONT ROLLER ANGLE

1. Position tractor and overseeder on a level surface.
2. Raise overseeder slightly off the ground.
3. Stop engine and set parking brake.
4. Remove klik pin (21), lock pin (15), and lock assembly (5), Figure 6, from front of overseeder.
5. Raise the adjustment handle (16), Figure 7, and pivot it to the next adjustment hole. Move handle rearward; front roller will start to angle. Continue this process until front roller has the desired angle.
6. Install lock assembly (5), lock pin (15), and klik pin (21) to secure front roller into position.
7. Reverse this procedure to move front roller back into normal position.

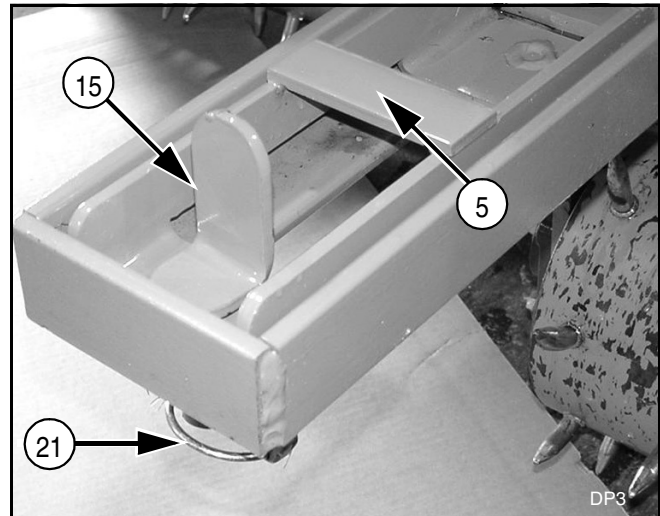


Figure 6. Lock Pin and Lock Assembly



Figure 7. Adjustment Handle

SEEDING OPERATION

Tractor speed and seed flow settings are critical for proper seed population. Check the **seed control chart**, located on the inside of the seedbox lid (see page 14). Adjust the flow control handle (Figure 8) as needed for the seed being used and the population desired.

Tractor speed, normally 2-5 mph (3-8 kph), should be established so that uniform seed incorporation occurs with the action of the rollers.

The seed chart is based on a standard sprocket configuration. Any adjustments to this ratio will result in a change to the flow rate, as described in the chart.

NOTE: The **seed control chart** should be used as a general guide only.

Before seeding an area, check the attitude of the seeder and adjust the top link so that the front and rear

rollers are level. Adjust the 3-point lower lift stop so that the roller spikes penetrate the ground at 3/4" (19 mm) or enough to remove the tracks left by the tractor tires.

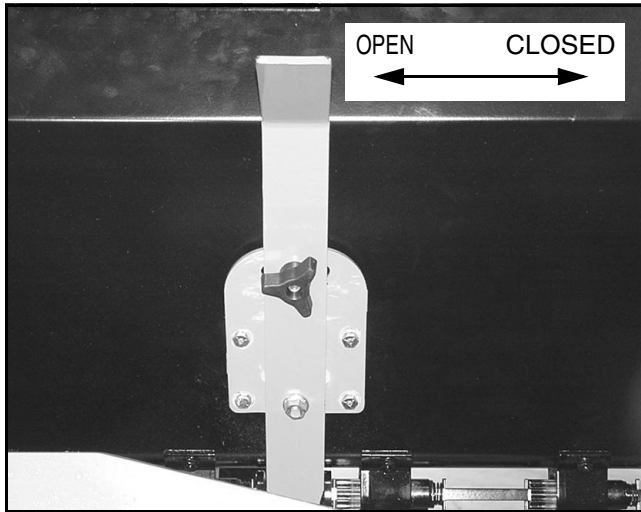


Figure 8. Flow Control Handle

OPERATING TIPS

Do not allow dirt to build up on the roller sprockets. Clean sprockets and chain as needed. Excessive buildup of material can cause damage to the roller and idler shafts.

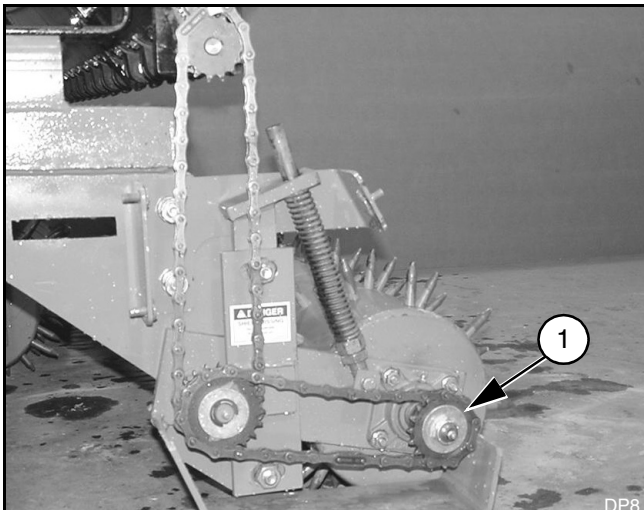


Figure 9. Drive Chains

Always run the drive chain with some slack in the chain. An extremely tight chain can damage the roller shaft, the roller bearings, and the idler shaft and bearing.

When properly torqued, the hex lock nut (1), Figure 9, drives the seedbox roller chain. Disengage the seedbox chain when not in use by backing off a 1/4 turn on the lock nut.

NOTICE

■ Before closing the seed cup flow, make sure cups are not full of seed (especially small, round, hard seed). To reduce the amount of seed remaining in cups, cover the holes above the seed cups with a strip of cardboard and run the seeder a short distance. Failure to do so could result in seed cup damage.

PRE-OPERATION CHECK LIST

(OWNER'S RESPONSIBILITY)

- ___ Review and follow all safety rules and safety decal instructions on pages 5 through 8.
- ___ Check that equipment is properly and securely attached to tractor.
- ___ Check that all safety decals are installed and in good condition. Replace if damaged.
- ___ Do not allow riders.
- ___ Check that all hardware is properly installed and secured.
- ___ Check that shields and guards are properly installed and in good condition. Replace if damaged.
- ___ Check all lubrication points and grease as instructed in "Lubrication Information" on page 15.
- ___ Make sure tractor ROPS or ROPS cab and seat belt are in good condition. Keep seat belt securely fastened during operation.



SEEDING RATE CHART

Setting	Alfalfa (uncoated)		Bermuda (hulled)		Blue Grass (Kentucky)		Clover (sweet, red)		Fescue (creeping red)		Italian Rye		Timothy	
	Kg per 100 Sq M	Kg per Hectare	Kg per 100 Sq M	Kg per Hectare	Kg per 100 Sq M	Kg per Hectare	Kg per 100 Sq M	Kg per Hectare	Kg per 100 Sq M	Kg per Hectare	Kg per 100 Sq M	Kg per Hectare	Kg per 100 Sq M	Kg per Hectare
1/4 Open*	0.6	58	0.6	58	0.2	25	0.7	75	0.2	20	0.6	56	0.5	51
1/2 Open	1.6	159	1.7	167	0.6	58	1.6	159	0.6	56	1.0	93	1.3	134
3/4 Open	2.4	242	2.6	251	1.0	92	2.6	251	0.9	83	1.3	130	2.2	218
Full Open	3.3	327	3.4	334	1.2	117	3.2	334	1.1	111	1.8	185	3.1	301

Rates are intended as a guide only. Variation in seed size and cleanliness will affect rates.

Check and calibrate seeding rate per manual instructions for best results.

*Seed cups will crack some seeds at this setting. Not recommended: Lentils, Sorghum, Sudan Grass

1001998 English Metric

Calibrating the Overseeder for Unlisted Seed or Seed Blends

Equipment

You will need the following equipment to calibrate your seeder.

- Two jack stands.
- One to two pound (0.5 - 1 kg) sample of seed.
- One tarp or canvas approximately 48" x 84" (1.2 m x 2.1 m).
- One scale capable of measuring ounces or tenths of a pound (grams or tenths of a kilogram).

Procedure

- Evenly distribute seed in the bottom of seed box.
- Raise overseeder just enough to lift rear roller spikes off the ground and securely block the rear corners of the frame with jack stands. Blocking up prevents hydraulic leak down or mechanical component failure.
- Place a canvas or tarp under overseeder to collect seed.
- Open seed cups half way and lock into position.
- Turn rear roller in the direction of travel the number of revolutions as indicated in the Formula section.
- Weigh the collected seed and calibrate.

- If seed rate is not correct, repeat steps 1 through 6, after adjusting the seed cup opening.

Formula (Metric formula in *italic*)

Revolutions per 1000 sq. ft. (100 m²):

TR1048 - 87 (93.6) TR1060 - 69 (74.3) TR1072 - 58 (62.4)

Weight of collected seed

___ oz. x .0625 = ___ lbs. (___ g ÷ 1000 = ___ kg)

Seed per acre (hectare)

___ lbs. x 43.56 = ___ lbs. per acre (___ kg x 48.9 = ___ kg per hectare)

Example (Metric formula in *italic*)

TR1048 rear roller was rotated 87 complete revolutions in the direction of travel as specified above. Collected seed weighed 10 ounces or .63 pounds (10 oz. x .0625 = .63 lbs). Seed rate was calibrated at .63 lbs. x 43.56 = 27.4 lbs. of seed per acre.

TR1048 rear roller was rotated 93.6 revolutions in the direction of travel as specified above. Collected seed weighed 4000 g or 4 kg (4000 g ÷ 1000 = 4 kg). Seed rate was calibrated at 4 kg x 48.9 = 195.6 kg of seed per hectare.

OWNER SERVICE

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

WARNING

■ **NEVER GO UNDERNEATH EQUIPMENT.** Never place any part of the body underneath equipment or between moveable parts even when the engine has been turned off. Hydraulic system leak-down, hydraulic system failures, mechanical failures, or movement of control levers can cause equipment to drop or rotate unexpectedly and cause severe injury or death.

- Service work does not require going underneath.
- Read Operator's Manual for service instructions or have service performed by a qualified dealer.

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

■ **Before dismantling power unit or performing any service or maintenance, follow these steps: disengage power to equipment, lower the 3-point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking brake, stop engine, remove key, and unfasten seat belt.**

CAUTION

■ **Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.**

LUBRICATION INFORMATION

1. Lubricate all six bearing housings every 8 hours. Bearing housings are located on each end of rollers as indicated by grease fitting (A). See Figure 10.
2. Lubricate grease fittings (B) & (C) every 8 hours.
3. Clean fittings prior to lubrication. Do not let excessive grease build up around lubrication points.

NOTE: One pump of a good grade multi-purpose grease should be sufficient in most cases. Harsh or dry conditions may require more frequent lubrication.

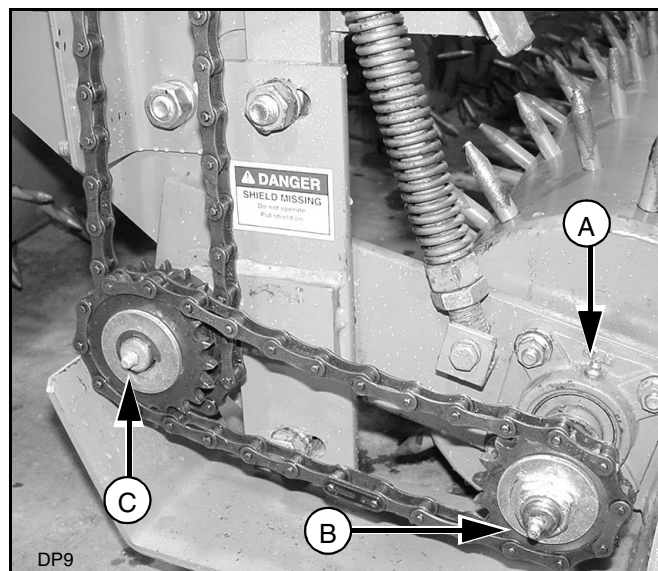


Figure 10. Lubrication Points

CLEANING

After Each Use

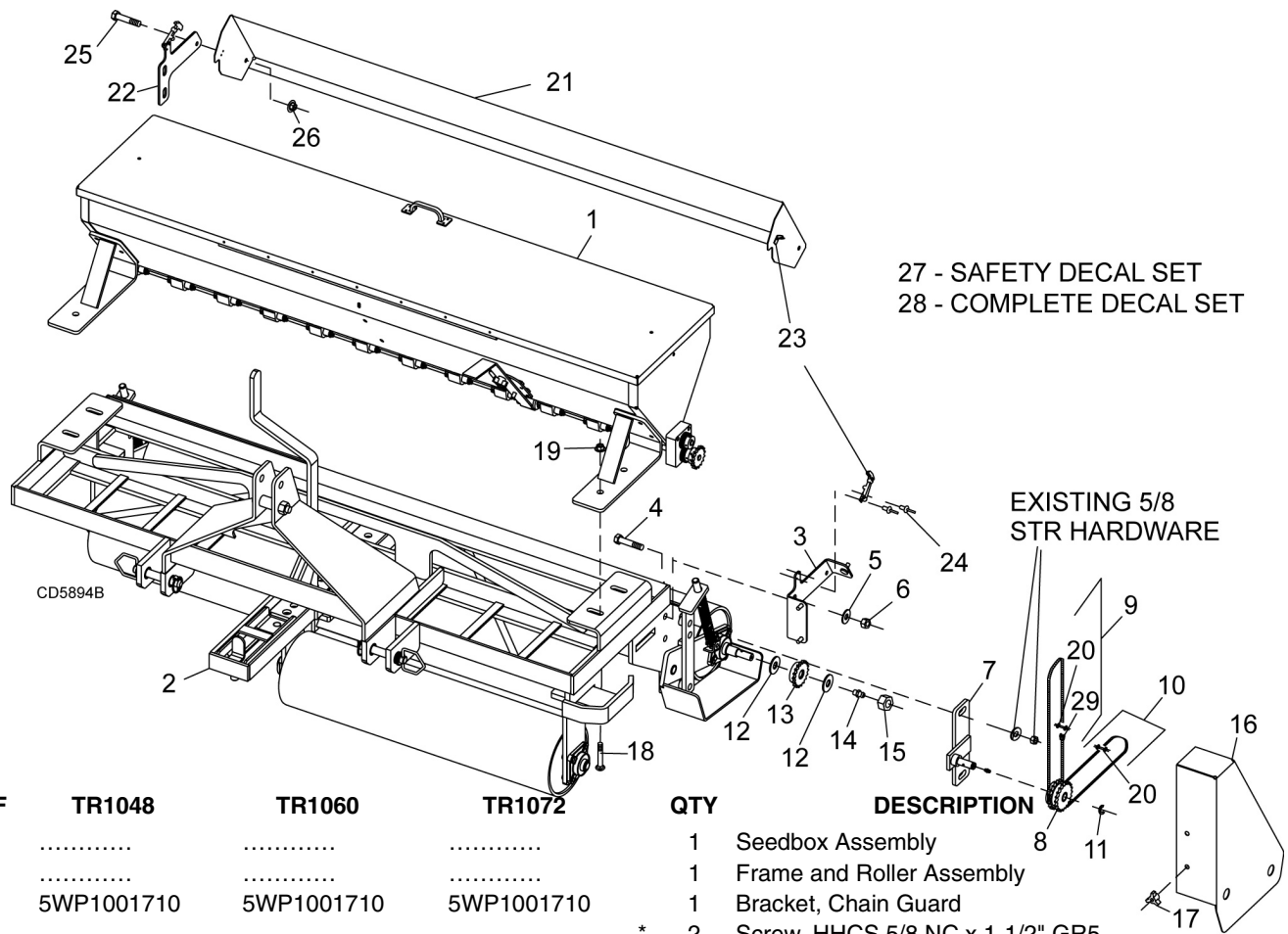
- Remove large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Inspect machine and replace worn or damaged parts.
- Replace any safety decals that are missing or not readable.

Periodically or Before Extended Storage

- Clean large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- Remove the remainder using a low-pressure water spray.
 1. Be careful when spraying near scratched or torn safety decals or near edges of decals as water spray can peel decal off surface.
 2. Be careful when spraying near chipped or scratched paint as water spray can lift paint.
 3. If a pressure washer is used, follow the advice of the pressure washer manufacturer.
- Inspect machine and replace worn or damaged parts.
- Sand down scratches and the edges of areas of missing paint and coat with spray paint of matching color (purchase from your dealer).
- Replace any safety decals that are missing or not readable (supplied free by your dealer). See Safety Decals section for location drawing.

NOTES

OVERSEEDER DRIVE ASSEMBLY



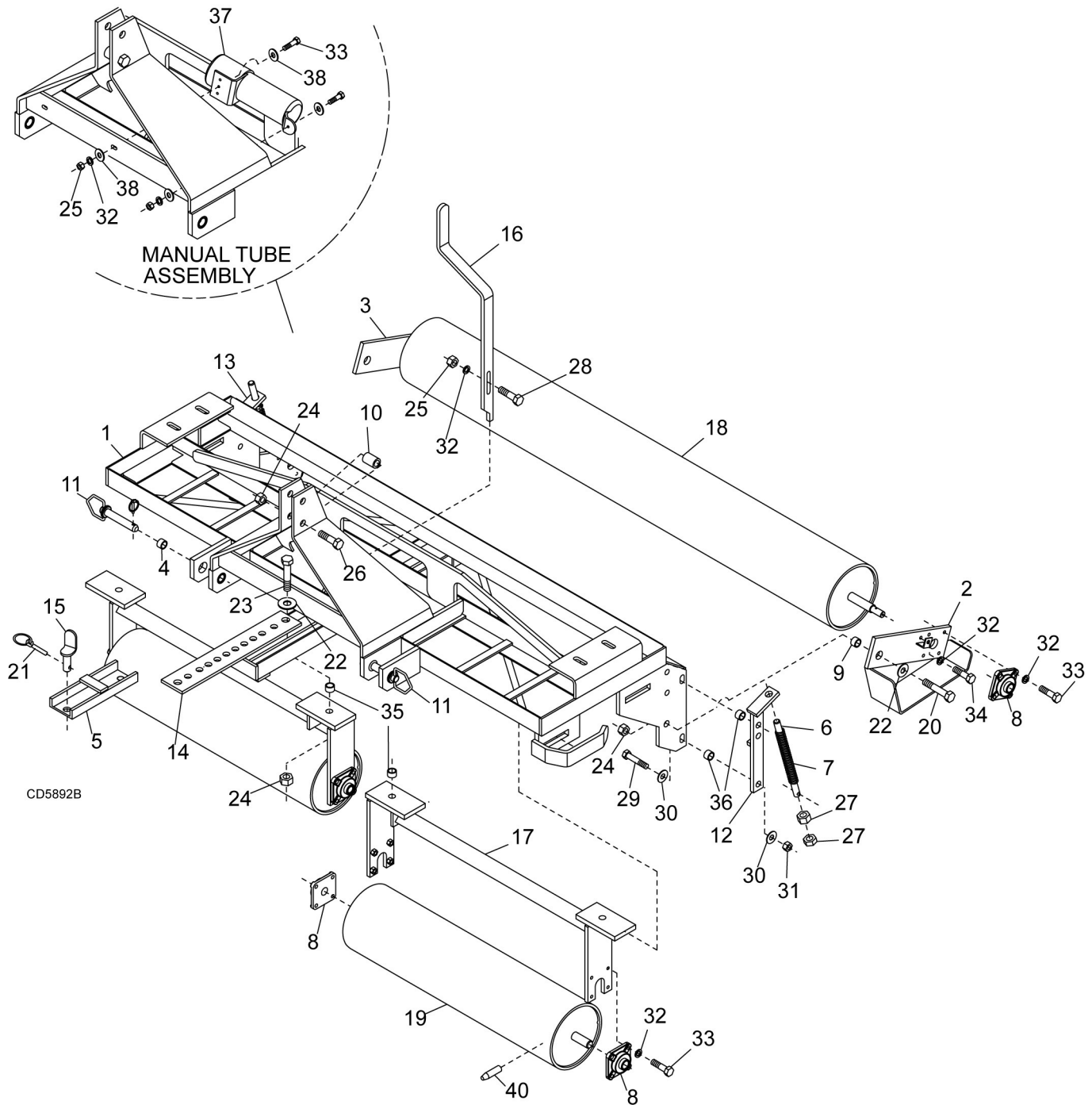
27 - SAFETY DECAL SET
28 - COMPLETE DECAL SET

EXISTING 5/8
STR HARDWARE

REF	TR1048	TR1060	TR1072	QTY	DESCRIPTION
1	.....	.....	.....	1	Seedbox Assembly
2	.....	.....	.....	1	Frame and Roller Assembly
3	5WP1001710	5WP1001710	5WP1001710	1	Bracket, Chain Guard
4				*	2 Screw, HHCS 5/8 NC x 1-1/2" GR5
5	5WP57817	5WP57817	5WP57817	2	Washer, Hardened Flat 5/8"
6				*	2 Nut, Hex 5/8" NC
7	5WP1000791	5WP1000791	5WP1000791	1	Bracket, Idler
8	5WP1001983	5WP1001983	5WP1001983	1	Sprocket, Idler w/Bearing
9	5WP1002930	5WP1002930	5WP1002930	1	Chain, Roller 35-Link w/Adjustable links
10	5WP1002931	5WP1002931	5WP1002931	1	Chain, Roller 28-Link w/Adjustable links
11	5WP35139	5WP35139	5WP35139	1	Ring, Retainer .05 x .75"
12				*	2 Washer, Flat 3/4"
13	5WPSU613	5WPSU613	5WPSU613	1	Sprocket, Drive w/Bearing
14				*	1 Grease Fitting, 1/4-28 Tapered Thread
15	5WP56722	5WP56722	5WP56722	1	Nut, Jam 3/4" NC Nylok
16	5WP1001709	5WP1001709	5WP1001709	1	Guard, Chain
17	5WP66840	5WP66840	5WP66840	3	Knob, 3-Prong 3/8" NC
18				*	4 Bolt, Carriage 5/8 NC x 1-1/2" GR5
19	5WP19025	5WP19025	5WP19025	4	Nut, Flange Lock 5/8" NC
20	5WPFA419	5WPFA419	5WPFA419	2	Chain, Connector Link
21	5WP100293648	5WP100293660	5WP100293672	1	Deflector, Assembly (includes item #23)
22	5WP1002939	5WP1002939	5WP1002939	1	Support, End
23	5WP1001975	5WP1001975	5WP1001975	2	Latch, Flex Draw
24				*	4 Rivet, Blind
25				*	2 Screw, HHCS 3/8 NC x 1-1/4" GR5 ZP
26	5WP14350	5WP14350	5WP14350	2	Nut, Flange Lock 3/8" NC
27	5WP1005518	5WP1005518	5WP1005518	—	Safety Decal Set, English -or-
27	5WP1011260	5WP1011260	5WP1011260	—	Safety Decal Set & Manual, French
28	5WP1005517	5WP1005517	5WP1005517	—	Complete Decal Set, English
29	5WP1002959	5WP1002959	5WP1002959	1	#40 Single Pitch Offset Link

* Standard hardware, obtain locally

FRAME AND ROLLER ASSEMBLY



18 Parts

5WPMAN0100 (Rev. 5/2/2008)

FRAME AND ROLLER ASSEMBLY PARTS LIST

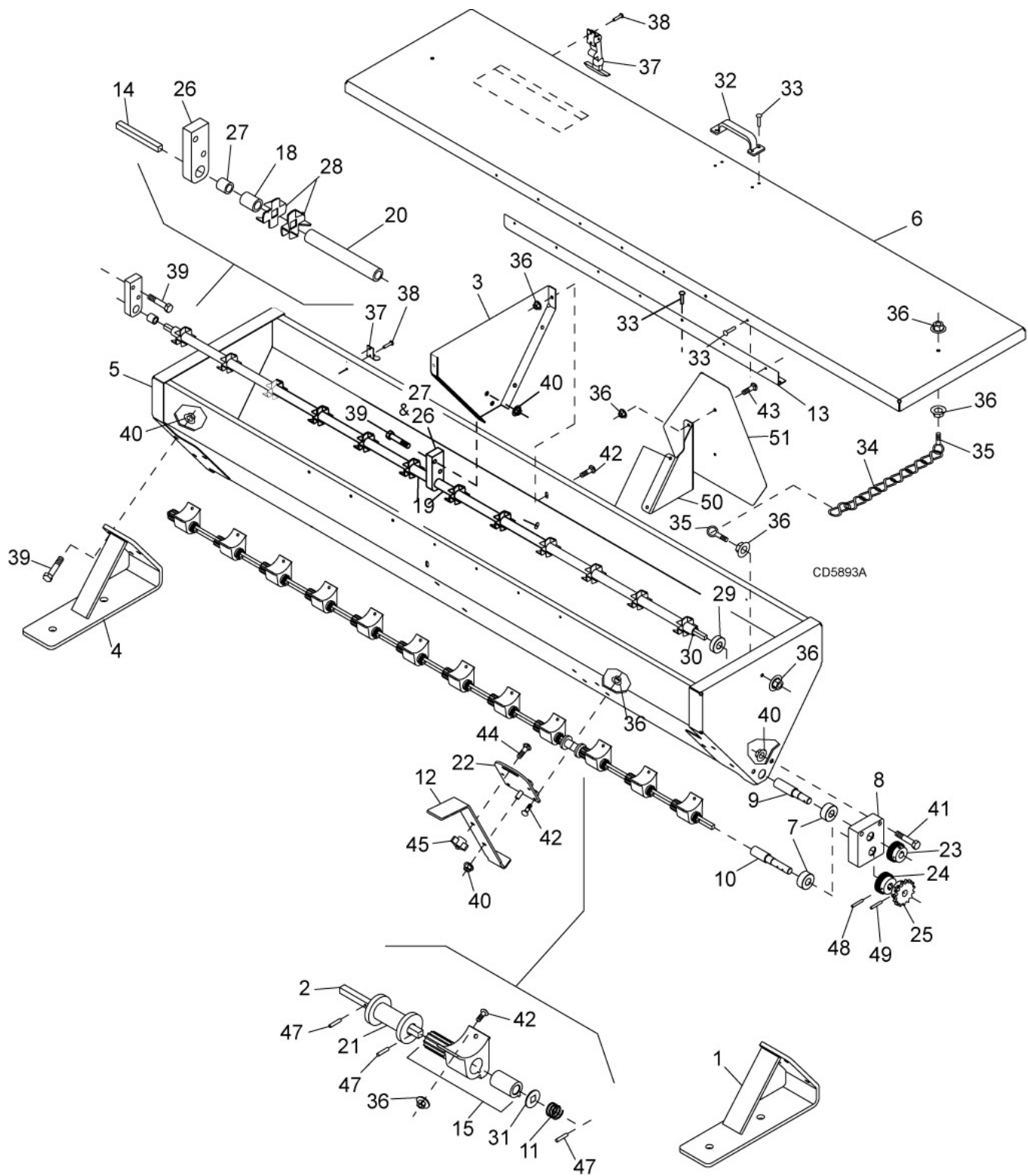
REF	TR1048	TR1060	TR1072	QTY	DESCRIPTION
1	.....	.....	.....	1	Frame
2	5WP1000778	5WP1000778	5WP1000778	1	Roller Arm, Right Rear
3	5WP1000779	5WP1000779	5WP1000779	1	Roller Arm, Left Rear
4	5WPD2213	5WPD2213	5WPD2213	4	Bushing, .88" ID
5	5WP1002912	5WP1001716	5WP1001716	1	Lock Assembly
6	5WP1001984	5WP1001984	5WP1001984	2	Pin, Spring .75 x 11.8
7	5WP20A125	5WP20A125	5WP20A125	2	Spring, Compression
8	5WP20A920	5WP20A920	5WP20A920	6	Bearing, 1" w/Housing
9	5WP46483	5WP46483	5WP46483	2	Sleeve, .82 x 1.05 x .66"
10	5WP1002018	5WP1002018	5WP1002018	1	Sleeve, .81 x 1.25 x 2.06"
11	5WPSU105	5WPSU105	5WPSU105	2	Pin, Drawbar Category 1 w/Lynch pin
12	5WPSU106	5WPSU106	5WPSU106	1	Bracket, Spring Left
13	5WPSU107	5WPSU107	5WPSU107	1	Bracket, Spring Right
14	.....	.....	.....	1	Slide Plate
15	5WP1002914	5WP1002914	5WP1002914	1	Pin, Lock
16	5WPSU905	5WPSU905	5WPSU905	1	Handle
17	5WP100292548	5WP100292560	5WP100292572	2	Roller Retainer Assembly
18	5WP100290848	5WP100290860	5WP100290872	1	Rear Roller Assembly
19	5WP100290948	5WP100290960	5WP100290972	2	Front Roller Assembly
20				*	2 Screw, HHCS 3/4 NC x 2-1/4" GR5
21	5WP27542	5WP27542	5WP27542	1	Pin, Klik 7/16 x 2"
22				*	4 Washer, Flat 3/4" SAE
23				*	2 Screw, HHCS 3/4 NC x 3" GR5
24	5WPFA446	5WPFA446	5WPFA446	5	Nut, Nylok 3/4" NC
25				*	3 Nut, Hex 3/8" NC
26				*	1 Screw, HHCS 3/4 NC x 4" GR5
27	5WP29485	5WP29485	5WP29485	4	Nut, Jam 3/4" Hex
28				*	1 Screw, HHCS 3/8 NC x 2" GR5
29				*	4 Screw, HHCS 5/8 NC x 3" GR5
30	5WP57817	5WP57817	5WP57817	8	Washer, Hardened Flat 5/8"
31				*	4 Nut, Hex 5/8" NC
32				*	29 Washer, Lock 3/8"
33				*	26 Screw, HHCS 3/8 NC x 1-1/2" GR5
34				*	2 Screw, HHCS 3/8 NC x 2-1/4" GR5
35	5WP1002943	5WP1002943	5WP1002943	2	Sleeve, .82 x 1.06 x .47"
36	5WP1002942	5WP1002942	5WP1002942	4	Sleeve, .69 x 1.12 x .66"
37	5WP1003828	5WP1003828	5WP1003828	1	Manual Storage Tube
38				*	2 Washer, Flat 3/8" Standard
40	5WP1002938	5WP1002938	5WP1002938	—	Pin, Replacement (25-pin set)
NS	5WP1001702	5WP1001702	5WP1001702	**	2 Sleeve .94 x 1.44 x 2.44

* Standard hardware, obtain locally

** Quick hitch bushing included in kit 5WP1002019; order separately

NS Not shown

SEEDBOX ASSEMBLY



20 Parts

5WPMAN0100 (Rev. 5/2/2008)

SEEDBOX PARTS LIST

REF	TR1048	TR1060	TR1072	QTY	DESCRIPTION
1	5WP1000001	5WP1000001	5WP1000001	1	Bracket, Seedbox Support Left
2	5WP100001348	5WP100001360	5WP100001372	1	Shaft, 3/8" Square w/Holes
3	.....	.....	.....	1	Center Stiffener
4	5WP1000766	5WP1000766	5WP1000766	1	Bracket, Seedbox Support Right
5	5WP100293248	5WP100293260	5WP100293272	1	Seedbox, Assembly
6	5WP100293348	5WP100293360	5WP100293372	1	Seedbox, Lid Assembly
7	5WP1000782	5WP1000782	5WP1000782	2	Bearing, Dbl Row, 17 x 40 x 17.5 mm
8	5WP1000783	5WP1000783	5WP1000783	1	Bearing Block
9	5WP1000784	5WP1000784	5WP1000784	1	Shaft, Agitator
10	5WP1000787	5WP1000787	5WP1000787	1	Shaft, Seedcup
11	5WP1000790 (8)	5WP1000790 (10)	5WP1000790 (12)		Spring, Comp .72 x .06 x 63, 41.5"
12	5WP1001705	5WP1001705	5WP1001705	1	Lever, Control
13	5WP1001721	5WP1001721	5WP1001721	1	Hinge, Seedbox Lid
14	5WP100172248	5WP100172260	5WP100172272	1	Shaft, Seedcup 3/8" Square
15	5WP46490 (8)	5WP46490 (10)	5WP46490 (12)		Seedcup Kit
18	5WP1001986	5WP1001986	5WP1001986	1	Spacer, 1.22"
19	5WP1001987	5WP1001987	5WP1001987	2	Spacer, 2.56"
20	5WP1001988 (6)	5WP1001988 (8)	5WP1001988 (10)		Spacer, 5.88"
21	5WP1001993	5WP1001993	5WP1001993	1	Spool Assembly
22	5WP1001992	5WP1001992	5WP1001992	1	Plate, Control
23	5WP20A653	5WP20A653	5WP20A653	1	Gear, Spur Agitator (28T)
24	5WP20A654	5WP20A654	5WP20A654	1	Gear, Spur Feed (30T)
25	5WP20A656	5WP20A656	5WP20A656	1	Sprocket (15T)
26	5WP1001997	5WP1001997	5WP1001997	2	Bracket, Agitator
27	5WP20A663	5WP20A663	5WP20A663	2	Bushing, .5 x .75 x .75"
28	5WP20A664 (16)	5WP20A664 (20)	5WP20A664 (24)		Washer, Agitator
29	5WP20A687	5WP20A687	5WP20A687	1	Collar, .53 x 1.00 x .44"
30	5WP20A765	5WP20A765	5WP20A765	1	Spacer, .75"
31	5WP1001714 (8)	5WP1001714 (10)	5WP1001714 (12)		Washer, .44 Square Hole
32	5WP20A635	5WP20A635	5WP20A635	1	Handle, Seedbox Lid
33				*	18 Rivet, Blind 3/16", #.63
34				*	2 Chain, #2 Double Loop 9-Link
35	5WPFA159	5WPFA159	5WPFA159	*	4 Bolt, Eye 1/4 NC x 1"
36	(36)	(40)	(44)	*	Nut, Whiz 1/4" NC
37	5WP1001975	5WP1001975	5WP1001975	2	Latch, Flex Draw
38				*	6 Rivet, Blind 1/8", #.43
39				*	10 Screw, HHCS 3/8 NC x 1-1/4" GR5
40	5WP14350	5WP14350	5WP14350	*	11 Nut, Flange Lock 3/8" NC
41				*	2 Screw, HHCS 3/8 NC x 2" GR5
42	(22)	(26)	(30)	*	Bolt, Whiz 1/4-20 x 1/2"
43				*	6 Bolt, Whiz 1/4-20 x 3/4"
44				*	1 Bolt, Carriage 3/8 NC x 1"
45	5WP66840	5WP66840	5WP66840	1	Knob, 3 Prong 3/8" NC
47	(16)	(20)	(24)	*	Pin, Roll 1/8 x 1"
48				*	2 Pin, Roll 1/8 x 1-1/2"
49				*	1 Pin, Roll 1/8 x 1-3/4"
50	5WP1006607	5WP1006607	5WP1006607	1	Bracket, SMV
51	5WP24611	5WP24611	5WP24611	1	Sign, SMV

* Standard hardware, obtain locally

BOLT TORQUE CHART

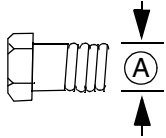
Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

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

All torque values are given to specifications used on hardware defined by SAE J1701 MAR 99 & J1701M JUL 96.



SAE SERIES TORQUE CHART



SAE Grade 2
(No Dashes)

SAE Bolt Head Identification

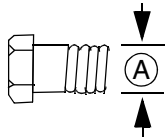


SAE Grade 5
(3 Radial Dashes)



SAE Grade 8
(6 Radial Dashes)

Ⓐ Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m
1/4"	7/16"	6	8	10	13	14	18
5/16"	1/2"	12	17	19	26	27	37
3/8"	9/16"	23	31	35	47	49	67
7/16"	5/8"	36	48	55	75	78	106
1/2"	3/4"	55	75	85	115	120	163
9/16"	13/16"	78	106	121	164	171	232
5/8"	15/16"	110	149	170	230	240	325
3/4"	1-1/8"	192	261	297	403	420	569
7/8"	1-5/16"	306	416	474	642	669	907
1"	1-1/2"	467	634	722	979	1020	1383



METRIC SERIES TORQUE CHART



Metric
Grade 8.8

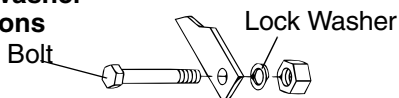
Metric Bolt Head Identification



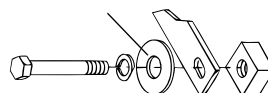
Metric
Grade 10.9

Ⓐ Diameter & Thread Pitch (Millimeters)	Wrench Size	Coarse Thread				Fine Thread				Ⓐ Diameter & Thread Pitch (Millimeters)
		Marking on Head				Marking on Head				
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	N-m	lbs-ft	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0

Typical Washer Installations



Flat Washer



8/9/00

BOLT SIZE CHART

NOTE: Chart shows bolt thread sizes and corresponding head (wrench) sizes for standard SAE and metric bolts.

SAE Bolt Thread Sizes

5/16

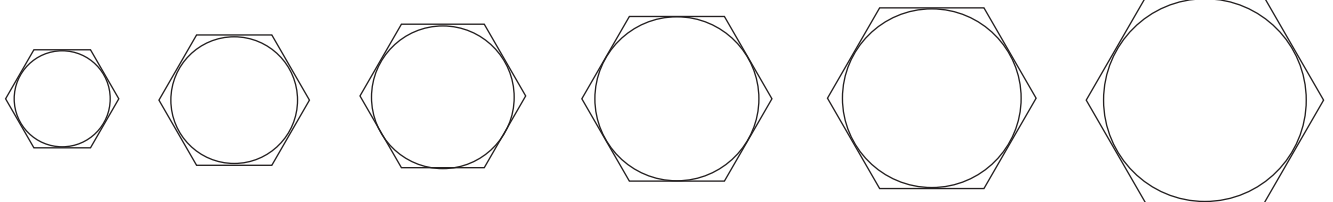
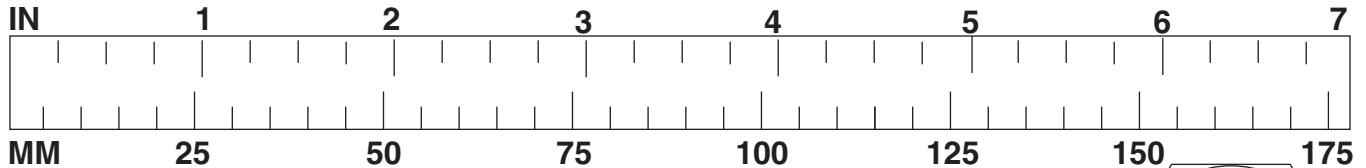
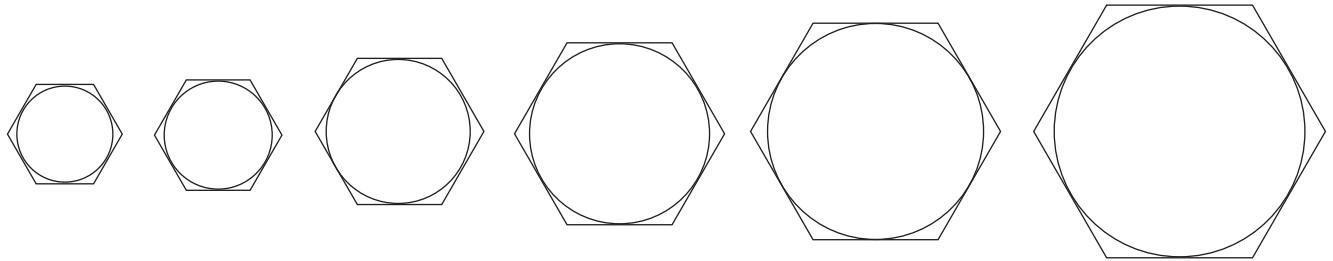
3/8

1/2

5/8

3/4

7/8



Metric Bolt Thread Sizes

8MM

10MM

12MM

14MM

16MM

18MM

ABBREVIATIONS

AG Agriculture
 ASABE..... American Society of Agricultural & Biological Engineers (formerly ASAE)
 ASAE American Society of Agricultural Engineers
 ATF Automatic Transmission Fluid
 BSPP British Standard Pipe Parallel
 BSPTM British Standard Pipe Tapered Male
 CV Constant Velocity
 CCW Counter-Clockwise
 CW Clockwise
 F Female
 FT Full Thread
 GA Gauge
 GR (5, etc.) Grade (5, etc.)
 HHCS Hex Head Cap Screw
 HT Heat-Treated
 JIC Joint Industry Council 37° Degree Flare
 LH Left Hand
 LT Left
 m Meter
 mm Millimeter
 M Male

MPa Mega Pascal
 N Newton
 NC National Coarse
 NF National Fine
 NPSM National Pipe Straight Mechanical
 NPT National Pipe Tapered
 NPT SWF National Pipe Tapered Swivel Female
 ORBM O-Ring Boss - Male
 P Pitch
 PBW Power-Beyond
 psi Pounds per Square Inch
 PTO Power Take Off
 QD Quick Disconnect
 RH Right Hand
 ROPS Roll-Over Protective Structure
 RPM Revolutions Per Minute
 RT Right
 SAE Society of Automotive Engineers
 UNC Unified Coarse
 UNF Unified Fine
 UNS Unified Special

PART NUMBER
5WPMAN0100

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