



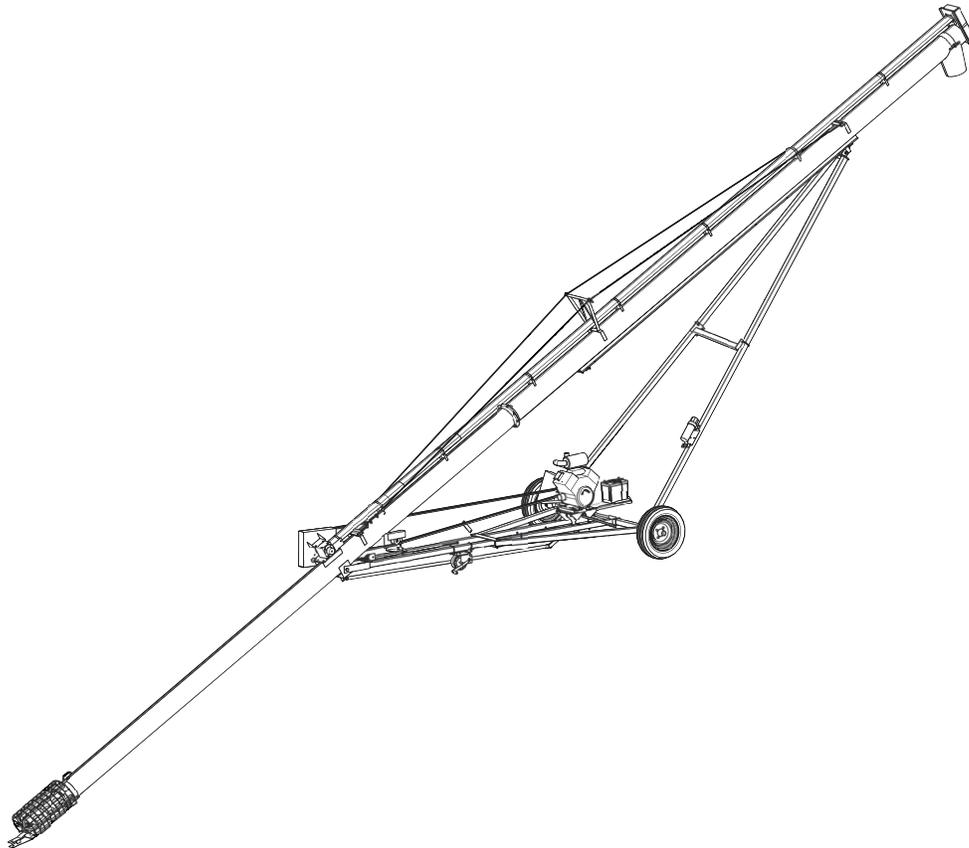
GRAIN AUGERS - STX SERIES

ASSEMBLY MANUAL

This manual applies to the following models:

8-36, 8-41, 8-46, 8-51

10-36, 10-41, 10-51



ORIGINAL INSTRUCTIONS



Read this manual before using product. Failure to follow instructions and safety precautions can result in serious injury, death, or property damage. Keep manual for future reference.

Part Number: 30964 R3

Revised: 25/5/17



New in this Manual

The following changes have been made in this release of the manual:

- Section 3.5.4. "Gearbox Installation" on page 28 has been updated to reflect design changes to the pulley shield.
- Section 3.7. "Wheel Hub Assembly" on page 37 has been updated to clarify and correct the procedure for assembling the wheel hubs.
- Section 3.12. "Idler Assembly" on page 43 has been updated to specify that the mounting bracket should be installed 34 inches from the lower frame arm pivot instead of 36 inches.
- Section 3.13.1. "Gas Engine & Components" on page 45 has been updated to include the installation of bushings on the motor-mount handles, and to clarify the position of the main drive belt against the idler pulley.
- Section 3.13.2. "Electric Motor and Components" on page 50 has been updated to include the installation of bushings on the motor-mount handles, and to clarify the position of the main drive belt against the idler pulley.
- Section 3.13.3. "PTO and Components" on page 52 has been updated to include the installation of bushings on the motor-mount handles, and to clarify the position of the main drive belt against the idler pulley.
- Section 3.13.3. "PTO and Components" on page 52 has been updated to specify that for 36' auger models, the PTO transport saddle should be installed (centred) 5 inches from the cross-plate edge instead of 16-1/2 inches.
- Figure 3.34 on page 59 (Australian Belt Guard Assembly, Upper Belt Guard Assembly) to clarify the position of the main drive belt against the idler pulley.



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1. Introduction

Thank you for purchasing a Westfield grain auger. Before using, please read this manual and understand the various features of the equipment and precautions for efficient and safe operation.

Keep this manual handy for frequent reference and to review with new personnel. A sign-off form is supplied on the inside front cover to record your safety reviews. Call your local distributor or dealer if you need assistance or additional information.

This manual should be regarded as part of the equipment. Suppliers of both new and second-hand equipment are advised to retain documentary evidence that this manual was provided with the machine.

*Serial number is located on the lower tube.	



2. Safety

2.1. Safety Alert Symbol and Signal Words



This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of injury or death, carefully read the message that follows, and inform others.

SIGNAL WORDS: Note the use of the signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTICE** with the safety messages. The appropriate signal word for each message has been selected using the definitions below as a guideline.

 **DANGER** Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.

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

 **CAUTION** Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

 **NOTICE** Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

2.2. General Safety



The safety information found throughout the complete Safety chapter of the manual applies to all safety practices. Additional instructions specific to a certain safety practice (such as Assembly Safety), can be found in the appropriate section.

YOU are responsible for the **SAFE** assembly and installation of the equipment. **YOU** must ensure that you and anyone else who is going to work around the equipment understands all procedures and related **SAFETY** information contained in this manual.

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. All accidents can be avoided.

- It is the equipment assembler and installation personnel's responsibility to read and understand **ALL** safety instructions, safety decals, and manuals and follow them when assembling or installing the equipment.
- Only experienced personnel who are familiar with this type of assembly and installation should perform this work. Untrained assemblers/installers expose themselves and bystanders to possible serious injury or death.
- Do not modify the equipment in any way without written permission from the manufacturer. Unauthorized modification may impair the function and/or safety, and could affect the life of the equipment. Any unauthorized modification of the equipment will void the warranty.



2.3. Drives and Lockout Safety

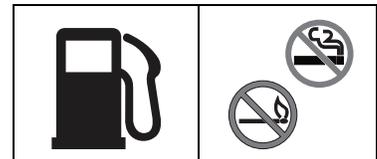
Inspect the power source(s) before using and know how to shut down in an emergency. Whenever you service or adjust your equipment, make sure you shut down and lock out your power source to prevent inadvertent start-up and hazardous energy release. Know the procedure(s) that applies to your equipment from the following power sources.

2.3.1. Gas Engine Safety

⚠ WARNING

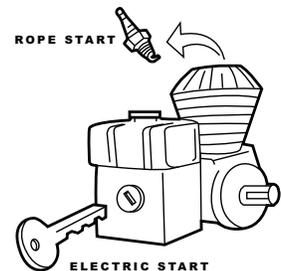
Power Source

- Keep guards in place and secure.
- Properly ventilate surrounding area.
- Never fill the fuel tank while smoking or near an open flame. Always shut down and allow engine to cool before filling with fuel.
- Never overfill the tank or spill fuel. If fuel is spilled, clean it up immediately.
- Be sure to use the correct type and grade of fuel.
- Ground the fuel funnel or nozzle against the filler neck to prevent sparks that could ignite fuel vapors.
- Be sure to replace the fuel fill cap when you are done.



Lockout

- For engines with an electric start, remove the ignition key, the spark plug wire, or the spark plug.
- For engines with a rope or crank start, remove the spark plug wire or the spark plug.



2.3.2. Electric Motor Safety

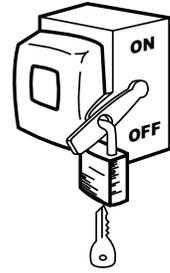
⚠ WARNING

Power Source

- Electric motors and controls shall be installed and serviced by a qualified electrician and must meet all local codes and standards.

- A magnetic starter should be used to protect your motor.
- You must have a manual reset button.
- Reset and motor starting controls must be located so that the operator has full view of the entire operation.
- Locate main power disconnect switch within reach from ground level to permit ready access in case of an emergency.
- Motor must be properly grounded.
- Guards must be in place and secure.
- Ensure electrical wiring and cords remain in good condition; replace if necessary.
- Use a totally enclosed electric motor if operating in extremely dusty conditions.

SERVICE DISCONNECT



Lockout

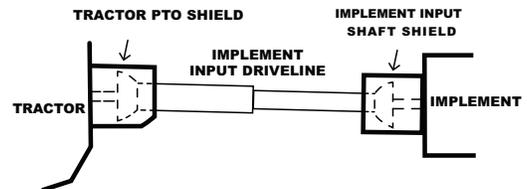
- The main power disconnect switch should be in the locked position during shutdown or whenever maintenance is performed.
- If reset is required, disconnect all power **before** resetting motor.

2.3.3. PTO Driveline Safety

⚠ WARNING

Drive

- Keep body, hair, and clothing away from rotating PTO driveline.
- Make certain the driveline shields telescope and rotate freely on driveline before attaching.
- Make certain the driveline is securely attached at both ends.
- Do not operate equipment unless all driveline, tractor, and equipment shields are in place and in good working order.
- Do not exceed operating speed of 540 rpm.
- Keep universal joint angles small and equal. Do not exceed maximum recommended length for PTO driveline.
- Engage tractor park brake and/or chock wheels.



Lockout

- Position all controls in neutral, shut off tractor's engine, and remove key from tractor.
- If removing key is impossible, remove PTO driveline from tractor.

2.4. Rotating Parts Safety

WARNING

- Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.
- Do not operate with any guard removed or modified. Keep guards in good working order.
- Shut off and remove key or lock out power source before inspecting or servicing machine.



2.5. Rotating Flighting Safety

DANGER

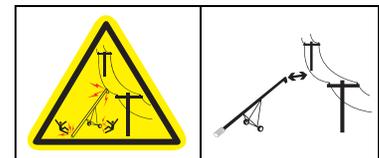
- KEEP AWAY from rotating flighting.
- DO NOT remove or modify flighting guards, doors, or covers. Keep in good working order. Have replaced if damaged.
- DO NOT operate the equipment without all guards, doors, and covers in place.
- NEVER touch the flighting. Use a stick or other tool to remove an obstruction or clean out.
- Shut off and lock out power to adjust, service, or clean.



2.6. Overhead Power Lines

DANGER

- When operating or moving, keep equipment away from overhead power lines and devices.
- This equipment is not insulated.
- Electrocutation can occur without direct contact.

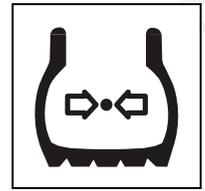


2.7. Tire Safety

- Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion that may result in serious injury or death.
- DO NOT attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Have a qualified tire dealer or repair service perform required tire maintenance.
- When replacing worn tires, make sure they meet the original tire specifications. Never undersize the replacement tire.
- DO NOT weld to the tire rim with the tire mounted on the rim. This action may cause an explosion which could result in serious injury or death.

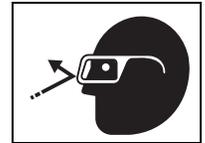


- Inflate tires to the manufacturer's recommended pressure.
- Tires should not be operated at speeds higher than their rated speed.
- Keep wheel lug nuts tightened to manufacturer's recommendations.
- Never reinflate a tire that has been run flat or seriously under-inflated without removing the tire from the wheel. Have the tire and wheel closely inspected for damage before remounting.



2.8. Battery Safety

- Wear safety glasses when working near batteries.
- Make certain the battery or terminal covers are in place and in good working order.
- Keep all sparks and flames away from batteries; gas given off by electrolyte is explosive.
- Avoid contact with battery electrolyte. Wash off any spilled electrolyte immediately.
- Do not tip batteries more than 45° to avoid electrolyte loss.
- To avoid injury from sparks or short circuits, disconnect battery ground cable before servicing any part of an electrical system.



2.9. Safety Decals

- Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible. See decal location figures that follow.
- Replaced parts must display the same decal(s) as the original part.
- Replacement safety decals are available **free of charge** from your distributor, dealer, or factory.

2.9.1. Decal Installation/Replacement

1. Decal area must be clean and dry, with a temperature above 50°F (10°C).
2. Decide on the exact position before you remove the backing paper.
3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
4. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
5. Small air pockets can be pierced with a pin and smoothed out using the sign backing paper.

2.9.2. Safety Decal Locations and Details

Replicas of the safety decals that are attached to the equipment and their messages are shown in the figure(s) that follow. Safe operation of the equipment requires that you familiarize yourself with the various safety decals and the areas or particular functions that the decals apply to, as well as the safety precautions that must be taken to avoid serious injury, death, or damage.

Westfield reserves the right to update safety decals without notice. Safety decals may not be exactly as shown.

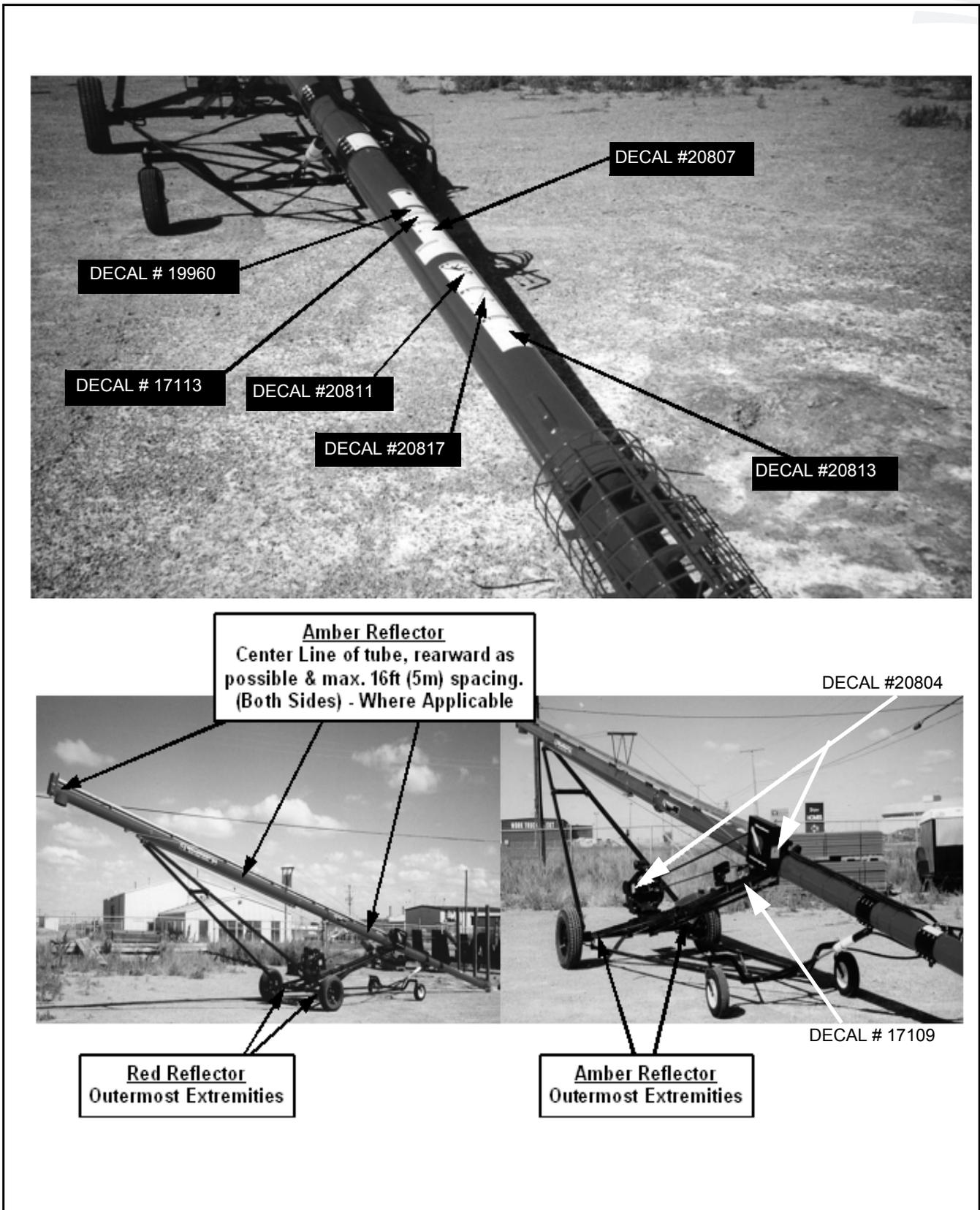


Figure 2.1 Safety Decal Locations

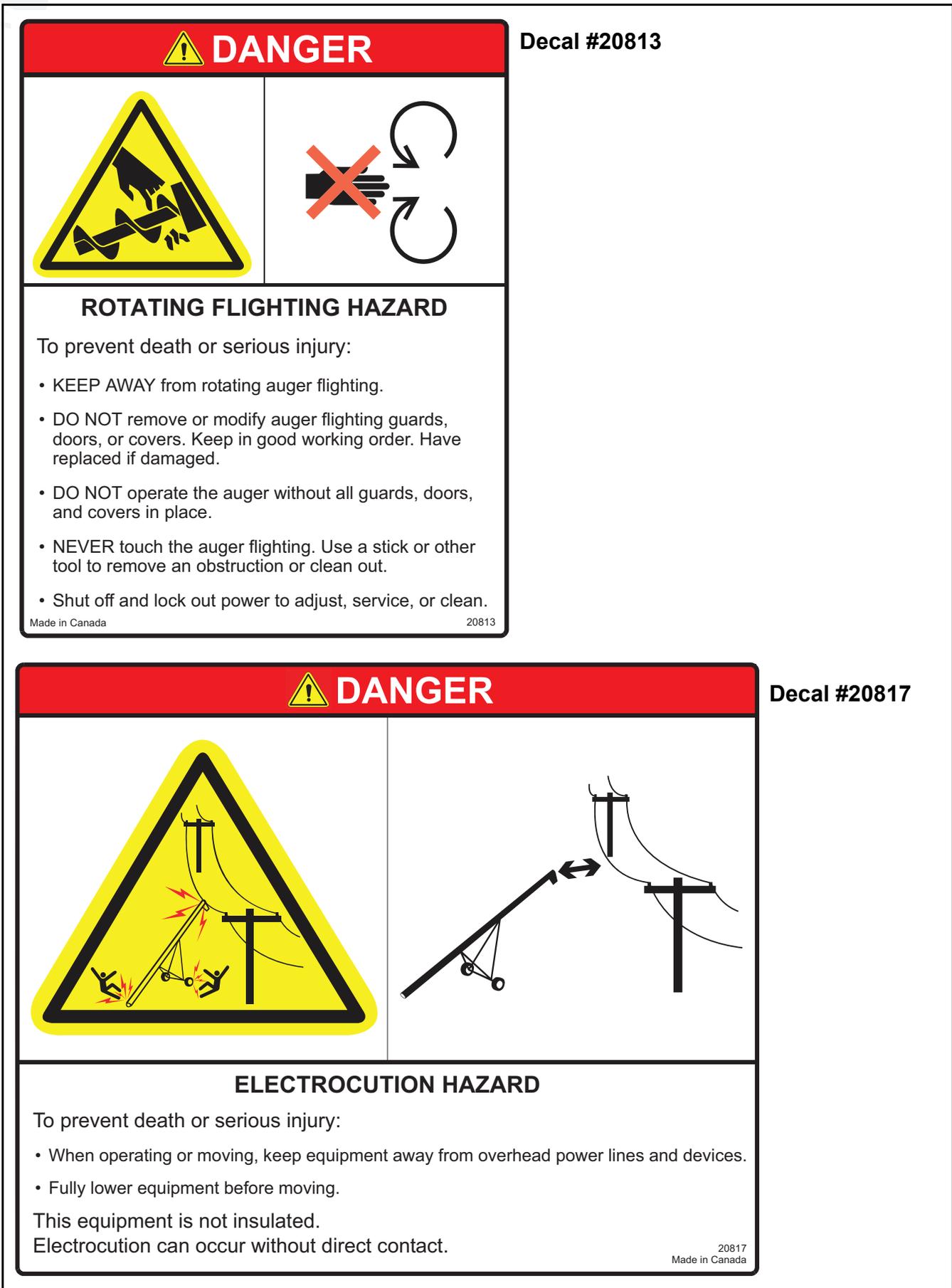


Figure 2.2 Safety Decal Details

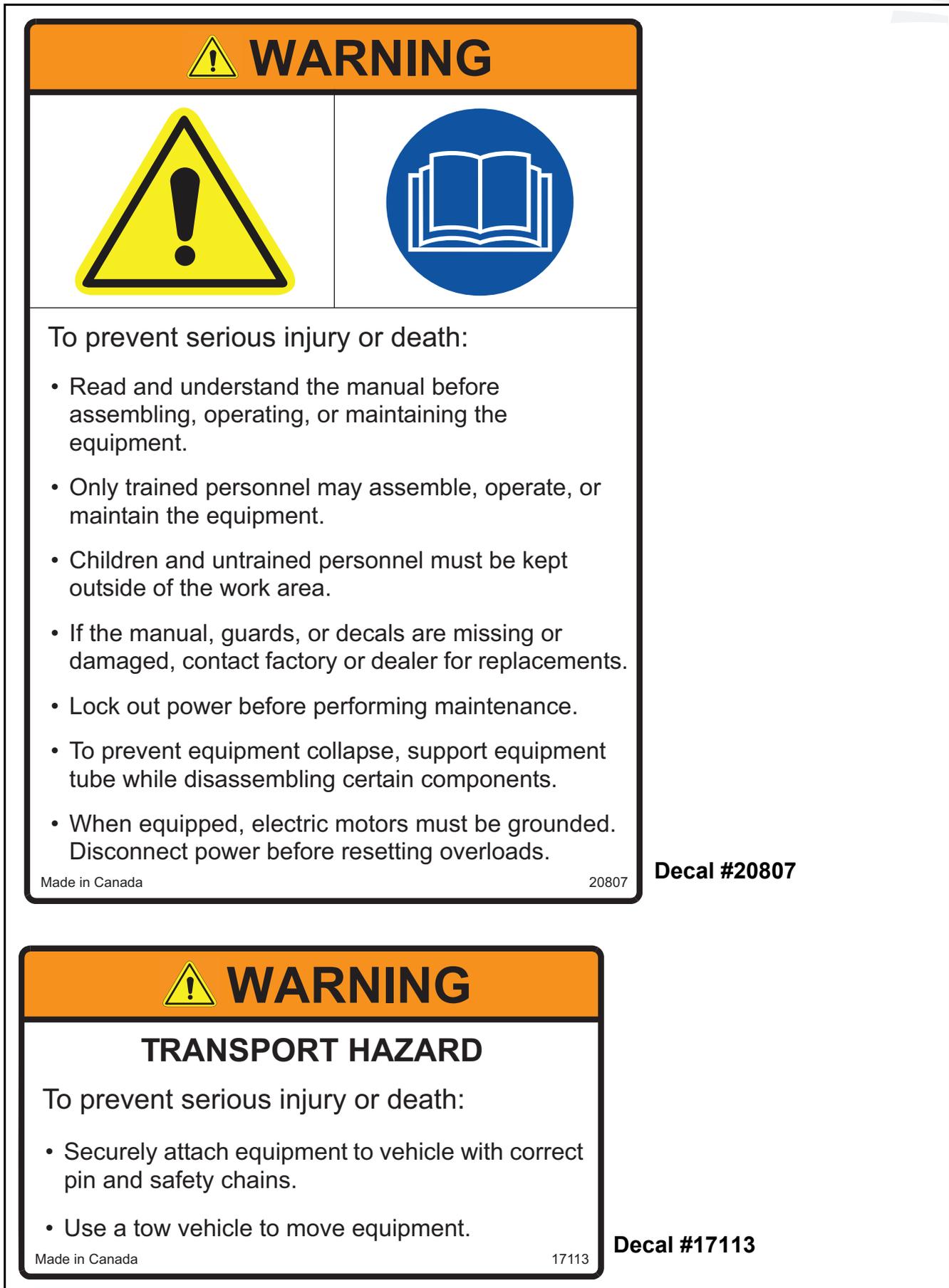
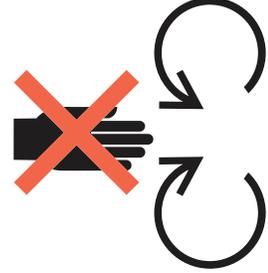
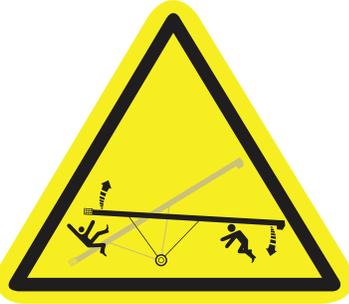


Figure 2.3 Safety Decal Details

 WARNING	
	
ENTANGLEMENT HAZARD	
To prevent serious injury or death:	
<ul style="list-style-type: none">• Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.• Do not operate with any guard removed or modified. Keep guards in good working order.• Shut off and remove key or lock out power source before inspecting or servicing machine.	
<small>Made in Canada</small>	<small>20804</small>

Decal #20804

 WARNING	
	
UPENDING HAZARD	
To prevent death or serious injury:	
<ul style="list-style-type: none">• Anchor intake end and/or support discharge end to prevent upending.• Auger intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.• Do not raise auger intake end above tow bar height.• Empty auger and fully lower before moving.	
<small>Made in Canada</small>	<small>20811</small>

Decal #20811

Figure 2.4 Safety Decal Details



CAUTION

Decal #17109

For proper raising and lowering of equipment:

- Tighten brake lock by turning winch handle clockwise at least two clicks after lowering equipment.
- Lower equipment fully before towing, then rotate winch handle until cable has light tension.
- Do not lubricate winch brake discs.
- Inspect lift cable periodically; replace if damaged.
- Inspect cable clamps periodically; tighten if necessary.

17109
Made in Canada

NOTICE

Decal #19960

To prevent damage, wheels must be free to move when raising or lowering equipment.

When equipment is positioned, chock all wheels.

Made in Canada 19960

Figure 2.5 Safety Decal Details

3. Assembly



Before continuing, ensure you have completely read and understood this manual's Safety chapter, in addition to the safety information in the section(s) below.

3.1. Assembly Safety

WARNING

- Do not take chances with safety. The components can be large, heavy, and hard to handle. Always use the proper tools, rated lifting equipment, and lifting points for the job.
- Carry out assembly in a large open area with a level surface.
- Always have two or more people assembling the equipment.
- Make sure you have sufficient lighting for the work area.
- Tighten all fasteners according to their specifications. Do not replace or substitute bolts, nuts, or other hardware that is of lesser quality than the hardware supplied by the manufacturer.
- Place safety stands or large blocks under the equipment or components before going beneath the component for assembly.

3.1.1. Personal Protective Equipment (Required to be Worn)

Safety Glasses

- Wear safety glasses at all times to protect eyes from debris.



Work Gloves

- Wear work gloves to protect your hands from sharp and rough edges.



Steel-Toe Boots

- Wear steel-toe boots to protect feet from falling debris.



Hard Hat

- Wear a hard hat to help protect your head.



Coveralls

- Wear coveralls to protect skin.



3.1.2. Safety Equipment Required

First-Aid Kit

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



Fire Extinguisher

- Provide a fire extinguisher for use in case of an accident. Store in a highly visible and accessible place.



3.2. Check Shipment

Unload the parts at the assembly site and inspect them thoroughly while comparing the packing slip to the shipment. Ensure that all items have arrived and that none are damaged or fasteners have come loose during shipment.

It is important to report missing or damaged parts immediately to ensure that proper credit is received from either the manufacturer or from your distributor/dealer, and to ensure that any missing parts can be shipped quickly to avoid delaying the assembly process.

Note: Do not attempt to assemble or install a damaged component.

3.3. List of Required Tools

- 2-4 pipe stands
- Two sawhorses (1200 lb / 544 kg bearing capacity)
- One standard socket set and wrench set
- One torque wrench
- One standard 25' (7.62 m) tape measure
- One 2' (600 mm) level
- One 8" (200 mm) level magnetic
- Two C-clamps or vise grips
- One picker with minimum reach of 12' (3.66 m) and 4000-6000 lb and (1814 - 2722 kg) lifting capacity
- One 100' (30 m) measuring tape
- One tire pressure gauge
- One tire chuck
- 6-10 wood blocks (2x4's or smaller)
- Grease
- Impact wrench and sockets
- 2+ steel punches (for aligning bolt holes)

3.4. Before You Begin

- Perform assembly on a firm and level surface in an area large enough to allow access to all sides of the equipment.
- Before beginning assembly, familiarize yourself with all the sub-assemblies, components, and hardware that make up the equipment.
- Have all parts and components on hand, and arrange them for easy access.
- Separate the hardware (bolts, nuts, etc.) and lay them out into groups for easier identification during assembly.

Note: When options or more than one configuration is available for the equipment and the assembly information varies, additional instructions will be included.



These additional instructions will be indicated with an arrow.

- If assembling inside a building, be sure the ceiling is at least 14' (4.27 m) high to provide clearance when installing the undercarriage.
- Ensure there is adequate space to remove the assembled machine from the assembly area.

3.5. Auger Tube Assembly

3.5.1. Tube & Flighting Assembly

All Augers – Figure 3.1 and 3.2

Note: See Table 3.1 for the number of tube sections and their lengths.

1. Align tube sections on a series of stands, placing a sawhorse at each end with a stand near the flanges. Set the stand height so flanges are flush and level.



2. Slide the lower flighting shaft into the upper flighting shaft with flight ends butting together for continuous flow. Secure with two 7/16" x 2-1/4" bolts (1) and 7/16" locknuts (2) for the 8." (Use 1/2" x 2-3/4" bolts and 1/2" locknuts for the 10-36, 10-41, and 10-51).

Note: Flight shaft connections, as well as flight connection bolts should slide into place easily. Do not force into place. Torque bolts at 40 ft-lb for 8" models, and 45 ft-lbs for 10" models.

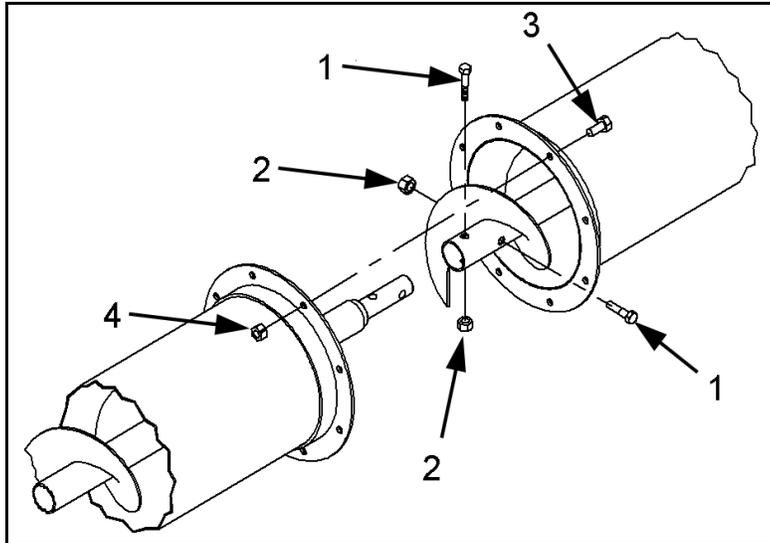
3. Slide tube sections together and insert the eight 7/16" x 1" bolts (3) and 7/16" locknuts (4). Ensure that the gearbox mount and bearing brackets are at the top of each tube and aligned tube to tube.

4. Slide roller track shoe (5) onto the track.

Table 3.1 Tube Sections and Lengths

Model	Total Number of Tube Sections	Lower Tube Section Length	Upper Tube Section Length
8-36, 10-36	2	10' (3.05 m)	25' (7.62 m)
8-41, 10-41	2	15' (4.57 m)	25' (7.62 m)
8-46	2	20' (6.10 m)	25' (7.62 m)
8-51, 10-51	2	25' (7.62 m)	25' (7.62 m)

Figure 3.1 Connecting Tube Sections



Note: See Table 3.2 for track shoe stop bracket location.



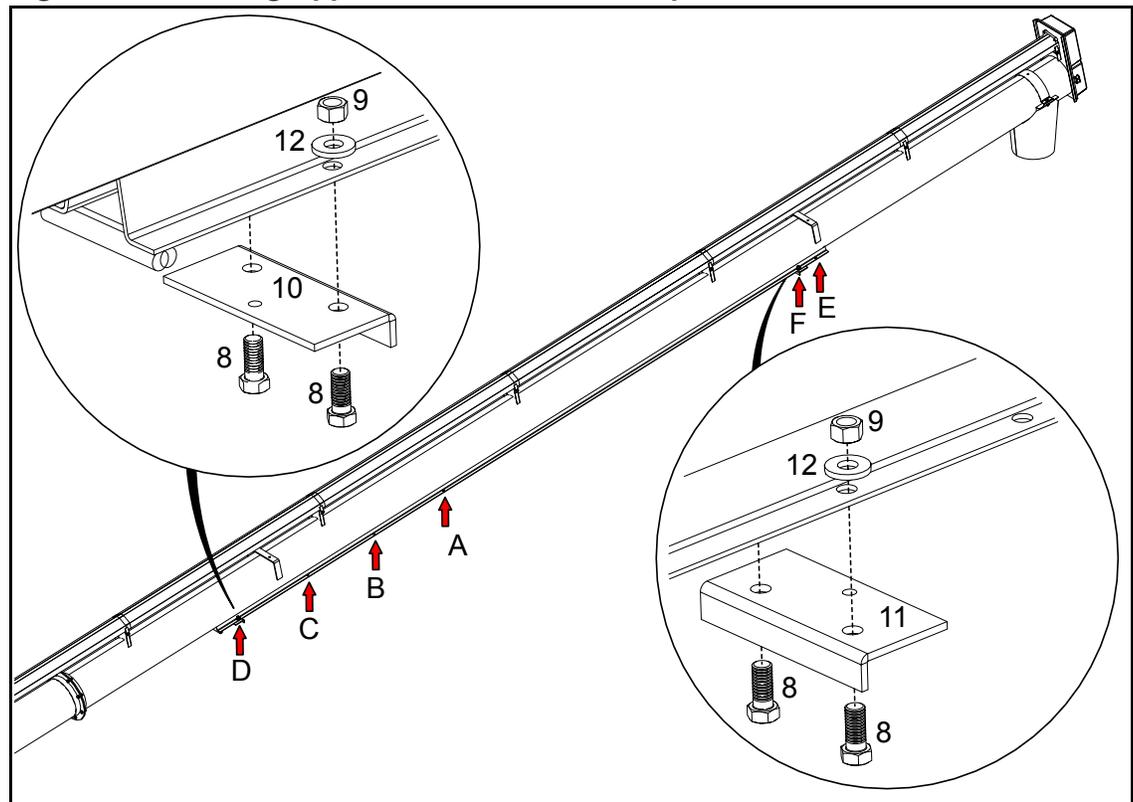
5. **For the 8-41, 8-46, 8-51, 10-41, & 10-51 augers:** The upper angle-iron track stop (11) is attached to the set of holes in the track closest to the discharge end. For the 8-36 and 10-36 auger, use the second set of holes (7) from the discharge end. See Figure 3.2.
6. Secure the upper angle-iron track stop (11) with two 7/16" x 1" bolts (8), 7/16" flat washers (12) and locknuts (9). See Figure 3.2.

7. Locate the lower angle-iron track stop (10) location according to Table 3.2, and attach it with two 7/16" x 1" bolts (8), 7/16" flat washers (12) and locknuts (9). See Figure 3.2.

Table 3.2 Upper and Lower Track Stop Locations

Model	Upper Track Stop	Lower Track Stop
8-36, 10-36:	F: 2nd set of holes from discharge end	A: 4th set of holes from intake end
8-41:	E: 1st set of holes from discharge end	B: 3rd set of holes from intake end
8-46, 10-41:	E: 1st set of holes from discharge end	C: 2nd set of holes from intake end
8-51, 10-51:	E: 1st set of holes from discharge end	D: 1st set of holes from intake end

Figure 3.2 Installing Upper and Lower Track Stops

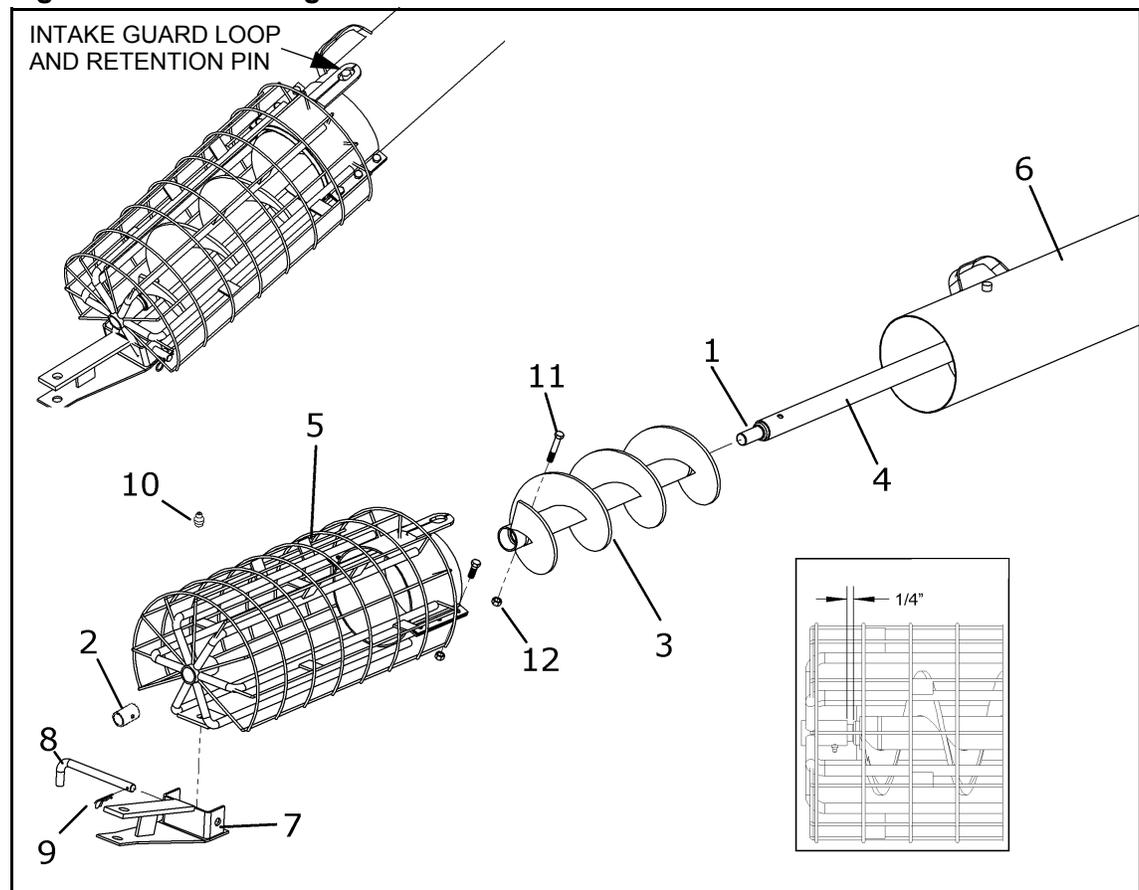


3.5.2. Intake Assembly

All Augers – See Figure 3.3

1. Clean dirt and paint from lower fighting stub (1) and from inside of the bushing (2) on the intake.
2. Intake fighting (3) is factory assembled to the lower fighting shaft (4) using 3/8" x 3" bolt and locknut for 10" augers and 7/16" x 2-1/2" bolt and locknut for 8" augers (11, 12).
3. Slide the bolt-on intake guard (5) over the intake flight (3) and onto the lower tube (6). Make sure the intake retention loop on the intake guard loops around the retention pin on the lower tube.
4. Maintain a 1/4" (0.6 cm) clearance between the bushing and the end of the flight as shown in Figure 3.3 (inset). Attach the intake guard to the lower tube using six 7/16" x 1" bolts and 7/16" locknuts. TIGHTEN SECURELY.
5. Attach the hitch clevis (7) to the intake guard (5) with a 5/8" clevis pin (8) and a hairpin (9).
6. Make sure that the grease zerk (10) is installed and secure. Grease the bushing. See the Operation Manual for regular maintenance procedures.

Figure 3.3 Assembling the Intake



3.5.3. Drive Shaft Assembly

All Augers – See Figure 3.4

Note: See Table 3.3 for the lower driveshaft length and diameter.

1. Clean dirt and paint from the driveshaft ends (1, 2) and the shaft connector (3). Refer to Figure 3.4.
2. After installing the Woodruff key (4), slide connector (3) halfway onto the last pre-installed driveshaft segment (1) as shown in Figure 3.4.

Note: It may ease installation if the bolts on the bearings are loosened or removed.

3. Slip the lower driveshaft segment (5) through the bearing(s) (6) on the lower tube section, install a Woodruff key (7), and slide it into the shaft connector (3) as shown in Figure 3.4.

Note: The 8-36, 10-36, 8-41 and 10-41 augers do not have bearings on the lower tube section.

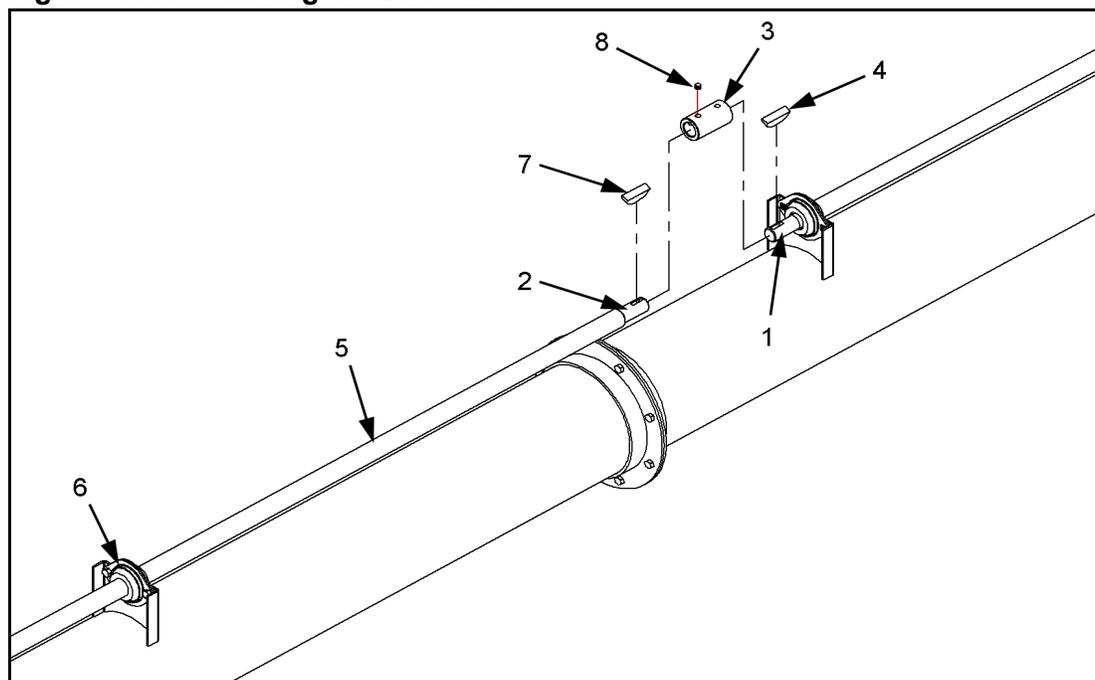
4. Center the shaft connector on the keys and tighten the set screws (8). Refer to Figure 3.4.

Important: Place a few drops of oil at each driveshaft bearing location to allow for a break-in period. These bearings will not require any further lubrication as they are self-lubricating.

Table 3.3 Lower Driveshaft Length and Diameter

Model	Length	Diameter
8-36	17-1/2" (44 cm)	1" (2.5 cm)
10-36	20-3/4" (53 cm)	1" (2.5 cm)
8-41, 10-41	53-5/8" (136 cm)	1-1/4" (3.2 cm)
8-46	89" (226 cm)	1-1/4" (3.2 cm)
8-51, 10-51	125" (318 cm)	1-1/4" (3.2cm)

Figure 3.4 Assembling the Driveshaft



3.5.4. Gearbox Installation

All Augers

Note: Check the gearbox oil level; gearbox should be half full. Use only EP90 lube oil and fill to HALF FULL only. See the Operation Manual for the correct maintenance procedures.

1. Install a woodruff in the lower driveshaft (1) and slide the chain coupler (2) and gearbox assembly (3) onto the driveshaft.
2. When the driveshaft is installed far enough into the coupler, secure the gearbox assembly to the welded mounting bracket (4) on the tube as follows:



- On 8" augers, secure using three 7/16" x 1" bolts and locknuts leaving the mounting hole empty that will be used to secure the pulley shield (5) as shown in Figure 3.5A.



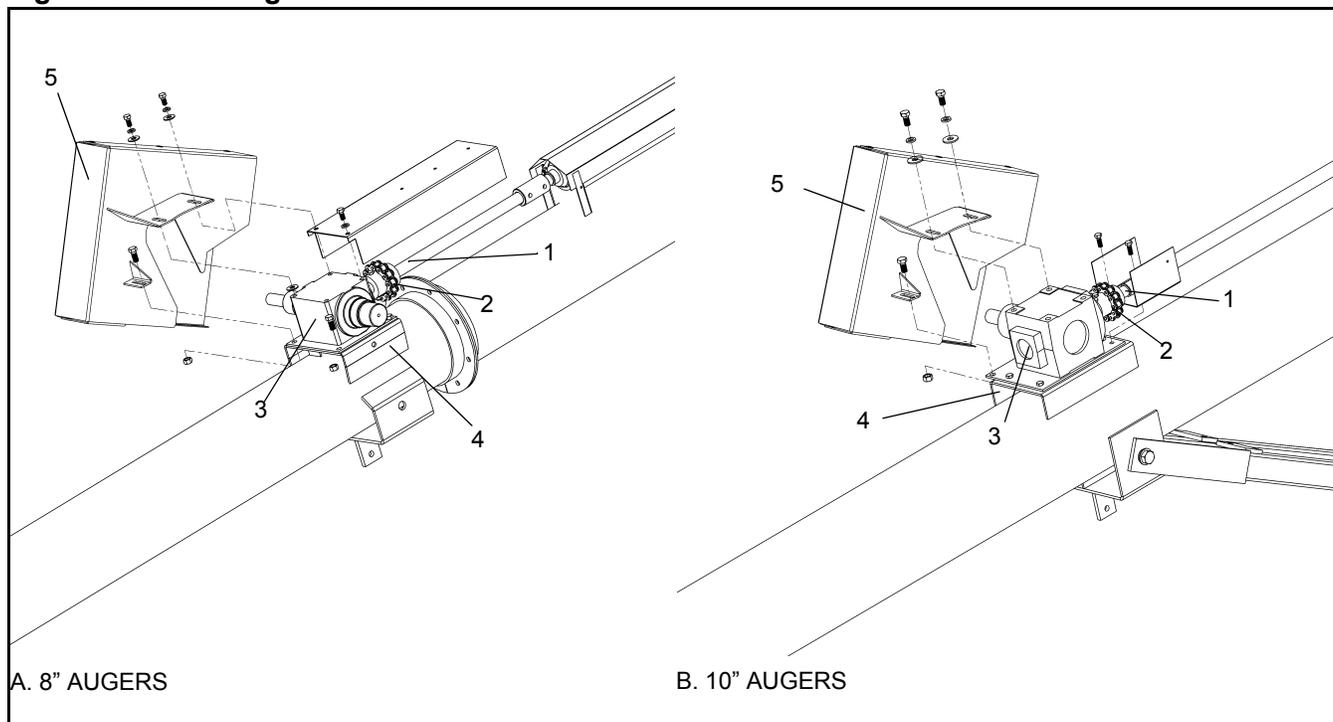
- On 10" augers, install the chain coupler shield when bolting the gearbox assembly with four 3/8" x 1" bolts and locknuts (Figure 3.5B).

3. Tighten all the bolts in the gearbox mount.
4. Tighten set screw on the chain coupler ensuring that there is a 1/16" gap between the chain coupler sprockets.

Note: The ends of the gearbox shaft and the driveshaft should be flush with the inside of the chain coupler sprockets.

5. If the driveshaft is too long or too short, do the following:
 - If driveshaft is too long, take up the extra length in the straight connector.
 - If driveshaft is too short, remove the headcover, chain, sprocket, and lock collar at the top of the upper tube to adjust the two driveshafts.
6. If the chain cover at the discharge end is in place, remove it.
7. Fill the cover half full of grease and lube the chain with chain lube. Reinstall the cover.

Figure 3.5 Installing the Gearbox



3.5.5. Drive Shaft Shield & Pulley Guard Assembly

Note: See Table 3.4 for shield sizes and quantity. Shield installation starts at the gearbox and ends at the discharge end.

1. Clean dirt and paint from the gearbox shaft and the pulley.

Note: Pulley used depends on the power source; refer to “Drive Assembly” on page 44 for the correct pulley selection.



2. **North America only:** Install a 1/4" x 1-1/2" square key on the gearbox shaft and slide the pulley, with the hub facing the gearbox, until it is flush with the shaft. Secure by tightening the set screw.



3. **North America only:** Install the pulley guard as follows:
 - **For 8" augers:** Attach the connector shield and the pulley guard to the gearbox using three 3/8" x 3/4" bolts, three 3/8" lock washers and one 3/8" flat washer used as a spacer between the pulley guard and the gearbox. Next install the final 7/16" x 1" bolt through the pulley guard and the gearbox mount as shown in Figure 3.5A.
 - **For 10" augers:** Attach pulley guard as shown in Figure 3.5B using two 1/2" x 1" bolts, lock washers and flat washers to mount the pulley guard to the gearbox. Then use one 1/2" x 1" bolt and locknut to attach the pulley guard to the mounting plate.

4. Install the first driveshaft shield as follows:



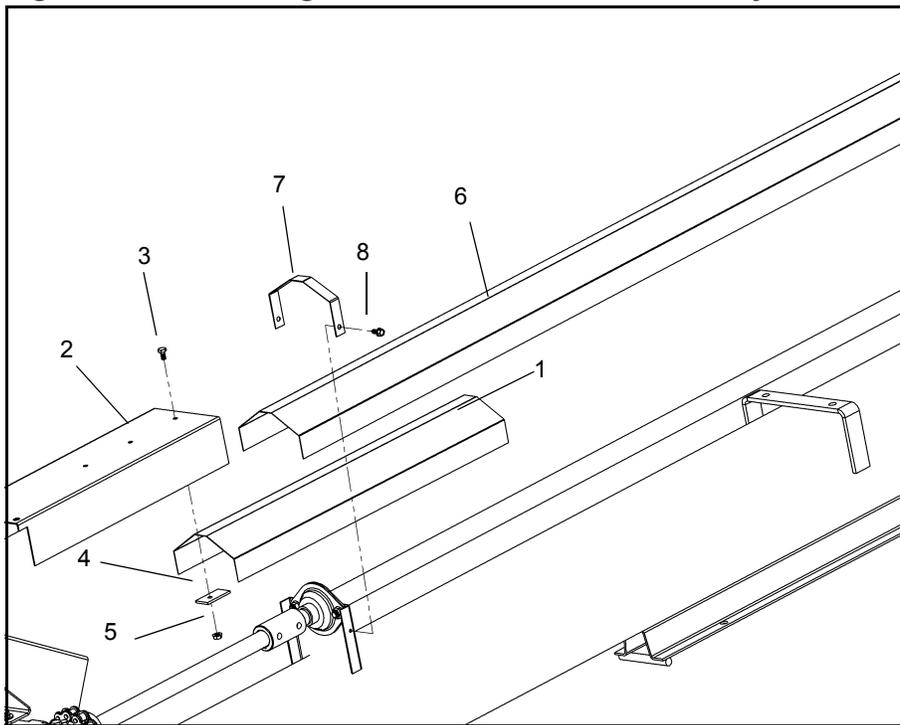
- **For 8" augers:** Attach the driveshaft shield (1) to the connector shield (2) with one 1/4" x 3/4" bolt (3), punched flat iron plate (4), and a 1/4" locknut (5). Refer to Figure 3.6.

Note: The driveshaft shield is pinched between the flat iron plate and the connector shield.



- **For 10" augers:** place the first driveshaft shield over top of the chain connector shield and secure it with a drive guard strap (7) and 2 self-tapping screws (8).

Figure 3.6 Assembling the Driveshaft Shield and Pulley Guard



5. The next driveshaft shield (6) is placed on top of the first shield (1) and secured in place with a shield strap (7) and two 1/4" x 5/8" self-tapping screws (8).
6. Repeat until the last shield (Figure 3.7 (9)) is secured to the bearing adjustment plate (10) with a shield strap (11) and two 1/4" x 5/8" self-tapping screws (12). Repeat until the second last shield is completed.
7. Install the discharge spout (14) around the discharge opening using one half clamp (11), two 7/16" x 1-1/2" bolts (12), and two 7/16" locknuts (13).

Figure 3.7 Installing the Last Shield and Spout

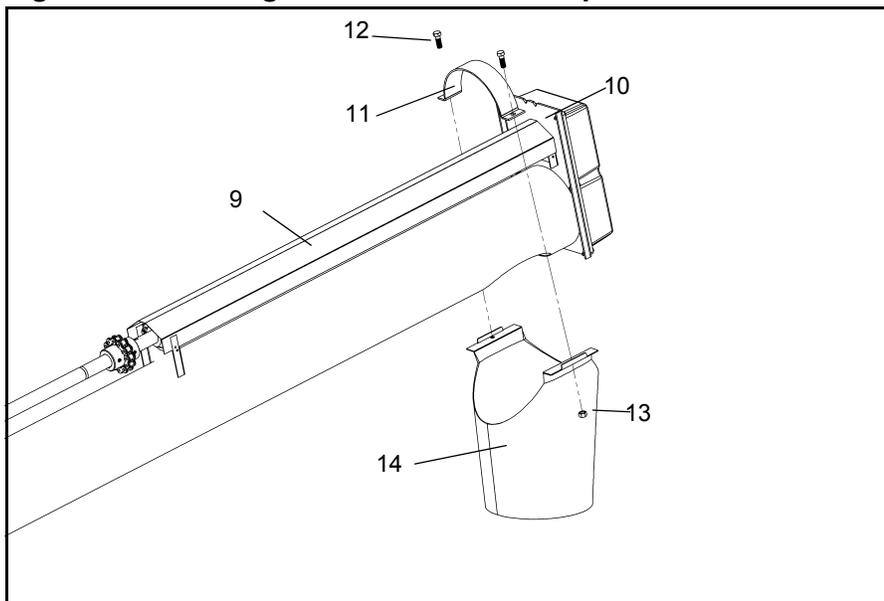


Table 3.4 Shield Length (Starting at Gearbox)

Model	First	Second	Middle	Last	Number of Shields
8-36, 10-36	28" (0.71 m)	---	4 @ 60" (1.52 m)	48" (1.22 m)	6
8-41, 10-41	60" (1.52 m)	---	4 @ 60" (1.52 m)	48" (1.22 m)	6
8-46	42" (1.07 m)	---	5 @ 60" (1.52 m)	48" (1.22 m)	7
8-51, 10-51	42" (1.07 m)	48" (1.22 m)	5 @ 60" (1.52 m)	48" (1.22 m)	8

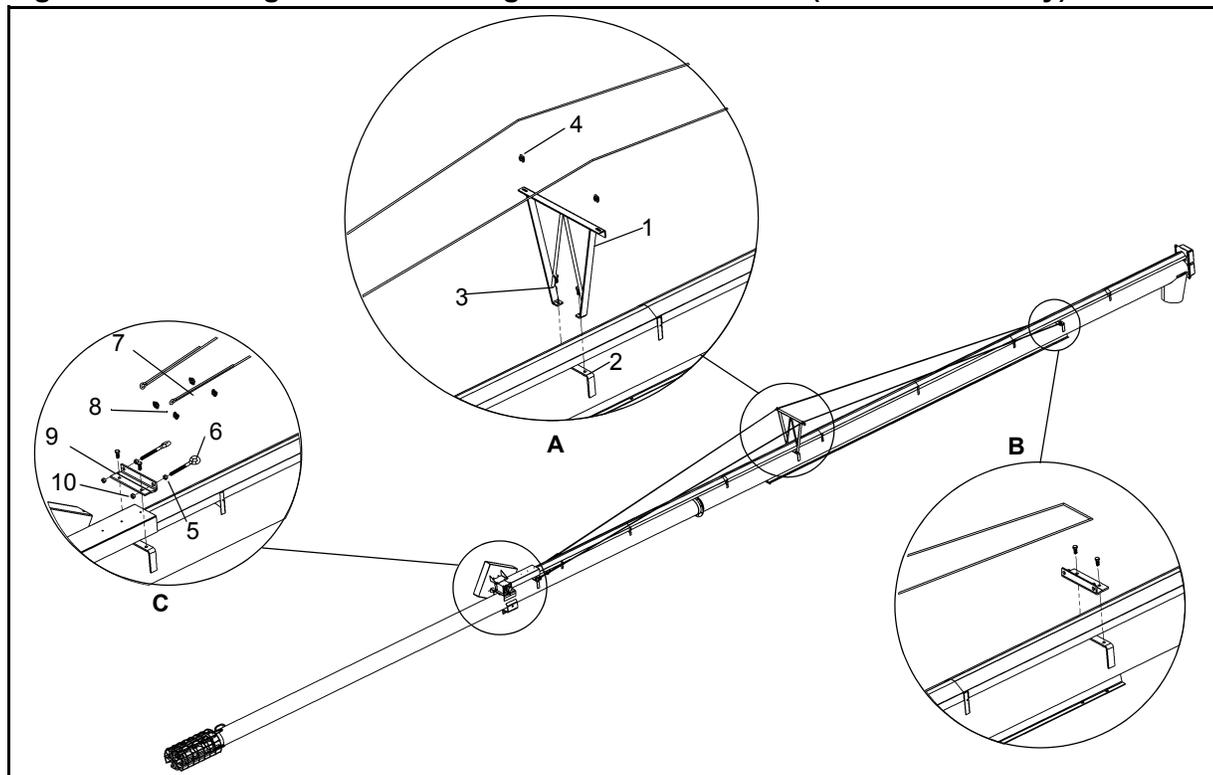
3.5.6. Cable Bridge and Truss Cable Installation Tightening

8-51 & 10-51 Auger Only

Note: Refer to Figure 3.8 for the following instructions.

1. Fasten the cable bridge (1) and truss cable (2) anchors to the tube as shown in Figure 3.8A using two 7/16" x 1" bolts and 7/16" locknuts. The truss cable anchor bolted nearest the discharge end of the auger should have two rods welded beside the holes to reduce cable wear (Figure 3.8B), the truss cable anchor nearest the intake end will not have these welded features (Figure 3.8C).

Figure 3.8 Installing the Cables Bridges and Truss Cables (8-51 & 10-51 only)



2. Loosely attach two cable clamps (4) on the cable bridge.
3. Thread a jam nut (5) onto an eyebolt (6) all the way. Attach the eyebolt (6) to one end of the truss cable (7) with two 1/4" cable clamps (8), doubling-back about 8" of cable. Insert the eyebolt (6) into the truss cable anchor bracket (9) and thread on a 1/2" locknut (10) a short way.
4. Pull the truss cable (7) over the cable bridge (1), through the cable clamps, through the holes in the upper cable attach bracket, back over the cable bridge (1), and back to the cable anchor bracket (5).

Note: DO NOT tighten the cable clamps at this time.

5. Thread a jam nut onto the other eyebolt all the way, place the eyebolt in the cable anchor bracket, and thread on a 1/2" locknut a short way.
6. Thread the end of the truss cable through the eyebolt and pull the cable snug. Double-back the cable and secure in place with two cable clamps as in Step 3.

Note: If there is not enough cable, loosen the clamps on the opposite eyebolt and adjust the cable. Retighten clamps.

7. Tighten the eyebolts evenly to take the remaining slack out of the truss cable.

Note: Take slack out of the truss cable only, DO NOT tension the cable. Tension in the cable will cause the auger to droop at the flange when in the lowered position.

8. Check for proper side-to-side alignment and then tighten the cable clamps on the cable bridge and the cable return bracket. Tighten the jam nuts against the cable anchor bracket.

3.5.7. Lift Cable Installation

All Augers

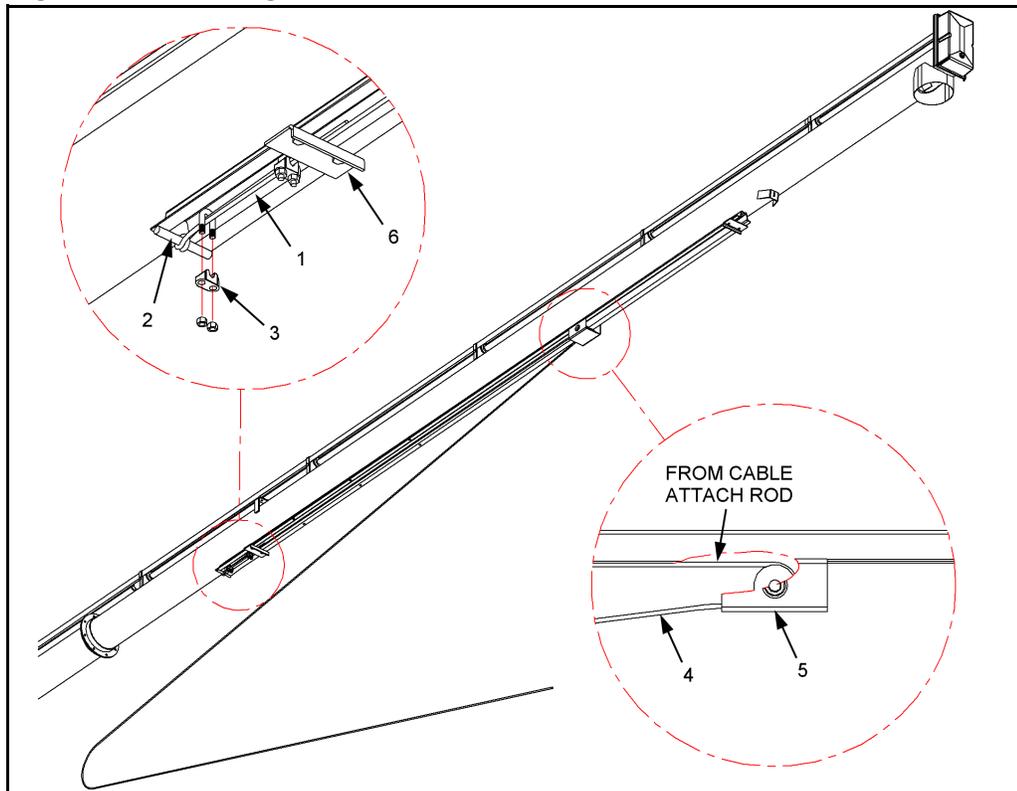
Note: See Table 3.5 for the proper cable length. Refer to Figure 3.9 for the following steps:

1. Attach the cable (1) to the cable attach rod (2) welded to the bottom of the track by wrapping it around the rod and doubling-back about 6" (15 cm) of cable.
2. Secure the cable in place by installing and tightening two cable clamps (3).
3. Thread the cable (4) under the angle iron track stop (6) and through track shoe (5).
4. Coil the remaining cable and secure it to the tube making sure that the track shoe can slide all the way to the track stop at the discharge end of the track.

Table 3.5 Lift Cable Length

Model	Lift Cable Length
8-36, 10-36	35' (10.7 m)
8-41, 10-41	40' (12.2 m)
8-46	44' (13.4 m)
8-51, 10-51	49' (14.9 m)

Figure 3.9 Installing the Lift Cable



3.6. Frame Assembly

3.6.1. Lower Frame Assembly

All Augers

Note: See Table 3.6 and Figure 3.10 for the correct frame size. Refer to Figure 3.12 for frame assembly detail.

1. Bolt the outer support arms to the lower frame using one 1/2" x 4" bolt and locknut on each side.
2. Make sure the lower frame (1) and axle (4) are arranged properly. The center crossmember (5) on the lower frame and the double tabs (6) on the axle should be facing up. The gussets (9) on the single tabs under the axle should be closest to the lower frame (1) and intake end of the auger.
3. Center the lower frame on the axle (see Figure 3.11). Bolt the lower frame to the axle using four 1/2" u-bolts that fit 2-1/2" square tubing (7) and 1/2" locknuts (8). The u-bolts for the outer support arms should be to the inside of the lift arm tabs on the axle.

Table 3.6 Lower Frame Size

Model	"X"
8-36, 10-36	107" (2.72 m)
8-41, 10-41	122" (3.10 m)
8-46	137" (3.48 m)
8-51, 10-51	152" (3.89 m)

Figure 3.10 Lower Frame Size

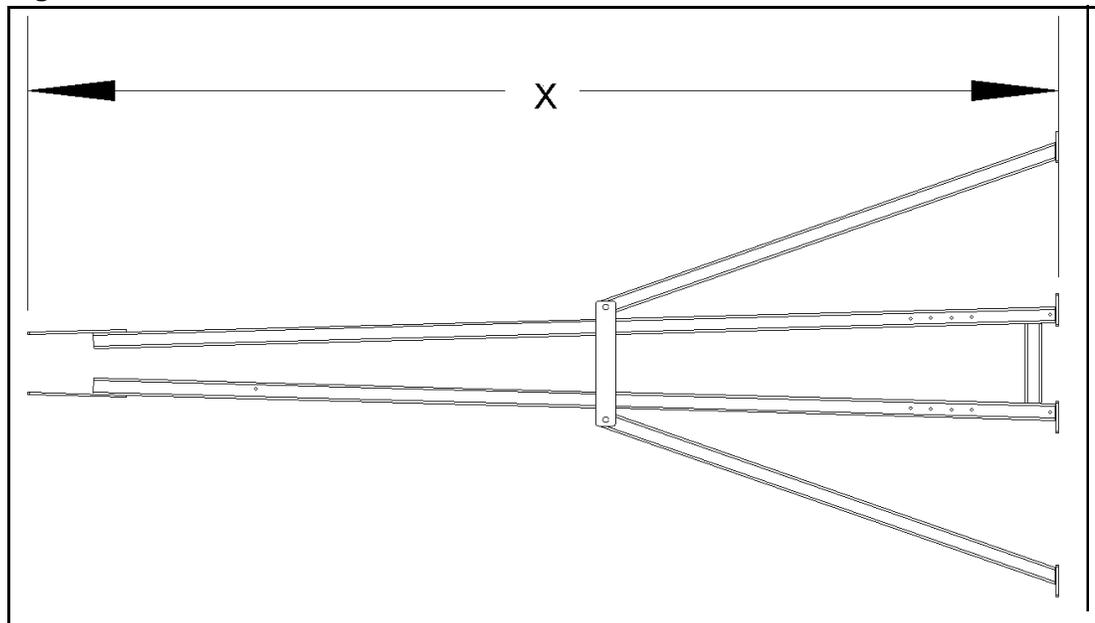


Figure 3.11 Centre Lower Frame and Axle (Top View)

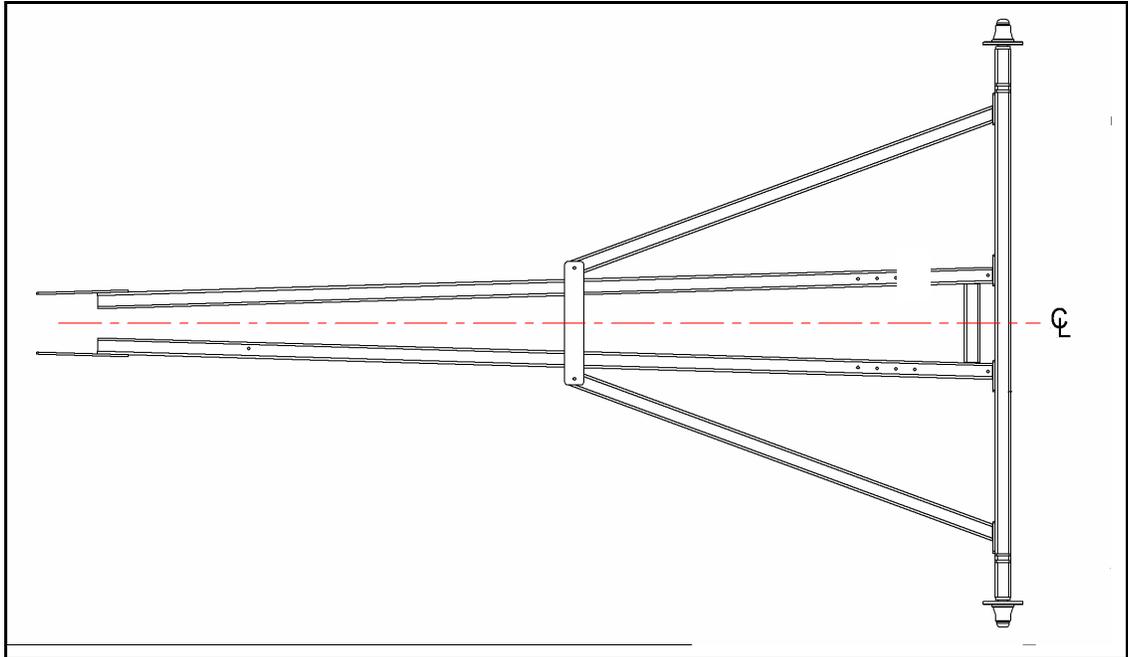
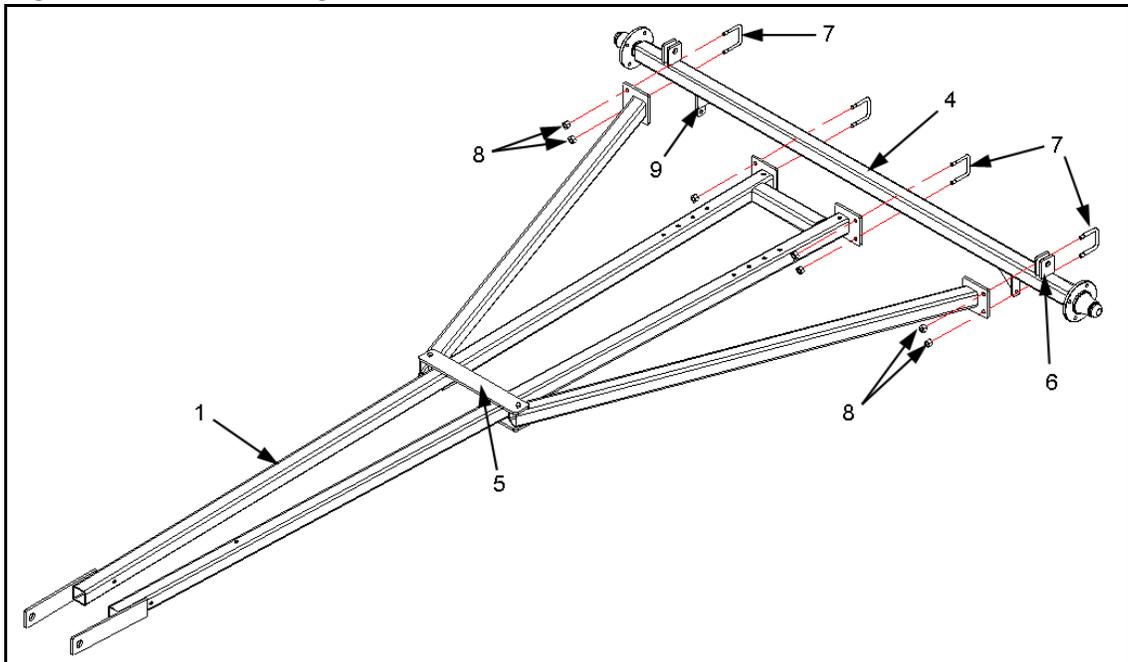


Figure 3.12 Assembling the Lower Frame



3.6.2. Lift Arm Assembly

All Augers

Note: See Table 3.7 and Figure 3.13 for the correct lift arm size.

Bolt the lift arms (3) to the axle (4) using two 3/4" x 2-1/2" bolts (5) and 3/4" locknuts (6). Refer to Figure 3.14.

Table 3.7 Lift Arm Length

Model	"W"
8-36, 10-36	141" (3.58 m)
8-41, 10-41	164 -1/2" (4.17 m)
8-46	188" (4.78 m)
8-51, 10-51	212" (5.38 m)

Figure 3.13 Lift Arm Length

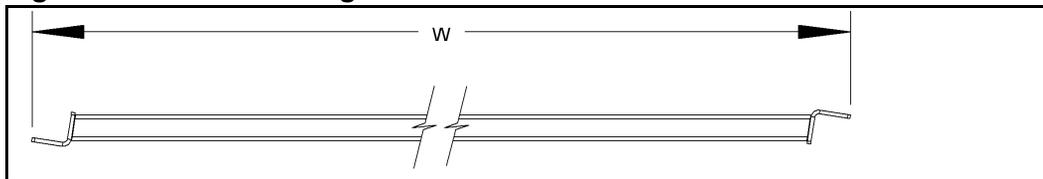
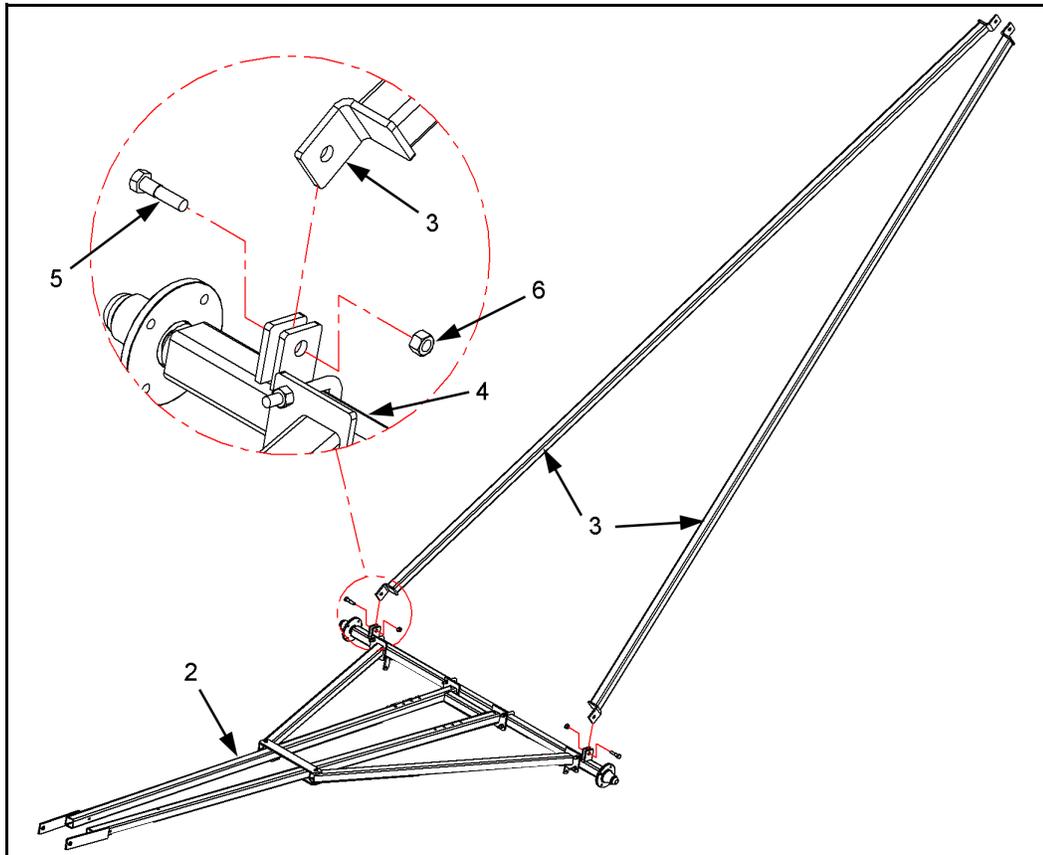


Figure 3.14 Installing the Lift Arms

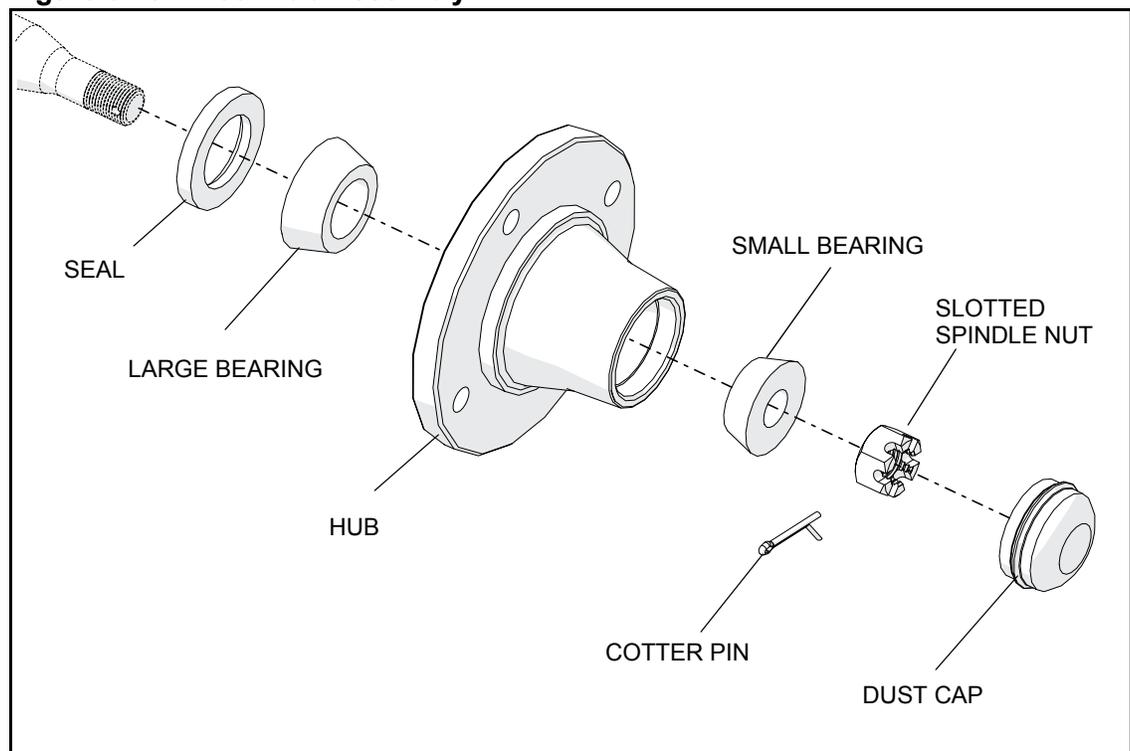


3.7. Wheel Hub Assembly

1. Remove any dirt or paint from spindle and hub.
2. Thoroughly pack wheel bearings and cups with a good grade of bearing grease.
3. Place large bearing into hub and carefully tap in seal.
4. Slip hub onto spindle and insert small bearing.
5. Tighten slotted spindle nut until hub drags slightly. Back off the nut about 1/4 turn until the hub turns freely.
6. Install cotter pin and dust cap.

Note: Installing tires may not leave you with enough clearance to position and attach undercarriage once auger tube is raised. If so, install wheels after assembly is complete.

Figure 3.15 Wheel Hub Assembly



3.8. Wheel Installation

All Augers – See Figure 3.17

Note: Check that air pressure in the tires (1) matches pressure indicated on the tire sidewall.

1. Before mounting the wheels (2), check to make sure the hub (3) and wheel mounting surfaces are free from rust and debris.
2. Mount wheels to hubs using four 1/2" x 1-1/4" wheel bolts (4) per wheel:
 - a. Finger tighten the wheel bolts and verify the wheel is sitting flush on the hub.
 - b. Torque the wheel bolts to 80 ft·lb ± 10 ft·lb (108.5 N·m ± 13.5 N·m) using the pattern shown below.

Figure 3.16 Wheel Bolt Torquing Pattern

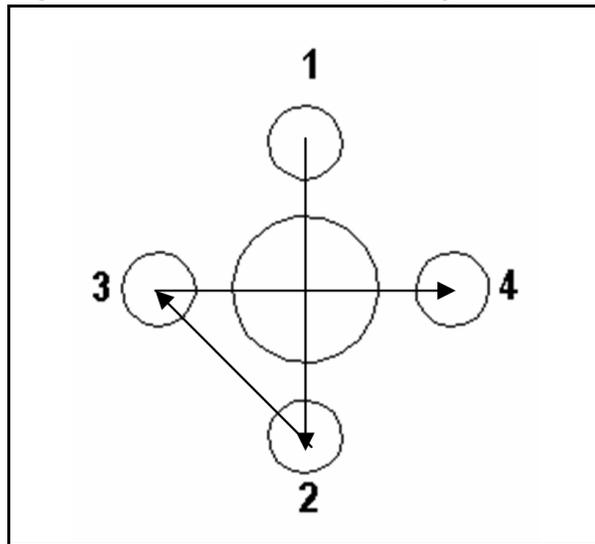
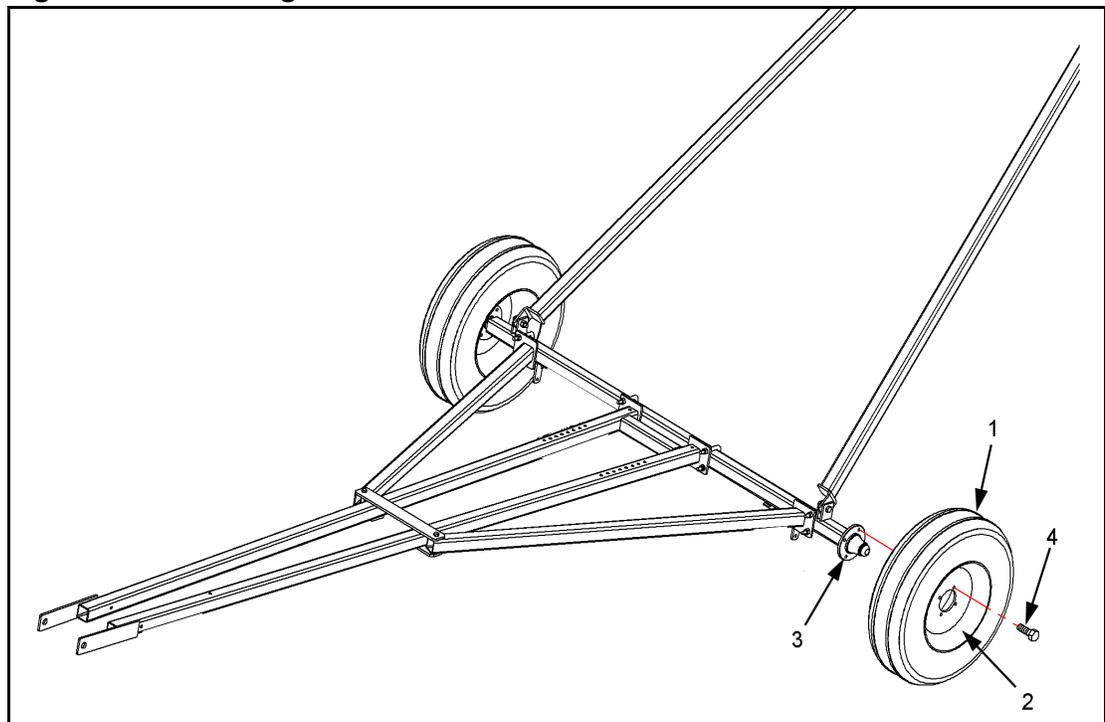


Figure 3.17 Installing the Wheels



3.9. Attaching the Auger Tube to the Frame

All Augers

Note: Refer to Figure 3.18 and Figure 3.19 for following instructions.

1. Remove the stand from the intake end of the auger tube and raise the discharge end with a block and tackle or a front end loader and a strong sling or chain as shown in Figure 3.18. Height should be sufficient so the frame can be positioned under the tube and the lift arms can be easily attached to the track shoe.

Important: Be sure to use proper hoisting equipment and procedures and ensure sling is secured in position. Lock out the hoist apparatus before working around or under the raised tube.

2. Position the frame under the tube assembly.
3. Align the lift arms (1) and the track shoe (2) and attach using a 3/4" x 6-1/2" bolt (3) and 3/4" locknut (4). DO NOT over-tighten. Tighten snug only, this bolt acts as a pivot point.
4. Raise the discharge so the lower frame arms (5) can be aligned with the holes in the tube bracket (10).
5. Attach the lower frame to the bracket on the tube using two 3/4" x 2" bolts (6) on each, then slip in a 3/4" flat washer (7), followed by a 1-1/4" bushing (8). Slide the bolts and bushings into the mount holes on the frame and then put a 1-1/4" washer (9) otop of the bushing. Slide the bolt into the hole in the tube bracket (10) and secure tightly with a 3/4" locknut (11).

Note: The frame arms may need to be spread apart to fit onto the pivot bushings. It might be possible to spread them by hand; if not, a pry bar might be required.

Figure 3.18 Supporting the Auger Tube

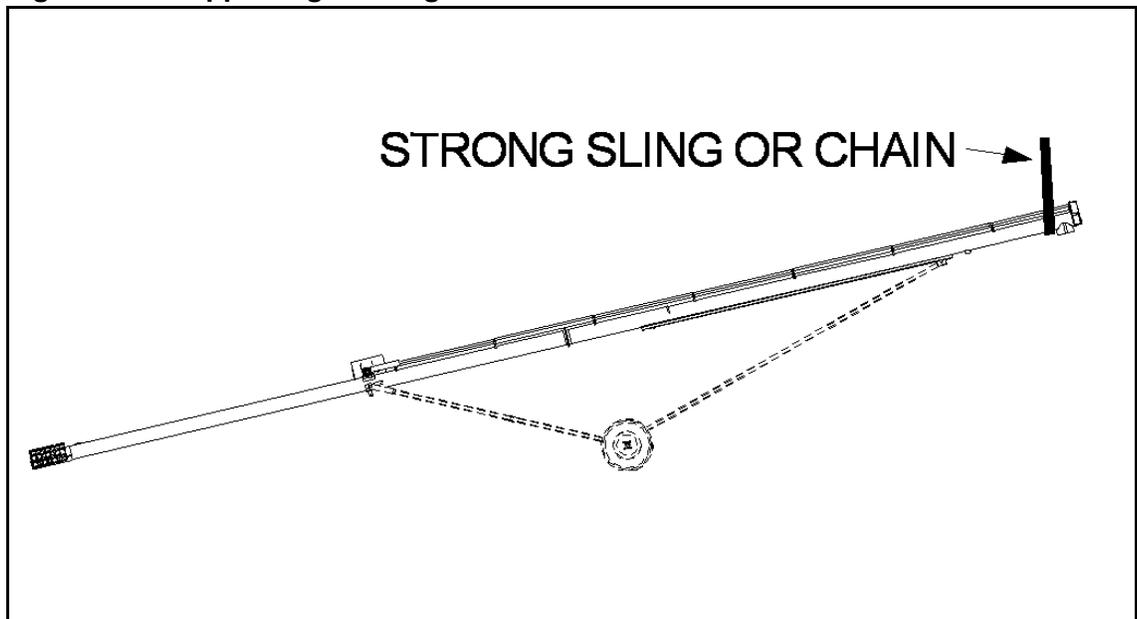
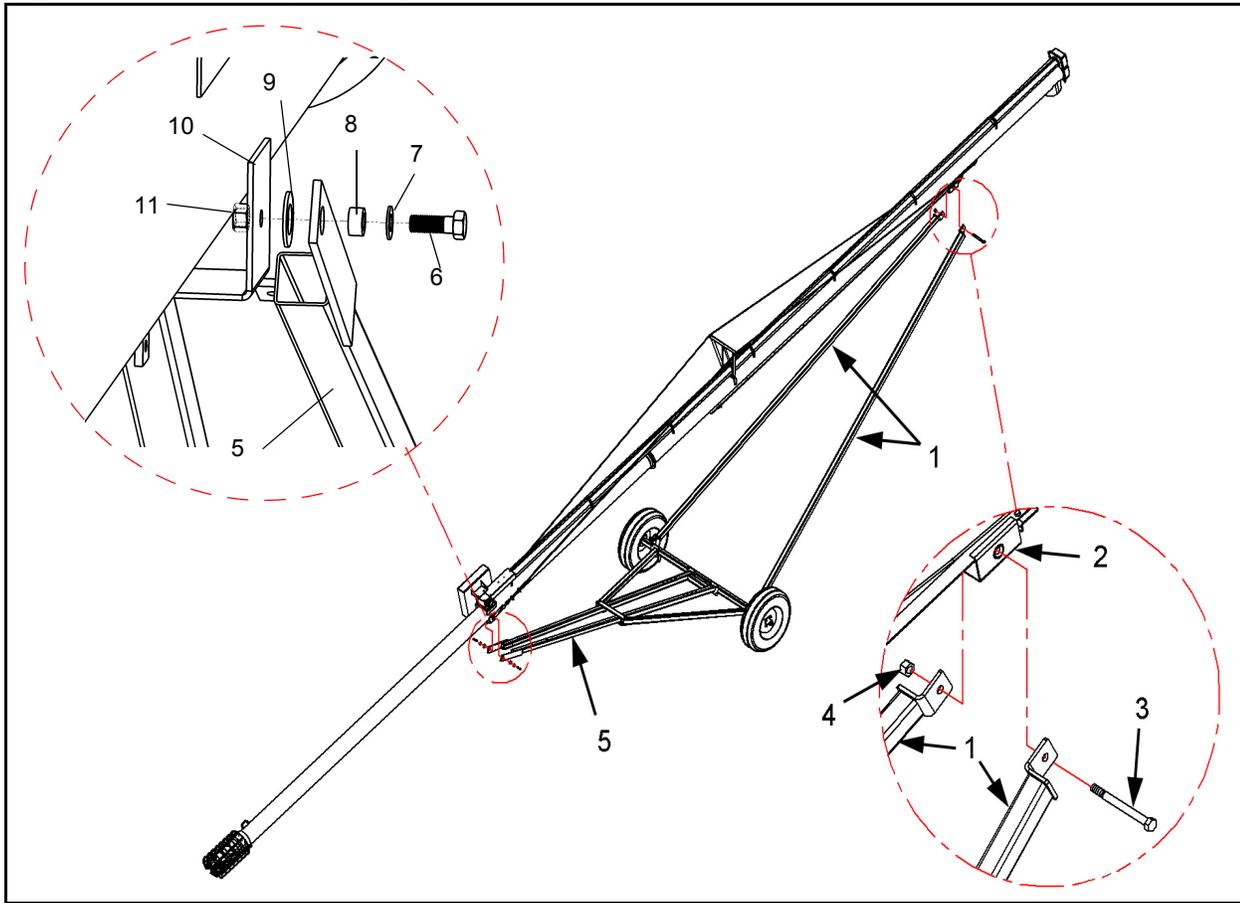


Figure 3.19 Attaching the Auger Tube to the Frame

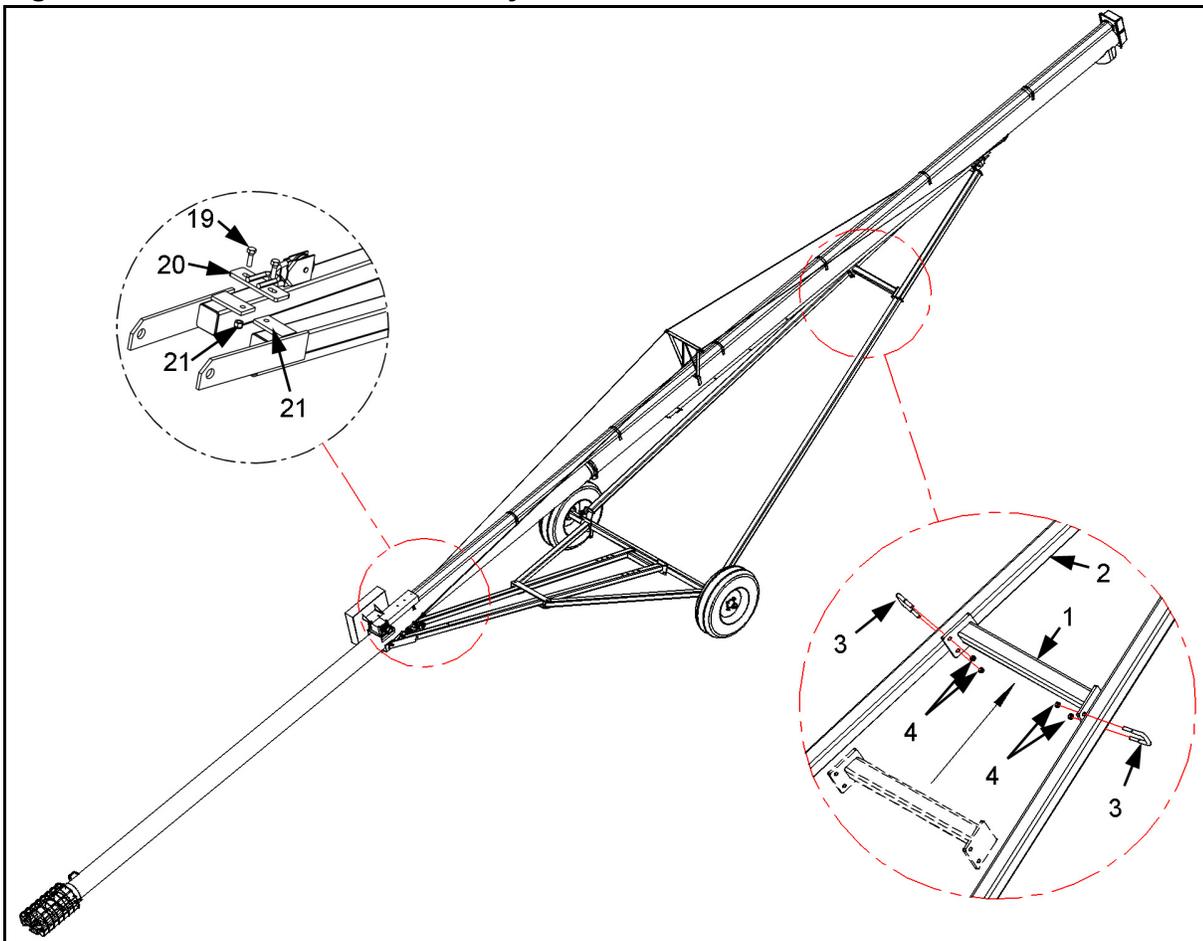


3.10. Lift Cable Pulley Mount and Cross-Member Installation

Note: Refer to Figure 3.20 for following instructions.

- ➔
1. **For 8-41, 8-46, 8-51, 10-41, 10-51 models (with manual winch only):** Attach the lift cable pulley mount (20) to auger tabs (21) with 1/2 x 1-1/2 bolts (19) and locknuts (21).
 2. **For all augers:** Attach the lift arm cross-member:
 - a. Slide the cross-member (1) up between the lift arms (2) until it makes firm contact on both sides.
 - b. Bolt the cross-member in place with two 1/2" u-bolts that fit 2-1/2" square tubing (3) and 1/2" locknuts (4).

Figure 3.20 Cross-Member and Pulley Mount Installation

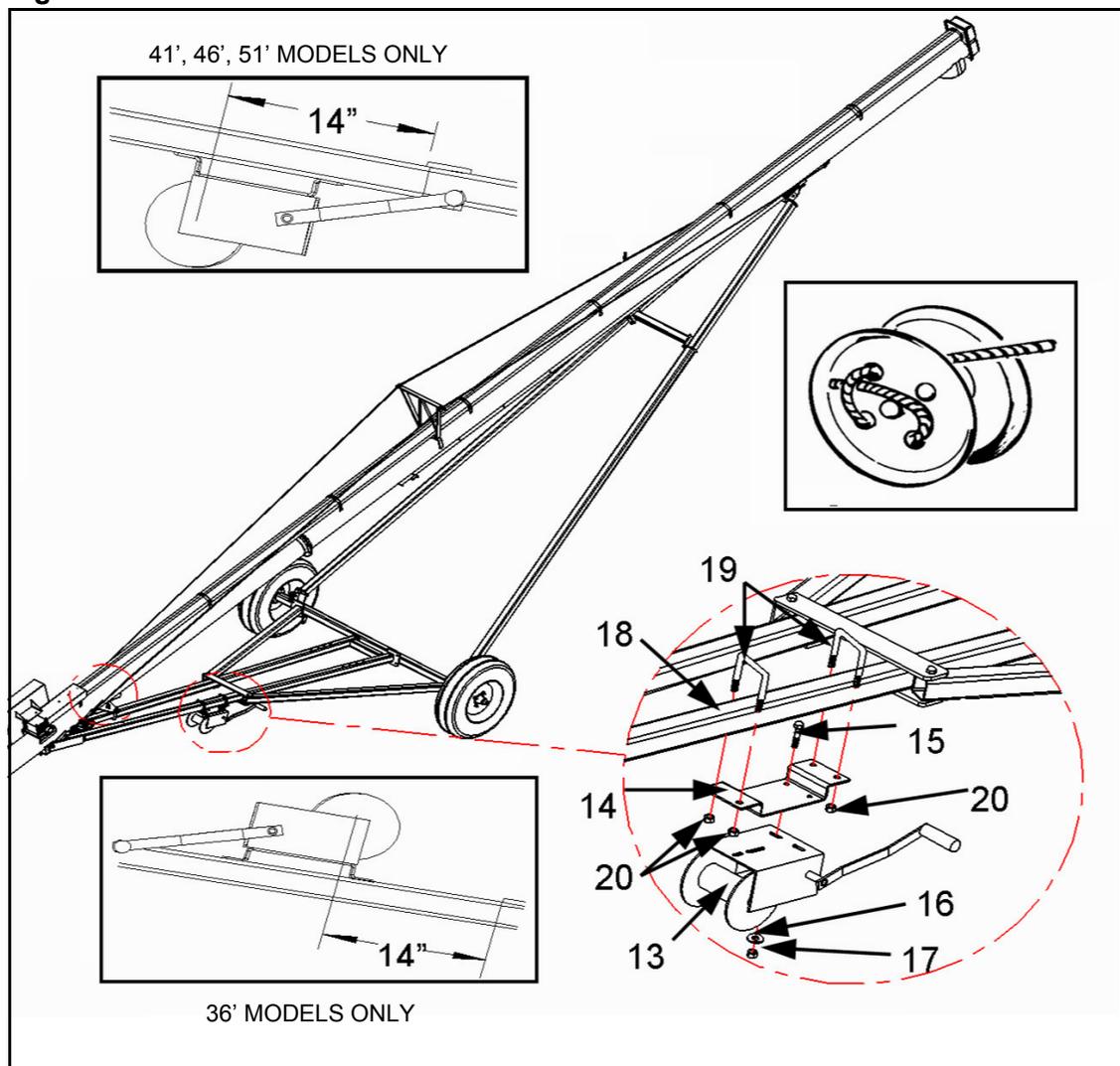


3.11. Hand Winch Installation

1. Assemble the winch (13) and mount plate (14) together with three 3/8" x 1-1/4" bolts (15), 3/8" flat washers (16) and 3/8" locknuts (17) as shown in Figure 3.21.
2. Locate the winch assembly 14" (35.5 cm) from the cross member to the center of the winch drum as shown in Figure 3.21.
3. Loosely secure the winch assembly to the lower frame arm (18) using two 3/8" u-bolts to fit 2-1/2" square tubing (19) and 3/8" locknuts (20) as shown in Figure 3.21.
4. Release the coiled winch cable from the tube. Thread it down around the cable pulley assembly from the top (8-41, 10-41, 8-46, 8-51, 10-51 only) and attach it to the winch drum as shown in Figure 3.21.
5. Align the winch assembly with the track shoe roller (36'), or with the cable pulley assembly (8-41, 10-41, 8-46, 8-51, 10-51), so the cable will index properly on the winch drum when lifting the auger. Secure by tightening nuts (20).

Note: Make sure there is a minimum of three wraps on the winch drum when the auger is in the transport position.

Figure 3.21 Hand Winch Installation



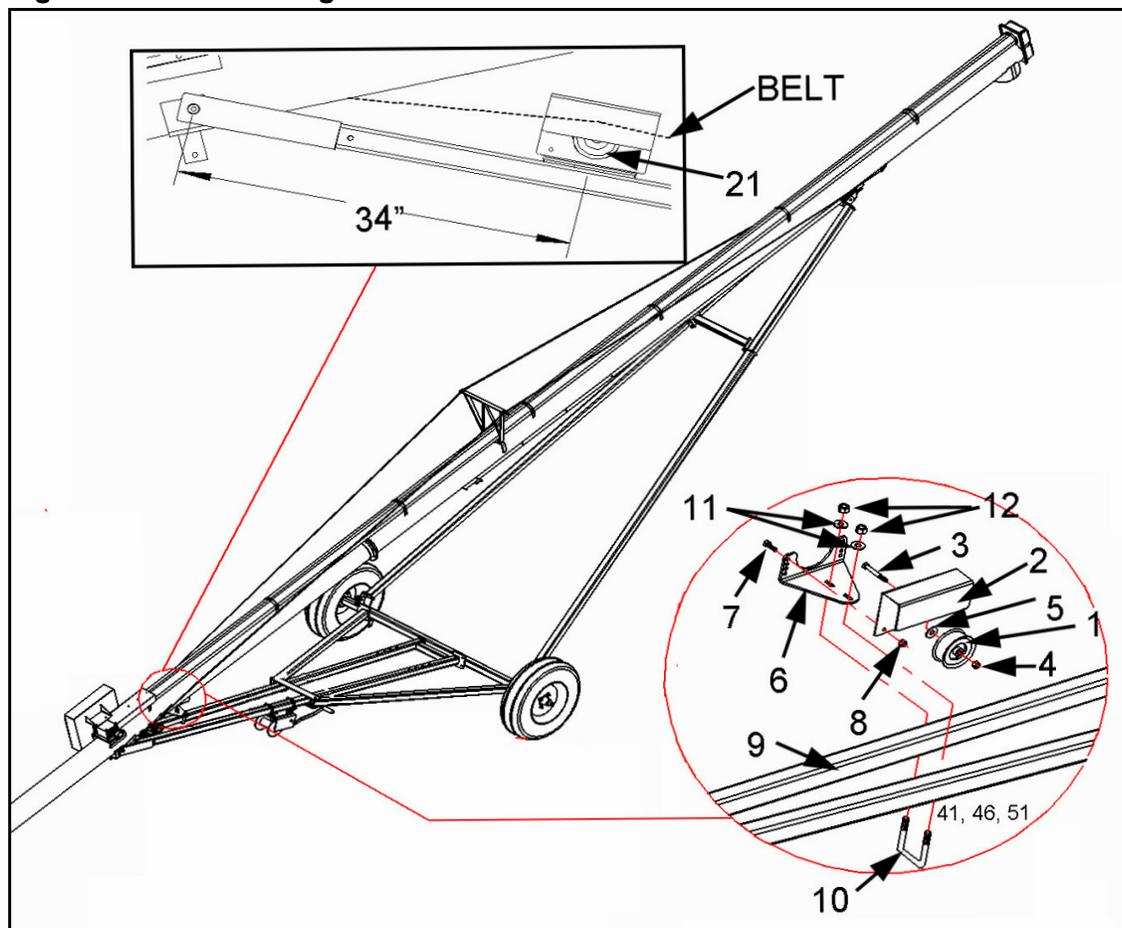
3.12. Idler Assembly

All Augers (North American Guarding Only)

See Section 3.13.4. Australian Belt Guard Assembly on page 54 for Australian guard assembly.

1. Locate the mounting bracket 34" (86.36 cm) from the lower frame arm pivot, as shown in Figure 3.22.
2. Attach the mounting bracket (6) to the lower frame arm (9) using a 3/8" u-bolt to fit a 2-1/2" HSS (10), 3/8" flat washers (11), and 3/8" locknuts (12). DO NOT tighten.
3. Install both belts on gearbox pulley. Take the idler pulley (1) and place it under the back of both belts at point 21 (shown in Figure 3.22).
4. Assemble the idler by attaching the flush side of the idler pulley (1) to the idler guard (2) with a 3/4" x 3-3/4" bolt (3) and 3/4" locknut (4) using a 3/4" flat washer (5) as a spacer. DO NOT over-tighten. Pulley must rotate freely (see Figure 3.22). Idler used on 8-41, 8-46, 8-51, 10-41, and 10-51 only.
5. Secure the pulley and guard assembly to the mounting bracket (6) using two 3/8" x 1" bolts (7) and 3/8" locknuts (8). Align the mounting bracket so the idler pulley lines up with the gearbox pulley and tighten.

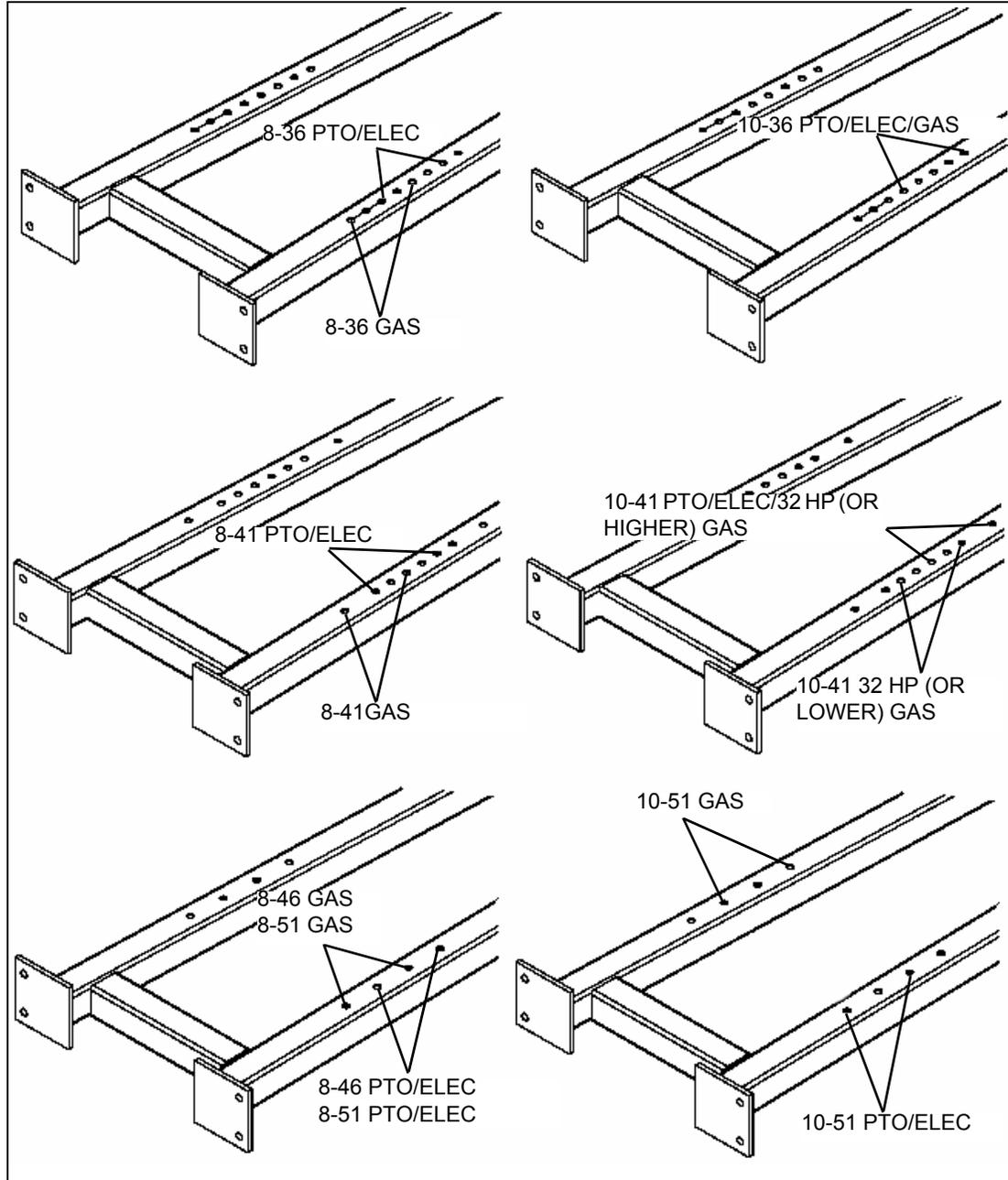
Figure 3.22 Assembling the Idler



3.13. Drive Assembly

Note: The following figures and tables apply to the gas, electric, and PTO drive assemblies.

Figure 3.23 Motor Mount Bracket Positions



3.13.1. Gas Engine & Components

Note: Refer to Figure 3.27 (and additional figures and tables where mentioned) for following instructions.

All Augers

Note: A 13" double-groove pulley is used on the gearbox for all 8" auger gas engines. The 10-36/41 augers use a 15" double-groove pulley and the 10-51 auger uses a 15" triple-groove pulley; see item (46) in Figure 3.27.

1. Slide the bushings (48) and motor mount brackets (1) onto the motor mount handles (2).
2. Bolt the brackets to the lower frame arms (4) with four 7/16" x 3-1/2" carriage bolts (5) and 7/16" locknuts (6).

Note: Locate the brackets in the proper holes indicated by the arrows in Figure 3.23.

3. Set the length of the leveler bar (7) for the engine specified in Table 3.8. Adjust the nut (8) to change the length (see Figure 3.24 below).

Figure 3.24 Leveler Bar Length

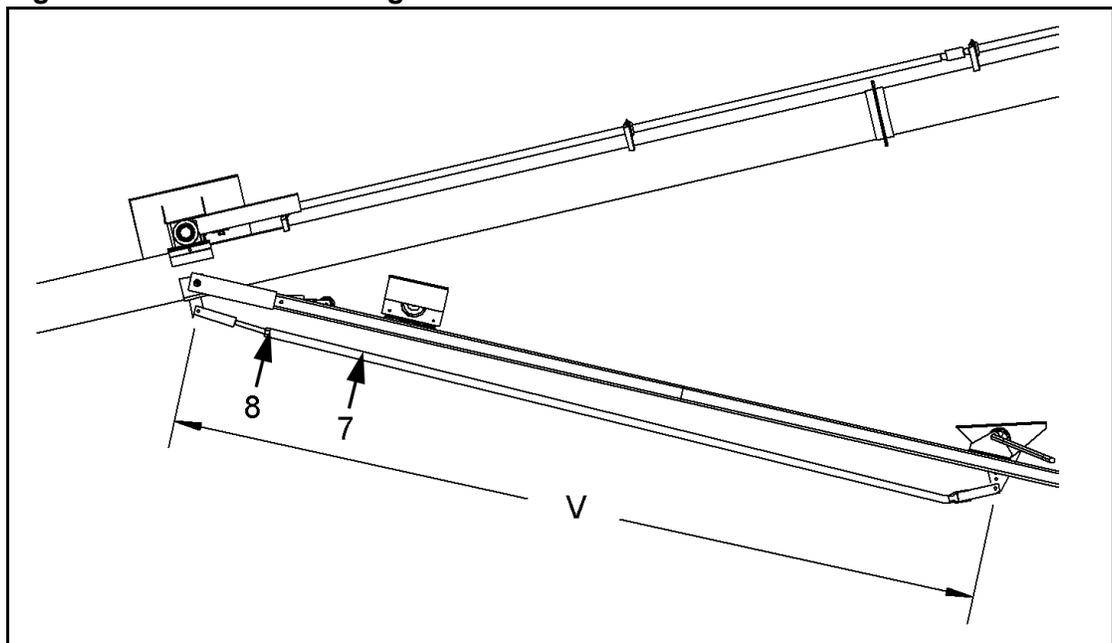


Table 3.8 Leveler Bar Length

Model	Onan 20	Onan 24	Kohler / Briggs & Stratton	Honda / Robin	PTO / Electric
8-36	90-1/4" (2.29 m)	91-1/4" (2.32 m)	90-1/4" (2.29 m)	89-7/8" (2.28 m)	87-3/8" (2.23 m)
8-41	105-1/4" (2.67 m)	105-1/4" (2.67 m)	105-3/8" (2.68 m)	104-7/8" (2.66 m)	102-3/8" (2.06 m)
8-46	120-1/4" (3.05 m)	121-1/4" (3.08 m)	120-1/2" (3.06 m)	119-7/8" (3.04 m)	117-3/8" (2.98 m)
8-51	135-1/4" (3.44 m)	136-1/4" (3.46 m)	135-1/4" (3.44 m)	134-7/8" (3.50 m)	132-3/8" (3.36 m)
10-36	N/A	88-1/4" (2.24 m)	85-1/4" (2.17 m)	87-3/4" (2.23 m)	85" (2.16 m)
10-41	96-1/2" (2.45 m)	96-1/2" (2.45 m)	96-3/8" (2.45 m)	96-1/2" (2.45 m)	97-1/4" (2.47 m)
10-51	135-1/4" (3.44 m)	136-1/4" (3.46 m)	132-1/4" (3.36 m)	134-7/8" (3.50 m)	132-3/8" (3.36 m)

- Attach the leveler bar to the pivot bracket tab (9) with a 1/2" x 1-3/4" bolt (10) and 1/2" locknut (11).
- Locate the proper hole in the motor mount for the engine specified in Table 3.9 and Figure 3.25.
- Secure the leveler bar (7) to the proper hole with a 1/2" x 1-3/4" bolt (12) and 1/2" locknut (13).

Figure 3.25 Locate Correct Motor Mount Hole

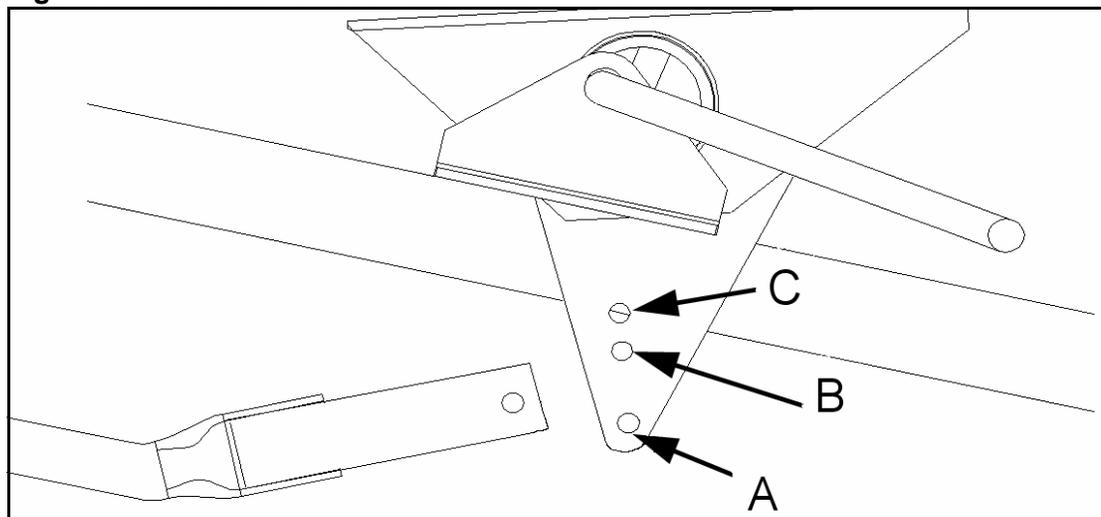


Table 3.9 Motor Mount Holes

Onan 20	Onan 24	Kohler / Briggs & Stratton	Honda / Robin
B	A	8/10-36: A 8/10-41: B 8-46: B 8/10-51: A	C

- Attach the motor pulley guard mount (14) to the motor mount with two 3/8" x 1" bolts (15), 3/8" locknuts (16), and four 3/8" flat washers (17). Do not tighten.

- ➔ 8. **North America only:** Secure the motor pulley guard (18) to the motor pulley guard mount with two 3/8" x 1" bolts (19), 3/8" flat washers (20), and 3/8" locknuts (21). Do not tighten.
- 9. Place the gas motor mounts (22) on top of the motor mount and orient them as shown in Figure 3.27. Place the battery mount (23) under the motor mount and secure the 3 items together with four 3/8" x 1-1/2" bolts (24), 3/8" flat washers (25), and 3/8" locknuts (26). Do not tighten.

Note: When attaching the battery mount, use the first set of holes and slots closest to the battery holder (27). Different holes may be used depending on the space required for different features of the engine or options on the auger (muffler, mover kit, etc.).

- 10. Slide the pulley (28) on the engine's output shaft using a key (29). Tighten the set screw (30) on the pulley once the end of the shaft is flush with the pulley hub.

Note: All engines use a double-groove 4" x 1-1/8" pulley except for the Honda engine, which uses a 4" x 1" pulley.

- 11. Place the engine on the gas motor mount brackets (22) and secure in place with four 3/8" x 2" bolts (31), 3/8" locknuts (32), and eight 3/8" flat washers (33). Do not tighten.

- ➔ 12. **North America only:** Align the engine pulley (46) and gearbox pulley (28) so the v-belts will run straight. Once the pulleys are aligned, tighten the four bolts (31) and nuts (32). Check the alignment of the idler pulley and adjust if necessary.

- ➔ 13. **Australia only:** Slide the engine away from the motor mount bracket (3) until the center of the pulley (46) is 2-1/8" from the edge of the bracket. Tighten the 4 bolts (31) and nuts (32).

- ➔ Steps 14.-17. are for North America only:

- 14. Install the v-belts (47) on the pulleys (28, 46); refer to Table 3.10 for belt size and center-to-center distance.

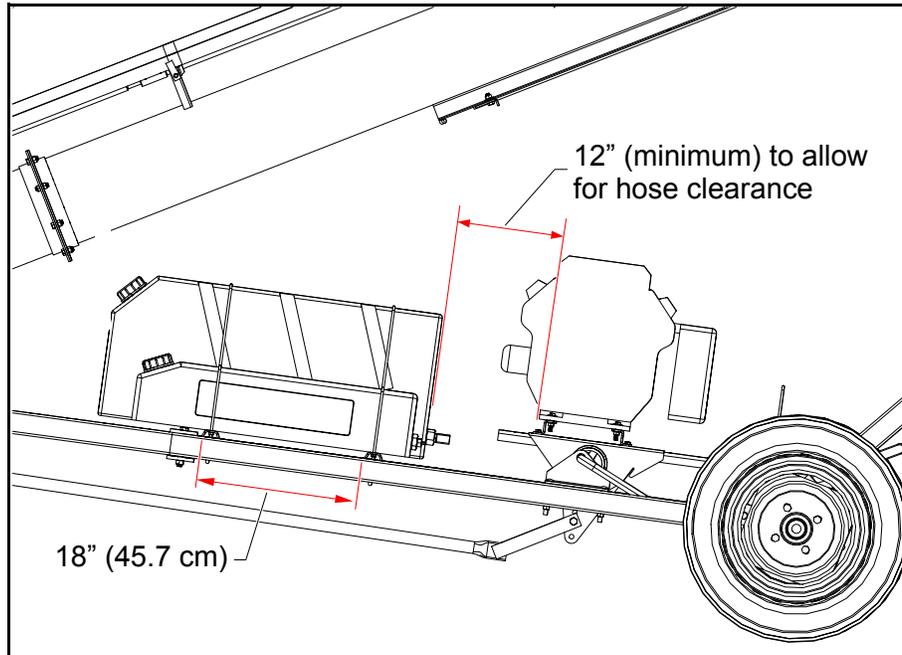
Table 3.10 V-Belt and Pulley Size, Center-to-Center Distance (Gas Drive)

Model	V-BELT SIZE	PULLEY CENTER-CENTER DISTANCE
8-36, 10-36	B210	93-1/4" (2.37 m)
8-41, 10-41	B240	108-1/2" (2.76 m)
8-46	B270	123-1/2" (3.14 m)
8-51	B300	138-1/2" (3.52 m)
10-51	B310	143-1/2" (3.65 m)

- 15. Using the over-center handle (2), place the motor mount (3) in its working position. Slide the engine towards the discharge until the required center-to-center distance between the engine and gearbox pulleys is obtained. This will ensure proper tension in the belt. Tighten the four bolts (24) and nuts (26) to secure the engine.
- 16. Adjust the height, front-to-back, and side-to-side position of the motor pulley guard so the hole in the center of the motor pulley guard (34) is in the center of the pulley shaft. The guard must be less than 1" from the engine.
- 17. Tighten the two bolts (19), two washers (20) and nuts (21) on the motor pulley guard to secure the height of the guard. Tighten the two bolts (15), four washers (17) and nuts (16) on the motor pulley guard mount to secure the front-to-back and side-to-side position of the guard.

18. Space the tank mount brackets (35) as shown in Figure 3.26. Attach the brackets using two 3/8" u-bolts to fit 2-1/2" square tube (36), and four 3/8" locknuts (37).

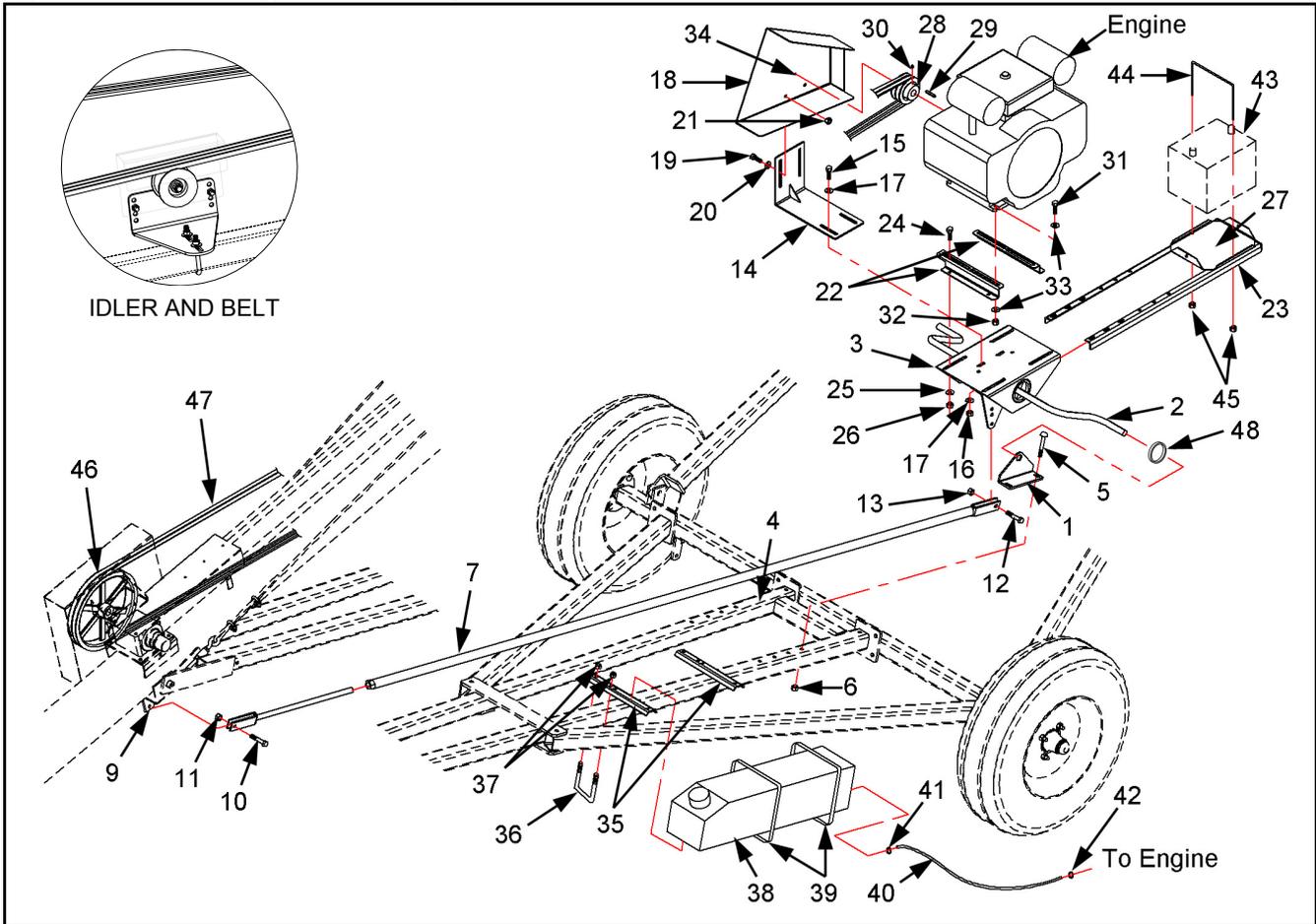
Figure 3.26 Spacing between Motor Mount and Tanks



19. Place the gas tank (38) on the brackets and strap it in place using two u-bolts (39).
20. Attach the one end of the 1/4" x 3' hose (40) to the gas tank using a 1/4" hose clamp (41), and attach the other end of the hose to the engine using another 1/4" hose clamp (42).

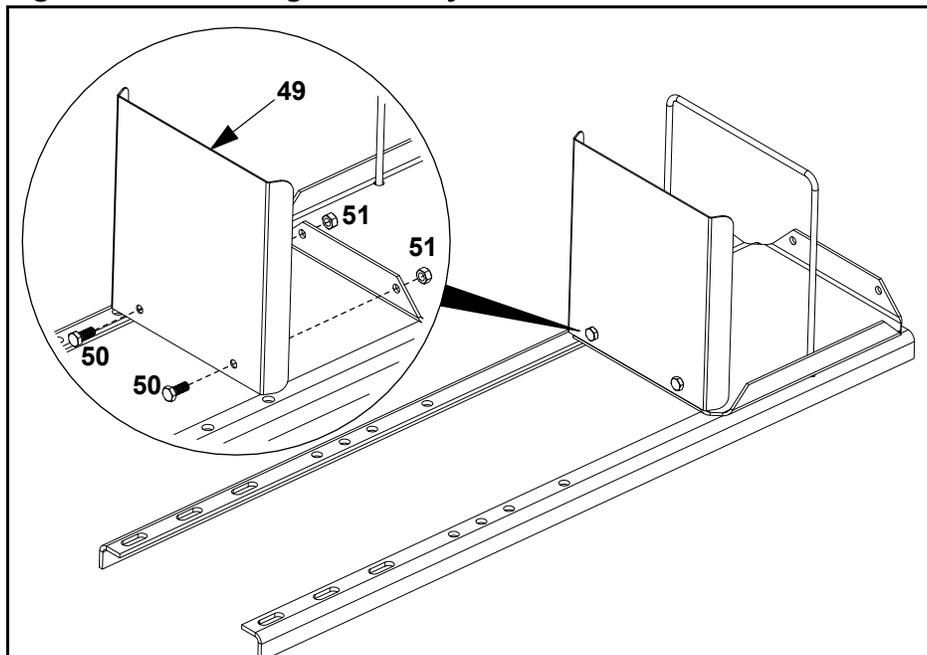
21. Secure the battery (43) in the battery mount (27) using a 1/4" u-bolt that will fit the battery (44) and two 1/4" locknuts (45).

Figure 3.27 Gas Engine and Components



22. Attach the battery heat shield (49) to the battery mount using two 5/16" x 3/4" bolts (50) and locknuts (51).

Figure 3.28 Attaching the Battery Heat Shield



3.13.2. Electric Motor and Components

Note: Refer to Figure 3.29 (and additional figures and tables where mentioned) for following instructions.

All Augers

Note: A 13" double-groove pulley is used on the gearbox for all 8" auger electric motors. The 10-36/41 augers use a 15" double-groove pulley and the 10-51 auger uses a 15" triple-groove pulley; see item (46) in Figure 3.29.

1. Slide the bushings (48) and motor mount brackets (1) onto the motor mount handles (2).
2. Bolt the brackets to the lower frame arms (4) with four 7/16" x 3-1/2" carriage bolts (5) and 7/16" locknuts (6).

Note: Locate the brackets in the proper holes indicated by the arrows in Figure 3.23.

3. Set the length of the leveler bar (7) for the electric motor specified in Table 3.8. Adjust the nut (8) to change the length. See Figure 3.24.
4. Attach the leveler bar to the pivot bracket tab (9) with a 1/2" x 1-3/4" bolt (10) and 1/2" locknut (11).
5. Locate the proper hole in the motor mount as specified in Figure 3.25. Use hole "B" to mount the leveler bar to the motor mount.
6. Secure the leveler bar (7) to the proper hole with a 1/2" x 1-3/4" bolt (12) and 1/2" locknut (13).
7. Attach the motor pulley guard mount (14) to the motor mount with two 3/8" x 1" bolts (15), 3/8" locknuts (16), and four 3/8" flat washers (17). Do not tighten.
8. Secure the motor pulley guard (18) to the motor pulley guard mount with two 3/8" x 1" bolts (19), 3/8" flat washers (20), and 3/8" locknuts (21). Do not tighten.
9. Place the electric motor mounts (22) on top of the motor mount and orient them as shown in Figure 3.29. Secure with four 3/8" x 1" bolts (24), 3/8" flat washers (25), and 3/8" locknuts (26). Do not tighten.
10. Slide the pulley (28) on to the motor's output shaft using a key (29). Tighten the set screw (30) on the pulley once the end of the shaft is flush with the pulley face.

Note: All electric motors use a double-groove 8" pulley.

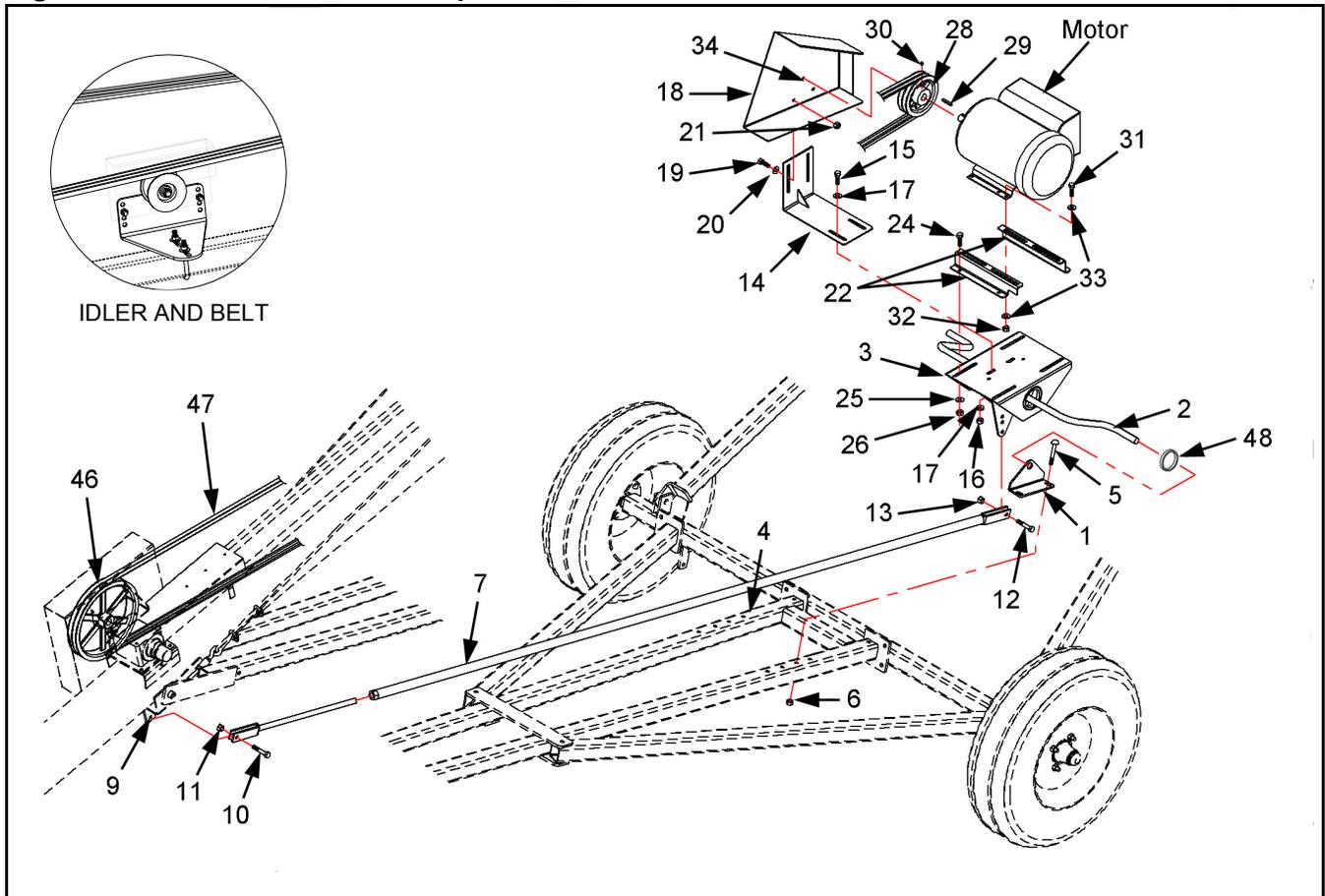
11. Place the motor on the electric motor mounts and secure it in place with four 3/8" x 1" bolts (31), 3/8" locknuts (32), and eight 3/8" flat washers (33). Do not tighten.
12. Align the electric motor pulley (28) and the gearbox pulley (46) so the v-belts will run straight. Once the pulleys are aligned, tighten the 4 bolts (31) and nuts (32). Check alignment of the idler and pulley, and adjust if necessary.
13. Install the v-belts (47) on the pulleys (28,46); refer to Table 3.11 for belt size.

Table 3.11 V-Belt Size (Electric Drive)

Model	V-BELT SIZE
8-36, 10-36	B210
8-41, 10-41	B240
8-46	B270
8-51	B300
10-51	B310

14. Slide the electric motor towards the discharge end using the over-center handle so there is adequate tension on the belt when the motor is engaged. Tighten the 4 bolts (24) and nuts (26) to secure the motor.
15. Adjust the height, front-to-back, and side-to-side position of the motor pulley guard so the hole in the center of the motor pulley guard (34) is in the center of the pulley shaft. The guard must be less than 1" from the motor.
16. Tighten the 2 bolts (19) and nuts (21) on the motor pulley guard to secure the height of the guard. Tighten the 2 bolts (15) and nuts (16) on the motor pulley guard mount to secure the front-to-back and side-to-side position of the guard.

Figure 3.29 Electric Motor & Components



3.13.3. PTO and Components

Note: Refer to Figure 3.30 (and additional figures and tables where mentioned) for following instructions.

All Augers

Note: An 8" double-groove pulley is used on the gearbox for PTO driven augers; see item (47) in Figure 3.30.

1. Slide the bushings (48) and motor mount brackets (1) onto the motor mount handles (2).
2. Bolt the brackets to the lower frame arms (4) with four 7/16" x 3-1/2" carriage bolts (5) and 7/16" locknuts (6).

Note: Locate the brackets in the proper holes indicated by the arrows in Figure 3.23.

3. Set the length of the leveler bar (7) for a PTO driven auger as specified in Table 3.8. Adjust the nut (8) to change the length. See Figure 3.24. Attach the leveler bar to the pivot bracket tab (9) with a 1/2" x 1-3/4" bolt (10) and 1/2" locknut (11).
4. Use hole "B" in Figure 3.25 to mount the leveler bar to the motor mount.
5. Secure the leveler bar (7) to the proper hole with a 1/2" x 1-3/4" bolt (12) and 1/2" locknut (13).
6. Attach the PTO mount (14) to the motor mount with four 3/8" x 1" bolts (15), 3/8" locknuts (16), and 3/8" flat washers (17). Do not tighten.
7. Slide the 2 pillow block assemblies (18) onto the jackshaft (19) with the locking collars facing in. Slide the jackshaft through the hole in the PTO mount (20), and secure the pillow blocks to the PTO mount with four 1/2" x 1-1/2" bolts (21), 1/2" flat washers (22), and 1/2" locknuts (23).
8. Slide the pulley (24) on to the jackshaft with a key (25) using the inside groove (26). Do not tighten.

Note: All PTO driven augers use a double groove 13" x 1" input pulley.

9. Align the PTO pulley (24) with the gearbox pulley(47) so the belts will run straight. Adjust both the position of the jackshaft in the pillow blocks and the position of the pulley on the jackshaft to properly align. Tighten both locking collars on the pillow blocks and the set screw (27) on the pulley.
10. Secure the PTO shaft shield (28) in place with two 1/2" x 1" bolts (29) and 1/2" locknuts (30).
11. Install the v-belts (46) on the pulleys (24, 47). Refer to Table 3.12 for belt size. Check alignment of the idler and pulley, and adjust if necessary.

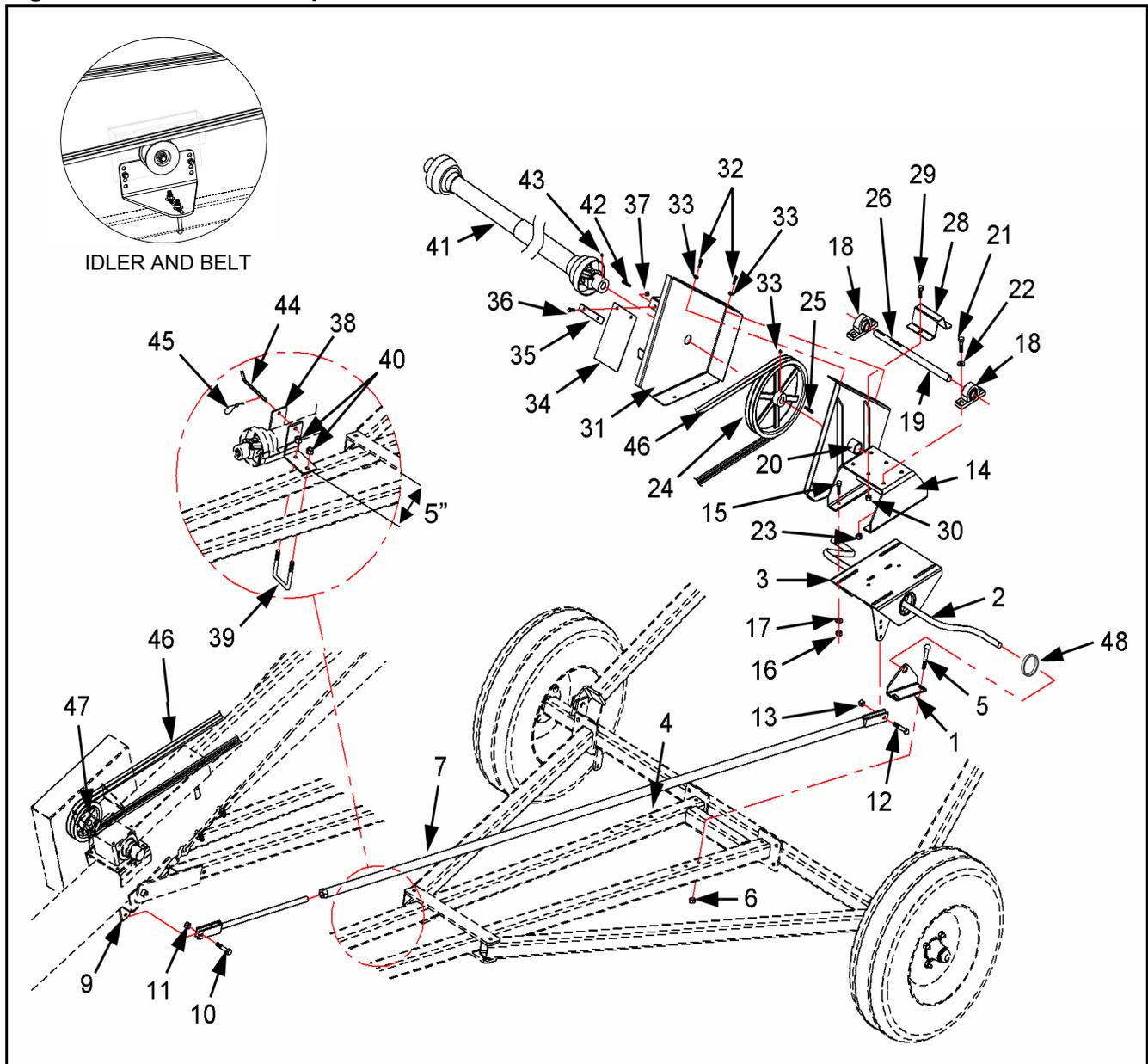
Table 3.12 V-Belt Size (PTO Drive)

Model	V-BELT SIZE
8-36, 10-36	B210
8-41, 10-41	B240
8-46	B270
8-51	B300
10-51	B310

12. Slide the PTO mount towards the discharge end using the over-center handle so there is adequate tension on the belt when the PTO is engaged. Tighten the 4 bolts (15) and nuts (16) to secure the PTO.

13. Bolt the PTO front shield (31) to the PTO mount using four 3/8" x 3/4" bolts (32) and 3/8" lock washers (33).
14. Install the PTO rubber flap (34) onto the PTO front shield with the PTO rubber mount strap (35), two 5/16" x 3/4" bolts (36), and 5/16" locknuts (37).
15. Secure the PTO transport saddle (38) to the lower frame arms with a 3/8" u-bolt that fits 2-1/2" HSS (39) and two 3/8" locknuts (40). For 36' augers, measure 5" from cross plate edge to center of u-bolt. This measurement is not critical for other augers.
16. Install the 60" PTO driveline (41) onto the jackshaft with a key (42), and tighten the set screw to secure (43).
17. Place the driveline in the transport saddle and secure it with the PTO pin (44) and hairpin (45).

Figure 3.30 PTO and Components



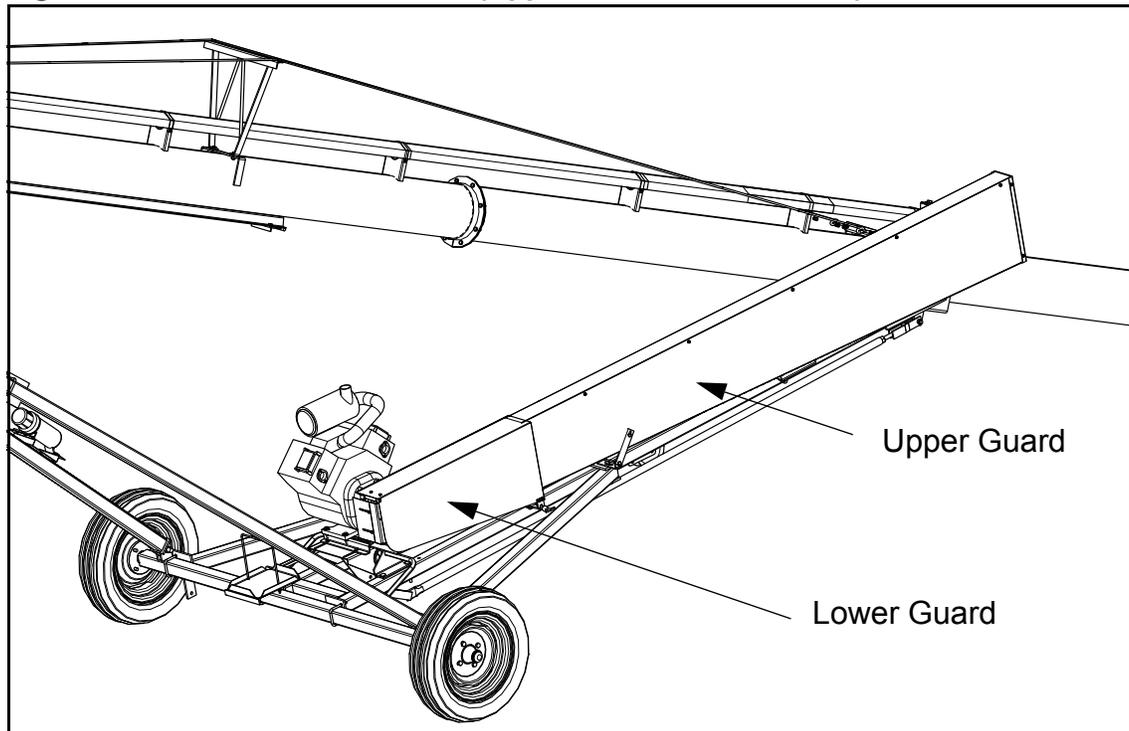
3.13.4. Australian Belt Guard Assembly

When installing the Australian Belt Guard, assemble the upper guard first, and then assemble the lower guard (see Figure 3.31).

Refer to the following procedures during assembly. Note that there are two separate procedures for the upper guard assembly, one for all models except the 10-51, and one specifically for the 10-51 model.

- See “Upper Belt Guard (Excluding 10-51)” on page 55.
- See “Upper Belt Guard (10-51 Only)” on page 57.
- See “Lower Belt Guard (All Models)” on page 60.

Figure 3.31 Australian Belt Guard (Upper and Lower Sections)



Upper Belt Guard (Excluding 10-51)

Note: See Table 3.13 and Figure 3.32 and 3.33 for the upper guard assembly.

- ➔ 1. **8-36 Model Only:** Attach the two 3/16" plates (7B) to the inside of the linkage mount (6) with the threaded rod facing out. Fasten with two 3/8" locknuts, leaving linkage loose enough to pivot.
- ➔ 2. **All Other Models:** Attach the two 3/16" plates (7A) to the inside of the linkage mount (6) using two 3/8" x 1" bolts (14) and nuts. The bolts should be loose enough to allow the plates to pivot.
3. Place gearbox mount plate (5) through the inner belt guard (2). Fasten it using four 1/4" x 5/8" self-tapping screws (13).
4. Place end of inner belt guard (2) with gearbox mount plate (5) onto gearbox housing.
5. Place gearbox mount bracket (4) onto the capped side of the gearbox. Attach the other end of the bracket to the inner belt guard (2) using a 3/8" x 1" bolt and nut.
6. Using a 3/8" x 1" bolt (15) and nut, attach the lower end of the inner belt guard (2) to the inside linkage plate (7) with the bolt facing outward and loose enough to allow the linkage to pivot.
7. Install the sheave with the long hub facing inward and tighten set screws.

Note: The sheave will not sit flush with the shaft.

Table 3.13 Upper Belt Guard Parts (Australian Guard)

Item	Part #	Description	Qty
1A	4503273	UPPER OUTER BELT GUARD (8/10-36)	1
1B	4503271	UPPER OUTER BELT GUARD (8/10-41)	1
1C	4503269	UPPER OUTER BELT GUARD (8-46)	1
1D	4503267	UPPER OUTER BELT GUARD (8-51)	1
2A	4503274	UPPER INNER BELT GUARD (8/10-36)	1
2B	4503272	UPPER INNER BELT GUARD (8/10-41)	1
2C	4503270	UPPER INNER BELT GUARD (8-46)	1
2D	4503268	UPPER INNER BELT GUARD (8-51)	1
3	4503278	UPPER BELT GUARD END COVER	1
4A	4503313	GEARBOX MOUNT BRACKET (8)	1
4B	4508034	GEARBOX MOUNT BRACKET (10)	1
5A	4503315	GEARBOX MOUNT PLATE (8)	1
5B	4508046	GEARBOX MOUNT PLATE (10)	1
6	4503317	LINKAGE MOUNT	1
7A	4503318	3/16" LINKAGE PLATE (EXCLUDING 8-36)	2
7B	4503320	3/16" LINKAGE PLATE (8-36 ONLY)	2
8	4503328	3/8" SPACER	1
9	4503329	2-7/8" SPACER	1
10	9900905	1/2" X 5-1/2" GR5 BOLT	1
11	19599	1/2" GR2 NYLOCK NUT	1
12	28447	IDLER (EXCLUDING 8/10-36)	1

Note: Remaining parts will be in the bolt package.

Note: If the idler is not recessed on one side, the 2-7/8" spacer may need to have 5/32" (4 mm) of its length removed.

- ➔ Steps 8., 9., and 13. are excluded for 8-36 and 10-36 augers.

8. Insert the 1/2" x 5-1/2" bolt (10) partially through the inner belt guard (2) as shown in Figure 3.33.
9. Place the 3/8" spacer (8) on the 1/2" bolt (10). Then insert the idler (12) followed by the 2-7/8" spacer (9). The idler must be recessed on the 2-7/8" bushing side as shown in Figure 3.33.
10. Install the belts onto the gearbox and engine pulleys, running on top of the idler. It may be necessary to over-center the motor mount to install the belts. See Table 3.10 for belt size and center-to-center distances (when engine over-center is in working position). Adjust engine position by sliding the engine mount z-brackets. This will ensure proper belt tension. Tighten bolts.

Note: The 8-36 and 10-36 augers do not have an idler.

11. Referring to , adjust the lower belt guard support bracket (3) so that the outside face is 5-7/8" (14.9 cm) away from the motor mount bracket (5) face and that the center slot is aligned horizontally with the shaft center on the engine. Tighten bolts.
12. Attach the outer belt guard (1) to the inner belt guard (2) by first inserting the top 1/4" x 5/8" self-tapping screw nearest the discharge end. Repeat for the top hole nearest the intake end. Do not insert the remaining screws. Refer to Figure 3.33.
13. Push the 1/2" bolt (10) the remainder of the way through the outer guard and tighten using the 1/2" nylock nut (11). See Figure 3.33.
14. Insert the remaining 1/4" x 5/8" self-tapping screws into the guard assembly.
15. Attach the outer belt guard (1) to the other 3/16" plate (7) with a 3/8" x 1" bolt (16) and nut. DO NOT over-tighten, leaving the assembly free to pivot as shown in Figure 3.33.
16. Attach the belt guard end cover (3) using four 1/4" x 5/8" self-tapping screws as shown in Figure 3.33.
17. Re-install the lower belt guard assembly over the upper belt guard and latch the rubber strap to secure.

Figure 3.32 Gearbox Guard Assembly

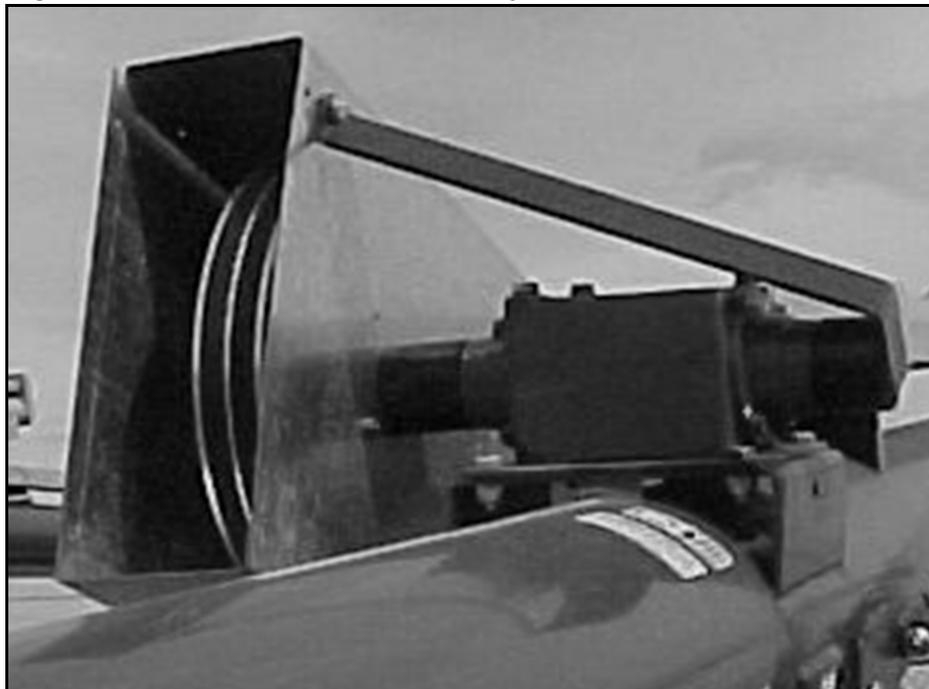
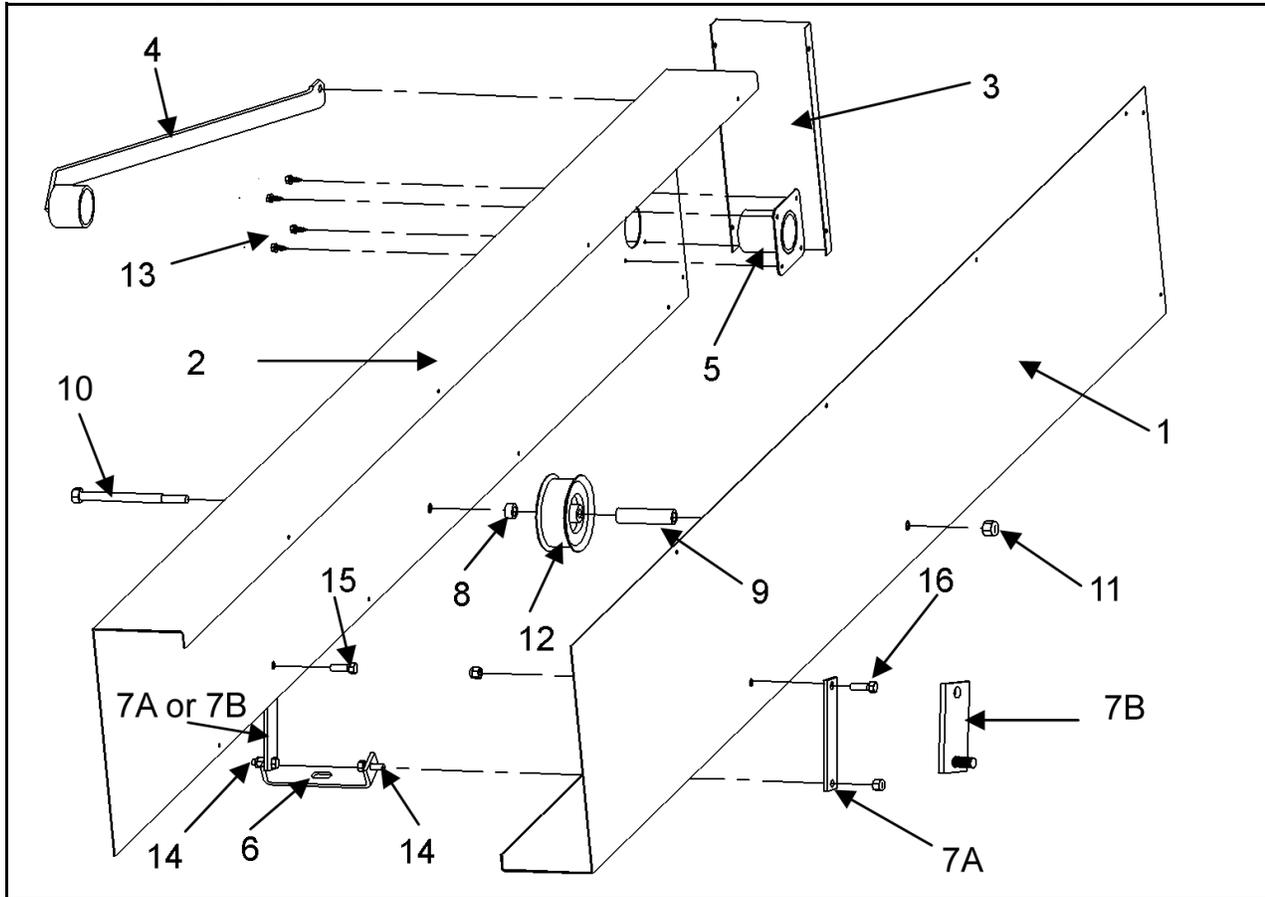


Figure 3.33 Upper Belt Guard Assembly (Australian Guard), All Models, Excluding 10-51



Upper Belt Guard (10-51 Only)

Note: See Table 3.14 and Figure 3.33 for the upper guard assembly.

1. Attach a linkage plate (8) to the inside of the linkage mount (7) using two 3/8" x 1" bolts and locknuts. The bolt should be loose enough to allow the plates to pivot.
2. Connect the inner belt guard (2) to the gearbox, ensuring that the gearbox mount supports (4), gearbox mount stabilizer (5), and the gearbox mount shim (6) are properly placed. Use 3/8" x 1" bolts and locknuts to fasten the inner belt guard to the gearbox.
3. Using a 3/8" x 1" bolt and locknut, attach a linkage plate (8) to the inner belt guard (2), ensuring that the connection is loose enough to allow the linkage to pivot.

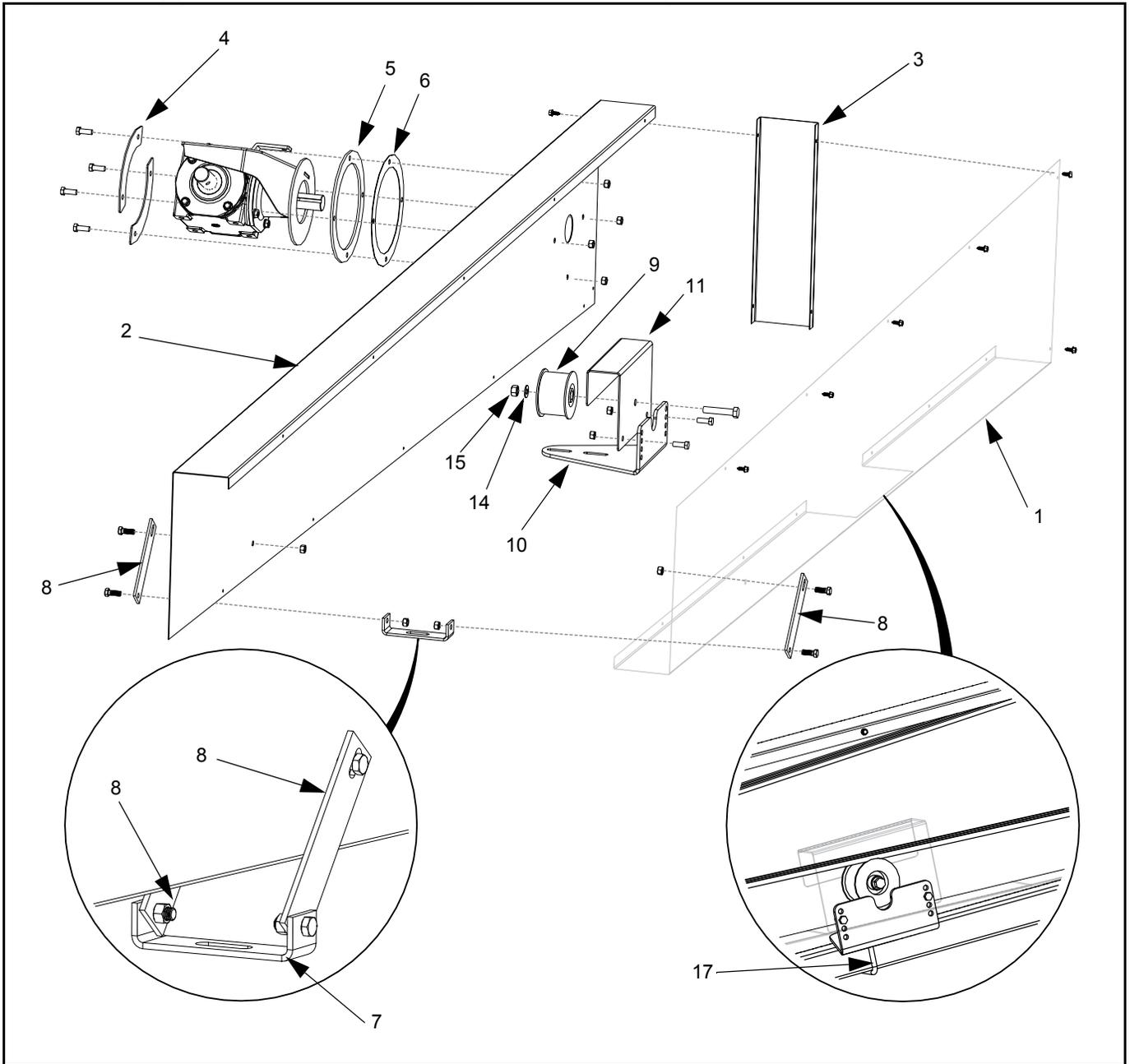
4. Install the sheave on the gearbox shaft with the long hub facing inward, and tighten set screws.

Table 3.14 Upper Belt Guard Parts (Australian Guard)

Item	Part #	Description	Qty
1	10-20125	UPPER OUTER BELT GUARD	1
2	10-20126	UPPER INNER BELT GUARD	1
3	10-20122	UPPER BELT GUARD END COVER	1
4	4508034	GEARBOX MOUNT SUPPORT	2
5	4508035	GEARBOX MOUNT STABILIZER	1
6	4508036	GEARBOX MOUNT SHIM	1
7	4503317	LINKAGE MOUNT	1
8	10-20121	LINKAGE PLATE	2
9	29890	IDLER PULLEY	1
10	10-20124	IDLER BASE	1
11	10-20123	IDLER GUARD, 3-belt	1
12	---	3/8" x 1" BOLT	10
13	---	3/8" LOCKNUT	10
14	---	1/2" x 2-1/2" BOLT	1
15	---	1/2" FLAT WASHER	1
16	---	1/2" LOCKNUT	1
17	---	U-BOLT	1
18	19274	SELF TAPPING SCREWS	16

5. Install the belts onto the gearbox and engine pulleys. It may be necessary to over-center the motor mount to install the belts. See Table 3.10 for belt size and center-to-center distances (when engine over-center is in working position).
6. Assemble the idler around the belts as shown in Figure 3.34, ensuring that during assembly the belts are contained between the idler pulley and the idler guard:
 - a. Bolt the idler guard (11) to the idler base plate (10) using two 3/8" x 1" bolts and locknuts inserted through the second bolt holes from the top of the idler base plate.
 - b. Connect the idler pulley (9) to the idler guard (11) using a 1/2" x 2-1/2" bolt, 1/2" washer, and 1/2" locknut.
7. Fasten the idler base (10) to the frame member running under the guards with the u-bolt, ensuring that the idler is positioned within the space provided by the gap in the bottom of the outer belt guard (1).
8. Attach a linkage plate (8) to the outer belt guard (1) using a 3/8" x 1" bolt and locknut, ensuring that the connection is loose enough to allow the linkage to pivot.
9. Attach the outer belt guard (1) to the inner belt guard (2) with 1/4" x 5/8" self-tapping screws.
10. Attach the outer linkage plate (8) to the inside of the linkage mount (7) using two 3/8" x 1" bolts and locknuts. The bolt should be loose enough to allow the plates to pivot.
11. Attach the belt guard end cover (3) using four 1/4" x 5/8" self-tapping screws as shown in Figure 3.34.
12. Install the lower belt guard. See "Lower Belt Guard (All Models)" on page 60.

Figure 3.34 Upper Belt Guard Assembly(Australian Guard), 10-51



Lower Belt Guard (All Models)

Note: See Table 3.15 and for the lower guard assembly.

1. Place the belt guard pivot arm (1) through the pipe on the belt guard connector plate (2).
2. Mount the connector plate (2) onto the belt guard support bracket (3) using two 3/8" x 1" bolts, locknuts, and washers. The hole in the center of the connector plate (2) should be lined up with the center of the slot in the support bracket (3) and the same vertical height as the engine shaft.

Figure 3.35 Lower Belt Guard Assembly (Australian Guard)

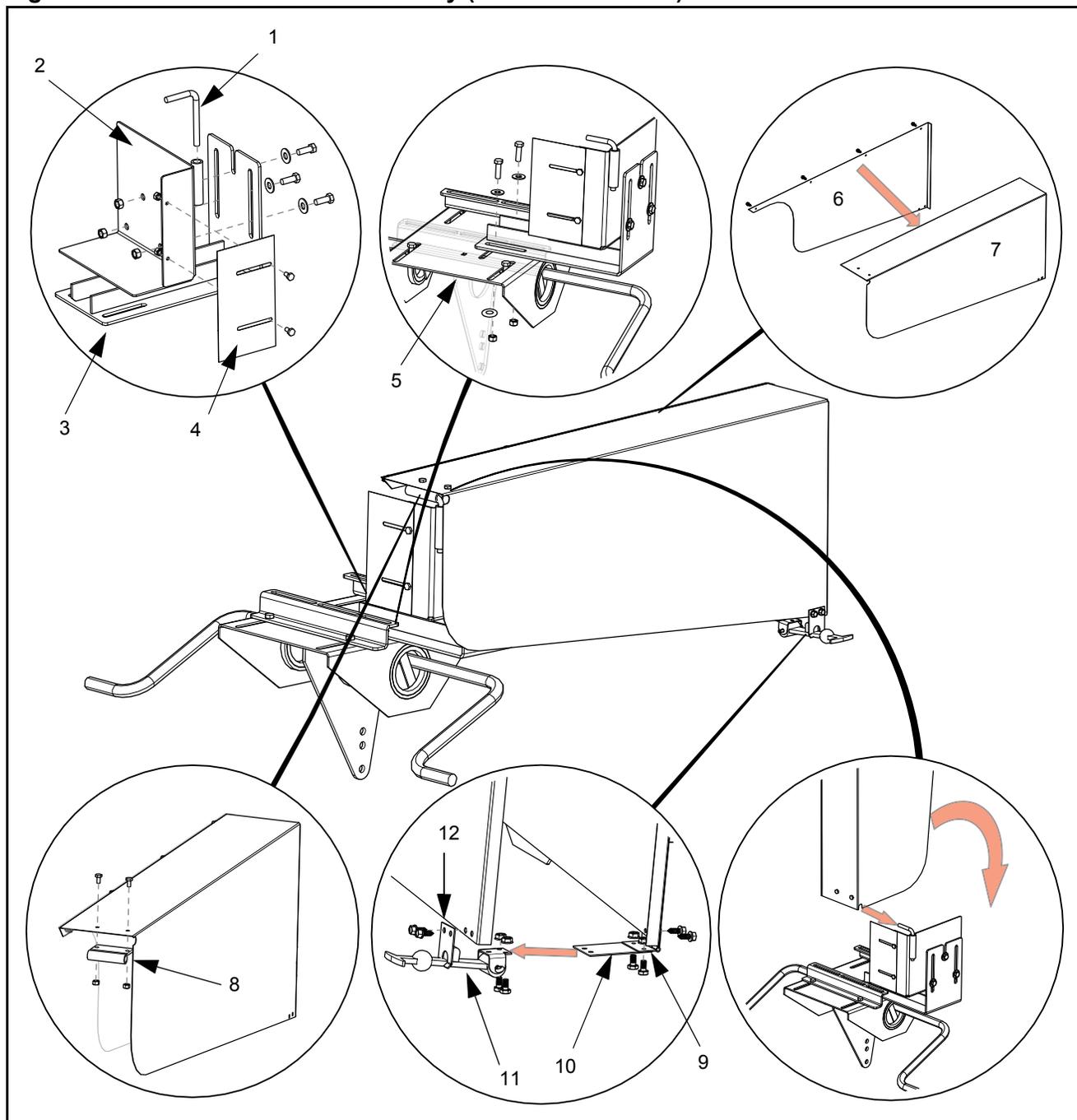


Table 3.15 Lower Belt Guard Parts (Australian Guard)

Item	Part #	Description	Qty
1	4503310	LOWER BELT GUARD PIVOT ARM	1
2	4503309	LOWER BELT GUARD CONNECTOR PLATE	1
3	4503041	LOWER BELT GUARD SUPPORT BRACKET	1
4	4503324	LOWER BELT GUARD COVER PLATE	1
5	---	MOTOR MOUNT BRACKET	1
6	4503323	LOWER INNER BELT GUARD	1
7	4503322	LOWER OUTER BELT GUARD	1
8	4503311	LOWER BELT GUARD PIVOT	1
9	4503286	2" HINGE	1
10	4503325	16 GA x 2" x 3" PLATE	1
11	4503327	RUBBER SAFETY STRAP, 2-1/2", SINGLE	1
12	4503326	RUBBER STRAP CATCH	1
13	---	3/8" x 1" BOLT	5
14	---	3/8" FLAT WASHER	7
15	---	3/8" LOCKNUT	5
16	---	1/4" x 5/8" SELF-TAPPING SCREWS	8
17	---	1/4" x 1/2" BOLTS	8
18	---	1/2" LOCKNUTS	8

3. Using two 1/4" x 1/2" bolts and locknuts, mount the belt guard cover plate (4) to the belt guard connector plate (2). Slide the cover plate (4) as close to the engine as possible. DO NOT over-tighten screws.
4. Slide the belt guard support bracket (3) into position on the motor mount bracket (5), and bolt it in place with two 3/8" x 1" bolts, flat washers (at bolt head and at nut), and locknuts.
5. Fasten the belt guard pivot (8) on the inside of the outer belt guard (7) using two 1/4" x 1/2" bolts and locknuts.
6. Attach the inner belt guard (6) to the outer belt guard (7) using four 1/4" x 5/8" self-tapping screws.

Note: Bolt package is for both the lower and upper guard assembly.

7. From the bolt package, assemble the guard latch on the inner and outer belt guards:
 - a. fasten the 2" hinge (9) to the inner belt guard (6) using two 1/4" x 5/8" self-tapping screws
 - b. Mount the catch (12) for the rubber strap (11) on the outer belt guard (7) with two 1/4" x 5/8" self-tapping screws.
 - c. Fasten the 2" x 3" galvanized plate (10) between the rubber strap (11) and the 2" hinge (9) using four 1/4" x 1/2" bolts and locknuts. Bend the cotter pin over to retain rubber strap in place.
8. Adjust engine position by sliding the engine mount z-brackets. This will ensure proper belt tension. Adjust the belt guard support bracket (3) so the outside face is 5-7/8" (14.9 cm) away from the motor mount bracket (5) face and the center slot is aligned horizontally with the shaft center on the engine. Tighten bolts.
9. Hold the inner and outer belt guard assembly in a vertical position, and slide the belt guard pivot (8) onto the pivot arm (1). Swing the inner and outer belt guard assembly into place, and close the latch by stretching the rubber strap into place.

3.14. Belt Tension Adjustment

Due to the differences between manufacturers and engine sizes, additional adjustment may be required.

If proper belt tension cannot be achieved in both lowered and maximum lift positions:

1. Lower the auger completely.
2. Place engine over-center handle in engaged position.
3. Loosen the bolts securing the motor mount brackets to the motor mount.
4. Disconnect the leveler tube from the pivot bracket.
5. With an assistant, manually tilt the engine to the desired position (this will cause the leveler tube to move).

Note: It is normal for larger/heavier engines to tilt toward the discharge slightly when the auger is lowered. This prevents the engine from tilting too far toward the intake when the auger is fully raised.

6. Adjust the leveler tube with the threaded clevis until it aligns with the pivot bracket.
 - a. Lengthening the leveler tube will cause the engine to tilt toward the intake
 - b. Shortening the leveler tube will cause the engine to tilt toward the discharge
7. Secure the leveler tube to the pivot bracket
8. Slide the engine toward the discharge until the belt is tensioned properly and tighten the motor mount bracket bolts
9. Raise the auger to maximum height to confirm that the belt remains under tension in all operating positions

Important: Ensure that the hydraulic pump bracket does not collide with the frame when raising the auger. If this issue is present, return to Step 1 and shorten the leveler tube using the threaded clevis.

3.15. Brand and Model Decal Placement

Brand and Model Decals, 8-36, 8-41, 8-46, 10-36, & 10-41 Augers

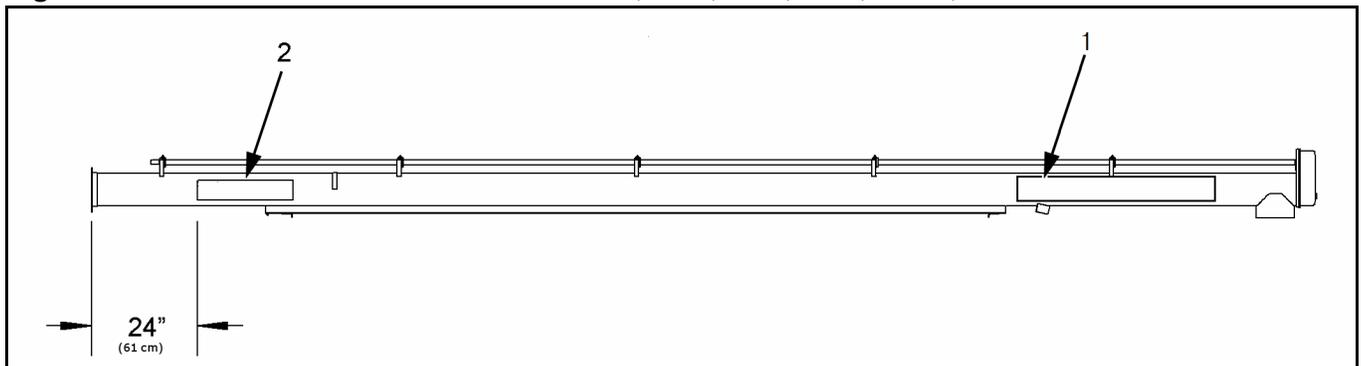
Important: Do not cover any existing safety or instruction decals with the model decals.

1. Apply decals to both sides of auger tube.

Note: Decals should be easily visible from the ground when auger assembly is complete.

2. Apply the Westfield brand decal (1) near the top of the discharge end and center it vertically on the tube as shown in Figure 3.36.
3. Locate the model decal (2) 24" (61 cm) from the flange on the upper section and center it on the tube as shown in Figure 3.36.

Figure 3.36 Brand and Model Decal Locations, 8-36, 8-41, 8-46, 10-36, & 10-41



Brand and Model Decals, 8-51 & 10-51 Augers Only

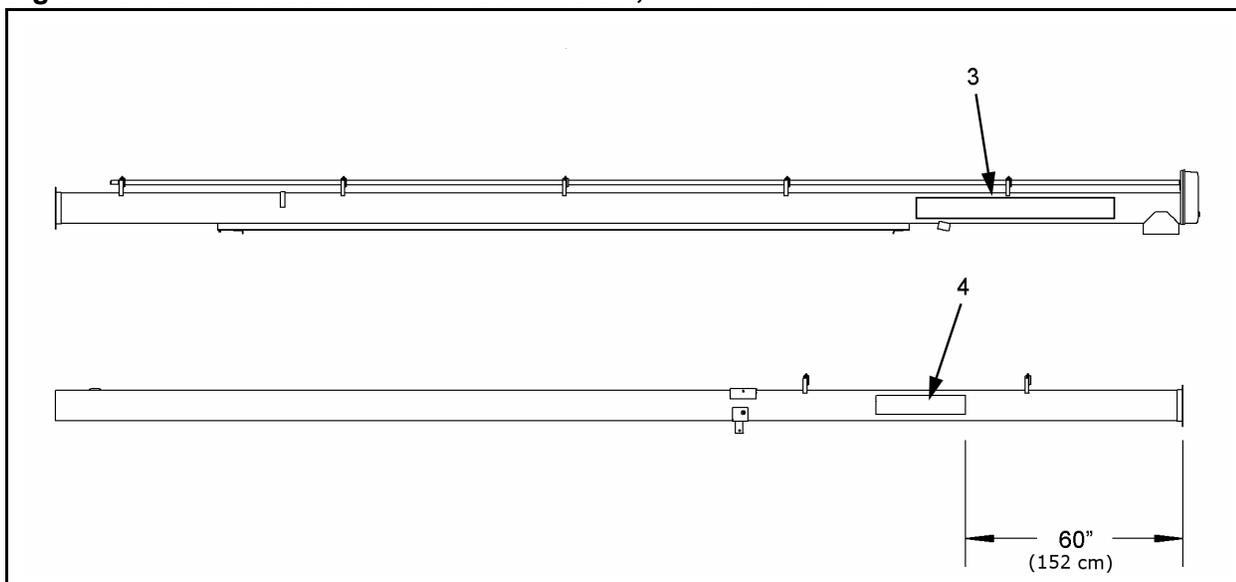
Important: Do not cover any existing safety or instruction decals with the model decals.

1. Apply decals to both sides of auger tube.

Note: Decals should be easily visible from the ground when auger assembly is complete.

2. Apply the Wheatheart decal (3) near the top of the discharge end and center it vertically on the tube as shown in Figure 3.37.
3. Position the model decal (4) 60" (152 cm) from the flange on the lower section and center it on the tube as shown in Figure 3.37.

Figure 3.37 Brand and Model Decal Locations, 8-51 & 10-51

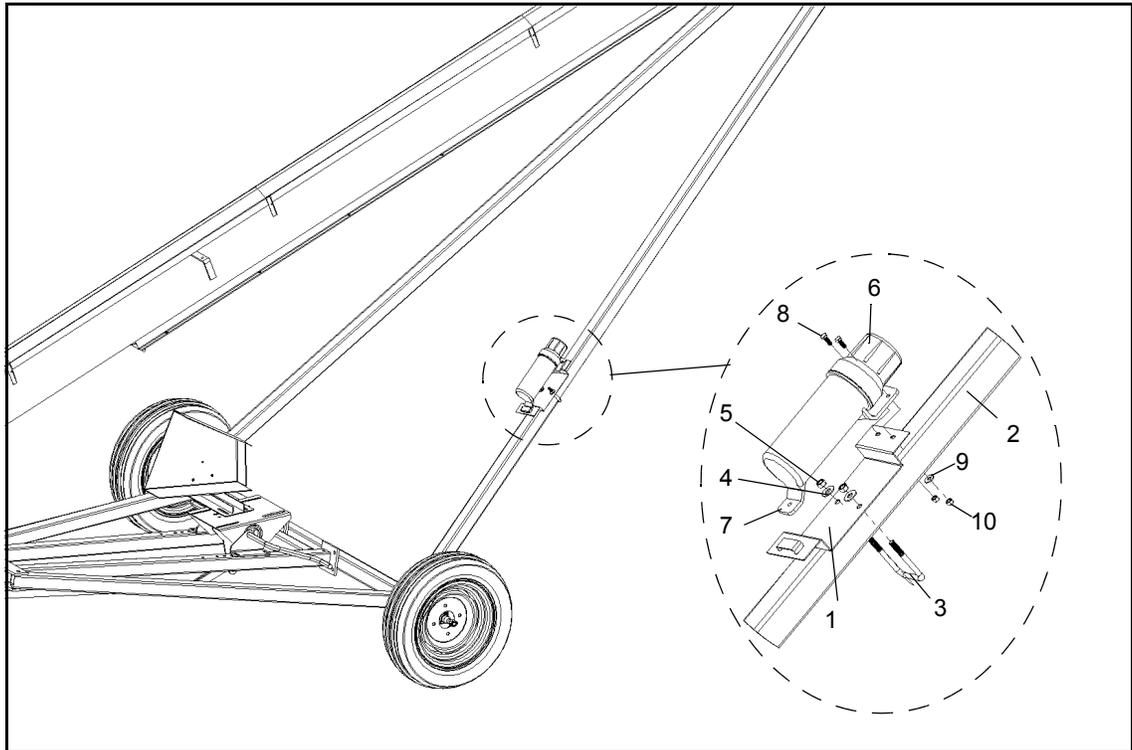


3.16. Plastic Manual Holder

Note: Refer to Figure 3.38 for the following instructions.

1. Attach manual holder weldment (1) to the upper arm (2) of the auger using one 3/8" x 2-1/2" u-bolt (3) along with two flat washers (4) and locknuts (5).
2. Remove the lid (6) of the manual holder to allow access for the bolts.
3. Slip the tongue (7) on the lower side of the manual holder through the loop on the manual holder weldment. Secure the manual holder to the weldment using two 1/4" x 3/4" bolts (8), washers (9), and locknuts (10).
4. Reinstall the manual holder lid.

Figure 3.38 Installing the Plastic Manual Holder



3.17. Post-Assembly Checklist

3.17.1. Mechanical

- All fasteners tightened.
- Belts present and adjusted to proper tension.
- Upper chain drive adjusted and lubricated.
- Auger rotates freely.
- Tire pressure within manufacturer's specification.
- Wheel bolt torque within specification.
- Winch brake and locking mechanism tested, lock engages properly, and brake prevents freewheeling. There should be at least 3 wraps of cable around winch drum in the fully down position.
- Winch cable checked for damage such as fraying, kinks, or unravelling. Cable anchor on winch drum must be tight.
- Gearbox oil level checked.
- Engine oil level checked.
- Machine greased.
- Machine cleaned.

3.17.2. Safety

- All guards and shields installed, secured, and functional.
- All safety signs installed and legible.
- Reflectors installed and clean.
- Operating and safety instructions reviewed with owner.
- Operator's Manual supplied to owner.

4. Appendix

4.1. Bolt Torque Values

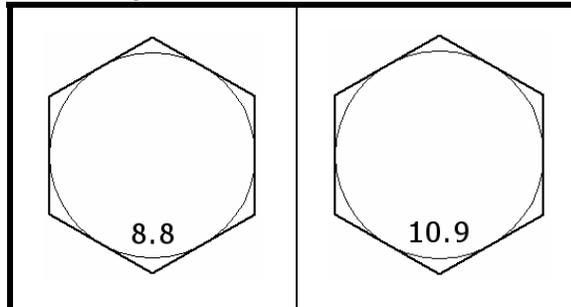
Tables 4.1 and 4.2 give correct torque values for various bolts and capscrews. The bolt diameter is measured to the outside of the threads. When tightening all bolts, tighten the nut on the bolt to the torque specified in the tables, unless otherwise specified. Do not replace or substitute bolts, nuts, or other hardware that is of lesser strength than the hardware supplied by the manufacturer.

Torque values indicated below are valid for non-greased or non-oiled threads and head, 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%.

Table 4.1 SAE Bolt Torque

Bolt Diameter	SAE 2		SAE 5		SAE 8	
	(N·m)	(ft·lb)	(N·m)	(ft·lb)	(N·m)	(ft·lb)
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

Table 4.2 Metric Bolt Torque



Bolt Diameter	(N·m)	(ft·lb)	(N·m)	(ft·lb)
M3	0.5	0.4	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

4.2. Tightening O-Ring Fittings

1. Inspect o-ring and seat for dirt or obvious defects.
2. On the angle fittings, back the lock nut off until washer bottoms out at top of groove.
3. Hand-tighten fitting until backup 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.

Table 4.3 O-Ring Fittings

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Values ^a (N·m)	Torque Values ^a (ft·lb)	# of Turns to Tighten (Flats)	Turn (After Finger Tightening)
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
7/8	2-1/8	217	160	1/2	1/12

a. The torque values shown are based on lubricated connections as in reassemble.

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