
OPERATOR'S MANUAL
POST HOLE DIGGER



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SAFETY INFORMATION

Before you begin...

Safety is a primary concern in the design and manufacture of our products. However, the final responsibility for safety rests with the operator of this machine.

This is a powerful piece of machinery. If used improperly, serious injury or death may result.

It is essential that everyone involved in the operation, transport, maintenance and storage of this equipment be aware, concerned, prudent and properly trained in order to prevent accidents!



Throughout this manual you will see this symbol to alert you of the safety warnings.



Read all safety information on this page, page 2 and throughout this manual before you operate the digger.

- ~Always wear appropriate and belted clothing to avoid entanglement in moving parts.
- ~Wear sturdy, rough-soled work shoes. Never operate tractor or digger in bare feet, sandals or sneakers.
- ~Always wear approved protective equipment to protect eyes and hands during operation or servicing.
- ~Read this operator's manual and all safety signs as shown on page 2 before using this equipment.
- ~Never allow children or untrained personnel to operate this equipment.
- ~Never permit any person other than the operator to ride aboard the tractor at any time. **ALLOW NO RIDERS.**
- ~Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
- ~Keep clear of rotating driveline and auger to avoid high probability of death or irreparable injury.
- ~Turn off the tractor and remove the key before working on the digger.
- ~Keep shields and guards in place and in good condition.
- ~Replace any labels immediately if damaged. Clean label area with soap and water. Remove any grease, dirt, or remnants of old safety signs and place pressure-sensitive safety sign in same location as original safety signs.
- ~Always operate power take off (PTO) at or below recommended speed of 540RPM.
- ~Do not operate PTO during transport.
- ~Always comply with all state and local lighting requirements with when transporting on highways. Be sure that the safety triangle is not blocked by the digger when transporting.
- ~Do not reach or place yourself under equipment until it is blocked securely.

SAFETY SIGNS



WARNING

This is a powerful piece of machinery. If used improperly, serious injury or death may result. Study the safety signs which appear below. They are located on the appropriate parts of the digger.

If the safety signs on this page do not appear on your new or used digger, or if they become mutilated please order new safety signs.

CAUTION:

Read all safety information in this manual before you operate the digger.

Please read all safety information on the preceding page, all safety notices throughout this manual, and the safety signs below before assembling, operating, transporting, removing the digger from your tractor.

DANGER: This warns of an extreme hazard which would result in the high probability of death or irreparable injury if proper precautions are not taken.

WARNING: This warns of a hazard that can result in injury or death if proper precautions are not taken.

CAUTION: This directs attention to unsafe practices which could result in personal injury or damage to machinery if proper precautions are not taken.



Caution label
Located on boom.
Warns of dangers of operating PTO at speeds higher than 540 RPM.



Danger label
Located on boom.
Warns of dangers of operating digger improperly.



Danger label
Located on auger assembly
Warns of dangers of operating digger without safety shield.



Danger label
Located on driveline under shield
Warns of dangers of operating digger without safety shield.



Danger label
Located on boom mounting plate.



Danger label
Located on boom.
Warns of dangers of coming in contact with driveline and auger.



Danger label
Located on driveline.
Warns of dangers of rotating driveline



Danger label
Located on boom.
Warns of dangers of operating digger improperly.

MOUNTING INSTRUCTIONS

MOUNTING SAFETY NOTES



WARNING: Do not reach or place yourself under equipment until it is blocked securely.

WARNING: Be sure the safety shield over the PTO stub shaft on the gearbox and auger is not removed from the digger.

CAUTION: For safety, turn off the tractor before attaching the auger assembly to the gear box. Remove the key to prevent the possibility of someone else starting the tractor.

DANGER: Never use any bolt longer than 3 1/2" to mount the auger assembly to the gear box.

WARNING: When attaching PTO yoke to tractor's PTO shaft, be sure that the yoke is secured to the PTO shaft.

1. Take all the components out from the packing crate.
2. Attach the boom to the top link mounting bracket on the tractor using a top link pin and a linch pin through the hole at the bottom of the boom.



3. Connect the A frame to the tractor's 3-point lift arms using the linch pin.



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4. Attach the A frame to the boom after selecting the desired hole (for angle adjustment), using the bolt and lock nut.



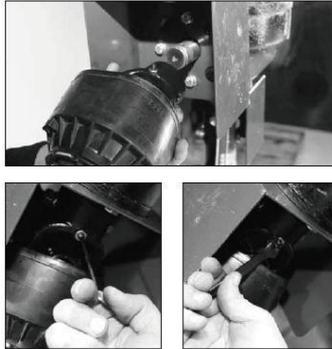
5. Raise the 3-point lift arms high enough to allow room for the auger installation.
6. Using a wrench, remove the shear bolt. Use a hex screwdriver to loosen the jam nut off the screw enough to clear the internal bore of the PTO shaft.



7. Attach the auger to the output shaft on the bottom of the gear box using the M12x85 shear bolt and M12 lock nut. Tighten the nuts using the provided ratchet holes, if needed.



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8. Attach the driveline to the gear box input shaft using the M10 shear bolt and lock nut. Tighten the hex nut. Insert the 1/4" x 3/8" set screw from the hardware kit in the hole on the yoke that aligns with the 3/16" groove on the gear box input shaft. Tighten.



Attention

The M10 shear bolt provides shear protection.

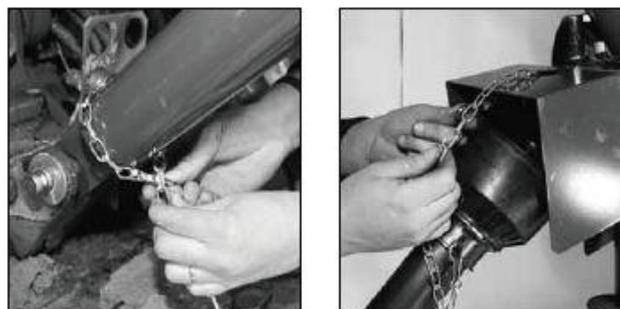
Important

The universal joint should be greased with a good grade chassis lube every week. At the beginning of each season, grease the sliding drive shaft members with a moly grease. All diggers are equipped with quick-detach universal joints on the PTO end for a 1-3/8" splined shaft.

9. Attach the tractor end of the driveline to the tractor PTO shaft. Push in the spring-loaded pin in the splined yoke and slip it on the splined PTO shaft of the tractor. Release the pin and push in until it locks securely in place. Note: It will be necessary to obtain a 1-1/8" to 1-3/8" sleeve spline adapter if your tractor PTO shaft has a 1-1/8" spline.



10. Attach and secure both chains on the driveline to the boom.



Note: When the 7/8" diameter pull pins in the A frame are too small for the holes in the lift arms, bushings should be used to obtain a proper fit.

Important:

The gearbox is shipped without lubricant. Refer to the next section before using the digger.



WARNING:

Always perform maintenance operations with the tractor engine off, the PTO drive disengaged, and the auger point resting on the ground.

Before Using the Digger

IMPORTANT

The digger was shipped without oil in the gearboxes. Oil must be added to the gearbox before operating.

Note: Fill the gearbox using gear oil (type 80W-90 lubricant) and fill to the oil level plug. Check the gear box every fifty hours of use to assure adequate lubrication.

Note: Check all nuts and bolts for tightness. Stabilizers should be kept tight to avoid the side sway of the digger.

Adding and Changing Gearbox Oil

1. Using a wrench, remove the vented pipe plug located on front of the gearbox above the PTO shaft.



2. Remove the check plug located at back of the gearbox.



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3. Fill the front of the gearbox with gear oil until it begins to overflow from the check plug hole in the rear.



CAUTION:

DO NOT overfill the gearbox. This could cause damage to the oil seals and can cause permanent damage to the gearbox (which is not covered under warranty).

4. Replace and tighten the check plug.



5. Replace and tighten the vented pipe plug and clean off any excess oil.



OPERATING INSTRUCTIONS

OPERATING SAFETY NOTES

Before operating the digger, read all safety precautions on pages 1 and 2 of this manual and the following specific safety precautions:

DANGER: Stay on tractor seat while operating digger. Serious personal injury may result if any attempt is made to assist digger operation by hand.

DANGER: Keep your clothing, yourself and others clear of rotating driveline and auger. Entanglement will cause personal injury or death.

DANGER: Allow digger to stop completely and disengage PTO from tractor before contacting the auger.

DANGER: Keep shields and guards in place and in good condition.

DANGER: Do not climb onto digger or exert downward force manually.

DANGER: Be sure drivelines are securely attached at both ends and that driveline shields turn freely on driveline.

DANGER: Do not operate PTO when the angle created between the earth and the drive shaft exceeds 45degrees. If the PTO shaft breaks or the universal joint fails, causing the PTO to rotate without support at both ends, injury may result.

WARNING: Turn off tractor and remove key before working on digger.

WARNING: Allow no children or unqualified persons to operate this equipment.

WARNING: Never permit any person other than operator to ride or board the tractor at any time. ALLOW NO RIDERS.

WARNING: Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment.

CAUTION: Be sure auger is completely removed from hole before moving tractor.

CAUTION: Before you operate the digger, check over all pins, bolts, and connections to be sure all are securely in place.

CAUTION: Always operate PTO at or below recommended speed of 540RPM. Higher speeds can cause equipment failure and personal injury.

Digger Operation

1) Move & Position

The auger will hang in an approximate vertical position when raised clear of the ground. With the digger clear of the ground, drive the tractor into position above the spot where you wish to dig.

2) Engage drive

With the tractor engine idling at low RPM, engage the PTO.

3) Lower digger

With the 3 point hitch, lower the digger and allow it to dig to a depth of about one foot.

4) Clear auger

With the power still engaged and the auger turning, slowly raise the boom to lift the auger out of the hole. This will clear the auger, depositing the earth around the hole.

5) Lower digger

With the digger again and allow it to dig another foot deeper. Then repeat the steps of

boring and clearing until you have reached the desired depth.

SPECIAL OPERATING CONDITIONS

Loose or sandy soil

In loose or sandy soil, you may get a cleaner hole if you stop the auger before lifting it from the hole and start it again as soon as it clears the hole. This will throw the soil out away from the hole.

Wet clay /obstacles

In wet clay, be careful not to let the auger dig too deep or it may get stuck.

If you do get the auger stuck in wet clay or if it stalls against roots or stones, turn off the tractor.

DANGER: Keep clear of driveline until it stops completely.

Entanglement will cause personal injury or death.

Remove the PTO drive shaft from the gear box. Turn the auger post counter clockwise with a large pipe wrench. One complete reverse turn will usually free the digger.

Restart the tractor and lift slowly with the tractor hydraulics to free the auger from the ground.

If the auger is still stuck, turn off the tractor and use a shovel to dig down and free the auger.

Once the auger is free from the ground, reconnect the PTO drive shaft, and you are ready to start digging holes again.

If the shear bolt has sheared, it will need to be replaced.

WARNING: Do not install a mounting bolt longer than 3 1/2". A longer mounting bolt will protrude on the turning auger possibly hitting the shield and causing a safety hazard.

(See cautions and instructions for shear protection in the maintenance section of this manual.)

REMOVING DIGGER

Read all safety warnings and precautions on pages 1 and 2 of the manual, as well as the specific safety precautions below:

Warning: Turn off the tractor and remove the key before removing the digger.

Warning: Do not operate PTO when the angle created between the earth and the drive shaft exceeds 45degrees. If the PTO shaft breaks or the universal joint fails, the PTO may rotate without support at both ends, resulting in personal injury and damage to the equipment.

CAUTION: Be sure auger is completely removed from hole before moving tractor.

- 1) To remove the digger from the tractor, disconnect the PTO shaft from the tractor by turning the twist collar. Remove PTO shaft from gear box by removing the shear bolt and roll pin.
- 2) Remove the auger assembly by removing the nut and bolt holding it on the shaft.
- 3) Using the tractor hydraulics, lower the boom as low as it will go.

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- 4) Remove the nut and bolt that hold the U-frame to the boom assembly mounting plate.
 - 5) Hold up the boom with one hand and carefully swing the U-frame down to the ground with your other hand.
 - 6) Lower the boom to the ground (with gear box attached).
 - 7) Remove the boom assembly and U-frame assembly from the three-point hitch on the tractor by removing the spring clips and pins.
 - 8) Replace the protective guard back over the tractor's PTO shaft for safety and to keep out dirt and water.
 - 9) Clean all mud and dirt from the auger before long term storage to prevent rust and corrosion. Store PTO shaft and gear box attached to the boom assembly if desired. Be sure all small parts and fasteners are kept together for convenient assembly later.

MAINTENANCE

MAINTENANCE SAFETY NOTES



Read all safety warnings and precautions on pages 1 and 2 of the manual, as well as the specific safety precautions below:

DANGER: Always use approved personal protective devices (such as eye, hand and hearing protectors), while performing service or during operation.

DANGER: Turn off the tractor and remove the key before working on the digger.

DANGER: Be sure that no bolt longer than 2 1/2" is used for PTO connections. Be sure that no bolt longer than 3 1/2" is used at the auger/gear box connection. Longer bolts will protrude, hitting the safety shield and causing a safety hazard.

CAUTION: Be sure that all hardware is tight and in place.

General maintenance

- ~Nuts and bolts should be snugged with wrenches; cotter pins should be in place and bent over or flared out with pliers.
- ~The twist collar at splined PTO union should be secure.
- ~The PTO shaft should be bolted with grade 2 bolt and roll pin inserted through the gear box yoke.
- ~Replace any safety shields that may have been removed during installation.
- ~Periodically lubricate the PTO shaft universal joints at the grease fittings.

Gear Box Service

The gear box uses gear oil. The oil should be checked before the digger is used. The capacity is 4.4pints (70oz.) of EP-140 weight gear oil. Any good quality, multiple grade gear oil such as Shell Spirax 85W-140HD oil may also be used.

Shear Protection

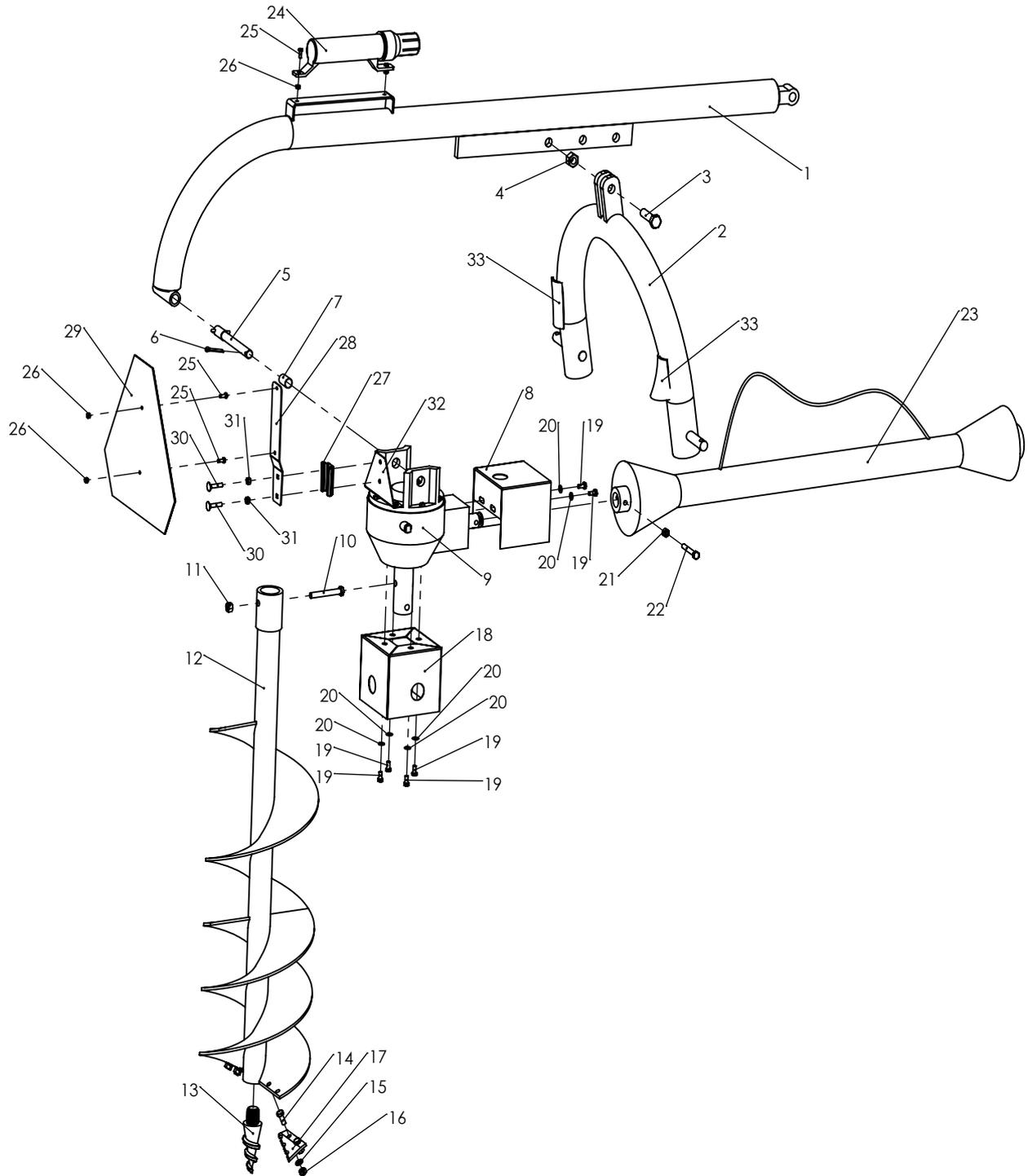


CAUTION: The 5/16"x 2 1/2" bolt connecting the PTO shaft to the gear box is a shear bolt. If the auger encounters hard objects, such as large rocks, or otherwise locks up and cannot rotate properly, this bolt is designed to shear to prevent damage to other parts of the machinery. ***Do not under any circumstances install a bolt harder than a Grade 2.*** All warranties will be invalid if a bolt harder than **Grade 2** is installed.

The roll pin fits across a groove machined around the shaft on the gear box. If the 5/16" shear bolt shears, the mechanism is designed so that the roll pin holds the PTO on the gear box shaft to prevent injuries or damage to the machine. The PTO shaft spins freely on the gear box shaft.

If the bolt shears, the cause of the shear should be determined, the digger moved from that location, and the shear bolt replaced before starting to dig again.

POST HOLE DIGGER DIAGRAM



POST HOLE DIGGER PARTS LIST

Reference No.	Part No.	Description	Specification	Q'ty	
1	280001	Boom Assembly		1	
2	280002	U-frame Assembly		1	
3	280003	Hex Bolt	M18×70	1	
4	280004	Lock Nut	M18	1	
5	280005	Pin	Φ22×190	1	
6	280006	Cotter Pin	Φ5×50	2	
7	280007	Bushing	35×Φ22×1	1	
8	280008	Safety Shield Input		1	
9	280009	Gear Box Assembly		1	
10	280010	Hex Bolt	M12×85	1	
11	280011	Lock Nut	M12	1	
12	280612	Auger Assembly	6"	1	
	280912		9"	1	
	281212		12"	1	
	281412		14"	1	
13	280013	Spiral Auger Point		1	
14	280614	Carriage Bolt	M10×25	6"	4
	280914		M12×30	9"	4
	281214			12"	4
	281414			14"	4
15	280615	Flat Washer	Φ10	6"	4
	280915		Φ12	9"	4
	281215			12"	4
	281415			14"	4
16	280616	Lock Nut	M10	6"	4
	280916		M12	9"	4
	281216			12"	4
	281416			14"	4
17	280617	Serrated Edge Kit	6"	2	
	280917		9"	2	
	281217		12"	2	
	281417		14"	2	
18	280018	Safety Shield Output		1	
19	280019	Hex Bolt	M8×16	6	
20	280020	Flat Washer	Φ8	6	
21	280021	Lock Nut	M10	1	
22	280022	Hex Bolt	M10×70	1	
23	280023	PTO Driveshaft		1	
24	280024	Manual Canister		1	
25	280025	Hex Bolt	M6×16	4	
26	280026	Hex Bolt	M6	4	
27	280027	Clip		1	
28	280028	Spade		1	
29	280029	Reflective Safty Sign		1	
30	280030	Carriage Bolt	M8×35	2	
31	280031	Hex Nut	M8	2	
32	280032	Mounting Bracket		1	
33	280033	Reflective Tape		2	