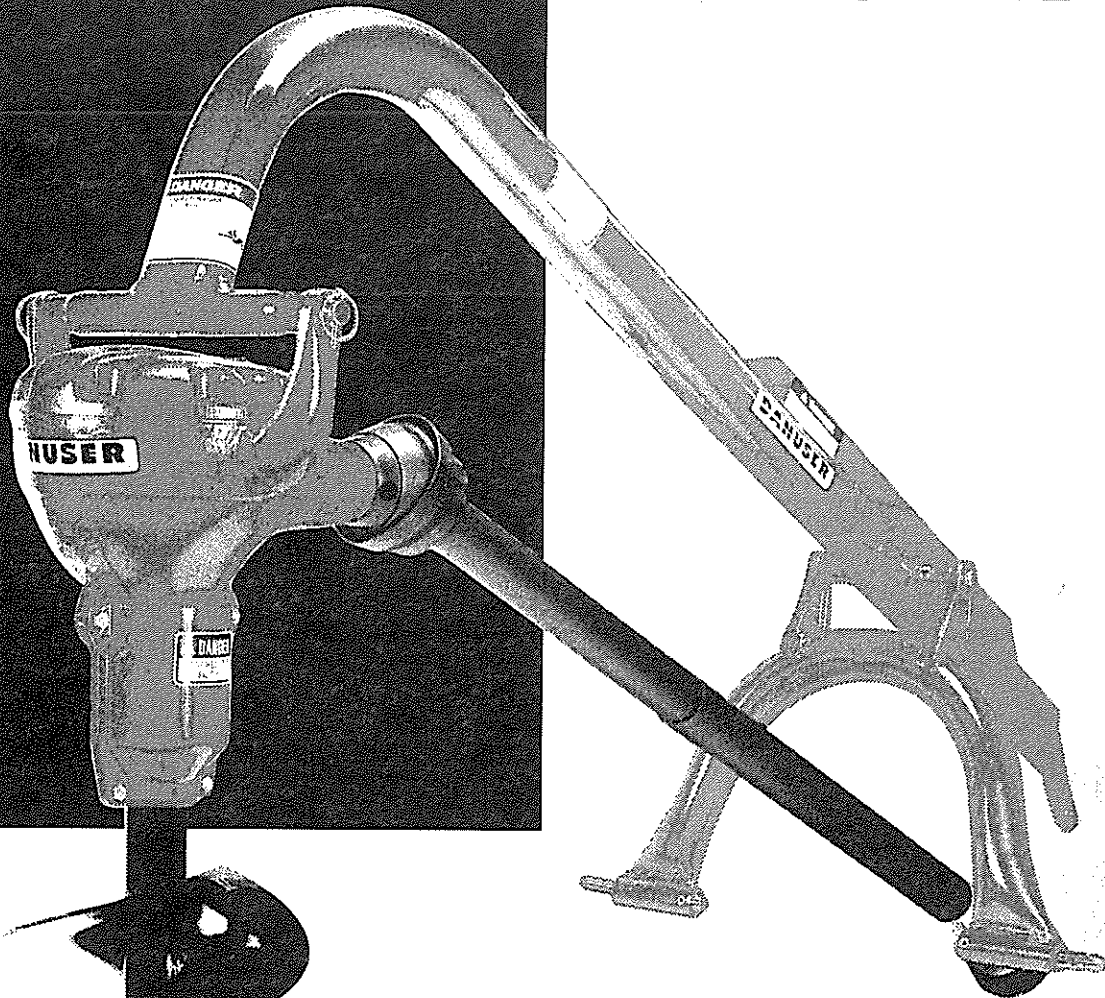


# DANUSER

## Model F8 DIGGER



*Si no entiende ingles, se prefiere que busque a  
alguien que interpede las instrucciones para usted*

## Owner's Manual

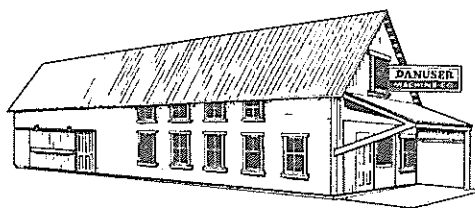
Danuser Machine Company, Inc., 500 East Third Street .

Fulton, Missouri 65251-0368

Phone 573-642-2246 • Fax 573-642-2240

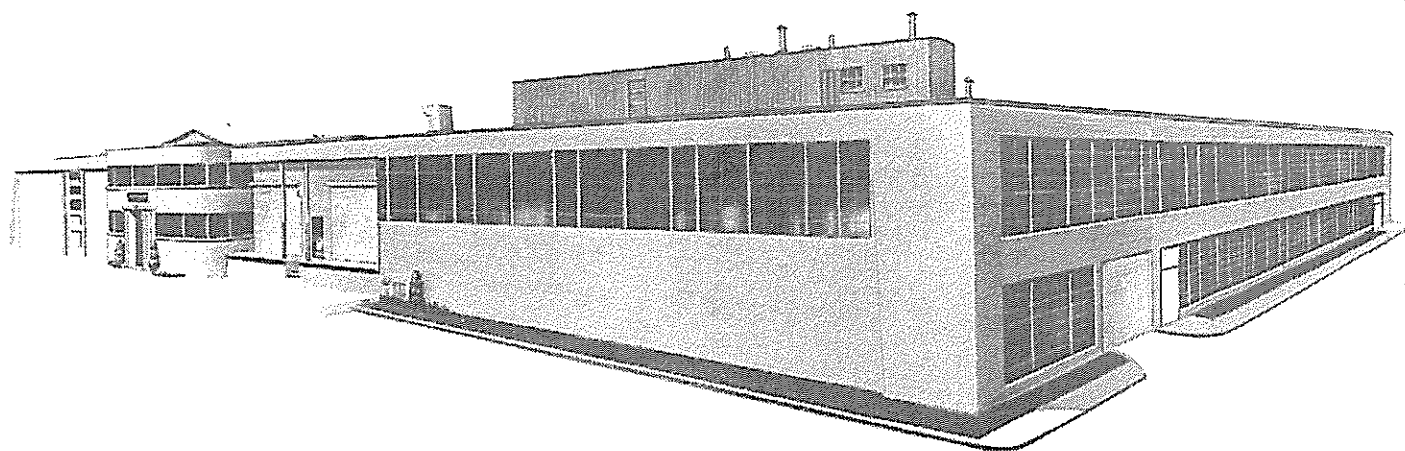
E-mail [sales@danuser.com](mailto:sales@danuser.com)

Web site [www.danuser.com](http://www.danuser.com)



My grandfather, K. B. Danuser, began building wagons and repairing all types of machinery in a small shop in Fulton, Missouri in 1910. With pride in his Swiss craftsmanship, he established one policy for his concern which is the hallmark of Danuser Machine Company to this day—"the job has to be right."

# Since 1910



Today, a new, modern plant built by my father, Henry Danuser, is located on the original site. This building and those who work in it are dedicated to the tradition of fine craftsmanship and to the production of better machines for American fields. The challenge of changing economic conditions is being met with improved manufacturing methods to hold the price standards which are an integral part of Danuser Machine Company. From this sound growth will come new products, designed to better serve agriculture and industry.

Jerry Danuser

## Foreword

- Introduction
- Symbols

## SYMBOLS





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*Please read this manual thoroughly!*

Before you assemble your Danuser digger, read this manual thoroughly. If there is anything you do not understand, contact your dealer, or call the factory direct at 573-642-2246 before proceeding with assembly. Powered equipment can be dangerous if it is not assembled and used properly.

### Warranty registration

Your warranty registration form serves two purposes: it provides dating information for warranty coverage; and it allows Danuser to notify you, the owner, of improvements to the equipment or of new safety features that may be retrofitted to previously sold diggers. Your satisfaction with our product and your safety as a user of our product are both very important to us. The warranty period is one year after sale by authorized dealer. Upon receiving a completed warranty registration form and coupon on page 8A, we will extend the one year warranty to a five year limited warranty on the F8 gearbox.

Symbol	Meaning
 NOTE	This is important information for proper use of this system or equipment. Failure to comply may lead to premature equipment failure.
 CAUTION!	Failure to follow these instructions may cause damage to the implement or the tractor, or minor personal injury.
 WARNING!	Failure to follow these instructions may result in personal injury or death.
 DANGER	Immediate hazard! Failure to understand and obey this warning is likely to result in personal injury or death.

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## Preparation

- Package Inspection
- Component Identification

Check for shipping damage immediately, and verify that all components have been received.

Report all shipping damage to the carrier immediately.

Before you begin assembly, open all packaging and compare the contents to the photo below (Figure 1) to ensure that you have all of the components, and that your unit has all of the safety guards and safety signs required by current production safety standards. If your unit does not comply, contact Danuser Machine Co., Inc., IMMEDIATELY at 573-642-2246.

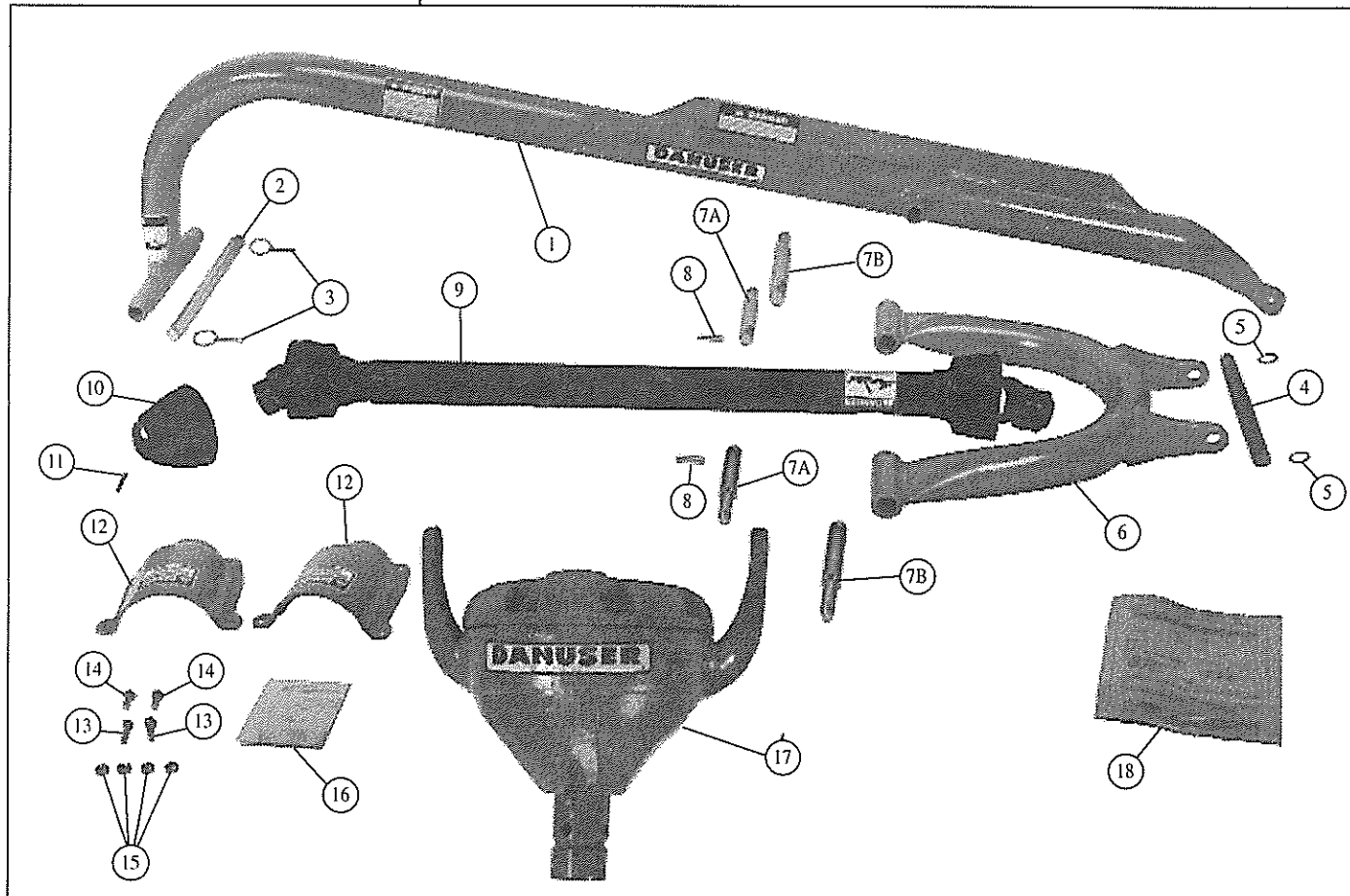


FIG. 1 - DANUSER F8 DIGGER COMPONENTS



### WARNING!

Provided auger adapter shields (PN 7271) will accommodate augers with 2 3/8 inch center column. Auger adapter guard (PN 9545) is required when using augers with 3 5/8 inch center column (Danuser *Hole-digger* head, 24 inch and larger diameter Augers).

Description	Part No.	Quantity
1. Boom	PN 7463	1
2. Pin (7/8 x 16-11/16 inch)	PN 7471	1
3. Klik pin	PN 1600	2
4. Pin (7/8 x 10-1/16 inch)	PN 7458	1
5. Retaining ring (7/8 inch)	PN 7464	2
6. Yoke	PN 7455	1
7A. Link pin for Cat. I hitch	PN 7456	2
7B. Link pin for Cat. II hitch	PN 9048	2
8. Roll pin (7/16 x 1-3/4 inch)	PN 7457	2
9. Driveline	PN 7571	1
10. Guard, input shaft	PN 7428H	1
11. Roll pin (5/16 x 2 inch)	PN 7570	1
12. Shield, auger adapter	PN 7271	2
13. Bolt (3/8-16 x 1-1/4 inch, Gr. 5)	PN 1180	2
14. Bolt (3/8-16 x 7/8 inch, Gr. 5)	PN 2339	2
15. Nut (3/8 inch-16)	PN 2168	4
16. Instructions, auger adapter shield installation	--	1
17. F8 gearbox	PN 7561	1
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## Safety



This SAFETY ALERT symbol identifies important safety warning messages.

Carefully read each warning message that follows. Failure to understand and obey a safety warning, or recognize a safety hazard, could result in injury or death to you or others around you. The operator is ultimately responsible for the safety of himself, as well as others, in the operating area of the post hole digger.



## WARNING !

### IMPORTANT

Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tractor, before assembly or operating, to acquaint yourself with the machines. It Is The Post Hole Digger Owner's Responsibility, If This Machine Is Used By Any Person Other Than Yourself, Is Loaned Or Rented, To Make Certain That The Operator, Prior To Operating:

1. Reads And Understands The Operator's Manuals
2. Is Instructed In Safe And Proper Use

Within the following safety messages, driveline and PTO references pertain to PTO powered diggers. Tractor is used as a general term in this manual to refer to all power units (tractor, skid-steer, etc.) to which the digger is mounted.

The majority of accidents involve entanglement on the driveline or auger. This entanglement risk becomes greater when you replace our shear bolt OR auger retaining bolt with a bolt longer than those specified by the manufacturer. This improper replacement occurs most often on machines that are loaned or rented to someone who has not read the owner's manual and is not familiar with a post hole digger.

- This post hole digger was designed for one-man operation from the tractor seat. It is the responsibility of the operator to see that no one is within twenty-five feet (25') of the digger when it is started. Do not operate the digger with another person near, or in contact with, any part of the digger, PTO driveline, or auger. Serious personal injury or death may result if any attempt is made to assist digger operation by hand.
- The use of this equipment is subject to certain hazards which cannot be protected against by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using. If there is something in this manual you do not understand, ask your supervisor or your dealer to explain it to you.
- Most accidents occur because of neglect or carelessness. Keep all helpers and bystanders twenty-five feet (25') away from an operating digger. Only properly trained people should operate this machine. It is recommended the tractor be equipped with a Rollover Protection System (ROPS) and a seat belt that is used. Always stop the digger, set brake, shut off the tractor engine, remove the tractor key, and allow auger to come to a complete stop before dismounting tractor. Never leave equipment unattended with the tractor running.
- Please remember it is important that you read and heed the safety signs on the digger, and the safety rules set forth. Clean or replace all safety signs if they cannot be clearly read and understood. They are there for your safety as well as the safety of others. The safe use of this machine is strictly up to you, the operator. The factory will furnish new safety signs upon request at no charge.
- All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows reasonable safety practices. The manufacturer has designed this digger to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.
- If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated. Always use, and maintain in place, shields furnished with the tractor and the digger.
- PTO powered Danuser Diggers are designed for use only on tractors with 540 RPM power take off

# Safety

(continued)

- Hydraulic powered Danuser Diggers are designed for use only on tractors and skid-steers with a filter equipped hydraulic system capable of the specified pressure and flow rate. See *Hydraulics* section for filtration, pressure, and flow rate specifications.
- When the use of hand tools are required to perform any part of assembly, installation, adjustment, maintaining, repairing, removal, or moving the digger, be sure the tools used are designed and recommended by the tool manufacturer for that specific task.
- Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving the digger. Do not allow long hair, loose fitting clothing, or jewelry to be around moving parts.
- Always use two people to handle heavy, unwieldy components during assembly, installation, removal, or moving the digger.
- Never place any part of your body where it would be in danger if movement should occur during assembly, installation, operation, maintaining, repairing, removal, or moving the digger.
- Never place yourself between the tractor and digger while implement is in operation.
- Do not walk or work under a raised digger or attachment unless it is securely blocked or held in position. Do not depend on the tractor hydraulic system to hold the digger or attachment in place.
- A heavy load can cause instability of the tractor. Use extreme care during travel. Slow down on turns and watch out for bumps. The tractor may need front counterweights to counterbalance the weight of the digger mounted to the three-point hitch.
- Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult you doctor about operating this machine while taking prescription medications.
- Do not allow riders on the digger or tractor at any time. There is no safe place for any riders.
- Before you operate the digger, check over all pins, hoses, bolts, and connections to be sure all are securely in place. Replace any damaged or worn parts immediately.
- Consult local utility companies to make certain there are no buried gas lines, electrical cables, etc., in the work area before beginning operation.
- Do not allow anyone who is not familiar with the safety rules and operation instructions to use this post hole digger.
- Never allow children to operate or be around this digger.
- Use stabilizer bars, adjustable sway chains, or sway blocks on your tractor lift arms to keep the post hole digger from swinging side-to-side when mounted to three-point hitch. Adjust as tightly as practical for best performance.
- Never replace the shear bolt OR auger retaining bolt with any length other than what is specified in this manual. A longer, or protruding, fastener is more likely to grab loose clothing or gloves, which can result in serious injury or death.
- Clear the work area of objects which might be picked up and thrown or entangled in the auger.
- To prevent rapid wear of U-joints and possible failure of drivelines, never lift auger point more than twelve inches (12") off the ground with PTO operating.
- Never move digger from hole-to-hole or transport while auger is rotating.
- Do not operate digger on steep hillsides. When digging on uneven or hilly terrain, position the tractor with the post hole digger uphill. With the post hole digger downhill, the tractor could tip when attempting to pull the auger from its hole.

# Safety

(continued)

- Never position the auger point by hand or with any tool when the tractor is running.
- Never position the auger point by putting your hands on the auger, gearbox, boom, driveline, or mounting plate.
- Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.
- To prevent entanglement and possible serious injury or death, never use body weight to try to push auger into the ground.
- Worn edges or a slightly rounded point can seriously affect auger penetration. Check for wear before each use. Replace as necessary.
- Do not shovel dirt away from a rotating auger, as the shovel can be caught and thrown by the auger.
- Do not operate the post hole digger without all safety shields and guards in place.
- Always use care when operating a post hole digger.

Safety is a primary concern in the design, manufacture, sale, and use of post hole diggers. As manufacturers of post hole diggers, we want to confirm to you, our customers, our concern for safety.

Our current production machines include, as standard equipment, safety signs and guards or shields for auger adapter, divelines, and PTO input shafts. Older machines can be retrofitted to add these new guards or shields and, of course, safety signs. If you have an older machine which does not have current standard safety equipment, please contact your dealer about bringing your machine up to the current level of safety.

**PLEASE READ ALL OF THE PREPARATION AND OPERATING SAFETY WARNINGS ON PAGE 8 OF THIS MANUAL PRIOR TO OPERATING YOUR DANUSER POST HOLE DIGGER!**



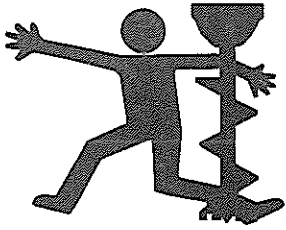
## **WARNING!**

Improper operation of a post hole digger can cause serious personal injury.

Operation of a post hole digger should only be done by a competent adult acting in compliance with the owner's manual.

Since post hole digging operations are beyond our control, we disclaim all liability for any damages which may result.

## Operating Safety



IT IS ESSENTIAL THAT EVERYONE INVOLVED IN THE ASSEMBLY, OPERATION, TRANSPORT, MAINTENANCE, AND STORAGE OF THIS EQUIPMENT BE AWARE, CONCERNED, PRUDENT, AND PROPERLY TRAINED IN SAFETY.

### PREPARATION PROCEDURE

- Thoroughly read and understand your owner's manuals.
- Before beginning operation, contact local utility companies to make certain there are no buried gas lines, electrical cables, etc., in the work area. Clear area of objects that could wrap around the auger or might be thrown. Check for ditches, stumps, holes, or other obstacles that could cause the tractor to roll.
- Layout and mark where you want to dig your holes.
- ALL persons should be at least twenty-five feet (25') away. Clear the area of helpers, bystanders, especially children.
- Do not allow anyone to stand behind, or to the side of, a rotating auger.
- When mounted to three-point hitch, your digger must be able to raise and lower through the highest and lowest points of your lift-arm travel without binding against the tractor frame. Check carefully BEFORE attaching the gearbox and auger. If it does bind, adjust the tractor three-point linkage so that all movement is free.

If you have **any** questions regarding the proper assembly or operation of this digger, contact your dealer or the manufacturer.

### OPERATION

This post hole digger was designed for one-man operation from the tractor seat. It is the responsibility of the operator to see that no one is within twenty-five feet (25') of the digger when it is started.

- Set tractor brakes. Take tractor out of gear.
- Lower auger point slowly to the ground with the digger not powered.
- With the auger point lowered to the ground, set the engine speed to idle, then engage the PTO or actuate the hydraulics to start the auger's rotation in the clockwise direction. Make sure the auger point is on the ground before powering the digger.
- Under no circumstances should the digger be powered beyond its specified maximums. PTO should not be run in excess of 540 RPM. Hydraulic flow rate or pressure should not exceed hydraulic digger's specified maximums. Hydraulic minimums should be met to deliver satisfactory digging performance. See *Hydraulics* section for filtration, pressure, and flow rate specifications.
- In many types of soil, it may be necessary to hold back against the auger screw suction by moving the hydraulic lever that controls the height of digger to "HOLD" or "RAISE" position to keep the auger from screwing into the ground.
- NEVER use body weight to help the auger penetrate the ground. When the ground is too tough to penetrate with your cutting edges and point, replace them and try again. These are replaceable parts and must be in good condition to penetrate.
- If you have difficulty penetrating hard ground, refer to *Operation* section for suggestions.
- When the auger has been lowered a foot or so into the ground, raise the auger almost out of the hole to clear the dirt, then drill deeper and raise the auger again. Repeat this procedure until the desired hole depth is reached.
- When the auger has reached the full depth required, allow the auger to dwell momentarily at this depth at a slower speed to assist in cleaning out the hole.
- Deactivate the digger and raise the auger from the hole.
- Leave digger deactivated when traveling between holes.
- Hydraulic diggers are capable of reversing auger rotation. Sticky material which tends to pack in the auger can be loosened by reversing auger rotation quickly. If, however, sudden reversing or stopping of digger results in retaining bolt failure or excessive shock to hydraulic system, examine the hydraulic system to be sure there is a relief valve in the four-way control valve. See *Hydraulics* section of the hydraulic digger manual for further details.
- Do not shovel dirt away from a rotating auger, as the shovel can be caught and thrown by the auger.

# 1 TO 5 YEAR WARRANTY EXTENSION (OR \$5) COUPON

It is very important to us that you take the time to read and understand the owner's manual shipped with the digger. It is also very important that you or your dealer complete and return the warranty registration form which was included with your digger.

Your warranty registration form serves two purposes: it provides dating information for warranty coverage and it allows Danuser to notify you, the owner, of improvements to the equipment or of new safety features that may be retrofitted to previously sold diggers. Your safety, as a user of our product, is very important to us. Please return your registration form so we can provide this service to you. If you did not complete a warranty registration form or have any questions about this machine, please call Danuser Machine Company at 573-642-2246.

As a token of appreciation for you taking the time to return the warranty registration form and coupon, we offer you the following. Indicate that you have received an owner's manual and returned the warranty registration form by completing the coupon below. Upon receiving the completed coupon, we will extend the **one** year warranty to a **five** year limited warranty on the model F8 gearbox and the 8200, 8300, 8800, and 8900 Hydraulic Units (gearbox and housing).

Because the G20/40 already carries a limited five year warranty, we will provide those owners with the coupon below to be used after you have purchased your first set of Danuser cutting edges and a Danuser auger point. Send proof of purchase along with this coupon, and we will mail you a check for five dollars. When you feel your digger is not digging as well as when new, more than likely, it will be because the edges and point are dull.

Remember, for any model digger to operate, cutting edges and points must be replaced when worn. (See *Difficult Digging Suggestions* in the *Operation* section of owner's manual.)

Thank you for purchasing our products. We are proud to have you as a customer. Please take the time to read all the safety messages in the owner's manual and on the product. We want to **keep** you as a customer. **ALLOW NO ONE TO BE AROUND AN OPERATING DIGGER EXCEPT THE OPERATOR IN THE TRACTOR SEAT.** There is simply nothing that can be accomplished by hand that can't be done mechanically **except** putting you, or someone, in a position to be **hurt or killed**.



10/97

I received and have read my Owner's Manual and have returned my warranty registration form at the time of purchase. I am returning this coupon so that you will activate the extension or the check, depending on my digger model. *Please print.*

Model \_\_\_\_\_ Serial# \_\_\_\_\_

Date purchased \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Signature \_\_\_\_\_

All information must be complete and legible to be valid.

Please mail to: Danuser Machine Company, 501 East Third Street, Fulton MO. 65251-0368



## Assembly/ Installation

- Description
- Tools required for installation
- Assembly/Installation

### ! WARNING!

Serious injury or death can result from misuse of this equipment.

### ! WARNING!

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

### Danuser F8 digger description

The Danuser F8 digger is built to the exacting standards of high quality which have become synonymous with the word, "Danuser." The F8 digger is designed for one-man operation from the tractor seat to "Dig Holes Sitting Down." The precision-cut steel gears, heavy-duty roller bearings, cast steel gear housing and heavy tubular crane boom all form an integrated design to provide the ultimate in utility and reliability. F8 augers are available in sizes ranging from 4 to 30 inches in diameter and 40 to 52 inches long. Auger extensions in lengths of 7, 14, and 21 inches are available. The augers are built with special wear-resistant steel on the lower flights, replaceable cutting edges, and replaceable points. A special retaining bolt feature in Danuser augers keeps the auger in place on the spindle should the shear bolt release. Study this owner's manual carefully before attempting to assemble and operate the digger.

### Tools required for assembly

- Snap ring pliers (expanding)
- Hammer or mallet
- Roll pin punch
- Emery cloth
- 9/16 inch wrenches for safety guard bolts and nuts.

### Assembly instructions

### ! CAUTION!

Because of the weight of some components, and because some components are difficult to balance during assembly, two people are required for safe assembly of this equipment.

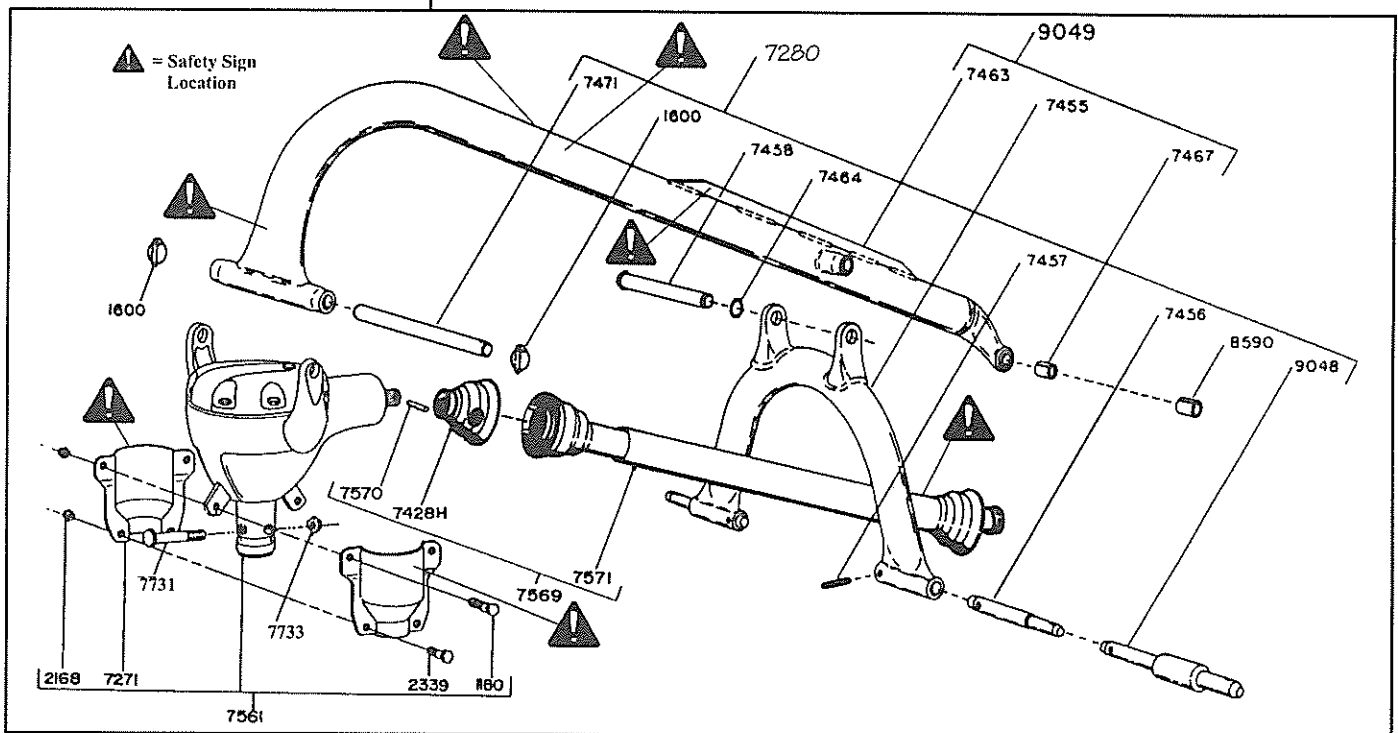


FIG. 2 - F8 ASSEMBLY SEQUENCE

- STEP 1: Assemble pins (PN 7456 or PN 9048) into the yoke and secure with roll pins. The protruding portion of the pin must be 7/8" for Category I hitches and 1 1/8 inch for Category II hitches.
- STEP 2: Attach the yoke to the boom (PN 7463), using pin (PN 7458) and snap rings (PN 7464). Stabilize components to avoid pinchpoints during assembly.

## ADJUSTMENT

### CAUTION!

Driveline shaft engagement should not be less than 10 inches when the digger is raised to its maximum heights

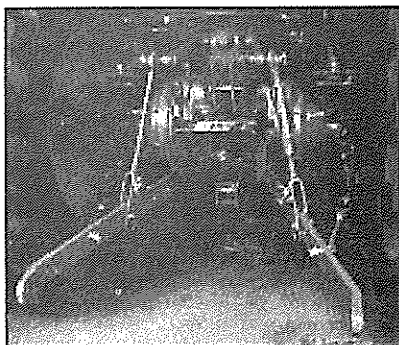


FIG. 3 - REPRESENTATIVE THREE-POINT HITCH CONFIGURATION

### CAUTION!

Because of the weight of some components, and because some components are difficult to balance during assembly, two people are required for safe assembly of this equipment.

STEP 3: Attach the boom to the tractor. If the pin in your tractor upper link bracket is 3/4 inch in diameter, leave the bushing installed in the ball joint of the boom. If your pin size is 7/8 inch diameter, a special bushing (PN 8590) is provided. Drive out the bushing in the ball joint and install the special bushing. If your pin size is 1 inch diameter, drive the bushing out of the ball joint. Avoid pinchpoints around the pin during assembly.

### CAUTION!

Sway stabilizers must be used with the digger.

STEP 4: Slip the lower link ball joints over the yoke link pins and secure with the klik pins provided with your tractor hitch. Keep hands away from pinchpoints while sliding components together.

STEP 5: Stand the F8 gearbox (PN 7561) in an upright position, resting on the spindle. Lower the boom to the gearbox and attach the gearbox to the boom, using pin (PN 7471) and klik pins (PN 1600). Avoid pinchpoints as the gearbox pivots.

STEP 6: Raise the boom to the highest point and make sure there is no contact between the boom and the tractor at any point. If necessary, adjust the travel of the boom to provide maximum travel without boom/tractor contact.

Boom travel adjustment procedures: (Refer to Figure 3 and Figure 4.)

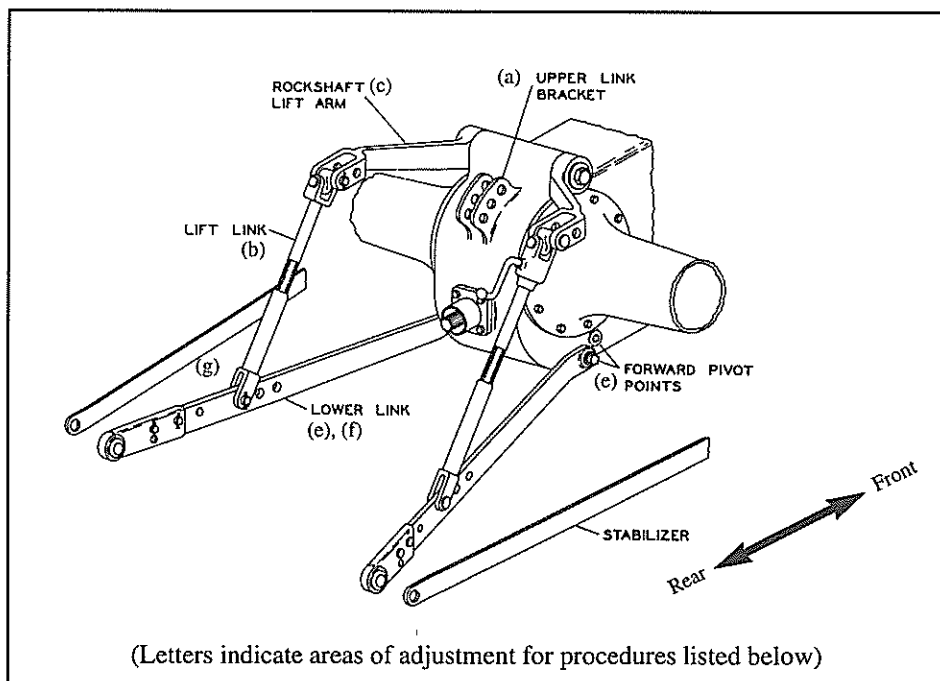


FIG. 4 - ADJUSTMENT POINTS

- (a) Attach the boom to the tractor through a different hole in the upper link bracket. Upper holes will shorten travel; lower holes will increase travel.
- (b) Shorten or lengthen the lift links.
- (c) Attach the lift links to different holes in the rockshaft lift arms. Rear holes increase boom travel; front holes decrease it.

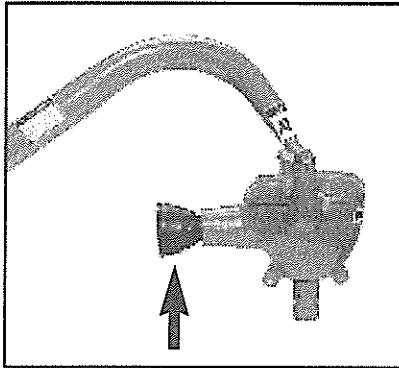


FIG. 5 - INPUT PINION GUARD

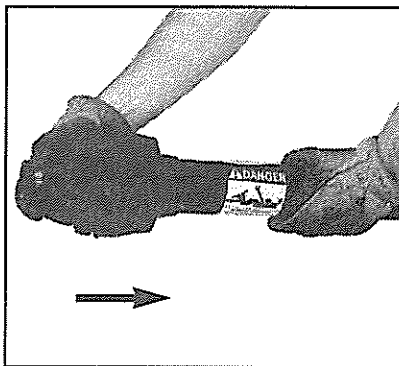


FIG. 6 - RETRACT RING  
FOR INSTALLATION

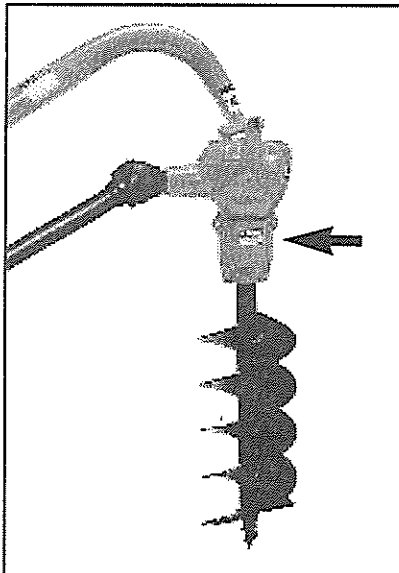


FIG. 7 - AUGER ADAPTER GUARD  
INSTALLED

- (d) Move the lift links to different holes in the lower links. Front holes usually increase travel; rear holes decrease travel.
- (e) Attach the lower links to different forward pivot points. Lower points will raise the digger; upper points will lower the digger.
- (f) Lengthen the lower links to raise the digger; shorten them to lower it.
- (g) Shift the rear ends of the lower links to a higher or lower position. Lowering them will lower the digger; raising them will raise the digger.
- (h) Check the tractor hydraulic system to be sure it is raising and lowering to the maximum and minimum heights recommended in your tractor manual.

**NOTE**

Because of tight manufacturing tolerances, it may be helpful to slide the driveline over the gearbox splines several times to make assembly easier before proceeding with STEP 7.

**STEP 7:** Slide the input pinion guard (PN 7428H) over the gearbox pinion shaft. (Refer to Figure 5.) Slide the smaller end of the driveline over the gearbox splines and secure by driving roll pin (PN 7570) through the hole in the input pinion guard and into the end yoke and pinion.

**STEP 8:** Grease the three lube fittings in the driveline and center crosses.

**! WARNING !**

**To avoid personal injury, you must stop tractor engine, set brakes and remove the tractor key before proceeding with the next step!**

**STEP 9:** Make sure the tractor engine is shut off, then connect the driveline to the tractor PTO. The driveline locks on with a retractable retaining ring coupling device; slide the ring back for installation. (Refer Figure 6.)

**STEP 10:** Grease the inside of the auger adapter liberally and attach the auger with the 1/2-13 x 4 inch shear bolt (PN 7731) and 1/2 inch -13 nut (PN 7733). **Never use a bolt longer than 4 inches.**

**NOTE**

Each time an auger or auger extension is attached to the gearbox, the inside of the adapter should be coated liberally with grease.

**STEP 11:** Install the Special 1/2-13 x 7/16 inch retaining bolt (PN 7676) which keeps the auger connected to the gearbox shaft if the shear bolt breaks.

**STEP 12:** Install the auger adapter shield halves around the auger adapter and secure to the gearbox housing with two 3/8 - 16 x 7/8 inch, Grade 5 bolts (PN 2339), two 3/8 - 16 x 1 1/4 inch, Grade 5 bolts (PN 1180), and four 3/8 inch - 16 nuts (PN 2168). (Refer to Figure 7.)

**NOTE**

The gearbox of the F8 Danuser digger has been filled at the factory with three pounds of Texaco MultiFax-EP2 lubricant. When adding lubricant to the gearbox, add Texaco MultiFax-EP2 or equivalent.

**NOTE**

To prevent damaging the driveline and safety shields when removing the digger from the tractor, disconnect the driveline from the tractor PTO before lowering the digger to the ground.

**NOTE**

Refer to your tractor operator's manual for instructions on tractor operation, tire inflation, and safety when using a three-point mounted implement.

## **Troubleshooting**

1. Front end of boom contacts tractor when boom is raised or lowered.	(a) Attach the boom to the tractor through a different hole in the upper link bracket. Upper holes will shorten travel; lower holes will increase travel.
	(b) Follow <i>Adjustment</i> , page 10 & 11, to limit boom travel.
	(c) Relocate or adjust the part of the tractor causing the interference.
2. Digger yoke strikes boom when digger is raised.	(a) Attach the front end of the boom to a more forward hole on the upper link bracket.
	(b) Attach the lower links to rear forward pivot points.
	(c) Lengthen the lower links.
	(d) Follow <i>Adjustment</i> , page 10 & 11, to limit boom travel.
3. Tractor has difficulty raising auger.	(a) Attach the lift links to more forward holes in the rockshaft lift arms to decrease lift range.
	(b) Move the lift links to more forward holes in the lower links to decrease travel.
	(c) Check the tractor hydraulic system to be sure it is raising and lowering to the maximum and minimum heights recommended in your tractor manual.
4. Driveline strikes tractor power take-off shield when digger is raised.	(a) Follow <i>Adjustment</i> , page 10 & 11, to limit boom travel.
5. Tractor action is "jerky" with the digger attached, or the hitch raises and lowers rapidly during transport.	(a) Adjust tractor hydraulic system for "position control" implement rather than "draft" or "load control."
	(b) If applicable, lock tractor upper link bracket in a fixed position.

## Operation

- Operation
- Transport

### CAUTION!

This F8 digger was designed for Category I and Category II, three-point hitch, 540-RPM PTO, with sway stabilizers being used. Operation of this digger in a manner for which it was not intended will result in poor performance, and could create a hazard and the potential for personal injury.

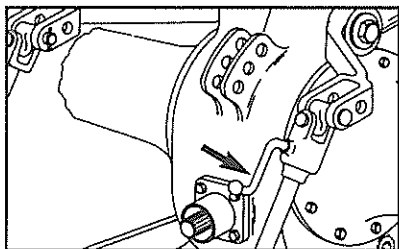


FIG. 8 - LEVELING "CRANK" ON LIFTING LINK

### DIFFICULT DIGGING SUGGESTIONS

1. Worn edges or a slightly rounded point can seriously affect auger penetration. Check for wear before each use, replace as necessary.

#### Additional options:

- a. Down Force package shown on page A2.
- b. Different auger points shown on page A1.
- c. Different cutting edges shown on page A1.
- d. *Hole-Digger* Head Augers shown on page 20.
- e. Weld-on *Hole-Digger* Head shown on page 20.

Study this owner's manual carefully before attempting to operate or adjust the Danuser F8 digger. You are responsible for furnishing this manual to others who may use the unit.

### WARNING!

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

### DANGER

This post hole digger was designed for one-man operation from the tractor seat. It is the responsibility of the operator to see that no one is in the proximity of the implement when it is started. Do not operate the implement with another person near, or in contact with, any part of the implement, PTO drive line, or auger. Keep bystanders and all other people at least twenty-five feet (25') from all implements in operation or under power. Serious personal injury or death may result if any attempt is made to assist digger operation by hand.

STEP 1: Adjust the auger to a vertical position:

- (a) Raise the auger point off the ground. Turn the adjusting screw or leveling crank on the lifting link (refer to Figure. 8) until the auger appears vertical, looking from the tractor seat.
- (b) Lower the auger slowly until the point just engages the ground. Move the tractor slowly forward or back as needed until the auger is vertical to the ground.

STEP 2: Set the tractor brakes, take tractor out of gear, to hold the tractor on location and to prevent damage to the digger.

STEP 3: With the auger point lowered to the ground, set the engine speed to idle, then engage the PTO. Make sure the auger point is on the ground before engaging the PTO.

STEP 4: Lower the auger into the ground slowly, then increase the speed as required so the dirt is conveyed from the hole. NEVER exceed 540 RPM. In many types of soils, it may be necessary to hold back against the auger screw suction by moving the hydraulic control lever momentarily to either the "hold" or "raise" position to keep the auger from screwing into the ground.

STEP 5: When the auger has been lowered about a foot or so into the ground, raise the auger almost out of the hole, then drill deeper and raise the auger again. Repeat this procedure until the desired hole depth is reached.

STEP 6: When the auger has reached the full depth required, allow the auger to dwell momentarily at this depth at a slower speed to assist in cleaning out the hole.

STEP 7: Disengage the PTO and raise the auger from the hole.

#### NOTE

For "heavy" soil conditions or for tractors requiring PTO shaft rotation to produce lifting power, allow the auger to turn at slow speed while raising it to top of the hole.

STEP 8: To remove loose dirt from auger, spin the auger by momentarily engaging the PTO with the engine running at a faster speed than used for drilling.

### DANGER

To prevent injury, keep an area of at least twenty-five feet (25') around the auger clear of bystanders and all other people.

## **WARNING!**

Replace a broken or damaged shear bolt OR auger retaining bolt **ONLY** with an authorized factory replacement. A shear bolt OR auger retaining bolt that is too long increases the possibility of personal injury. The shear bolt and auger retaining bolt must be of the proper size and grade to function properly. Auger adapter guard must be in place, before operating digger.

STEP 9: If you break a shear bolt, the auger retaining bolt should retain the auger on the F8 digger spindle. Replace the shear bolt as follows:

### *Shear bolt replacement:*

- (a) Remove the auger adapter shield.
- (b) Remove the broken shear bolt.
- (c) Install a new shear bolt (PN 7731) and nut (PN 7733). **If genuine Danuser parts are not available, use a mild steel 1/2-13 x 4 inch bolt. Never use a bolt longer than 4 inches.**
- (d) Tighten the shear bolt nut securely.
- (e) Replace the auger adapter shield.

STEP 10: If the auger becomes lodged on an obstruction below ground, do not attempt to raise the auger by hydraulic lift power alone. Stop the PTO, set brakes, shut off the tractor engine, remove the tractor key and dig around the auger enough to free it from the obstruction before trying to remove the auger from the hole.

Apply lift power and slowly rotate the PTO to raise the auger to top of hole.

## **WARNING!**

Before digging around the auger, stop the PTO, set tractor brakes, shut off the tractor engine, and remove the tractor key.

## **DANGER**

Keep others at least twenty-five feet (25') from the auger when applying lift power to raise the freed auger from the ground. Stop auger rotation prior to lifting out of hole.

## **CAUTION!**

To avoid damage to universal joints, and to reduce the risk of personal injury, never transport the digger with the tractor PTO engaged.

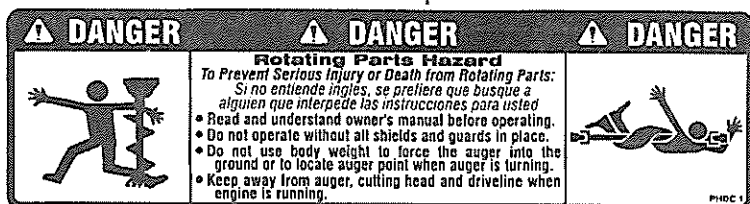
## **Maintenance**

WHAT TO DO	WHEN
Check digger for loose bolts or fasteners.	Daily
Check auger for loose, worn, or broken cutting edges or point.	Daily
Clean gearbox housing, flush, and refill with three lbs. of Texaco MultiFax-EP2 lubricant or equivalent.	After 500 hours use
Coat auger with grease to prevent rusting.	After paint has been removed through usage
Lubricate universal drive joints with good quality gun grease.	After 300 holes
Coat the inside of the auger adapter liberally with grease.	Each time an auger or extension is attached to the gearbox

## Parts

- Decals and Safety Signs
- F8 Digger Parts
- F8 Gearbox Assembly
- F8 Driveline Parts
- Auger Assemblies
- Accessories

### DECALS AND SAFETY SIGNS



PART NO. PHDC 1  
Location: Boom, rear, above Gearbox



PART NO. 2088  
Locations: Boom, right side; Gearbox



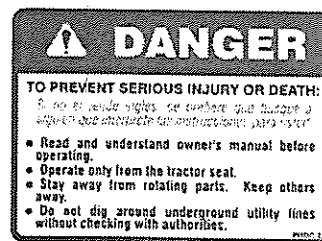
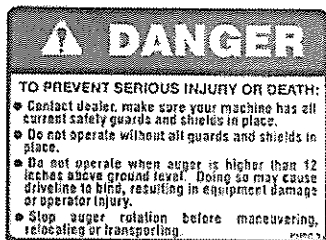
PART NO. 2169  
Locations:  
Auger Adapter Shield,  
right half;  
Auger Adapter Shield,  
left half



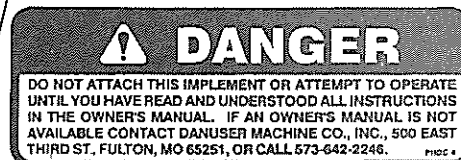
**WARNING!**

Clean or replace all safety signs if they cannot be read or understood.

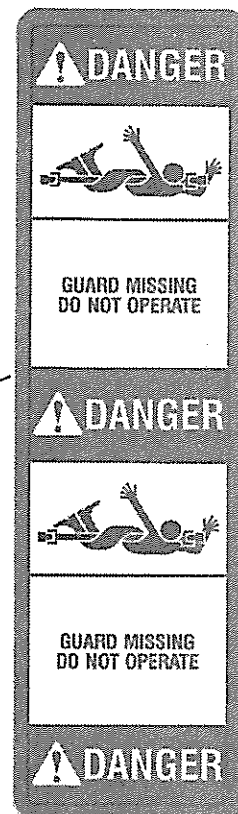
PART NO. PHDC 2  
Location: Boom, left side



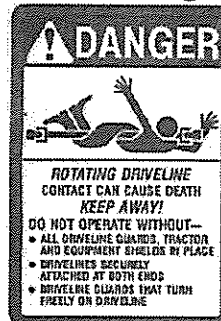
PART NO. PHDC 3  
Location: Boom, right side



PART NO. PHDC 4  
Location: Boom Rib, right side



PART NO. 13-10022  
Location:  
PTO Shaft (under guard)

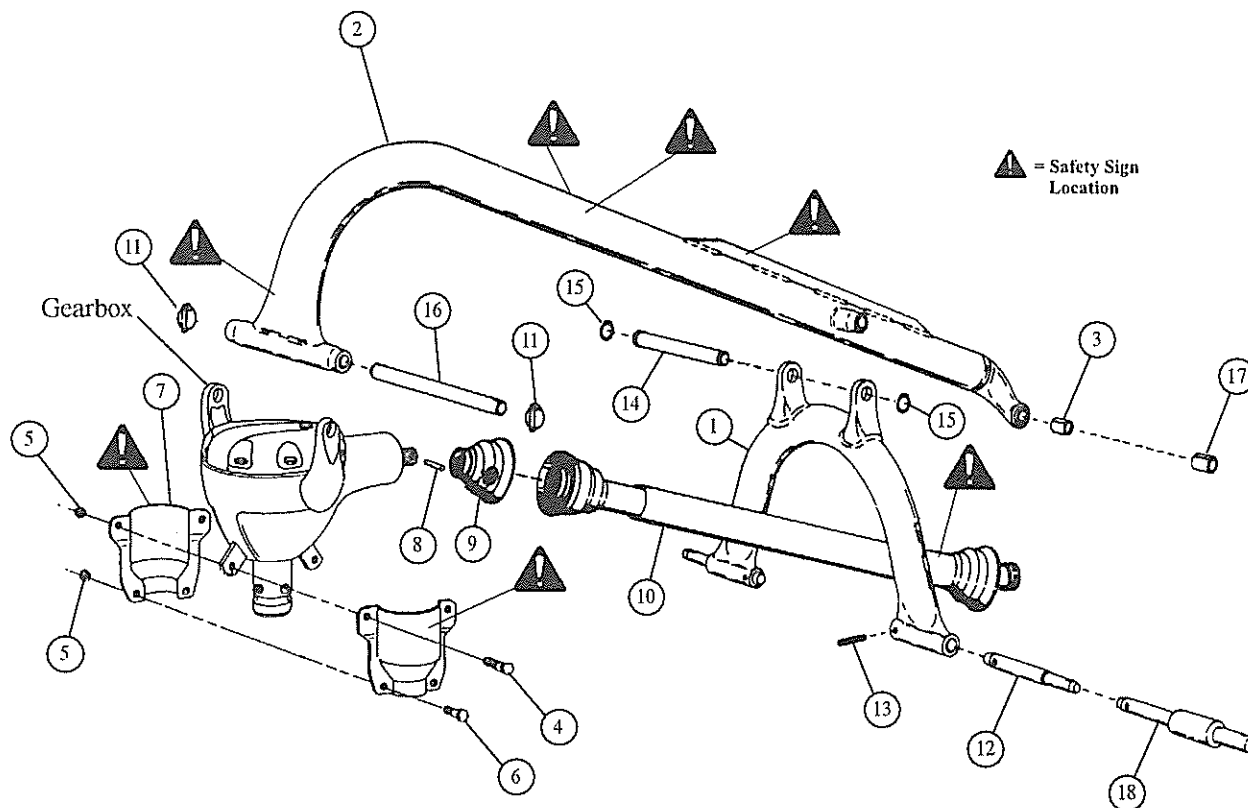


PART NO. 13-10021  
Location:  
PTO Shaft Guard



PART NO. PHDC 5  
Location: Auger,  
Auger Extension

# F8 DIGGER PARTS



## DANUSER F8 DIGGER

Ref. No.	Description	Part No.	No. Req'd	Ref. No.	Description	Part No.	Cat. I No. Req'd	Cat. II No. Req'd
Crane Boom .....9049.....1 (consists of the following)				Hardware Pkg (Category I or II) .....7280.....1 .....1 (consist of the following)				
1	Yoke.....	7455	1	11	Klik Pin .....	1600	2	2
2	Boom (includes 7467 Bushing) .....	7463	1	12	Link Pin .....	7456	2	0
3	Bushing (25/32 x 1 inch) .....	7467	1	(7/8 or 1-1/8 inch reversible)				
Gearbox Assembly.....7561.....1 (includes the following)				13	Roll Pin (7/16 x 1-3/4 inch).....	7457	2	2
4	Bolt (3/8-16 x 1-1/4 inch, Gr. 5) .....	1180	2	14	Pin (7/8 x 10-1/16 inch) .....	7458	1	1
5	Nut (3/8 inch -16) .....	2168	4	15	Retaining Ring (7/8 inch).....	7464	2	2
6	Bolt (3/8-16 x 7/8 inch, Gr. 5) .....	2339	2	16	Pin (7/8 x 16-11/16 inch).....	7471	1	1
7	Guard, Auger Adapter .....	7271	2	17	Bushing (29/32 x 1 inch).....	8590	0	1
Driveline Pkg.....7569.....1 (consists of the following)				18	Link Pin (1 1/8 inch) .....	9048	0	2
8	Roll Pin (5/16 x 2 inch) .....	7570	1					
9	Input Shaft Guard .....	7428H	1					
10	Driveline.....	<del>7571</del> 7607	1					

7578 Yoke + Pinion kit