

OPERATION & MAINTENANCE OF DANUSER MODEL CD-1 COMPACT DIGGER

These instructions will help you become familiar with the proper use of your Compact Digger, and obtain the greatest service life from it. To better serve you and your dealer, it is important that you fill out the enclosed registration card and mail it at once.

IMPORTANT SAFETY PRECAUTIONS

ALWAYS STOP TRACTOR ENGINE BEFORE ADJUSTING OR LUBRICATING ANY PART OF THE DIGGER.
DO NOT WEAR LOOSE CLOTHING WHILE OPERATING OR WORKING AROUND DIGGER.
DO NOT ATTEMPT TO TRANSPORT OR OPERATE DIGGER ON STEEP HILLSIDES.
REDUCE TRACTOR SPEED WHILE TRANSPORTING OVER UNEVEN OR ROUGH TERRAIN.
KEEP WEIGHT BOX IN PLACE AND FILLED WITH THE PROPER AMOUNT OF WEIGHT AT ALL TIMES.
OPERATOR SHOULD REMAIN ON TRACTOR SEAT AT ALL TIMES AND BY-STANDERS SHOULD BE KEPT CLEAR OF DIGGER WHILE OPERATING.

OPERATING INSTRUCTIONS

Before operating digger, check hydraulic system oil level. With auger gear head lowered fill reservoir to oil level with type "A" hydraulic transmission oil.

When transporting digger over uneven terrain, additional transport height can be obtained by tilting digger as far forward as possible with pitch link.

Position tractor with auger point over center of desired hole location.

Place tractor transmission in neutral and lock brakes to hold tractor on location and to prevent damage to digger.

Plumb auger by adjusting pitch links "fore or aft" or side ways.

Fully engage PTO clutch and open throttle completely. Engine should be run at full throttle when digging. Lower auger to ground with hydraulic control. If ground is hard or covered with trash, it may be necessary to raise auger completely and drop it several times to start hole.

As auger starts to penetrate, raise it to its MAXIMUM height to clean hole after each 6" to 10" of penetration or more often if soil is very wet and sticky. In many types of clay soils it is necessary to hold back against the auger screw suction by moving the hydraulic control lever momentarily to "hold" position. When drilling to maximum auger depth, do not allow an excessive amount of dirt to pile up between top of auger flight and gear housing.

After the desired hole depth has been reached, allow the auger to rotate a few moments. Stop the auger and raise it to its maximum height before moving tractor. This procedure will usually provide the cleanest hole.

CARE OF DIGGER

The bolt attaching auger to drive head acts as a shear pin to protect digger from excessive over-loads. It should be replaced with a mild steel machine bolt. (No. 8093) of the same diameter as originally furnished. If, there is repeated failure under unusual drilling conditions, it then should be replaced, by a HIGH STRENGTH shear bolt (No. 8846), (see AUGER PARTS LIST). To prevent unnecessary failure of shear bolts, the nut must always be kept tight.

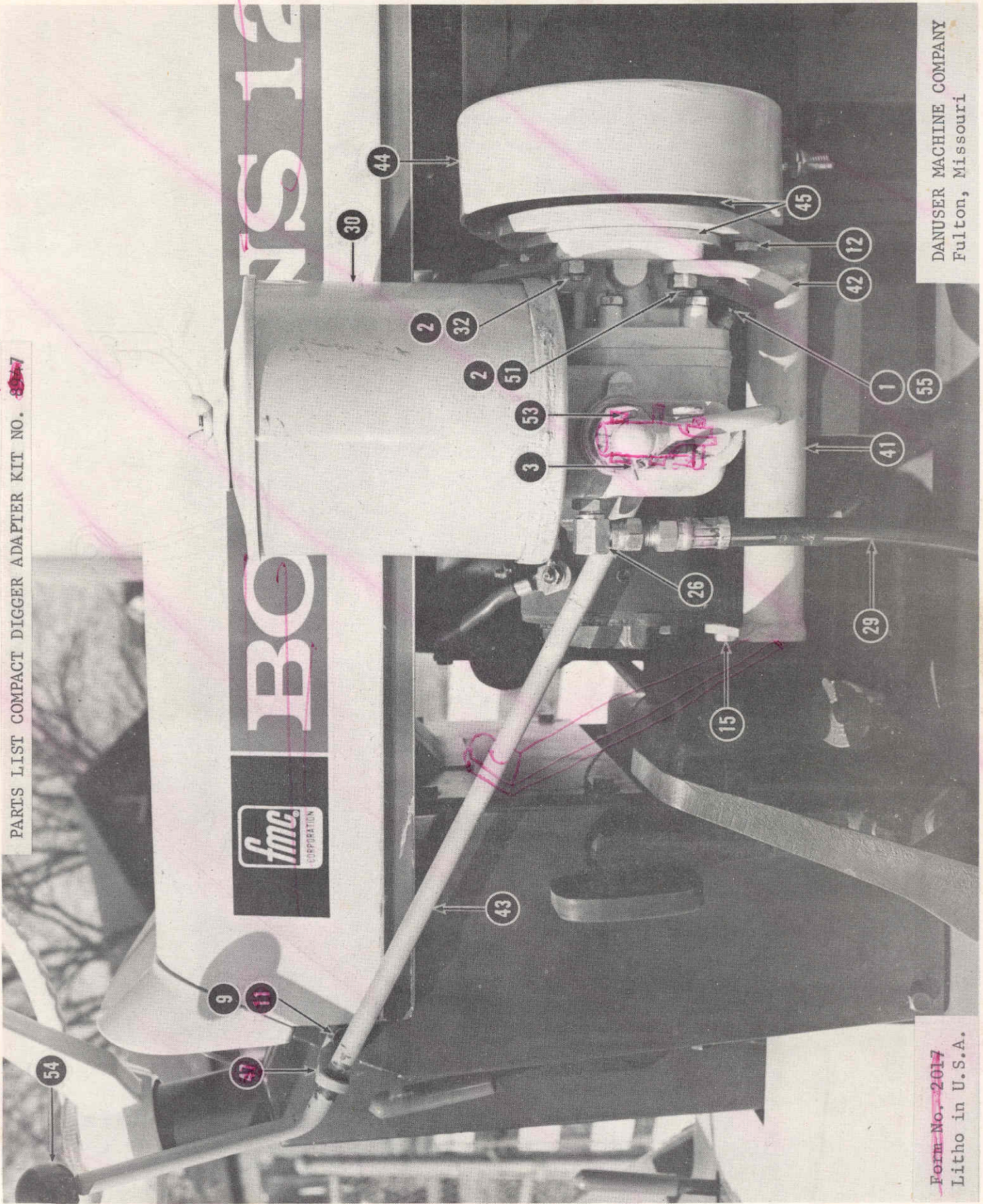
In addition to the shear bolt, augers are held on vertically by a retaining bolt which prevents the auger from falling off should the shear bolt fail. This retaining bolt must be kept tight. The inside of the auger adapter, and the groove in the spindle should be coated liberally with grease to prevent them from binding or galling until the shear bolt is replaced.

Do not attempt to raise auger out of ground by use of retaining bolt alone. It is intended only to hold the auger in alignment until shear bolt is replaced.

If auger becomes lodged on an obstruction below ground, do not attempt to raise auger by hydraulic lift power alone until auger has been turned several revolutions in reverse. A bar may be used on the universal joint to easily turn the auger. After auger is freed, apply lift power and slowly rotate power drive to raise auger.

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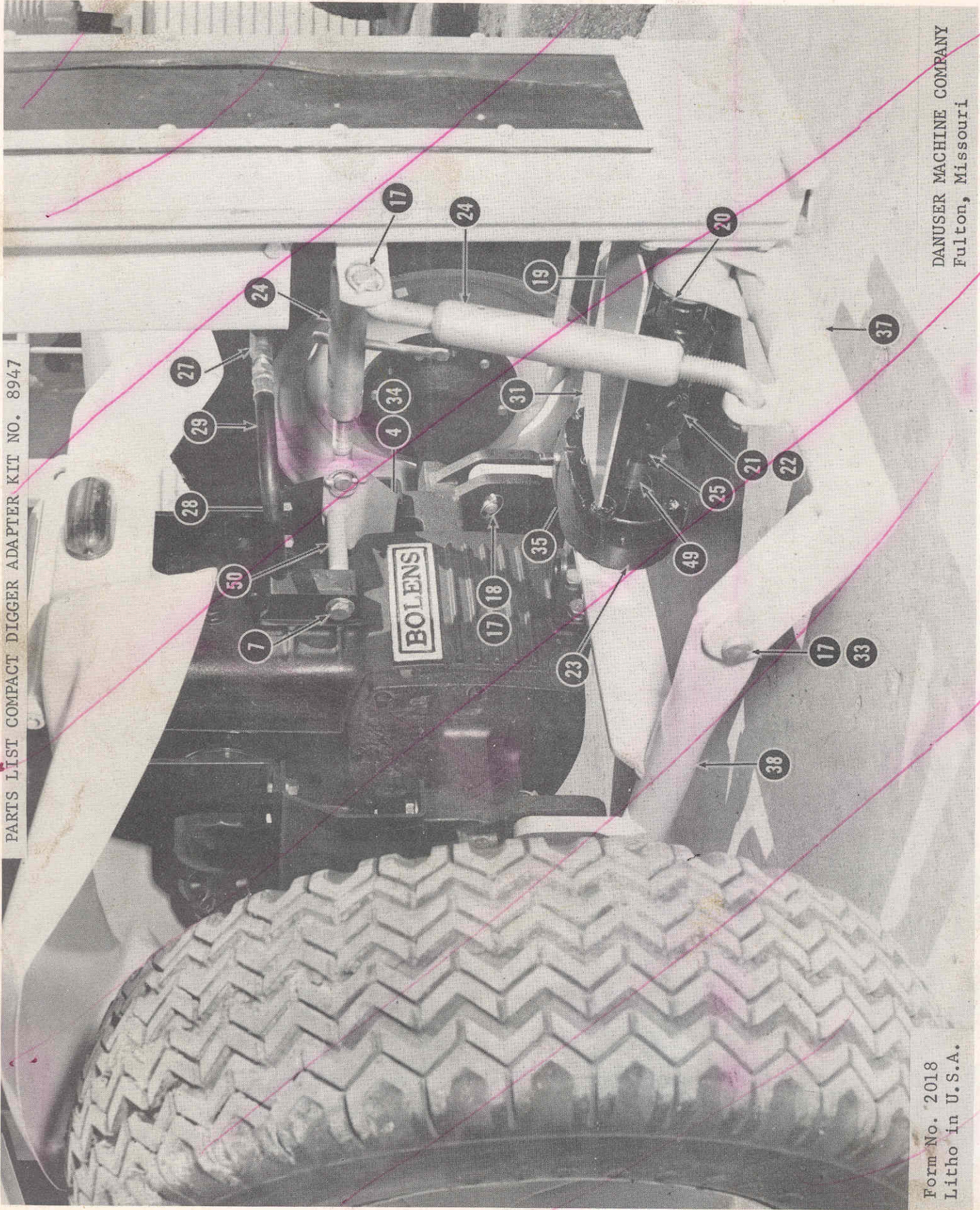
PARTS LIST COMPACT DIGGER ADAPTER KIT NO. ~~8047~~



Form No. 2017
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8947

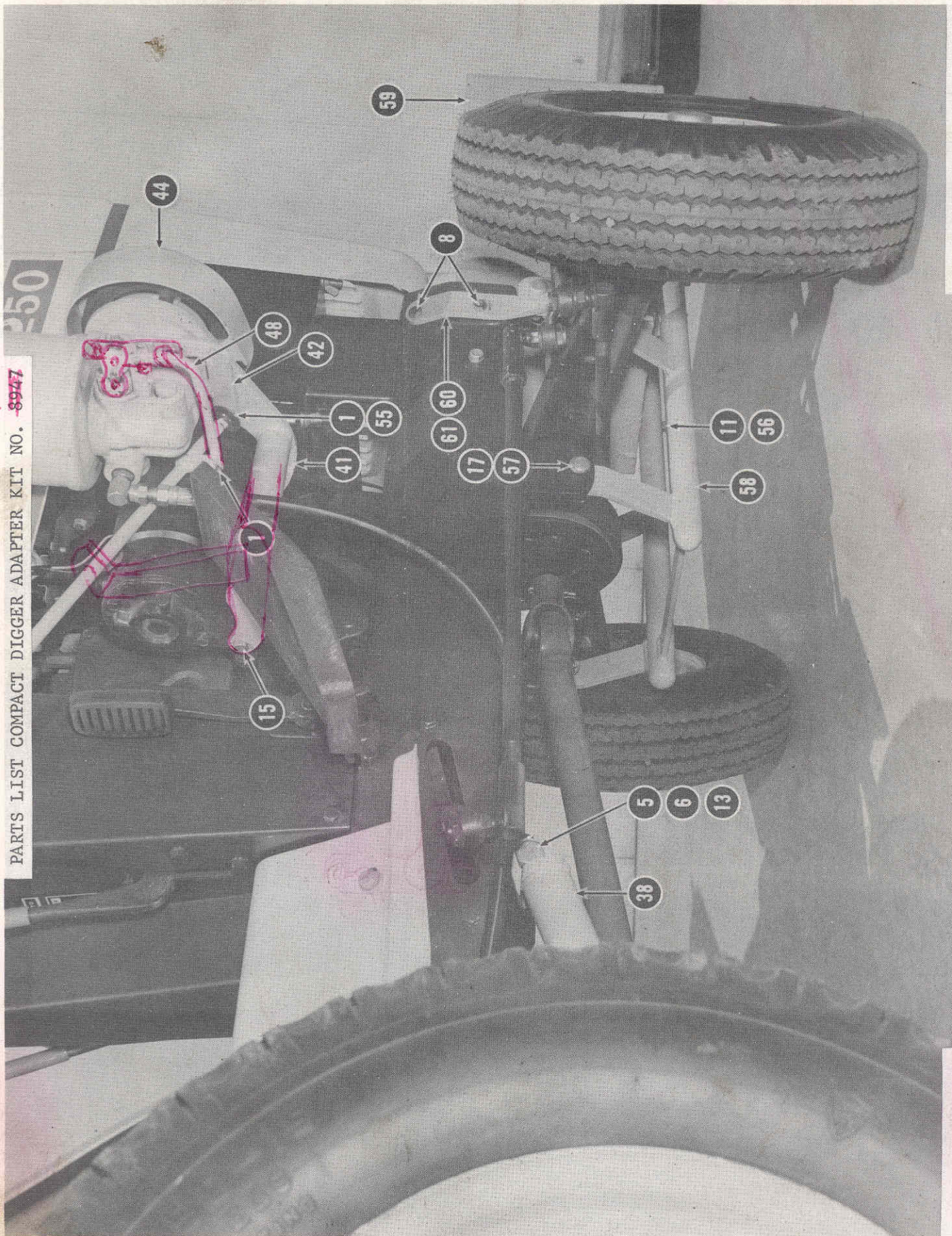


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DANUSER MACHINE COMPANY
Fulton, Missouri

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PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8947

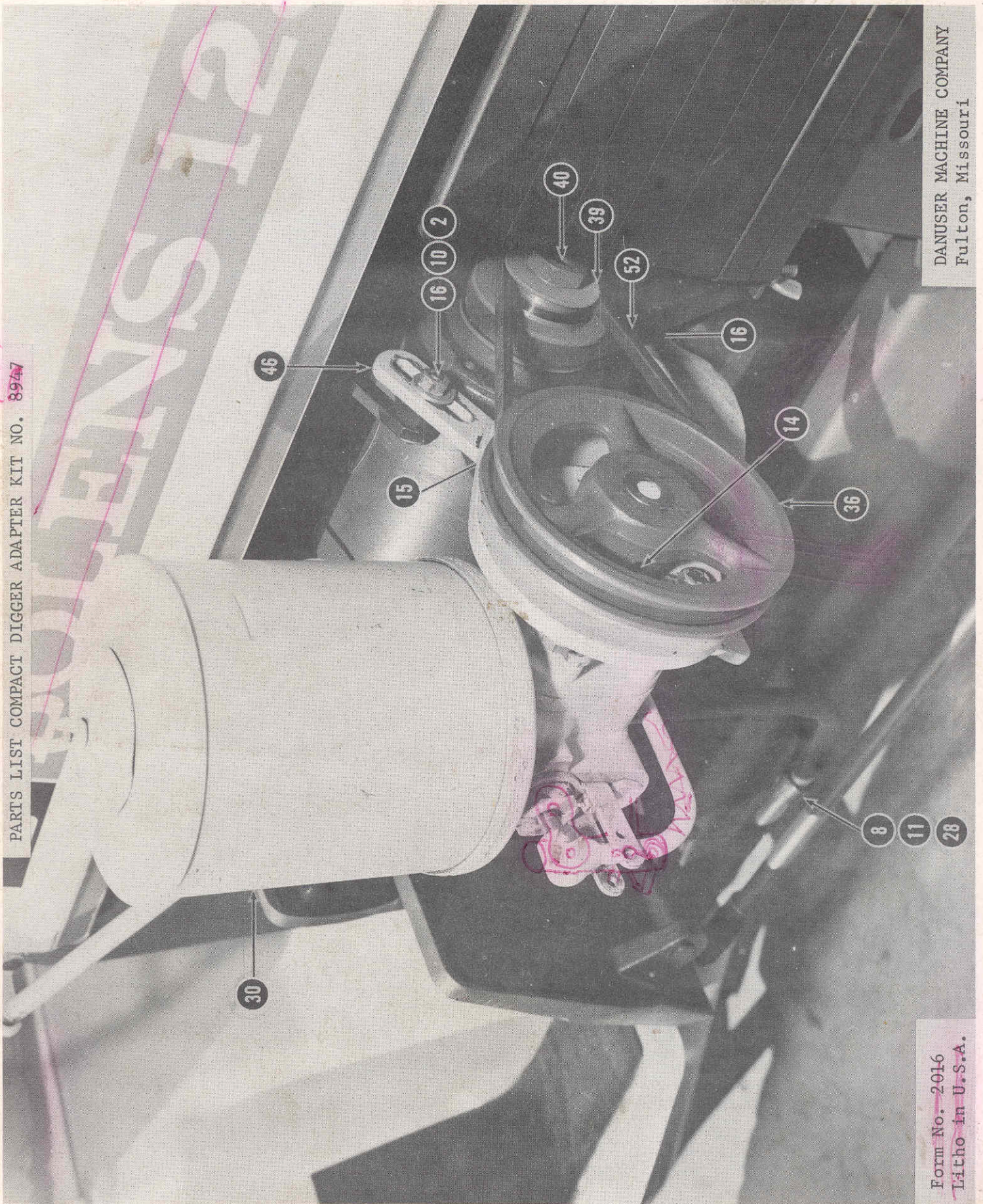


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DANUSER MACHINE COMPANY
Fulton, Missouri

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PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8947

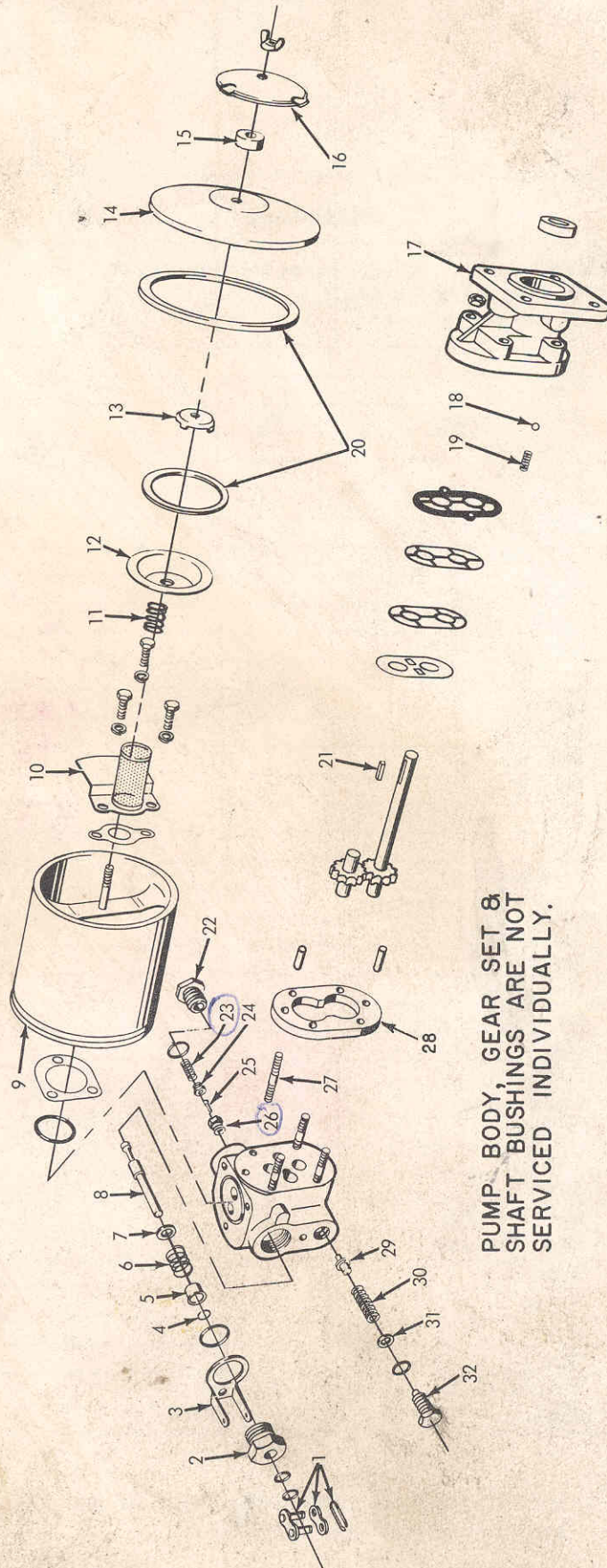


DANUSER MACHINE COMPANY
Fulton, Missouri

Form No. 2016
Litho in U.S.A.

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**DANUSER COMPACT DIGGER
MODEL CD-1
PUMP ASSEMBLY**



**PUMP BODY, GEAR SET &
SHAFT BUSHINGS ARE NOT
SERVICED INDIVIDUALLY.**

**IMPORTANT:
POSITION OF GEAR SET AND FRONT PLATE ASSEMBLY MAY VARY FROM THAT
SHOWN. BEFORE DISASSEMBLING PUMP, NOTE POSITION AND REASSEMBLE IN
SAME LOCATION.**

DANUSER COMPACT DIGGER
MODEL CD-1
PUMP ASSEMBLY

FIG. NO.	PART NO.	DESCRIPTION	NO. REQ.
		PUMP ASSEMBLY (Includes Pumps No. 8084, 8249, 8529, 8568, 8592 and 8732) Consists of the following:	
1	8641	Link	1
2	8638	Plug	1
3	8637	Handle Support	1
4	8653	Snap Ring	1
5	8644	Washer	1
6	8645	Spring	1
7	8651	Washer	1
8	8636	Spool	1
9	8627	Reservoir Tank	1
	8654	Wing Nut (1/4-20)	1
10	8628	Filter Assembly	1
	2335	Bolt (5/16-18 x 3/4)	3
	847	Lockwasher (5/16)	3
11	8631	Spring	1
12	8633	Filter Pocket	1
13	8629	Filter Cap	1
14	8632	Lid Assembly	1
15	8630	Filter	1
16	8626	Breather Cap	1
17	8625	Front Plate Assembly	1
18	8649	Ball (3/16)	2
19	8624	Spring	2
20	8657	Gasket Kit	1
21	8655	Key (1/8 x 1/8 x 3/4)	1
22	8635	Plug	1
23	8623	Spring	1
24	8648	Plunger Cap	1
25	8647	Plunger	1
26	8646	Valve	1
27	8639	Stud	4
	8650	Nut (1/4-20)	4
28	8640	Body Assembly	1
29	8642	Valve	1
30	8643	Spring	1
31	8652	Shim	10
32	8634	Plug	1
	8656	Seal Repair Kit (Includes Fig. 20 & all Gaskets & Seals for Pump)	1

IMPORTANT: When ordering Pump parts, be sure to specify PUMP ASSEMBLY NUMBER.

ENGINEERING PARTS LIST DANUSER MACHINE COMPANY

PRODUCT COMPACT DIGGER ADAPTER KIT (IHC 147)

FILE NO. X-1085

LINE NUMBER	PART NUMBERS										PART NAMES	MODELS	REMARKS	
	1	2	3	4	5	6	7	8	9	10				
1														
2		8750												USED WHEN DIGGER IS REMOVE
3		8749												" " " " " "
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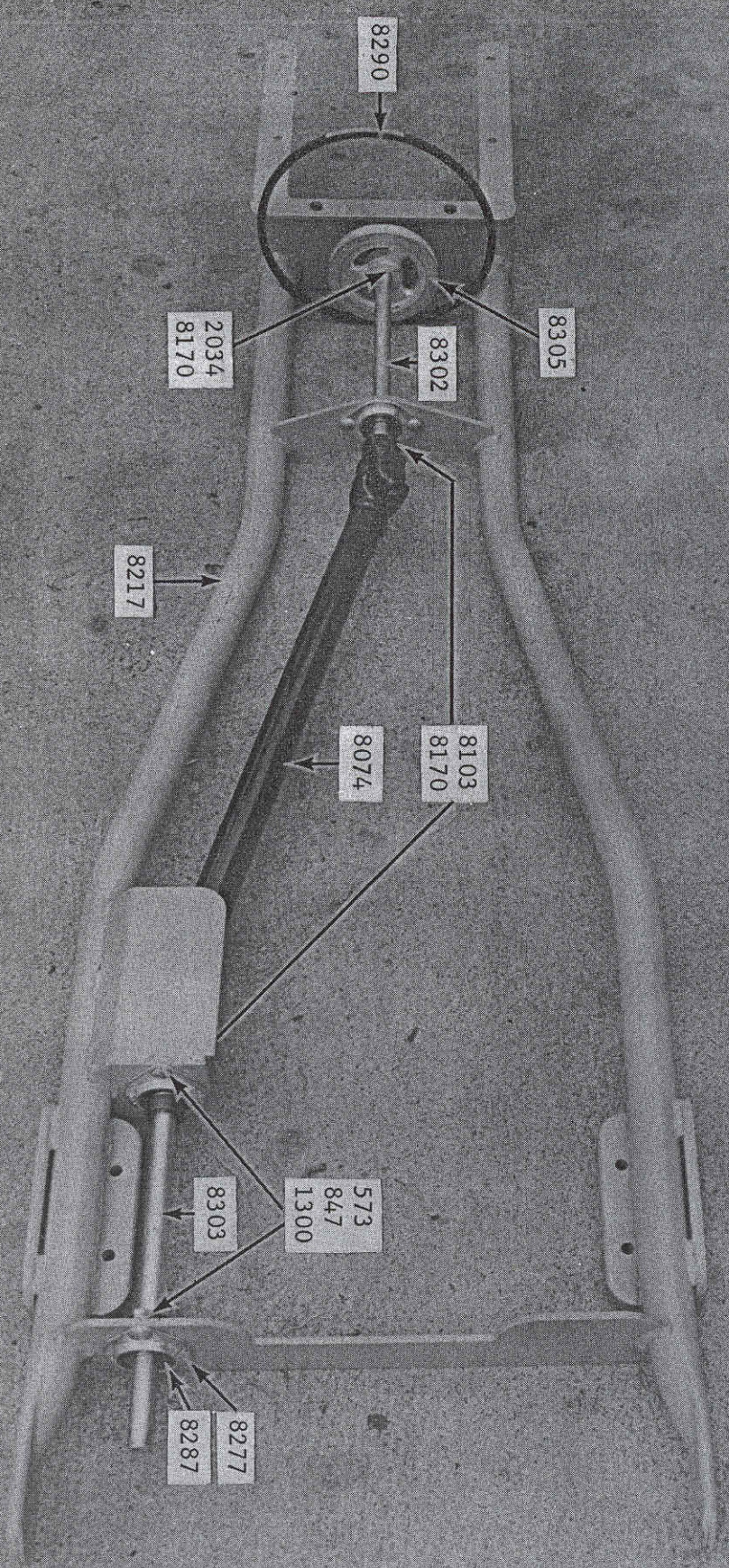
DATE ISSUED

PRODUCT CD-1 KIT

MODEL IHC 154

SHEET 6 THE END

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222



8227

INSTALL HYDRAULIC PUMP V-BELT NO. 8291, AS FOLLOWS

ON MODELS 100, 102, 104, 122, & 124, REMOVE 4 ENGINE BOLTS, DISCONNECT CONTROL LEVER, MOVE ENGINE FORWARD TO DISCONNECT TRACTOR CLUTCH DRIVE PINS. PLACE V-BELT OVER DRIVE PULLEY ON FLY-WHEEL. SECURE ENGINE IN ORIGINAL POSITION.

ON MODELS 105 & 125, REMOVE PIN SECURING TRANSMISSION DRIVE COUPLING AND BOLTS ATTACHING FLY-WHEEL PULLEY. SLIDE PULLEY REARWARD, SLIP V-BELT BETWEEN ENGINE AND SHAFT. REASSEMBLE PULLEY AND COUPLING.

2039

8304

976
2168
2178
8273

USE 8284 SPACER WHEN BOLT IS IN THIS HOLE

8283

976
2064
2168
8292

TRACTOR MUST BE EQUIPPED WITH IHC FRONT PTO CLUTCH

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1056
40228

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2178
8273

8220

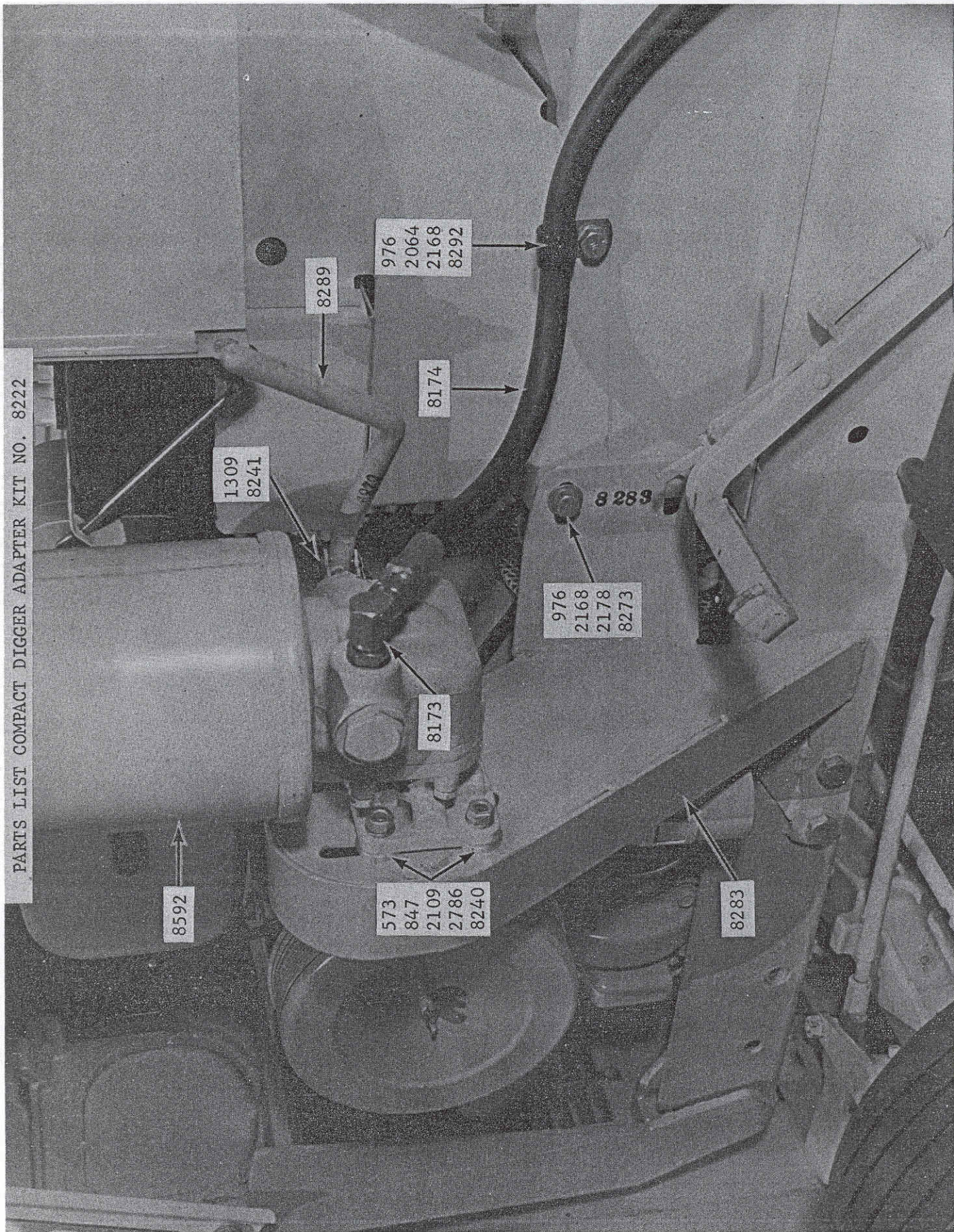
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Form No. 2050
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222



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8283

OPERATION & MAINTENANCE OF DANUSER MODEL CD-1 COMPACT DIGGER

LUBRICATION INSTRUCTIONS

DAILY OR EACH 5 HOURS OF OPERATION:

Grease auger gear head guide rollers with automotive type pressure gun grease.

Lubricate valve controls, clutch controls and pitch links with a few drops of fluid oil.

Check hydraulic system oil level. With auger gear head lowered fill reservoir to oil level with type "A" hydraulic transmission oil.

WEEKLY OR EACH 50 HOURS OF OPERATION:

Grease universal joints with automotive type pressure gun grease. Be sure fittings are clean, and pump grease in slowly to avoid damaging seals.

Check oil level in auger gear head. Fill to level of plug on rear of housing with SAE 90 or 140 extreme pressure gear lubricant.

YEARLY OR EACH 500 HOURS OF OPERATION:

Drain, flush and refill hydraulic system with type "A" hydraulic transmission oil.

Drain, flush and refill auger gear head with SAE 90 or 140 extreme pressure gear lubricant.

Lubricate lift cable sheaves with several drops of light oil.

GENERAL:

All Digger drive and idler sheaves, and all external drive line bearings are sealed and lubricated for life.

Each time auger is installed or after several shear bolts have failed, remove auger, clean spindle and adapter and coat liberally with automotive type pressure gun grease.

MAINTENANCE

GENERAL:

Check entire machine daily for loose bolts, loose, frayed or broken belts and hydraulic system leaks.

Check auger daily for loose, worn or broken cutting edges and auger points. Worn edges or a slightly rounded auger point can seriously affect auger penetration.

The guard assembly at the bottom of the frame channel is intentionally made so that it does not completely close the bottom of the frame channel. Periodically this guard should be checked to be sure that dirt and other objects that may fall into the channel from above can drop out past the guard.

BELTS

Belts must be kept at the proper tension. New belts should be checked and if necessary re-adjusted several times during the first few hours of operation.

DIGGER DRIVE BELTS

These are matched belts and must be replaced only in sets. When properly adjusted, a force of 10 lbs. applied to both belts on the slack, or left-hand side (when facing toward the front of the tractor) at the center of the rubber belt guard will deflect them about $\frac{1}{2}$ ". To adjust, loosen jam nut securing the washer faced nut on the cross bolt at the top of the frame channel. Adjust the washer faced nut toward the right to increase or left to decrease belt tension. When proper adjustment is obtained, tighten jam nut.

PTO DRIVE BELTS

Since these belts vary with each tractor adaptation, only general instructions can be given here. Where more than one belt is used, they are matched sets and must be replaced only in sets. When properly adjusted, a force of 10 lbs. applied half way between the sheaves will deflect the belts about $\frac{1}{4}$ ". To adjust, see specific instruction in mounting information furnished with Adapter Kit.

PUMP DRIVE BELT

When properly adjusted, a force of 5 lbs. applied halfway between the two sheaves will deflect the belt about $\frac{1}{4}$ ". To adjust, loosen the four bolts, securing pump to the pump bracket and move the pump to increase or decrease belt tension. Tighten bolts when adjustment is complete.

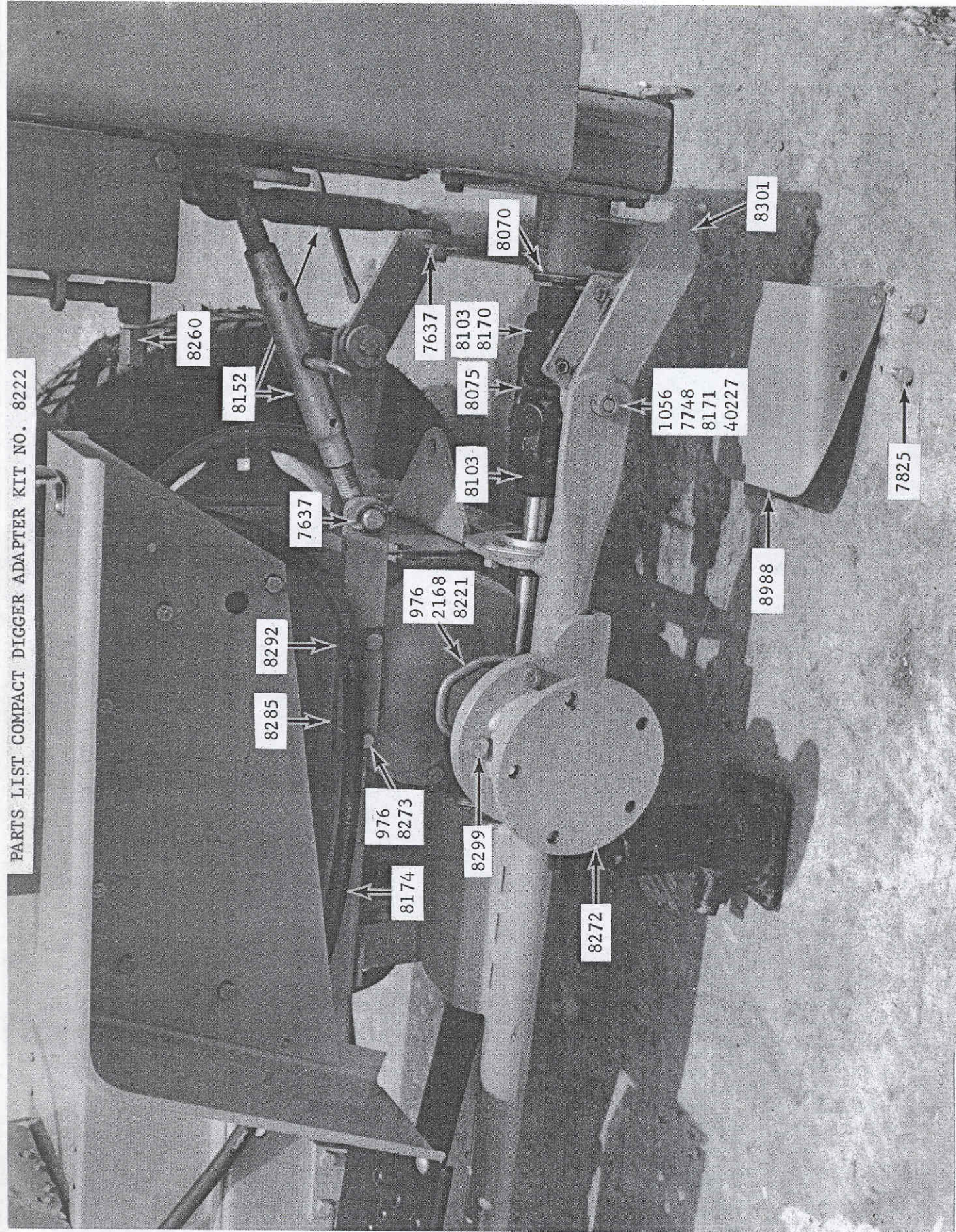
AUGER GEAR HEAD GUIDE ROLLERS

Guide rollers should be set so that auger gear head travels the entire length of guide rails without binding or excessive looseness and auger is parallel to frame channel. This adjustment is obtained in the following way: With auger removed and rollers and rails clean, slowly raise and lower head until a point is reached where clearance between the rollers and outer edges of the rails seems to be minimum. Individually loosen the guide roller mounting bolts about $\frac{1}{4}$ turn and turn the eccentric bushings as required to decrease or increase clearance between the roller and the rail to "0" to $\frac{1}{32}$ ". Again raise and lower gear head to check for proper clearance. With Auger installed check for alignment between auger and frame channel. This can be adjusted by loosening either the top or bottom pair of guide roller bolts and shifting the top or bottom pair of rollers an equal amount to the right or left. When adjustments are completed tighten guide roller bolts securely to maintain adjustment.

LIFT CABLE

The lift cable should be adjusted so that the upper auger gear head guide rollers are within $\frac{1}{8}$ " of the stops at top of guide rails when auger is fully raised. This adjustment is obtained by loosening the nuts securing cable end to the auger gear head housing and screwing them up or down on the cable end. Running them up on the cable end will raise auger gear head. Running them down will lower gear head. Tighten top nut securely when adjustment is completed.

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222



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Form No. 2051
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>NO. REQ'D.</u>
573	Nut (5/16-18)	12
847	Lockwasher (5/16)	12
973	Lockwasher (1/2)	2
976	Lockwasher (3/8)	15
1056	Nut (1/2-13)	8
1300	Bolt (5/16-18 x 3/4 Carriage)	8
1309	Cotter (3/32 x 1/2)	1
2034	Key (3/16 sq. x 1)	1
2039	Set Screw (1/4-20 x 3/8)	1
2064	Bolt (3/8-16 x 3/4)	3
2104	Washer (1/2)	4
2109	Washer (5/16)	4
2168	Nut (3/8-16)	13
2178	Washer (3/8)	3
2339	Bolt (3/8-16 x 7/8)	4
2786	Bolt (5/16-18 x 1)	4
7637	Klik Pin	4
7748	Bolt (1/2-13 x 1-1/2)	2
7825	Bolt (5/16-18 x 1/2)	2
8070	Snap Ring	1
8074	"U" Joint Assembly (Includes the following):	1
8296	Repair Kit (Includes Center Cross, Bearings, Seals, Snap Rings and Grease Fitting)	2
8297	Yoke	2
8298	Tube	1
8075	Double "U" Joint Assembly (Includes the following):	1
8295	Double Center	1
8296	Repair Kit (Includes Center Cross, Bearings, Seals, Snap Rings and Grease Fitting)	2
8297	Yoke	2
8103	Key (Woodruff 3/16 x 3/4)	4
8152	Pitch Link (Each includes the following):	2
8145	Left Hand Screw	1
8146	Right Hand Screw	1
8151	Tube Assembly	1
8165	Roll Pin	2
8170	Set Screw (3/8-16 x 1/2)	5
8171	Bushing	2
8173	90° Union	1
8174	Hose	1
8217	Subframe	1
8220	Mounting Bracket	1
8221	"U" Bolt	2
8227	Weight Box	1
8240	Spacer	4
8241	Pin (3/16 x 1-1/4)	1
8260	Elbow Union (1/4 NPTF)	1

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>NO. REQ'D.</u>
8272	Extension	2
8273	Bolt (3/8-16 x 1-3/4)	5
8277	Flange	8
8283	Pump Bracket	1
8284	Spacer	1
8285	Pitch Link Bar	1
8287	Bearing Assembly	4
8289	Lever	1
8290	Belt	1
8291	Belt	1
8292	Clamp	3
8299	Bolt (7/16-20 x 1)	10
8301	Mounting Bar	1
8302	Front Shaft	1
8303	Rear Shaft	1
8304	Sheave	1
8305	Sheave	1
8592	Pump	1
8988	Guard	1
40227	Washer (1/2)	2
40228	Bolt (1/2-13 x 1)	2

ENGINEERING PARTS LIST

DANJUSER MACHINE COMPANY

PRODUCT COMPACT DIGGER ADAPTER KIT (14C 147)

FILE NO. X-1085

LINE NUMBER	PART NUMBERS										PART NAMES	MODELS	REMARKS
	1	2	3	4	5	6	7	8	9	10			
1	89	4	1								BELT ("3L" - 23 O.D.)	1	
2													
3	89	2	4								CONTROL LEVER ASSEM	1	
4	89	2	2								ROD	1	
5	89	2	3								EAR	1	
6	40	2	5	7							KNOB	1	
7	40	2	8	8							GOTTER	4	{ 8924 to 8921, ALSO X-1078 to 8924 & X-1079
8	40	2	8	8							WASHER (1/2)	2	
9	X	1	0	7	8						LINK, CONTROL	1	
10	2	1	7	8							WASHER (3/8)	2	
11	X	1	0	7	9						LEVER, PUMP	1	
12	8	2	4	1							PIN (3/16 X 1 1/4)	1	X-1079 to 8603 8341 to 8603
13	1	3	0	9							GOTTER (3/32 X 1/2)	1	
14													
15													
16	89	2	9								GUARD ASSEM	1	
17	89	2	5								EAR	1	
18	89	2	6								EAR	1	
19	89	2	7								RIM	1	
20	89	2	8								PLATE	1	
21	23	3	5								BOLT (5/16 - 18 X 3/4)	2	8929 to X-1084
22													
23													
24	81	7	3								ELBOW UNION (9/16 - 18)	1	
25											HOSE (1/4 X 72)	1	
26	82	6	0								ELBOW UNION (1/4 NPTF)	1	
27	82	9	2								HOSE SLAMP (3/8)	2	
28	20	6	4								BOLT 3/8 - 16 X 3/4	2	8292 to TRACTOR
29	21	6	8								NUT (3/8 - 16)	1	
30	97	6									LOCK WASHER (3/8)	1	

REVISION

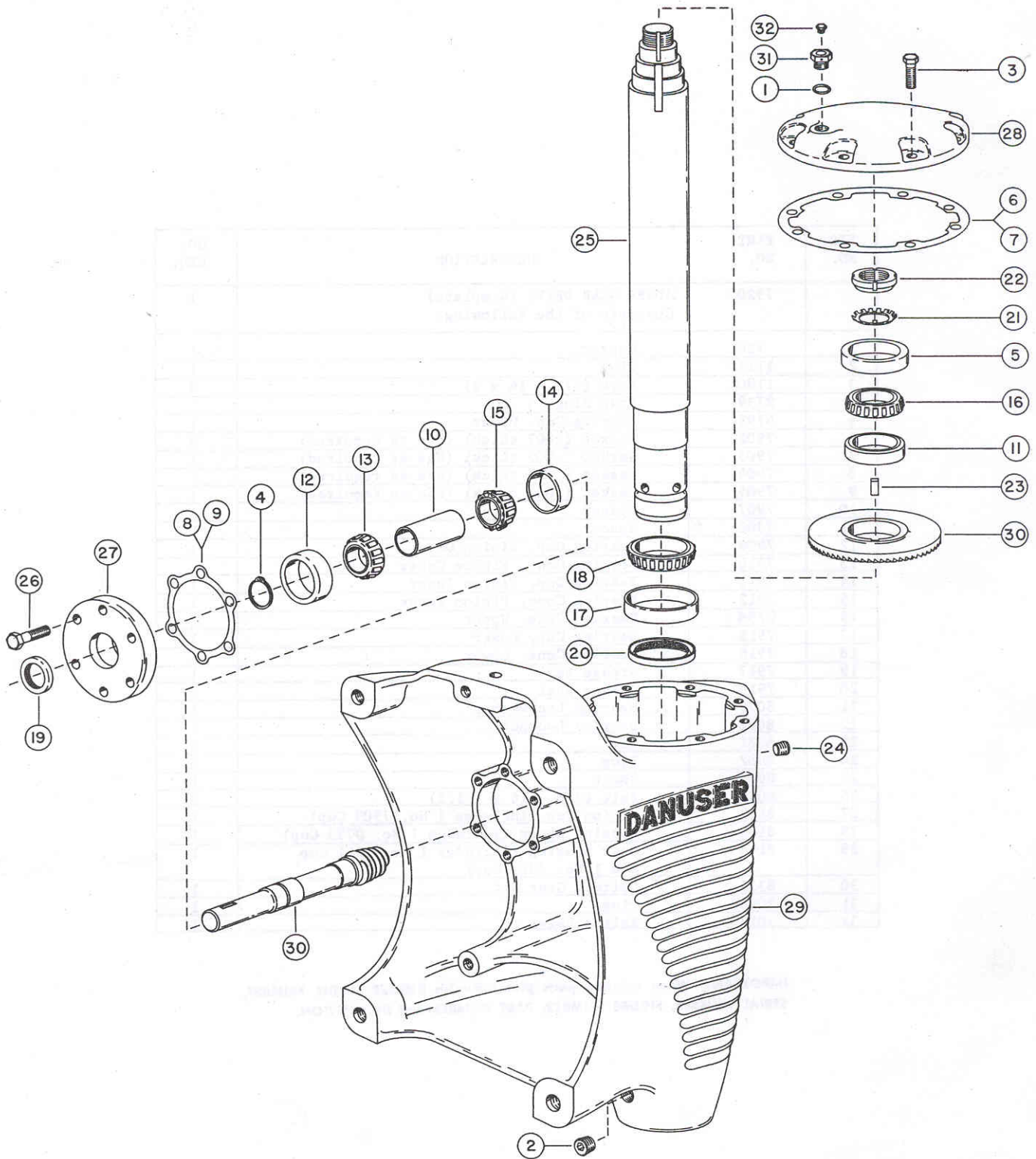
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 MODEL H.C. 154
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**DANUSER COMPACT DIGGER
MODEL CD-1
AUGER GEAR DRIVE**

FIG. NO.	PART NO.	DESCRIPTION	NO. REQ.
	7920	AUGER GEAR DRIVE (Complete) Consists of the following:	1
1	750	Gasket	1
2	1113	Plug	1
3	1180	Bolt (3/8 - 16 x 2)	8
4	2739	Snap Ring	1
5	5793	Bearing Cup, Upper	1
6	7902	Gasket (.007 thick) (Use as required)	3
7	7903	Gasket (.005 thick) (Use as required)	1
8	7904	Gasket (.007 thick) (Use as required)	2
9	7905	Gasket (.005 thick) (Use as required)	1
10	7907	Spacer	1
11	7908	Spacer	1
12	7909	Bearing Cup, Pinion Outer	1
13	7910	Bearing Cone, Pinion Outer	1
14	7911	Bearing Cup, Pinion Inner	1
15	7912	Bearing Cone, Pinion Inner	1
16	5794	Bearing Cone, Upper	1
17	7915	Bearing Cup, Lower	1
18	7916	Bearing Cone, Lower	1
19	7917	Grease Seal	1
20	7918	Grease Seal	1
21	8079	Bearing Lockwasher	1
22	8080	Bearing Locknut	1
23	8081	Key	1
24	8082	Plug	1
25	8083	Shaft	1
26	8099	Bolt (3/8 - 16 x 1 1/2)	6
27	8142	Pinion Cap (Includes 1 No. 7909 Cup)	1
28	8143	Housing Cover (Includes 1 No. 5793 Cup)	1
29	8144	Gear Housing (Includes 1 No. 7911 Cup and 1 No. 7915 Cup)	1
30	8333	Spiroid Gear Set	1
31	30169	Plug	1
32	30174	Relief Valve	1

IMPORTANT: When ordering parts please furnish DIGGER MODEL NUMBER, SERIAL NUMBER, FIGURE NUMBER, PART NUMBER and DESCRIPTION.

LAST COPY - DO NOT REMOVE
DANUSER COMPACT DIGGER
MODEL CD-1 FROM FILE.
AUGER GEAR DRIVE



LINE NUMBER	PART NUMBERS										PART NAMES	MODELS	REMARKS	
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 MODEL IHC 154
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LINE NUMBER	PART NUMBERS										PART NAMES	MODELS	REMARKS
	1	2	3	4	5	6	7	8	9	10			
1	8	3	0	1							MOUNTING BAR ASSEM		
2		8	8	7	1						BAR		
3		8	1	5	8						EAR		
4		7	9	3	2						EAR		
5		8	3	0	0						PIPE		
6		8	1	5	6						SLEEVE ASSEM		
7		8	1	5	4						PLATE		
8		8	1	5	5						TUBE		
9													
10													
11	1	0	5	6							NUT (1/2-13)		
12	7	7	4	8							BOLT (1/2-13 x 1/2)		8301 to 8217
13	8	1	7	1							BUSHING		
14	4	0	2	2	7						WASHER (1/2)		
15													
16	8	2	8	8							GUARD		
17	7	8	2	5							BOLT (5/16-18 x 1/2)		8988 to 8301
18													
19													
20	2	1	5	2							PITCH LINK GROUP		
21	8	1	4	5							SCREW - LH		
22	8	1	4	6							SCREW - RH		
23	8	1	6	5							ROLL PIN (3/16 x 3/4)		
24	8	1	5	1							TUBE ASSEM		
25													
26		8	1	4	9						PIPE		
27		8	1	5	0						HANDLE		
28	7	6	3	7							KLICK PIN ASSEM		
29	7	6	3	5							KLICK PIN		
30	7	6	3	6							RING		

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WRITTEN BY	NLH
APPROVED BY	
DATE ISSUED	
PRODUCT	CD-1 KIT
MODEL	IHC 147
SHEET	2 CONT ON 3

LINE NUMBER	PART NUMBERS										PART NAMES	MODELS	REMARKS
	1	2	3	4	5	6	7	8	9	10			
1	X	1	0	8	5	(9357)					ADAPTER KIT	1	COMPLETE
2													
3											SUBFRAME ASSEM	1	
4											ANGLE - L.H.	1	
5											GUARD	1	
6											PLATE	1	
7											PLATE	2	
8											PIPE - L.H.	1	
9											PIPE	1	
10											PLATE	1	
11											PIPE R.H.	1	
12											ANGLE R.H.	1	
13													
14													
15													
16													
17											BEARING ASSEM	4	INCLUDES LOCK RING SET SCREWS
18											FLANGE	8	
19											NUT (5/16-18)	8	
20											LOCK WASHER (5/16)	8	8287F 8277 to 8217
21											BOLT (5/16-18 X 3/4)	8	
22											SHAFT - FRONT	1	
23											SHEAVE	1	
24											KEY (3/16 SQ X 1)	1	
25											SET SCREW (3/8-16 X 1/2)	5	8305 to 8302
26											BELT	1	
27											KEY (3/16 X 3/4 WOODRUFF)	4	
28											"U" JOINT ASSEMBLY	1	
29											REPAIR KIT	2	
30											YOKE	2	
											YOKE, TUBE & YOKE	1	

REVISION

WRITTEN BY ALH
 APPROVED BY
 DATE ISSUED
 PRODUCT CD-1 KIT
 MODEL 1HC 147
 SHEET 1 CONT ON 2

OPERATION & MAINTENANCE OF DANUSER MODEL CD-1 COMPACT DIGGER

LIFT CABLE REPLACEMENT

Remove auger and lower auger gear head to its lowest position. Disconnect hydraulic hose at bottom of lift cylinder mounting housing and plug and cap union and hose. Disconnect lift cable at top of auger gear head. Remove bolts at top and bottom of cylinder mount and remove cylinder mount, cylinder and lift cable.

Remove upper cable sheave. Disconnect hydraulic line at lift cylinder port and cover both openings. Remove snap ring immediately below port in lift cylinder and slide lift cylinder downward until upper end of cylinder passes through upper bulkhead. Remove cylinder rod cable sheave and clevis from cylinder rod and remove sheave from clevis.

Cylinder can now be removed from cylinder mount freeing the anchored end of lift cable.

To install new cable, reverse the above operations.

AUGER GEAR HEAD

The auger gear head should require little maintenance however, both pinion and spindle should be checked for looseness each few hundred hours of operation. Pinion bearings can be tightened by removing gasket shims from behind the pinion cap. Both thick (.007) and thin (.005) shims are used and adjustment should be made by removing first one thin and then one thick shim. Further adjustment can be made by removing more thick shims and perhaps adding one thin shim for fine adjustment. Bearings should be adjusted for a zero end play to slight pre-load condition.

Spindle bearings are adjusted in the same way as the pinion bearings by removing shims from under the cover. When cover is removed upper spindle bearing should be packed with automotive pressure gun grease or fiber wheel bearing grease. Gear backlash is controlled during manufacture and no further adjustment is required.

CYLINDER SERVICE

Should it be necessary to service the hydraulic cylinder seals proceed in the following way. Remove cylinder as described under "Lift Cable Replacement." Clamp cylinder in a pipe vise and remove the 1/8" pipe plug from top end. With the cylinder rod completely retracted, insert a 3/16" diameter x approximately 6" long rod or pin punch through the pipe plug hole. Turn cylinder rod slowly until the 3/16 pin engages a hole in the piston. This will lock the piston and allow the cylinder rod to be unscrewed and removed.

Clean cylinder and rod thoroughly before re-assembling. To reassemble reverse the steps used in disassembly. When installing the cylinder rod apply a light coating of clean hydraulic oil to rod and seals and use care when inserting the rod to avoid damage to the seals.

BELT GUARDS

If it is necessary to remove or replace the belt guards, note that the left hand guard is slightly wider than the right hand. They must not be interchanged.

AUGER GEAR HEAD REMOVAL

To remove the auger gear head, remove auger, loosen drive belts and place head in a position about 6" below maximum height. It may be desirable to remove the right hand belt guard. Loosen the two set screws securing the pinion drive sheave to the pinion shaft. Remove both left hand or right hand guide rollers. Head can now be pulled back away from frame channel leaving the pinion drive sheave in position. When clear of the channel, it can be lowered with the hydraulic lift control.

When reinstalling gear head be very careful to see that the pinion drive sheave is in perfect alignment with the backside belt idlers.

OPERATION & MAINTENANCE OF DANUSER MODEL CD-1 COMPACT DIGGER

These instructions will help you become familiar with the proper use of your Compact Digger, and obtain the greatest service life from it. To better serve you and your dealer, it is important that you fill out the enclosed registration card and mail it at once.

IMPORTANT SAFETY PRECAUTIONS

ALWAYS STOP TRACTOR ENGINE BEFORE ADJUSTING OR LUBRICATING ANY PART OF THE DIGGER.
DO NOT WEAR LOOSE CLOTHING WHILE OPERATING OR WORKING AROUND DIGGER.
DO NOT ATTEMPT TO TRANSPORT OR OPERATE DIGGER ON STEEP HILLSIDES.
REDUCE TRACTOR SPEED WHILE TRANSPORTING OVER UNEVEN OR ROUGH TERRAIN.
KEEP WEIGHT BOX IN PLACE AND FILLED WITH THE PROPER AMOUNT OF WEIGHT AT ALL TIMES.
OPERATOR SHOULD REMAIN ON TRACTOR SEAT AT ALL TIMES AND BY-STANDERS SHOULD BE KEPT CLEAR OF DIGGER WHILE OPERATING.

OPERATING INSTRUCTIONS

Before operating digger, check hydraulic system oil level. With auger gear head lowered fill reservoir to oil level with type "A" hydraulic transmission oil.

When transporting digger over uneven terrain, additional transport height can be obtained by tilting digger as far forward as possible with pitch link.

Position tractor with auger point over center of desired hole location.

Place tractor transmission in neutral and lock brakes to hold tractor on location and to prevent damage to digger.

Plumb auger by adjusting pitch links "fore or aft" or side ways.

Fully engage PTO clutch and open throttle completely. Engine should be run at full throttle when digging. Lower auger to ground with hydraulic control. If ground is hard or covered with trash, it may be necessary to raise auger completely and drop it several times to start hole.

As auger starts to penetrate, raise it to its MAXIMUM height to clean hole after each 6" to 10" of penetration or more often if soil is very wet and sticky. In many types of clay soils it is necessary to hold back against the auger screw suction by moving the hydraulic control lever momentarily to "hold" position. When drilling to maximum auger depth, do not allow an excessive amount of dirt to pile up between top of auger flight and gear housing.

After the desired hole depth has been reached, allow the auger to rotate a few moments. Stop the auger and raise it to its maximum height before moving tractor. This procedure will usually provide the cleanest hole.

CARE OF DIGGER

The bolt attaching auger to drive head acts as a shear pin to protect digger from excessive over-loads. It should be replaced with a mild steel machine bolt. (No. 8093) of the same diameter as originally furnished. If, there is repeated failure under unusual drilling conditions, it then should be replaced, by a HIGH STRENGTH shear bolt (No. 8846), (see AUGER PARTS LIST). To prevent unnecessary failure of shear bolts, the nut must always be kept tight.

In addition to the shear bolt, augers are held on vertically by a retaining bolt which prevents the auger from falling off should the shear bolt fail. This retaining bolt must be kept tight. The inside of the auger adapter, and the groove in the spindle should be coated liberally with grease to prevent them from binding or galling until the shear bolt is replaced.

Do not attempt to raise auger out of ground by use of retaining bolt alone. It is intended only to hold the auger in alignment until shear bolt is replaced.

If auger becomes lodged on an obstruction below ground, do not attempt to raise auger by hydraulic lift power alone until auger has been turned several revolutions in reverse. A bar may be used on the universal joint to easily turn the auger. After auger is freed, apply lift power and slowly rotate power drive to raise auger.

OPERATION & MAINTENANCE OF DANUSER MODEL CD-1 COMPACT DIGGER

LUBRICATION INSTRUCTIONS

DAILY OR EACH 5 HOURS OF OPERATION:

Grease auger gear head guide rollers with automotive type pressure gun grease.

Lubricate valve controls, clutch controls and pitch links with a few drops of fluid oil.

Check hydraulic system oil level. With auger gear head lowered fill reservoir to oil level with type "A" hydraulic transmission oil.

WEEKLY OR EACH 50 HOURS OF OPERATION:

Grease universal joints with automotive type pressure gun grease. Be sure fittings are clean, and pump grease in slowly to avoid damaging seals.

Check oil level in auger gear head. Fill to level of plug on rear of housing with SAE 90 or 140 extreme pressure gear lubricant.

YEARLY OR EACH 500 HOURS OF OPERATION:

Drain, flush and refill hydraulic system with type "A" hydraulic transmission oil.

Drain, flush and refill auger gear head with SAE 90 or 140 extreme pressure gear lubricant.

Lubricate lift cable sheaves with several drops of light oil.

GENERAL:

All Digger drive and idler sheaves, and all external drive line bearings are sealed and lubricated for life.

Each time auger is installed or after several shear bolts have failed, remove auger, clean spindle and adapter and coat liberally with automotive type pressure gun grease.

MAINTENANCE

GENERAL:

Check entire machine daily for loose bolts, loose, frayed or broken belts and hydraulic system leaks.

Check auger daily for loose, worn or broken cutting edges and auger points. Worn edges or a slightly rounded auger point can seriously affect auger penetration.

The guard assembly at the bottom of the frame channel is intentionally made so that it does not completely close the bottom of the frame channel. Periodically this guard should be checked to be sure that dirt and other objects that may fall into the channel from above can drop out past the guard.

BELTS

Belts must be kept at the proper tension. New belts should be checked and if necessary re-adjusted several times during the first few hours of operation.

DIGGER DRIVE BELTS

These are matched belts and must be replaced only in sets. When properly adjusted, a force of 10 lbs. applied to both belts on the slack, or left-hand side (when facing toward the front of the tractor) at the center of the rubber belt guard will deflect them about $\frac{1}{2}$ ". To adjust, loosen jam nut securing the washer faced nut on the cross bolt at the top of the frame channel. Adjust the washer faced nut toward the right to increase or left to decrease belt tension. When proper adjustment is obtained, tighten jam nut.

PTO DRIVE BELTS

Since these belts vary with each tractor adaptation, only general instructions can be given here. Where more than one belt is used, they are matched sets and must be replaced only in sets. When properly adjusted, a force of 10 lbs. applied half way between the sheaves will deflect the belts about $\frac{1}{4}$ ". To adjust, see specific instruction in mounting information furnished with Adapter Kit.

PUMP DRIVE BELT

When properly adjusted, a force of 5 lbs. applied halfway between the two sheaves will deflect the belt about $\frac{1}{4}$ ". To adjust, loosen the four bolts, securing pump to the pump bracket and move the pump to increase or decrease belt tension. Tighten bolts when adjustment is complete.

AUGER GEAR HEAD GUIDE ROLLERS

Guide rollers should be set so that auger gear head travels the entire length of guide rails without binding or excessive looseness and auger is parallel to frame channel. This adjustment is obtained in the following way: With auger removed and rollers and rails clean, slowly raise and lower head until a point is reached where clearance between the rollers and outer edges of the rails seems to be minimum. Individually loosen the guide roller mounting bolts about $\frac{1}{4}$ turn and turn the eccentric bushings as required to decrease or increase clearance between the roller and the rail to "0" to $\frac{1}{32}$ ". Again raise and lower gear head to check for proper clearance. With Auger installed check for alignment between auger and frame channel. This can be adjusted by loosening either the top or bottom pair of guide roller bolts and shifting the top or bottom pair of rollers an equal amount to the right or left. When adjustments are completed tighten guide roller bolts securely to maintain adjustment.

LIFT CABLE

The lift cable should be adjusted so that the upper auger gear head guide rollers are within $\frac{1}{8}$ " of the stops at top of guide rails when auger is fully raised. This adjustment is obtained by loosening the nuts securing cable end to the auger gear head housing and screwing them up or down on the cable end. Running them up on the cable end will raise auger gear head. Running them down will lower gear head. Tighten top nut securely when adjustment is completed.

OPERATION & MAINTENANCE OF DANUSER MODEL CD-1 COMPACT DIGGER

LIFT CABLE REPLACEMENT

Remove auger and lower auger gear head to its lowest position. Disconnect hydraulic hose at bottom of lift cylinder mounting housing and plug and cap union and hose. Disconnect lift cable at top of auger gear head. Remove bolts at top and bottom of cylinder mount and remove cylinder mount, cylinder and lift cable.

Remove upper cable sheave. Disconnect hydraulic line at lift cylinder port and cover both openings. Remove snap ring immediately below port in lift cylinder and slide lift cylinder downward until upper end of cylinder passes through upper bulkhead. Remove cylinder rod cable sheave and clevis from cylinder rod and remove sheave from clevis.

Cylinder can now be removed from cylinder mount freeing the anchored end of lift cable.

To install new cable, reverse the above operations.

AUGER GEAR HEAD

The auger gear head should require little maintenance however, both pinion and spindle should be checked for looseness each few hundred hours of operation. Pinion bearings can be tightened by removing gasket shims from behind the pinion cap. Both thick (.007) and thin (.005) shims are used and adjustment should be made by removing first one thin and then one thick shim. Further adjustment can be made by removing more thick shims and perhaps adding one thin shim for fine adjustment. Bearings should be adjusted for a zero end play to slight pre-load condition.

Spindle bearings are adjusted in the same way as the pinion bearings by removing shims from under the cover. When cover is removed upper spindle bearing should be packed with automotive pressure gun grease or fiber wheel bearing grease. Gear backlash is controlled during manufacture and no further adjustment is required.

CYLINDER SERVICE

Should it be necessary to service the hydraulic cylinder seals proceed in the following way. Remove cylinder as described under "Lift Cable Replacement." Clamp cylinder in a pipe vise and remove the $\frac{1}{8}$ " pipe plug from top end. With the cylinder rod completely retracted, insert a $\frac{3}{16}$ " diameter x approximately 6" long rod or pin punch through the pipe plug hole. Turn cylinder rod slowly until the $\frac{3}{16}$ pin engages a hole in the piston. This will lock the piston and allow the cylinder rod to be unscrewed and removed.

Clean cylinder and rod thoroughly before re-assembling. To reassemble reverse the steps used in disassembly. When installing the cylinder rod apply a light coating of clean hydraulic oil to rod and seals and use care when inserting the rod to avoid damage to the seals.

BELT GUARDS

If it is necessary to remove or replace the belt guards, note that the left hand guard is slightly wider than the right hand. They must not be interchanged.

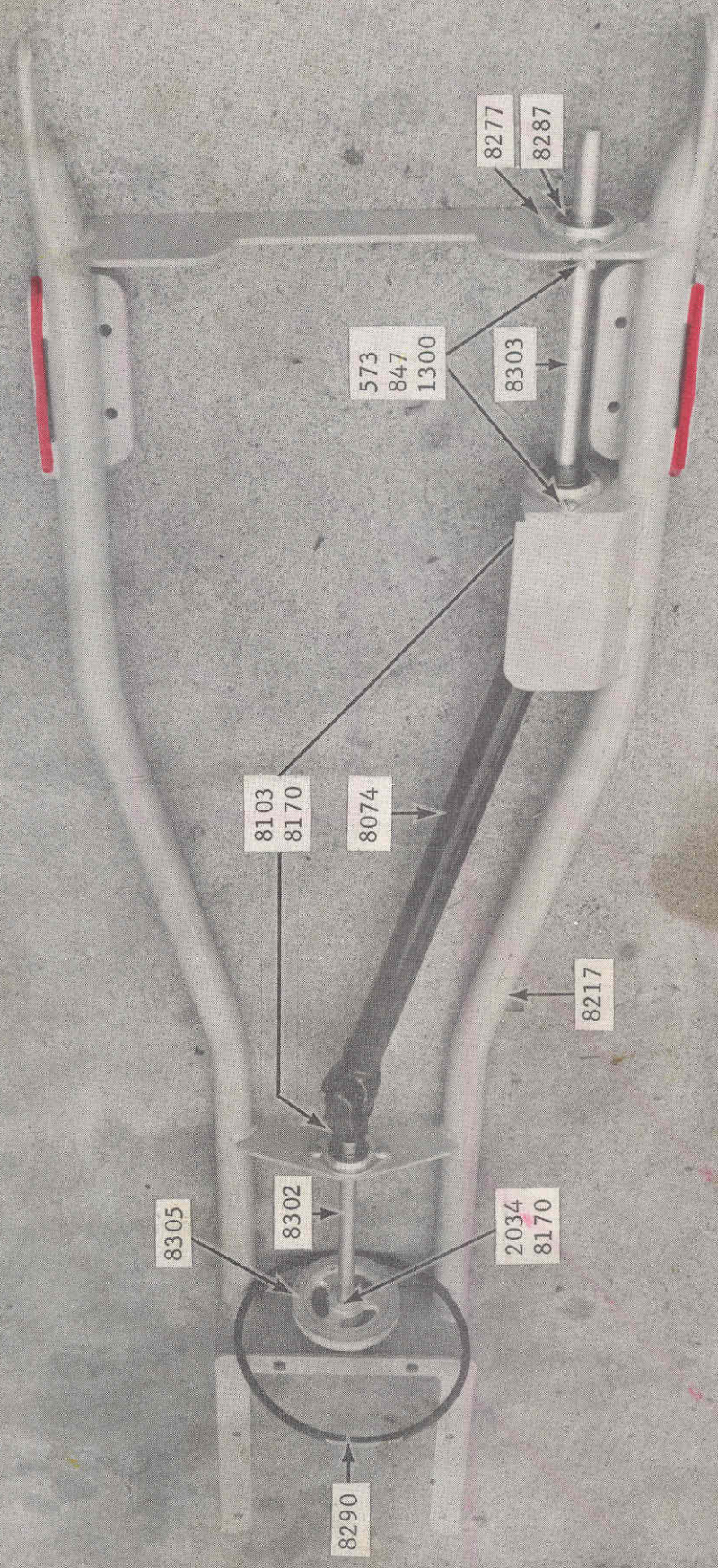
AUGER GEAR HEAD REMOVAL

To remove the auger gear head, remove auger, loosen drive belts and place head in a position about 6" below maximum height. It may be desirable to remove the right hand belt guard. Loosen the two set screws securing the pinion drive sheave to the pinion shaft. Remove both left hand or right hand guide rollers. Head can now be pulled back away from frame channel leaving the pinion drive sheave in position. When clear of the channel, it can be lowered with the hydraulic lift control.

When reinstalling gear head be very careful to see that the pinion drive sheave is in perfect alignment with the backside belt idlers.

9357

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222



Form No. 1912
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

8227

INSTALL HYDRAULIC PUMP V-BELT NO. 8291, AS FOLLOWS

ON MODELS 100, 102, 104, 122, & 124, REMOVE 4 ENGINE BOLTS, DISCONNECT CONTROL LEVER, MOVE ENGINE FORWARD TO DISCONNECT TRACTOR CLUTCH DRIVE PINS. PLACE V-BELT OVER DRIVE PULLEY ON FLY-WHEEL. SECURE ENGINE IN ORIGINAL POSITION.

ON MODELS 105 & 125, REMOVE PIN SECURING TRANSMISSION DRIVE COUPLING AND BOLTS ATTACHING FLY-WHEEL PULLEY. SLIDE PULLEY REARWARD, SLIP V-BELT BETWEEN ENGINE AND SHAFT. REASSEMBLE PULLEY AND COUPLING.

TRACTOR MUST BE EQUIPPED WITH IHC FRONT PTO CLUTCH

USE 8284 SPACER WHEN BOLT IS IN THIS HOLE

976
2168
2178
8273

976
2064
2168
8292
973
1056
40228

8283

8220

1056
2104

976
2168
2339

8304

2039

976
2168
2178
8273

High THICK

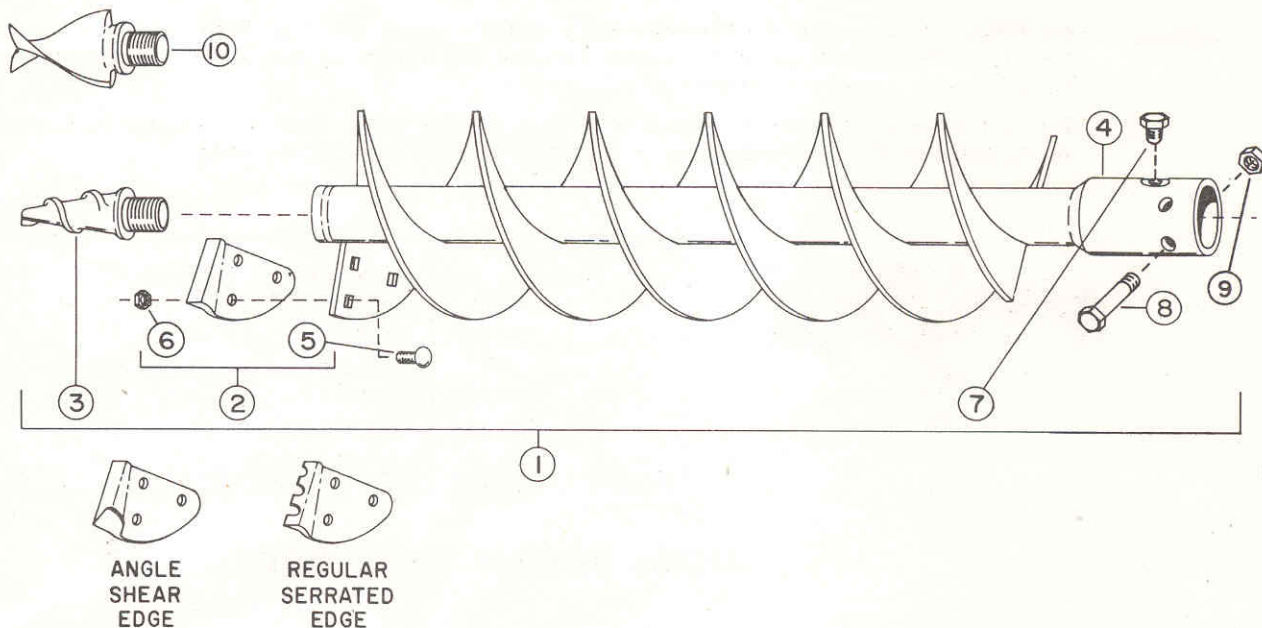
**DANUSER COMPACT DIGGER
MODEL CD-1
AUGER GEAR DRIVE**

FIG. NO.	PART NO.	DESCRIPTION	NO. REQ.
	7920	AUGER GEAR DRIVE (Complete) Consists of the following:	1
1	750	Gasket	1
2	1113	Plug	1
3	1180	Bolt (3/8 - 16 x 2)	8
4	2739	Snap Ring	1
5	5793	Bearing Cup, Upper	1
6	7902	Gasket (.007 thick) (Use as required)	3
7	7903	Gasket (.005 thick) (Use as required)	1
8	7904	Gasket (.007 thick) (Use as required)	2
9	7905	Gasket (.005 thick) (Use as required)	1
10	7907	Spacer	1
11	7908	Spacer	1
12	7909	Bearing Cup, Pinion Outer	1
13	7910	Bearing Cone, Pinion Outer	1
14	7911	Bearing Cup, Pinion Inner	1
15	7912	Bearing Cone, Pinion Inner	1
16	5794	Bearing Cone, Upper	1
17	7915	Bearing Cup, Lower	1
18	7916	Bearing Cone, Lower	1
19	7917	Grease Seal	1
20	7918	Grease Seal	1
21	8079	Bearing Lockwasher	1
22	8080	Bearing Locknut	1
23	8081	Key	1
24	8082	Plug	1
25	8083	Shaft	1
26	8099	Bolt (3/8 - 16 x 1 1/2)	6
27	8142	Pinion Cap (Includes 1 No. 7909 Cup)	1
28	8143	Housing Cover (Includes 1 No. 5793 Cup)	1
29	8144	Gear Housing (Includes 1 No. 7911 Cup and 1 No. 7915 Cup)	1
30	8333	Spiroid Gear Set	1
31	30169	Plug	1
32	30174	Relief Valve	1

IMPORTANT: When ordering parts please furnish DIGGER MODEL NUMBER, SERIAL NUMBER, FIGURE NUMBER, PART NUMBER and DESCRIPTION.

DANUSER COMPACT DIGGER AUGER ASSEMBLIES AND PARTS LIST

Auger sizes (4 through 14 inch diameters) as listed below may be selected for use with the DANUSER COMPACT DIGGER



Augers have replaceable, hardened points. The right hand thread feature (opposite Auger rotation) assures positive mounting.

Replaceable Cutting Edges are available in the sizes and styles listed below and are packaged in sets complete with Bolts. Note: The 4" and 6" Augers have Edges welded to Augers.

Key	PART NUMBER—AUGER SIZE						DESCRIPTION	No. Req.
	4"	6"	9"	10"	12"	14"		
1	8324	8116	8115	8119	8327	8113	Compact Auger with Plain Edges & Std. Point	1
1			8337	8338	8339	8340	Compact Auger with Serrated Edges	1
1		8884	8885	8886	8887	8888	Compact Auger with Pengo LDOBH Boring Head	1
2	7782	7783					Cutting Edges, Plain (Weld On)	1 Set
2			7784	7788	7790	7792	Cutting Edges, Plain (With Bolts)	1 Set
2			7786				Cutting Edges, Plain Angle Shear (With Bolts)	1 Set
2			7785	7789	7791	7793	Cutting Edges, Serrated (With Bolts)	1 Set
2			7787				Cutting Edges, Serrated Angle Shear (With Bolts)	1 Set
3	899	831	831	831	831	831	Auger Point, Standard	1
4	8109	8109	8109	8109	8109	8109	Auger Adapter Replacement (For Field Welding)	1
5			784	784	784	784	Bolt, Cutting Edge (3/8-16 x 1 Carriage)	As Req.
6			785	785	785	785	Nut, Cutting Edge (3/8-16 Hex)	As Req.
7	7676	7676	7676	7676	7676	7676	Bolt, Retaining (Special)	1
8	8093	8093	8093	8093	8093	8093	Bolt, Shear (3/8-16 x 3 1/8) Standard	1
8	8846	8846	8846	8846	8846	8846	Bolt, Shear (3/8-16 x 3 1/8) HIGH STRENGTH	1
9	8128	8128	8128	8128	8128	8128	Nut, Shear (3/8-16 Hex)	1
10		1937	1937	1937	1937	1937	Auger Point Special Duty	1

IMPORTANT: When ordering parts please furnish PART NUMBER, and DESCRIPTION.

SPECIAL AUGERS, EDGES AND POINT

The Angle Shear Edge in both plain and serrated styles was developed for use on the 9" Auger only to aid in drilling soils infused with small roots, such as is encountered around wooded areas. Serrated Cutting Edges and Special Duty Auger Point are designed to aid penetration in tough drilling conditions.

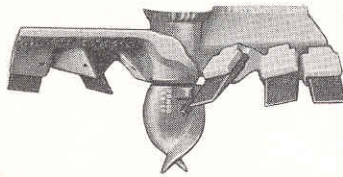
DANUSER COMPACT AUGERS—PARTS LIST
PENGO LIGHT DUTY BORING HEAD

PENGO LDOBH SERIES LIGHT DUTY BORING HEADS
 (FOR FIELD WELDING TO AUGER)

PENGO LDOBH Heads use #35 reversible Wisdom Teeth, and the 5T30 Super Tooth, which are installed with Rubber Lock. The head is also equipped with the SB-35 Screw Bit.

For single-helix augers, the PENGO head is made with an offset or "high" side for welding to the flight. This leaves greater clearance between the flight and the "low," or free, side of the head for easy passage of rocks, etc.

For twin-helix augers, the procedure is to burn off the offset extension so that both sides are at the same level. Flight edges are then welded to both sides of the head.



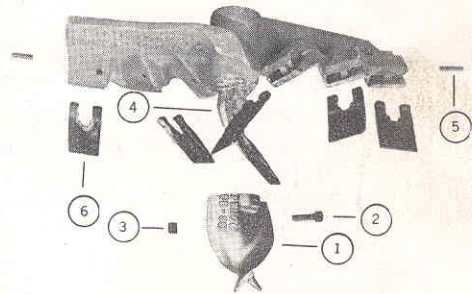
LDOBH-14

Your Auger Diameter		PENGO Catalog No:	Approx. Wt.		DANUSER Part No.
in.	mm		lbs.	kg.	
6-7	152-178	LDOBH-6 & 7	10	4.5	8176
9	229	LDOBH-9	14	6.4	7814
10-11	254-279	LDOBH-10 & 11	13½	6.1	7815
12-13	305-330	LDOBH-12 & 13	15	6.8	7816
14-15	356-381	LDOBH-14 & 15	17½	8.0	7817

ORDERING INFORMATION—Please specify diameter of auger when ordering.

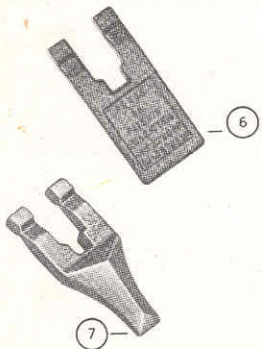
LDOBH BORING HEAD PARTS

Key	PENGO Part-Description	Approx. Wt. Lbs.	DANUSER Part No.
1	SB-35 Pilot Bit	1⅔	7763
2	Pilot Bit Bolt (5/16-24x1¼)	1 oz.	2173
3	Pilot Bit Nut (5/16-24)		2093
4	141-M Drivlug	14 oz.	8191
5	Rubber lock (2" length)		7736



PENGO TEETH

The PENGO Teeth are of forged alloy steel. The #35 Tooth is reversible; after one side is worn out, turn the tooth-over. The 5T30 Tooth is designed for digging in exceptionally hard materials, and for faster, smoother digging in all materials.

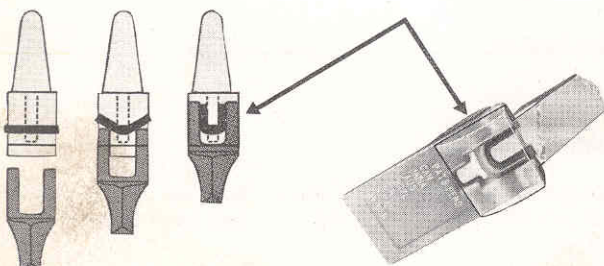


Key	PENGO Part—Description	Approx. Wt. Lbs.	DANUSER Part No.
6	#35 Wisdom Tooth	6 oz.	7674
7	#5T30 Super Tooth	6 oz.	7764

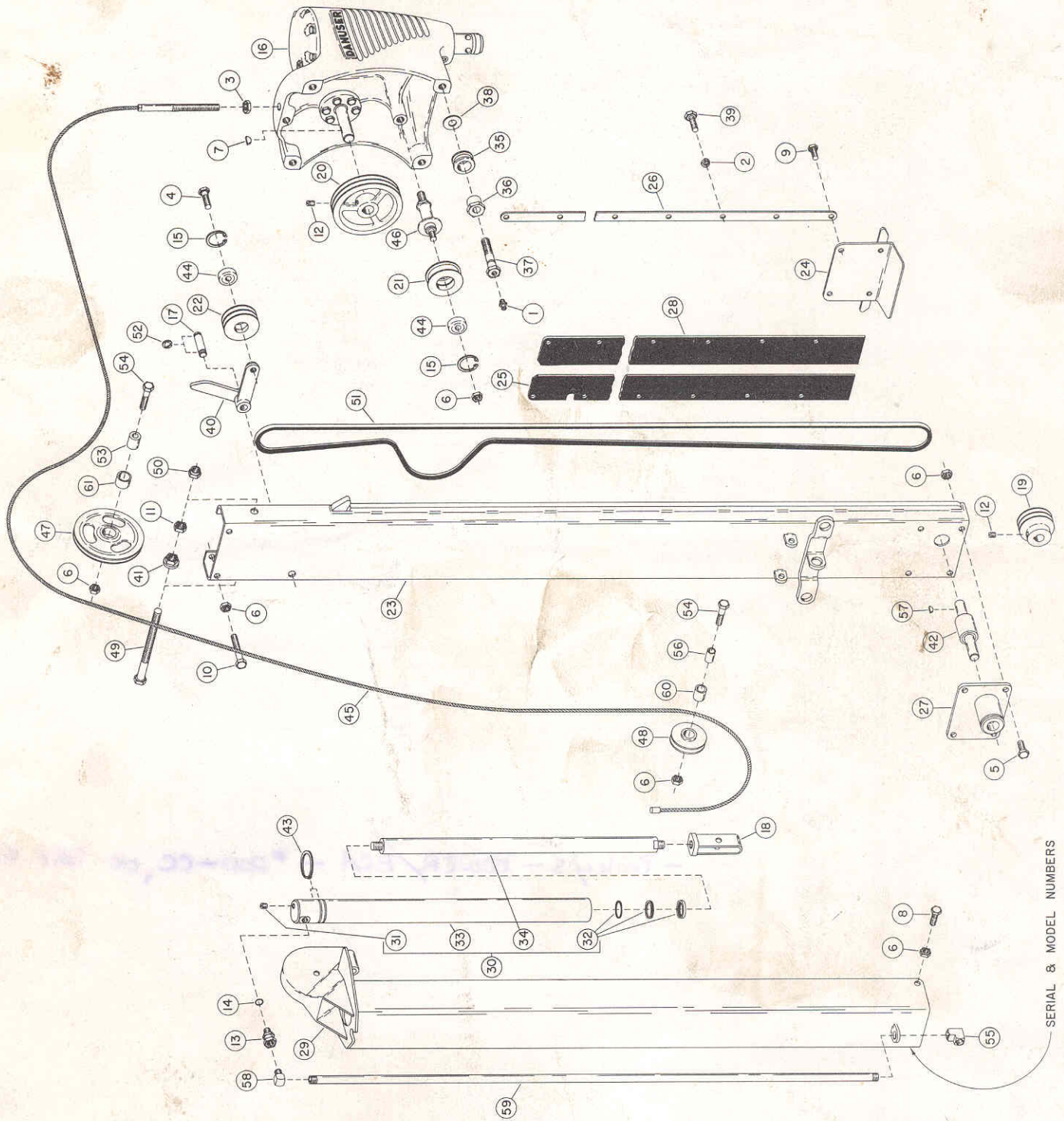
RUBBER LOCK

HOW RUBBER LOCK WORKS

Cut Rubber Lock equal in length to the overall width of each tooth. Insert through the hole in the auger shank or trencher tooth holder as shown. The tooth is then slipped on and a rap with a soft, heavy hammer drives the tooth home. This compresses the rubber between the edges of the holder and the inside of the "U" in the tooth, locking it on to stay. The thrust of the tooth is against the steel shoulder of the tooth holder; the Rubber Lock holds it on. It is not necessary to replace the PENGO Rubber Lock with each tooth change. The same length of Rubber Lock may be used for as many as ten teeth changes before a new length is required.



DANUSER COMPACT DIGGER MODEL CD-1 GENERAL ARRANGEMENT

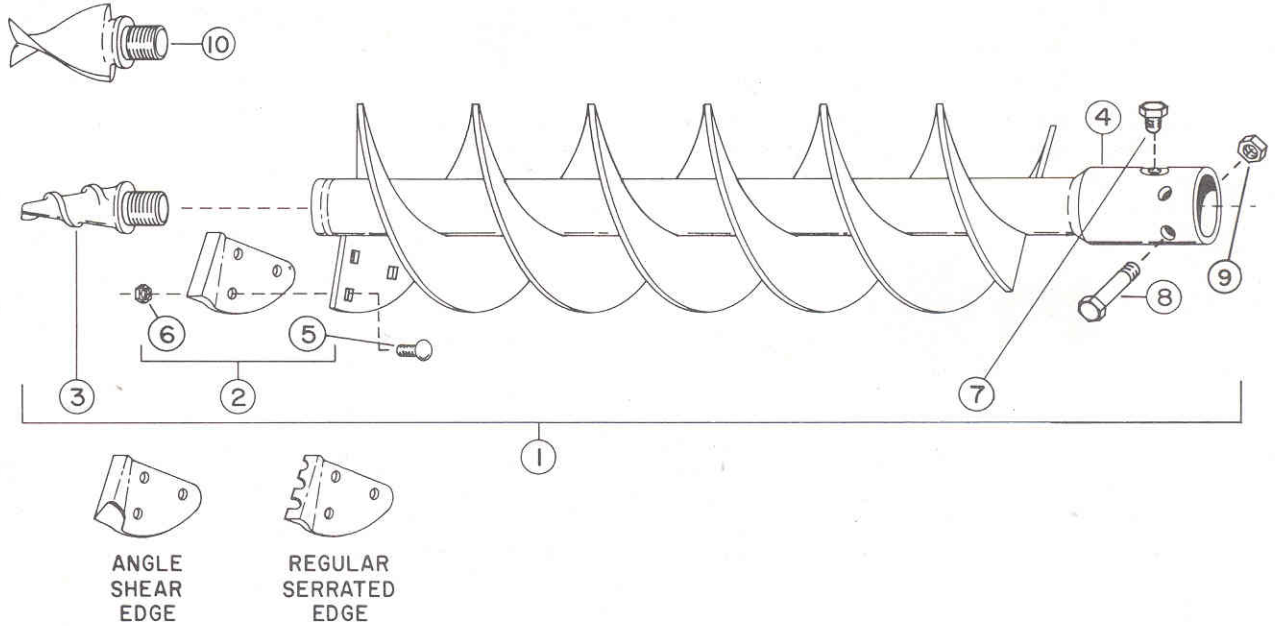


SERIAL & MODEL NUMBERS

DANUSER COMPACT DIGGER

AUGER ASSEMBLIES AND PARTS LIST

Auger sizes (2 through 14 inch diameters) as listed below may be selected for use with the DANUSER COMPACT DIGGER.



Augers have replaceable, hardened points. The right hand thread feature (opposite Auger rotation) assures positive mounting. Note: The 2" Auger has point welded to Auger.

Replaceable Cutting Edges are available in the sizes and styles listed below and are packaged in sets complete with Bolts. Note: The 4" and 6" Augers have Edges welded to Augers.

Key	PART NUMBER—AUGER SIZE							DESCRIPTION	No. Req.
	2"	4"	6"	9"	10"	12"	14"		
1	8870	8324	8116	8115	8119	8327	8113	Compact Auger with Plain Edges & Std. Point	1
1				8337	8338	8339	8340	Compact Auger with Serrated Edges	1
1			8884	8885	8886	8887	8888	Compact Auger with Pengo LDOBH Boring Head	1
2		7782	7783					Cutting Edges, Plain (Weld On)	1 Set
2				7784	7788	7790	7792	Cutting Edges, Plain (With Bolts)	1 Set
2				7786				Cutting Edges, Plain Angle Shear (With Bolts)	1 Set
2				7785	7789	7791	7793	Cutting Edges, Serrated (With Bolts)	1 Set
2				7787				Cutting Edges, Serrated Angle Shear (With Bolts)	1 Set
3	8882	899	831	831	831	831	831	Auger Point, Standard	1
4	8109	8109	8109	8109	8109	8109	8109	Auger Adapter Replacement (For Field Welding)	1
5				784	784	784	784	Bolt, Cutting Edge (3/8-16 x 1 Carriage)	As Req.
6				785	785	785	785	Nut, Cutting Edge (3/8-16 Hex)	As Req.
7	7676	7676	7676	7676	7676	7676	7676	Bolt, Retaining (Special)	1
8	8093	8093	8093	8093	8093	8093	8093	Bolt, Shear (3/8-16 x 3 1/8) Standard	1
8	8846	8846	8846	8846	8846	8846	8846	Bolt, Shear (3/8-16 x 3 1/8) HIGH STRENGTH	1
9	8128	8128	8128	8128	8128	8128	8128	Nut, Shear (3/8-16 Hex)	1
10			1937	1937	1937	1937	1937	Auger Point Special Duty	1

IMPORTANT: When ordering parts please furnish PART NUMBER, and DESCRIPTION.

SPECIAL AUGERS, EDGES AND POINT

The Angle Shear Edge in both plain and serrated styles was developed for use on the 9" Auger only to aid in drilling soils infused with small roots, such as is encountered around wooded areas. Serrated Cutting Edges and Special Duty Auger Point are designed to aid penetration in tough drilling conditions. 6 and 9 inch diameter Augers for ice drilling available on special order.

**DANUSER COMPACT DIGGER
MODEL CD-1
GENERAL ARRANGEMENT**

FIG. NO.	PART NO.	DESCRIPTION	NO. Req.
1	280	Fitting	4
2	1047	Lockwasher (1/4)	24
3	1056	Nut (1/2 - 13)	2
4	8881	Bolt (Special)	1
5	2063	Bolt (3/8 - 16 x 1)	4
6	2168	Nut (3/8 - 16)	12
7	2226	Key (Woodruff 3/16 x 7/8)	1
8	2339	Bolt (3/8 - 16 x 7/8)	2
9	2550	Bolt (1/4 - 20 x 5/8)	4
10	7086	Bolt (3/8 - 16 x 3 1/4)	2
11	7739	Nut (1/2 - 13 Jam)	1
12	7821	Set Screw (Special)	4
13	7873	Union	1
14	7874	"O" Ring (11/32 x 1/2)	1
15	7919	Snap Ring	3
16	7920	Auger Gear Drive—See Auger Gear Drive Page	1
17	7923	Pin	1
18	7924	Clevis	1
19	7925	Sheave	1
20	7926	Sheave	1
21	7927	Sheave	2
22	7928	Sheave	1
23	8043	Channel Assembly	1
24	8045	Guard Assembly	1
25	8868	Guard R.H.	1
26	8853	Clamp	2
27	8050	Trunnion Assembly	1
28	8867	Guard L.H.	1
29	8056	Mount Assembly	1
30	8057	Cylinder Assembly Consists of the following:	1
31	2452	Plug	1
32	8544	Seal Kit	1
33	8600	Tube	1
34	8602	Rod	1
35	8058	Roller	4
36	8059	Bushing	4
37	8060	Bolt (Special)	4
38	8061	Washer (Special)	4
39	8852	Bolt (1/4 - 20 x 3/4)	24
40	8067	Arm Assembly	1
41	8068	Nut (Special)	1
42	8069	Jackshaft	1
43	8070	Snap Ring	2
44	8071	Bearing — <i>Bailey's - BOWER/BCA - #200-2CC, or SKF G2002RS</i>	1
45	8077	Cable	1
46	8078	Stud Assembly	2
47	8085	Sheave (Includes 1 No. 8597 Bushing)	1
48	8086	Sheave (Includes 1 No. 8596 Bushing)	1
49	8094	Bolt (1/2 - 13 x 8 1/2)	1
50	8095	Nut (Special)	1
51	8096	Belt Set	1
52	8097	Snap Ring	2
53	8098	Spacer	1
54	8099	Bolt (3/8 - 16 x 1 1/2)	2
55	8101	Elbow	1
56	8102	Spacer	1
57	8103	Key (Woodruff 3/16 x 3/4)	1
58	8104	Elbow	1
59	8105	Pipe	1
60	8596	Bushing	1
61	8597	Bushing	1

IMPORTANT: When ordering parts please furnish DIGGER MODEL NUMBER, SERIAL NUMBER, FIGURE NUMBER, PART NUMBER and DESCRIPTION.



Danuser Fulton, MO 573-642-2246

CD-1 1966-77 189 were built, Last SN was 1290

CD-2 1972-76 4 were built

0
72053 26732 7
3V1250

0095-0140



9332-1250

3V1250
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Tensioned at:
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SUPER HC[®] V-BELT
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PowerRated[®]

Stronger-than-steel reinforcement.
For mowers, tractors, snow blowers
and appliances.

Refuerzo más fuerte que el acero.
Para cortacéspedes, tractores, máquinas
sopladoras de nieve y aparatos.

Plus robuste que l'armature d'acier.
Pour tondeuses, tracteurs,
souffleuses et appareils.

Gates

6723

Belt/Banda/Courroie

6723

3/8" x 23"
9 mm x 585 mm



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Stronger-than-steel reinforcement.
For mowers, tractors, snow blowers
and appliances.

Refuerzo más fuerte que el acero.
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sopladoras de nieve y aparatos.

Plus robuste que l'armature d'acier.
Pour tondeuses, tracteurs,
souffleuses et appareils.

Gates

6835

Belt/Banda/Courroie

6835

1/2" x 35"
12.5/13 mm x 890 mm

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English



Reply - Reply All - Forward - View Source - Previous - Next - Message: 2 / 2

From: **Jerry Danuser** <jdanuser@ktis.net>
To: <oldcape@metrocast.net>
Subject: **CD1**
Date: Wed, 4 Oct 2006 11:40:34 -0500

View as HTML

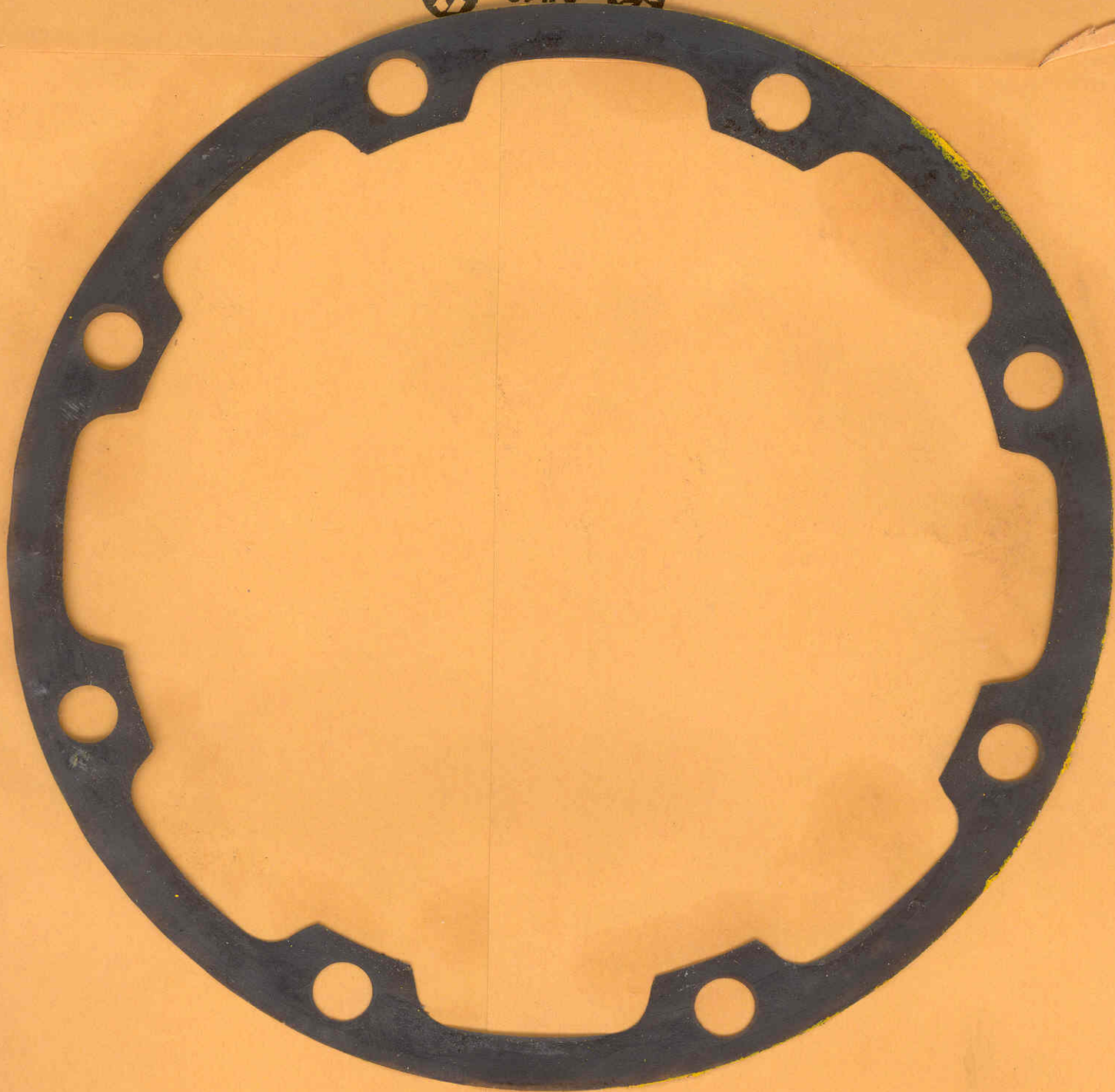
DMC Part # 7917 was a Oil Seal 1-3/4 O.D. x 1-1/8 I.D. x 3/8 Wide, GARLOCK NO. 63X353
DMC Part # 7918 was a Oil Seal 2-7/8 O.D. x 2-1/8 I.D. x 3/8 Thick, GARLOCK NO. 63X1321
Honestly, I don't even know if Garlock even exists today but that was the company name.
DMC Part # 7902 was .007 thick
DMC Part # 7902 was .005 thick
There are NO parts that show up in inventory.
The gearbox I was speaking of is in another location which I'll check later for you.
Jerry



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Garlock Distributors
Applied industrial Tech 623-8897
Manchester, NH
or
Motion industries 641-5649
Manchester

9X12



DANUSER COMPACT AUGERS—PARTS LIST
PENGO LIGHT DUTY BORING HEAD

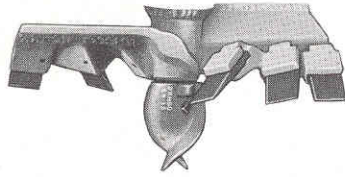
PENGO LDOBH SERIES LIGHT DUTY BORING HEADS

(FOR FIELD WELDING TO AUGER)

PENGO LDOBH Heads use #35 reversible Wisdom Teeth, and the 5T30 Super Tooth, which are installed with Rubber Lock. The head is also equipped with the SB-35 Screw Bit.

For single-helix augers, the PENGO head is made with an offset or "high" side for welding to the flight. This leaves greater clearance between the flight and the "low," or free, side of the head for easy passage of rocks, etc.

For twin-helix augers, the procedure is to burn off the offset extension so that both sides are at the same level. Flight edges are then welded to both sides of the head.



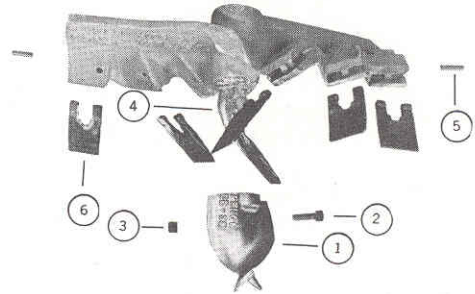
LDOBH-14

Your Auger Diameter		PENGO Catalog No.	Approx. Wt.		DANUSER Part No.
in.	mm		lbs.	kg.	
6-7	152-178	LDOBH-6 & 7	10	4.5	8176
9	229	LDOBH-9	14	6.4	7814
10-11	254-279	LDOBH-10 & 11	13½	6.1	7815
12-13	305-330	LDOBH-12 & 13	15	6.8	7816
14-15	356-381	LDOBH-14 & 15	17½	8.0	7817

ORDERING INFORMATION—Please specify diameter of auger when ordering.

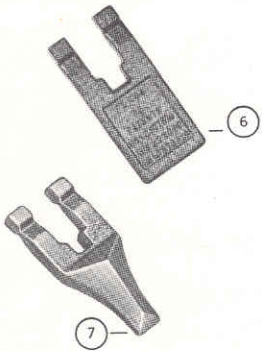
LDOBH BORING HEAD PARTS

Key	PENGO Part-Description	Approx. Wt. Lbs.	DANUSER Part No.
1	SB-35 Pilot Bit	1½	7763
2	Pilot Bit Bolt (5/16-24x1¼)	1 oz.	2173
3	Pilot Bit Nut (5/16-24)		2093
4	141-M Drivlug	14 oz.	8191
5	Rubber lock (2" length)		7736



PENGO TEETH

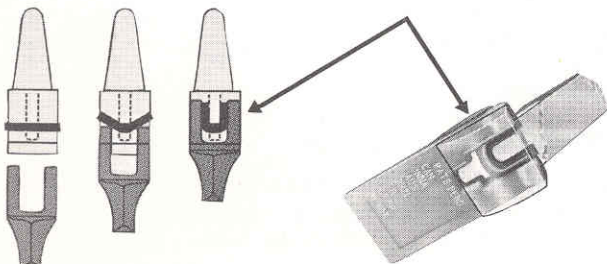
The PENGO Teeth are of forged alloy steel. The #35 Tooth is reversible; after one side is worn out, turn the tooth over. The 5T30 Tooth is designed for digging in exceptionally hard materials, and for faster, smoother digging in all materials.



Key	PENGO Part—Description	Approx. Wt. Lbs.	DANUSER Part No.
6	#35 Wisdom Tooth	6 oz.	7674
7	#5T30 Super Tooth	6 oz.	7764

RUBBER LOCK

HOW RUBBER LOCK WORKS



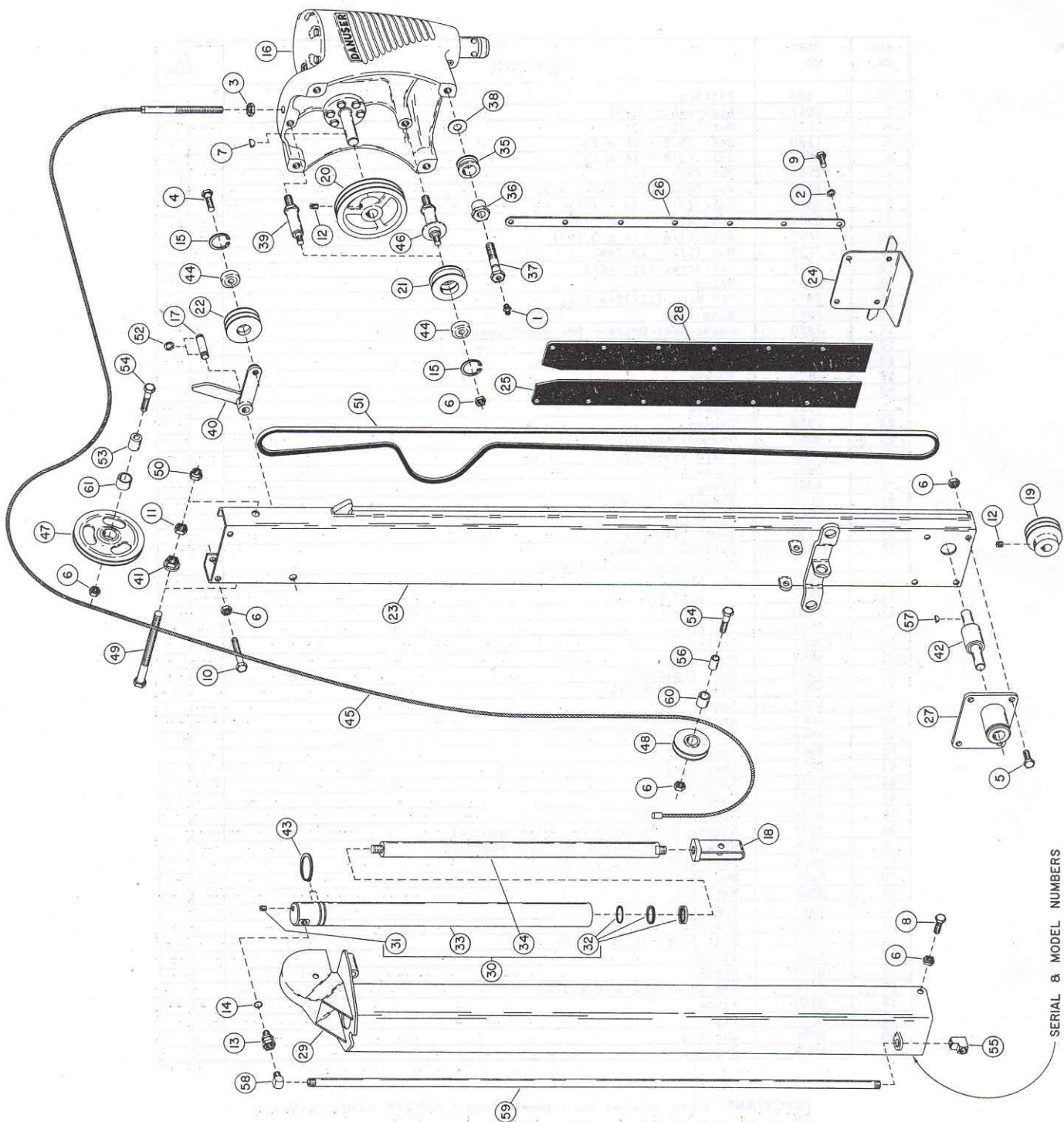
Cut Rubber Lock equal in length to the overall width of each tooth. Insert through the hole in the auger shank or trencher tooth holder as shown. The tooth is then slipped on and a rap with a soft, heavy hammer drives the tooth home. This compresses the rubber between the edges of the holder and the inside of the "U" in the tooth, locking it on to stay. The thrust of the tooth is against the steel shoulder of the tooth holder; the Rubber Lock holds it on. It is not necessary to replace the PENGO Rubber Lock with each tooth change. The same length of Rubber Lock may be used for as many as ten teeth changes before a new length is required.

**DANUSER COMPACT DIGGER
MODEL CD-1
GENERAL ARRANGEMENT**

FIG. NO.	PART NO.	DESCRIPTION	NO. REQ.
1	280	Fitting	4
2	1047	Lockwasher (1/4)	16
3	1056	Nut (1/2 - 13)	2
4	1180	Bolt (3/8 - 16 x 2)	1
5	2063	Bolt (3/8 - 16 x 1)	4
6	2168	Nut (3/8 - 16)	12
7	2226	Key (Woodruff 3/16 x 7/8)	1
8	2339	Bolt (3/8 - 16 x 7/8)	2
9	2550	Bolt (1/4 - 20 x 5/8)	16
10	7086	Bolt (3/8 - 16 x 3 1/4)	2
11	7739	Nut (1/2 - 13 Jam)	1
12	7821	Set Screw (Special)	4
13	7873	Union	1
14	7874	"O" Ring (11/32 x 1/2)	1
15	7919	Snap Ring	3
16	7920	Auger Gear Drive - See Auger Gear Drive Page	1
17	7923	Pin	1
18	7924	Clevis	1
19	7925	Sheave	1
20	7926	Sheave	1
21	7927	Sheave	2
22	7928	Sheave	1
23	8043	Channel Assembly	1
24	8045	Guard Assembly	1
25	8046	Guard R.H.	1
26	8047	Clamp	2
27	8050	Trunnion Assembly	1
28	8052	Guard L.H.	1
29	8056	Mount Assembly	1
30	8057	Cylinder Assembly Consists of the following:	1
31	2452	Plug	1
32	8544	Seal Kit	1
33	8600	Tube	1
34	8602	Rod	1
35	8058	Roller	4
36	8059	Bushing	4
37	8060	Bolt (Special)	4
38	8061	Washer (Special)	4
39	8062	Stud	1
40	8067	Arm Assembly	1
41	8068	Nut (Special)	1
42	8069	Jackshaft	1
43	8070	Snap Ring	2
44	8071	Bearing	3
45	8077	Cable	1
46	8078	Stud Assembly	1
47	8085	Sheave (Includes 1 No. 8597 Bushing)	1
48	8086	Sheave (Includes 1 No. 8596 Bushing)	1
49	8094	Bolt (1/2 - 13 x 8 1/2)	1
50	8095	Nut (Special)	1
51	8096	Belt Set	1
52	8097	Snap Ring	2
53	8098	Spacer	1
54	8099	Bolt (3/8 - 16 x 1 1/2)	2
55	8101	Elbow	1
56	8102	Spacer	1
57	8103	Key (Woodruff 3/16 x 3/4)	1
58	8104	Elbow	1
59	8105	Pipe	1
60	8596	Bushing	1
61	8597	Bushing	1

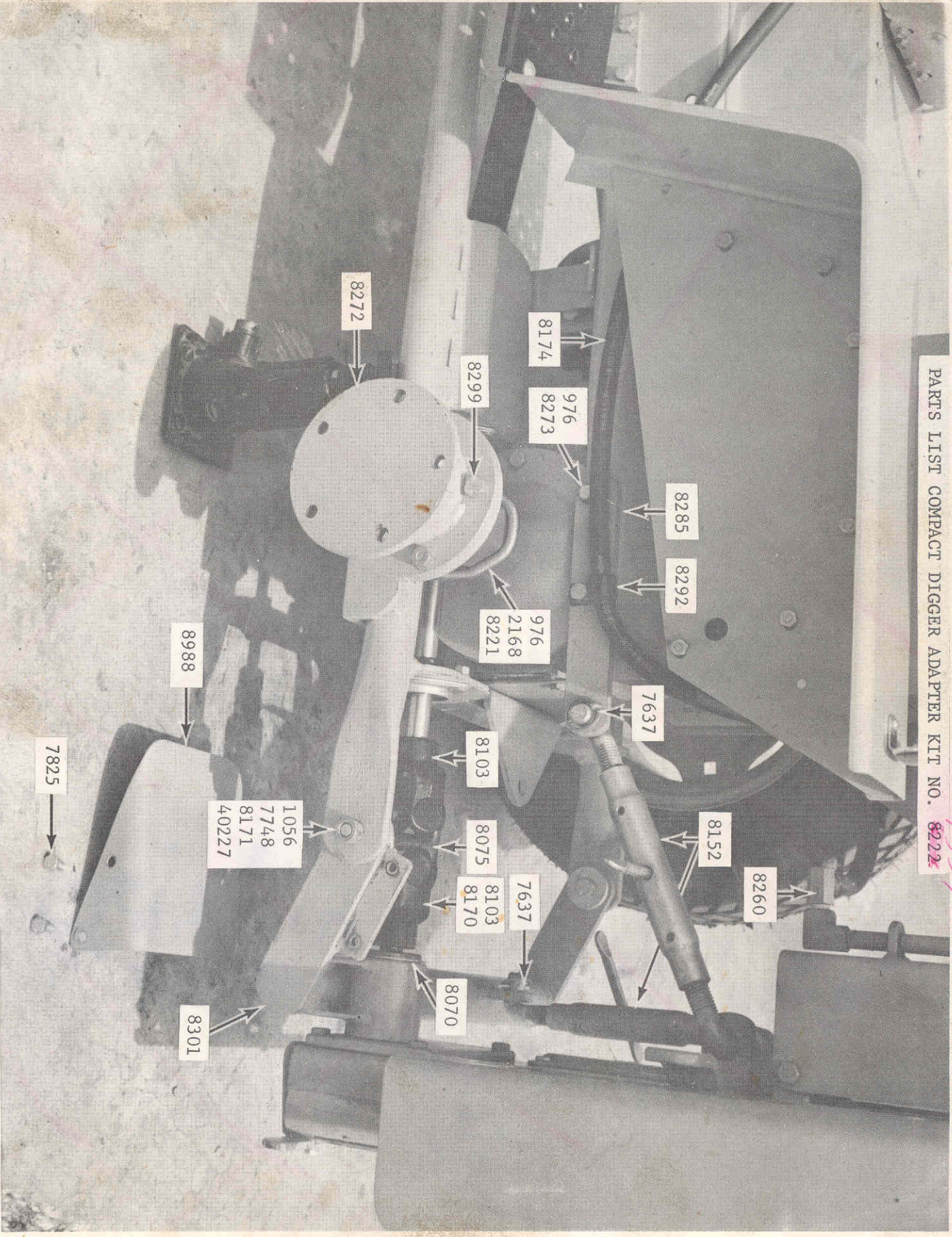
IMPORTANT: When ordering parts please furnish DIGGER MODEL NUMBER, SERIAL NUMBER, FIGURE NUMBER, PART NUMBER and DESCRIPTION.

**DANUSER COMPACT DIGGER
MODEL CD-1
GENERAL ARRANGEMENT**



SERIAL & MODEL NUMBERS

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222



Form No. 2051
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

Form No. 1914
Littho in U.S.A.

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222



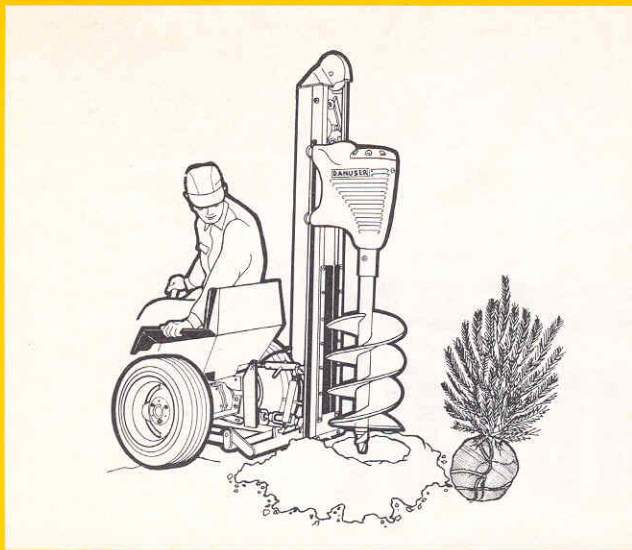
DANUSER MACHINE COMPANY
Fulton, Missouri

DANUSER[®] compact DIGGER

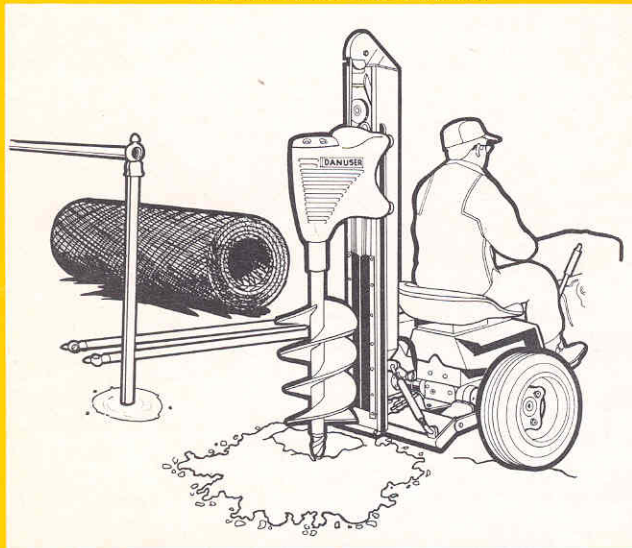


A commercial and light industrial hole digger quality engineered and built by the world's largest manufacturer of earth drilling equipment for use with the INTERNATIONAL CUB CADET tractors. As an owner or contractor it's designed to increase your profits. The Danuser Compact Digger is job rated for every requirement.

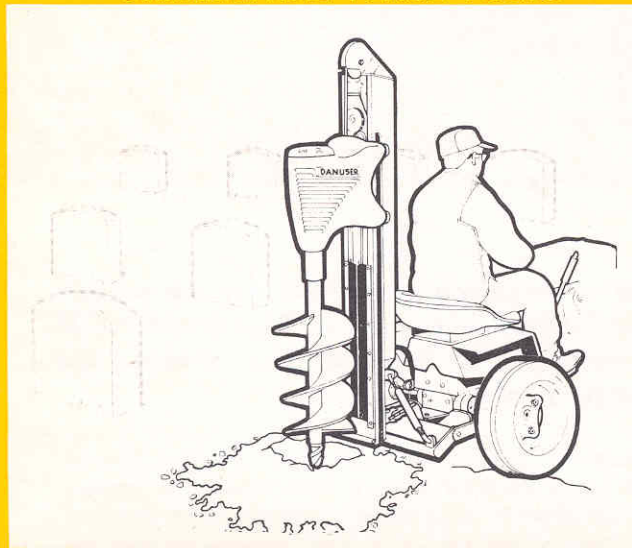
This compact unit meets the needs of industrial fencers, landscapers, nurserymen, park and cemetery boards for hole drilling in confined areas not accessible to the large tractor mounted diggers. With its ease of maneuvering among trees, between shrubbery, and over other landscaped plots, it is ideal for digging holes for seedling setting, tree feeding, ornamental fence posts and piers for cemetery markers. All controls are accessible to the operator from the tractor seat. You can start and stop the auger, raise and lower the digger with its self-contained hydraulic system. Holes from 2 through 14 inches in diameter and up to 30 inches deep are possible with the Danuser Compact Digger.



• SEEDLING SETTING



• ORNAMENTAL FENCE POSTS



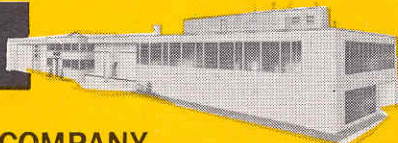
• PIERS FOR CEMETERY MARKERS

DANUSER®

QUALITY SINCE 1910

DANUSER MACHINE COMPANY

500 E. 3rd Street, Fulton, Missouri



DANUSER[®] compact DIGGER

dig holes sitting down
QUICKER
EASIER
AT LESS COST

LOOK AT THESE FEATURES

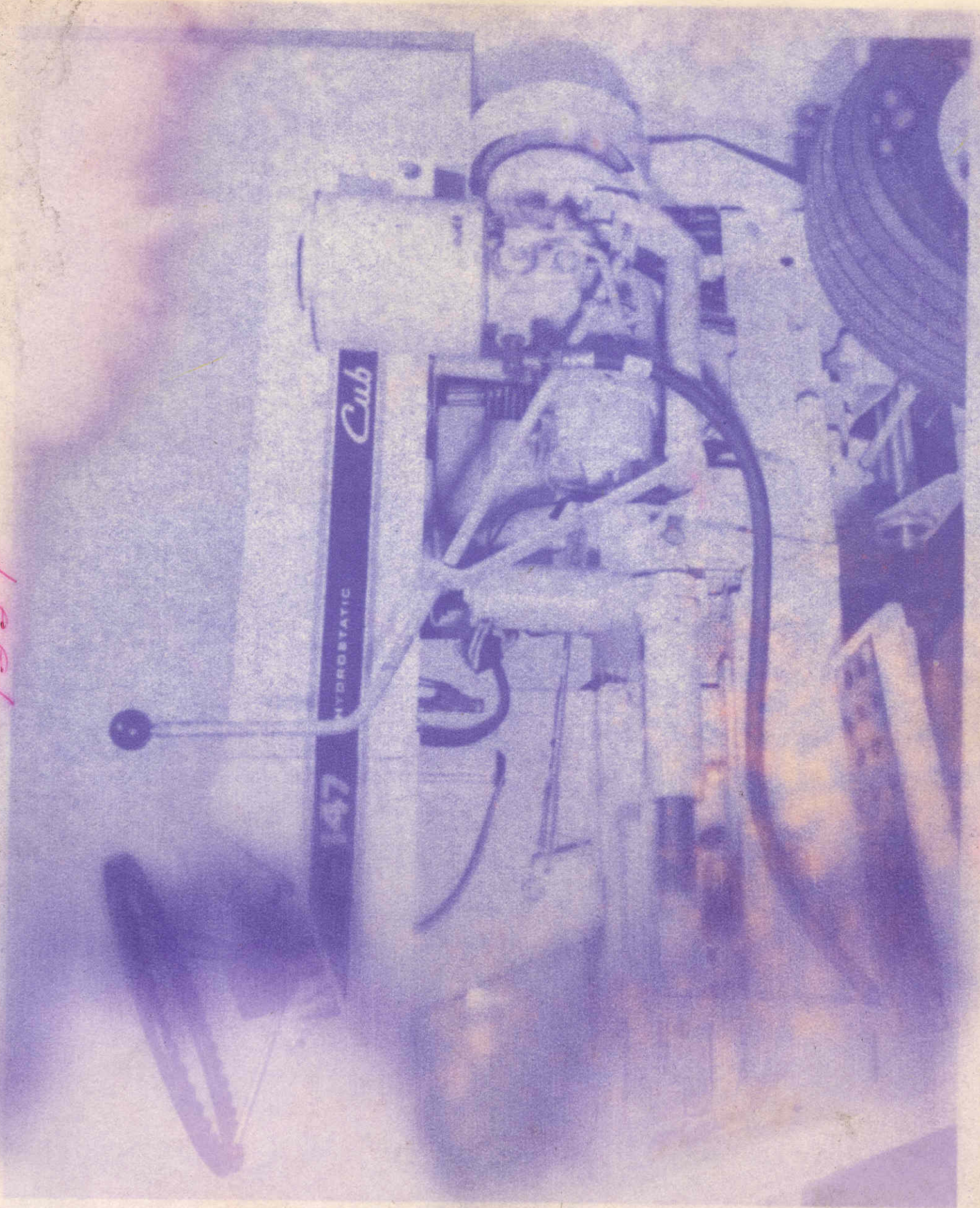
CONSTRUCTION: Heavy fabricated steel guide channel enclosing double V-belt drive between jackshaft and reduction gear drive. Oil tight cast aluminum gear box with Spiroid gears mounted on tapered roller bearings. Self-contained hydraulic system with 1500 psi - 2 ¼ g.p.m. pump, reservoir and valve. Rigid tubular and plate sub-frame supports U-joint driveshaft. Fabricated steel counterweight box can be filled with dirt or sand for added stability. Gear drive protected by shear bolt attaching auger to spindle. A special retaining bolt prevents the auger from falling off should the shear bolt release.

LUBRICATION: Enclosed Spiroid gears and over-size tapered roller bearings running in oil. Standard grease gun fittings at other points of lubrication.

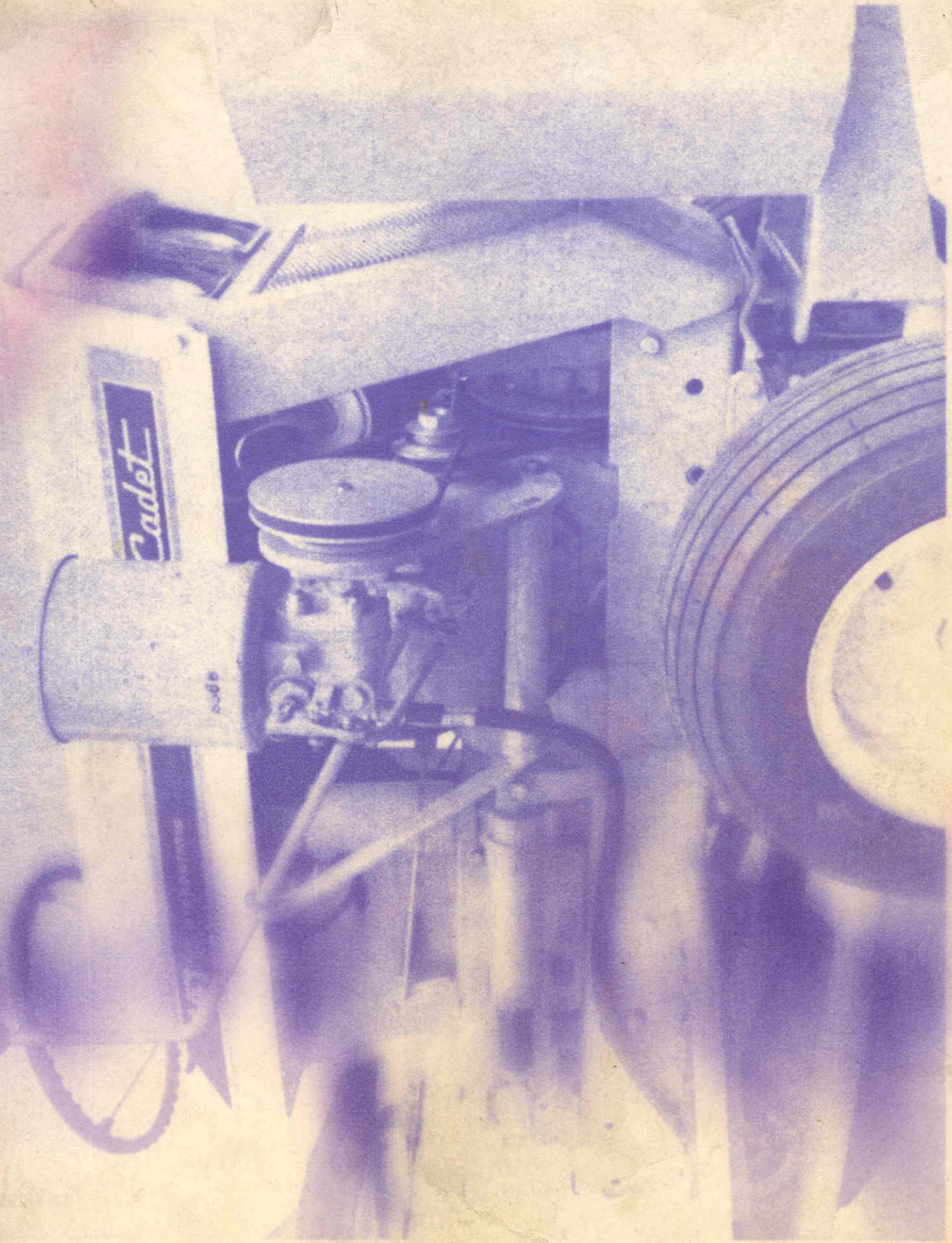
AUGER SIZES: 2, 4, 6, 9, 10, 12, and 14 inch diameter augers for drilling 30 inches deep. Augers have replaceable, hardened cutting edges and auger point is forged from alloy steel and heat treated for long wear. Special point and serrated cutting edges may be used for drilling in hard ground or shale, also special industrial augers in 6, 9, 10, 12, and 14 inch diameters with Pengo boring heads. Six and 9 inch diameter augers for ice drilling available on special order.

WEIGHT: Less Auger — 417 lbs.

#9357



9357



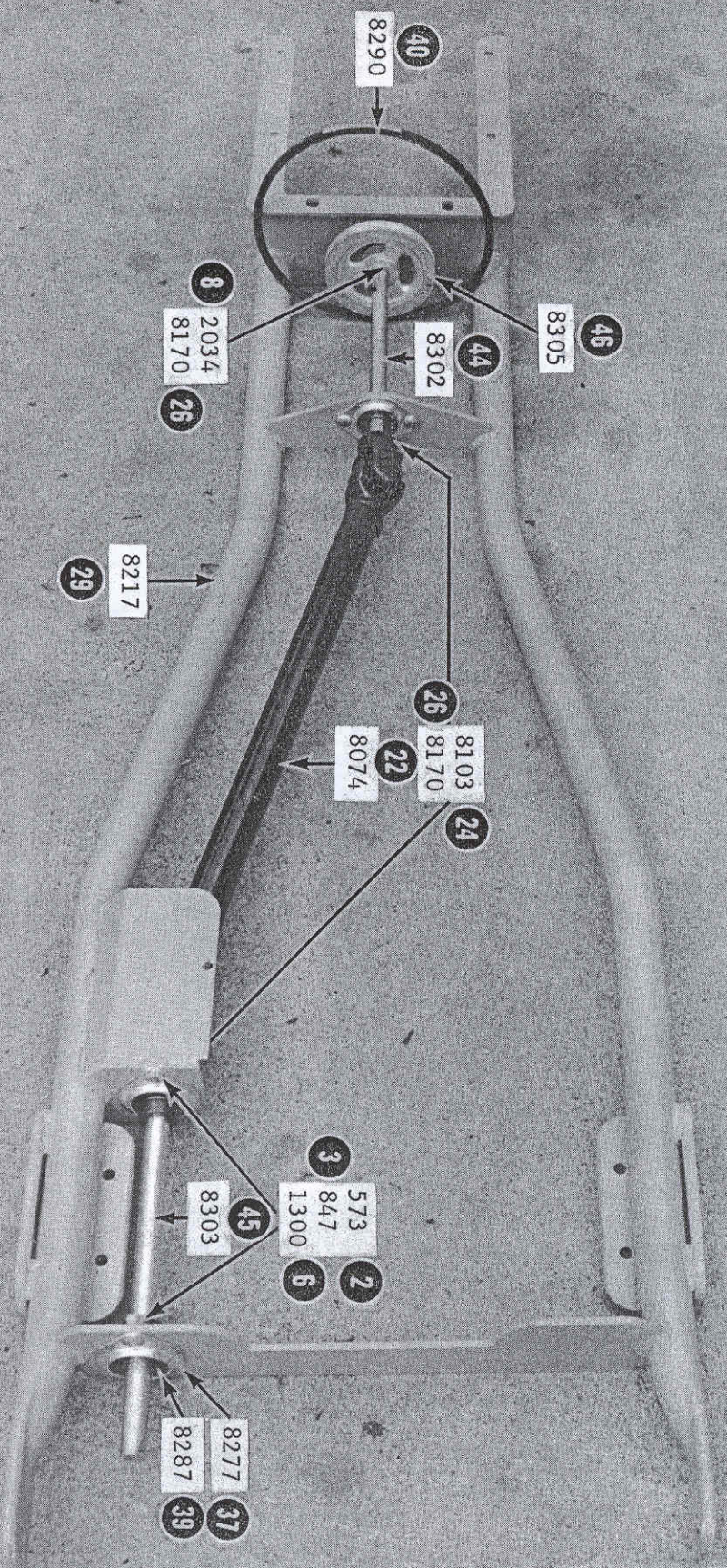
PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 9357

FIG. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	480	Cotter (3/32 x 3/4)	4
2	573	Nut (5/16 - 18)	14
3	847	Lockwasher (5/16)	10
4	976	Lockwasher (3/8)	13
5	1056	Nut (1/2 - 13)	6
6	1300	Bolt (5/16 - 18 x 3/4)	8
7	1309	Cotter (3/32 x 1/2)	1
8	2034	Key (3/16 Sq. x 1)	1
9	2064	Bolt (3/8 - 16 x 3/4)	2
10	2104	Washer (1/2)	4
11	2168	Nut (3/8 - 16)	11
12	2178	Washer (3/8)	4
13	2335	Bolt (5/16 - 18 x 3/4)	2
14	2339	Bolt (3/8 - 16 x 7/8)	4
15	2483	Set Screw (1/4 - 20 x 1/2)	1
16	2786	Bolt (5/16 - 18 x 1)	2
17	2787	Bolt (5/16 - 18 x 1 1/4)	2
18	7637	Klik-Pin (3/16)	4
19	7748	Bolt (1/2 - 13 x 1 1/2)	2
20	7825	Bolt (5/16 - 18 x 1/2)	2
21	8070	Snap Ring	1
22	8074	"U" Joint Assembly (Includes the following):	1
	8296	Repair Kit (Includes Center Cross, Bearings, Seals, Snap Rings and Grease Fittings)	2
	8297	Yoke	2
	8998	Tube	1
23	8075	Double "U" Joint Assembly (Includes the following):	1
	8295	Double Center	1
	8296	Repair Kit (Includes Center Cross, Bearings, Seals, Snap Rings and Grease Fittings)	2
	8297	Yoke	2
24	8103	Key (Woodruff 3/16 x 3/4)	4
25	8152	Pitch Link (Each includes the following):	2
	8145	Left Hand Screw	1
	8146	Right Hand Screw	1
	8151	Tube	1
	8165	Roll Pin (3/16 x 3/4)	2
26	8170	Set Screw (3/8 - 16 x 1/2)	5
27	8171	Bushing	2
28	8173	Elbow Union (9/16 - 18)	1
29	8217	Subframe	1
30	8220	Mounting Bracket	1
31	8221	"U" Bolt	2
32	8227	Weight Box	1
33	8241	Pin (3/16 x 1 1/4)	1
34	8260	Elbow Union (1/4 NPTF)	1
35	8272	Extension	2
36	8273	Bolt (3/8 - 16 x 1 3/4)	4
37	8277	Flange	8

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 9357

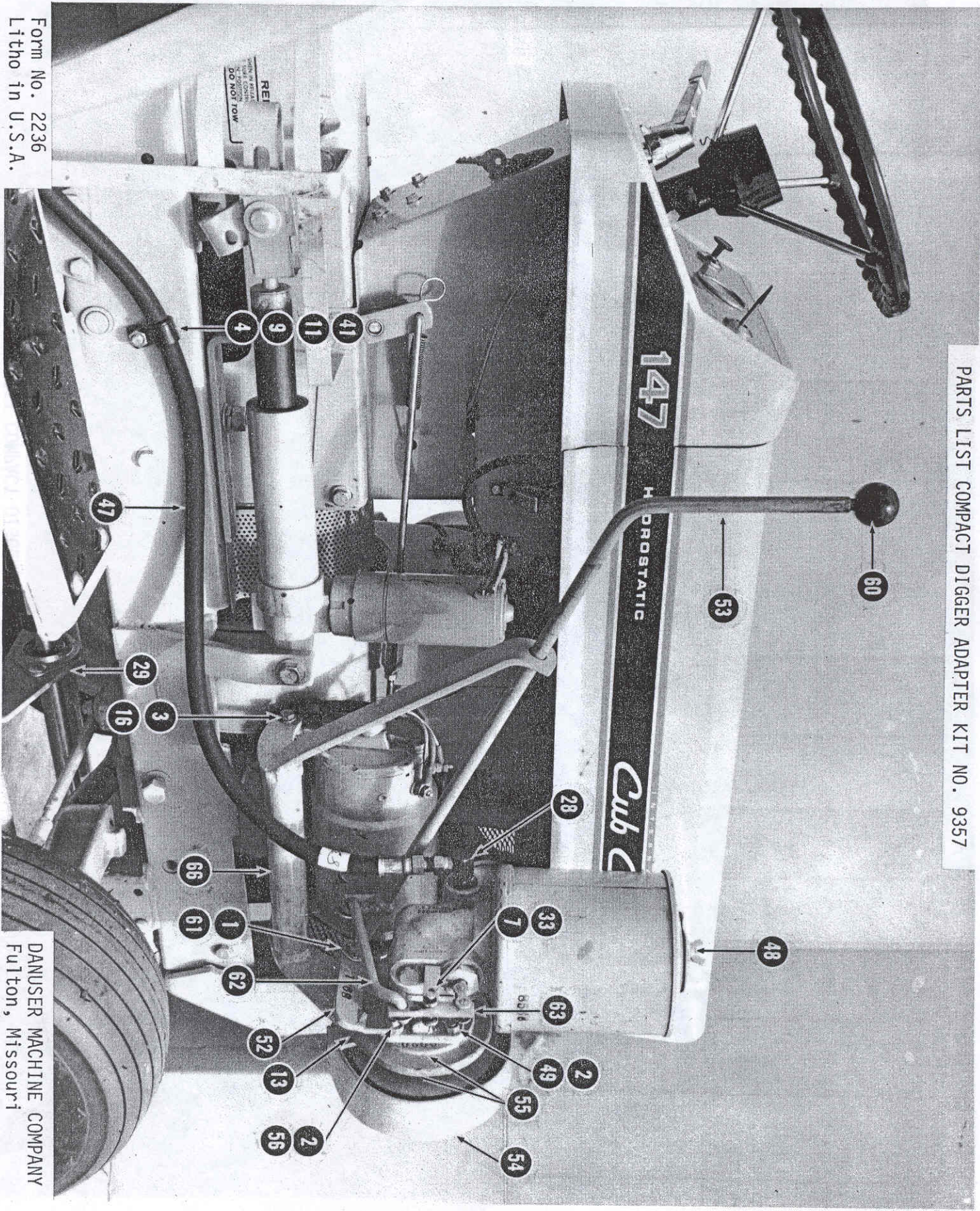
FIG. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
38	8285	Pitch Link Bar	1
39	8287	Bearing Assembly	4
40	8290	Belt	1
41	8292	Hose Clamp (3/8)	2
42	8299	Bolt (7/16 - 20 x 1)	10
43	8301	Mounting Bar	1
44	8302	Front Shaft	1
45	8303	Rear Shaft	1
46	8305	Sheave	1
47	8325	Hose (1/4 x 72)	1
48	8603	Pump (See Pump Assembly Page)	1
49	8860	Bolt (5/16 - 18 x 1 1/2)	2
50	8889	Sheave (5 3/16 O.D. x 7/16 bore - "3L")	1
51	8900	Generator Nut	1
52	8921	Bracket Assembly	1
53	8924	Control Lever	1
54	8929	Guard Assembly	1
55	8930	Clamp Ring	2
56	8940	Bolt (5/16 - 18 x 1 3/4)	2
57	8941	Belt ("3L" - 23 O.D.)	1
58	8988	Guard	1
59	40227	Washer (1/2)	2
60	40257	Knob	1
61	40288	Washer (1/2)	2
62	9431	Control Link	1
63	9432	Pump Lever	1
64	9433	Adjusting Link	1
65	9434	Generator Sheave	1
66	9436	Pump Bracket	1

PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 8222 and 9357



- 40 8290
- 46 8305
- 44 8302
- 8 2034
- 8170
- 26
- 29 8217
- 26 8103
- 8170
- 22 8074
- 24
- 3 573
- 847
- 1300
- 2
- 6
- 45 8303
- 37 8277
- 39 8287

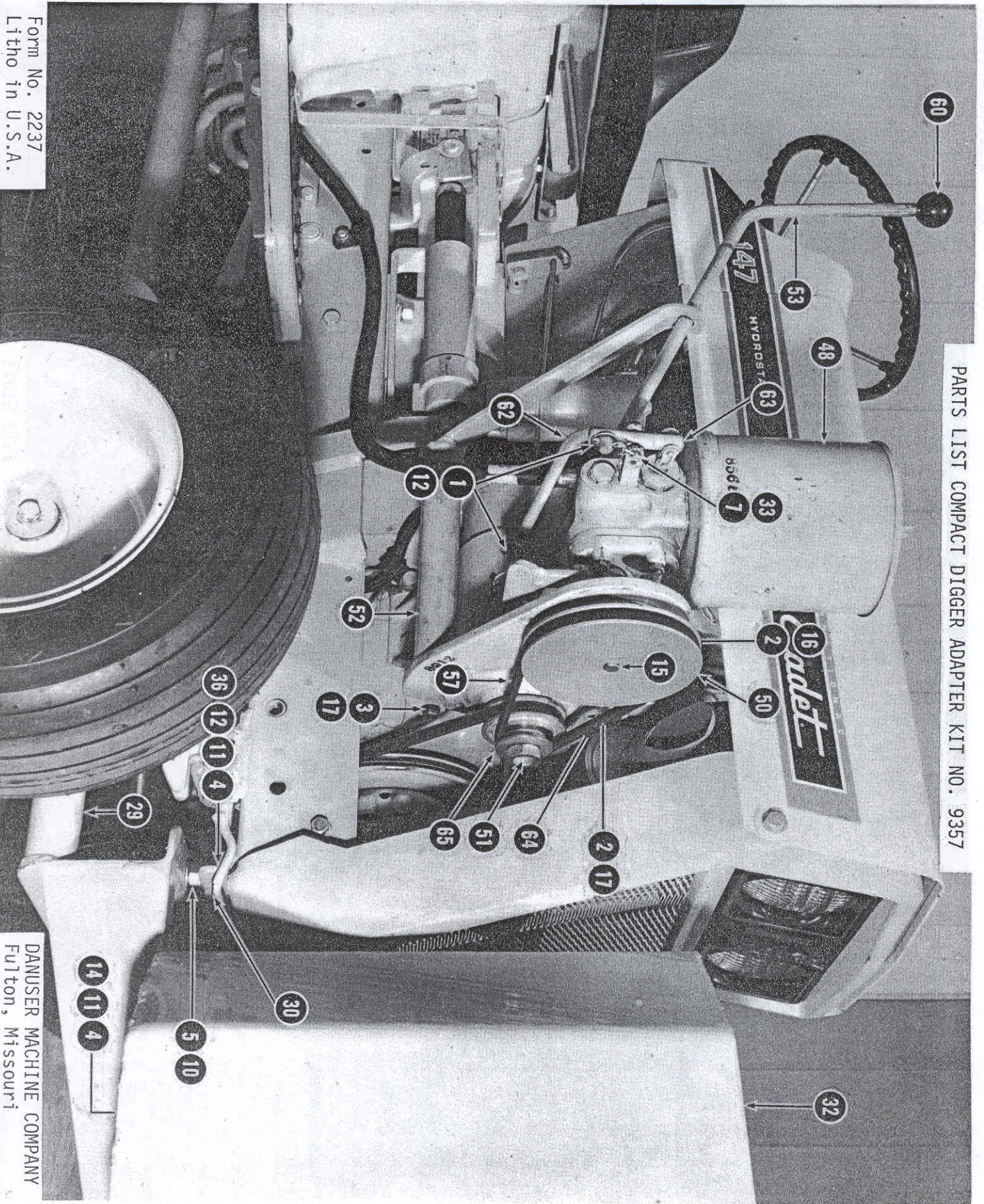
PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 9357



Form No. 2236
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

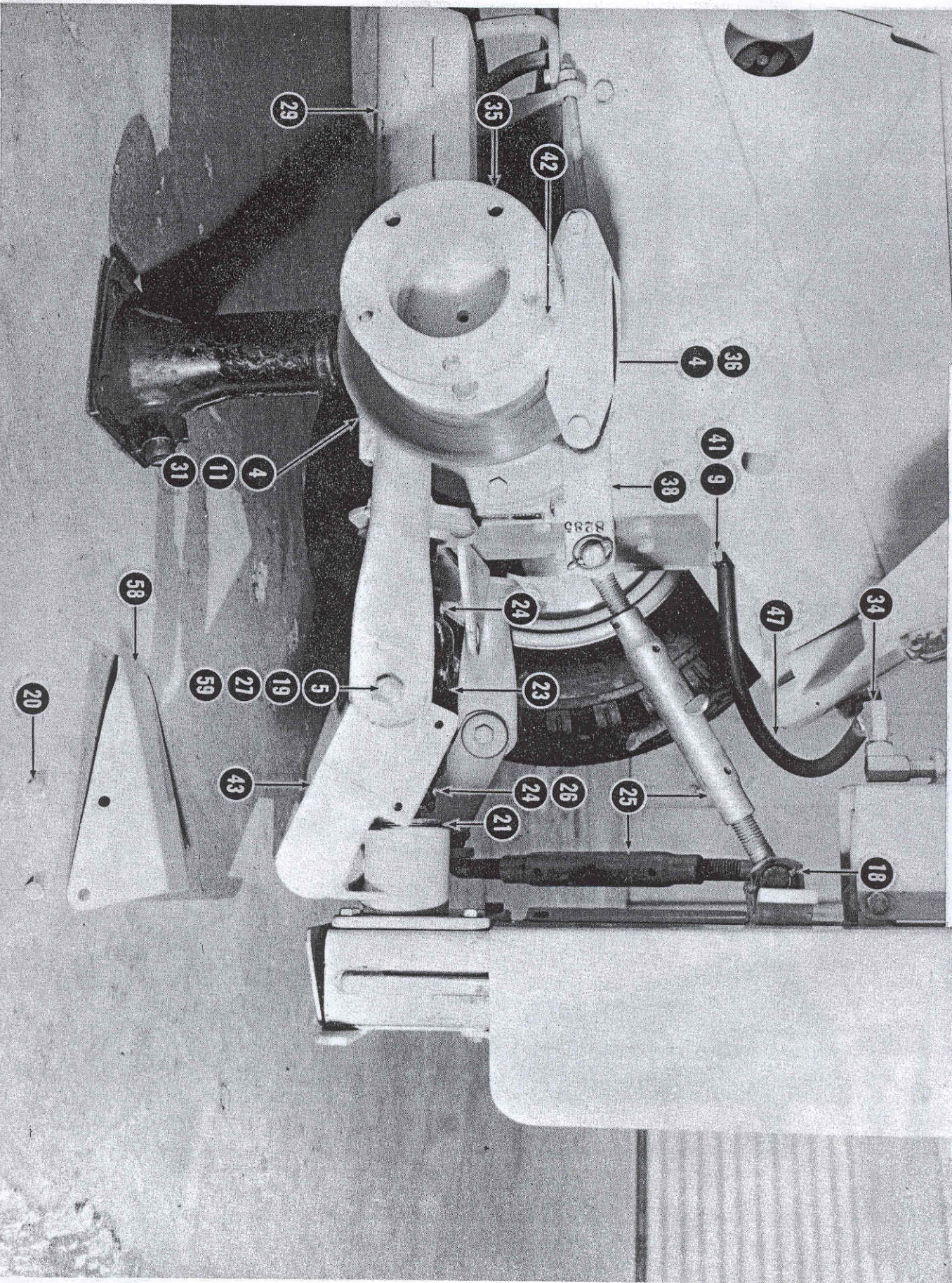
PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 9357



Form No. 2237
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

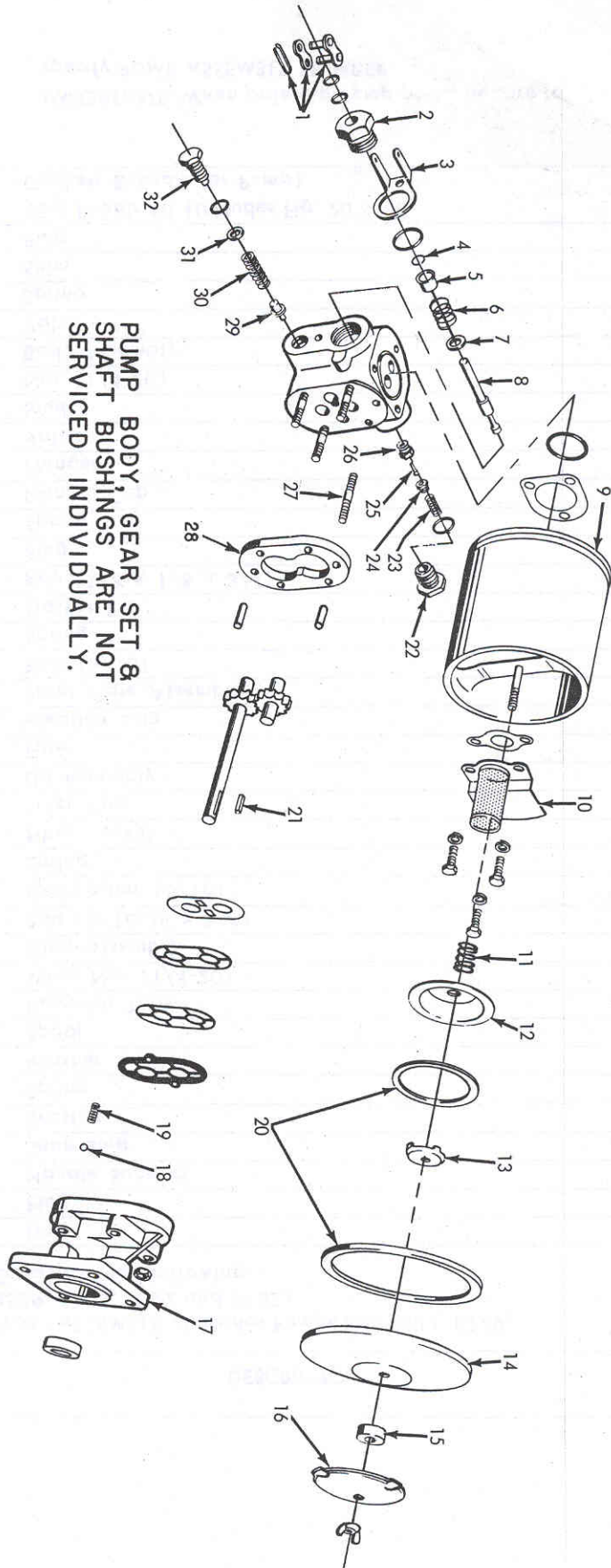
PARTS LIST COMPACT DIGGER ADAPTER KIT NO. 9357



Form No. 2238
Litho in U.S.A.

DANUSER MACHINE COMPANY
Fulton, Missouri

**DANUSER COMPACT DIGGER
MODEL CD-1
PUMP ASSEMBLY**



**PUMP BODY, GEAR SET &
SHAFT BUSHINGS ARE NOT
SERVICED INDIVIDUALLY.**

**IMPORTANT:
POSITION OF GEAR SET AND FRONT PLATE ASSEMBLY MAY VARY FROM THAT
SHOWN, BEFORE DISASSEMBLING PUMP, NOTE POSITION AND REASSEMBLE IN
SAME LOCATION.**

DANUSER COMPACT DIGGER**MODEL CD-1****PUMP ASSEMBLY**

FIG. NO.	PART NO.	DESCRIPTION	NO. REQ.
		PUMP ASSEMBLY (Includes Pumps No. 8084, 8249, 8529, 8568, 8592 and 8732) Consists of the following:	
1	8641	Link	1
2	8638	Plug	1
3	8637	Handle Support	1
4	8653	Snap Ring	1
5	8644	Washer	1
6	8645	Spring	1
7	8651	Washer	1
8	8636	Spool	1
9	8627	Reservoir Tank	1
	8654	Wing Nut (1/4-20)	1
10	8628	Filter Assembly	1
	2335	Bolt (5/16-18 x 3/4)	3
	847	Lockwasher (5/16)	3
11	8631	Spring	1
12	8633	Filter Pocket	1
13	8629	Filter Cap	1
14	8632	Lid Assembly	1
15	8630	Filter	1
16	8626	Breather Cap	1
17	8625	Front Plate Assembly	1
18	8649	Ball (3/16)	2
19	8624	Spring	2
20	8657	Gasket Kit	1
21	8655	Key (1/8 x 1/8 x 3/4)	1
22	8635	Plug	1
23	8623	Spring	1
24	8648	Plunger Cap	1
25	8647	Plunger	1
26	8646	Valve	1
27	8639	Stud	4
	8650	Nut (1/4-20)	4
28	8640	Body Assembly	1
29	8642	Valve	1
30	8643	Spring	1
31	8652	Shim	10
32	8634	Plug	1
	8656	Seal Repair Kit (Includes Fig. 20 & all Gaskets & Seals for Pump)	1

IMPORTANT: When ordering Pump parts, be sure to specify PUMP ASSEMBLY NUMBER.