OWNER/OPERATOR'S MANUAL & ILLUSTRATED PARTS LIST

MODEL:

73-70920 TRENCHER TH300



WARNING: If incorrectly used this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust or service the machine.

CALIFORNIA Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

A WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Californie Proposition 65 **Avertissement**

Les échappements des moteurs diesel et certains de leurs composés sont reconnus par l'Etat de Californie pour être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

A AVERTISSEMENT

L'émission du moteur de ce matériel contient des produits chimiques que l'Etat de Californie considère être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

California Advertencia de la Proposicion 65

El estado de California hace saber que los gases de escape de los motores diesel y algunos de sus componentes producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.



ADVERTENCIA

El estado de California hace saber que los gases de escape de este producto contienen productos químicos que producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

IMPORTANT MESSAGE

Thank you for purchasing this Jacobsen product. You have purchased a world class product, one of the best designed and built anywhere.

This product comes with an Owner/Operator's Manual. The useful life and good service you receive from this product depends to a large extent on how well you read and understand this manual. Treat this product properly and adjust it as instructed, and it will give you many years of reliable service.

See a Jacobsen dealer for any service or parts needed. Jacobsen service ensures that you continue to receive the best results possible from Jacobsen products. You can trust Jacobsen replacement parts because they are manufactured with the same high precision and quality as the original parts.

Jacobsen designs and builds its equipment to serve many years in a safe and productive manner. For longest life, use this product only as directed in the manual, keep it in good repair and follow safety warnings and instructions. You'll always be glad you did.

Jacobsen, a Textron Company One Bob Cat Lane Johnson Creek, WI 53038-0469

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1-2005

DESCRIPTION

The trencher is designed to perform with the Steiner 4-wheel drive articulated frame steering tractors. The trencher mounts on the quick hitch front lift in the conventional manner. Driven by a PTO belt, a right angle gearbox provides a 2 to 1 reduction providing power to the trencher digging chain. The depth of trench is regulated by a cylinder controlled by the auxiliary hydraulic system of the power unit.

Features include:

- Visible depth indicator.
- · Front mount Quick Hitch.
- Variable depth control.
- High performance bearings throughout.
- · Quick chain tension adjustment.
- Heat treated carbide tip chain.

Trencher easily follows line of trench, cutting to a maximum depth of 28 inches. The depth of cut is easily adjustable during operation indicated by the highly visible depth gauge.



SPECIFICATIONS

Overall Width	. 37"
Overall Height	. 34"
Overall Length	. 64"
Total Weight	
Auger Diameter	. 12"
Chain Speed	
Drive Shaft (diameter)	. 1-1/2"
Cutting Depth (max)	. 28"
Cutting Width	. 4-3/4"

NOTICE!!!

Unauthorized modifications may present **extreme** safety hazards to operators and bystanders and could also result in product damage.

Jacobsen, a Textron Company strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Jacobsen Engineering Department. Any Jacobsen product that is altered, modified or changed in any manner not specifically authorized after original manufacture—including the addition of "after-market" accessories or component parts not specifically approved by Jacobsen—will result in the Jacobsen Warranty being voided.

Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Jacobsen will be considered the responsibility of the individual(s) or company designing and/or making such changes. Jacobsen will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.



This symbol means:

ATTENTION! BECOME ALERT!

Your safety and the safety of others is involved.

Signal word definitions:

The signal words below are used to identify levels of hazard seriousness. These words appear in this manual and on the safety labels attached to Jacobsen machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

A DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

AWARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

ACAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage

TEXTRON

GOLF, TURF & SPECIALTY PRODUCTS

MODEL NUMBER
SERIAL NUMBER

JOHNSON CREEK, WI MADE IN U.S.A

MODEL NUMBER: This number appears on sales literature, technical manuals and price lists.

SERIAL NUMBER: This number appears only on your mower. It contains the model number followed consecutively by the serial number. Use this number when ordering parts or seeking warranty information.

GENERAL SAFETY

- 1. Read and understand the Owner's Manual before attempting to operate this machine.
- 2. Operate all controls from the operator's seat. NO RIDERS.
- 3. Keep all shields in place and safety switches adjusted properly.
- 4. Do not leave equipment unattended. STOP the engine and remove the key.
- 5. Do not allow minors or the inexperienced to operate this machine.
- 6. Keep people and pets a safe distance away from machine using power driven attachments. Injury could result from flying debris.

OPERATING SAFETY

- 1. STOP ENGINE to install drive belt.
- DO NOT attempt to work on power unit or any attachments with the engine running. STOP ENGINE!
- 3. Before leaving the tractor seat:
 - Disengage PTO
 - Set PARKING brake.
 - · Stop engine.

A DANGER

DO NOT OPERATE WITH BYSTANDERS IN THE AREA. UNEXPECTED TRENCH CAVE-IN OR ANY ACTION CAUSING PERSONS TO CONTACT FAST MOVING DIGGING CHAIN COULD CAUSE SERIOUS INJURY OR DEATH.

MOUNTING INSTRUCTIONS

The trencher should be used only on Steiner 4-wheel drive power units equipped with hydraulic auxiliary couplers.

To mount the trencher do the following steps:

- 1. Open quick hitch latches. Drive tractor into position, aligning the quick hitch. Be sure that both latches are fully engaged and locked.
- 2. Stop engine to install drive belt. See power unit operator's manual for drive belt installation and tension adjustment.
- 3. Remove clip pin from support stand and raise stand to transport position. Secure stand with clip pin.
- 4. Connect hydraulic hoses to the auxiliary couplers. If auxiliary hydraulic lever seems to operate in the wrong direction, connect the hoses in the opposite couplers.

UNMOUNTING INSTRUCTIONS

- 1. Choose a level site to remove the trencher.
- 2. Lower the support stand and secure with clip pin.
- 3. Lower the front lift. Lower the boom and apply slight down pressure.
- 4. Set parking brake and stop engine.
- 5. Disconnect hoses from the quick couplers.
- 6. Remove drive belt.
- 7. Open quick hitch latches. Start engine and back power unit away from the trencher.

OPERATING INSTRUCTIONS

- 1. Attach trencher to quick hitch front lift, placing correct drive belt around the left hitch arm.
- 2. Stop engine and install the drive belt. Adjust tension if equipped with adjustment. Remove clip pin from support stand and secure the support stand in the transport position.
- 3. Start engine and transport the trencher to the job site.
- 4. Align and position the boom of the unit with the line of trench to be dug.
- 5. Check the location of existing electric, gas or water lines before digging.
- 6. Check the area for obstacles such as loose rocks, stones, wood and other debris that could hinder proper operation of the trencher.
- 7. Lower the front lift and place the lift lever in the "FLOAT" position.
- Engage the PTO carefully with engine at approximate half throttle. Slowly lower the boom to the depth of trench desired using the auxiliary hydraulic lever. (Do not place this lever in the float position.)
- Carefully move the F R lever to move the unit in reverse. MOVE VERY SLOWLY!
- 10. Avoid sharp turns while digging a trench. Sharp turns place extreme loads on the trencher attachment.
- 11. In the event the digging chain gets wedged between rocks or caught in a root or other solid object, be ready to disengage the PTO drive. Raise the boom to clear the obstacle before trying to restart the PTO.



IMPORTANT!

THE TRENCHER IS DESIGNED TO DIG WHILE THE UNIT IS TRAVELING IN REVERSE DIRECTION. DO NOT ATTEMPT TO DIG WITH THE UNIT TRAVELING IN A FORWARD DIRECTION.

A DANGER

DO NOT OPERATE WITH BYSTANDERS IN THE AREA. UNEXPECTED TRENCH CAVE-IN OR ANY ACTION CAUSING PERSONS TO CONTACT FAST MOVING DIGGING CHAIN COULD CAUSE SERIOUS INJURY OR DEATH

SERVICE SCHEDULE

Every 4 Hours:

• Grease the boom pivot tube.

Daily:

- Check for any signs of loose bolts and tighten as needed.
- Check digging chain for missing or broken cutters. Repair as needed. Check digging chain tension.
- Wash boom, digging chain and auger at the end of each workday.

25 hour:

- In addition to daily service, lubricate the roller chain with chain lube or SAE 30 motor oil.
- Check gearbox oil level. Oil level is 4 inches down from the top of filler tube. Use #90 gear oil.

100 hour:

 Change gearbox oil at 100 hours or four weeks initially, and every 2500 hours or six months of operation thereafter. Use #90 gear oil.

ADJUSTMENTS

Drive belt tension:

 See the power unit operators manual for adjustment of drive belt tension.

Roller chain drive:

Adjustment is by a spring loaded idler.

Digging chain tension:

 Adjust with large set screw in the center of boom. Loosen jam nut and tighten set screw until chain has 1/4 inch to 1/2 inch gap when lifted from the boom at mid—point. Tighten jam nut.

Crumber adjustment:

 The crumber should be close to, but not touching, the digging chain at any time. The unit may need to be moved out as the digging chain stretches. Choose from three mounting hole positions.

NOTE:

DO NOT OVERTIGHTEN CHAIN. This will cause undue wear on the boom components.

Replacing digging chain:

- 1. Loosen four bolts through the boom.
- 2. Loosen jam nut on the set screw in the center of the boom and back out the set screw to allow the boom to retract.
- 3. Remove the old chain and replace with the new chain.
- 4. Tighten the set screw until the chain is snug. Tighten the jam nut. Tighten the bolts that were loosened in Step 2.
- 5. Check new digging chain tension (as described above) after it has run for 20 minutes, and every hour of use for the next 4 hours.

NOTE: It is normal for a new chain to require frequent tightening.

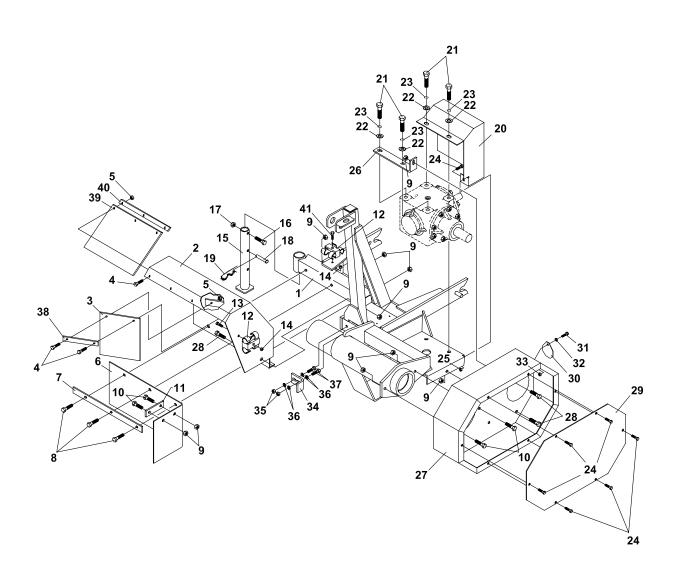
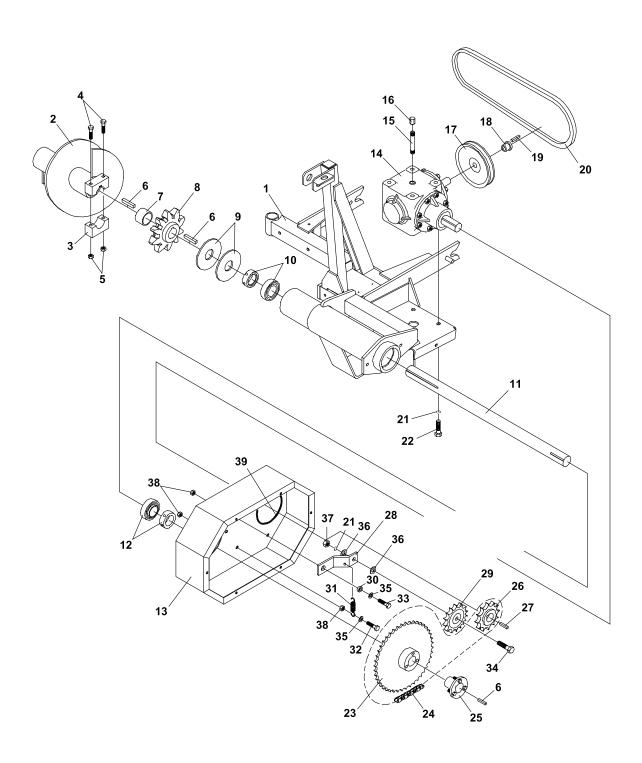


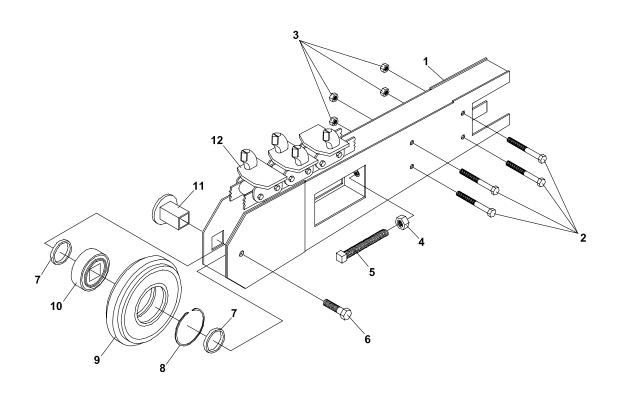
FIGURE 1

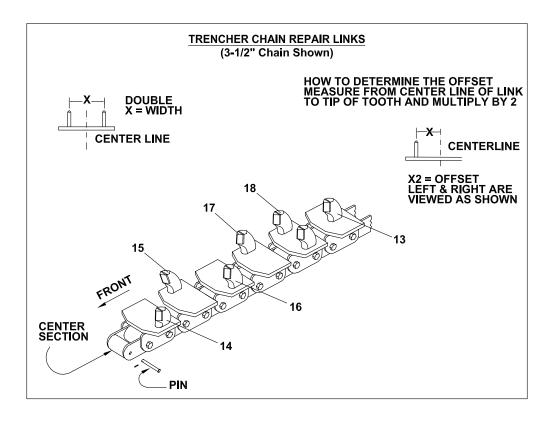
ITEM	PART NO	. DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1-1	62-823.7	MAIN FRAME	1				
*	4116761	LBL-MADE IN USA	1				
1-2	60-625.7	SHIELD-AUGER	1				
*	00-223	LBL-DANGER STAND CLE	EAR1				
1-3	44-140	DEFLECTOR BELTING, D	IRT 1				
1-4	64139-08	BOLT-5/16-18X3/4	5				
1-5	64141-6	NUT, 5/16-18	5				
1-6	44-141	BELTING, AUGER	1				
1-7	64-855	STRAP, BELTING	1				
1-8	64123-75	BOLT, 3/8-16X3 HEX	3				
1-9	64141-4	NUT-WLF 3/8-16	10				
1-10	64139-24	BLT-WLF 3/8-16 X 1	4				
1-11	64-849	CLAMP, BELTING	1				
1-12	4134161	TUBE AND HOSE CLMP 1	/4" 2				
1-13	01-014	SCREW, MACHINE 8-32 X	(1 1				
1-14	64025-29	NUT-HEX #8-32 KEPS	2				
1-15	64-834.7	FOOT STAND W/A	1				
1-16	64123-87		1				
1-17	64229-03	LOCKNUT-NYLON 3/8-16	1				
1-18	03-0616	CLEVIS PIN, 3/8 X 2	1				
1-19		3 PIN, 3/16 x 1.5/8	1				
1-20	60-626.7	SHIELD, DRIVE BELT	1				
*	00-025	LBL-HANDS & FEET	1				
1-21	90-0808	BOLT	4				
1-22	64163-67	WASHER516X1X12GA	4				
1-23	64006-05	LOCKWSHR-HELICAL 1/2	4				
1-24	64139-02	BLT-WLF 1/4-20X1/2	7				
1-25	64141-2	NUT-WLF 1/4-20	1				
1-26	64-848.7	BRACE, CHAIN SHIELD	1				
1-27	60-624.7	GUARD, CHAIN	1				
*	00-093	LBL-WARN OWNR MAN	1				
*	00-223	LBL-DANGER STAND CLE	EAR1				
1-28	64139-21	BLT-WLF 3/8-16X3/4	3				
1-29	60-628.7	COVER, CHAIN GUARD	1				
*	00-217	LBL-MODEL TH300	1				
*	00-223	LBL-DANGER STAND CLE	EAR1				
1-30	60-629.7	COVER, ACCESS	1				
1-31	64123-89	BOLT-HEX 1/4-20X3/4	1				
1-32	64163-03	WSHR256ID X.620D X 1	8 1				
1-33	64229-01	LOCKNUT-NYLON 1/4-20	1				
1-34	64-851.7	CLAMP, BOOM SWIVEL	1				
1-35	64229-02	LOCKNUT-NYLON 5/16-18	3 2				
1-36	64163-02	WSR321/.328X.593/.608X	X114				
1-37	64123-55	BLT-HEX 5/16-18X3	2				
1-38	64-847.7	CLAMP, BELTING	1				
1-39	44-142	BELTING, RUBBER	1				
1-40	64-861.7	STRAP, AUGER BELTING	1				
1-41	64152-61	8-32 X 1 1/4 MACH SCRW	2				

* NOT ILLUSTRATED

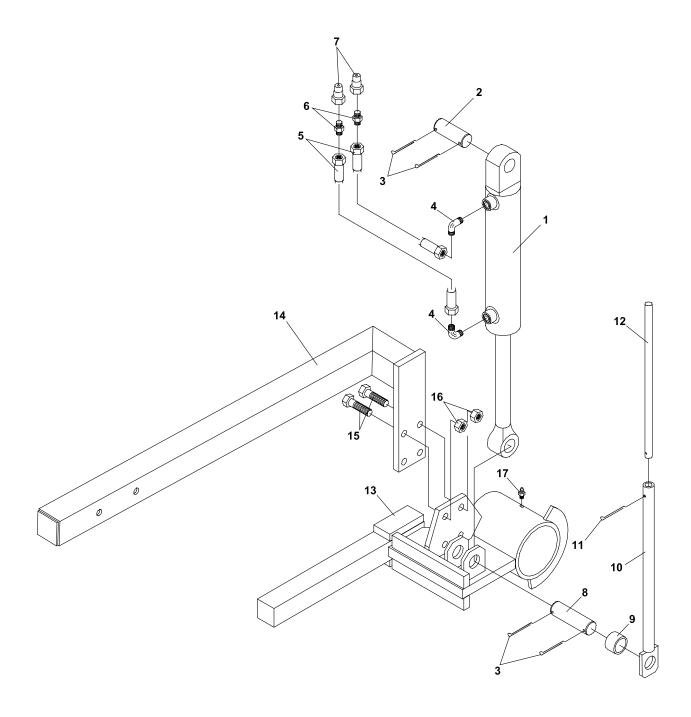


ITEM	PART NO	. DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
2-1 2-2 2-3	62-823.7 80-192.7 (SUPPLIED	•	1 1 1				
2-4 2-5 2-6 2-7	64229-03 64164-26 64-854 (USED WIT 64-924		2 2 3 1 AIN) 1				
	80-253 55-RA108R 60-624.7 87-175 29-079 24-033 83-BK85H D3032	SHIELD R BRG-FAFNIR W/COLLAR SHAFT-DRIVE R BRG-FAFNIR W/COLLAR GUARD, CHAIN GEARBOX, RIGHT ANGLE PIPE NIPPLE, 1/2 X 1.1/2 PIPE CAP, 1/2" PULLEY-8.5" H1 BUSHING BUSHING, H 7/8 KEY-3/16X3/16X1-1/4 SQ BELT-B51	AY 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
2-21 2-22 2-23 2-24	83-60Q40	BOLT SPROCKET, 60Q40 2CHAIN-#60 42" CONNECTOR LINK #60	5 4 1 1 1				
2-25 2-26 2-27 2-28 2-29 2-30 2-31 2-32 2-33 2-34 2-35 2-36 2-37 2-38 2-39	64164-10 40-322.7	BUSHING-Q1 X 1-1/2" 0SPRKT-FIXED BORE 1-1/4 1/4X1/4X1-1/4 MACH KEY ARM, IDLER 8IDLER SPRKT #60 15TTH 1 BUSHING,.406 X.740 X.258 SPRING BOLT-HEX 3/8-16X1-1/2 BOLT-HEX 1/2-13X2 WSHR .81X.406X16GA WASHER516X1X12GA HEX, NUT 1/2-13 NUT-WLF 3/8-16 TRIM SEAL 12"					

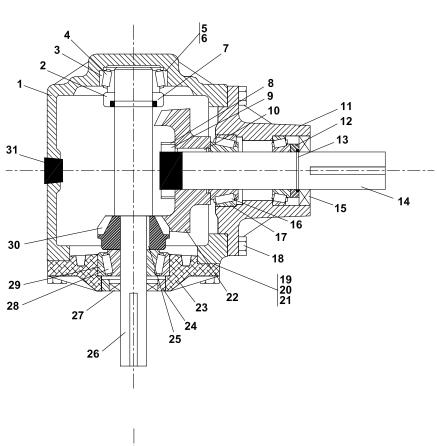


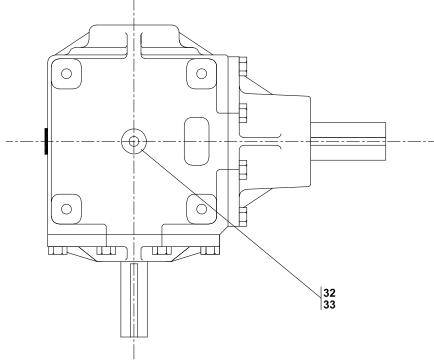


ITEM	PART NO	. DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
3-1	62-821.7 (INCLUDE:	BOOM S ITEMS 4 - 11)	1	3-13	79-090 (CENTER (REPAIR SECTION CUT)	1
3-2	90-0826	,	4	3-14		REPAIR SECTION 3"	1
3-3		NUT WLF 1/2-13	4		(LH STRAIC	GHT)	
3-4	92-12	NUT,3/4-10	1	0.45	70.000	DEDAID CECTION OF	4
3-5 3-6		2 SET SCREW-3/4 X 5 9 BOLT-3/4 X 1-1/4	1 1	3-15	79-092 (RH STRAI		1
	87-110-054		2		(KH SIKAI	GHI)	
3-8		SNAP RING	1	3-16	79-103	REPAIR SECTION	1
3-9			1	0 10	(OFFSET L		•
	87-125-009		1		(00=	,	
3-11	87-183-469	DIDLER SHAFT	1	3-17	79-104	REPAIR SECTION	1
3-12	79-080	CHAIN-DIGGING 4-3/4"	1		(OFFSET R	RIGHT)	
	(STANDAR	RD)					
*	70-125	KIT-3-1/2" TRENCHER CH	N 1	3-18		REPAIR SECTION	1
	(OPTIONA	,			(3-1/2" DOL		
	62-861	CRUMBER WLDMT	1		4-3/4" CHA	IN REPAIR LINKS	
*		CHAIN-3-1/2" WIDE	1	*	70.404	DEDAID CECTION	4
•	70-117		N 1	•	79-101 (4-3/4" DOL	REPAIR SECTION	1
	(OPTIONA 64-924	SPACER-AUGER	1		`	IN REPAIR LINKS	
	79-099	CHAIN-5-1/2" WIDE	1		3-1/2 CITA	IN INELLAIN LINKS	
	75 055	3-1/2" CHAIN REPAIR LINE	•	*	79-093	REPAIR SECTION	1
		0 1/2 01 1/11 1121 / 1111 21111			(4" DOUBL		•
					,	,	
				*	79-095	REPAIR SECTION	1
					(5" DOUBL	E)	
				*		REPAIR SECTION	1
					(5-1/2" DOL	JRFF)	
					* N	IOT ILLUSTRATED	
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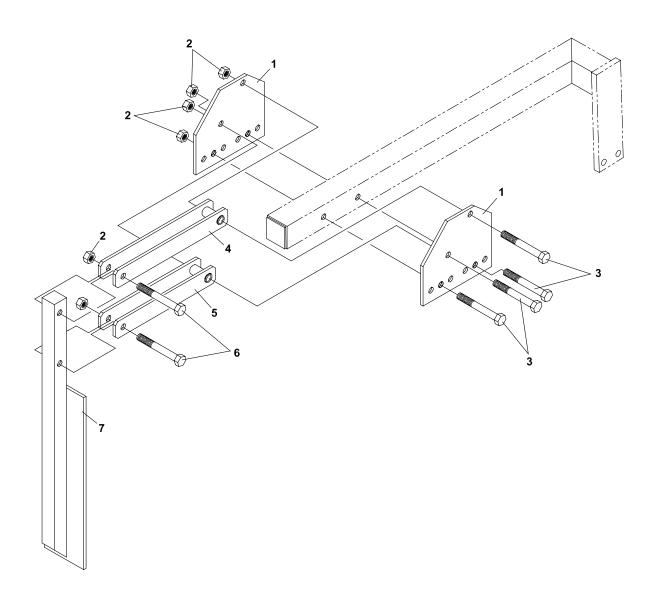


ITEM	PART NO	. DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
4-1	23-070	CYLINDER, HYD. 2 X 8	1				
	21-13055X	SEAL KIT	1				
4.0	04.050	TOP PIN	4				
4-2	64-852	TOP PIN	1				
4-3	02-CP0512	2 COTTER PIN, 5/32 X 1-1/2	4				
4-4	25-2103-6-	6 FITTING-90 DEG.	2				
4-5	20-017	HOSE-1/4 X 70	2				
4-6	25-0103-4-	6 FITTING-STR	2				
4-7	23-004	MALE QUICK COUPLER	2				
4-8	64-853	BOTTOM PIN	1				
4-9	64-846	SPACER, DEPTH GAUGE	1				
4-10	64-839.7	DEPTH GAUGE W/A	1				
4-11	02-CP0410	COTTER PIN, 1/8 X 1-1/4	1				
4-12	56-073	GAUGE, DEPTH	1				
4-13	62-822.7	FRAME, BOOM PIVOT W/A	. 1				
4-14	64-835.7	SAFETY TUBE W/A	1				
	00-224		3				
		FOR TRENCHER)					
	(=/:::0=::						
4-15	99-K56	BOLT-FLANGE 1/2-13X1-1/	2 4				
4-16		NUT WLF 1/2-13	4				
4-17	29-010	S/B GREASE FITTING	1				
- 1 -1/	23-010	O/D CINEAGE I II I III G	'				





ITEM	PART NO	DESCRIPTION	OTV	ITEM	PART NO.	DESCRIPTION	QTY
					FARTINO.	DESCRIPTION	QIT
5-1	87-CM000182		1				
5-2	87-CM450064	COLLAR	1				
		BEARING CUP					
		BEARING CONE					
		SHIM (.010)					
		SHIM (.005)					
		RETAINING RING					
5-8	87-CM410233	LOCKWASHER	1				
5-9	87-CM410255	LOCKNUT	1				
5-10	87-CM600031	KEY	1				
5-11	87-CM050237	LOCKNUT KEY HUB COLLAR RETAINING RING	1				
5-12	87-CM450585	COLLAR	1				
5-13	87-CM620088	RETAINING RING	1				
5-14	87-CM200287	SHAFI	1				
	87-CM300251		1				
		BEARING CONE					
		BEARING CUP					
5-18	87-CM410163	SEMS CAP SCREW	/ 16				
5-19	87-CM390021	GASKET (.015) GASKET (.005) GASKET (.003) GEAR THRU CAP COLLAR KEY THRU SHAFT	1				
5-20	87-CM390039	GASKET (.005)	1				
5-21	87-CM390195	GASKET (.003)	1				
5-22	87-CM101030	GEAR	1				
5-23	87-CM055327	THRU CAP	1				
5-24	87-CM452326	COLLAR	1				
5-25	87-CM600171	KEY	1				
5-26	87-CM222810	THRU SHAFT SEAL	1				
5-27	87-CM301473	SEAL	1				
5-28	87-CM150557	BEARING CONE	1				
		BEARING CUP	1				
	87-CM101048		1				
		PIPE PLUG (SOLID	,				
5-32	29-079 PI	PE NIPPLE, 1/2 X 1.	1/2 1				
5-33	24-033 PI	PE CAP, 1/2"	1				
				1			



6

						FIC	GURE 6
ITEM	PART NO	. DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
6-1	64-858.7	PLATE-CRUMBER SIDE	2				
6-2	64229-05	LOCKNUT, 1/2-13 NYLON	6				
6-3	90-0826	BOLT,1/2-13 X 3-1/4	4				
6-4	62-825.7	LINK-TOP WLDMT	1				
6-5	62-826.7	LINK-BOTTOM WLDMT	1				
6-6	64123-72	BLT-HEX 1/2-13X2-1/2	2				
6-7	62-824.7	WLDMT-CRUMBER	1				
	(USED WI	TH STANDARD DIGGING CH	HAIN)				
	62-861.7	WLDMT-CRUMBER	1				
	(USED WI	TH 3-1/2" CHAIN)					

World Class Quality, Performance And Support



Equipment from Jacobsen, a Textron company, is built to exacting standards ensured by ISO 9001 and ISO 14001 registration at all our manufacturing locations.

A worldwide dealer network and factory-trained technicians backed by Textron Parts Xpress provide reliable, high-quality product support.

