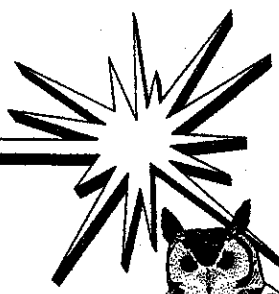
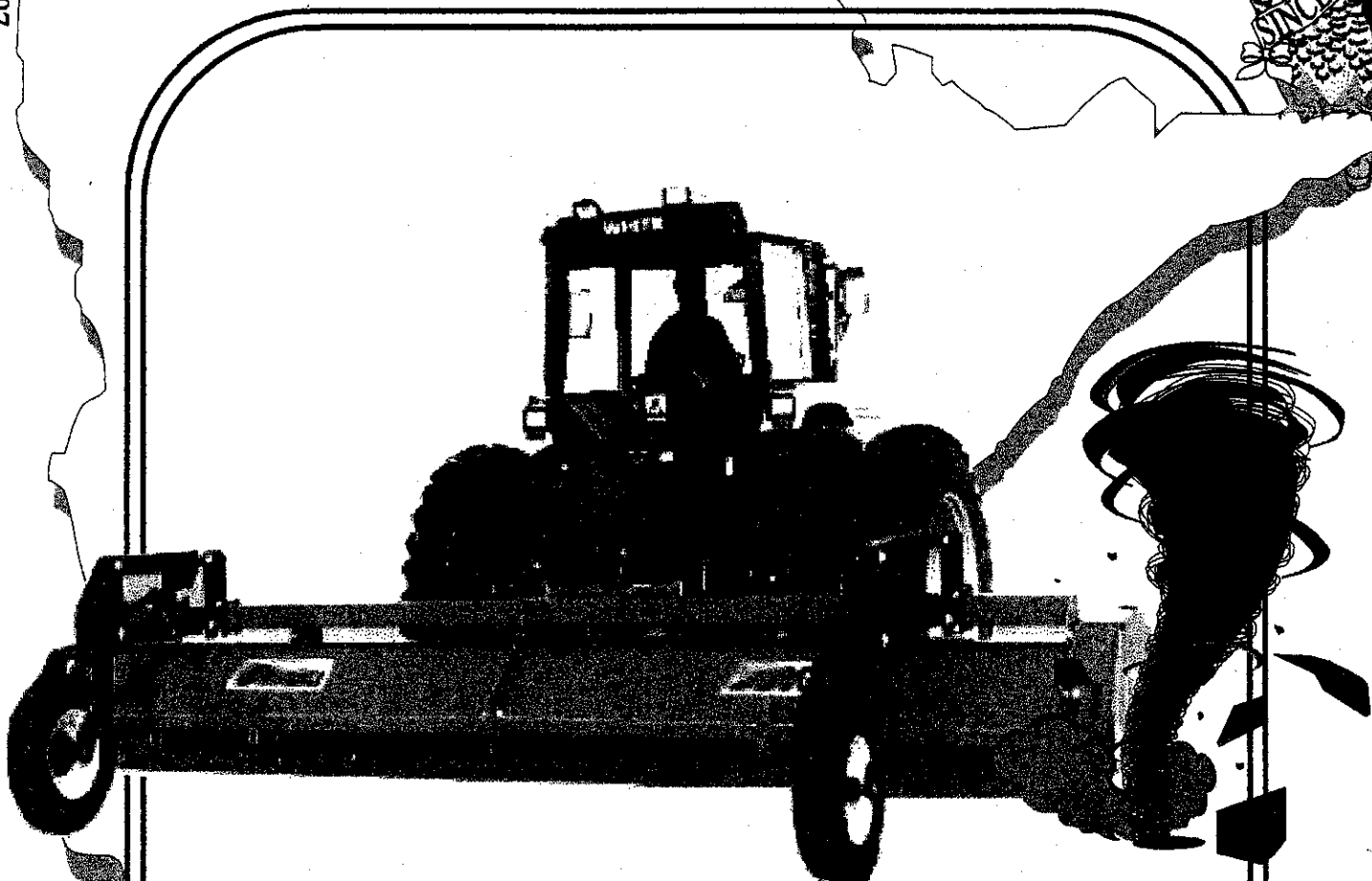


# **BALZER** INC.



March 1997

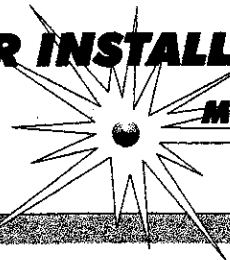


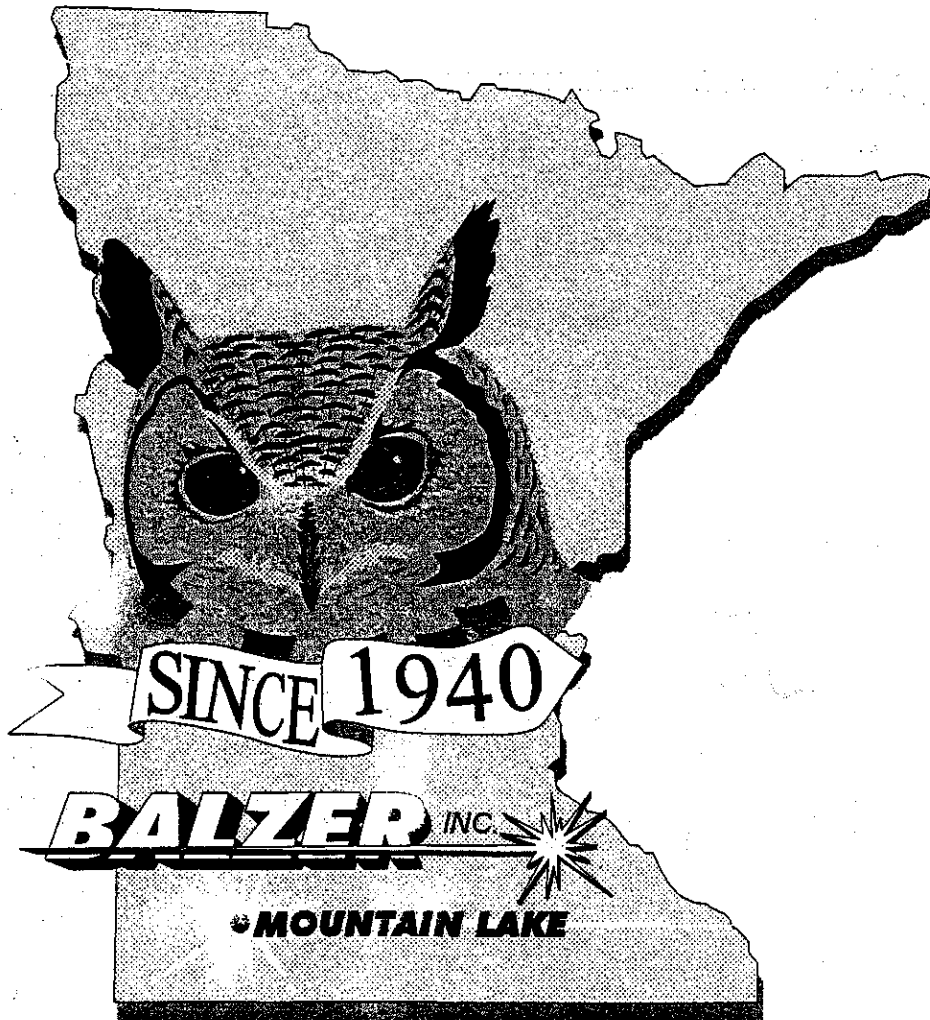
CONVENTIONAL SHREDDER PULL TYPE,  
FULL & SEMI-MOUNT

MODELS: 2200 - 2400 - 2500 - 2650

**OWNER'S MANUAL  
FOR INSTALLATION, OPERATION & MAINTENANCE**

**MOUNTAIN LAKE**





COUNTY HIGHWAY 27 EAST P.O. 458 MT. LAKE, MN 56159

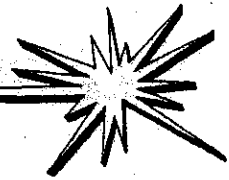
PHONE GENERAL (507) 427-3133 FAX (507) 427-3640

PHONE SALES (800) 795-8551 FAX (507) 427-2364

FOR SERVICE PARTS CALL (800) 795-8551 FAX (507) 427-2364

WEB SITE: <http://www.balzerinc.com>

E-mail: [balzer@balzerinc.com](mailto:balzer@balzerinc.com)



# CONVENTIONAL SHEDDER PULL TYPE, FULL & SEMI-MOUNT MODELS: 2200, 2400, 2500, 2650

## TABLE OF CONTENTS

To The Purchaser.....	Pag.4
Warranty.....	5
Safety Section.....	6
Operation.....	9
Set-Up & Assembly.....	10
Operation.....	12
Service & Lubrication.....	13
Service Parts Ordering.....	14

### Reference Drawings for Service Parts

Main Housing Models 2200-2400-2500.....	15
Main Housing Models 2650.....	16
Belt Tightener 10".....	17
Drive Line Assembly Models 2200-2500.....	18
Drive Line Assembly Models 2650.....	19
Rockshaft.....	20
Hinging Guard & Rod.....	21
Knife Options.....	22
Pull Type Hitch.....	23
Ratchet Jack Assembly.....	24
Jack Stand.....	25
Caster Arm Assembly.....	26
Full Mount Parts Conventional Shredder 2200-2650.....	27
Semi- Mount Parts 2200 - 2650.....	28
Wheel Arm Assembly Removable.....	29
10" Dia. Cylinder Assembly Models 2200 - 2650.....	30
10" Dia. Cylinder Assembly Models 2200 - 2650 Parts list.....	31
1-3/8-21 PTO RA2 (1000 RPM) - Pull Type Unit -.....	32
1-3/8-20 PTO RA2 (1000 RPM) - Pull Type Unit -.....	33
1-3/8-21 CV PTO RA2 - Pull Type Unit - (1000 RPM).....	34
1-3/4-20 CV PTO RA2 - Pull Type Unit - (1000 RPM).....	35
1-3/4-20 PTO RA2 (1000 RPM) - Semi Mount + Pull Type Unit -.....	36
Gearbox - 1000 RPM (1:1 Ratio) 1500 Rotor Speed.....	37
Gearbox - 1000 RPM (1:1.35 Ratio) 2000 Rotor Speed.....	38
Gearbox - 1000 RPM (1:1.47 Ratio) 1750 Rotor Speed.....	39
1-3/8-21 CV PTO RA2 - Pull Type Unit - Semi Mount (1000 RPM).....	40

# **To the Purchaser**

**BALZER**



Congratulations on your selection of a Balzer Shredder. This shredder is one of the most economical means of chopping crop residue. It has been designed to provide years of profitable and dependable service. To insure maximum performance of your shredder, it is mandatory that you thoroughly study the owner's manual and follow its recommendations. Proper operation and maintenance are essential to maintain and maximize the machine life and to prevent injury or damage.

## **It is the owner's responsibility to:**

\*Operate and maintain this shredder in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and/or laws; and in compliance with on-product labeling and these instructions.

\*Make sure that all personnel have read this owner's manual and thoroughly understand safe and correct operating, installation, and maintenance procedures.

\*Make sure the shredder is setup correctly before being placed in service and at regular intervals thereafter serviced in accordance with procedures outlined in this manual. This is important in promoting safe and efficient operations of this equipment. Contact your dealer for any clarification required on operating this shredder.

\*Fulfill all warranty obligations so as not to void the warranties.

This machine is warranted as stated in this manual. A registration card is provided and is to be filled out by your dealer, and promptly returned to the factory. This card provides a ready reference for you in securing warranty.

The serial number and identification tag is located on the front of the right portion of the unit. Please refer to these numbers when parts or warranty communication is necessary. Balzer Inc. reserves the right to make product improvements to the equipment at any time.

## **PLEASE FILL IN THE FOLLOWING INFORMATION FOR YOUR RECORDS:**

Date of purchase \_\_\_\_\_

Owner's name \_\_\_\_\_

Dealer's name \_\_\_\_\_

Serial No./identification No. \_\_\_\_\_

# Warranty

BALZER



## WARRANTY MANUFACTURER

Dealer or Distributor understands and agrees that Manufacturer extends only the following Warranty to customers. In the event Dealer or Distributor extends any additional warranty (such as by enlarging the scope or period of warranty or undertaking a warranty of merchantability or fitness for any particular purpose) or any other obligation whatsoever. Dealer or Distributor shall: (1) be solely responsible therefor; (2) have no recourse against Manufacturer thereof; and (3) defend, indemnify and hold Manufacturer harmless against any claim or cause of action whatsoever arising out of, or occasioned by, Dealer or Distributor's extension of said additional warranty or obligation.

## CERTIFICATE OF GENERAL EQUIPMENT WARRANTY

Balzer Inc. warrants new Products sold by it to be free from defects in material or workmanship for a period of one (1) year after date of delivery to the first user and subject to the following conditions. Balzer Inc.'s obligation and liability under this Warranty is expressly limited to repairing or replacing at Balzer Inc.'s option, any parts which appear to Balzer Inc. upon inspection to have been defective in material or workmanship. Such parts shall be provided at no cost to user, at the business establishment of the authorized Balzer Inc.'s dealer or distributor of the Product during regular working hours. This Warranty shall not apply to component parts or accessories of Products not manufactured by Balzer Inc. and which carry the warranty of the manufacturer thereof, or to normal maintenance (such as tune-up) or normal maintenance parts (such as oil filters). Replacement or repair parts installed in this Product covered by this Warranty are warranted only for the remainder of this Warranty as if such parts were original components of said Product. **BALZER INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.**

Balzer Inc.'s obligation under this Warranty shall not include any transportation charges, cost of installation, duty taxes or any other charges whatsoever, or any liability for direct, indirect, incidental or consequential damage or delay. If requested by Balzer Inc. Products or parts for which a warranty claim is made are to be returned transportation prepaid to Balzer Inc. Any improper use, including operation after discovery of defective or worn parts, operation beyond rated capacity, substitution or parts not approved by Balzer Inc. or any alteration or repair by others in such manner as in Balzer Inc.'s judgment affects the Products materially and adversely, shall void this Warranty.

**"NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY UNLESS SUCH CHANGE IS MADE IN WRITING AND SIGNED BY AN OFFICER OF BALZER INC. AT ITS HOME OFFICE."**

## LIABILITY FOR DELAYS

No liability shall attach to Manufacturer or direct, or indirect, incidental or consequential damages or expenses due to loss, damage, detention of delay in delivery of Products resulting from acts or delays beyond its control.



## SAFETY SIGNS

### SAFETY SIGNS ARE IMPORTANT

Safety signs or decals provide very important information and instructions designed to alert you to dangers and hazards that can be present during operation of this equipment. However, safety sign instructions must be read, understood and followed to be effective.

### REPLACEMENT OF SAFETY SIGNS

Safety signs or decals must be kept clean and readable. If they become unreadable for any reason, they must be replaced with an identical replacement decal. Safety decals must also be replaced if parts are repaired or replaced with new parts that do not already include the necessary safety decals.

### APPLICATION OF SAFETY DECALS

Surface preparation is very important for safety decals to properly adhere. Grease, oil and dirt must be removed and the surface must be smooth and dry.

Most decals have a split backing which is meant to be removed from the split outward. To apply the decals follow these procedures:

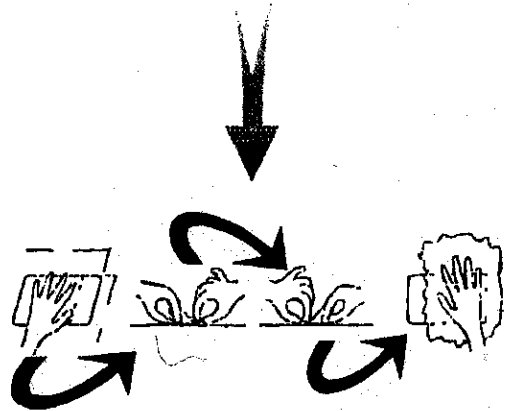
1. Position the decal in the proper location and hold firmly over the largest portion of backing.

2. Use one hand to hold the decal in position, with the other hand carefully roll the loose end over and peel the backing outward. When the backing is removed as described and shown (Fig. 1), with even and gradual pulling, the decal will roll onto the surface smooth and wrinkle free.

3. With the smallest portion of the decal attached, the same procedure can be applied to the other half.

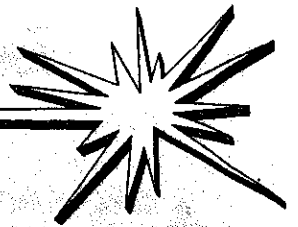
4. When the decal has been attached in place, use a cloth or soft paper towel to burnish the decal onto the cleaned surface. Work gently from the middle outwards to avoid creating any wrinkles.

Fig. 1



### REPLACEMENT DECALS

Order replacement decals by part number through your nearest dealer. Part numbers are printed on each decal or refer to the decal page of this manual.



**WARNING**

- KEEP ALL SHIELDS IN PLACE.
- STOP ENGINE BEFORE LEAVING OPERATOR'S POSITION TO ADJUST OR CLEAN ON UNLOCK MACHINES. UNLESS OTHERWISE SPECIFICALLY RECOMMENDED IN THE OPERATOR'S MANUAL.
- WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING THE MACHINE.
- KEEP HANDS, FEET, AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
- KEEP OFF EQUIPMENT UNLESS SEAT OR PLATFORM FOR OPERATIONS AND OBSERVATION IS PROVIDED.
- KEEP ALL OTHERS OFF.
- USE FLASHING WARNING LIGHTS WHEN OPERATING ON HIGHWAYS EXCEPT WHEN PROHIBITED BY LAW.
- MAKE CERTAIN EVERYONE IS CLEAR OF MACHINE BEFORE STARTING ENGINE OR OPERATION.

10744  
"WARNING"

**! DANGER**

**MOVING PARTS HAZARD**

- Keep hands, clothing, and hair away from moving belts and parts.
- Replace guard before operating.

21730  
"DANGER"

**! DANGER**



**ROTATING DRIVELINE CONTACT CAN CAUSE DEATH**

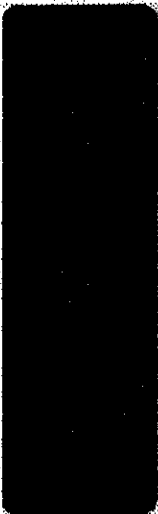
**KEEP AWAY**

**DO NOT OPERATE WITHOUT**

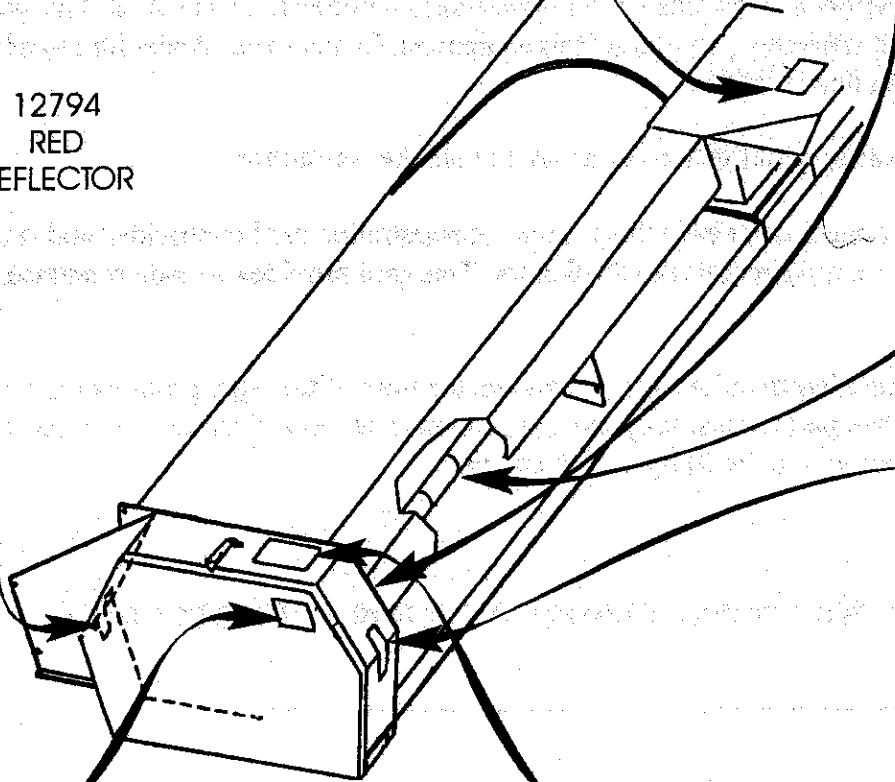
- all driveline guards, tractor and equipment shields in place
- drivelines secure attached at both ends
- driveline guards that turn freely on driveline

15295

15295  
"DANGER"



12794  
RED  
REFLECTOR



12795  
AMBER  
REFLECTOR

8154  
"WARNING"

**WARNING**

**MOVING PARTS HAZARD**

Can crush or dismember hands and fingers.

Do not operate machine with guard removed.

8154

14175  
"DANGER"

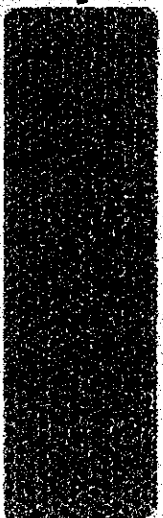
**! DANGER**

**STOP:** WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING OR OPENING OF SHIELDS.

**LOOK:** THE IGNITION KEY IS REMOVED.

**LISTEN:** FOR ALL MOVEMENT TO STOP. ROTATING PARTS CONTINUE TO ROTATE AFTER POWER IS SHUT OFF.

14175

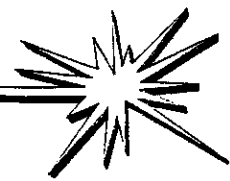




## OBSERVE AND FOLLOW ALL SAFETY PROCEDURE TO PREVENT PERSONAL INJURY OR DAMAGE TO THE MACHINE

1. This machine must be operated and serviced by qualified persons who have thoroughly read and understand this operator's manual and the safety signs on the machine.
2. Read and follow instructions on all decals.
3. Never operate shredder with any guards or shields not in place. Replace missing or damaged shields.
4. Be sure the front flipper shields are in place and swing freely prior to operation.
5. Keep hands and feet away from all moving parts.
6. Never wear any loose clothing when working around moving parts.
7. Keep children away from machinery.
8. Never leave shredder operating unattended.
9. Never allow anyone to ride any place other than the tractor's seat.
10. Do not stand in front, behind, or along side of the machine when the cylinders are turning.
11. Wait for movement of cylinders to stop before servicing or opening of the shields on the shredders.
12. Block wheels securely when machine is to be parked on an incline.
13. Periodically check for loose or missing hardware and tighten or replace as needed.
14. Do not work under the shredder for servicing of cutting knives or other reasons unless the machine has been safely blocked up and the PTO has been disconnected.
15. Replace any parts which show signs of excessive wear, cracking or likely failure, with original equipment service parts.
16. Make certain that everyone and everything is cleared before starting the engine or operation of the shredder.
17. Always start up the unit slowly and gradually bring it up to speed in order to check for abnormal operation.
18. If the shredder develops abnormal noises or excessive vibration, stop the unit at once and safely determine and correct the cause.
19. When parking always lower the shredder and block the wheels.
20. Insure tire pressure is 20 PSI maximum.
21. Hydraulic fluid pressure can be very dangerous and can cause serious personal injury. Be sure to relieve all pressure before disconnecting hydraulic lines.
22. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, not your hand to search for leaks.
23. If injured by escaping hydraulic fluid, seek immediate medical attention, serious infection or medical reaction may develop.
24. Always use a safety chain between towing vehicle and shredder when transporting.





## IMPORTANT INFORMATION



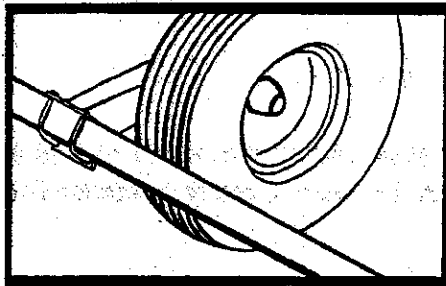
If shredder must be off the ground to install any equipment, be sure to safely block it up. Be certain that entire area is safe before doing any maintenance.

## WHEEL ARM ASSEMBLY

Remove hardware bag from the box of parts. The bag contain hardware for attaching the two arms.

Position the wheel arms on the rockshaft, with the tire towards the either middle or out side for the desired row spacing.

**Tire should be inflated to 15-20 PSI**



## HYDRAULIC CYLINDER OR RATCHET JACK

Install a Standard agricultural 3x8 hydraulic cylinder compatible ratchet jack between the lug on rockshaft and the lug on top of the housing.

## HOSE STAND

Remove the right bolt from the top of the gearbox shield and install the hose stand. Run the hydraulic hoses though the tractor. The stand is located in the box of part.

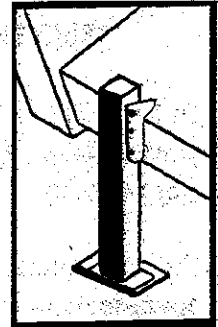
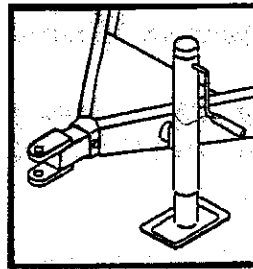
## RECOMMENDED TORQUE IN FOOT-POUNDS COARSE AND FINE THREAD GRADE 5 BOLTS

DIA	TORQUE	DIA	TORQUE
1/4	10	9/16	111
5/16	18	5/8	173
3/8	39	3/4	290
7/16	58	7/8	500
1/2	87	1	620

## IMPLEMENT JACK OR STAND

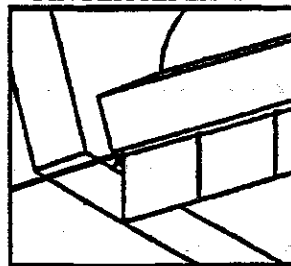
The implement jack or stands are in the box of parts. The implement jack is required on all pull type shredders. The jack stands are required on semi-mount & full shredders.

Install as shown in illustration below.

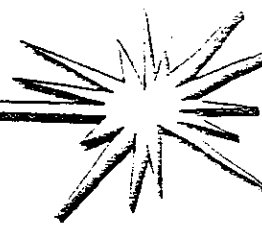


## HINGING GUARDS

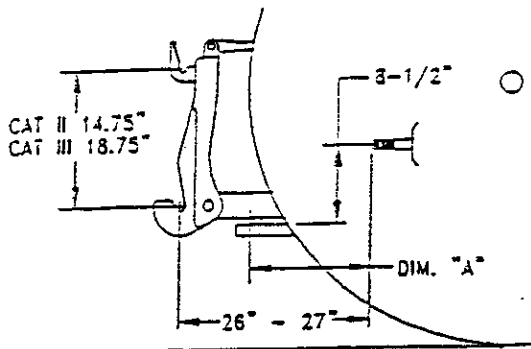
Remove hinging guards and two roll pins from the box of parts, and locate the tow hinge rods. Each are about half the total length of the shredder. Install rods from the out side of the shredder in-ward. Slide one hinge rod halfway though the first tab while positioning a hinging guard between tabs. Slide rod through the guard and repeat until all are in place. Install roll pin between last tab and the end panel.



# Set-Up & Assembly **BALZER**



SUGGESTED MOUNTING ADJUSTMENT  
FOR FULL-MOUNT, SEMI-MOUNT, AND  
PULL-TYPE.

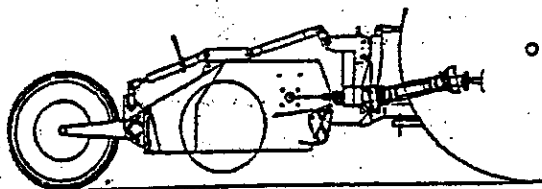


**DRAWBAR ADJUSTMENT**

PTO STYLE	DIM "A"
1-3/8"-6 SPLINE	14"
1-3/8"-21 SPLINE	16"
1-3/4"-20 SPLINE	20"

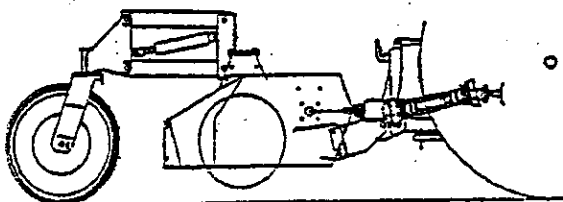
The diagram above shows ASAE standard dimensions. Safe and proper operation is dependant on correct adjustment. Compare these dimensions to your tractor, and make any necessary adjustments. If these dimensions are not possible on your tractor, contact your dealer for help.

## FULL MOUNT (3 POINT)



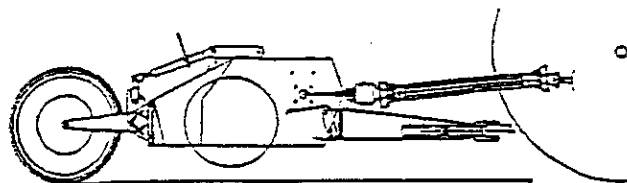
Pictured above is a full mount unit with the required quick hitch.

## SEMI-MOUNT (2 POINT)



Pictured above is a semi-mount unit with the required quick hitch.

## PULL TYPE



Pictured above is a pull type shredder.

## PTO DRIVES

Pull type shredders require different length pto's than do full mount or semi mount shredders. Be sure you have the correct PTO before running the shredder. Measure the PTO and compare the dimensions to the following chart. If it does not match, contact your dealer for the correct PTO.

**IMPROPER PTO LENGTH CAN RESULT IN SERIOUS INJURY AND EQUIPMENT DAMAGE.**

P/N	UNIT	RPM	SPLINE	COMPRESSED OVERALL LENGTH
X27023	PULL TYPE W/CLUTCH	540	1-3/8-6	49-1/2
X27024	PULL TYPE W/CLUTCH	1000	1-3/8-21	49-1/2
X27025	PULL TYPE W/CLUTCH	1000	1-3/4-20	49-1/2
X27026	PULL TYPE CV W/CLUTCH	540	1-3/8-6	51
X27027	PULL TYPE CV W/CLUTCH	1000	1-3/8-21	51
X27028	PULL TYPE CV W/CLUTCH	1000	1-3/4-20	51

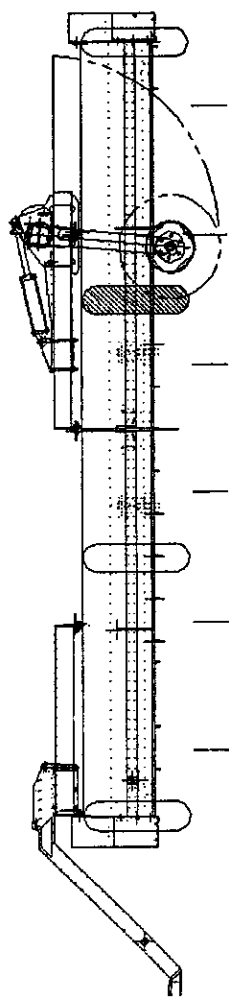
P/N	UNIT	RPM	SPLINE	COMPRESSED OVERALL LENGTH
X70026	FULL AND SEMI MNT W/CLUTCH	1000	1-3/8-21	34-3/4
X70027	FULL AND SEMI MNT W/CLUTCH	1000	1-3/4-20	34-3/4

27850

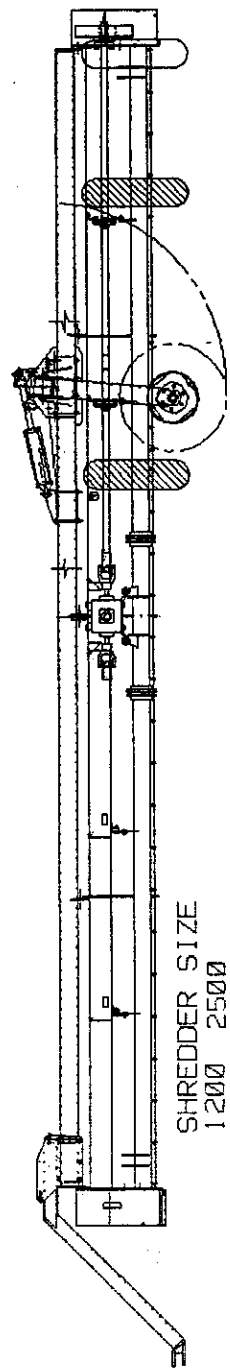
PART #

DATE BY APR  
8/9/68

NOTES  
RELEASE



SHREDDER SIZE  
1800  
2000



SHREDDER SIZE  
1200 2500  
1500 2650  
2200  
2400

SHREDDER AND TRANSPORT COMPOSITE ASSEMBLY	SHREDDER SIZE REFERENCE ONLY	TRANSPORT INSTRUCTIONS	TRANSPORT ASSEMBLY	MOUNTING TUBE	MOUNTING TUBE FRONT	MOUNTING TUBE REAR	BOLT	NUT	WASHER
27850	1200	29700	27835	28415			1291 (6)	2546 (6)	1602 (12)
27851	1500	29701	27835	28416			1291 (6)	2546 (6)	1602 (12)
27852	1800	29702	27835		27837	27838	1291 (8)	2546 (8)	1602 (16)
27853	2000	29703	27830		27841	27843	1291 (8)	2546 (8)	1602 (16)
27854	2200	29704	27830						
27855	2400	29705	27830						
27856	2500	29706	27830						
27857	2650	29707	27830						

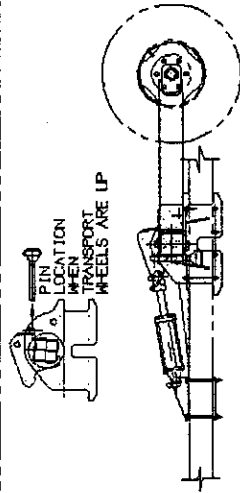
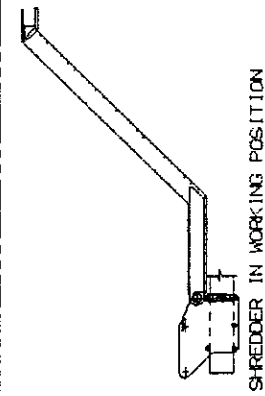
ITEM	QTY	COMPONENT #	DESCRIPTION
WHERE USED:			
TOL. UNLESS SPECIFIED	FAB .03	WELD .06	PER STDS. MAIN #1
BALZER INC. HIGHWAY 90 EAST MOUNTAIN LAKE, IN 46068 (800) 427-503			
PART NAME:	SHREDDER TRANSPORT COMPOSITE ASSY.		PART NO. 27850

OPER#	W/C	DESCRIPTION

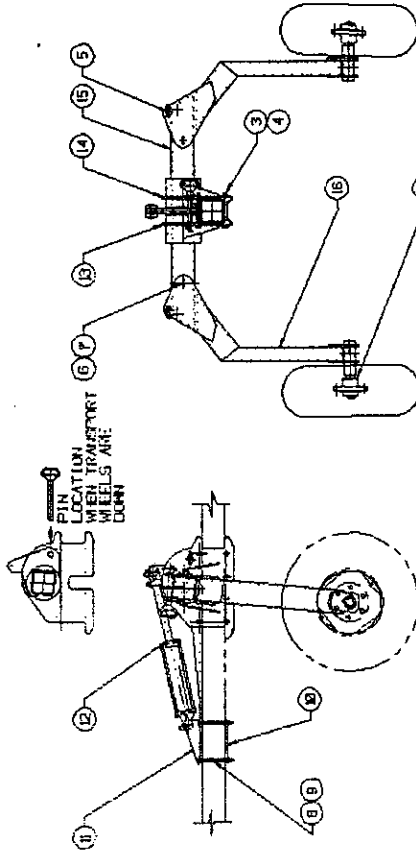
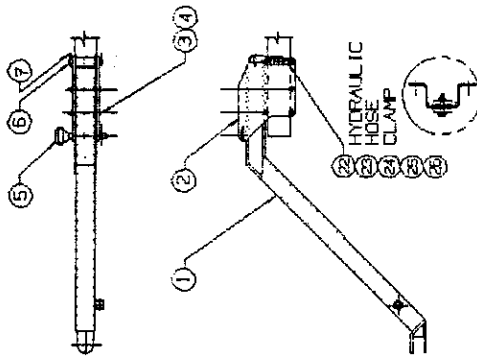
BALZER  
TRANSPORT

PART# 27830

REV. 2065 was 11/959  
DATE 11/97 CH  
PART 27830



SHREDDER IN WORKING POSITION



TRANSPORT POSITION

TRANSPORT POSITION

NOTE: PARTS INCLUDED, BUT NOT SHOWN

(20) HYDRAULIC HOSE AND FITTINGS

(21) BAG FOR PARTS

(22) 27830 DRAWING

(20) ELBOW SWIVEL ADAPTER .5X.25X90 DEG.

OPER. W/C

DESCRIPTION

ITEM	QTY	COMPONENT #	DESCRIPTION
28	2	21201	ELBOW ADAPTER .5 X .25X90
27	1	27830	DRAWING-TRANSPORT
26	1	2475	NUT-HEX HD 5/16
25	2	1597	WASHER FLAT 5/16
24	1	1190	BOLT-HEX HD 5/16 X 2
23	1	15742	HOSE CLAMP
22	1	27833	BRACKET-HOSE-TRANSPORT
21	1	15056	BAG (FOR PARTS)
20	2	18469	HOSE .25 X 290"
19	2	1256	BOLT-HEX HD 1/2" X 3.5
18	2	8125	RIM
17	2	18240	SPINDLE 1.75" REMOVABLE
16	2	29710	ARM-TRANSPORT
15	1	29711	CENTER ARM-TRANSPORT
14	1	27826	MOUNT-ROCKSHAFT R.H.
13	1	27827	MOUNT-ROCKSHAFT L.H.
12	1	27831	CYL. 4" X 12" HYDRAULIC
11	1	29713	CYLINDER MOUNT
10	1	27807	PLATE-MOUNTING
9	6	2539	NUT-HEX HD 1/2" SELF LK
8	4	1266	BOLT-HEX HD 1/2 X 7
7	6	2065	PIN COTTER 1/4 X 2"
6	3	15987	PIN-1" DIA X 7.5"
5	4	27829	PIN-HITCH 1" DIA
4	11	2546	NUT-HEX HD 5/8 SELF LK
3	11	1305	BOLT-HEX HD 5/8 X 7
2	2	27803	PLATE-MOUNTING
1	1	29708	TONGUE-TRANSPORT

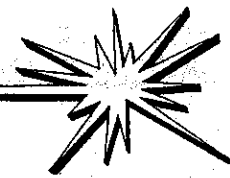
WHERE USED: 2000, 2200, 2400, 2500, 2650, SHREDDER  
 TOOLING: FAB 03 WELD 06 HOLES 04K 010, SPEC 07  
 SPEC 08

BALZER INC  
 1500 W. 100th St. NW  
 Grand Rapids, MI 49508

PART NAME: TRANSPORT-SHREDDER  
 PART NO.: 27830  
 MAKE: 2000, 2400, 2500, 2650

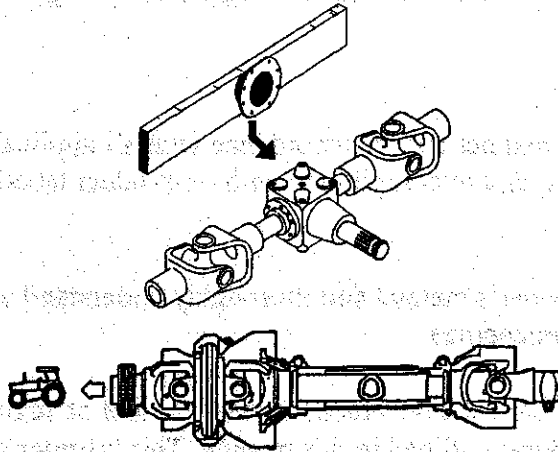
# BALZER TRANSPORT

# Service & Lubrication



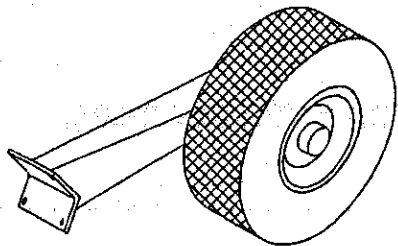
Check oil level, use a good SAE 90 weight oil with anti-foaming additives.

Grease U-joint every 10 hours of operation.



Grease all PTO joints prior to operating and after every eight hours of operation. Some PTO's have a grease fitting for the slide. If your PTO doesn't, it should be pulled apart and the slide cleaned and greased occasionally to insure proper and safe operation.

Grease wheel bearing every 50 hours of operation (grease zerk located on the wheel hub).

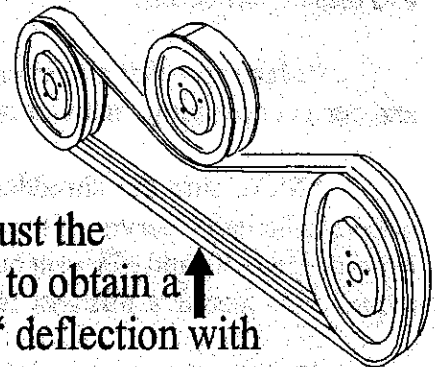


For maximum life and performance, the CV body must be greased regularly. Lubricate with the drive line in a straight position - up to 30 pumps of grease may be required.

The metal drive tubes must be greased to operate properly.

Shielding is subject to damage from abuse and weathering. Replace all damaged from abuse and weathering. Replace all damaged components and all shielding removed during maintenance.

Do not use PTO adapters with CV drive lines. Replace Special taper pin bolts only with genuine O.E.M. Parts, periodically check tightness of nuts.



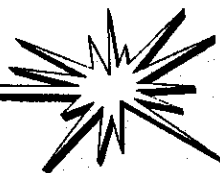
Adjust the belt to obtain a  $\uparrow$  3/8" deflection with a 65 LB force as shown by the arrow.

## ATTENTION!

Grease the six 2-3/16" flange bearing supporting the four rotors every 800 to 1400 acres, or every 50 to 100 hours of operation with 1/2 ounce, **NO MORE THAN 3 PUMPS SLOWLY GIVEN.**

Grease the line shaft bearings in the same manner as the above with **NO MORE THAN TWO PUMPS SLOWLY GIVEN.**

Do not use a fast greasing gun because it may dislocate the seal. Grease the two couplings between the rotors once every season.



**IT IS THE POLICY OF BALZER INC. TO CONSTANTLY IMPROVE ITS PRODUCTS WHENEVER IT IS PRACTICAL TO DO SO. THEREFORE, BALZER INC. RESERVES THE RIGHT TO REDESIGN OR CHANGE ITS EQUIPMENT OR COMPONENT PARTS THEREOF WITHOUT INCURRING THE OBLIGATION TO INSTALL OR FURNISH SUCH CHANGES ON EQUIPMENT PREVIOUSLY DELIVERED.**

## **INSTRUCTIONS FOR ORDERING PARTS**

To enable our customer service department to provide you with the correct replacement parts promptly and accurately, follow the ordering instructions as listed below.

Identify your equipment by serial number whenever possible.

Use part numbers and descriptions from the illustration drawings furnished to assist in identifying the needed parts.

Owners, order all parts through your local dealer.

Dealers must indicate company name, shipping point and mailing address for notification if different from shipping point. State whether freight, express, parcel or other handling is desired.

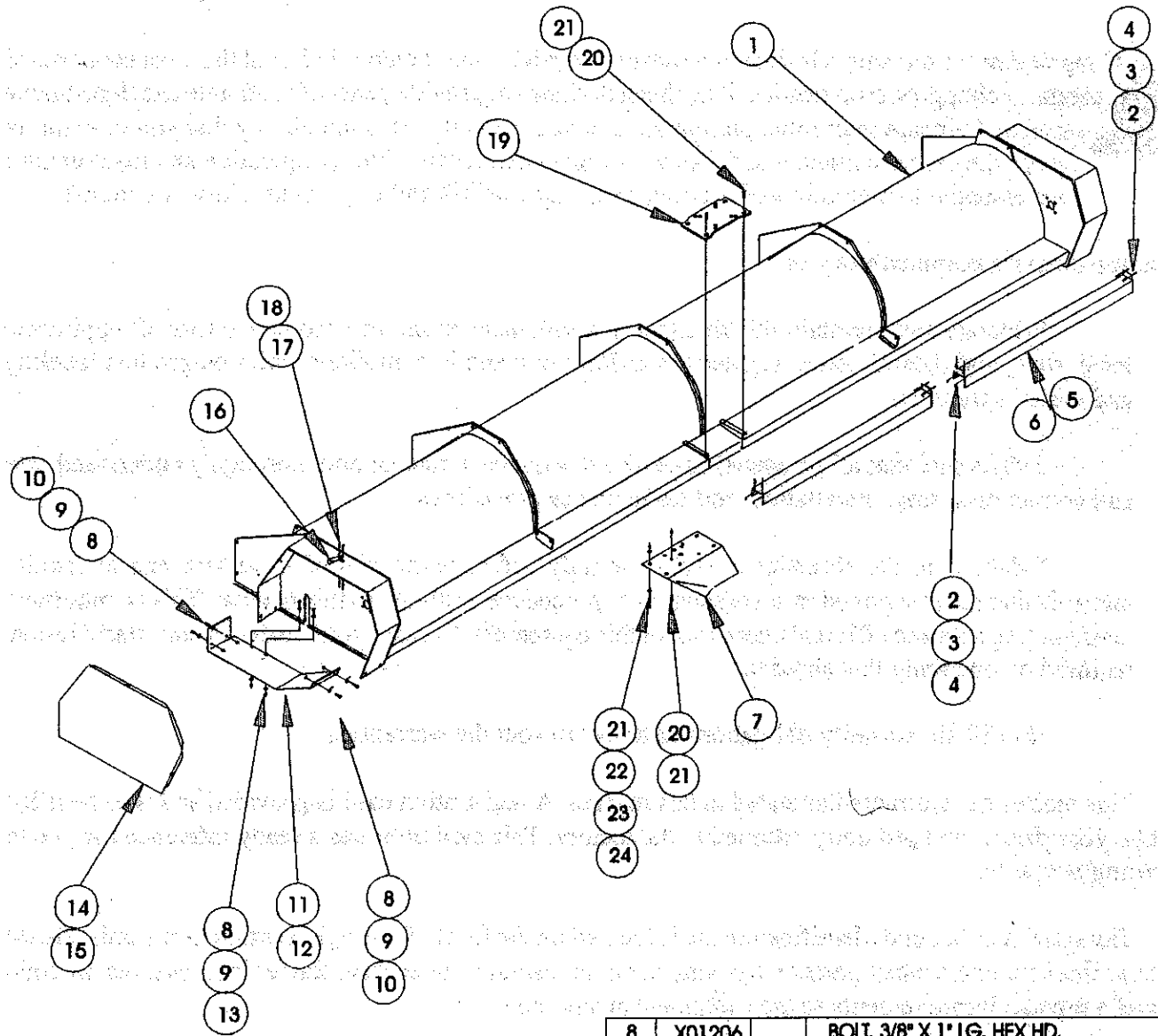
Address all orders for parts as follows:

BALZER INC.  
CTY. RD. 27E.  
P.O. BOX 458  
MOUNTAIN LAKE, MN. 56159  
PHONE 1-800-795-8551

## **INSTRUCTIONS FOR RETURNING PARTS FOR ADJUSTMENT**

Dealers should inspect all parts when received. Shortages or damage should be noted by the carrier agent at the time the parts are accepted. Shippers responsibility ceases upon delivery of shipment to customer in good order. Claims for damage, loss, or malfunction are to be reported within thirty (30) days for warranty considerations.

All returned parts must have return authorization, a copy of the original packing list and transportation prepaid.



24	X01602		FLATWASHER, 5/8"
23	X01640		LOCKWASHER, 5/8"
22	XO1291		BOLT, 5/8" X 2" LG. HEX HD GR.5
21	XO2546		NUT, 5/8" HEX HD TOPLOCK GR.8
20	XO1290		BOLT, 5/8" X 1-1/2" LG. HEX HD
19	X28491	1	MOUNT, GEAR BOX
18	XO2564		NUT, 1/4" HEX HD. (LOCKING)
17	XO1161		BOLT, 1/4" X 5/8" LG. HEX HD.
16	X14403	4	LATCH, HOOD
15	X28473	1	SHIELD, L.H. END
14	X28472	1	SHIELD, R.H. END
13	XO1207		BOLT, 3/8" X 1-1/4" LG. HEX HD.
12	X28467	1	PANEL, L.H. BOTTOM END
11	X28466	1	PANEL, R.H. BOTTOM END
10	XO1598		FLATWASHER, 3/8"
9	XO2496		NUT, 3/8" HEX HD. (LOCKING)
ITEM	PART NO.	QTY.	DESCRIPTION

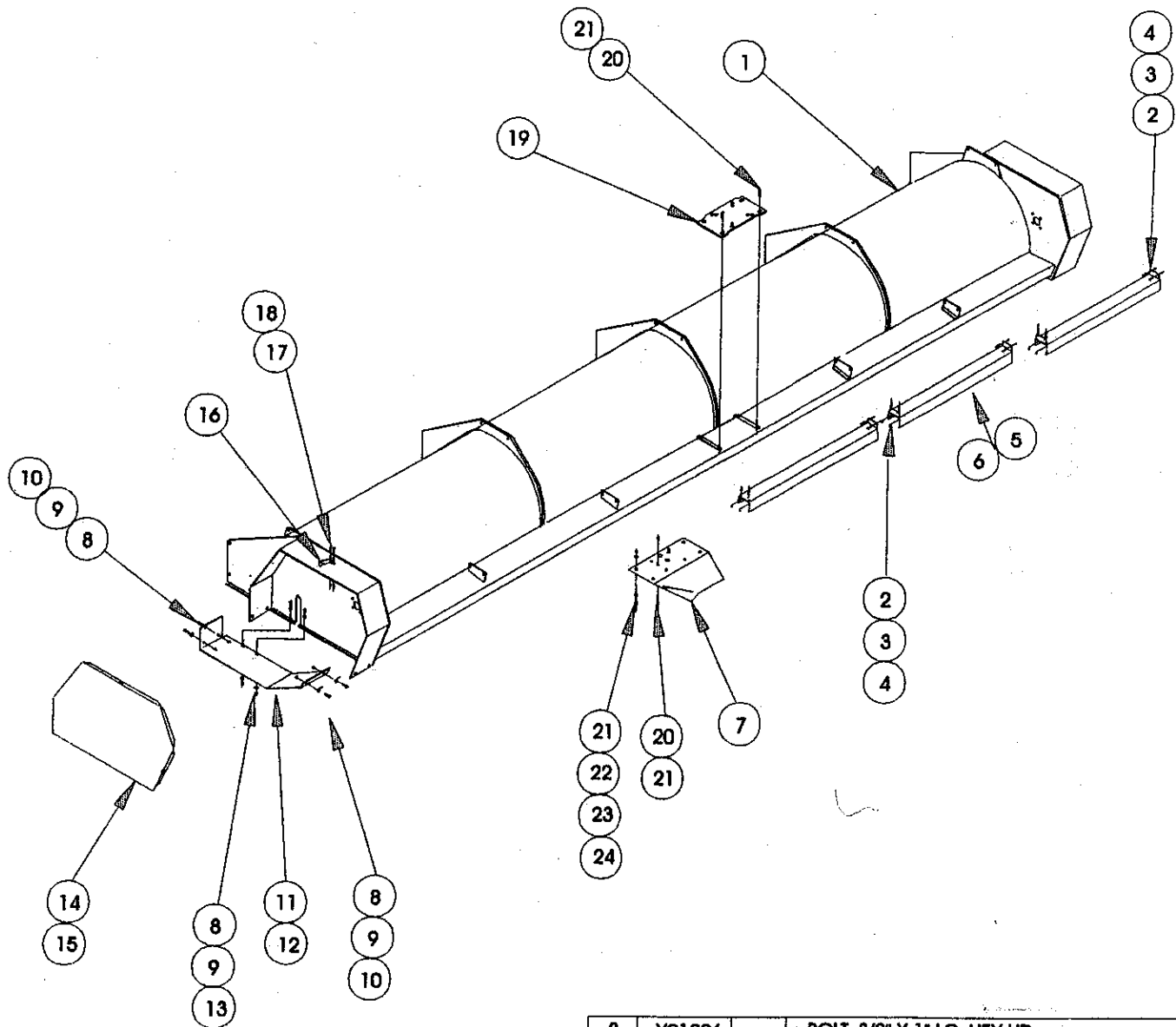
8	XO1206		BOLT, 3/8" X 1" LG. HEX HD.
7	X17307	1	SHIELD, GEARBOX
6	X24508	1	SHIELD, R.H. LINE SHAFT INSIDE (2500)
	X31558	1	SHIELD, R.H. LINE SHAFT OUTSIDE (2500)
	X24507	1	SHIELD, L.H. LINE SHAFT INSIDE (2500)
5	X31657	1	SHIELD, L.H. LINE SHAFT OUTSIDE (2500)
	X24508	1	SHIELD, R.H. LINE SHAFT INSIDE (2400)
	X24512	1	SHIELD, R.H. LINE SHAFT OUTSIDE (2400+2200)
	X24507	1	SHIELD, L.H. LINE SHAFT INSIDE (2400)
	X24517	1	SHIELD, L.H. LINE SHAFT OUTSIDE (2400+2200)
4	X24516	1	SHIELD, R.H. LINE SHAFT INSIDE (2200)
	X24515	1	SHIELD, L.H. LINE SHAFT INSIDE (2200)
	XO2475		NUT, 5/16" HEX HD. (LOCKING)
3	XO1597		FLATWASHER, 5/16"
2	XO1185		BOLT, 5/16" X 1" LG. HEX HD.
1	X28006	1	HOUSING, MAIN (2500)
	X28005	1	HOUSING, MAIN (2400)
	X28004	1	HOUSING, MAIN (2200)
ITEM	PART NO.	QTY.	DESCRIPTION



B	9-12-95	REVISED	DWG 1-16-95
REV.	DATE	DESCRIPTION OF REVISION	SCALE 1/4" = 1"
			DRAWN THB

MAIN HOUSING  
MODELS 2200-2400-2500

REF. NO. 20208  
DRAWING NO. SC500102



ITEM	PART NO.	QTY.	DESCRIPTION
24	X01602		FLATWASHER, 5/8"
23	X01640		LOCKWASHER, 5/8"
22	XO1291		BOLT, 5/8" X 2" LG. HEX HD GR.5
21	XO2546		NUT, 5/8" HEX HD TOPLOCK GR.8
20	XO1290		BOLT, 5/8" X 1-1/2" LG. HEX HD
19	X28491	1	MOUNT, GEAR BOX
18	XO2564		NUT, 1/4" HEX HD. (LOCKING)
17	XO1161		BOLT, 1/4" X 5/8" LG. HEX HD.
16	X14403	4	LATCH, HOOD
15	X28473	1	SHIELD, L.H. END
14	X28472	1	SHIELD, R.H. END
13	XO1207		BOLT, 3/8" X 1-1/4" LG. HEX HD.
12	X28467	1	PANEL, L.H. BOTTOM END
11	X28466	1	PANEL, R.H. BOTTOM END
10	XO1598		FLATWASHER, 3/8"
9	XO2496		NUT, 3/8" HEX HD. (LOCKING)

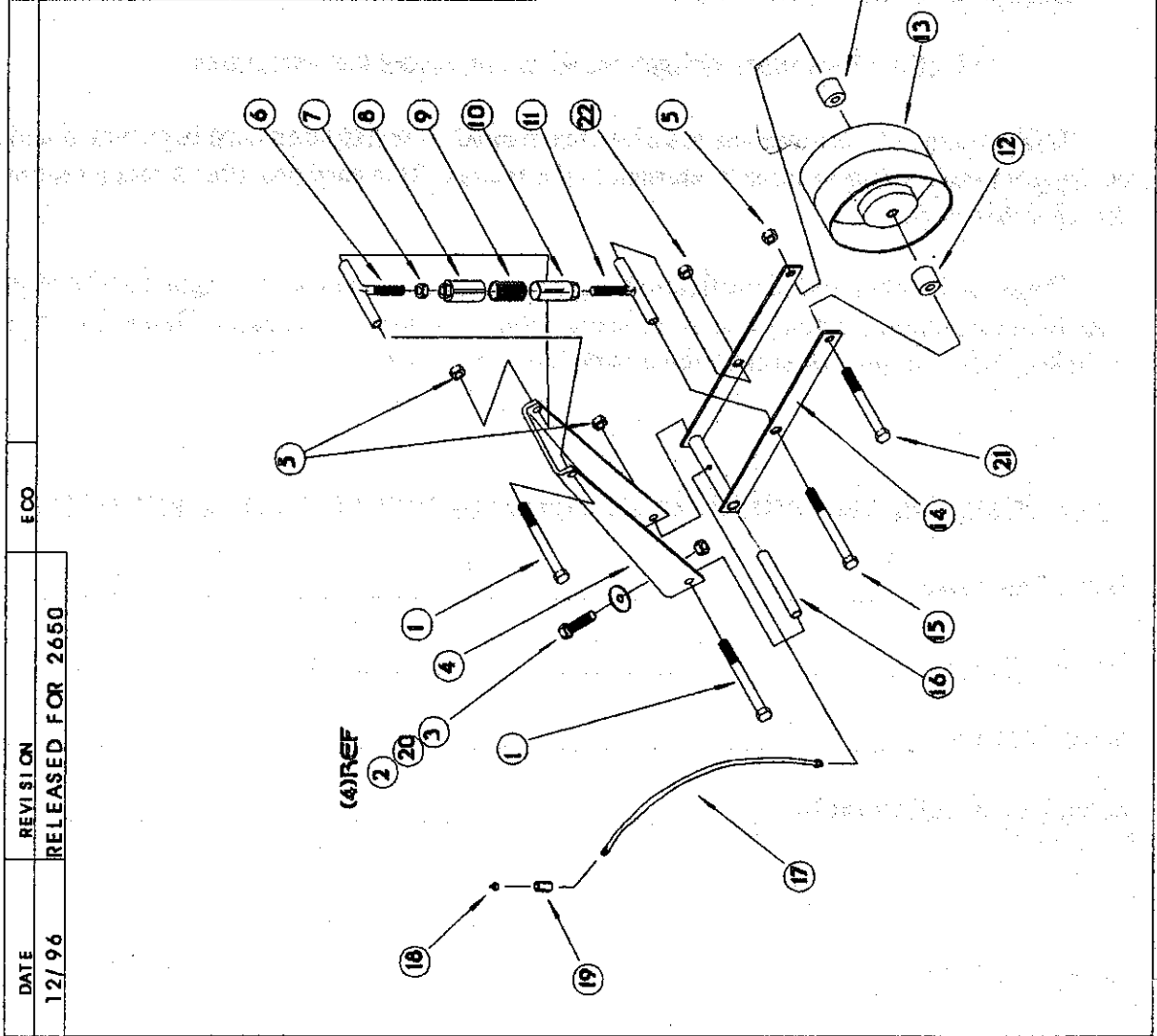
ITEM	PART NO.	QTY.	DESCRIPTION
8	XO1206		BOLT, 3/8" X 1" LG. HEX HD.
7	X17307	1	SHIELD, GEARBOX
6	X28190	1	SHIELD, R.H. LINE SHAFT INSIDE (2650)
	X28192	1	SHIELD, R.H. LINE SHAFT OUTSIDE (2650)
	X28194	1	SHIELD, L.H. LINE SHAFT INSIDE (2650)
	X28191	1	SHIELD, L.H. LINE SHAFT OUTSIDE (2650)
	X28193	1	SHIELD, R.H. LINE SHAFT INSIDE (2650)
	X28195	1	SHIELD, R.H. LINE SHAFT OUTSIDE (2650)
5			
4	XO2475		NUT, 5/16" HEX HD. (LOCKING)
3	XO1597		FLATWASHER, 5/16"
2	XO1185		BOLT, 5/16" X 1" LG. HEX HD.
	X28142	1	HOUSING, MAIN (2650)
1			

	B	9-12-98	REVISED	DATE	1-16-98	<b>MAIN HOUSING</b> <b>MODELS 2650</b>	REF. NO.	20208
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/4" = 1"		DRAWING NO.	SC500102



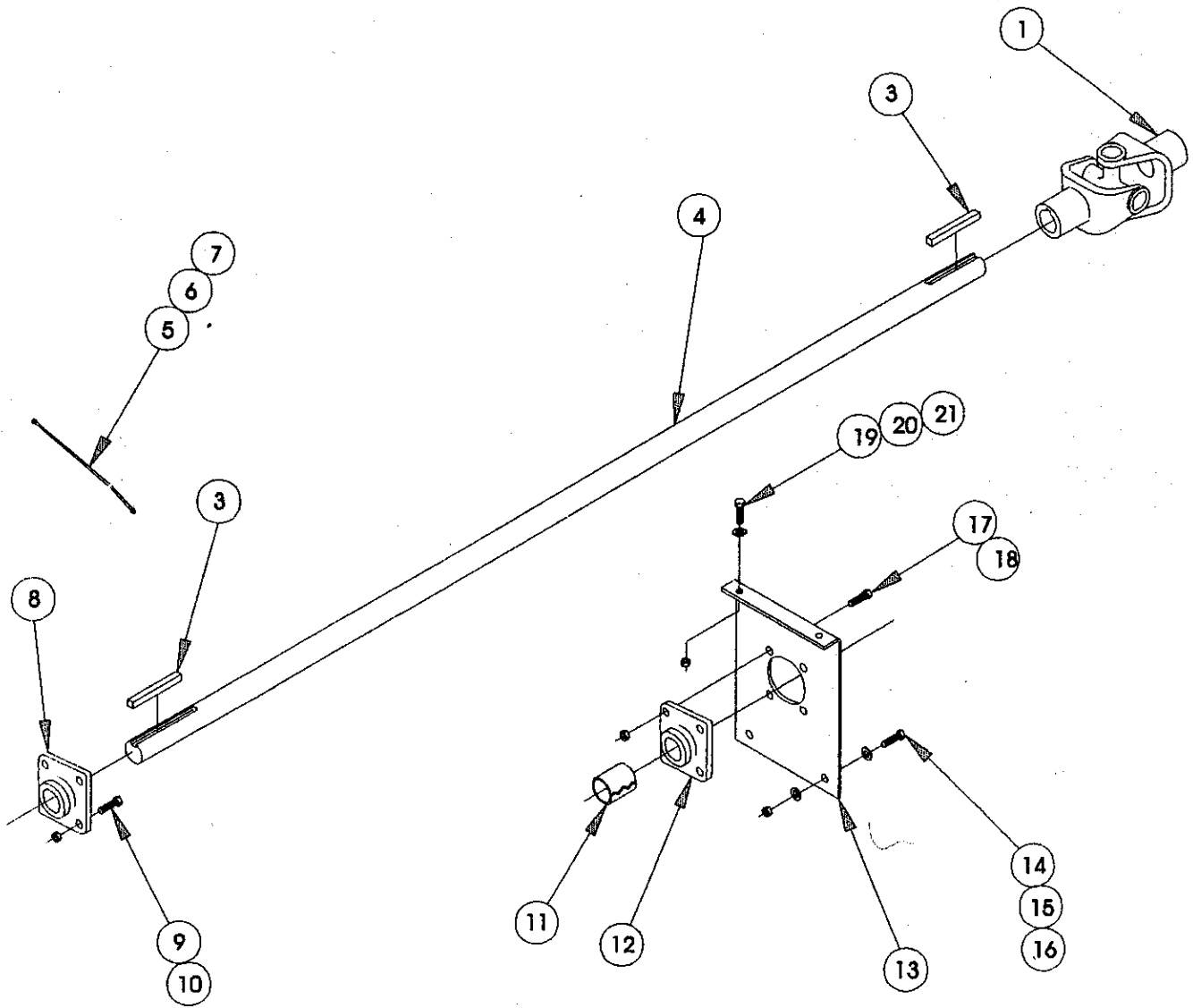


ITEM	QTY	PART NO.	DESCRIPTION	28458
1	2	1263	BOLT HEX HD 1/2 X 5 1/2	
2	REF	1206	BOLT HEX HD 3/8 X 1	
3	REF	1207	NUT HEX HD 3/8 TOP LOCK	
4	1	18624	MOUNTING CHANNEL	
5	3	2539	NUT HEX HD 1/2 TOP LOCK	
6	1	18825	ADJUSTER UPPER	
7	1	1696	NUT HEX HD 5/8-11 UNC R. H.	
8	1	24684	TIGHTENER HALF OUTER	
9	1	2616	SPRING COMPRESSION	
10	1	24587	TIGHTENER HALF INNER	
11	1	18826	ADJUSTER LOWER	
12	2	24589	BUSHING 1 1/4 X .62 X 1 3/16	
13	1	28461	IDLER PULLEY 10"	
14	1	28462	TIGHTENER 10"	
15	1	1262	BOLT HEX HD .5 X 5	
16	1	12400	PIPE BUSHING	
17	1	24180	GREASE LINE HOSE 18"	
18	1	2291	ZERK 1/8 NPT	
19	1	12333	COUPLER 1/8 NPT	
20	REF	1598	WASHER FLAT 3/8	
21	1	1301	BOLT HEX HD .62 X 5	
22	1	2546	NUT HEX HD .62 TOP LOCK	



NEXT ASSY 1/28141

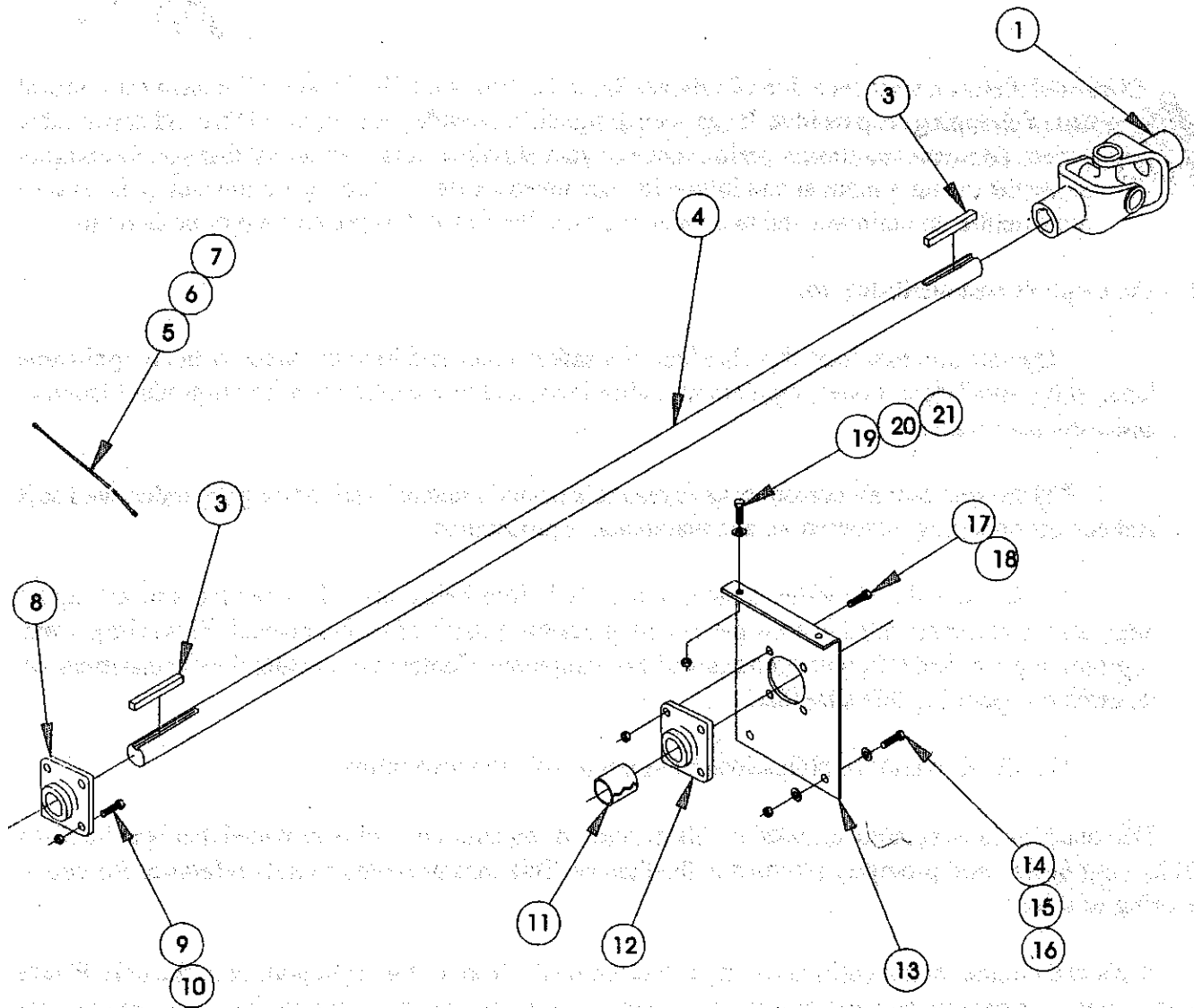
QTY PER	MAT. CODE	MAT. SIZE AND DESCRIPTION	ASSEMBLY
	STANDARD FOR UNLESS SPECIFIED	FAB .03 1/32 1/2"	SHEET OF 1
MOVE TO FINAL ASSY.		WELD .06 1/16 1"	DO NOT SCALE
OPERATION INSTRUCTIONS			
UNLESSHIT OR LENGTH			
WARRANT	REL. DATE	DRAWN DM	
STD. TIME	ECC. NO.	CHECKED DM	
		DATE 12/96	
		PART NO. 28458	



21	XO2475		NUT, 5/16" HEX HD TOPLOCK
20	XO1597		FLATWASHER, 5/16"
19	XO1185		BOLT, 5/16" X 1" LG. HEX HD
18	XO2546		NUT, 5/8" HEX HD TOPLOCK
17	XO1290		BOLT, 5/8" X 1-3/4" LG. HEX HD
16	XO2539		NUT, 1/2" HEX HD TOPLOCK
15	XO1600	8	FLATWASHER, 1/2"
14	XO1249		BOLT, 1/2" X 1-1/4" LG. HEX HD.
13	X24223	2	PLATE, MOUNTING
12	X16895	2	BEARING, 2" 4-BOLT
11	X24203	2	SLEEVE, 1-3/4"
10	XO2546		NUT, 5/8" HEX HD TOPLOCK
9	XO1291		BOLT, 5/8" X 2" LG"
ITEM	PART NO.	QTY.	DESCRIPTION

8	X20092	2	BEARING, 1-3/4" 4-BOLT (1800 - 2400)
7	XO2291	2	ZERK, 1/8" NPT
6	X12333	2	COUPLER, 1/8" NPT
5	X24179	2	HOSE, GREASE LINE (1/8" X 30" LG.)
4	X31556	2	LINE SHAFT 1.25 X 142" LG (2500)
	X24483	2	LINE SHAFT, 1.75" X 136" LG. (2400)
	X24482	2	LINE SHAFT, 1.75" X 125" LG. (2200)
3	XO2408	4	KEY, 3/8" X 2-1/2" LG.
2	X12911	2	KIT, CROSS & BEARING (NOT SHOWN)
1	X24239	2	U-JOINT, 1-3/4" (2200 - 2650)
ITEM	PART NO.	QTY.	DESCRIPTION

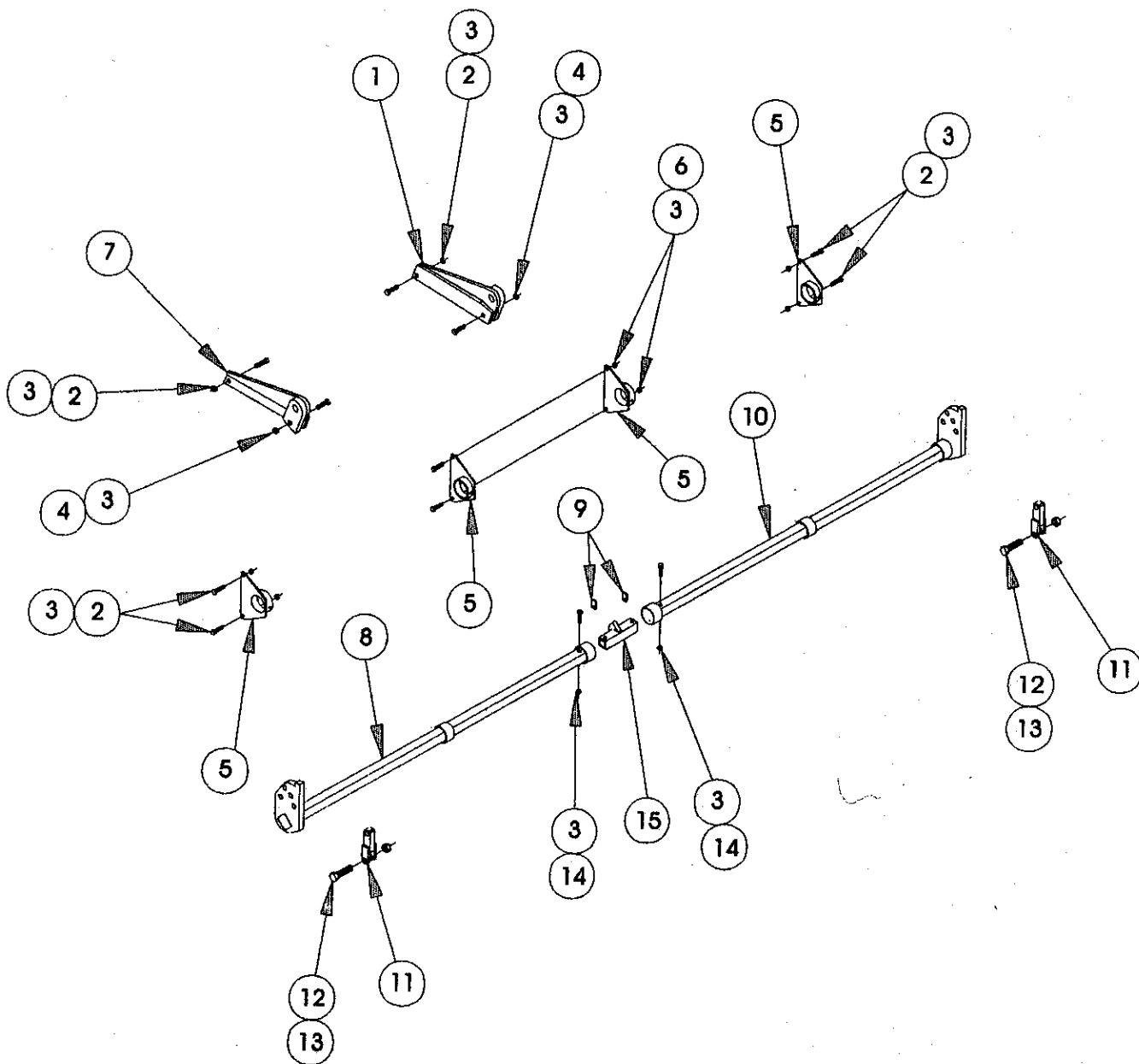
	B	9-13-95	REVISED	DATE 1-19-98	<b>DRIVE LINE ASSEMBLY</b> <b>MODELS 2200-2500</b>	REF. NO. 20211
	REV.	DATE	DESCRIPTION OF REVISION	SCALE 1/4" = 1"		DRAW TWS



21	XO2475		NUT, 5/16" HEX HD TOPLOCK
20	XO1597		FLATWASHER, 5/16"
19	XO1185		BOLT, 5/16" X 1" LG. HEX HD
18	XO2546		NUT, 5/8" HEX HD TOPLOCK
17	XO1290		BOLT, 5/8" X 1-3/4" LG. HEX HD
16	XO2539		NUT, 1/2" HEX HD TOPLOCK
15	XO1600		FLATWASHER, 1/2"
14	XO1249		BOLT, 1/2" X 1-1/4" LG. HEX HD.
13	X24223	4	PLATE, MOUNTING
12	X16895	4	BEARING, 2" 4-BOLT
11	X24203	4	SLEEVE, 1-3/4"
10	XO2546		NUT, 5/8" HEX HD TOPLOCK
9	XO1291		BOLT, 5/8" X 2" LG"
ITEM	PART NO.	QTY.	DESCRIPTION

8	X20092	2	BEARING, 1-3/4" 4-BOLT (1800 - 2400)
7	XO2291	2	ZERK, 1/8" NPT
6	X12333	2	COUPLER, 1/8" NPT
5	X24179	2	HOSE, GREASE LINE (1/8" X 30" LG.)
	X24178	2	HOSE, GREASE LINE (.18" X 10" LG.)
	X28498	4	LINE SHAFT 1.75 X 151" LG
4			
3	XO2408	4	KEY, 3/8" X 2-1/2" LG.
2	X12911	2	KIT, CROSS & BEARING (NOT SHOWN)
1	X24239	2	U-JOINT, 1-3/4"
ITEM	PART NO.	QTY.	DESCRIPTION

<b>BALZER</b>	B	9-13-95	REVISED	DWG 1-19-98	DRIVE LINE ASSEMBLY MODELS 2650	REF. NO. 20211
	REV.	DATE	DESCRIPTION OF REVISION	SCALE 1/4" = 1"		DRAWING NO. SC500106



ITEM	PART NO.	QTY.	DESCRIPTION
15	X24301	1	BAR, ROCKSHAFT SPLICE
14	XO1298		BOLT, 5/8" X 3-3/4" LG. HEX HD.
13	XO1779		NUT, 1" HEX HD TOPLOCK
12	XO1354		BOLT, 1" X 3.25" HEX HD
11	X24276	2	ARM, CLEVIS
10	X28185	1	ROCKSHAFT, L. H. (2650)
	X31567	1	ROCKSHAFT, L. H. (2500)
	X24497	1	ROCKSHAFT, L. H. (2400)
	X28047	1	ROCKSHAFT, L. H. (2200)
9	X24282	2	SPACER, LOWER

8	X28184	1	ROCKSHAFT, R. H. (2650)
	X31566	1	ROCKSHAFT, R. H. (2500)
	X24496	1	ROCKSHAFT, R. H. (2400)
	X28046	1	ROCKSHAFT, R. H. (2200)
7	X28495	1	MOUNT, L. H. CYLINDER 2650
	X24315	1	MOUNT, L. H. CYLINDER 2200, 2400, 2500
6	XO1295		BOLT, 5/8" X 3" LG. HEX HD.
5	X24271	8	BEARING, ROCKSHAFT
4	XO1291		BOLT, 5/8" X 2" HEX HD.
3	XO2546		NUT, 5/8" HEX HD TOPLOCK
2	XO1290		BOLT, 5/8" X 1-3/4" HEX HD.
1	X28494	1	MOUNT, R. H. CYLINDER 2650
	X23414	1	MOUNT, R. H. CYLINDER 2200, 2400, 2500

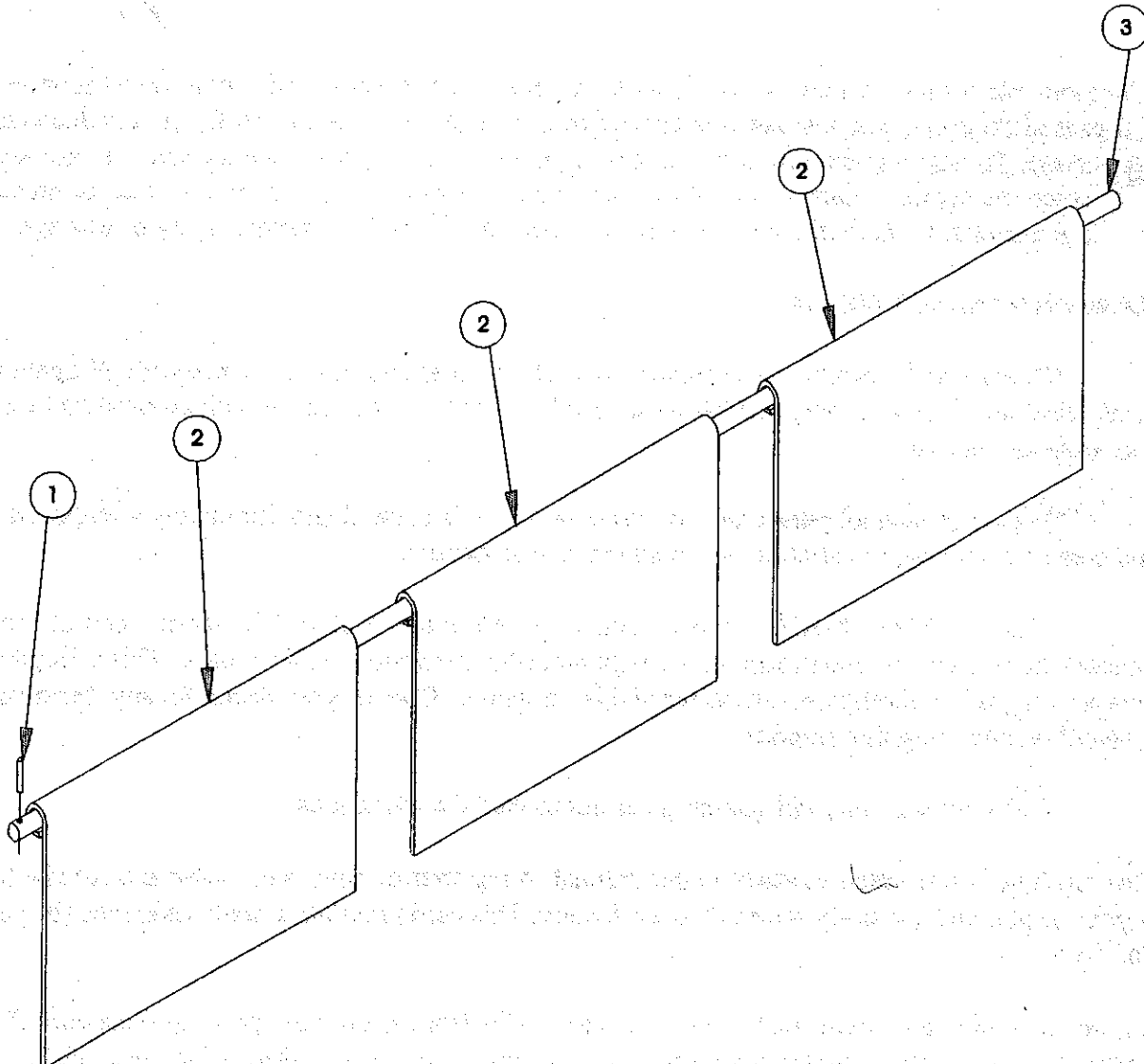
**BALZER**

B 9-13-95 REVISED  
 REV. DATE DESCRIPTION OF REVISION

DATE: 1-27-96  
 SCALE: 1/4" = 1"  
 DRAWN: TWB

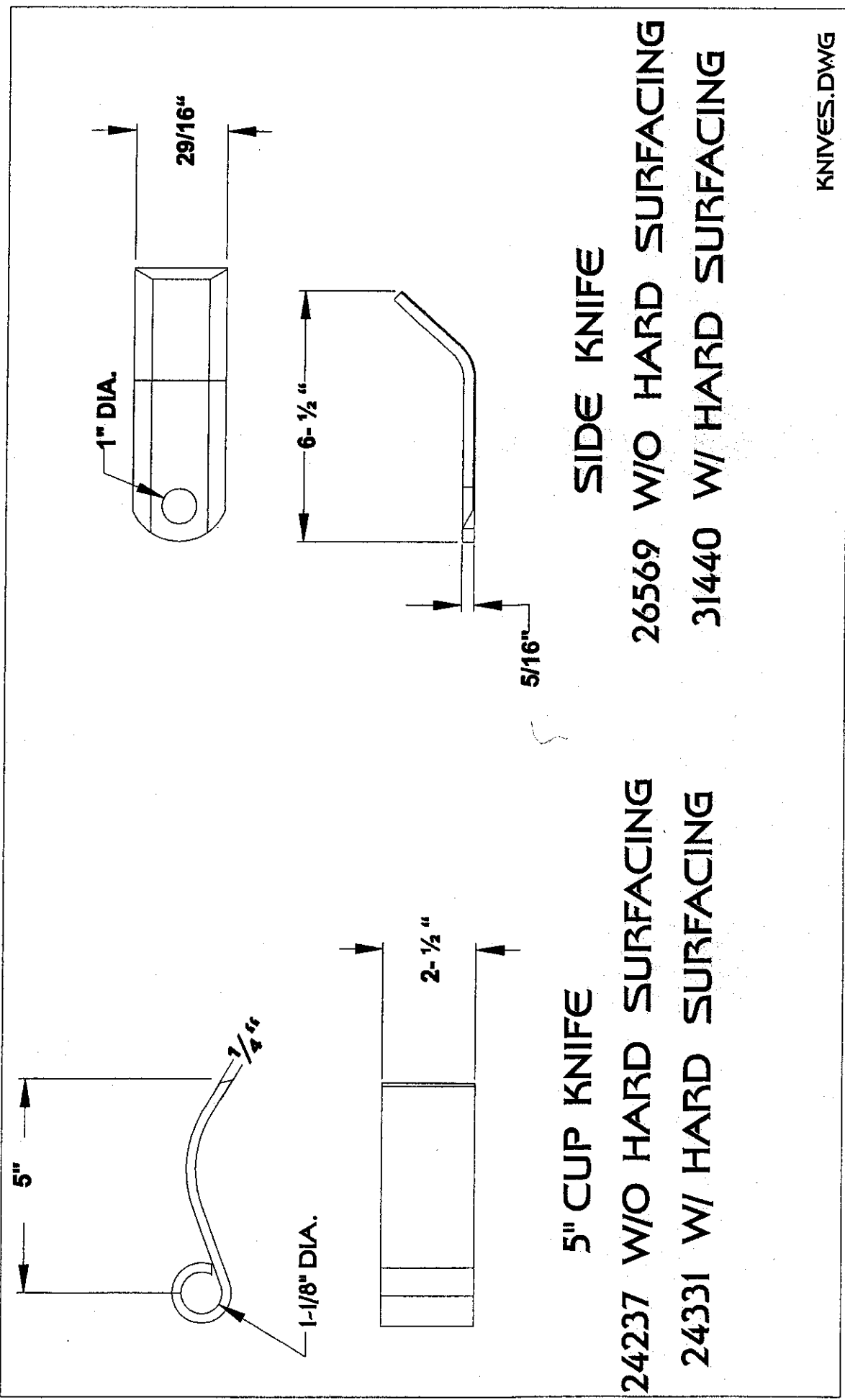
ROCKSHAFT  
 MODELS 2200-2650

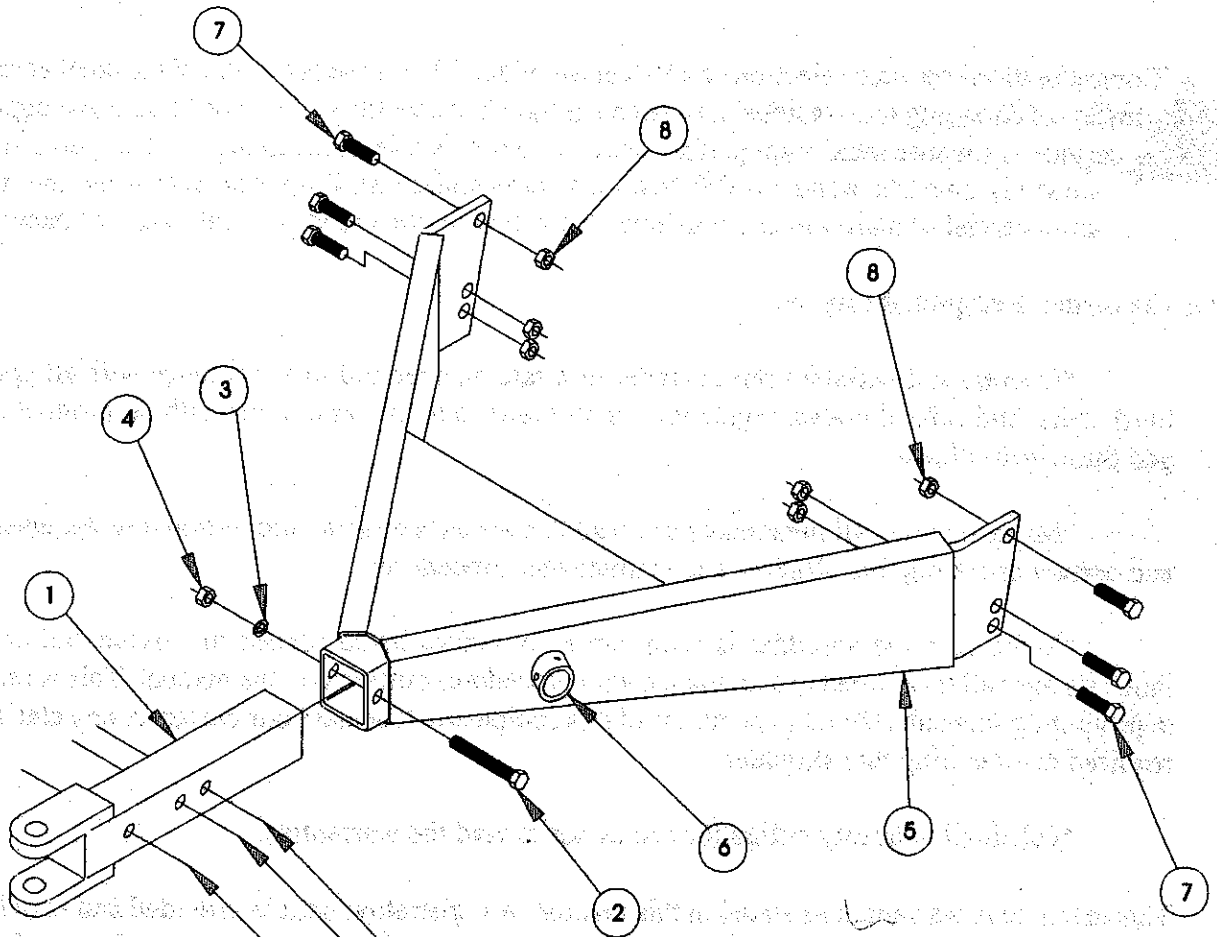
REF. NO. 20214  
 DRAWING NO. SC500108



3	X24499	2	ROD, HINGE (24 FT. UNIT)	2	X28450		GUARD, HINGING 5 5/8	
	X24498	2	ROD, HINGE (22 FT. UNIT)			X28045		GUARD, HINGING 11 3/8
	X28451	2	ROD, HINGE (26.5 FT. UNIT)		1	XO1850	2	PIN, 1/8" X 1" LG. ROLL
	X31555	2	ROD, HINGE (25 FT. UNIT)					
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION	

	B	9-13-95	REVISED	DATE	1-13-96	REF. NO.	20206
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/8" = 1"	DRAWING NO.	SC500109
HINGING GUARD & ROD						DRAWN	TWS





USE THIS ADJUSTMENT MOUNTING HOLE FOR 1-3/4" 1000 RPM PTO.

USE THIS ADJUSTMENT MOUNTING HOLE FOR 1-3/8" 1000 RPM PTO.

USE THIS ADJUSTMENT MOUNTING HOLE FOR 540 RPM PTO.

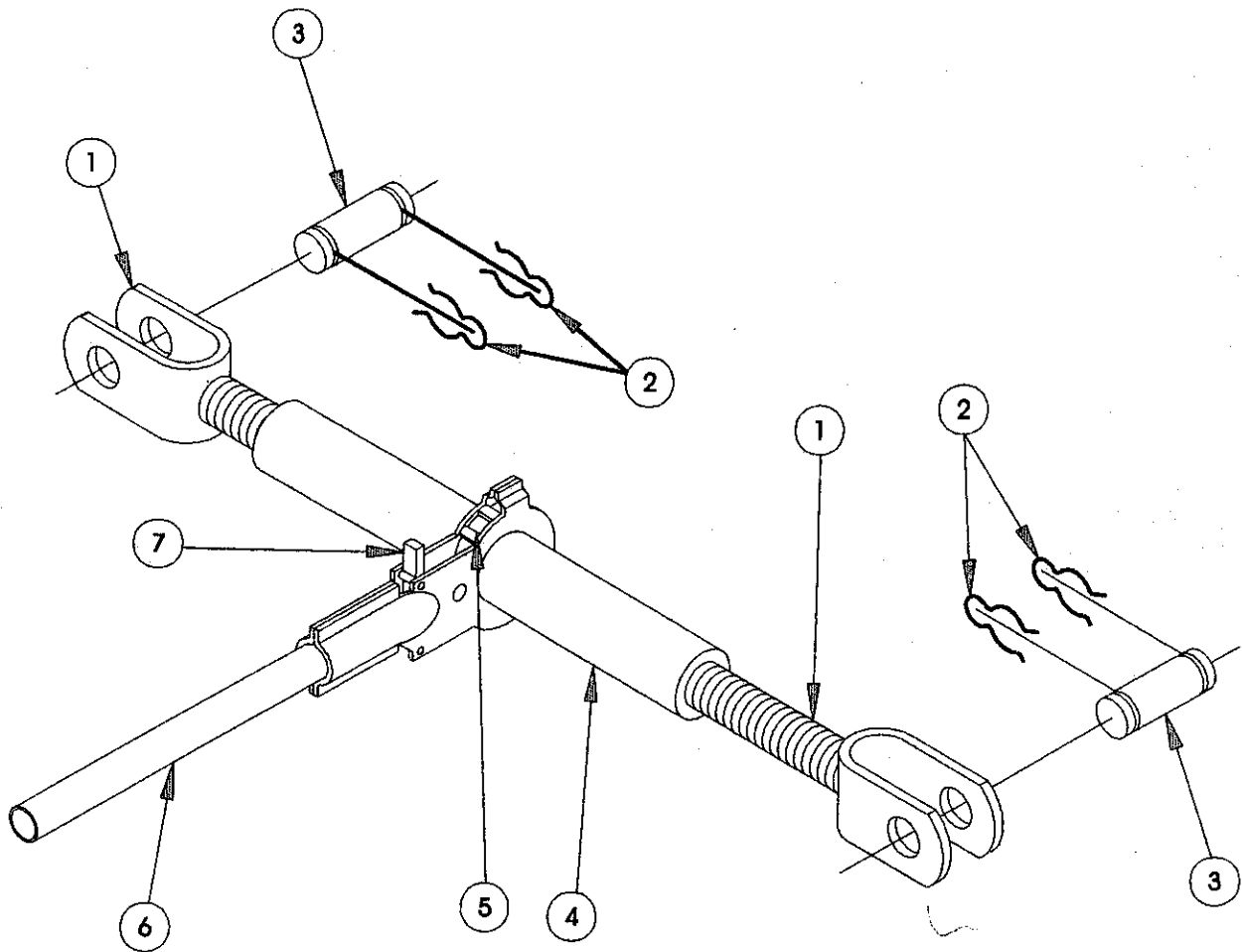
**NOTE:**

TO ORDER A COMPLETE PULL TYPE HITCH (ITEMS 1 & 5), USE PART NUMBER X24283.

ITEM #6 (X10520) IS INCLUDED WITH TONGUE HITCH, BUT CAN BE ORDERED SEPARATE.

8	XO1777	6	NUT, 3/4" HEX HD. (LOCKING)	4	XO1697	1	NUT, 3/4" HEX HD.
7	XO1313	6	BOLT, 3/4" X 2-1/2" LG. HEX HD.	3	XO1641	1	LOCKWASHER, 3/4"
6	X10520	1	SWIVEL, MALE (INCLUDED W/ITEM #5)	2	XO1320	1	BOLT, 3/4" X 5" LG. HEX HD.
5	X24284	1	HITCH, TONGUE	1	X24295	1	TONGUE, ADJUSTING
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

<b>BALZER</b>	8	9-13-95	REVISED	DATE	1-16-95	PULL TYPE HITCH	REF. NO.	20209
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/4" = 1"		DRAWING NO.	SC500110



**NOTE:**

TO ORDER A COMPLETE RATCHET JACK ASSEMBLY, USE PART NUMBER X12267.

7	X12954	1	FINGER, RATCHET	4	X12952	1	HOUSING, MAIN
6	X12956	1	HANDLE	3		2	PIN, 1" DIA. (INCLUDED W/JACK)
5	X12953	1	RATCHET	2		4	CLIP, HAIR PIN (INCLUDED W/JACK)
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
				1	X12951	2	SCREW YOKE ASSEMBLY



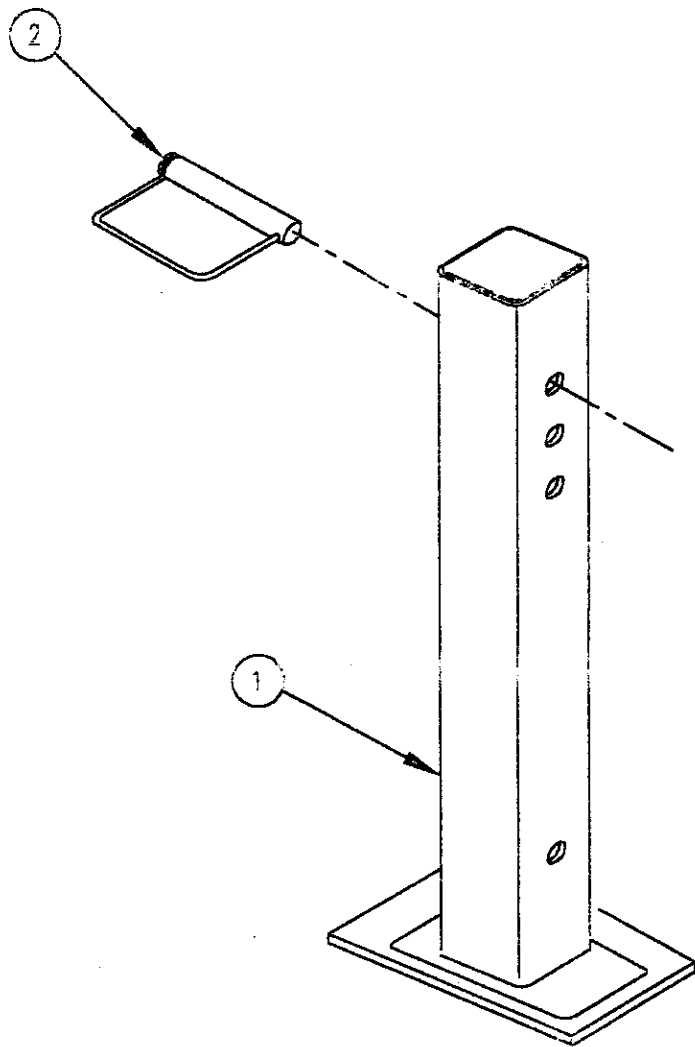
B	9-13-96	REVISED
REV.	DATE	DESCRIPTION OF REVISION

DATE	2-28-98
SCALE	1/8" = 1"
DRW	TWS

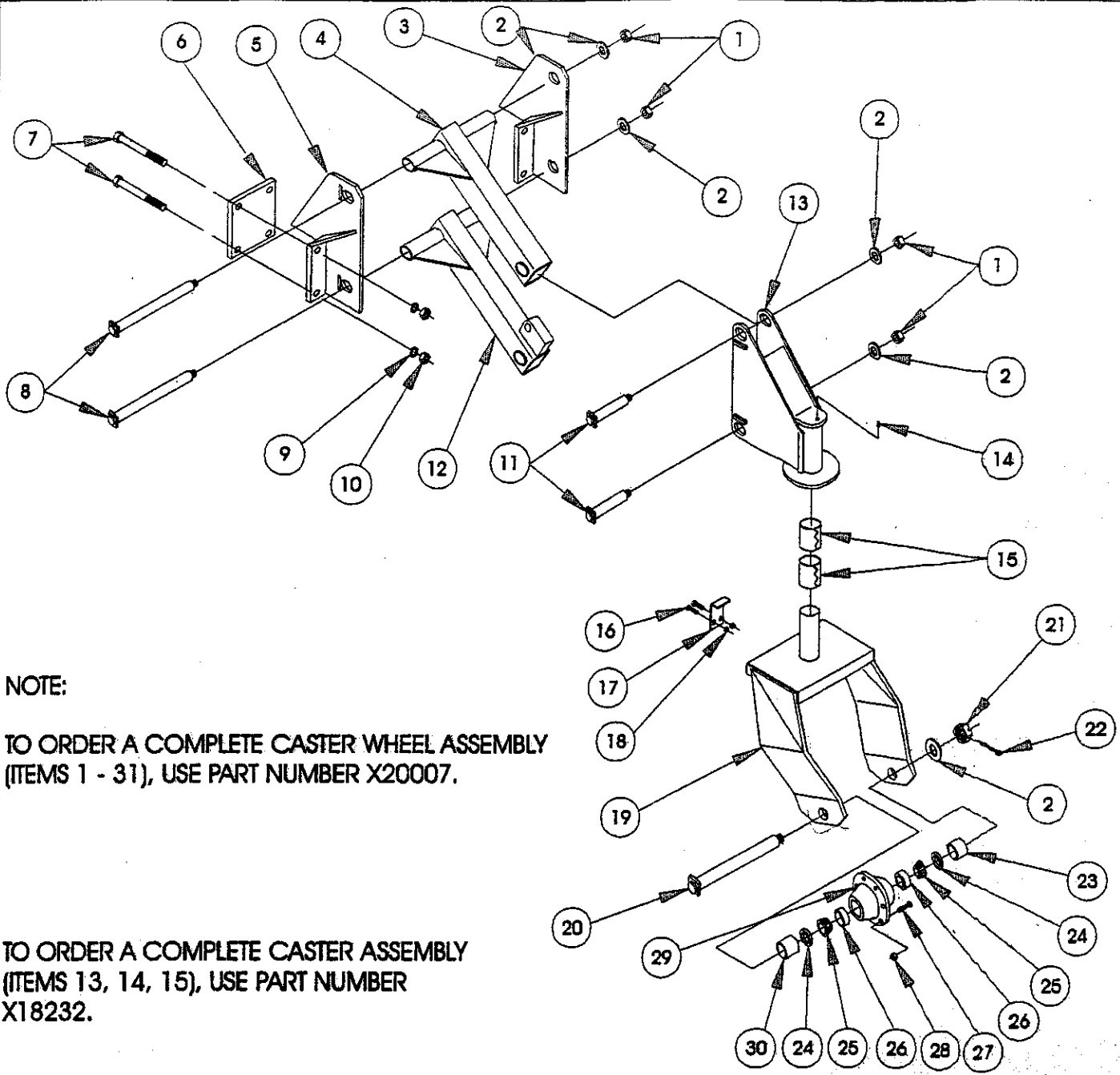
RATCHET JACK ASSEMBLY

REF. NO.	12267
DRAWING NO.	SC500112





4	X20853	1	BAR, SPACER	2	X24384	1	PIN, HITCH												
3	X20852	1	TUBE, MOUNTING	1	X20855	1	STAND, JACK												
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION												
				<table border="1"> <tr> <td>B</td> <td>9-13-95</td> <td>REVISED</td> <td>DATE 2-28-95</td> </tr> <tr> <td>REV.</td> <td>DATE</td> <td>DESCRIPTION OF REVISION</td> <td>SCALE 1/4" = 1"</td> </tr> <tr> <td></td> <td></td> <td></td> <td>DRAWN TMS</td> </tr> </table>				B	9-13-95	REVISED	DATE 2-28-95	REV.	DATE	DESCRIPTION OF REVISION	SCALE 1/4" = 1"				DRAWN TMS
B	9-13-95	REVISED	DATE 2-28-95																
REV.	DATE	DESCRIPTION OF REVISION	SCALE 1/4" = 1"																
			DRAWN TMS																
JACK STAND							REF. NO. 20226												
							DRAWING NO. SC500113												



**NOTE:**

TO ORDER A COMPLETE CASTER WHEEL ASSEMBLY (ITEMS 1 - 31), USE PART NUMBER X20007.

TO ORDER A COMPLETE CASTER ASSEMBLY (ITEMS 13, 14, 15), USE PART NUMBER X18232.

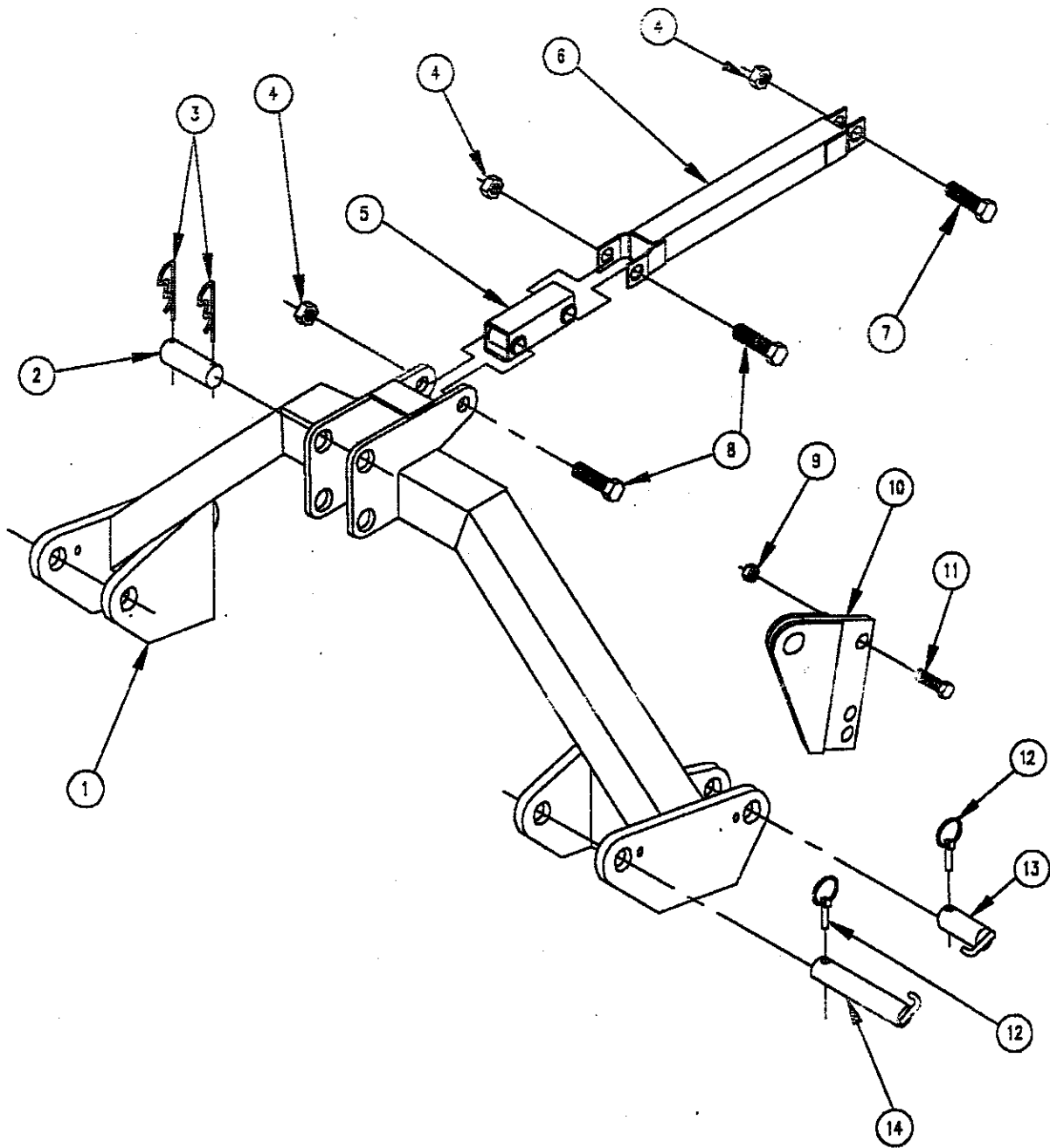
31	XO8125	1	WHEEL, 15" X 6" 6-BOLT (NOT SHOWN)	16	XO1206	2	BOLT, 3/8" X 1" LG. HEX HD.
30	X18887	1	SPACER	15	X18888	2	BUSHING, 2" TENSION
29	X18935	1	HUB, 6-BOLT W/CUPS	14	XO2291	1	ZERK, 1/8" NPT GREASE
28	XO2605	6	NUT, WHEEL	13	X18886	1	HOUSING, CASTER
27	XO2604	6	STUD, WHEEL	12	X18182	1	LINK, CASTER BOTTOM
26	XO7598	2	CUP, BEARING	11	X18192	2	PIN, SHORT PIVOT
25	X18900	2	CONE, BEARING	10	XO1697	8	NUT, 3/4" HEX HD.
24	X18934	2	SEAL	9	XO1641	8	LOCKWASHER, 3/4"
23	X18905	1	SPACER	8	X18191	2	PIN, LONG PIVOT
22	XO2048	1	PIN, 5/32" X 2-1/2" LG. COTTER	7	XO1325	8	BOLT, 3/4" X 8" LG. HEX HD.
21	XO1754	1	NUT, 1" CASTLE	6	X18175	2	PLATE, MOUNTING
20	X18891	1	SPINDLE, 1-1/2" DIA. X 13-1/2" LG.	5	X18177	1	ANGLE, L.H. MOUNTING
19	X18889	1	FORK, CASTER	4	X18181	1	LINK, CASTER TOP
18	XO2496	2	NUT, 3/8" HEX HD. (LOCKING)	3	X18176	1	ANGLE, R.H. MOUNTING
17	X18893	1	BRACKET, RETAINER	2	XO1605	5	FLATWASHER, 1"
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION



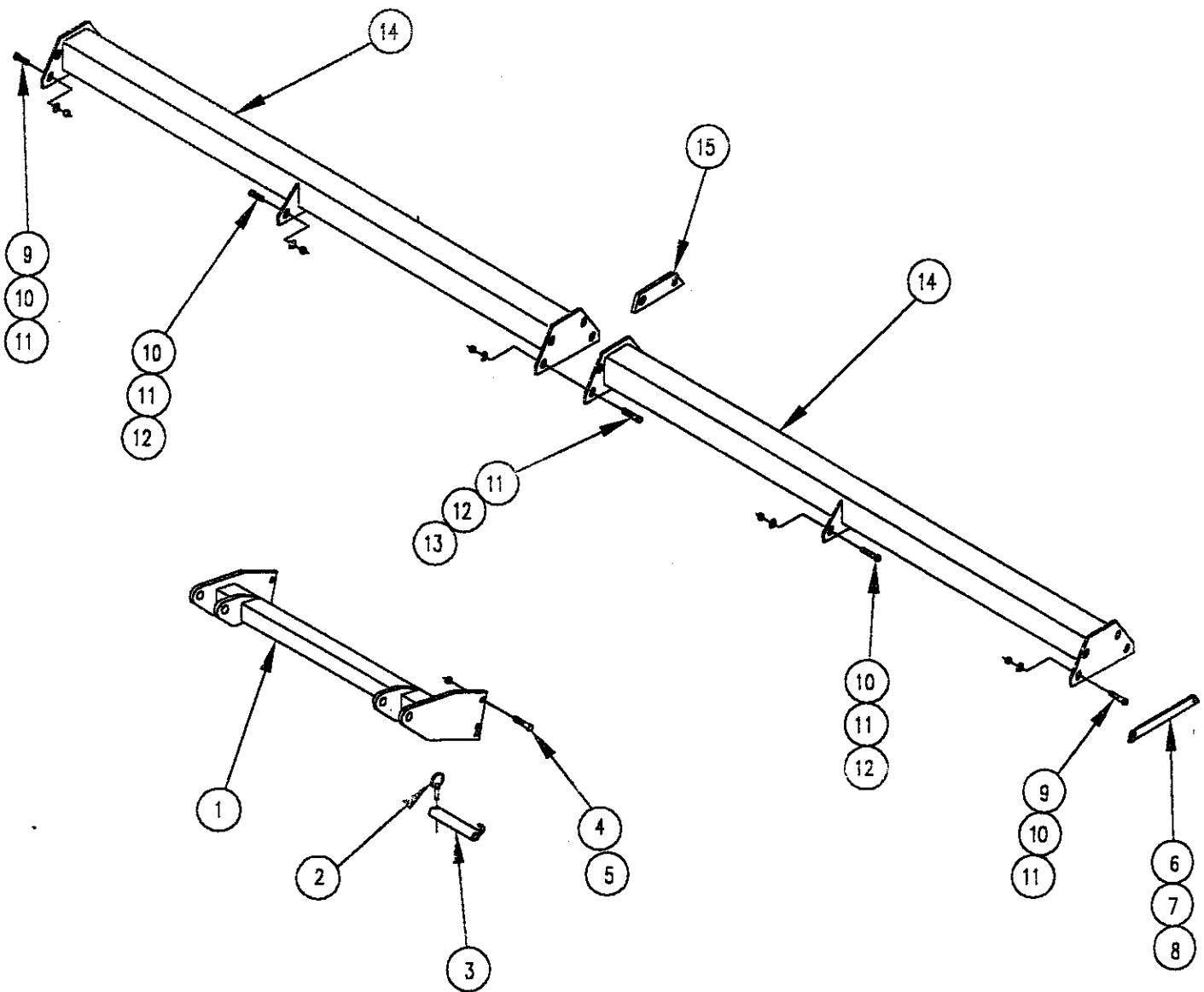
B	9-13-98	REVISED	DATE 1-12-98
REV.	DATE	DESCRIPTION OF REVISION	SCALE 1W-1"
			DRAWN TWS

CASTER ARM ASSEMBLY

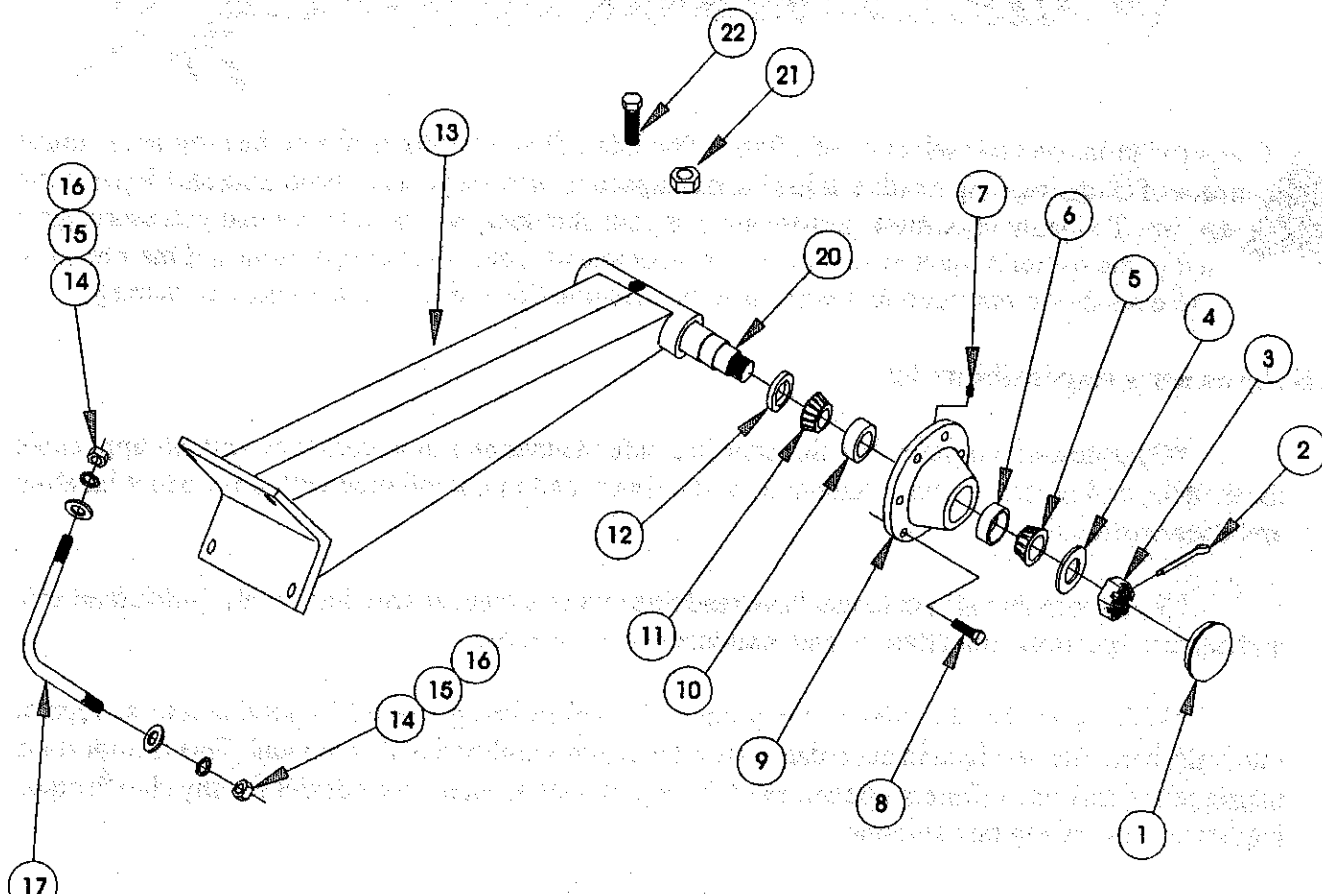
REF. NO. 20204  
DRAWING NO. SC500114



				10	x60158	2	MOUNT, PIVOT																								
				9	X01777	6	NUT, 3/4" HEX HD. (LOCKING)																								
				8	X01346	3	BOLT, 1" X 4-1/2" LG. HEX HD.																								
				6	X24362	1	TUBE, LIFT																								
				5	X60168	1	TUBE, LINKAGE																								
				4	X01779	3	NUT, 1" HEX HD. (LOCKING)																								
				2	X17303	2	PIN, 1-1/4" X 4-1/8" LG.																								
				1	X24347	1	"A" - FRAME																								
20	X01609	4	FLAT WASNER 1.37"																												
14	X17299	2	PIN, 1-7/16" X 9" LG.																												
13	X24370	2	PIN, 1" X 3-1/2" LG.																												
12	X02584	5	PIN, 7/16" X 2" LYNCH																												
11	X01313	6	BOLT, 3/4" X 2-1/2" LG. HEX HD.																												
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION																								
				<table border="1"> <tr> <td>REV.</td> <td>DATE</td> <td>DESCRIPTION OF REVISION</td> <td>DATE</td> <td>BY</td> <td>CHKD.</td> </tr> <tr> <td>B</td> <td>9-13-95</td> <td>REVISED</td> <td>1-23-95</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>1/2" - 1"</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>THIS</td> <td></td> <td></td> </tr> </table>				REV.	DATE	DESCRIPTION OF REVISION	DATE	BY	CHKD.	B	9-13-95	REVISED	1-23-95						1/2" - 1"						THIS		
REV.	DATE	DESCRIPTION OF REVISION	DATE	BY	CHKD.																										
B	9-13-95	REVISED	1-23-95																												
			1/2" - 1"																												
			THIS																												
				<table border="1"> <tr> <td>REF. NO.</td> <td>20212</td> </tr> <tr> <td>DRAWING NO.</td> <td>SC500115</td> </tr> </table>				REF. NO.	20212	DRAWING NO.	SC500115																				
REF. NO.	20212																														
DRAWING NO.	SC500115																														
				<p style="text-align: center;">FULL MOUNT PARTS CONVENTIONAL SHREDDER 2200-2650</p>																											



15	X24380	1	SHIM, 1/2"	11	X02545	14	NUT, 5/3" HEX HD. TOPLOCK
14	X24487	2	TUBE, MOUNTING (2400)	10	X01620	14	FLATWASHER, 5/8"
	X24486	2	TUBE, MOUNTING (2200)	9	X01291	8	BOLT, 5/8" X 2-1/2" LG. HEX HD
	X24371	2	TUBE, MOUNTING (2000)	8	X24404	2	SHIM, 1/4"
	X24372	2	TUBE, MOUNTING (1800)	7	X24403	2	SHIM, 10 GA.
	X24400	2	TUBE, MOUNTING (1500)	6	X24402	2	SHIM, 3/16"
	X20969	2	TUBE, MOUNTING (1200)	5	X01777	6	NUT, 3/4" HEX HD. TOPLOCK
13	X01292	4	BOLT, 5/8" X 2-1/4" LG. HEX HD.	4	X01313	6	BOLT, 3/4" X 2-1/2" LG. HEX HD.
12	X01289	2	BOLT, 5/8" X 1-1/2" LG. HEX HD	3	X17299	2	PIN, 1-7/16" DIA. X 9" LG.
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
1	X60161	1	HITCH, 2-POINT	2	X02584	2	PIN, 7/16" LYNCH



**NOTE:**

TO ORDER A COMPLETE WHEEL ARM ASSEMBLY  
(ITEMS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,  
13), USE PART NUMBER X28423

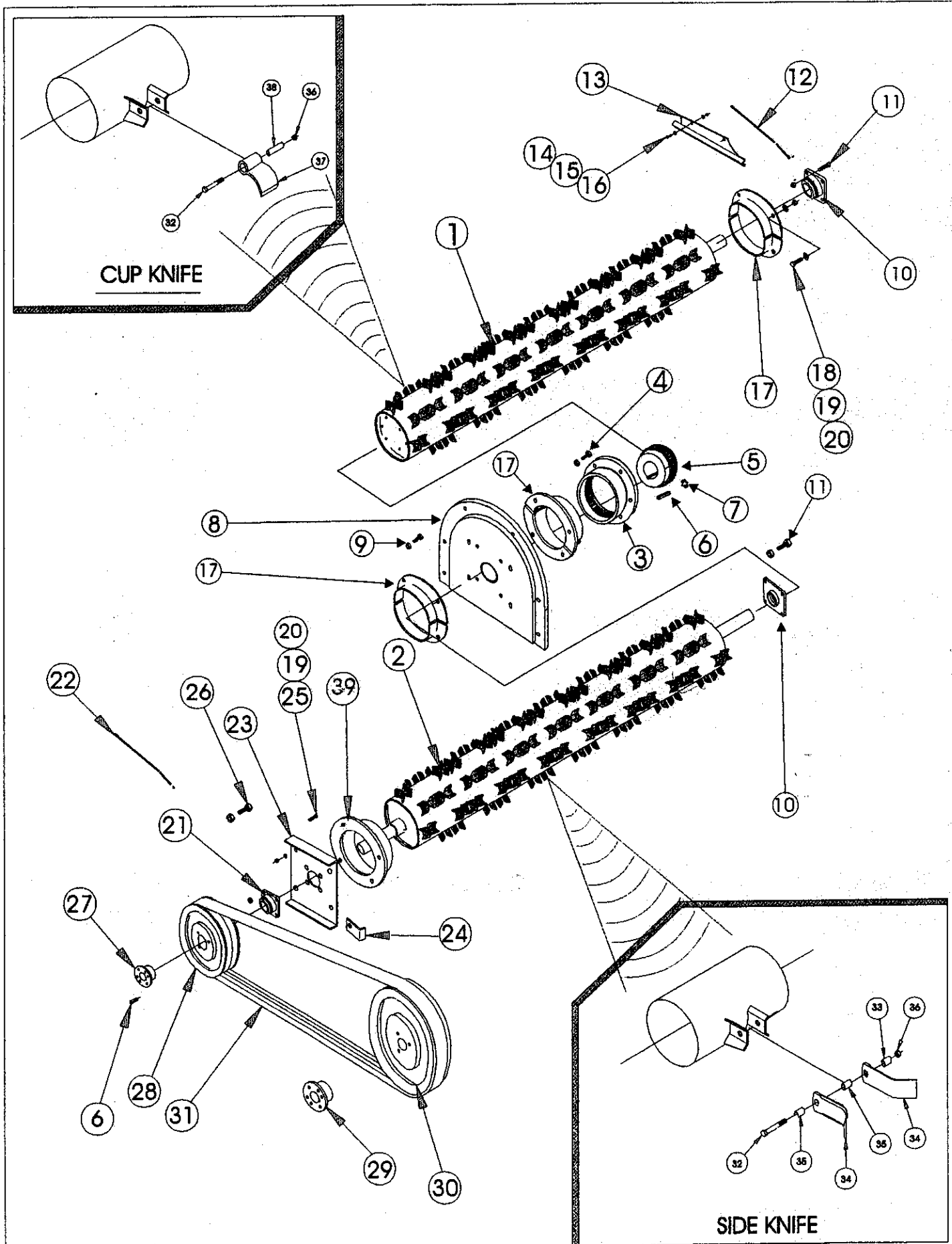
TO ORDER A COMPLETE DUAL ARM ASSEMBLY  
(ITEM 19, NOT SHOWN), USE PART NUMBER  
X21490.


TO ORDER A COMPLETE HUB AND SPINDLE ASSEMBLY  
(ITEMS 5, 6, 7, 8, 9, 10, 11, 12),  
USE PART NUMBER X18240

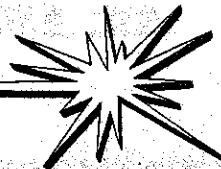
ITEM	PART NO.	QTY.	DESCRIPTION
22	X01257	1	BOLT .5 X 3 1/4 GR 5
21	X02539	1	NUT .5 HEX HD TOP LOCK
20	X18241	1	SPINDLE
19	X21490	1	DUAL WHEEL ARM ASSEMBLY (NOT SHOWN)
18	X08125	1	WHEEL, 15" 6-BOLT (NOT SHOWN)
17	X15354	1	BOLT, WHEEL ARM
16	X01602	2	FLATWASHER, 5/8"
15	X01640	2	LOCKWASHER, 5/8"
14	X01696	2	NUT, 5/8" HEX HD.
13	X28425	1	ARM, WHEEL
12	X06572	1	SEAL, GREASE
11	X06573	1	CONE, INNER
10	X06574	1	CUP, INNER

ITEM	PART NO.	QTY.	DESCRIPTION
9	X12441	1	HUB, 6-BOLT W/CUPS
8	XO9089	6	BOLT, 1/2"-20 UNF X 1-1/2" LG. WHEEL
7	XO2286	1	ZERK, 1/4"-28
6	XO6663	1	CUP, OUTER
5	XO6665	1	CONE, OUTER
4	XO1605	1	FLATWASHER, 1"
3	XO1754	1	NUT, 1" CASTLE
2	XO2048	1	PIN, 5/32" X 2-1/2" LG. COTTER
1	X12442	1	CAP, HUB W/ZERK
	XO6666	1	CAP, HUB

	B	9-13-95	REVISED	DATE	1-24-95	<b>WHEEL ARM ASSEMBLY REMOVABLE</b>	REF. NO.	20219
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/4" = 1"		DRAWN	ENG



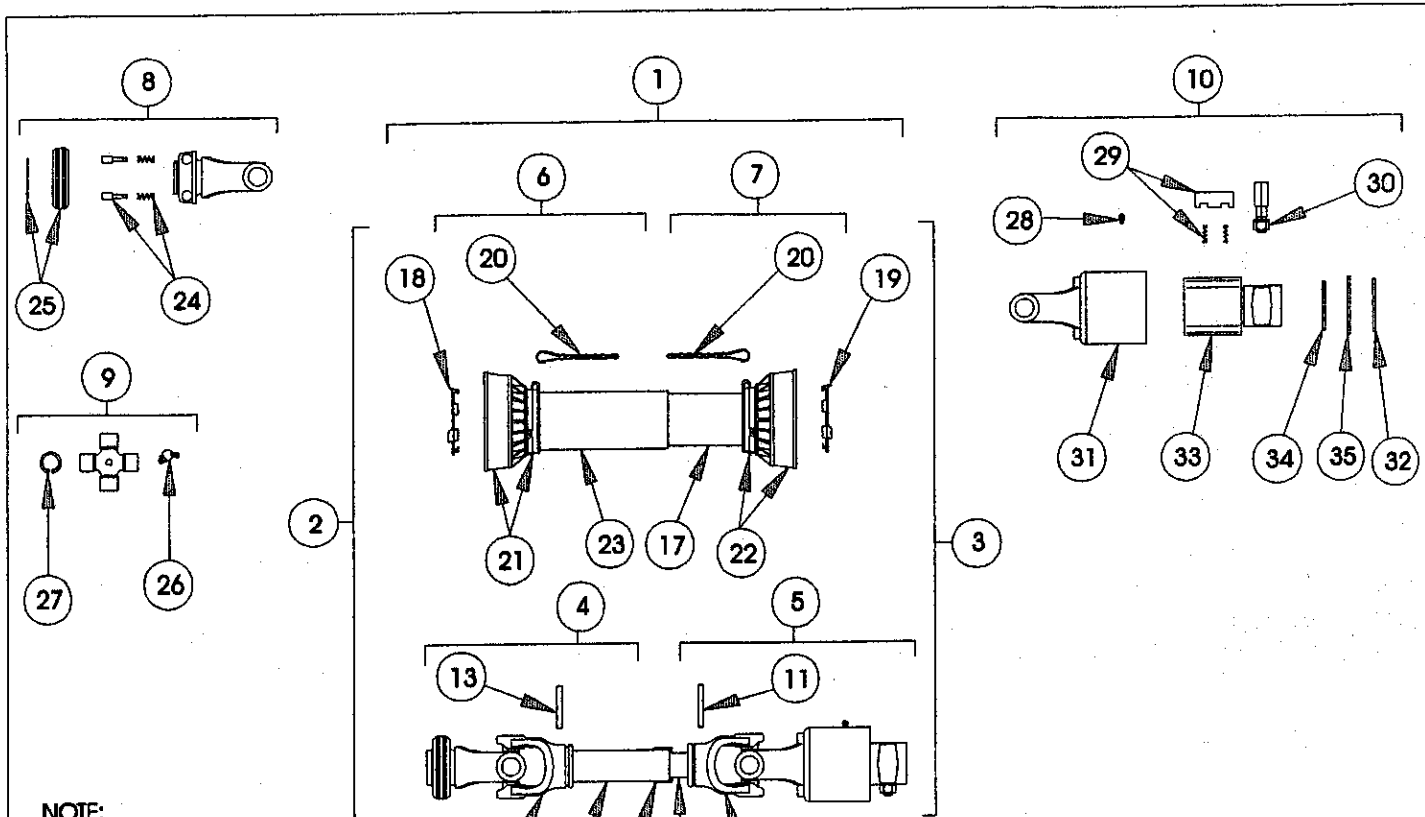
<b>BALZER</b> 	A	9-19-95	ORIGINAL RELEASE	DATE	9-19-95	10" DIA. CYLINDER ASSEMBLY MODELS 2200 - 2650	REF. NO.	20210
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/4" = 1"		DRAWING NO.	SC500141



# PARTS LIST PAGE FOR DRAWING NUMBER SC500141



39	X28044	2	GRASS RING FULL
38	X31464	AR	BUSHING .66 X 1.0 X 2.56"
37	X24237	AR	CUP KNIFE
36	X02546	AR	NUT .62 TOG LOCK
35	X31453	AR	BUSHING .66 1.0 X .75
34	X26569	AR	SIDE KNIFE
33	X31454	AR	BUSHING .66 X 1.25 X .88"
32	X02633	AR	BOLT .62 X 4 GR8
31	X28499	2	BELT 3C 90
30	X24074	2	PULLEY 16' GROOVE
29	X02408	2	KEY .37 X .37 X 2.5
	X24222	2	BUSHING Q.D. 1.75 .37KWY
28	X24073	2	PULLEY 10.5' 3 GROOYE
27	X26870	2	BUSHING Q.D 2.18 .5 KWY
	X02546	AR	NUT .62 TOPLOCK
26	X01291	AR	BOLT .62 X 2
	X01185	AR	BOLT .31 X 1.0
25	X01185	AR	BOLT .31 X 1.0
24	X24322	2	CLAMP GREASE HOSE
23	X24100	2	BEARING STIFFNER
22	X24178	2	GREASE HOSE .18 X 10"
21	X26872	2	BEARING 2.18 4-BOLT ECCENTRIC LOCK
20	X02475	AR	NUT .31 TOP LOCK
19	X01597	AR	FLAT WASHER .31
18	X01186	AR	BOLT .31 X 1.25
17	X27589	12	GRASS RING 10" SPLIT
16	X02496	AR	NUT .37 TOP LOCK
15	X01598	AR	FLAT WASHER .37
14	X01207	AR	BOLT .37 X 1.25
13	X28041	1	SHIELD GREASE LINE LH
	X28040	1	SHIELD GREASE LINE RH
12	X24177	2	GRASE HOSE .18 X 21.5
11	X02346	AR	NUT .62 TOP LOCK
	X01295	AR	BOLT .62 X 3
10	X26871	4	BEARIN 2.18 4 BOLT W SET SCREW LOCK
9	X02539	12	NUT .5 X TOP LOCK
	X01249	12	BOLT .5 X 1.25
8	X28037	2	MID BEARING PLATE
7	X02291	10	GRASE FIG .12 STRAIGHT
6	X02439	4	.5 X .5 X 2.5
5	X27599	2	COUPLER INNER
4	X01640	8	LOCK WASHER .62
	X02645	8	BOLT 62X 2 GR8 FINE THREAD
3	X27598	2	COUPLER OUTER
2	X28189	AR	ROTOR OUTER 26.5'
	X28150	AR	ROTOR OUTER 25'
	X27563	AR	ROTOR OUTER 24'
	X27561	AR	ROTOR OUTER 22'
1	X28188	AR	ROTOR INNER 26.5'
	X27569	AR	ROTOR INNER 25'
	X27562	AR	ROTOR INNER 24'
	X27569	AR	ROTOR INNER 22'
ITEM	PART NO.	QTY.	DESCRIPTION



**NOTE:**

TO ORDER A COMPLETE 1000 RPM PTO W/OVER-RUNNING CLUTCH, USE PART NUMBER X27024.

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD (ITEMS 13, 15, 16, 18, 20, 21, 23, 36), USE PART NUMBER X27072.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD (ITEMS 11, 12, 14, 17, 19, 20, 22), USE PART NUMBER X27073.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 17, 18, 19, 20, 21, 22, 23), USE PART NUMBER X27076.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 18, 20, 21, 23), USE PART NUMBER X27074.

TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 17, 19, 20, 22), USE PART NUMBER X27075.

TO ORDER A COMPLETE TRACTOR HALF PTO W/O SHIELD (ITEMS 13, 15, 16, 36), USE PART NUMBER X27070.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/O SHIELD (ITEMS 11, 12, 14), USE PART NUMBER X27071.

36	X18682	1	YOKE, OUTER TUBE	18	X18707	1	O.BEARING, 8-9-0
35	X23077	2	CLOSING PLATE HALF	17	X27069	1	TUBE, CM SAFETY (IMPLEMENT HALF)
34	X23076	1	RING, SCREEN	16	X18700	1	NUT, RING
33	X27041	1	HUB (CLUTCH INNER)	15	X27066	1	TUBE, CM CARDAN (TRACTOR HALF)
32	X23079	1	CIRCLIP (SNAP RING)	14	X27067	1	TUBE, CM CARDAN (IMPLEMENT HALF)
31	X27040	1	CLUTCH OUTER BODY	13	X18714	1	PIN, FLEXIBLE
30	X27043	1	PIVOT PIN ASSEMBLY	12	X18683	1	YOKE, INNER TUBE
29	X27042	1	RACHET W/SPRING	11	X18715	1	PIN, FLEXIBLE
28	X27039	1	ZERK, GREASE NIPPLE	10	X27035	1	CLUTCH, FREE WHEEL RA2/8
27	X23061	8	CIRCLIP (SNAP RING)	9	X18676	2	CROSS JOURNAL COMPLETE
26	X18716	2	ZERK, GREASE NIPPLE	8	X18732	1	YOKE, 1-3/8" - 21
25	X18702	1	HUB (ROTARY LATCH)	7	X27075	1	GUARD, HALF (IMPLEMENT END)
24	X18722	2	PUSH BUTTON COMPLETE	6	X27074	1	GUARD, HALF (TRACTOR END)
23	X27068	1	TUBE, CM SAFETY (TRACTOR HALF)	5	X27071	1	SHAFT, IMPLEMENT HALF W/O SHIELD
22	X27032	1	I.CONE SETS, F8-9	4	X27070	1	SHAFT, TRACTOR HALF W/O SHIELD
21	X27036	1	O.CONE SETS, F8-9	3	X27073	1	SHAFT, IMPLEMENT HALF W/SHIELD
20	X18704	2	CHAIN COMPLETE	2	X27072	1	SHAFT, TRACTOR HALF W/SHIELD
19	X18708	1	I.BEARING, 8-9-0	1	X27076	1	SAFETY GUARD COMPLETE
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

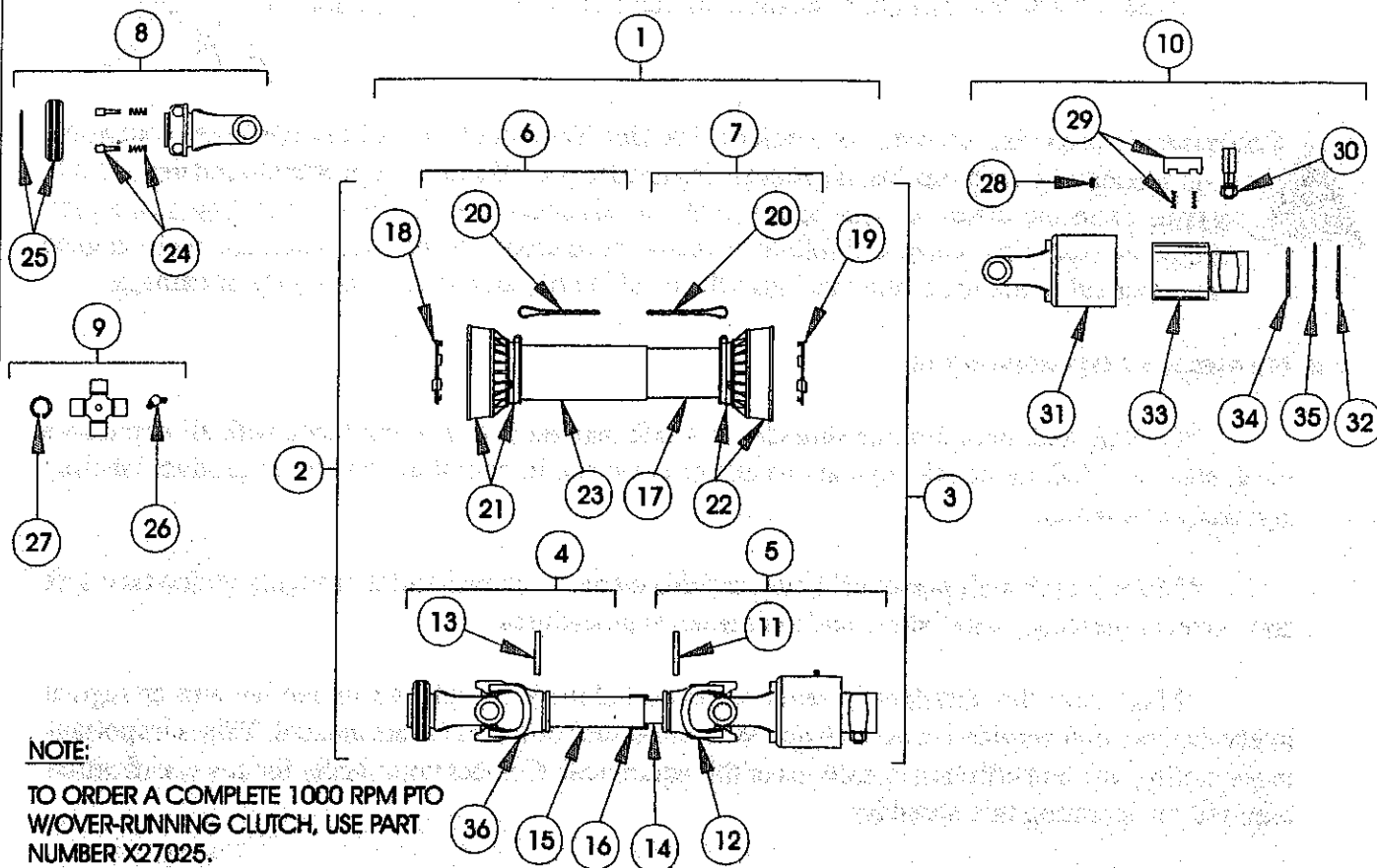


A	11-14-98	ORIGINAL RELEASE	DWG 11-14-98
REV.	DATE	DESCRIPTION OF REVISION	SCALE 1/8" = 1" DRAWN TWS

1-3/8-21 PTO RA2 (1000 RPM)  
- PULL TYPE UNIT -

REF. NO. 27024  
DRAWING NO. SC500152





**NOTE:**

TO ORDER A COMPLETE 1000 RPM PTO W/OVER-RUNNING CLUTCH, USE PART NUMBER X27025.

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD (ITEMS 13, 15, 16, 18, 20, 21, 23, 36), USE PART NUMBER X27078.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD (ITEMS 11, 12, 14, 17, 19, 20, 22), USE PART NUMBER X27073.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 17, 18, 19, 20, 21, 22, 23), USE PART NUMBER X27076.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 18, 20, 21, 23), USE PART NUMBER X27074.

TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 17, 19, 20, 22), USE PART NUMBER X27075.

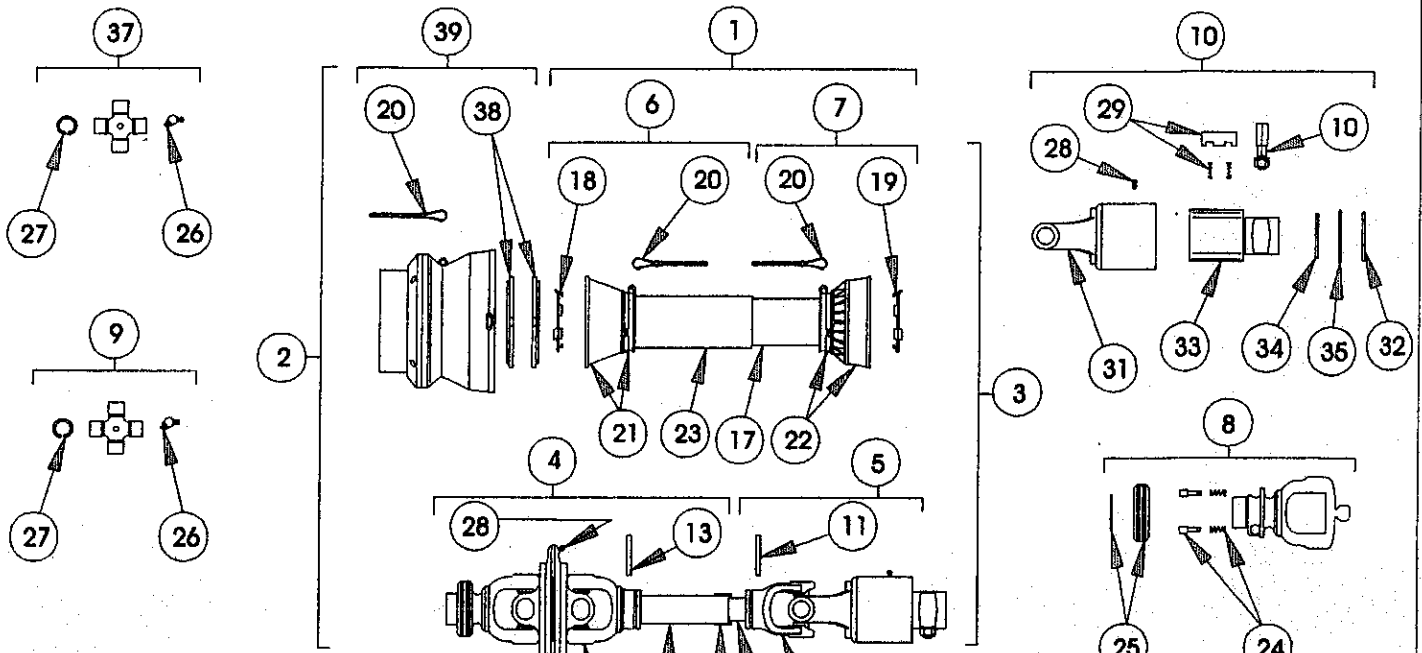
TO ORDER A COMPLETE TRACTOR HALF PTO W/O SHIELD (ITEMS 13, 15, 16, 36), USE PART NUMBER X27077.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/O SHIELD (ITEMS 11, 12, 14), USE PART NUMBER X27071.

36	X18682	1	YOKE, OUTER TUBE
35	X23077	2	CLOSING PLATE HALF
34	X23076	1	RING, SCREEN
33	X27041	1	HUB (CLUTCH INNER)
32	X23079	1	CIRCLIP (SNAP RING)
31	X27040	1	CLUTCH OUTER BODY
30	X27043	1	PIVOT PIN ASSEMBLY
29	X27042	1	RACHET W/SPRING
28	X27039	1	ZERK, GREASE NIPPLE
27	X23061	8	CIRCLIP (SNAP RING)
26	X18716	2	ZERK, GREASE NIPPLE
25	X18701	1	HUB (ROTARY LATCH)
24	X18722	2	PUSH BUTTON COMPLETE
23	X27068	1	TUBE, CM SAFETY (TRACTOR HALF)
22	X27032	1	I.CONE SETS, F8-9
21	X27036	1	O.CONE SETS, F8-9
20	X18704	2	CHAIN COMPLETE
19	X18708	1	I.BEARING, 8-9-0

18	X18707	1	O.BEARING, 8-9-0
17	X27069	1	TUBE, CM SAFETY (IMPLEMENT HALF)
16	X18700	1	NUT, RING
15	X27066	1	TUBE, CM CARDAN (TRACTOR HALF)
14	X27067	1	TUBE, CM CARDAN (IMPLEMENT HALF)
13	X18714	1	PIN, FLEXIBLE
12	X18683	1	YOKE, INNER TUBE
11	X18715	1	PIN, FLEXIBLE
10	X27035	1	CLUTCH, FREE WHEEL RA2/8
9	X18676	2	CROSS JOURNAL COMPLETE
8	X23086	1	YOKE, 1-3/4" - 20
7	X27075	1	GUARD, HALF (IMPLEMENT END)
6	X27074	1	GUARD, HALF (TRACTOR END)
5	X27071	1	SHAFT, IMPLEMENT HALF W/O SHIELD
4	X27077	1	SHAFT, TRACTOR HALF W/O SHIELD
3	X27073	1	SHAFT, IMPLEMENT HALF W/SHIELD
2	X27078	1	SHAFT, TRACTOR HALF W/SHIELD
1	X27076	1	SAFETY GUARD COMPLETE

ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
				<b>1-3/4-20 PTO RA2 (1000 RPM)</b> <b>- PULL TYPE UNIT -</b>			
A	11-14-96	ORIGINAL RELEASE	DATE 11-14-96	REF. NO. 27025		DRAWING NO. SC500153	
REV	DATE	DESCRIPTION OF REVISION	SCALE 1/2" = 1"	DWN		THR	



**NOTE:**

TO ORDER A COMPLETE 1000 RPM CV PTO W/OVER-RUNNING CLUTCH, USE PART NUMBER X27027.

TO ORDER A COMPLETE TRACTOR HALF CV PTO W/SHIELD (ITEMS 13, 15, 16, 18, 20, 21, 23, 28, 36, 38, 40), USE PART NUMBER X27063.

TO ORDER A COMPLETE IMPLEMENT HALF CV PTO W/SHIELD (ITEMS 11, 12, 14, 17, 19, 20, 22), USE PART NUMBER X27058.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 17, 18, 19, 20, 21, 22, 23), USE PART NUMBER X27061.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 18, 20, 21, 23), USE PART NUMBER X27059.

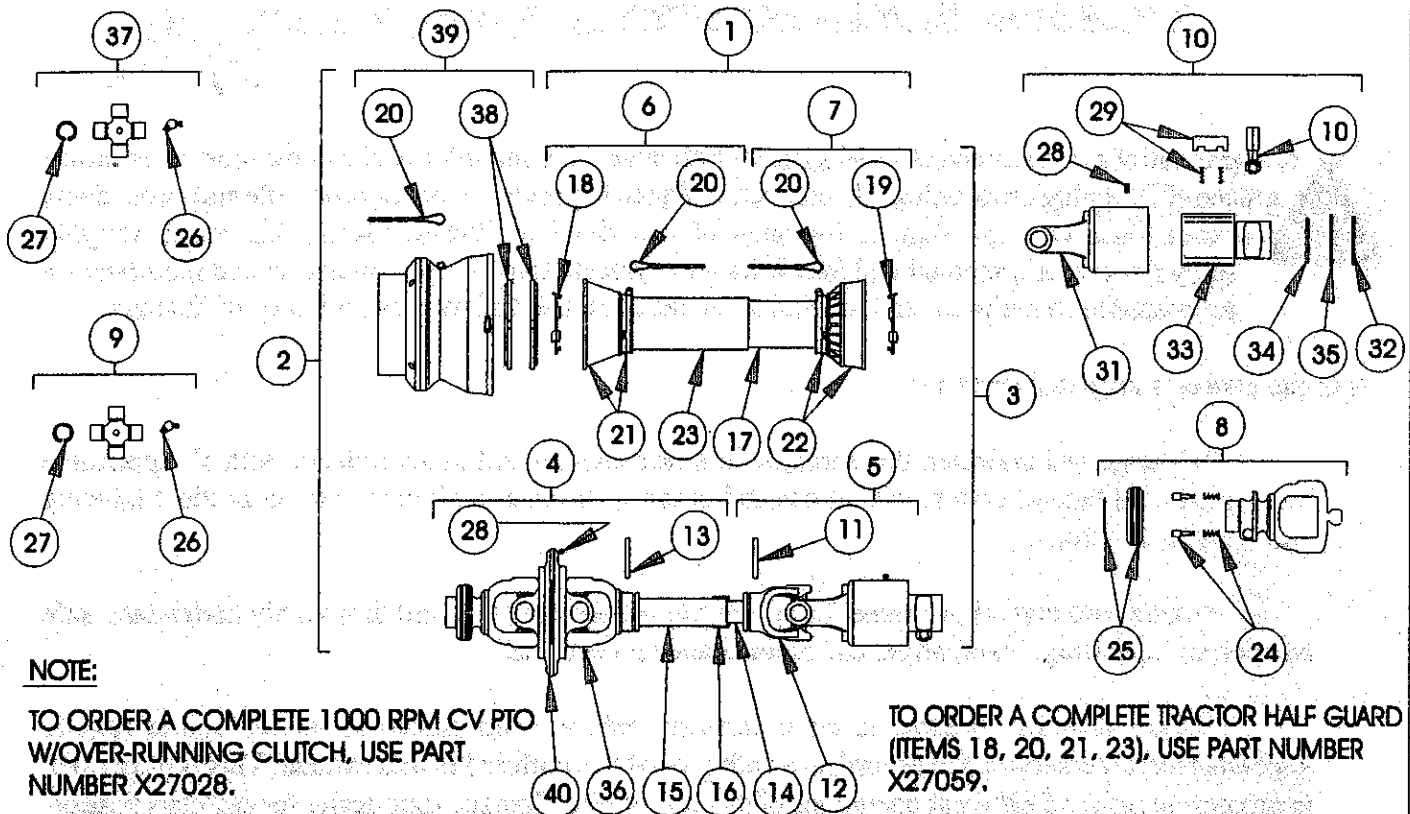
TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 17, 19, 20, 22), USE PART NUMBER X27060.

TO ORDER A COMPLETE TRACTOR HALF CV PTO W/O SHIELD (ITEMS 13, 15, 16, 28, 36, 40), USE PART NUMBER X27062.

TO ORDER A COMPLETE IMPLEMENT HALF CV PTO W/O SHIELD (ITEMS 11, 12, 14), USE PART NUMBER X27056.

40	X23011	1	CENTRAL BODY	20	X18704	3	CHAIN COMPLETE
39	X18743	1	COMPLETE SHELL	19	X18708	1	I.BEARING, 8-9-0
38	X18771	1	DOWELS, RING NUT	18	X18707	1	O.BEARING, 8-9-0
37	X23008	2	CROSS JOURNAL ASSEMBLY (TRACTOR HALF)	17	X27054	1	TUBE, CM SAFETY (IMPLEMENT HALF)
36	X18749	1	YOKE, OUTER TUBE	16	X18762	1	NUT, RING
35	X23077	2	CLOSING PLATE HALF	15	X27051	1	TUBE, CM CARDAN (TRACTOR HALF)
34	X23076	1	RING, SCREEN	14	X27052	1	TUBE, CM CARDAN (IMPLEMENT HALF)
33	X27041	1	HUB (CLUTCH INNER)	13	X18714	1	PIN, FLEXIBLE
32	X23079	1	CIRCLIP (SNAP RING)	12	X18683	1	YOKE, INNER TUBE
31	X27040	1	CLUTCH OUTER BODY	11	X18715	1	PIN, FLEXIBLE
30	X27043	1	PIVOT PIN ASSEMBLY	10	X27035	1	CLUTCH, FREE WHEEL RA2/8
29	X27042	1	RATCHET W/SPRING	9	X18676	1	CROSS JOURNAL ASSEMBLY (IMPLEMENT HALF)
28	X23004	2	ZERK, GREASE NIPPLE	8	X18738	1	YOKE, 1-3/8" - 21 RS
27	X23061	12	CIRCLIP (SNAP RING)	7	X27060	1	GUARD, HALF (IMPLEMENT END)
26	X18716	3	ZERK, GREASE NIPPLE	6	X27059	1	GUARD, HALF (TRACTOR END)
25	X18702	1	HUB (ROTARY LATCH)	5	X27056	1	SHAFT, IMPLEMENT HALF W/O SHIELD
24	X18720	2	PUSH BUTTON COMPLETE	4	X27062	1	SHAFT, TRACTOR HALF W/O SHIELD
23	X27053	1	TUBE, CM SAFETY (TRACTOR HALF)	3	X27058	1	SHAFT, IMPLEMENT HALF W/SHIELD
22	X27032	1	I.CONE SETS, F8-9	2	X27063	1	SHAFT, TRACTOR HALF W/SHIELD
21	X18766	1	O.CONE SETS, N8-9	1	X27061	1	SAFETY GUARD ASSEMBLY
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

<b>BALZER</b>	A	11-14-95	ORIGINAL RELEASE	DATE	11-14-95	1-3/8-21 CV PTO RA2 -PULL TYPE UNIT (1000 RPM)-	REF. NO.	27027
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/8" = 1"		DRAWING NO.	SC500155



**NOTE:**

TO ORDER A COMPLETE 1000 RPM CV PTO W/OVER-RUNNING CLUTCH, USE PART NUMBER X27028.

TO ORDER A COMPLETE TRACTOR HALF CV PTO W/SHIELD (ITEMS 13, 15, 16, 18, 20, 21, 23, 28, 36, 38, 40), USE PART NUMBER X27065.

TO ORDER A COMPLETE IMPLEMENT HALF CV PTO W/SHIELD (ITEMS 11, 12, 14, 17, 19, 20, 22), USE PART NUMBER X27058.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 17, 18, 19, 20, 21, 22, 23), USE PART NUMBER X27061.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 18, 20, 21, 23), USE PART NUMBER X27059.

TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 17, 19, 20, 22), USE PART NUMBER X27060.

TO ORDER A COMPLETE TRACTOR HALF CV PTO W/O SHIELD (ITEMS 13, 15, 16, 28, 36, 40), USE PART NUMBER X27064.

TO ORDER A COMPLETE IMPLEMENT HALF CV PTO W/O SHIELD (ITEMS 11, 12, 14), USE PART NUMBER X27056.

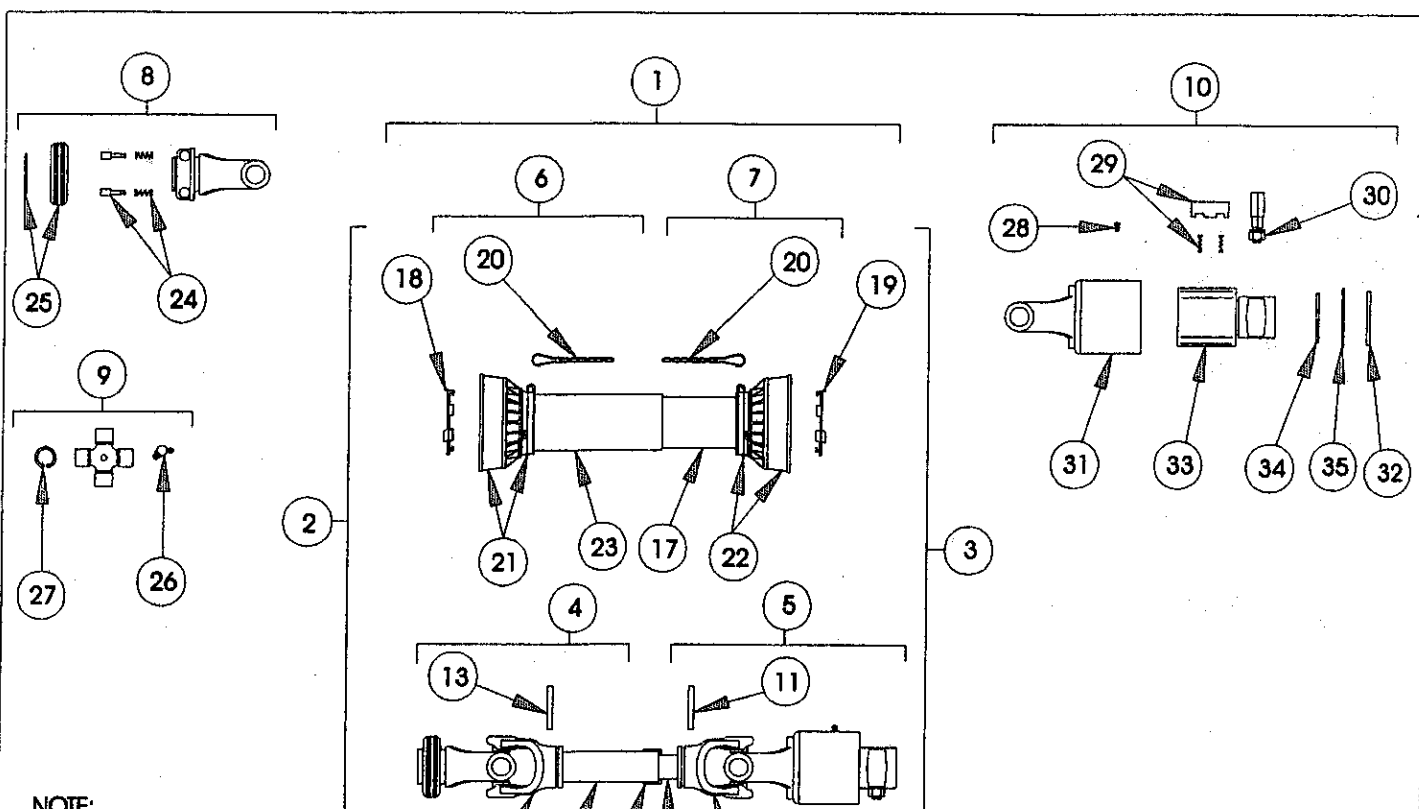
40	X23011	1	CENTRAL BODY	20	X18704	3	CHAIN COMPLETE
39	X18743	1	COMPLETE SHELL	19	X18708	1	I.BEARING, 8-9-0
38	X18771	1	DOWELS, RING NUT	18	X18707	1	O.BEARING, 8-9-0
37	X23008	2	CROSS JOURNAL ASSEMBLY (TRACTOR HALF)	17	X27054	1	TUBE, CM SAFETY (IMPLEMENT HALF)
36	X18749	1	YOKE, OUTER TUBE	16	X18762	1	NUT, RING
35	X23077	2	CLOSING PLATE HALF	15	X27051	1	TUBE, CM CARDAN (TRACTOR HALF)
34	X23076	1	RING, SCREEN	14	X27052	1	TUBE, CM CARDAN (IMPLEMENT HALF)
33	X27041	1	HUB (CLUTCH INNER)	13	X18714	1	PIN, FLEXIBLE
32	X23079	1	CIRCLIP (SNAP RING)	12	X18683	1	YOKE, INNER TUBE
31	X27040	1	CLUTCH OUTER BODY	11	X18715	1	PIN, FLEXIBLE
30	X27043	1	PIVOT PIN ASSEMBLY	10	X27035	1	CLUTCH, FREE WHEEL RA2/8
29	X27042	1	RATCHET W/SPRING	9	X18676	1	CROSS JOURNAL ASSEMBLY (IMPLEMENT HALF)
28	X23004	2	ZERK, GREASE NIPPLE	8	X23085	1	YOKE, 1-3/4" - 20 RS
27	X18711	12	CIRCLIP (SNAP RING)	7	X27060	1	GUARD, HALF (IMPLEMENT END)
26	X18716	3	ZERK, GREASE NIPPLE	6	X27059	1	GUARD, HALF (TRACTOR END)
25	X18701	1	HUB (ROTARY LATCH)	5	X27056	1	SHAFT, IMPLEMENT HALF W/O SHIELD
24	X18721	2	PUSH BUTTON COMPLETE	4	X27064	1	SHAFT, TRACTOR HALF W/O SHIELD
23	X27053	1	TUBE, CM SAFETY (TRACTOR HALF)	3	X27058	1	SHAFT, IMPLEMENT HALF W/SHIELD
22	X27032	1	I.CONE SETS, F8-9	2	X27065	1	SHAFT, TRACTOR HALF W/SHIELD
21	X18766	1	O.CONE SETS, N8-9	1	X27061	1	SAFETY GUARD ASSEMBLY
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION



A 11-15-95 ORIGINAL RELEASE  
 REV. DATE DESCRIPTION OF REVISION

1-3/4-20 CV PTO RA2  
 -PULL TYPE UNIT (1000 RPM)-

REF. NO. 27028  
 DRAWING NO. SC500156



**NOTE:**

TO ORDER A COMPLETE 1000 RPM PTO W/OVER-RUNNING CLUTCH, USE PART NUMBER X27406.

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD (ITEMS 13, 15, 16, 18, 20, 21, 23, 36), USE PART NUMBER X27046.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD (ITEMS 11, 12, 14, 17, 19, 20, 22), USE PART NUMBER X27047.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 17, 18, 19, 20, 21, 22, 23), USE PART NUMBER X27050.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 18, 20, 21, 23), USE PART NUMBER X27048.

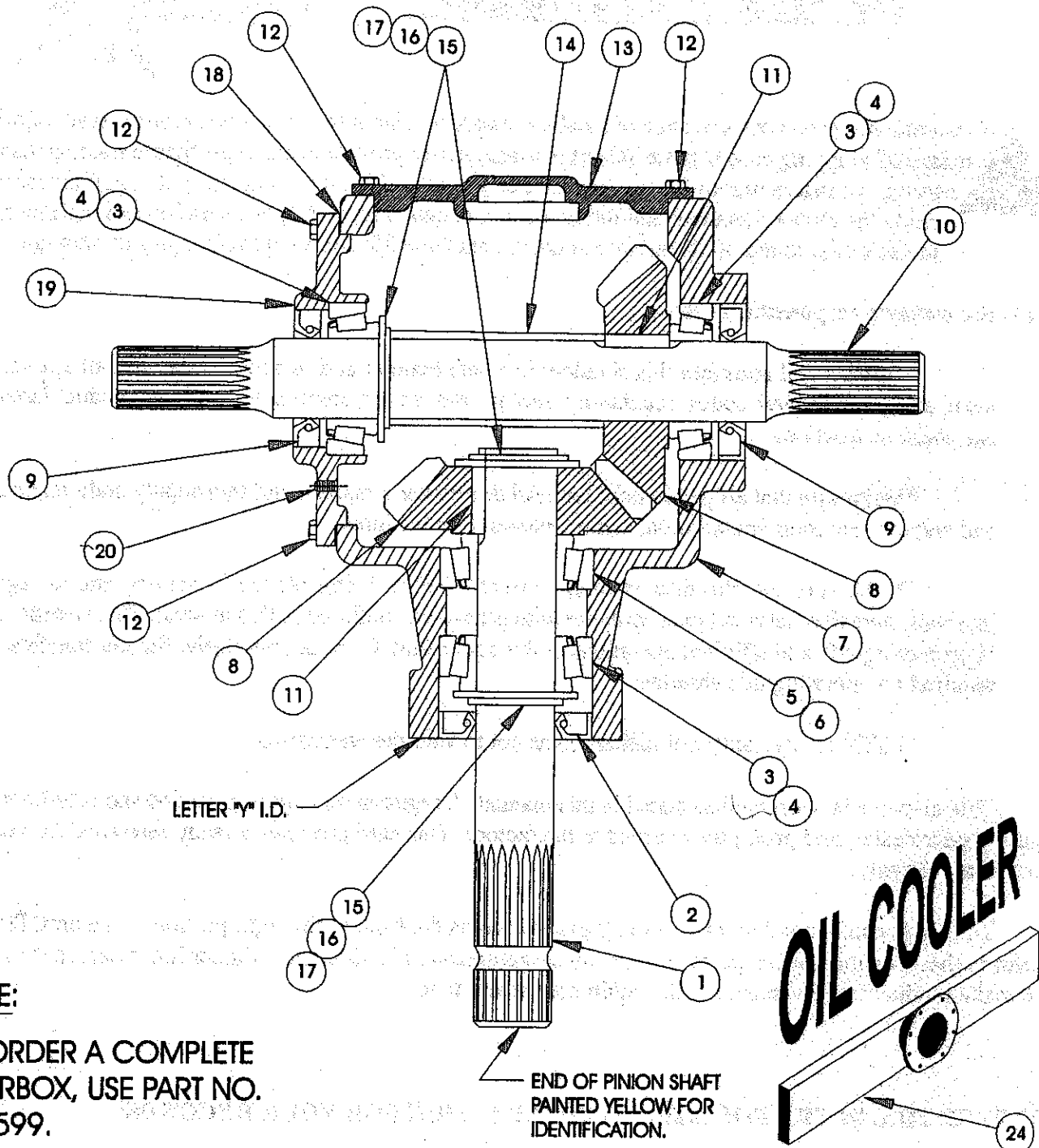
TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 17, 19, 20, 22), USE PART NUMBER X27049.

TO ORDER A COMPLETE TRACTOR HALF PTO W/O SHIELD (ITEMS 13, 15, 16, 36), USE PART NUMBER X27044.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/O SHIELD (ITEMS 11, 12, 14), USE PART NUMBER X27045.

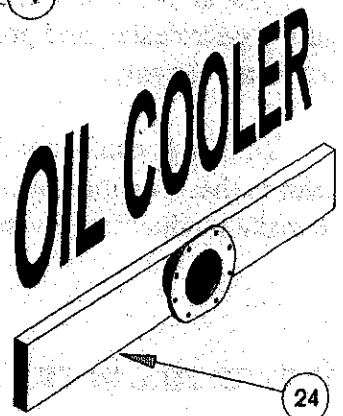
36	X18682	1	YOKE, OUTER TUBE	18	X18707	1	O.BEARING, 8-9-0
35	X23077	2	CLOSING PLATE HALF	17	X27038	1	TUBE, CM SAFETY (IMPLEMENT HALF)
34	X23076	1	RING, SCREEN	16	X18700	1	NUT, RING
33	X27041	1	HUB (CLUTCH INNER)	15	X27033	1	TUBE, CM CARDAN (TRACTOR HALF)
32	X23079	1	CIRCLIP (SNAP RING)	14	X27034	1	TUBE, CM CARDAN (IMPLEMENT HALF)
31	X27040	1	CLUTCH OUTER BODY	13	X18714	1	PIN, FLEXIBLE
30	X27043	1	PIVOT PIN ASSEMBLY	12	X18683	1	YOKE, INNER TUBE
29	X27042	1	RACHET W/SPRING	11	X18715	1	PIN, FLEXIBLE
28	X27039	1	ZERK, GREASE NIPPLE	10	X27035	1	CLUTCH, FREE WHEEL RA2/8
27	X23061	8	CIRCLIP (SNAP RING)	9	X18676	2	CROSS JOURNAL COMPLETE
26	X18716	2	ZERK, GREASE NIPPLE	8	X23086	1	YOKE, 1-3/4 - 20
25	X18702	1	HUB (ROTARY LATCH)	7	X27049	1	GUARD, HALF (IMPLEMENT END)
24	X18722	2	PUSH BUTON COMPLETE	6	X27048	1	GUARD, HALF (TRACTOR END)
23	X27037	1	TUBE, CM SAFETY (TRACTOR HALF)	5	X27045	1	SHAFT, IMPLEMENT HALF W/O SHIELD
22	X27032	1	I.CONE SETS, F8-9	4	X27044	1	SHAFT, TRACTOR HALF W/O SHIELD
21	X27036	1	O.CONE SETS, F8-9	3	X27047	1	SHAFT, IMPLEMENT HALF W/SHIELD
20	X18704	2	CHAIN COMPLETE	2	X27046	1	SHAFT, TRACTOR HALF W/SHIELD
19	X18708	1	I.BEARING, 8-9-0	1	X27050	1	SAFETY GUARD COMPLETE
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

	A	12-27-95	ORIGINAL RELEASE	DATE	12-27-95	1-3/4-20 PTO RA2 (1000 RPM)	REF. NO.	27406
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/8" = 1"		SEMI MOUNT + FULL MOUNT UNIT	DRAWING NO.



LETTER "Y" I.D.

END OF PINION SHAFT  
PAINTED YELLOW FOR  
IDENTIFICATION.

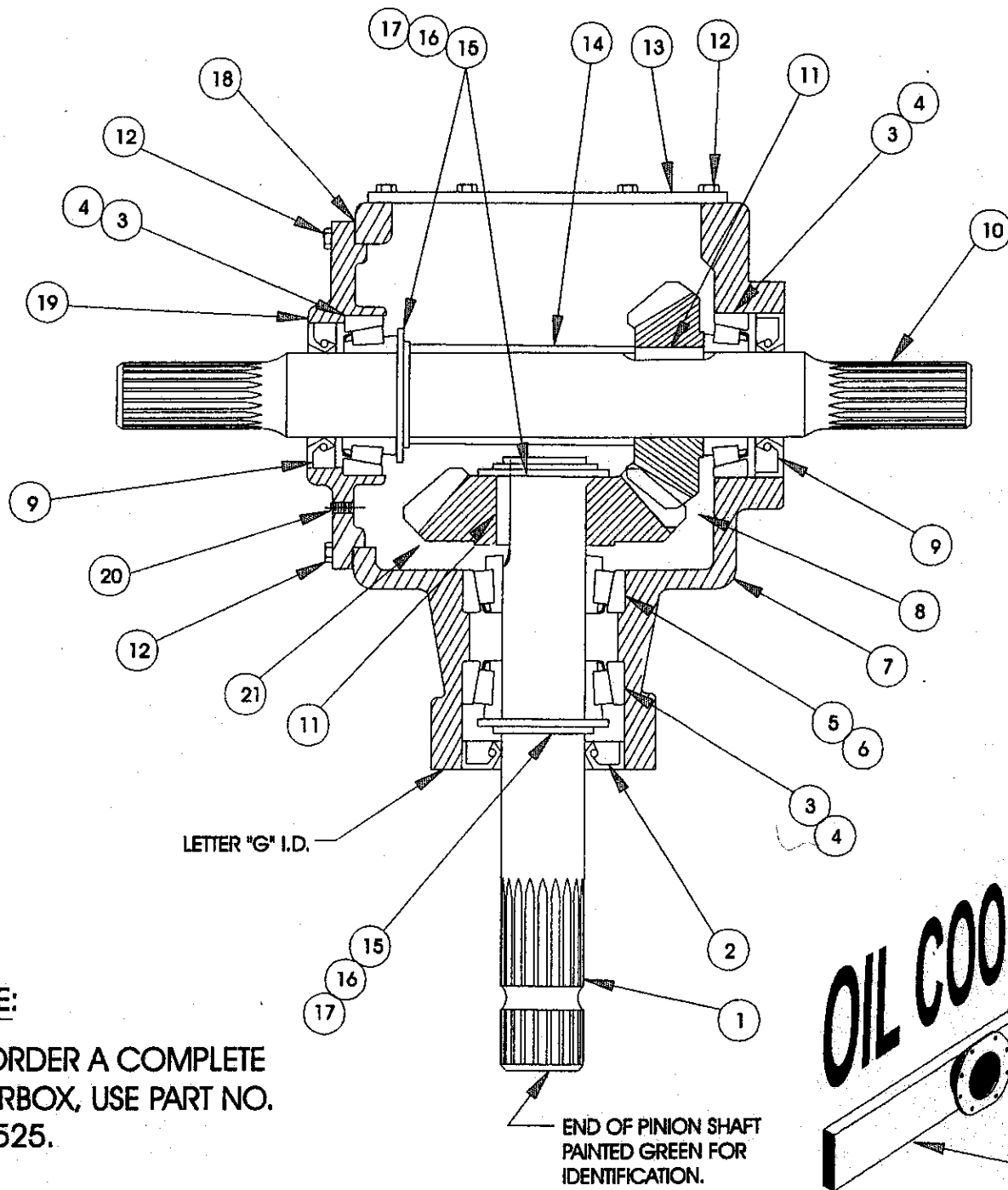


**NOTE:**

TO ORDER A COMPLETE  
GEARBOX, USE PART NO.  
X21599.

24	X36299	1	OIL COOLER	12	XO1206	16	BOLT, 3/8" UNC X 1" LG. HEX HD GR. 5
23	X13038	1	BUSHING, 1/2" X 1/8" REDUCER (NOT SHOWN)	11	X17185	2	KEY, 3/8" SQ. X 1.46" LG.
22	X13181	1	PLUG, 1/2" NPT PIPE (NOT SHOWN)	10	X22619	1	SHAFT, THRU
21	X13097	1	PLUG, 1/8" NPT VENT (NOT SHOWN)	9	X22264	2	SEAL, OIL (NAT473448)
20	XO6697	1	PLUG, 1/4" NPT PIPE	8	X22599	2	GEAR, 22T W/1.75" BORE
19	X22614	1	COVER, OPEN	7	X22595	1	HOUSING, SIDE PORT
18	X22604	AR.	SHIM, .007" (COVER)	6	X22602	1	CUP, BEARING (3730)
17	X22603	AR.	SHIM, .007" (1.75" DIA. SHAFT)	5	X17205	1	CONE, BEARING (3782)
16	X22611	3	WASHER, 1.75" I.D. X .179" THK.	4	XO8491	3	CUP, BEARING (25520)
15	X22606	3	RING, SNAP (5160 - 175)	3	X11477	3	CONE, BEARING (25581)
14	X22610	1	SPACER	2	X22594	1	SEAL, OIL
13	X22615	1	COVER, CLOSED	1	X22620	1	SHAFT, PINION
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

	A	9-25-95	ORIGINAL RELEASE	DATE	9-25-95	<b>GEARBOX - 1000 RPM (1:1 RATIO) 1500 ROTOR SPEED</b>	REF. NO.	21599
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/8" = 1"		DRAWING NO.	SC500147

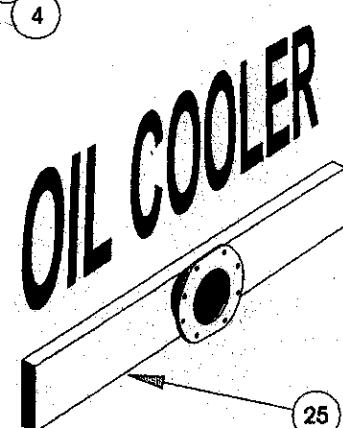


**NOTE:**

TO ORDER A COMPLETE GEARBOX, USE PART NO. X21525.

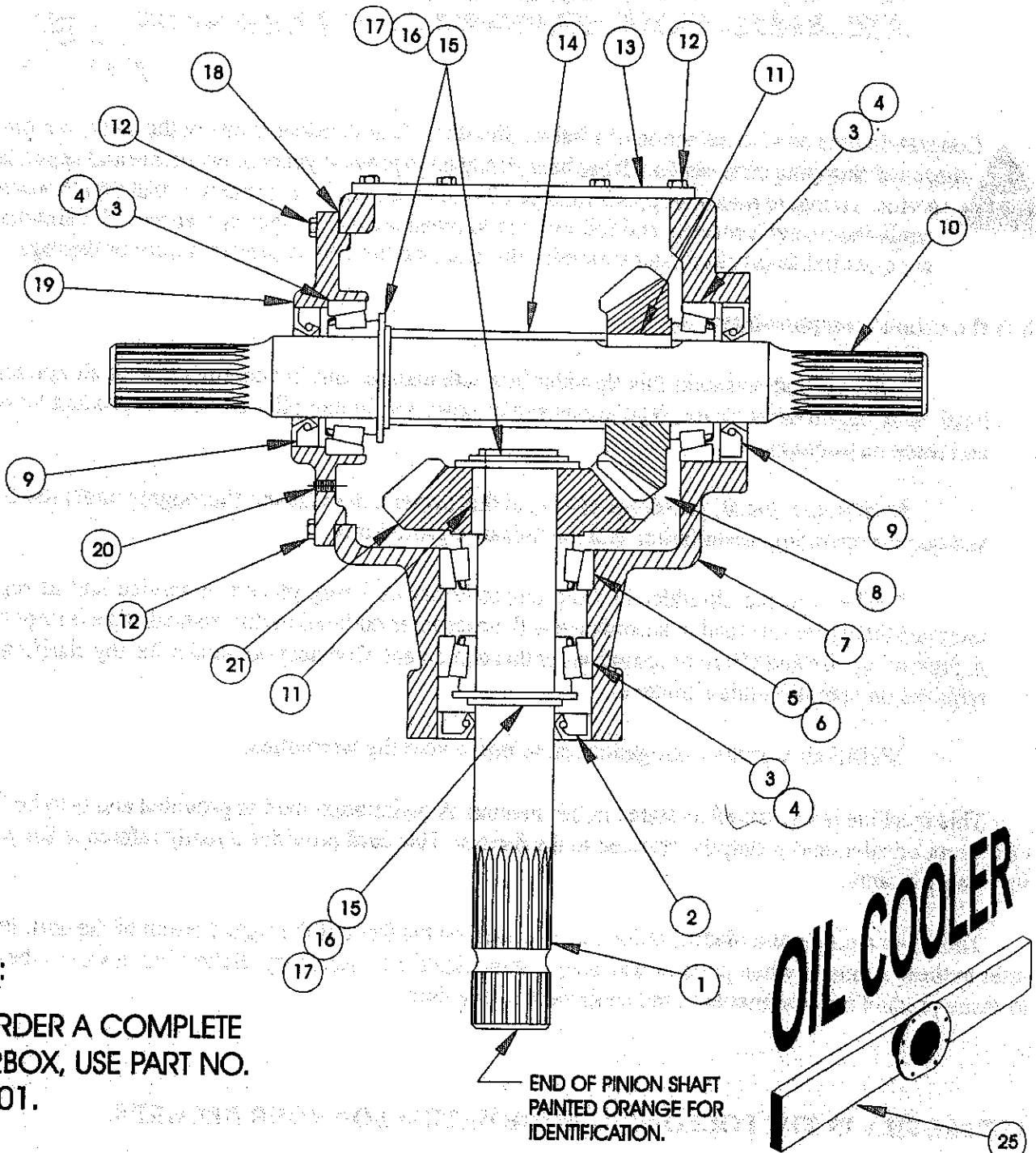
LETTER "G" I.D.

END OF PINION SHAFT PAINTED GREEN FOR IDENTIFICATION.



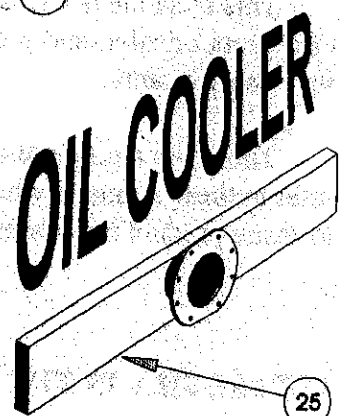
25	X36299	1	OIL COOLER	12	XO1206	16	BOLT, 3/8" UNC X 1" LG. HEX HD GR. 5
24	X13038	1	BUSHING, 1/2" X 1/8" REDUCER (NOT SHOWN)	11	X17185	2	KEY, 3/8" SQ. X 1.46" LG.
23	X13181	1	PLUG, 1/2" NPT PIPE (NOT SHOWN)	10	X22619	1	SHAFT, THRU
22	X13097	1	PLUG, 1/8" NPT VENT (NOT SHOWN)	9	X22264	2	SEAL OIL (NAT473448)
21	X22600	1	GEAR, 27T	8	X22601	1	GEAR, 20T
20	XO6997	1	PLUG, 1/4" NPT PIPE	7	X22595	1	HOUSING
19	X22614	1	COVER, OPEN	6	X22602	1	CUP, BEARING (3730)
18	X22604	AR.	SHIM, .007" (COVER)	5	X17205	1	CONE, BEARING (3782)
17	X22603	AR.	SHIM, .007" (1.75" DIA. SHAFT)	4	XO8491	3	CUP, BEARING (25520)
16	X22611	3	WASHER, 1.75" I.D. X .179" THK.	3	X11477	3	CONE, BEARING (25581)
15	X22606	3	RING, SNAP (5160 - 175)	2	X22594	1	SEAL OIL
14	X22610	1	SPACER	1	X22620	1	SHAFT, PINION
13	X22613	1	COVER, PLATE				
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

<b>BALZER</b>	A	9-27-95	ORIGINAL RELEASE	DATE	9-27-95	GEARBOX - 1000 RPM (1:1.35 RATIO) 2000 ROTOR SPEED	REF. NO.	21626
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/4" = 1"		DRAWING NO.	SC500149



**NOTE:**

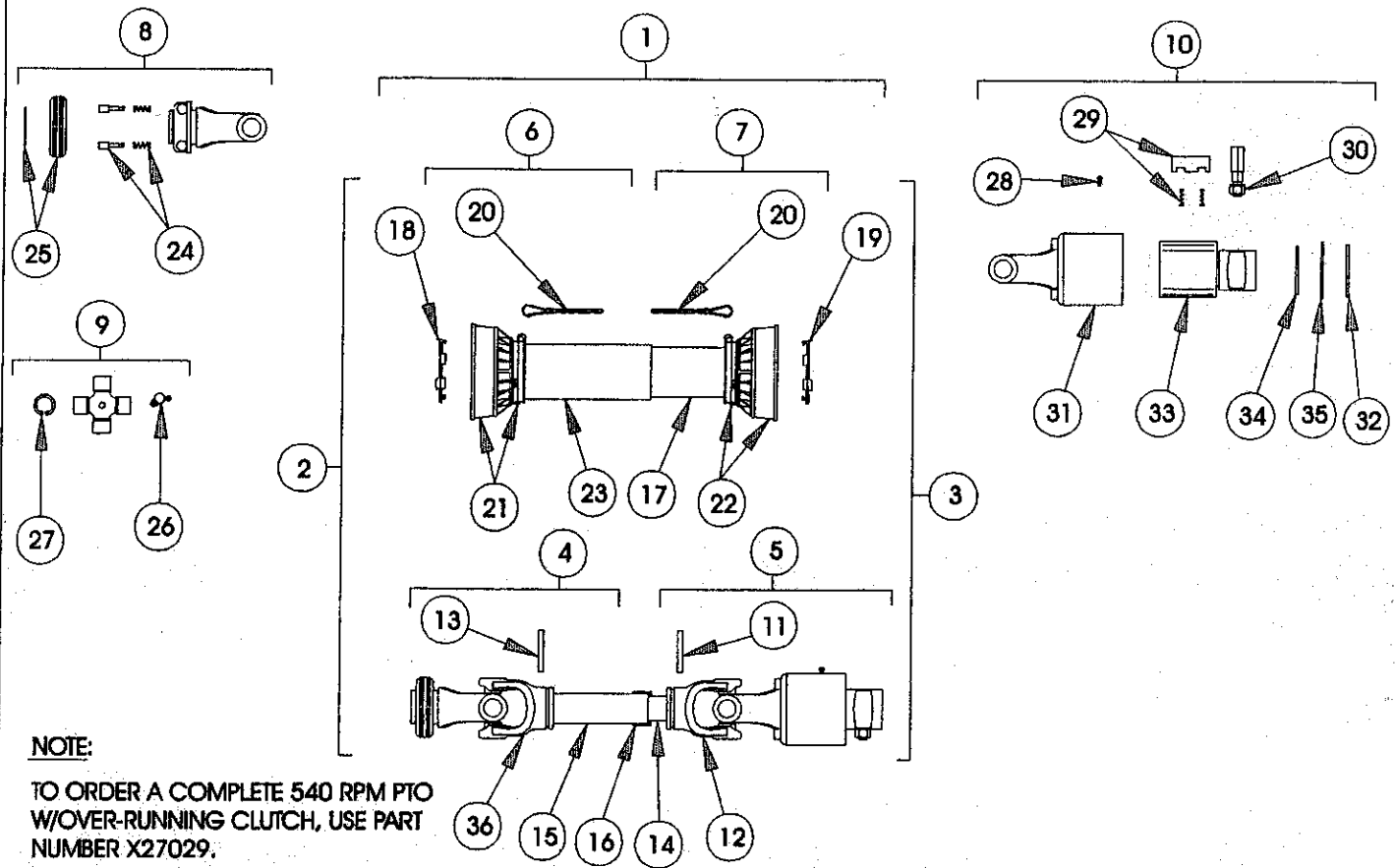
TO ORDER A COMPLETE GEARBOX, USE PART NO. X22501.



25	X36299	1	OIL COOLER
24	X13038	1	BUSHING, 1/2" X 1/8" REDUCER (NOT SHOWN)
23	X13181	1	PLUG, 1/2" NPT PIPE (NOT SHOWN)
22	X13097	1	PLUG, 1/8" NPT VENT (NOT SHOWN)
21	X22618	1	GEAR, 28T
20	XO6997	1	PLUG, 1/4" NPT PIPE
19	X22614	1	COVER, OPEN
18	X22604	AR.	SHIM, .007" (COVER)
17	X22603	AR.	SHIM, .007" (1.75" DIA. SHAFT)
16	X22611	3	WASHER, 1.75" I.D. X .179" THK.
15	X22606	3	RING, SNAP (5160 - 175)
14	X22610	1	SPACER
13	X22613	1	COVER, PLATE
ITEM	PART NO.	QTY.	DESCRIPTION

12	XO1206	16	BOLT, 3/8" UNC X 1" LG. HEX HD GR. 5
11	X17185	2	KEY, 3/8" SQ. X 1.46" LG.
10	X22619	1	SHAFT, THRU
9	X22264	2	SEAL, OIL (NAT473448)
8	X22617	1	GEAR, 24T
7	X22695	1	HOUSING
6	X22602	1	CUP, BEARING (3730)
5	X17205	1	CONE, BEARING (3782)
4	XO8491	3	CUP, BEARING (25520)
3	X11477	3	CONE, BEARING (25581)
2	X22594	1	SEAL, OIL
1	X22620	1	SHAFT, PINION
ITEM	PART NO.	QTY.	DESCRIPTION

	A	9-27-95	ORIGINAL RELEASE	DATE	9-27-95	<b>GEARBOX - 1000 RPM</b> (1:1.147 RATIO) 1750 ROTOR SPEED	REF. NO.	22501
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/8" = 1"		DRAWING NO.	SC500150



**NOTE:**

TO ORDER A COMPLETE 540 RPM PTO W/OVER-RUNNING CLUTCH, USE PART NUMBER X27029.

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD (ITEMS 13, 15, 16, 18, 20, 21, 23, 36), USE PART NUMBER X27046.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD (ITEMS 11, 12, 14, 17, 19, 20, 22), USE PART NUMBER X27047.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 17, 18, 19, 20, 21, 22, 23), USE PART NUMBER X27050.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 18, 20, 21, 23), USE PART NUMBER X27048.

TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 17, 19, 20, 22), USE PART NUMBER X27049.

TO ORDER A COMPLETE TRACTOR HALF PTO W/O SHIELD (ITEMS 13, 15, 16, 36), USE PART NUMBER X27044.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/O SHIELD (ITEMS 11, 12, 14), USE PART NUMBER X27045.

36	X18682	1	YOKE, OUTER TUBE	18	X18707	1	O.BEARING, 8-9-0
35	X23077	2	CLOSING PLATE HALF	17	X27038	1	TUBE, CM SAFETY (IMPLEMENT HALF)
34	X23076	1	RING, SCREEN	16	X18700	1	NUT, RING
33	X27041	1	HUB (CLUTCH INNER)	15	X27033	1	TUBE, CM CARDAN (TRACTOR HALF)
32	X23079	1	CIRCLIP (SNAP RING)	14	X27034	1	TUBE, CM CARDAN (IMPLEMENT HALF)
31	X27040	1	CLUTCH OUTER BODY	13	X18714	1	PIN, FLEXIBLE
30	X27043	1	PIVOT PIN ASSEMBLY	12	X18683	1	YOKE, INNER TUBE
29	X27042	1	RACHET W/SPRING	11	X18715	1	PIN, FLEXIBLE
28	X27039	1	ZERK, GREASE NIPPLE	10	X27035	1	CLUTCH, FREE WHEEL RA2/8
27	X23061	8	CIRCLIP (SNAP RING)	9	X18676	2	CROSS JOURNAL COMPLETE
26	X18716	2	ZERK, GREASE NIPPLE	8	X18732	1	YOKE, 1-3/8" - 6
25	X18702	1	HUB (ROTARY LATCH)	7	X27049	1	GUARD, HALF (IMPLEMENT END)
24	X18722	2	PUSH BUTTON COMPLETE	6	X27048	1	GUARD, HALF (TRACTOR END)
23	X27037	1	TUBE, CM SAFETY (TRACTOR HALF)	5	X27045	1	SHAFT, IMPLEMENT HALF W/O SHIELD
22	X27032	1	I.CONE SETS, F8-9	4	X27044	1	SHAFT, TRACTOR HALF W/O SHIELD
21	X27036	1	O.CONE SETS, F8-9	3	X27047	1	SHAFT, IMPLEMENT HALF W/SHIELD
20	X18704	2	CHAIN COMPLETE	2	X27046	1	SHAFT, TRACTOR HALF W/SHIELD
19	X18706	1	I.BEARING, 8-9-0	1	X27050	1	SAFETY GUARD COMPLETE
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

	B	9-16-95	REVISED	DATE	2-3-95	1-3/8-21 PTO RA2 (1000 RPM) - FULL & SEMI-MOUNT -	REF. NO.	27029
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/4" = 1"		DRAWING NO.	SC500157





# Important—Read This First

The registration card is to be filled in completely and promptly returned to factory. It provides a ready reference to help you in securing parts and in answering questions that you may have at a later date.

This card does not put you on a mailing list. Nor is the information on the card made available to anyone else.

We urge the return of this card so that you will receive maximum service benefits.

Where a separate instruction manual has been received by the customer, a parts manual was sent with this machine. If you have not received the parts manual, ask your dealer.

PLEASE  
RETURN  
THIS  
CARD  
WITHIN  
7 DAYS



Date of Purchase \_\_\_\_\_

Owner's Name \_\_\_\_\_

Dealer's Name \_\_\_\_\_

Serial No. \_\_\_\_\_

## Warranty Registration Card

*This form must be filled out and signed by customer at the time of delivery.*

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

Date of Purchase \_\_\_\_\_

Customer Name \_\_\_\_\_ Dealers Name \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ City \_\_\_\_\_

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

*The above unit and operator's manual have been received by me and I understand and have been thoroughly instructed by my dealer as to operator's manual content, equipment care, adjustments, safe operation & explained and reviewed the warranty policy.*

Owner's Signature \_\_\_\_\_