

balzer

MOUNTAIN LAKE, MN 56159

(507) 427-3133

LAGOON PUMP

OWNERS MANUAL
FOR
INSTALLATION, OPERATION
& MAINTENANCE

NOV. - 94

PN PL300002

BALZER MFG. CORP.
LAGOON PUMP
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BALZER MFG. CORP.

LAGOON PUMP

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To the Purchaser



This is the safety alert symbol, it is used to alert the operator to an instruction concerning the personal safety and risk factor of this equipment. Always observe and heed these very important instructions to promote a safe operation with good preventive maintenance habits.

This new BALZER product is designed and manufactured to give years of very dependable service when used for the purpose for which it is intended, and when properly maintained.

NEVER OPERATE THIS EQUIPMENT UNTIL USER FULLY UNDERSTANDS THE COMPLETE CONTENTS OF THIS MANUAL. FOR OWNERS WHO DO NOT OPERATE THIS EQUIPMENT, IT IS THE OWNER'S RESPONSIBILITY THAT THE USER IS PROPERLY INSTRUCTED AND IS FULLY AWARE OF THIS MANUAL'S CONTENTS.

This is important in the safe handling of this equipment and promoting and efficient operation. If there are any questions about areas in this manual, it is important to contact your dealer for clarification.

This machine is warranted as stated in this manual. A registration card is to be filled in by your dealer with your name and address, and promptly returned to the factory. This card provides a ready reference to help you in securing warranty and in answering questions that you may have at some later date.

Operating instructions and parts book are shipped with this machine. If parts of this book are missing or become unreadable, contact your dealer for a new set.

The serial number and identification tag is located on the front of the right tank saddle. Please refer to these numbers when parts or warranty communication is necessary.

PLEASE FILL IN THE FOLLOWING INFORMATION FOR YOUR RECORDS

DATE OF PURCHASE _____

OWNER'S NAME _____

DEALER'S NAME _____

SERIAL NO./IDENTIFICATION NO. _____

WARRANTY

WARRANTY BY 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 Mfg. Corp. 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 Mfg. Corp's obligation and liability under this Warranty is expressly limited to repairing or replacing at Balzer Mfg. Corp's option, any parts which appear to Balzer Mfg. Corp. 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 Mfg. Corp. 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 Mfg. Corp. 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 the 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 MFG. CORP. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.**

Balzer Mfg. Corp'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 Mfg. Corp. Products or parts for which a warranty claim is made are to be returned transportation prepaid to Balzer Mfg. Corp. Any improper use, including operation after discovery of defective or worn parts, operation beyond rated capacity, substitution of parts not approved by Balzer Mfg. Corp. or any alteration or repair by others in such manner as in Balzer Mfg. Corp's. judgment affects the Product 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 MFG. CORP. AT ITS HOME OFFICE."

LIABILITY FOR DELAYS

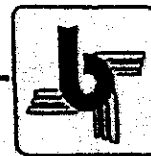
No liability shall attach to Manufacturer or direct, indirect, incidental, or consequential damages or expenses due to loss, damage, detention or delay in delivery of Products resulting from acts or delays beyond its control.

balzer mfg
corp
Highway 66 East
Mountain Lake, Mn. 56159
phone (507) 487-3133

WARRANTY CLAIMS AND RETURN OF GOODS

1. The dealer shall submit each warranty claim to the company within 30 days after the defective part has been replaced.
2. The dealer shall furnish the Company definite proof of delivery date of the machine to the purchaser prior to the Company's honoring any warranty claim.
3. All parts alleged to be defective under the Company's warranty policy shall be made available for examination by the Company, either at the dealer's place of business or factory of the Company, at the Company's option. If examination is to be made at factory, the part shall be returned to the Company with transportation charge prepaid, only after receipt of the dealer of written shipping instructions from the Company.
4. Goods authorized for return to the factory are to be returned by dealer within 30 days from authorization date. failure to return with the 30-day period will invalidate the warranty claim.

In order to be protected under the terms of the BALZER MANUFACTURING CORPORATION warranty, and to avoid delay in processing warranty claims, the original owner's name and address and the identification numbers of the machine should be registered at the BALZER MANUFACTURING CORPORATION factory within thirty (30) days from the date of purchase. A registration card is furnished with each machine.



SAFETY SIGNS

Why:

Safety signs or decals are important information and instructions designed to promote personal safety. They are designed to alert you to dangers and hazards that can be present during operation of this equipment. However, safety sign instruction does no good if it is not read, understood and followed.

When:

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.

How:

To apply safety signs or 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 meant to be removed from the split outward. Apply decals in the following manner:

1. Position the decal in the proper location and hold firmly over the larger portion of backing.
2. With one hand holding decal in position, the free hand can carefully roll the loose end over and peel backing outward. When the backing is removed as described and shown in fig. (1), with even and gradual pull, the decal will roll onto the surface smooth and wrinkle free.
3. With the smallest portion of decal attached, the same procedure can be applied to the other half.
4. After the decal is attached in place, use a cloth or soft paper towel to burnish decal onto surface. Work gently from the middle outwards to avoid creating any wrinkles.

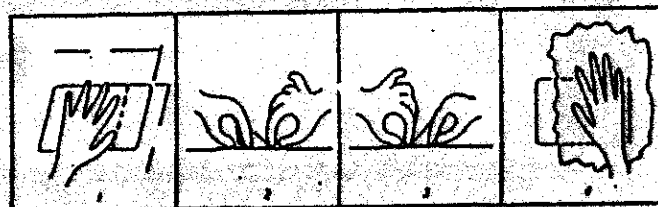
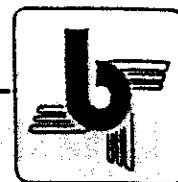


Fig. (1)

Where:

Order replacement decals by part number through your nearest dealer. Part numbers are printed on most decals, later in this section and in the parts section of this manual.

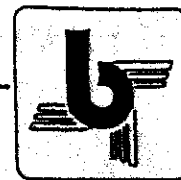
Safety



OBSERVE AND FOLLOW ALL SAFETY PROCEDURES TO PREVENT INJURY OR DAMAGE TO THE MACHINE

1. When agitating a pit always be sure there is adequate ventilation in the confinement area.
2. Never enter a pit unless it is absolutely necessary. If a unit must be entered, take proper safety precautions. These include someone at the site, outside the unit and with proper life support system. Contact your BALZER dealer for more information before you enter a tank.
3. Avoid excessive road speed.
4. Never operate this unit until user is familiar with all controls, and has read and understands operators manual.
5. Read and follow the instructions on all decals.
6. Never lubricate, adjust or repair unit while it is in operation. Power unit engine must be shut off and all movement stopped.
7. Never operate this unit with any guards or shields not in place. Replace any missing or damaged ones.
8. Keep hands and feet away from all moving parts.
9. Never wear loose clothing while working around moving parts.
10. Never leave unit running unattended.
11. Before loading make sure that the unit does not have any foreign objects or material in it that can cause equipment damage or personal injury.
12. Never allow anyone to ride on the unit at anytime.
13. Be sure the rear of the unit has a clean SMV emblem properly displayed if towing less than 25 MPH on any public roadway. At night proper warning and running lights are necessary as required by state law.
14. Always use a safety chain between the towing vehicle and pump on public roadways.
15. Hydraulic pressure can be very dangerous and can cause serious personal injury and death. Be sure to relieve all pressure before disconnecting hydraulic lines.
16. Hydraulic fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, not your hands, to search for leaks.
17. If injured by escaping hydraulic fluid, seek medical attention immediately. Serious infection or reaction may develop.
18. Never assume that everybody is as safety conscious as you are.
19. Always use a hitch pin that has a safety clip pin.

Operation



OPERATING & MAINTENANCE

Site-Preparation:

Location of the pump is generally determined by the location of the intake and discharge of the material to be pumped. Improper site conditions can adversely affect the operation and maintenance of your pump.

The area around the pump should be kept clear and as level as possible to make the pumping of the material as convenient as possible.

Pre-Operation Check List:

Before placing your pump into the pumping area, you should perform a check of the following items:

1. Inspect for missing or loose bolts.
2. Check all lubrication areas.
3. Check the universal joints in the PTO.
4. Check the condition of all hydraulic hoses and fittings, replace those that are damaged.
5. Check the agitation nozzles movement.
6. Check the condition of the impeller and housing for objects that might obstruct rotation.

Pump Set-Up:

Position the pump in the working area as required, then convert from a towable unit to a working unit.

Connect the PTO shaft and all hydraulic lines to the tractor. Check all lines and connectors, tighten all loose fittings. With the tractor's throttle at idle,

check the pump rotation by engaging the control lever. Remember which direction the control lever was moved to produce proper impeller rotation. If it is necessary to purge the hydraulic lines of air, cycling of the cylinders several times will clear the lines.

Next, position the pump into the area of the pit that has the most liquid. Direct the gun nozzle towards the pump to set up a flowing motion of the slurry.

Operating Procedures:

Operation of the pump begins by slowly increasing the PTO rpm's up to the designated rate.

Agitate until the area around the pump becomes liquid, then readjust the gun nozzle to spray the liquid over the top crust to saturate until it breaks into chunks and either sinks to the bottom or floats towards the pump and becomes liquid thru the agitation process. Agitation is complete when there are no solids floating and density of slurry is consistent.

Reduce the PTO speed to idle, position the tanker for filling, and connect to the pump. Slowly increase the PTO speed to 60% of rating for filling the tanker. Continue to agitate while filling to keep the density of the slurry in a liquid state. When tanker is full reduce PTO speed and close filler valve. Disconnect pump from tanker.

When operation of the pump is complete, remove from the pit area and wash complete to insure that all product is removed from the unit, especially around

Parts



It is the policy of the Balzer Mfg. Corp. to constantly improve its products whenever it is practical to do so.

The Balzer Mfg. Corp. must therefore reserve the right to redesign or change its equipment or component parts thereof without incurring obligation to install or furnish such changes on equipment previously delivered.

INSTRUCTIONS FOR ORDERING PARTS

1. Order all parts by their part number and name.
2. Parts should never be ordered from item numbers only.
3. Always mention the model and serial numbers found on name plate of unit on which part is to be used. Much delay and confusion can be avoided when correct model and serial numbers are specified on parts order and correspondence.
4. Owners, order all parts thru your local dealer.
5. Dealers must indicate how to ship: whether by truck, rail freight, express or parcel post.
6. Collect phone calls will not be accepted.
7. Address all orders for parts as follows:

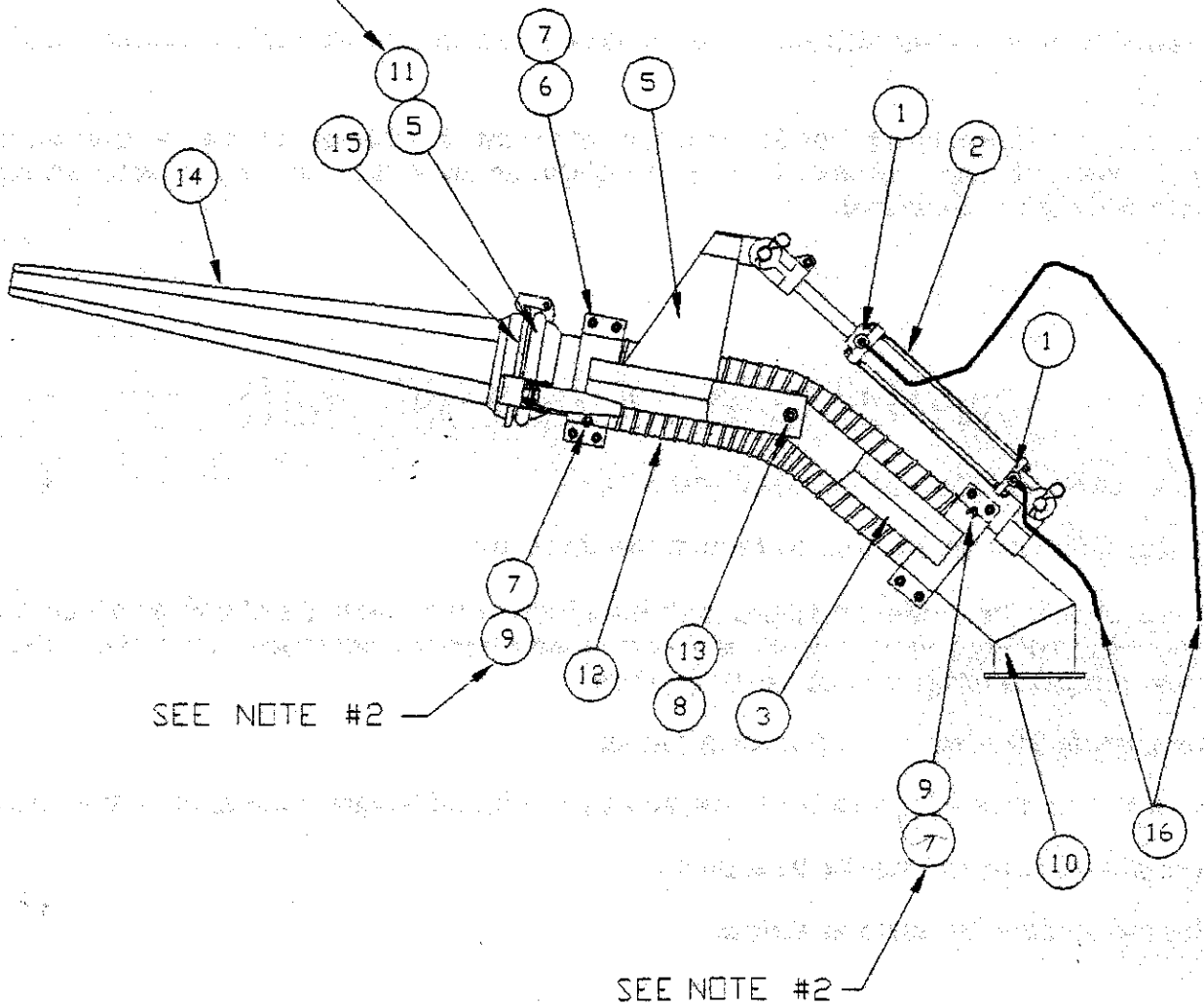
balzer mfg
corp

highway 60 east
mountain lake, mn. 56159
phone (507) 487-3133

INSTRUCTIONS FOR RETURNING PARTS FOR ADJUSTMENT

1. To assure prompt handling of claims, your dealer or distributor should follow standard claim procedure and forward claim within thirty (30) days of any part failure or malfunction believed to be a warranty claim to the Balzer Mfg. Corp. service department for processing.
2. No returned parts will be accepted unless they are transportation prepaid and accompanied by the packing list copy.
3. Parts returned should have a tag attached with senders name and address clearly printed.

SEE NOTE #1



NOTES:

- 1) ITEM (11) MUST BE INSTALLED SO HOOK IS STRAIGHT UP.
- 2) DRILL THRU ITEMS (10), (11) & (12) TO INSTALL BOLTS.

16	22228	2	HOSE, HYDRAULIC 1/4" X 378" LG.	9	1206	4	BOLT, HEX HD. 3/8" NC X 1" LG.
15	11977	1	RING, 6" COUPLER	8	2539	2	NUT, 1/2" N.C. HEX TOPLOCK
	20842	1	NOZZLE, GUN 4"	7	2496	12	NUT, 3/8" HEX TOPLOCK
14	20841	1	NOZZLE, GUN 3"	6	1208	8	BOLT, HEX HD. 3/8" N.C. X 1-1/2" LG.
	20610	1	NOZZLE, GUN 2"	5	11979	1	O-RING, 6" COUPLER
13	1093	2	BOLT, CARRIAGE 1/2" X 1" LG.	4	20622	1	PIVOT, GUN W/CYLINDER MOUNT
12	20623	1	HOSE, 6" I.D. X 32" LG.	3	20621	2	BRACKET, GUN PIVOT
11	20605	1	ADAPTER, FEMALE W/6" PIPE	2	16240	1	CYLINDER, 2" X 8"
10	20786	1	ELBOW, 6" ADAPTER W/FLANGE & LUG	1	21171	2	ELBOW, STREET 3/8"-1/4" FMPS
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

BALZER HIGHWAY 50 EAST
MFG. CORP. MOUNTAIN LAKE, MN 56159

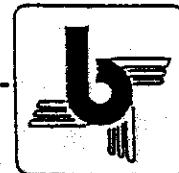
B 11-1-94 REVISED
REV DATE DESCRIPTION OF REVISION

DATE: 6-29-94
SCALE: 1/2" = 1'-0"
DRAWN: TWS

GUN ASSEMBLY

REF. NO. 20601
DRAWING NO. PL300103

Operation



OPERATING & MAINTENANCE CON'T.

the hydraulics portion of the pump. A light coating of oil is recommended to protect against corrosion.

Transporting:

When moving the lagoon pump, the hydraulic lines and PTO shaft that are connected to the tractor should be disconnected and placed in the transport position to avoid damage that could occur during transportation of the pump.

Lubrication:

The operation and lifetime of the components of this pump are dependant on regular and proper lubrication. The frequency of lubrication will depend on conditions of use. Severe or unusual conditions may determine actual service needs.

Replace any broken or missing grease fittings and always clean the fittings before greasing.

All areas indicated on the drawing PL300117 are factory lubricated. Additional lubrication is as follows:

PTO and wheel bearing every 50 hours of running time.

All other areas to be lubricated every 100 hours of running time.

Additional lubrication (provided by the customer) is recommended to be placed in the main tube section of the unit as an aid to help against condensation. Use a SAE 30 wt. (approximately 5 gallons) or heavier motor oil. To add the oil, re-

move the cover plate, as indicated on drawing PL300117, and pour slowly into the tube. Oil will gradually drain towards the PTO end of the unit. Rotation of the drive shaft will cause the oil to lubricate the inside of the main tube.

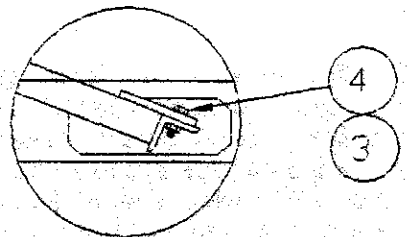
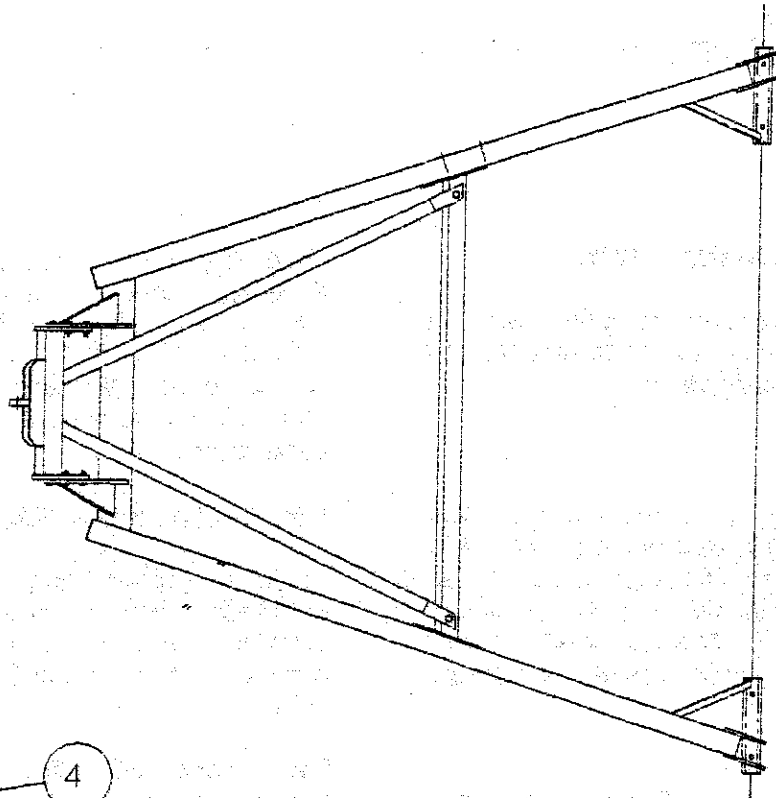
REMOTE CONTROL SYSTEM OPTION:

If your lagoon pump is equipped with a wireless remote control, this system simply replaces the usual hard wired control that normally comes with the valve.

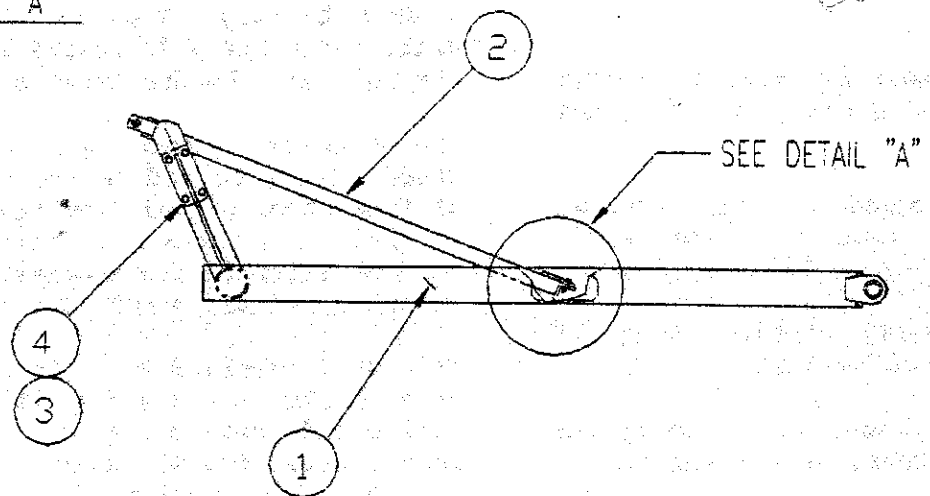
The range of the system is greatly dependant on the location and positioning of the receiver box. Under ideal conditions, the range of the system will be 100 ft. - 150 ft. when there is a clear path between the transmitter and receiver. The transmitter operates on a 9 volt battery. When the battery is weak, the range will become shorter and the unit will become erratic.

The wireless system uses a digitally coded signal to reduce the possibility of some other signal from causing false operation. If there is a radio transmitter operating in close proximity to the receiver, it may block your signal.

This unit operates on a 12 volt system only (refer to drawing PL300129 for wiring information). Most systems will have a power ON/OFF switch in the control box for turning off the wireless receiver. This switch should be turned off when the system is not in use to keep from draining the battery.



DETAIL "A"



NOTE:

TO ORDER A COMPLETE CARRIAGE ASSEMBLY, USE PART NO. 20740.

4	1776	10	NUT, 5/8" TOPLOCK
3	1290	10	BOLT, HEX HD. 5/8" X 1-3/4" LG. GR. 5
2		1	UPPER CARRIAGE ASSEMBLY
1		1	LOWER CARRIAGE ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION

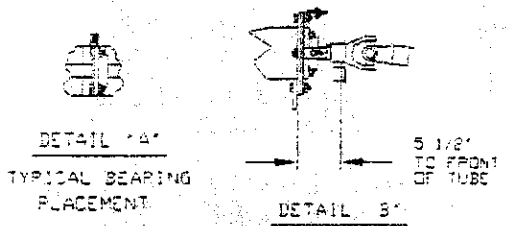
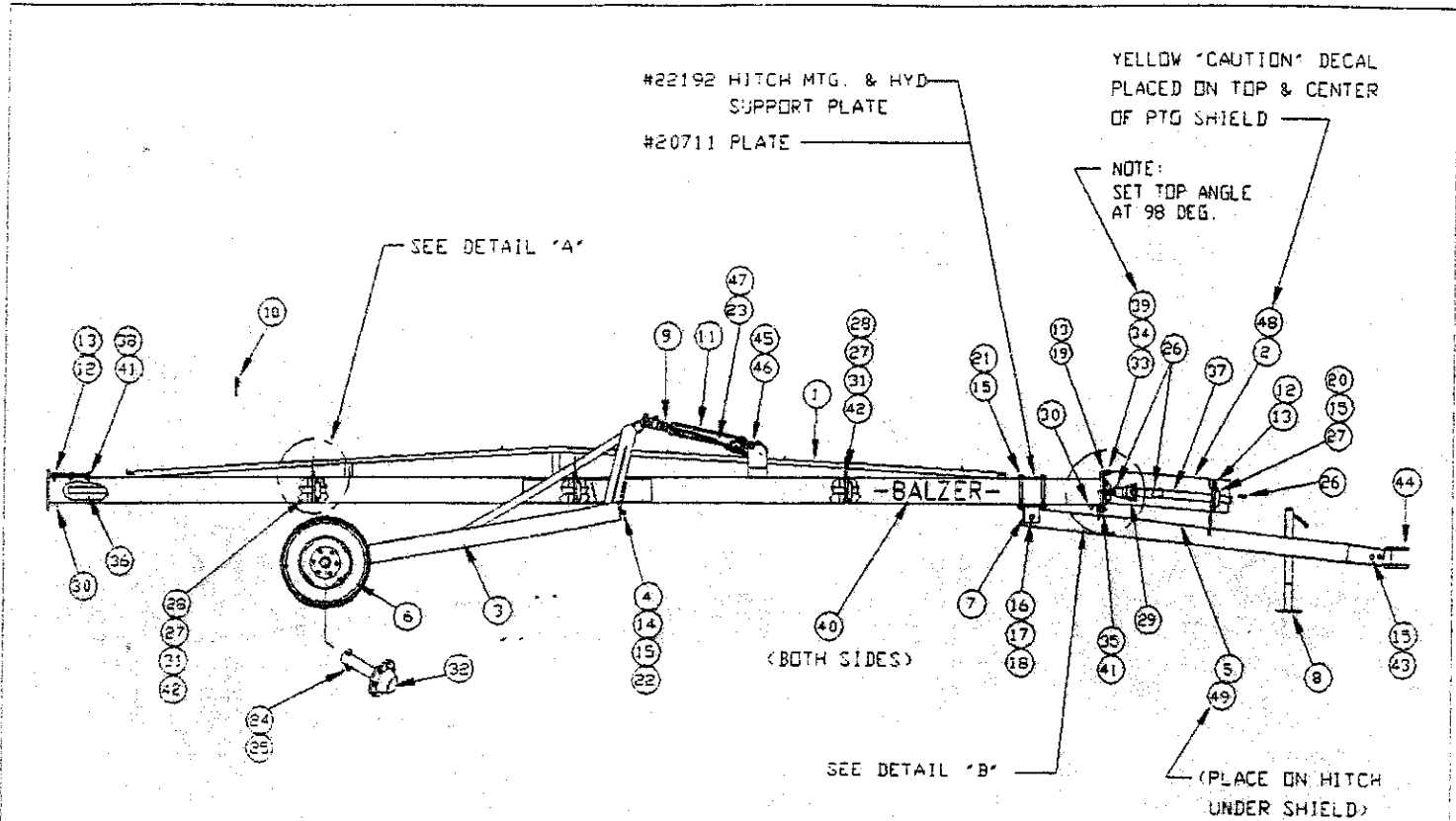
BALZER HIGHWAY 50 EAST
MFG. CORP. MOUNTAIN LAKE, MN 56159

REV. A 7-11-94 ORIGINAL RELEASE
DATE DESCRIPTION OF REVISION

DATE 7-11-94
SCALE 1/2" = 1'-0"
DRAWN BY TMS

LAGOON PUMP CARRIAGE

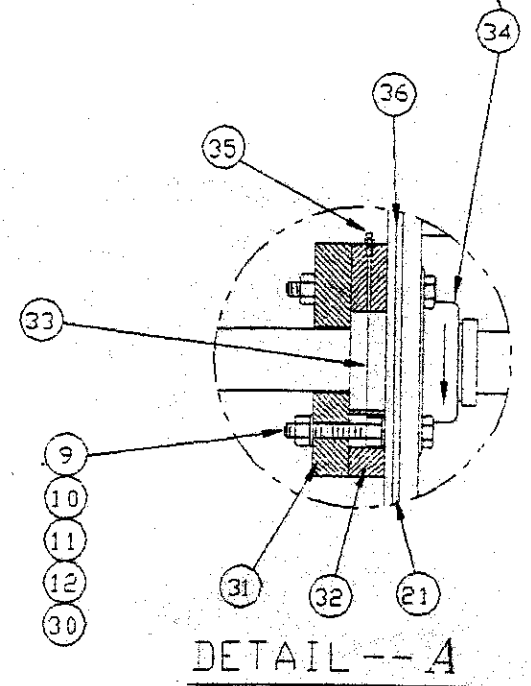
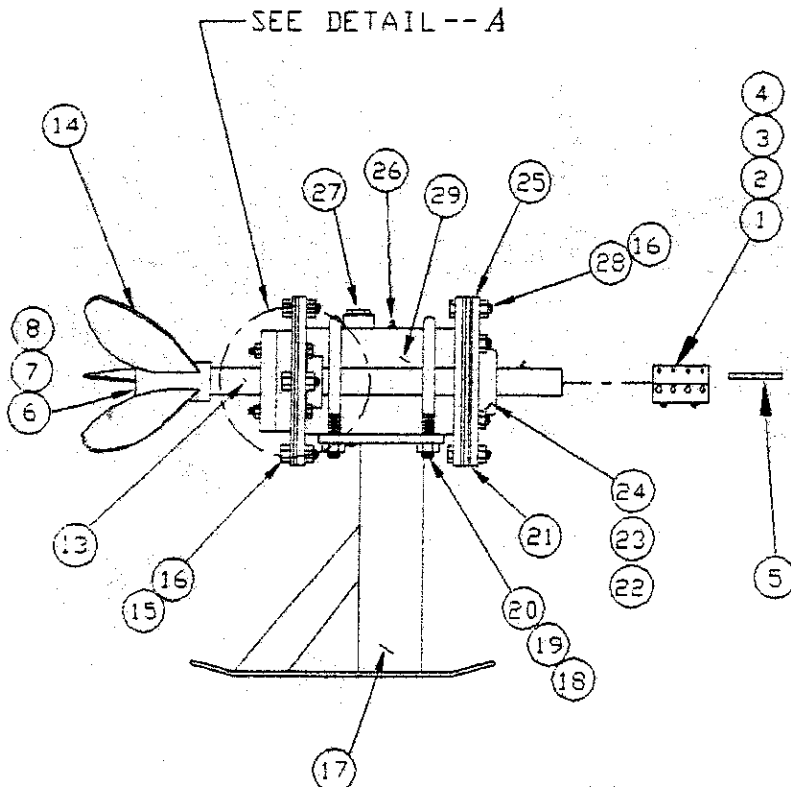
REF. NO. 20740
DRAWING NO. PL300104



ITEM	PART NO.	QTY.	DESCRIPTION
49	21730	1	DECAL, "DO NOT OPERATE WITHOUT SHIELD"
48	5154	1	DECAL, YELLOW "CAUTION"
47	21445	2	HOSE, 1/4" NPT X 216" LG. HYDRAULIC
46	11059	1	PIN, 9 GA. X 2-13/16" LG. HAIR
45	20943	1	PIN, 1" X 4-1/4" LG. CLEVIS
44	20725	1	HITCH, PIVOTING
43	1301	2	BOLT, 5/8" X 5" LG.
42	1594	6	NUT, 1/2"
41	20932	2	GASKET
40	20267	2	DECAL, 5" BALZER
39	20944	3	MOUNT, CLIP SHIELD
38	20699	1	PLATE, 7" TUBE COVER
37	20761	1	SHAFT, 1-3/4" X 23-7/8" LG. CD
36	20762	1	SHAFT, 1-3/4" X 288" CD G & P
35	20755	1	HOLDER, BEARING
34	2081	3	NUT, 5/16" WHIZ LOCK
33	1185	3	BOLT, 5/16" X 1" LG.
32	18240	2	HUB & SPINDLE ASSEMBLY
31	1250	6	BOLT, 1/2" X 1-1/2" LG.
30	8907	2	PLUG, 1/2" NPT PIPE
29	26476	1	U-JOINT, 1-3/4" BORE W/SHEAR
	19992	1	U-JOINT, 1-3/4" W/KEYWAY
28	20750	3	HOLDER, BEARING
27	20092	5	BEARING, 1-3/4"
26	2437	3	KEY, 1/2" SQ. X 2" LG.

ITEM	PART NO.	QTY.	DESCRIPTION
25	2539	2	NUT, 1/2" TOP LOCK
24	1253	2	BOLT, 1/2" X 3-1/2" LG.
23	21201	2	ELBOW, 90° 1/2" NPT - 1/4" FEMALE MPS
22	1602	4	WASHER, 5/8" FLAT
21	2617	4	BOLT, 5/8" X 9" LG.
20	1290	20	BOLT, 5/8" X 1-3/4" LG.
19	1252	8	BOLT, 1/2" X 2" LG.
18	1697	1	NUT, 3/4"
17	1641	1	WASHER, 3/4" LOCK
16	1320	1	BOLT, 3/4" X 5" LG.
15	2546	30	NUT, 5/8" TOP LOCK
14	1288	4	BOLT, 5/8" X 1-1/4" LG.
13	2084	18	NUT, 1/2" WHIZ LOCK
12	1249	1	BOLT, 1/2" X 1-1/4" LG.
11	22182	1	CYLINDER, HYD. 3" X 20" - VERTICLE PUMP
	20809	1	CYLINDER, HYD. 3" X 18" - LAGOON & AGITATOR
10	20814	1	MOUNT, SLOW MOVING VEHICLE
9	22108	1	KIT, STROKE CONTROL (1-1/8")
	21152	1	KIT, STROKE CONTROL (1-1/4")
8	10629	1	CRANK, JACK SIDE
7	20720	1	MOUNT, HITCH
6	20815	2	TIRE, 9.5 L - 15 6PLY ASSEMBLY
5	20737	1	HITCH
4	20702	1	BRACKET, AXEL
3	20740	1	WELDMENT, CARRIAGE
2	20760	1	SHIELD, PTO
1	20690	1	WELDMENT, MAIN TUBE

LOCK BEARINGS
IN THE DIRECTION
INDICATED.



PACK CAVITY IN FRONT
& IN BETWEEN SEALS
WITH GREASE

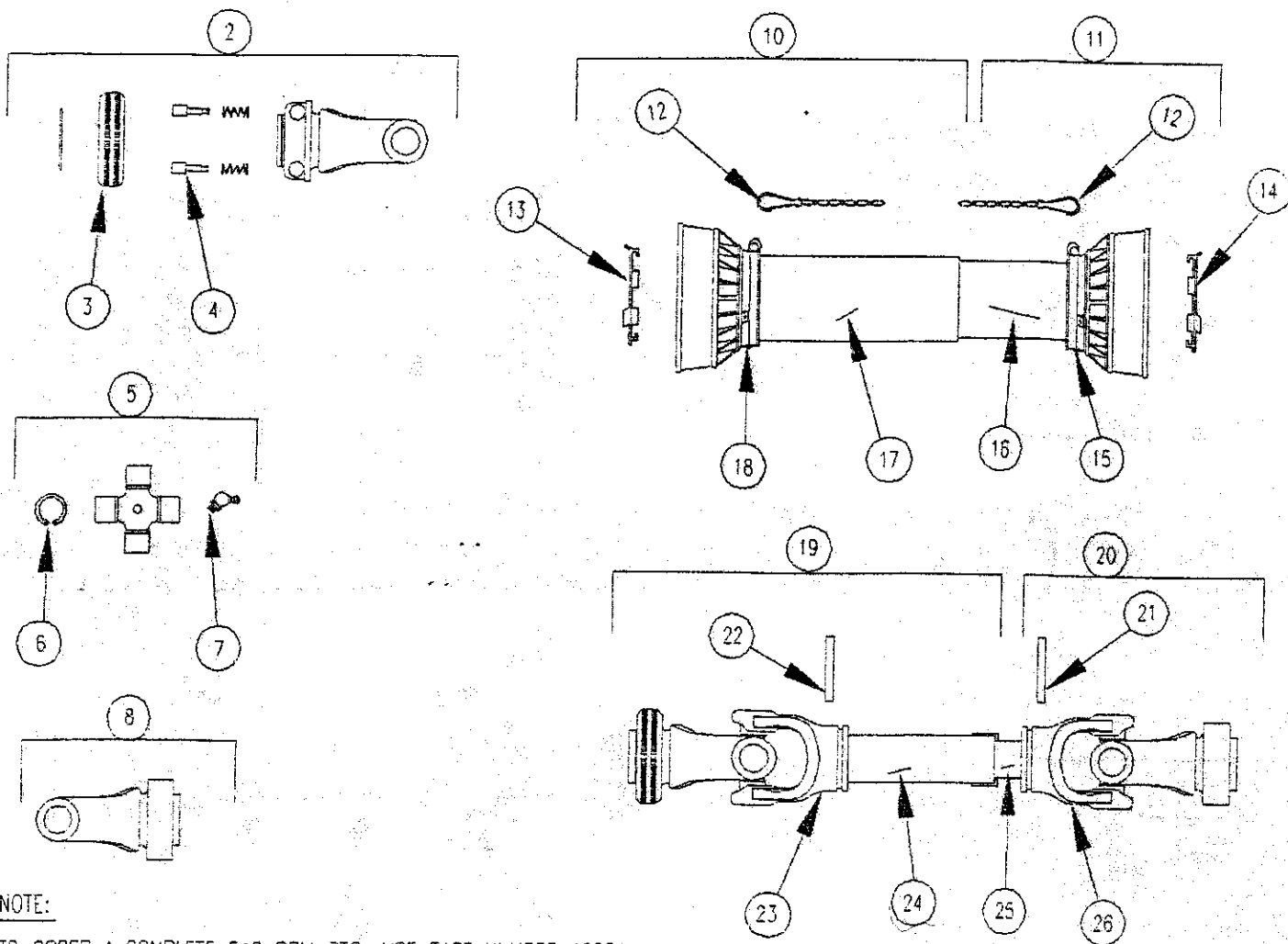
ITEM	PART NO.	QTY.	DESCRIPTION
36	20754	1	HOLDER, BEARING
35	2291	1	ZERK, 1/8"-27 NPT STRAIGHT
34	20765	1	BEARING, 1-3/4" 4-BOLT FB22428H
33	20764	2	SEAL, 1-3/4"
32	20752	1	HOLDER, SEAL
31	20753	1	RETAINER, SEAL
30	20830	4	BOLT, 1/2" X 3-1/2" LG. W/3" THREAD
29	20680	1	CHAMBER, GREASE
28	1253	8	BOLT, 1/2" X 2-1/4" LG.
27	11870	1	PLUG, 2" NPT PLASTIC
26	2286	1	ZERK, 1/4"-28
25	20755	1	HOLDER, BEARING
24	2546	4	NUT, 5/8" TOP LOCK
23	1290	4	BOLT, 5/8" X 1-3/4" LG.
22	20092	1	BEARING, 1-3/4" 4-BOLT EC LOCK
21	20832	3	GASKET

20	1697	4	NUT, 3/4" HEX HD.
19	1641	4	WASHER, 3/4" LOCK
18	20757	2	U-BOLT, 3/4" X 7" X 9"
17	20888	1	PLATE, SKID
16	2084	16	NUT, 1/2" WHIZ LOCK
15	1251	8	BOLT, 1/2" X 1-3/4" LG. HEX HD.
14	19418	1	PROPELLER, 28" DIA.
	21326	1	PROPELLER, 26" DIA.
	21323	1	PROPELLER, 23" DIA.
	21255	1	PROPELLER, 19" DIA.
13	20879	1	SHAFT, 1-3/4" X 27-1/2" LG. SST
12	1638	4	WASHER, 1/2" LOCK
11	1694	4	NUT, 1/2" HEX HD.
10	1618	4	WASHER, 1/2" SAE FLAT
9	2539	4	NUT, 1/2" TOP LOCK
8	1621	1	WASHER, 3/4" SAE FLAT
7	1777	1	NUT, 3/4" TOP LOCK
6	2396	1	KEY, 1/4" X 3/8" X 3" LG.
5	2447	1	KEY, 1/2" SO. X 4" LG.
4	20619	1	COUPLING, 1-3/4" SHAFT/SPLIT
3	2614	2	NUT, 5/16"-24 JAM
2	2270	2	SET SCREW, 5/16"-24 X 1" LG. DOG POINT
1	20631	8	BOLT, 5/16"-24 X 1" LG. SOCKET HD. SST.

BALZER HIGHWAY 80 EAST
MFG. CORP. MOUNTAIN LAKE, MN 56159

B 10-13-94 REVISED
REV. DATE DESCRIPTION OF REVISION
DATE 7-1-94
SCALE 1/2" = 1'-0"
DRAWN TWS

AGITATOR OPTION REF. NO. 21260
DRAWING NO. PL300109



NOTE:

TO ORDER A COMPLETE 540 RPM PTO, USE PART NUMBER 19991.

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD (ITEMS 12, 13, 17, 18, 22, 23, 24), USE PART NUMBER 23103.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD (ITEMS 12, 14, 15, 16, 21, 25, 26), USE PART NUMBER 23102.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 12, 13, 14, 15, 16, 17, 18), USE PART NUMBER 23093.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 12, 13, 17, 18), USE PART NUMBER 23094.

TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 12, 14, 15, 16), USE PART NUMBER 23095.

TO ORDER A COMPLETE TRACTOR HALF PTO W/O SHIELD (ITEMS 22, 23, 24), USE PART NUMBER 23101.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/O SHIELD (ITEMS 21, 25, 26), USE PART NUMBER 23100.

28	23103	1	SHAFT, TRACTOR HALF W/SHIELD	14	18708	1	I. BEARING, 8-9-10
27	23102	1	SHAFT, IMPLEMENT HALF W/SHIELD	13	18707	1	O. BEARING, 8-9-10
26	23106	1	YOKE, INNER TUBE	12	18704	2	CHAIN COMPLETE
25	23108	1	TUBE, CM CARDAN (IMPLEMENT HALF)	11	23095	1	GUARD, HALF (IMPLEMENT END)
24	23109	1	TUBE, CM CARDAN (TRACTOR HALF)	10	23094	1	GUARD, HALF (TRACTOR END)
23	23105	1	YOKE, OUTER TUBE	9	23093	1	SAFETY GUARD COMPLETE
22	23114	1	PIN, FLEXIBLE (IMPLEMENT HALF)	8	19992	1	YOKE, 1-3/4" RD. W/1/2" KEY
21	23115	1	PIN, FLEXIBLE (TRACTOR HALF)	7	18716	2	ZERK, GREASE NIPPLE
20	23100	1	SHAFT, IMPLEMENT HALF W/O SHIELD	6	23113	8	CIRCLIP (SNAP RING)
19	23101	1	SHAFT, TRACTOR HALF W/O SHIELD	5	23104	2	CROSS JOURNAL COMPLETE
18	18730	1	O. CONE SETS, N8-9	4	18721	2	PUSH BUTTON COMPLETE
17	23111	1	TUBE, CM SAFETY	3	20463	1	HUB (ROTARY LATCH)
16	23110	1	TUBE, CM SAFETY	2	26117	1	YOKE, 1-3/8-6
15	23117	1	I. CONE SETS, N10	1	19991	1	PTO. COMPLETE
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

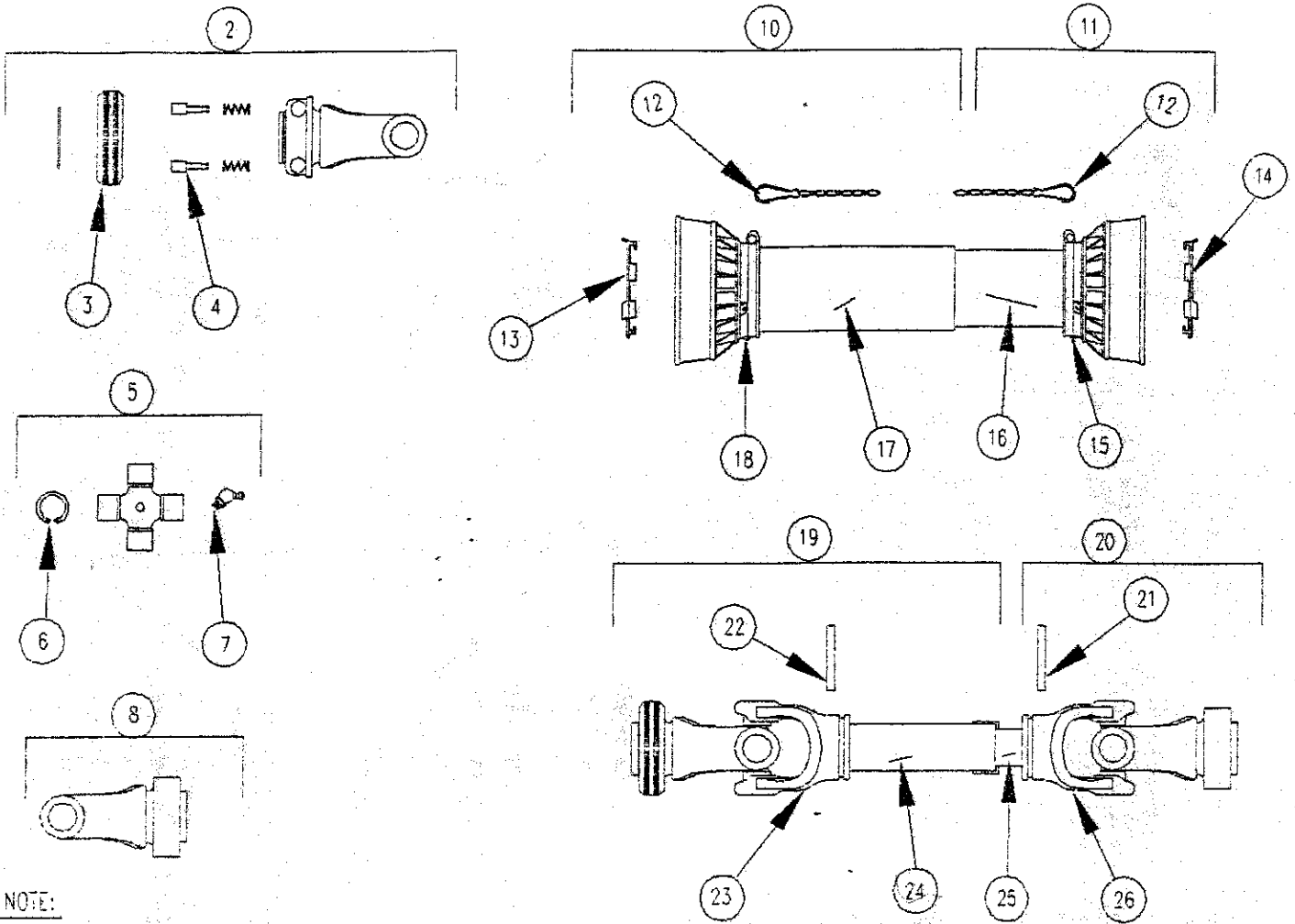
BALZER HIGHWAY 80 EAST
MFG. CORP. MOUNTAIN LAKE, MN 55159

A 9-9-94 ORIGINAL RELEASE
REV DATE DESCRIPTION OF REVISION

DATE 9-9-94
SCALE 1/2" = 1'-0"
DRAWN TMS

PTO 540 RPM
1-3/8-6 (SERIES 10)

REF. NO. 19991
DRAWING NO. PL300110



NOTE:

TO ORDER A COMPLETE 1000 RPM PTO, USE PART NUMBER 20086.

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD (ITEMS 12, 13, 17, 18, 22, 23, 24), USE PART NUMBER 26672.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD (ITEMS 12, 14, 15, 16, 21, 25, 26), USE PART NUMBER 26673.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 12, 13, 14, 15, 16, 17, 18), USE PART NUMBER 26676.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 12, 13, 17, 18), USE PART NUMBER 26674.

TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 12, 14, 15, 16), USE PART NUMBER 26675.

TO ORDER A COMPLETE TRACTOR HALF PTO W/O SHIELD (ITEMS 22, 23, 24), USE PART NUMBER 26671.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/O SHIELD (ITEMS 21, 25, 26), USE PART NUMBER 23100.

28	25672	1	SHAFT, TRACTOR HALF W/SHIELD	14	18708	1	I. BEARING, 8-9-10
27	26673	1	SHAFT, IMPLEMENT HALF W/SHIELD	13	18707	1	O. BEARING, 8-9-10
26	23106	1	YOKE, INNER TUBE	12	18704	2	CHAIN COMPLETE
25	23108	1	TUBE, CM CARDAN (IMPLEMENT HALF)	11	26675	1	GUARD, HALF (IMPLEMENT END)
24	23109	1	TUBE, CM CARDAN (TRACTOR HALF)	10	26674	1	GUARD, HALF (TRACTOR END)
23	23105	1	YOKE, OUTER TUBE	9	26676	1	SAFETY GUARD COMPLETE
22	23114	1	PIN, FLEXIBLE (IMPLEMENT HALF)	8	19992	1	YOKE, 1-3/4" RD. W/1/2" KEY
21	23115	1	PIN, FLEXIBLE (TRACTOR HALF)	7	18716	2	ZERK, GREASE NIPPLE
20	23100	1	SHAFT, IMPLEMENT HALF W/O SHIELD	6	23113	8	CIRCLIP (SNAP RING)
19	26671	1	SHAFT, TRACTOR HALF W/O SHIELD	5	23104	2	CROSS JOURNAL COMPLETE
18	26669	1	O. CONE SETS, F10	4	18721	2	PUSH BUTTON COMPLETE
17	23111	1	TUBE, CM SAFETY	3	20453	1	HUB (ROTARY LATCH)
16	23110	1	TUBE, CM SAFETY	2	26668	1	YOKE, 1-3/8-21
15	26670	1	I. CONE SETS, F10	1	20086	1	PTO, COMPLETE
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

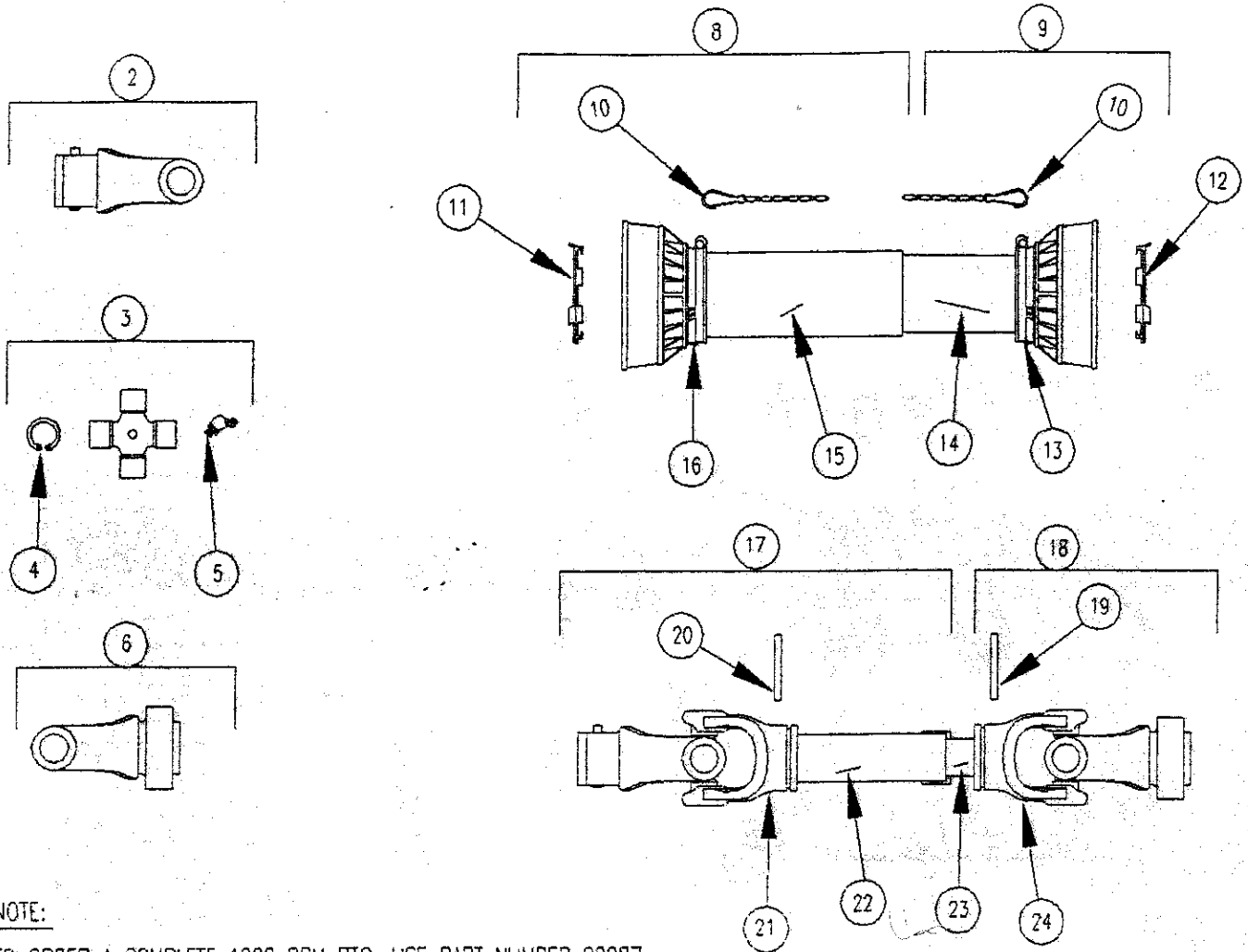
BALZER HIGHWAY 50 EAST
MFG. CORP. MOUNTAIN LAKE, MN 56159

A 9-9-94 ORIGINAL RELEASE
REV DATE DESCRIPTION OF REVISION

DATE 9-9-94
SCALE 1/2" = 1'-0"
DRAWN TWS

PTO 1000 RPM
1-3/8-21 (SERIES 10)

REF. NO. 20086
DRAWING NO. PL300111



NOTE:

TO ORDER A COMPLETE 1000 RPM PTO, USE PART NUMBER 20087.

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD (ITEMS 10, 11, 15, 16, 20, 21, 22), USE PART NUMBER 23099.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD (ITEMS 10, 12, 13, 14, 19, 23, 24), USE PART NUMBER 23102.

TO ORDER A COMPLETE SAFETY GUARD (ITEMS 10, 11, 12, 13, 14, 15, 16), USE PART NUMBER 23093.

TO ORDER A COMPLETE TRACTOR HALF GUARD (ITEMS 10, 11, 15, 16), USE PART NUMBER 23094.

TO ORDER A COMPLETE IMPLEMENT HALF GUARD (ITEMS 10, 12, 13, 14), USE PART NUMBER 23095.

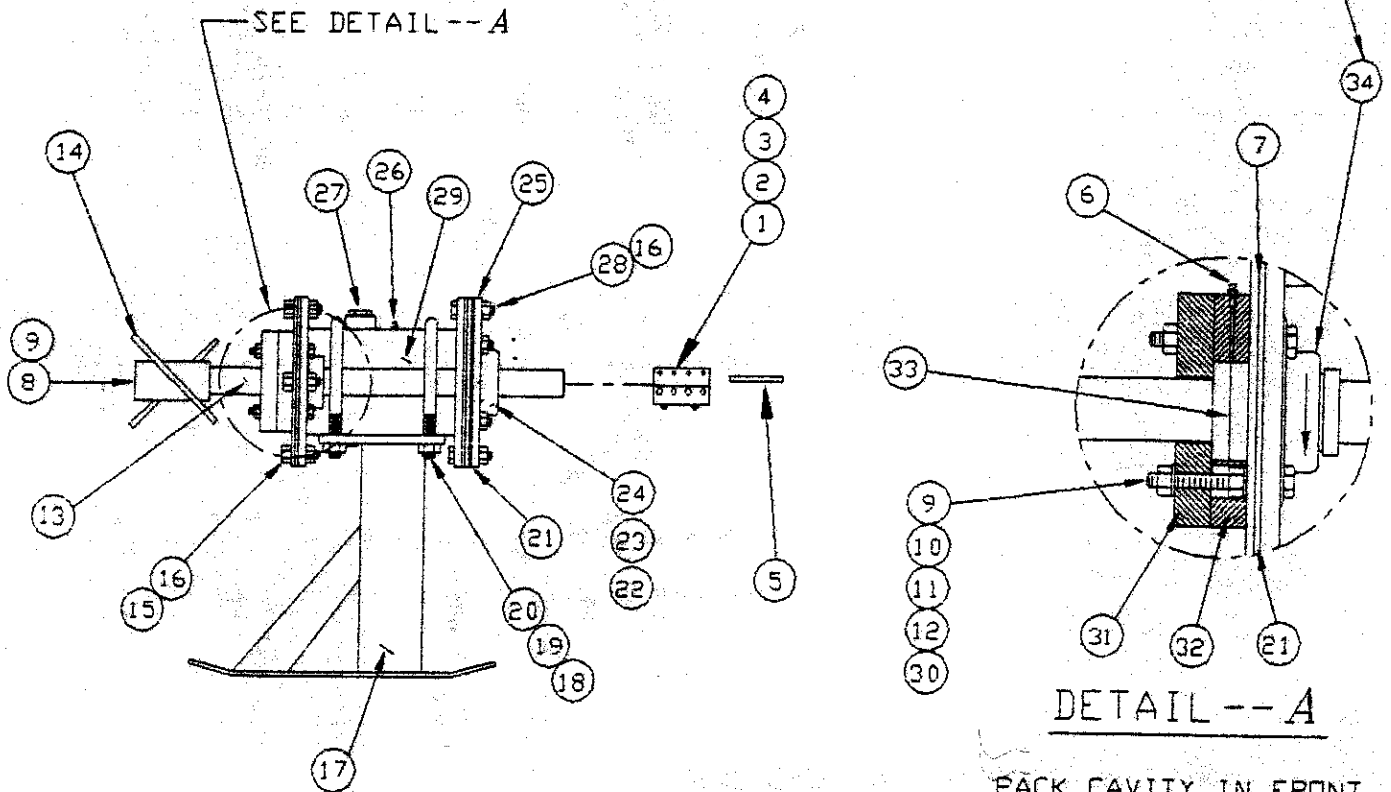
TO ORDER A COMPLETE TRACTOR HALF PTO W/O SHIELD (ITEMS 20, 21, 22), USE PART NUMBER 23097.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/O SHIELD (ITEMS 19, 23, 24), USE PART NUMBER 23100.

ITEM	PART NO.	QTY.	DESCRIPTION
26	23099	1	SHAFT, TRACTOR HALF W/SHIELD
25	23102	1	SHAFT, IMPLEMENT HALF W/SHIELD
24	23106	1	YOKE, INNER TUBE
23	23108	1	TUBE, CM CARDAN (IMPLEMENT HALF)
22	23109	1	TUBE, CM CARDAN (TRACTOR HALF)
21	23105	1	YOKE, OUTER TUBE
20	23114	1	PIN, FLEXIBLE (IMPLEMENT HALF)
19	23115	1	PIN, FLEXIBLE (TRACTOR HALF)
18	23100	1	SHAFT, IMPLEMENT HALF W/O SHIELD
17	23097	1	SHAFT, TRACTOR HALF W/O SHIELD
16	18730	1	O. CONE SETS, NB-9
15	23111	1	TUBE, CM SAFETY
14	23110	1	TUBE, CM SAFETY

ITEM	PART NO.	QTY.	DESCRIPTION
13	23117	1	I. CONE SETS, N10
12	18708	1	I. BEARING, 8-9-10
11	18707	1	O. BEARING, 8-9-10
10	18704	2	CHAIN COMPLETE
9	23095	1	GUARD, HALF (IMPLEMENT END)
8	23094	1	GUARD, HALF (TRACTOR END)
7	23093	1	SAFETY GUARD COMPLETE
6	19992	1	YOKE, 1-3/4" RD. W/1/2" KEY
5	18716	2	ZERK, GREASE NIPPLE
4	23113	8	CIRCLIP (SNAP RING)
3	23104	2	CROSS JOURNAL COMPLETE
2	23116	1	YOKE, 1-3/4-20
1	20087	1	PTO, COMPLETE

LOCK BEARINGS
IN THE DIRECTION
INDICATED.



DETAIL -- A

PACK CAVITY IN FRONT
& IN BETWEEN SEALS
WITH GREASE.

ITEM	PART NO.	QTY.	DESCRIPTION
34	20765	1	BEARING, 1-3/4" 4-BOLT FB22428H
33	20764	2	SEAL, 1-3/4"
32	20752	1	HOLDER, SEAL
31	20753	1	RETAINER, SEAL
30	20830	4	BOLT, 1/2" X 3-1/2" LG. W/3" THREAD
29	20680	1	CHAMBER, GREASE
28	1253	8	BOLT, 1/2" X 2-1/4" LG.
27	11870	1	PLUG, 2" NPT PLASTIC
26	2286	1	ZERK, 1/4"-28
25	20755	1	HOLDER, BEARING
24	2546	4	NUT, 5/8" TOP LOCK
23	1290	4	BOLT, 5/8" X 1-3/4" LG.
22	20092	1	BEARING, 1-3/4" 4-BOLT EC LOCK
21	20832	3	GASKET

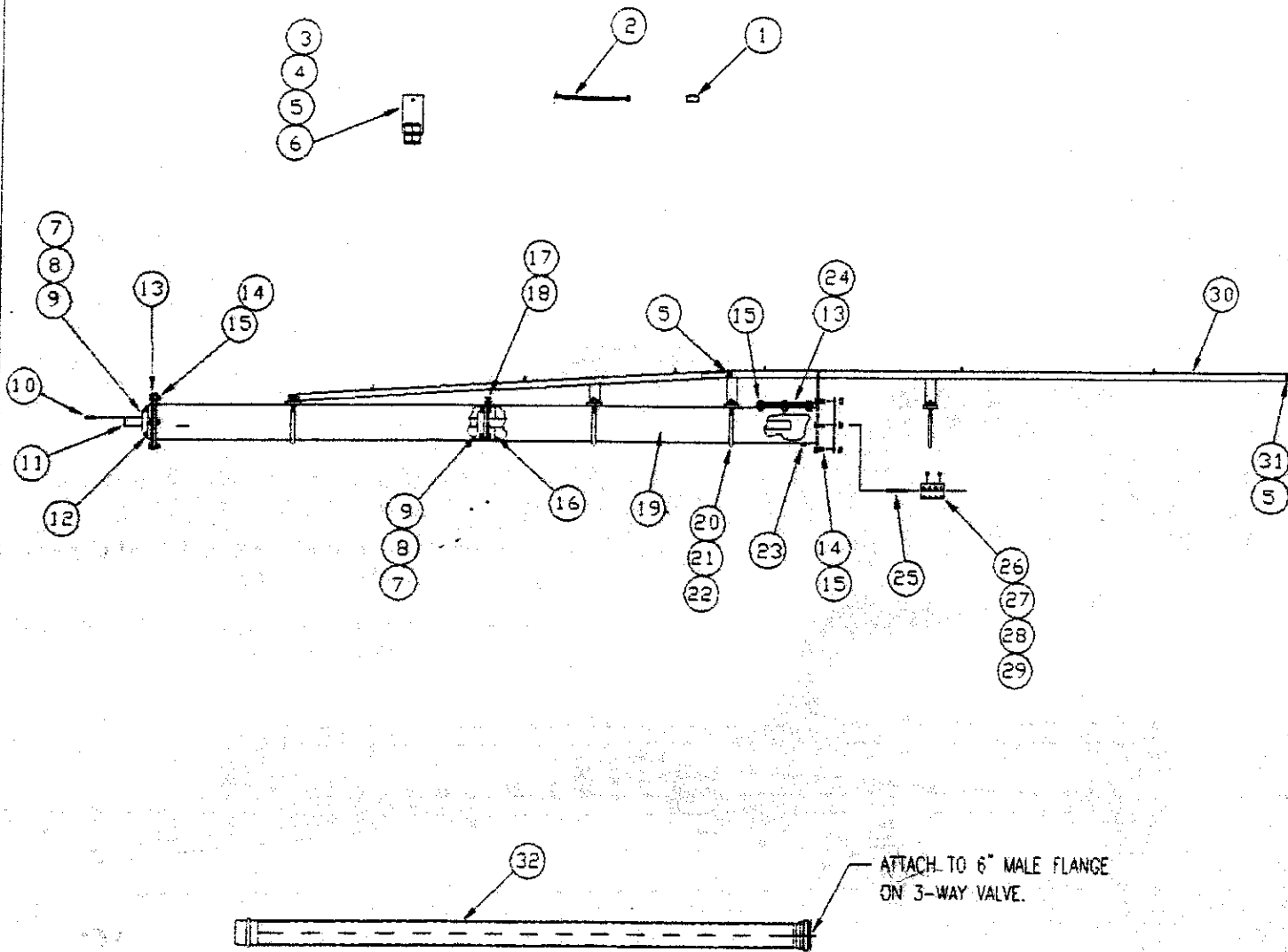
20	1697	4	NUT, 3/4" HEX HD.
19	1641	4	WASHER, 3/4" LOCK
18	20757	2	U-BOLT, 3/4" X 7" X 9"
17	20888	1	PLATE, SKID
16	2084	16	NUT, 1/2" WHIZ LOCK
15	1251	8	BOLT, 1/2" X 1-3/4" LG. HEX HD.
14	20880	1	PROPELLER, LAGOON
13	20763	1	SHAFT, 1-3/4" X 35-7/8" LG. SST
12	1638	4	WASHER, 1/2" LOCK
11	1694	4	NUT, 1/2" HEX HD.
10	1618	4	WASHER, 1/2" SAE FLAT
9	2539	5	NUT, 1/2" TOP LOCK
8	1256	1	BOLT, 1/2" X 3" LG. HEX HD
7	20754	1	HOLDER, BEARING
6	2291	1	ZERK, 1/8"-27 NPT STRAIGHT
5	2447	1	KEY, 1/2" SQ. X 4" LG.
4	20619	1	COUPLING, 1-3/4" SHAFT/SPLIT
3	2614	2	NUT, 5/16"-24 JAM
2	2270	2	SET SCREW, 5/16"-24 X 1" LG. DOG POINT
1	20631	8	BOLT, 5/16"-24 X 1" LG. SOCKET HD. SST.

BALZER HIGHWAY 80 EAST
MTG. CORP. MOUNTAIN LAKE, MN 56159

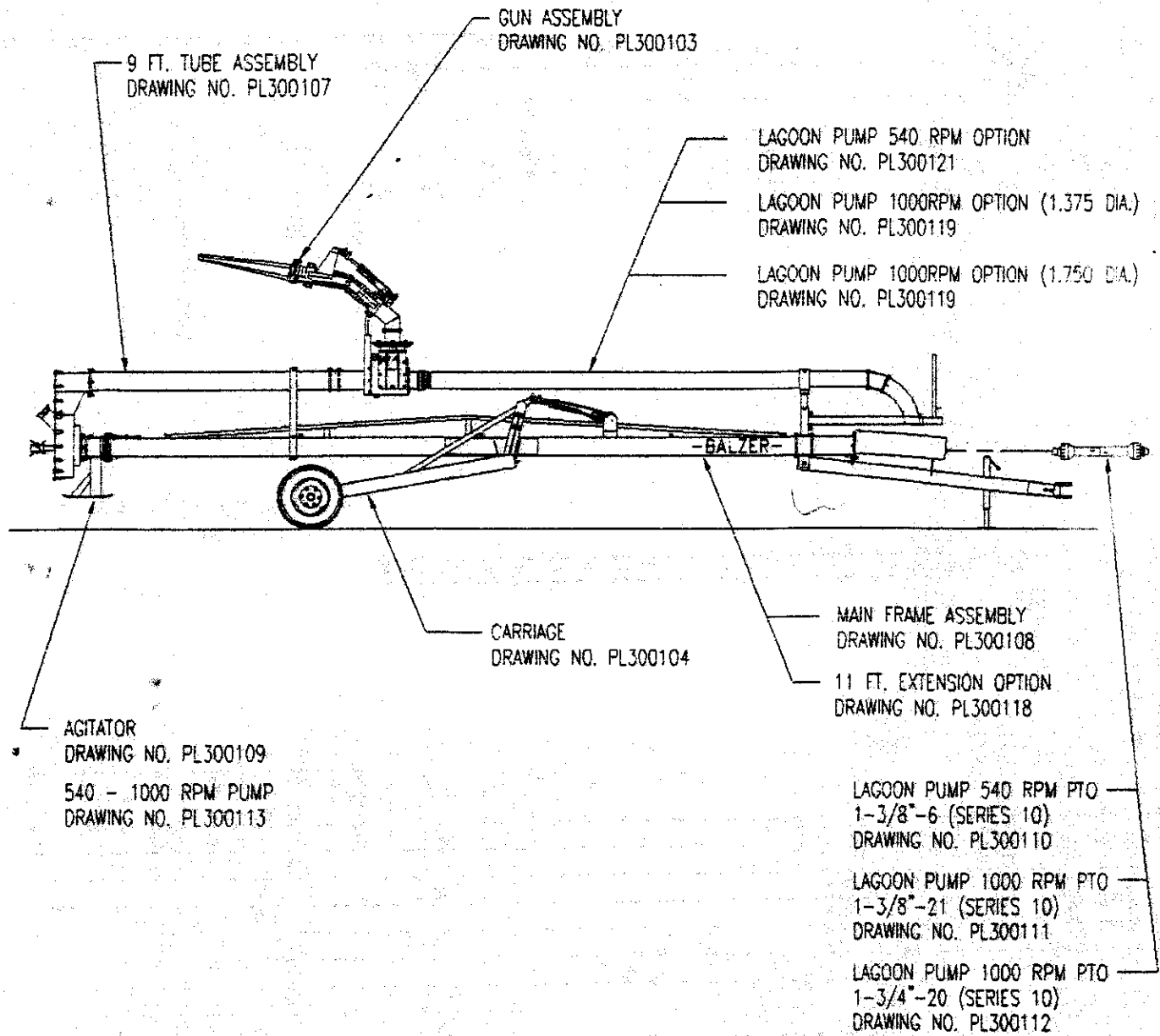
A	10-18-94	ORIGINAL RELEASE	DATE 7-1-94
REV	DATE	DESCRIPTION OF REVISION	SCALE 1/2" = 1'-0"
			DRAWN: TWS

540 - 1000 RPM PUMP

REF. NO.	21285/21282
DRAWING NO.	PL300113



32	22195	1	PIPE, 6" O.D. X 10'-0" LG.	17	1694	2	NUT, HEX. HD. 1/2"
31	1249	8	BOLT, 1/2" X 1-3/4" LG.	16	20750	1	HOLDER, BEARING
30	20824	1	TRUSS SUPPORT	15	2084	16	NUT, 1/2" WHIZLOCK
29	2614	2	NUT, JAM 5/16"-24	14	1253	16	BOLT, 1/2" X 2-1/4" LG.
28	20631	8	BOLT, 5/16"-24 X 1" LG. SOC. HD. SS	13	20832	2	GASKET
27	2270	2	SET SCREW, 5/16"-24 X 1" LG. DGG POINT	12	20755	1	HOLDER, BEARING 4.125" B.C.
26	20619	1	COUPLER, 1-3/4" SPLIT SHAFT	11	20769	1	SHAFT, 1-3/4" DIA.
25	2447	1	KEY, 1/2" SQ. X 4-3/4" LG.	10	2437	1	KEY, 1/2" SQ. X 2" LG.
24	20699	1	PLATE, COVER	9	20092	2	BEARING, 1-3/4" 4-BOLT
23	5907	1	PLUG, 1/2" NPT	8	1290	8	BOLT, HEX HD 5/8" X 1-3/4" LG.
22	1597	2	NUT, 3/4"	7	2546	8	NUT, 5/8" SIDELOCK
21	1641	2	LOCKWASHER, 3/4"	6	1256	1	BOLT, HEX HD. 1/2" X 3-1/2" LG.
20	20757	1	U-BOLT, 3/4" X 7" X 9"	5	2539	4	NUT, 1/2" TOPLOCK
19	20826	1	11 FT. EXTENSION	4	1267	1	BOLT, HEX HD. 1/2" X 8" LG.
18	1250	2	BOLT, HEX HD. 1/2" X 1-1/2" LG.	3	20717	1	SADDLE, 6" TUBE
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
				2	20827	8	HOSE, 1/4" NPT X 132" LG.
				1	10996	8	COUPLER, 1-1/4" NPT



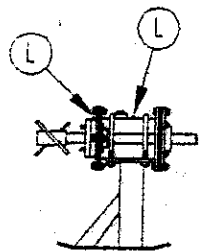
NOTE:
REFER TO THE VARIOUS DRAWINGS LISTED ABOVE FOR
PARTS IDENTIFICATION IN ORDERING REPLACEMENT PARTS.

BALZER HIGHWAY 60 EAST
MFG. CORP. MOUNTAIN LAKE, MN 56159

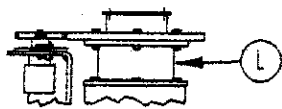
REV	DATE	DESCRIPTION OF REVISION	DATE	BY
A	11-1-94	ORIGINAL RELEASE	11-1-94	TWS
			SCALE	1/2" = 1'-0"
			DRAWN	TWS

LAGOON PUMP ASSEMBLY

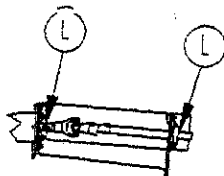
REF. NO. 32 FT./45 FT. PUMPS
DRAWING NO. PL300114



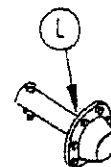
DETAIL "A"
PUMP



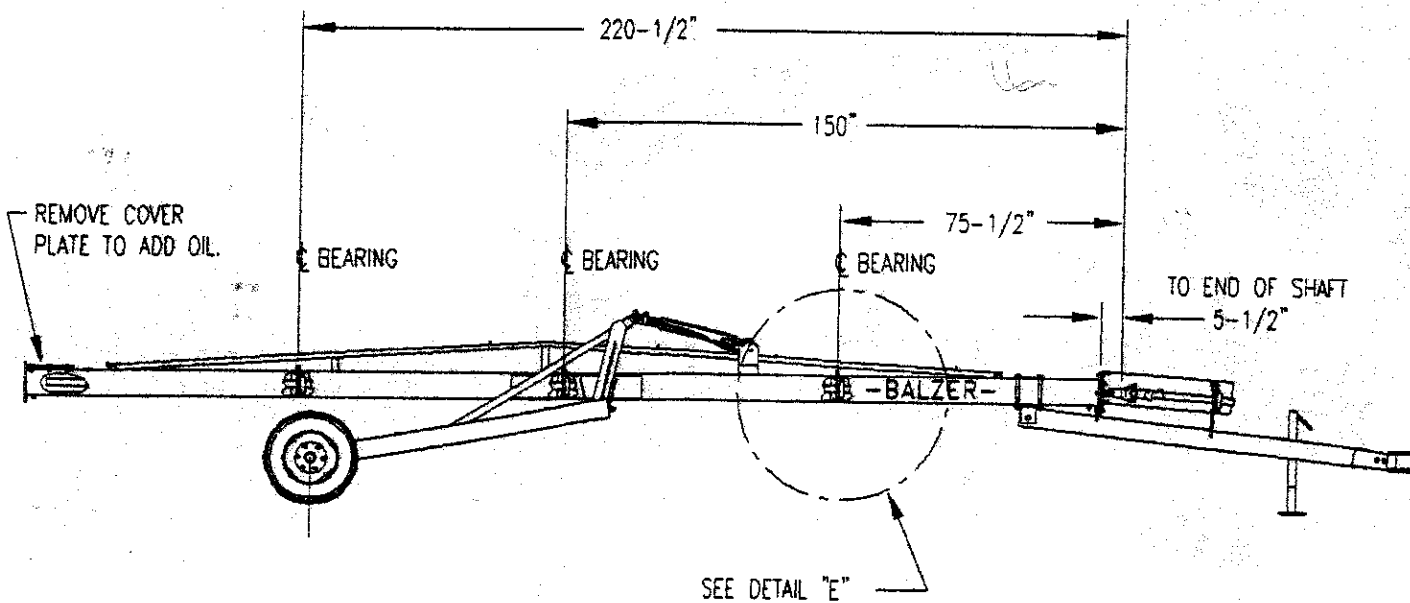
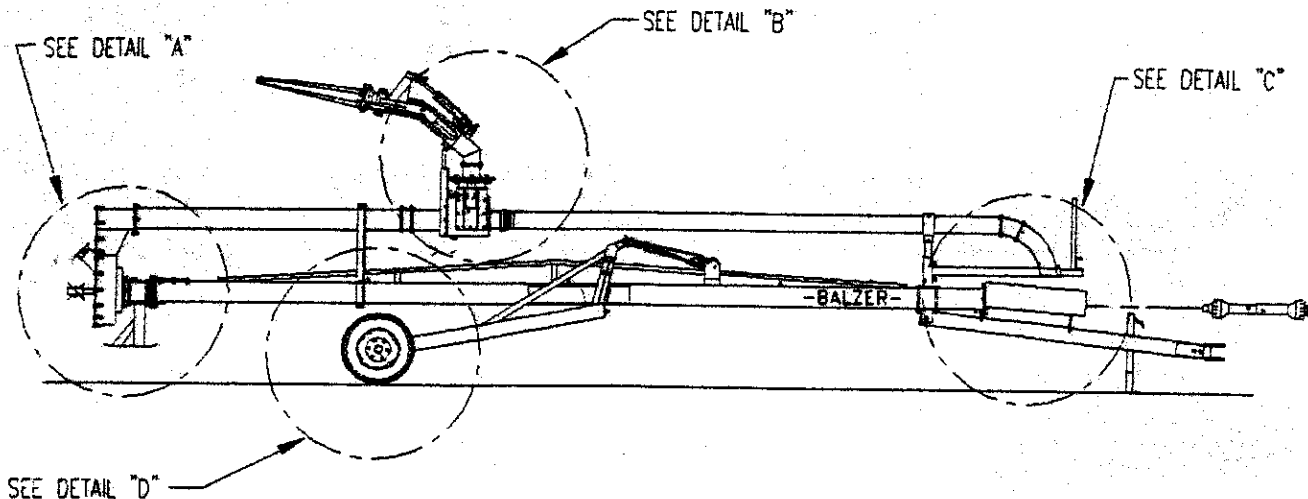
DETAIL "B"
GUN SWIVEL



DETAIL "C"
PTO



DETAIL "D"
HUB & SPINDLE



LUBRICATION DATA:

ALL AREAS SHOWN ABOVE (MARKED (L)) ARE LUBRICATED AT THE FACTORY USING A TRC #880 C&C NLGI #2 (RED IN COLOR) CHASSIS GREASE. SEE LUBRICATION SECTION (PAGE #7) IN THE OPERATION PORTION OF THE MANUAL FOR ADDITIONAL INFORMATION.



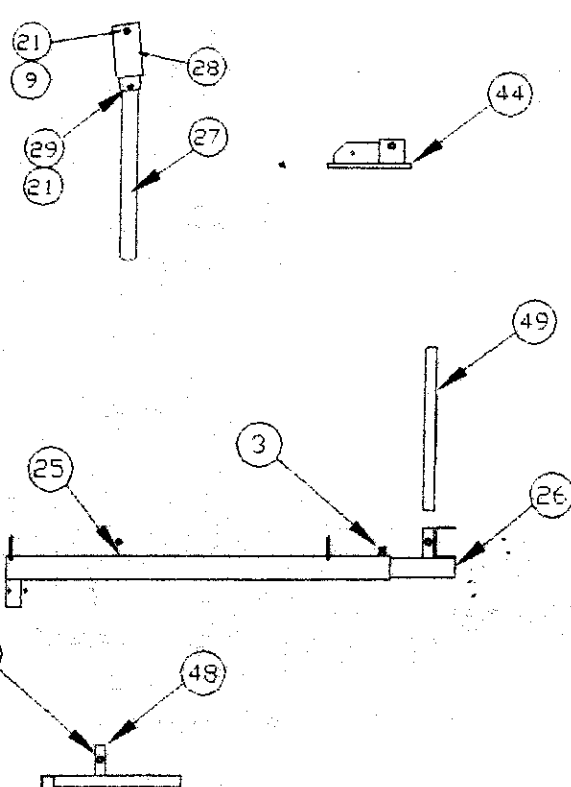
DETAIL "E"
SECTIONAL VIEW
OF BEARING PLACEMENT

BALZER HIGHWAY 60 EAST
MFG. CORP. MOUNTAIN LAKE, MN 56159

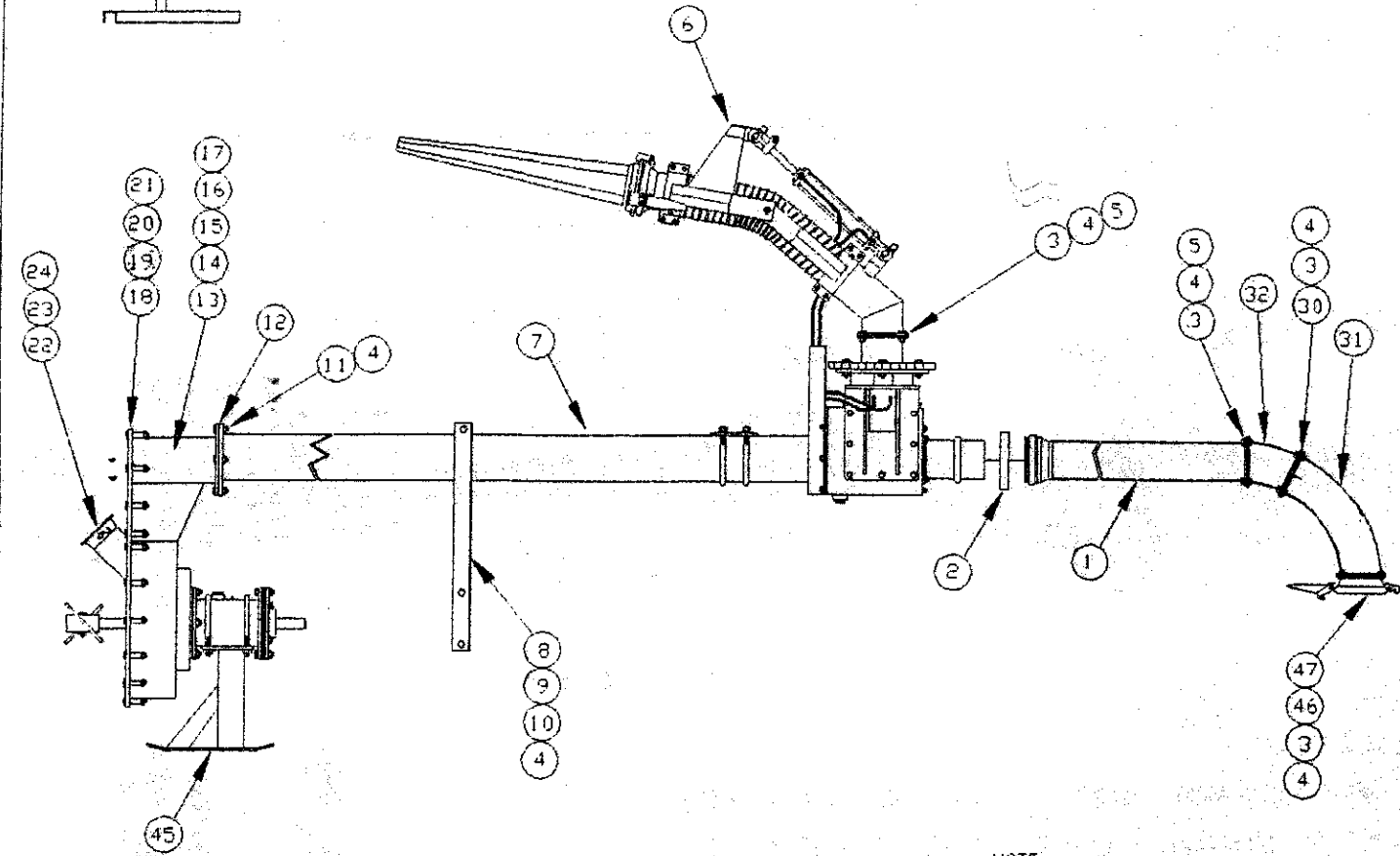
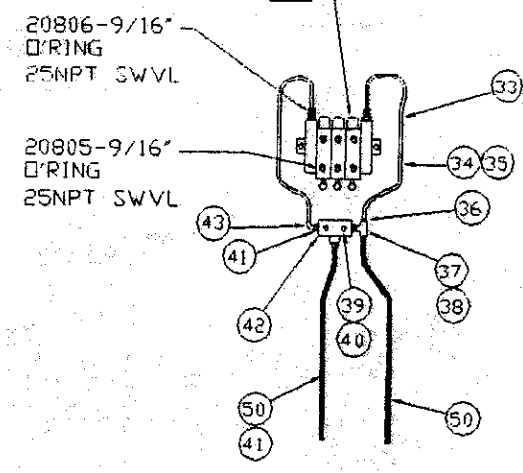
A	11-9-94	ORIGINAL RELEASE	DATE 11-9-94
REV.	DATE	DESCRIPTION OF REVISION	SCALE 1/2" = 1'-0"
			DRAWN: TWS

LAGOON PUMP
LUBRICATION CHART

REF. NO. XXXXXXXX
DRAWING NO. PL300117



#21228-PWR CORD
 #20804-REMOTE
 #20803-VALVE HYD '2' MAN.
 '1' REMOTE (OPT#20811)
 #21011-VALVE HYD '3' BANK
 MAN. (OPT#20810)



NOTE:
 SEE DRAWING NO. PL300122 FOR
 PARTS DESCRIPTION, NUMBER AND
 QUANTITIES REQUIRED.

BALZER MFG. CORP.	HIGHWAY 60 EAST MOUNTAIN LAKE, MN 56159	A	11-2-94	ORIGINAL RELEASE	DATE	11-2-94	LAGOON PUMP OPTIONS 540 RPM	REF. NO.	21262
		REV	DATE	DESCRIPTION OF REVISION	SCALE	1/2" = 1'-0"		DRAWN	TWS

PARTS LIST DRAWING FOR DRAWING NUMBER PL300119

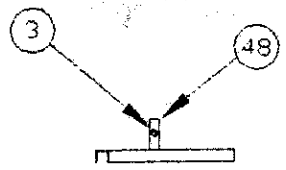
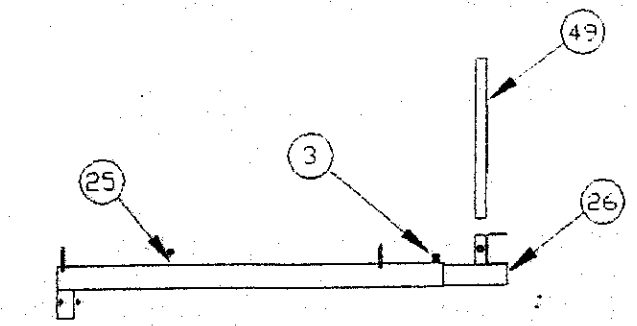
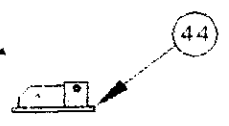
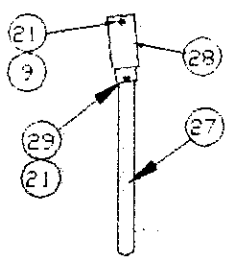
NOTE:

- 1) REFER TO DRAWING PL300103 FOR PARTS BREAKDOWN ON GUN ASSEMBLY #20601 (ITEM #6).
 - 2) REFER TO DRAWING PL300107 FOR PARTS BREAKDOWN ON 9 FT. TUBE ASSEMBLY #22200 (ITEM #7).
 - 3) REFER TO DRAWING PL300109 FOR PARTS BREAKDOWN ON AGITATOR OPTION (ITEM #45).
- REFER TO DRAWING PL300113 FOR PARTS BREAKDOWN ON 540-1000 RPM PUMP OPTION (ITEM #45).

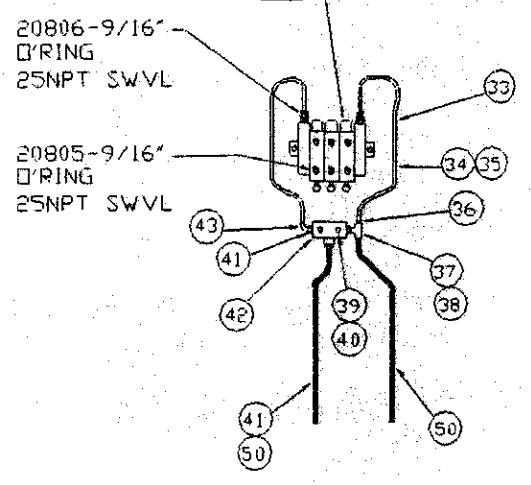
50	11305	2	HOSE, 1/2" X 119" LG. HYDRAULIC
49	22312	1	TOWER, REMOTE
48	22191	1	STAND, REMOTE
47	15664	1	COUPLER, 6" FEMALE W/4-BOLT FLANGE
46	15621	1	O-RING, W/6" FLANGE
45		1	SEE ABOVE NOTE #3.
44	22192	1	MOUNT, TOP HITCH
43	21201	1	ELBOW, 90° 1/2" NPT - 1/4" FMPS
42	21674	1	CONTROL, BRAND 4 GPM FLOW
41	8622	2	REDUCER, 3/4" - 1/2" NPT HEX
40	1169	2	BOLT, 1/4" X 2-1/4" LG. HEX HD
39	2564	2	NUT, 1/4" TOPLOCK
38	21502	1	REDUCER, PIPE 3/4" MALE - 1/2" MALE
37	8603	1	TEE, 1/2" NPT HP
36	12190	1	REDUCER, 1/2" - 1/4" NPT HEX
35	2081	3	NUT, 5/16" WHIZLOCK
34	1185	2	BOLT, 5/16" X 1" LG. HEX HD.
33	11156	2	HOSE, 1/4" NPT X 15" LG.
32	18880	1	ELBOW, 6" INLET 25" W/4-BOLT FLANGE
31	18869	1	ELBOW, 6" INLET 65" W/4-BOLT FLANGE
30	16035	2	GASKET, 7-1/2" FLANGE
ITEM	PART NO.	QTY.	DESCRIPTION

29	1258	1	BOLT, 1/2" X 3-1/2" LG. HEX HD.
28	20717	1	SADDLE, DISCHARGE
27	22193	1	SUPPORT, PIPE DISCHARGE
26	20736	1	EXTENSION, HYDRAULIC CONTROL
25	20729	1	SUPPORT, HYDRAULIC CONTROL
24	2045	1	PIN, 5/32" X 1-1/2" LG. COTTER
23	20685	1	PIN, 1/2" X 7-3/8" LG.
22	20727	1	CAP
21	2539	24	NUT, 1/2" TOPLOCK
20	1618	21	WASHER, 1/2" SAE FLAT
19	1256	21	BOLT, 1/2" X 3" LG. HEX HD.
18	20921	1	PLATE, COVER (1000 RPM)
17	2270	2	SETSCREW, 5/16"-24 DOG POINT
16	2447	1	KEY, 1/2" SQ. X 4-1/2" LG.
15	20631	8	BOLT, 5/16"-24 X 1" LG. SOC HD SST
14	20620	1	IMPELLER, 1000 RPM
13	20660	1	HOUSING, 1000 PUMP
12	20832	2	GASKET
11	1250	10	BOLT, 1/2" X 1-1/2" LG. HEX HD.
10	20780	1	SPACER, TUBE SUPPORT
9	1267	4	BOLT, 1/2" X 8" LG. HEX HD.
8	20770	1	WELDMENT, TUBE SUPPORT
7	22200	1	9 FT. TUBE ASSEMBLY
6	20601	1	GUN ASSEMBLY
5	15621	3	O-RING, 6" FLANGE
4	2084	35	NUT, 1/2" WHIZ LOCK
3	1249	25	BOLT, 1/2" X 1-1/4" LG. HEX HD.
2	20611	1	RING, IRIG FTG SNAP LOCK/6" GALV
1	22196	1	PIPE, 6" IRIG MALE W/4BOLT FLANGE
ITEM	PART NO.	QTY.	DESCRIPTION

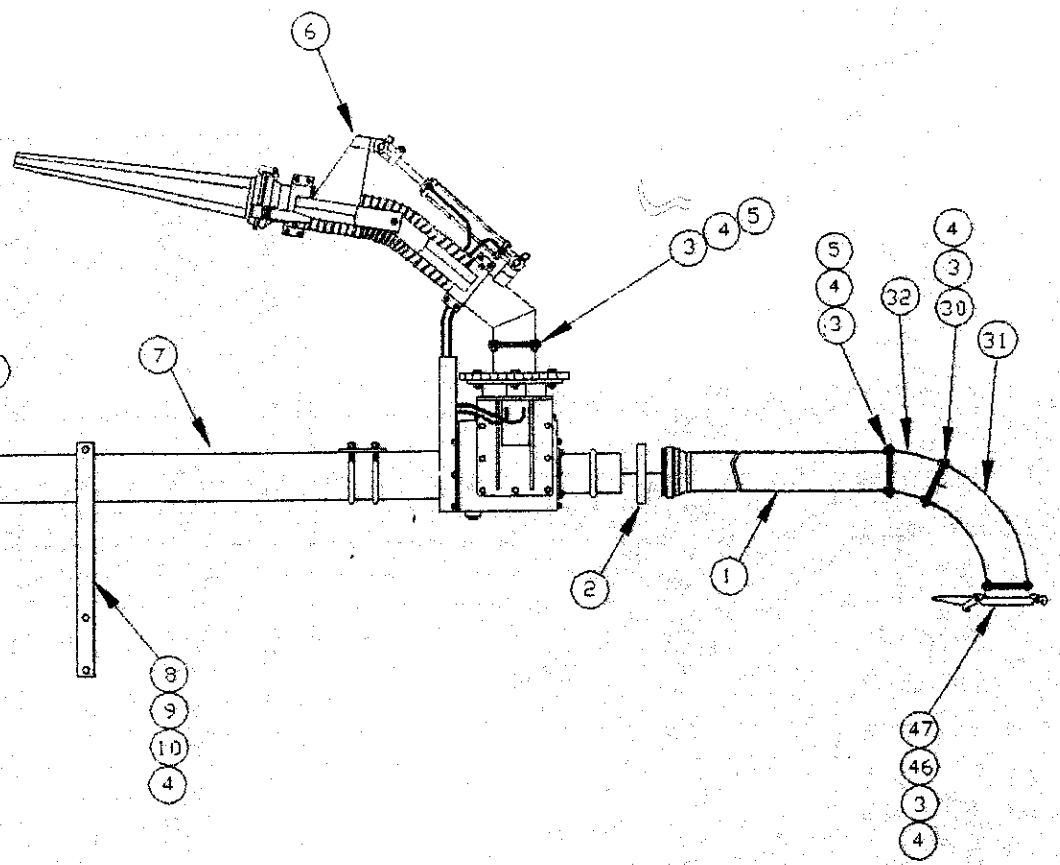
BALZER HIGHWAY 60 EAST MFG. CORP. MOUNTAIN LAKE, MN 56159	A	11-2-94	ORIGINAL RELEASE	11-2-94	LAGOON PUMP OPTIONS 1000 RPM	REF. NO.	PL300105
	REV	DATE	DESCRIPTION OF REVISION	DATE		DRAWING NO.	PL300120



#21228-PWR CORD
 #20804-REMOTE
 #20803-VALVE HYD '2' MAN.
 '1' REMOTE (OPT#20811)
 #21011-VALVE HYD '3' BANK
 MAN. (OPT#20810)



20806-9/16"
 O-RING
 25NPT SWVL
 20805-9/16"
 O-RING
 25NPT SWVL



NOTE:
 SEE DRAWING NO. PL300120 FOR
 PARTS DESCRIPTION, NUMBER AND
 QUANTITIES REQUIRED.

BALZER HIGHWAY 60 EAST
 MFG. CORP. MCUNTIAN LAKE, MN 56159

REV	DATE	DESCRIPTION OF REVISION	DATE	SCALE	BY
A	11-2-94	ORIGINAL RELEASE	11-2-94	1/2" = 1'-0"	TWS

LAGOON PUMP OPTIONS
 1000 RPM/1.750" & 1.375" DIA.

REF. NO. 21265
 DRAWING NO. PL300119

PARTS LIST DRAWING FOR DRAWING NUMBER PL300121

NOTE:

- 1) REFER TO DRAWING PL300103 FOR PARTS BREAKDOWN ON GUN ASSEMBLY #20601 (ITEM #6).
 - 2) REFER TO DRAWING PL300107 FOR PARTS BREAKDOWN ON 9 FT. TUBE ASSEMBLY #22200 (ITEM #7).
 - 3) REFER TO DRAWING PL300109 FOR PARTS BREAKDOWN ON AGITATOR OPTION (ITEM #45).
- REFER TO DRAWING PL300113 FOR PARTS BREAKDOWN ON 540-1000 RPM PUMP OPTION (ITEM #45).

50	11305	2	HOSE, 1/2" X 119" LG. HYDRAULIC
49	22312	1	TOWER, REMOTE
48	22191	1	STAND, REMOTE
47	15664	1	COUPLER, 6" FEMALE W/4-BOLT FLANGE
46	15621	1	O-RING, W/6" FLANGE
45		1	SEE ABOVE NOTE #3
44	22192	1	MOUNT, TOP HITCH
43	21201	1	ELBOW, 90° 1/2" NPT - 1/4" FMPS
42	21674	1	CONTROL, BRAND 4 GPM FLOW
41	8622	2	REDUCER, 3/4" - 1/2" NPT HEX
40	1169	2	BOLT, 1/4" X 2-1/4" LG. HEX HD.
39	2564	2	NUT, 1/4" TOPLOCK
38	21502	1	REDUCER, PIPE 3/4" MALE - 1/2" MALE
37	8603	1	TEE, 1/2" NPT HP
36	12190	1	REDUCER, 1/2" - 1/4" NPT HEX
35	2081	3	NUT, 5/16" WHIZLOCK
34	1185	2	BOLT, 5/16" X 1" LG. HEX HD.
33	11156	2	HOSE, 1/4" NPT X 15" LG.
32	18880	1	ELBOW, 6" INLET 25" W/4-BOLT FLANGE
31	18869	1	ELBOW, 6" INLET 65" W/4-BOLT FLANGE
30	16035	2	GASKET, 7-1/2" FLANGE
ITEM	PART NO.	QTY.	DESCRIPTION

29	1258	1	BOLT, 1/2" X 3-1/2" LG. HEX HD.
28	20717	1	SADDLE, DISCHARGE
27	22193	1	SUPPORT, PIPE DISCHARGE
26	20736	1	EXTENSION, HYDRAULIC CONTROL
25	20729	1	SUPPORT, HYDRAULIC CONTROL
24	2045	1	PIN, 5/32" X 1-1/2" LG. COTTER
23	20685	1	PIN, 1/2" X 7-3/8" LG.
22	20727	1	CAP
21	2539	24	NUT, 1/2" TOPLOCK
20	1618	21	WASHER, 1/2" SAE FLAT
19	1256	21	BOLT, 1/2" X 3" LG. HEX HD.
18	20922	1	PLATE, COVER (540 RPM)
17	2270	2	SETSCREW, 5/16"-24 DOG POINT
16	2447	1	KEY, 1/2" SQ. X 4-1/2" LG.
15	20631	8	BOLT, 5/16"-24 X 1" LG. SOC HD SST
14	20795	1	IMPELLER, 540 RPM
13	20670	1	HOUSING, 540 PUMP
12	20832	2	GASKET
11	1250	10	BOLT, 1/2" X 1-1/2" LG. HEX HD.
10	20780	1	SPACER, TUBE SUPPORT
9	1267	4	BOLT, 1/2" X 8" LG. HEX HD.
8	20770	1	WELDMENT, TUBE SUPPORT
7	22200	1	9 FT. TUBE ASSEMBLY
6	20601	1	GUN ASSEMBLY
5	15621	3	O-RING, 6" FLANGE
4	2084	35	NUT, 1/2" WHIZ LOCK
3	1249	25	BOLT, 1/2" X 1-1/4" LG. HEX HD.
2	20611	1	RING, IRIG FTG SNAP LOCK/6" GALV
1	22196	1	PIPE, 6" IRIG MALE W/4BOLT FLANGE
ITEM	PART NO.	QTY.	DESCRIPTION

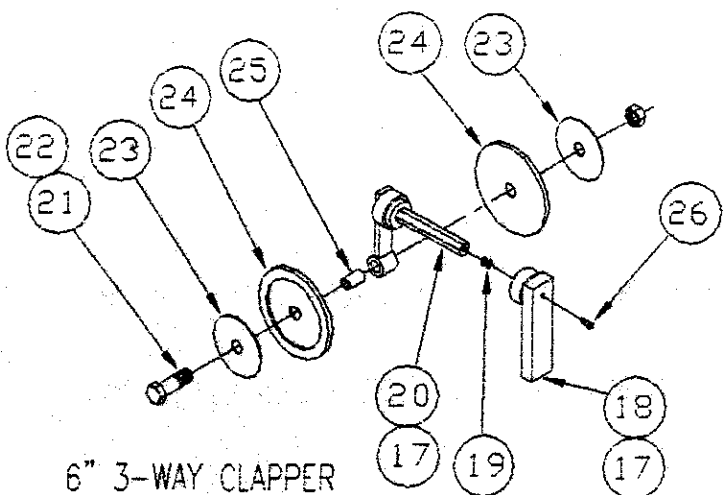
BALZER HIGHWAY 60 EAST
MFG. CORP. MOUNTAIN LAKE, MN 56159

A 11-2-94 ORIGINAL RELEASE
REV DATE DESCRIPTION OF REVISION

DATE 11-2-94
SCALE 1/2" = 1'-0"
DWG. BY TWS

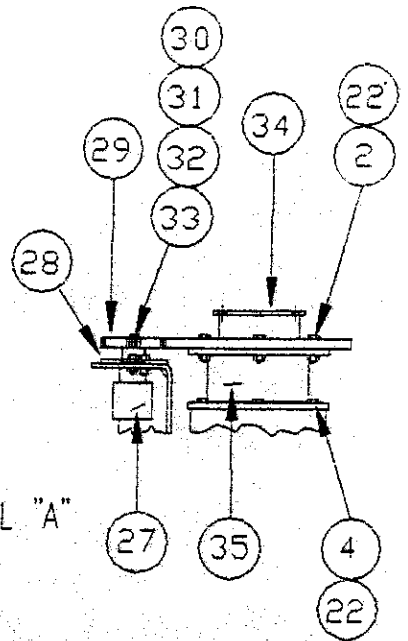
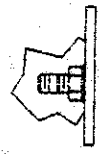
LAGOON PUMP OPTIONS
540 RPM

REF. NO. PL300106
DRAWING NO. PL300122

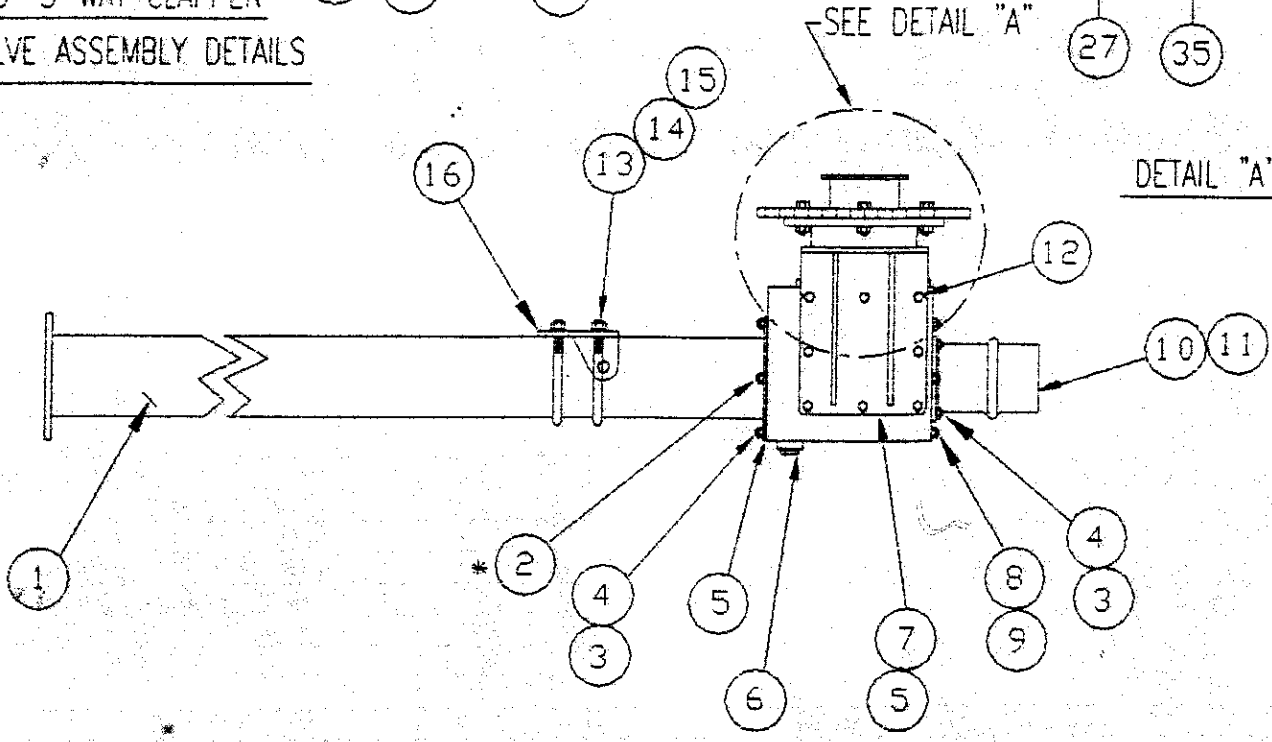


6" 3-WAY CLAPPER
VALVE ASSEMBLY DETAILS

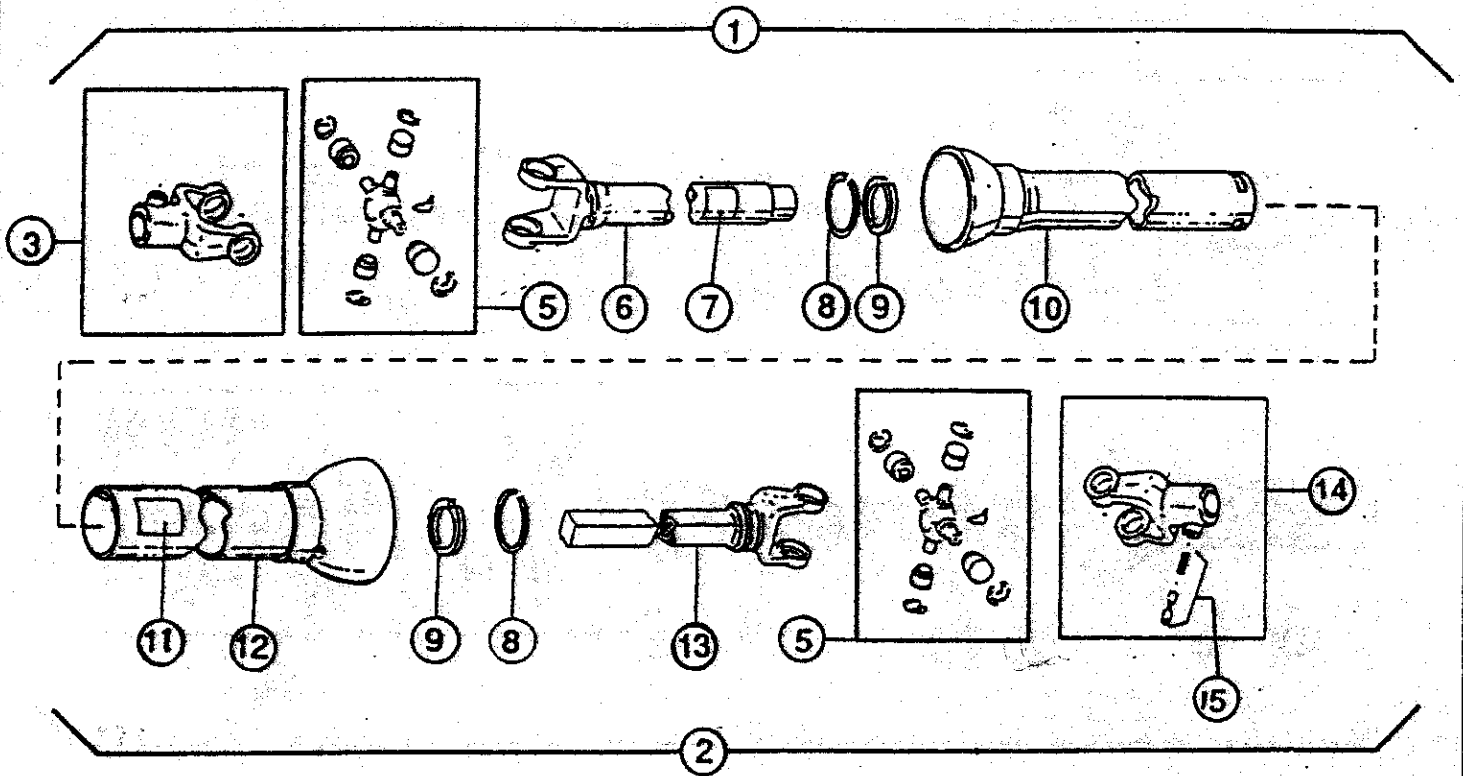
* NOTE:
ITEM NO. 2 IS
INSTALLED ON
BACK SIDE AS
AS SHOWN BELOW.



DETAIL "A"



36	22150	1	VALVE, 6" 3-WAY (COMPLETE)	18	21028	1	LINK, CYLINDER CLAPPER
35	22149	1	SWMEL, 6"	17	21253	2	O-RING, 2-1/4" O.D. X 2" I.D. (NOT SHOWN)
34	22125	1	GEAR, LARGE PIVOT GUN	16	20999	1	MOUNT, CYLINDER
33	1600	1	WASHER, 1/2" FLAT	15	1697	4	NUT, 3/4" HEX HD.
32	1596	1	WASHER, 1/4" FLAT	14	1641	4	WASHER, 3/4" LOCK
31	1534	1	WASHER, 1/4" LOCK	13	20757	2	U-BOLT, 3/4"
30	1164	1	BOLT, 1/4" X 1" LG. HEX HD.	12	1249	8	BOLT, 1/2"-13 X 1-1/4" LG. HEX HD.
29	22126	1	GEAR, SMALL PIVOT GUN	11	22194	1	FLANGE, 6" MALE IRRIGATION(4-BOLT) W/DRAIN
28	15781	1	MOUNT, HYDRAULIC MOTOR	10	11979	1	COUPLER, 6" O-RING
27	12554	1	MOTOR, HYDRAULIC H-17.9	9	1694	8	NUT, 1/2" HEX
26	18911	1	BOLT, 5/16" X 1-7/8" LG. S.S.	8	1248	8	BOLT, 1/2" X 1" LG. HEX HD.
25	21023	1	BUSHING, 1/2" PIPE (SCH80) X 1.44" LG.	7	22147	1	MOUNT, MOTOR
24	4114	2	CLAPPER, 6-3/4" O.D. X .531" I.D. VALVE	6	11685	1	PLUG, 1-1/2" NPT PIPE
23	21479	2	WASHER, 4-5/8" O.D. X .531" I.D. X .075" THK. S.S.	5	20832	2	GASKET
22	1775	13	NUT, 1/2" SIDE LOCK	4	1250	16	BOLT, 1/2" X 1-1/2" LG. HEX HD.
21	1255	1	BOLT, 1/2"-13 X 2-3/4" LG. HEX HD.	3	2084	12	NUT, 1/2" WHZ LOCK
20	21027	1	PIVOT, CLAPPER	2	1252	8	BOLT, 1/2" X 2" LG. HEX HD.
19	1597	2	WASHER, 5/16" FLAT	1	21025	1	TUBE, 9" W/TWO FLANGES
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION



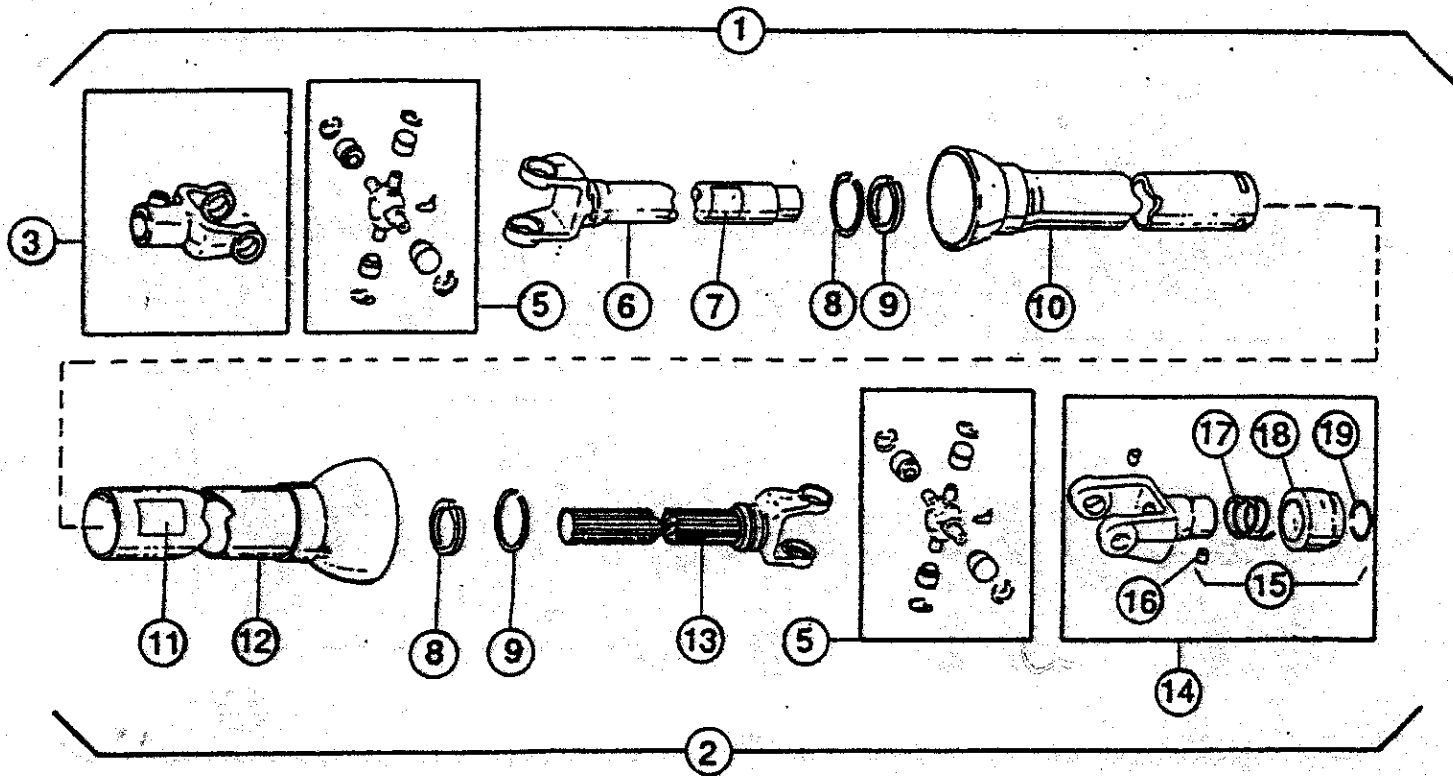
NOTE:

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD
(ITEMS 3, 4, 5, 6, 7, 8, 9, 10) USE PART NUMBER
6988.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD
(ITEMS 5, 8, 9, 11, 12, 13, 14, 15) USE PART
NUMBER 26707.

15	18304	1	SAF-T-PIN & SPRING KIT	9	13921	2	BEARING, NYLON
14	12909	1	YOKE, 1-3/4"-20	8	13920	2	RETAINER, BEARING
13	18306	1	YOKE & SHAFT	7	15295	1	DECAL "DANGER"
12	13924	1	GUARD, OUTER	6	18305	1	YOKE & TUBE
11	11040	1	DECAL, "PTO"	5	12911	2	REPAIR KIT
10	15357	1	GUARD, INNER	4	2437	1	KEY, 1/2" SQ. X 2" LG. (NOT SHOWN)
ITEM	PART NO.	QTY.	DESCRIPTION	3	26708	1	YOKE, 1-3/4" RD W/1/2" KEY
				2	6988	1	PTO ASSEMBLY (TRACTOR HALF)
				1	26707	1	PTO ASSEMBLY (IMPLEMENT HALF)
ITEM	PART NO.	QTY.	DESCRIPTION				

BALZER MFG. CORP.	HIGHWAY 60 EAST MOUNTAIN LAKE, MN 56159	A 11-9-94	ORIGINAL RELEASE	DATE 11-9-94 SCALE 1/2" = 1'-0" DWN TWS	PTO 1000 RPM 1-3/4-20 (SERIES 55)	REF. NO. WEASLER
		REV. DATE	DESCRIPTION OF REVISION	DRAWING NO. PL300125		

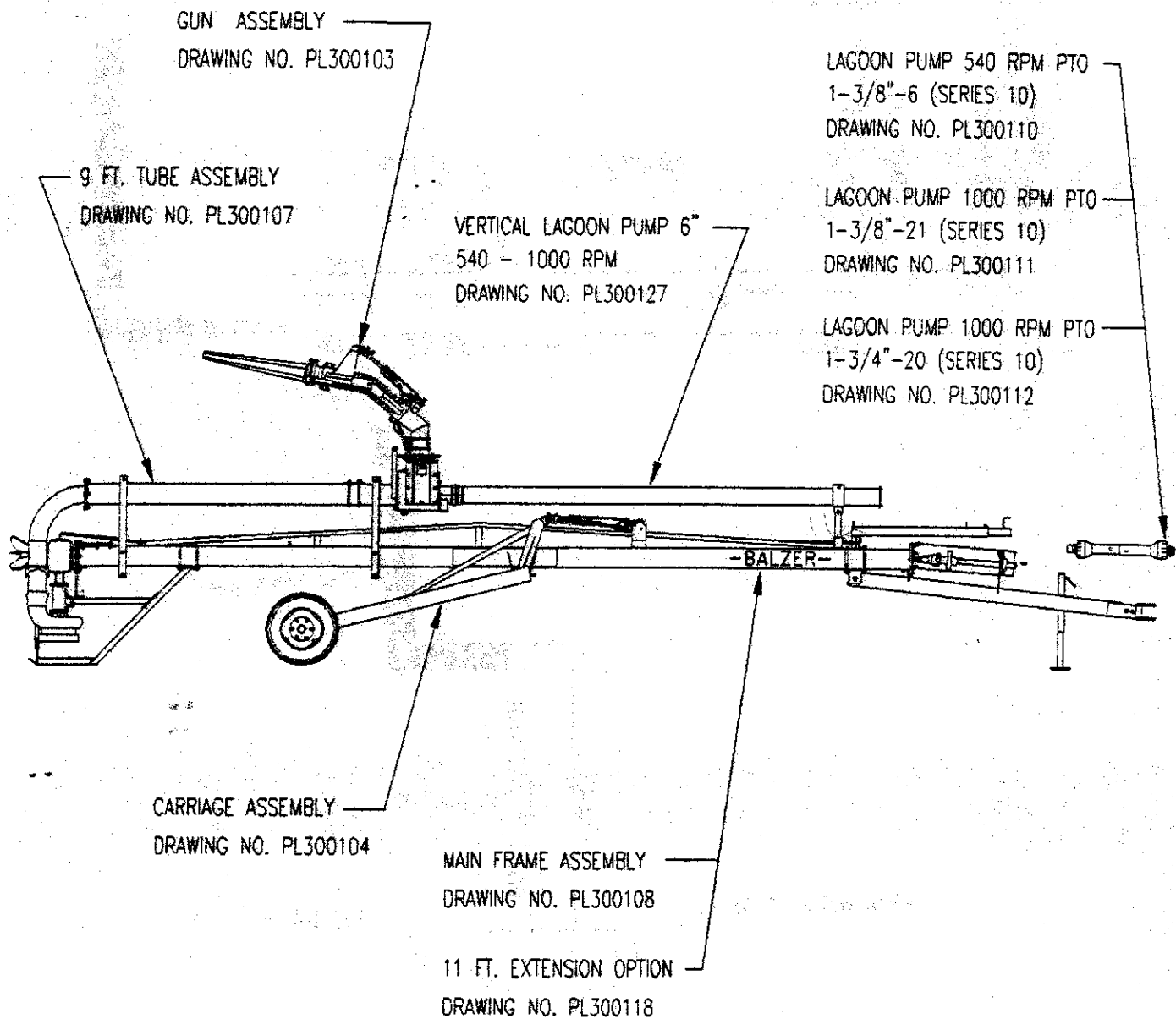


NOTE:

TO ORDER A COMPLETE TRACTOR HALF PTO W/SHIELD
(ITEMS 3, 4, 5, 6, 7, 8, 9, 10) USE PART NUMBER
26707.

TO ORDER A COMPLETE IMPLEMENT HALF PTO W/SHIELD
(ITEMS 5, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19)
USE PART NUMBER 13923.

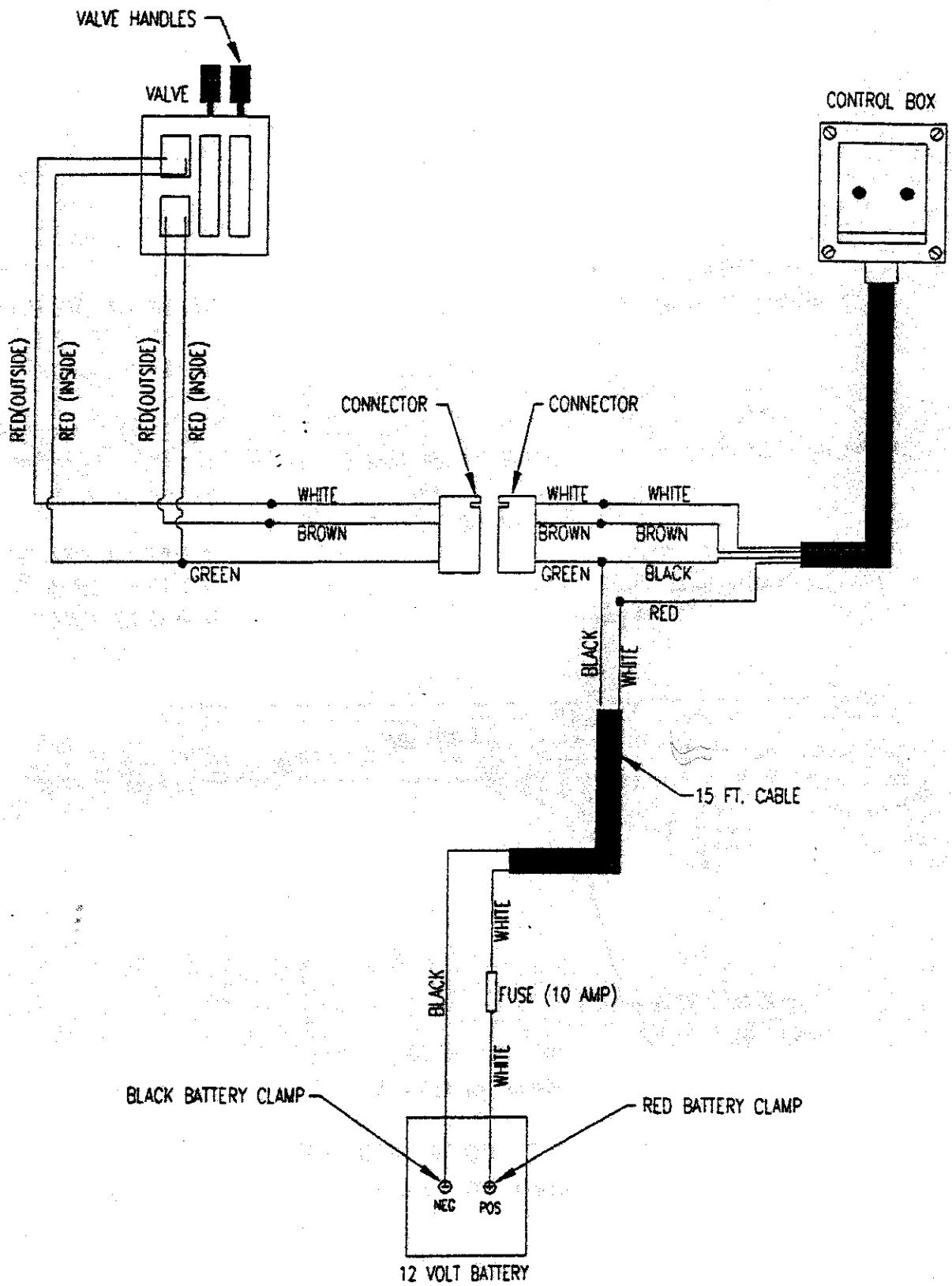
19	12925	1	RING, RETAINING	10	15357	1	GUARD, INNER
18	12924	1	COLLAR	9	13921	2	BEARING, NYLON
17	12923	1	SPRING	8	13920	2	RETAINER, BEARING
16	12922	1	PAWL	7	15295	1	DECAL "DANGER"
15	12921	1	SLIDE LOCK ASSEMBLY	6	18305	1	YOKE & TUBE
14	12928	1	YOKE, 1-3/8"-21	5	12911	2	REPAIR KIT
13	18306	1	YOKE & SHAFT	4	2437	1	KEY, 1/2" SQ. X 2" LG. (NOT SHOWN)
12	13924	1	GUARD, OUTER	3	26708	1	YOKE, 1-3/4" RD W/1/2" KEY
11	11040	1	DECAL, "PTO"	2	13923	1	PTO ASSEMBLY (TRACTOR HALF)
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
BALZER HIGHWAY 80 EAST MFG. CORP. MOUNTAIN LAKE, MN 56159				A 11-9-94 ORIGINAL RELEASE REV. DATE DESCRIPTION OF REVISION		DATE 11-9-94 SIZE 1/2" x 11-0" DRAWN TWS	
						PTO 1000 RPM 1-3/8-21 (SERIES 55)	
						REF. NO. WEASLER DRAWING NO. PL300124	



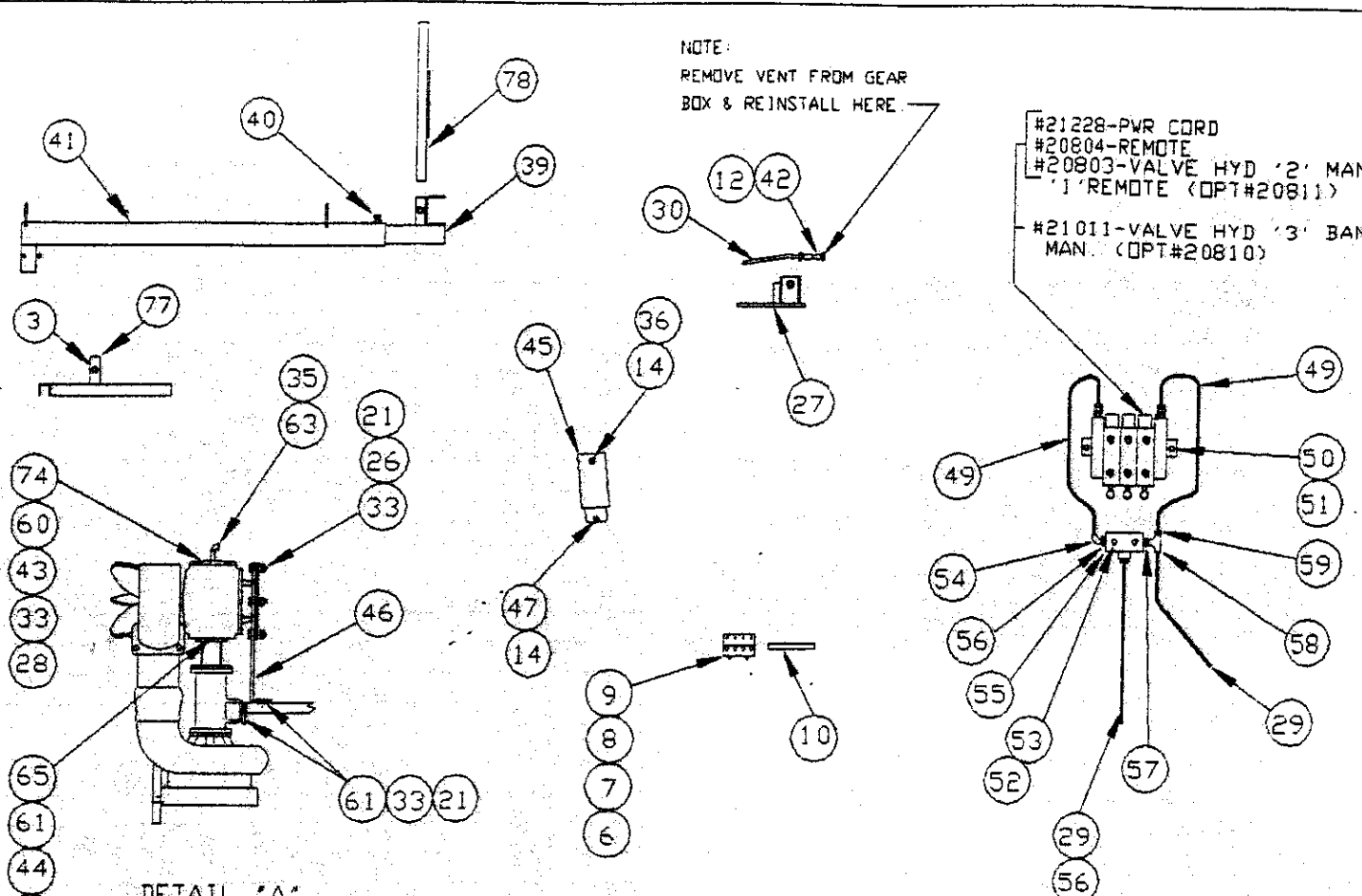
NOTE:

REFER TO THE VARIOUS DRAWINGS LISTED ABOVE FOR PARTS IDENTIFICATION IN ORDERING REPLACEMENT PARTS.

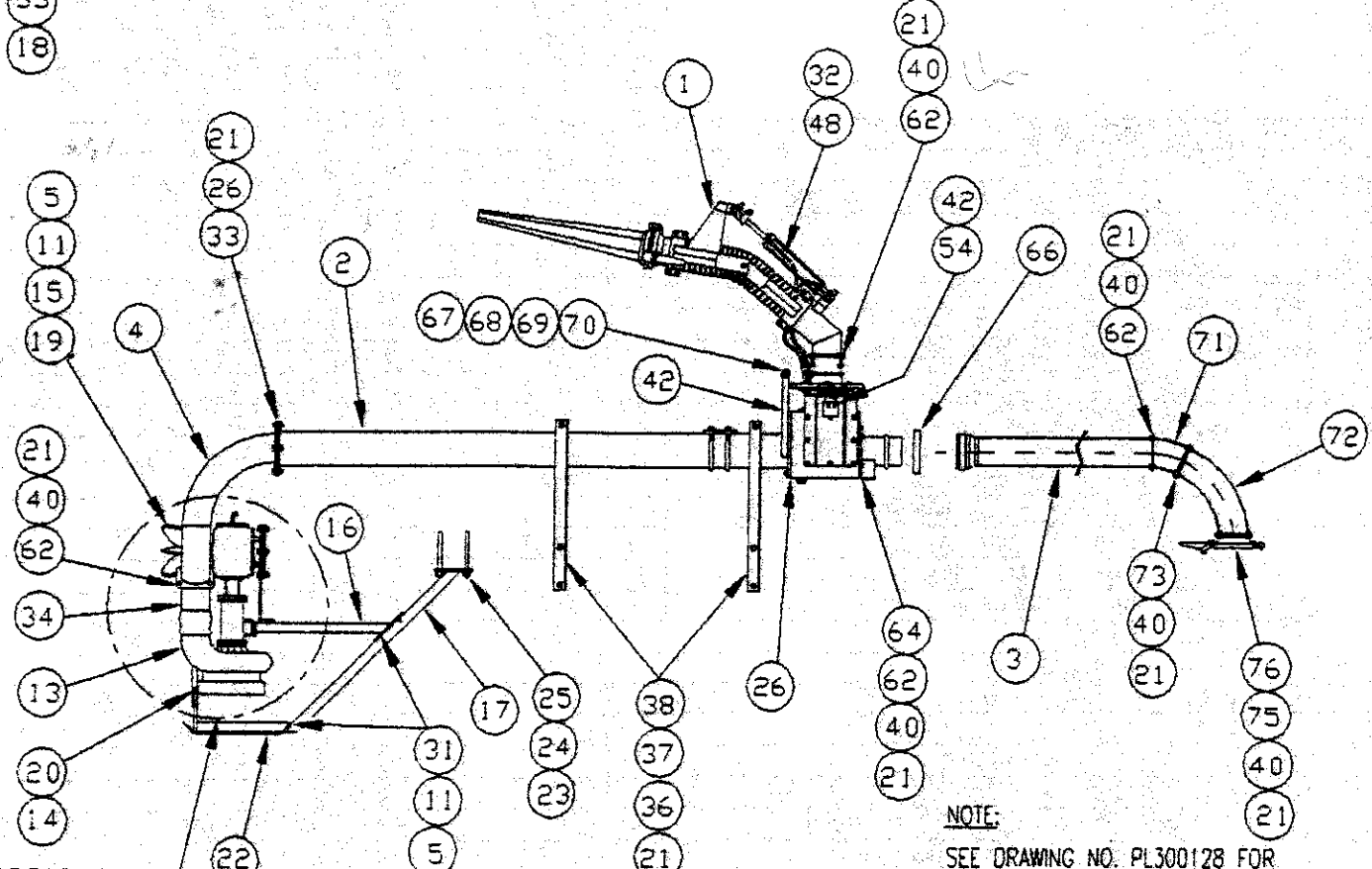
BALZER MFG. CORP.	HIGHWAY 60 EAST MOUNTAIN LAKE, MN 56159	A	11-7-94	ORIGINAL RELEASE	DATE: 11-7-94	VERTICAL LAGOON PUMP ASSEMBLY	REF. NO.	XXXXXXXX
		REV.	DATE	DESCRIPTION OF REVISION	SCALE: 1/2" = 1'-0"		DRAWING NO.	PL300126



• SOLDER/SPLICE CONNECTION



DETAIL "A"



SEE DETAIL "A"

PARTS LIST DRAWING FOR DRAWING NUMBER PL300127

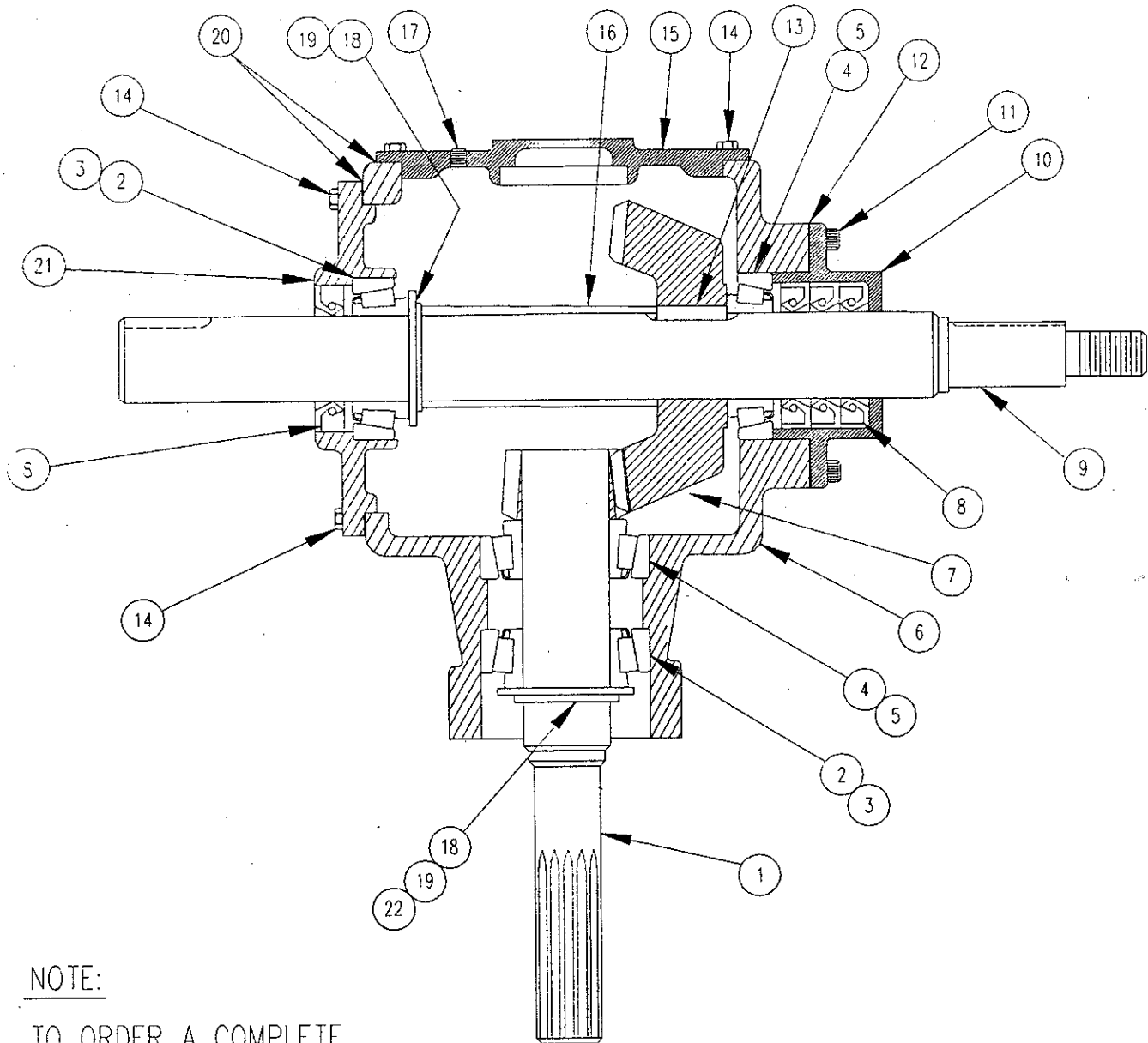
NOTE:

1) REFER TO DRAWING PL300103 FOR PARTS BREAKDOWN ON GUN ASSEMBLY #20601 (ITEM #1).

1) REFER TO DRAWING PL300107 FOR PARTS BREAKDOWN ON 9 FT. TUBE ASSEMBLY #22200 (ITEM #2).

53	1169	2	BOLT, 1/4" X 2-1/4" LG.				
52	2564	2	NUT, 1/4" TOPLOCK				
51	2081	2	NUT, 5/16" WHIZLOCK				
50	1185	2	BOLT, 5/16" X 1" LG.				
49	11156	2	HOSE, 1/4" NPT X 15" LG.				
48	16893	20	TIE, 15" CABLE				
47	1258	1	BOLT, 1/2" X 3-1/2" LG.				
46	22140	1	MOUNT, VERTICAL GB				
45	20717	1	SADDLE, DISCHARGE				
44	1207	4	BOLT, 3/8" X 1-1/4" LG.				
43	22209	1	GEARBOX, 540 RPM				
	22208	1	GEARBOX, 1000 RPM				
42	20877	4	HOSE, 1/4" NPT X 336" LG.				
41	20729	1	SUPPORT, HYDRAULIC CONTROL				
40	1249	25	BOLT, 1/2" X 1-1/4" LG.				
39	20736	1	EXTENSION, HYDRAULIC CONTROL				
38	20780	2	SPACER, TUBE SUPPORT				
37	20770	2	WELDMENT, TUBE SUPPORT				
36	1267	7	BOLT, 1/2" X 8" LG.				
35	14108	1	ELBOW, 1/4" NPT				
34	22205	1	TRANSITION, 6" FEMALE-4. BOLT 22&&D				
33	1250	28	BOLT, 1/2" X 1-1/2" LG.				
32	22228	2	HOSE, 1/4" MP X MPS X 378" LG.				
31	1309	5	BOLT, 3/4" X 1-1/2" LG.				
30	22227	1	HOSE, 1/4" MP X MPS X 272" LG.				
29	11305	2	HOSE, 1/2" X 119" LG. HYD.				
28	1290	8	BOLT, 5/8" X 1-3/4" LG.				
27	22192	1	MOUNT, HITCH & HYD. CONTROL SUPPORT				
26	20832	3	GASKET				
25	1697	4	NUT, 3/4"				
24	1641	4	LOCKWASHER, 3/4"				
23	20757	2	U-BOLT, 3/4" X 7" X 9"				
22	22120	1	PLATE, VERTICAL LAGOON SKID				
21	2084	43	NUT, 1/2" WHIZ LOCK				
20	1251	4	BOLT, 1/2" X 1-3/4" LG.				
19	21255	1	PROPELLER, DODD 19"				
18	1636	4	LOCKWASHER, 3/8"				
17	22130	1	MOUNT, VERTICAL PUMP				
16	22121	1	SUPPORT, HORIZONTAL PUMP				
15	2396	1	KEY, 1/4" X 3/8" X 3" LG.				
14	2539	8	NUT, 1/2" TOPLOCK				
13	17906	1	PUMP, VERTICAL SUPER 150				
12	10996	1	COUPLER, 1/4" NPT				
11	1621	4	FLATWASHER, 3/4" SAE				
10	2247	1	KEY, 1/2" SQ. X 4-3/4" LG.				
9	20619	1	COUPLING, 1-3/4" SHAFT (SPLIT)				
8	2614	2	NUT, 5/16"-24 JAM				
7	2270	2	SET SCREW, 5/16"-24 DOG POINT				
6	20631	8	BOLT, 5/16-24 X 1" LG. SOCKET HD. SST.				
5	1777	6	NUT, 3/4" TOPLOCK				
4	22129	1	TRANSITION, VERTICAL 6"				
3	22196	1	PIPE, 6" MALE IRRIGATION W/4-BOLT FLANGE				
2	22200	1	9 FT. TUBE ASSEMBLY				
1	20601	1	GUN ASSEMBLY				
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

BALZER HIGHWAY 60 EAST MFG. CORP. MOUNTAIN LAKE, MN 56159	A	11-3-94	ORIGINAL RELEASE	DATE	11-3-94	VERTICAL LAGOON PUMP (6") 540 - 1000 RPM	REF. NO.	21261/21264
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/2" = 1'-0"		DRAWING NO.	PL300128



NOTE:

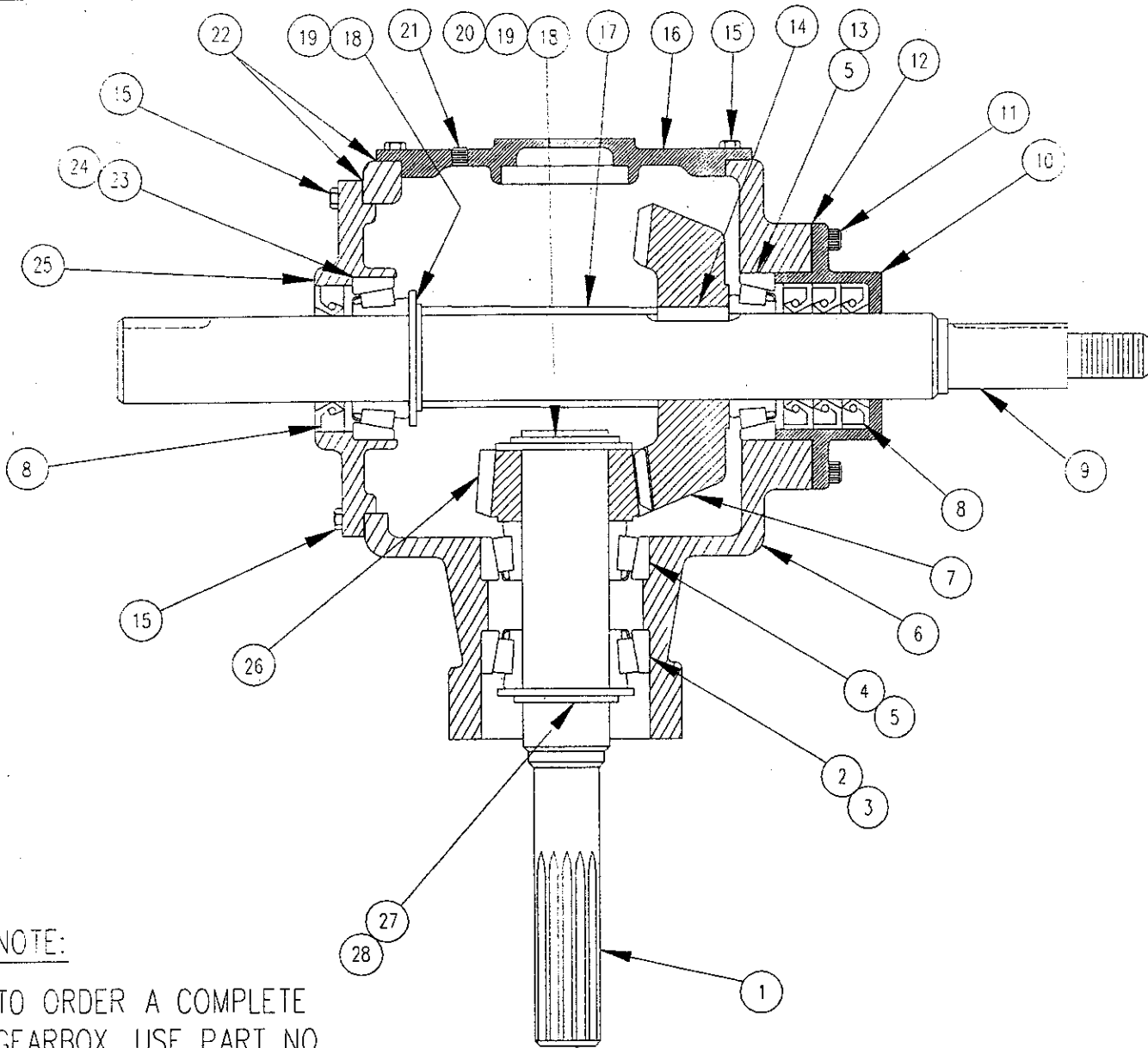
TO ORDER A COMPLETE GEARBOX, USE PART NO. X22209.

END OF PINION SHAFT PAINTED WHITE FOR IDENTIFICATION.

25	X15808	1	BUSHING, 1/4" X 1/8" REDUCER (NOT SHOWN)
24	X06997	1	PLUG, 1/4" NPT PIPE (NOT SHOWN)
23	X13181	1	PLUG, 1/2" NPT PIPE (NOT SHOWN)
22	X22603	AR.	SHIM, .007" (1.75" DIA. SHAFT)
21	X22598	1	COVER, OPEN
20	X22604	AR.	SHIM, .007" (COVER)
19	X22611	2	WASHER, 1.75" I.D. X .179" THK
18	X22606	2	RING, SNAP (1.75" I.D.)
17	X13097	1	PLUG, 1/8" NPT VENT (NOT SHOWN)
16	X22610	1	SPACER
15	X22597	1	COVER CLOSED
14	X01206	16	BOLT, 3/8"-16UNC X 1" LG. HEX HD. GR. 5
13	X17185	1	KEY, 3/8" SQ. X 1.46" LG.
12	X22605	AR.	SHIM, .007" (BEARING COVER)
ITEM	PART NO.	QTY.	DESCRIPTION

11	X22608	4	CAPSCREW, 3/8"-16NC X 1" LG. SOC. HD
10	X22332	1	COVER, BEARING
9	X22348	1	SHAFT, THRU
8	X22264	4	SEAL, OIL (██████████)
7	X22635	1	GEAR, 40T
6	X22596	1	HOUSING
5	X22602	2	CUP, BEARING (██████████)
4	X17205	2	CONE, BEARING (██████████)
3	X08491	2	CUP, BEARING (██████████)
2	X11477	2	CONE, BEARING (██████████)
1	X22616	1	PINION, 13T INTEGRAL
ITEM	PART NO.	QTY.	DESCRIPTION

BALZER INC.	A	9-28-95	ORIGINAL RELEASE	DATE	9-28-95	GEARBOX - 540 RPM (1:3.07 RATIO)	REF. NO.	22209
	REV.	DATE	DESCRIPTION OF REVISION	SCALE	1/4" = 1"		DRAWING NO.	PL300131



NOTE:

TO ORDER A COMPLETE GEARBOX, USE PART NO. X22208.

END OF PINION SHAFT PAINTED RED FOR IDENTIFICATION.

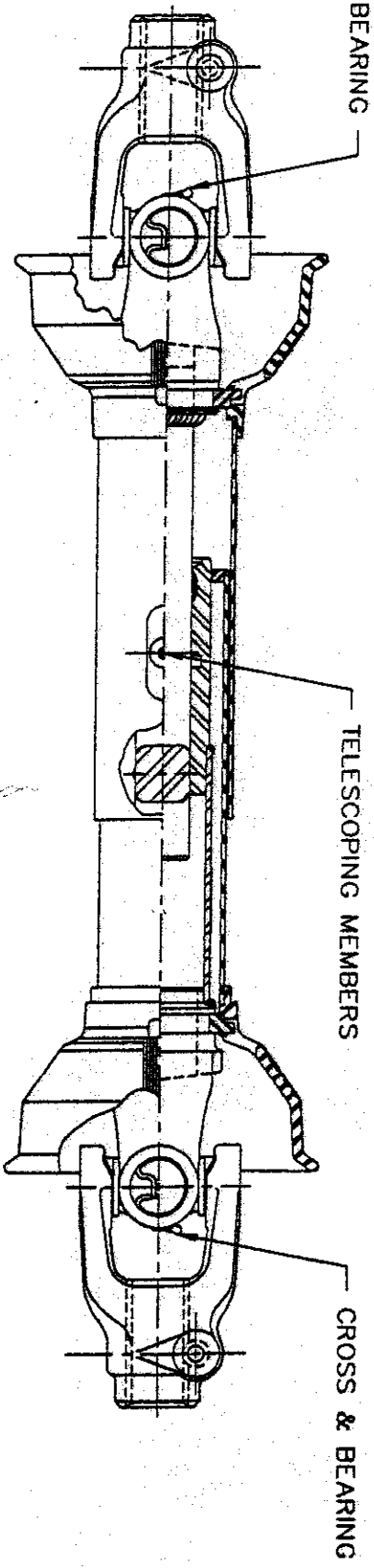
31	X15808	1	BUSHING, 1/4" X 1/8" REDUCER (NOT SHOWN)	15	X01206	16	BOLTS, 3/8" -16NC X 1" LG. HEX HD GR. 5
30	X06997	1	PLUG, 1/4" NPT PIPE (NOT SHOWN)	14	X17185	1	KEY, 3/8" SO. X 1.46" LG.
29	X13181	2	PLUG, 1/2" NPT PIPE (NOT SHOWN)	13	X17205	1	CONE, BEARING [REDACTED]
28	X22609	1	WASHER, 2" I.D. X .134" THK	12	X22605	AR	SHIM, .007" (BEARING COVER)
27	X22607	1	RING, SNAP (2" I.D.)	11	X22608	4	CAPSCREW, 3/8"-16NC X 1" LG. SOC. HD
26	X22637	1	PINION, 16T	10	X22332	1	COVER, BEARING
25	X22598	1	COVER, OPEN	9	X22348	1	SHAFT, THRU
24	X08491	1	CUP, BEARING [REDACTED]	8	X22264	4	SEAL, OIL [REDACTED]
23	X11477	1	CONE, BEARING [REDACTED]	7	X22638	1	GEAR, 29T
22	X22604	AR.	SHIM, .007 (COVER)	6	X22596	1	HOUSING
21	X13097	1	PLUG, 1/8" NPT VENT (NOT SHOWN)	5	X22602	2	CUP, BEARING [REDACTED]
20	X22603	AR.	SHIM, .007" (1.75" DIA. SHAFT)	4	X11498	1	CONE, BEARING [REDACTED]
19	X22611	2	WASHER, 1.75" I.D. X .179" THK.	3	X12888	1	CUP, BEARING [REDACTED]
18	X22606	2	RING, SNAP (1.75" I.D.)	2	X12887	1	CONE, BEARING [REDACTED]
17	X22610	1	SPACER	1	X22349	1	SHAFT, QUILL
16	X22597	1	COVER, CLOSED				
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION

BALZER INC.

REV.	DATE	DESCRIPTION OF REVISION	DATE	SCALE	DRAWN
A	9-28-95	ORIGINAL RELEASE	9-28-95	1/4" = 1"	TWS

GEARBOX - 1000 RPM
(1:1.81 RATIO)

REF. NO. 22208
DRAWING NO. PL300130



LUBRICATE ALL FITTINGS WITH A GOOD QUALITY LITHIUM SOAP BASE E.P. GREASE MEETING THE N.L.G.I. #2 SPECIFICATIONS AND CONTAINING NO MORE THAN 1% MOLYBDENUM DISULFIDE. (EX. SHELL SUPER DUTY OR EQUIVALENT)

AN E.P. GREASE MEETING THE N.L.G.I. #2 SPECIFICATIONS AND CONTAINING 3% MOLYBDENUM DISULFIDE MAY BE SUBSTITUTED IN THE TELESCOPING MEMBERS ONLY. (EX. MOBIL OIL COMPANY, "MOBIL GREASE CMP"; SHELL OIL COMPANY, "RETINAX AM"; TEXACO, "MOLYTEX EP #0 AND #2".)

THE FIRST LUBE INTERVAL SHOULD BE 16-24 HOURS OF OPERATION AFTER INITIAL START-UP THEN FOLLOW THE SCHEDULE BELOW.

LUBE RECOMMENDATIONS

INTERVAL	LOCATION	AMOUNT
8 HRS.**	CROSS & BEARINGS	1 PUMP
8 HRS.	TELESCOPING MEMBERS	4-8 PUMPS

** CONSTANT ANGLE APPLICATIONS MUST HAVE A LUBE INTERVAL OF 4 HOURS.

CAUTION!! REPLACEMENT PARTS ARE NOT LUBRICATED

REPLACEMENT PARTS MUST BE LUBRICATED AT TIME OF ASSEMBLY. USE AMOUNT LISTED ABOVE PER LOCATION THEN FOLLOW LUBE RECOMMENDATIONS OUTLINED ABOVE FOR LUBING INTERVALS.

01	REDRAWN	03-1128	8-18-93	CSJ	PUR		
REV.	DESCRIPTION	ECN NO.	DATE	BY	CHKD		
	TOLERANCES UNLESS OTHERWISE SPECIFIED	KEYWAYS PER SAE J503	DO NOT SCALE				
DECIMAL .XX ±.03 .XXX ±.010	ANGULAR ± 2'						
THIS DRAWING IS THE PROPERTY OF WEASLER ENGINEERING, INC. AND IS PROVIDED WITH THE UNDERSTANDING THAT IT WILL NOT BE USED IN ANY WAY DETERMINED TO THE INTERESTS OF WEASLER ENGINEERING, INC.		<p>Weasler</p> <p>Telephone (414) 338-2161 Fax (414) 338-3709</p>		<p>SUPERSEDES</p> <p>1st. PROB. APPROVAL</p>		<p>TITLE</p> <p>RECOMMENDED CUSTOMER GREASING PROCEDURE FOR ALL TELESCOPING DRIVELINES</p>	
		DRAWING NO.		C 56-13587			

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 _____