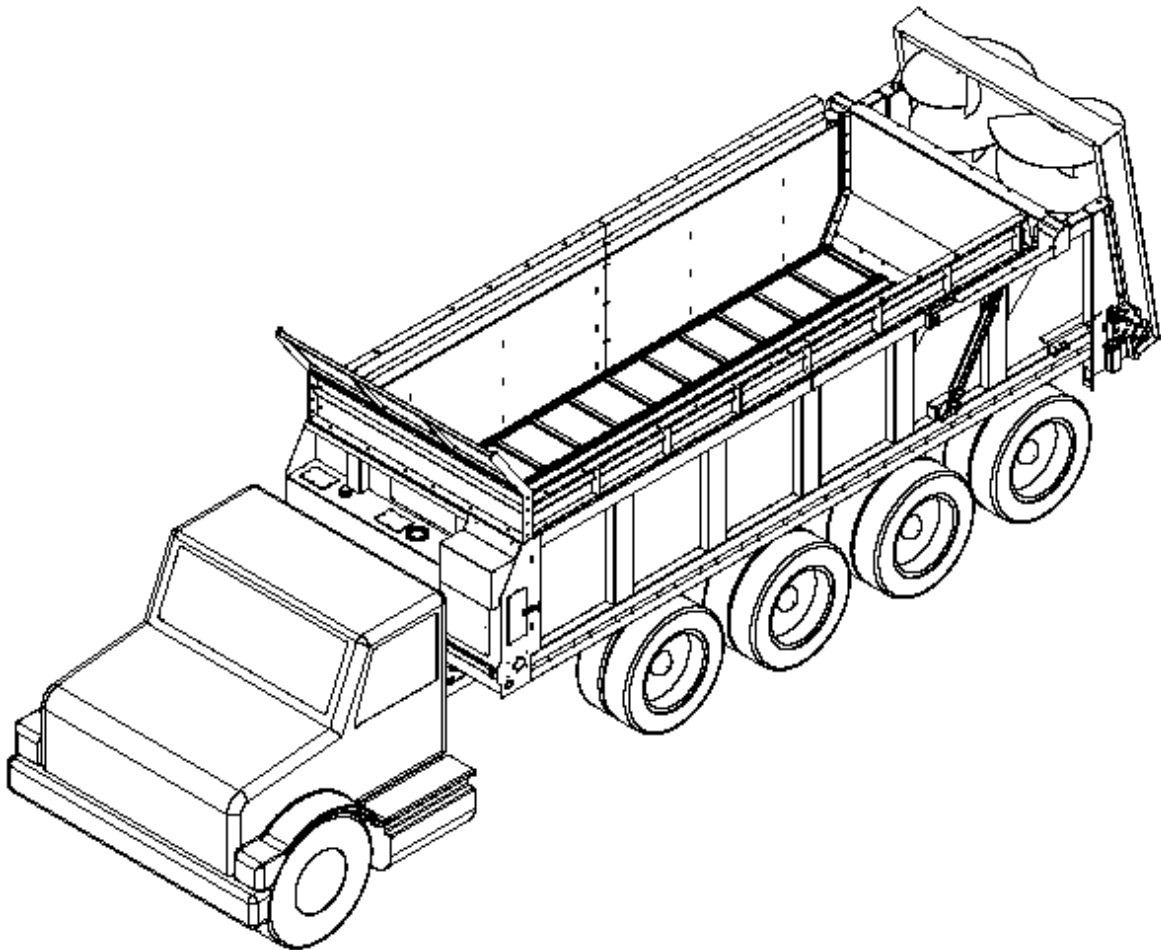




R2000 Truck MANURE SPREADER



ART'S WAY MANUFACTURING CO., INC.
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ARMSTRONG, IA. 51239
712-864-3131
WWW.ARTSWAY-MFG.COM

INTRODUCTION

Thank you for purchasing a Roda Spreader. We appreciate your business. Here at Roda, we do our best to provide you with a rugged and durable unit, which is easy to maintain. If you have any suggestions for any of our products, please let us know.

Roda Manufacturing Inc.

USING THIS MANUAL

This manual should be considered a permanent part of your machine, and should remain with the machine when you sell it.

This manual has been designed to help you become familiar with your unit. Before you operate your unit, be sure you understand and follow all the operation, safety, and lubrication instructions on the following pages in this manual. These have been written for your safety and convenience, and to help keep your unit running trouble-free for many years.

ADDITIONAL OPERATORS MANUALS, SERVICE PARTS LISTINGS and safety decals may be obtained through your dealer, or Roda Manufacturing.

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UNDERSTAND SAFETY WORDS AND SYMBOLS



THIS SAFETY ALERT SYMBOL is used in this manual whenever personal safety is involved and means **ATTENTION! BECOME ALERT!** It stresses an attitude of “**HEADS UP**” for safety. Read and understand all pages in this manual that bear this safety symbol and...**TAKE TIME TO BE CAREFUL!**

The Signal Word or Message areas of all safety decals are color coded to indicate the level of hazard.

CAUTION: Is used to direct attention to unsafe practices, and uses the color yellow.

WARNING: Denotes a specific potential hazard, and uses the color yellow or orange.

DANGER: Denotes a most serious specific potential hazard, and uses the color red.

READ THE OPERATORS MANUAL

Any person who will be operating or maintaining this manure spreader should first read and understand this manual and all safety warnings on the unit.

This instruction manual should always be available to those responsible for the operation and maintenance of this manure spreader. It is the owner's responsibility to provide this safety information to his operators and employees.

Any person who does not understand the safety and operation instructions contained in this manual should not be considered qualified to operate this manure spreader.

FOLLOW SAFETY INSTRUCTIONS

Specialized procedures and instructions are required and must be adhered to when working on this equipment. Failure to follow the instructions contained in this manual could result in severe personal injury, death, and/or product or property damage. Personnel when operating or maintaining this equipment must use all applicable safety procedures such as OSHA requirements, regional and local safety codes and requirements, safe working practices, and good judgment.



SAFETY

OPERATING SAFETY PRECAUTIONS



WHEN THE SPREADER IS IN OPERATION, IT HAS MANY MOVING PARTS, WHICH COULD CAUSE SEVERE INJURY OR DEATH TO PERSONS COMING IN CONTACT WITH THESE PARTS. TO HELP AVOID SERIOUS ACCIDENTS, THE FOLLOWING GUIDELINES MUST BE FOLLOWED.

- **BE SURE ALL SAFETY SHIELDS** are in place before operating, including any truck and driveline shields. Exposed machinery, due to missing shielding, can cause severe injury or death. Repair or replace any damaged or missing shielding.
- **NEVER PUT ARMS OR FEET INSIDE UNIT**, or near discharge areas, nor climb on or in the spreader while it is running. NEVER allow anyone to position themselves over or near the top, or near the discharge area of the spreader while it is running. Rotating beaters, shafting, belts, pulleys, and sprockets can grab clothing or create pinch points, which can cause severe injury or death to the operator or bystanders. Always stop engine and remove ignition key so that the spreader cannot be accidentally turned on while inspection, servicing, repairing, or cleaning the spreader.
- **NEVER ATTEMPT TO RELEASE JAMMED MATERIALS OR CLEAN MATERIALS** from any area of the spreader of discharge without turning the spreader off first. Materials can hide moving parts and stopped parts can start unexpectedly, causing severe injury. Always stop engine and remove ignition key before attempting to remove jammed material or clean the spreader.
- **DO NOT ALLOW OPERATION OF THIS UNIT BY AN INEXPERIENCED OR UNQUALIFIED PERSON.** Keep all unqualified people away from spreader during operation. Operators of this unit must be alert and use good judgment at all times and must have fully read and understand this manual.
- **UNITS EQUIPED WITH VERTICAL BEATERS** will at times throw objects up to 100 feet. Keep everyone a safe distance away from the discharge end of the spreader when the beaters are engaged.
- **DO NOT WEAR LOOSE OR FLOPPY CLOTHING** while operating this unit. Loose clothing may become entangled in moving machinery.
- **BE SURE THE INSIDE OF SPREADER IS CLEAR** of any obstructions before loading.
- **SHOULD A PROBLEM OCCUR DURING THE OPERATION OF SPREADER, always turn off engine and remove ignition key before investigating problem.** If power source has not been turned off, the spreader may start unexpectedly, causing severe injury or death.



SAFETY

TRANSPORTING SAFETY PRECAUTIONS



WHEN TRANSPORTING A LOADED SPREADER, USE REDUCED SPEED AND BE SURE THE VEHICLE HAS ADEQUATE BRAKES TO STOP.

- **DO NOT ALLOW ANYONE TO RIDE ON OR INSIDE THE SPREADER.**
- **REDUCE SPEED WHEN TRAVELING** loaded and/or over rough, soft, or wet terrain. Exercise caution on side slopes and when turning corners.
- **DO NOT ALLOW OPERATION OF THIS UNIT BY AN INEXPERIENCED OR UNQUALIFIED PERSON.** Keep all unqualified people away from spreader during operation. Operators of this unit must be alert and use good judgment at all times and must have fully read and understand this manual.
- **AVOID OPERATING THE SPREADER CROSSING GULLIES OR DITCHES.**
- **WHEN WORKING ON SLOPES** or inclines, travel uphill or downhill. Keep the transmission in gear when going downhill.
- **AVOID DRIVING ON** loose fill, rocks, inclines, ditches, and holes.
- **ALWAYS PARK** the spreader on level ground and block the tires.
- **IF UNIT IS FOR HIGHWAY TRANSIT** the end user is responsible for federal, state and local vehicle regulation compliance (example: under ride requirements, licensing, lighting and weight limitations).

SAFETY DECALS

SAFETY DECALS ARE PLACED ON THIS UNIT FOR THE PROTECTION OF THE OPERATOR OR ANY PERSON NEAR THE UNIT.

- **BE SURE EVERYONE WHO OPERATES THE SPREADER UNDERSTANDS ALL THE INFORMATION, WARNING, CAUTION AND DANGER DECALS.**
- **KEEP THE DECALS CLEAN** so they are readable. This applies to all caution, warning, and danger decals.
- It is the **OWNER'S RESPONSIBILITY** to provide information for safe operation of this machine.
- **REPLACE ANY DAMAGED OR WORN DECAL.** Once any part of a decal becomes non-readable, it should be replaced. Replacement decals may be ordered through your dealer or Roda Manufacturing.
- **WHEN REPLACING DECALS,** be sure the surface area is clean and dry, peel the backing off the decal, and apply to the unit. Be sure to wipe with a clean cloth to rub out all air bubbles to assure a good seal. For best adhesion decals should be applied in temperatures of 50°(f) or warmer.



SAFETY

SAFETY DECALS

1.)



2.)



3.)



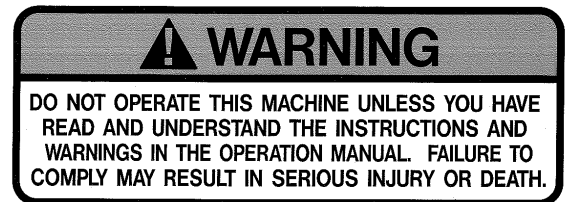
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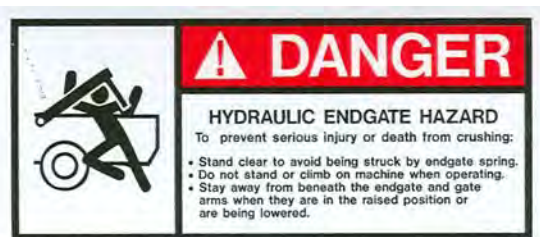
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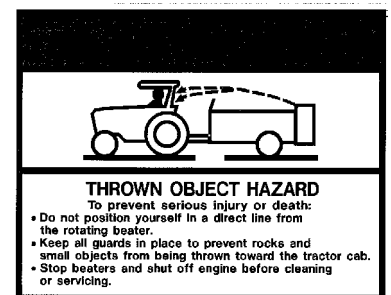
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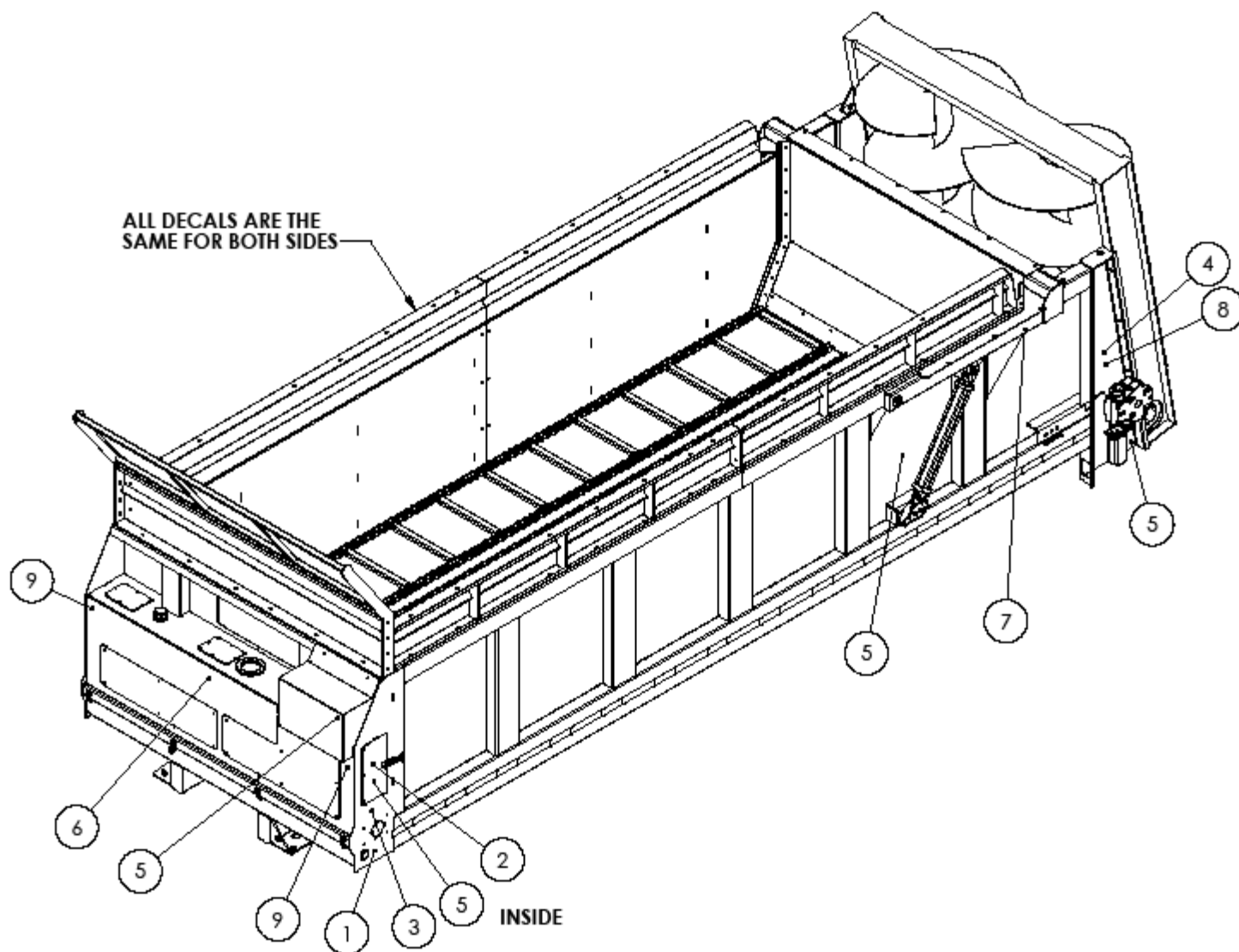
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SAFETY

SAFETY DECAL LOCATION



MODEL AND SERIAL NUMBER INFORMATION is located in the upper center area of the front panel. This is the number to give service personnel for parts and service questions.



MANURE SPREADER SAFETY



THERE ARE INHERENT HAZARDS ASSOCIATED WITH THE OPERATION OF A MANURE SPREADER. FOR YOUR SAFETY:

- **ONLY PROPERLY INSTRUCTED PEOPLE SHOULD OPERATE THE SPREADER.** Do not allow children or inexperienced persons to operate spreader.
- **KEEP ALL GUARDS AND SHIELDS IN PLACE.** Moving parts can crush and dismember.
- **CLEAR THE AREA** before equipment start up.
- **KEEP HANDS, FEET, AND LOOSE CLOTHING AWAY FROM ANY MOVING PARTS.**
- **DO NOT GO NEAR THE SPREADER WHILE THE MACHINE IS OPERATING.**
- **DO NOT OPERATE PTO AT SPEEDS HIGHER** than manufacturer's recommendations.
- **USE CAUTION WHEN TRAVELING** over uneven terrain and when approaching stops.
- **DO NOT ALLOW RIDERS ON THE SPREADER.**



**FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH
THERE ARE ADDITIONAL HAZARDS ASSOCIATED WITH THE SERVICE AND MAINTENANCE
OF YOUR SPREADER.**

FOR YOUR SAFETY:

- **INSPECT** when first delivered and regularly thereafter; that all connections and bolts are tight and secure before operating.
- **MAINTAIN PROPER TIRE AIR PRESSURE** at all times.
- **ALWAYS WEAR EYE PROTECTION** when operating or servicing spreader.
- **BE SURE ALL MOVEMENT HAS STOPPED** and that the PTO been disengaged and the truck engine is shut off before servicing the spreader or components.
- **ESCAPING HYDRAULIC FLUID UNDER PRESSURE** can penetrate skin and cause serious injury. Relieve all pressure from the hydraulic system before connecting or disconnecting the lines or making repairs. Check all hoses and fittings before start-up and periodically during operation.
- **NEVER MAKE ANY ALTERATIONS** or modifications to this equipment.



FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH

PRE-OPERATION

IMPORTANT: READ BEFORE OPERATING SPREADER.

IT IS THE RESPONSIBILITY OF THE OWNER TO MAKE SURE THE SPREADER IS SET UP PROPERLY. THE FOLLOWING RECOMMENDATIONS SHOULD BE HELPFUL.

- **CHECK FOR PROPER ASSEMBLY**, adjustment and lubrication. Check to be sure all bolts and setscrews are tight. Check to be sure that all chains and chain tighteners are properly adjusted. Review Operating Safety Precautions and Lubrication instructions for more information.
- **BE SURE ALL SHIELDS** are properly in place.
- **CHECK FOR AND REMOVE ANY FOREIGN OBJECTS** in the spreader box and discharge area.
- **BE SURE NO ONE IS NEAR THE SPREADER.**
- **TEST RUN THE SPREADER.**
- **WITH THE SPREADER EMPTY**, start the apron and beaters.
- **RUN FOR AT LEAST 5 MINUTES.**
- **CHECK THE SPREADER DRIVE COMPONENTS TO BE SURE THEY ARE NOT ABNORMALLY HOT.**

If any of these items are not running as indicated, immediately repair or contact your service representative. Always refer to Operating Safety Precautions before operating or servicing the spreader.



LUBRICATION

ALWAYS STOP THE MANURE SPREADER, TURN OFF ENGINE, AND REMOVE KEY BEFORE SERVICING, REPAIRING, OR CLEANING. USE SAFE SHOP PROCEDURE AND EXERCISE CAUTION WHEN WORKING ON THIS MACHINE!

It is extremely important to properly lubricate your new RODA machine before it is used for the first time. If the mechanical drive components of your unit are not protected from shock and frictional abrasion, the wear rate of these components will be vastly accelerated and their life span will be drastically reduced. For proper care and maintenance, your machine should be serviced with engine oil, multipurpose grease, and fluids specified below.

It is extremely important that the lubrication guide be followed. For lubricating bearings, use good quality multipurpose grease. Pump the grease in slowly. Roller chains should be lubricated with engine oil, or a spray-on chain lubricant and then the spreader operated under a no-load condition. This will allow the roller chains to be thoroughly lubricated and thus minimize heat-up during operation.

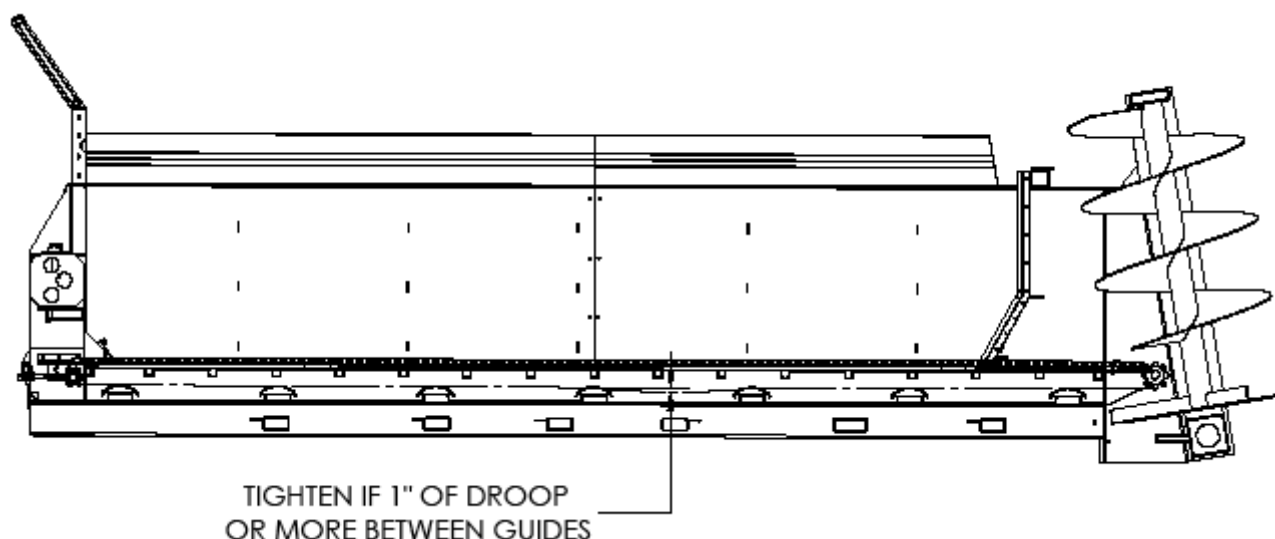
DESCRIPTION	INTERVAL	LUBRICANT
ROLLER CHAINS	15-20 HOURS	OIL
APRON BEARINGS	15-20 HOURS	GREASE
APRON GEAR CASES	ANNUALLY	75w90 SYN GEAR LUBE
APRON CHAIN	WHEN PARKED	30WT OIL
HYDRAULIC OIL LEVEL	DAILY	ISO 32 HYDRAULIC OIL
DRIVELINE	15-20	GREASE
CAST FLANGE BEARINGS	15-20 HOURS	GREASE
PILLOW BLOCK BEARING	15-20 HOURS	GREASE
SLOP GATE PIVOT POINT	15-20 HOURS	GREASE

ALWAYS REPLACE ALL SHIELDS AFTER MAINTENANCE AND LUBRICATION IS COMPLETE

INSPECTION & ADJUSTMENTS

ALWAYS STOP SPREADER, SHUT OFF VEHICLE ENGINE AND REMOVE IGNITION KEY BEFORE SERVICING, REPAIRING, OR CLEANING, USE SAFE SHOP PROCEDURES AND EXERCISE CAUTION WHEN WORKING ON THIS SPREADER!

- **SHIELDING** to be sure all shielding is in place and functioning properly. Replace all damaged or missing shielding immediately-Contact your nearest dealer or the Roda parts/service dept. for more information. Check bolts and Set Screws after a few hours of use and each month thereafter, and tighten if necessary.
- **AFTER A FEW HOURS OF INITIAL OPERATION**, check all bolts and set screws to be sure they are tight and secure.
- **ROLLER CHAIN TIGHTENERS** to apply sufficient tension to keep roller chains running smoothly. The chain will form grooves in the tightener blocks. These grooves help to keep the chains in proper alignment, and the blocks should not be turned unless the roller portion of the chain has worn into the block
- **ROLLER CHAINS FOR WEAR**, proper alignment and tension, and adjust or replace if necessary. Roller chain connector links which pass over tightener blocks must have the legs of the cotter pins facing the trailing end.
- **SAFETY DECALS FOR READABILITY**. If any safety decals are removed, obstructed, or otherwise not understandable, they should be replaced immediately. Keep all decals clean!
- **IMPORTANT: IF YOU WELD ON THIS UNIT:** Do Not allow the currents to flow through the bearings. Ground directly to the item being welded.
- **PERIODICALLY CHECK** all set screws and bolts and retighten if necessary.
- **APRON CHAINS** for wear, proper alignment and tension, according to the adjustment guidelines as shown.
- **BE SURE TO KEEP PROPER TENSION ON APRON CHAINS**. The (4) apron tightener nuts are located at the front of the unit on threaded rods connected to the apron shaft. They should be adjusted evenly for proper tension.



If apron is loose, remove one link from each side of each apron chain assembly and readjust to tension as shown. **CAUTION:** Over tightening can cause premature failure of the drive components.

SPREADER OPERATION

ALWAYS REFER TO THE OPERATING SAFETY PRECAUTIONS AND SAFETY DECAL SECTIONS OF THIS MANUAL BEFORE OPERATING THIS SPREADER

LOADING

- **BEFORE LOADING THE SPREADER**, be sure there are no obstructions in the beaters or discharge opening. Inspect the spreader to see that it is in good mechanical condition and that all shields are in place and functional.
- **NEVER CHECK THE SPREADER WHILE IT IS OPERATING**
- **IN FREEZING WEATHER**, make sure the apron is not frozen with manure. If this appears likely, turn off vehicle engine, remove ignition keys, loosen the frozen area and operate before loading.
- **AVOID LOADING ROCKS AND OTHER SOLID OBJECTS INTO THE SPREADER**
- **NEVER COVER BEATERS** when loading, beaters should spin freely before engaging.

OPERATION

- **BEFORE OPERATING, BE SURE NO ONE IS NEAR THE SPREADER AND THAT THE DISCHARGE AREA IS CLEAR OF ALL OBJECTS OR PERSONS THAT COULD BE HARMED IF MATERIAL WAS DISCHARGED!**
- **WITH THE VEHICLE STOPPED** and the engine throttled down, engage the PTO per manufacturers instructions.
- **START VEHICLE IN MOTION.**
- **THE SPREAD RATE IS CONTROLLED BY THE VEHICLE GROUND SPEED.** The type of material being spread affects the rate at which material is discharged from the spreader. Semi-liquid materials will discharge faster then the more solid type materials.
- **WHEN THE SPREADER IS EMPTY DURING FREEZING TEMPERATURES,** be sure that the spreader is cleaned out to prevent the apron from freezing down.
- **NEVER LOAD THE SPREADER SO THE LOAD IS ON THE BEATERS.**

*If a problem should occur while unloading the spreader, or if you want to clean off the spreader after it is empty, NEVER leave the VEHICLE without first turning off the engine and removing ignition key.

<p>WARNING: PTO and truck engine must be turned off when removing jams, cleaning, and performing any repair or maintenance operations!</p>

Control Box Operation:

Manure:

- PTO on truck (separate from control box) is turned on, hydraulic pump engaged (and vertical beaters if equipped)
- Control box power switch is turned on
- Beater switch is turned on (if equipped with horizontal beaters)
- Slop Gate “Open” switch must be activated before apron will engage
- Apron switch moved to “manure” mode, apron speed adjustable from 0-100% on variable speed dial
- If manure jams beaters, Manure/Silage switch must be turned off and the “Apron Reverse” switch depressed and held for **5 Seconds Maximum** to reverse the apron and pull material back from the beaters.
- As load nears empty, manure switch can be set to “High Speed Cleanout” to allow apron to go to high speed so remaining load can be quickly dispensed
- When empty, (beater switch turned off if equipped with horizontal beaters) apron switch is turned to off position, slop gate closed, power switch turned off, PTO disengaged

NOTE: PTO must be off when not spreading manure to allow for hydraulic system to cool down!

Silage:

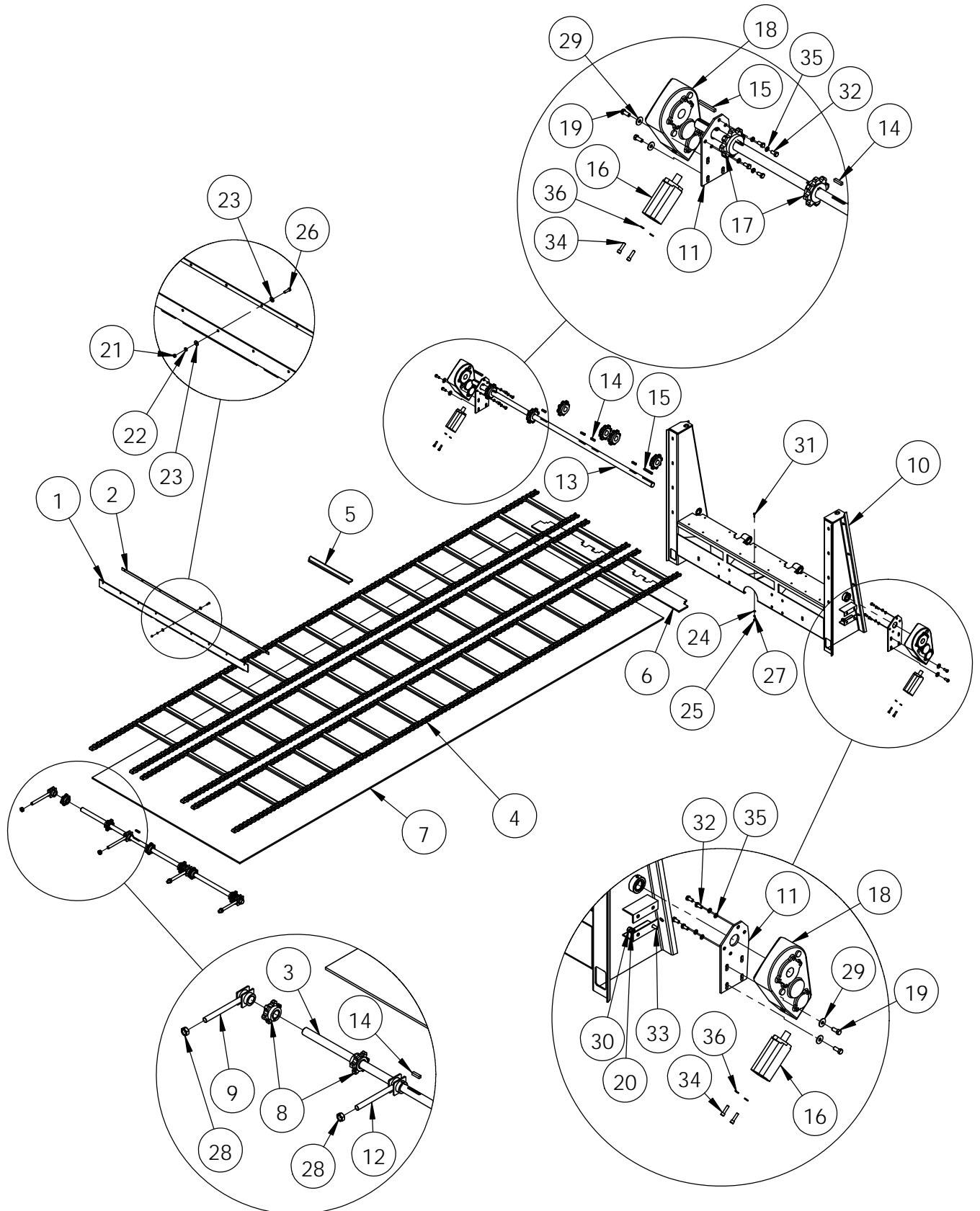
- PTO Switch is engaged
- Control box power switch is turned on
- Slop Gate “Open” switch must be activated before apron will engage
- Apron switch moved to “silage” mode, dispensing silage until box is empty, apron speed adjustable from 0-100% on variable speed dial
- When empty, apron switch is turned to off position, slop gate closed, power switch turned off, PTO disengaged

NOTE: PTO must be off when not unloading silage to allow for hydraulic system to cool down!

<p>WARNING: PTO and truck engine must be turned off when removing jams, cleaning, and performing any repair or maintenance operations!</p>

APRON DRIVE BREAKDOWN

(units with Berma apron drive)



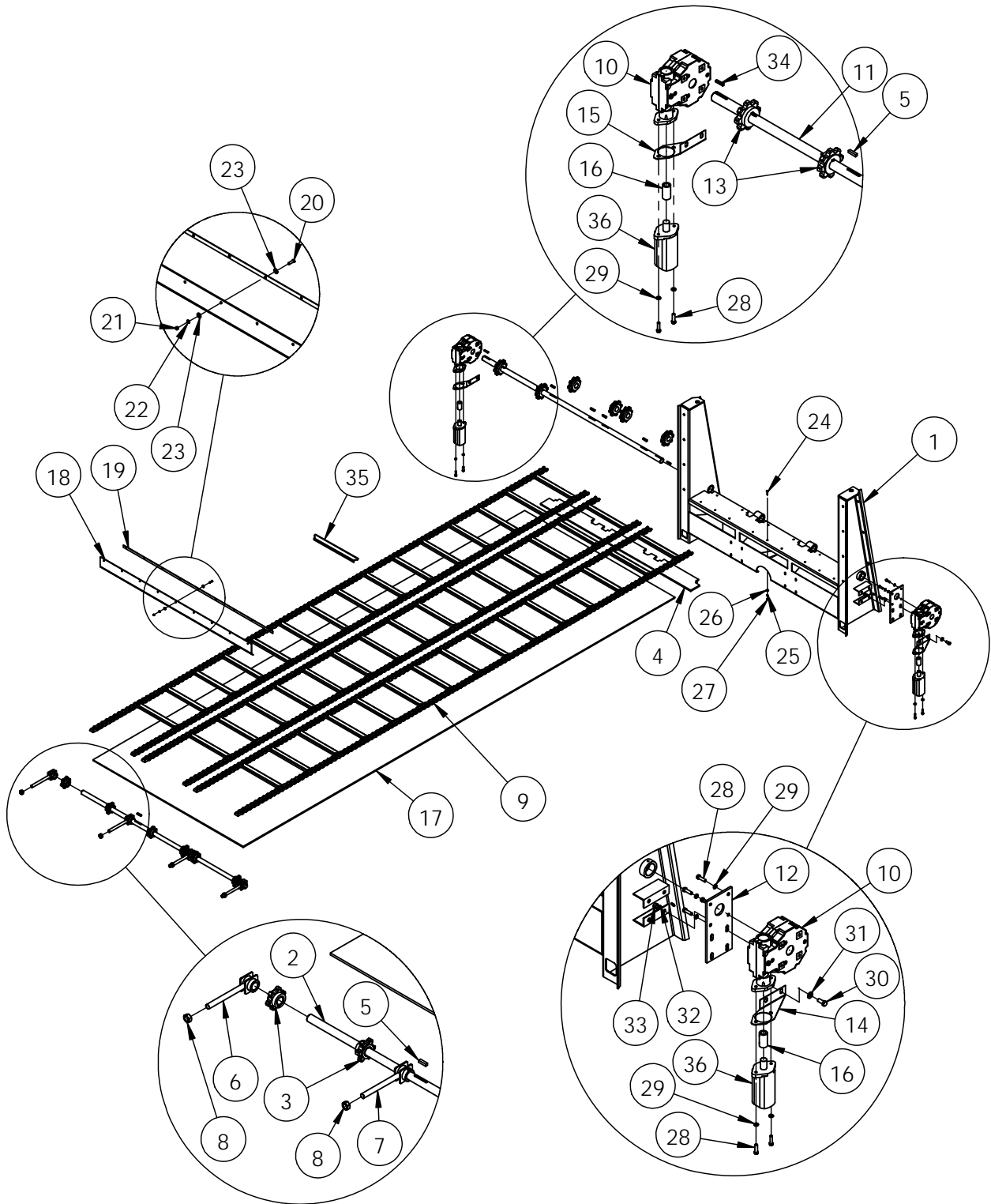
APRON DRIVE PARTS LIST

(units with Berma drive apron)

ITEM NO.	PART NUMBER	DESCRIPTION	Default/QTY.
1	200013	FLASHING,FRONT	1
2	200022	STRAP FOR FRONT FLASHING	1
3	200032	SHAFT,APRON CHAIN-FRONT	1
4	200033	APRON CHAIN (20')	3
5	200033-01	APRON FLIGHT	1
6	200069	REAR GANG FLOOR SECTION	1
7	200072	FLOOR SECTION	1
8	200074	FRONT IDLER SPROCKET	6
9	200084	OUTSIDE APRON TIGHTENER	2
10	200100	VB, REAR GANG	1
11	200181	GEARBOX MNT PLATE	2
12	200085	INSIDE APRON TIGHTENER	2
13	200188	SHAFT,APRON CHAIN-REAR (BERMA)	1
14	FAB K5050-2.00	1/2" SQR KEY 2" LONG	8
15	FAB K5050-4.50	1/2" SQR KEY 4.50" LONG	2
16	C47-00-3122	MOTOR, HYD EATON 2000 SERIES 9.65 CIR 2-BOLT 1" KEYED, SIDE PORTS	2
17	M08-56-3077	SPROCKET, 8 TOOTH 2" BORE, KEYWAY AND SET SCREW	6
18	O74-01-5069	GEARBOX, BERMA, RIGHT ANGLE	2
19	Z82-03-1024	BOLT, HEX, 5/8" X 1-1/2" Z5	4
20	Z82-66-1010	WASHER, LOCK SPLIT, 5/8 Z5	4
21	Z82-40-0606	NUT, HEX, 3/8" Z5	9
22	Z82-66-0606	WASHER, LOCK SPLIT, 3/8" Z5	9
23	Z82-60-0606	WASHER, FLAT, 3/8" Z5	18
24	Z82-60-0505	WASHER, FLAT, 5/16 Z5	30
25	Z82-40-0505	NUT, HEX, 5/16"-18 Z5	30
26	Z82-03-0620	BOLT, HEX, 3/8"-16 X 1-1/4" Z5	9
27	Z82-66-0505	WASHER, LOCK SPLIT, 5/16 Z5	30
28	Z82-42-1616	NUT, LOCK, DEFORMED, 1"-8 Z5	4
29	Z82-60-1010	WASHER, FLAT, 5/8" Z5	4
30	Z82-40-1010	NUT, HEX, 5/8" Z5	4
31	Z82-01-0524	BOLT, CARRIAGE, 5/16"-18 X 1-1/2" Z5	30
32	Z83-03-1432	BOLT, HEX, 14MM X 32MM Z5	8
33	Z83-03-1440	BOLT, HEX, 14MM X 40MM Z5	2
34	Z86-11-1245	BOLT, SOCKET HEAD CAP, 12MM X 45MM	4
35	Z83-66-1414	WASHER, LOCK SPLIT, 14MM, Z5	10
36	Z83-66-1212	WASHER, LOCK SPLIT, 12MM, Z5	4

APRON DRIVE BREAKDOWN

(units with Superior drive apron)

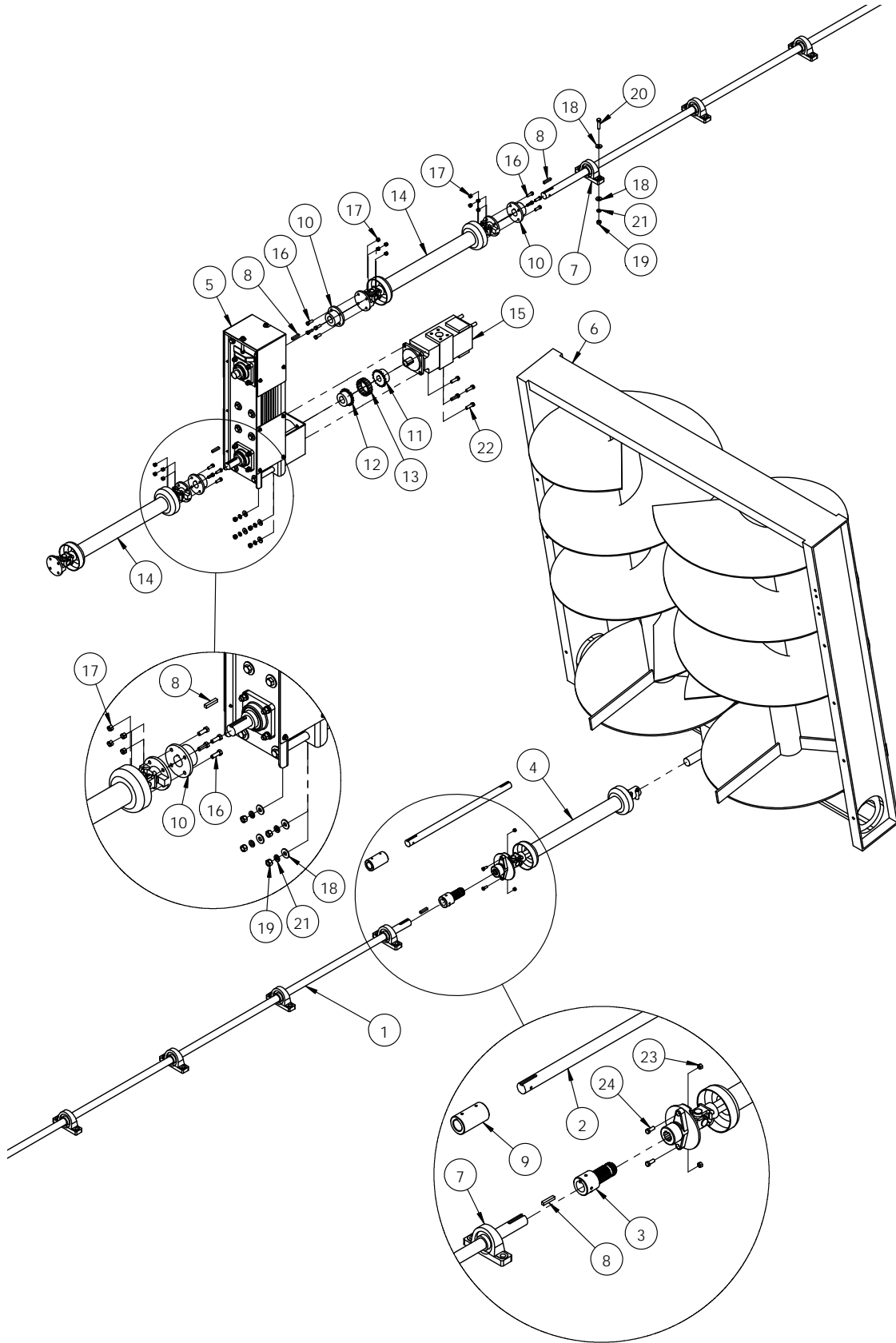


APRON DRIVE PARTS LIST

(units with Superior drive apron)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	200100	VB, REAR GANG	1
2	200032	SHAFT, APRON CHAIN-FRONT	1
3	200074	FRONT IDLER SPROCKET	6
4	200069	REAR GANG FLOOR SECTION	1
5	FAB K5050-2.00	1/2" SQR KEY 2" LONG	8
6	200084	OUTSIDE APRON TIGHTENER	2
7	200085	INSIDE APRON TIGHTENER	2
8	Z82-42-1616	NUT, LOCK, DEFORMED, 1"-8 Z5	4
9	200033	APRON CHAIN (20')	3
10	W25SDA008030	WORM GEAR DRIVE	2
11	200039	SHAFT, APRON CHAIN-REAR	1
12	610078	WORM GEAR MOUNT	2
13	M08-56-3077	SPROCKET, 8 TOOTH 2" BORE, KEYWAY AND SETSCREW	6
14	810027	LEFT HYD MOTOR BRACE	1
15	610079	RIGHT HYD MOTOR BRACE	1
16	W00101-02	1" COUPLER	2
17	200072	FLOOR SECTION	1
18	200013	FLASHING, FRONT	1
19	200022	STRAP FOR FRONT FLASHING	1
20	Z82-03-0620	BOLT, HEX, 3/8"-16 X 1-1/4" Z5	9
21	Z82-40-0606	NUT, HEX, 3/8" Z5	9
22	Z82-66-0606	WASHER, LOCK SPLIT, 3/8" Z5	9
23	Z82-60-0606	WASHER, FLAT, 3/8" Z5	18
24	Z82-01-0524	BOLT, CARRIAGE, 5/16"-18 X 1-1/2" Z5	30
25	Z82-66-0505	WASHER, LOCK SPLIT, 5/16" Z5	30
26	Z82-60-0505	WASHER, FLAT, 5/16" Z5	30
27	Z82-40-0505	NUT, HEX, 5/16"-18 Z5	30
28	Z82-03-0820	BOLT, HEX, 1/2" X 1-1/4" Z5	12
29	Z82-66-0808	WASHER, LOCK SPLIT, 1/2" Z5	12
30	Z82-03-1024	BOLT, HEX, 5/8" X 1-1/2" Z5	8
31	Z82-60-1010	WASHER, FLAT, 5/8" Z5	8
32	Z82-66-1010	WASHER, LOCK SPLIT, 5/8" Z5	8
33	Z82-40-1010	NUT, HEX, 5/8" Z5	8
34	FAB K3838-2.00	3/8" SQR KEY 2" LONG	2
35	200033-01	REPLACEMENT APRON FLIGHT	1
36	C47-00-3122	MOTOR, HYD EATON 2000 SERIES 9.65 CIR 2-BOLT 1" KEYED, SIDE PORTS	2

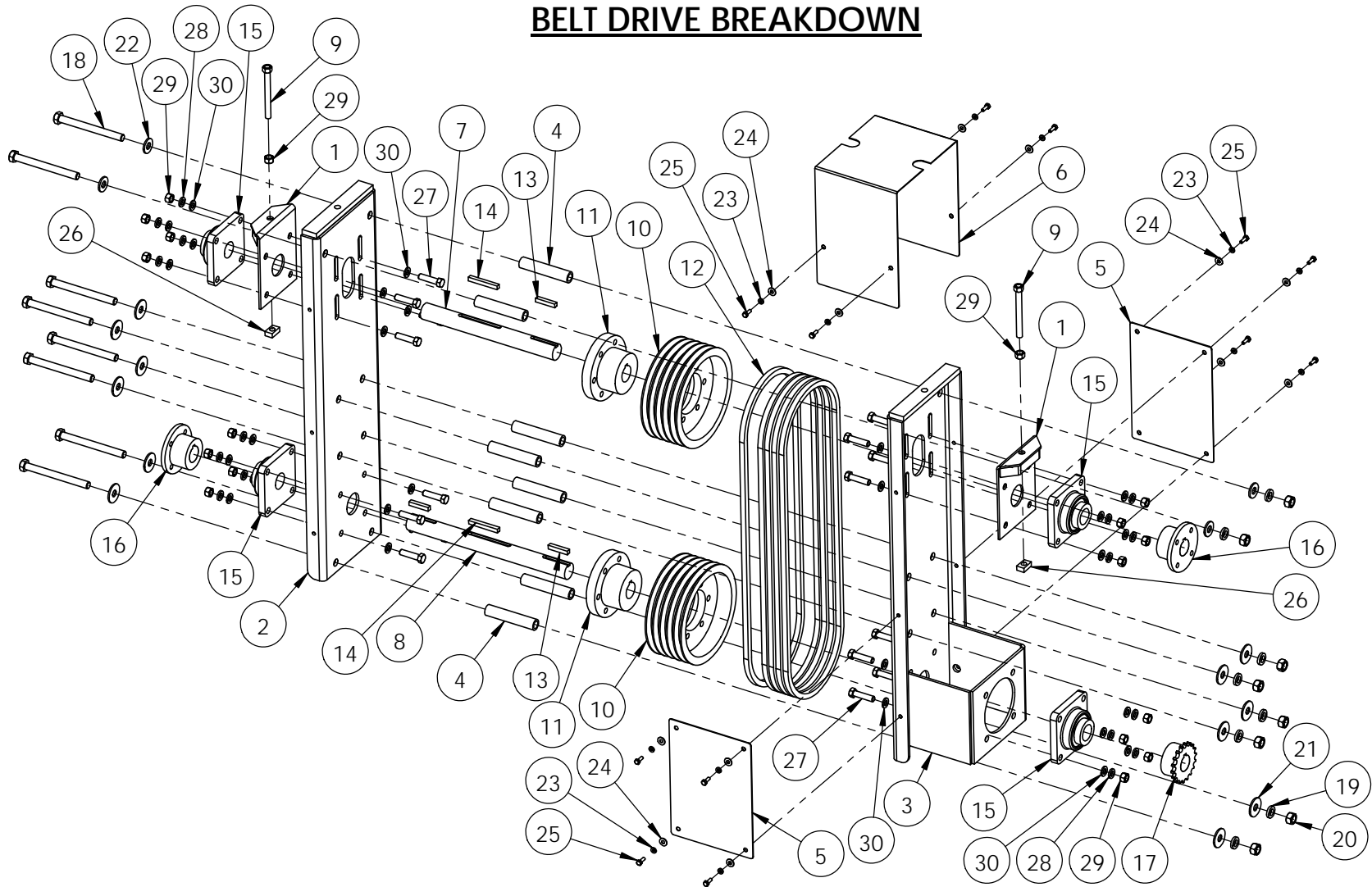
DRIVELINE BREAKDOWN



DRIVELINE PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	EXPLODED VIEW/QTY.
1	200121	DRIVE SHAFT	1
2	200170	DRIVE SHAFT EXT. (24' BOX)	1
3	200186	PUMP ADAPTER	1
4	160047 or 160048	REAR PTO SHAFT FOR 22' BOX OR 20' & 24' BOX	1
5	BELT DRIVE SYSTEM (VERSION 1)	5 V-BELT DRIVE	1
6	H75-01-8198	VERTICAL BEATER	1
7	K08-55-1027	BEARING, PILLOW BLOCK 1-1/2" W/LOCKING COLLAR (LOW HEIGHT)	6
8	FAB K3838-2	KEY, .38 X .38 X 2.0	4
9	O20-00-5042	COUPLER, 1-1/2" ROUND	1
10	O66-05-5047	PTO, YOKE 1-1/2" COMPANION FLANGE	3
11	O20-00-5050	COUPLER, 6018 COUPLER SPROCKET 1-1/4" BORE	1
12	O20-00-5051	COUPLER, 6018 COUPLER SPROCKET 1-1/2" BORE	1
13	O20-00-5052	COUPLER, CHAIN 6018 DOUBLE	1
14	O66-07-5063	PTO, CUSTOM DRIVE SHAFT MEASURING ____" FROM FACE TO FACE	2
15	C50-00-3110	PUMP, DOUBLE GEAR, 1800 RPM, P365	1
16	Z82-03-0720	BOLT, HEX, 7/16" X 1-1/4" Z5	12
17	Z82-46-0707	NUT, LOCK, NYLOCK, 7/16"	12
18	Z82-60-0808	WASHER, FLAT, 1/2" Z5	28
19	Z82-40-0808	NUT, HEX, 1/2" Z5	16
20	Z82-03-0832	BOLT, HEX, 1/2"-13 X 2" Z5	12
21	Z82-66-0808	WASHER, LOCK SPLIT, 1/2" Z5	16
22	Z82-03-0828	BOLT, HEX, 1/2" X 1-3/4" Z5	4
23	Z82-46-0606	NUT, LOCK, NYLOCK, 3/8"	2
24	Z85-03-0616	BOLT, HEX, 3/8"-16 X 1" Z8	2

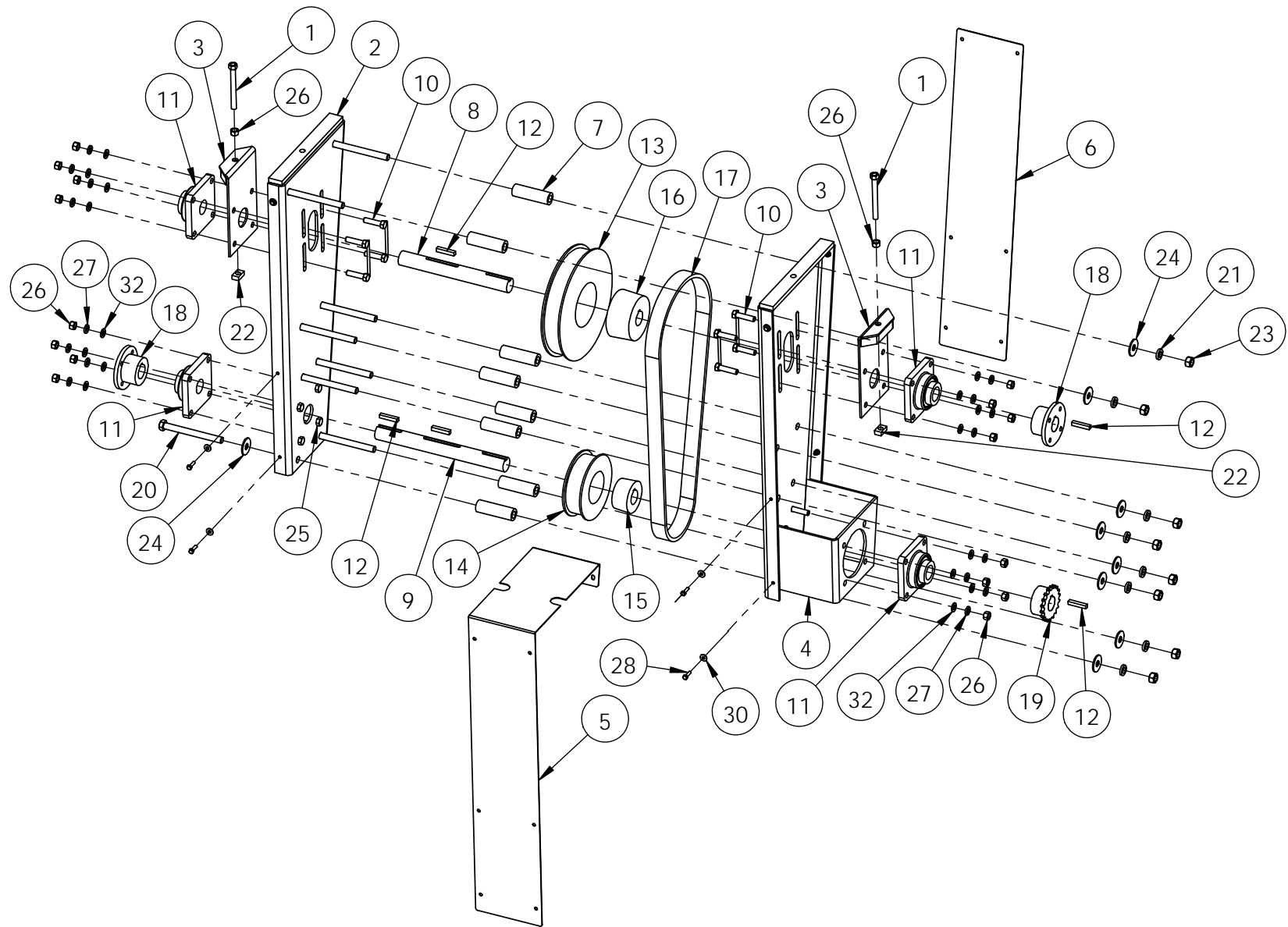
BELT DRIVE BREAKDOWN



BELT DRIVE PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	EXPLODED VIEW/QTY.
1	200107	BDS TAKE UP BRKT	2
2	200108	PULLEY MNT 1	1
3	200109	PULLEY MNT 2	1
4	200110	SPACER	8
5	200111	LOWER BELT DRIVE SHIELD	2
6	200112	TOP BELT DRIVE SHIELD	1
7	200115	TOP PULLEY SHAFT	1
8	200116	BOTTOM PULLEY SHAFT	1
9	200117	TAKE UP BOLT	2
10	M49-01-3024	PULLEY, 5 5V 925 E	2
11	M08-10-3079	BUSHING, 1-1/2" BORE, "E" QD	2
12	L09-00-2066	BELT, V POWER ACE COG 75" (BANDO)	5
13	FAB K3838-2	KEY, .38 X .38 X 2.0	3
14	FAB K3838-3	3/8"x 3/8" KEY, 3"	2
15	K08-03-1035	BEARING, FLANGE 4 BOLT, 1-1/2" W/LOCKING COLLAR	4
16	O66-05-5047	PTO, YOKE 1-1/2" COMPANION FLANGE	2
17	O20-00-5051	COUPLER, 6018 COUPLER SPROCKET 1-1/2" BORE	1
18	Z82-03-1068	BOLT, HEX, 5/8" X 6-1/2" Z5	8
19	Z82-66-1010	WASHER, LOCK SPLIT, 5/8 Z5	8
20	Z82-40-1010	NUT, HEX, 5/8" Z5	8
21	Z82-60-1010	WASHER, FLAT, 5/8" Z5	12
22	Z82-61-1012	WASHER, MACHINE, 5/8" X 12 GA	4
23	Z82-66-0404	WASHER, LOCK SPLIT, 1/4" Z5	12
24	Z82-60-0404	WASHER, FLAT, 1/4" Z5	12
25	Z82-03-0412	BOLT, HEX, 1/4" X 3/4" Z5	12
26	Z82-49-0826	NUT, CHANNEL , 1/2"-13 X 1-5/8" LONG	2
27	Z82-03-0832	BOLT, HEX, 1/2"-13 X 2" Z5	16
28	Z82-66-0808	WASHER, LOCK SPLIT, 1/2" Z5	16
29	Z82-40-0808	NUT, HEX, 1/2" Z5	18
30	Z82-61-0918	WASHER, MACHINE, 9/16" NARROW RIM 18 GA	32

BELT DRIVE BREAKDOWN (37MM)

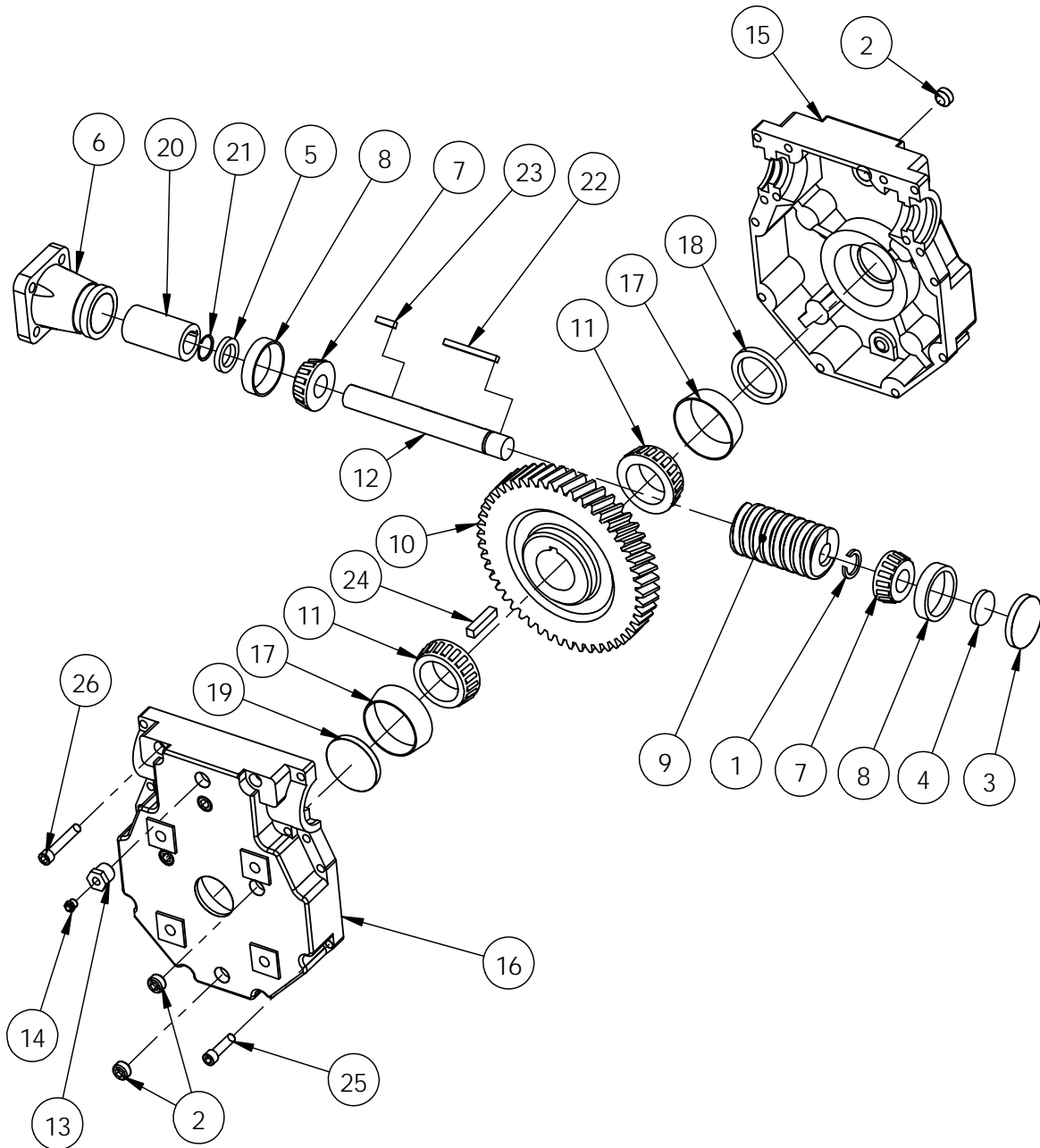


BELT DRIVE PARTS LIST (37MM)

ITEM NO.	PART NUMBER	DESCRIPTION	Explode View/QTY.
1	200117	TAKE UP BOLT	2
2	200123	FRONT PANEL ASSY (POLY CHAIN)	1
3	200124	TAKE UP PLATE (POLY CHAIN)	2
4	200125	REAR PANEL ASSY (POLY CHAIN)	1
5	200192	BENT SHIELD (POLY CHAIN)	1
6	200193	FLAT SHIELD (POLY CHAIN)	1
7	200194	SPACER (POLY CHAIN)	8
8	200195	TOP PULLEY SHAFT (POLY CHAIN)	1
9	200196	BOTTOM PULLEY SHAFT (POLY CHAIN)	1
10	200203	BEARING BOLT ASSY	4
11	K08-03-1035	BEARING, FLANGE 4 BOLT, 1-1/2" W/LOCKING COLLAR	4
12	FAB K3838-2	KEY, .38 X .38 X 2.0	5
13	M49-01-3114	PULLEY, POLY CHAIN SPROCKET, 37MM	1
14	M49-01-3113	PULLEY, POLY CHAIN SPROCKET, 37MM	1
15	M49-01-3115	PULLEY, DRIVE PULLEY BUSHING, 1-1/2"	1
16	M49-01-3116	PULLEY, DRIVE PULLEY BUSHING, 1-1/2"	1
17	L09-00-2082	BELT, POLY CHAIN, 37MM X 1750MM	1
18	O66-05-5047	PTO, YOKE 1-1/2" COMPANION FLANGE	2
19	O20-00-5051	COUPLER, 6018 COUPLER SPROCKET 1-1/2" BORE	1
20	Z82-03-1068	BOLT, HEX, 5/8" X 6-1/2" Z5	8
21	Z82-66-1010	WASHER, LOCK SPLIT, 5/8" Z5	8
22	Z82-49-0826	NUT, CHANNEL , 1/2"-13 X 1-5/8" LONG	2
23	Z82-40-1010	NUT, HEX, 5/8" Z5	8
24	Z82-60-1010	WASHER, FLAT, 5/8" Z5	16
25	Z82-03-0832	BOLT, HEX, 1/2"-13 X 2" GRD 5	8
26	Z82-40-0808	NUT, HEX, 1/2" Z5	18
27	Z82-66-0808	WASHER, LOCK SPLIT, 1/2" Z5	16
28	Z82-03-0416	BOLT, HEX, 1/4" X 1" Z5	12
29	Z82-66-0404	WASHER, LOCK SPLIT, 1/4" Z5	12
30	Z82-60-0404	WASHER, FLAT, 1/4" Z5	12
31	Z82-40-0404	NUT, HEX, 1/4" Z5	12
32	Z82-61-0918	WASHER, MACHINE, 9/16" NARROW RIM 18 GA	16

WORM GEAR BREAKDOWN

(Superior Gear Box)

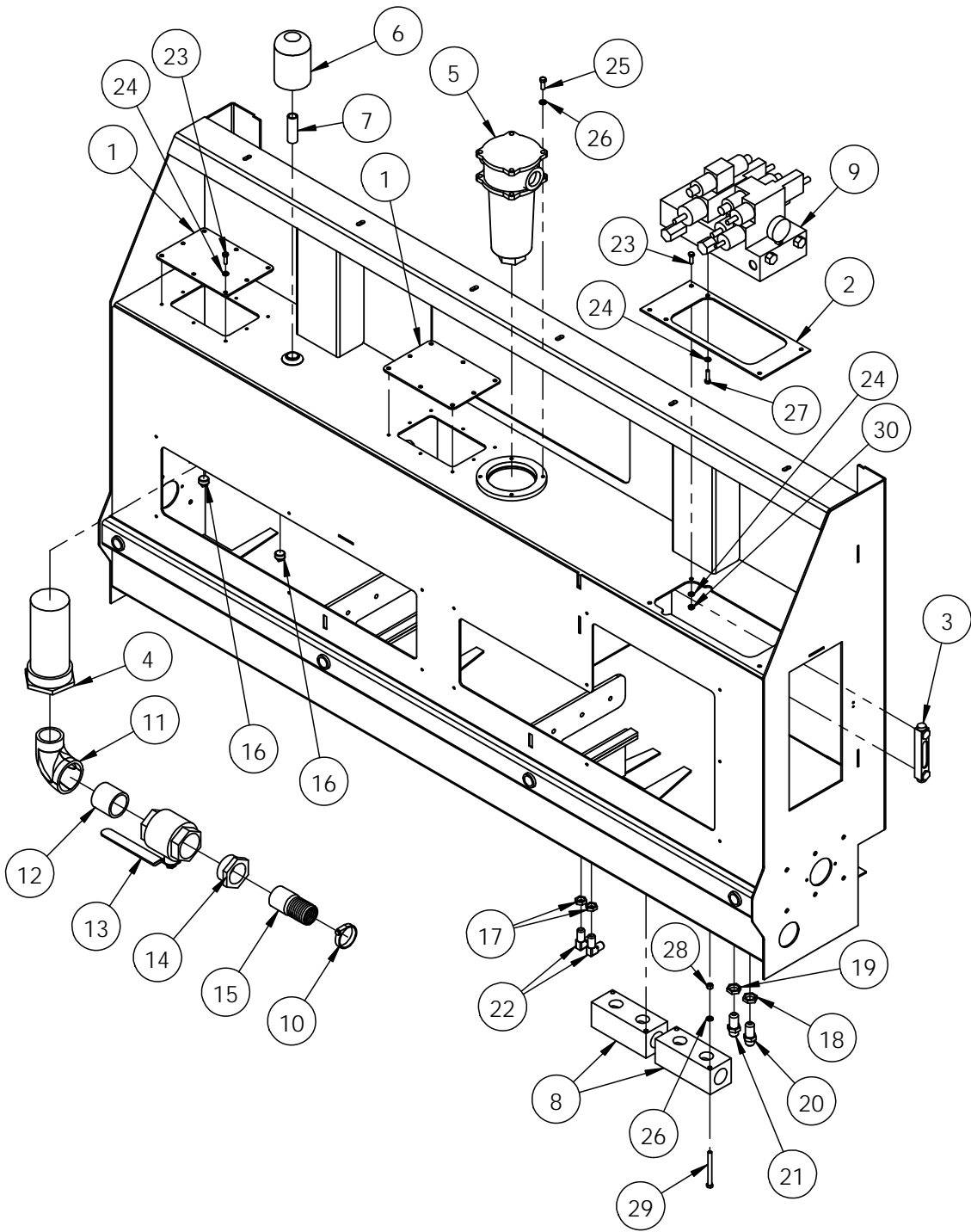


WORM GEAR BREAKDOWN PARTS LIST

(Superior Gear Box)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	203293	RETAINING RING, EXT 1.00 SHFT	1
2	400300	PLUG, 1/2-14 NPT SCHD W/3M	9
3	W26231	END CAP, CP-2.312-.313 D.#0049	1
4	200301	END CAP, CP-1.50-.25 D.#0653	1
5	209843	SEAL, 1.00-1.49-.25 (R) TC	1
6	WH3254-01	ADAPTER, HYD 4-BOLT 3/8-THRU	1
7	W15101	BEARING, CONE 1.00 VN-15101	2
8	W15245	BEARING, CUP 2.4409 VN-15245	2
9	W26R02-01	GEAR, WORM ROLLED 2-L RH 25:1	1
10	W26R25-0	GEAR, WORM 25:1 RH 2.00 3/8 KW	1
11	804949	BEARING, CONE TMKN# LM104949	2
12	W00100-03	SHAFT, WORM W00100	1
13	4003VB	BUSHING, 1/2-14 NPT TO 1/8 NPT	1
14	2003PR	PLUG, VENT 5PSI V/N 005677	1
15	W00001-0	CASTING, MACH W260 TAP STAND	1
16	W00002-0	CASTING, MACH W260 THRU STAND	1
17	804911	BEARING, CUP TMKN# LM104911	2
18	819762	SEAL, 2.00-2.623-.312 (R) TC	1
19	W26262	END CAP, CP-2.312-.313 D.#0049	1
20	W00101-02	COUPLER	1
21	W50001	RETAINING RING, INT 1.00 BORE	1
22	W00200	KEY, 1/4 x 1/4, 2.731	1
23	200200	KEY, 1/4 x 1/4, .930	1
24	W00201	KEY, 3/8 x 3/8, 1.80	1
25	SC-38-1.5	3/8" SOCKET HEAD CAP SCREW, 1.5"	10
26	SC-38-2.25	3/8" SOCKET HEAD CAP SCREW, 2.25"	4

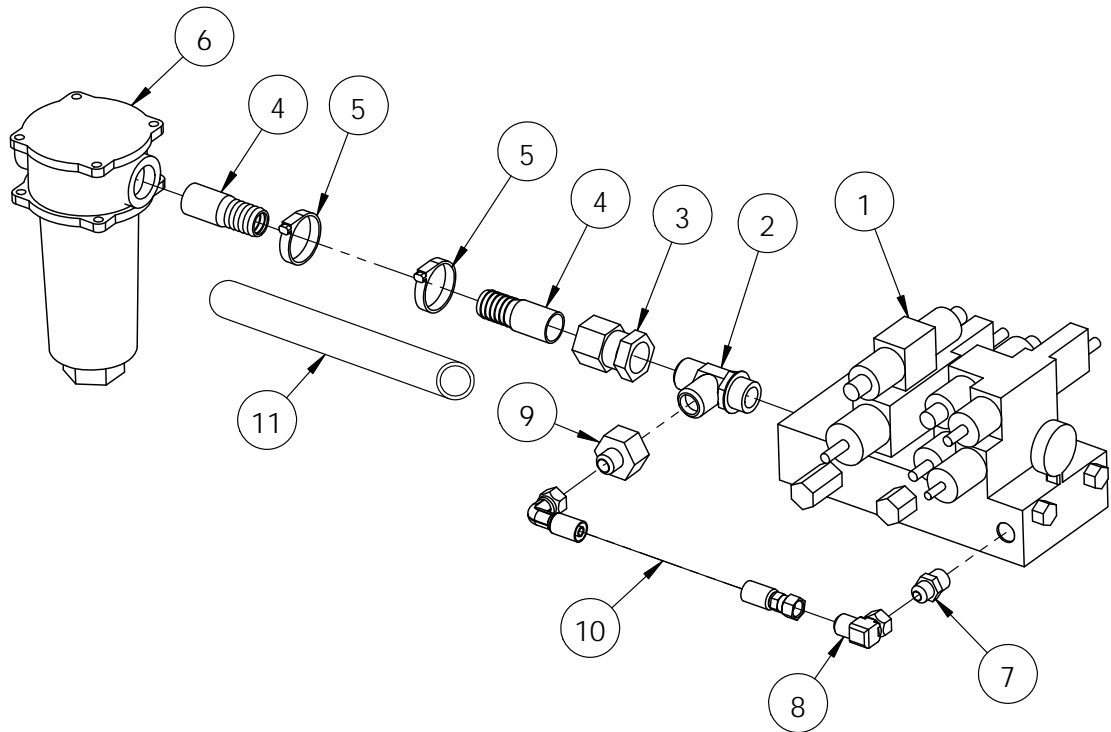
HYDRAULIC TANK BREAKDOWN



HYDRAULIC TANK PARTS LIST

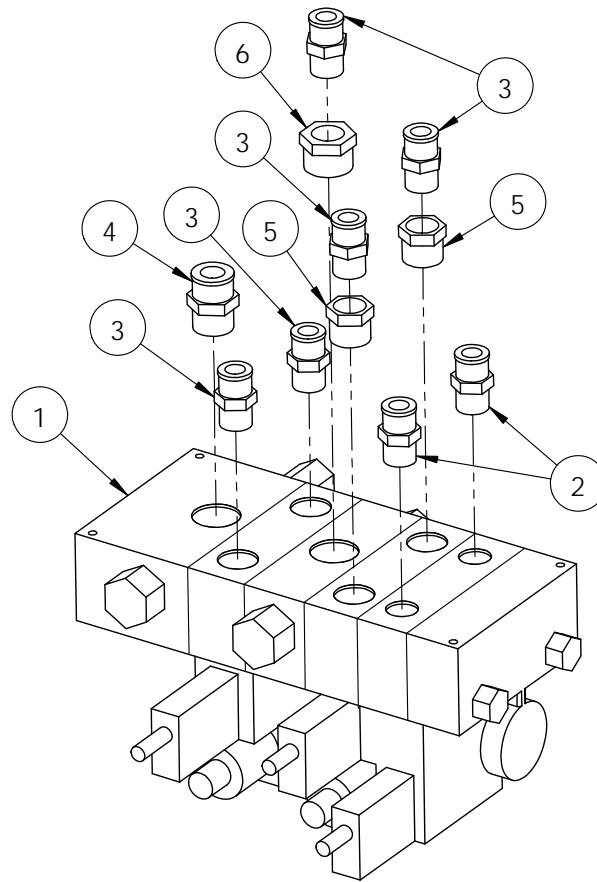
ITEM NO.	PART NUMBER	DESCRIPTION	Tank Breakdown/QTY.
1	200007	SHEET,TANK COVER	2
2	200122	VALVE BODY ADAPTER PLATE	1
3	C34-01-3117	GAUGE, SIGHT/TEMP 5" METRIC THREAD BLACK ANODIZED	1
4	C28-01-3132	TANK, HYD STRAINER, 4" x 2-1/2" STEEL WITH BYPASS	1
5	C28-01-3131	TANK, HYD MOUNTED FILTER WITH SYNTHETIC ELEMENT AA# 5931	1
6	C28-01-3100	FILTER, HYD BREATHER	1
7	C28-02-3129	TANK, HYD BREATHER ADAPTOR	1
8	C46-00-3120	MANIFOLD BLOCK DAMAN	2
9	C67-08-3114	VALVE, HYD 3 BANK 40/21/7 ADD-A-FOLD	1
10	J14-00-0081	CLAMP, HOSE 2"	1
11	T21-26-3636	ELBOW, BLACK, 90, STR 2-1/2"	1
12	T21-02-3600	NIPPLE, BLK, 2-1/2" X CLOSE	1
13	T71-60-3636	BALL VALVE, BRASS, 2-1/2" STD PORT	1
14	T51-16-3632	BUSHING, Z/HP, 2-1/2" X 2"	1
15	T81-03-3232	NIPPLE, PLATED, KING, 2"	1
16	T51-86-1212	PLUG, MAGNETIC, 3/4"	2
17	T52-90-0606	BULKHEAD, ADAPTER NUT 9/16"-18	2
18	T52-90-1212	BULKHEAD, ADAPTER NUT 1-1/16"-12	1
19	T52-90-1616	BULKHEAD, ADAPTER NUT 1-5/16"-12	1
20	T52-76-1212	BULKHEAD, ADAPTER 1-1/6"-12 X 1-1/16"-12 MALE FLARE 37 DEG	1
21	T52-76-1616	BULKHEAD, ADAPTER 1-5/16"-12 X 1-5/16"-12 MALE FLARE 37 DEG DEG	1
22	T52-77-0606	BULKHEAD, 90 DEGREE 9/16"-18 X 9/16"-18	2
23	Z82-03-0516	BOLT, HEX, 5/16" X 1" Z5	18
24	Z82-66-0505	WASHER, LOCK SPLIT, 5/16 Z5	22
25	Z82-03-0616	BOLT, HEX, 3/8"-16 X 1-1/4" Z5	4
26	Z82-66-0606	WASHER, LOCK SPLIT, 3/8" Z5	8
27	Z82-03-0520	BOLT, HEX, 5/16" X 1-1/4" Z5	4
28	Z82-40-0606	NUT, HEX, 3/8" Z5	4
29	Z82-03-0648	BOLT, HEX, 3/8" X 4" Z5	4
30	Z82-40-0505	NUT, HEX, 5/16"-18 Z5	2

UPPER VALVE HYDRAULIC BREAKDOWN



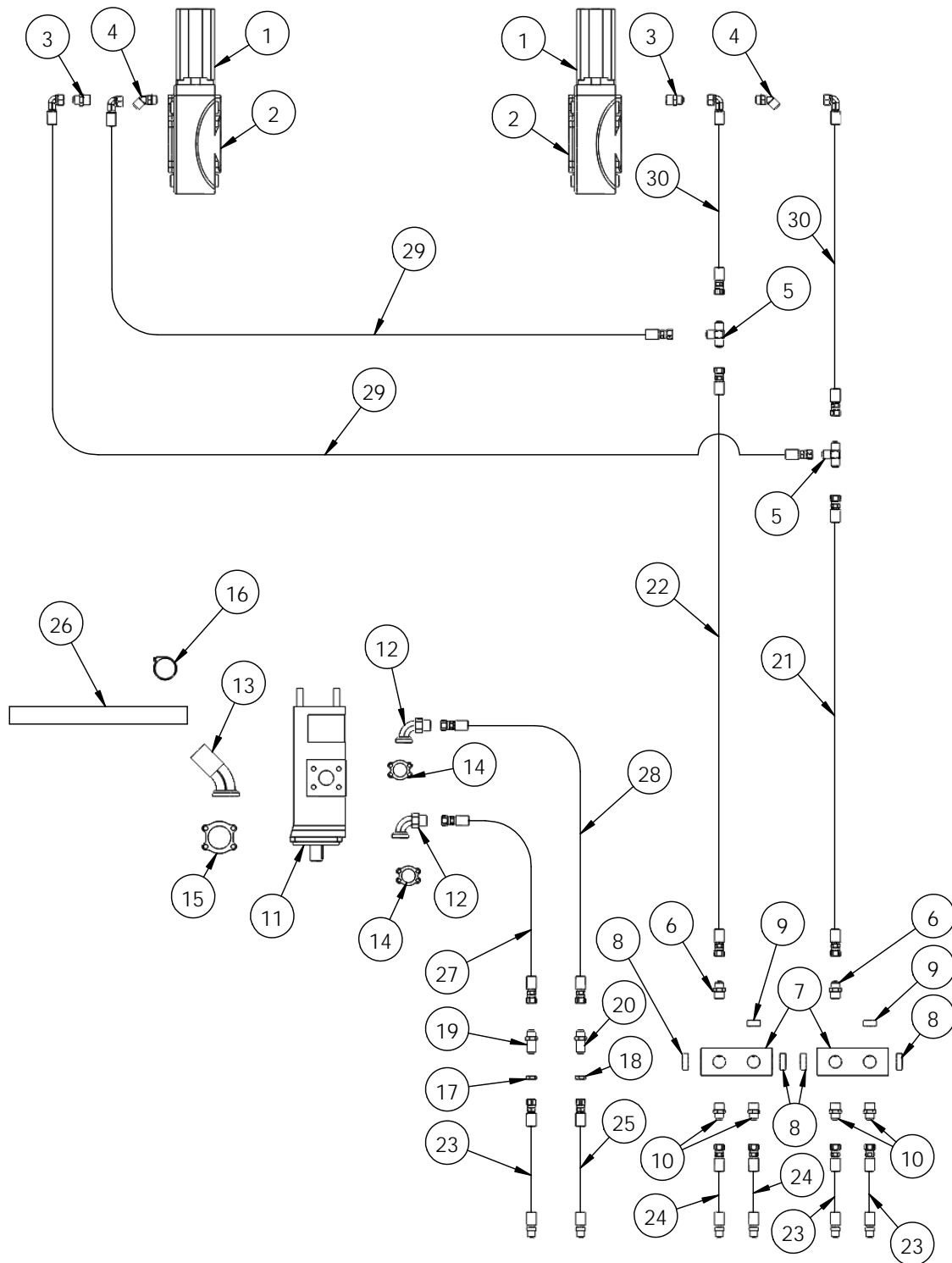
ITEM NO.	PART NUMBER	DESCRIPTION	UPPER VALVE/QTY.
1	C67-08-3114	VALVE, HYD 3 BANK 40/21/7 ADD-A-FOLD	1
2	T53-42-2020	TEE, HYD, #20 MALE JIC X #20 MALE JIC #20 MALE ORING	1
3	T54-44-2020	ADAPTER, HYD, #20 FEMALE SWIVEL FLARE X 1-1/4" FEMALE PIPE	1
4	T81-03-2020	NIPPLE, PLATED, KING, 1-1/4"	2
5	J14-00-0080	CLAMP, HOSE 1-1/4"	2
6	C28-01-3131	TANK, HYD MOUNTED FILTER WITH SYNTHETIC ELEMENT AA# 5931	1
7	T53-46-1216	CONNECTOR, HYD, #12 MALE JIC X #16 MALE ORING, STR THREAD	1
8	T52-27-1212	ADAPTER, HYD, 1-1/16"-12 X 1-1/16"-12 SWIVEL NUT ELBOW	1
9	T52-14-2012	REDUCER, HYD, 1-1/4" FEMALE JIC X 3/4" MALE JIC	1
10	200211	HOSE, RELIEF ACROSS CONTROL VALVE	1
11	200212	HOSE, RETURN LINE FROM VALVE TO FILTER	1

LOWER VALVE HYDRAULIC BREAKDOWN



ITEM NO.	PART NUMBER	DESCRIPTION	LOWER VALVE/QTY.
1	C67-08-3114	VALVE, HYD 3 BANK 40/21/7 ADD-A-FOLD	1
2	T60-47-0810	COUPLER, #10 MALE ORB X #8 FEMALE STC	2
3	T60-47-1212	COUPLER, #12 MALE ORB X #12 FEMALE STC	5
4	T60-47-1616	COUPLER, #16 MALE ORB X #16 FEMALE STC	1
5	T55-47-1012	REDUCER, HYD, #10 MALE ORING X #12 FEMALE O-RING	2
6	T55-47-1612	REDUCER, HYD, #16 MALE ORING X #12 FEMALE ORING	1

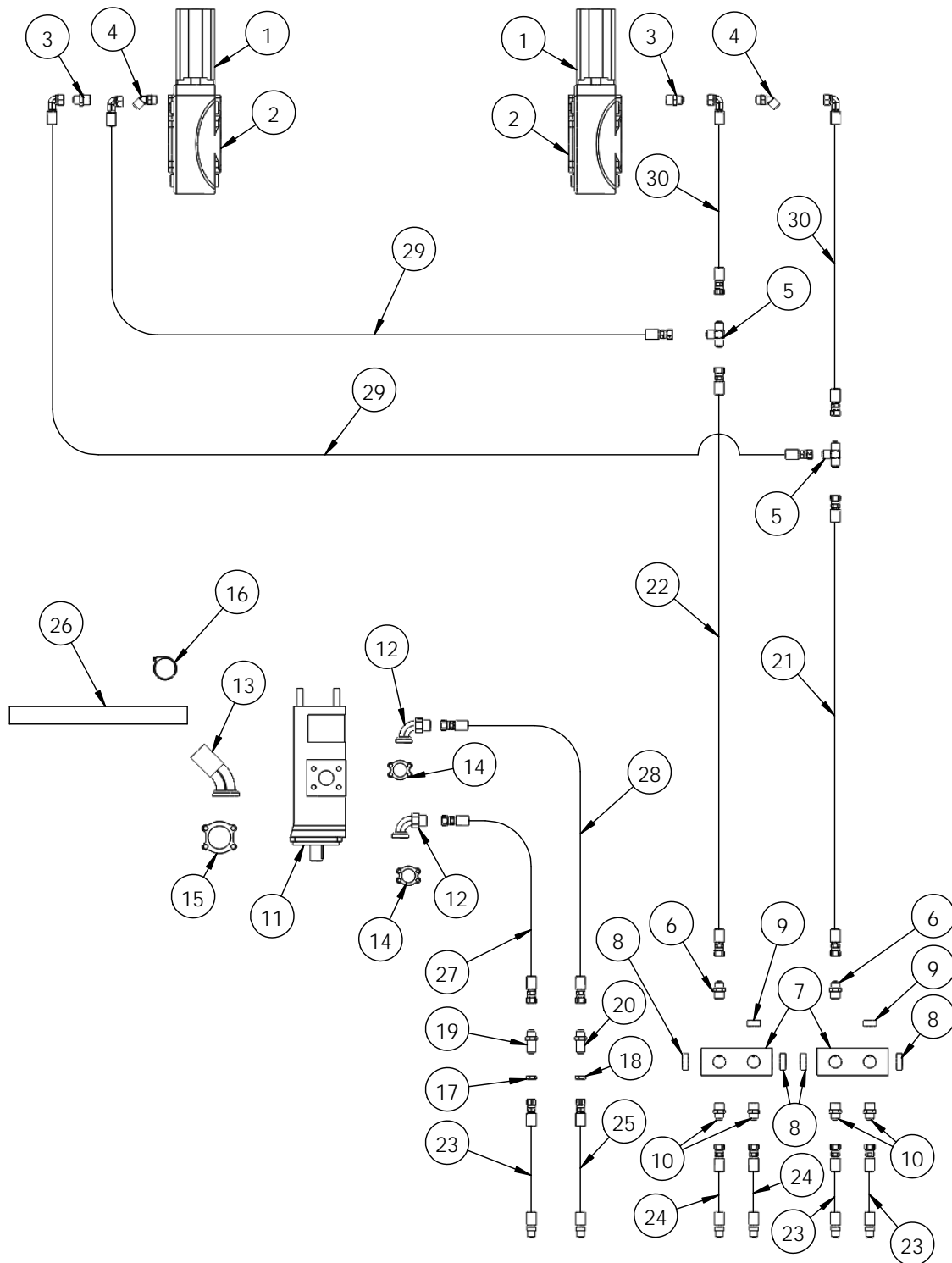
20' BOX APRON HYDRAULICS BREAKDOWN



20' BOX APRON HYDRAULICS PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C47-00-3122	MOTOR, HYD EATON 2000 SERIES 9.65 CIR 2-BOLT 1" KEYED, SIDE PORTS	2
2	O74-01-5069	GEARBOX, BERMA, RIGHT ANGLE	2
3	T53-46-1010	CONNECTOR, HYD, #10 MALE JIC X #10 MALE ORING, STR THREAD	2
4	T53-20-1010	90 ELBOW, 7/8-14, M-FLARE x M-"O" RING	2
5	T52-36-1616	TEE, HYD, #16 MALE JIC	2
6	T53-46-1616	CONNECTOR, HYD, #16 MALE JIC X #16 MALE ORING, STR THREAD	2
7	C46-00-3120	MANIFOLD BLOCK DAMAN	2
8	T55-84-2000	PLUG, HEX, 1-5/8"-12 ORING	4
9	T55-84-1600	PLUG, HEX, 1-5/16"-12 ORING	2
10	T53-46-1216	CONNECTOR, HYD, #12 MALE JIC X #16 MALE ORING, STR THREAD	4
11	C50-00-3110	PUMP, DOUBLE GEAR, 1800 RPM, P365	1
12	T99-26-1616	ELBOW, 90, ADAPTER, HYD, #16 SPLIT FLANGE X #16 JIC MALE	2
13	T99-20-3232	ELBOW, 45, STR #20 FLANGE X 2" HOSE BARB	1
14	T99-99-1600	FLANGE KIT, HYD, #16 SPLIT	2
15	T99-99-3200	FLANGE KIT, HYD, #16 SPLIT	1
16	J14-00-0081	CLAMP, HOSE 2"	1
17	T52-90-1212	BULKHEAD, ADAPTER NUT 1-1/16"-12	1
18	T52-90-1616	BULKHEAD, ADAPTER NUT 1-5/16"-12	1
19	T52-76-1212	BULKHEAD, ADAPTER 1-1/6"-12 X 1-1/16"-12 MALE FLARE 37 DEG	1
20	T52-76-1616	BULKHEAD, ADAPTER 1-5/16"-12 X 1-5/16"-12 MALE FLARE 37 DEG DEG	1
21	200204	HOSE, OUTER DAMAN MANIFOLD TO TEE	1
22	200205	HOSE, INNER DAMAN MANIFOLD TO TEE	1
23	200208	HOSE, VALVE TO DAMAN MANIFOLD AND PRESSURE LINE FROM VALVE TO BULKHEAD	3
24	200209	HOSE, VALVE TO DAMAN MANIFOLD	2
25	200210	HOSE, SUPPLY FROM BULKHEAD TO VALVE	1
26	200213	HOSE, SUCTION FROM TANK TO PUMP	1
27	200214	HOSE, PRESSURE FROM PUMP TO BULKHEAD	1
28	200215	HOSE, PRESSURE FROM PUMP TO BULKHEAD	1
29	200216	HOSE, TEE TO APRON MOTOR (RIGHT SIDE)	2
30	200217	HOSE, TEE TO APRON MOTOR (LEFT SIDE)	2

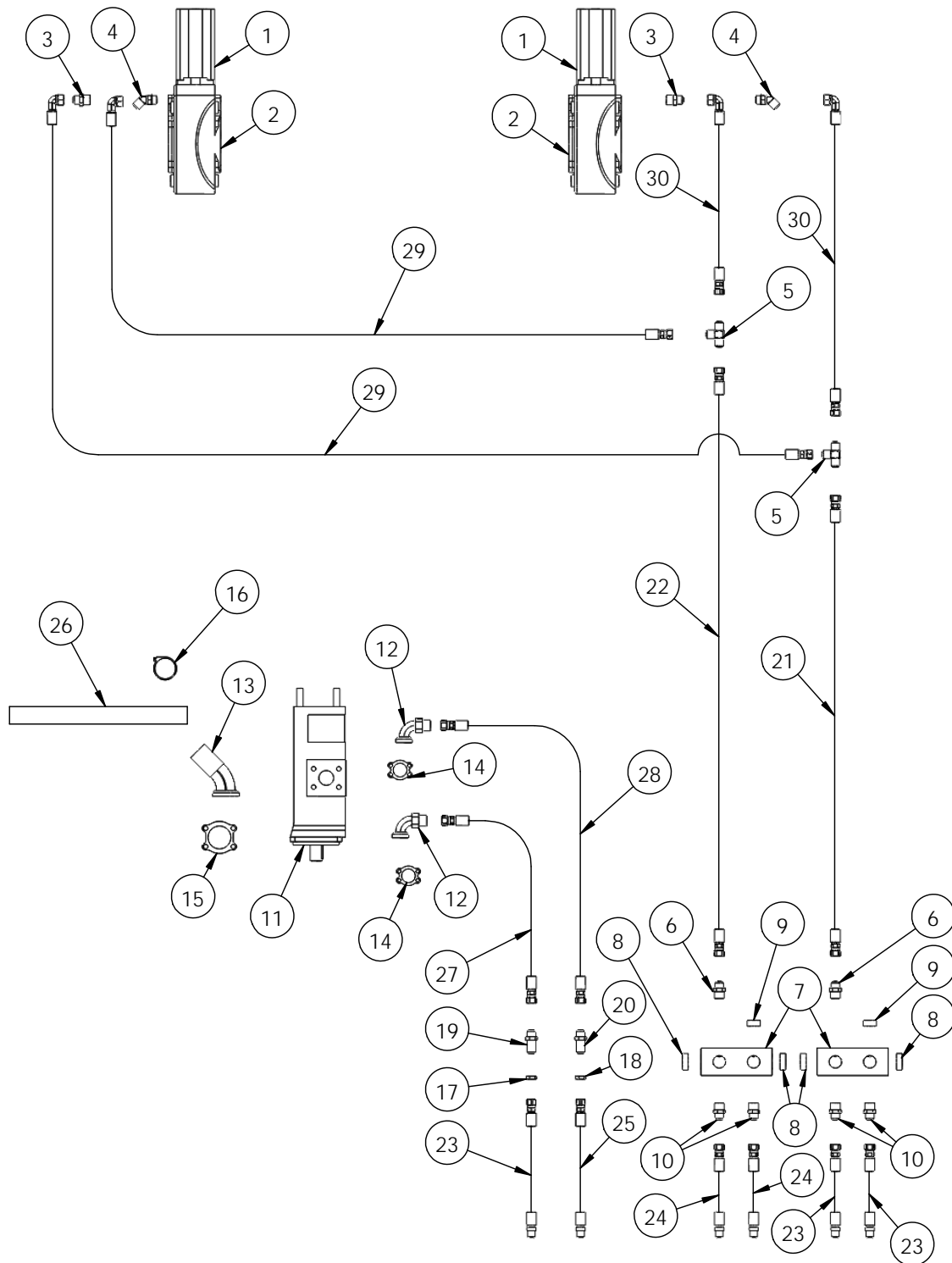
22' BOX APRON HYDRAULICS BREAKDOWN



22' BOX APRON HYDRAULICS PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C47-00-3122	MOTOR, HYD EATON 2000 SERIES 9.65 CIR 2-BOLT 1" KEYED, SIDE PORTS	2
2	O74-01-5069	GEARBOX, BERMA, RIGHT ANGLE	2
3	T53-46-1010	CONNECTOR, HYD, #10 MALE JIC X #10 MALE ORING, STR THREAD	2
4	T53-20-1010	90 ELBOW, 7/8-14, M-FLARE x M-"O" RING	2
5	T52-36-1616	TEE, HYD, #16 MALE JIC	2
6	T53-46-1616	CONNECTOR, HYD, #16 MALE JIC X #16 MALE ORING, STR THREAD	2
7	C46-00-3120	MANIFOLD BLOCK DAMAN	2
8	T55-84-2000	PLUG, HEX, 1-5/8"-12 ORING	4
9	T55-84-1600	PLUG, HEX, 1-5/16"-12 ORING	2
10	T53-46-1216	CONNECTOR, HYD, #12 MALE JIC X #16 MALE ORING, STR THREAD	4
11	C50-00-3110	PUMP, DOUBLE GEAR, 1800 RPM, P365	1
12	T99-26-1616	ELBOW, 90, ADAPTER, HYD, #16 SPLIT FLANGE X #16 JIC MALE	2
13	T99-20-3232	ELBOW, 45, STR #20 FLANGE X 2" HOSE BARB	1
14	T99-99-1600	FLANGE KIT, HYD, #16 SPLIT	2
15	T99-99-3200	FLANGE KIT, HYD, #16 SPLIT	1
16	J14-00-0081	CLAMP, HOSE 2"	1
17	T52-90-1212	BULKHEAD, ADAPTER NUT 1-1/16"-12	1
18	T52-90-1616	BULKHEAD, ADAPTER NUT 1-5/16"-12	1
19	T52-76-1212	BULKHEAD, ADAPTER 1-1/6"-12 X 1-1/16"-12 MALE FLARE 37 DEG	1
20	T52-76-1616	BULKHEAD, ADAPTER 1-5/16"-12 X 1-5/16"-12 MALE FLARE 37 DEG DEG	1
21	200204	HOSE, OUTER DAMAN MANIFOLD TO TEE	1
22	200205	HOSE, INNER DAMAN MANIFOLD TO TEE	1
23	200208	HOSE, VALVE TO DAMAN MANIFOLD AND PRESSURE LINE FROM VALVE TO BULKHEAD	3
24	200209	HOSE, VALVE TO DAMAN MANIFOLD	2
25	200210	HOSE, SUPPLY FROM BULKHEAD TO VALVE	1
26	200213	HOSE, SUCTION FROM TANK TO PUMP	1
27	200214	HOSE, PRESSURE FROM PUMP TO BULKHEAD	1
28	200215	HOSE, PRESSURE FROM PUMP TO BULKHEAD	1
29	200222	HOSE, TEE TO APRON MOTOR (RIGHT SIDE)	2
30	200223	HOSE, TEE TO APRON MOTOR (LEFT SIDE)	2

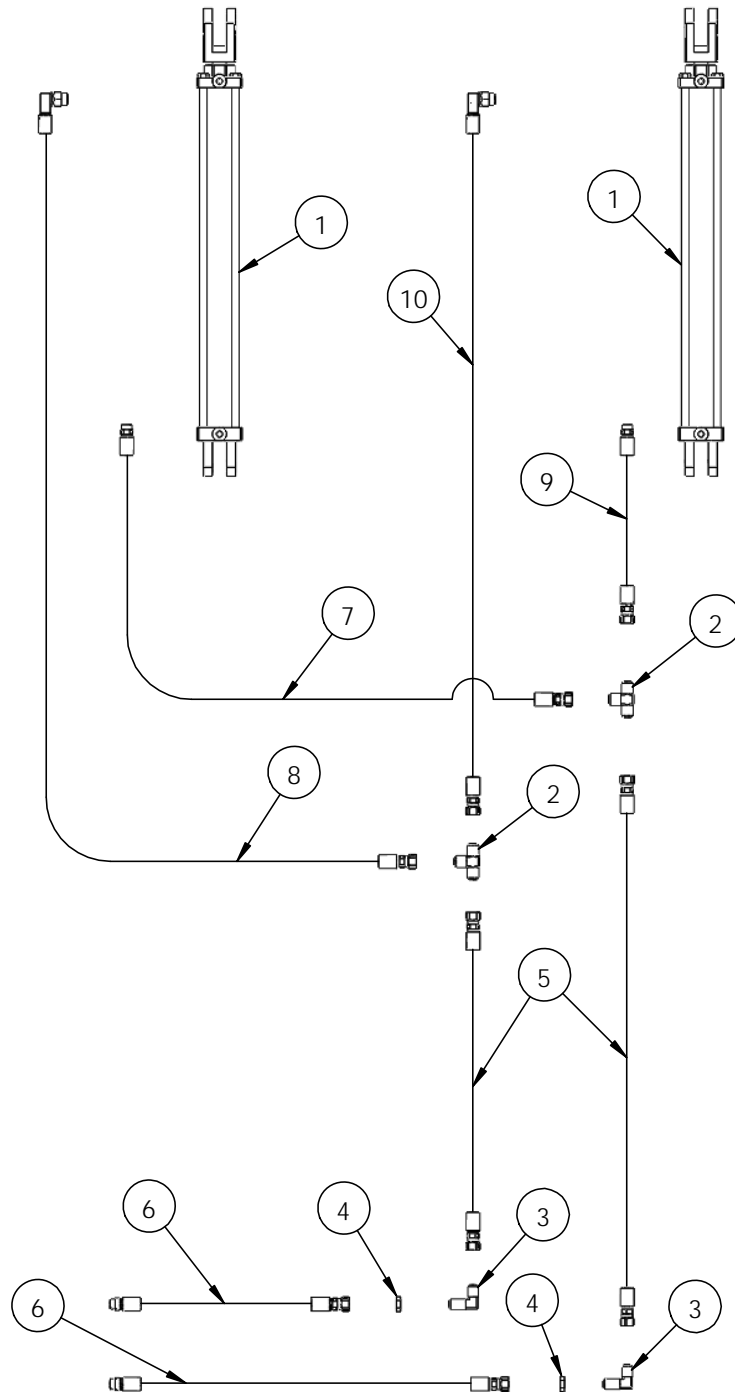
24' BOX APRON HYDRAULICS BREAKDOWN



24' BOX APRON HYDRAULICS PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C47-00-3122	MOTOR, HYD EATON 2000 SERIES 9.65 CIR 2-BOLT 1" KEYED, SIDE PORTS	2
2	O74-01-5069	GEARBOX, BERMA, RIGHT ANGLE	2
3	T53-46-1010	CONNECTOR, HYD, #10 MALE JIC X #10 MALE ORING, STR THREAD	2
4	T53-20-1010	90 ELBOW, 7/8-14, M-FLARE x M-"O" RING	2
5	T52-36-1616	TEE, HYD, #16 MALE JIC	2
6	T53-46-1616	CONNECTOR, HYD, #16 MALE JIC X #16 MALE ORING, STR THREAD	2
7	C46-00-3120	MANIFOLD BLOCK DAMAN	2
8	T55-84-2000	PLUG, HEX, 1-5/8"-12 ORING	4
9	T55-84-1600	PLUG, HEX, 1-5/16"-12 ORING	2
10	T53-46-1216	CONNECTOR, HYD, #12 MALE JIC X #16 MALE ORING, STR THREAD	4
11	C50-00-3110	PUMP, DOUBLE GEAR, 1800 RPM, P365	1
12	T99-26-1616	ELBOW, 90, ADAPTER, HYD, #16 SPLIT FLANGE X #16 JIC MALE	2
13	T99-20-3232	ELBOW, 45, STR #20 FLANGE X 2" HOSE BARB	1
14	T99-99-1600	FLANGE KIT, HYD, #16 SPLIT	2
15	T99-99-3200	FLANGE KIT, HYD, #16 SPLIT	1
16	J14-00-0081	CLAMP, HOSE 2"	1
17	T52-90-1212	BULKHEAD, ADAPTER NUT 1-1/16"-12	1
18	T52-90-1616	BULKHEAD, ADAPTER NUT 1-5/16"-12	1
19	T52-76-1212	BULKHEAD, ADAPTER 1-1/6"-12 X 1-1/16"-12 MALE FLARE 37 DEG	1
20	T52-76-1616	BULKHEAD, ADAPTER 1-5/16"-12 X 1-5/16"-12 MALE FLARE 37 DEG DEG	1
21	200204	HOSE, OUTER DAMAN MANIFOLD TO TEE	1
22	200205	HOSE, INNER DAMAN MANIFOLD TO TEE	1
23	200208	HOSE, VALVE TO DAMAN MANIFOLD AND PRESSURE LINE FROM VALVE TO BULKHEAD	3
24	200209	HOSE, VALVE TO DAMAN MANIFOLD	2
25	200210	HOSE, SUPPLY FROM BULKHEAD TO VALVE	1
26	200213	HOSE, SUCTION FROM TANK TO PUMP	1
27	200214	HOSE, PRESSURE FROM PUMP TO BULKHEAD	1
28	200215	HOSE, PRESSURE FROM PUMP TO BULKHEAD	1
29	200228	HOSE, TEE TO APRON MOTOR (RIGHT SIDE)	2
30	200229	HOSE, TEE TO APRON MOTOR (LEFT SIDE)	2

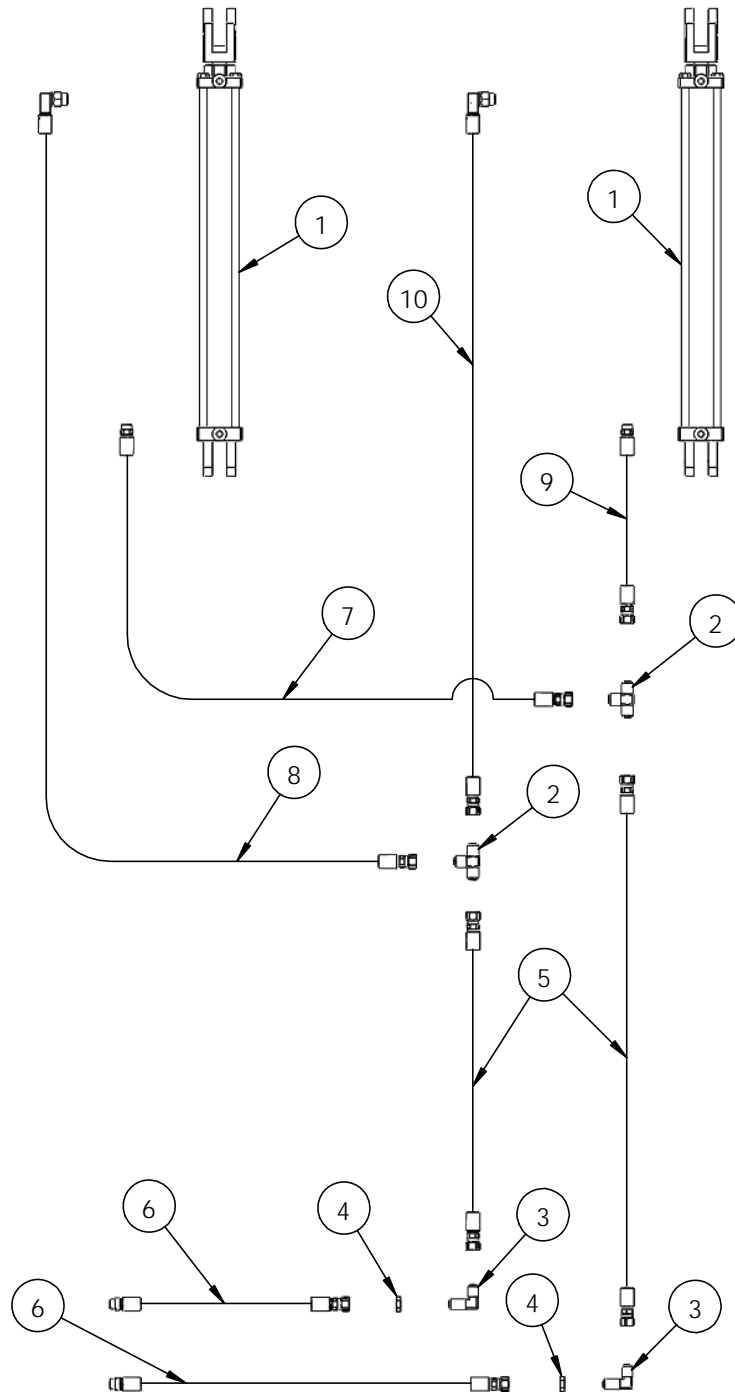
20'-22' SLOP GATE HYDRAULICS BREAKDOWN



20'-22' SLOP GATE HYDRAULICS PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C21-01-3116	CYLINDER, HYD 2" X 24" STROKE	2
2	T52-36-0606	TEE, HYD, #6 MALE JIC	2
3	T52-77-0606	BULKHEAD, 90 DEGREE 9/16"-18 X 9/16"-18	2
4	T52-90-0606	BULKHEAD, ADAPTER NUT 9/16"-18	2
5	200206	HOSE, BULKHEAD TO TEE	2
6	200207	HOSE, BULKHEAD TO VALVE	2
7	200218	HOSE, TEE TO LOWER CYLINDER PORT (RIGHT SIDE)	1
8	200219	HOSE, TEE TO UPPER CYLINDER PORT (RIGHT SIDE)	1
9	200220	HOSE, TEE TO LOWER CYLINDER PORT (LEFT SIDE)	1
10	200221	HOSE, TEE TO UPPER CYLINDER PORT (LEFT SIDE)	1

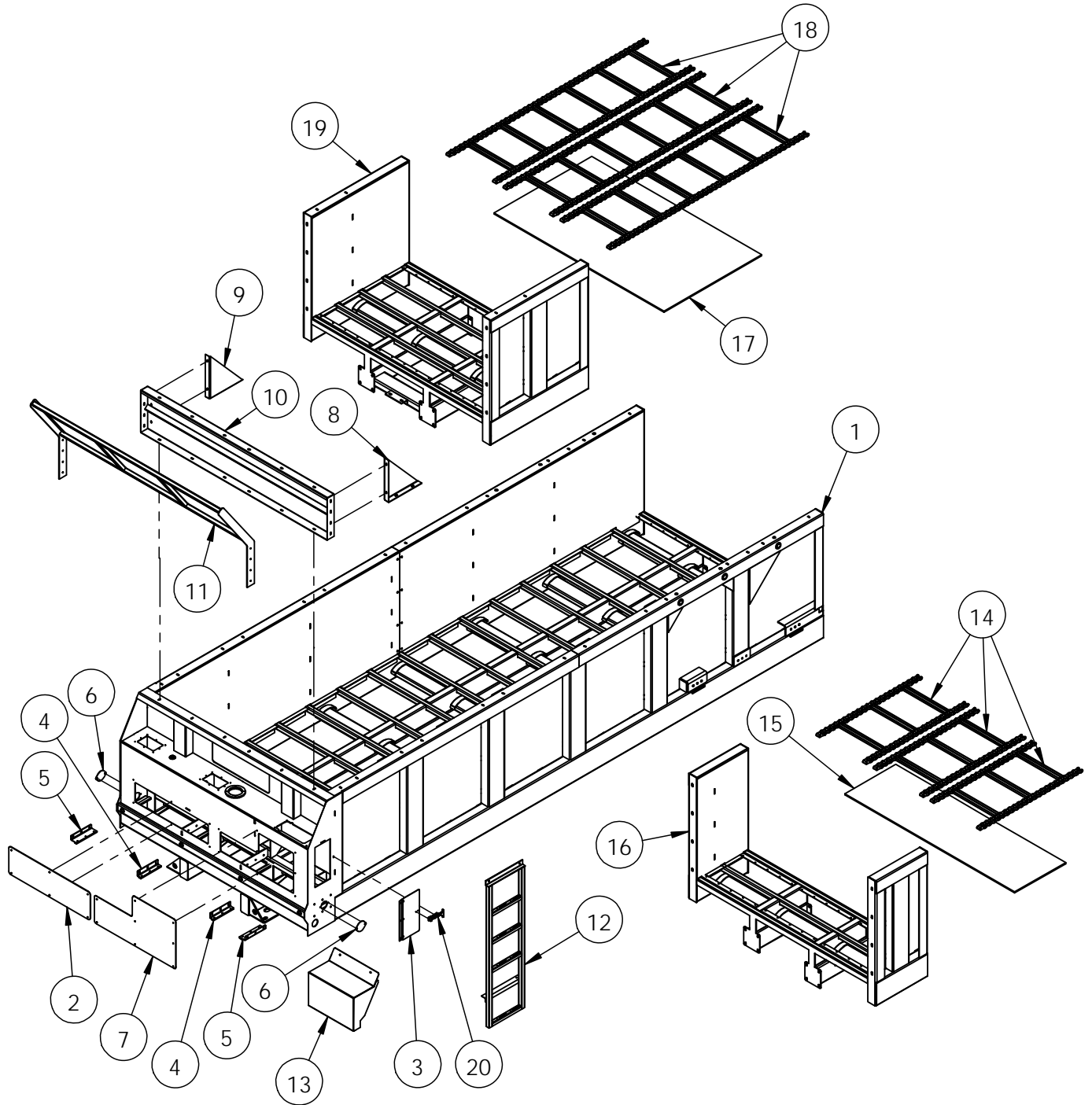
24' SLOP GATE HYDRAULICS BREAKDOWN



24' SLOP GATE HYDRAULICS PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C21-01-3116	CYLINDER, HYD 2" X 24" STROKE	2
2	T52-36-0606	TEE, HYD, #6 MALE JIC	2
3	T52-77-0606	BULKHEAD, 90 DEGREE 9/16"-18 X 9/16"-18	2
4	T52-90-0606	BULKHEAD, ADAPTER NUT 9/16"-18	2
5	200206	HOSE, BULKHEAD TO TEE	2
6	200207	HOSE, BULKHEAD TO VALVE	2
7	200230	HOSE, TEE TO LOWER CYLINDER PORT (RIGHT SIDE)	1
8	200231	HOSE, TEE TO UPPER CYLINDER PORT (RIGHT SIDE)	1
9	200232	HOSE, TEE TO LOWER CYLINDER PORT (LEFT SIDE)	1
10	200233	HOSE, TEE TO UPPER CYLINDER PORT (LEFT SIDE)	1

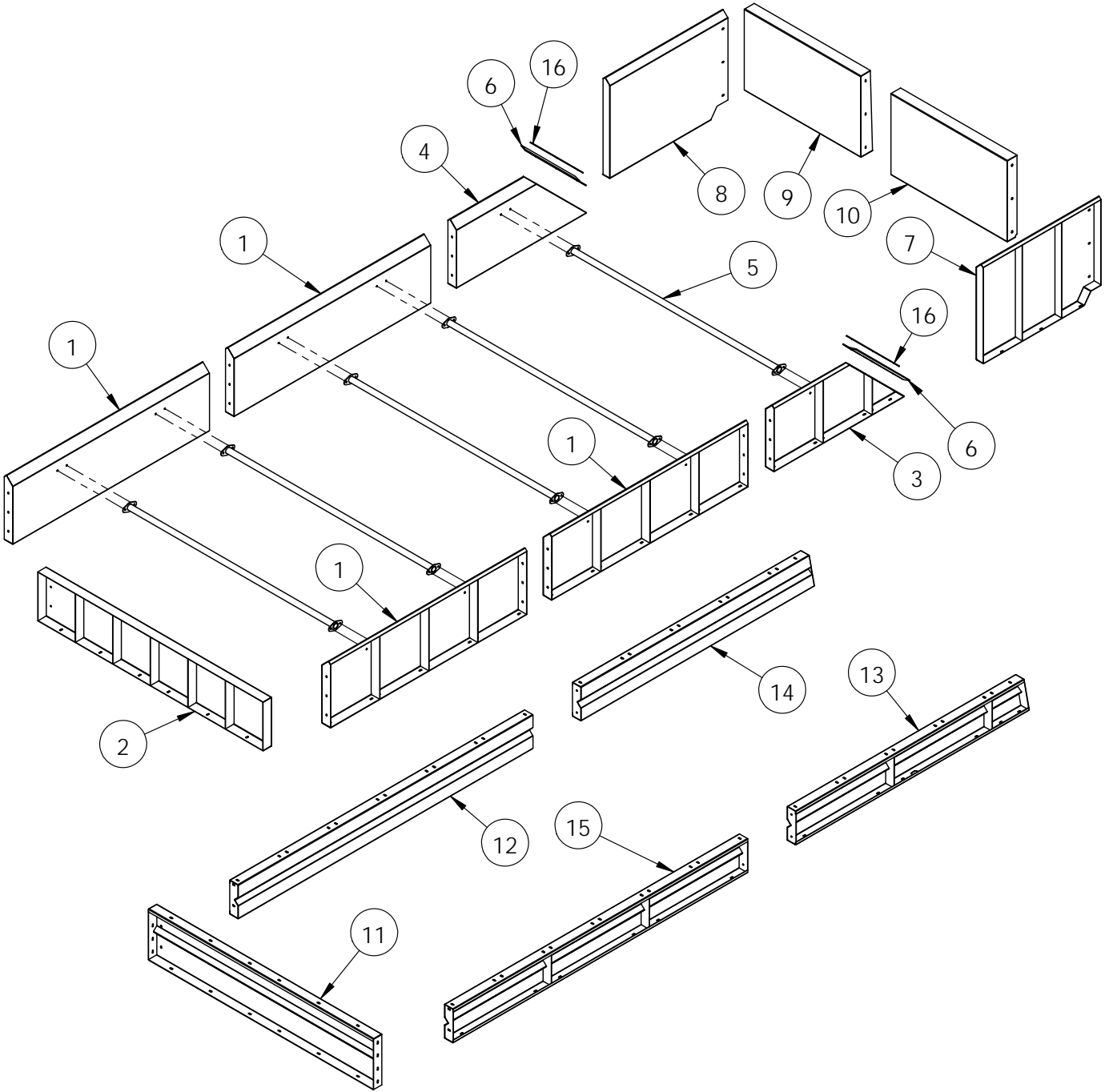
FRAME AND SHIELD BREAKDOWN



FRAME & SHIELD PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	Frame & Shield/QTY.
1	200001	WMT,MAIN FRAME	1
2	200005	SHEET,ACCESS PANEL	1
3	200008	SIDE ACCESS PANEL	1
4	200009	WMT,BEARING GUIDE	2
5	200010	WMT,BEARING GUIDE	4
6	200015	SHEET,ACCES COVER	2
7	200088	LEFT ACCESS PANEL	1
8	200095	LEFT HEADBOARD GUSSET	1
9	200096	RIGHT HEADBOARD GUSSET	1
10	200097	HEADBOARD ASSEMBLY	1
11	200099	CAB PROTECTOR	1
12	200106	LADDER	1
13	200130	VALVE BODY COVER	1
14	200177	APRON CHAIN (2' ADDER)	3
15	200182	2' EXT. FLOOR SECTION	1
16	220000-01	2 FT. EXTENSION	1
17	200183	4' EXT. FLOOR SECTION	1
18	200178	APRON CHAIN (4' ADDER)	3
19	240000-01	WMT,4 FT. EXTENSION	1
20	H37-02-8197	LATCH, FLEXIBLE DRAW LATCH T STYLE	1

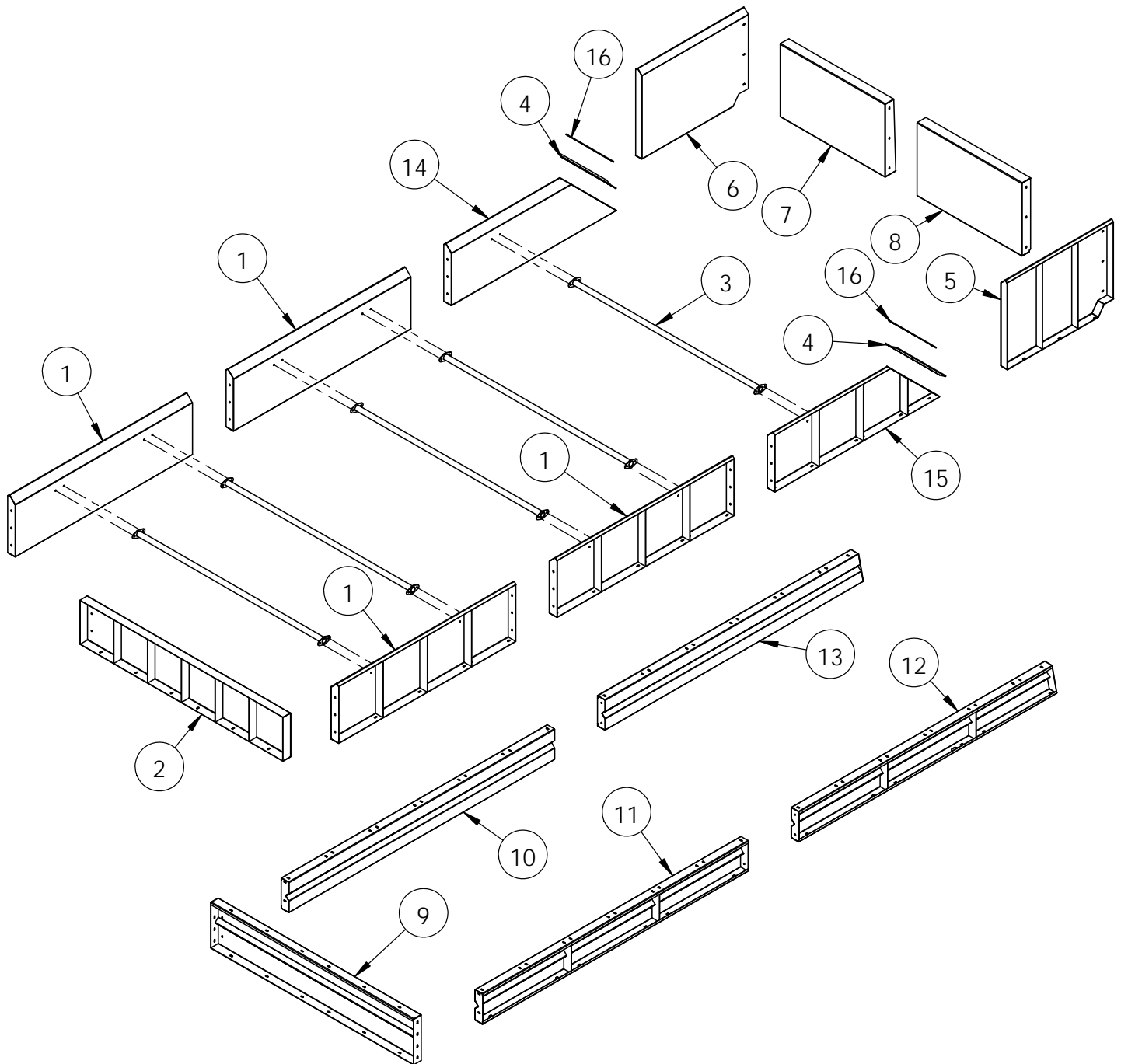
20' MANURE-FORAGE OPTION BREAKDOWN



20' MANURE-FORAGE OPTION PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	20' Manure-Forage Option/QTY.
1	200057	EXTENSION PANEL	4
2	200058	FRONT EXTENSION PANEL	1
3	200059	LEFT REAR EXT PANEL 20'	1
4	200060	RIGHT REAR EXT PANEL 20'	1
5	200062	EXTENSION BRACE	5
6	200063	RUBBER SEAL	2
7	200064	LEFT GATE EXTENSION PANEL	1
8	200065	RIGHT GATE EXTENSION PANEL	1
9	200066	RIGHT REAR GATE EXT. PANEL	1
10	200067	LEFT REAR GATE EXT. PANEL	1
11	200097	HEADBOARD ASSEMBLY	1
12	200104	1' EXT PANEL, FRONT RIGHT	1
13	200105	LEFT REAR EXT PANEL 20'	1
14	200113	RIGHT REAR EXT PANEL 20'	1
15	200114	1' EXT PANEL, FRONT LEFT	1
16	200152	SILAGE EXT SEAL STRAP	2

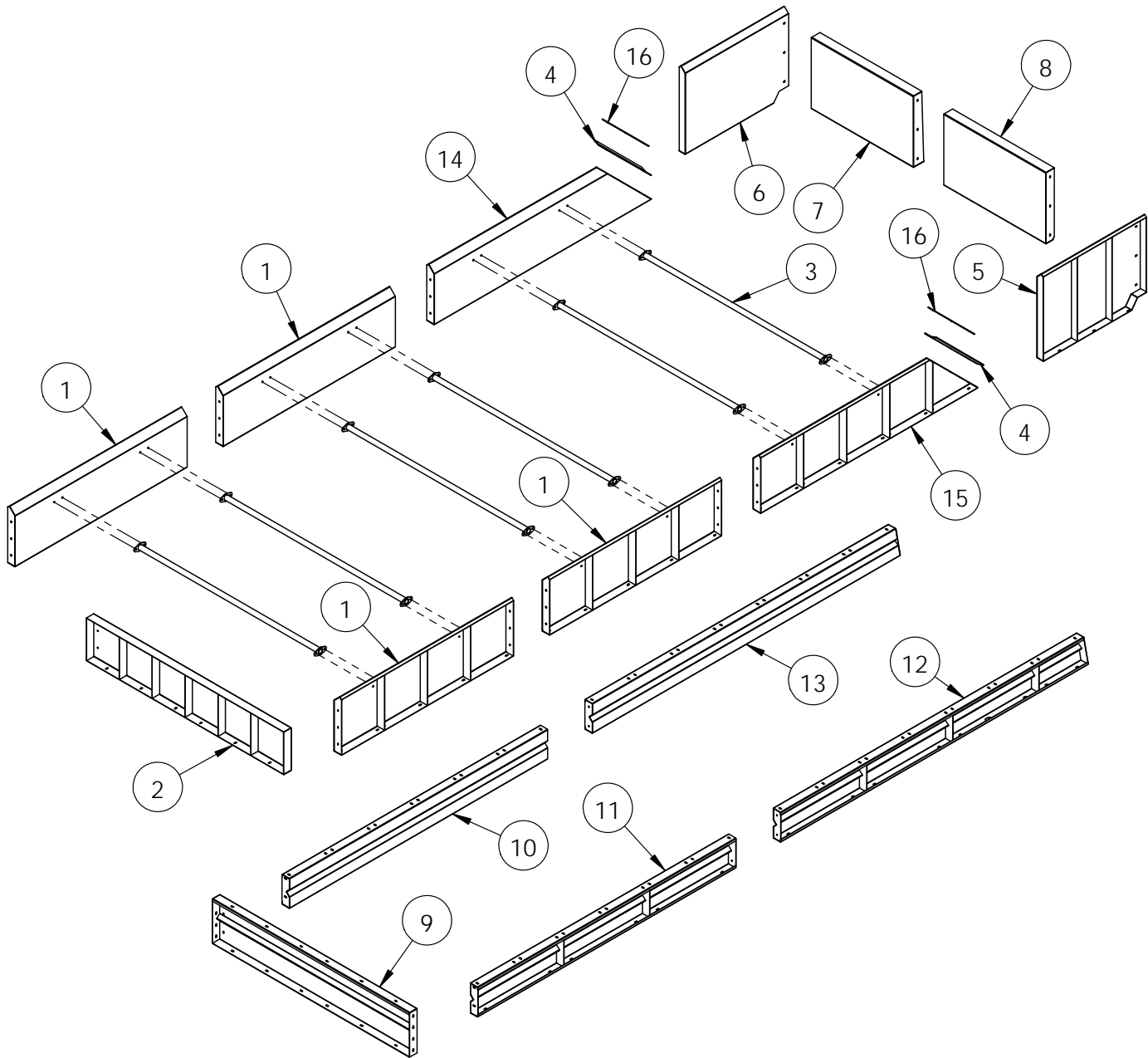
22' MANURE-FORAGE OPTION BREAKDOWN



22' MANURE-FORAGE OPTION PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	22' Manure-Forage Option/QTY.
1	200057	EXTENSION PANEL	4
2	200058	FRONT EXTENSION PANEL	1
3	200062	EXTENSION BRACE	5
4	200063	RUBBER SEAL	2
5	200064	LEFT GATE EXTENSION PANEL	1
6	200065	RIGHT GATE EXTENSION PANEL	1
7	200066	RIGHT REAR GATE EXT. PANEL	1
8	200067	LEFT REAR GATE EXT. PANEL	1
9	200097	HEADBOARD ASSEMBLY	1
10	200104	1' EXT PANEL, FRONT RIGHT	1
11	200114	1' EXT PANEL, FRONT LEFT	1
12	200138	LEFT REAR EXT PANEL 22'	1
13	200139	RIGHT REAR EXT PANEL 22'	1
14	200140	RIGHT REAR EXT PANEL 22'	1
15	200141	LEFT REAR EXT PANEL 22'	1
16	200152	SILAGE EXT SEAL STRAP	2

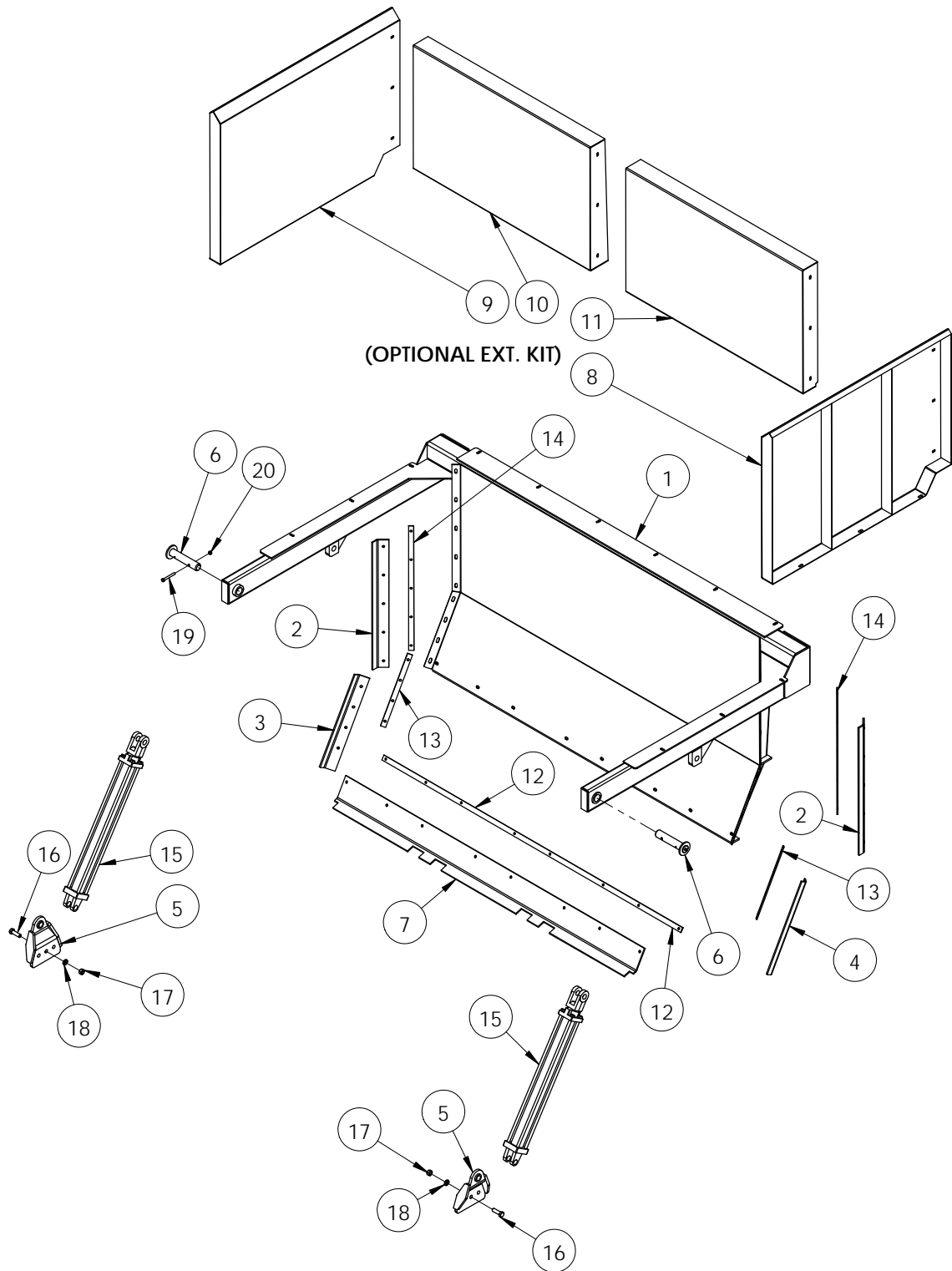
24' MANURE-FORAGE OPTION BREAKDOWN



24' MANURE-FORAGE OPTION PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	24' Manure-Forage Option/QTY.
1	200057	EXTENSION PANEL	4
2	200058	FRONT EXTENSION PANEL	1
3	200062	EXTENSION BRACE	6
4	200063	RUBBER SEAL	2
5	200064	LEFT GATE EXTENSION PANEL	1
6	200065	RIGHT GATE EXTENSION PANEL	1
7	200066	RIGHT REAR GATE EXT. PANEL	1
8	200067	LEFT REAR GATE EXT. PANEL	1
9	200097	HEADBOARD ASSEMBLY	1
10	200104	1' EXT PANEL, FRONT RIGHT	1
11	200114	1' EXT PANEL, FRONT LEFT	1
12	200136	REAR LEFT PANEL 24'	1
13	200137	RIGHT REAR PANEL 24'	1
14	200142	RIGHT REAR EXT PANEL 24'	1
15	200143	LEFT REAR EXT PANEL 24'	1
16	200152	SILAGE EXT SEAL STRAP	2

SLOP GATE BREAKDOWN



SLOP GATE PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	Slop Gate Breakdown/QTY.
1	200042	SLOP GATE	1
2	200043	FLASHING,SLOP GATE	2
3	200044	FLASHING,SLOPGATE	1
4	200045	FLASHING,SLOPGATE	1
5	200047	WMT,SLOP GATE PIVOT	2
6	200048	WMT,FLAG PIN	2
7	200049	FLASHING,SLOP GATE-BOTTOM	1
8	200064	LEFT GATE EXTENSION PANEL	1
9	200065	RIGHT GATE EXTENSION PANEL	1
10	200066	RIGHT REAR GATE EXT. PANEL	1
11	200067	LEFT REAR GATE EXT. PANEL	1
12	200149	BOTTOM SLOP GATE STRAP	1
13	200150	LOWER SIDE SLOP GATE STRAP	2
14	200151	UPPER SIDE SLOP GATE STRAP	2
15	C21-01-3116	CYLINDER, HYD 2" X 24" STROKE 3000#	2
16	Z82-03-1032	BOLT, HEX, 5/8" X 2" Z5	6
17	Z82-40-1010	NUT, HEX, 5/8" Z5	6
18	Z82-66-1010	WASHER, LOCK SPLIT, 5/8 Z5	6
19	Z82-03-0640	3/8" x 3" HEX HEAD BOLT	2
20	Z82-46-0606	3/8" HEX HEAD LOCKNUT	2

RODA LIMITED WARRANTY

Roda Manufacturing Incorporation warrants, in accordance with the provisions below, to the original purchaser for the period of (12) months from the date of delivery of a Roda machine that the machine is free from defects in material or workmanship. Roda's obligation under this warranty is to repair or replace, at Roda's election, without charge and at the place of business of a dealer authorized to handle Roda machinery, any part or parts of the machine which, in the judgment of Roda, prove to be defective.

THIS WARRANTY AND RODAS OBLIGATION HEREUNDER IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE, and all other obligations or liabilities of Roda for incidental and consequential damages resulting from the design, manufacture, sale or use of the machine. No person is authorized to make any warranty or assume for Roda any liability not strictly in accordance with this warranty.

This warranty shall not apply to any machine or machine part which, in the judgment of Roda, has been altered or tampered with in any way or has been subjected to misuse, abuse, neglect or accident, or has had the serial numbers altered, effaced or removed. This warranty does not apply to batteries, tire and tubes, or other component parts not manufactured by Roda, except to the extent of their individual manufacturer's guarantees. Any and all such parts must be returned to the original manufacturer for warranty adjustment.

Roda Manufacturing Incorporation reserves the right to make improvements or changes when it becomes practical and possible to do so, without incurring any obligations to make changes or additions to the equipment sold previously.

WARRANTY REGISTRATION SHEET

MODEL NUMBER _____

SERIAL NUMBER _____

DATE OF SALE _____

CUSTOMER _____

DEALER _____

ADDRESS _____

ADDRESS _____

CITY _____

CITY _____

STATE _____ ZIP _____

STATE _____ ZIP _____

This is to acknowledge that I am the new owner of the following RODA Machine, that I agree to read the Operators manual and become familiar with the safe operation of this unit.

_____ R25 _____ R50 _____ R50 PTO _____ R80 _____ R410 _____ R610 _____ R810 _____ ProV160 _____ ProV180
_____ R2018 _____ R2000 _____ R2400 _____ R716 _____ R720 _____ R716F _____ R720F

Roda Manufacturing Incorporation warrants, in accordance with the provisions below, to the original purchaser for the period of (12) months from the date of delivery of a Roda machine that the machine is free from defects in material or workmanship. Roda's obligation under this warranty is to repair or replace, at Roda's election, without charge and at the place of business of a dealer authorized to handle Roda machinery, any part or parts of the machine which, in the judgment of Roda, prove to be defective.

THIS WARRANTY AND RODAS OBLIGATION HEREUNDER IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE, and all other obligations or liabilities of Roda for incidental and consequential damages resulting from the design, manufacture, sale or use of the machine. No person is authorized to make any warranty or assume for Roda any liability not strictly in accordance with this warranty.

This warranty shall not apply to any machine or machine part which, in the judgment of Roda, has been altered or tampered with in any way or has been subjected to misuse, abuse, neglect or accident, or has had the serial numbers altered, effaced or removed. This warranty does not apply to batteries, tire and tubes, or other component parts not manufactured by Roda, except to the extent of their individual manufacturer's guarantees. Any and all such parts must be returned to the original manufacturer for warranty adjustment.

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SIGNED _____

DATE _____

This Registration form Must be returned to enact this warranty.