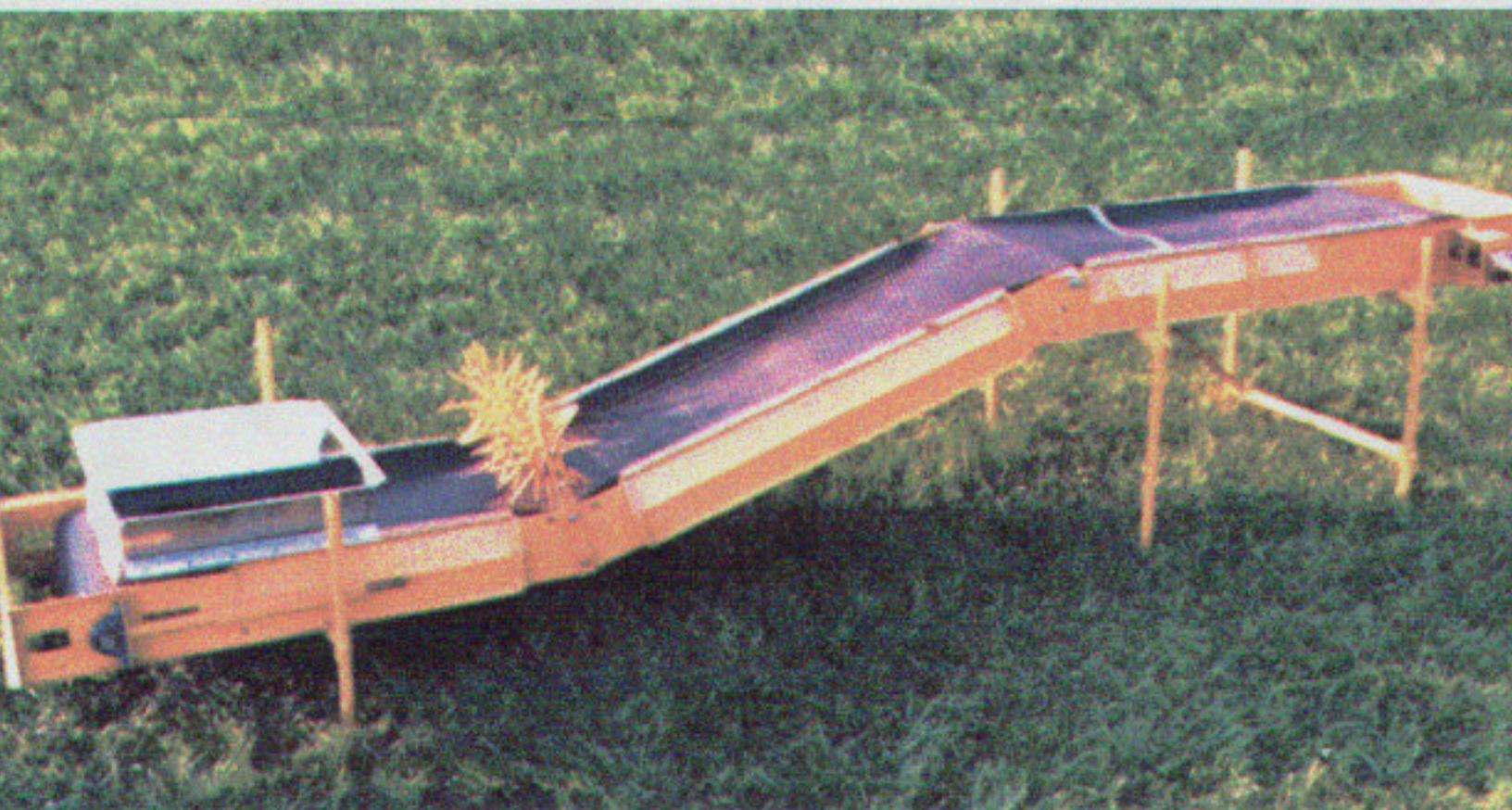


MODEL ZC2400- 24" BELT CONVEYOR

INSTALLATION, PARTS AND OPERATION MANUAL



MANUFACTURES OF BELT CONVEYOR, BELT FEEDERS AND HYDRAULIC MANURE PUMPS

PHONE: (608) 874-4105

25952 STATE HWY 27

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WARRENTY CARD

*THE FOLLOWING INFORMATION IS NEEDED FOR WARRENTY TO APPLY
TO THIS PRODUCT, MADE BY ZABEL EQUIPMENT, INC., EASTMAN, WI.*

NAME: _____ PHONE: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP _____

EQUIPMENT MODEL: _____ SIZE/LENGTH _____

PURCHASED FROM: _____ STATE: _____

INSTALLED BY: _____ DATE INSTALLED: _____

CHECK ALL THAT APPLY: — BEEF — DAIRY — HOGS —
POULTRY — SHEEP —

ZABEL EQUIPMENT, INC.

ZC2400 BELT CONVEYOR

Before operation, thoroughly read and understand this entire ASSEMBLY AND OPERATING INSTRUCTIONS MANUAL. Pay particular attention to the safety information on the inside front cover. Completely familiarize yourself with all control mechanisms for this unit.

-----OPERATION-----

GENERAL

Read the safety and operation sections of this manual before starting the machine.

Always shut off the power, and if possible lock it in the **OFF** position or remove the fuses before attempting any maintenance or repairs. When you must observe the operation to check any adjustments made, always do so from a safe distance.

WARNING *Never operate the machine with any of the guards or shields removed. Failure to observe the Proper safety precautions may result in personal injury or death.*

WARNING *Keep hands, feet, and loose clothing away from moving parts. NEVER STAND, SIT, OR LEAN ON THE UNIT WHILE IT IS IN OPERATION. Failure to follow these and all normal Safety precautions may result in personal injury or death.*

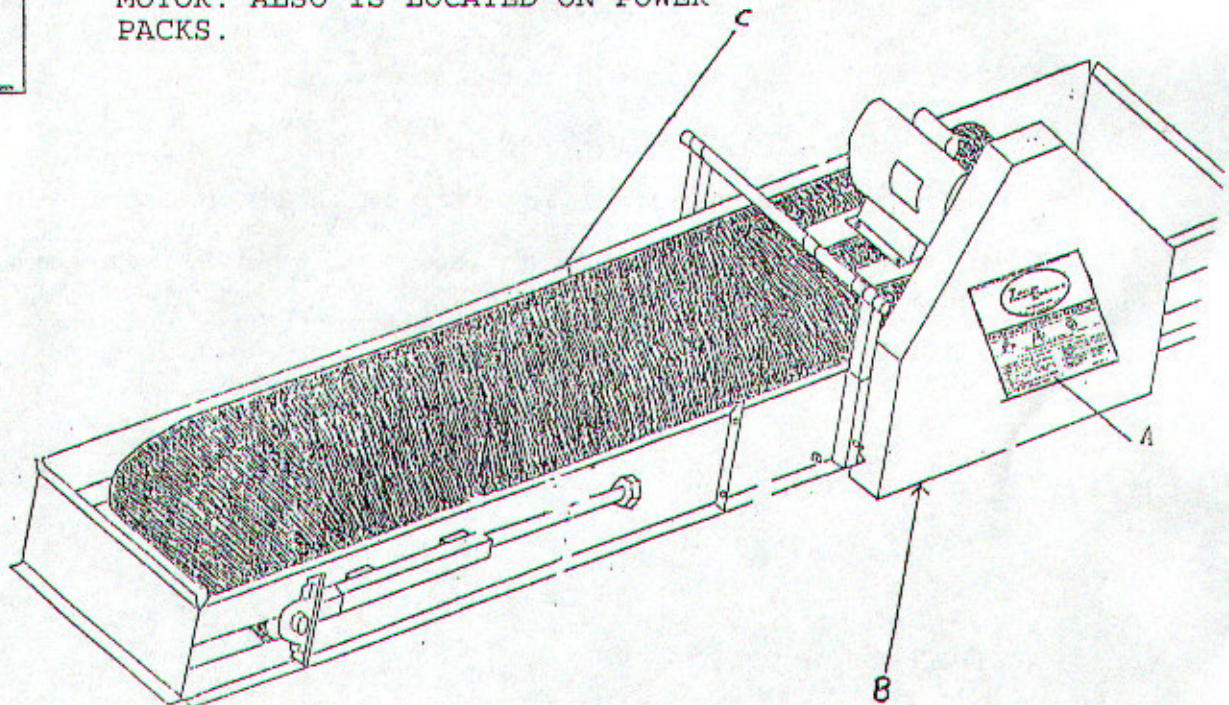
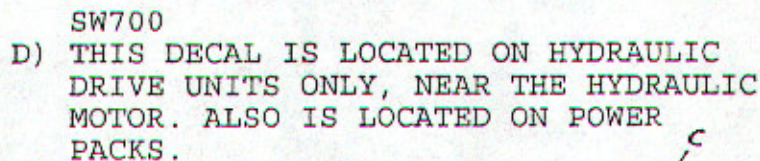
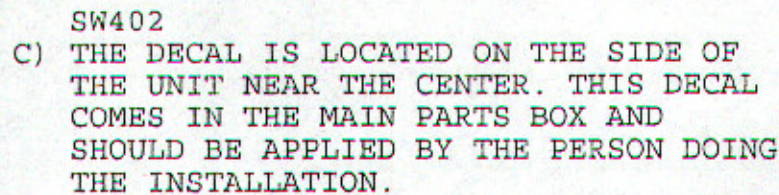
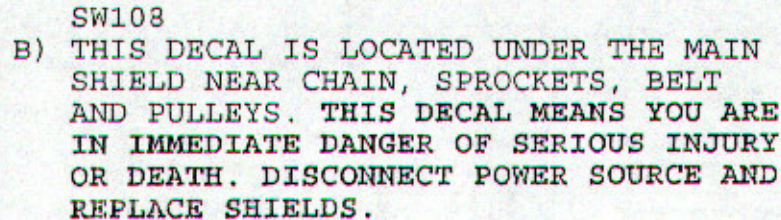
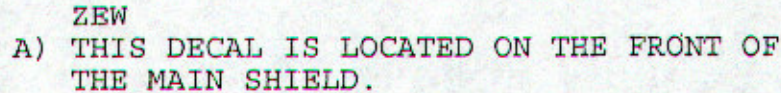
STEP 1: Clear the area of feed, animals, etc. before starting up the feeder.

STEP 2: Start up the machine (feeder) and check it for proper operation.

STEP 3: Startup the filling equipment and check the placement of the material going into feeder.

STEP 4: When the desired amount of material has been conveyed, shut off the filling equipment.

STEP 5: Continue running the unit until all material has been dumped. When the unit is empty, shut off Feeder.



IMPORTANT: ALL SAFETY DECALS SHOULD BE KEPT CLEAN AND READABLE. CLEAN SAFETY DECALS USING WARM WATER AND SOAP. IF A DECAL IS DESTROYED, PAINTED OVER, WORN, MISSING, OR NO LONGER READABLE, IT MUST BE REPLACED. A SAFETY DECAL CAL BE ORDERED BY SPECIFYING THE MACHINE SIZE, NAME, PART NUMBER, AND THE NUMBER OF DECALS NEEDED.

INTRODUCTION

THE ZE 2400 BELT CONVEYOR IS DESIGNED FOR YEARS OF MAINTANCE FREE SERVICE. GREASABLE BEARINGS ARE USED THROUGHOUT THE ENTIRE CONVEYOR TO INSURE MAXIMUM BEARING LIFE. THE TREATED WOOD BED OR THE PLASIC BED REDUCES FRICTION 30%, WHICH INCREASES BELT LIFE, AND REDUCES THE HORSEPOWER REQUIRED TO MOVE THE FEED EASILY. THE DEEP CONCAVE DESIGN CARRYS MORE FEED AT A SLOWER BELT SPEED, TAKING MORE FEED UP A STEEPER INCLINE WITHOUT FEED ROLLBACK. THEASE FEATURES MAKE THIS CONVEYOR ONE OF THE MOST EFFICIENT, LONG LASTING CONVEYORS ON THE MARKET.

SAFETY PRECAUTIONS

1. DO NOT USE OR OPERATE THIS EQUIPMENT UNTIL THIS MANUAL HAS BEEN READ AND UNDERSTOOD. SERIOUS INJURY COULD RESULT IF OPERATOR IS IMPRPERLY INSTRUCTED.
2. KEEPS ALL GAURDS, SHIELDS AND SAFETY DEVICES IN THE PROPER PLACE, KEEP ALL HARDWARE TIGHT AND PROPERLY ADJUSTED TO BE SURE THAT THE EQUIPMENT IS IN PROPER WORKING ORDER. FAILURE TO DO SO COULD RESULT IN INJURY TO OPERATOR OR DAMAGE TO EQUIPMENT.
3. BE SURE AREA IS CLEAR OF OBSTICALES BEFORE OPERATING THE CONVEYOR AND NEVER ALLOW ANYONE TO STAND ON OR NEAR THE UNIT. NEVER LEAVE THE UNIT RUNNING WHEN UNATTENDED.
4. KEEPS HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS WHILE THE UNIT IS IN OPERQATION . FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY.
4. DISCONNECT POWER AND V-BELT WHEN MAKING AND AJUSTMENTS OR SERVICING THE UNIT TO INSURE AGAINST ANY ACCIDENTAL TURNING ON OF THIS CONVEYOR UNIT. FAILURE TO DO THIS COULD RESULT IN INJURY TO THE PERSON DOING SERVICE OR DAMAGE THE EQUIPMENT.
5. KEEP ALERT WHEN OPERATING ANY PIECE OF EQUIPMENT AND AFTER USING, PLEASE SHUT OFF AND LOCK OUT POWER.

ELECTRICAL PRECAUTIONS

1. USE EXTREME CAUTION AROUND ELECTRICAL COMPONENTS. WE ASSUME NO RESPONSIBILITY FOR THE ELECTRICAL WIRING USED WITH THIS MACHINE AND WILL NOT BE LIABLE FOR FAILURE OF THE EQUIPMENT DUE TO IMPROPER ELECTRICAL POWER INSTALLATION.
2. ELECTRICAL WIRING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN TO MEET LOCAL ELECTRICAL REQUIRMENTS. MAKE SURE TO CHECK ALL LOCAL, NATIONAL AND STATE CODES FOR PROPER ELECTRICAL INSTALLATION. IMPROPER OR INADEQUATS WIRING CAN KILL OR CAUSE FIRES.

BEFORE YOU START---PLAN INSTALLATION

ZABEL EQUIPMENT 2400 BELT CONVEYOR

1. READ THIS MANUAL THOROUGHLY AND FAMILIARIZE YOURSELF WITH THE PARTS OF THE EQUIPMENT.
2. DECIDE HOW THIS CONVEYOR IS TO BE SUPPORTED AND FASTENED INTO POSITION. SUPPORTS MUST BE SECURELY FASTENED TO A SOLID STRUCTURE.
3. DETERMINE IF ONE OR BOTH ENDS OF THE CONVEYOR ARE CRITICAL AS FAR AS POSITIONING OR HEIGHT IS CONCERNED. POSITION CONVEYOR ACCORDINGLY.
4. PLAN POSITIONING AND ALIGNMENT OF ALL OPTIONS (PLOWS, DIVERTERS, BRUSHES, DOWNSPOUT ADAPTERS, ETC.) BEFORE STARTING.
5. THE 2400 CONVEYOR TRAVELS AT A SPEED OF 234 FEET PER MINUTE. DEPENDING ON YOUR SILO UNLOADER, IT HAS THE CAPACITY TO HANDLE TWO SIDES. SOME DISCRETION MAY BE NEEDED. **DO NOT OVERLOAD.**
6. FOR OUTSIDE INSTALLATIONS, COVERS ARE REQUIRED.
7. TOOLS NEEDED TO ASSEMBLE THE CONVEYOR ARE:
 1. $\frac{3}{4}$ ", 1-1/8" and 9/16" WRENCHES.
 2. RATCHET WITH 9/16" and $\frac{3}{4}$ " SOCKETS.
 3. SET OF ALLEN WRENCHES.
 4. GREASE GUN.
 5. PLIERS.
 6. REGULAR SCREWDRIVERS.
 7. CRESENT WRENCH.

POLICY

IN KEEPING WITH OUR POLICY OF CONTINUALLY IMPROVING PRODUCTS, ZABEL EQUIPMENT, INC. RESERVES THE RIGHT TO CHANGE OR REDESIGN ANY PRODUCT OR PART WITHOUT INCURRING THE OBLIGATION TO INSTALL OR FURNISH SUCH CHANGES ON PRODUCTS PREVIOUSLY DELIVERED. DRAWINGS SHOWN IN THIS MANUAL ARE REPRESENTATIONAL AND MAY VARY FROM ACTUAL PRODUCTION UNITS.

ZABEL EQUIPMENT, INC.

SPECIFICATIONS FOR MODEL 2400-24" BELT CONVEYOR

BELT SPEED: 250 FEET PER MINUTE

CAPACITY: 5,000 CU.FT.HR. OR 50 TON PER HOUR

PAINT COVERAGE: DOUBLE DIPPED IN YELLOW ENAMEL PAINT

PULLEY DIAMETER: HEAD, 8.5"; TAIL, 6.38"

SPANNING DISTANCE: 40 FEET

MAXIMUM LENGTH: 200 FEET

**MATERIAL: 12 GA. & 7 GA. STEEL, TREATED BOARDS, 2x2x1/4" ANGLR IRON, RD. TUBE
PILLOW BLK & FLANGE BEARINGS, SPROCKETS, BELTS, PULLEYS, AND
HARDEN BOLTS.**

OPTIONS AVAILABLE:- MOTOR, HYDRAULIC, HY DUTY OR GEAR BOX DRIVE

- 1', 2', 4', and 8' SECTIONS
- INCLINE JOINT
- DECLINE JOINT
- DOWNSPOUT ADAPTOR
- DOWNSPOUTS
- HANGING BRACKETS
- 2', 3', & 4' REG. or FLOW THROUGH HOPPERS
- COVERS
- BRUSH ASSY
- DIVERTERS
- SMOOTH, RUFF, or CLEATED BELT
- REVERSEABLE

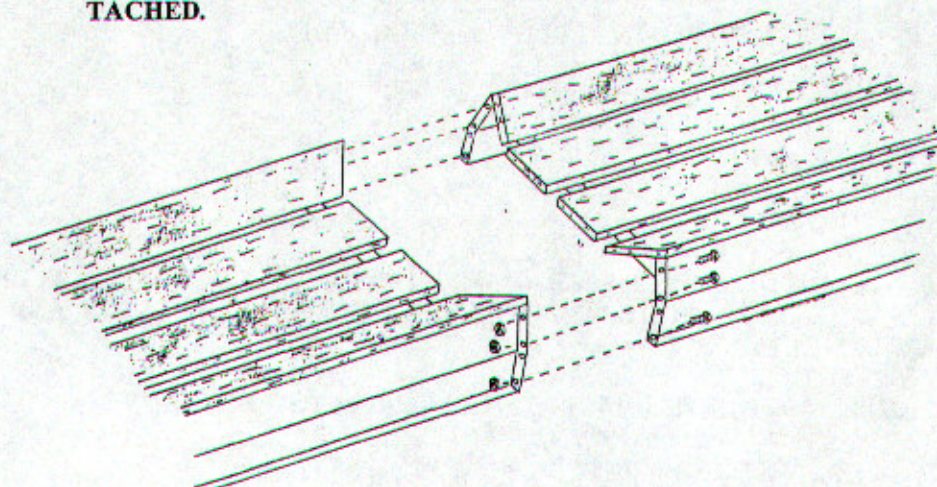
HOW TO ORDER PARTS

1. REFER TO ILLUSTRATION WHICH SHOWS THE PART TO BE ORDERED.
2. FIND THE PART ON THE ILLUSTRATION DRAWING.
3. NOTE THE NUMBER AT THE END OF THE ARROW POINTING TO THE PART.
4. REFER TO THE PARTS LIST AND FIND THAT NUMBER UNDER THE COLUMN.
5. FOLLOW ACROSS THE PAGE TO THE COLUMN HEADED PART#. USE THE NUMBER AND THE NAME OF THE PART WHEN PLACING YOUR ORDER.

2400 INSTALLATION PROCEDURE

STEP 1: TAKE THE IDLE END AND PLACE IT IN POSITION WITH THE BOARDS UP. THE IDLE END IS RECONIZED *WITHOUT* THE DRIVE SPROCKET.

STEP 2: ATTACH THE NEXT TROUGH SECTION TO THE IDLE END AS PICTURED BELOW. USE SIX 3/4" x 1" HEX HEAD BOLTS WITH NUTS TO FASTEN SECTIONS TOGETHER. BE SURE TO TIGHTEN NUTS AFTER EACH SECTION IS ATTACHED.



STEP 3: CONTINUE THE LENGTH OF THE CONVEYOR, ATTACHING ALL ADDITIONAL SECTIONS AS IN STEP 2, UNTIL ONLY THE DRIVE HEAD REMAINS.

STEP 4: ATTACH THE DRIVE HEAD TO THE LAST TROUGH SECTION. THE DRIVE HEAD CAN BE RECONIZED AS THE END WITH THE DRIVE SPROCKET ON IT. DUE TO THE EXTRA WEIGHT INVOLVED, THE 2400 DRIVE HEAD NEEDS A DEQUATE SUPPORT. IT CAN BE SUPPORTED BY EITHER LEGS OR BRACES, WHICH CAN BE SUSPENDED FROM THE CEILING.

STEP 5: THE ELECTRIC MOTOR SHOULD BE MOUNTED AT THIS TIME. IT CAN BE A SINGLE PHASE OR THREE PHASE, AND SHOULD BE A FOOT MOUNTED MOTOR. A 3" DRIVE PULLEY (5/8, 7/8, or 1-1/8") IS RECOMMENDED AND ONE IS SUPPLIED BY THE PURCHASER. REFER TO THE TABLE BELOW TO CHECK THE REQUIRED HORSEPOWER FOR TH LENGTH OF CONVEYOR YOU ARE INSTALLING.

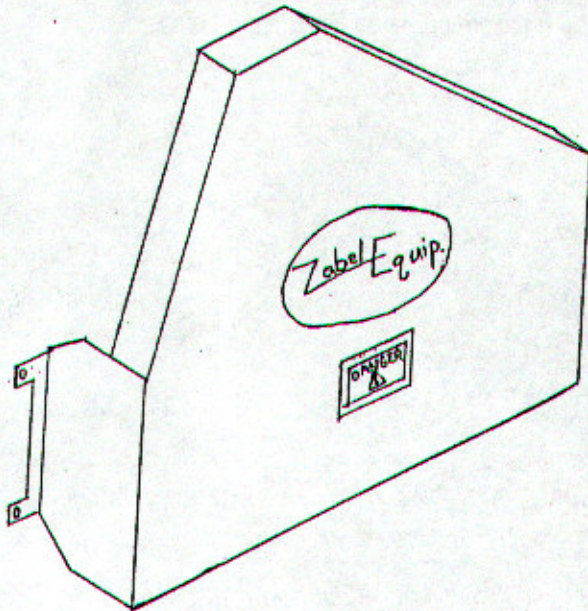
HORSEPOWER REQUIREMENTS
LENGTH OF CONVEYOR

	0 to 20'	21' to 40'	41' to 80'	81' to 110'	111' to 135'
HORSEPOWER	1	1-1/2	2	3	5

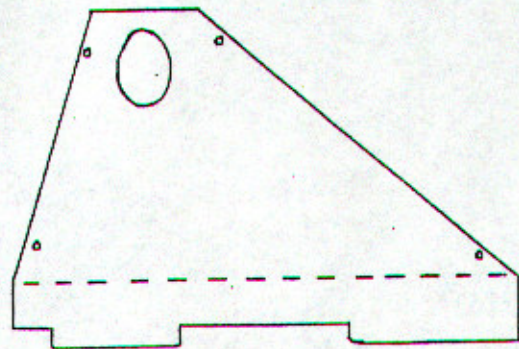
SET THE MOTOR ON THE TOP SURFACE OF THE MOTORMOUNT BRACKETS. BOLT THE MOTOR TO THE BRACKETS, MAKING SURE THE SHAFT EXTENDS FAR ENOUGH SO THAT THE SUPPLIED 3" PULLEY ALLIGNS WITH THE 12" PULLEY MOUNTED ON THE DRIVE HEAD. NEXT ALIGN AND LOCK THE PULLEYS ON THE SHAFTS.

INSTRUCTIONS FOR ASSEMBLY OF CONVEYOR SHIELD PART # ZC24119-A

STEP 6: ASSEMBLE THE SHIELD ACCORDING TO THE FOLLOWING FOUR STEPS.



MAIN SHIELD SECTION



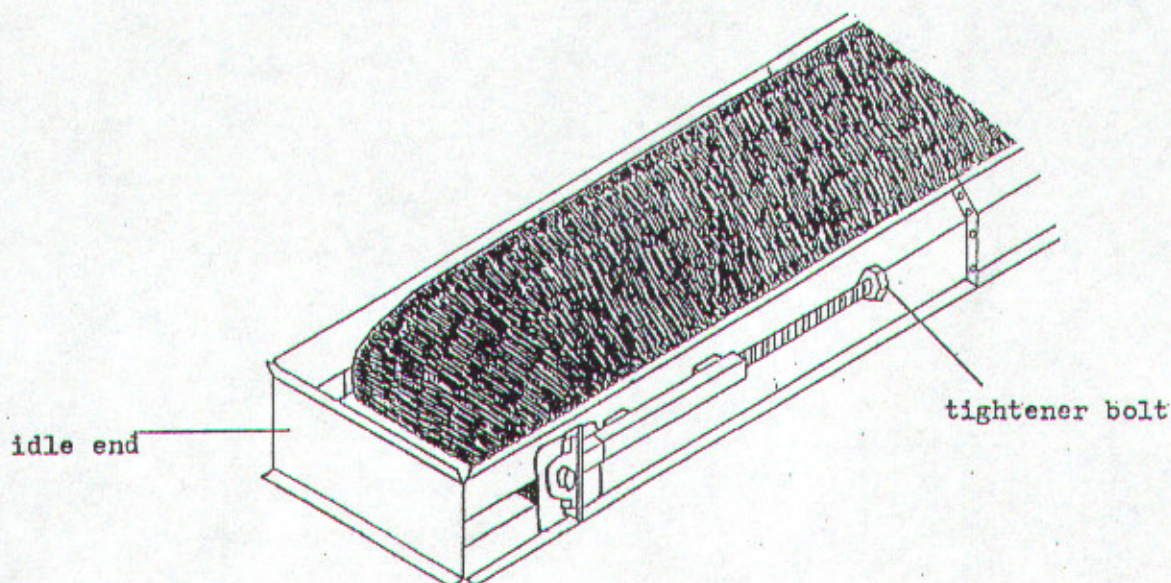
BACK SHIELD SECTION

- STEP 1: PLACE THE SHIELD BACK SECTION OVER THE MOTOR PULLEY SO THAT IT LOOKS AS SHOWN ABOVE. YOU MAY NOW PUT THE DRIVE BELT ON BOTH PULLEYS AND TIGHTEN THE BELT. THE BELT IS TIGHTENED BY ADJUSTING THE ½" BELT TIGHTENER BOLT UNTIL THE BELT HAS THE PROPER TENSION.**
- STEP 2: PLACE THE MAIN SHIELD SECTION OVER THE BELT AND DRIVE CHAIN AND FASTEN IT TO THE MAIN CONVEYOR FRAME USING THE FOUR ¼" WING NUTS.**
- STEP 3: BOLT THE SHIELD BACK SECTION TO THE BACK OF THE MAIN SHIELD SECTION USING FOUR ¼" SPEED NUTS AND FOUR ¼"x1/2" THUMBSCREWS.**
- STEP 4: PLACE ALL STICKERS ON MAIN SHIELD SECTION AS SHOWN.**

WARNING: NEVER OPERATE THE CONVEYOR WITHOUT ALL SHIELDS IN PLACE. FAILURE TO FOLLOW THE PROPER SAFETY PRECAUTIONS MAY RESULT IN PERSONAL INJURY OR DEATH.

CAUTION:

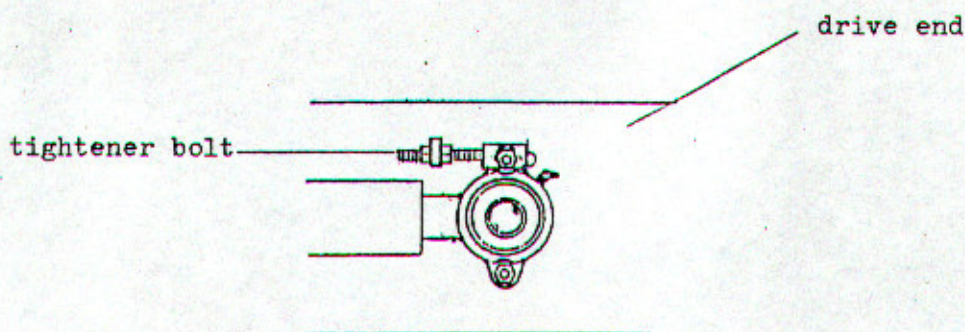
STEP 7: THE ELECTRICAL WIRING FOR THE 2400 BELT CONVEYOR IS THE RESPONSIBILITY OF THE PURCHASER. ALL WIRING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH ALL SAFETY CODES. MAKE SURE AN APPROPRIATE *ON/OFF* CONTROL SWITCH IS USED AND THAT ALL WIRING AND SWITCHES ARE KEPT OUT OF THE REACH OF ALL LIVESTOCK.



STEP 8: YOU ARE NOW READY TO INSTALL THE BELT IN YOUR CONVEYOR. FIRST, LOOSEN THE TIGHTENER BOLTS ON EITHER SIDE OF THE IDLE END TO GET AS MUCH SLACK AS POSSIBLE. UNROLL THE BELT SO THAT THE PVC SIDE IS UP, (THIS IS THE SHINEY LOOKING SIDE.) PULL THE BELT OVER THE IDLE ROLLER, THEN THROUGH THE UNDERSIDE OF THE CONVEYOR. BE SURE TO GO OVER THE PLASTIC (NYLON) ROLLERS, WHICH ARE IN THE MIDDLE OF EACH SECTION. MESH THE LOOPS OF THE METAL BELT SPLICE (M24R) TOGETHER AND THREAD THE CONNECTOR CABLE THROUGH THE SPLICE. ONCE THE CABLE IS IN PLACE, CRIMP THE RETAINING RING WASHERS ON EITHER END OF THE CABLE WITH A PLIERS. NOW TIGHTEN THE TWO TIGHTENER BOLTS ON EITHER SIDE OF THE IDLE END UNTIL THE BELT IS TIGHT. (NOTE: THE TIGHTENER BOLTS SHOULD BE TIGHTENED THE SAME AMOUNT ON EACH SIDE TO HELP KEEP THE BELT STRAIGHT.) BELT SHOULD RIDE UP ON THE PLASTIC (NYLON) ROLLERS WHEN SUFFICIENTLY TIGHT.

FINAL STEP BEFORE RUNNING YOUR ZC2400 CONVEYOR

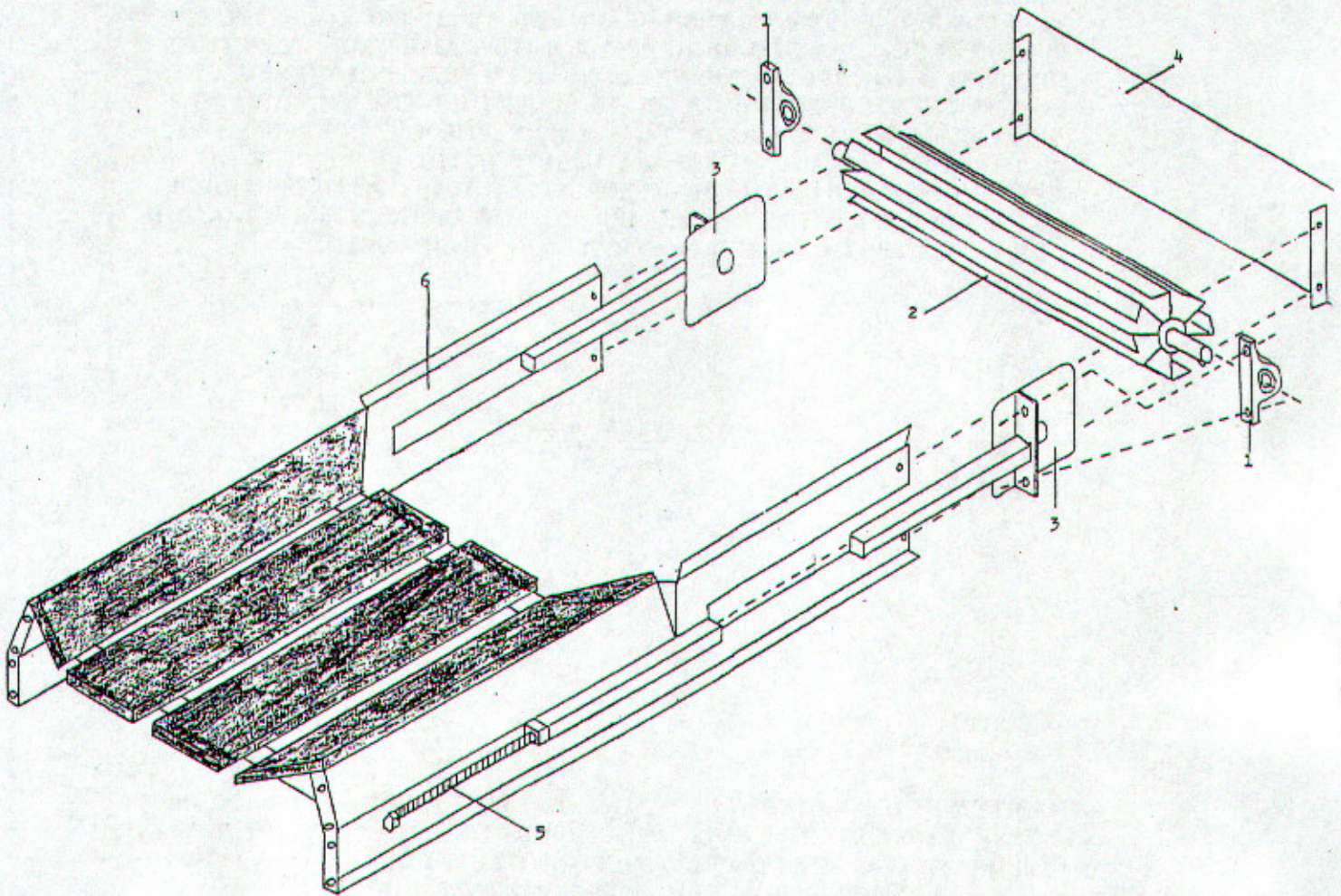
STEP 7: THE LAST STEP IS TO ADJUST THE BELT, SO THAT IT IS IN THE CENTER OF THE IDLE AND DRIVE ROLLERS AT EACH END. START THE ZC2400 UNIT UP IN SHORT BURTS, MAKE SURE TO DO ALL INITIAL ADJUSTMENTS IN THE IDLE END, IF THE BELT IS TOO NEAR ONE SIDE AND NOT CENTERED, LOOSEN THE TIGHTENER BOLT ON THE SIDE WHICH THE BELT MOVED AWAY FROM. WHEN THE BELT IS CENTERD ON THE IDLE ROLLER, MOVE TO THE DRIVE END AND ADJUST AS YOU DID FOR THE IDLE END. IF THE BELT IS CENTERED ON THE DRIVE ROLLER, NO ADJUSTMENT IS NEEDED. IF THE BELT NEEDS ADJUSTMENT, LOCATE THE TIGHTENER BOLT ON THE SIDE OPPOSITE THE ROLLER CHAIN. (SEE THE FIGURE BELOW.)



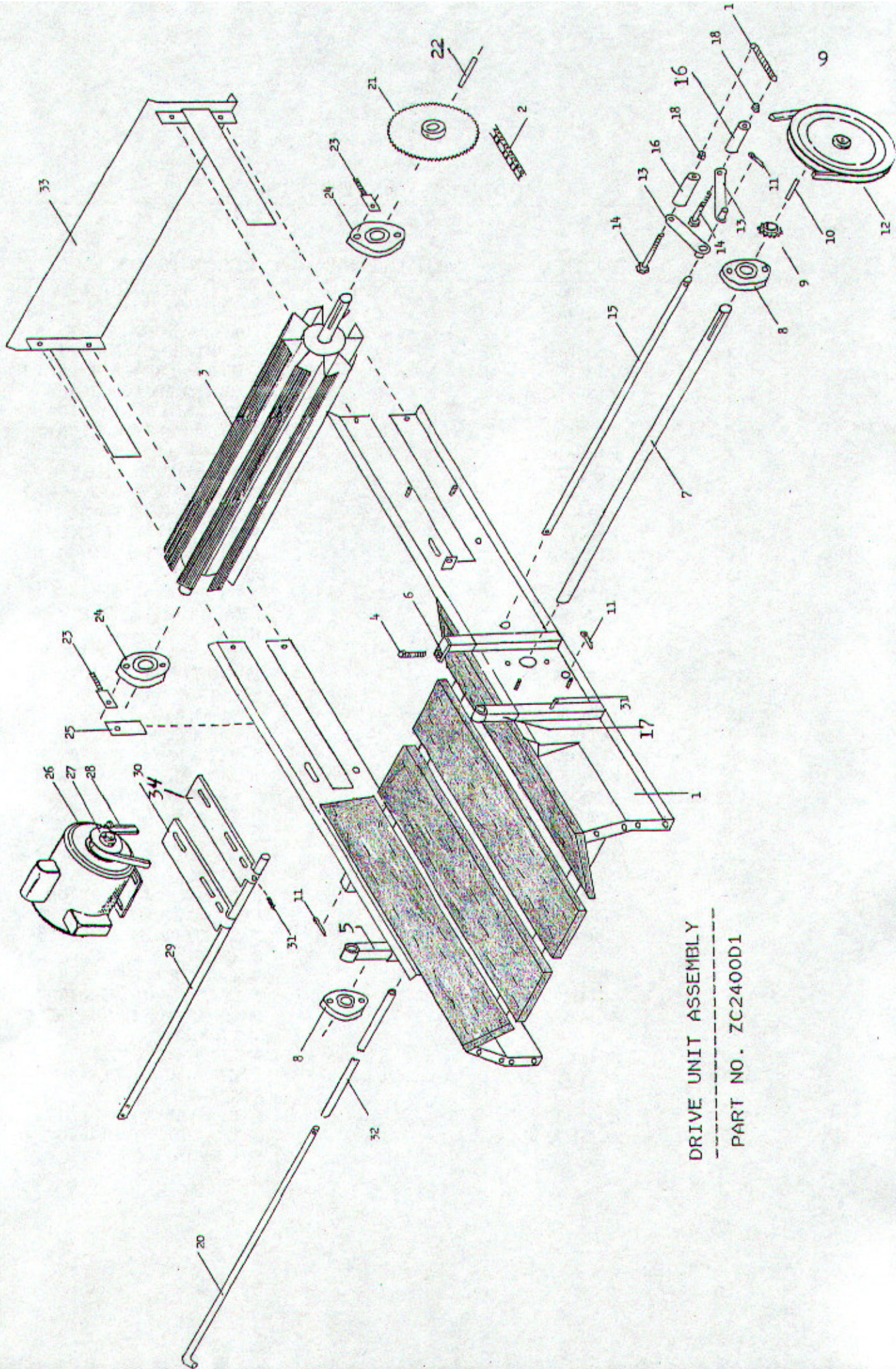
ADJUST THE TIGHTENER BOLT UNTIL THE BELT IS CENTERD. AFTER THE BELT IS CENTERED ON THE DRIVE ROLLER; RECHECK THE IDLE END AND IF NEEDS ADJUSTMENT, DO AS YOU DID PREVIOUSLY. (NOTE: THE BELT MAY WANDER AS MUCH AS A ½" WHEN PROPERLY ADJUSTED, THIS IS NORMAL.)

WITH ALL MAINTANCE INSTALLATION DONE, YOU ARE NOW REALLY TO START UP AND USE YOUR ZC2400 BELT CONVEYOR.

**24" IDLE UNIT ASSEMBLY
PART # ZC2400D2**



ITEM	PART #	QUANTITY	DESCRIPTION
1	ZCCL25114S	2	1-1/4" PILLOW BLOCK BEARING ASSY.
2	ZC240016	1	24" IDLE ROLLER ONLY
3	ZC162509-A	2	14" BEARING HOLDER PLATE w/SHIELD
4	ZC162510-A	1	24" IDLE END PLATE
5	ZC162512	2	3/4 x 12" IDLE TIGHTENER BOLT
6	ZC162544	1	24" CONVEYOR IDLE FRAME WELDMENT



DRIVE UNIT ASSEMBLY

 PART NO. ZC2400D1

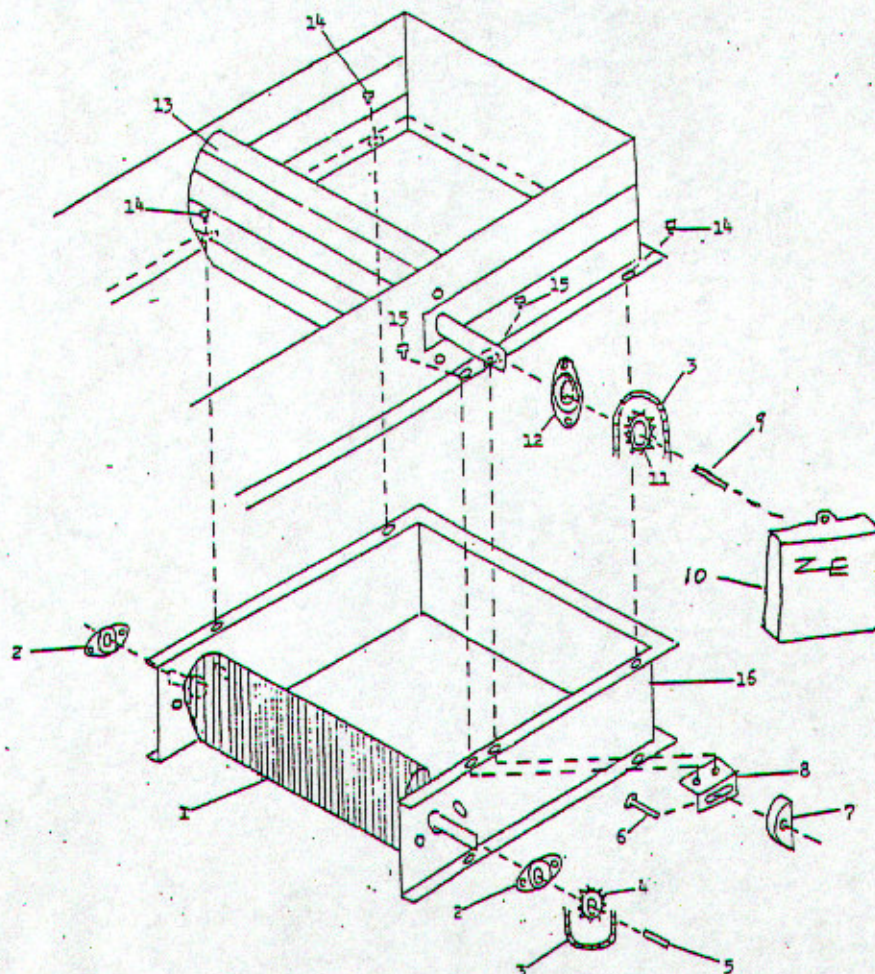
MODEL 2400 CONVEYOR DRIVE

ZC2400D1

ITEM	PART #	QUANTITY	DESCRIPTION
1	ZC240043	1	24" CONVEYOR DRIVE WELD
2	ZC162547	1	70 PITCHES OF # 50 ROLLER CHAIN w/CONNECTOR
3	ZC240018	1	24" DRIVE ROLLER ONLY
4	ZC162548	1	1/2x3-1/2" TIGHTENER BOLT
5	ZC162511-A	1	UPRIGHT MOTORMOUNT TUBE L/SET SCREW
6	ZC273	1	MOTOR BELT TIGHTENER
7	ZCF24107	1	1"x32-3/4" JACK SHAFT
8	ZC-FC2251	2	1" FLANGE BLOCK BEARING
9	ZC162516	1	50C10T, 1" BORE SPROCKET
10	ZC162545	1	1/4 "x2-3/4" KEY STOCK
11	X04-A	3	5/32"x1-1/2" COTTER KEY
12	ZC162520	1	12" PULLEY, w/1" BORE
13	ZC214	2	PIVOT ARMS
14	1BHS383	2	3/8" x 3" HEX BOLT
15	ZC24218	1	CHAIN TIGHTENER PIVOT ROD
16	ZCF166-A	2	2-1/2" NYLON TIGHTENER
17	ZC162511-B	1	UPRIGHT MOTORMOUNT w/ SET SCRE
18	1BHN38	2	3/8" HEX NUT
19	ZC216	1	PIVOT ARM SPRING
20	ZC242525	1	RETURN ROLLER ROD
21	ZC162515	1	50C40T, 1-1/4" BORE SPRCKT
22	ZC162545-A	1	1/4"x 1-3/4" KEY STOCK
23	ZCF108	2	DRIVE ROLLER TRACKING BOLT
24	ZC-FC225114(2)S	2	1-1/4"(1-1/2") FLANGE BLOCK BEARING
25	ZC162513	1	END PLATE SLIDE GUIDE
26	EM00 (SPECIFI SIZE)	1	ELECTRIC MOTOR
27	PPBS30 (5/8,7/8,1-1/8")	1	3" MOTOR PULLEY (SPECIFI BORE SIZE)
28	BBB56	1	B-56 DRIVE BELT
29	ZC24117	1	24" MOTORMOUNT SHAFT
30	ZC162523-A	1	MOTORMOUNT BRACKET L/ SET SCREW
31	ZC344	5	3/8" x 3/4" SET SCREW
32	ZC24169	1	1/2x25" PLASTIC RETURN ROLLER
33	ZC240017	1	END PLATE f/DRIVE UNIT
34	ZC162523-B	1	MOTORMOUNT BRACKET w/ SET SCREW

24" ROTARY BRUSH ASSEMBLY **PART # ZC24161**

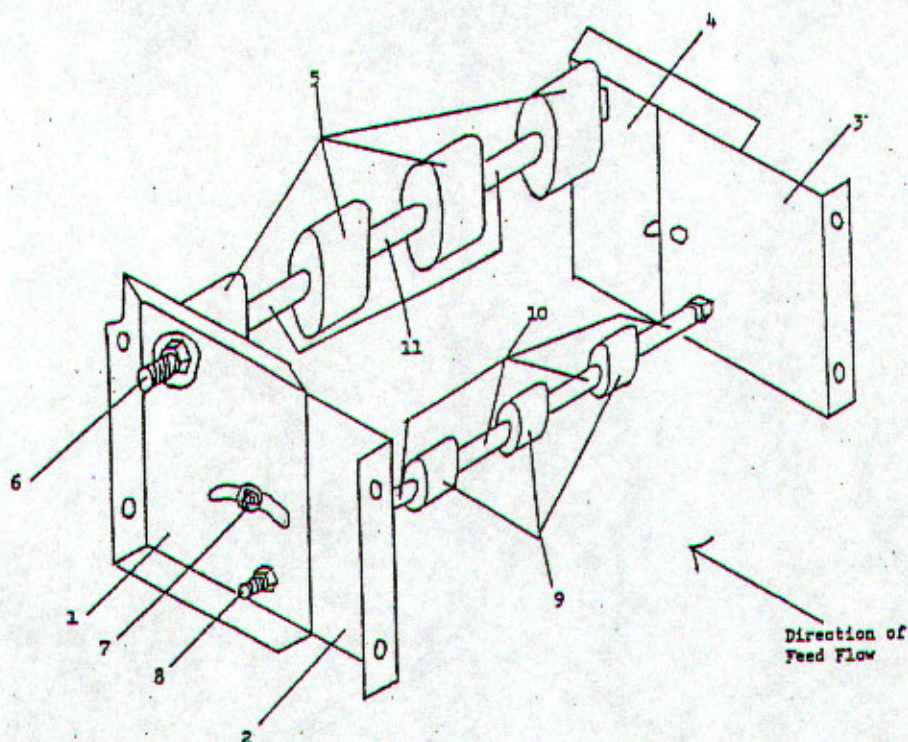
ITEM	PART #	QUANTITY	DESCRIPTION
1	ZC24201	1	24" ROTARY BRUSH ONLY
2	ZC-FC22534	2	FC22534 3/4" PILLOW BLOCK BRG.
3	X50	1	38 PITCHES OF # 40 ROLLER CHAIN w/CONNECTOR
4	ZC205	1	40C15T, 3/4" BORE SPROCKET w/ KEYWAY
5	ZC347	1	3/16 x 1" KEY STOCK
6	1BCB38112	1	3/8" x 1-1/2" CARRIAGE BOLT w/ FLAT WASHER AND NUT
7	ZC207	1	CHAIN TIGHTENER BLOCK
8	ZC345	1	CHAIN TIGHTENER BRACKET
9	ZC162545-A	1	1/4 x 1-1/2" KEY STOCK
10	ZC204	1	BRUSH SHIELD CARTON
11	ZC203	1	40C15T, 1-1/4" BORE SPROCKET
12	ZCCL25114S	1	CL25114S 1-1/4" PILLOW BLOCK BEARING ASSY.
13	ZC242518	1	24" DRIVE ROLLER
14	1BCB1412	3	1/4 x 1/2" CARRIAGE BOLT w/NUT
15	1BCB1434	2	1/4x3/4" CARRIAGE BOLT w/FLAT WASHER & NUT
16	ZC24346	1	ROTARY BRUSH FRAME



24" DECLINE JOINT

PART # ZC24166

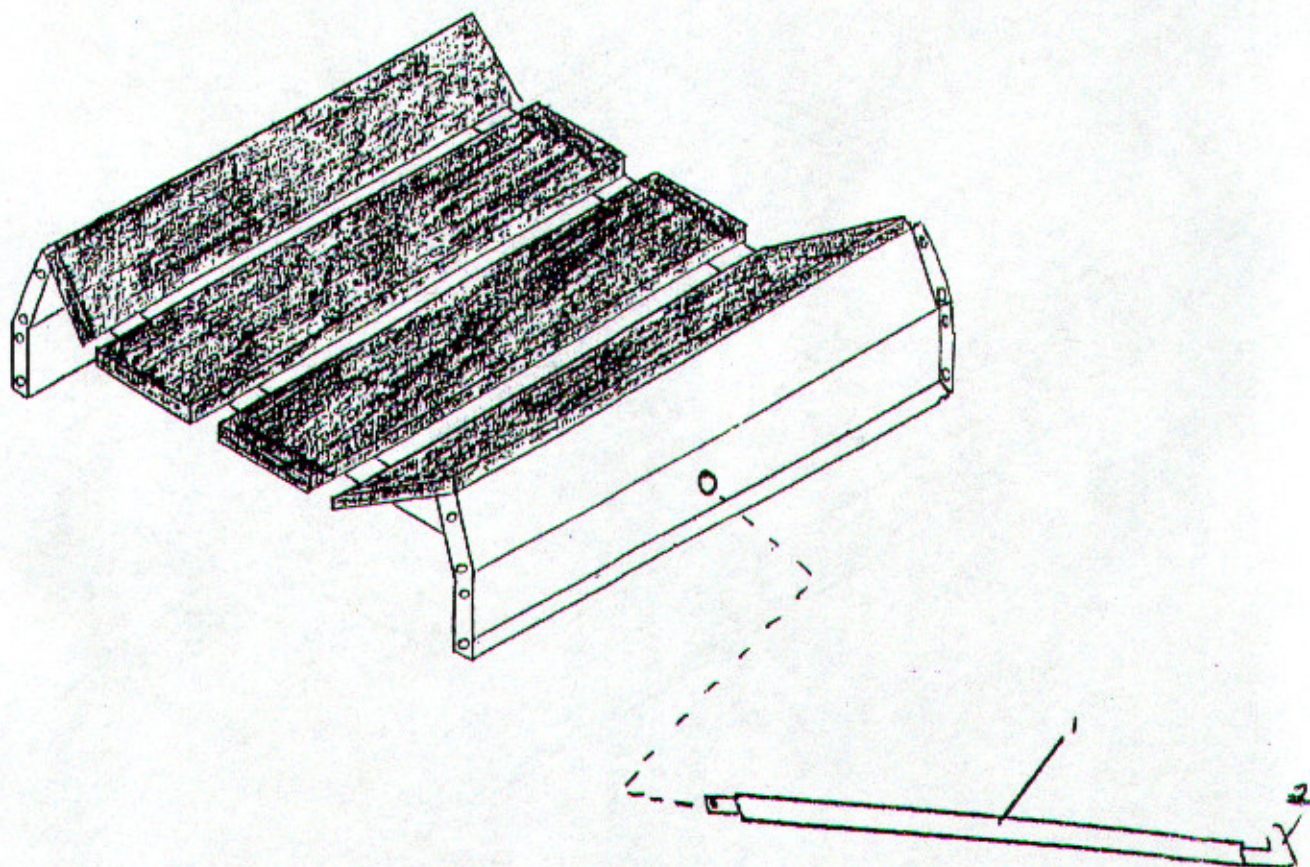
ITEM #	PART #	QUANTITY	DESCRIPTION
1.	ZC24340	1	UPPER LEFT DECLINE TRAY
2.	ZC24339	1	LOWER LEFT DECLINE TRAY
3.	ZC24341	1	LOWER RIGHT DECLINE TRAY
4.	ZC24342	1	UPPER RIGHT DECLINE TRAY
5.	ZC330	6	3-1/2" NYLON ROLLER
6.	ZC331	1	1/4" ROD w/THREADS (4- NUTS & WASHERS)
7.	1BHS38114	2	3/8"x1-1/4" BOLT, NUT, WASHER
8.	ZC332	1	1/2" ROD w/THREADS (4- 1/2" NUTS)
9.	ZC162527	7	1-1/2" NYLON ROLLER
10.	ZC162526-A	8	2" METAL ROLLER SPACER
11.	ZC219	5	1/4" ROLLER SPACER
12.	1BFW12	14	1/2" FLAT WASHER



24" 6 drg. DECLINE JOINT

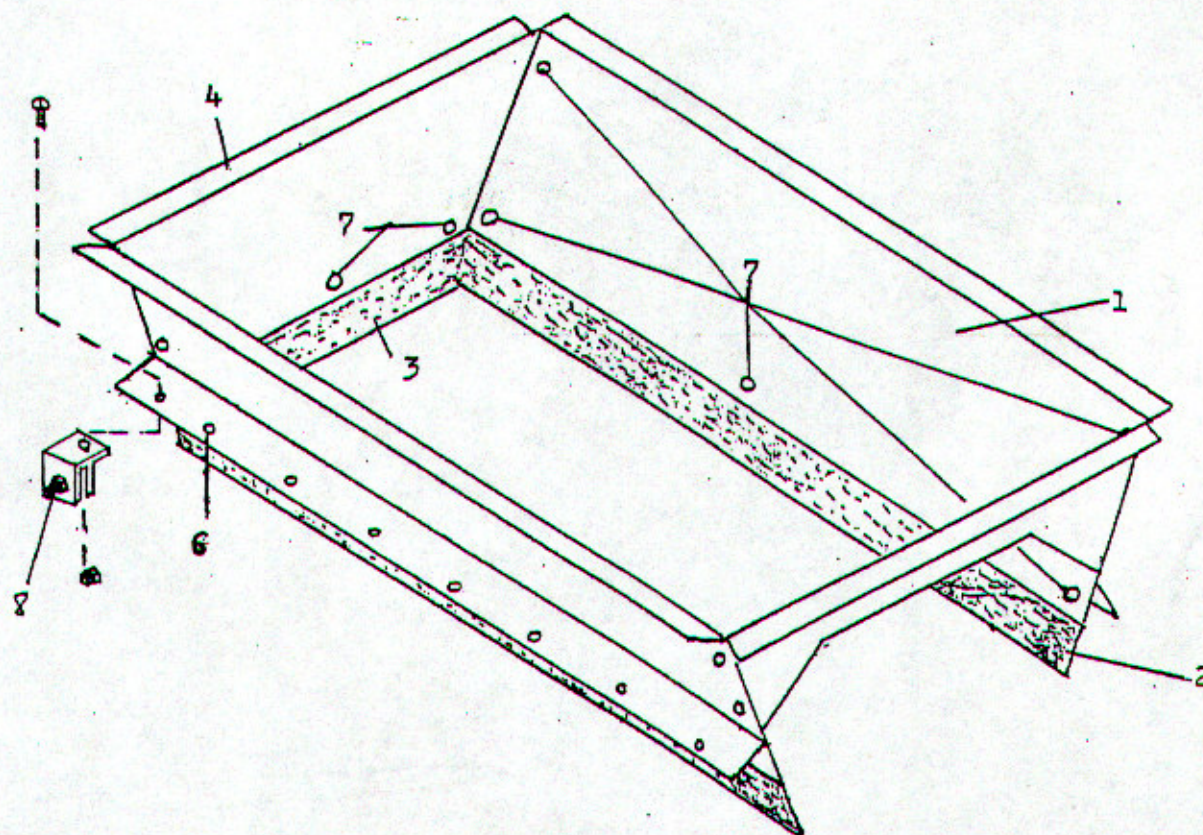
PART # ZC24240

<u>ITEM #</u>	<u>PART #</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
1	ZC24169	1	P.V.C. ROLLER
2	ZC242525	1	RETURN ROLLER ROD



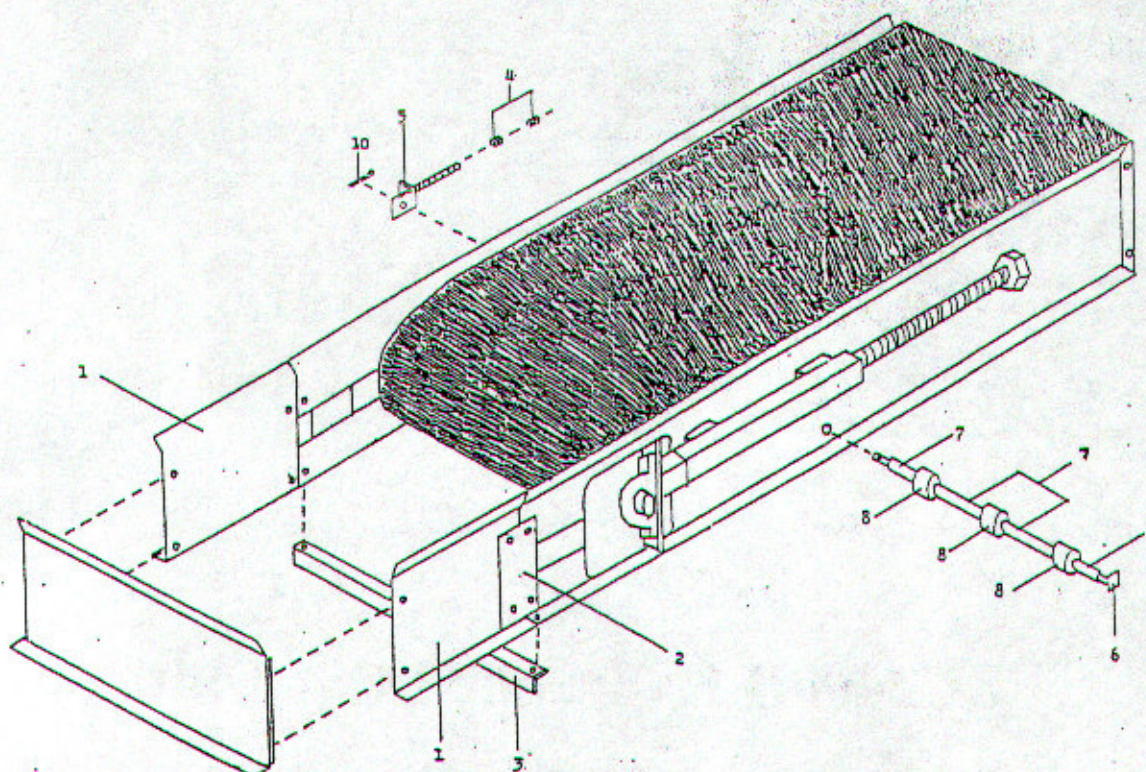
ZC164 24" STANDARD HOPPER
OR
ZC164-E 36" STANDARD HOPPER

ITEM NO.	PART NO.	QUANTITY	DESCRIPTION
1	ZC164-F	2	24" HOPPER SIDE
2	ZC060-B	2	24" SEALING STRIP
3	ZC060-A	1	BACK SEALING STRIP
4	ZC164-G	1	HOPPER BACK
5	ZC164-H	1	HOPPER FRONT
6	ZC164-J	2	24" HOPPER ANGLE
7	1BCB1412	13	1/4"x1/2" CARR. BOLT
	1BFN14	13	& 1/4" FLANGE NUT
8	ZC164-L	2	HOPPER END CLIP



24" REVERSE BUNDLE PARTS LIST

PART # ZC24171



ITEM #	PART #	QUANTITY	DESCRIPTION
1	ZC162538	2	CNVY. EXTENSION PLATE
2	ZC162537	2	CONNECTING PLATE
3	ZC242542	1	1x1x3/16" x 27" ANGLE BRACE
4	1BHN38	2	3/8" HEX NUT
5	ZC162539	1	CNVY. ADJUSTING BOLT
6	ZC242525	1	24" REVERSING ROLLER ROD
7	ZC162526-A	8	1/2" x 2"L STEEL SPACER
8	ZC162527	7	1-1/2"x1"L NYLON ROLLER
9	X04-A	1	3/16x1" COTTER KEY
	1BFW12SAE	14	1/2" SAE FLAT WASHER
	1BHN516	8	5/16" HEX NUT
	1BRHS51634	8	5/16"x3/4" TRUSS HD BOLT
	1BCB1412	2	1/4x1/2" CARRIAGE BOLT
	1BFN14	2	1/4" FLANGE NUT

ZC2400GB## Gear Box Drive Unit

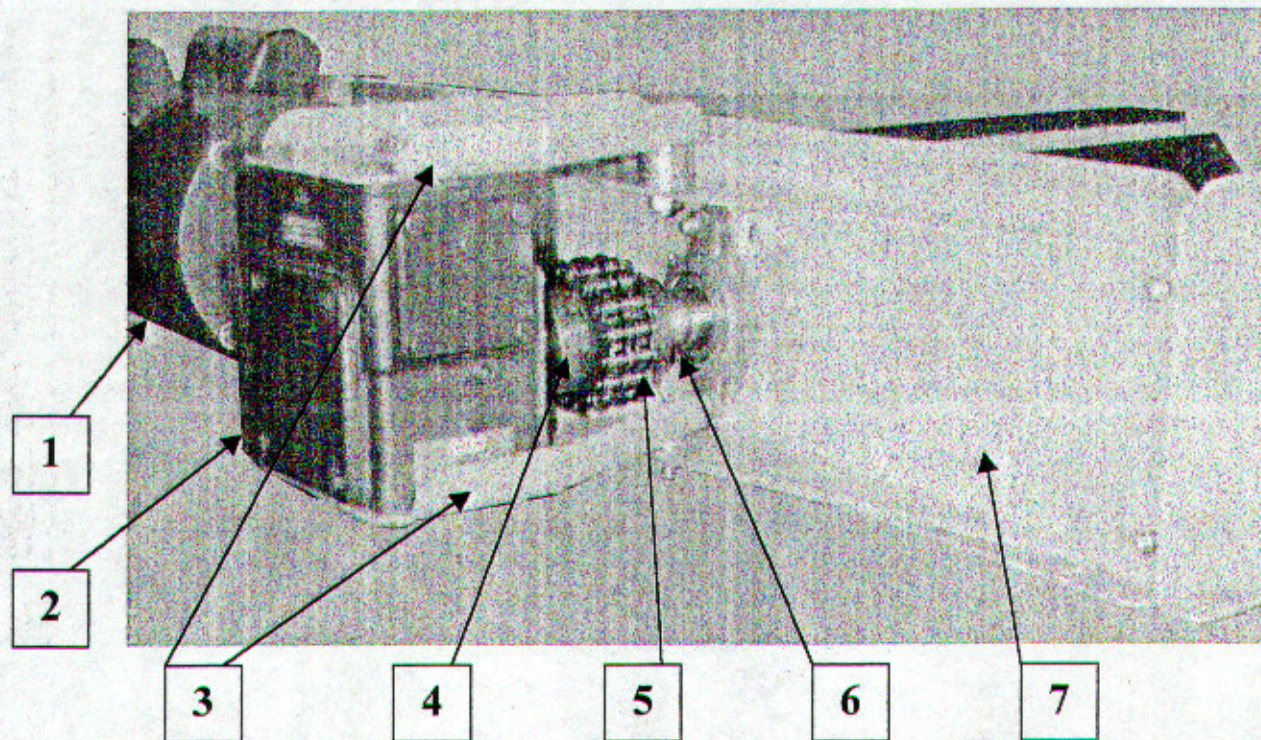


Figure 1

ZC2400H Hydraulic Drive Unit

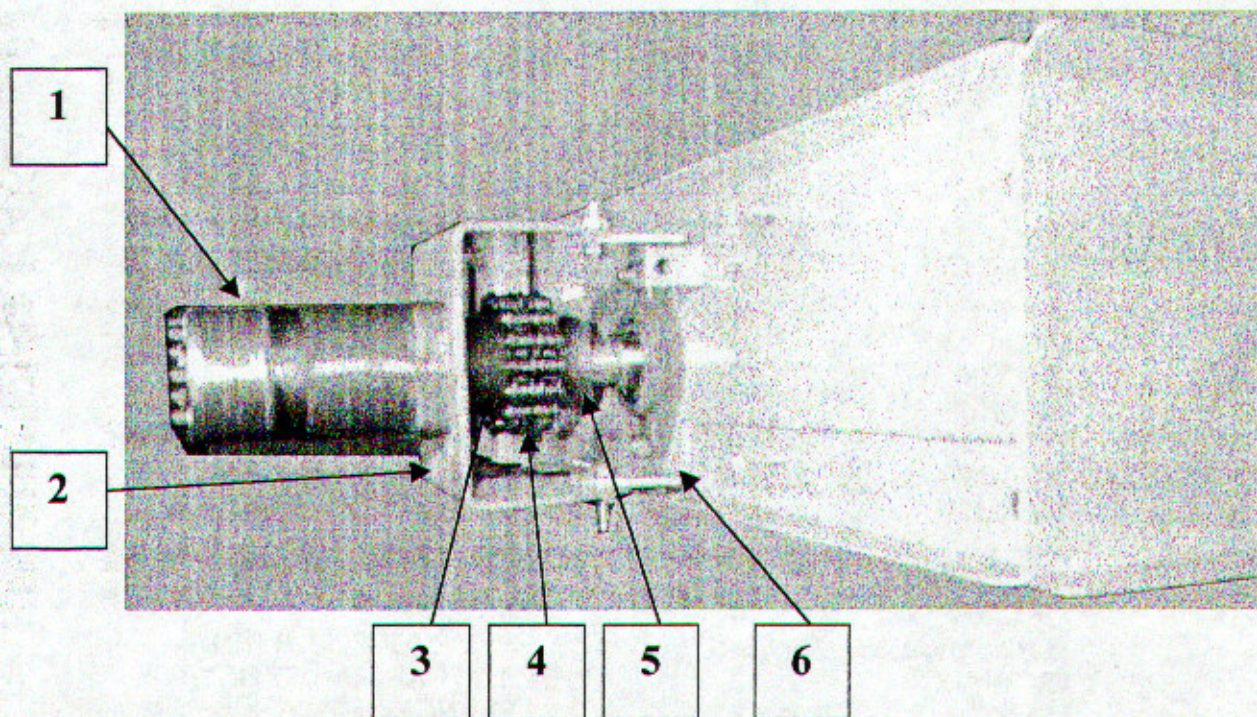


Figure 2

ZC2400GB## Gear Box Drive Parts List

(figure 1, page 16)

Item #	Part #	Description	Qty
1	EM1C	1hp C-Face Electric Motor	1
	EM2C	2hp C-Face Electric Motor	1
	EM15C	1-1/2hp C-Face Electric Motor	1
	EM034C	3/4hp C-Face Electric Motor	1
	EM3C	3hp C-Face Electric Motor	1
	(refer to motor name plate for hp, phz, frame size and rpm)		
2	ZCGB61815	Worm Gear Reducer, 15:1, up to 1hp	1
	ZCGB62115	Worm Gear Reducer, 15:1, up to 1.5hp	1
	ZCGB62415	Worm Gear Reducer, 15:1, up to 2hp	1
	ZCGB62615	Worm Gear Reducer, 15:1, up to 3hp	1
	(refer to reducer name plate for ratio, size, and input flange size)		
3	ZC220-175	Reducer Mounting Plate, 175	1
	ZC220-206	Reducer Mounting Plate, 206	1
	ZC220-238	Reducer Mounting Plate, 238	1
	ZC220-262	Reducer Mounting Plate, 262	1
4	ZC225	5016 Roller Chain Coupler, 1" bore	1
	ZC226-A	5016 Roller Chain Coupler, 1-1/8" bore	1
	ZC228-A	4016 Roller Chain Coupler, 7/8" bore	1
	ZC229-A	4016 Roller Chain Coupler, 1" bore	1
5	ZC227	5016 Roller Chain Coupler Chain	1
	ZC229	4016 Roller Chain Coupler Chain	1
6	ZC226	5016 Roller Chain Coupler, 1-1/4" bore	1
	ZC228	4016 Roller Chain Coupler, 1-1/4" bore	1
7	ZC24221	Gear Reducer Base Mount	1
	ZC221-175	175 Reducer Shield (not shown)	1
	ZC221-206	206 Reducer Shield (not shown)	1
	ZC221-238	238 Reducer Shield (not shown)	1

ZC2400H Hydraulic Drive Unit

(figure 2, page 16)

Item #	Part #	Description	Qty
1	ZC246-B	Hydraulic Motor, 5.9cid	1
	ZC246-D	Hydraulic Motor, 14.1cid	1
	ZC246-E	Hydraulic Motor, 11.3cid	1
	ZC246-F	Hydraulic Motor, 9.7cid	1
	ZC246-G	Hydraulic Motor, 8.9cid	1
	ZC246-J	Hydraulic Motor, 4.5cid	1
	ZC246-N	Hydraulic Motor, 7.3cid	1
	ZC246-O	Hydraulic Motor, 3.6cid	1
	ZC246-P	Hydraulic Motor, 17.9cid	1
	ZC246-Q	Hydraulic Motor, 22.6cid	1
To determine motor size refer to motor name plate, or use formula; rpm x cid = 231 x gpm.			
2	ZC241	Hydraulic Motor Mount	1
3	ZC225	5016 Roller Chain Coupler, 1" bore	1
	ZC229-A	4016 Roller Chain Coupler, 1" bore	1
4	ZC227	5016 Roller Chain Coupler Chain	1
	ZC229	4016 Roller Chain Coupler Chain	1
5	ZC226	5016 Roller Chain Coupler, 1-1/4" bore	1
	ZC228	4016 Roller Chain Coupler, 1-1/4" bore	1
6	ZC220	Hydraulic Motor Base Mount	1
	ZC221	Hydraulic Motor Shield (not shown)	2