

ZABEL EQUIPMENT, INC.
MODEL ZC1625M- 16" BELT CONVEYOR

INSTALLATION, PARTS AND OPERATION MANUAL



**MANUFACTURES OF BELT CONVEYOR, BELT
FEEDERS AND MANURE PUMPS**

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**ZABEL EQUIPMENT, INC.
MODEL 1625 BELT CONVEYOR**

ASSEMBLY and OPERATING INSTRUCTION MANUAL



THIS SYMBOL IS USED TO POINT OUT IMPORTANT SAFETY INFORMATION. IT MEANS "**BE ALERT, YOUR SAFETY IS INVOLVED.**" THIS SYMBOL WILL BE USED WITH ONE OF THREE SIGNAL WORDS, **CAUTION, WARNING, OR DANGER**, TO INDICATE THE DEGREE OF HAZARD. THE SIGNAL WORD **! CAUTION** IS USED TO INDICATE HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN MINOR PERSONAL INJURY. THE WORD **! WARNING** IS USED TO INDICATE HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY, DISMEMBERMENT OR DEATH. THE WORD **! DANGER** IS USED TO INDICATE IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY, DISMEMBERMENT OR DEATH IF THESE HAZARDS ARE NOT AVOIDED.

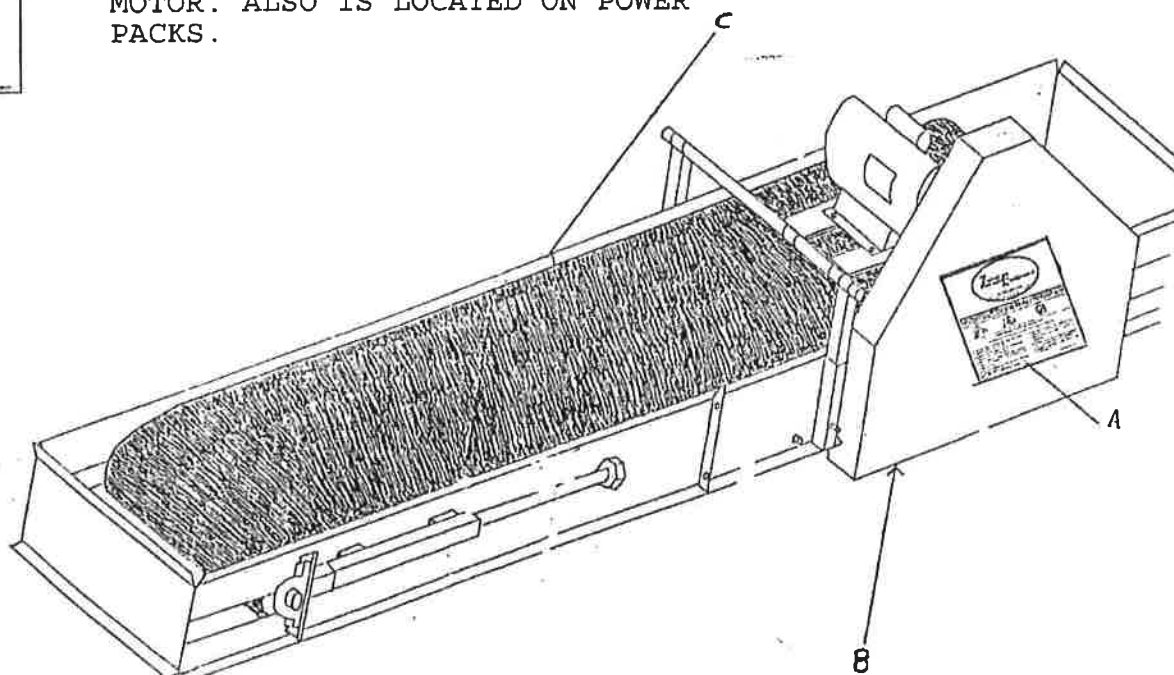
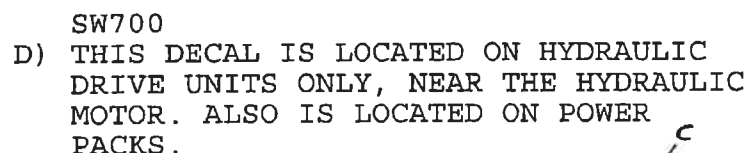
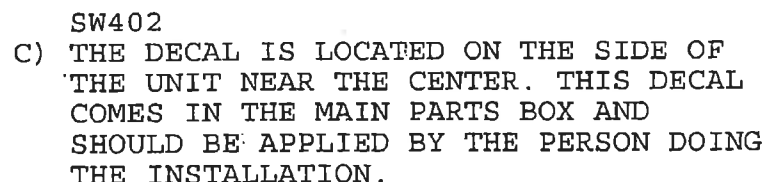
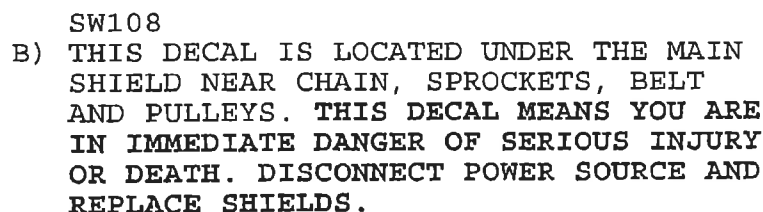
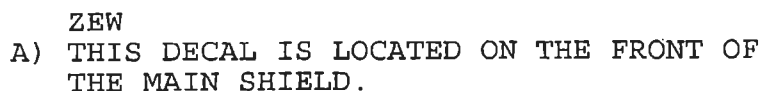
SAFETY

1. KEEP ALL GUARDS AND SHIELDS IN PLACE. MOVING PARTS CAN CRUSH OR DISMEMBER YOUR BODY WITHOUT WARNING. FAILURE TO KEEP SHIELDS OR GUARDS IN PLACE MAY RESULT IN PERSONAL INJURY OR DEATH.
2. CLEAR THE AREA OF HAZARDS BEFORE YOU STARTUP EQUIPMENT.
3. KEEP HANDS, FEET, AND LOOSE CLOTHING AWAY FROM ALL MOVING PARTS.
4. NEVER STAND, SIT, OR LEAN ON THE CONVEYOR WHILE IT IS IN OPERATION.
5. BE CERTAIN ALL MOVEMENT HAS STOPPED AND THE MAIN POWER SOURCE IS SHUT OFF AND LOCKED OUT BEFORE SERVICING THE MACHINE, SINCE MOVING PARTS CAN CRUSH OR DISMEMBER WITHOUT WARNING. FAILURE TO SHUT OFF POWER MAY RESULT IN PERSONAL INJURY OR DEATH.
6. DISCONNECT THE POWER SOURCE BEFORE RESETTING THE MOTOR OVERLOAD.
7. ONLY PROPERLY INSTRUCTED PERSONS SHOULD OPERATE THIS UNIT OF EQUIPMENT.
8. ALL ELECTRICAL WORK SHOULD BE DONE BY A QUALIFIED ELECTRICIAN AND IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND THEIR REQUIREMENTS.



NEGLIGENT OPERATION MAY RESULT IN PERSONAL INJURY OR DEATH: OBEY ALL SAFETY PRECAUTIONS. PAY STRICT ATTENTION WHEREVER THIS SAFETY SYMBOL APPEARS: FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY. ALL OPERATORS MUST USE THEIR BEST JUDGMENT AND FOLLOW GOOD GENERAL SAFETY PRACTICES IN THE SAFE OPERATION OF THIS AND ALL OTHER MACHINERY. ALL PHOTOS ALL PHOTOS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY. IN MANY PHOTOS, THE SHIELDS MAY BE OFF TO ILLUSTRATE A CERTAIN DETAIL. **NEVER** OPERATE THIS UNIT WITHOUT ALL GUARDS AND SHIELDS IN PLACE.

1-B



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 CAN BE ORDERED BY SPECIFYING THE MACHINE SIZE, NAME, PART NUMBER, AND THE NUMBER OF DECALS NEEDED.

ZABEL EQUIPMENT, INC.

ZC1625 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.

DATE THIS BOOK March 10, 1999

INTRODUCTION

THE ZE 1625 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 1625 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 1625 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 1625 – 16" BELT CONVEYOR

BELT SPEED: 234 FEET PER MINUTE

CAPACITY: 2106 BUSHELS PER HOUR (35 BUSHELS PER MINUTE)

PAINT COVERAGE: DOUBLE DIPPED IN YELLOW ENAMEL PAINT

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

- **1', 2', 4', AND 8' SECTIONS**
- **INCLINE JOINTS**
- **DECLINE JOINTS**
- **DOWNSPOUT ADAPTOR**
- **DOWNSPOUTS**
- **PLOW-OFFS**
- **3' & 6' PLOW OFF SECTIONS**
- **HANGING BRACKETS**
- **2', 3', 4', 6', & 8' REG OR FLOW THREW HOPPERS**
- **COVERS**
- **BRUSHES**
- **DIVERTERS**
- **SMOOTH, RUFF, OR CLEATED BELT**
- **REVERSEABLE**

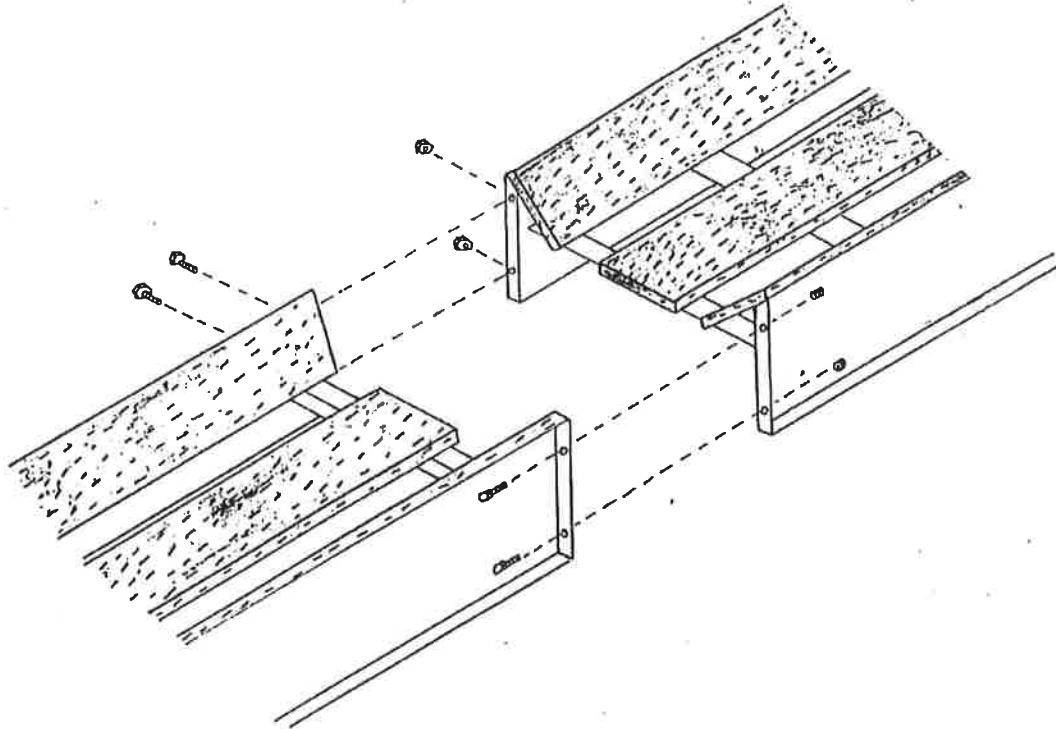
HOW TO ORDER PARTS

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 ITEM COLUMN.
5. FOLLOW ACROSS THE PAGE TO THE COLUMN HEADED PART #. USE THIS NUMBER AND THE NAME OF THE PART WHEN PLACING YOUR ORDER.

INSTALLATION PROCEDURE

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

STEP 2: ATTACH THE NEXT TROUGH SECTION TO THE IDLE END AS PICTURED BELOW. USE FOUR 3/8 x 1" HEX HEAD BOLTS WITH NUTS. BE SURE TO TIGHTEN BOLT.



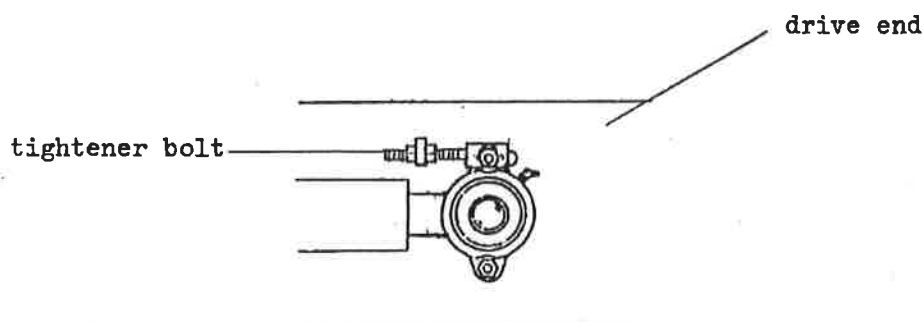
STEP 3: CONTINUE THE LENGTH OF THE CONVEYOR, ATTATCHING ALL ADDITIONAL SECTIONS AS IN STEP 2, UNTIL ONLY THE DRIVE HEAD REMAINS.

STEP 4: ATTATCH THE DRIVE HEAD TO THE LAST TROUGH SECTION. THE DRIVE HEAD CAN BE RECOGNIZED AS THE END WITH THE DRIVE SPROCKET ON IT. DUE TO THE EXTRA WEIGHT INVOLVED, THE DRIVE HEAD NEEDS ADEQUATE SUPPORT . IT CAN BE SUPPORTED BY LEGS, BRACES, OR CAN BE SUSPENED FROM THE CEILING.

STEP 5: THE ELECTRIC MOTOR SHOULD BE MOUNTED AT THIS TIME. IT CAN BE A SIGNAL PHASE OR THREE PHASE MOTOR, AND SHOULD BE A FOOT MOUNTED MOTOR. A 3" DRIVE PULLEY IS RECOMMENDED AND ONE IS SUPPLIED WITH THE CONVEYOR SHEILD CARTON BOX. THE MOTOR IS TO BE FURNISHED BY THE PURCHASER. PLEASE REFER TO HORSE POWER REQUIRMENT CHART FOR MOTOR SIZE AND LENGTH OF CONVEYOR.

INSTALLATION PROCEDURE CONTINUE

STEP 8: THE LAST STEP BEFORE OPERATING YOUR MODEL 1625 BELT CONVEYOR, IS TO ADJUST THE BELT SO THAT IT IS IN THE CENTER OF THE IDLE AND DRIVE ROLLERS AT EACH END. START THE CONVEYOR UNIT UP IN SHORT BURSTS, MAKING SURE TO DO ALL THE INITIAL ADJUSTMENTS IN THE IDLE END. IF THE BELT IS TOO NEAR ONE SIDE AND NOT CENTERED, LOOSEN THE BELT ON THE SIDE WHICH IT MOVED AWAY FROM. WHEN THE BELT IS CENTERED IN IDLE ROLLER, THEN MOVE TO THE DRIVE END AND ADJUST. IF THE BELT IS CENTERED ON THE DRIVE ROLLER, THEN NO ADJUSTMENT IS NECESSARY. IF THE CONVEYOR BELT NEEDS ADJUSTING, LOCATE THE TIGHTENER BOLT ON THE SIDE OPPOSITE THE ROLLER CHAIN. (SEE FIGURE BELOW.)



NOW ADJUST TIGHTENER BOLT UNTIL THE BELT IS CENTERED. AFTER THE BELT IS CENTERED ON DRIVE ROLLER, RE-CHECK THE IDLE END TO SEE IF IT IS CENTERED. IF THE BELT IS NOT CENTERED MAKE THE ADJUSTMENTS TO BOTH THE IDLE AND DRIVE END AS YOU DID PREVIOUSLY. (NOTE: BELT MAY WANDER BACK & FORTH AS MUCH AS ½" WHEN PROPERLY ADJUSTED. THIS IS NORMAL.)

STEP 9: BEFORE OPERATING THIS CONVEYOR UNIT, MAKE SURE TO PLACE THE **!WARNING!** DECAL ON THIS UNIT. (YOU WILL FIND THE DECAL IN THE MAIN PARTS BOX.) THE **!WARNING!** DECAL SHOULD BE PLACED IN A CLEARLY VISIBLE PLACE ON A SECTION NEAR THE CENTER OF THE CONVEYOR UNIT.

MOTOR HORSEPOWER REQUIRED

LENGTH OF CONVEYOR

	UP to 20'	21' to 40'	41' to 80'	81' to 110'	111' to 135'
HORSEPOWER	$\frac{3}{4}$	1	1-1/2	2	3

SET THE MOTOR ON THE TOP SURFACE OF THE MOTORMOUNT BRACKETS. BOLT THE MOTOR TO THE BRACKET'S, MAKING SURE THE SHAFT EXTENDS FAR ENOUGH SO THAT THE SUPPLIED 3" PULLEY ALIGNS WITH THE 12" PULLEY MOUNTED ON THE DRIVE HEAD. NEXT ALIGN AND LOCK THE PULLEYS ON THE SHAFTS. THE NEXT STEP IS TO ASSEMBLE THE SHIELD ACCORDING TO THE INSTRUCTIONS FOUND ON PAGE 10 OF THIS MANUAL.

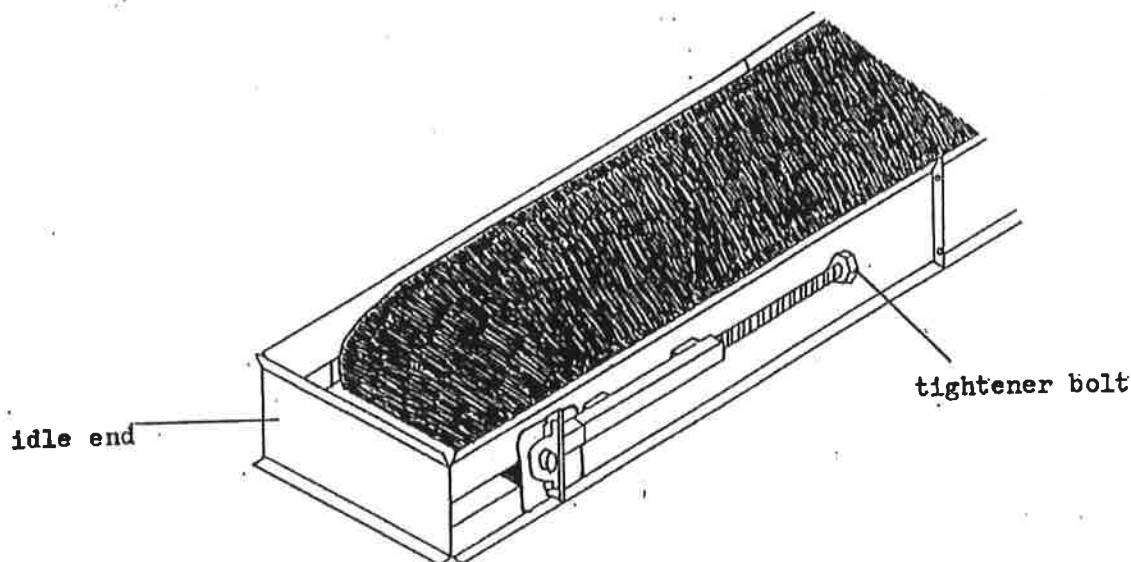
WARNING: NEVER OPERATE THE CONVEYOR WITHOUT ALL SHIELDS IN PLACE. FAILURE TO FOLLOW THE PROPER SAFETY PRECAUTIONS MAY RESULT IN PERSONAL INJURY OR DEATH.

CAUTION:

STEP 6: THE ELECTRICAL WIRING FOR THIS UNIT 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 SWITCH IS USED AND THAT ALL WIRING AND SWITCHES ARE KEPT OUT OF REACH OF LIVESTOCK.

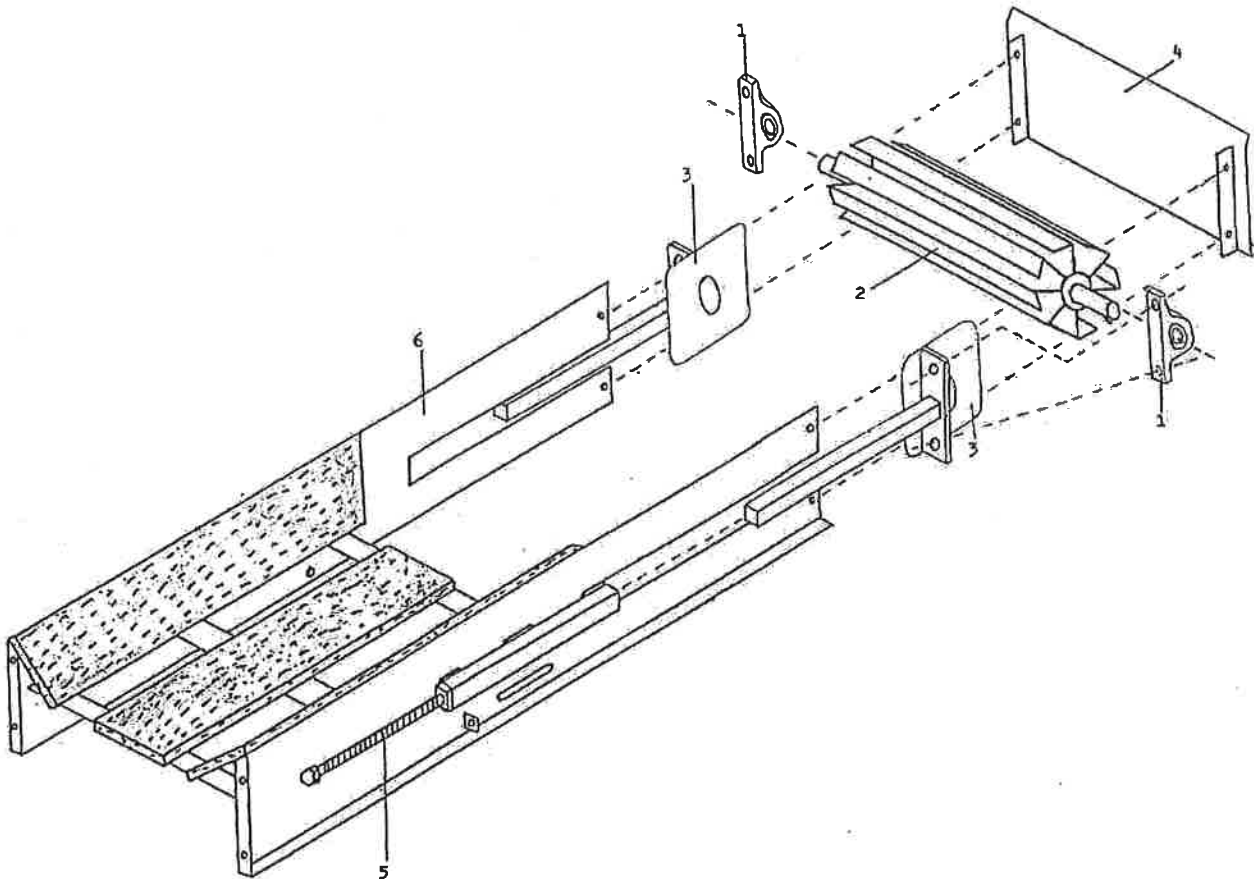
STEP 7: YOU ARE NOW READY TO INSTALL THE BELT. FIRST, LOOSEN THE TIGHTENED BOLTS ON EITHER SIDE OF THE IDLE END, SO YOU WILL HAVE AS MUCH BELT SLACK AS POSSIBLE. UNROLL THE BELT SO THE PVC COATED (SHINNY) SIDE IS UP. PULL THE BELT OVER THE IDLE ROLLER AND THROUGH THE UNDERSIDE OF THE CONVEYOR. BE SURE TO GO OVER THE NYLON ROLLERS WHICH ARE IN THE MIDDLE OF EACH SECTION. MESH THE LOOPS OF THE METAL BELT SPLICE TOGETHER AND THREAD THE CONNECTOR CABLE THROUGH THE SPLICE. ONCE THE CABLE IS IN PLACE, CRIMP THE RETAINING WASHER ON EITHER END OF CABLE WITH PLIERS. NOW TIGHTEN THE TIGHTENED BOLTS ON EITHER SIDE OF THE IDLE END UNTIL THE BELT IS TIGHT.

NOTE: (TIGHTENED BOLTS SHOULD BE TIGHTENED THE SAME AMOUNT ON EACH SIDE TO HELP KEEP THE BELT STRAIGHT .) THE BELT SHOULD RIDE UP ON THE NYLON ROLLERS WHEN IT IS SUFFICIENTLY TIGHT.

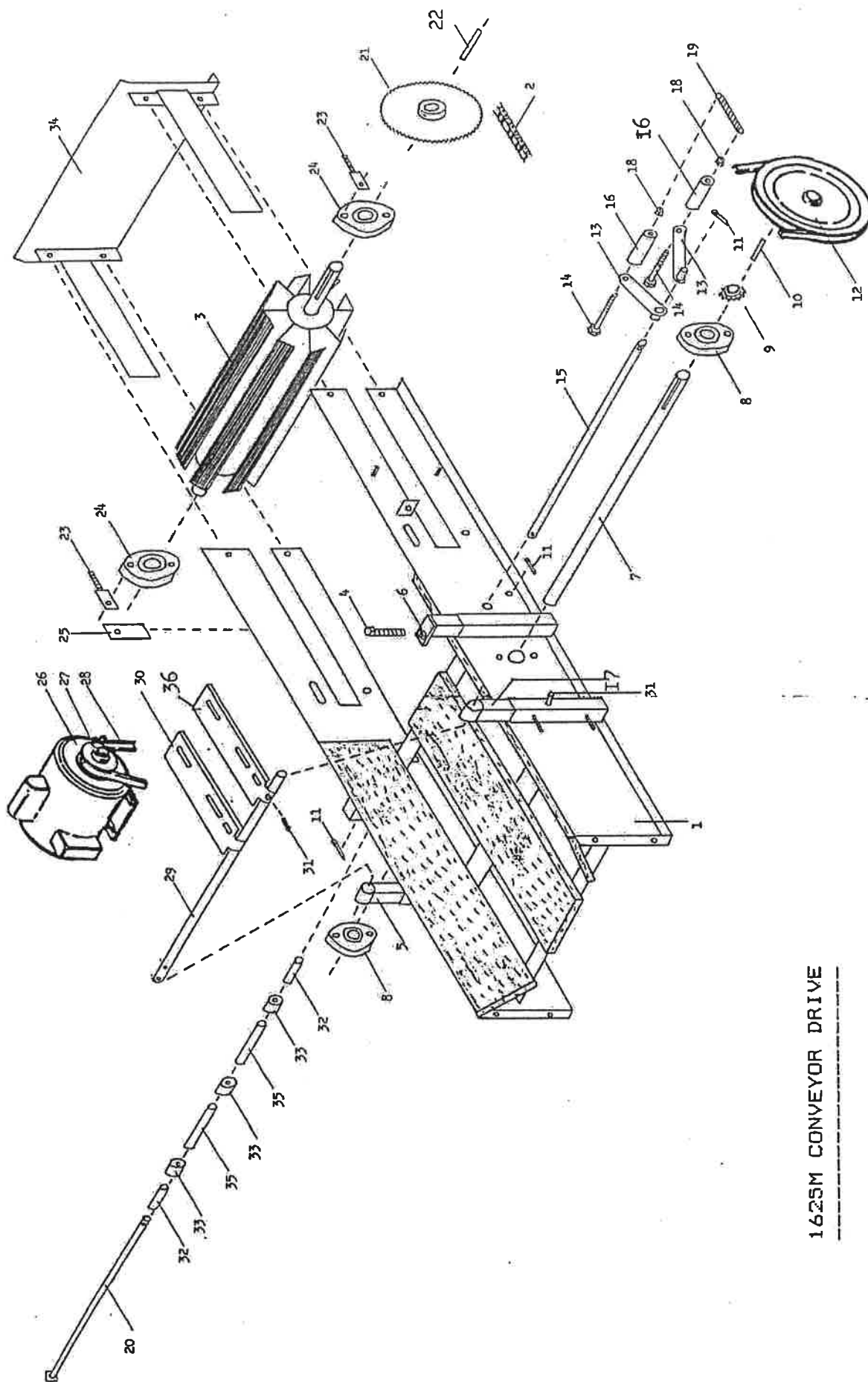


IDLE UNIT ASSEMBLY

PART NO. ZC1625D2



ITEM	PART #	QUANTITY	DESCRIPTION
1	ZC125114S	2	1-1/4" PILLOW BLOCK BEARING ASSY.
2	ZC162507	1	1625 IDLE ROLLER
3	ZC162509-A	2	14" BEARING HOLDER PLATE W/SHIELD
4	ZC162510	1	END PLATE F/IDLE END
5	ZC162512	2	3.4 x 12" IDLE TIGHTENER BOLT
6	ZC162541	1	CONVEYOR IDLE FRAME



1625M CONVEYOR DRIVE

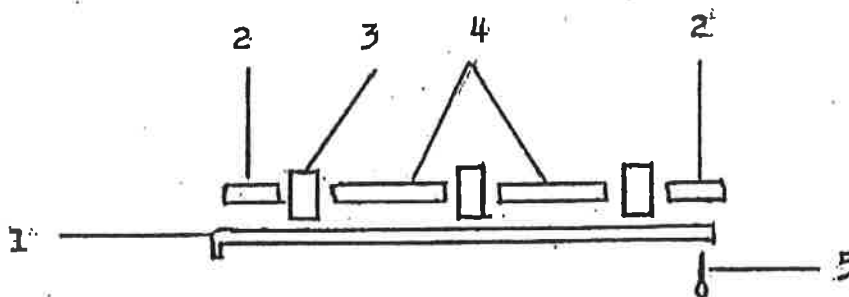
**1625M CONVEYOR DRIVE
PART # ZC230**

ITEM	PART #	QUANTITY	DESCRIPTION
1	ZC231	1	CONVEYOR DRIVE WELDMENT
2	ZC162547	1	#50 ROLLER CHIAN (70 PITCHES)
3	ZC162518	1	16" DRIVE ROLLER
4	ZC162548	1	1/2x3-1/2" TIGHTENED BOLT
5	ZC162511-A	1	UPRIGHT MOTOR MOUNT TUBE L/SET SCREW
6	ZC273	1	MOTOR BELT TIGHTENED
7	ZC107	1	1"x23-3/4" JACK SHAFT
8	ZC-FC2251	2	1" FLANGE BLOCK BEARING
9	ZC162516	1	50C-10T, 1"B SPROCKET
10	ZC162545	1	1/4"x 2-3/4" KEY STOCK
11	X04-A	3	5/32" x 1-1/2" COTTER KEY
12	ZC162520	1	12" PULLEY w/1" BORE
13	ZC214	2	PIVOT ARMS
14	1BHS383	2	3/8x3" HEX BOLT
15	ZC218	1	CHAIN TIGHTENER PIVOT ROD
16	ZCF166-A	2	1-3/4" NYLON TIGHTENER
17	ZC162511-B	1	UPRIGHT MOTOR MOUNT TUBE w/SET SCREW
18	1BHN38	2	3/8" HEX NUT
19	ZC216	1	PIVOT ARM SPRING
20	ZC162525	1	RETURN ROLLER ROD
21	ZC162515-A	1	50C-42T, 1-1/4"B SPROCKET
22	ZC162545-A	1	1/4x1-3/4" KEY STOCK
23	ZCF108	2	DR- ROLLER TRACKING BOLT
24	ZC-FC225114S	2	1-1/4" FLANGE BLOCK BEARING
25	ZC162513	1	END PLATE SLIDE GUIDE
26	EM00	1	ELECTRIC MOTOR
27	PPBS30 (5/8,7/8, 1-1/8")	1	3" PULLEY (SPECIFI BORE)
28	BBB56	1	B-56 DRIVE BELT
29	ZCF117	1	MOTOR MOUNT SHAFT
30	ZC162523-A	1	MOTOR MOUNT BRACKET L/ SET SCREW
31	ZC344	5	3/8"x3/4" SET SCREW
32	ZC162526	2	2" LONG SHORT NYLON SPACER
33	ZC162527	3	1-1/2" NYLON ROLLER
34	ZC162517	1	DRIVE END CAP
35	ZC162528	2	4-1/2" LONG SPACER
36	ZC162523-B	1	MOTOR MOUNT BRACKET w/ SET SCREW

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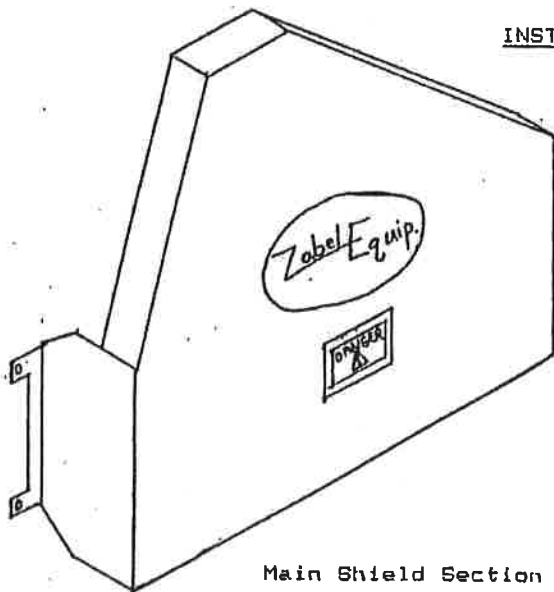
RETURN ROLLER ASSEMBLY PARTS LIST

PART # ZC162524

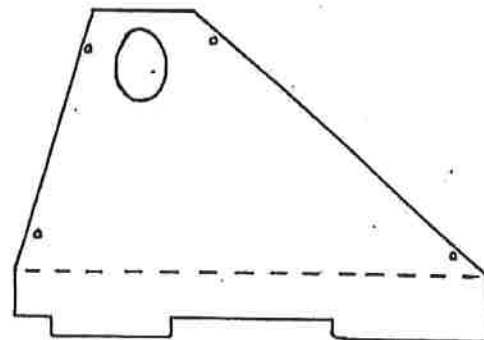


ITEM#	PART#	QUANTITY	DESCRIPTION
1	ZC162525	1	RETURN ROLLER
2	ZC162526	2	SHORT SPACERS (2")
3	ZC162527	3	NYLON ROLLERS
4	ZC162528	2	LONG SPACERS (4-1/2")
5	X01	1	COTTER KEY

INSTRUCTIONS FOR ASSEMBLY OF CONVEYOR SHIELD Part No. ZC119-A



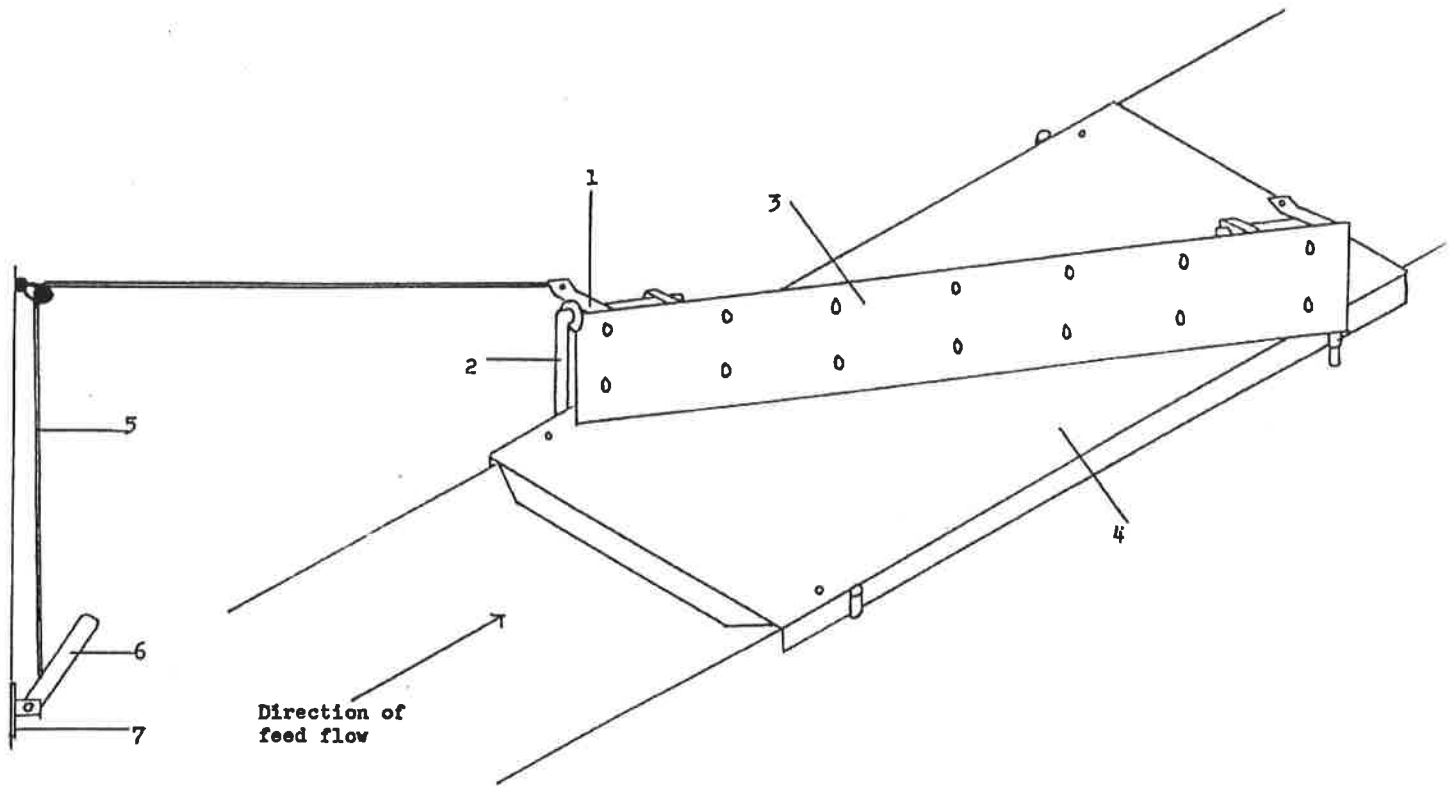
Main Shield Section



Shield Back Section

- STEP 1: Place shield back section over the motor pulley so that it looks as shown. You may now put the drive belt on both pulleys and tighten the belt. The belt is tightened by adjusting the 1/2" 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 four 1/4" wing nuts.
- STEP 3: Bolt shield back section to the back of the main shield section using four 1/4" speed nuts and four 1/4" x 1/2" thumbscrews.
- STEP 4: Place stickers on main shield section as shown.

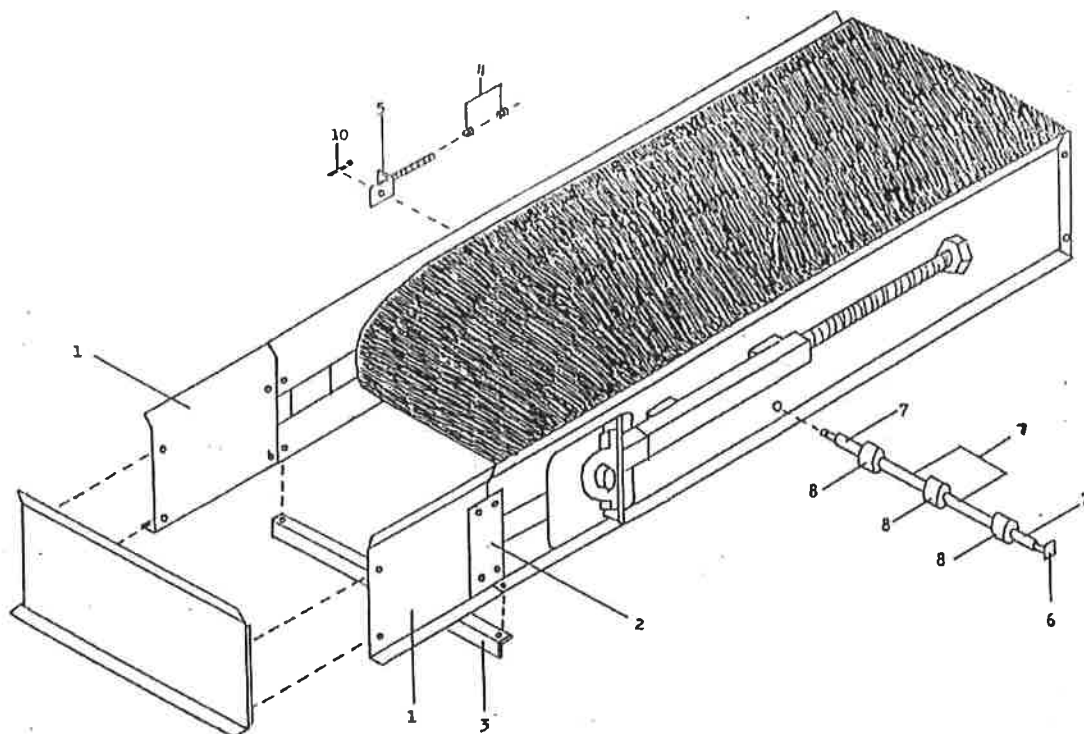
FLOW-OFF ASSEMBLY PARTS LIST
PART # ZC162



ITEM	PART #	QUANTITY	DESCRIPTION
1	ZC300	1	FLOW SUPPORT FRAME
2	ZC301	2	FLOW HINGE ROD
3	ZC162530	1	3' x 6" NYLON FLOW ONLY
4	ZC162529	1	FLOW BASE
5	ZC162532	1	15'-5/32" FLOW TRIP CABLE
6	ZC162533	1	ADJUSTMENT HANDLE
7	ZC162534	1	ADJUSTING HANDLE SUPPORT

REVERSING BUNDLE PARTS LIST

PART NO. ZC171



ITEM#	PART#	QUANTITY	DESCRIPTION
1	ZC162538	2	EXTENSION PLATE
2	ZC162537	2	CONNECTING PLATE
3	ZC162542	1	1x1x3/16" x 19" ANGLE IRON BRACE
4	1BHN38	2	3/8" HEX NUT
5	ZC162539	1	ADJUSTING BOLT
6	ZC162525	1	REVERSING ROLLER ROD
7	ZC162526-A	5	SHORT SPACER (2")
8	ZC162540	4	2" NYLON ROLLER
9	X04-A	1	COTTER KEY
	1BFW12SAE	8	1/2" SAE FLAT WASHER
	1BHN14	2	1/4" HEX NUT
	1BHN516	8	5/16" HEX NUT
	1BRH1434	2	1/4x3/4" TRUSS HD BOLT
	1BRHS51634	8	5/16x3/4" TRUSS HD BOLT

REVERSING PACKAGE (ZC171) INSTALATION INSTRUCTION

- STEP 1:** INSTALL 1x1x3/16" -19" LONG ANGLE IRON (ZC162542) BY DRILLING TWO HOLES INTO 1625 CONVEYOR TO MOUNT ANGLE. MOUNT ANGLE AS CLOSE TO THE END OF CONVEYOR AS POSSIBLE.
- STEP 2:** REMOVE THE END PLATE (ZC162510) BY REMOVING THE FOUR HEX BOLTS THAT HOLD IT IN PLACE. ATTACH THE TWO CONNECTING PLATES (ZC162537) IN THE HOLES WHERE YOU REMOVED THE END PLATE WITH BOLTS. ATTACH THE EXTENSION PLATE (ZC162538) TO THE CONNECTING PLATES (ZC162537) WITH THE FOUR BOLTS. RE-INSTALL THE END PLATE (ZC162510) TO EXTENSION PLATE (ZC162538) WITH BOLTS.
- STEP 3:** INSTALL ADJUSTING BOLT (ZC162539) WITH 3/8" NUTS, INTO THE FLANGE WELD NEXT TO SLOT, WITH THE ANGLE OVER SLOT. INSTALL RETURN ROLLER ASSY. (ZC162524) RUNNING ROD INTO THE FIRST ROUND HOLE.

DIRECTIONS FOR TRACKING A TWO DIRECTION CONVEYOR

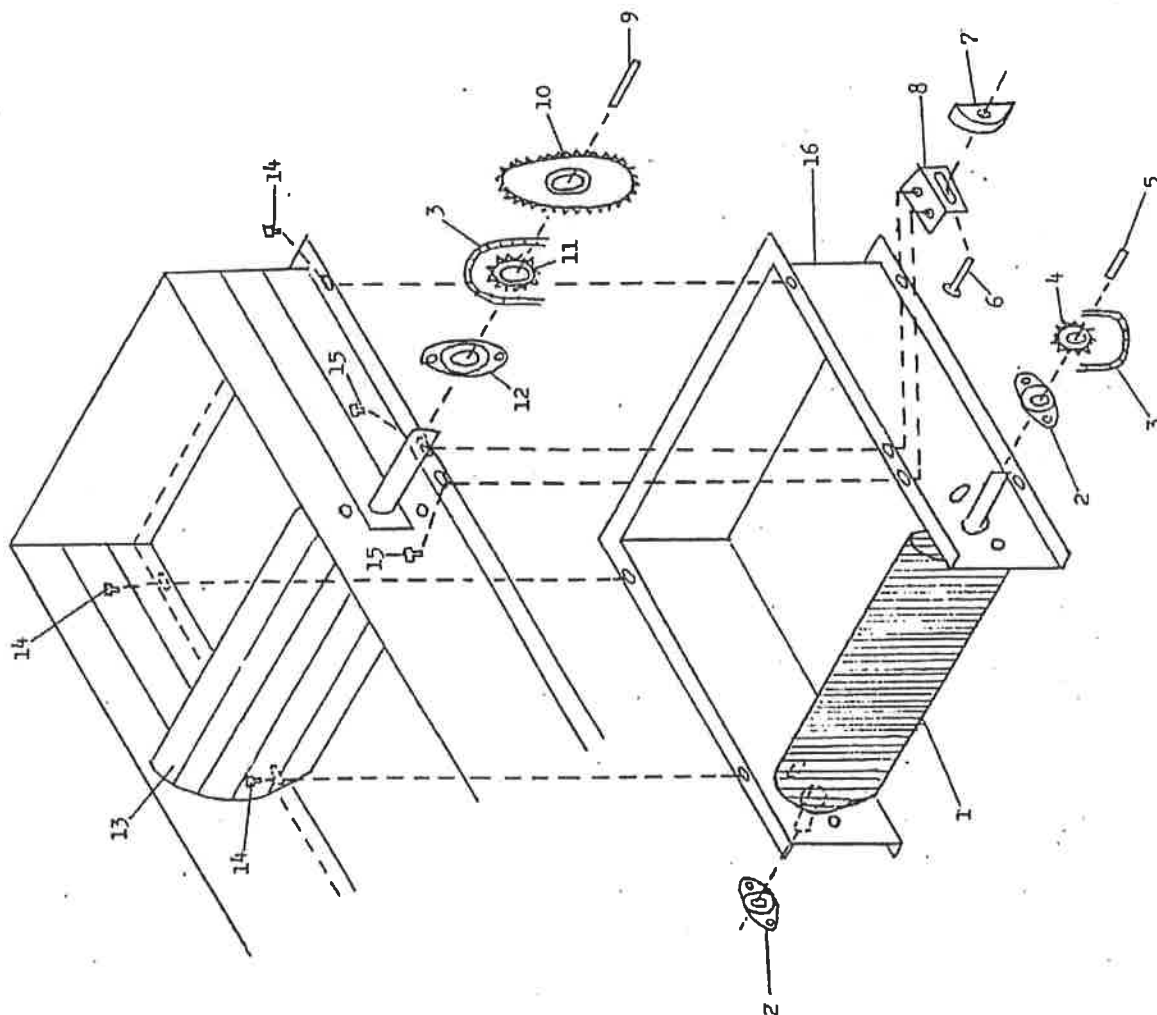
- STEP 1:** INSTALL REVERSING PACKAGE (ZC171).
- STEP 2:** TRACK THE CONVEYOR IN A REVERSE DIRECTION BY RUNNING THE CONVEYOR IN SHORT INTERVALS TO KEEP FROM RIPPING THE BELT. LOOSEN THE TWO 7/16" BOLTS ON THE DRIVE ROLLER BEARING. USE THE 7/16" SQ. HD SET SCREW TO ADJUST THE BEARING POSITION. TRACKING THE IDLE IS ACHIEVED BY USING THE 3/4" TIGHTENER BOLTS (ZC162512).
- STEP 3:** RUN THE CONVEYOR IN THE FORWARD DIRECTION IN SHORT INTERVALS TO KEEP FROM RIPPING THE BELT IF TRACKING IS NOT CORRECT. CHECK THE IDLE END AND ADJUST TRACKING BY USING THE ADJUSTING BOLT (ZC162512) TO MOVE THE ROLLER ROD TO CENTER THE BELT. CHECK DRIVE END FOR TRACKING AND ADJUST BEARINGS (ZC1625114S) TO FIND A HAPPY MEDIUM BETWEEN FORWARD & REVERSE. THE BELT MAY RUN CLOSER TO ONE SIDE OF THE CONVEYOR IN ORDER TO PROVIDE PROPER ALIGNMENT.

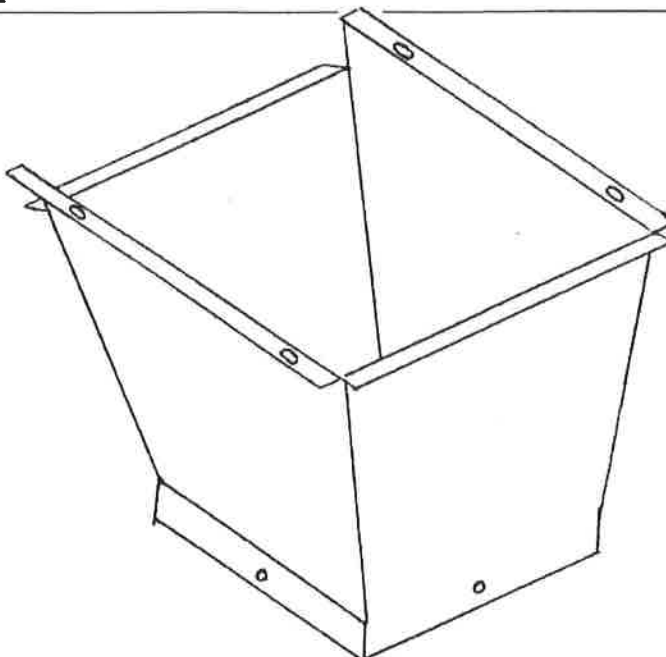
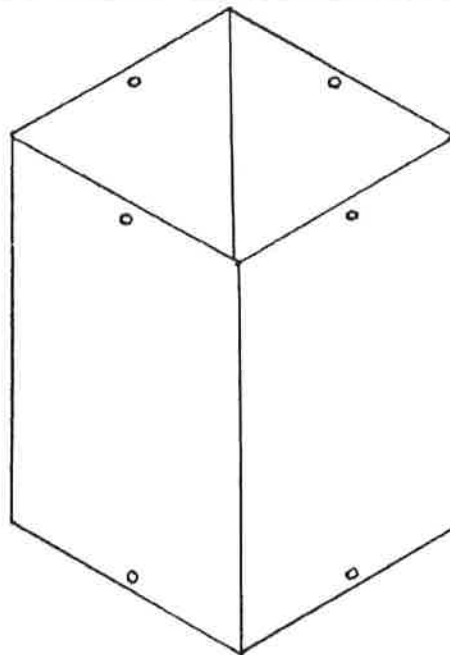
ZC161 ROTARY BRUSH ASSEMBLY

ITEM	PART #	QUANTITY	DESCRIPTION
1	ZC201	1	ROTARY BRUSH ONLY
2	ZC-FC22534	2	1/2" FLANGE BLK. w/BRG.
3	ZC206	1	#40-40 PITCH CHAIN w/CONNECTOR
4	ZC205	1	40C 15T, 3/4" SPROCKET
5	ZC347	1	3/16" KEY STOCK
6	1BCB38112	1	3/8 x 1-1/2" CARRIAGE BOLT w/NUT & WASHER
7	ZC207	1	CHAIN TIGHTENED BLOCK
8	ZC345	1	CHAIN TIGHTENED HOLDER
9	ZC1612545-A	1	1/2" SQ. x 1-1/4" KEY STOCK
10	ZC162515-A	1	50C 42T, 1-1/4" SPROCKET
11	ZC203	1	40C 15T 1-1/4" SPROCKET
12	ZCCL25114S	1	1-1/4" PILLOW BLK. w/BRG.
13	ZC162518	1	DRIVE ROLLER
14	1BCB1412	3	1/2 x 1/2" CARRIAGE BOLT & NUT
15	1BCB1434	2	1/2 x 1/2" CARRIAGE BOLT, NUT & WASHER
16	ZC346	1	ROTARY BRUSH FRAME ONLY

ZC161-B ROTARY BRUSH SHIELD CARTON

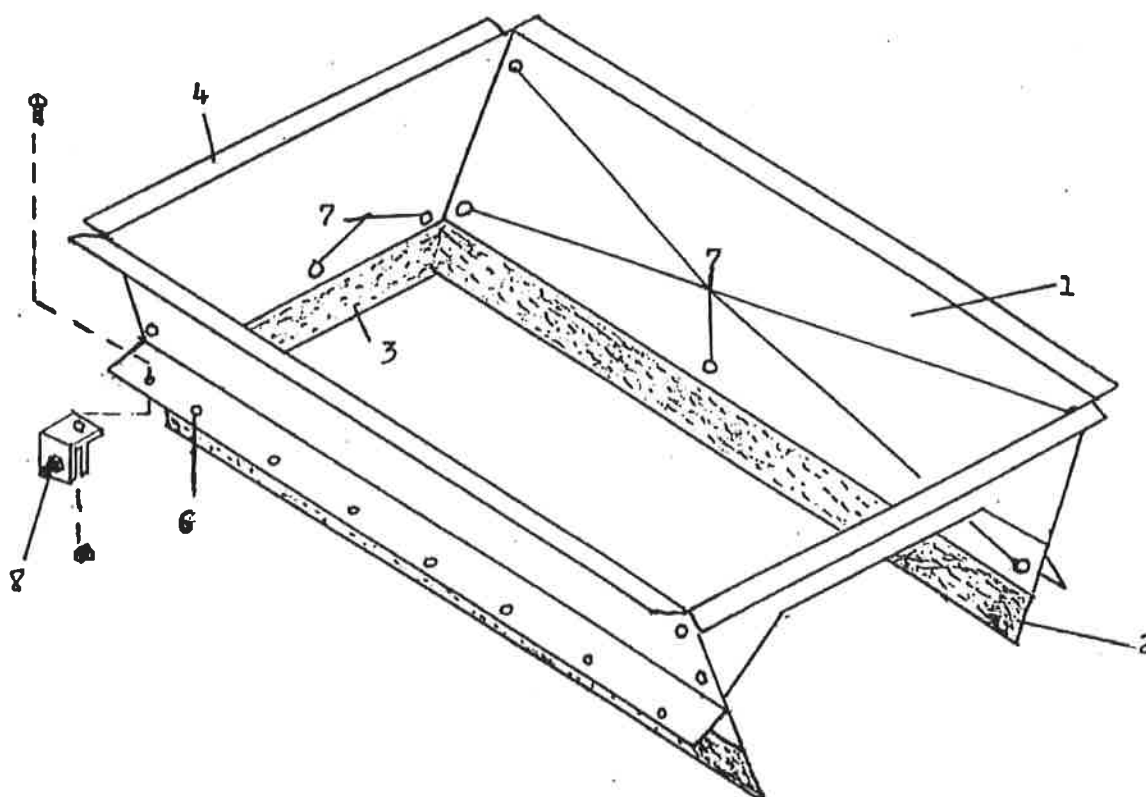
PART #	QUANTITY	DESCRIPTION
1BCB1412	3	1/2 x 1/2" CARRIAGE BOLT
1BCB1434	2	1/2 x 1/2" CARRIAGE BOLT
1BCB38134	1	3/8 x 1-3/4" CARRIAGE BOLT
1BFN14	5	1/2" FLANGE NUT
1BHN38F	1	3/8" FLANGE NUT
X42	1	1/2" SQ. KEY STOCK
X43	1-1/8"	3/16" SQ. KEY STOCK
X51	1	#40 CONNECTOR LINK
X52	1	#40 OFFSET LINK (1/2 LINK)
ZC203	1	40C, 15T, 1-1/4" B SPROCKET
ZC204	1	ROTARY BRUSH SHIELD ONLY
ZC205	1	40C, 15T, 3/4" SPROCKET
ZC206	1	#40-42 PITCH CHAIN
ZC207	1	CHAIN TIGHTENER BLOCK
ZC345	1	CHAIN TIGHTENER HOLDER



DOWNSPOUT ADAPTOR**PART # ZC168****HEIGHT: 14"****INSIDE DIMENSIONS:****TOP: 22"x18"****BOTTOM: 12"x12"****DOWNSPOUT****PART # ZC169****HEIGHT: 18"****INSIDE DIMENSIONS:****TOP: 13"x13"****BOTTOM: 12"x12"*******NOTE: REMEMBER TO ADD 6" FOR ROTATORY BRUSH, IF ONE IS USED. *****

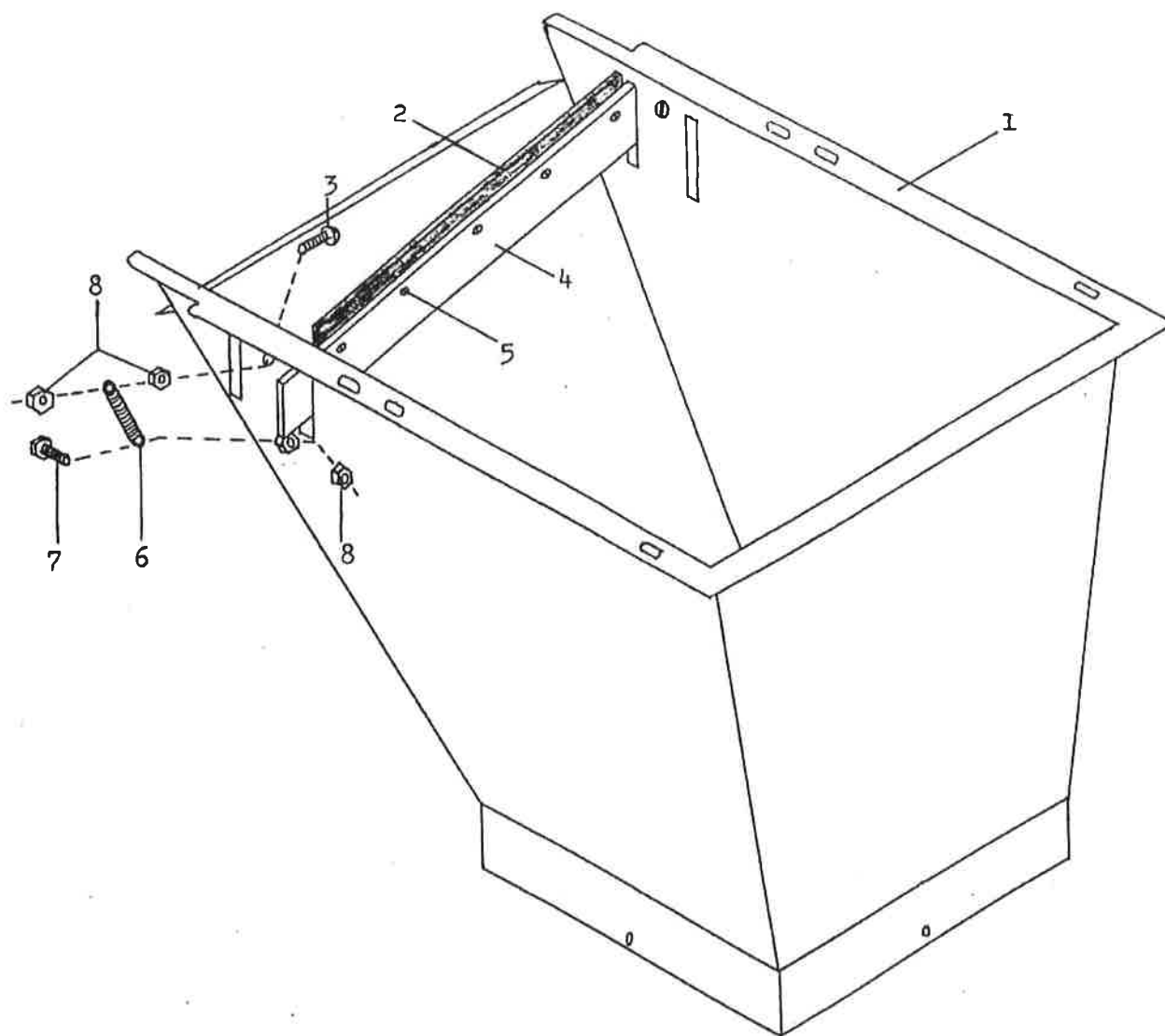
ZC164 24" STANDARD HOPPER
OR
ZC164-E 36" STANDARD HOPPER

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



DOWNSPOUT ADAPTOR WITH SCRAPER

ZC168-A

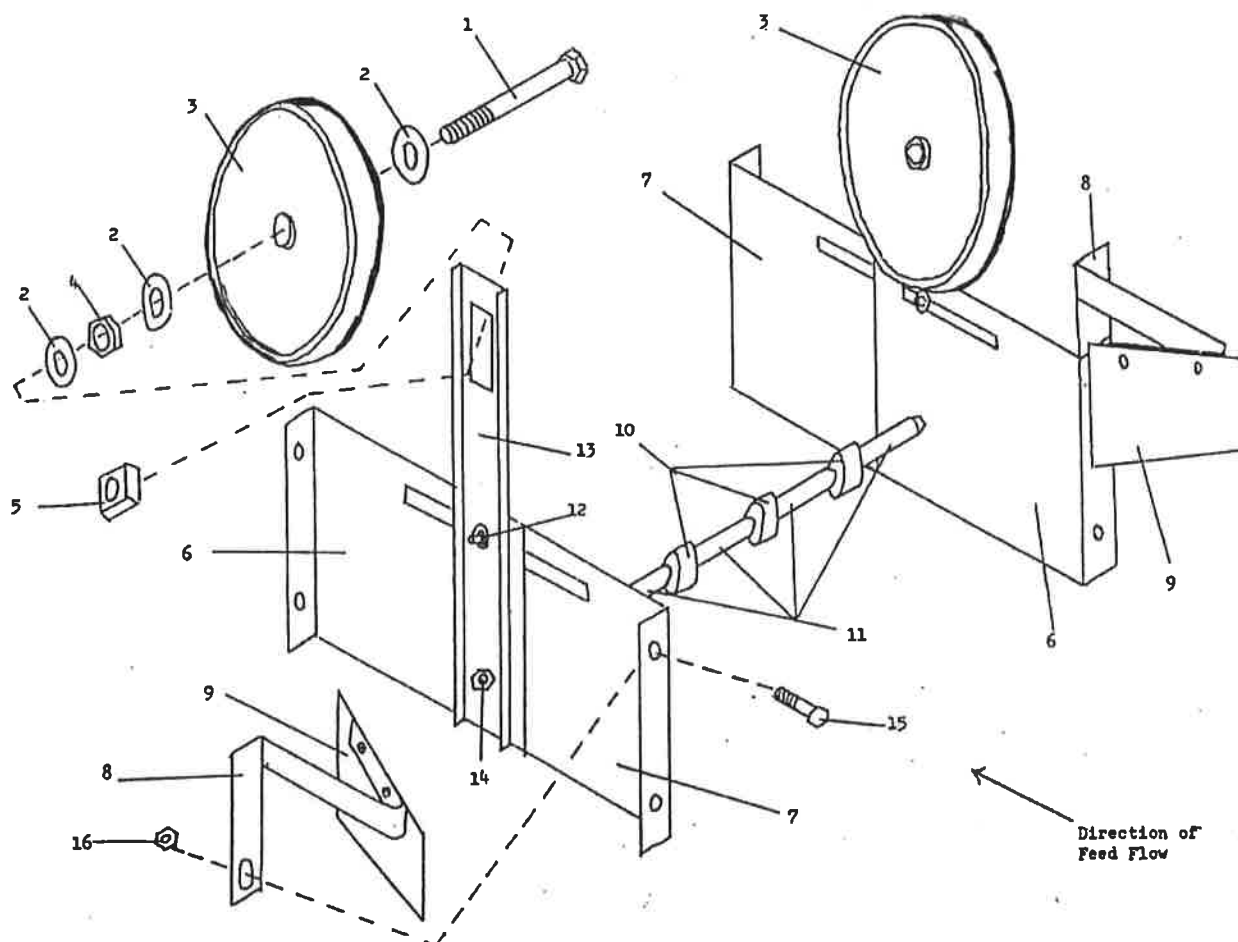


ITEM	PART #	QUANTITY	DESCRIPTION
1	ZC168	1	DOWNSPOUT ADAPTOR
2	ZC168-D	1	2" x 16" PVC BELTING F/SCRAPER
3	1BFHS51634	2	5/16"x 3/4" FLAT HEAD BOLT
4	ZC168-C	1	SCRAPER CROSSPIECE BRACKET
5	1BFHS1434	5	1/4"x3/4" FLAT HEAD BOLT & NUT
6	ZC216	2	2" PIVOT SPRING
7	1BHS5161	2	5/16x3/4" HEX HEAD BOLT
8	1BHN516	6	5/16" HEX NUT

CONVEYOR INCLINE JOINT

ZC167

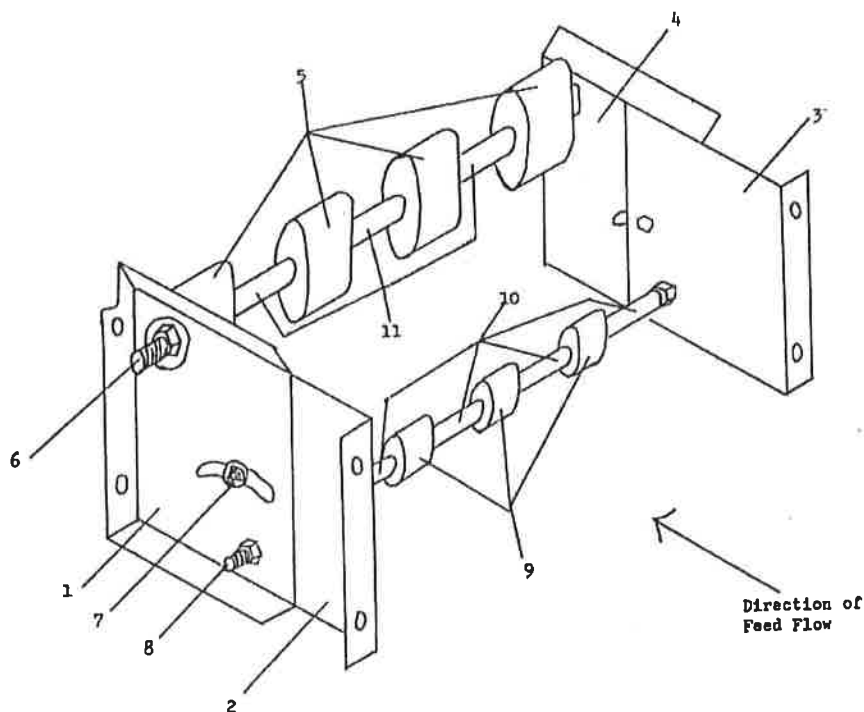
ITEM	PART #	QUANTITY	DESCRIPTION
1	1BHS34412	2	3/4" x 4-1/2" HEX BOLT
2	1BFW34	6	3/4" FLAT WASHER
3	ZC338	2	10" NYLON WHEEL
4	1BHN34	2	3/4" HEX NUT
5	1BHN34S	2	3/4" SQ. NUT
6	ZC334	2	RIGHT INCLINE TRAY
7	ZC333	2	LEFT INCLINE TRAY
8	ZC336,ZC337	2	RIGHT & LEFT PLOW BRACKETS
9	ZC343	2	NYLON PLOW
10	ZC162527	4	1-1/2" NYLON ROLLERS
11	ZC162526-A	5	2" METAL ROLLER SPACERS
12	1BHS716114	2	7/16" x 1-1/4" BOLT, NUT, LOCK & FLAT WASHER
13	ZC335	2	UPRIGHT BRACKET
14	ZC332	2	1/2" THREADED ROD, W/2-NUTS & 2- LOCK WASHERS
15	1BHS38114	2	3/8x1-1/4" HEX BOLT
16	1BHN38	2	3/8" HEX NUT



DECLINE JOINT

PART # ZC166

ITEM #	PART #	QUANTITY	DESCRIPTION
1	ZC340	1	UPPER LEFT DECLINE TRAY
2	ZC339	1	LOWER LEFT DECLINE TRAY
3	ZC341	1	LOWER RIGHT DECLINE TRAY
4	ZC342	1	UPPER RIGHT DECLINE TRAY
5	ZC330	4	3-1/2" NYLON ROLLERS
6	ZC331	1	3/4" ROD W/THREADS (4- 3/4" NUTS, & FLAT WASHERS)
7	1BHS38114	2	3/8"x1-1/4" BOLT W/NUT & FLAT WASHERS
8	ZC332	1	1/2" ROD W/THREADS (4-1/2" NUTS INCLUDED)
9	ZC162527	4	1-1/2" NYLON ROLLERS
10	ZC162526-A	5	2" METAL ROLLER SPACERS
11	ZC219	3	3/4" ROLLER SPACERS



ZC1625GB## Gear Box Drive Unit

20.

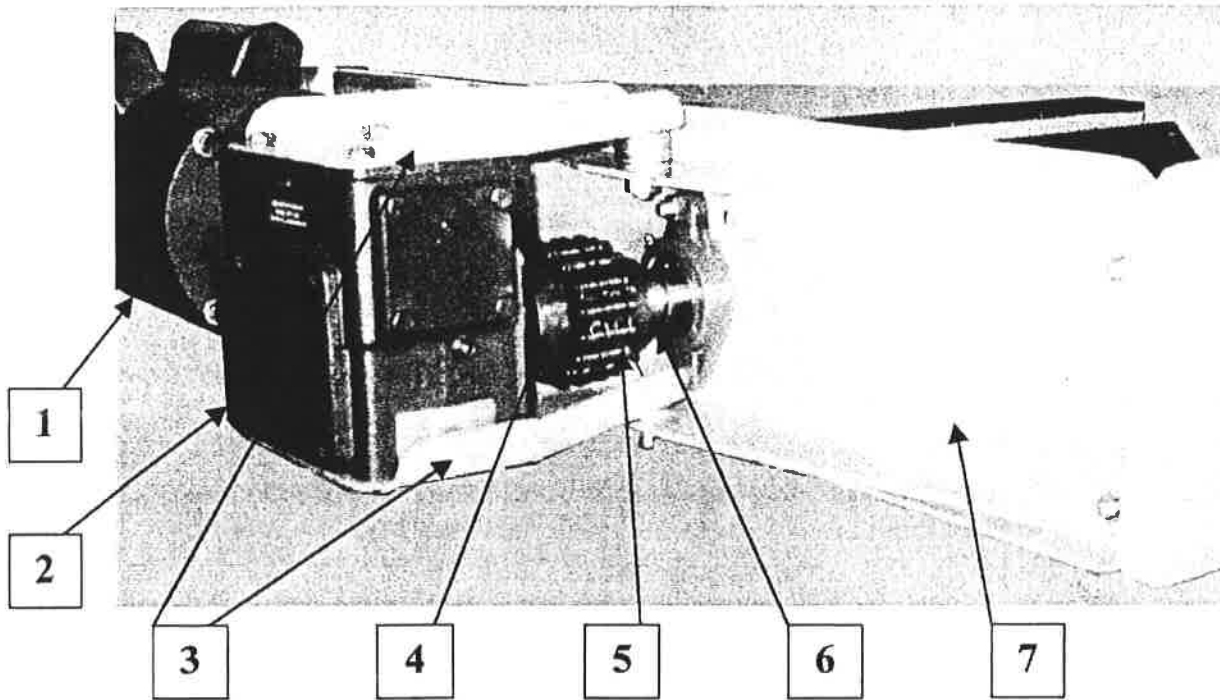


Figure 1

ZC1625H Hydraulic Drive Unit

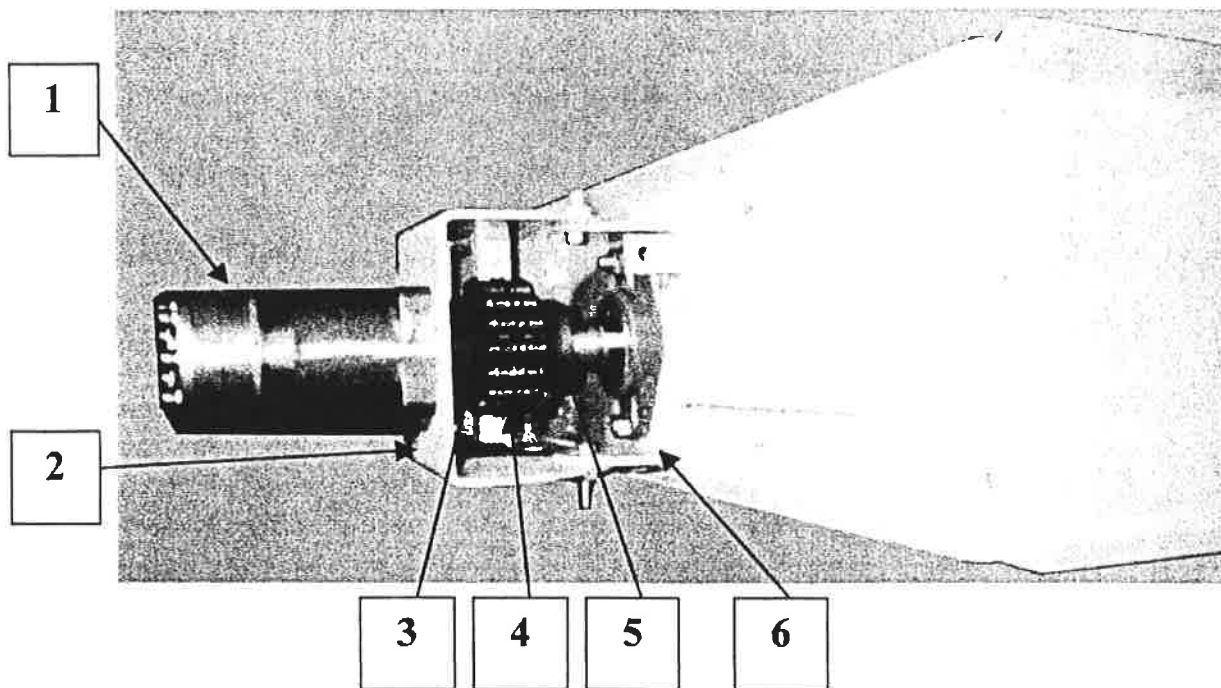


Figure 2

ZC1625H Hydraulic Drive Unit

(figure 2, page 20)

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

ZC1625GB## Gear Box Drive Parts List

(figure 1, page 20)

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	ZC220-B	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