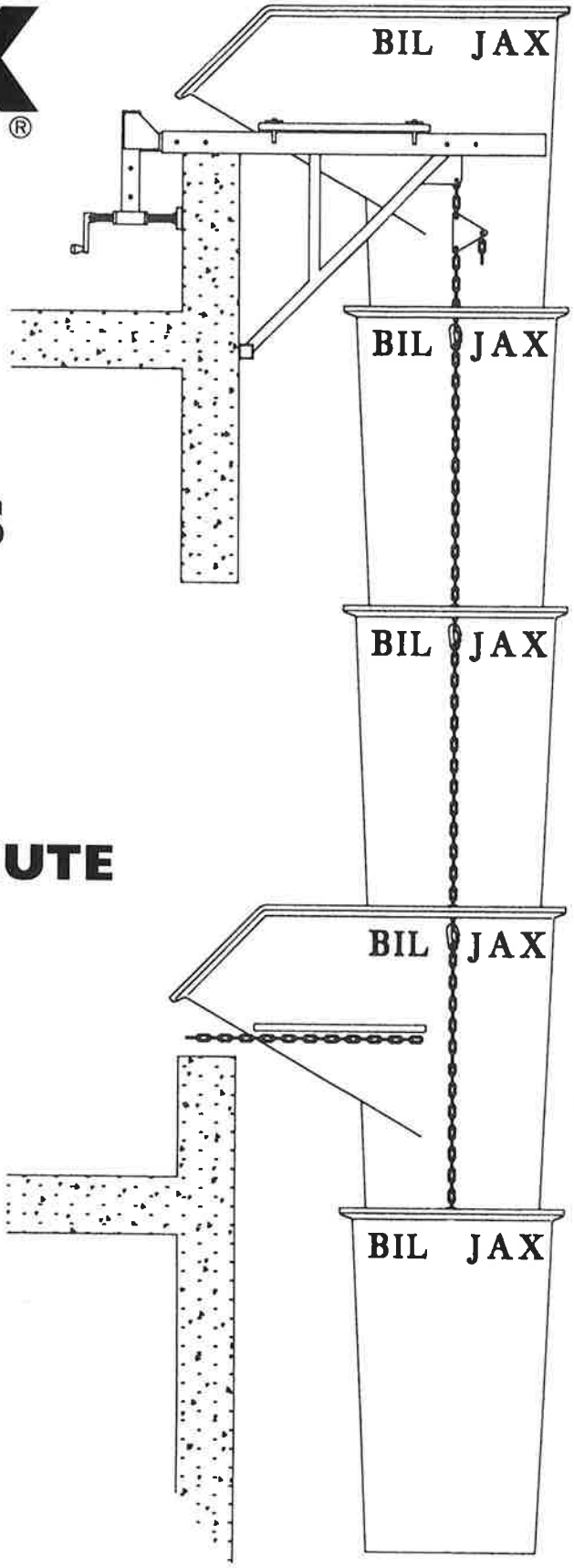
BIL-JAX®

TRASH REMOVAL SYSTEMS



PLASTI-CHUTE

INSTRUCTION MANUAL

LL-204-39

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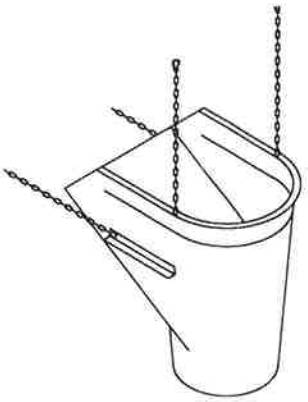
Disassembly 10

PARTS LIST

PART NO.	DESCRIPTION	WT.#
0086-042Y	Chute Section ø30" x 48"L w/Chain	33
0086-043	Molded Hopper Section w/ Support Chains, Retainer Chains, and Rubber Dust Flap	61
0086-038	Parapet Outrigger Assembly (pair)	120
0086-015	Lifting Triangle (pair)	5
0086-031	Lifting Jig	14
0086-004	Pulley Stand	15
0086-078	Hand Winch (Includes 90' Cable w/Stand & Winch)	50
0086-032	Hopper Retainer Chain Replacement (pair)	5
0086-035	Hopper Rubber Flap Replacement	10
0086-044	Galvanized Steel Chute Liner	33
0086-065	Galvanized Steel Hopper Liner	14
0086-010	Chain Assembly Replacement	2



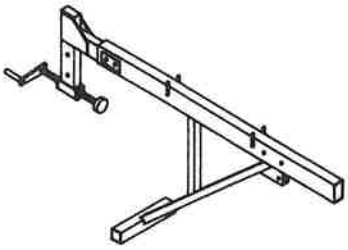
CHUTE WITH CHAINS



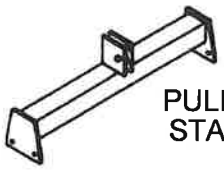
MOLDED HOPPER SECTION
(Incl. Support Chains, Retainer Chains, & Rubber Dust Flap)



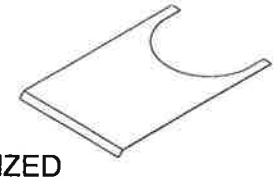
LIFTING TRIANGLE (PAIR)



PARAPET OUTRIGGER ASSEMBLY



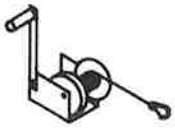
PULLEY STAND



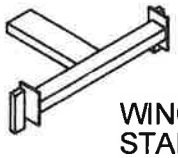
GALVANIZED STEEL HOPPER LINER



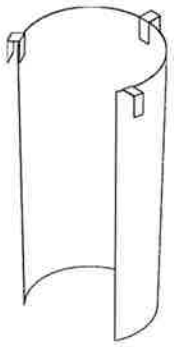
LIFTING JIG



WINCH W/CABLE



WINCH STAND



GALVANIZED STEEL CHUTE LINER
(For Highly Abrasive Conditions)

GENERAL SAFETY AND USE INFORMATION

⚠ WARNING

FAILURE TO FOLLOW THESE INSTRUCTIONS, OR ANY OTHER IMPROPER USE OF THIS EQUIPMENT WILL RESULT IN SERIOUS INJURY OR DEATH!

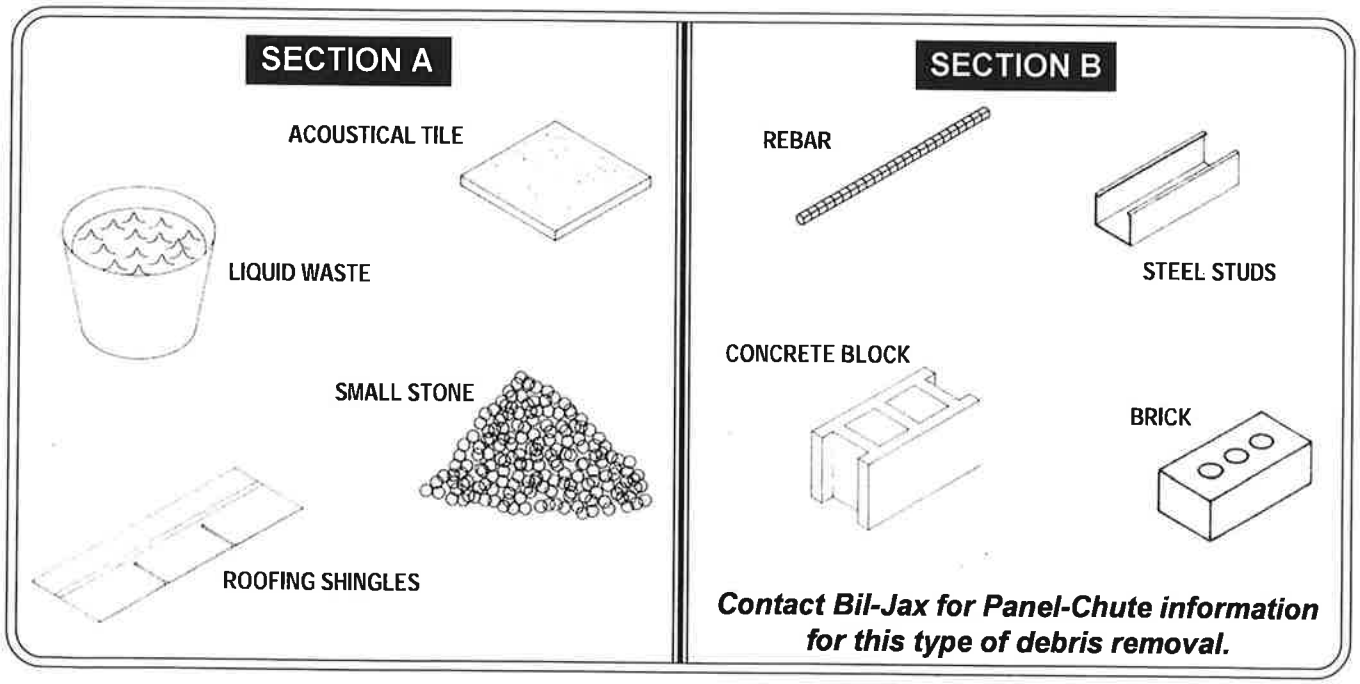
ASSEMBLY:

- Before beginning assembly, read and understand operation manual and all instructions and warnings on the equipment. If you do not understand anything in the manual or any of the warnings on the equipment, DO NOT attempt to assembly this product. Contact your supervisor for assistance or contact the manufacturer (Bil-Jax).
- Inspect all components before and during assembly. Pay special attention to chains, hoods, mounting hardware, outrigger assemblies, and winch mechanism to be certain all components are in good working order. Ensure all quick link nuts are tightened on threads prior to use.
- Pre-planning is essential! Measure the total chute length and distance between hoppers before beginning assembly. Chain length adjustment should be made accordingly as assembly progresses to be sure that all hoppers will be located appropriately.
- Check to be sure that the support structure for the outriggers will be able to carry the load. NEVER support the chute outriggers from a structure of questionable strength.
- A full body safety harness and lanyard must be worn at all times when assembling, disassembling, or adjusting trash removal system. NEVER attempt to assemble, disassemble, or adjust trash removal system components without wearing full body harness and lanyard.
- Lanyard must be attached to independent life line or other structurally sound attaching point.
- Install outrigger assembly every 700 lbs. of chute (See table on page 7). DO NOT exceed this weight between outriggers.
- Never build a trash removal system of excessive weight or height.
- Trash removal system must be tied to the structure at every hopper and at intermediate intervals as necessary to prevent excessive movement.
- NEVER create angles to tight bends within the system. Install a rope or cable inside the system for ease of movement and to create gradual sloping of the chute when necessary.
- Once the trash removal system is completely assembled, guard rail must be installed at all levels where hopper will be used.

USE:

- Cordon off or barricade the area under and around the chute to ensure that fellow workers and the public are protected from falling debris.
- This system is designed for the discarding of debris only! NEVER use it as a slide or exit ramp for people.

- **NEVER attempt to discard debris that is larger than 1/2 the diameter of the system (14" in length or diameter).**
- **NEVER discard debris that could puncture the chute. Plasti-Chute must always be used for materials it was designed to accommodate. Examples of these types of materials are acoustical tile, liquid waste, small stone, roofing shingles.**
- **Always cordon off the general work area to keep personnel out while chute is in use.**
- NEVER allow debris to accumulate within the system or at the bottom of the system.
- Periodically reposition the bottom of the chute so that debris will be deposited uniformly into the truck or dumpster.
- Periodically check dumpster or truck as debris is deposited in chute to be sure that no obstruction has occurred. NEVER enter the chute to attempt to clear out an obstruction.
- NEVER place your head, arms, legs, or any other part of your body into the hopper or chute to check for obstructions, to clear out debris, or for any other reason.
- If trash system is tied to a dumpster or a truck, be sure to untie it before moving either the dumpster or the truck.
- NEVER leave chute unattended. Either raise or remove bottom sections at the end of each work day or when work at the site stops.



GENERAL GUIDELINES

- NOTHING LARGER THAN 14" IN DIAMETER OR LENGTH SHOULD BE PLACED IN THE CHUTE.
- AVOID SHARP OBJECTS THAT COULD CAUSE PUNCTURE.
- ALWAYS CORDON OFF THE GENERAL WORK AREA TO KEEP PERSONNEL OUT WHILE CHUTE IS IN USE.

PLANNING AND PREPARATION OF CHUTE ELEMENTS

DUMPING AREA

- Choose an area that can be easily accessed by trash removal vehicles.
- Cordon off or barricade the area to ensure fellow workers and public are protected from falling debris.

MOUNTING AREA

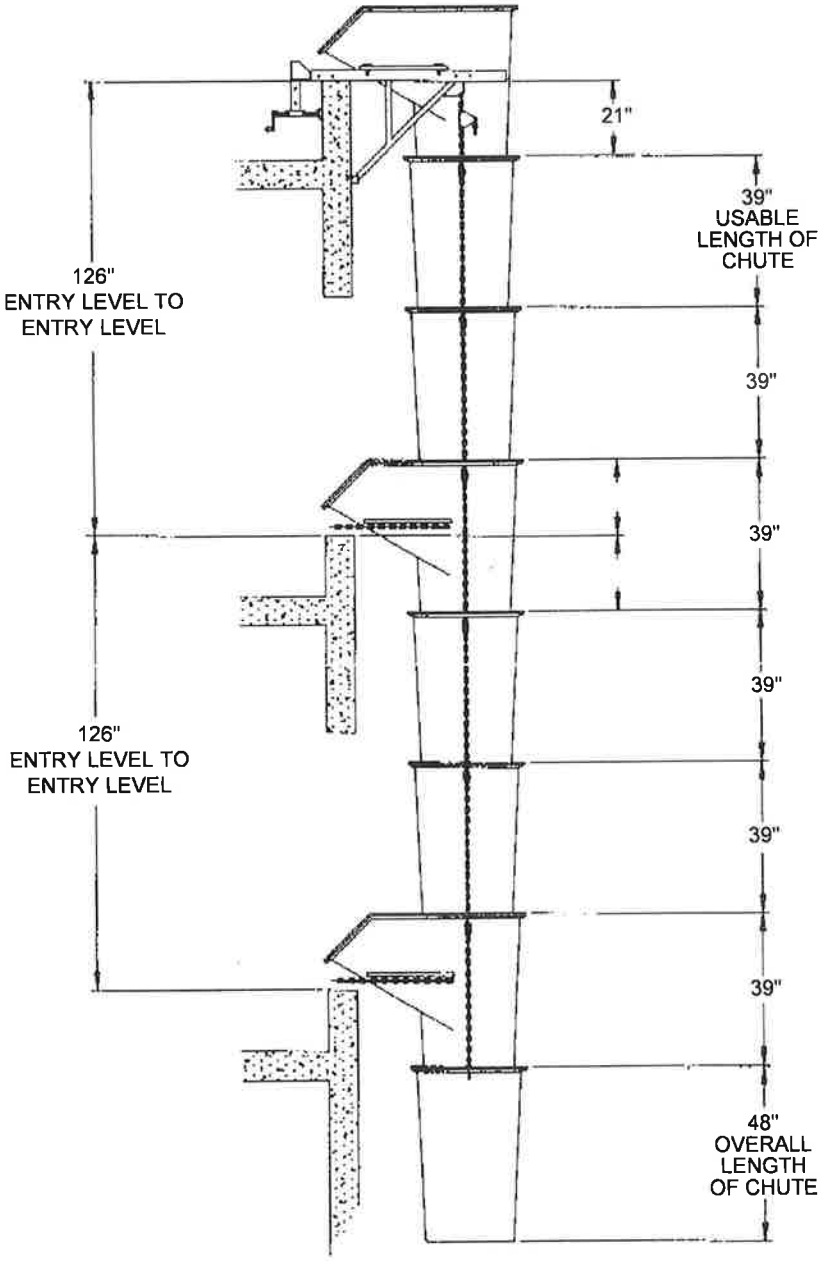
- Choose a supporting structure from which to hang outriggers.
- Select appropriate outriggers for your supporting structure. Parapet outriggers must be used in window openings and parapet roofs. Slab outriggers must be used with a slab edge.
- Measure the height requirement of the proposed chute. Calculated the number of chutes and hoppers needed by dividing the total height by 3.25 feet (usable height of each chute).
- Determine if the supporting structure is capable of carrying the load imposed by the chute. Use the following table to assist in determining load: See table on page 7.
- Use additional sets of outriggers when weight of chutes and hoppers exceeds 700 lbs.

700 Lbs. Lifting / Supporting Capacity

NUMBER OF CHUTES

NUMBER OF HOPPERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	86LB 3.5FT	112LB 7.0FT	138LB 10.5FT	164LB 14.0FT	190LB 17.5FT	216LB 21.0FT	242LB 24.5FT	268LB 28.0FT	294LB 31.5FT	320LB 35.0FT	346LB 38.5FT	372LB 42.0FT	398LB 45.5FT	424LB 49.0FT	450LB 52.5FT	476LB 56.0FT	502LB 59.5FT	528LB 63.0FT	554LB 66.5FT	580LB 70.0FT	606LB 73.5FT	632LB 77.0FT	658LB 80.5FT	684LB 84.0FT
2	146LB 7.0FT	172LB 10.5FT	198LB 14.0FT	224LB 17.5FT	250LB 21.0FT	276LB 24.5FT	302LB 28.0FT	328LB 31.5FT	354LB 35.0FT	380LB 38.5FT	406LB 42.0FT	432LB 45.5FT	458LB 49.0FT	484LB 52.5FT	510LB 56.0FT	536LB 59.5FT	562LB 63.0FT	588LB 66.5FT	614LB 70.0FT	640LB 73.5FT	666LB 77.0FT	692LB 80.5FT		
3	206LB 10.5FT	232LB 14.0FT	258LB 17.5FT	284LB 21.0FT	310LB 24.5FT	336LB 28.0FT	362LB 31.5FT	388LB 35.0FT	414LB 38.5FT	440LB 42.0FT	466LB 45.5FT	492LB 49.0FT	518LB 52.5FT	544LB 56.0FT	570LB 59.5FT	596LB 63.0FT	622LB 66.5FT	648LB 70.0FT	674LB 73.5FT	700LB 77.0FT				
4	266LB 14.0FT	292LB 17.5FT	318LB 21.0FT	344LB 24.5FT	370LB 28.0FT	396LB 31.5FT	422LB 35.0FT	448LB 38.5FT	474LB 42.0FT	500LB 45.5FT	526LB 49.0FT	552LB 52.5FT	578LB 56.0FT	604LB 59.5FT	630LB 63.0FT	656LB 66.5FT	682LB 70.0FT							
5	326LB 17.5FT	352LB 21.0FT	378LB 24.5FT	404LB 28.0FT	430LB 31.5FT	456LB 35.0FT	482LB 38.5FT	508LB 42.0FT	534LB 45.5FT	560LB 49.0FT	586LB 52.5FT	612LB 56.0FT	638LB 59.5FT	664LB 63.0FT	690LB 66.5FT									
6	386LB 21.0FT	412LB 24.5FT	438LB 28.0FT	464LB 31.5FT	490LB 35.0FT	516LB 38.5FT	542LB 42.0FT	568LB 45.5FT	594LB 49.0FT	620LB 52.5FT	646LB 56.0FT	672LB 59.5FT	698LB 63.0FT											
7	446LB 24.5FT	472LB 28.0FT	498LB 31.5FT	524LB 35.0FT	550LB 38.5FT	576LB 42.0FT	602LB 45.5FT	628LB 49.0FT	654LB 52.5FT	680LB 56.0FT														
8	506LB 28.0FT	532LB 31.5FT	558LB 35.0FT	584LB 38.5FT	610LB 42.0FT	636LB 45.5FT	662LB 49.0FT	688LB 52.5FT																
9	566LB 31.5FT	592LB 35.0FT	618LB 38.5FT	644LB 42.0FT	670LB 45.5FT	696LB 49.0FT																		
10	626LB 35.0FT	652LB 38.5FT	678LB 42.0FT																					
11	686LB 38.5FT																							

MEASUREMENT REQUIREMENT ILLUSTRATION

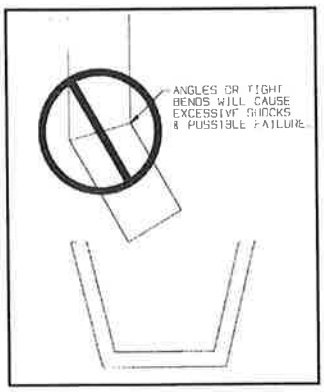


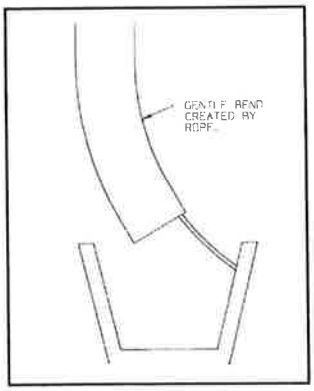
MEASUREMENT REQUIREMENT FOR INTERMEDIATE HOPPERS

- Figure the location of intermediate hoppers by measuring the distance from the entry level of one level to the entry level of the next. Subtract 39" (usable length of hopper) from this measurement. The difference is the length of chute required between hoppers.
- Record this value for later use when raising the chute.
- For additional hoppers, repeat the previous procedure until all intermediate hoppers have a location.
- Record these values for later use when raising the chute.
- It is important to remember that the more care taken in obtaining precise measurements the fewer adjustments that will be necessary after assembly.

ADDITIONAL PRE-ASSEMBLY INSTRUCTIONS

- Never create an angle or tight bend in chute. See installation of rope at right.





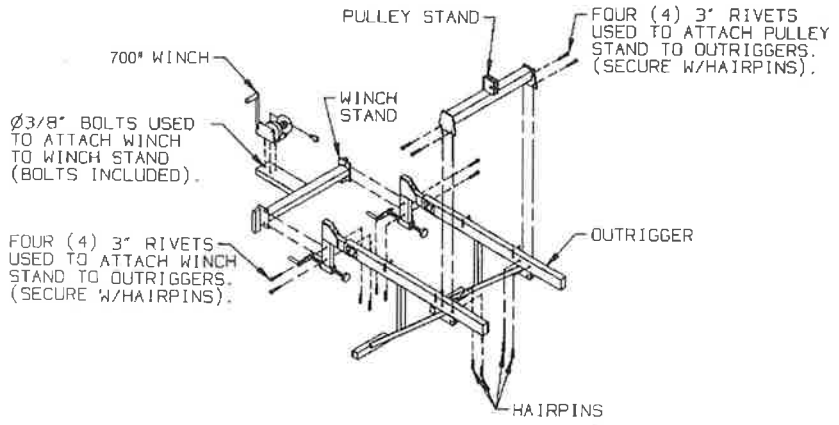
INSTALLATION OF THE CHUTE

INSTALLATION OF OUTRIGGERS

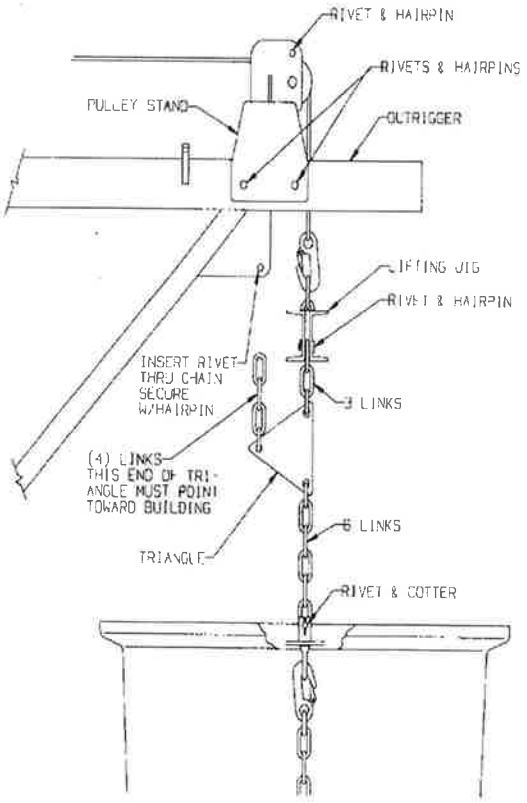
- Wear full body safety harness with lanyard securely fastened to rigid structure capable of carrying the weight of the installer prior to installing outriggers.
- Position outriggers with 28-1/2 inches between them (inside to inside).
- Secure each outrigger by tightening rubber foot snuggly against supporting structure.

INSTALLATION OF LIFTING MECHANISM

- Place pulley stand on outriggers with pulley facing away from building. Align holes in pulley stand with those in outriggers by sliding outward. Place all (4) rivets through holes in both and secure with hairpins.

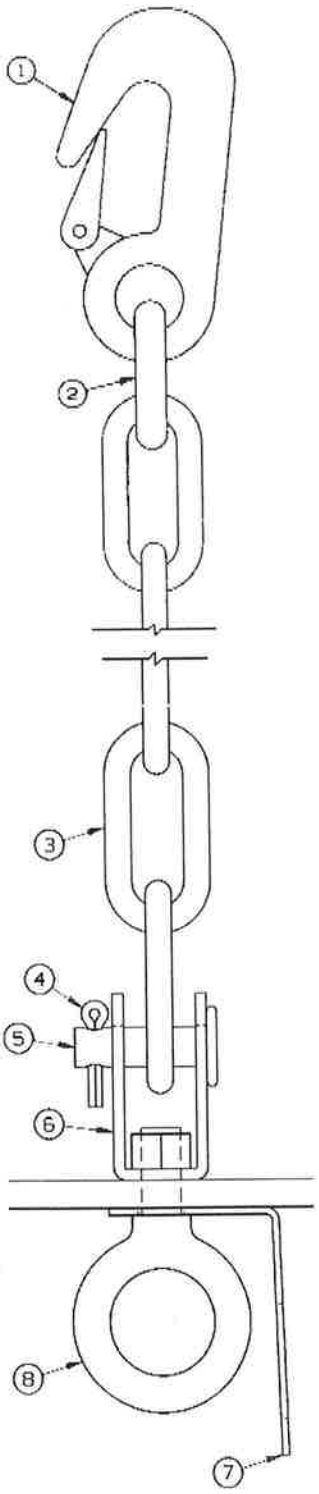


- Mount winch stand to end of outrigger arm by aligning holes in which stand with those in outrigger arms. Place all (4) rivets through holes in both and secure with hairpins.
- Pull cable off winch, over pulley stand, and lower to the ground. Replace rivet just above pulley to ensure that cable stays in pulley groove.
- Place hook at end of cable through lifting eye hook on lifting jig.
- Attach lifting triangle to jig as shown in illustration below. Pay close attention to orientation of triangle. If triangle is not oriented properly, assembly of chutes to outriggers may not be possible.
- Attach first chute to triangle by removing lifting chains from chute and replacing rivet through last link in lifting triangle. Secure with cotter.



RAISING THE CHUTE

- Raise the first chute until it is approximately 40 inches above the ground.
- Attach the snap hooks of the next chute to the eye bolt of the chute above.
- Continue to add chutes and intermediate hoppers as necessary. Don't forget to adjust the length of chain as necessary to ensure proper hopper height. (Use values obtained in additional height requirement portion of instructions.)
- Adjust length of chain on intermediate hoppers by removing rivet that secures lifting chain and replacing rivet through appropriate link that satisfies the length requirement.



NO	#	DESCRIPTION	PART #
1	1	SNAP HOOK	0090-0661
2	1	Ø1/4" MISSING LINK	0090-0698
3	1	5/0 CHAIN (24 LINKS)	0086-017
4	1	Ø5/32" x 3/4" COTTER	0090-0151
5	1	Ø3/8" RIVET (1-1/4" LG)	0086-009
6	1	HOOK BRACKET WELDMENT	0086-014
7	1	CONNECTING FLAT	0086-053
8	1	Ø3/8 SHLDR EYE BOLT	0086-020

ATTACHING CHUTE TO OUTRIGGERS

- Raise chute until lifting jig is within a half an inch of the bottom of the outriggers.
- Place chain from free portion of lifting triangle between the gussets on lower side of outrigger.
- Pin through hole in gussets and chain using rivet. Secure rivet with hairpin.
- Lower lifting jig until all weight is supported by gussets.
- Detach lifting jig from chute by removing rivets on both ends of jig.

ANCHORING OF RETAINER CHAINS

- Anchor each intermediate hopper from excessive movement by securing retainer chains with anchor bolts (not included) to sill of intermediate entry level.

INSTALLATION OF ROPE

- Install rope (not included) by tying one end near the outermost portion of the outrigger.
- Feed rope through chute making sure the rope is kept against the back side of chute.
- Tie rope securely to dumpster or the like to create a gentle slope.

INSTALLATION OF UPPERMOST HOPPER

- Remove lifting jig, pulley stand, and winch stand from outriggers.
- Grasp hopper with entry facing toward building. Slide onto outriggers until hopper falls over pins on outriggers. Secure with hairpins.

DISASSEMBLY

- Put on and wear full body harness with lanyard securely fastened to rigid structure capable of carrying the weight of the person disassembling the system.
- Disconnect all intermediate hoppers from wall by removing anchors on retainer chain.
- Remove uppermost hopper.
- Reinstall winch, winch stand, pulley stand, and lifting jig.
- Connect loose chain of lifting triangle to lifting jig.
- Transfer weight from gussets to lifting jig by raising jig to within 1/2 inch of outriggers.
- Disconnect lifting triangle from gussets.
- Lower chutes to ground, disassembling as necessary.

BIL-JAX®

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P/N: LL-204-39 REV A
Revision Date: September 2026

Printed in the U.S.A.