

INSTRUCTION MANUAL

NO. 6 CARTER PRECISION SIZER

STYLE - ZM6

MANUAL NUMBER - 206-2

CARTER DAY

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READ AND FOLLOW THE GUIDELINES ESTABLISHED WITH THIS MANUAL TO ENSURE HOURS OF TROUBLE-FREE OPERATION.

   **WARNING**   

INTERNAL MOVING PARTS CAN BE DANGEROUS.

BEFORE ATTEMPTING SERVICE OR INTERNAL INSPECTION,
DISCONNECT AND LOCKOUT ELECTRIC POWER.

DO NOT OPERATE THIS EQUIPMENT WITHOUT REQUIRED
SAFETY GUARDS OR COVERS IN PLACE.

KEEP HANDS CLEAR OF INLETS AND OUTLETS.

CARTER DAY

INSTALLATION, OPERATION AND SERVICE

The No. 6 Carter Precision Grader is designed to use six perforated cylinders for sizing granular material. A feeder is used to evenly distribute the incoming material to the six cylinders. The smaller material passes through the perforations in the cylinder shells and the large material is carried to the end of the cylinder to discharge as overs. Refer to the installation data print for the location of the discharge outlets.

All material should be precleaned to remove all roughage and metal before it enters this machine.

This machine should be installed, operated, and serviced by qualified persons. All drive guards must be secured in their proper place and inspection doors closed when this machine is running.

INSTALLATION

This machine should be set level on a solid structure and securely fastened. A clearance of 15" or more should be allowed on each side of the machine for the removal of the cylinders. Spouting should be provided for the throughs discharge and the tail over discharge. A magnet should be provided for the removal of metal pieces from the incoming material.

A few parts have been removed from the machine for shipping; such as the electric motor, gear unit speed reducer and feed hopper with spouting. These parts can be added to the machine very easily by looking at the photographs for their proper location. It will be necessary to remove the chain guard before the chain can be put on the sprockets. The photograph shows the proper wrap of the chain.

The motor rotation should be checked with the proper rotation of the cylinders before the V belt is installed. The oil level in the speed reducer should be checked as indicated on the instruction tag attached.

OPERATION

Air Suction

The top cover plate has a 3" x 15" frame where a suction line may be attached. 600 C. F. M. is recommended for normal operating conditions. When this machine is equipped with a vibrating conveyor feeder the normal suction connection is inaccessible. In this case we recommend that a suction hood be installed at the discharge end of the conveyor. This suction should eliminate light material which can create trouble within the machine.

Speed

Normal operating speeds are from 45 to 60 R. P. M. on the cylinders. The most efficient speed varies with the type of material being handled. A variable pitch sheave on the motor is used to change the speed.

Horse Power

One H. P. is required for the machine. Machines equipped with vibrating feeders will require an additional 1/3 H. P. Motor (see installation drawing).

Feed Control

It is necessary that the material be discharged from the feeder in a uniform depth across the full width of the feeder because as it leaves the feeder it falls into the six compartments directing the material to the six separate cylinders.

Gravity Feeders

The gravity type feeder has counter weights on the feed gate which should be regulated so that the material level will be maintained within the sight glass range of visibility. The cam on the side of the feed hopper can be set to establish the minimum opening of the valve in the feed hopper, thus reducing the travel on the valve, and still use the pressure of the weights on the valve to hold the material level up to the sight glass.

Vibrating Feeders

The high speed and short throw on these feeders gives a very uniform distribution of material to the cylinders. Once the counter weights are set and the most efficient speed is found the machine requires very little attention.

SERVICE

Lubrication

Maintain the oil level in the speed reducer according to the instruction tag attached to the unit.

All shafts are equipped with sealed ball bearings which are lubricated for the life of these bearings.

The roller chain drive should have a small amount of light oil occasionally.

Bearing Removal

The rubber blade cleaner shaft bearings can be removed by first loosening the set screws found in the collar locking the bearing to the shaft. Then remove both the bearings and the cast iron flange from the shaft. These bearings have a spherical seat in the flange and to remove them from the flange it is necessary to turn the bearing a one quarter turn; the bearing will then be seated in the flange at only two points and by rotating the bearing in the flange to coincide with the notches in the flange seat the bearing will drop out of the flange.

Drive Chain Take Up

If the drive chain becomes slack to the point where the spring tensioned tightener no longer exerts tension on the chain, then one or two links should be removed from the overall length of the chain.

Changing Cylinders

The inspection doors with side plates can be removed by loosening the four wing nuts holding each plate. Remove the covers from the chain guard, unscrew the knob and remove it with its stud. Loosen the square head set screw that holds the collar and cylinder stub drive shaft to the drive shaft sleeve. While the discharge end of the cylinder assembly is held in place by one hand the collar with stub should be pulled out. It may be necessary to pry this shaft out with a screw driver inserted between the collar and the sprocket hub.

It will be necessary to shift the cylinder assembly toward the drive end until it comes off the feed spout. The cylinder can then be taken out through the side of the machine.

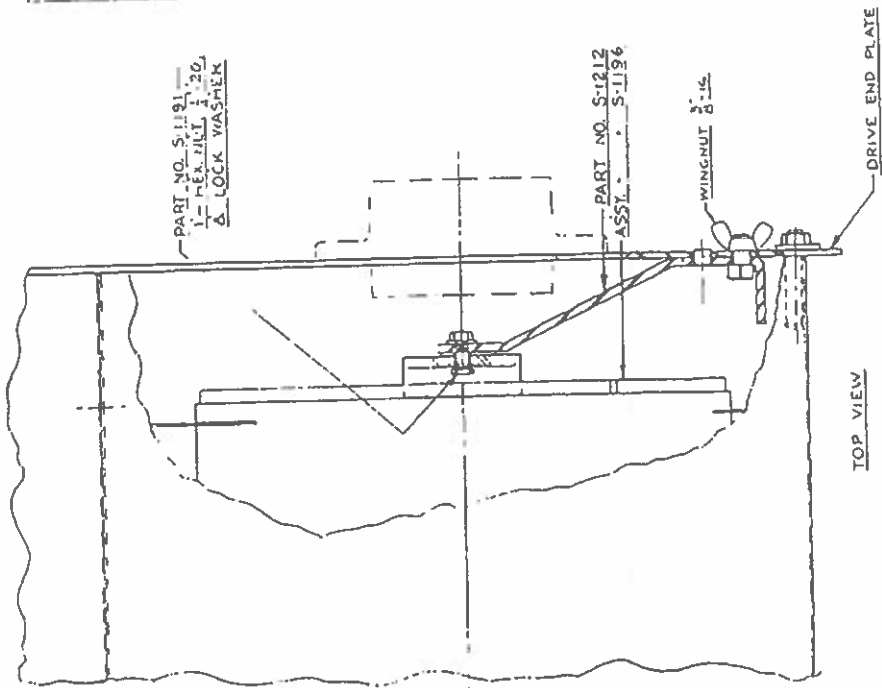
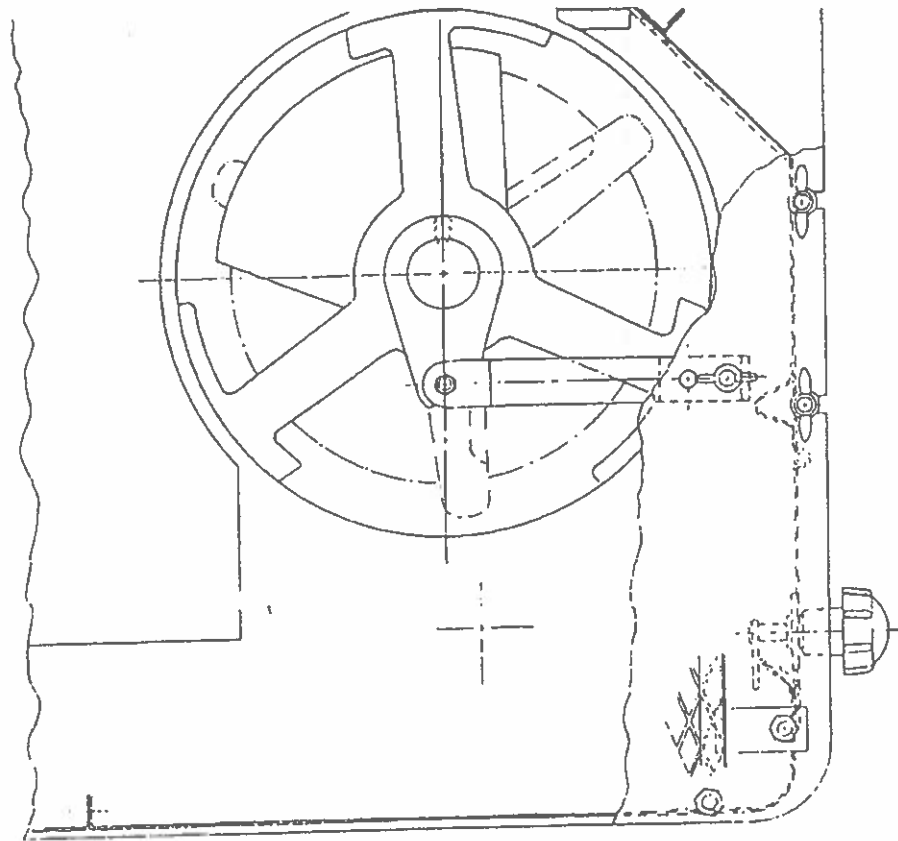
New cylinders can be installed by reversing the above procedure. Care must be exercised in handling the perforated cylinders because any distortion of the perforations will affect the separation. The cylinder assemblies should be held securely without end movement. See application print for slotted cylinder assemblies with cylinder baffle plate.

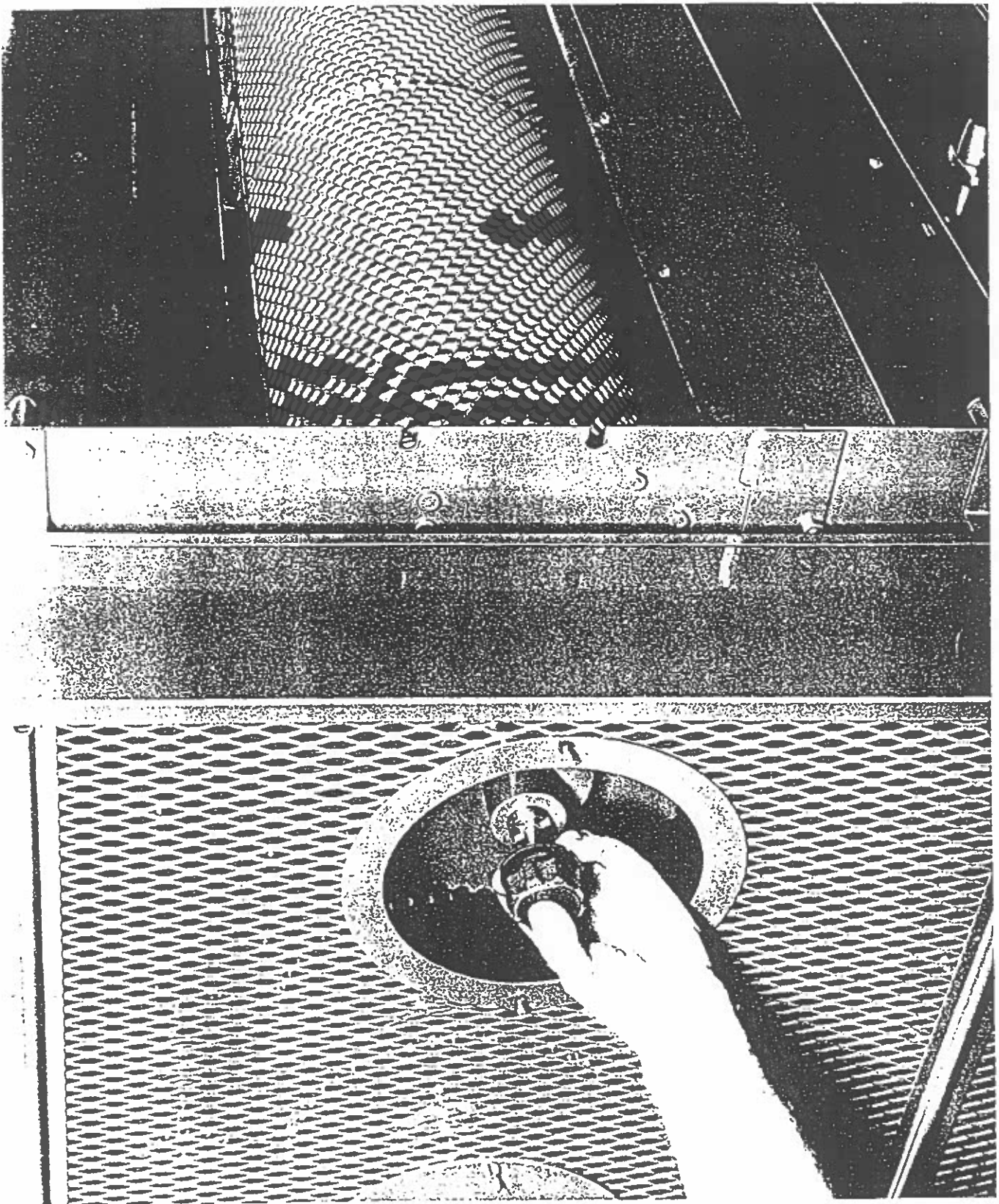
The rubber cleaner blades should be checked to make sure they are securely fastened and replaced when badly worn.

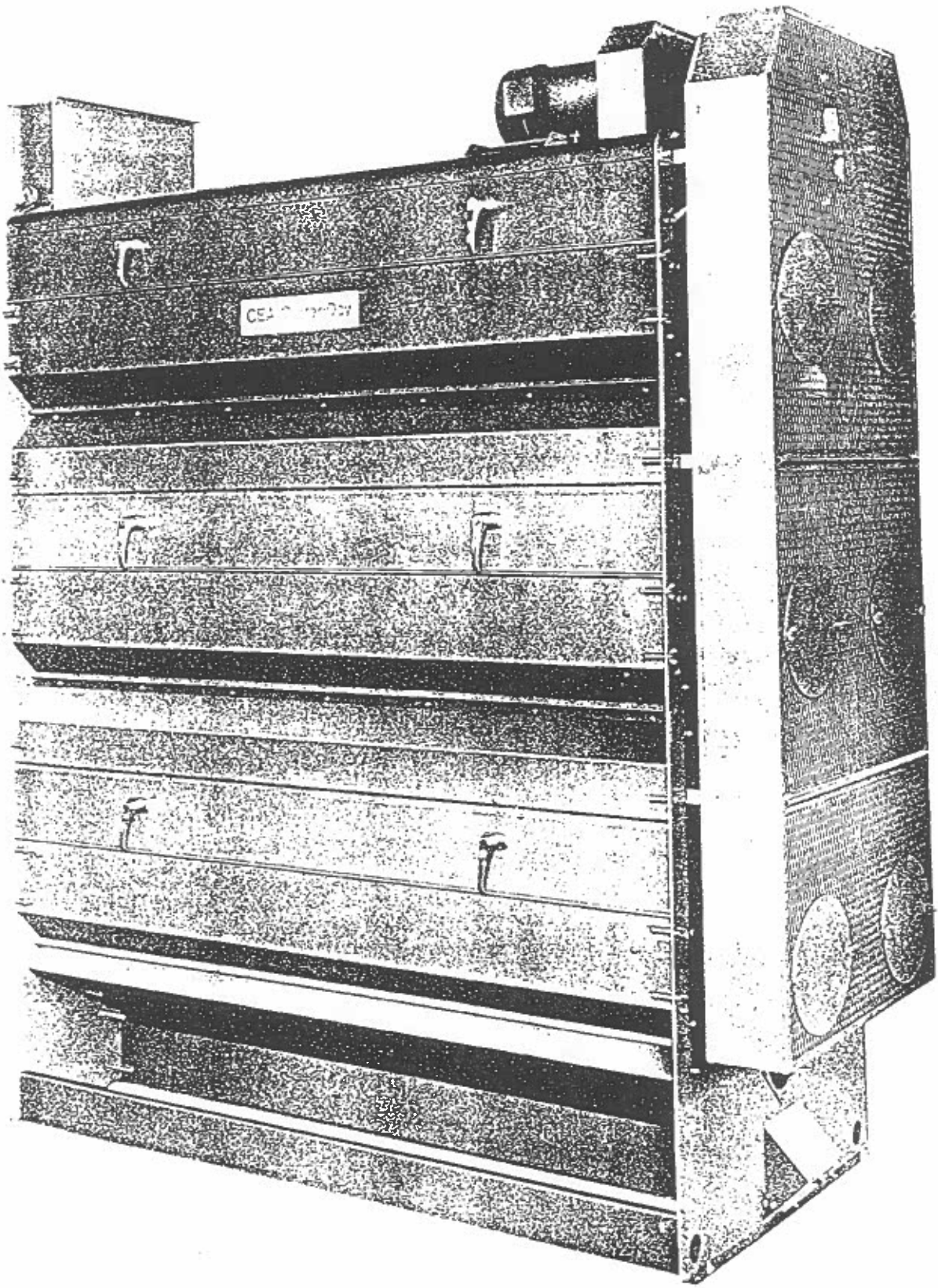
When making reference to this machine be sure to give the Style Number and Serial Number.

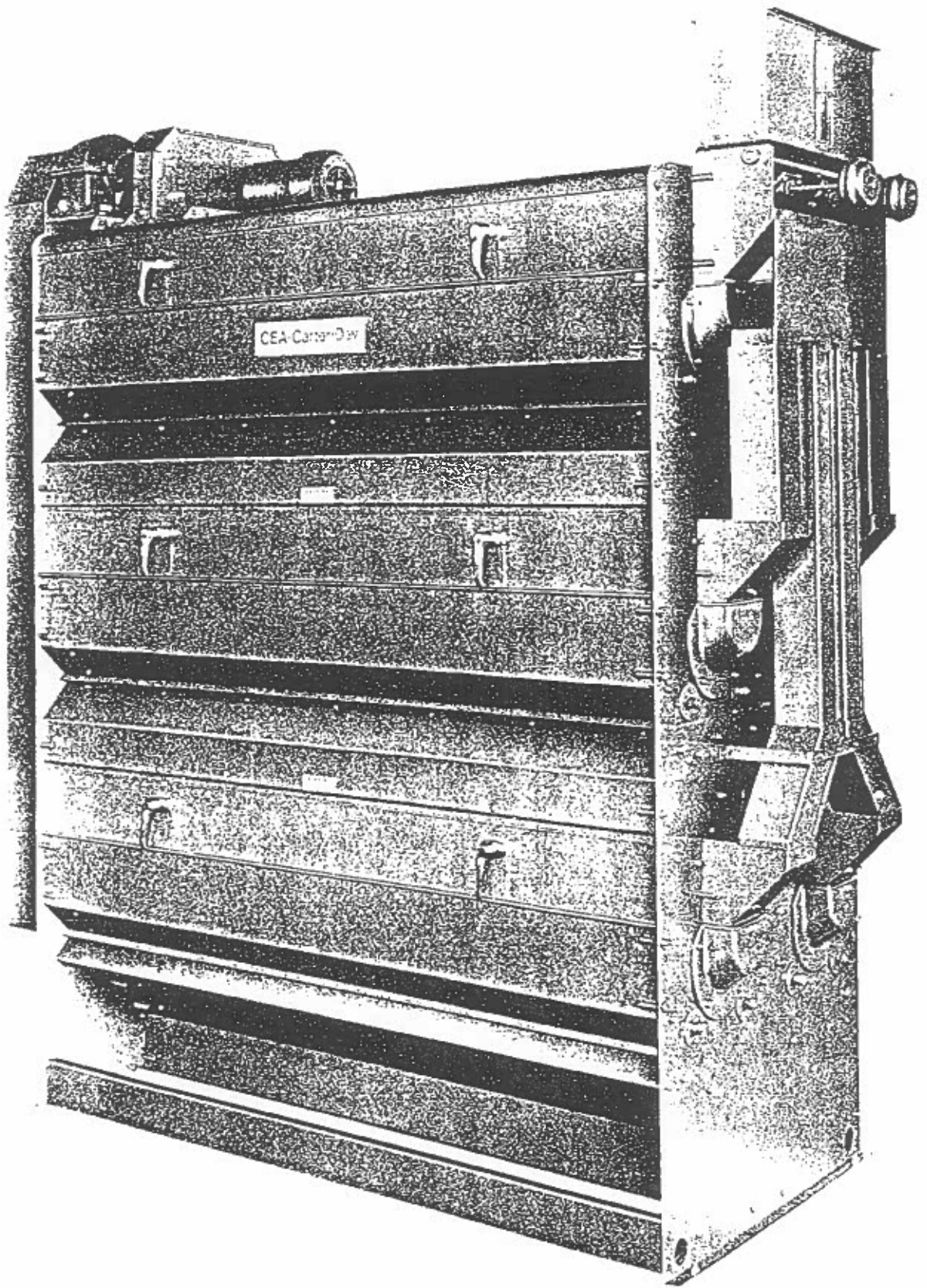
WARNING

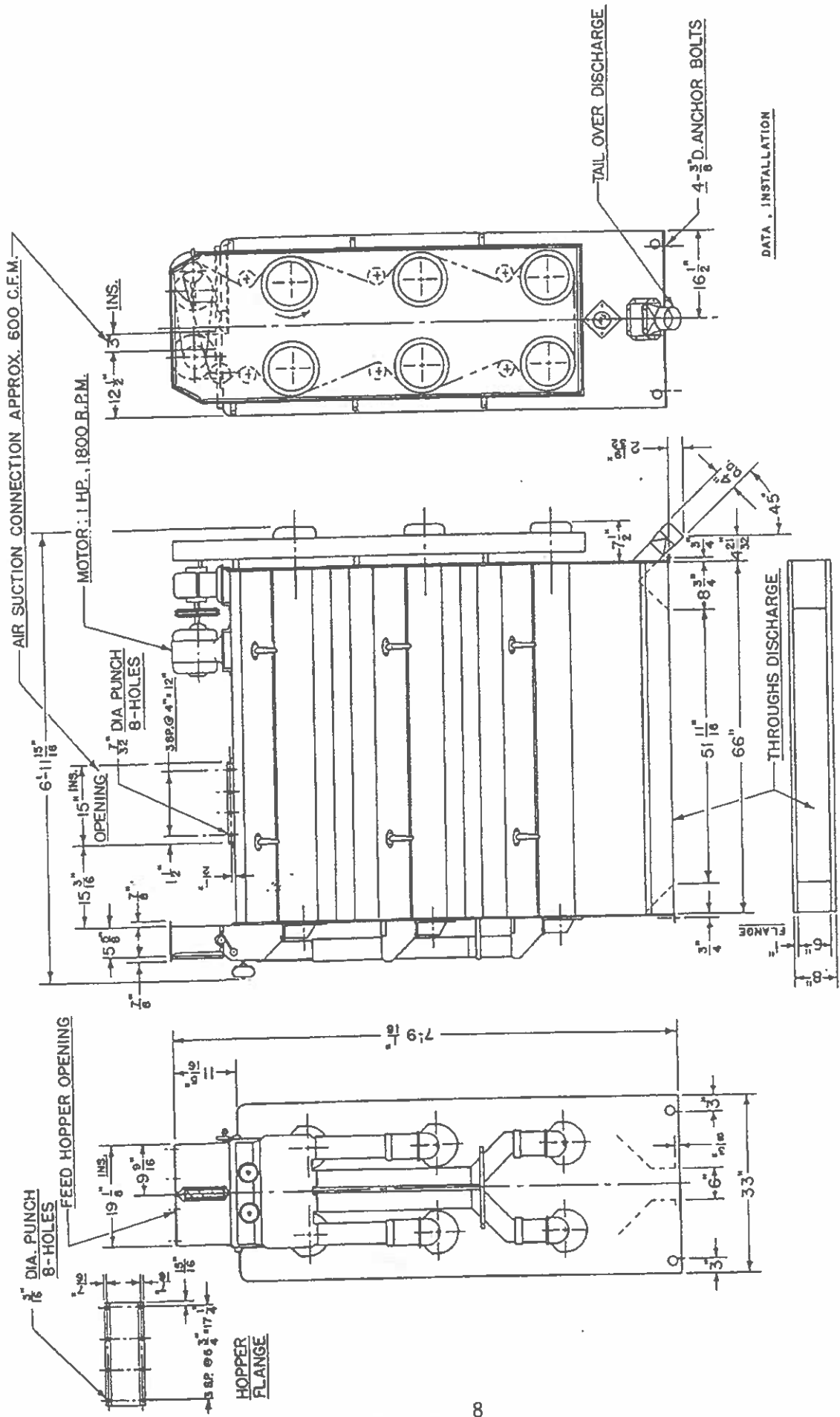
1. Do not open access doors while machine is in operation. Rotating machinery inside can be dangerous.
2. Before attempting to remove an obstruction or before starting maintenance procedures, all power to the equipment must be disconnected.
3. Keep hands clear from all discharge spouts while unit is in operation.











SC-3343

DATA - INSTALLATION

NO. 6 CARTER PRECISION GRADER
WITH GRAVITY FEEDER

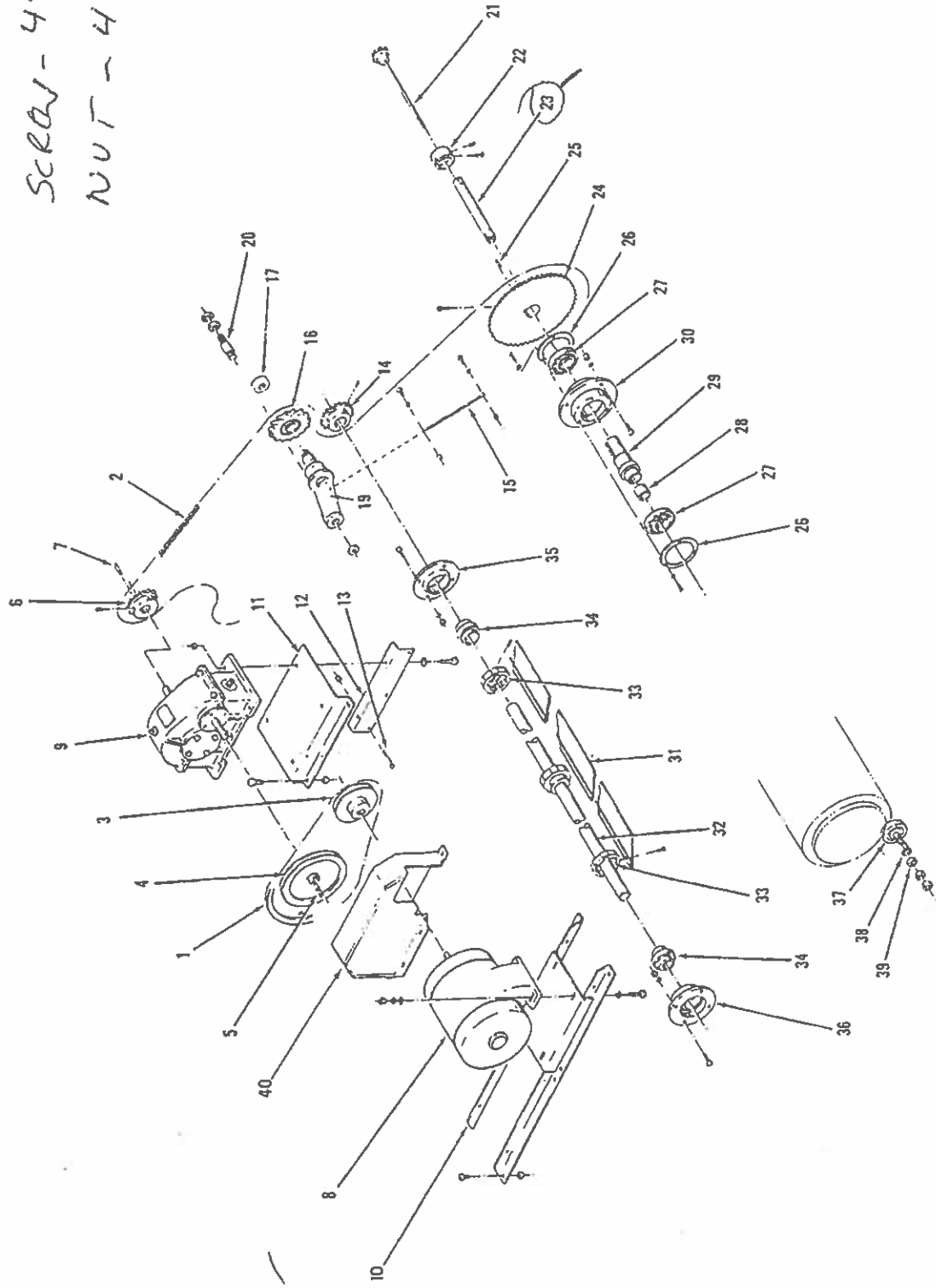
ILLUSTRATED PARTS LIST

NUMBER 6

CARTER PRECISION GRADER

STYLE NUMBER ZM6

SCREW - 45308
NUT - 43471



Motor and Drive Assembly - Group "A"

PARTS LIST

MOTOR AND DRIVE - ASSEMBLY GROUP "A"

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "A" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-1	60948	V-BELT, No. A-38	2	2
-2	19422	CHAIN, WHITNEY MSL NO. 50, 5/8 in. pitch, 3/8 in. wide, 322 pitches, 201-1/4 in. long	1	1
-3	61242	SHEAVE, ADJUSTABLE PITCH, 4-3/4 in. outside diameter, 2 groove, 7/8 in. bore	1	1
-4	60947	3/16 x 3/32 in. keyway SHEAVE, 7 in. pitch diameter, 2 groove, 3/4 in. bore	1	1
-5	20110	3/16 x 3/32 in. keyway KEY, 3/16 x 3/16 x 2 in.	1	1
-6	60634	SPROCKET, 17 Teeth, No. 50 chain, 1 in. bore	1	1
-	COML	(ATTACHING PARTS) SCREW, SET, Hol. Hd., 3/8-16NC x 1/2 in.	2	26
-7	10639	-----*----- KEY, 1/4 x 1/4 x 1-1/4 in.	1	1
-8	COML	MOTOR, ELECTRIC, 1-HP, 1800 RPM, Nema Frame No. 143T	1	1
-	COML	(ATTACHING PARTS) BOLT, MACHINE, Hex Hd., 5/16-18NC x 1 in.	4	4
-	COML	WASHER, LOCK, 5/16 in.	4	4
-	COML	WASHER, CUT, 5/16 in.	4	4
-9	60949	REDUCER, SPEED, WINSMITH MODEL NO. 800, Ratio 5.90 to 1	1	1
-	COML	(ATTACHING PARTS) BOLT, MACHINE, Hex Hd., 3/8-16NC x 1-1/2 in.	4	4
-	COML	WASHER, LOCK, 3/8 in.	4	4
-10	33811	-----*----- PLATE, MOTOR SUPPORT	1	1
-	COML	(ATTACHING PARTS) SCREW, MACHINE, Rd Hd., 5/16-18NC x 1/2 in.	8	8
-	COML	NUT, HEX, 5/16-18NC	8	205
-11	60636	-----*----- PLATE, SUPPORT, Gear unit	1	1
-	COML	(ATTACHING PARTS) SCREW, CAP, Hex Hd., 5/16-18NC x 5/8 in.	2	2

PARTS LIST

MOTOR AND DRIVE - ASSEMBLY GROUP "A" CONT'D.

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "A" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-	COML	NUT, HEX, 5/16-18NC -----*	2	205
-12	60633	ANGLE, SUPPORT, Gear unit (ATTACHING PARTS)	1	1
-13	9124	BOLT, SPECIAL	3	13
-	COML	NUT, HEX, 5/16-18NC -----*	3	205
-14	19563	SPROCKET, 15 TEETH, No. 50 Chain 1-3/16 in. bore (ATTACHING PARTS)	6	6
-	COML	SCREW, SET, Ho1 Hd., 3/8-16NC x 1/2 in. -----*	12	26
-15	19188	SPRING, TENSION (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd. Hd., 10-24NC x 3/4 in.	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/4 in.	1	25
-	COML	WASHER, CUT, 3/16 in.	1	1
-	COML	WASHER, CUT, 1/4 in.	1	1
-	COML	NUT, HEX, 1/4-20NC	2	185
-	COML	NUT, HEX, 10-24NC -----*	1	1
-16	36070	SPROCKET, IDLER, 15 Teeth, No. 50 Chain (ATTACHING PARTS)	1	1
-17.	COML	NUT, HEX, 5/8-11 in. -----*	1	1
-18				
-19	36082	BRACKET ASSEMBLY, CHAIN TIGHTENER (ATTACHING PARTS)	1	1
-20	3184	STUD, 5/8 in. diameter, 1/2-13NC	1	1
-	COML	NUT, HEX, Jam, 1/2-13 NC -----*	3	9
-21	37541	KNOB ASSEMBLY, CYLINDER LOCK	6	6
-22	19260	COLLAR, LOCKING (ATTACHING PARTS)	6	6
-	COML	SCREW, SET, Ho1 Hd., 3/8-16NC x 1/2 in.	12	26
-	COML	SCREW, SET, Sq hd., 3/8-16NC x 3/8 in. -----*	6	6

PARTS LIST

MOTOR AND DRIVE - ASSEMBLY GROUP "A" CONT'D.

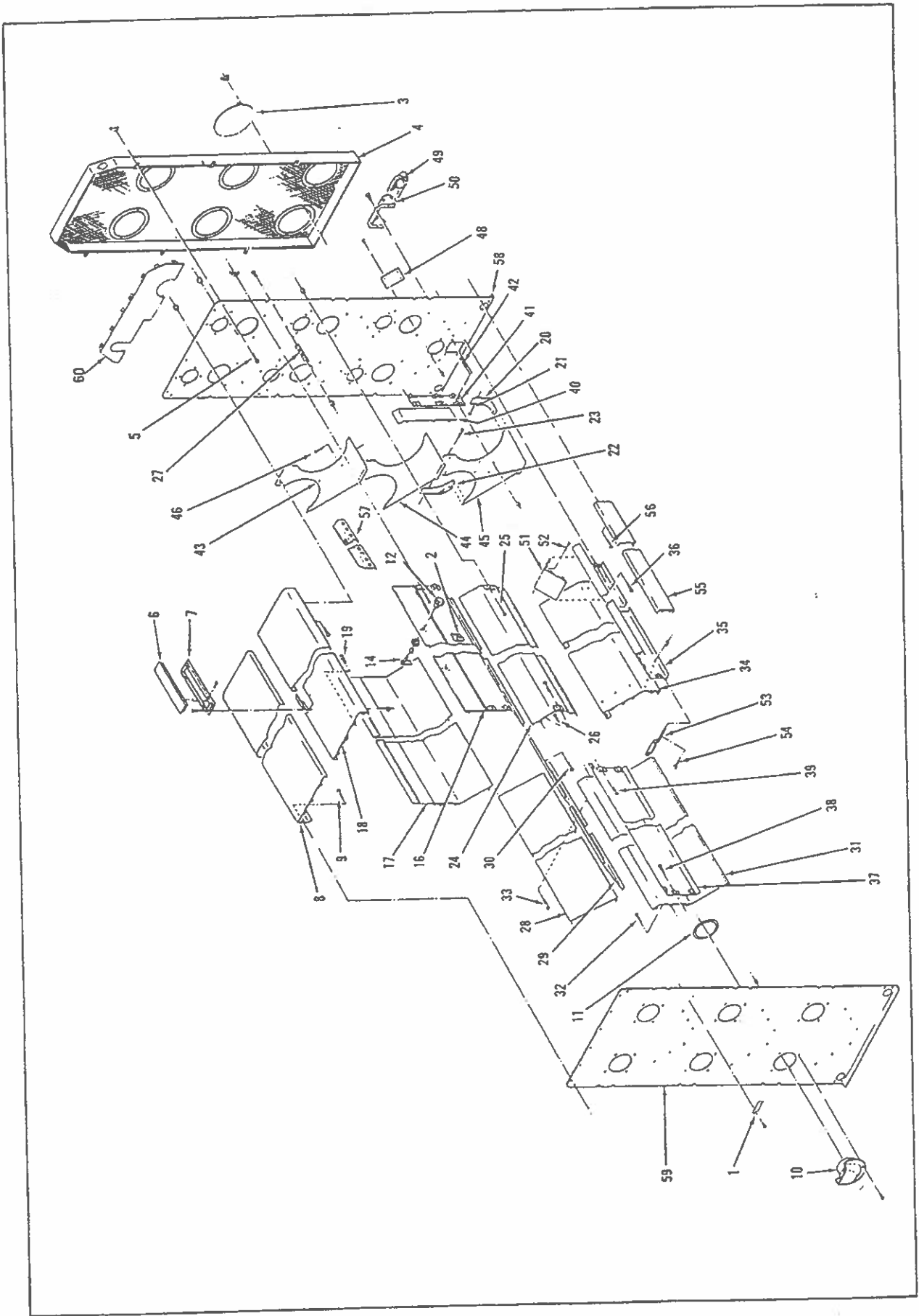
INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "A" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-23	① 37540	SHAFT, ASS'Y. CYLINDER STUB	6	6
-24	60934	SPROCKET, 50 Teeth, No. 50 Chain 1-1/2 in. bore (ATTACHING PARTS)	6	6
-	COML	SCREW, SET, Sq Hd., 3/8-16NC x 1 in.	12	12
-		-----*-----		
-25	11516	KEY, 1/4 x 1/4 x 2 in.	6	6
-26	19255	WASHER, BEARING LOCKING (ATTACHING PARTS)	12	12
-	COML	SCREW, MACHINE, Rd Hd., 10-24NC x 3/8 in.	36	72
-	COML	WASHER, LOCK, 3/16 in.	36	36
-		-----*-----		
-27	36198	BEARING, BALL No. 99508 NEW DEPARTURE	12	12
-	36195	SLEEVE ASSEMBLY, CYLINDER SHAFT	6	6
-28	18480	BUSHING, BRONZE	6	6
-29	① 36194 3861	SLEEVE, CYLINDER SHAFT	6	6
-30	19252	FLANGE, BEARING (ATTACHING PARTS)	6	6
-	COML	SCREW, CAP, Hex Hd., 5/16-18NC x 1 in.	24	24
-	COML	WASHER, LOCK, 5/16 in.	24	72
-	COML	NUT, HEX, 5/16-18NC	24	205
-		-----*-----		
-31	① 19929	BLADE, ROLLER (ATTACHING PARTS)	30	30
-	COML	SCREW, CAP, Nylock, Flat Hd., Socket, 1/4-20NC x 5/8 in.	90	90
-		-----*-----		
-32	17526	SHAFT, ROLLER	6	6
-33	17519	HUB, ROLLER BLADES (ATTACHING PARTS)	18	18
-	COML	SCREW, SET, Ho1 Hd., 3/8-16NC x 3/8 in.	36	36
-		-----*-----		
-34	16536	BEARING, BALL No. 479206-103 S.K.F.	12	12
-35	16872	FLANGE, BEARING (ATTACHING PARTS)	6	6
-	COML	SCREW, CAP Hex Hd. 5/16-18NC x 3/4 in.	24	48
-	COML	WASHER, LOCK 5/16 in.	24	72
-	COML	NUT, HEX 5/16-18NC	24	205
-		-----*-----		
-36	17520	FLANGE, BEARING (ATTACHING PARTS)	6	6

PARTS LIST

MOTOR AND DRIVE - ASSEMBLY GROUP "A" CONT'D.

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "A" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-	COML	SCREW, CAP, Hex Hd., 5/16-18NC x 3/4 in.	24	48
-	COML	WASHER, LOCK, 5/16 in.	24	72
-	COML	NUT, HEX, 5/16-18NC	24	205
		-----*-----		
-37	30418	TRUNNION BEARING ASSEMBLY (ATTACHING PARTS)	12	12
-	COML	NUT, HEX, Jam 1/2-13NC	24	24
-38	20575	WASHER, SPECIAL	12	12
-39	20576	WASHER, SPECIAL	12	12
		-----*-----		
-40	33943	GUARD, BELT (ATTACHING PARTS)	1	1
	COML	SCREW, MACHINE, Rd. Hd. 1/4-20NC x 1/2 in.	4	
	COML	NUT, HEX, 1/4-20NC	4	

49465
61417



Frame Assembly - Group "B"

PARTS LIST

FRAME - ASSEMBLY GROUP "B"

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "B" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-1	36476	NAMEPLATE (ATTACHING PARTS)	1	1
-	COML	SCREW DRIVE, No. 4 x 5/16 in. -----*-----	2	2
-2	31627	TRANSFER, TRADE-MARK	2	2
-3	36627	COVER, CHAIN GUARD (ATTACHING PARTS)	6	6
-	COML	NUT, WING, 1/4-20NC -----*-----	12	12
-4	60907	GUARD, CHAIN (ATTACHING PARTS)	1	1
-5	9124	BOLT, SPECIAL	6	13
-	COML	NUT, HEX, 5/16-18NC -----*-----	6	205
-6	19210	COVER, AIR CONNECTION (ATTACHING PARTS)	1	1
-	COML	SCREW, SHEET METAL, No. 8 x 1/2 in. -----*-----	8	8
-7	19209	FLANGE, AIR CONNECTION (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 1/2 in.	8	34
-	COML	NUT, HEX, 1/4-20NC -----*-----	8	185
-8	60903	PLATE, TOP (ATTACHING PARTS)	1	1
-9	9125	BOLT, SPECIAL	4	92
-	COML	NUT, HEX, 5/16-18NC	4	205
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/8 in.	12	62
-	COML	NUT, HEX, 1/4-20NC -----*-----	12	185
-10	20511	SPOUT, FEED (ATTACHING PARTS)	6	6
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/4 in.	24	25
-	COML	WASHER, LOCK, 1/4 in.	24	24
-	COML	NUT, HEX, 1/4-20NC -----*-----	24	185
(-11)	16179	WASHER, FELT	6	6
(-12)	31414	DOOR LATCH (ATTACHING PARTS)	12	12
-	COML	SCREW, MACH. RD. HD., 8-32 NC x 1/4 in. -----*-----	24	36

PARTS LIST

FRAME - ASSEMBLY GROUP "B" CONT'D.

INDEX	PART	GROUP "B" QUANTITY	TOTAL QUANTITY PER
-14	35210 LATCH	12	12
-16	60892 DOOR, CYLINDER INSPECTION (ATTACHING PARTS)	3	3
-	COML NUT, WING, 5/16-18NC	12	24
-	COML SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/8 in.	6	62
-	COML NUT, HEX, 1/4-20NC	6	185
-	-----*-----		
-17	60893 DOOR, CYLINDER INSPECTION (ATTACHING PARTS)	3	3
-	COML NUT, WING, 5/16-18NC	12	24
-	COML SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/8 in.	6	62
-	COML NUT, HEX, 1/4-20NC	6	185
-	-----*-----		
-18	60904 PLATE, TOP (ATTACHING PARTS)	1	1
-19	9125 BOLT, SPECIAL	7	92
-	COML NUT, HEX, 5/16-18NC	7	205
-	-----*-----		
-20	60899 EXTENSION, PARTITION, Tailings hopper (ATTACHING PARTS)	3	3
-21	17061 BOLT, SPECIAL	3	62
-	COML NUT, HEX 1/4-20NC	3	185
-22	60900 EXTENSION, PARTITION, Tailings hopper (ATTACHING PARTS)	3	3
-23	17061 BOLT, SPECIAL	3	62
-	COML NUT, HEX, 1/4-20NC	3	185
-	-----*-----		
-24	60896 PLATE, SIDE (ATTACHING PARTS)	4	4
-25	9124 BOLT, SPECIAL	4	13
-26	9125 BOLT, SPECIAL	12	92
-	COML NUT, HEX, 5/16-18NC	16	205
-	COML SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/8 in.	28	62
-	COML NUT, HEX, 1/4-20NC	28	185
-	-----*-----		

PARTS LIST

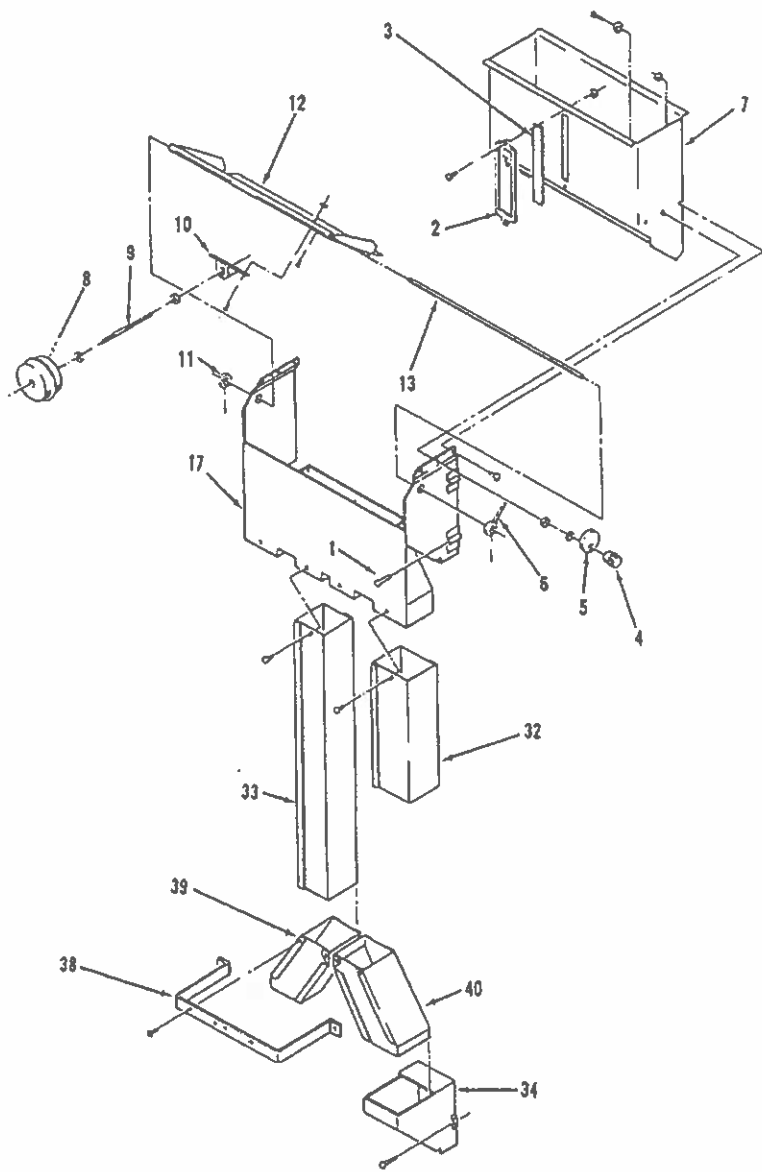
FRAME - ASSEMBLY GROUP "B" CONT'D.

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "B" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-27	60878	STRIP, SEAL, TAILINGS HOPPER (ATTACHING PARTS)	12	12
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 1/2 in.	24	34
-	COML	NUT, HEX, 1/4-20NC -----*-----	24	185
-28	60895	PLATE, HOPPER BOTTOM	2	2
-29	60894	PLATE, HOPPER BOTTOM (ATTACHING PARTS)	2	2
-30	9125	BOLT, SPECIAL	24	92
-	COML	NUT, 5/16-18NC -----*-----	24	205
-31	60891	PLATE, CENTER DEFLECTOR (ATTACHING PARTS)	3	3
-32	9125	BOLT, SPECIAL	11	92
-33	9126	BOLT, SPECIAL	12	18
-	COML	NUT, HEX, 5/16-18NC	23	205
-	COML	SCREW, MACHINE, Flat Hd., 1/4-20NC x 2 in.	1	1
-	COML	NUT, HEX, 1/4-20NC -----*-----	1	185
-34	60909	PLATE, LOWER HOPPER BOTTOM	1	1
-35	60910	PLATE, LOWER HOPPER BOTTOM (ATTACHING PARTS)	1	1
-36	9125	BOLT, SPECIAL	20	92
-	COML	NUT, HEX, 5/16-18NC -----*-----	20	205
-37	60911	PLATE, CENTER BAFFLE (ATTACHING PARTS)	2	2
-38	9125	BOLT, SPECIAL	6	92
-39	9126	BOLT, SPECIAL	6	18
-	COML	NUT, HEX, 5/16-18NC -----*-----	12	205
-40	60913	PLATE, TAILINGS DIVIDER	2	2
-41	60912	PLATE, TAILINGS DIVIDER (ATTACHING PARTS)	2	2
-42	17061	BOLT, SPECIAL	24	62
-	COML	NUT, HEX, 1/4-20NC -----*-----	24	185
-43	60898	PARTITION, TOP, Tailings hopper	1	1
-44	60901	PARTITION, MIDDLE, Tailings hopper	1	1
-45	60915	PARTITION, BOTTOM, Tailings hopper (ATTACHING PARTS)	1	1
-46	17061	BOLT SPECIAL	18	62
-	COML	NUT, HEX 1/4-20NC	18	185

PARTS LIST

FRAME - ASSEMBLY GROUP "B" CONT'D.

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "B" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-47				
-48	35539	WINDOW, PLEXIGLAS (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 5/8 in.	4	4
		-----*-----		
-49	60897	SPOUT, ADAPTER, Tailings discharge (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/8 in.	4	62
-	COML	NUT, HEX, 1/4-20NC	4	185
		-----*-----		
-50	60908	SPOUT, TAILINGS DISCHARGE (ATTACHING PARTS)	1	1
-	COML	NUT, HEX, 1/4-20NC	6	185
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/8 in.	6	62
-51	60914	PLATE, DIVIDER (ATTACHING PARTS)	1	1
-52	17061	BOLT, SPECIAL	8	62
-	COML	NUT, HEX, 1/4-20NC	8	185
		-----*-----		
-53	17837	PLATE, BOTTOM HOPPER (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 1/2 in.	2	34
-	COML	NUT, HEX, 1/4-20NC	8	185
-54	17061	BOLT SPECIAL	6	62
		-----*-----		
-55	60882	CHANNEL, SIDE (ATTACHING PARTS)	2	2
-56	9125	BOLT, SPECIAL	8	92
-	COML	NUT, HEX, 5/16-18NC	8	205
		-----*-----		
-57	36335	PLATE, GUARD (ATTACHING PARTS)	3	3
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 1/4 in.	6	9
		-----*-----		
-58	60922	PLATE, DRIVE END	1	1
-59	60923	PLATE, FEED END	1	1
-60	33967	PLATE, BACK, CHAIN GUARD (ATTACHING PARTS)	1	1
	COML	SCREW, MACHINE, Rd. Hd. No. 10-24NC x 3/8 in.	4	81



Gravity Flow Feeder - Group "C"

PARTS LIST

GRAVITY FLOW FEEDER - ASSEMBLY GROUP "C"

STYLE NO. ADS1

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "C" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-	60052	GRAVITY FEED HOPPER ASSEMBLY (ATTACHING PARTS)	1	1
-1	9125	BOLT, SPECIAL	4	4
-	COML	NUT, HEX, 5/16-18NC	4	6
-----*				
-2	8859	FRAME, WINDOW (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 5/16-18NC x 3/4 in.	2	2
-	COML	NUT, HEX, 5/16-18NC	2	6
-----*				
-3	8860	GLASS, WINDOW	1	1
-4	19230	KNOB, FEED CONTROL	1	1
-5	19231	CAM, FEED CONTROL (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 3/8-16NC x 2 in.	1	1
-	COML	NUT, HEX, Jam, 3/8-16NC	2	2
-	COML	WASHER, CUT, 3/8 in.	1	1
-----*				
-6	60985	LEVER ASS'Y., FEED CONTROL (ATTACHING PARTS)	1	1
-	COML	SCREW, SET, Ho1 Hd., 5/16-18NC x 3/8 in.	2	2
-----*				
-7	19202	HOPPER, FEED (ATTACHING PARTS)	1	1
-	COML	SCREW, CAP, Hex Hd., 1/4-20NC x 3/8 in.	4	6
-	COML	NUT, HEX, 1/4-20NC	4	97
-----*				
-8	17053	WEIGHT, BALANCE LEVER	2	2
-9	15468	STUD, BALANCE LEVER	2	2
-	COML	NUT, HEX, Jam, 1/2-13NC	4	4
-10	16188	BRACKET, BALANCE LEVER (ATTACHING PARTS)	2	2
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 5/8 in.	8	8
-	COML	WASHER, LOCK, 1/4 in.	8	8
-	COML	NUT, HEX, 1/4-20NC	8	97
-----*				
-11	1561	COLLAR, SET (ATTACHING PARTS)	1	1

PARTS LIST

GRAVITY FLOW FEEDER - ASSEMBLY GROUP "C" CONT'D.
 STYLE NO. ADS1

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "C" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-	COML	SCREW, SET, Ho1 Hd., 3/8-16NC x 3/8 in.	1	1
-12	19204	-----*----- VALVE, FEED HOPPER (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 10-24NC x 1/2 in.	3	3
-13	19205	-----*----- ROD, VALVE HINGE	1	1
-17	34835	HOPPER, DISTRIBUTOR	1	1
-32	60737	SPOUT, CONNECTING (ATTACHING PARTS)	2	2
-	COML	SCREW, MACHINE, Rd Hd., 10-24NC x 3/8 in.	2	22
-33	60757	-----*----- SPOUT, CONNECTING (ATTACHING PARTS)	2	2
-	COML	SCREW, MACHINE, Rd Hd., 10-24NC x 3/8 in.	2	22
-34	36350	SPOUT, FEED (ATTACHING PARTS)	4	4
	17061	BOLT, SPECIAL	2	
	COML	NUT, HEX, 1/4-20NC	2	
-38	60742	SUPPORT, CONNECTING SPOUT (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 10-24NC x 3/8 in.	6	22
		-----*-----		

PARTS LIST

GRAVITY FLOW FEEDER - ASSEMBLY GROUP "C" CONT'D.

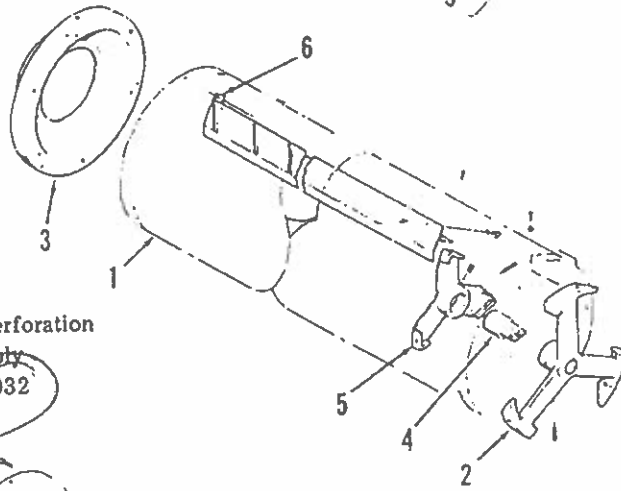
STYLE NO. ADS1

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "C" QUANTITY REQ'D.	TOTAL QUANTITY PER MACHINE
-39	60735	SPOUT, CONNECTING, Lower	1	1
-40	60736	SPOUT, CONNECTING, Lower	1	1

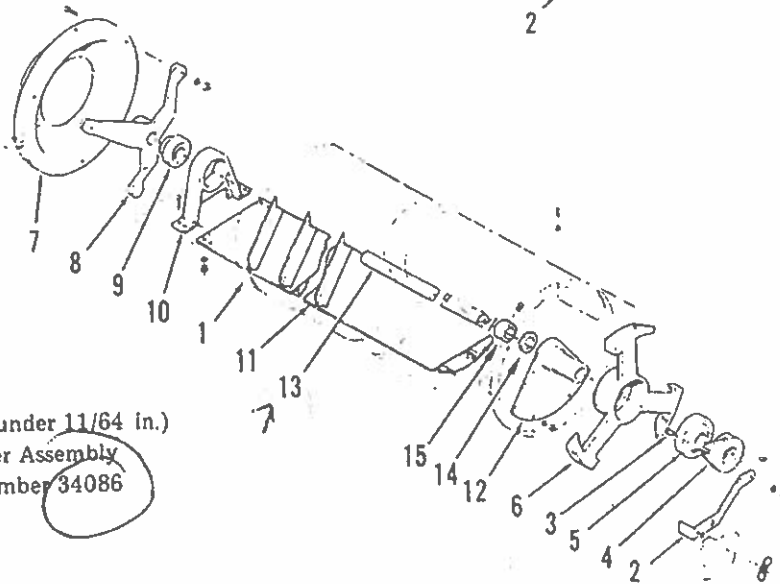
Large Slot (over 10/64 in.) or Small
Round Perforation and Ribbed
Cylinder Assembly
Part Number 34031



Indented and Round Perforation
Cylinder Assembly
Part Number 34032



Small Slot (under 11/64 in.)
Cylinder Assembly
Part Number 34086



CYLINDER OPTIONS - ASSEMBLY GROUP "D"

PARTS LIST

CYLINDER OPTIONS - ASSEMBLY GROUP "D"

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "D" QUANTITY REQ'D.	TOTAL QUANTITY PER CYLINDER
		CYLINDER ASSEMBLY - PART NUMBER 34086 (SMALL SLOT - UNDER 11/64 in.)		
-1	SPECIAL	SHELL, CYLINDER (Optional - specify perforation size required) (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 1/2 in.	3	3
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/8 in.	3	3
-	COML	WASHER, LOCK, 1/4 in. -----*-----	6	11
-2	60902	ARM, LOCATING (ATTACHING PARTS)	1	1
-3	60886	PIN, LOCATING	1	1
-	COML	NUT, HEX, 1/4-20NC	1	5
-	COML	WASHER, LOCK, 1/4 in.	1	11
-	COML	NUT, WING, 3/8-16NC -----*-----	1	1
-4	60884	CLAMP, BAFFLE (ATTACHING PARTS)	1	1
-	COML	SCREW, SET, Hol Hd., half dog pt., 3/8-16NC x 5/8 in. -----*-----	1	1
-5	16227	BEARING	1	1
-6	34087	HEAD, CYLINDER DISCHARGE	1	1
-7	34085	HEAD, CYLINDER RECEIVING (ATTACHING PARTS)	1	1
-	COML	SCREW, CAP, Hex Hd., 5/16-18NC x 1-1/4 in.	3	3
-	COML	WASHER, LOCK, 5/16 in.	3	6
-	COML	NUT, HEX, 5/16-18NC -----*-----	3	6
-8	16209	HUB, RECEIVING HEAD (ATTACHING PARTS)	1	1
-	COML	SCREW, SET, Sq Hd., 1/2-13NC x 5/8 in.	1	1
-	COML	KEY, WOODRUFF, No. 13 -----*-----	1	1
-9	17517	BEARING	1	1

PARTS LIST

CYLINDER OPTIONS - ASSEMBLY GROUP "D" CONT'D.

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "D" QUANTITY REQ'D.	TOTAL QUANTITY PER CYLINDER
-10	17516	BRACKET, BEARING (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20NC x 3/4 in.	4	4
-	COML	NUT, HEX, 1/4-20NC	4	5
-	COML	WASHER, LOCK, 1/4 in.	4	11
		-----*-----		
-11	16212	PLATE, CYLINDER BAFFLE (ATTACHING PARTS)	1	1
-	COML	NUT, HEX, 5/16-18NC	3	6
-	COML	WASHER, LOCK, 5/16 in.	3	6
		-----*-----		
-12	60885	SUPPORT ASSEMBLY, CYLINDER BAFFLE	1	1
->-13	60889	SHAFT, CYLINDER	1	1
-14	3773	WASHER, FELT	1	1
-15	280	COLLAR, SET (ATTACHING PARTS)	1	1
-	COML	SCREW, SET, Ho1 Hd., 3/8-16NC x 3/8 in.	1	1
		-----*-----		

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PARTS LIST

CYLINDER OPTIONS - ASSEMBLY GROUP "D" CONT'D.

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "D" QUANTITY REQ'D.	TOTAL QUANTITY PER CYLINDER
		CYLINDER ASSEMBLY - PART NUMBER 34032 (INDENTED AND ROUND PERFORATED)		
-1	SPECIAL	SHELL, CYLINDER (Optional - specify perforation required) (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20 x 1/2 in.	6	18
-	COML	WASHER, LOCK, 1/4 in. -----*	6	18
-2	34030	HEAD, CYLINDER DISCHARGE (ATTACHING PARTS)	1	1
-	COML	SCREW, SET, Sq Hd., 3/8-16 x 5/8 in. -----*	2	4
-3	34029	HEAD, CYLINDER RECEIVING -----*	1	1
-4	60880	SHAFT, CYLINDER STUB	1	1
-5	31162	SPIDER, CYLINDER BLADES (ATTACHING PARTS)	1	1
-	COML	SCREW, SET, Sq Hd., 3/8-16 x 5/8 in. -----*	2	4
-6	34033	BLADE, CYLINDER (ATTACHING PARTS)	3	3
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20 x 1/2 in.	12	18
-	COML	WASHER, LOCK, 1/4 in.	12	18
-	60968	PLUG, NYLON (Not shown)	2	2
		CYLINDER ASSEMBLY - PART NUMBER 34031 (LARGE SLOT OVER 10/64) (SMALL ROUND PERFORATION AND RIBBED)		
-1	SPECIAL	SHELL, CYLINDER (Optional - specify perforation size required) (ATTACHING PARTS)	1	1
-	COML	SCREW, MACHINE, Rd Hd., 1/4-20 x 1/2 in.	6	6
-	COML	WASHER, LOCK, 1/4 in. -----*	6	6

PARTS LIST

CYLINDER OPTIONS - ASSEMBLY GROUP "D" CONT'D.

INDEX NUMBER	PART NUMBER	DESCRIPTION	GROUP "D" QUANTITY REQ'D.	TOTAL QUANTITY PER CYLINDER
		CYLINDER ASSEMBLY - PART NUMBER 34031 (LARGE SLOT OVER 10/64) (SMALL ROUND PERFORATION AND RIBBED)		
-2	34028 ✓	HEAD, CYLINDER RECEIVING	1	1
-3	34030 ✓	HEAD, CYLINDER DISCHARGE (ATTACHING PARTS)	1	1
-	COML	SCREW, SET, Sq Hd., 3/8-16 x 5/8 in. -----*-----	2	2
-4	60880 ✓	SHAFT, CYLINDER STUB	1	1
	60968	PLUG, NYLON (Not shown)	2	2