

Instruction Manual 204-1

No. 245 Seed Cleaner

Style ACK2-AS

CARTER DAY

Carter-Day Company
500 73rd Avenue N.E., Minneapolis, Minnesota 55432
Phone: (612)571-1000 FAX: (612)571-3012

INSTALLATION AND OPERATION

No. 245 CARTER SEED CLEANER

INSTALLATION

LOCATION- Sufficient room should be allowed for moving around the No. 245 Carter Seed Cleaner with a minimum of effort. Approximately five feet should be allowed at the discharged end for the removal of the grading shells. The No. 245 Carter Seed Cleaner is designed to operate as a scalper, aspirator, and grader ahead of a Carter Disc Separator.

FOUNDATION- The machine is of medium weight and operates without vibration. It should be placed three feet above the cleaner floor to allow the spouts to be attached to the machine. It is, therefore, important that the machine be placed on a substantial structure and set level, with all moving parts operating freely.

SPEED- The efficiency of the machine is governed to a large extent by the speed of the machine. The normal speed of the fan drive shaft is 875 to 910 R.P.M. The normal speed range of the grading shells is 48 to 56 R.P.M. A 1/2 H.P. motor is required to operate this machine without elevators.

ASSEMBLY- The machine is shipped completely assembled and may be checked with the accompanying Data Installation print at the end of this booklet.

SPOUTING- The spout feeding the machine should have a shut-off gate at the bin. Assistance for the spouting of the two streams of grain to be discharged can be found in reading the subject "Flow of Grain" under "Operation".

OPERATION

FLOW OF GRAIN-The grain flow of the No. 245 Carter Seed Cleaner is very simple. The separate stages of cleaning are scalping, aspirating, and then grading. As the grain leaves the feed hopper, it flows into the rotary scalper reel. Straws, stones, sticks, and other coarse materials are removed. The main flow of grain is then distributed into the suction air chamber. Aspiration takes place where the grain leaves the seal gate in an evenly spread stream through which a uniform and effective current of air is drawn. The light material is carried by air to the expansion chamber. Rapid expansion of air in the settling chamber allows the screenings to drop to the bottom where they are discharged from the machine by a screw conveyor. The main body of grain, with the light material removed, flows into the grading shells. These shells have perforations which provide separating and sizing to degrees of exactness and

uniformity heretofore unobtainable in an agricultural machine. As the main body of grain flows through the shells, the small weed seeds, pin oats, and other thin material drop through the perforations. The large grain left in the shells is carried on through and discharged out at the end of the machine.

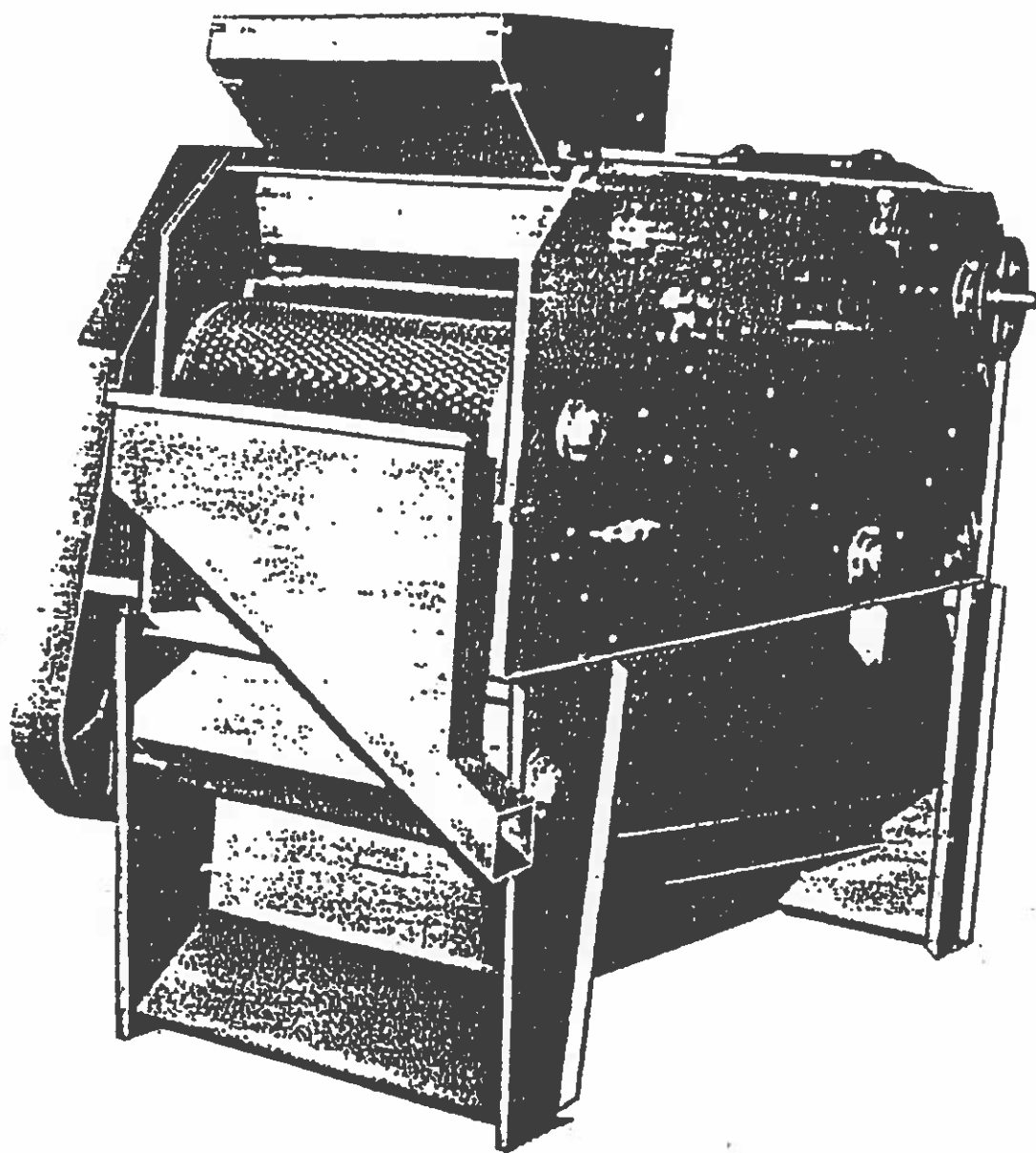
FEED CONTROL - The material passes under a slowly rotating feed roll for more positive feed. A spring loaded feed valve is located under the feed roll. It is possible to increase the volume of feed by turning down the thumbscrew shown at (A) which keeps the feed valve open with a wider space under the feed roll. If additional spring tension is required to keep the feed valve close to the feed roll the wing nuts should be turned down. The feed valve control lever (B) regulates the level of grain behind the scalper reel. For best results the feed valve control lever (B) should be adjusted to maintain the highest possible level of grain behind this reel. The air seal valve (C) situated below the feed valve control lever (B) evens the flow of grain through the air suction before it passes into the grading shells. After the grain starts flowing through the machine, the circular weight should be moved to a position on the arm where it will maintain a slight pressure against the stream of grain. If no pressure is maintained all of the light material will not be removed by air. There are six circular air vents located on top of the machine; four of these vents are operated by the air control lever (D). When these vents are opened, a minimum amount of air passes through the grain in the machine. In the event of cleaning flax, and the air control lever adjustment lever (D) is not sufficient, open the other two circular vents.

SERVICE - The No. 245 Carter Seed Cleaner has rubber roller blades running continuously between the grading shells. These rubber roller blades keep the perforated shells clean, allowing them to operate continually without becoming plugged. The No. 245 Carter Seed Cleaner has oil soaked bronze and factory sealed ball bearings throughout. However, a small quantity of grease should be applied to the gears at the drive end of the shells from time to time to permit smoother running and quieter operation of the machine. When cleaning various types of grain, such as wheat, barley, flax, etc., a different size of perforated shell is required. These are obtainable direct from the factory. To change over from cleaning one grain to another, it is necessary to remove the grading shells and replace them with the correct size of shells for the grain to be cleaned. This is done by:

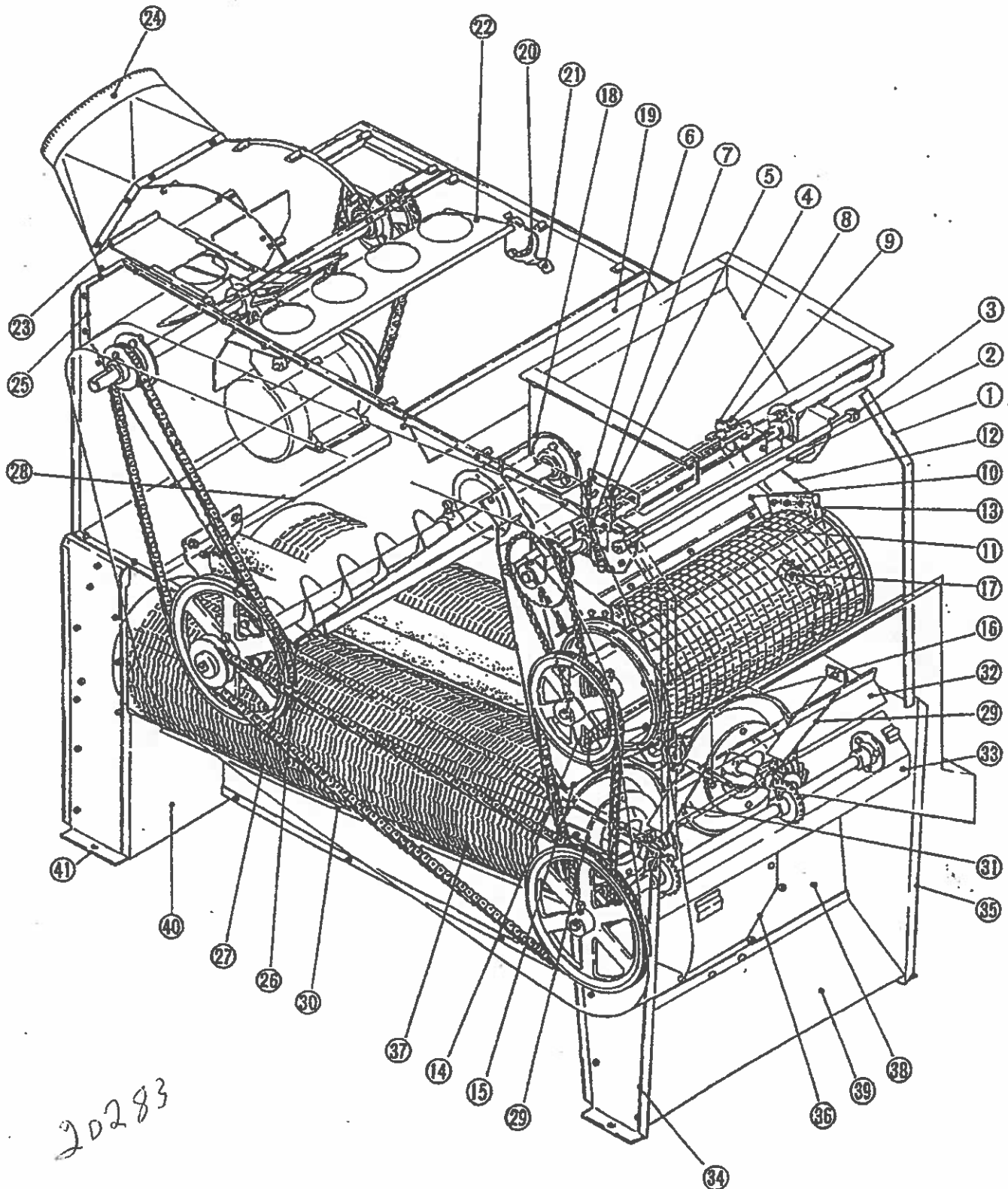
1. Loosen and remove set collars located on the discharge end of each shell.
2. Remove the screws from the panel with handles at either end of the machine.
3. Remove panel and withdraw shells.
4. Remove the three screws from the end castings on each shell. Remove castings from shells. Do not remove the tie rods.

5. Reverse procedure outlined above to return new shells into the machine.

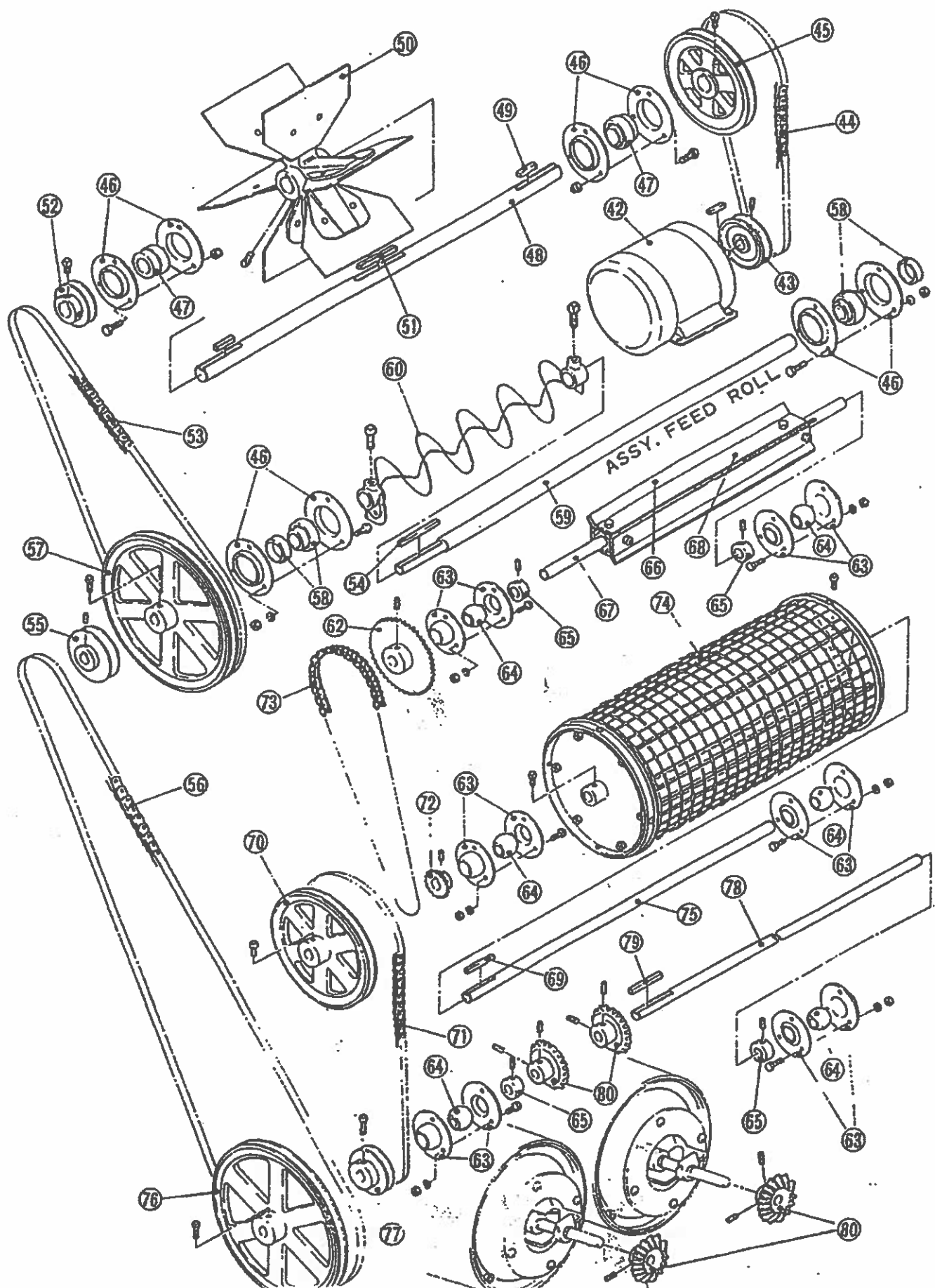
LABORATORY SERVICE- A free laboratory service is maintained by the Company in order to determine the proper size of shell required to clean various types of grain. It is necessary to send a three pound sample of the grain to be cleaned, together with information as to types of equipment currently in use, in order that we may determine the proper size of shells required.

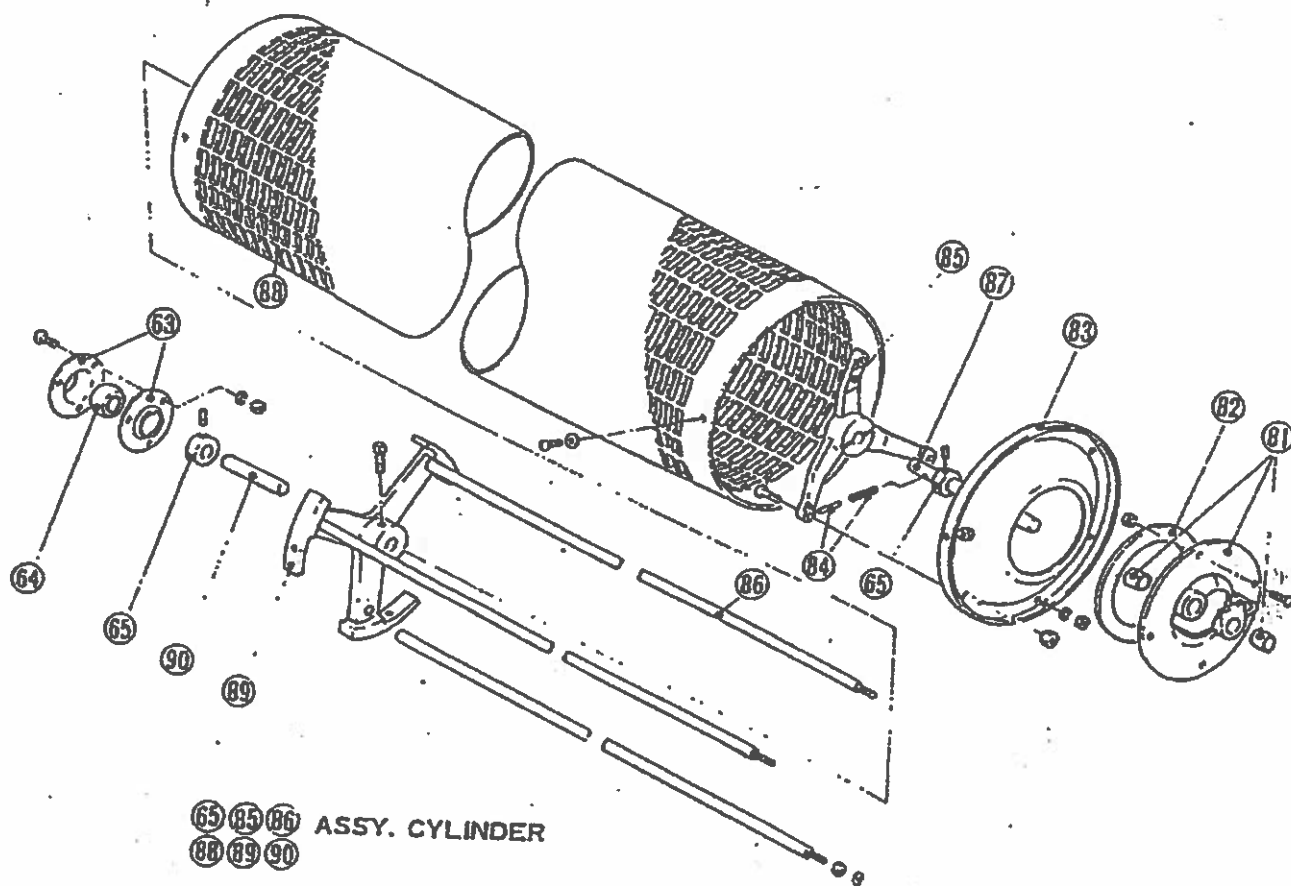
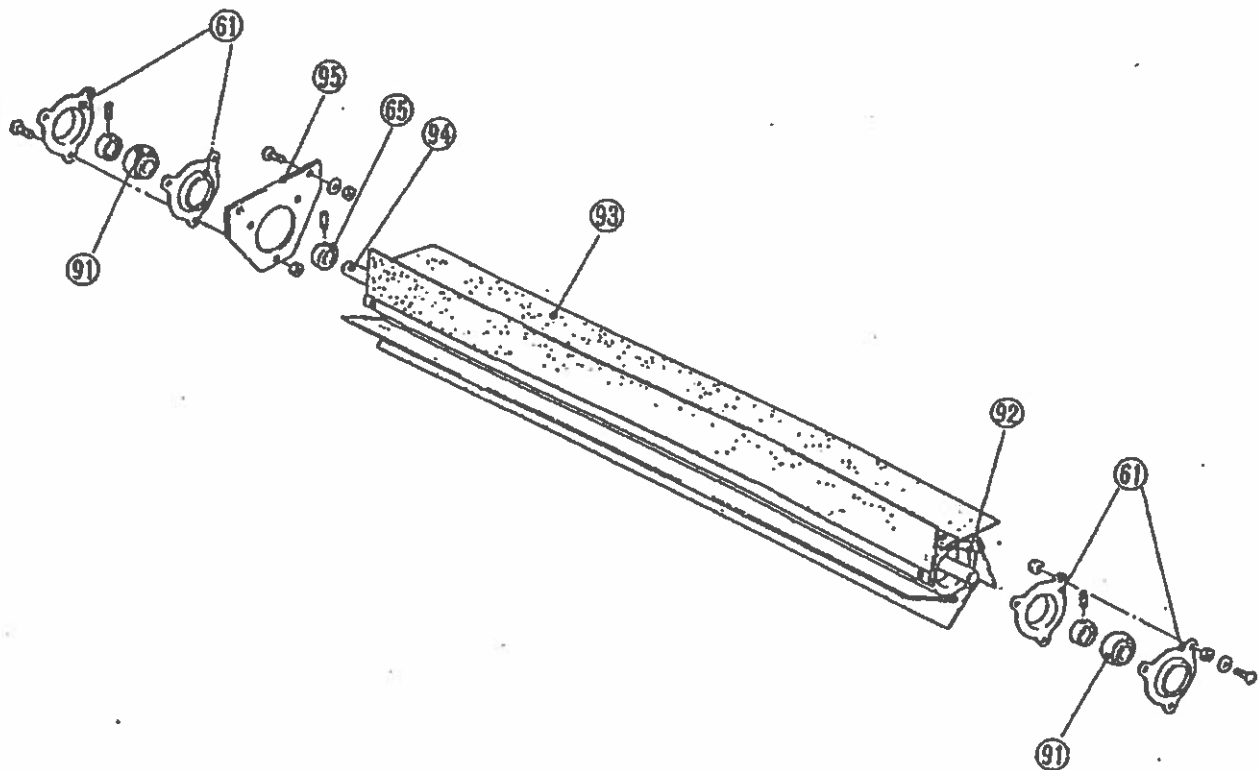


GENERAL DRAWING



DRIVE UNIT





CDXC - CANADA

SINGLE LEVEL BILL WITH BLOW-THRU

DATE 3/23/92 TIME 13.48.32 PAGE 1 ANEF71
OPER CDY

PARENT ITEM NO. 9900594
DESCRIPTION - 245-CBC-SERIES-FLOW-CHACKAS
ENGR DRAW SD-B2151
STANDARD BATCH QUANTITY 1.000
ITEM TYPE 1
UNIT MEAS EA
PLANNER 1.1

LL SER COMPONENT CD NO. ITEM NO.	DESCRIPTION	ENGINEERING DRAWING NUMBER	QUANTITY PER	ITEM UM TYP	OPT NO. OP	FIRST LT	ADJ	EFFECTIVE DATES FROM TO
02 81408	END FEED LEG	SD-3394	1.000	EA	2			
02 81409	LEG FEED END	SD-3394	1.000	EA	2			
02 81410	PLATE-CYLINDER-SUPPORT	SD-3395	3.000	EA	2			
02 81411	BRG MTR FLANGE	HC25435	8.000	EA	4			
02 81415	KEY 3/16 X 3/16 X 1/2	26184	2.000	EA	2			
02 8934	PLATE-END-TAILING-HOPPER	SD-3395	2.000	EA	2			
02 8937	PLATE COVER	SD-3395	2.000	EA	2			
03 W10161	PLATE SERIAL NUMBER	SD-D12877	1.000	EA	4			
03 W10162	DECAL-CUTION-SCREW-CONVEYOR	SD-D12877	2.000	EA	4			
02 W12819	BRG FLG 3/4"	SD-A7583	16.000	EA	4			
02 W12820	BRG 3/4"1020-6	SD-A7583	8.000	EA	4			
02 W13239	CASE FEED CASTINGS W13239U	SD-D2482	4.000	EA	4			
02 W13246	SPACER	SD-D7482	4.000	EA	4			
02 W13373	DECAL 245 CBC 910 RPM	SD-D7482	1.000	EA	4			
02 W3000	PLATE-SPECIAL-FOR	HES-4081	1.000	EA	2			
02 W3120	PLATE SINE	HES-4047	2.000	EA	2			
02 W3886	SPOUT OVER	HES-4047	2.000	EA	2			
02 W5983	PLATE-LOWER-DISCHARGE-END	SD-B1978	2.000	EA	2			
02 W5984	SHAFT COUNTER	SD-A2106	1.000	EA	2			
02 W5985	BRACKET LEG FEED END	SDA-2105	1.000	EA	2			
04 W5986	COVER END FEED	SD-B2140	1.000	EA	2			
02 W5989	GUARD DRIVE LOWER SECTION	SD-B2097	1.000	EA	2			
02 W5990	GUARD FEED END	SD-B2096	1.000	EA	2			
02 W5991	SPROUT CONVEYOR-DISCHARGE	SD-B2095	1.000	EA	2			
02 W5992	SPROUT OVER UPPER	SD-C2113	1.000	EA	2			
02 W5993	GUARD GEAR	SD-B2094	1.000	EA	2			
02 W5994	LEG-EXTENSION-DISCHARGE-END	SD-B2103	1.000	EA	2			
02 W5995	LEG EXTENSION DISCHARGE END	SD-B2103	1.000	EA	2			
02 W5996	LEG EXTENSION FEED END	SD-B2100	1.000	EA	2			
02 W5997	LEG-EXTENSION FEED END	SD-B2100	1.000	EA	2			
02 W5998	GUSSET DISCHARGE END	SD-B2102	1.000	EA	2			
02 W5999	GUSSET DISCHARGE END	SD-B2102	1.000	EA	2			
02 W6000	GUSSET FEED END	SD-B2101	1.000	EA	2			
02 W6001	GUSSET FEED END	SD-B2101	1.000	EA	2			
02 W6002	LEG FEED END	SD-B2099	1.000	EA	2			
02 W6003	LEG FEED END	SD-B2099	1.000	EA	2			
02 W6004	LEG TAIL END	SD-B2098	1.000	EA	2			
02 W6005	LEG TAIL END	SD-B2098	1.000	EA	2			
02 W6006	PLATE-EXT-FRONT FEED-HOPPER	SD-B2117	1.000	EA	2			
02 W6007	PLATE FRONT FEED HOPPER	SD-B2117	2.000	EA	2			
02 W6008	ASSY THROUGH CONV.	SD-C2149	1.000	EA	2			
02 W6009	DECAL-CARRIER-SEED-CLEANER	SD-C2149	1.000	EA	2			
02 W6010	ASSY ROLLER SLAPPER	SD-C2149	1.000	EA	2			
02 W6011	SET COLLAR .75X1.43X.62	CH-2952	2.000	EA	2			
02 W6012	WASHER-REL 1/4-20X1.5	HC-25322	8.000	EA	4			
02 W6013	BOLT CONN 1/4-20X1.5	HC-25322	4.000	EA	4			
02 W6014	BRG 3/4" 479204-012	CD-C4363	8.000	EA	4			
02 W6015	KEY 3/16 X 3/16 X 1/2"	CD-C4363	4.000	EA	4			
02 W6016	KEY 3/16 X 3/16 X 1/2"	HC-24554	4.000	EA	2			

CDIC - CANADA

SINGLE LEVEL BILL WITH BLOW-THRU

OPER CDY

ITEM TYPE 1 LOW LEVEL 00
UNIT MEAS EA PLANNER 1

PARENT-ITEM-NO. 9900394
DESCRIPTION 2045 CSC SERIES FLOW CRACKS AS
ENGR DRAW 80-82151
STANDARD BATCH QUANTITY 1.000

LL SER COMPONENT CD NO. ITEM NO.	DESCRIPTION	ENGINEERING DRAWING NUMBER	QUANTITY PER	ITEM UM TYP	DPT NO.	FIRST LT	ADJ	FROM	TO
03 17061	BOLT CONN 1/4-20X1.375	CD-CA363 REV A	140.000	EA 4					
02 17999	PLANETTE 3H #47MS	17999A-00	8.000	EA 4					
02 20274	SUPPORT BEARING	26181	2.000	EA 1					
02 20275	PLATE TOP TAIL END	35577	2.000	EA 2					
02 20276	PLATE LOWER FEED END	35578	2.000	EA 2					
02 20278	GUARD GEAR	35579	1.000	EA 2					
02 20279	PLATE UPPER TAIL END	35580	2.000	EA 2					
02 20280	LEG TAIL END	HC-35581 REV A	1.000	EA 2					
02 20281	LEG TAIL END	HC-35581 REV A	1.000	EA 2					
02 20283	CAST GEAR MITRE 20283U	26183	8.000	EA 4					
02 20285	PLATE FRONT TAILING HOPPER	35582	2.000	EA 2					
02 20286	PLATE HOPPER LOWER SIDE	35583	2.000	EA 2					
02 20287	PLATE HOPPER LOWER SIDE	35583	2.000	EA 2					
02 20290	PLATE END TAILING HOPPER	26186	2.000	EA 2					
02 20292	SHAFT SUB CYL ASSY	HC-26188 REV B	4.000	EA 4					
01 20293	CYL ASSY 245 LESS SHELL	HC-42968 REV01	2.000	EA 2					
02 20299	PLATE END BOTTOM HOPPER	26191	2.000	EA 2					
02 20300	DIVIDER FEED HOPPER	26192	2.000	EA 2					
02 20301	SHAFT COUNTER	26193	1.000	EA 2					
02 20302	PLATE END FEED HOPPER	26194	2.000	EA 2					
02 20303	PLATE END FEED HOPPER	26194	2.000	EA 2					
02 20309	PLATE FEED END	HC-42969 REV-B	2.000	EA 2					
02 20310	PLATE SIDE	42970	2.000	EA 2					
02 281044	BUSH BROWN H 1-3/16" BORE	BUSH19	1.000	EA 4					
02 281052	BUSH BROWN H 3/4" BORE		2.000	EA 4					
02 281339	SHV 1UP 34 2.4/3.2PDB 3/4" B	1.9/2.9PDA 1G	1.000	EA 4					
02 281373	SHV A3.00 3/4 B AK32 1GR B	1G	1.000	EA 4					
02 281397	SHV A3.00 3/4 B AK32 1GR B	1G	1.000	EA 4					
02 281400	SHV A3.00 H BUSH AK32H 1GR B	1G	1.000	EA 4					
01 281671	SHV A3.00 3/4 B AK32A 1GR B	1G	1.000	EA 4					
02 281721	SHV B12.40 H BUSH BK130H 1GR B	A12.00 1G	2.000	EA 4					
02 31339	BUSH BROWN H 1-1/16" BORE	ND	1.000	EA 4					
02 34329	SHV B1.00 H BUSH BK34H 1GR B	BROWNING BK36	1.000	EA 4					
03 37780	LABEL WARNING MOVING PARTS	CD-A1616	1.000	EA 4					
03 41677	DECAL ARROW	CD-A2120	1.000	EA 4					
02 40590	SHV A7.0 3/4B AK24 1GR B	SC-3418	2.000	EA 4					
02 0001 63609	V-BELT A SEC LINK TYP 15LK-FT	VEELOS/EOL	62.000	LK 4					
02 0002 63609	V-BELT A SEC LINK TYP 15LK-FT	VEELOS/EOL	95.000	LK 4					
02 0003 63609	V-BELT A SEC LINK TYP 15LK-FT	VEELOS/EOL	157.000	LK 4					
02 0001 63611	V-BELT B SEC LINK TYP 14LK-FT	VEELOS/EOL	69.000	LK 4					
02 0002 63611	V-BELT B SEC LINK TYP 14LK-FT	VEELOS/EOL	105.000	LK 4					
03 82084	PAINT CD METAL BLUE SP272 8A'	CERAMIC IND CTG	4.000	LT 3					
01 9800534	MDA 245 C.S.C.		1.000	EA 0					
02 51015	VELT GUARD	SC2264	1.000	EA 2					
02 20267	SHV 1UP 64 2.8/3.8PDA 5/8" B	2.88RM	1.000	EA 4					
02 281044	BUSH BROWN H 1-3/16" BORE	BUSH19	1.000	EA 4					
02 31336	SHV B7.40 H BUSH BK80H 1GR B		1.000	EA 4					
02 63611	V-BELT B SEC LINK TYP 14LK-FT	VEELOS/EOL	60.000	LK 4					

PARENT-ITEM-NO. 9900594
 DESCRIPTION 245-CBC-SERIES-FLOW-C-ACK2AS
 ENGR DRAW SD-22151
 STANDARD BATCH QUANTITY 1.000

ITEM TYPE 1

UNIT MEAS EA

PLANNER 1

LL SEQ CD NO.	COMPONENT ITEM NO.	DESCRIPTION	ENGINEERING DRAWING NUMBER	QUANTITY PER	ITEM UM TYP	OPT NO. OF SEQ	LT ADJ	EFFECTIVE DATES FROM TO
01	9900624	SCALPER 245 CBC STYLE ACK2A	SC4213	1.000	EA	0		
02	81049	SCALPING DISCHARGE SPOUT	SG4304-REV A	1.000	EA	2		
02	81399	PLATE-SIDE		1.000	EA	2		
02	81403	SPRKT 35B17 .75B	2368	1.000	EA	4		
02	81404	BRACKET SHEEP-SKIN	SC3393	1.000	EA	2		
02	81405	BRACKET-SHEEP-SKIN	SC3393	1.000	EA	2		
02	81411	BRG MID FLANGE		4.000	EA	4		
02	81412	PLATE TOP AIR DUCT	3397	1.000	EA	2		
02	81414	VALVE-FEED	SG3399	1.000	EA	2		
02	81419	PLATE FEED VALVE	SC3401	1.000	EA	2		
02	81420	PLATE END FEED HOPPER	SC 3402	1.000	EA	2		
02	81421	PLATE END-FEED-HOPPER	SC-3402	1.000	EA	2		
02	81422	PLATE FRONT FEED HOPPER	SC3403	1.000	EA	2		
02	81423	PLATE FEED HOPPER BACK	3404	1.000	EA	2		
02	81424	PLATE FRONT-AIR-DUCT	A306	1.000	EA	2		
02	81426	PLATE END FEED VALVE	SC-2372 REV A	1.000	EA	4		
02	81427	PLATE END FEED VALVE	SC2373	1.000	EA	4		
02	81437	BRACE FEED HOPPER	SC2375 REV 01	1.000	EA	2		
02	81438	BRACE FEED HOPPER	SC2376 REV 01	1.000	EA	2		
02	81449	BELT GUARDS	4313	1.000	EA	2		
02	81543	SQUARE TO ROUND	SC3419	1.000	EA	2		
02	81543	SQUARE TO ROUND	SC2220	2.000	EA	2		
02	81543	SLIDE AIR CHECK	SD-D12877	1.000	EA	4		
02	81543	PLATE SERIAL NUMBER		1.000	EA	2		
02	81543	DECAL CAUTION SCREW CONVEYOR		1.000	EA	4		
02	81543	IMPELLER ASSY 245	SD-D6897 REV-H	1.000	EA	2		
02	81543	DECAL 245 CBC 910 RPM		2.000	EA	4		
02	81543	SHEEP-SKIN 2-1/2X5X5-5 THICK-MIN	SHEARED-L-TANNED	1.000	EA	4		
02	81543	ELBOW		1.000	EA	4		
02	81543	CAST ARM VALVE (79U)	SDA1379	1.000	EA	2		
02	81543	SHAKT FEED ROLL	SD-B1596	1.000	EA	4		
02	81543	BLADE FEED ROLL	SD-A1597 REV01	4.000	EA	2		
02	81543	KEEPER FEED ROLL BLADES	SD-A1598	4.000	EA	2		
02	81543	GROUT AIR-LIFTING DISCHARGE	SD-C2417	1.000	EA	2		
02	81543	PLATE SIDE	SD-C2618 REV D	1.000	EA	2		
02	81543	DOOR CONVEYOR CLEANOUT	SD-A2419	1.000	EA	2		
02	81543	PLATE FRONT-EXP-CHAMBER	SD-C2420	1.000	EA	2		
02	81543	PLATE BACK EXP CHAMBER	SD-C2421	1.000	EA	2		
02	81543	ASSY SHAFT-FLTS LHA	SD-B5996	1.000	EA	2		
02	81543	DECAL-CARTER-SEED-CLEANER		1.000	EA	4		
02	81543	SET COLLAR 6TL .375ID X.938	CH-2872	2.000	EA	4		
02	81543	SET COLLAR .765ID X1.43X.62	CH-2952	1.000	EA	4		
02	81543	KEY SQUARE	CH-21224	1.000	EA	2		
02	81543	KEY 1/4X1/4 X 1 1/2"STL CURVED	21254	1.000	EA	2		
02	81543	BOLT CONN 1/4-20X1.5	CD-C4363 REV A	7.000	EA	4		
02	81543	BRG 1 3/16-1030	SKE RESS BRIGHT	2.000	EA	4		
02	81543	SPRING TURBION	25374	2.000	EA	4		
02	81543	BOLT CONN 1/4-20X1.375	CD-C4363 REV A	123.000	EA	4		
02	81543	ASSY-LEVER	25421	1.000	EA	2		

CDIC - CANADA

SINGLE LEVEL BILL WITH BLOW-THRU

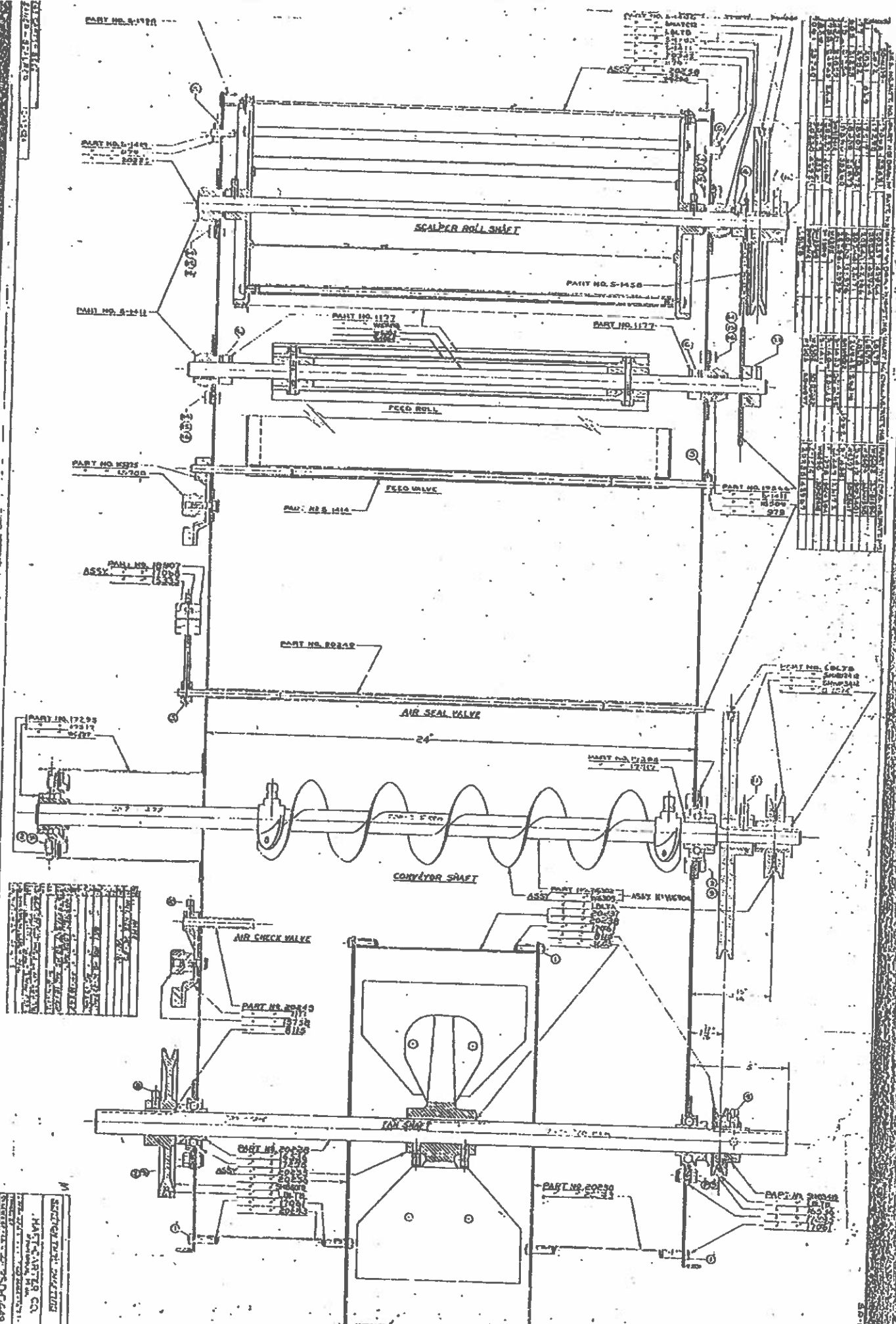
DATE 3/23/92 TIME 13.48.32 PAGE 4 ANEF71
OPER CITY

PARENT-ITEM-NO.
9900594

DESCRIPTION-9245-CSC-SERIES-FLOW-D-ACK2AS
ENGR DRAW 80-B2151
STANDARD BATCH QUANTITY 1.000

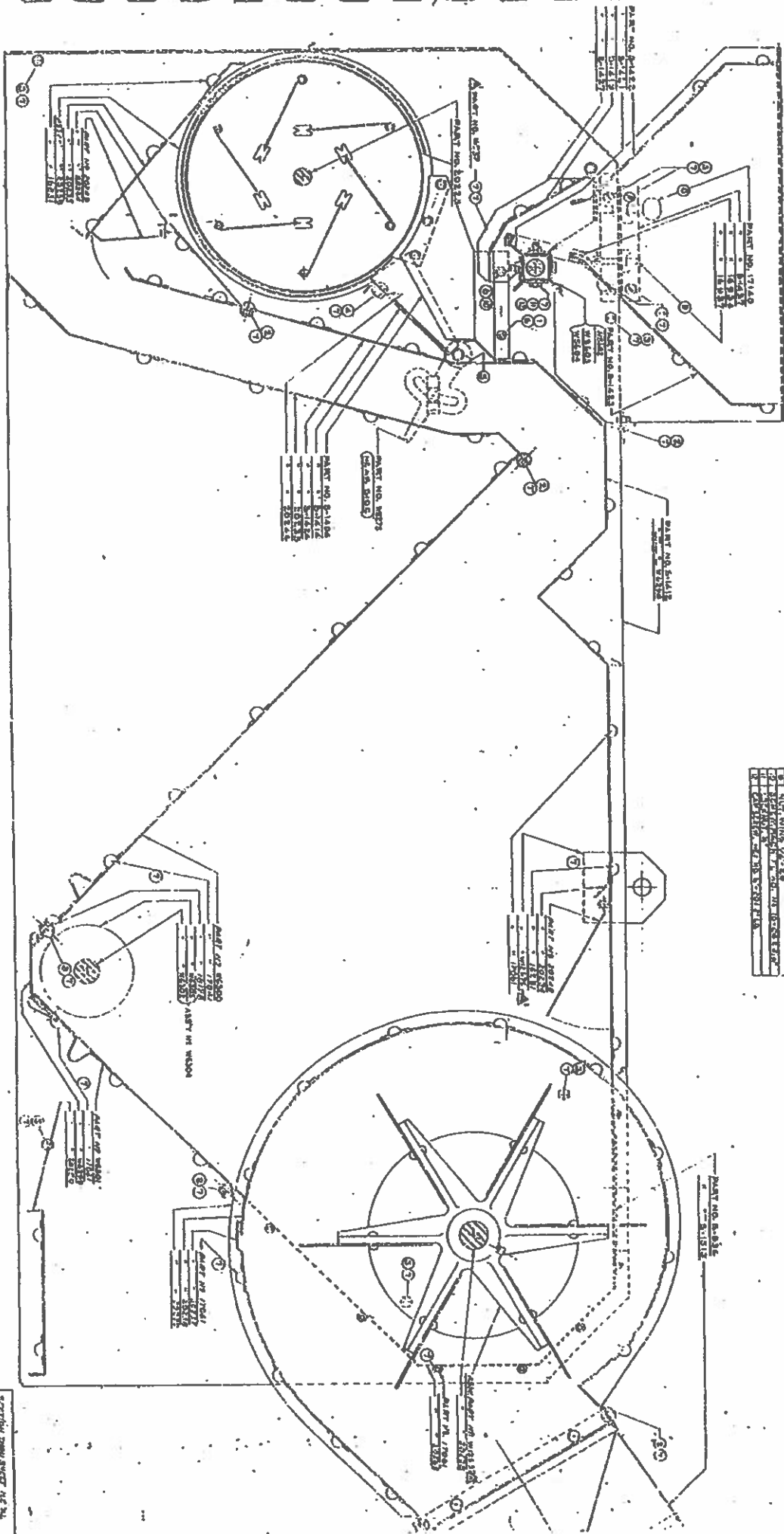
ITEM TYPE 1 LOW LEVEL 00-
UNIT MEAS EA PLANNER 1

LL SEQ CD NO.	COMPONENT ITEM NO.	DESCRIPTION	ENGINEERING DRAWING NUMBER	QUANTITY PER	ITEM UM TYP	OPT NO.	FIRST OP	LT ADJ	EFFECTIVE DATES FROM TO
02	17140	THUMB SCREW 5/16-18X1-7/8	P 25431	2.000	EA	4			
04	17295	FLANGETTE 62M 3-HOLE	ND	8.000	EA	4			
03	18017	BRG UC206-12		2.000	EA	4			
02	18178	CAST QUADRANT 18178U	HC-25701 HC2958	1.000	EA	4			
04	18907	WEIGHT	HC-25872	2.000	EA	4			
02	18909	PIN PIVOT	25873	1.000	EA	2			
02	19266	SPRKT 35B48 .75B	35360	1.000	EA	4			
02	20225	SHAFT SCALPER ROLL	26165	1.000	EA	4			
02	20228	SHAFT FAN	35261	1.000	EA	4			
02	20230	PLATE SIDE FAN	42959	1.000	EA	2			
02	20233	PLATE FRONT SCALPER ROLL	35265	1.000	EA	2			
02	20234	PLATE TOR EXP CHAMBER	42962	1.000	EA	2			
02	20235	PLATE BACK AIR DUCT	42963	1.000	EA	2			
02	20237	FILLER FAN	42964	1.000	EA	2			
02	20238	BLOWER FILLERS	42964	1.000	EA	2			
02	20243	PLATE FILLER EXP CHAMBER	42966	2.000	EA	2			
02	20244	PLATE BACK SCALPER ROLL	26168	1.000	EA	2			
02	20246	STRIP RUBBER	26169	1.000	EA	2			
02	20248	VALVE AIR CHECK	26171	1.000	EA	2			
02	20249	VALVE AIR SEAL	26172	1.000	EA	2			
02	20250	PLATE MOTOR	35269	1.000	EA	2			
02	20256	PLATE SIDE FAN	42959	1.000	EA	2			
02	20942	SHAFT PIN PIVOT AIRCHECK VALVE	26318	2.000	EA	2			
02	284507	THUMB SCR 5/16-20X2	ND	4.000	EA	4			
03	37780	LABEL WARNING MOVING PARTS	CD-A1616	1.000	EA	4			
03	41677	DECAL ARROW	CD-A2120	1.000	EA	4			
03	45272	KNOB PLASTIC 3292 5/16-18 INSE		2.000	EA	4			
02	63953	CHAIN ROLLER 935 32P1/FT	ANSI STD	89.000	LK	3			
02	63568	LINK CONN RC 935		1.000	EA	4			
03	82084	PAINT CO METAL BLUE SP4272 84'	CERAMIC IND CIG	1.000	LT	3			



Part No.	Part Name	Part No.	Part Name	Part No.	Part Name
1	1.0000	10	10.0000	19	19.0000
2	2.0000	11	11.0000	20	20.0000
3	3.0000	12	12.0000	21	21.0000
4	4.0000	13	13.0000	22	22.0000
5	5.0000	14	14.0000	23	23.0000
6	6.0000	15	15.0000	24	24.0000
7	7.0000	16	16.0000	25	25.0000
8	8.0000	17	17.0000	26	26.0000
9	9.0000	18	18.0000	27	27.0000

1	1.0000	10	10.0000	19	19.0000
2	2.0000	11	11.0000	20	20.0000
3	3.0000	12	12.0000	21	21.0000
4	4.0000	13	13.0000	22	22.0000
5	5.0000	14	14.0000	23	23.0000
6	6.0000	15	15.0000	24	24.0000
7	7.0000	16	16.0000	25	25.0000
8	8.0000	17	17.0000	26	26.0000
9	9.0000	18	18.0000	27	27.0000



11/11/11

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