

*Corte Day*

*204-786-5781*

# **INSTRUCTIONS AND PARTS LIST**

**for the**

# **No. 245 CARTER SEED CLEANER**

**Manufactured in Canada by**

**SIMON-DAY LTD.**

P.O. BOX 488 / WINNIPEG, MANITOBA, CANADA  
CALGARY • FORT WILLIAM • REXDALE • MONTREAL



**No. W 106**

INSTALLATION AND OPERATION  
NO. 245 CARTER SEED CLEANER, STYLE C-ACK 2

INSTALLATION AND DATA

The No. 245 Carter Seed Cleaner is designed to operate as a scalper, aspirator, and grader, using slotted cylinder shells for thickness, or round hole perforated shells for width grading.

The machine is of medium weight, and operates without vibration. It should be raised three feet above the cleaner floor to allow the discharge spouts to be attached. It is very important that the machine be placed on a solid structure and securely fastened. Holes have been provided in the base of the legs for fastening. The machine must be set level and all moving parts operating freely. Sufficient room should be allowed for moving around the machine. Five feet should be allowed at the discharge end for the removal of the grading shells.

The No. 245 Carter Seed Cleaner is shipped completely assembled, except for the "overs" spout which has been removed for shipment. The "thrus" spout is an extra, or supplied with an elevator when the elevator is purchased with machine.

SPEED

The efficiency of the machine is governed to a large extent by the speed. Depending on the type of grain being cleaned, the normal speed range of the grading shells may vary. The normal speed range of the main drive shaft is 875 to 910 r.p.m. The normal speed range of the grading shells is 48 to 56 r.p.m. The speed of the main drive shaft and fan can be changed by adjusting the variable pitch pulley on the motor. Another adjustable pitch pulley is provided to alter the speed of the scalper reel and grading shells. These provisions are necessary to permit the operator to adjust the speed of the shells independent of the speed of the fan.

A 3/4 H.P. motor is required to operate this machine without elevators. Depending on the length of elevator or elevators, extra power is required when they are being driven from the No. 245 Carter Seed Cleaner.

### 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 material 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 spiral grooves with 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 the end of the machine.

### FEED CONTROL

The feed gate thumb screws (A) are adjustable, regulating the amount of grain being fed to the scalper reel.

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) regulates an even flow of grain through the air suction before it passes into the grading shells. After the grain is 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, when the adjustment at air control lever (D) is not sufficient, open the other two circular vents.

## SERVICE

The No. 245 Carter Seed Cleaner does not need a great deal of attention, but a periodic inspection should be made when it is in operation. This machine has factory sealed ball bearings and bronze bushings. The oil reservoirs on the bronze bushings should be kept full of SAE20 oil. A small quantity of grease should be applied to the gears at the drive end of the shells, to permit smoother running and quieter operation.

A roller with five heavy rubber blades has been provided above and between the cylinder shells and runs continuously to keep the perforations clean. This complete rubber blade assembly can be adjusted up or down a slight amount so that the rubber blades are tapping the cylinder shells, keeping them clean. It is recommended that these rubber blades be checked occasionally.

When cleaning various types of grain such as wheat, barley, flax, etc., different sizes of perforated shells are required.

A clean-out door has been provided under the expansion chamber conveyor which should be dropped occasionally to remove the accumulation of dust, small seeds, buckwheat, pin oats, etc. This can be done from the discharge end of the machine, by reaching in under the fan housing alongside the motor, and pushing down on the lugs provided to keep the clean-out door closed. When this is done the machine should not be in operation.

## CHANGING CYLINDER SHELLS

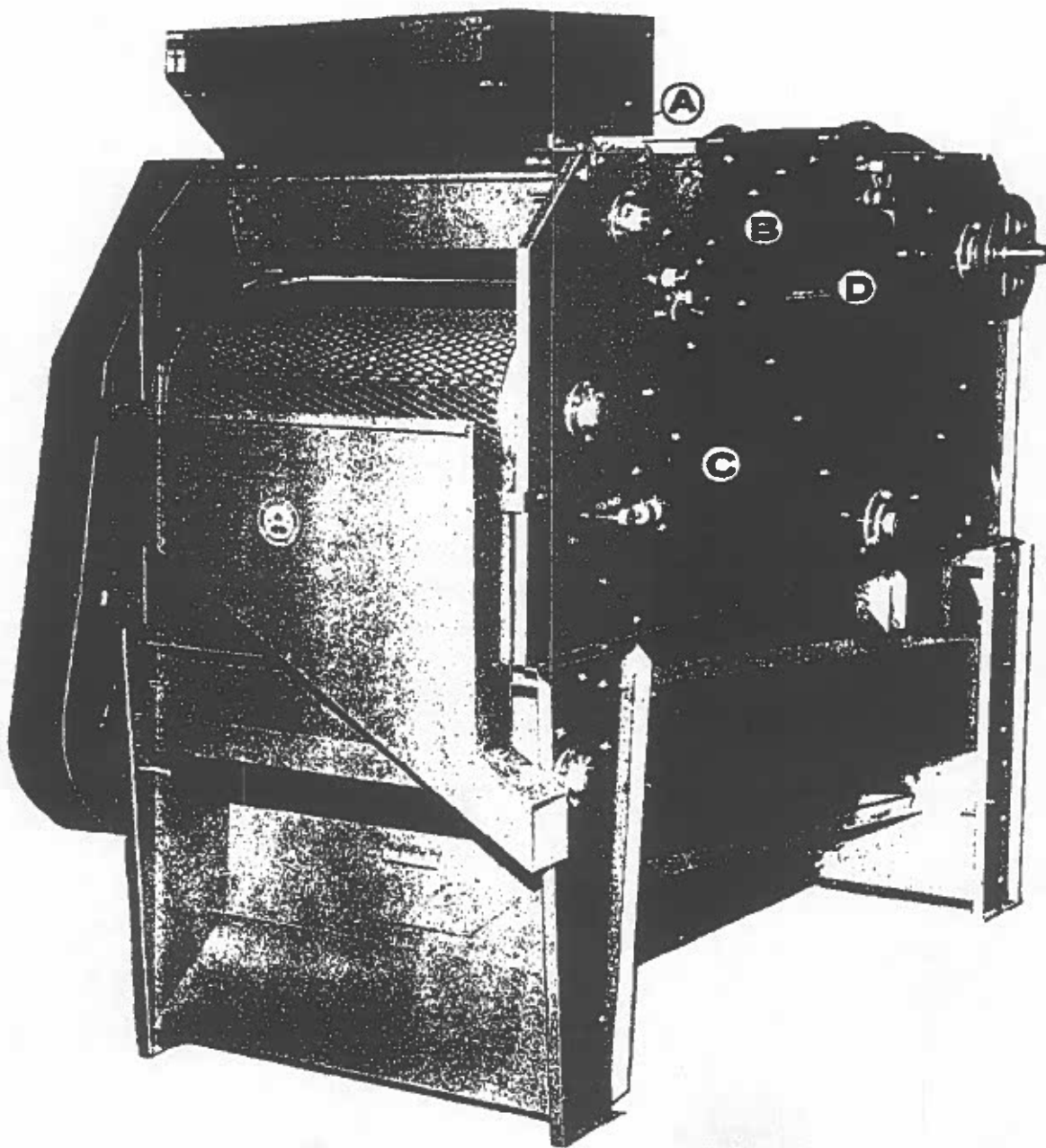
Whenever the cylinder shells are to be changed in this machine, it will be necessary to do some dismantling. These instructions should be read thoroughly before this job is started. The following parts must be removed:

1. Remove the six nuts and bolts located at the discharge end on both sides of the machine. These nuts and bolts hold the discharge end panel with handle.
2. Remove the end panel with handle.

3. Withdraw the complete shells with castings and tie rods.
4. Loosen and remove set collars located on the discharge end of each shell.
5. Remove the three screws from the discharge end casting on each shell.
6. Remove the discharged end casting from the shell. Do not remove tie rods.
7. Reverse procedure outlined above to assemble new shells.
8. When replacing shell assemblies in the machine, the inspection plate at the feed end has to be removed so that the feed castings can be guided by hand on to the stub shafts. Each shell is then rotated slowly to make sure the pin in the stub shaft engages the groove in end castings.
9. Replace the end panel at discharge end.

#### 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.



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# REPAIR PARTS FOR NO. 245 CARTER SEED CLEANER

SCALPER - STYLE C-ACK1

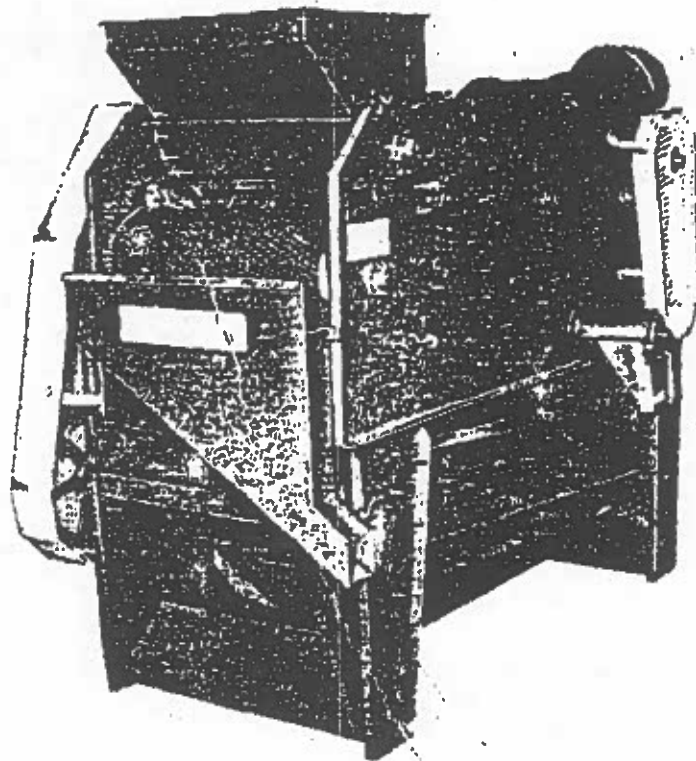
<u>PART NO.</u>	<u>CAST NO.</u>	<u>DESCRIPTION</u>
20229	HC3117	Scalper Roll End
20210	B13	Fan Hub
15758	HC2641	Control Knob
17141	HC2856	Control Knob
20260	HC2642	Control Knob
1111	CM829	Quadrant
20265-A	BK36	V-Pulley 1-3/16"
20264-A	BK80	V-Pulley 1-3/16"
20116-A	AK71	V-Pulley 3/4"
14078-A	BK130	V-Pulley 3/4"
20227		Conveyor Shaft with K. S.
20228		Fan Shaft with 3 K. S.
20225		Scalper Roll Shaft with K. S.
20252		Scalper Roll Screen
20251-A		Flexible Spout for Scalpings Liftings
979		3/8 x 15/16 x 3/8 Set Collar
20246		Rubber Strip
20273		Nylon Bearings
16536		1-3/16 S.K.F. Bearing
20261		Conveyor Flighting with dogs
20227w/20261		Shaft and Conveyor Assembly
15880		Cogs for Feed Gate
20255		Fan Assembly with Hub
	IVM34	Adjustable V-Pulley 3/4" bore
		65 Link "A" Section Belt to Drive Scalping Roll
		51 Link "B" Section Belt for Motor Drive
		67 Link "B" Section Belt to Drive Conveyor Shaft
		105 Link "B" Section Belt Conveyor Shaft to gear Drive Shaft
<u>MACHINE PROPER</u>		
18378	HC2972	Bearing Flange
20215	HC3116	Bearing Flange
20283	HC2172	17T Mitre Gear 3/4" Bore (C.S.)
20283A	HC2172	17T Mitre Gear 3/4" Bore (S.S.)
20211	HC3010	Cylinder Discharge Head
20213	HC2758	Receiving Head Hub
16170	HC2750	Roller Blade Hub
20247-A	AK32	Sheave 3/4" Bore
14078-A	BK130	Sheave 3/4" Bore (2 S.S.)
20221	HC3118	Feed Spout (Less Bushings)
20301		Gear Drive Shaft 3/4 x 30-1/4" with K.S.
20308		Rubber Roller Blade Shaft 3/4 x 48-1/2"
20292		Stub Shaft Assembly (F.E.) 3/4 x 8"
20284		Stub Shaft (T.E.) 3/4 x 4"
20304		Cylinder Receiving Head
20286-A		Hopper for Throughs
20290-A		Swivel Spout for Overs
1177		3/4 x 1-7/16 x 5/8" Set Collars
16179		6-1/2 x 5 x 1/4 Felt Washers
20273		Nylon Bearings
AA839-6		Oilite Bushings
20212		Rubber Blades (Five required)

## ADDITIONAL PARTS FOR C-ACK 2

S-1413	Shaft, Conveyor
S-1407	Shaft, Feed Roll
S-1403	Sprocket 17T
19566	Sprocket 48T
S-1411	Bushing, Bronze, with oil cup
17517	Bearing, Ball 1 1/16"
16536	Bearing, Ball 1 3/16"
16901	Bearing, Ball 3/4"

All other parts are available and can be supplied providing we have the style and serial No.'s of the machine and a reasonable description of the part.





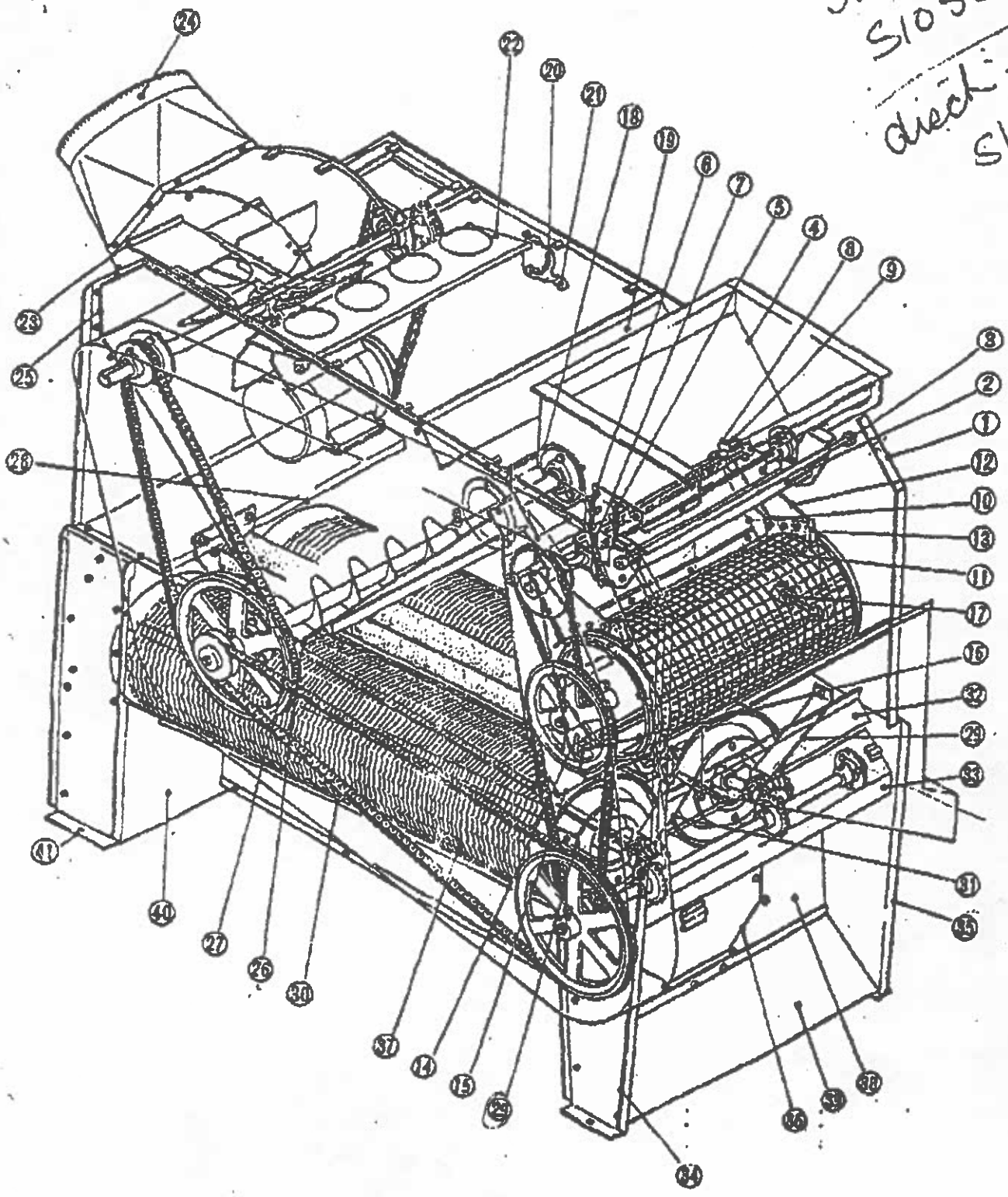
## NO. 245 SEED CLEANER

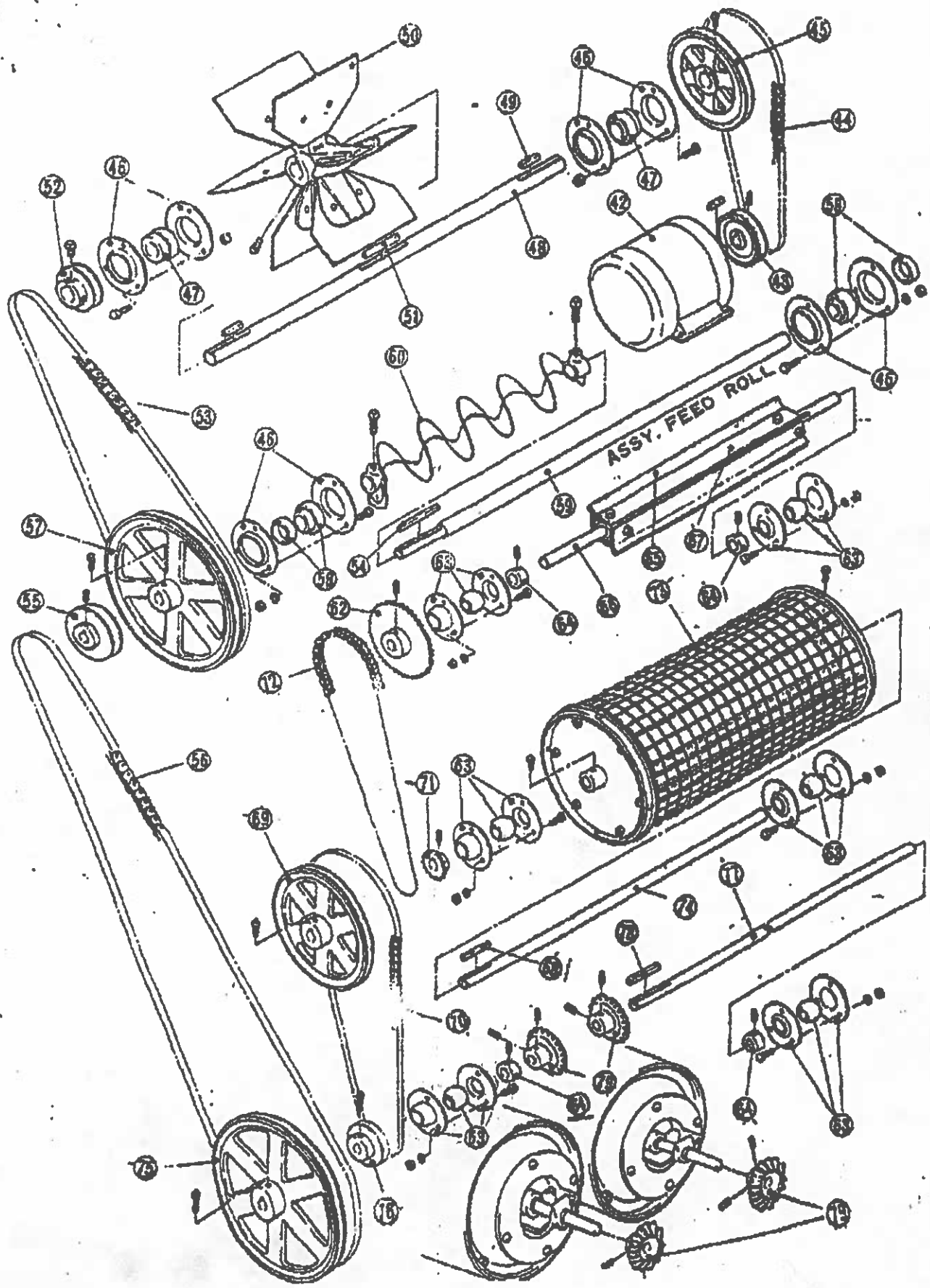
### PARTS LIST

CARTER DAY INDUSTRIES (CANADA) LTD.  
P.O. BOX 488 • WINNIPEG • MANITOBA • R3C 2J6  
(204) 706-5781 • TELEX: 07-57327 • FAX: 783-9404

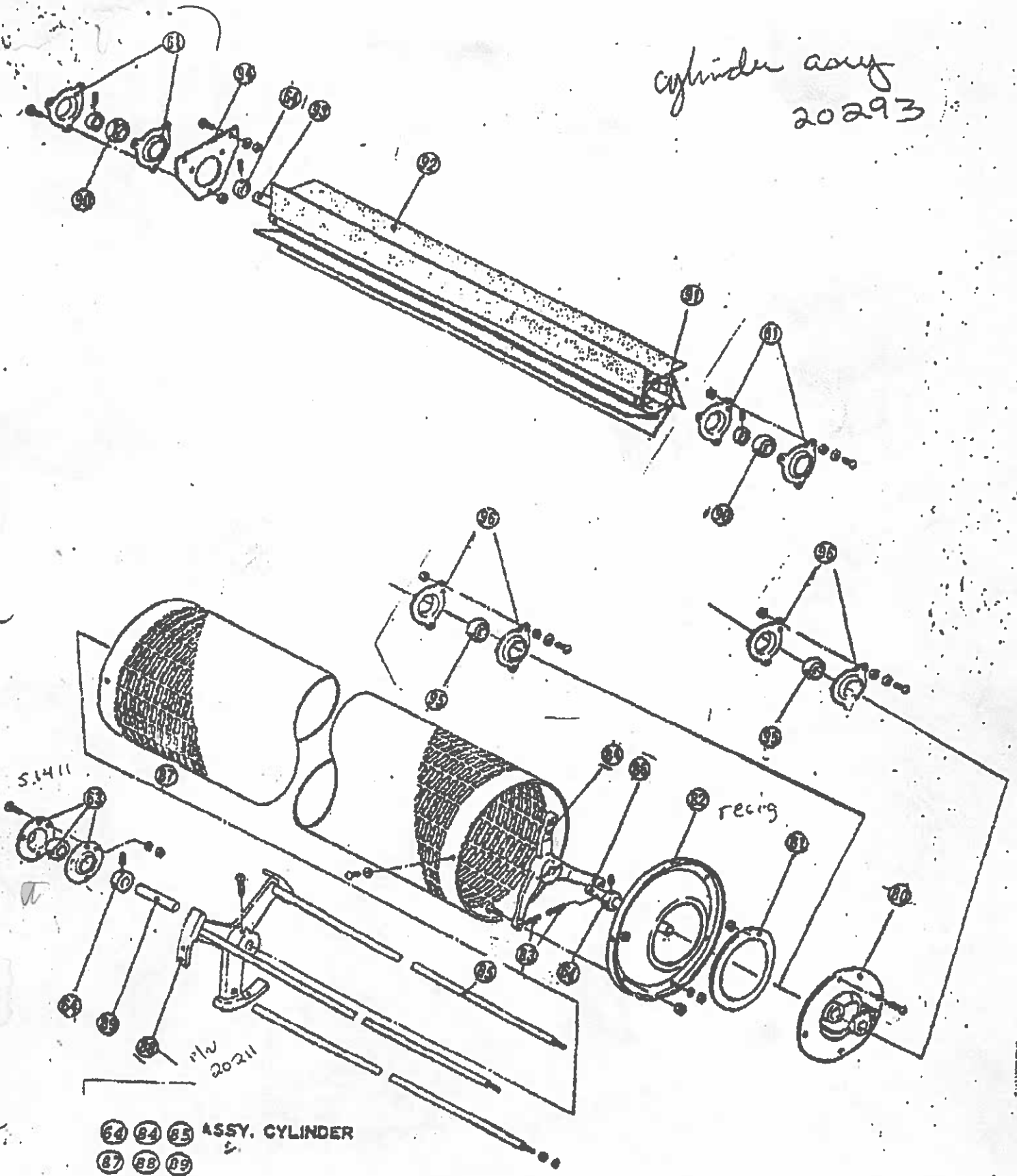
W13273 inlet <sup>list</sup> hit

inlet <sup>list</sup> S1050  
dieck: <sup>list</sup> S1411





Cylinder Assy  
20293



64 64 65 ASSY. CYLINDER  
67 68 69

Item No.	Part Description	Part No.	Quantity	Remarks
		S-1399/W6298	1 Set	
1	PLATES, SIDE	W6298	1	
2	PLATE, FEED VALVE	00979	4	
3	COLLAR SET	S-1422		FRONT
4	PLATES, FEED HOPPER CONSISTING OF 1 SET	S-1423		BACK
		S-1420		SIDE
		S-1421		SIDE
		17140	2	
5	THUMB SCREW	16931	2	
6	EYE SCREW	16934	1	
7	SPRING TENSION	W5275	1	
8	ARM, VALVE	15750	1	
9	KNOB, FEED SLIDE	S-1414	1	
10	VALVE, FEED	20245	1	
11	STRIP RUBBER	S-1405	2	
12	BACKET, SHEEPSKINS	W13423	2	
13	SHEEPSKINS SCALPER ROLL	S-1424	1	
14	PLATE, FRONT AIR DUCTS	20235	1	
15	PLATE, BACK AIR DUCT	20249	1	
16	VALVE, AIR SEAL	1890	2	
17	WEIGHT	W6297	1	
18	SPOUT, AIR LIFTING DISCHARGE	S-1412	1	
19	PLATE, TOP AIR DUCT	15758	2	
20	KNOB, FEED SLIDE	18178	1	
21	QUADRANT	20249	1	
22	VALVE, AIR CHECK	S-936	2	
23	SLIDE AIR CHECK	S-1519	1	
24	SQUARE TO ROUND	20243	1	
25	PLATE, FILLER EXPANSION CHAMBER	18128	2	1/4"
26	CLIP HINGE	W6299	1	
27	DOOR, CONVEYOR CLEANOUT	20250	1	
28	PLATE, MOTOR	20302/20303	2	
29	PLATE, END FEED HOPPER	20286/20287	1 Set	
30	PLATES, HOPPER LOWER SIDE	20300	1	
31	DIVIDER, FEED HOPPER	W6006	1	
32	PLATE, FRONT FEED HOPPER	20278	1	
33	GUARD, GEAR	S-1408	1	
34	END LEG, FEED (LEFT)	S-1408	1	
35	END LEG, FEED (RIGHT)	S-937	1	
36	PLATE, COVER	20299	2 Sets	
37	ASSY. CYLINDER	20309	1	S/A 3C...
38	PLATE, FEED END	20276	1	
39	PLATE, LOWER FEED END	W5886	1	
40	PLATE, LOWER DISCHARGE END	20280/20281	1 Set	
41	LEGS, TAIL END		1	3/4 HP X 1800 RPM
42	MOTOR ELECTRIC (OPTIONAL)	20267	1	50 C/S 125 B1a. 60 C/S 105 B1a
43	SHEAVE, VARIABLE	63611	51	TYPE B
44	LINK BELT B	31336	1	1 BK 80 1 - 9/16"
45	SHEAVE	17205	4 Sets	
46	BEARING, FLANGE	16536	2	SKF1736206 - 103
47	BEARING	20228	1	
48	SHAFT, FAN	08115	2	1/4 X 1/4 X 1 - 1/2"
49	KEY	W12657	1	
50	ASSY. FAN	3605	1	1/4 X 1/4 X 3
51	KEY	281044, 34379	1	1 BK 36 1-3/16"
52	SHEAVE	63611	67	TYPE B
53	LINK BELT B	S-1514	1	3/16 X 9/16 X 3-1/2
54	KEY	281399	1	1 W94 9/8"
55	SHEAVE, VARIABLE	63611	105	TYPE B
56	LINK BELT B	281721	1	1 BK 130 3/4"
57	SHEAVE	17517	2	SKF 1726206-107
58	BEARING	W6302	1	
59	SHAFT CONVEYOR			

## NO 245 SEED CLEANER PARTS LIST

## NO245 SEED CLEANER PARTS LIST

Part Description	Part No	Quantity	Remarks
LIGHTING	W6305	1	
BEARING FLANGE	17999	2 Sets	
ROCKET	19566	1	3/4"
BEARING FLANGE/HIO FLANGE BEARINGS	S-1411	8 Sets	
COLLAR	1177	9	3/4
BLADE, FEED ROLL	W5603	4	
SHAFT, FEED CONTROL	W5602	1	
KEEPER, FEED ROLL BLADES	W5604	4	
KEY	S-1406	1	3/16 X 3/16 X 2-5/8
SHEAVE	281671	1	1 AK94 3/4"
LINK BELT A	63609	62	TYPE A
SPROCKET	S-1403	1	3/4
ROLLER CHAIN	63553	1	W35 90 PITCHES LONG
ASSY. SCALPER ROLL	20258	1	
SHAFT, SCALPER ROLL	20225	1	
SHEAVE	281721	1	1 BK130 3/4"
SHEAVE	281397	1	1 AK 32 3/4"
SHAFT, COUNTER	20301	1	
TRIKEY	S-1415	1	3/16 X 3/16 X 3
GEAR MITRE	20283	4	
CAST FEED	W13239	2	
FELT WASHER	16179	2	
HEAD CYLINDER RECEIVING	20304	2	
DRIVE PIN	204598/284603	2 Sets	5/32 X 2 / 1/4 X 2
HUB, RECEIVING HEAD	20213	2	
CYLINDER ROD	20306	6	
CYLINDER, STUB SHAFT	20292V	2	
CYLINDER, SHELL		2	OPTIONAL
CYLINDER DISCH. HEAD	20211	2	
CYLINDER STUB SHAFT TAIL END	20264	2	
BEARING	W3239	2	
ROLLER BLADE	16170	2	
BLADE ROLLER	20212	5	
SHAFT, ROLLER BLADE	20308	1	
SUPPORT, BEARING	20274	1	
BEARING	W12820	4	3/4" 1020 G
BEARING FLANGE	W12819	8	3/4"

W13273 - retrofit kit to convert  
from bushing to bearings  
on feed end.

20258

\*\*\* PLEASE NOTE \*\*\*

When ordering replacement parts please provide,  
**STYLE NUMBER, PART NUMBER & DESCRIPTION.**