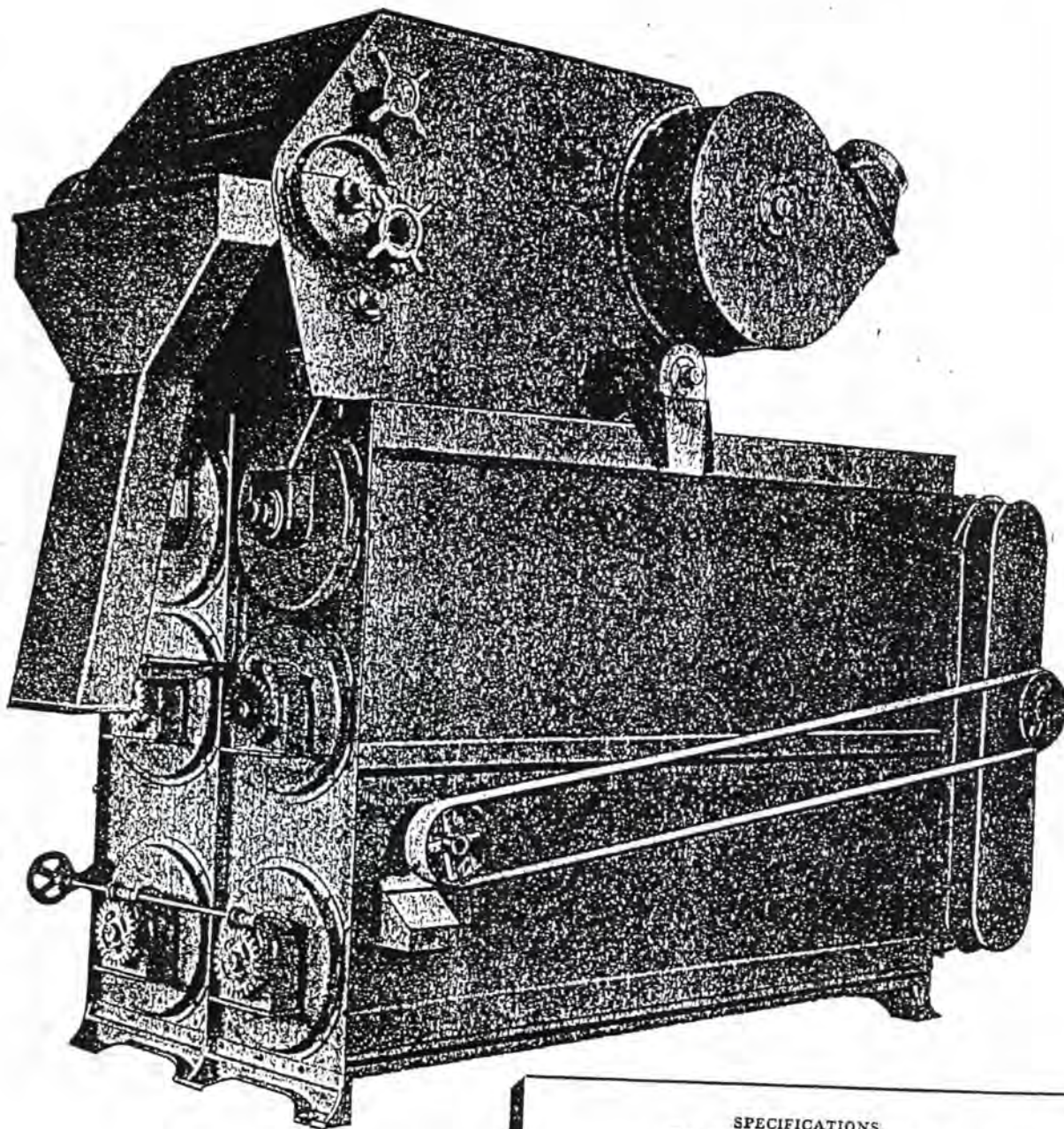


THE HART THIRTY-TWO

Style PK3*

Style PK3 - same manual as Style PK2

THE HART - "THIRTY TWO"



SPECIFICATIONS

Capacity, 500-600 bushels per hour

Width on Floor...3' 9 1/4"	Height to Deck of Machine...5' 11 1/4"
Length on Floor...8' 0"	Height to Feed Hopper...9' 2 1/4"
Pulley Speed...150 R.P.M.	Power required...3 H.P.

THE HART-EMERSON CO. LTD.

WINNIPEG, MAN., CANADA

F O R W A R D

In compiling this instruction and repair list on the Hart Uni-Flow Separator, we have tried to cover every angle, even to the point of repeating ourselves in order to explain the Maintenance and Operation of the Machine.

We would like every operator to become as familiar with this machine as our own experts and this will come after some practice.

There are two safety measures that we would like to stress.

ONE.

Do not oil gears or chains when machine is running.

TWO.

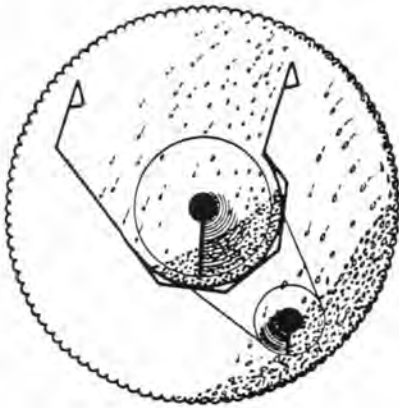
Never operate machine unless all gear guards are closed and chain casing in place. Do not forget that guards and covers are put on the machine for your protection.

We have one other timely suggestion. When the machine is installed decide to be a good house-keeper. Keep machine clean. Keep cleaner floor clean. Check your machine regularly and lubricate properly. If this routine is followed out it pays good dividends.

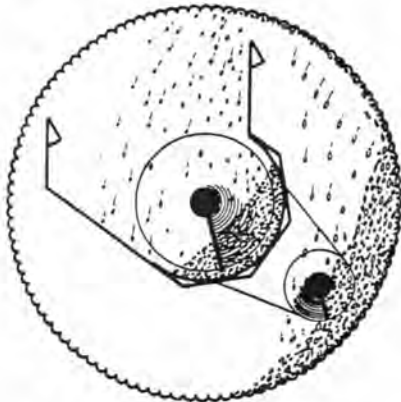
In case there is any particular feature or adjustment that is not explained to your satisfaction, we would appreciate hearing from you.

If at any time you run up against a separation that you think should be possible, and that you are not handling to your own satisfaction just send us a 3 pound sample and we will be very pleased to give you our comments on how to handle the particular problem.

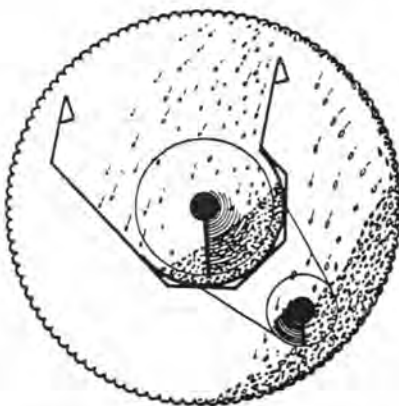
We look forward to your co-operation.



CYLINDER "A" WITH TROUGH SHOWN
AT DIAL SETTING 4 1/2.



CYLINDER "C" WITH TROUGH SHOWN
AT DIAL SETTING 3.



CYLINDER "B" WITH TROUGH SHOWN
AT DIAL SETTING 4.

CYLINDER "A"

The function of this cylinder is to divide the grain being cleaned into 2 products. Lifting the small grain and seeds and tailing the large grain and wild oats out the end of the roll. This cylinder also regulates the percentage of grain going to each cylinder below it. For this reason it is some time referred to as the splitting or dividing cylinder.

CYLINDER "C"

This cylinder receives all the wild oats and large grain from the top roll. There is no small grain or seeds enter this unit. The function of this cylinder is to lift the large grain out of the wild oats. The large grain is lifted into the large centre conveyor trough and carried to the end of the roll while the wild oats and like trash is tailed out the end of the roll. This cylinder is sometimes called the wild oat cylinder.

CYLINDER "B"

The products that enter this cylinder is the small grain and weed seeds only (No wild oats or large grain). The function of this cylinder is to lift the weed seeds and cracks into the centre conveyor trough and they are conveyed to the end of the cylinder and are discharged into the weed conveyor. The small grain is not picked up, but continues its journey through the roll to tail out the end free of weed seeds. This completes the separation. The machine delivers large grain, small grain, wild oats etc and weed seeds and cracked grain.

SEE CROSS SECTIONAL LINE DRAWING.

OPERATOR'S QUESTIONS AND ANSWERS

Question: What is the proper speed of the Hart Uni-Flow?

Answer: #30 - 112 R.P.M. on main drive shaft.
 #32 - 150 R.P.M. on main drive shaft.
 #33 - 150 R.P.M. on main drive shaft.
 #34 - 150 R.P.M. on main drive shaft.
 At this speed the cylinders revolve at their most efficient speed 56 R.P.M.

Question: How can the speed of machine be checked without a speed indicator?

Answer: The cylinders should run between 55 and 58 R.P.M. and at this slow speed can readily be counted.

Question: How does the machine make the separation?

Answer: See grain flow illustrated on page 3 also the end view of cylinder on page 2 with explanation of separation of each cylinder.

Question: What grains can be cleaned on the Uni-Flow?

Answer: Spring wheat, duruma wheat rye, barley and the separation of wild oats from flax.

Question: What does the suction control gate do?

Answer: This gate at the back of the scalper regulates the amount of air passing through the grain being cleaned. It can be set to pull off only light chaffy material or it can be set to draw off medium heavy grain. When the control gate is in closed position the scalper has full suction. When the control gate is wide open then the suction is at its weakest. The product taken off by the suction is carried out the side of the scalper by a conveyor. Proper setting of the suction will greatly assist the indented cylinders to do their best work.

Question: How are sticks and straws removed from grain?

Answer: By raising the grain level behind the scalper roll. Raise master shut off until the grain rides high on the scalper roll.

Question: Dial plates on cylinders are numbered one to nine. What number indicates centre position of cylinder trough and which numbers indicate highest and lower position of trough in cylinder?

Answer: With the arrow pointing to #5 on dial plate the cylinder trough is at dead centre. Turning towards the lower numbers raises the trough. Turning to the high numbers lowers the trough.

Question: How should the machine be set for cleaning wheat commercially with average dockage.

Answer: It is difficult to predetermine cleaner settings as speed, suction, class of wheat or dockage all enter into this question. As a start set the machine as follows. First set feed at $3\frac{1}{2}$ or 4. Set "A" cylinder trough at 4g "C" at 3 "B" at 4. Then start machine and open master shut off until the grain carries high enough on scalper roll to run off sticks, straws etc. If there is wheat with the wild oats coming from the machine lower "C" trough to 4. If there are oats with clean wheat raise "C" trough to 2g. If there is seeds in the clean wheat coming from the "B" cylinder it is an indication that trough in this cylinder is set too high. If there is wheat with the weed seeds, this would be an indication of the trough being set too low. Experience handling the machine will come to you surprising quick after you had had a few days at operating.

OPERATOR'S QUESTIONS AND ANSWERS

Question: If there is good grain with the wild oats what would cause this?

Answer:
 First Cylinder trough set too high, lower cylinder trough in cylinder "C".
 Second Machine running too slow.
 Third Feed too heavy.
 Fourth Improper split on top cylinder causing over loading. Adjust top cylinder to divide the flow more evenly between centre and bottom cylinder.

Question: If the small grain still contains weed seeds what is the trouble?

Answer:
 First starved cylinder, increase feed.
 Second Cylinder trough set too high, lower trough in cylinder "B".
 Third Machine running too slow, check speed.
 Fourth Improper split in top cylinder causing starved condition.

Question: What is the reason for good grain coming from the machine with the weed seeds?

Answer:
 First Cylinder trough set too high, lower trough in cylinder "B".
 Second Machine running too fast, check speed.
 Third Feed too heavy.
 Fourth Improper split on top cylinder causing overloading of seed roll. Adjust top cylinder to divide the flow more evenly between lower and centre cylinders.

Question: How is the roller chain tightened on the #30 Hart Uni-Flow?

Answer: The drive chain can be tightened by adjusting the bearing brackets. These hangers are slotted and can be raised and lowered to suit chain tension. If the hangers on the top shaft are raised their limit and the adjustment is not sufficient to take the slack out of the chain, the bottom main drive shaft can be lowered. If this adjustment is not sufficient to tighten chain then it is necessary to remove a link or a half link.

Question: How are the roller chains tightened on the #32, #33 and #34 Hart Uni-Flow?

Answer: The 2 main drive chains can be tightened by adjusting the bearing brackets. If the top drive chain needs tightening loosen the 4 bolts on each side of the top main hangers. These hangers are slotted and will raise up to take up the slack. If slot is not long enough to tighten chain order a one half connecting link and shorten chain. If the lower chain needs tightening then loosen the bolts in the lower brackets which are also slotted and drop the shaft down the length of the slots. If this does not allow sufficient adjustment shorten the chain by removing link and if necessary use half connecting link. To tighten all other chain drives on the machine shorten the chain according to requirements.

Question: Do you recommend grease on roller chains?

Answer: Grease should not be used on roller chain. Chains are best lubricated with free running oil.

Question: Should the gears on the main shaft be greased?

Answer: Yes, just a small quantity assures quieter operation and longer life.

OPERATOR'S QUESTIONS AND ANSWERS

Question: How often should bearings equipped with nipples be greased?

Answer: The #30 Hart Uni-Flow is equipped with 6 greasing nipples only two on the discharge end of each cylinder. The #32 Hart Uni-Flow is equipped with 13, the #33 is equipped with 19, the #34 is equipped with 25, two on the discharge end of each cylinder and one on the shaft that drives the scalper roll. These points should be greased twice a week under normal operating conditions. If machine is in steady operation they should be greased daily avoid over greasing the large end bearing on the cylinders. These points should be greased more frequently than other points and just a small amount of lubricant used at a time. From 1957 on, nylon linings, part No. 19839 will replace bronze linings, part No. 10752 in the discharge cylinder casting, cast No. H.C. 1934. When using the nylon liner a small quantity of grease is required once every 100 operating hours.

Question: In cleaning barley how does the setting differ from cleaning wheat?

Answer: On most barley cleaning the "A" cylinder and "B" cylinder trough are set just the same as when cleaning wheat. However the setting of the trough in the "C" cylinder will be lower on account of barley being a larger berry than wheat.

Question: Will the machine clean tough or damp grain?

Answer: Yes. Tough grain is cleaned the same manner as dry grain. We suggest that about 50 bushels of dry grain be put through the machine after handling damp grain. This is particularly essential in cold freezing weather.

Question: How is the machine cleaned out when changing from one grain to another?

Answer: First - drop feed roll clean out.
 Second - turn cylinder trough in top cylinder upside down.
 Third - turn cylinder trough in centre cylinder upside down.
 Fourth - turn cylinder trough in bottom cylinder upside down.
 Fifth - close feed roll clean out. Then turn cylinder troughs right side up in the same rotation as listed. By following this routine machine will have time to clean out.

Question: What are the results if machine is under fed?

Answer: The uni-flow will not operate efficiently if it is underfed. The machine is designed for capacity cleaning. If the machine is not fed to capacity the top cylinder will pick up the bulk of the good grain and all the seeds leaving only a small percentage of good grain with the wild oats to enter the wheat and oat cylinder "C". When this cylinder is starved all the good grain is picked up before it reaches the centre of the cylinder leaving a concentrated mixture of wild or tame oats which maybe picked up by the empty indents and come out with the clean. If properly fed the oats are crowded out the indents by heavier grain.

Question: What are the causes of poor suction?

Answer: One or all the following reasons may be the cause of weak suction:
 First - Slack belt.
 Second - Feed roll clean out not closed.
 Third - Suction control gate opened too far.
 Fourth - Too many sharp turns in dust pipe.
 Fifth - Outlet in dust bin plugged or too small. If screen is used to cover outlet check screen to make sure it is clean. If louvres are built in they will be found to be more satisfactory.

Question: Is it necessary to dump trough in weed or seed cylinder when cleaning out machine for change over?

Answer: It is not necessary, but it is good practice to do so. We recommend that troughs be turned over and machines be cleaned out once a week. This assures efficient operation.

Question: If there are wild oats in the clean grain what is the cause and remedy?

Answer: First - Starved cylinder - increase the feed.
 Second - Cylinder trough set too low, raise the cylinder trough in cylinder "C".
 Third - Machine running too fast.
 Fourth - Improper split in top cylinder causing starved condition.

Question: What about greasing the rest of the bearings on the machine?

Answer: All bearing housings for ball bearings are properly packed with grease at the factory and need no further attention for 3 to 4 years. After running this period they should be taken down, all old grease removed, bearings washed in solvent and repacked.

Question: Should the housings be filled full of grease?

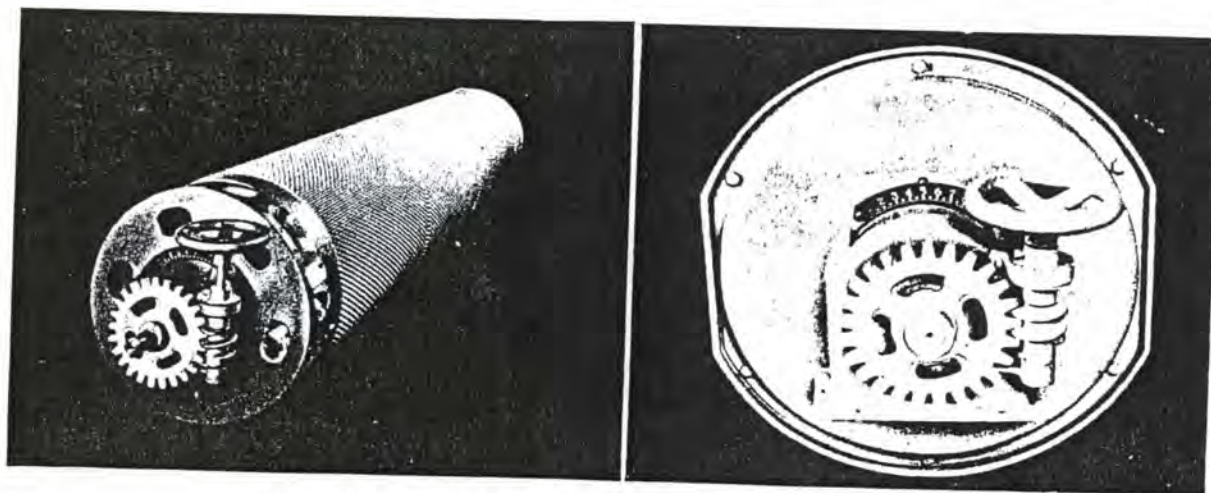
Answer: Ball bearing housings should not be more than one third full of grease. This is very important. If the housing is filled with grease it will heat and a bearing failure will be the result.

Question: What grade of grease do you recommend?

Answer: Any good ball bearing grease that will not liquify too readily in warm weather and at the same time not congeal in cold weather. We stock a tested grease that has proven itself ask our serviceman. Do not use ordinary cup grease as it is unsuitable for ball bearing lubrication and will cause bearing failure and hard starting in cold weather.

SIMPLE CONTROL MEANS GREATER FLEXIBILITY

Every operator wants a machine he can control easily, which he can adjust and regulate to fine limits to get the results he wants. On the Hart Uni-flow Grain Separator the adjustments are quickly accessible, easy to make. There is no guesswork when you operate a Hart Uni-flow.



Note the simplicity and direct action of the controls

PLATE "A"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE
1.	11728	H.C.2252	Feed end cover.	ADRESACOD
2.	9125	-	5/16 x 1-31/32 Connecting rod bolt	ADRESADUF
3.	7582	-	Latch	ADRESAFAG
4.	11782	-	Angle	ADRESAGEK
5.	10693	H.C.1946	Receiving Head	ADRESAHIL
6.	10876	-	Indicator Plate	ADRESAJON
7.	11666	-	Angle Clip	ADRESAKUN
8.	4903	N.73	Worm	ADRESALAP
9.	11581	H.C.2230	Discharge end cover	ADRESAMER
10.	11754	-	Inspection frame cover	ADRESANIS
11.	11586	H.C.1935	Discharge sleeve complete with bronze bushings	ADRESAPOT
12.	10696	H.C.1949	Returder Ring	ADRESARUS
13.	1118	-	Handwheel Brake	AGENTBAM
14.	3105	C.M.1476	Brake Drum	AGENTEEN
15.	10862	L.1115-5	1-15/16" Fafnir extended inner race bearing	AGENTDIP
16.	10786	L.1103-5	1-3/16" Fafnir extended inner race bearing	AGENTFOR
17.	10785	L.1101-5	1-1/16" Fafnir extended inner race bearing	AGENTGUS
18.	11472	-	Large felt washer for 1-15/16" bearing	CEPACOD
19.	10823	-	Large felt washer for 1-1/16" and 1-3/16" bearing	CEPADUF
20.	213	-	Small felt washer for 1-15/16" bearing	CEPAFAG
	3773	-	Small felt washers for 1-1/16" bearing	
21.	10822	-	Small felt washer for 1-3/16" bearing and 1-1/16 bearing	CEPAGEK
22.	12573	-	Agitator conveyor flighting assembly	CEPAJOM
23.	1700	C.M.942	16 tooth mitre gears	CEPAKUN
24.	11464	-	Large steel washer for 1-15/16" bearings	CEPALAP
25.	270	-	Large steel washer for 1-1/16" and 1-3/16 bearing	CEPAMER
26.	11463	-	Small steel washer for 1-15/16" bearing	CEPANIS
27.	10821	-	Small steel washer for 1-3/16" bearing	CEPAPOT
28.	10822	-	Small steel washer for 1-1/16" bearing	CEPARUV
29.	11466	-	Large lock ring used with 1-15/16" bearing	CEPASAW
30.	265	-	Large lock ring used with 1-1/16" and 1-3/16" bearing	CEPATEX
31.	204	-	Small lock ring used with 1-1/16 and 1-3/16" bearing	CEPAVIY
32.	11465	-	Small lock ring used with 1-15/16" bearing	FAIRCOD
33.	11562	-	Mitre gear shaft - 5/8" x 5-3/4".	FAIRDUF
34.	4899	N.75	Handwheel	FAIRAGE
35.	11521	-	Bronze bushing for H.C.1935 discharge sleeve	FAIRAJOM
36.	11450	H.C.2197	Bearing bracket	FAIRAKUM
36.	12233	H.C.2197	Bearing bracket drilled for H.C.2215 casting	FAIRALAP
37.	11448	H.C.2195	40 tooth drive sprocket	FAIRAMER
38.	11452	H.C.2199	Worm shaft bracket	FAIRANIS
39.	11479	H.C.2215	Worm shaft bracket	FAIRAPOT
40.	11478	H.C.2214	Worm shaft bracket	FAIRAQUE
41.	11652	H.C.2236	Worm gear	FAIRARUV
42.	10709	H.C.1960	Cylinder conveyor end	FAIRASAW
43.	11474	H.C.2210	Inspection frame	FISHGUS
44.	10708	H.C.1959	Bearing bracket	FISHAT
45.	11518	H.C.2228	Bearing bracket	FISHLOX
46.	10710	H.C.1961	Bearing bracket	FISHMUY
47.	11431	H.C.2191	16 tooth bevel pinion	FRATEFAG
48.	11430	H.C.2190	43 tooth bevel gear	FRATEHIL
49.	10692	H.C.1945	16 tooth gear	FRATEKUN
50.	10695	H.C.1948	Filler plate	FRATELAP
51.	11804	H.C.2255	Feed agitator	FRATEMER
52.	4653	H.C.1526	1-1/16" R.H. flighting dogs	FRATENIS
53.	4463	H.C.1521	1-3/16" L.H. flighting dogs	FRATEPOT
54.	1585	-	1-3/16" Set collar	FRATERUV
55.	280	-	1-1/16" Set collar	FRATETEX
56.	4898	-	5/8" Set collar	FRATEVIY
57.	11778	-	Inspection door	FRATEWOZ
58.	10752	-	Bronze lining for H.C.1934 cylinder casting	FRATEYUE
59.	11445	H.C.2192	End plate base	KRATEZAC
59.	11446	H.C.2193	End plate base	FRATEBAN
60.	11726	H.C.2248	Feed end cover	FRATICEN
61.	10837	H.C.1934	Discharge head complete with bronze lining	FRATIDIP
62.	11582	H.C.2231	Discharge end cover	FRATIFOR

PLATE "B"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
63.	11779		Chain guard	FROMACOD
64.	11780		Chain guard back plate	FROMADUF
65.	11757-B		Seed conveyor box top cover	FROMAGEK
66.	11756		Oat conveyor box	FROMAKUN
67.	11756-A		Seed conveyor box	FROMALAP
68.	11582-B		Clean grain spout with butterfly valve	FROMAMER
69.	11757-A		Seed conveyor box cover	FROMANIS
70.	12500		Oat conveyor box end	FROMAPEN
71.	12499		Oat conveyor box end	FROMAPOT
72.	12500-A		Seed conveyor box end	FROMARUV
73.	11787		Separating cylinder liftings spout	FROMASAW
74.	11765		Cover plate	FROMATEX
75.	11786		Separating cylinder liftings spout	FROMAVIY

PLATE "C"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
76.	11582-C		Flexible clean grain spout extension	FROMAWOS
77.	11746		Tailings hopper	FROMAYUB
78.	11759		Oat conveyor discharge spout	GENABFAG
79.	11784		Tailings hopper	GENABCEK
80.	11788		Fan drive guard	GENABHIL
81.	11582-A		Clean grain "Y" spout	GENABJOM
82.	11759-A		Oat conveyor flexible spout	GENABKUN
83.	11735		Tailings hopper	GENABLAP
84.	11768		Centre gear guard	GENABMER
85.	11768-A		Lower gear guard	GENABNIS
86.	11809		Upper gear guard	GENABPOT

PLATE "D"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
87.	11740		Side channel	GENABRUV
87.	11741		Side channel	GENABSAW
87.	11742		Side channel	GENABTEX
88.	11743		Angle	GINABVOZ
89.	11649		1-15/16" x 54-11/16" upper drive shaft	GINABYUB
90.	11862		1-15/16" x 56-7/8" lower drive shaft	GENABZAC
91.	11861		1-15/16" x 68-9/16" centre drive shaft	GENECABA
92.	11660		5/8" x 43-1/2 worm shaft	GENECACE
93.	11661		5/8" x 38" worm shaft	GENECFIK
94.	(12684) (11665)		1-3/16"x63" screenings conveyor complete with shaft	GENECGOL

PLATE "D"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
95.	(10769) (10754) (10770)		1-1/16" x 81-5/8" recleaning cylinder small conveyor shaft complete with flighting assembly.	GENECHUM
96.	(10755) (10728)		1-1/16" x 86-5/8" separating end screenings cylinder conveyor shaft complete with flighting assembly.	GENECBED
97.	(10758) (10729)		1-3/16" x 105" screenings cylinder conveyor shaft complete with flighting assembly.	GENECDIF
98.	(10757) (10725)		1-3/16" x 105" recleaning cylinder conveyor shaft complete with flighting assembly.	GENECFOG
99.	(10758)		1-3/16" x 105" separating cylinder conveyor shaft complete with flighting assembly.	GENECGUK

PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
11588	H.C.2251		8" x 3-1/4" x 1-3/16" cast iron pulley	GENECHAL
11584	H.C.2233		8" x 3-1/4" x 1-15/16" cast iron pulley	GENECJEM
11408	H.C.2182		10" x 3-1/4" x 1-15/16" cast iron pulley	GENECKIN
11458	H.C.2204		25" x 3-1/2" x 1-15/16" cast iron pulley	GENECLOP
12685	H.C.2349		20" x 6" x 1-15/16" cast iron pulley	GENECMUR
4944	-		1/4" x 1/4" x 1-3/4" key	GENECNAS
3606	-		1/4" x 1/4" x 2-1/2" key	GENECPET
11610	-		1/2" x 3/8" x 1-7/8" key	GENECRIV
2884	-		1/2" x 3/8" x 2-7/8" key	GENECSOW
3597	-		1/2" x 3/8" x 3-1/4" key	GENECTUX
11609	-		1/2" x 3/8" x 3-7/8" key	GENECVAY
3596	-		1/2" x 3/8" x 4-3/4" key	GENECWEZ
11757	-		Conveyor box cover	GENECYIB
11690	-		L.H. end plate (feed end)	GENECZOC
11689	-		R.U. end plate (feed end)	GENOROUS
11688	-		R.H. end plate (gear end)	GENISBUN
11687	-		L.H. end plate (gear end)	GENISCAP
11762	-		Lower side plate	GENISGOT
11763	-		Lower side plate	GENISHUV
11744	-		Top plate	GENISJAW
11745	-		Top plate	GENISMOZ
11770	-		Upper side plate	GENISPAC
11771	-		Upper side plate	GENISVOG
10742	-		Recleaning cylinder conveyor trough	GENISWUK
10743	-		Screenings and separating cylinder conveyor trough	GENISYAL
8-1/2	-		Screenings cylinder indent shell 90"	GENISZEM
19	-		Separating cylinder indent shell 90"	GENODBAF
22	-		Recleaning cylinder indent shell 85"	GENODKEP
11797	-		3" 3 ply rubber belt 18' 5-1/4" long	GENODLIR
11797-A	-		3" 3 ply rubber belt 6' long	GENODMOS
11798	-		92 link upper 433 diamond roller chain 3/4"P. 1/2" W.	GENODNUT
11799	-		110 links lower 433 diamond roller chain 3/4"P. 1/2" W.	GENODPAV
-	-		Alemite lever type zerk grease gun	GENODSIX
1610	-		Straight zerk fitting	GENODTOY
1613	-		90° zerk fitting	GENODVUZ
1101-A	-		Lincoln grease gun with flex hose	GENODWAB
13	-		3/16" x 1" woodruff key	GENODZID
15	-		1/4" x 1" woodruff key	GENOVCOD
-	-		1/4" hexagon allen safety set screw wrench	GENOVDOF
-	-		5/16" hexagon allen safety set screw wrench	GENOVFAG
-	-		3/8" hexagon allen safety set screw wrench	GENOVGEK
-	-		1/2" hexagon allen safety set screw wrench	GENOVHIL

PLATE "E"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
100.	11587	H.C.2234	Handwheel	GENOVJOM
101.	11471	H.C.2208	57 tooth spur gear	GENOVKUN
102.	3103	C.M.1474	R.H. Sheepskin clamp	GENOV LAP
103.	3104	C.M.1475	L.H. Sheepskin clamp	GENOV MER
104.	1473	C.M.1031	18 tooth spur pinion	GENOVNIS
105.	10814	H.C.1994	17 tooth sprocket	GENOV POT
106.	5240	H.C.1577	18 tooth sprocket	GENOV RUV
107.	3106	H.C.1477	34 tooth spur gear	GENOVSAW
108.	1496	C.M.2021	Handwheel	GENOVTEX
109.	10684	H.C.1937	Bearing housing	GENOVWOZ
110.	1585	-	1-3/16 S.S. collar	JABIC
111.	3101	C.M.1472	Bearing	JACOB
112.	1111	C.M.829	Quadrant	JADUF
113.	10796	H.C.1986	36 tooth sprocket	JAFAG
114.	100-S	H.E.100	Bearing for 5/8" feed adjusting rod	JALEN
115.	10784	H.C.1980	Feed roll end	JAMIN
116.	3105	C.M.1476	Brake drum	JANOP
117.	10760	H.C.1938	Scalper roll end	JAPUR
118.	5392	-	1-1/4" S.S. collar	JARAS
119.	3256	-	Feed indicator	JASET
120.	4462	H.C.1520	1-3/16" R.H. flighting dog	JATIV
121.	4899	N.75	Handwheel	JAVOW
122.	10768	H.C.1972	Bearing housing	JAWUZ
123.	10787	L.1108-5	1-1/2" Fafnir extended inner race bearing	JAYAZ
124.	10707	-	Large steel packing washer for 1-1/2" bearing	JAZEB
125.	11359	-	Large felt packing washer for 1-1/2" bearing	KAAL
126.	39-A	-	3/4" wood bearing housing (inner half)	KAALHED
127.	53-A	-	1-1/16" wood bearing housing (inner half)	KAALOP
128.	835-A	-	1-3/16" wood bearing housing (inner half)	KAAMO
129.	204	-	2-9/64" small lock ring for 1-1/2" bearing housing	KAAN
130.	10716	-	3-1/2" large lock ring for 1-1/2" bearing housing	KAARD
131.	214	-	Small steel packing washer for 1-1/2" bearing	KAASBOER
132.	212	-	Small felt washer for 1-1/2" bearing	KAASHUT
133.	38	-	3/4" wood bearing	KAASMAKER
134.	52	-	1-1/16" wood bearing	KAATSEN
135.	830	-	1-3/16" wood bearing	KAAZAN
136.	11496	H.C.2217	Bearing support bracket	KABAL
137.	1475	C.M.1033	3/4" wood bearing support	KABINET
138.	10821	-	1-63/64" x 1-1/4" x 1/16" steel packing washer	KACHEL
139.	1478	C.M.1036	Bearing	KADET
140.	10822	-	2" x 1-3/16" x 1/4" felt washer	KAFFA
141.	11967	-	3/16" x 5/8" x 2-7/8" connecting links	KAFFER
142.	39-B	-	3/4" wood bearing housing (outer half)	KAGOR
143.	53B	-	1-1/16" wood bearing housing (outer half)	KAHN
144.	835-B	-	1-3/16" wood bearing housing (outer half)	KAISER
145.	5224	H.C.1573	Combination 45 tooth sprocket with 18 tooth gear	KAISERIN
146.	1514	H.C.1060	Fan exhaust frame	KAISELICH
146.	3544	H.C.1060	Square to round frame	KAJUIT
147.	9125	-	5/16" x 1-31/32" special connecting rod bolts	KALB
148.	9124	-	5/16" x 2-1/16" special connecting rod bolts	KALBEN
149.	11457	H.C.2203	Packing gland	KALBFEL
150.	1118	-	Handwheel brake	KALBLED
151.	101-S	H.E.101	Angle brake with thumb screw for damper control rods	KALENDER
152.	10780	H.C.1566	Connecting arms	KALFSLER
153.	103-S	C.45 with C46	Feed adjusting lever and angle	KALIBER
154.	1700	C.M.942	16 tooth mitre gear	KALK
155.	102-S	H.E.102	Knob for damper control rod	KALKIG
156.	1474	C.M.1032	18 tooth rack	KALKOVE
157.	1113	C.M.828	20 tooth rack	KALKSTE
158.	104-S	-	5/8" x 35" feed gate control rod	KALTE
159.	105-S	-	3/8" x 58" damper control rod for top plate	KALTSIN
160.	106-S	-	3/8" x 35-1/4" damper control rod for front air duct support.	KAMEL

PLATE "E"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
161.	3184	-	5/8" diameter stud for C.M.1480	KAMER
162.	11459	H.C.2207	Centre spout saddle	KAMERAD
163.	3109	C.M.1480	Scalper roll bearing support	KAMEREL
164.	11939	-	Inspection door	KAMILLE
165.	11668	-	3/8" x 20" valve rod	KAMIN
166.	7582	-	Latch	KAMM
167.	11673	H.C.1975	Scalper roll bearing support	KAMMER
168.	11621	-	Inspection door (curved)	KAMPE
169.	11667	-	Angle clip	KAMPF
170.	9123	-	5/16" x 2-1/2" special connecting rod bolt	KAMPFEN
171.	7446	-	5/16" x 2-3/4" special connecting rod bolt	KAN
172.	11760	H.C.1970	Spacer ring	KANAR
173.	11966	-	3/16" x 5/8" x 15-1/4" connecting bar	KANEB
174.	11648	H.C.2235	Impeller hub	KANEEL

PLATE "F"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
175.	12019	-	L.H. Receiving hopper	KANEST
175.	12020	-	R.H. Receiving hopper	KANGURU
176.	11930	-	Chain guard	KANON
177.	11935	-	Conveyor discharge spout	KANONIK
178.	11670	-	Impeller assembly complete	KANOVA
179.	11844	-	Scalper roll screen	KANSEL
180.	11914	-	Rubber strip	KANT
181.	(11657) (11789)	-	Scalper conveyor shaft complete with RH Flighting assem.	KANTIG
182.	11658	-	1-1/2" x 59-1/4" fan shaft	KANZLER
183.	11653	-	3/4 x 41-1/4" feed roll shaft	KAPELL
184.	3267	-	1/4" x 37-1/4" tie rod	KAPER
185.	11669	-	3/8" x 37-5/8" valve rod	KAPIER
186.	11656	-	5/8" x 39-9/16" upper feed gate shaft	KAPIOR
187.	11655	-	5/8" x 40-1/4" lower feed gate shaft	KAPITOL
188.	11944	-	Scalper roll baffle	KAPOVER
189.	11921	-	Clean out and support door	KAPPE
190.	11843	-	Feed roll	KAPSEL

PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
11588		H.C.2251	8" x 3-1/4" x 1-3/16" cast iron pulley	KAPSULE
10845		-	1-1/4" stud for H.C.1975	KARAF
8115		-	1/4" x 1/4" x 1-1/2" (Curved end) key	KARAGAL
11617		-	1/4" x 1/4" x 2-1/4" key	KARAVON
8133		-	3/8" x 3/8" x 3" key	KARDOES

PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
	1530	-	Filler	KARG
	1531	-	Filler	RAILAFID
	3183	-	Lower feed gate	FAILAGEK
	11916	-	Upper feed gate	RAILALAP
	11964	-	Scalpings hopper	RAILAMER
	11906	-	Lower back air duct plate	RAILAWOZ
	11907	-	Upper back air duct plate	RAILBED
	11910	-	Back expansion chamber plate	RAILEMUR
	11923	-	Baffle and support plate	RAILEYIB
	11920	-	Front plate	RAILIHUM
	11908	-	Front air duct plate	RAILIREW
	11909	-	Front expansion chamber plate	RAILISIX
	11915	-	Front hopper plate	RAILIVUZ
	11913	-	Lower back hopper plate	RAILIVUZ
	11905	-	Lower front plate	RAILIVUZ
	12136	-	Fan side plate	RAILODUX
	12137	-	Fan side plate	RAILOJOY
	11911	-	Top plate	RAILOKUZ
	11912	-	Upper back hopper plate	RAILOZAR
	3545	-	Square to round	RAILUHAY
	11922	-	Suction tube	RAILUMUD
	4965-B	-	45° - 10" elbow	RAILUNAF
	12313	-	3" - 3 ply rubber belt 14'-7-1/4" long	RALERPAK
	12314	-	3" - 3 ply rubber belt 14'-7-5/8" long	RECREL
	199	-	160 links #65 diamond roller chain 1/2" P. 1/4" W.	RECTUX
	11936	-	140 links #449 diamond roller chain 5/8" P. 3/8" W.	REHUDA
	1688	-	135° zerk fitting	REIBAN
	11851	C.M.1281	4-1/2" x 3-1/2" x 1-1/2" cast iron fan pulley	RELAPSE
	12085	-	L.H. end plate assembly	RELDOS
	12084	-	R.H. end plate assembly	RELICA
	1532	-	Impeller assembly less hub	RELUPC
	11946	-	Complete scalper roll assembly	REMOCK
	3546	-	Square and round assembly	REMOULD
				REMOVE

PLATE "G"

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
191.	11838	H.C.2257	Bearing housing	SCHOOLING
192.	12974	-	11.0 P.D. - "B" type 3 groove texlite sheave 1-1/2" bore	SCHOONER
193.	12972	B.75	Texropes	SCIENCE
194.	12973	-	5.2 P.D. "B" type 3 groove texlite sheave 1-1/8" bore	SCIMITER
195.	12969	-	Motor support plate	SCINTILLA
196.	11886	-	Countershaft base	SCOFFING
197.	11883	-	Chain guard brace	SCORNFUL
198.	11882	-	Connection angle	SEEDSMAN
199.	12968-H	-	15 tooth R.C.60 sprocket 1-1/2" bore (See note)	SEGMENT
200.	1430-H	-	81 tooth R.C.60 sprocket 1-15/16" bore (See note)	SEGREGATE
201.	12970	-	1-1/2" x 35-1/2" countershaft	SELFISH
202.	(11884)	-		
	(11885)	-	Complete chain guard	SEMBLANCE

PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
	3602	-	3/8" x 3/8" x 1-3/4" key	SEMIFORM
	8134	-	3/8" x 3/8" x 3-1/4" key	SEMINARY
	3597	-	3/8" x 1/2" x 3-1/4" key	SENECAS
129.	204	-	Small lock ring for 1-1/2" bearing	SENILITY
124.	10716	-	Large lock ring for 1-1/2" bearing	SENIORITY
132.	212	-	Small felt washer for 1-1/2" bearing	SENIORITA
125.	11359	-	Large felt washer for 1-1/2" bearing	SENSATION
131.	214	-	Small steel packing washer for 1-1/2" bearing	SENSIBLE
124.	10707	-	Large steel packing washer for 1-1/2" bearing	SHAB
123.	10787	L.1108-5	1-1/2" farnir extended inner race bearing	SHADED
148.	9124	-	5/16" x 2-1/16" special connecting rod bolts	SHADOW
	12971-H	-	155 links R.C.60 roller chain 1/2" P. 3/4" W.(See note)	SHAGGED

NOTE:

On older style motor drive attachments the following sprockets and chains was used.

12968	-	16 tooth #449 diamond roller chain sprocket 1-1/2" bore	SHAKEN
1430	C.M.995	87 tooth #449 diamond roller chain sprocket 1-15/16 bore	SHAM
12971	-	179 links # 449 diamond roller chain 5/8" P. 3/8" W.	SHAMAN

On 1200 R.P.M. drives the following sheaves are used.

192.	129-74-A	-	9.4 P.D. "B" type 3 groove texlite sheave 1-1/2" bore	SHAMBLE
194.	129-73-A	-	6.4 P.D. "B" type 3 groove texlite sheave 1-1/4" bore	SHAMMER

PARTS FOR #33 UNI-FLOW MACHINE NOT COMMON TO #32

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
11447		H.C.2194	End plate base	
11725		H.C.2285	Discharge end cover	SIPHON
11727		H.C.2288	Feed end cover	SIREN
4304		H.C.1523	1-1/2" L.H. flighting dogs	SIRLOIN
4305		H.C.1524	1-1/2" R.H. flighting dogs	SISERA
11583		H.C.2232	8 x 3-1/4 x 1-1/2 cast iron pulley	SITUATE
11585		H.C.1322	10 x 3-1/4 x 1-1/2 cast iron pulley	SIZZLE
(11555)		-	1-1/2 x 80-3/8 seed conveyor shaft complete with	SKALD
(11735)		-	6" flighting	SKATE
(11556)		-	1-1/2 x 82-7/16 wheat conveyor shaft complete with	
(11733)		-	8" flighting	SKEIN
(11557)		-	1-1/2 x 89-7/16 oat conveyor shaft complete with	
(11731)		-	7" flighting	SKELETON
(11556)		-	1-1/2 x 82-7/16 large wheat conveyor shaft with	
(11731)		-	7" flighting	SKEPTIC
12047		-	Oat conveyor box	SKETCHY
12365		-	Seed conveyor box	SKIFF
12373		-	Wheat conveyor box	SKILLET
12373-A		-	Large wheat conveyor box	SKIMPY
13194		-	Top gear guard	SKIPPER
13196		-	Bottom gear guard	SKIRMISH
13198		-	Centre gear guard	SKITTLES
12356		-	Centre feed end plate	SKULL
12353		-	Centre gear end plate	SKYLARK
12355		-	L.H. feed end plate	SKYWARD
12371		-	L.H. gear end plate	SLALOM
12354		-	R.H. feed end plate	SLAM
12372		-	R.H. gear end plate	SLANDER
12056		-	Oat conveyor discharge spout	SLANGY
12056-A		-	Oat conveyor square to round flexible spout	SLAP
12377		-	Seed discharge spout	SLASH

PARTS FOR #33 UNI-FLOW SCALPER NOT COMMON TO #32

ITEM NO.	SERVICE NO.	PART NO.	DESCRIPTION	CODE.
12187		H.C.2292	Fan exhaust frame	SLATE
12188		H.C.2307	Fan discharge frame	SLATTERN
14828		H.C.2526	Bearing housing	SLAUGHTER
12649		H.C.2336	Bearing housing cap	SLAVER
12024		H.C.2202	Spacer ring	SLAVIC
11451		H.C.2198	Impeller hub	SLAW
(11559)		-	1-3/16 x 79-3/4 conveyor shaft complete with	
(12022)		-	flighting	SLAY
11558		-	1-15/16 x 84-13/16 fan shaft	SLEDGE
11467		-	3/4 x 65-1/4 feed roll shaft	SLEEK
11470		-	5/8 x 64-1/4 lower feed gate shaft	SLEET
11462		-	1-1/16 x 69-3/4 scalper roll shaft	SLEIGH
11469		-	5/8 x 63-9/16 upper feed gate shaft	SLEIGHT
11945		-	1/4 x 61-1/4 tie rod	SLENDED
11567		-	3/8 x 61-5/8 valve rod	SLEUTH
12051		-	Scalper roll baffle	SLICKER
12030		-	Conveyor box and expansion chamber door	SLIME
12038		-	Cleanout and support door	SLINK
12055		-	Lower feed gate	SLIPPER
12044		-	Upper feed gate	SLIVER
12129		-	Centre receiving hopper	SLOE
12128		-	L.H. receiving hoppers	SLOGAN
12130		-	R.H. receiving hoppers	SLOOP
12138		-	Scalpings hopper	SLOPE
12053		-	Feed roll	SLOTH
12050		-	Scalping roll screen	SLOUCH
12126		-	Conveyor discharge spout	SLOUGH
11633		-	Impeller assembly less hub	SLOVAK
12052		-	Scalper roll assembly	SLOVENE
187	L.5511-N	-	1-15/16" Fafnir bearing complete with sleeve	SLOYD
11973		-	5 x 3-1/2 x 1-15/16 Rockwood pulley	SLUGGARD

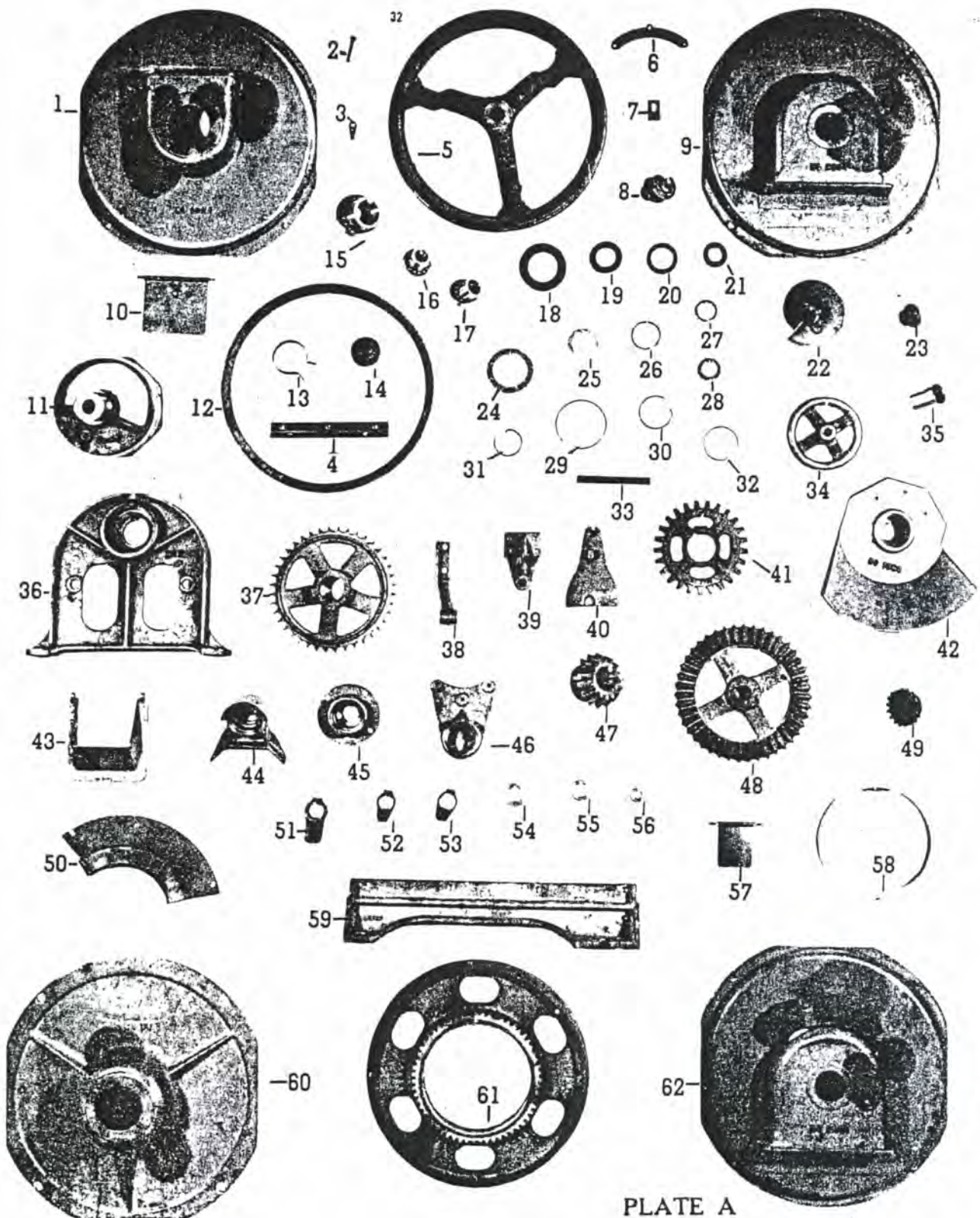
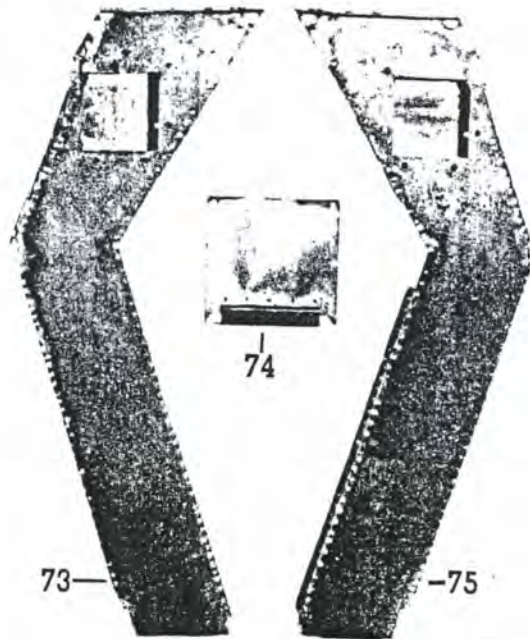
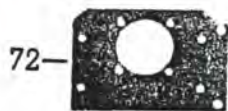
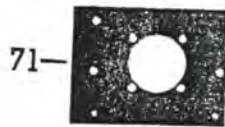
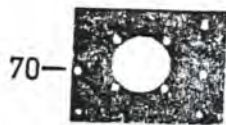
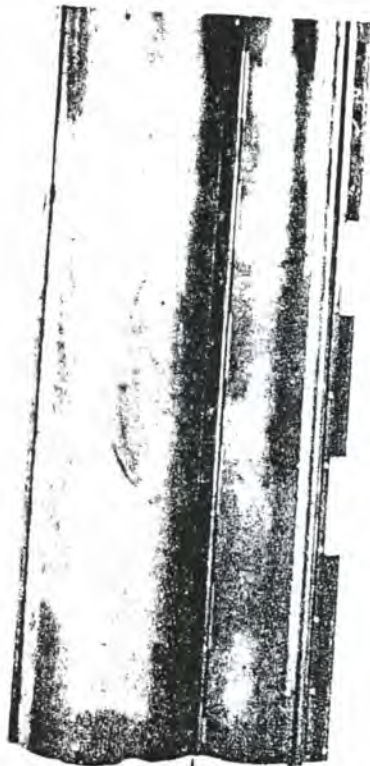
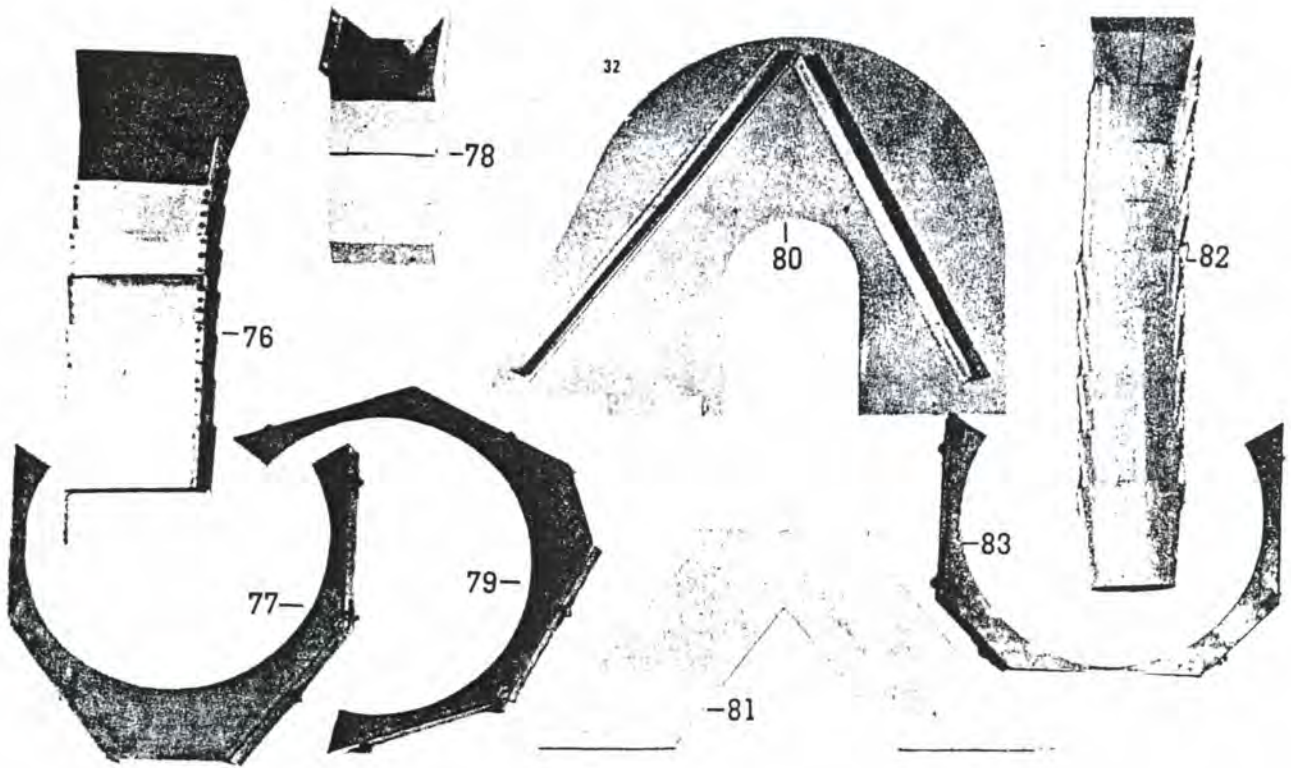


PLATE A



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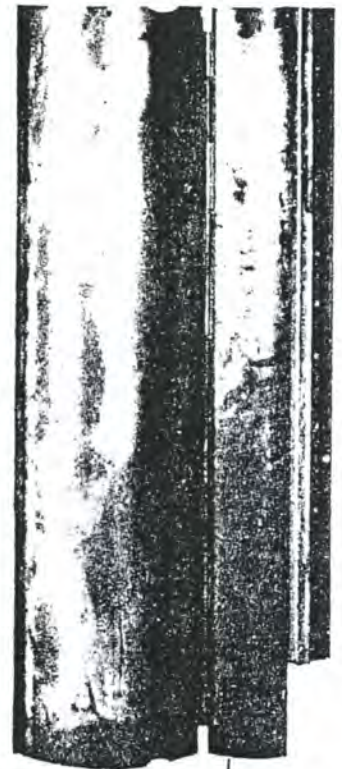
PLATE B



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PLATE C

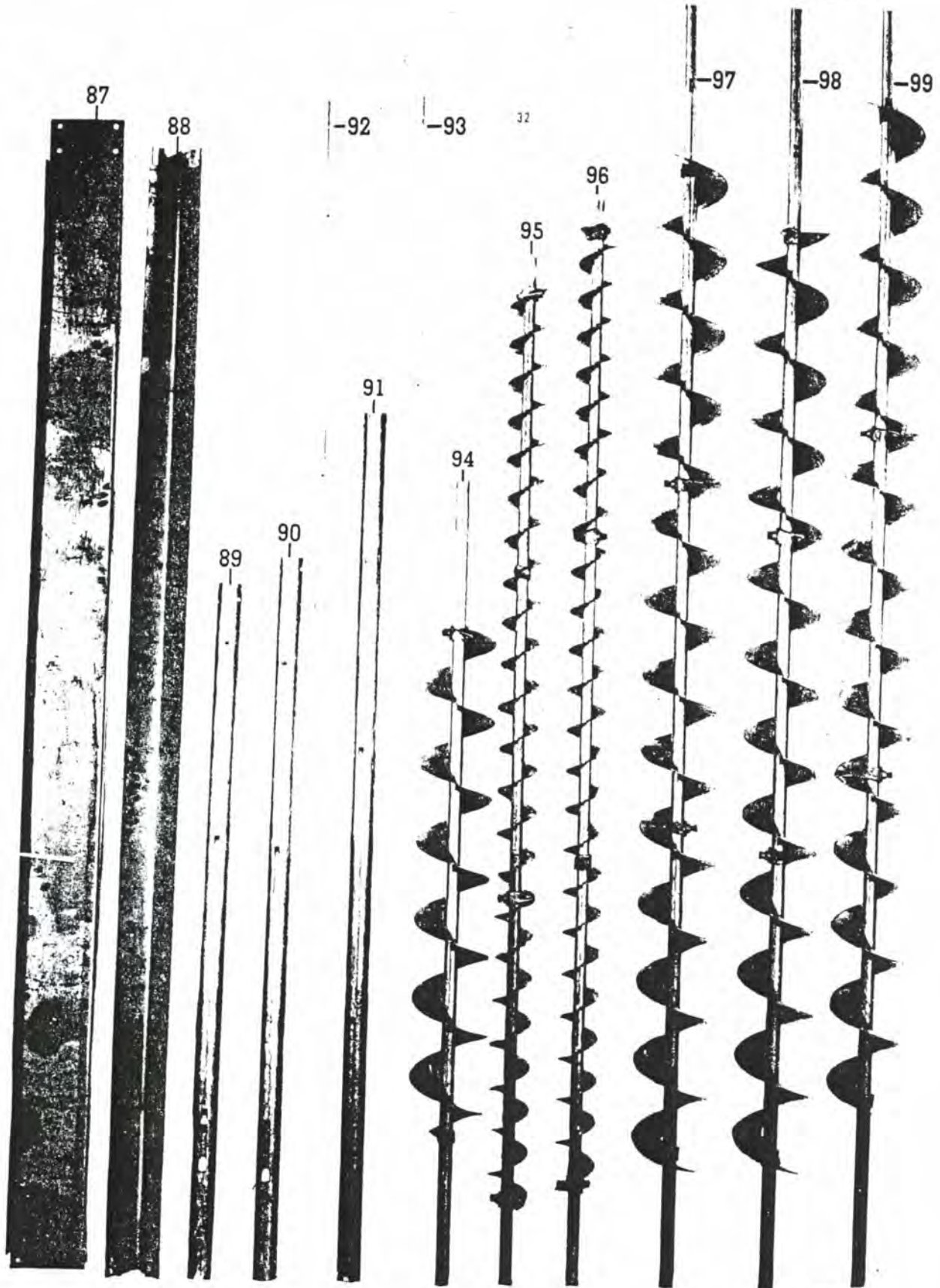


PLATE D

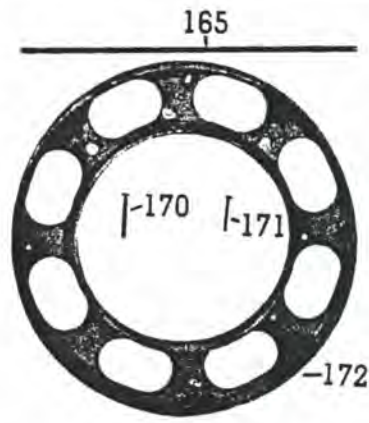
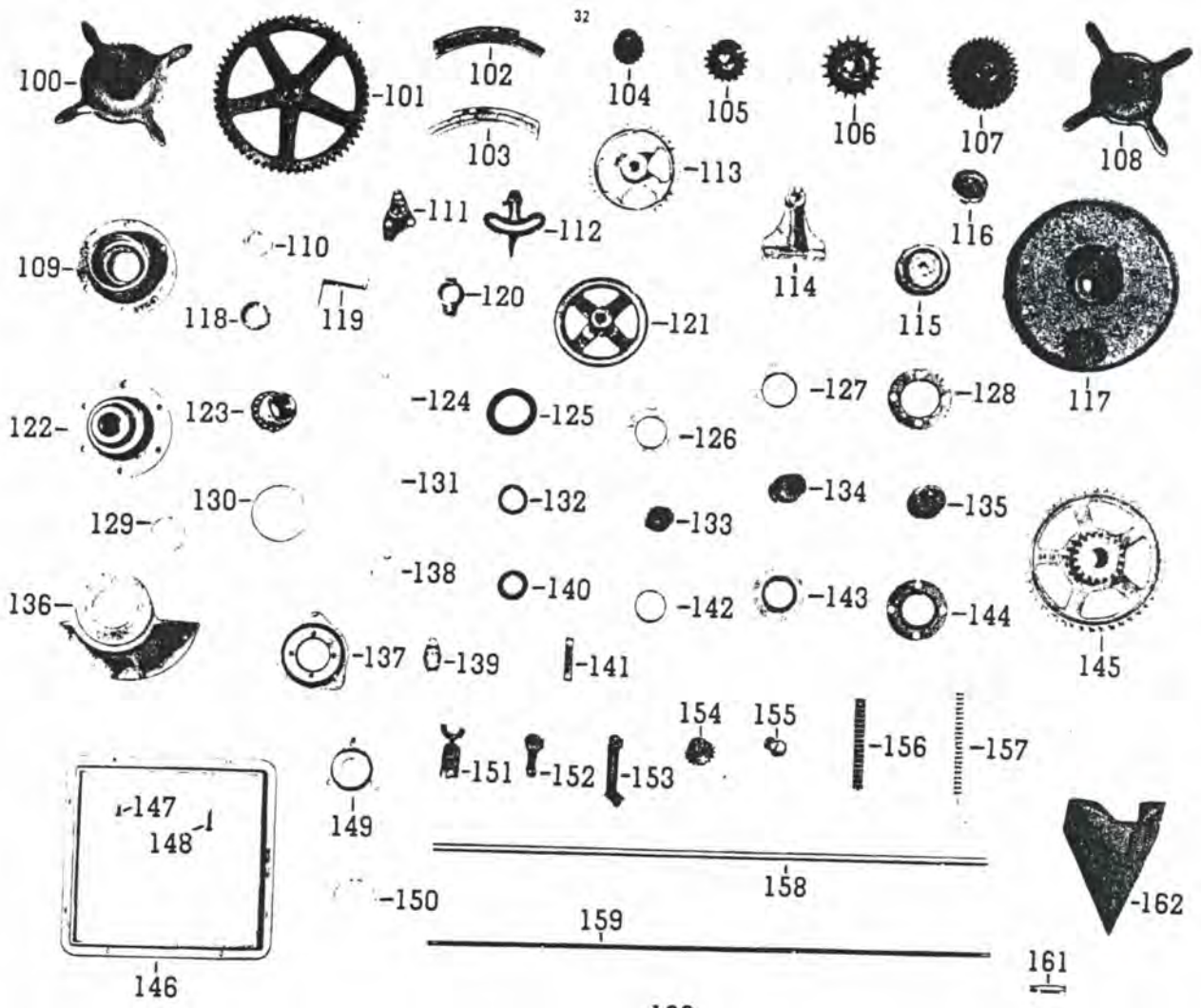


PLATE E

32

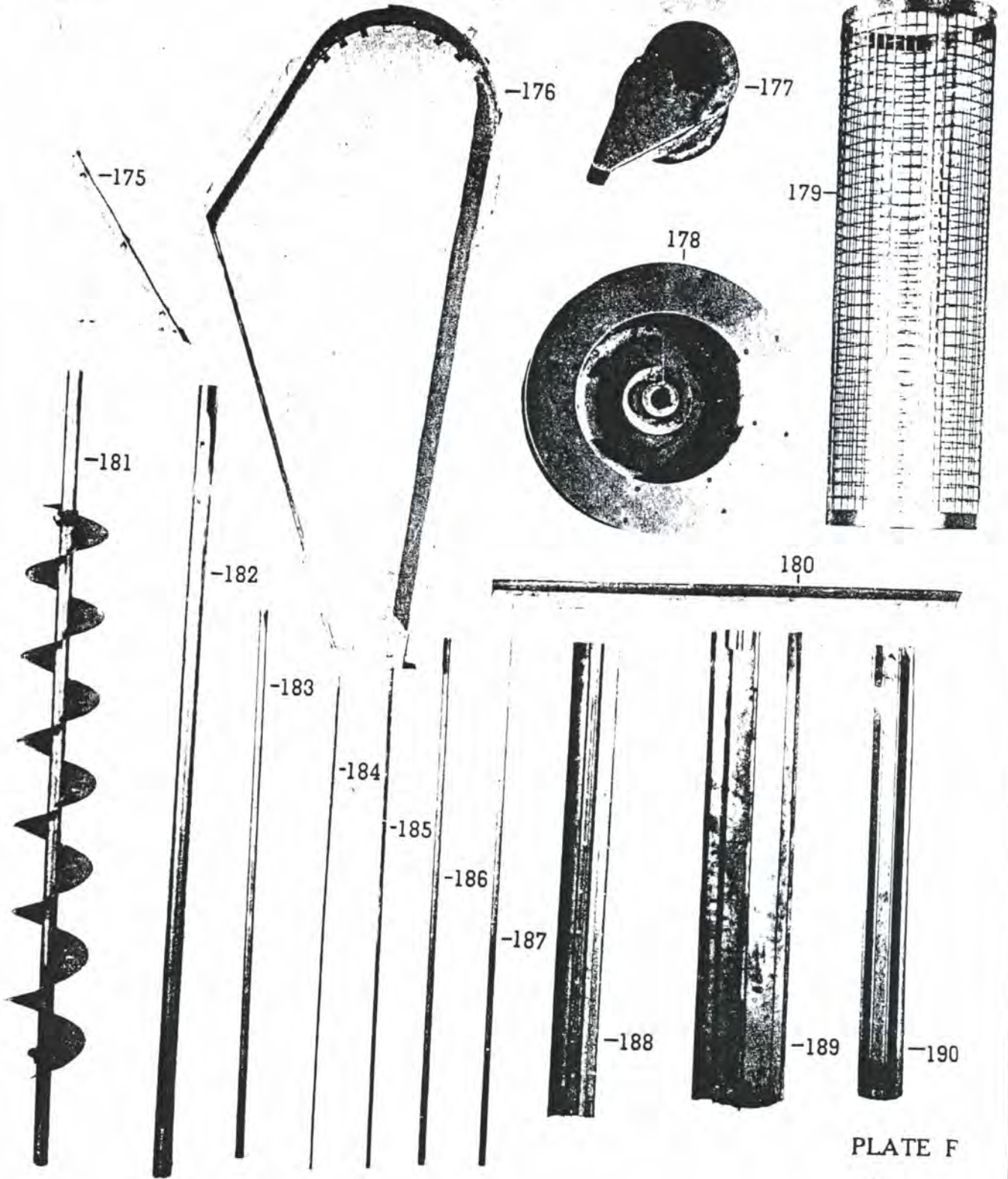


PLATE F

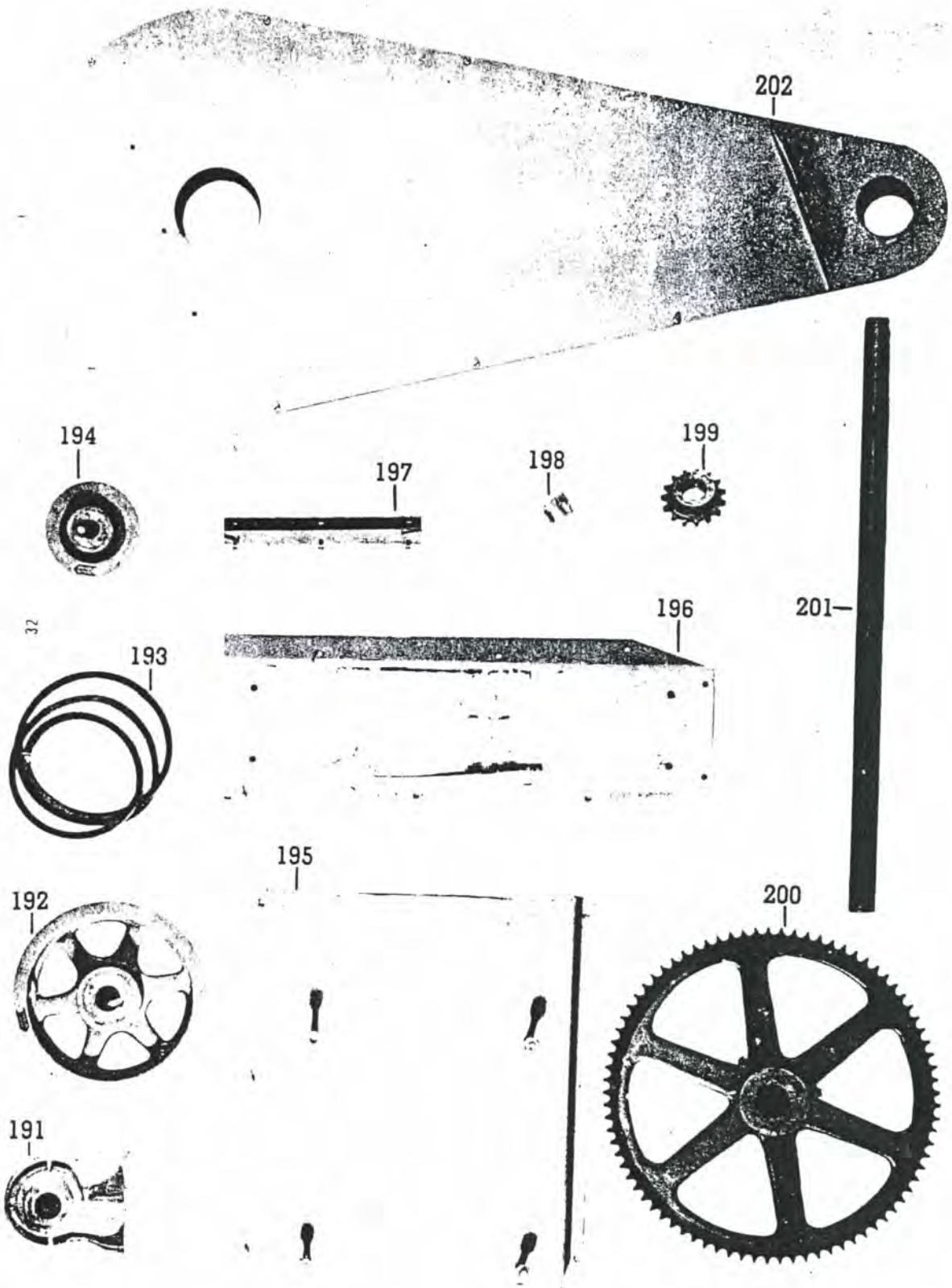
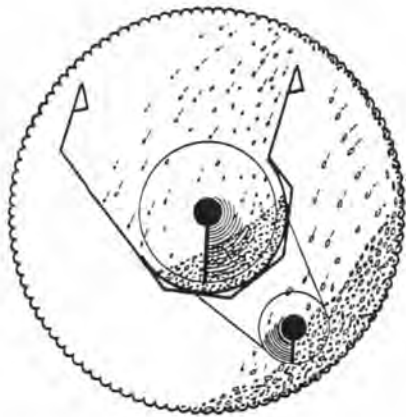


PLATE G

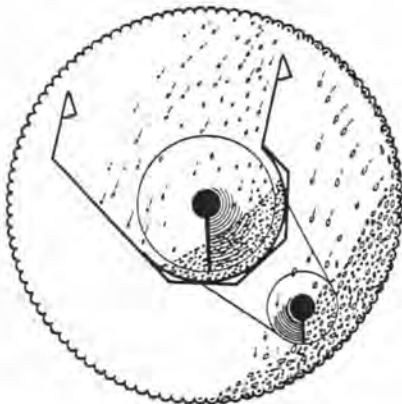
SUPPLEMENTARY REPAIR LIST

PART NUMBERS FOR No. 32 HART UNI-
FLOW, STYLE PK-3, STARTING WITH
SERIAL No. 538 — NOT COMMON TO
PREVIOUS MODELS. PARTS NOT LISTED
IN THIS SUPPLEMENT ARE SHOWN IN
THE INSTRUCTION AND REPAIR BOOK.

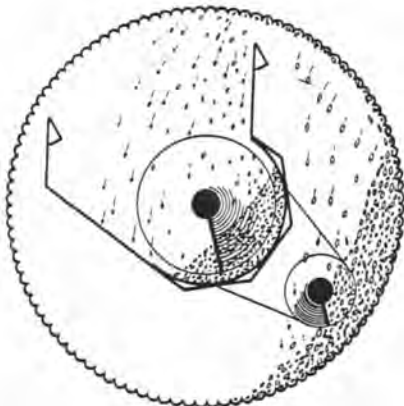
THE HART-EMERSON CO. LIMITED
WINNIPEG — CANADA



CYLINDER "A" WITH TROUGH SHOWN
AT DIAL SETTING 4 1/2.



CYLINDER "B" WITH TROUGH SHOWN
AT DIAL SETTING 4.



CYLINDER "C" WITH TROUGH SHOWN
AT DIAL SETTING 3.

CYLINDER "A"

The function of this cylinder is to divide the grain being cleaned into 2 products. Lifting the small grain and seeds and tailing the large grain and wild oats out the end of the roll. This cylinder also regulates the percentage of grain going to each cylinder below it. For this reason it is some time referred to as the splitting or dividing cylinder.

CYLINDER "B"

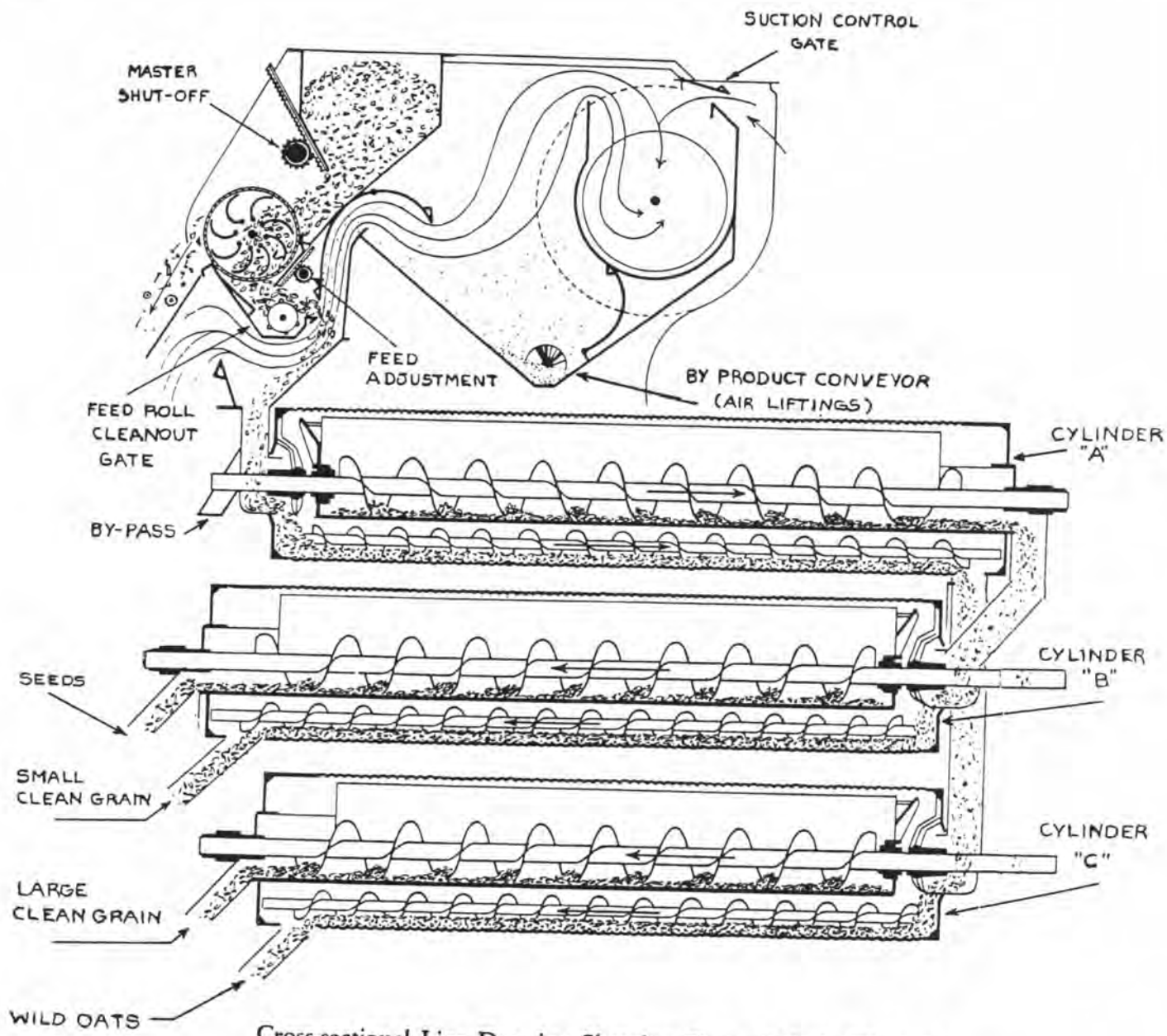
The products that enter this cylinder is the small grain and weed seeds only (No wild oats or large grain). The function of this cylinder is to lift the weed seeds and cracks into the centre conveyor trough and they are conveyed to the end of the cylinder and are discharged.

The small grain is not picked up, but continues its journey through the roll to tail out the end free of weed seeds.

CYLINDER "C"

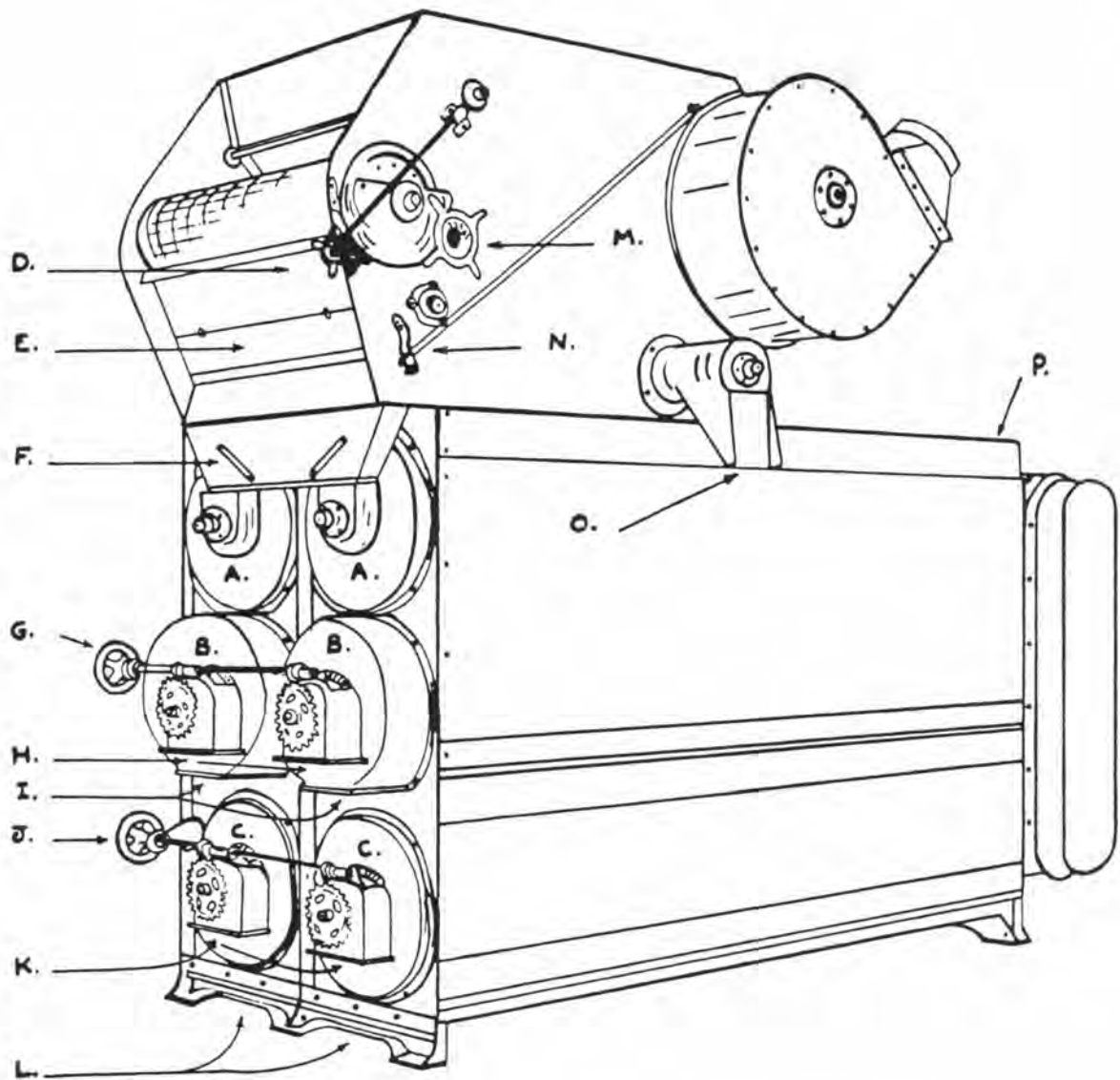
This cylinder receives all the wild oats and large grain from the top roll. There is no small grain or seeds enter this unit. The function of this cylinder is to lift the large grain out of the wild oats. The large grain is lifted into the large centre conveyor trough and carried to the end of the roll while the wild oats and like trash is tailed out the end of the roll. This cylinder is sometimes called the wild oat cylinder.

SEE CROSS SECTIONAL LINE DRAWING.



Cross-sectional Line Drawing Showing Flow of Grain Through Hart Uni-flow Grain Separator

Note Uniformity of Grain Line in All Cylinders, due to Exclusive Power Driven Hart Uni-flow Grain Line Control



INDEX

- | | |
|------------------------------------|------------------------------------|
| A—Dividing Cylinders. | I—Clean Grain Spout (small). |
| B—Seed Cylinders. | J—Handwheel for Trough Adjustment. |
| C—Oat Cylinders. | K—Clean Grain Spout (large). |
| D—Upper Feed Gate. | L—Wild Oat Spout. |
| E—Scalper Inspection Door. | M—Lower Feed Gate. |
| F—By-Pass Control Levels. | O—Air Liftings Discharge. |
| G—Handwheel for Trough Adjustment. | N—Air Control Lever. |
| H—Seed Discharge Spout. | P—Handwheel Trough Adjustment. |

SUPPLEMENTARY REPAIR LIST

PARTS FOR #32 UNI-FLOW MACHINE, STYLE PK-3, STARTING WITH SERIAL #538

NOT COMMON TO PREVIOUS MODELS

ITEM NUMBER	SERVICE NUMBER	PART NUMBER	DESCRIPTION	CODE
W 1000		-	Guard, Belt	
W 1001		-	Hopper, Tailings	TAB
W 1002		-	Hopper, Tailings Extension	TABARD
W 1003-A		-	Spout, By-pass A	TABLE
W 1003-B		-	Spout, By-pass B	TABLET
W 1003-C		-	Spout, By-pass C	TABLOID
W 1003-D		-	Spout, By-pass D	TABOO
W 1003-D-1		-	Spout, By-pass D-1	TABOR
W 1004		-	Spout, Scalper Discharge	TACIT
W 1005		-	Spout, Screenings Conveyor (Short)	TACK
W 1006		-	Spout, Screenings Discharge (Long)	TACKLE
W 1007		-	Spout, Clean Grain Conveyor	TACTIC
W 2000		-	Seed Conveyor Assembly	TADPOLE
W 2001		-	Clean Grain Conveyor Assembly	TADPOKE
W 2002		-	Screenings Conveyor Assembly (specify whether left or right)	TAFFY
W 2003		-	Screenings Elevator Discharge Assembly (Swivel Head - four parts)	TAILOR
W 1028		-	Spout, Discharge, Scalper	TAINT
W 1029		242	Bracket, Chain Tightener	TALC
W 1030		-	Chain, #41 Roller, 62 Links	TALENT
W 1031		-	Bushing, Oilite, $\frac{1}{4}$ x $1\frac{1}{2}$ x $\frac{1}{2}$ bore	TALER
1821		1072	Sprocket, 15-tooth with bushing	TALES
10814		H.C.1994	Sprocket, 17-tooth 1-3/16" bore	SIDONIAN
W 1032		-	Shaft, Head - Elevator 1-3/16" x 52"	SHELF
W 1020		-	Hopper, Floor (A)	TALK
W 1033		-	Hopper, Floor (B)	TALL
W 1034		-	Hopper, Floor (C)	TALLOW
W 1035		-	Hopper, Sliding	TALLY
W 1036-A		-	Rails, Sliding Hopper (short) (4 req.)	TALON
W 1037		-	Lock, Sliding Hopper Rail	TALUS
W 1038		-	Cover, Elevator Boot	TAMALE
W 1039		-	Shaft, Conveyor, Scalper 1-3/16" x 59 $\frac{1}{2}$ "	TAMARIN
W 1044		-	Feed Casting Filler for H.C. 2248	TAMBOUR
W 1045		-	Feed Casting Filler for H.C. 2252	TAME
W 1046		-	Feed Casting Filler for H.C. 2417	TAMP
W 1047		-	Scalper Discharge Spout (Special Extension)	TAMPER
W 1036-B		-	Rails, Sliding Hopper (long) (1 req.)	TAMPON
W 1048		-	Scalper Discharge Spout (Standard)	TANAGER
W 1049		-	Spout, Seed Diversion (Standard)	TANDEM
W 1050		-	Cover, Elevator Boot Side Plate	TANG
				TANGENT

NOTE: Conveyors are shown by assembly numbers only.

PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED.

SUPPLEMENTARY REPAIR LIST

PARTS FOR #32 UNI-FLOW MACHINE PROPER, STYLE PK-3, STARTING WITH SERIAL #538

NOT COMMON TO PREVIOUS MODELS

ITEM NUMBER	SERVICE NUMBER	PART NUMBER	DESCRIPTION	CODE
	14859	H.C. 2527	Worm Bracket	TANGLE
	14860	H.C. 2528	Worm Bracket	TANGO
	11725	H.C. 2285	Discharge End Cover	TANK
	14644	H.C. 2511	Discharge End Cover	TANKARD
	13287	H.C. 2417	Feed End Cover	TANNER
	16753	H.C. 2839	26 x 3 1/2 x 1-15/16 C.I. Pulley	TANNIC
	14789		1-3/16 x 110" Cylinder Shaft	TANSY
	16742		5/8 x 29-7/8" Worm Shaft	TANTRUM
	16719		Chain Guard	TAPE
	16711		Feed Hopper	TAPER
	16740		Tailings Hopper	TAPESTRY
	16743		Tailings Hopper	TAPIR
	16720		Chain Guard Back Plate	TAPIS
	16724		L.H. End Plate (Feed End)	TAPPET
	16739		L.H. End Plate (Gear End)	TAPSTER
	16725		R.H. End Plate (Feed End)	TARDY
	16728		R.H. End Plate (Gear End)	TARF
	16722		Lower Side Plate	TARGET
	16733		Lower Side Plate	TARIFF
	16752		Centre Cylinder Feed Spout	TARN
	13365		Feed Hopper Levers	TARNISH
	2881		96 Links #433 Diamond Roller Chain 2" Pitch 1/2" Wide	TARPIN
10758			1-3/16 x 110" Cylinder Shaft Complete with Flighting Assembly	TARPON

PARTS FOR #32 UNI-FLOW SCALPER ONLY, STYLE PK-3, STARTING WITH SERIAL #538

NOT COMMON TO PREVIOUS MODELS

ITEM NUMBER	SERVICE NUMBER	PART NUMBER	DESCRIPTION	CODE
	11671	H.C. 2243	Bearing Bracket for 5/8" Shaft	TARSUS
	11672	H.C. 2244	Bearing Bracket for 5/8" Shaft	TART
	16526	H.C. 2815	Flange for Fafnir Bearing G1012KLLB	TARTAN
	16545	H.C. 2818	Flange for Fafnir Bearing G1103KLLB	TARTAR
	2822	C.M. 1399	24-tooth Bevel Gear 5/8" bore	TASK
	16737	H.C. 2837	Fan Drive Guide	TASSEL
	1646	C.M. 1074	Handwheel 5/8" bore	TASSET
	10759	H.C. 1953	Housing for #1-71224 Fafnir Bearing	TASTY
	16731	H.C. 2838	Air Control Lever	TAT

NOTE:- PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED.

SUPPLEMENTARY REPAIR LIST

PARTS FOR #32 UNI-FLOW SCALPER ONLY, STYLE PK-3, STARTING WITH SERIAL #538

NOT COMMON TO PREVIOUS MODELS

ITEM NUMBER	SERVICE NUMBER	PART NUMBER		CODE
12733		C.M. 1074	12-tooth Bevel Pinion 5/8" Bore	TATTER
16704		H.C. 2730	Spacer Ring	TATOO
15929		H.C. 1975	L.H. Scalper Roll Bearing Support	TAUNT
12735			5/8 x 22 $\frac{1}{2}$ Feed Gate Control Shaft (44 $\frac{1}{2}$ " R.H. 5" Flighting)	
15957			1 $\frac{1}{2}$ " Dia. Stud	TAVERN
16802			5/8" Dia. Stud	TAWNY
16730			2 x 2 x $\frac{1}{4}$ x 44 $\frac{1}{2}$ " Angle	TAX
16713			Connecting Bar	TAXI
16700			Scalpings Spout Brace	TEA
16714			Connecting Link	TEACH
6736			$\frac{1}{2}$ x $\frac{1}{4}$ x 1 $\frac{1}{2}$ " Key	TEAK
3606			$\frac{1}{4}$ x $\frac{1}{4}$ x 2 $\frac{1}{2}$ " Key	TEAL
10319			3/8 x 3/8 x 3" Key	TEAM
8114			3/8 x 3/8 x 3 $\frac{1}{2}$ " Key	TEAP
12818			3/8 x 20 $\frac{1}{2}$ Valve Rod	TEAR
401			1/8 x 2 $\frac{1}{2}$ " Pipe Nipple	TEASE
16736			Air Check Door	TECHY
16715			Cleanout Door	TEDDER
16732			Expansion Chamber Door	TEEM
15876			Fan Filler Extension	TEETER
15864			Filler	TELLER
15915			Filler	TELLUS
15857			Lower Feed Gate	TEMPER
15904			Upper Feed Gate	TEMPEST
16705			Chain Guard	TEMPLAR
16374			Expansion Chamber Back Plate	TEMPLATE
16712			Deflector Plate	TEMPLE
16702			L.H. End Plate	TEMPO
16703			R.H. End Plate	TEMPTER
12714			Air Duct Front Plate	TENANT
16701			Expansion Chamber Front Plate	TENDER
16707			Lower Front Plate	TENDON
15866			Fan Side Plate	TENORIL
16708			Fan Side Plate	TENNIS
16709			Top Plate	TENSILE
16733			Upper Back Hopper Plate	TENSION
16738			Scalpings Spout	TENT
15862			Square to Round	TEPEE
16735			Suction Tube	TERMITE
15880			8-tooth Cog to Adj. Feed Gates	TERN
1561			5/8" x 1-5/16 x 5/8" Set Collar	TERRET
15899			Lower Feed Gate Guide	TERROR
				TERRY

NOTE:- PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED.

SUPPLEMENTARY REPAIR LIST

PARTS FOR #32 UNI-FLOW SCALPER ONLY, STYLE PK-3, STARTING WITH SERIAL #538

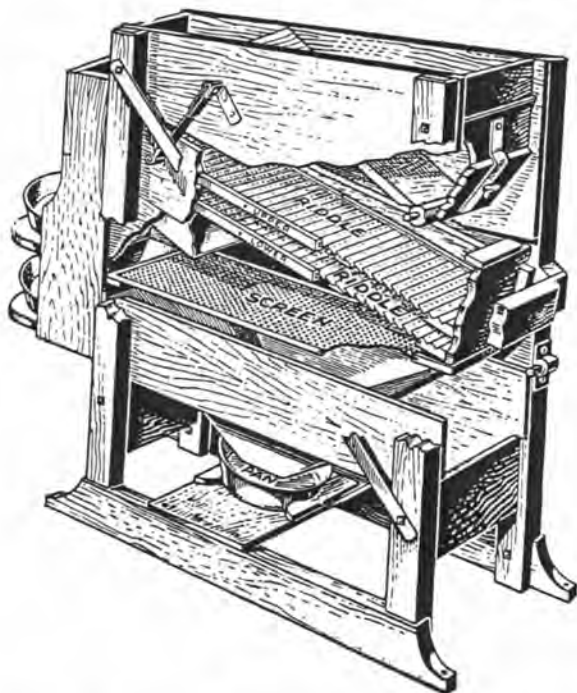
NOT COMMON TO PREVIOUS MODELS

ITEM NUMBER	SERVICE NUMBER	PART NUMBER	DESCRIPTION	CODE
	15900		Lower Feed Gate Guide	
	15901		Lower Feed Gate Guide	TEST
	15902		Lower Feed Gate Guide	TESTER
	15903		Upper Feed Gate Guide	TEXT
	2340		Catch	TEXTURE
	100		Latch	THALLUS
	13924		Air Check Shaft Lug	THETA
	12718		Connecting Link Lug	THILL
	12728		Connecting Link Pins	THIMBLE
	15938		Lower Feed Gate Rack	THISTLE
	15939		Upper Feed Gate Rack	THONG
	15960		Fibre Seal Assembly	THORN
	15961		Fibre Seal Assembly	THORP
	16534		G-1012 KLLB Fafnir Bearing	THREAD
	16536		G-1103 KLLB Fafnir Bearing	THRIFT
	16746		3" 3 Ply Rubber Belt 14' 5-3/16" long	THRILL
	16747		3" 3 Ply Rubber Belt 15' 5 1/2" long	THRIVE
	16748		145 Links #65 Diamond Chain 1/2" P. x 7/8" W.	THROAT
	16749		128 Links #449 Diamond Chain 5/8" P. x 3/8" W.	THROB
	16716		Impeller, #15, 7 1/4" Wide C.C.W., 1 1/2" bore Scalper Conveyor Shaft cpt. with Flighting	THROUGH
				THROTTLE

NOTE:- MACHINES WITH THE FOLLOWING SERIAL NUMBERS HAVE CONVEYOR DISCHARGE SPOUT #16729:

#'s 538, 539, 540, 541, 542, 543, 544, 545, 546 and 549.

NOTE:- PARTS WITHOUT ITEM NUMBERS ARE NOT ILLUSTRATED.



DOCKAGE

TESTED EASILY AND ACCURATELY

**THE EMERSON DOCKAGE
TESTER SAVES TIME
AND MONEY**

These machines are available with either a hand drive or motor drive.

Choice of equipment includes Wheat Riddles, Durum and Rye Riddles, or Barley Riddles. When equipment is desired for handling more than one type of grain these extra Riddles are furnished at a reasonable price. Extra equipment for Flax is also available. All testers have two separating Riddles and a 24" Seed Screen.

THE HART-EMERSON CO. LIMITED

Memo