

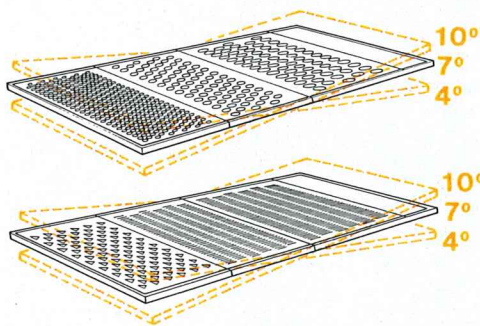
the Clipper **K**

with
VPS

**SUPER
KV 4868 BD
FEATURING
Variable
Pitch
Screens**



VARIABLE PITCH SCREENS using Graduated Screen Sizes



Graduated screen sizes on 3-piece 86" screens are optional, and can be ordered from our inventory of over 200 screen selections.

For the first time, a Clipper high capacity cleaner has the Clipper precision cleaner feature . . . VARIABLE PITCH SCREENS . . . as standard equipment on ALL screens. The pitch of the screens can be set for proper travel of every type of commodity on all of the 86" screens, as well as the 60" top scalping screen.

This is an important feature with the ever-changing agricultural picture, enabling a wide range of products to be cleaned with a single machine.

Check these additional Clipper features . . .

- Split-Flow Design — equivalent to two separate three-screen cleaners mounted in a single frame.
- Balanced Construction — vibrations are cancelled out in the frame of the cleaner.
- Modular V-Belt Guards — furnished as standard equipment.

Send for complete, new literature on the Clipper K with VPS!

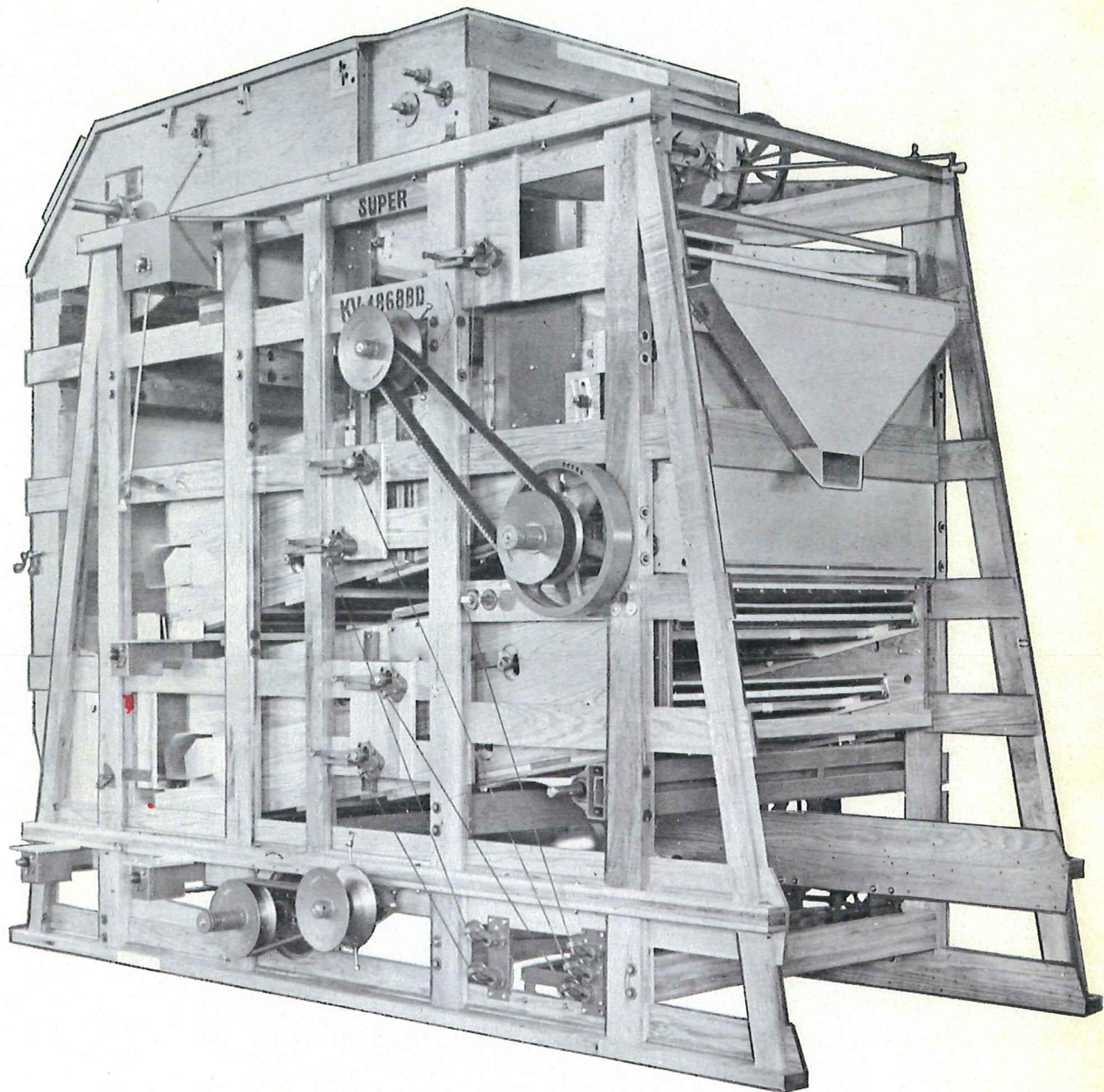
When a better cleaner is needed . . . Clipper builds it!



FERRELL-ROSS

1621 Wheeler Street, Saginaw, Michigan 48602 U.S.A.

(517) 792-8723 Telex 227-421



CLIPPER SUPER KV 4868 BD SEED / GRAIN CLEANER

- Dual Purpose*
- Precision Cleaning
 - Fast Cleaning

Qualities of a precision seed cleaner incorporated into a high capacity grain cleaner. VARIABLE PITCH SCREENS ... for years a seed cleaner feature ... now designed into the Clipper Super KV Cleaner.

CLIPPER SUPER KV 4868 BD SEED / GRAIN CLEANER

VARIABLE PITCH SCREENS

Screen pitch determines the speed of commodity flow over the screens.

Variable pitch screens . . . for years a special design attraction on Clipper Seed Cleaners . . . are now standard equipment on Clipper Super KV 4868 BD Cleaners. This distinctive feature permits exact screen pitch setting for proper travel of every type of commodity on all of the screens including the high speed 60" top scalping screen.

The pitch of the screens can be set to handle the particular commodity to be cleaned with a variable range of 4° to 10°. This is an important feature with the ever-changing agricultural picture, enabling a wide range of products to be cleaned with a single machine. The screens can be flattened out to an almost horizontal pitch to thoroughly clean small seed, or greater capacity can be realized by increasing the pitch of the screens for fast cleaning grain.

GRADUATED SCREEN SIZES IN THREE-PIECE SCREENS

Graduated screen sizes can be specified for the 3-piece 86" screens. A combination of different sizes or shapes supplies more thorough cleaning and capacity.

Top Scalping Screens

The product load is heaviest where the commodity is first fed onto the screen. The largest perforation is used in this first section. The largest perforation is used in this first section. Smaller perforations, graduated in size, are used in the second and third sections. Each of the three perforations allows the good commodity to pass through . . . at the same time, better able to hold up large trash until it reaches the discharge spout. Sticks will not up-end and fall through.

Bottom Sifting Screens

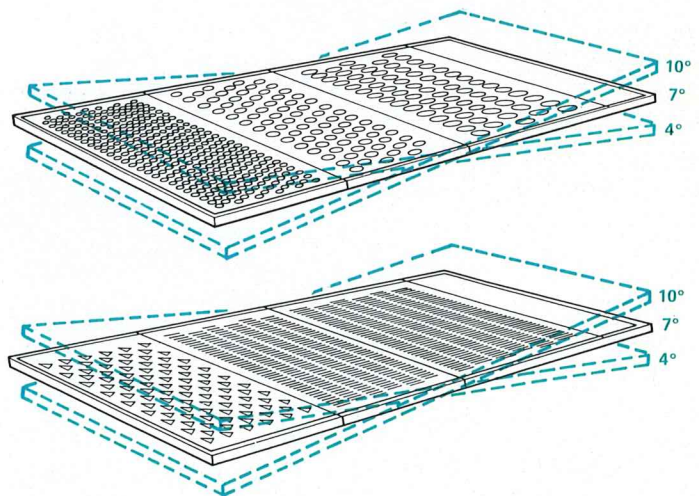
The bottom screen in each shoe can also be dressed with a combination of screens with different shaped perforations to take out contaminants which require dissimilar shapes . . . for example, combine oblong slot with a triangle for difficult separations.

SUPER KV 4868 BD SPECIFICATIONS

No. of Screens in Cleaner	5
No. of Screens Furnished	5
Screen Size — Top Scalper	54" x 60"
Screen Size — Full Length } Scalping Sifting	54" x 86"
Extreme Height	143"
Extreme Length	174-1/2"
Extreme Width	91"
Length on Floor	173"
Width on Floor	71"
Width Between Sills	62"
Height Where Seed Enters	143"
Height to Drive Shaft	106"
Shipping Weight (lbs.)	8500
Drive Shaft Dia.	1-15/16"

Width specifications listed above do not include dimensions for the modular V-belt guards.

VARIABLE PITCH SCREENS using Graduated Screen Sizes

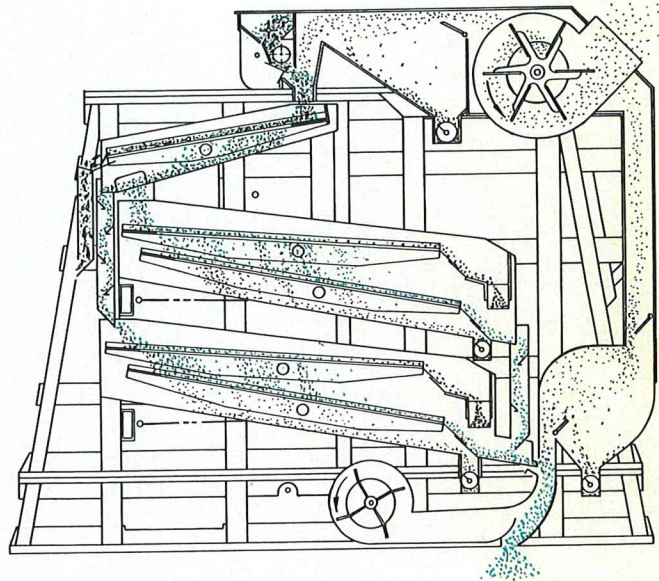


Graduated screen sizes on 3-piece 86" screens are optional, and can be ordered for the Clipper Super KV 4868 BD Cleaner from our inventory of over 200 screen selections.

COMMODITY FLOW

As the commodity discharges from the hopper it passes through an air leg connected to one of the top suction fans. The first air separation removes lightweight trash as the commodity falls in a uniform layer across the full width of the 60" scalping screen. This high-speed scalper, equipped with screen cleaning brushes, removes bulky trash which it discharges to a catch-all spout. The good product falls through and is routed to the splitter where the flow is evenly divided . . . half to the upper shoe and half to the lower shoe.

Each counter-balanced shoe in the Clipper KV 4868 BD Cleaner carries two 3-piece 54" x 86" screens . . . the top screen for scalping and the lower screen for sifting. The product streams passing over the two lower screens are rejoined and routed through the vertical air column generated by the bottom blast fan. The second top fan, synchronized with the bottom blast fan, carries lightweight foreign material and dust to the dust collecting system. The cleaned commodity discharges from the cleaner through a slotted opening which extends across the full width at the bottom of the machine.



The Variable Air Regulator permits fast, accurate bottom blast fan adjustments to supply exactly the right amount of air for each separation.

Fan discharge angle is fixed at 45° to the rear as standard equipment.

ANOTHER FEATURE OF CLIPPER KV CLEANERS

The machines can be screened to clean alternate loads of two different commodities, routing the entire flow to either shoe . . . with the capacity reduced to the level which one shoe can handle. This feature eliminates down time for screen changes when handling commodities with overlapping harvest seasons.

Top Shoe Only . . . remove divider pan.

Bottom Shoe Only . . . remove divider pan — install blank pan.

APPROXIMATE CAPACITIES

Bu. per Hr. — Seeds	260 — 330
Bu. per Hr. — Seed Grain	450 — 700
Bu. per Hr. — Beans and Wheat	800 — 1350

All capacities will vary according to area and amount of foreign material in the commodity to be cleaned.

SPLIT-FLOW DESIGN

Equivalent to two separate three-screen cleaners mounted in a single frame.

Double Screen Area — Double Capacity

To meet the demands for greater capacity, the Clipper Super KV 4868 BD Cleaner features a split-flow design. The commodity flow is divided, half to each shoe, to produce twice the capacity.

Drive Shaft Speeds	Horsepower Required
600 R.P.M. — for cleaning lightweight seeds	10
1000 R.P.M. — for cleaning grains, beans and corn	15
1350 R.P.M. — used when a dust filter system is used with the cleaner	25

STANDARD FEATURES

BALANCED CONSTRUCTION

The two shoes of the Clipper Super KV 4868 BD are counter-balanced, designed to shake the screens, not the cleaner. Vibrations are cancelled out in the frame of the cleaner and not transmitted to the building housing the cleaner.

HOPPERS

The customer has a choice of a variety of hoppers. The Chek-Flo Metering Hopper is especially designed to handle any and all commodities, and is used with a variable hopper drive at additional cost.

VARIABLE SHOE SHAKE

This feature controls the action of the commodity as it travels down the screens. Many cleaning jobs require more or less action. For instance, fast shake is needed to make grass seed flow over wire screens . . . slow speed insures best sifting of weed seeds from evenly shaped, smooth flowing seeds and grains. The variable shoe shake gives a wide, continuous range adjustment of screen movement up to approximately 450 vibrations per minute, allowing the operator to select the speed which produces the best cleaning results.

HI-STATIC FANS

Hi-static fans are standard equipment on the Clipper Super KV 4868 BD Cleaners. Larger motors and higher R.P.M. fan speeds are an option to enable this cleaner to be used with a dust filter system.

A dust filter system creates a static pressure up to three times greater than generated by a standard dust collector. Top fan speeds are increased to 1350 R.P.M. to operate against the increased resistance when filtering air through a fabric filter system before it is released into the atmosphere.

Hi-static fans are ruggedly constructed of cast steel with the hub and arms in one piece. The fans will not disintegrate at the higher speeds required.

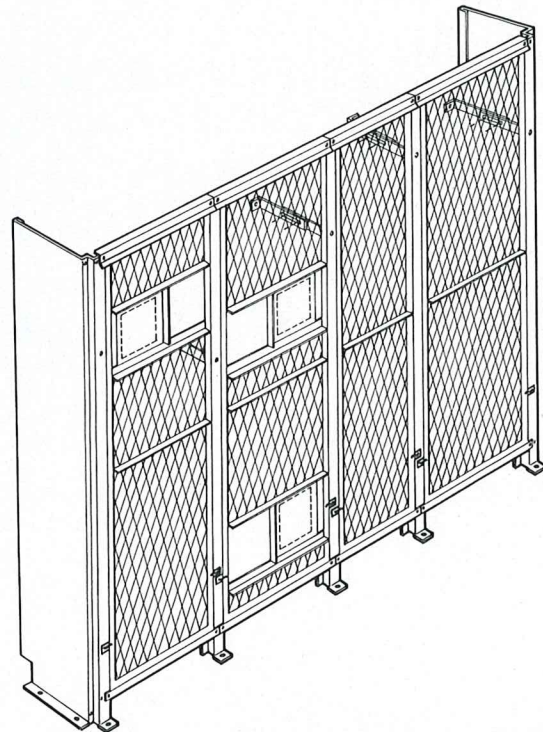
AUTOMATIC TRAVELING BRUSHES

These brushes cross back and forth under each screen, keeping screen perforations open. The nylon brushes are adjustable to compensate for bristle wear. The brush mechanism is activated by

the No. 80-77 double roller chain brush drive, assuring trouble-free operation.

V-BELT GUARDS

Modular guards are included as standard equipment to meet more stringent requirements for operator protection. They are built in sections of expanded metal . . . construction enables easy access for making adjustments to the cleaner and commodity sampling.



The above illustration shows examples of access opening positions with slide gate covers. End frames and slide gate covers are solid metal design.



SUPER KV4868-BD

TOP SECTION - AIR TRUNK PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
2	010-05500	Universal joint
2	011-00200	Valve ends, cast iron
4	011-00700	Angle, cast iron, 2 x 2 x 2
1	016-02600	Top fan shaft, 1-15/16" x 85-3/4"
1	016-13800	Valve shaft, no keyway, 3/4" x 2-1/2"
1	016-13920	Valve shaft, one keyway, 3/4" x 3-1/2"
1	018-05800	Hopper screw shaft with hole, 5/8" x 6"
1	043-13500	Pivot plate with plain nut
1	043-14800	Pivot lever with threaded nut
2	043-17500	Hopper angle supports, 23"
2	050-03900	Top air bleeder door assembly
23	051-01910	Flooring, 5-1/4" x 62"
2	051-02600	Board, 13-1/2" x 60-7/16"
1	051-04000	Door, 12" x 62"
8	051-11230	Flooring, 5-1/4" x 38"
1	051-16710	Partition board, 33-3/4" x 40-5/8"
1	053-13000	Bearing for adjusting handle
1	053-13900	Control handle, 1/2" x 22"
2	055-01230	Top fan housings (right or left)
2	055-02500	Hi-static top fans, 10" blades, 1-15/16"
1	125-00700	Rotary vane discharge
1	125-02300	Screw conveyor assembly, flipper type
1	125-03400	Spiral box housing, 4"
2	129-00100	62-MS Flangette chopped
2	924-00002	Bronzoil bearing, 1" bore
8	924-60301	RA103PPB Bearing, 1-3/16"
14	924-60310	62-MS Stamping
1	926-04118	16-Tooth Sprocket, 1-3/16" bore, for No. 41 chain
1	926-04124	24-Tooth Sprocket, 1" bore, for No. 41 chain

Super KV4868-BD

BOTTOM FAN ASSEMBLY PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
1	063-03610	Bottom drum iron, 61-5/8" x 88"
1	063-03620	Drum iron, 22-3/8" x 61-5/8"
1	063-03630	Drum iron, 29-1/4" x 61-5/8"
1	063-03800	Discharge bevel girt
1	063-03640	Breast iron
1	125-03400	Spiral box housing, 4"
1	016-11220	Bottom fan shaft, 1-1/2" x 83"
2	924-60301	RA103NPPB bearing, 1-3/16", for spiral box
4	924-60310	62-MS Flangette Stamping for RA103PPB bearing
1	197-02900	Sliding disc, spring end, 12" x 1-1/2"
1	197-01600	Stationary disc, 12" x 1-1/2"
1	927-00006	Spring for 12" x 1-1/2" stationary disc
1	197-00800	Hand nut for 1-1/2" shaft
2	924-01080	RAK Pillow block bearings, 1-1/2"
2	027-07300	Angle iron supports for bottom fan bearings
2	198-03600	Keys for bottom fan shaft
2	977-00052	Cone intakes for bottom blast fan

SUPER KV4868-BD

BACK HOOD SECTION PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
1	010-00700	Hand crank with wood knob
1	010-00900	Control lever, 3/4" bore
4	011-00200	Valve ends, cast iron
6	011-03300	Bearings, cast iron, 1" bore
1	016-13800	Valve shaft, not keyed, 3/4" x 2-2/1"
1	016-13920	Valve shaft, one keyway, 3/4" x 3-1/2"
1	016-13930	Valve shaft, 3/4" x 6"
1	018-05700	Screw shaft, 5/8" x 6-3/4"
1	018-08800	Back settling chamber adjusting plate
1	043-13500	Pivot plate with plain nut
1	043-14800	Pivot lever with threaded nut
1	053-09709	Top metal, 6" x 60-1/4"
1	066-05500	Hood door, 6" x 62"
1	068-02400	Back hood iron, 43" x 61-5/8"
1	068-02900	Back hood iron, 31" x 61-5/8"
2	071-00900	Back hood sides
1	073-03800	Back hood iron, 40" x 61"

SUPER KV4868-BD

BRUSH ADJUSTING SYSTEM PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
5	010-03002	Brush adjusting assembly, right hand
5	010-04901	Brush adjusting assembly, left hand - idler side
5	010-03001	Brush adjusting assembly, left hand
5	010-04902	Brush adjusting assembly, right hand - idler side
1	011-04110	3-Hole plates, cast iron, right hand, for brush jack
1	011-04120	3-Hole plates, cast iron, left hand, for brush jack
4	011-04300	One-hole plate, cast iron
5	012-00210	Brush adjusting pinion with set screws
5	012-00220	Brush adjusting pinions with keyway
2	012-00300	Rocker adjusting rack with keyway
8	012-00400	Brush adjusting racks, 6"
5	016-08330	Screen tilting rods, 3/4" x 60-1/2"
5	016-12110	Steel brush rods, 1-3/16" x 71"
8	016-03000	Brush rods, (tubing)
18	018-01700	Escutcheon plates for tilting rods
2	027-05610	Hanger plates, 1" x 2-7/8", tapped for stud bolts
4	118-13000	Brush rod supports
20	010-00200	Rope sheave assembly
2	010-01310	Idler stool, 3-3/4"
4	095-01700	Brush carrier assembly with bolt, 25" x 72-3/4"
1	095-01900	Brush carrier assembly, 25" x 46"
8	100-01220	Coarse nylon brushes, 76" long
2	100-02220	Coarse divided nylon brushes, 49-1/2"
1	018-07100	Cable clamp wrench, 1" x 50-1/2"

USE 1" DIA ROLLERS

SUPER KV4868-BD

ECCENTRIC SHAFT ASSEMBLY PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
1	016-29901	Top eccentric shaft, 1-1/2" x 83"
1	016-29902	Bottom eccentric shaft
2	016-15620	Countershaft, 1-1/2" x 86-1/2"
4	195-03600	Ball bearing eccentric, 1-1/2" bore, 1/2" throw, 2 - right hand, 2 - left hand
2	196-10100	Wood pitman, top shoe
2	196-10200	Wood pitman, bottom shoe
2	196-10000	Wood pitman scalper ← MAY NOT BE RIGHT
10	924-01080	RAK Pillow block bearings, 1-1/2"
1	924-41083	#7475 Pillow block bearing and housing
3	197-01600	Stationary disc, 12" x 1-1/2"
2	197-02900	Sliding disc, spring end, 12" x 1-1/2"
2	197-01400	Sliding disc, thrust end, 12" x 1-1/2"
4	924-52090	B34 Thrust bearing
2	195-00700	Adjusting nut with handle for 1-1/2" shaft
4	198-03600	Keys, 3/8" x 3/8" x 6-1/4"
2	193-21400	Eccentric bearing brackets for top & bottom ecc. shafts
1	033-32400	Pitman angle iron
7	033-32630	Counter weights
1	197-02920	Sliding disc, spring end, 12" x 1-1/2", 2-7/8" hub

*01100
196-05300
USE SAME # FOR BOTH.
MAY NOT BE RIGHT*

SUPER KV4868-BD

SCALPER SHOE PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
2	035-00600	Standard rocker cups
2	035-00800	Standard screen hook assembly
1	036-00600	Rocker adjusting girt, 53-1/2", (straight)
1	036-01230	Rocker adjusting girt, 53-1/2", (beveled)
2	036-01410	Wood rockers only, 60" long
14	038-00020	Rocker braces
12	038-00400	Screenway liner, 60", metal only
24	038-00800	Rocker adjusting clips
18	038-00900	Angle braces for rockers
4	038-01100	Metal holding strips, 1-3/8" x 60"
4	039-00100	Screenway rubbers, 2-1/2" x 2 ply x 60"
8	038-00600	Rocker screen stops, new style
1	035-02220	Rocker assembly complete, with liners, cups, etc.
1	030-24100	Scalper shoe complete
3	031-20400	Oak shoe runner, 1-5/8" x 1-3/4" x 58"
3	031-20270	Pitman board, 7-1/2" x 57-1/8"
2	031-41300	Scalper shoe sides
1	033-00720	Shoe bottom metal, 20" x 56-1/2"
1	033-00820	Shoe bottom metal, 28" x 56-1/2"
2	033-28700	Grain deflector, 2-1/2" x 2-1/2"

SUPER KV4868-BD

TOP SHOE PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
1	031-01520	Beveled shoe nosing board, 7-1/2" x 57-1/8"
1	031-18320	Bottom shoe board, 9" x 57-1/8"
1	031-20270	Pitman board, 7-1/2" x 57-1/8"
2	031-20400	Shoe runners, oak, 1-5/8" x 1-3/4" x 58"
1	031-25110	Beveled board, 12" x 57-1/8"
1	033-00820	Shoe bottom metal, 28" x 56-1/2"
2	033-20411	Shoe bottom metal, 36" x 56-1/2"
1	033-23020	Shoe nosing, 8-1/16" x 55-3/16"
1	033-23130	Top shoe pitman board cover
2	033-32701	Back shoe hanger plates
2	033-32702	Front shoe hanger plates
2	033-32704	Mill side hanger plates
1	030-24410	Top shoe complete
1	036-02532	Top rocker assembly - complete top shoe
1	036-02533	Bottom rocker assembly - complete top shoe
6	088-00500	Millside hanger plates, 2" x 4"
4	186-02801	Shoe hangers with needle bearing, 12", left hand
4	186-02802	Shoe hangers with needle bearing, 12", right hand
16	924-31040	No. 7235 Needle bearings for shoe hangers
16	924-31000	IR No. 7235 Inner race for shoe hangers

SUPER KV4868-BD

BOTTOM SHOE PARTS LIST

Bot Shoe
ASSY LESS
ROCKERS
030-25475 RH.
030-25476 LH.

QTY.	PART NUMBER	DESCRIPTION
8	010-04500	Heavy duty screen hooks
1	031-02510	Bottom shoe board, 6" x 57-1/8"
4	033-10030	Grain stop, 2-1/2" x 54-3/4", (rubber and metal)
4	035-00810	Top rocker screen hook
5	036-00600	Straight rocker adjusting girt, 53-1/2"
4	036-01230	Beveled rocker adjusting girt, 53-1/2"
4	036-01410	Wood rocker arms only
2	038-00020	Rocker braces
4	038-00430	Screenway liners for 86" screens
6	038-00800	Metal clips for rocker adjusting stick
14	039-00120	Screenway rubber, 2-1/2" x 2 ply x 86"
14	038-01110	Metal holding strips for screenway rubbers
8	038-06000	Rocker screen stops - new style
1	036-02530	Top rocker assembly complete
1	036-02531	Bottom rocker assembly complete
1	030-24420	Bottom shoe complete
1	038-06100	Telescoping apron
2	033-00720	Shoe bottom metal, 20" x 56-1/2"
1	033-20411	Shoe bottom metal, 36" x 56-1/2"
1	033-20412	Shoe bottom metal, 42-3/4" x 56-1/2"

2- 063-04100 DISCHG BEV.
GIRT DELECT.
4718 x 742

SUPER KV4868-BD

SPOUTS

QTY.	PART NUMBER	DESCRIPTION
1	080-06500	Front feed spout
1	085-00700	Front catchall spout
1	080-06700	Front feed spout
1	080-06600	Back feed spout
6	011-01700	Flange bearing, 111" - 3/4" bore
1	083-08810	Straw spout

018--06301 DIVIDER PAN GATE SEALER

SUPER KV4868-BD

MISCELLANEOUS PARTS LIST

QTY.	PART NUMBER	DESCRIPTION
1	010-03300	No. 50 Chain tightener assembly
1	011-03300	Bearing, cast iron, 1" bore, for tightener
1	018-08700	Screen hook puller, 18"
2	018-10400	Cable guide for rope spool
2	018-10501	Rope sheave bracket adapter, 1-1/2"
2	018-10502	Rope sheave bracket adapter, 1"
1	018-11800	Screen hook puller, 60"
1	013-07400	Flywheel, 20" wide - 1-1/2" bore
	129-00000	Screw conveyors -

NOTE: Mention where used on cleaner, diameter and length of shaft, diameter of spiral - 4" or 5", also discharge end.

DRIVE INFORMATION - SUPER KV4868-BD

1000 R.P.M. - TOP FAN TO TOP COUNTERSHAFT

- 1 - 2B6.6 sheave to ~~20~~ 15.4 sheave
- 2 - B195 V-belts

1350 R.P.M. - TOP FAN TO COUNTERSHAFT

- 3 - 3B4.8 sheave to 3 - 3B15.4 sheave
- 3 - B195 V-belts

TOP COUNTERSHAFT TO BOTTOM COUNTERSHAFT

- 1 - 3B7.4 sheave to 1 - 3B7.4 sheave
- 3 - B180 V-belts

TOP COUNTERSHAFT TO TOP ECCENTRIC SHAFT

- 12" Discs
- ATF34 Variable belt

BOTTOM COUNTERSHAFT TO BOTTOM FAN

- 12" Discs
- ATF150 Variable belt

TOP ECCENTRIC SHAFT TO BOTTOM ECCENTRIC SHAFT

- 26-Tooth to 26-Tooth
- No. 50 Roller chain sprockets
- 83" - No. 50 Roller chain

TOP COUNTERSHAFT TO HOPPER

- 1 - 1B3.6 sheave to 1 - 1B16.6 sheave
- 1 - B105 V-belt

TOP COUNTERSHAFT TO TOP SCREW CONVEYOR

- 1 - 1B3.0 sheave to 1 - 1B12.4 sheave
- 1 - ~~B128~~ V-belt **133**

BOTTOM COUNTERSHAFT TO BOTTOM SHOE SCREW CONVEYOR

- 1 - 1B5.4 sheave to 1 - 1B12.4 sheave
- 1 - B120 V-belt

BOTTOM SHOE SCREW CONVEYOR TO TOP SHOE SCREW CONVEYOR

- 1 - 1B5.4 sheave to 1 - 1B5.4 sheave
- 1 - B105 V-belt

BOTTOM SHOE SCREW CONVEYOR TO BACK AIR SCREW CONVEYOR

- 1 - 1B6.2 sheave to 1 - 1B6.2 sheave
- 1 - B83 V-belt

BOTTOM COUNTERSHAFT TO BRUSH DRIVE

- 1 - 1B3.6 sheave to 1 - 1B9.4 sheave
- 1 - B85 V-belt

- 2 - 917-00001.....28H200 Timing sheave to 28H200 sheave
- 1 - 911-00800.....800H200 Timing belt

NOTE: Above timing sheaves & belts used in place of No. 50 chain.

- 1 - 018-10600.....Idler complete for timing belt
- 198-07900 &
- 198-08000 - Steel drive guards for timing belt

