



AdvantEdge Owners' Manual

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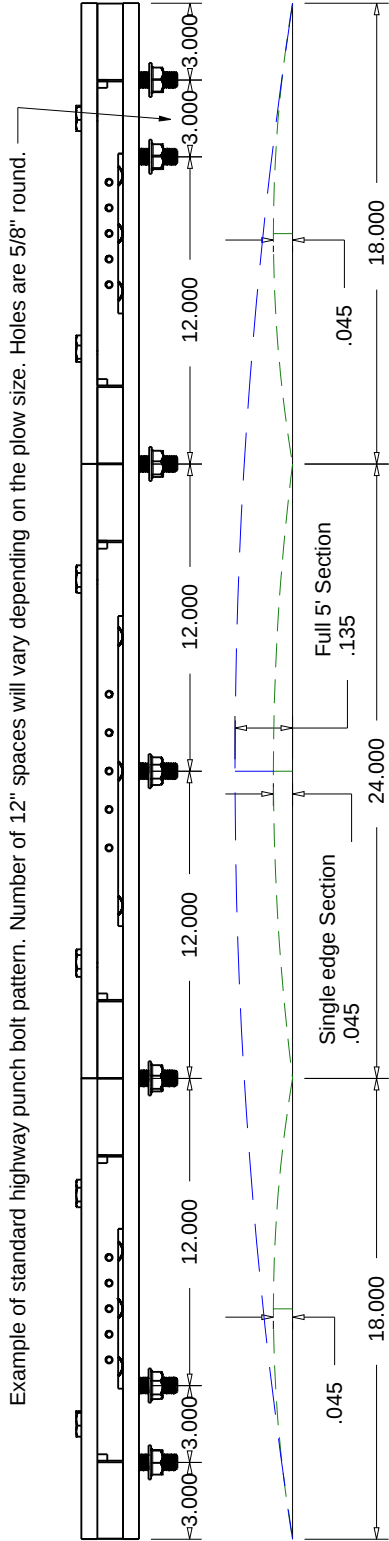




Acceptable warpage

Maximum acceptable warpage on product attachment point is .045" (3/64") arc radius using a straight edge as the chord per cutting edge section.

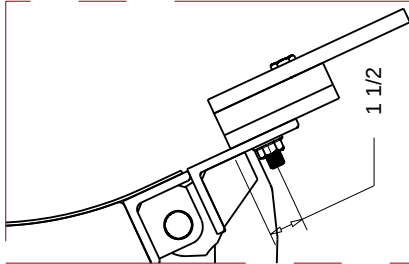
Installing the KAGE AdvantEdge on products warped beyond this point will cause cutting edges to bind, restricting vertical motion.



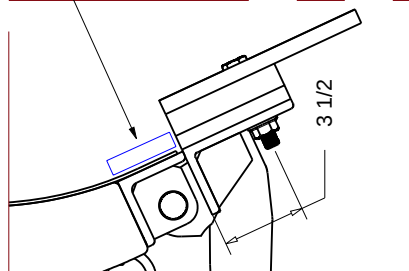
Chord representation not shown to scale.

Installation height

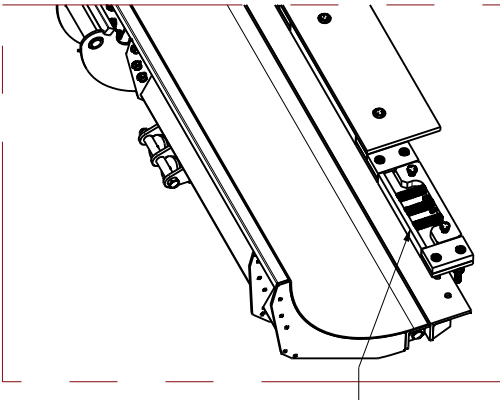
SS Version



SF Version



Spring count by plow weight



AdvantEdge comes assembled and bolts directly to virtually any standard highway punch plow or pusher. (See above)

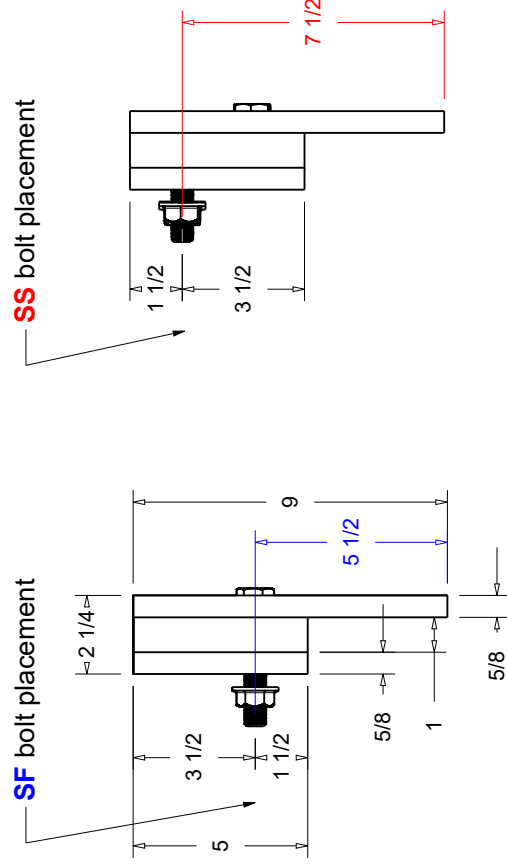
Do not bolt over moldboard (blue dashes).
Two mounting heights are available.

To calculate the total number of springs, divide the weight of your plow by 128.7. Then divide that number by the number of cutting edges. Numbers that do not divide by the number of cutting edges may be rounded up or down depending on your requirements.

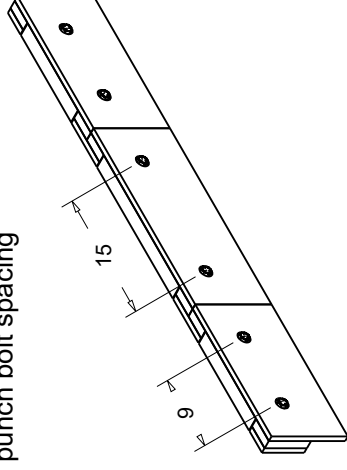
Example: 14' Kage plow without box

14' Plow weight 3089 lbs / 128.7 = 24 Springs
24 total springs / 8 cutting edges = 3 springs per cutting edge

Kage AdvantEdge Weight and Dimensions



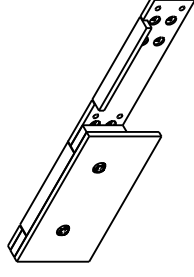
Cutting Edge bolt patterns are NOT standard
highway punch bolt spacing



Other bolt patterns may be available, call Kage for assistance

Part Name	Part Number	Section Qty	Cutting Edge Steel	Usable Cutting Edge	Vertical Travel	Max Peaking Angle of Sections	Weight in lbs	Attachment Bolt Pattern
SF AdvantEdge 8'	SFAE8	2 x 4'	Hardox® 500	3"	1.375"	2°	311	Highway Punch
SF AdvantEdge 9'	SFAE9	3 x 3'	Hardox® 500	3"	1.375"	2°	363	Highway Punch
SF AdvantEdge 10'	SFAE10	2 x 5'	Hardox® 500	3"	1.375"	2°	397	Highway Punch
SF AdvantEdge 12'	SFAE12	4 x 3'	Hardox® 500	3"	1.375"	2°	484	Highway Punch
SF AdvantEdge 14'	SFAE14	2 x 3' + 2 x 4'	Hardox® 500	3"	1.375"	2°	554	Highway Punch
SS AdvantEdge 10'	SSAE10	2 x 5'	Hardox® 500	3"	1.375"	2°	397	Highway Punch
SS AdvantEdge 12'	SSAE12	4 x 3'	Hardox® 500	3"	1.375"	2°	484	Highway Punch
SS AdvantEdge 14'	SSAE14	2 x 3' + 2 x 4'	Hardox® 500	3"	1.375"	2°	554	Highway Punch

Kage AdvantEdge Bolt Patterns

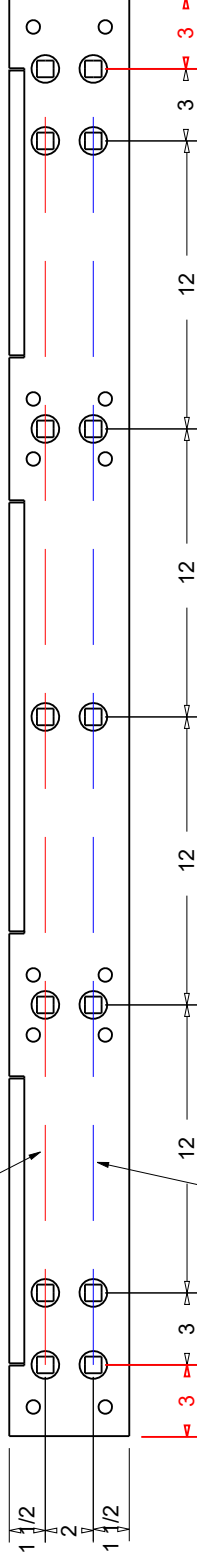


Below are the bolt patterns of the plate that will attach to your plow.

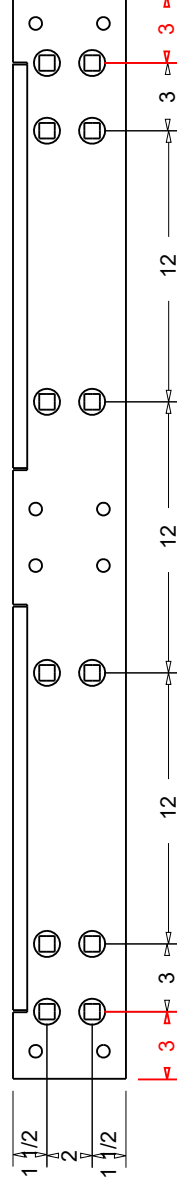
The horizontal spacing is known as "standard highway punch".

Two height options are available. Choose either SF or SS bolt placement for the pre-assembled AdvantEdge kit.

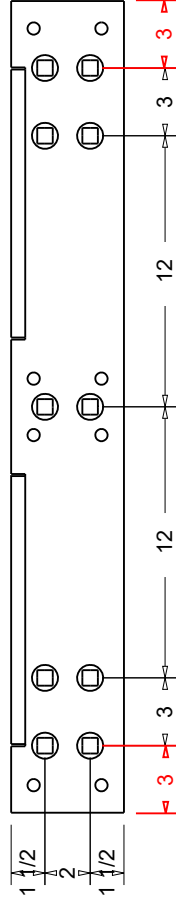
SS bolt placement



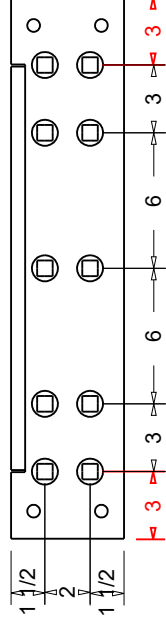
SF bolt placement



3' Section SF



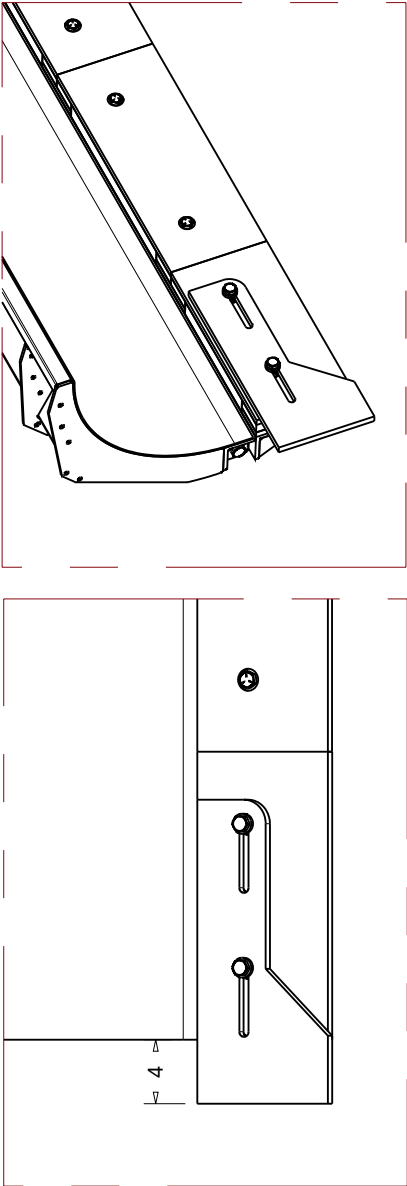
2' Section SF (Not Highway Punch)



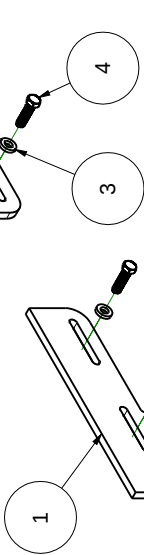
Kage AdvantEdge Edge Extensions



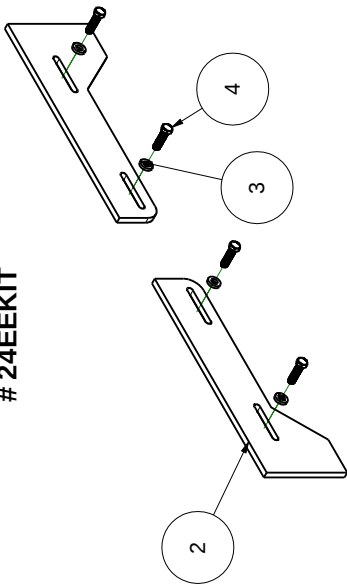
Snow pushers equipped with the Kage AdvantEdge that require additional cutting edge length may be fitted with an extension kit. The kits attach over either an 18" or 24" cutting edge. They can extend the edge length from 0 to 4" closing any gaps between the edge and the pushers sides. Typically this is only required by pushers sized in foot and a half widths.



18 Edge Extension Kit
18EEKIT



24 Edge Extension Kit
24EEKIT



Item Number	Part Name	Part Number	Revision	Quantity
1	Edge Extension 18	SBCEE18	1	2
2	Edge Extension 24	SBCEE24	1	2
3	Flat Washer 5/8 x 1.25 x .25 Thick	91201A035		4
4	Hex Bolt GR8 5/8-11 x 2.25	91257A803		4

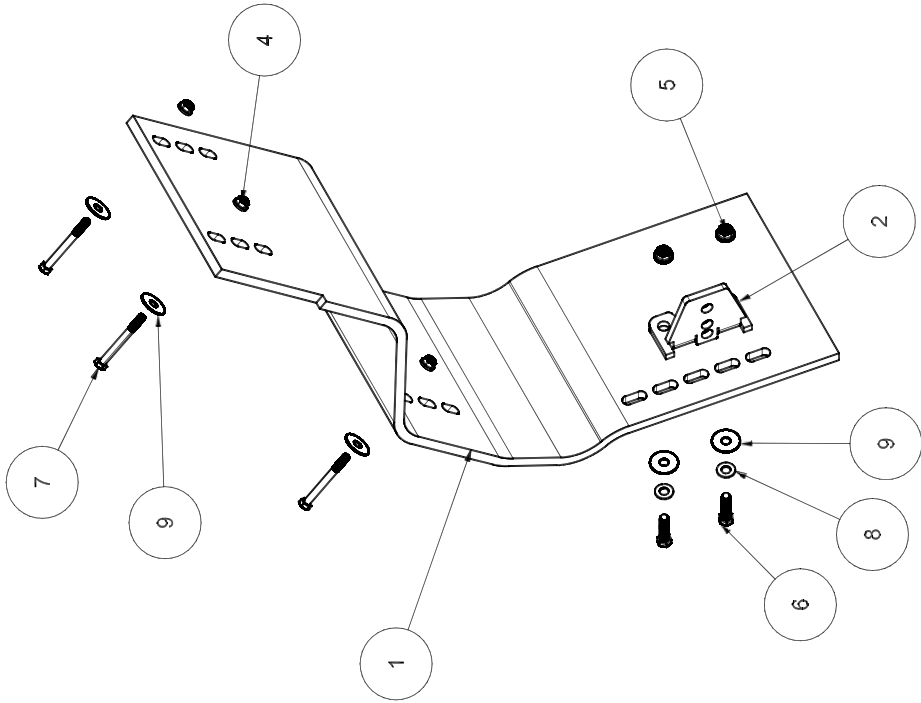
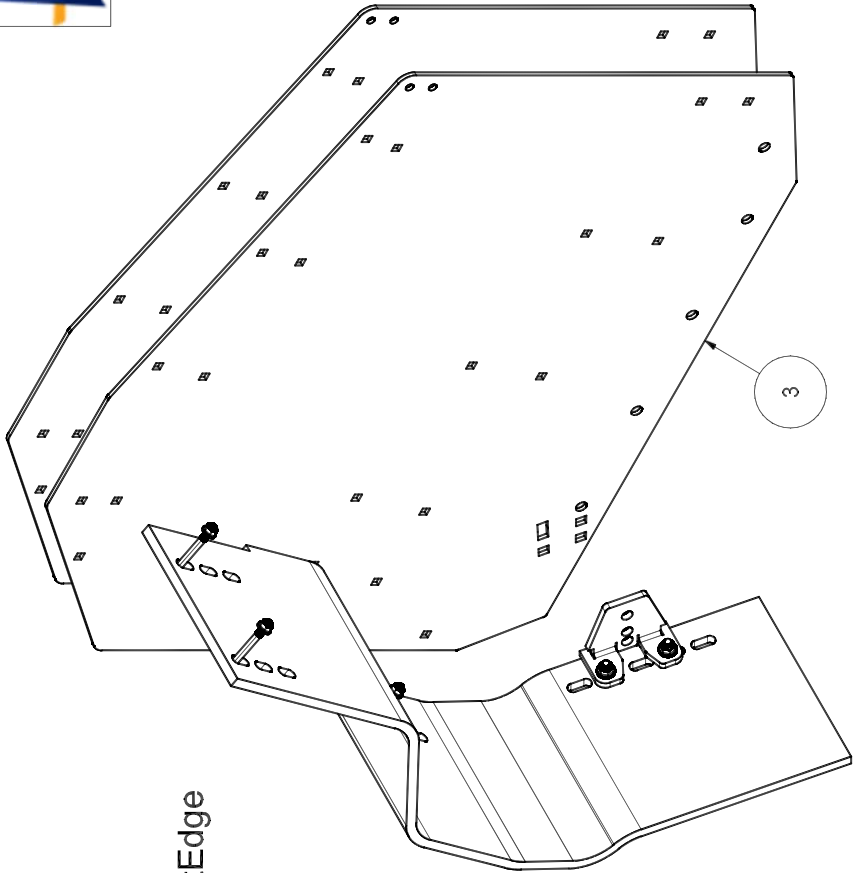
AdvantEdge Snow Catch Kit

Version# 1

Version Starting Serial #



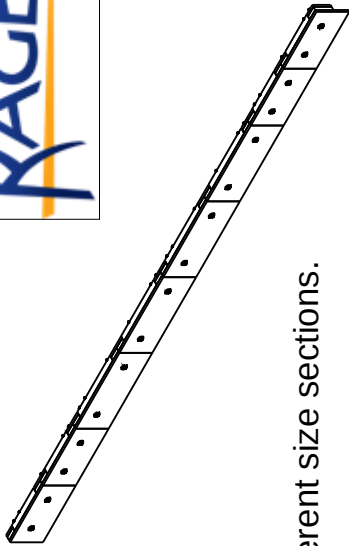
Kage Snowfire plow systems being fitted with an AdvantEdge will require an upgraded Snow Catch Kit show below.



Item Number	Part Name	Part Number	Revision	Quantity
1	Snow Catch	N42-2	64	2
2	Snow Catch Angle AdvantEdge	223-2RAE	1	2
3	Side Panel	363-75	67	2
4	Flange Locknut 5/16-18	92018A320	BLANK	6
5	Flange Locknut, 3/8 -16	93298A130	BLANK	4
6	Hex Bolt GR5 3/8-16 x 1.5	92865A628	BLANK	4
7	Hex Bolt, 5/16 - 18 x 3	91247A595	BLANK	6
8	Flat Washer 3/8	ROC-8071-031	BLANK	4
9	Fender Washer, 3/8	91090A121	BLANK	10

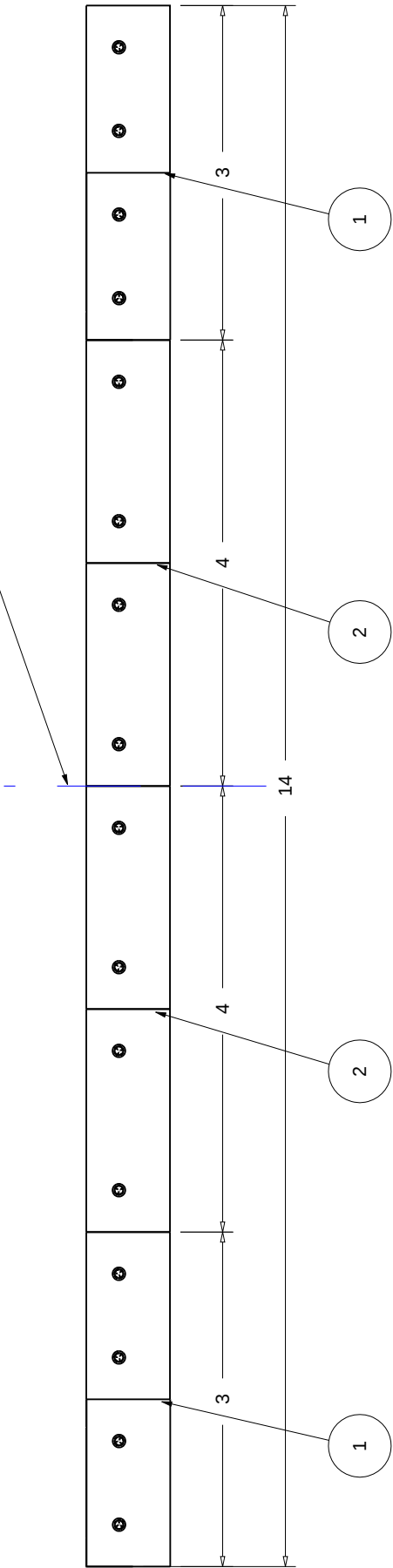
AdvantEdge SS Assembly 14
SSAE14

Version# 1
Version Starting Serial #



Nearly any size plow or pusher can be accommodated by selecting different size sections.
Sections come in 2, 3, 4, and 5 foot lengths.
Note if your attachment point is split in the center.

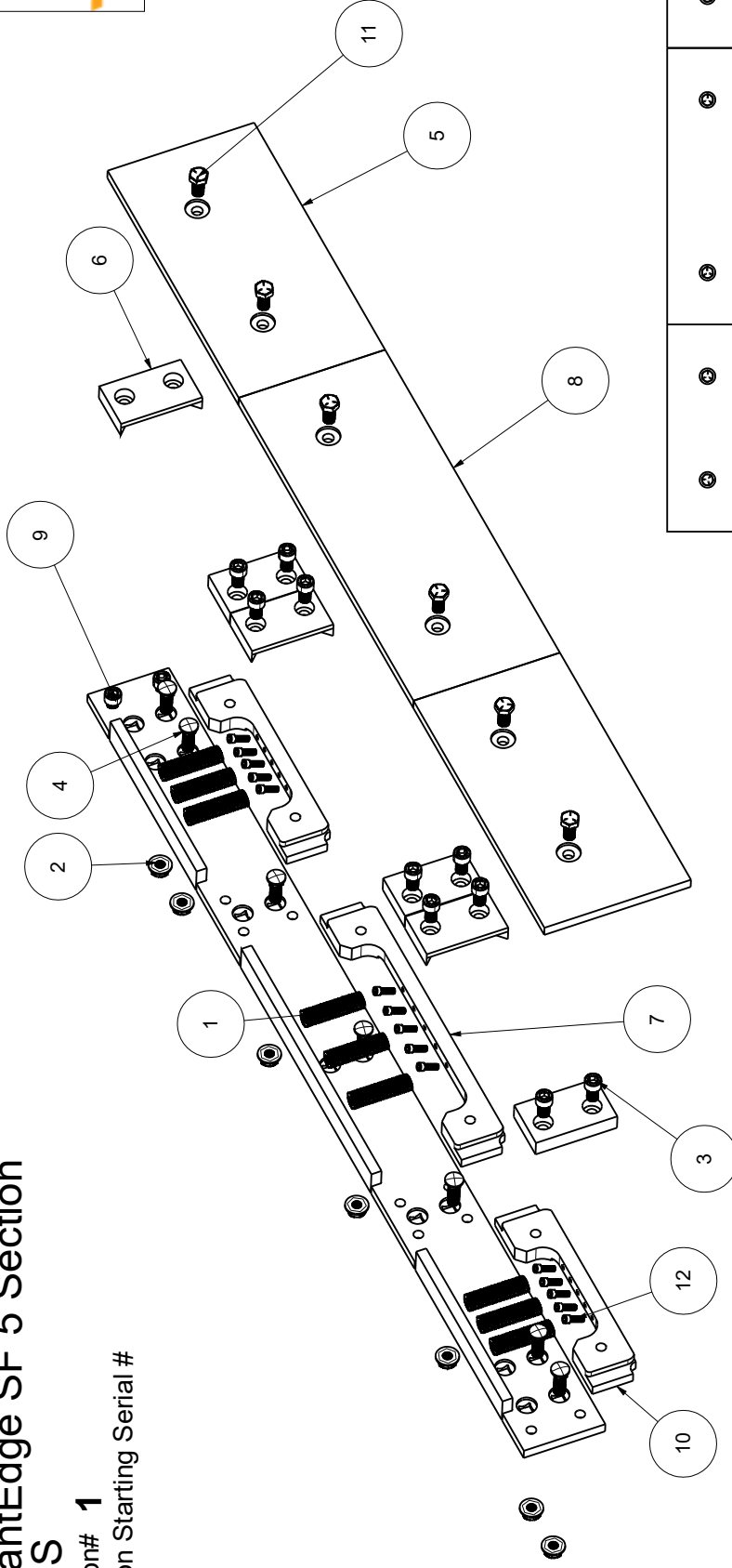
Below is an example of a 14' plow.



Item Number	Part Name	Part Number	Quantity
1	AdvantEdge SS 3 Section	SS3S	2
2	AdvantEdge SS 4 Section	SS4S	2

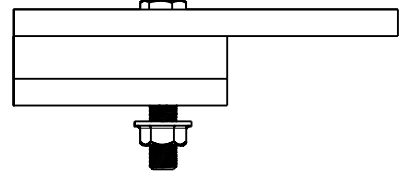
AdvantEdge SF 5 Section SF5S

Version# 1
Version Starting Serial #



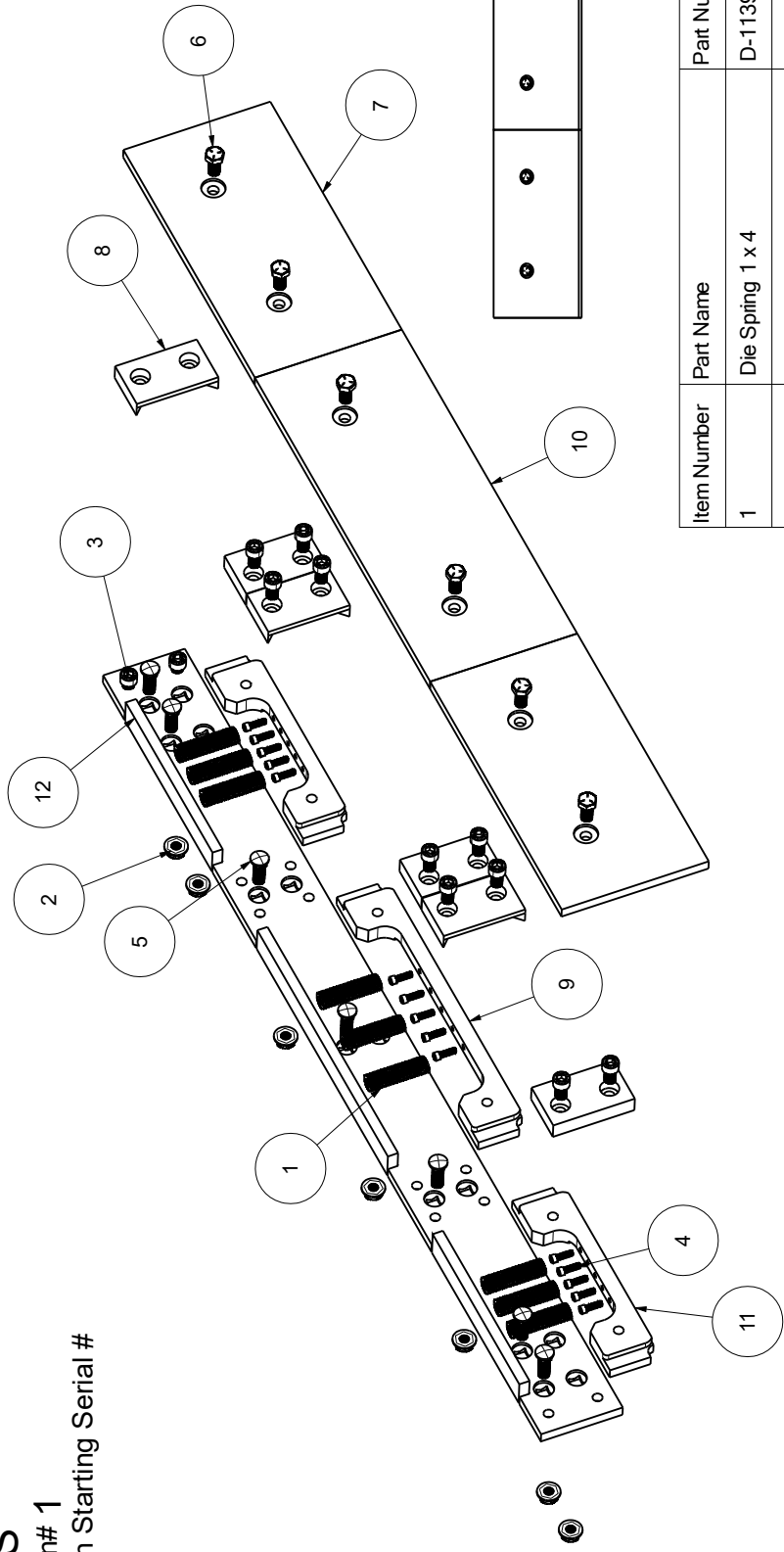
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Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		9
2	Flange Locknut 5/ 8-11	3221357		7
3	Socket Head Screw 5/ 8-11 x 1	90128A510		12
4	Plow Bolt 5/ 8-11 x 2"	90934A802		7
5	18 Cutting Edge	SBC18FE	Hardox 500	2
6	7SLot	FE107	CR 1018	6
7	SlideBar 24	FE124	CR 1018	1
8	24 Cutting Edge	SBC24	Hardox 500	1
9	BackPlate 5FT Weldment	FE100		1
10	SlideBar 18	FE118	CR 1018	2
11	Hex Bolt 5/ 8-11 x 1.25	92865A796		6
12	Socket Head Bolt 5/ 16-18 x 1	91251A583		15



AdvantEdge SS 5 Section
SS5S

Version# 1
Version Starting Serial #



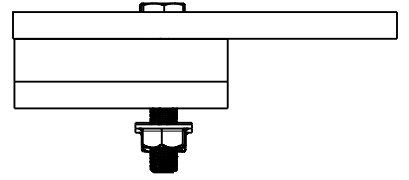
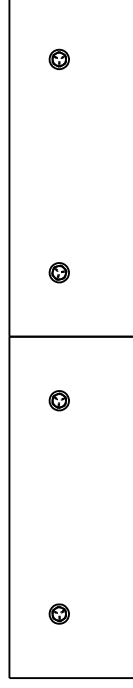
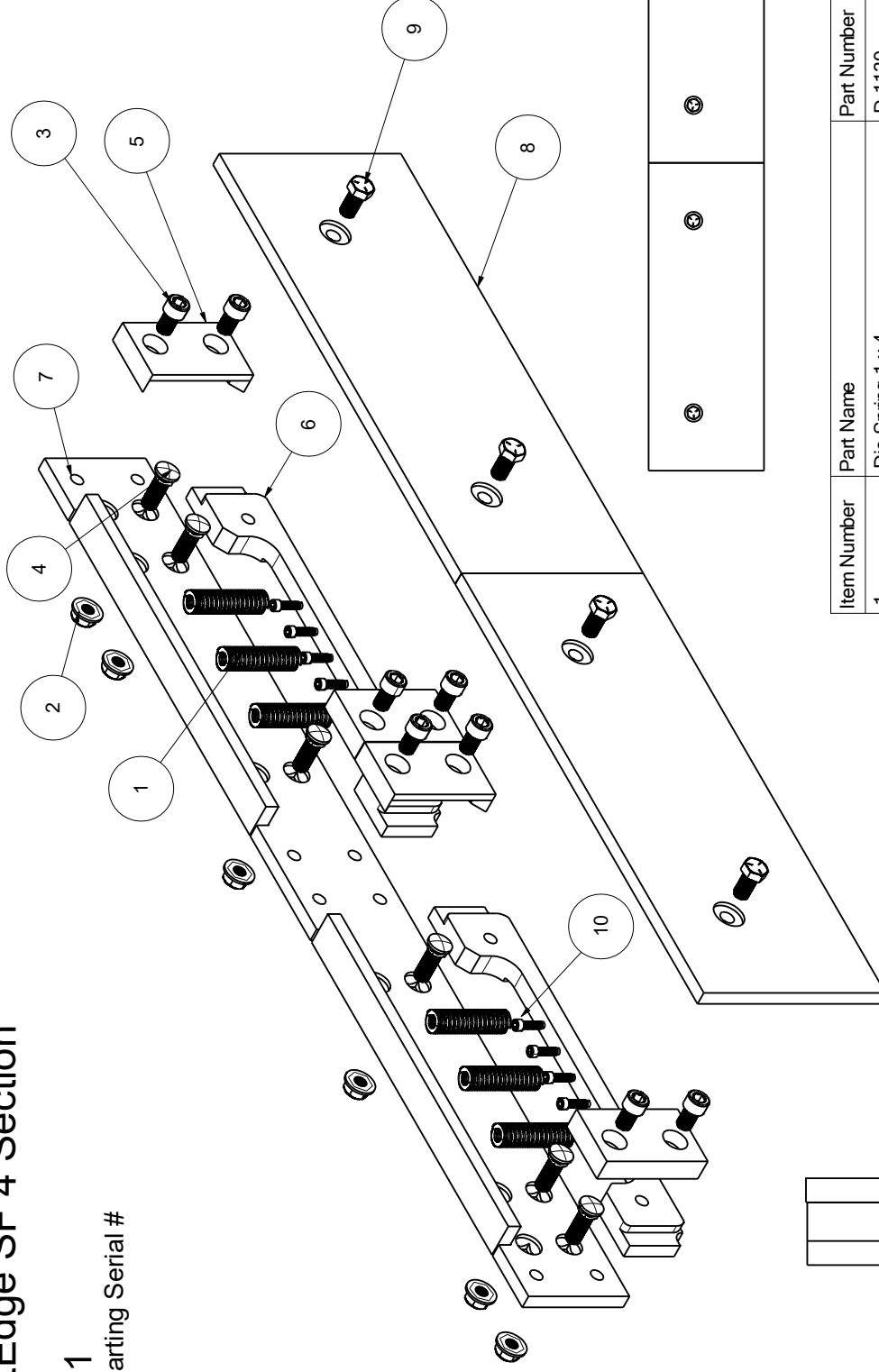
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Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		9
2	Flange Locknut 5/ 8-11	3221357		7
3	Socket Head Screw 5/ 8-11 x 1	90128A510		12
4	Socket Head Bolt 5/ 16-18 x 1	91251A583		15
5	Plow Bolt 5/ 8-11 x 2"	90934A802		7
6	Hex Bolt 5/ 8-11 x 1.25	92865A796		6
7	18 Cutting Edge	SBC18FE	Hardox 500	2
8	7SLot	FE107	CR 1018	6
9	SlideBar 24	FE124	CR 1018	1
10	24 Cutting Edge	SBC24	Hardox 500	1
11	SlideBar 18	FE118	CR 1018	2
12	BackPlate 5FT Weldment	FE100		1

AdvantEdge SF 4 Section SF4S

Version# 1

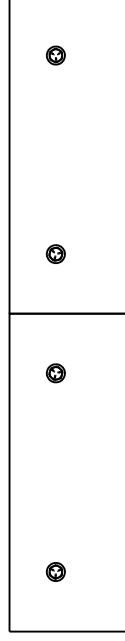
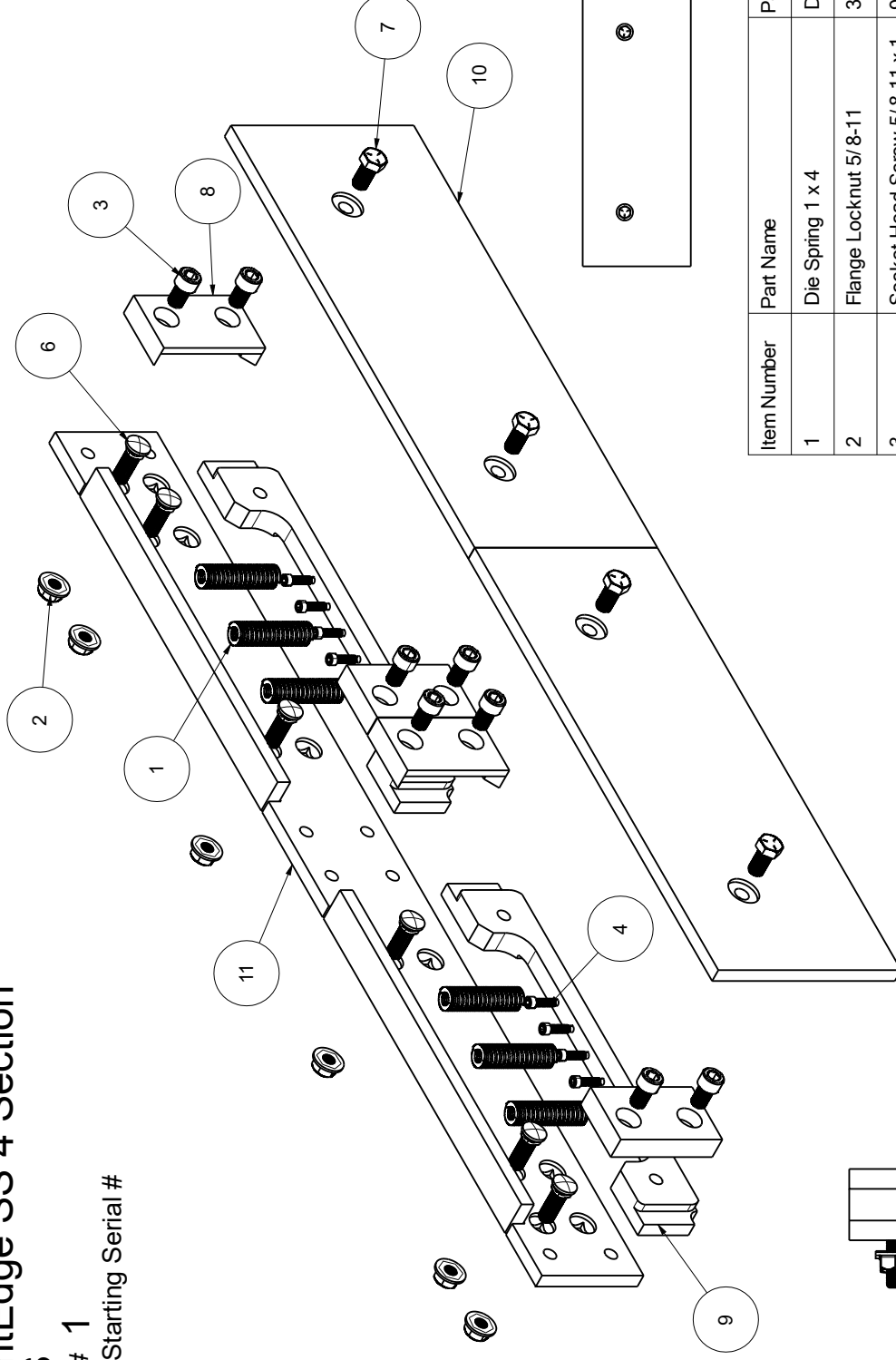
Version Starting Serial #



Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		6
2	Flange Locknut 5/8-11	3221357		6
3	Socket Head Screw 5/8-11 x 1	90128A510		8
4	Plow Bolt 5/8-11 x 2"	90934A802		6
5	7SLot	FE107	CR 1018	4
6	SlideBar 24	FE124	CR 1018	2
7	BackPlate 4FT Weldment	FE90		1
8	24 Cutting Edge	SBC24	Hardox 500	2
9	Hex Bolt 5/8-11 x 1.25	92865A796		4
10	Socket Head Bolt 5/16-18 x 1	91251A583		10

AdvantEdge SS 4 Section SS4S

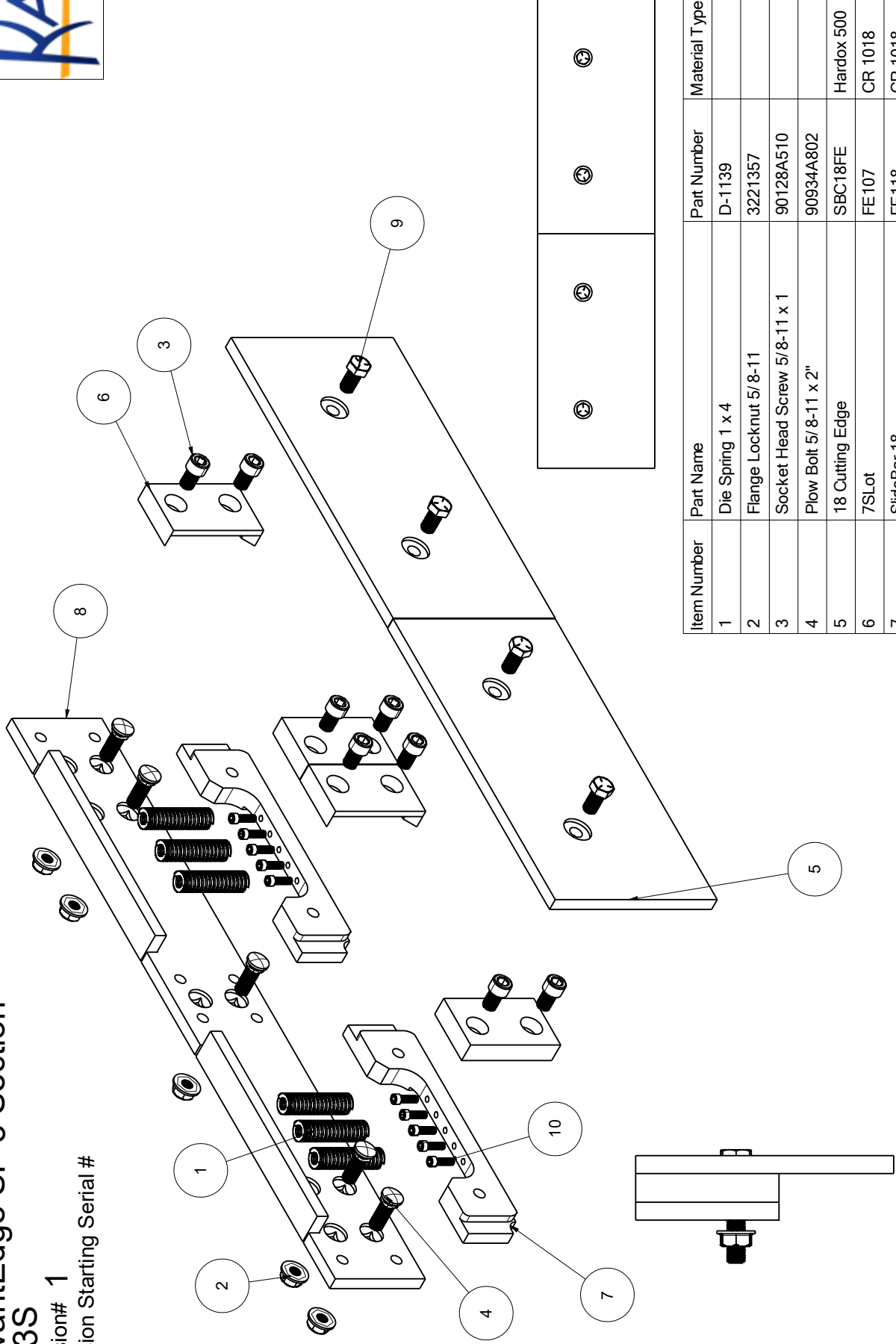
Version# 1
Version Starting Serial #



Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		6
2	Flange Locknut 5/8-11	3221357		6
3	Socket Head Screw 5/8-11 x 1	90128A510		8
4	Socket Head Bolt 5/16-18 x 1	91251A583		10
6	Plow Bolt 5/8-11 x 2"	90934A802		6
7	Hex Bolt 5/8-11 x 1.25	92865A796		4
8	7S lot	FE107	CR 1018	4
9	SlideBar 24	FE124	CR 1018	2
10	24 Cutting Edge	SBC24	Hardox 500	2
11	BackPlate 4FT Weldment	FE90		1

AdvantEdge SF 3 Section SF3S

Version# 1
Version Starting Serial #

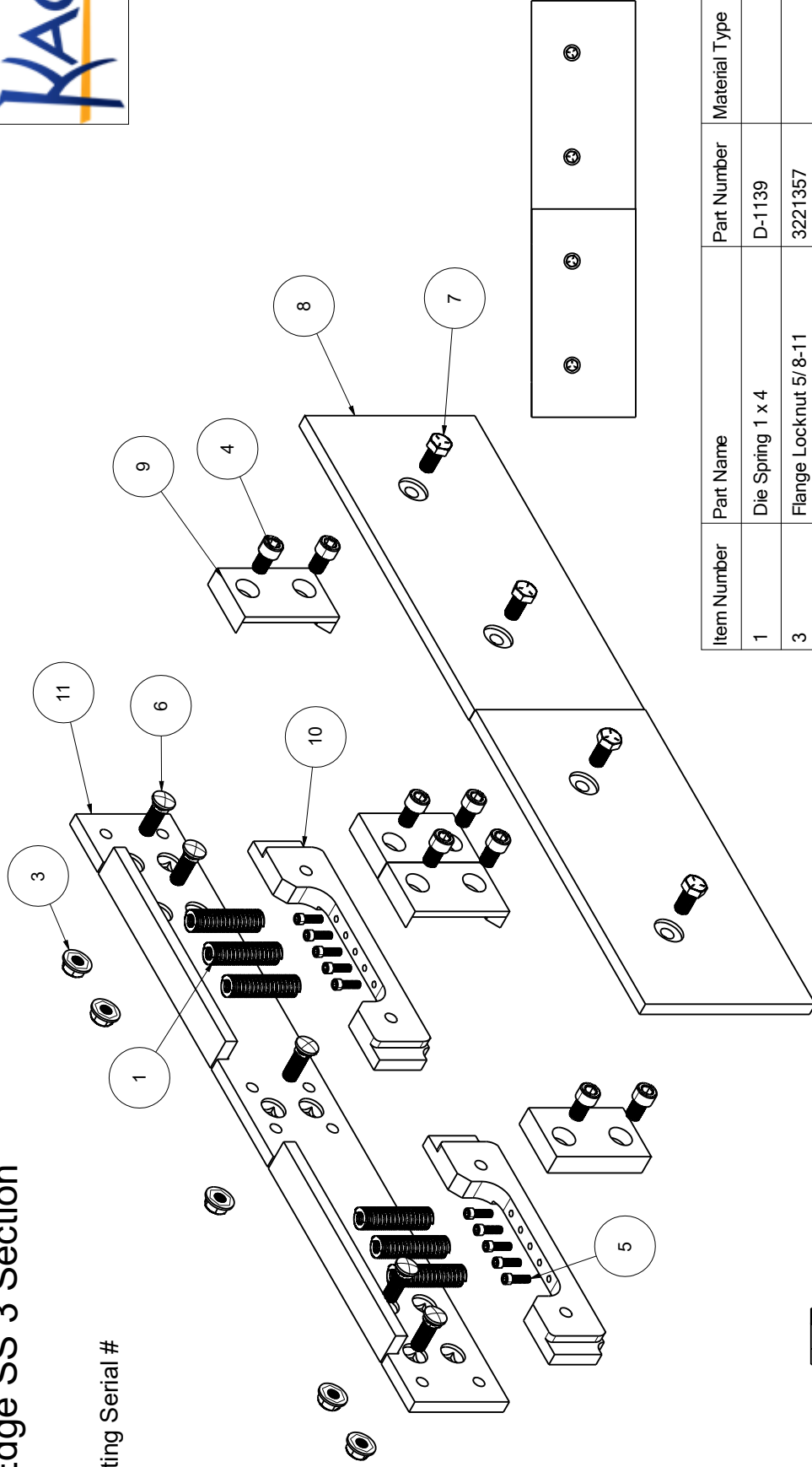


Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		6
2	Flange Locknut 5/8-11	3221357		5
3	Socket Head Screw 5/8-11 x 1	90128A510		8
4	Plow Bolt 5/8-11 x 2"	90934A802		5
5	18 Cutting Edge	SBC18FE	Hardox 500	2
6	7/SLot	FE107	CR 1018	4
7	SlideBar 18	FE118	CR 1018	2
8	BackPlate 3FT Weldment	FE80		1
9	Hex Bolt 5/8-11 x 1.25	92865A796		4
10	Socket Head Bolt 5/ 16-18 x 1	91251A583		10

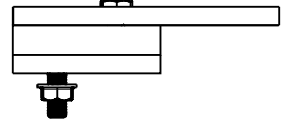
AdvantEdge SS 3 Section SS3S

Version# 1

Version Starting Serial #



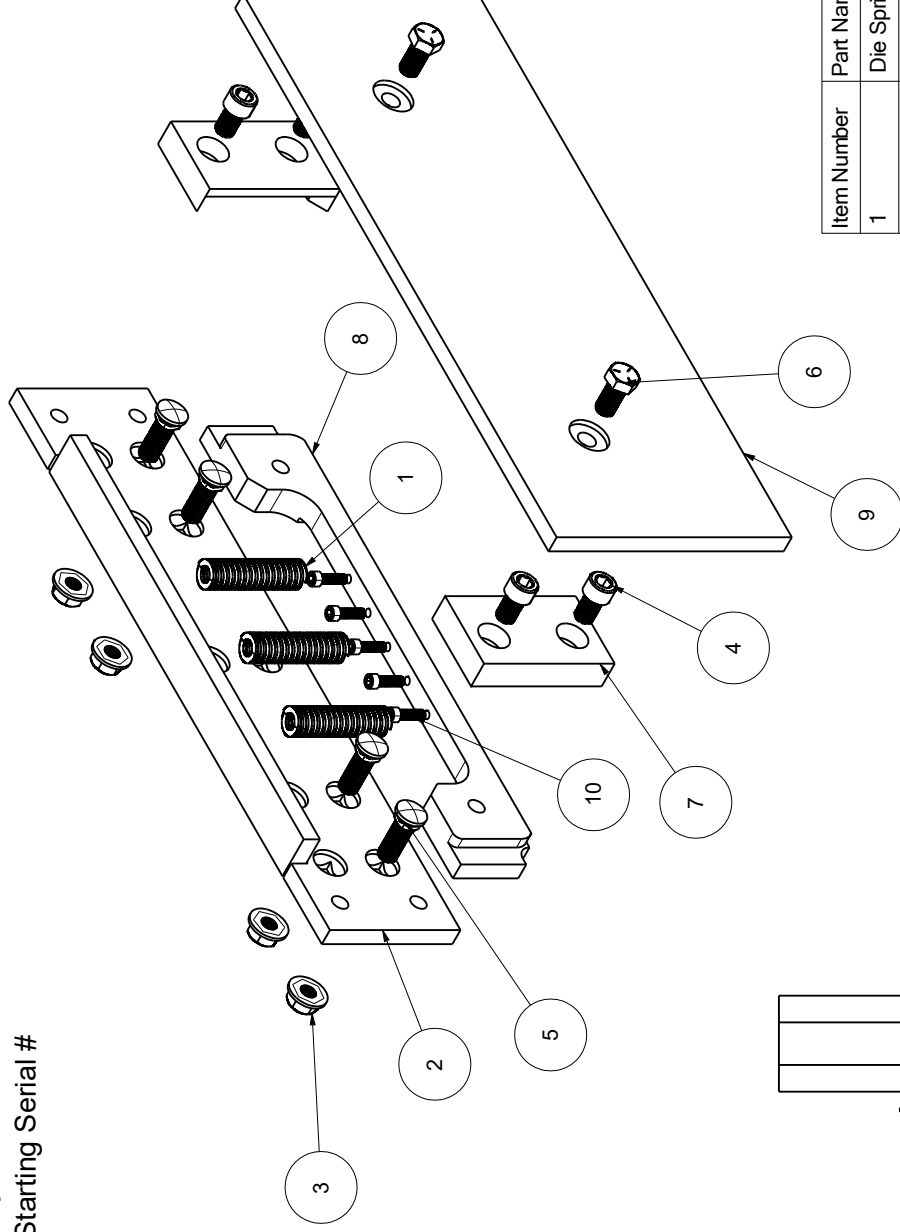
Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		6
3	Flange Locknut 5/8-11	3221357		5
4	Socket Head Screw 5/8-11 x 1	90128A510		8
5	Socket Head Bolt 5/16-18 x 1	91251A583		10
6	Plow Bolt 5/8-11 x 2"	90934A802		5
7	Hex Bolt 5/8-11 x 1.25	92865A796		4
8	18 Cutting Edge	SBC18FE	Hardox 500	2
9	7SLot	FE107	CR 1018	4
10	SlideBar 18	FE118	CR 1018	2
11	BackPlate 3FT Weldment	FE80		1



AdvantEdge SF 2 Section SF2S

Version# 1

Version Starting Serial #

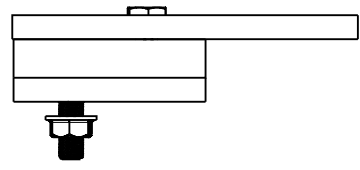
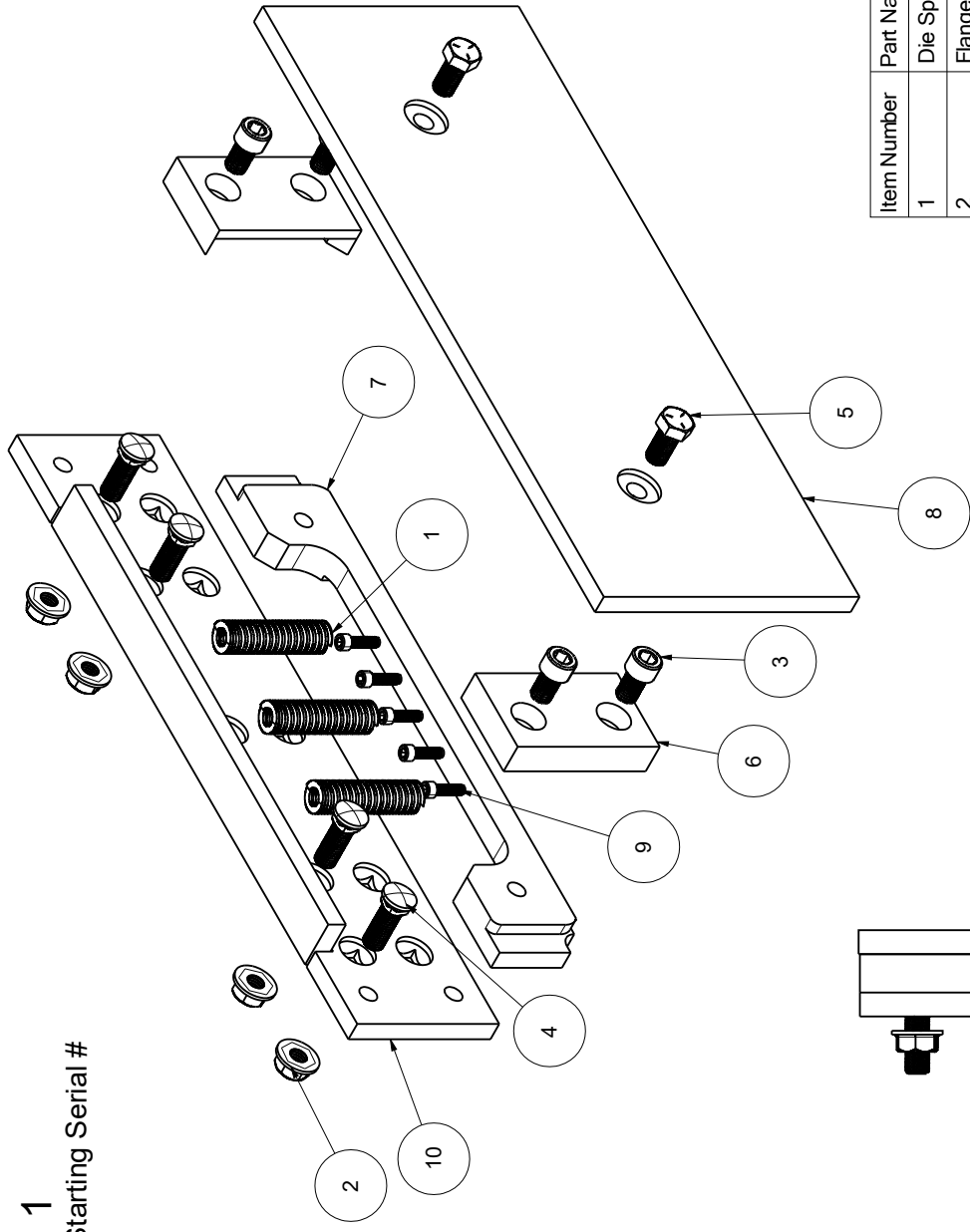


Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		3
2	BackPlate 2FT Weldment	FE24		1
3	Flange Locknut 5/8-11	3221357		4
4	Socket Head Screw 5/8-11 x 1	90128A510		4
5	Plow Bolt 5/8-11 x 2"	90934A802		4
6	Hex Bolt 5/8-11 x 1.25	92865A796		2
7	7SLot	FE107	CR 1018	2
8	SlideBar 24	FE124	CR 1018	1
9	24 Cutting Edge	SBC24	Hardox 500	1
10	Socket Head Bolt 5/16-18 x 1	91251A583		5

AdvantEdge SS 2 Section
SS2S

Version# 1

Version Starting Serial #



Item Number	Part Name	Part Number	Material Type	Quantity
1	Die Spring 1 x 4	D-1139		3
2	Flange Locknut 5/8-11	3221357		4
3	Socket Head Screw 5/8-11 x 1	90128A510		4
4	Plow Bolt 5/8-11 x 2"	90934A802		4
5	Hex Bolt 5/8-11 x 1.25	92865A796		2
6	7SLot	FE107	CR 1018	2
7	SlideBar 24	FE124	CR 1018	1
8	24 Cutting Edge	SBC24	Hardox 500	1
9	Socket Head Bolt 5/16-18 x 1	91251A583		5
10	BackPlate 2FT Weldment	FE24		1

Kage Limited Warranty

Kage Innovation will repair or, at the option of Kage Innovation, replace those parts which prove defective due to material or workmanship under normal use for a period of two (2) years from the date of retail sale or date of invoice from Kage Innovation, whichever is later. Expendable items, such as rubber, or polyurethane are excluded from this warranty.

Kage Innovation warrants that the products manufactured by us to be in accordance with our published specifications or those specifications agreed to by us in writing at the time of sale. The obligation of Kage Innovation is expressly limited to repairing or replacing, at its option, any product not meeting such specifications within the warranty period.

LIMITATIONS OF WARRANTY AND DAMAGES

KAGE INNOVATION MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF.

IN NO EVENT SHALL KAGE INNOVATION, BE HELD LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR DAMAGES RESULTING FROM MISAPPLICATION, ABUSE, MISUSE, ACTS OF GOD, UNAUTHORIZED ALTERATION OF THE KAGE INNOVATION PRODUCT, OR SUBSTITUTION OF PARTS NOT AUTHORIZED IN WRITING BY KAGE INNOVATION.

To obtain service under this warranty the consumer must return the defective Kage Innovation product to Kage Innovation directly, the dealer from which the product was purchased or to any authorized Kage Innovation dealer, transportation and freight charges prepaid. Only Kage Innovation dealers are authorized to perform the obligations under this warranty with pre-authorization from Kage Innovation.

No person is authorized to alter or amend this warranty or to create any warranty other than that set forth herein without the expressed written consent of Kage Innovation.

Kage Innovation reserves the right to make improvement changes on any of our products without prior notice.