2018 LEXION Settings and Adjustments guide

CLAAS of America Inc

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Images and content are intended to cover ALL features and options available on 2017 LEXION Combines. Content may vary on each machine configuration. The conditions and configurations recommended in this presentation are intended to cover most, but not all, situations from a theoretical viewpoint. For this reason, descriptions are intentionally kept generic. Keep in mind that this is NOT a "a substitute for the owners manual, but only a supplement to provide recommendations and tips to help optimize performance on a LEXION combine.

LEXION Model:	780 – 670
Build Year:	2017
Effective Date:	6/1/2017
Last Revision:	7/20/2018

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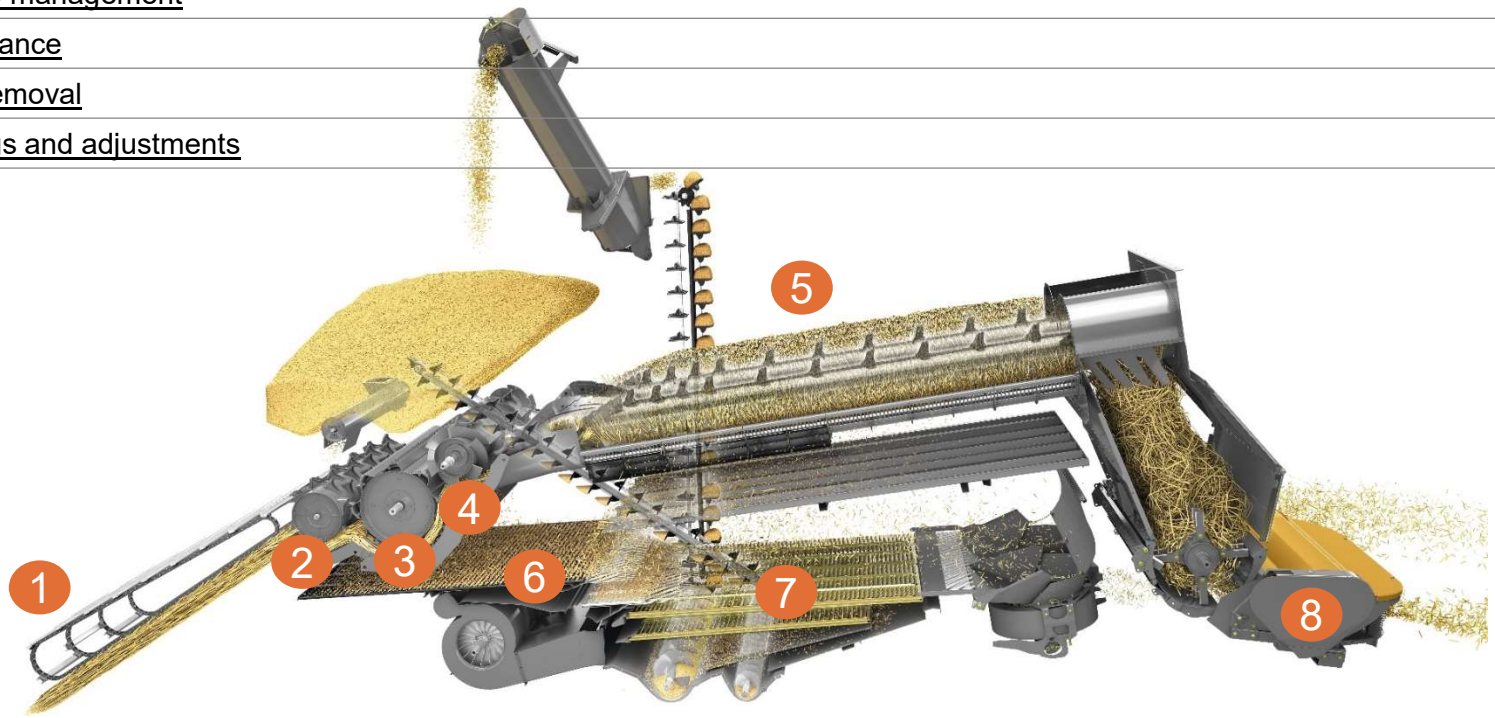
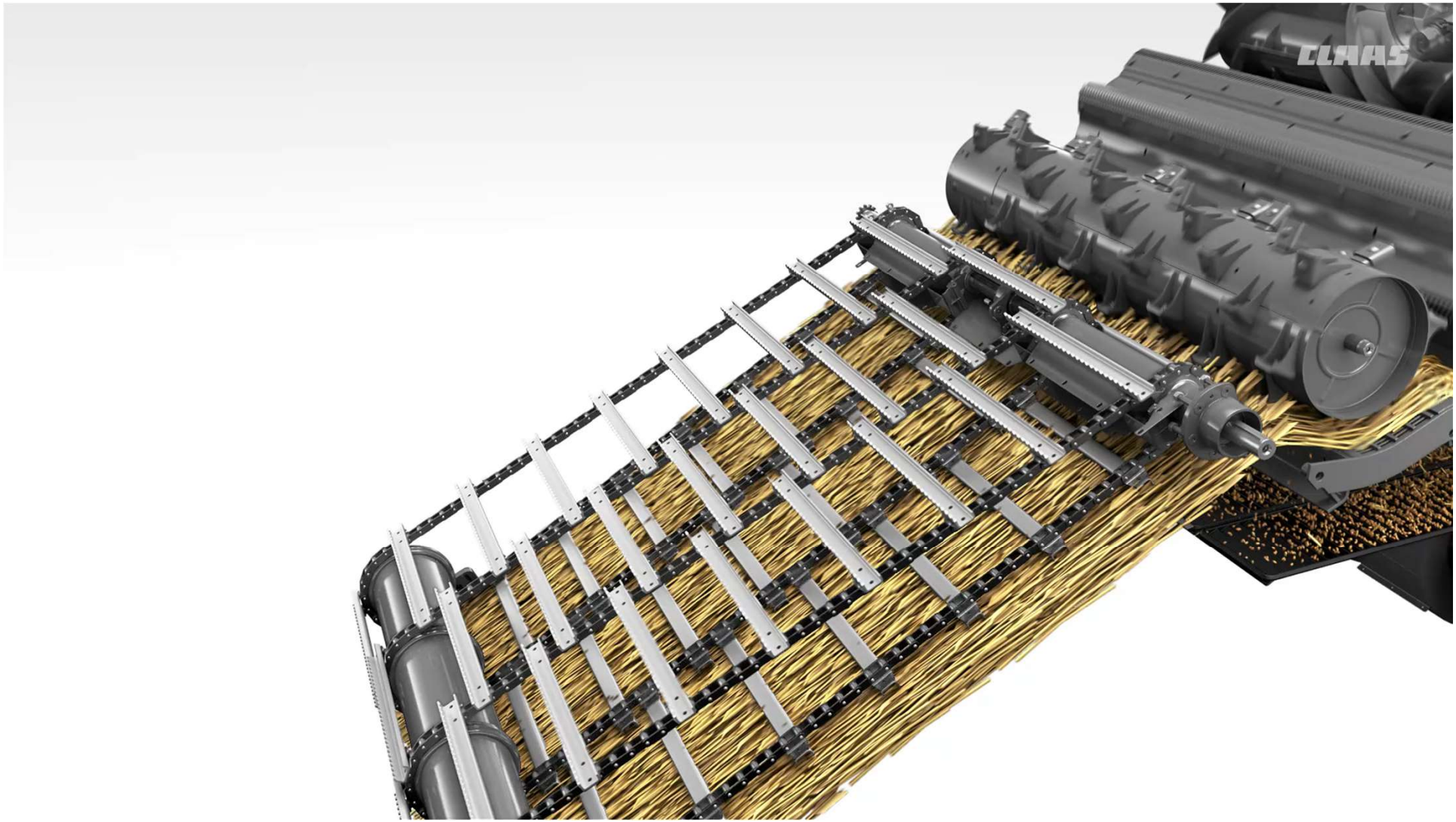
CLAAS ACADEMY



APS Hybrid System



Feederhouse

Speed

High speed (420rpm)

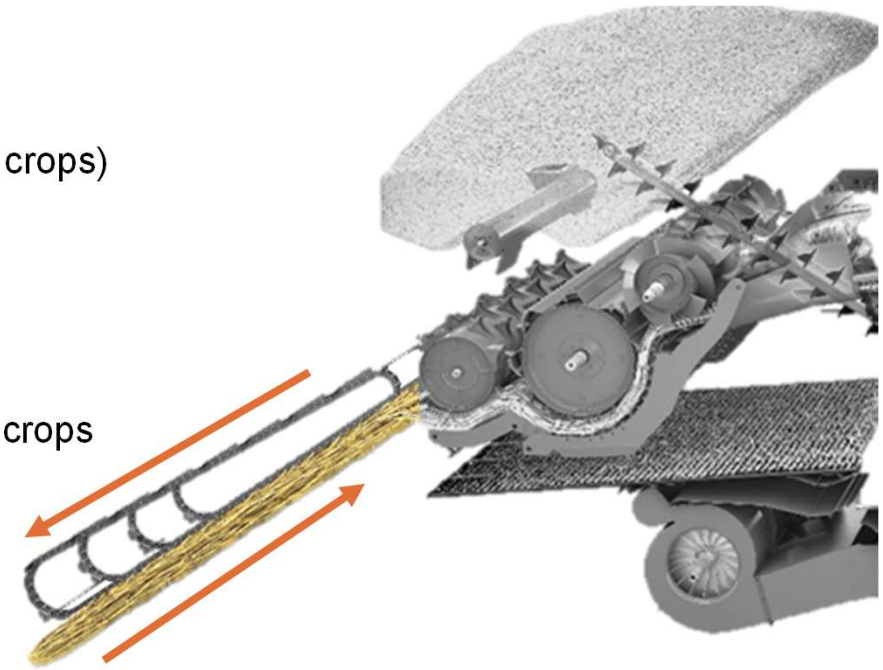
+ Best feeding in small grains
+ Tough to thresh crops
+ Best for draper headers
- Increases aggressiveness of feederhouse
- Potential inconsistent feeding (small swathed crops)

Mid-speed (330-400rpm)

+ Good speed for corn & soybeans
+ Moderate to thresh crops
- Moderate aggressiveness, not ideal for pulse crops

Low speed (<320rpm)

+ Most gentle speed range
+ Easy to thresh / pulse crops
- Can potentially limit capacity in small grains



*Feederhouse speed also dictates header speed. Most adjustments will affect header performance more than combine performance.

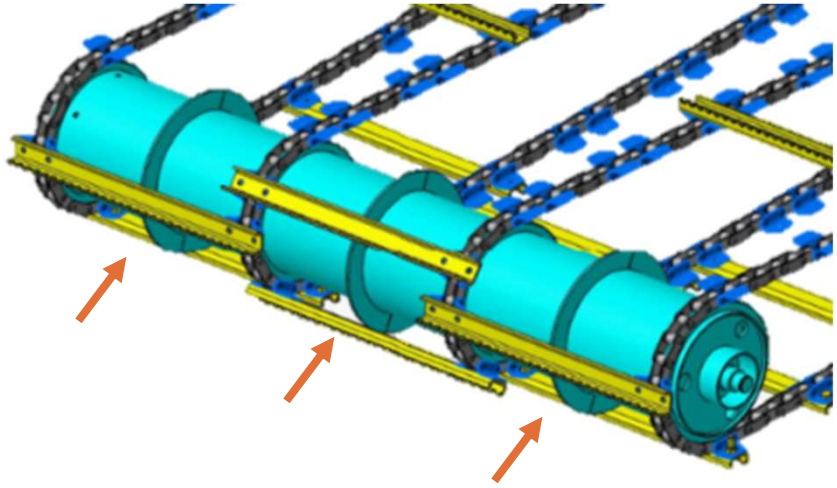
Feederhouse support rings

+ Provide additional back support for the feederhouse slats

- (6) half rings per drum
- Part number: **518 959.0** each half-ring
- Order six pieces when ordering

Installation:

- Can be welded onto the skin of the drum.
- It is recommended that the drum be removed from the combine before welding on the support rings.

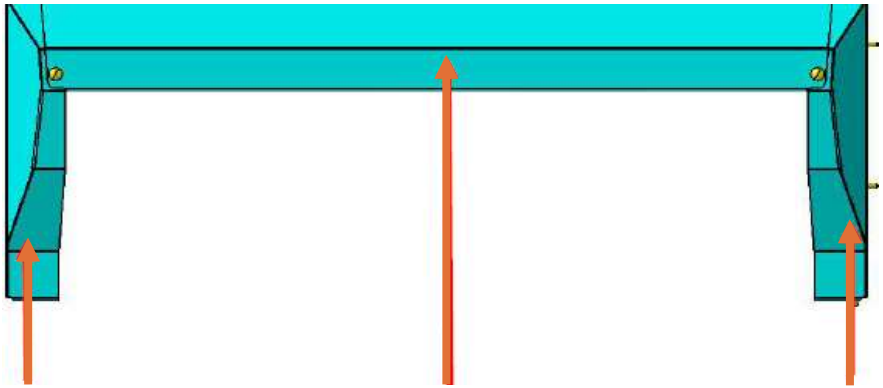


Feederhouse side shields

+ Prevents material from getting between the side-wall and drum

Hardware to include fo installation

- Coach bolts: 610 097.1 qty. 2
- Washers: 239 387.0 qty. 2
- Hex nuts: 236 170.0 qty. 2
- Bolt: 233 259.0 qty. 10
- Washers: 239 387.0 qty. 10



Right shield:
520 441.0

Wide chassis center shield:
520 443.1

Standard chassis center shield:
520 439.0

Left shield:
520 442.0

Shields not installed

VS

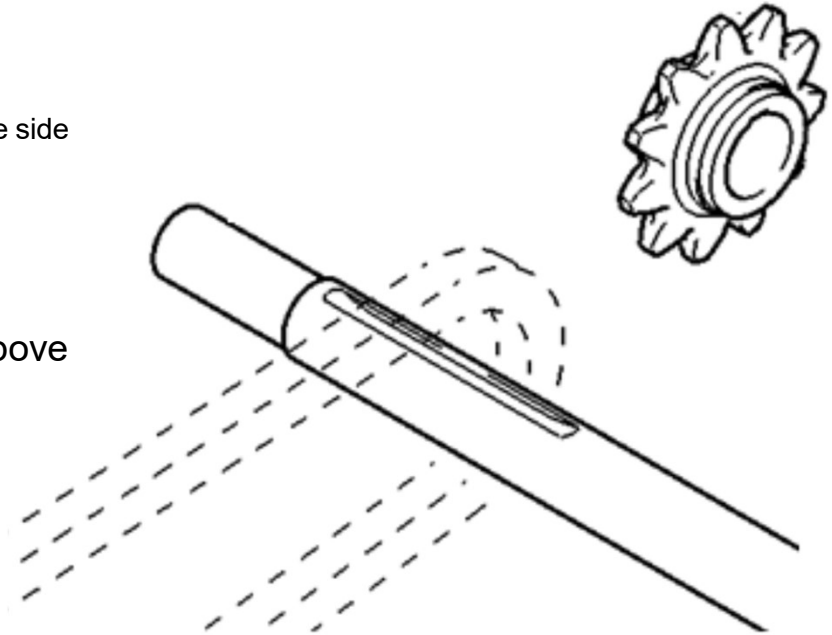
Shields installed

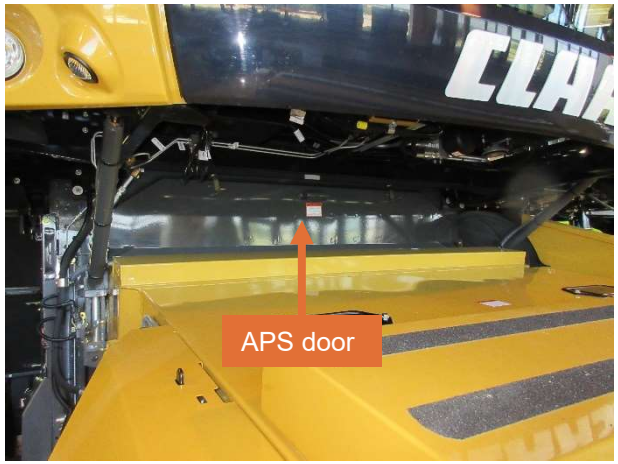
Realign jumped feederhouse chain

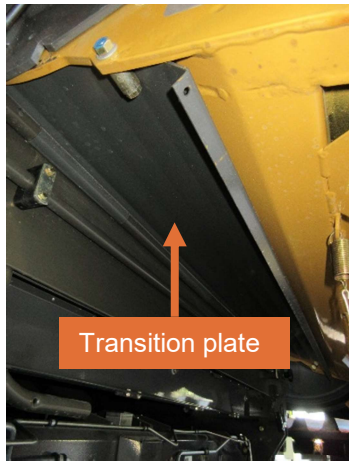
* Note: to minimize the potential for chain jumping, install the feederhouse side shields as seen on page 7

Procedure

1. Loosen feederhouse chains by half
2. Access FH top-shaft through APS door below cab (above feederhouse) or through transition plate under feederhouse in front of rock-trap
3. Place a deep-well socket (15-16mm) into the groove between the chain lug and sprocket tooth
4. Rotate feederhouse variator (by hand); repeat as necessary until slats are straight
5. Loosen (do not remove) all feederhouse slats until they rattle on the chain and re-tighten
   - This will relax the chain, freeing it of any bind that could cause it to jump a sprocket tooth again







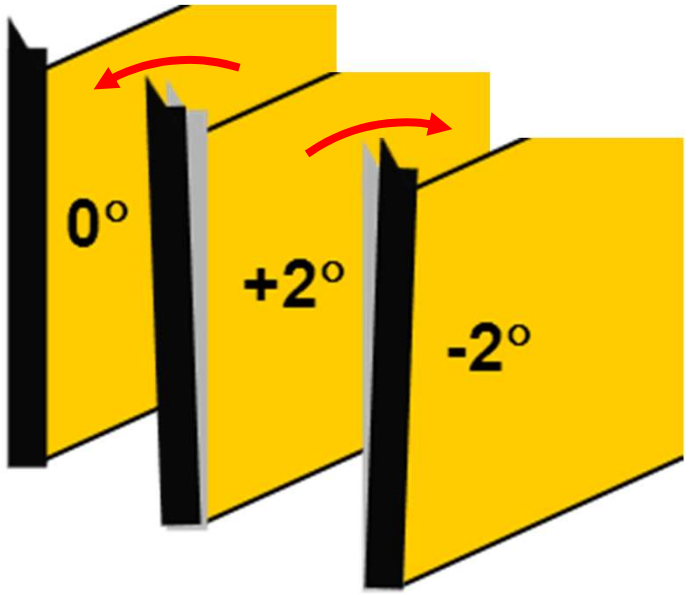
HP Feederhouse

Too far forward

- \+ Aggressive cut angle
- \+ Knife may cut closer to the ground
- \- Increased risk of damaging knives or dirt intake

Too far backward

- \+ Less likely to intake rocks
- \+ Retain slightly more crop
- \- May not get under lodged crop well enough
- \- May not get close enough cut to the ground

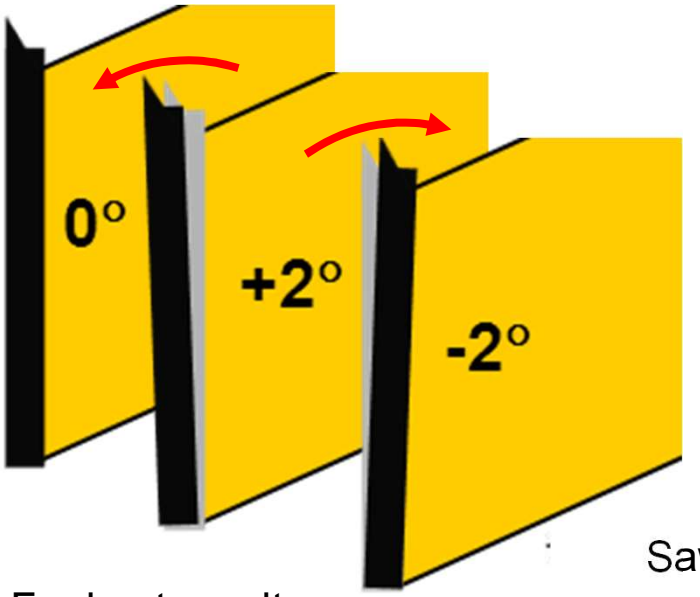


For best results:

- When in doubt, start at 0-degrees
- Corn heads: 1-3 degree fwd
- Flex heads 0-2 degree back

Header

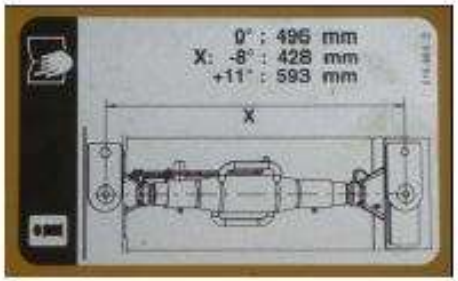
HP faceplate angle example

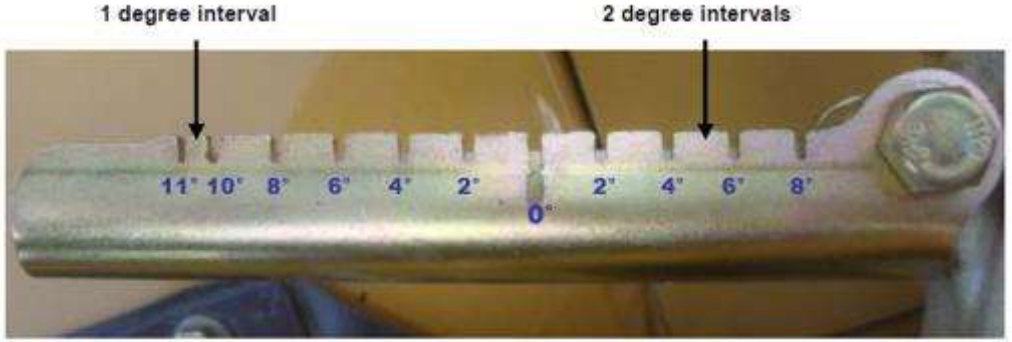


For best results:

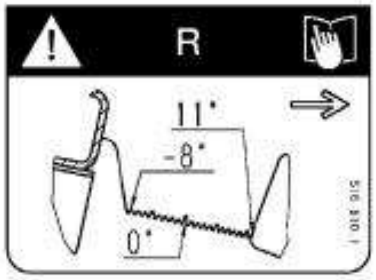
- When in doubt, start at 0-degrees
- Corn heads: 1-3 degree fwd
- Flex heads 0-2 degree back

Graduated lever (2008 – 2012)





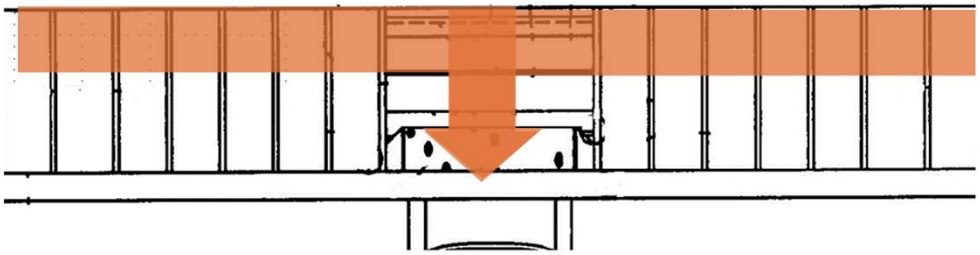
Saw-tooth indicator (2004 – 2006)



Side draper speed

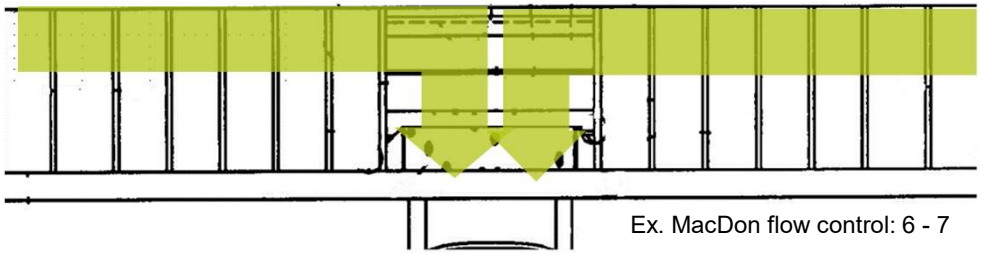
Too fast

- \- Crop flow concentrated in center
- \- Cannot utilize full combine capacity (width)



Optimal speed

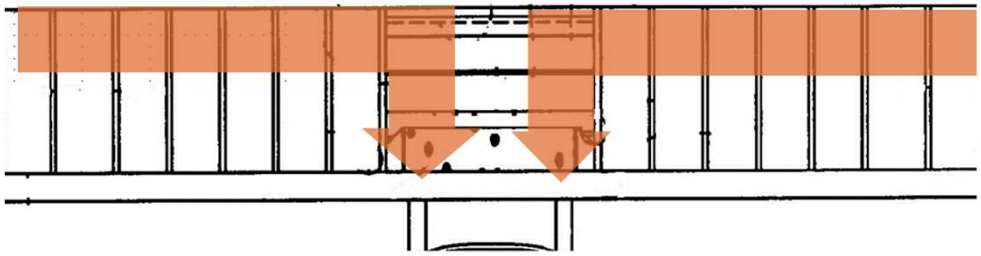
- \+ Smooth, wide feed
- \+ Good capacity to keep up with incoming crop



Ex. MacDon flow control: 6 - 7

Too slow

- \- Chance of wrapping under side draper belts
- \- Chance of pinching crop in side-wall



*Improper belt speed can create additional drag on power, increasing engine load, reducing ground speed and can prematurely wear out the impeller

Pre-concave

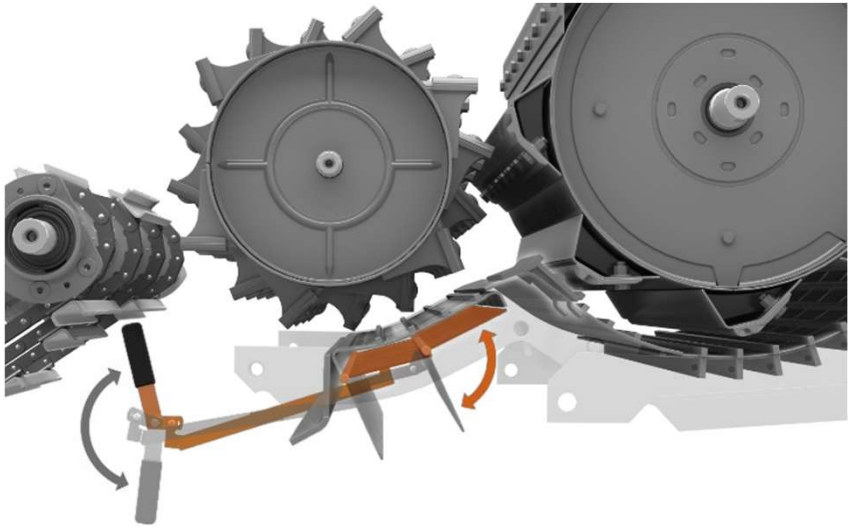
Dis-awning plates

Open

- \+ Pre separation (up to 30%)
- \+ Decreased potential grain damage
- \- Potential increased chaff load on cleaning shoe

Closed

- \+ More aggressive threshing
- \+ Decreased chaff on cleaning shoe
- \- Potential for increased grain damage



APS grates – 6.5x40mm slotted

6.5x40mm slotted

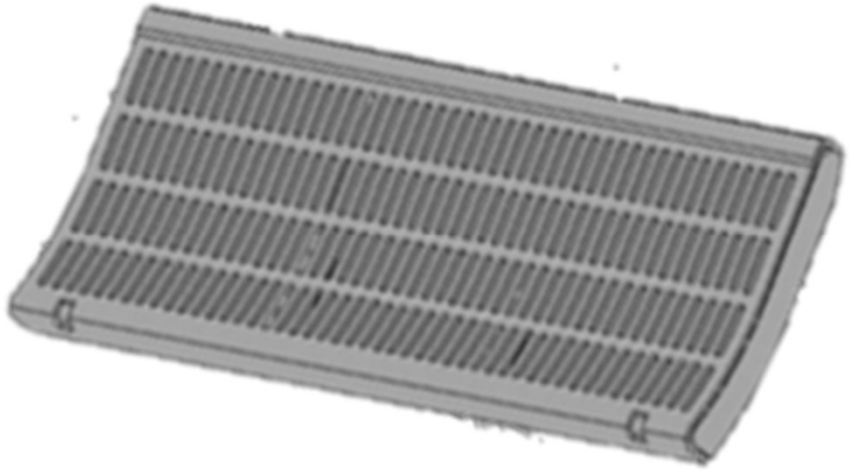
Smallest sized hole smooth grate for easy threshing crops

Effective in:

+ Alfalfa
+ Barley
+ Blue grass
+ Canola
+ Flax
+ Grass seed
+ Malted barley
+ Oats
+ Wheat

Not recommended for use in large grain or tough threshing crops

- Tough to thresh crop may not be threshed
- Large material cannot pass (including grain)



Part	Standard chassis	Wide chassis	Quantity
6.5x40mm slotted	777 216.0	777 200.0	3

APS grates – 6.5x40mm keystock

6.5x40mm keystock

Smallest sized hole keystock grate for tough threshing crops

Effective in:

+ Alfalfa
+ Barley
+ Blue grass
+ Canola
+ Flax
+ Grass seed
+ Oats
+ Red & white clover
+ Wheat

Not recommended for use large grain crops

- Potential for increased grain damage
- Potential higher chaff load on cleaning shoe
- Large material cannot pass (including grain)

Part	Standard chassis	Wide chassis	Quantity
6.5x40mm keystock	757 445.0	757 443.0	3

APS grates – 10x40mm keystock

10x40mm keystock

Medium size hole keystock grate for tough threshing crops

Effective in:

+ Barley
+ Canola
+ Edible beans
+ Flax
+ “Green-stem” Soybeans
+ Lentils
+ Malted barley
+ Milo
+ Oats
+ Peas
+ Rice
+ Soybeans
+ Wheat

Not recommended for use large grain crops

- Potential for increased grain damage
- Potential higher chaff load on cleaning shoe

Part	Standard chassis	Wide chassis	Quantity
10x40mm keystock	777 238.1	777 249.1	3

APS grates – 12x40mm keystock

12x40mm keystock

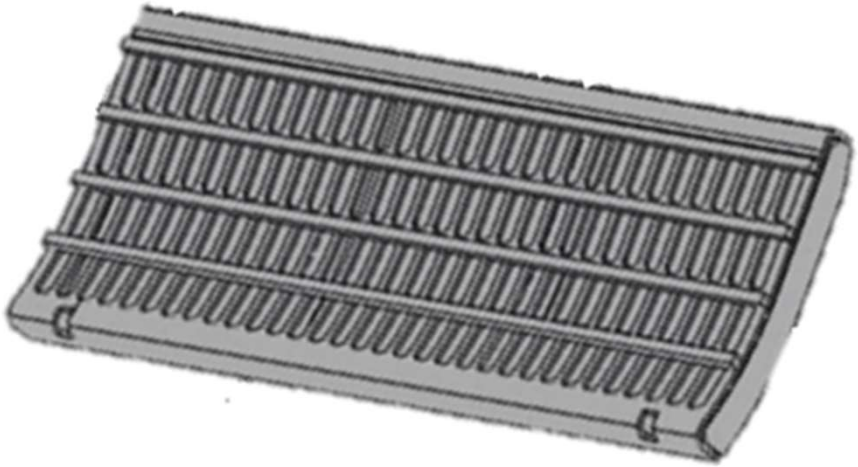
Largest size hole keystock grate for tough threshing crops

Effective in:

+ Barley
+ Canola
+ Edible beans
+ “Green-stem” Soybeans
+ Lentils
+ Malted barley
+ Milo
+ Oats
+ Peas
+ Rice
+ Soybeans
+ Wheat

Not recommended for use large grain crops

- Potential for increased grain damage
- Potential higher chaff load on cleaning shoe
- Potential higher chaff load on cleaning shoe



Part	Standard chassis	Wide chassis	Quantity
12x40mm keystock	91022328	91022481	3

APS grates – 19x40mm slotted

19x40 slotted

Gentle threshing smooth grate with large opening for pre-separation

Effective in:

+ Corn
+ Edible beans
+ “High moisture” Corn
+ Milo
+ Peas
+ Popcorn
+ Soybeans
+ Sunflowers

Not recommended for use in small grains or tough threshing crops

- Potential higher chaff load on cleaning shoe
- Tough to thresh crop may not be threshed

Part	Standard chassis	Wide chassis	Quantity
19x40mm slotted	757 441.0	757 439.0	3

APS grates – Round bar

Round bar

Gentle threshing smooth grate with large opening for pre-separation.

Effective in:

+ Corn
+ Edible beans
+ “High moisture” Corn
+ Milo
+ Peas
+ Popcorn
+ Soybeans
+ Sunflowers

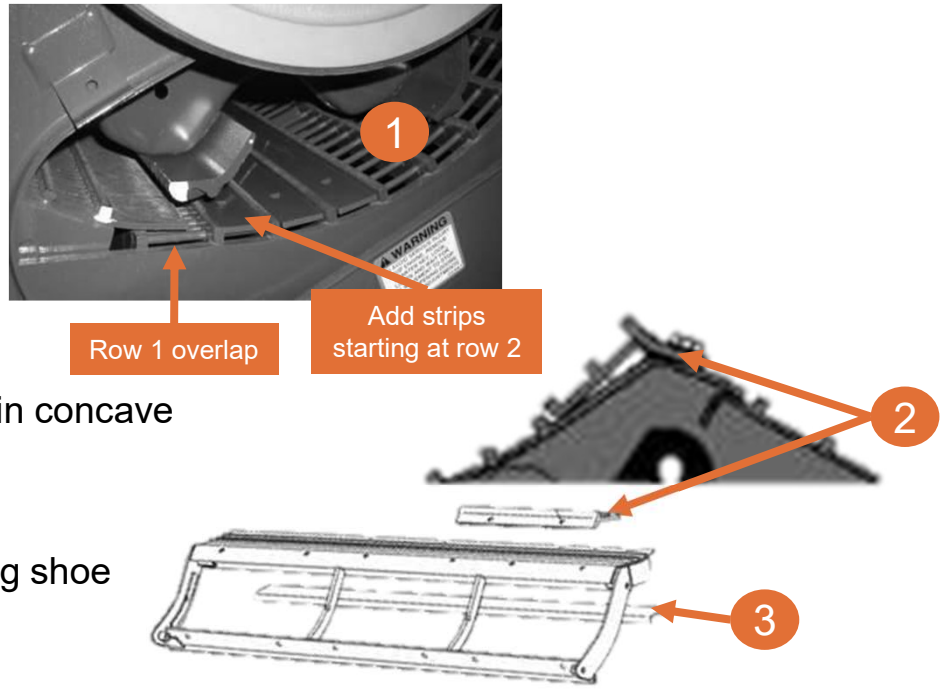
Not recommended for use in small grains or tough threshing crops

- Potential higher chaff load on cleaning shoe
- Tough to thresh crop may not be threshed

Part	Standard chassis	Wide chassis	Quantity
Round bar	1 809 068.0	1 809 067.0	3

APS additions

1. Main concave filler strips
   - \+ Holds crop in concave longer
   - \+ Increases threshing action
   - \- Limits separation in main concave
2. Intensive threshing segments (ITS)
   - \+ Increases threshing action at front of main concave
   - \+ Increases wrap on threshing cylinder
   - \- Potential for increased grain damage
   - \- Potential increased chaff load on cleaning shoe
3. Pre-concave back slope blanking plate
   - \+ Helps remove white caps
   - \+ Increases threshing action
   - \- Less open area – potential for lower capacity in large-kernel crops



*Recommended use

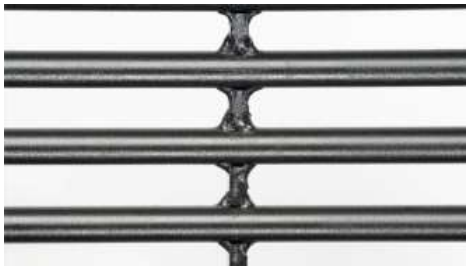
- Corn combines used to harvest wheat or small grains
- All components can be added individually, to improve sample quality and performance

	Part	Standard chassis	Wide chassis
Pre-concave	Intensive threshing segments (ITS)	735 629.0 (2)	752 543.0 (3)
Pre-concave	Pre-concave back slope blanking plate	CL9995210	CL9995220
Main concave	Filler strips	356 728.0	356 729.0
Main concave	Clover strips	754 836.1	736 568.1

Main concave

Configurations

Round bar



- \+ Most open area
- \+ Least aggressive (ideal for corn)
- \- Can struggle to thresh tougher small grains
- \- Filler strips cannot be installed

N18

- \+ Key stock makes it more aggressive
- \+ Filler strips can be installed for small grains
- \+ Good open area for high capacity
- \- Potential for higher trash load on cleaning shoe in small grains
- \- Potential for lower capacity in corn

N7/18

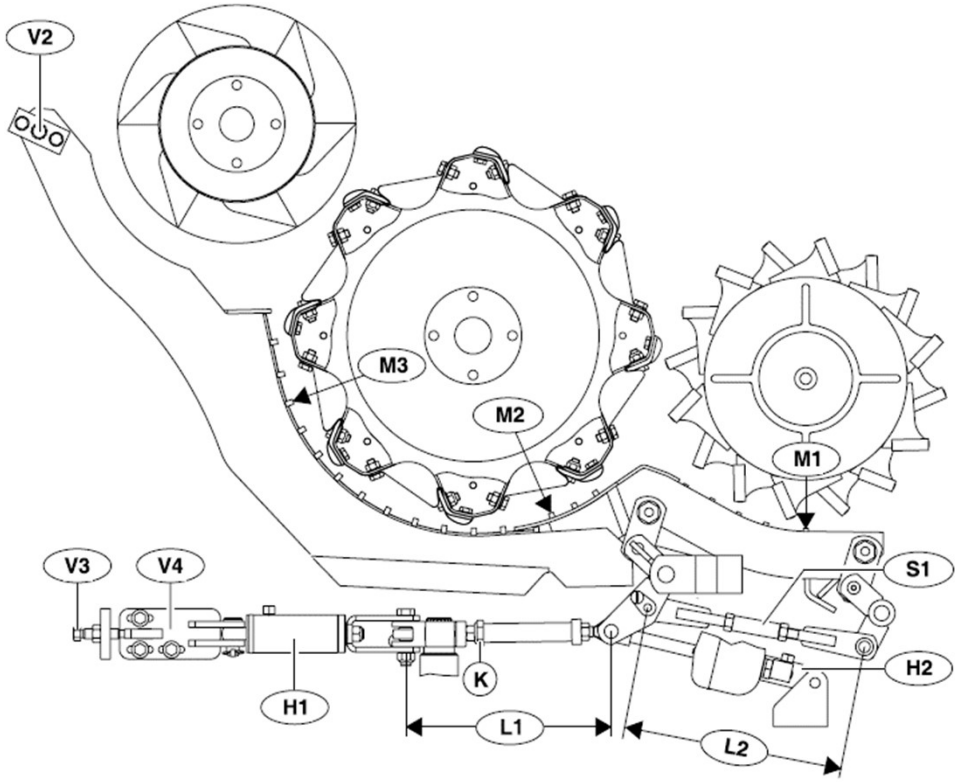
- \+ Most aggressive
- \+ Less trash on cleaning shoe in small grains
- \- Less open area – potential for lower capacity in large-kernel crops

*These are *not* interchangeable on short notice

Main concave adjustments

- From the factory, M2 is 4mm wider than M3
- For delicate or specialty crops, M2 can be set equal to M3

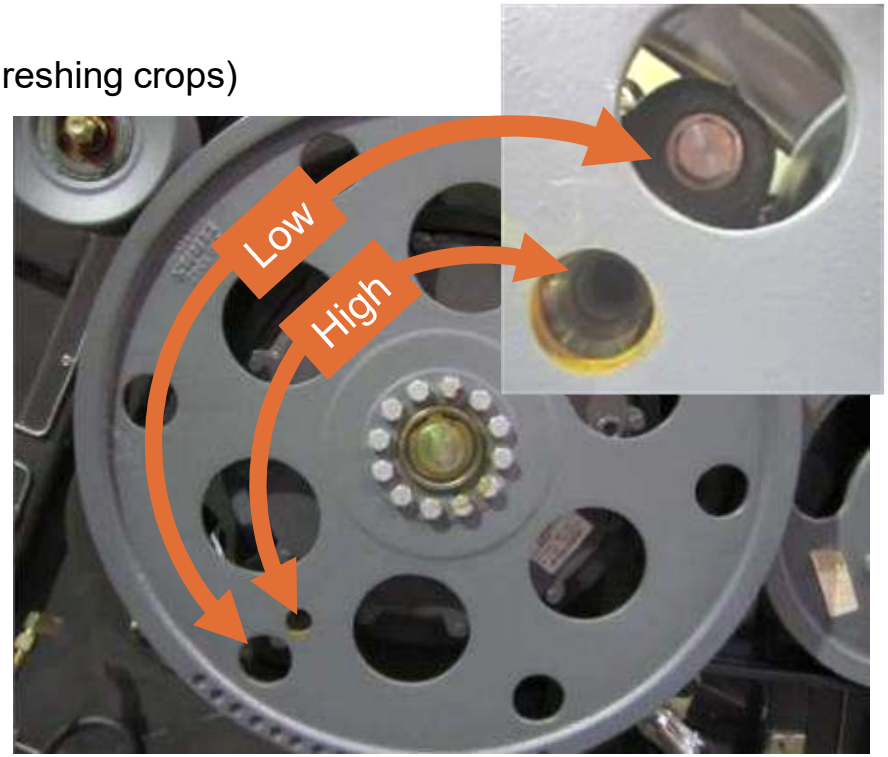
This is a very precise adjustment. The exact procedure from the Owner's Manual must be followed. It is highly recommended to have a dealer technician make this adjustment.

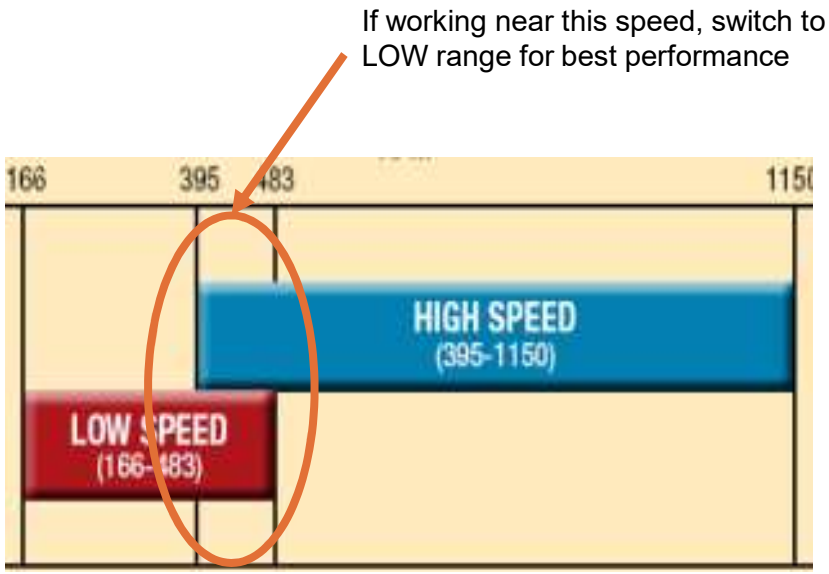


Threshing cylinder

High / low range

1. High range (small grains, canola, soybeans, tough threshing crops)
   - + 400 - 1050rpm
   - + Increased threshing action
2. Low range (corn, easy-threshing crops)
   - + 180 - 450rpm
   - + Higher torque than high range (400-450rpm)

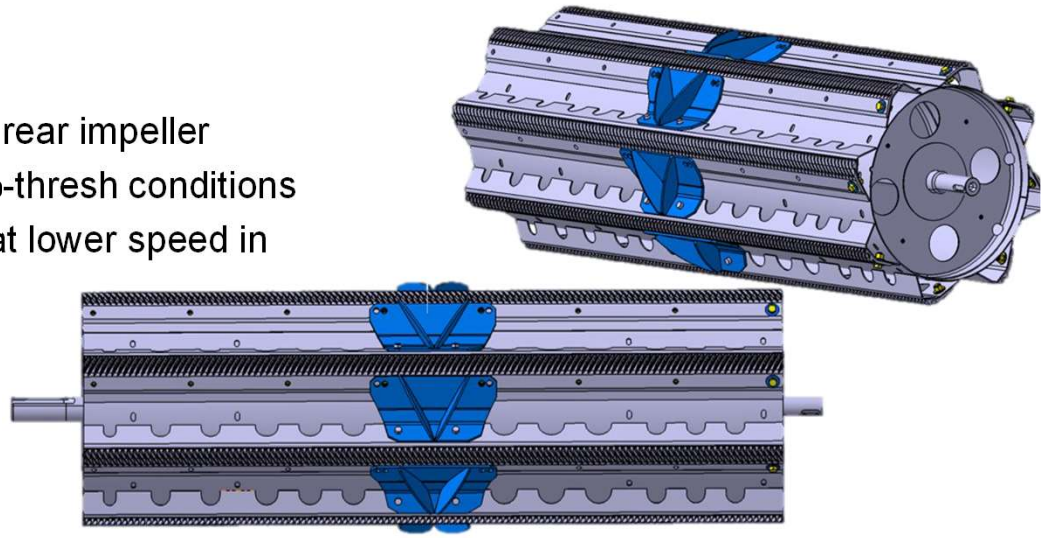




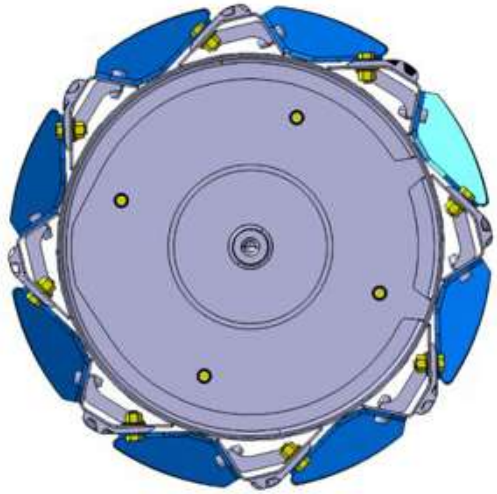
Threshing cylinder

V-plates (aka “Dakota Kit”)

- \+ Improved crop flow into/through the rear impeller
- \+ Higher feeding efficiency in tough-to-thresh conditions
- \+ Allows threshing cylinder to be run at lower speed in delicate crops
- \+ Less potential grain damage
- \- No dis-advantages



- 700 series
  - Installtion
    1. Access through door located under cab/above feederhouse
    2. Attaches using center two rasp bar bolts
  - Part number
    - **1816 934.0**
- 500 series
  - Installtion
    1. Access through door located under cab/above feederhouse
    2. Replace existing blanking plate with v-plate blanking plate
  - Part number
    - Standard chassis: **1816 946.0**
    - Wide chassis: **1816 941.0**

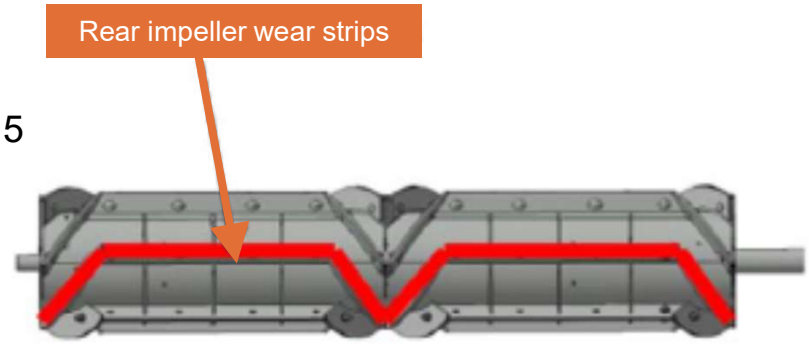


Impeller

Rear impeller wear strips

Check wear prior to starting harvest.

- Excessive wear (if center blades are worn more than .5 in. compared to the outside blades) can lead to:
  - Back-feeding
  - Increased engine loads



- If difference in wear is .5 in. or more, impeller should be re-flighted

	Part	Standard duty (5mm)	Heavy duty (8mm)
Standard chassis	Chevron	777 615.0	1809 844.0
	Flat vein	777 629.0	1809 848.0
Wide chassis	Chevron	777 615.0	1809 844.0
	Flat vein	777 639.0	1809 846.0

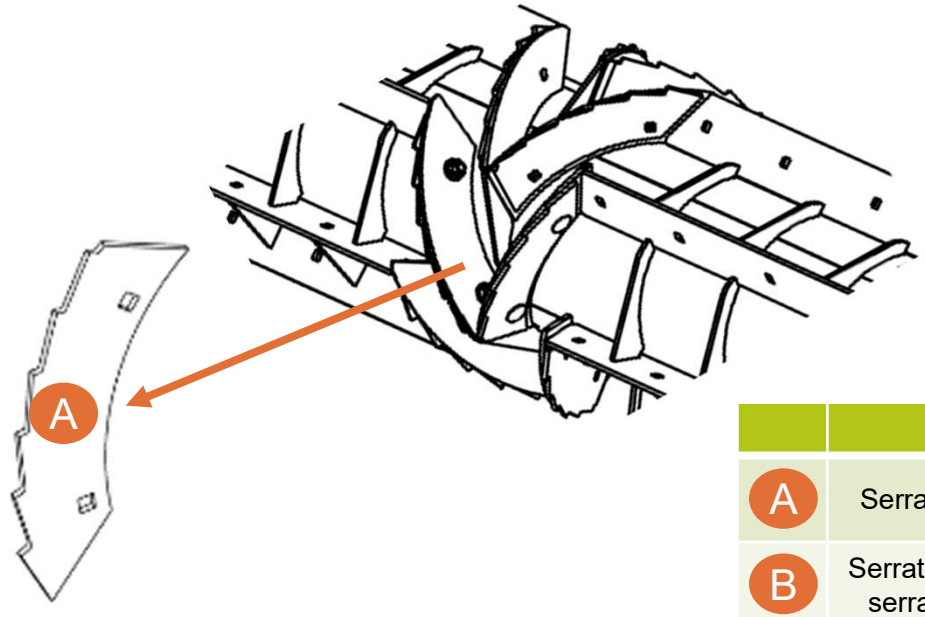
Impeller

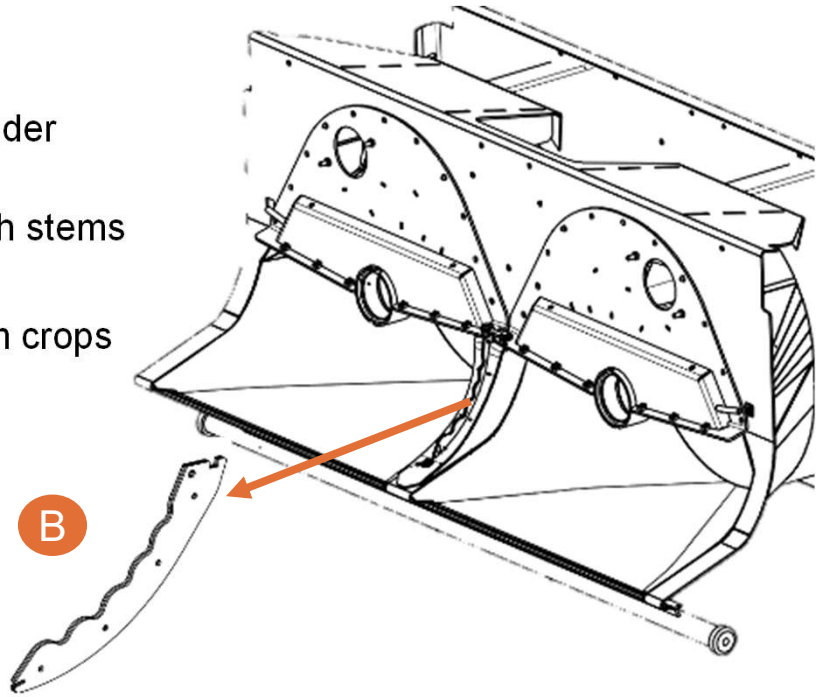
Serrated impeller wear strips

- Can be installed on center of rear impeller and divider between rotors
- Provides a slicing action that can cut through tough stems
- Improves crop flow efficiency
- To be used in tough-to-thresh crop with ropey stem crops

Component A can only be installed if component B is

Component B can be installed alone





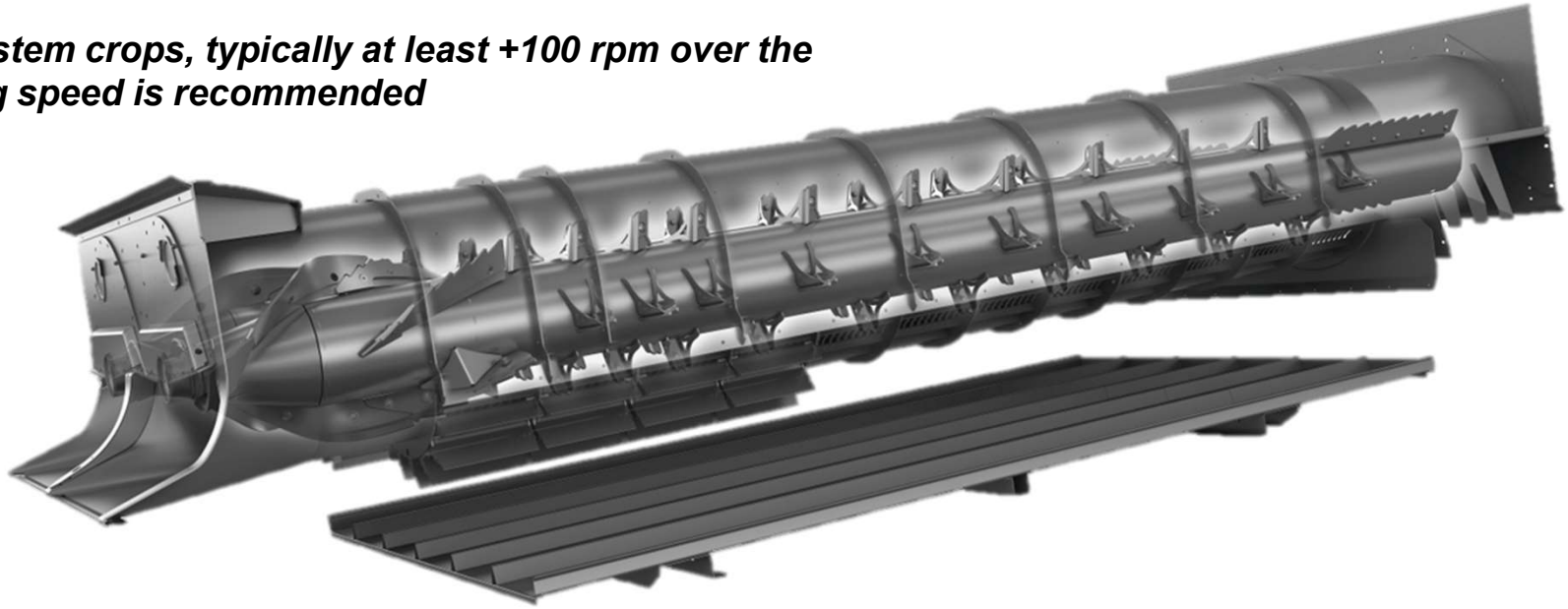
	Part	Standard chassis	Wide chassis
A	Serrated impeller wear strips	1498 884.0	1498 884.0
B	Serrated impeller wear strips + serrated rotor intake divider	1498 882.0	1498 883.0

Rotors

Rotor speed

1. High speed = high separation force
   - \+ High separation force (lots of straw / material)
   - \- Potential to limit capacity in high-yield crops (“auger effect”)
2. Low speed = low separation force
   - \+ Increases capacity in high-yield crops
   - \- Low separation force can prevent grain from separating

In straw/stem crops, typically at least +100 rpm over the threshing speed is recommended



Rotors

Rotor cover plates

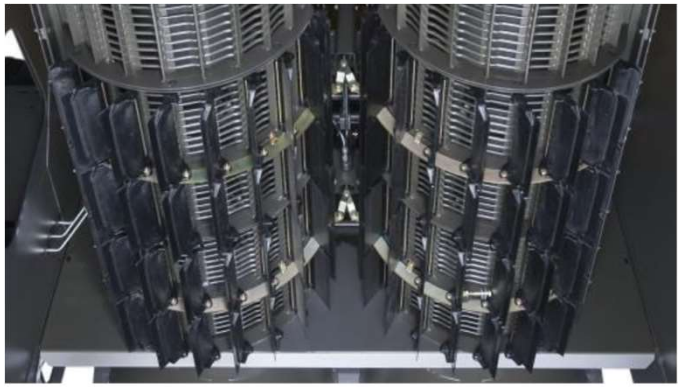
+ Intensifies separation performance without drag on the crop flow
+ Helps optimize material flow to the cleaning system

Closed (in-cab adjustment)

+ Cleaner sample (less trash on sieves)
- Limits separation area (capacity)

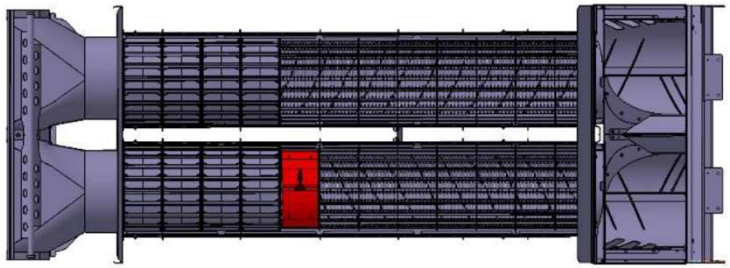
Open (in-cab adjustment)

+ Maximum separation area
- Potential increased chaff load on sieves (more trash on sieves)



Clip on rotor cover plates (manual)

+ Clips on rotor grate to blank off area, if hydraulically actuated plates not available on machine (check machine configuration)
+ Secured via over=center latch

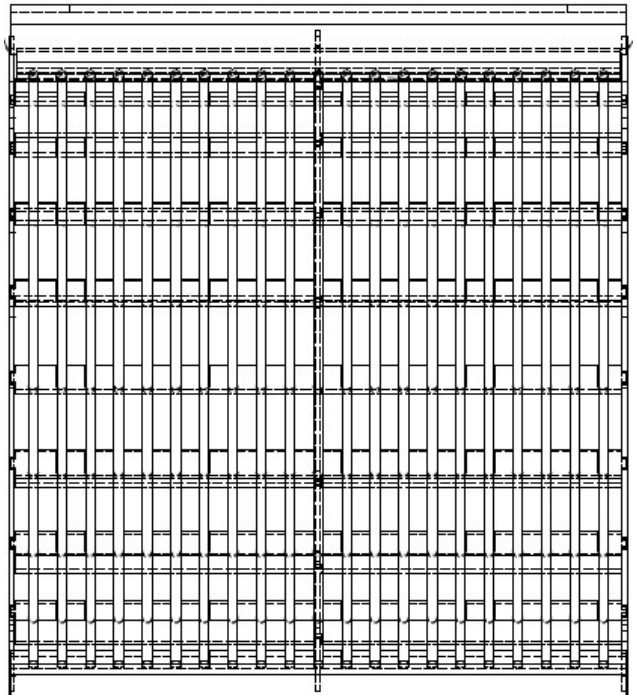


To order manual clip-on covers, contact:

- Syracuse Iron Works
- +1 (402) 269-2407
- Have machine model and serial number ready when ordering

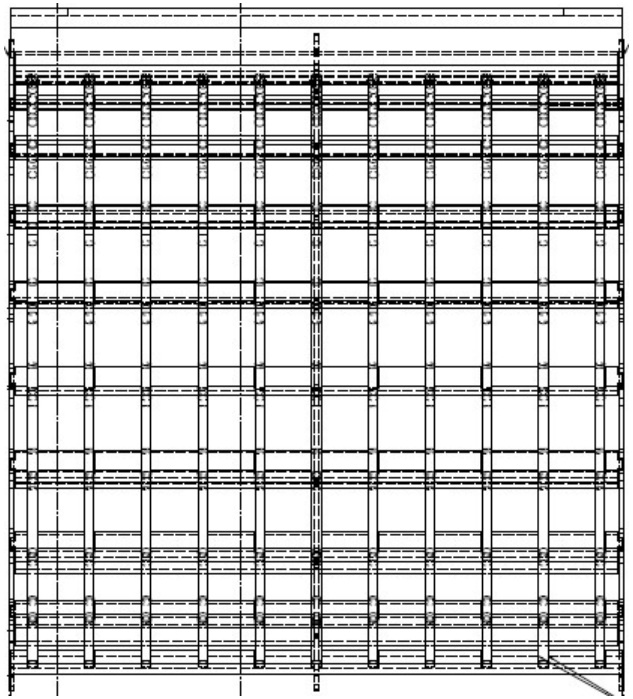
Rotors

Rotor grates: standard spaced wires
p/n: 792 155.2 (x-factory)

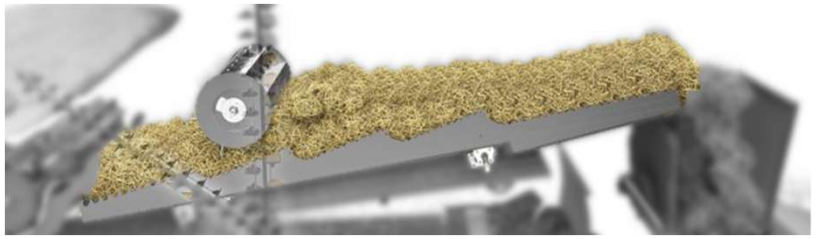


NEW 2018

Rotor grates: wide spaced (HD rice)
p/n: 508 395.0 (spare parts only)



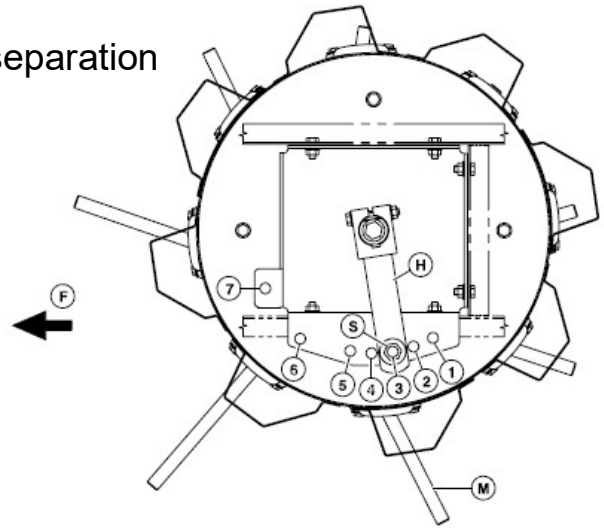
MSS drum finger pitch



Lever adjusts the timing of the MSS drum fingers according to the crop type and its conditions

- \+ Enhances separation performance
- \+ Lever operated finger timing adjustment

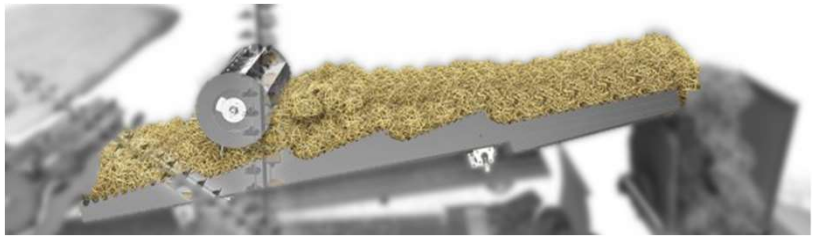
1. Aggressive
   - \+ Better separation (fluff)
   - \- Tough material has potential to wrap
2. Passive
   - \+ No wrapping
   - \- Potential reduction separation



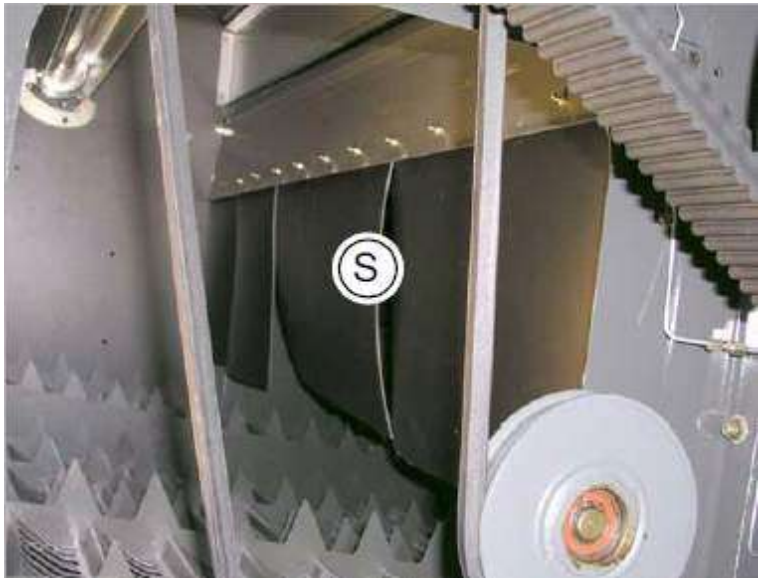
Straw walkers

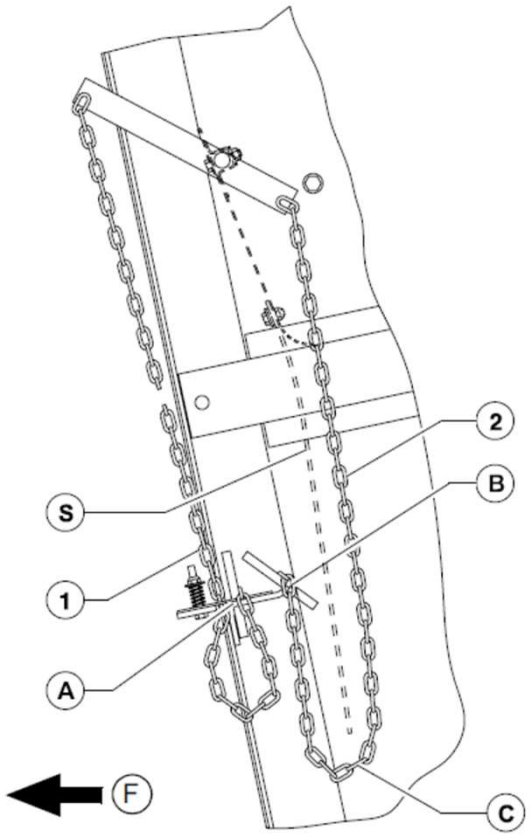
Curtain

Curtain changes how far back material is thrown from the impeller back onto walkers



1. Higher position
   - \+ Better capacity in lighter material
   - \- More likely for material to back feed or wrap
2. Lower position
   - \+ Better material flow and MSS performance
   - \- Can affect capacity with lighter or tough material





Preparation Floor

Upkeep

Floor pans can be easily removed through the front of the machine via the rock trap.

To ensure the cleaning system can run to maximize capacity, check floor pans regularly for:

- Dirt/debris build up
  - Build up can reduce amount of material the pan can move per stroke – which can affect machine capacity

Procedure:

1. Open and clean out rock trap
2. Remove three bolts holding door below rock trap and open door
3. Pull floor pans out through door
4. Clean pans with blunt object
   - Air hose
   - Water
     - Sharp objects can scratch poly and cause material to get stuck on pan

Fan speed

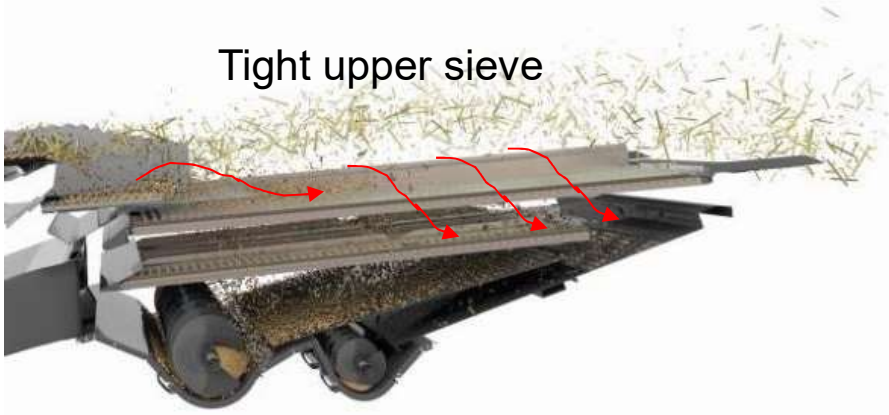
1. Too high
   - \+ Very clean sample
   - \- Potential for increased losses
   - \- Potential for increased returns
2. Too low
   - \+ Reduced sieve losses
   - \+ Potential for decreased returns
   - \- Potential for increased FM in sample

Upper sieve adjustment

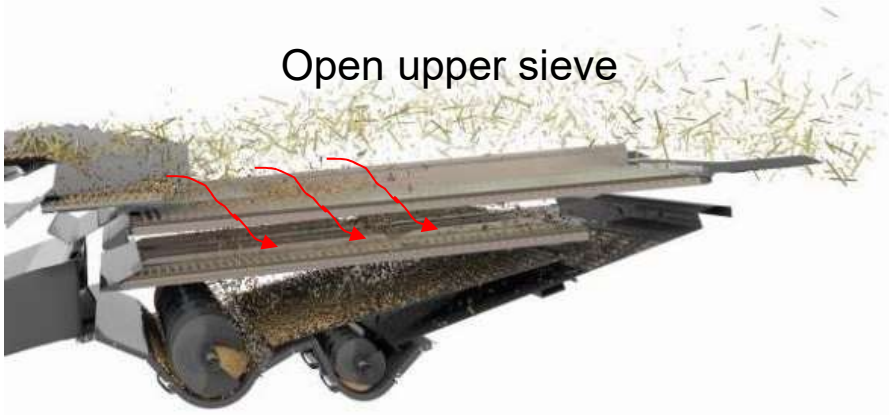
1. Tighter gap
   - \+ Potential cleaner sample
   - \- Potential for increased losses
2. Wider gap
   - \+ Potential for lower losses, increased capacity
   - \+ Potential for lower returns volume
   - \- Potential increase of foreign matter in sample

Setting the upper sieve ALWAYS affects the performance of the lower sieve

Tight upper sieve

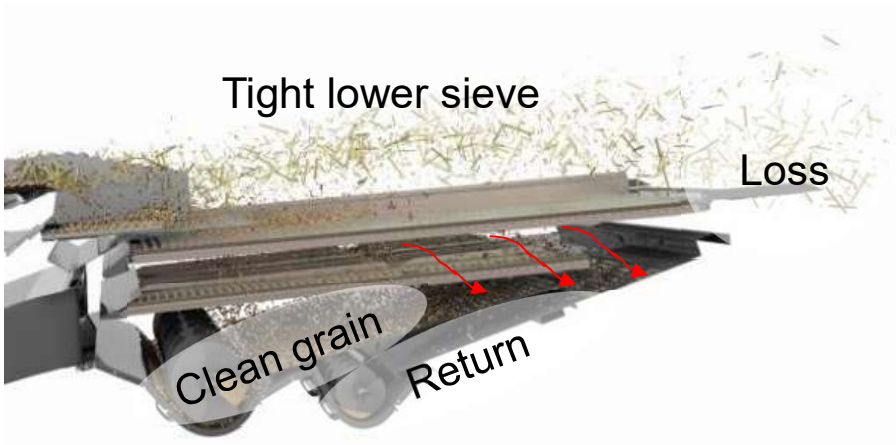


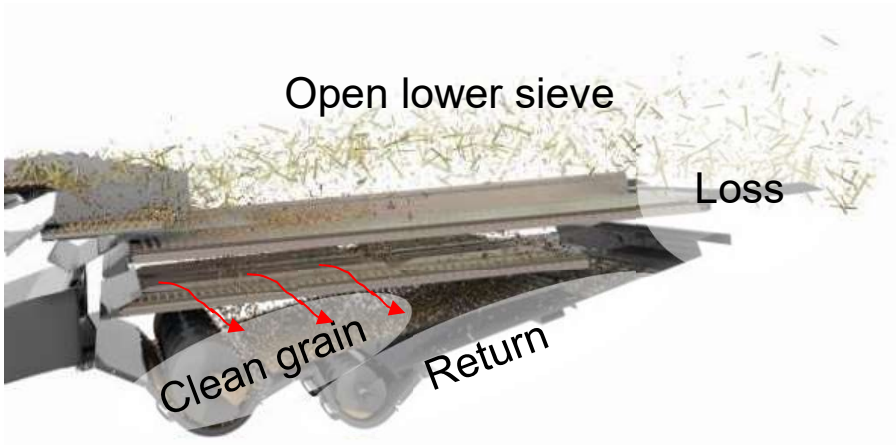
Open upper sieve



Lower sieve adjustment

1. Tighter gap
   - \+ Potential cleaner sample
   - \- Potential for increased returns
2. Wider gap
   - \+ Potential for lower returns volume
   - \- Potential increase of foreign matter in sample

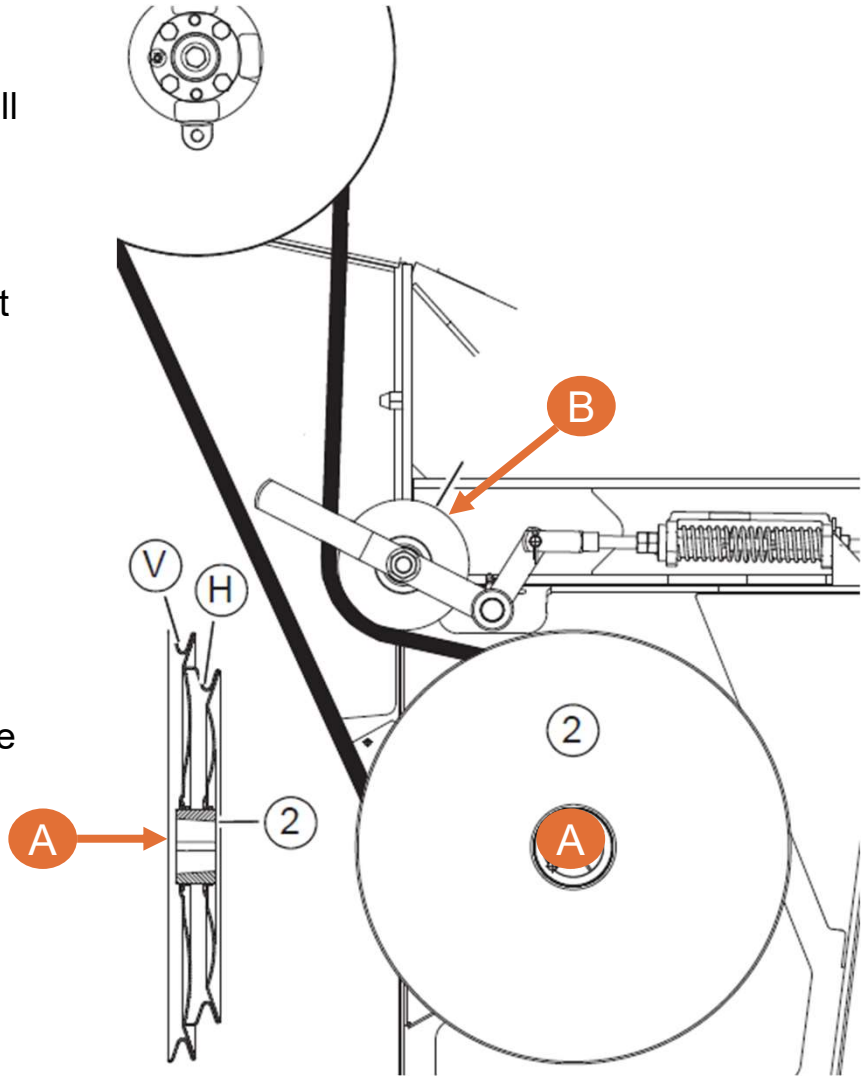




Wind reduction kit

When harvesting low weight crops, i.e. micro seeds, it will be necessary to reduce fan speed below the standard capabilities.

1. Double side 2-speed pulley A
   - + Can be installed on the stage 3 cleaning fan belt drive
   - + Enables the cleaning fan to operate in a lower speed range
     - Low range: 340 – 900 rpm
     - High range: 640 – 1600 rpm
   - + An over center lever and idler B on the stage 3 idler pulley allows the operator to quickly shift between speed ranges
     - Recommended settings in crop settings guide

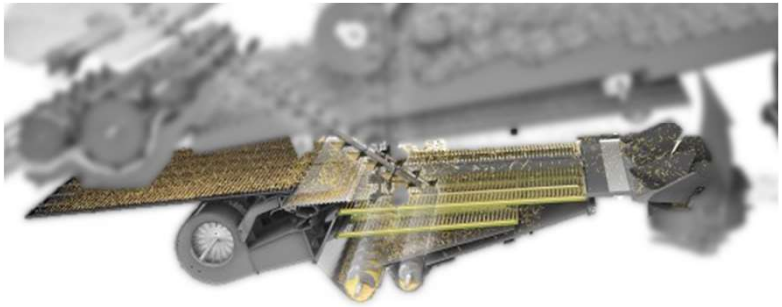


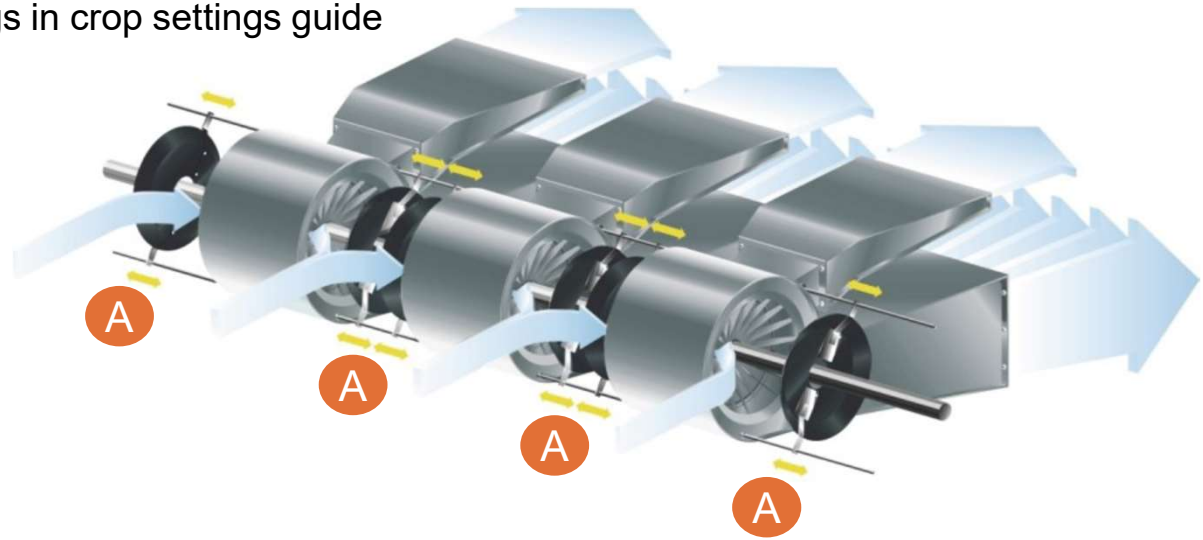
Standard cleaning (Walker)

Wind reduction kit

When harvesting low weight crops, i.e. micro seeds, it will be necessary to reduce fan speed below the standard capabilities.

1. Caliper style housing covers A
   - + Used to control the amount of air drawn in by the cleaning fan, reducing the volume of air applied to the crop
   - + Lever operated adjustment for fast and easy control
     - Recommended settings in crop settings guide

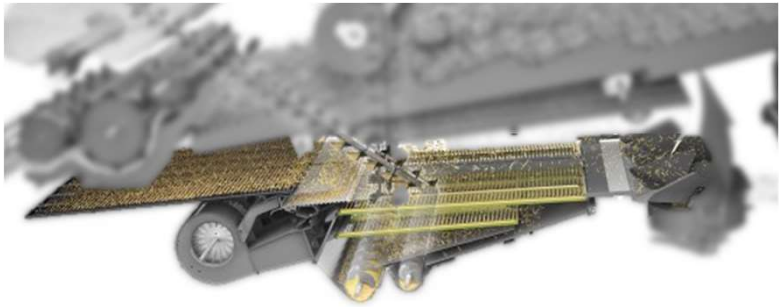


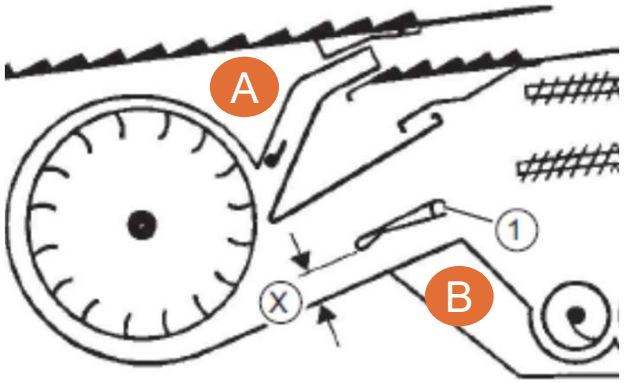


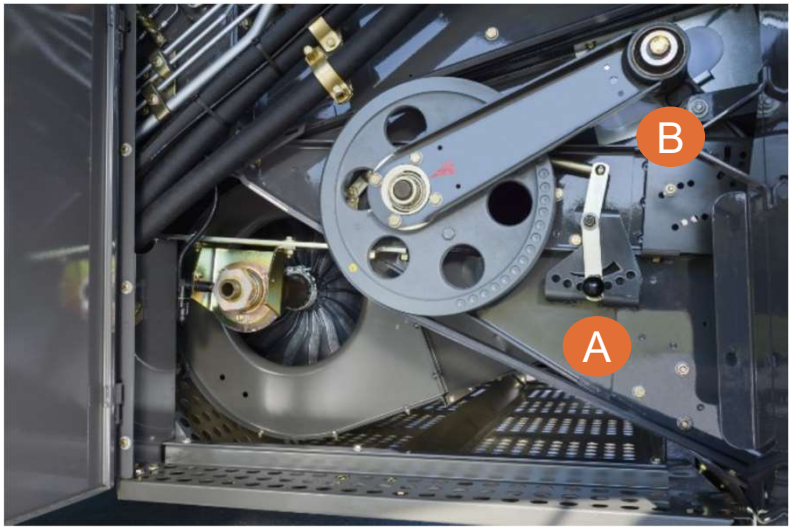
Standard cleaning (Walker)

Standard cleaning system adjustments

1. Airflow throttle flap A
   - + Affects the airflow on the duct of the first step
   - + Changes the aggressiveness of the pre-cleaner area
     - Recommended settings in crop settings guide
2. Wider gap B
   - + Affects the direction on the airflow in the duct
   - + Set to a steeper angle for heavy crops and a flatter angle for light crops
     - Recommended settings in crop settings guide







Sieves

TM6 sieve

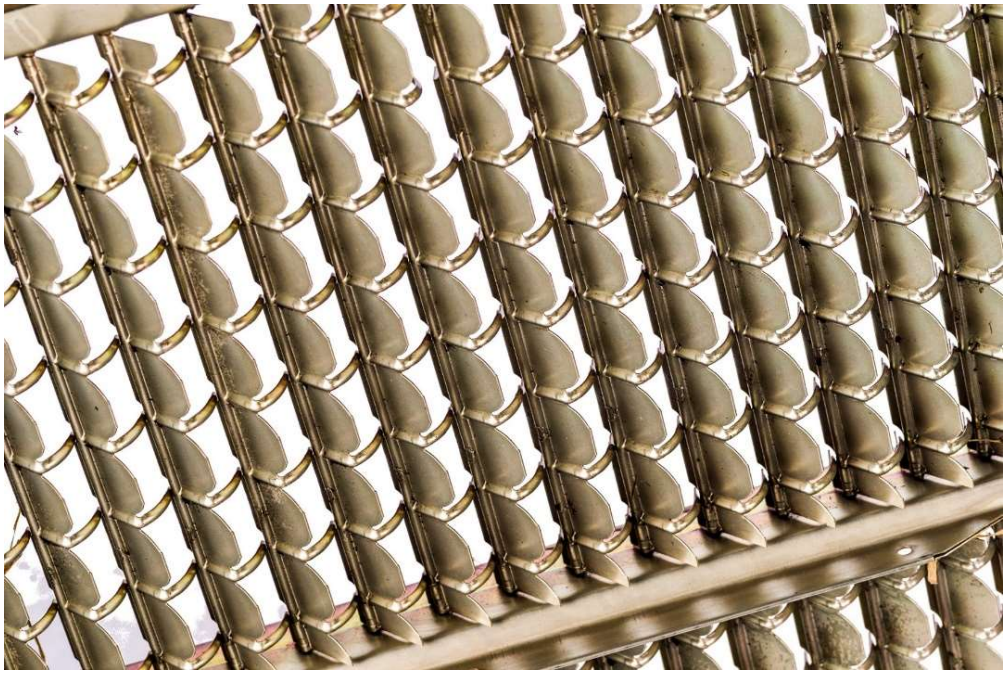
Premium sieves (upper and lower) for small grains and canola

Effective in:

+ Soybeans
+ Edibles
+ Sunflowers
+ Cereals
+ Small grains
+ Micro seeds

Not recommended for use in corn

- Fibers and silks have the potential to hair-pin on the foils and may cause the sieve to plug



Part	Standard chassis	Wide chassis	Quantity
Upper sieve	91022574	91022598	2
Lower sieve	756 446.0	756 448.0	2

Standard frogmouth sieve

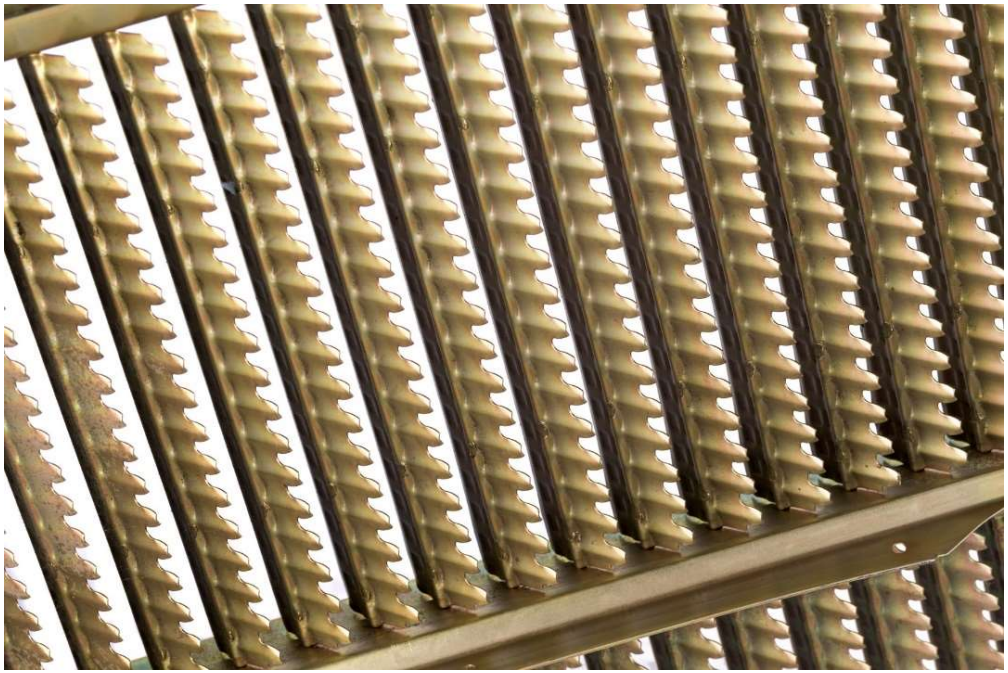
Small grains sieves without the airfoil effect of a TM6

Effective in:

+ Soybeans
+ Edibles
+ Sunflowers
+ Low yielding corn
+ Cereals
+ Small grains

Multi-purpose sieve

- Limited opening has potential to reduce capacity in high yielding crops



Part	Standard chassis	Wide chassis	Quantity
Upper sieve	91022572	91022596	2
Lower sieve	756 462.0	756 465.0	2

Sieves

Deep tooth sieve

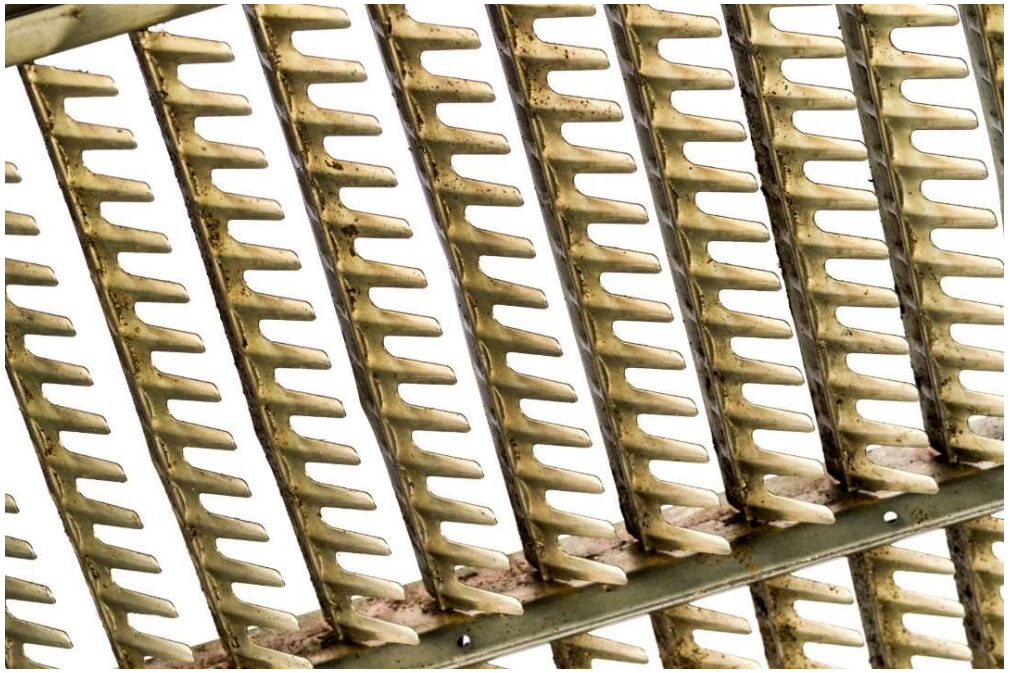
Premium corn sieve

Effective in:

+ Corn
+ Soybeans
+ Edibles
+ Sunflowers
+ Cereals

Not recommended for use in small grain

- Wide opening can increase large particles in grain sample



Part	Standard chassis	Wide chassis	Quantity
Upper sieve	91022576	91022600	2
Lower sieve	756 474.0	756 475.0	2

Sieves

CB22

Bottom sieve for corn/bean machines

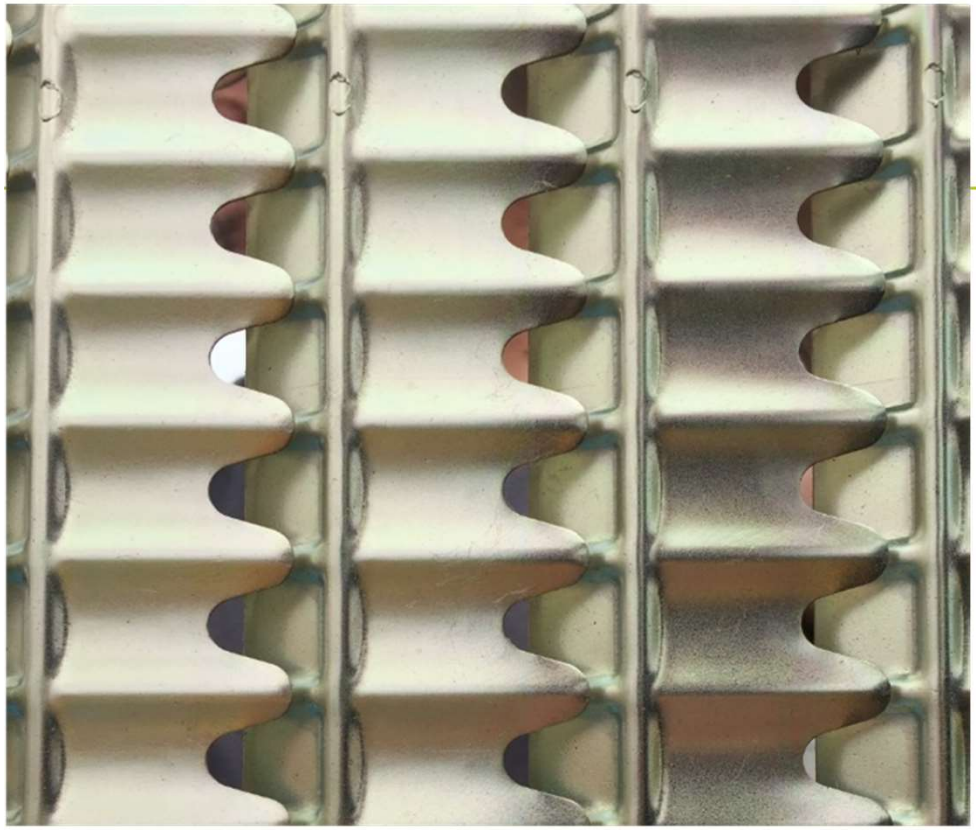
Effective in:

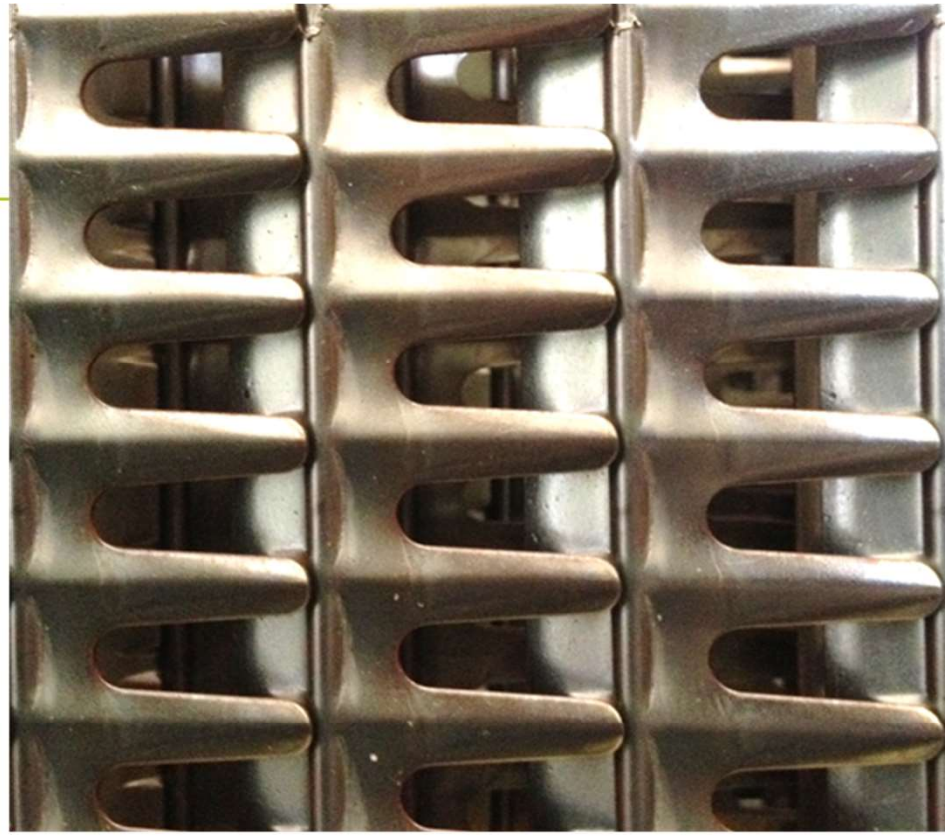
- + Corn
- + Soybeans
- + Edibles
- + Sunflowers
- + Cereals

**only available as a bottom sieve*

NEW 2018

Part	Standard chassis	Wide chassis	Quantity
Upper sieve	N/A	N/A	
Lower sieve	1818 483.1	1818 484.1	2






Soybeans using CB22
Soybeans using deep-tooth

Sieves (Aftermarket parts)

Upper sieve	Wide chassis	Standard chassis	Straw walker
TM6	91022598	91022574	736 058.0
Deep-tooth	91022600	91022576	739 543.1
Standard frogmouth	91022596	91022572	736 060.2
16 mm round hole	757 362.0	757 352.1	736 116.1
18 mm round hole	757 363.0	757 353.0	754 244.0
18 mm beveled round hole	757 364.0	757 354.0	736 122.1
20 mm beveled round hole	757 355.0	757 355.0	736 123.1
Corn/Cob 80/20 mixture	756 477.0	756 476.0	736 124.1
Lower sieve	**Wide chassis**	**Standard chassis**	**Straw walker**
TM6	756 448.0	756 446.0	736 059.0
Deep-tooth	756 475.0	756 474.0	N/A
Standard frogmouth	756 465.0	756 462.0	736 061.2
2.5 mm round hole	757 366.0	757 356.0	736 120.0
4.5 round hole	757 367.0	757 357.0	736 119.0
7 mm round hole	757 368.0	757 358.0	736 118.0
12 mm round hole	756 478.0	757 359.0	736 117.0
16 mm round hole	756 479.1	757 360.0	751 274.0
18 mm round hole	756 480.0	757 361.0	751 959.0
18 mm beveled round hole	756 481.0	757 350.0	736 122.1
20 mm beveled round hole	756 482.0	757 351.0	751 276.0

High / low speed adjustments

Chopper drive

- Standard chopper
- TURBO CHOP
- PRO CHOP

High speed

- Large pulley driving small pulley
- Small grains, soybeans, rice

Low speed

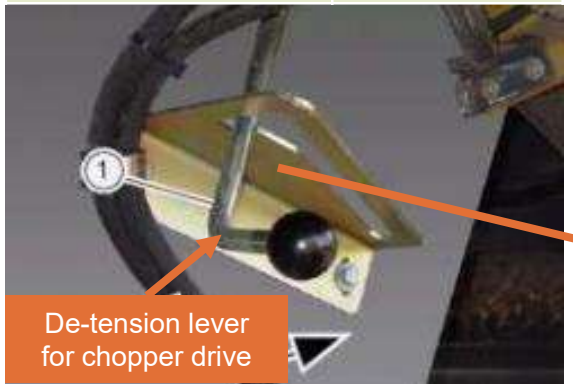
- Small pulley driving large pulley
- Corn

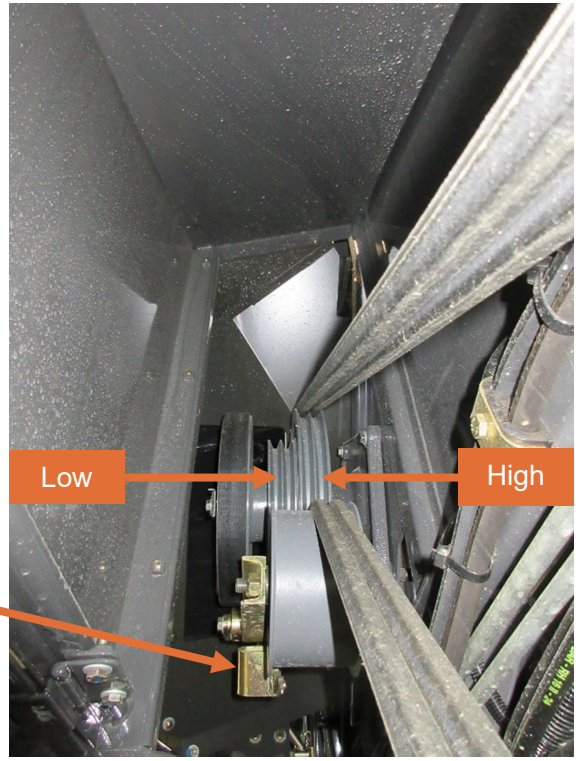
Procedure

1. Push de-tension lever forward to release tension from drive belt
2. Switch belt onto correct pulley for application
3. Release de-tension lever to reapply tension to belt

* De-tension assembly standard on corn machines
* Order from parts for small grains machine

De-tension assembly	Part number
De-tension lever	00 0061 759 2
Lever knob	00 0631 759 2
Lever bolt	00 0238 125 0
Lever nut	00 0238 132 0
De-tension guide plate	00 0352 809 2
Guide plate bolt (2)	00 0237 453 0
Guide plate washer (2)	00 0239 394 1





Chopper drive speed must be opposite of spinner drive speed

High / low speed adjustments

Spinner drive

- TURBO CHOP
- PRO CHOP

High speed

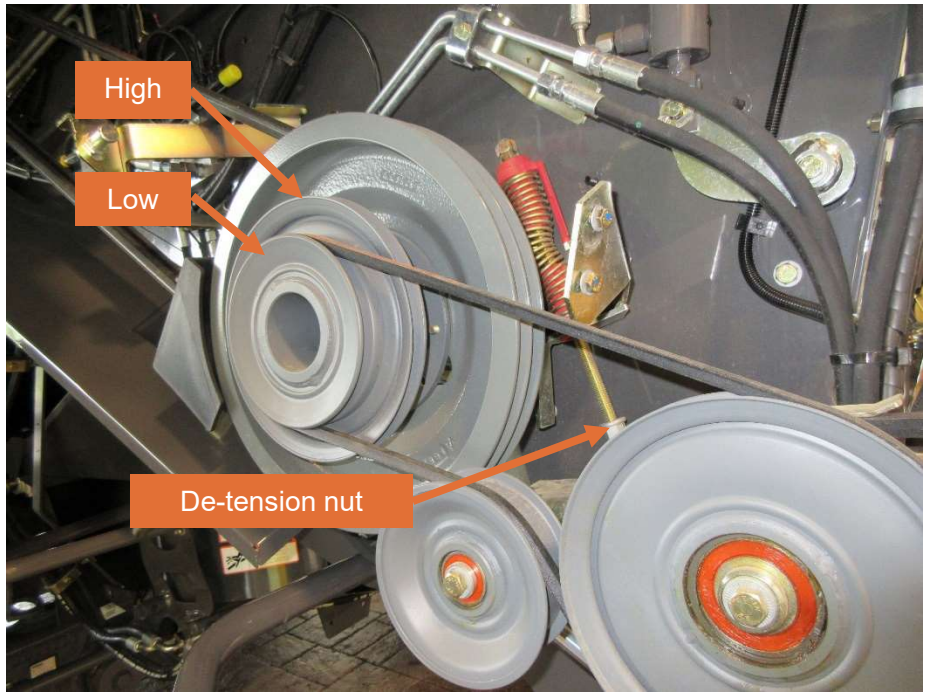
- If chopper is in low speed
- Large pulley driving small pulley
- Corn

Low speed

- If chopper is in high speed
- Small pulley driving large pulley
- Small grains, soybeans, rice

Procedure

1. Tighten de-tension nut up against spring tensioner to release tension on drive belt
2. Switch belt onto correct pulley for application
3. Loosen de-tension to tension belt



Spinner drive speed must be opposite of chopper drive speed

Residue Management

Stationary knives A

3-position knife bank

+ Engaged by a lever or hydraulically from the cab

Available:

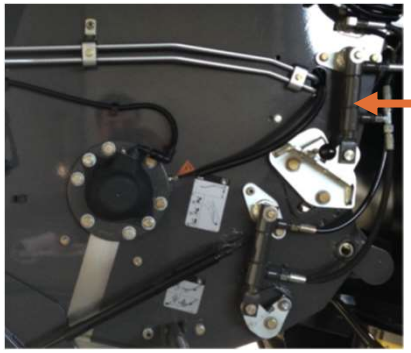
- Standard Chopper
- TURBO CHOP
- PRO CHOP

Engaged

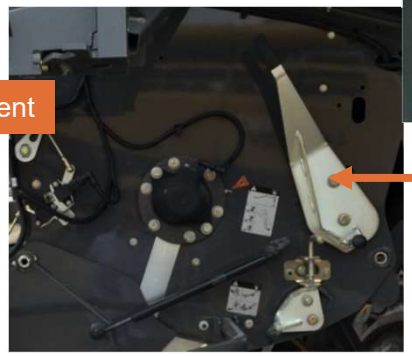
+ Smaller residue size
- Increased horsepower load

Disengaged

+ Decreased horsepower load
- Larger residue size



Hydraulic engagement



Lever engagement

Residue Management

Friction plate B

Speed bump in chopper chamber

- \+ Causes the crop to engage more of the rotary knives for increased chopping action
- \+ Engaged by a lever or hydraulically from the cab

Available:

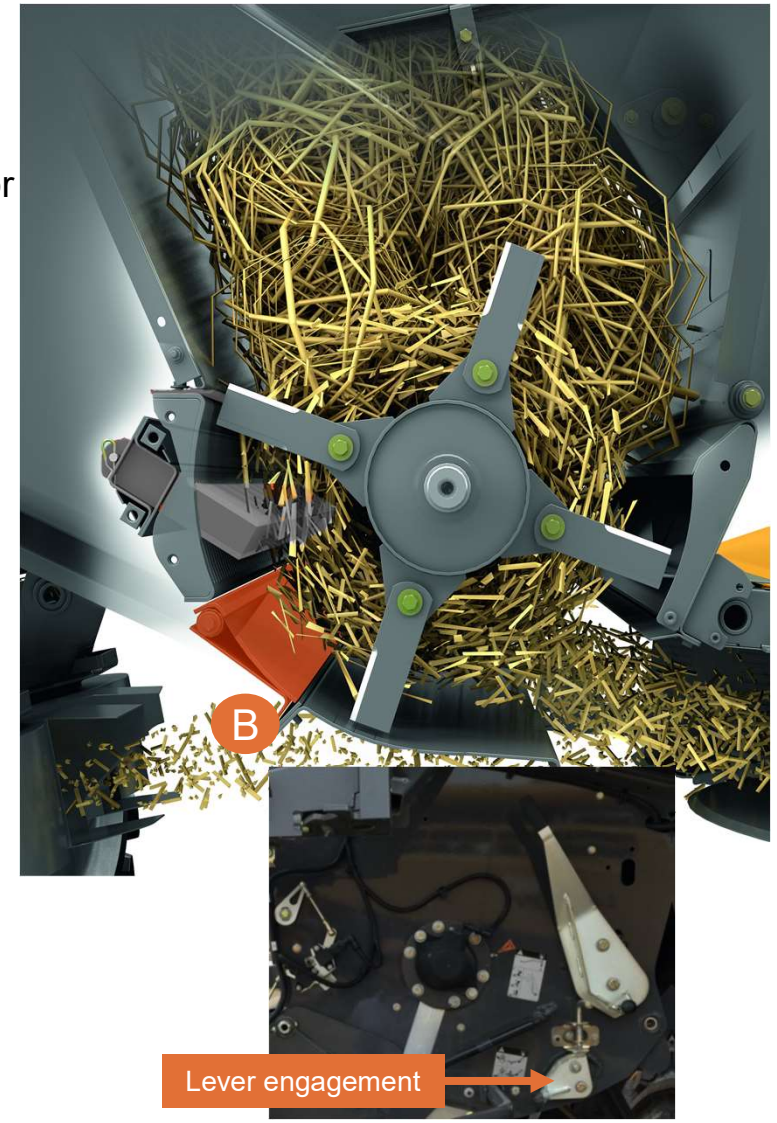
- TURBO CHOP
- PRO CHOP

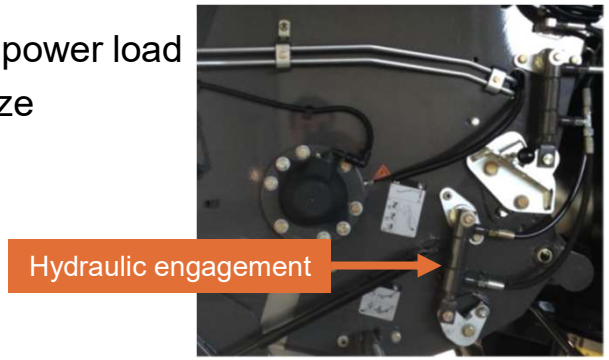
Engaged

- \+ Smaller residue size
- \+ Can use in place of or conjunction with stationary knives
- \- Increased horsepower load

Disengaged

- \+ Decreased horsepower load
- \- Larger residue size





Knife maintenance

Pre-harvest inspection

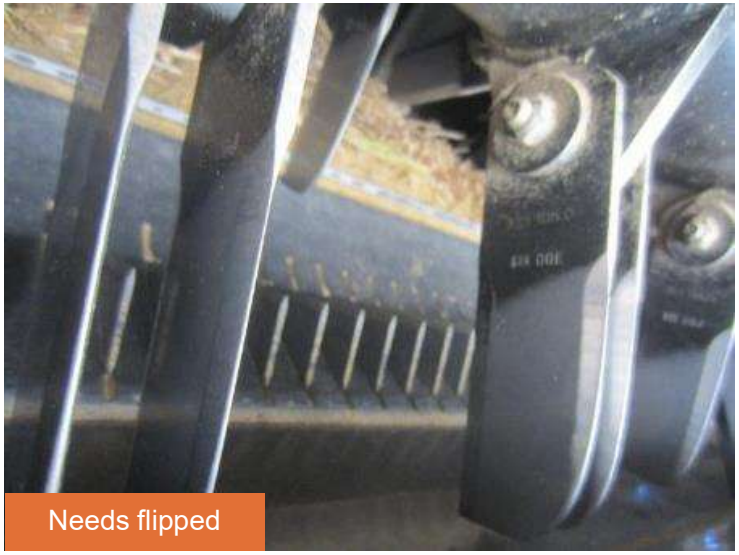
- Flip knives before harvest
- No broken knives
- Never run with a missing knife
- Sharp edges on cutting side

Sharp knives lead to:

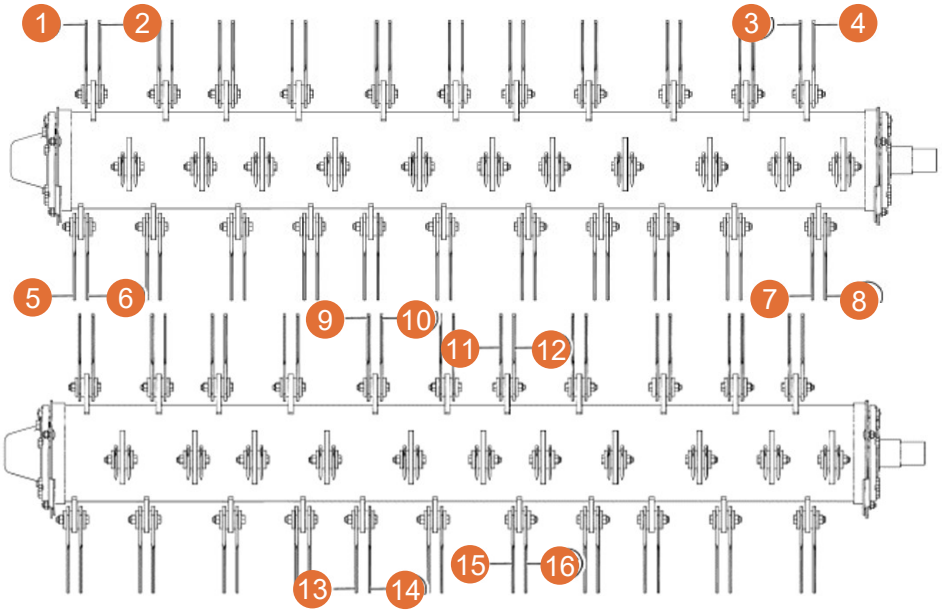
+ Less horsepower drag
+ Better chop quality
+ Better spread pattern

Worn knives can cause:

- Large horsepower drag
- Poor chop quality
- Poor spread pattern



Residue Management



Standard Chopper	Part number	Wide / Standard
Rotating	0 353 195.0	64 / 52
Stationary	0 600 300.0	55 / 55
TURBO CHOP	**Part number**	**Wide / Standard**
Rotating	0 353 195.0	88 / 72
HD Rotating	1 815 999.0	88 / 72
Stationary	0 600 300.0	67 / 55
HD Stationary	0 737 600.0	67 / 55
PRO CHOP	**Part number**	**Wide / Standard**
Rotating	0 736 872.0	108 / 72
HD Rotating	0 553 860.1	108 / 72
Stationary	0 600 300.0	67 / 55
HD Stationary	0 737 600.0	67 / 55

Examples

- If knife #1 is worn, damaged or missing, replace #‘s 1, 2, 3, 4, 5, 6, 7 & 8
- If knife #13 is worn, damaged or missing, replace #‘s 9, 10, 11, 12, 13, 14, 15 & 16

Are We Checking Properly?

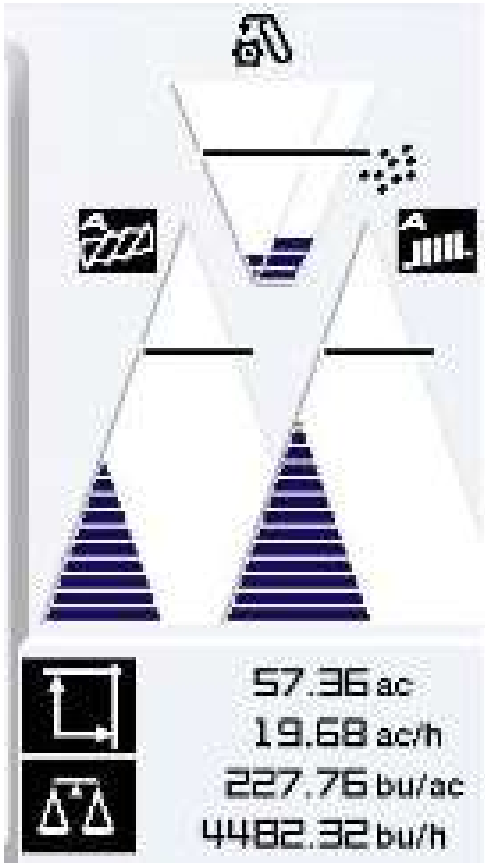
Drop the Chaff Spreaders

Drop the Straw Choppers

Catch all of Chaff & Straw

Measure the area size of collection

Collect the Seeds & Weigh them



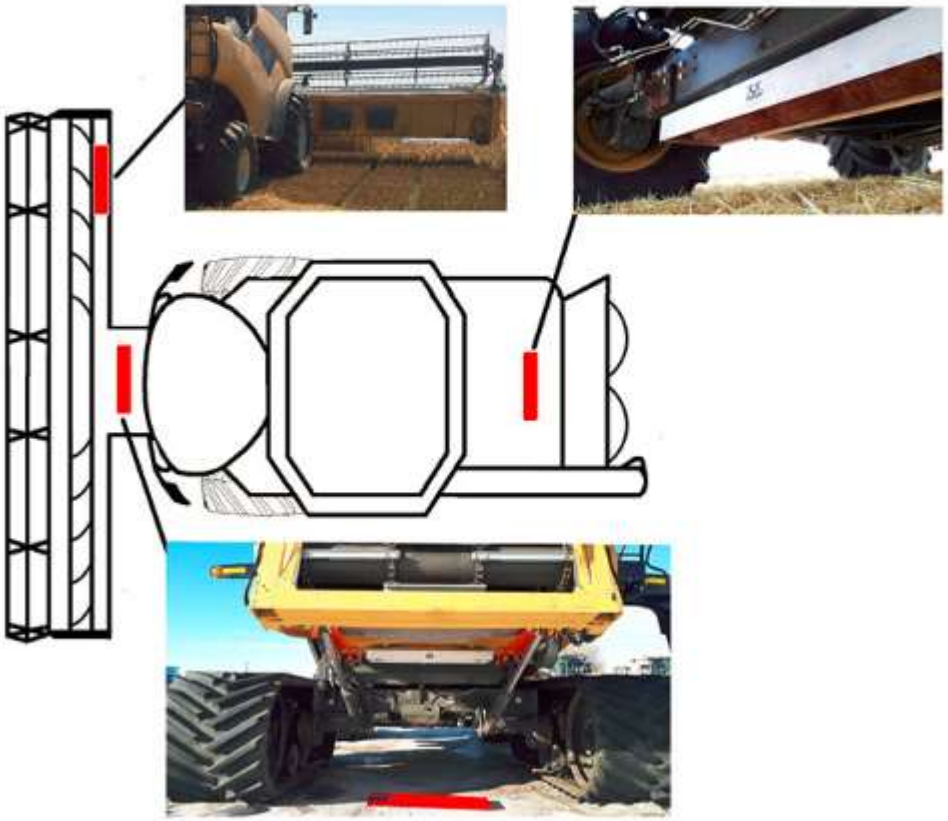
Calculating Loss Example 40 Bushel Canola 30’ Windrow 5’x1’ (1.52x.3m) Collection Area

- 50 lbs. per Bushel for canola (22.68 Kg/Bu)
- Approximately 6775.5 Seeds in an Ounce (239 Seeds/g)
- Approximately .034 lbs. (15.5 g) = .99 Bu/Ac
- Approximately 3705 Seeds = .99 Bu/Ac = 2.5%
- Approximately 1600 Seeds = .40 Bu/Ac =1%

Grain Loss

Plus Bushel

Innovative Combine Calibration



Auto Crop Flow

When to perform: as needed

Navigate to: / / A

Procedure	
1	Turn master switch “ON”
2	Set sensitivity Determines the sensitivity of the monitroring system; how much slip is allowed

Auto Crop Flow

Slug removal

Do not engage processor to remove slug!!!!

1. Common cause of most plugs
   - Belt damage
   - Belt failure
   - Improper belt tension
2. If the slug kills the engine under low idle, it will kill it under high idle – remove slug first!

Locate the plugged region

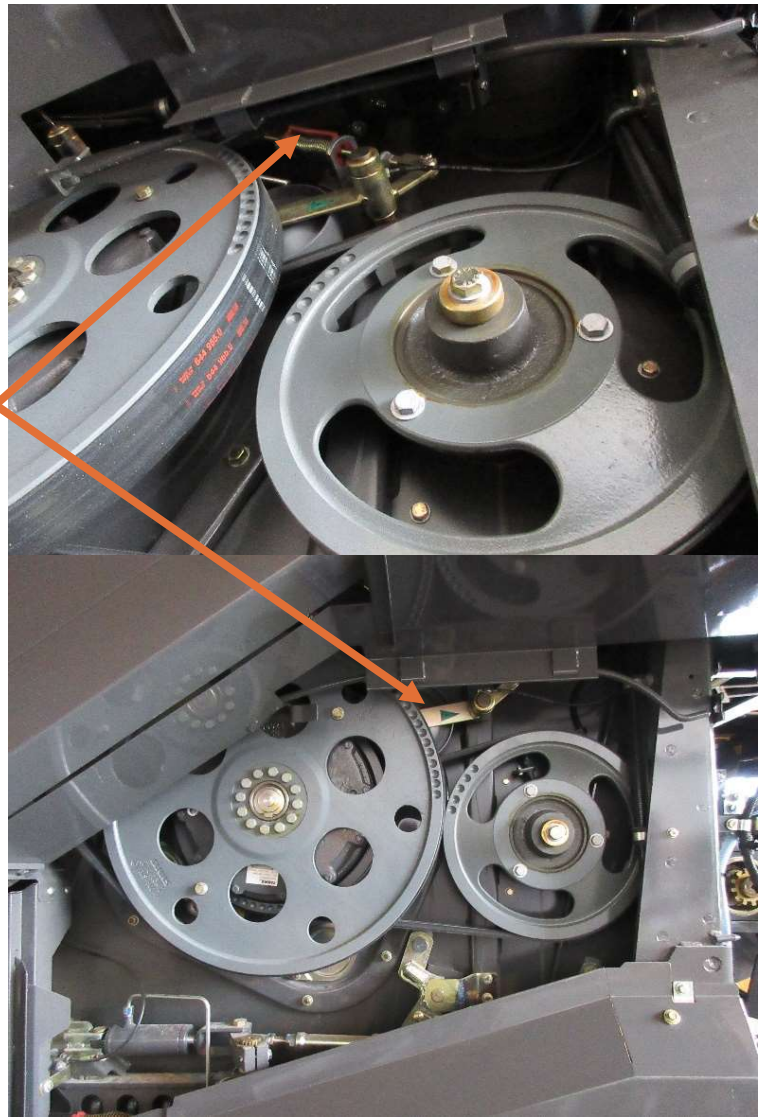
1. Under the APS cylinder?
2. Under the threshing cylinder?
3. Between the threshing cylinder and impeller?
4. Rotors?

Do not engage processor to remove slug!!!

Slug removal

Plugged APS cylinder

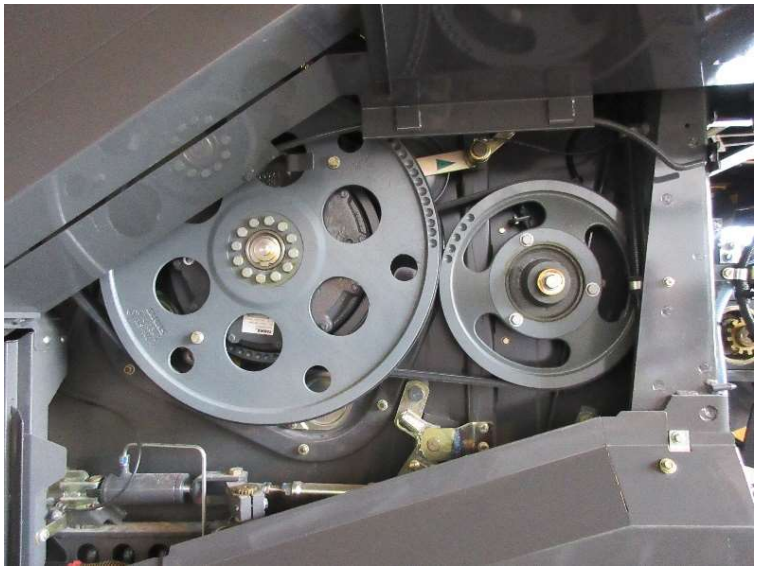
1. Open concave all the way (50 mm)
2. De-tension APS cylinder belt
3. Use the paddles on the APS cylinder to pry it backward



Slug removal

Plugged threshing cylinder

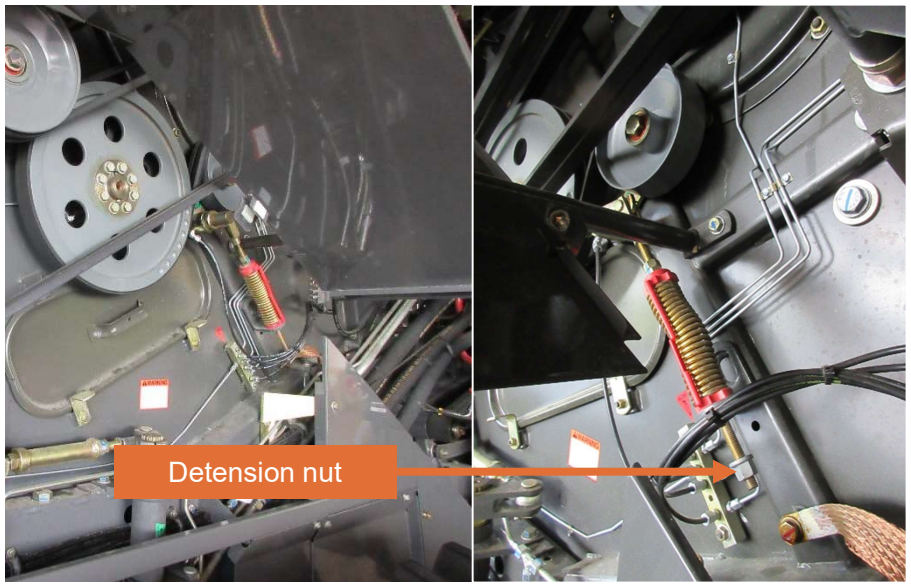
1. Disconnect APS 2 – speed gear box
   - APS is now in neutral
2. Open concave all the way (50 mm)
3. Use the paddles on the APS cylinder to pry it backward



Slug removal

Region between threshing cylinder and impeller plugged

1. Disconnect APS 2 – speed gear box
   - APS is now in neutral
2. Drop the chopper
3. Engage separator and clean out the rotors
4. Re-engage the APS reduction bolts in low speed
5. De-tension the rear impeller drive belt on the left-hand side (see picture)
   - Use de-tension nut that is located in the toolbox
6. Remove APS access door below the cab
7. Open concave all the way (50 mm)
8. Engage processor
9. Slug should exit onto the feederhouse as separator engages



***Retighten impeller tensioner after operating machine a pass to ensure proper tension after belt stretches**

Slug removal

Slug removal

Plugged rotors

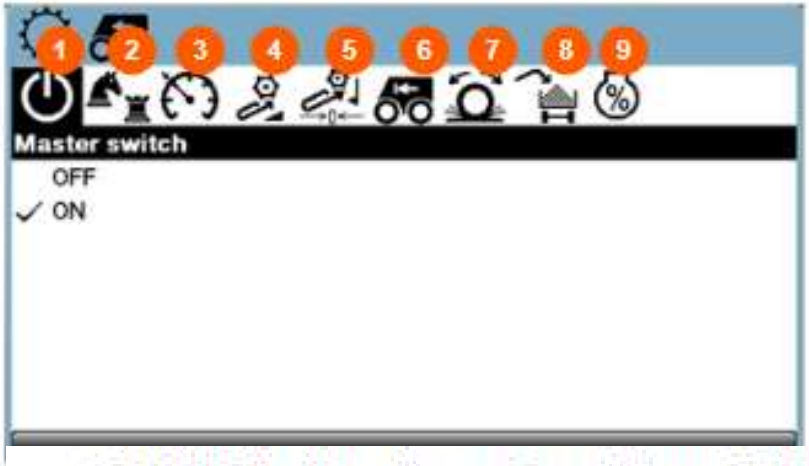
1. Disconnect APS 2 – speed gear box
   - APS is now in neutral
2. Drop the chopper
3. Separate the rotor drive coupler between gear boxes
4. Engage separator and clean out the right-hand rotor
5. Re-connect the rotor drive coupler
6. Engage separator and clean out the left-hand rotor

Cruise Pilot

When to perform: at the start of each crop type

Navigate to: ⚙ / 🚜

	Procedure
1	Turn master switch “ON”
2	Select desired mode ▪ Cruise Control (constant speed) ▪ Constant throughput ▪ Monitored throughput (recommended)
3	Set target speed (only for cruise control mode)
4	Set target throughput index value Can be done in CEBIS, or by holding AUTO PILOT button for 5 seconds while harvesting desired throughput
5	Calibrate zero throughput by pressing “OK” (when machine is not harvesting)
6	Set max speed
7	Set driving sensitivity
8	Unloading mode



CEBIS indication: On (1) or Off (2)

PILOT

i-function lever

2. Tap the foot brakes

Engage CRUISE PILOT by:

1. AUTO PILOT button on multi-function lever

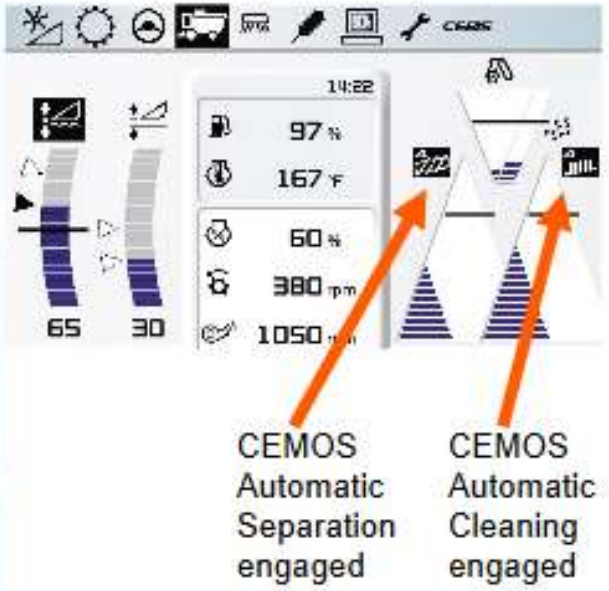
Cruise Pilot

CEMOS CEBIS ONLY

When to perform: at the start of each crop type

Navigate to: /

Procedure	
1	Turn master switch “ON” for both CEMOS AUTO CLEANING and CEMOS AUTO SEPARATION
2	Choose optimization strategy ▪ Max throughput (high capacity, more potential FM) ▪ Min fuel consumption (low rotor speed) ▪ High thresh quality (less FM, lower capacity) ▪ Balanced (mix of above strategies)
3	Select grain cleanliness within the strategy
4	Learning inclination ▪ Calibrates combine angle sensor ▪ Must be on level ground
5	Activate CEMOS AUTOMATIC via AUTO STEER button



CEMOS CEBIS ONLY

CEMOS AUTOMATIC

Demo Version CEMOS AUTO SEPARATION & CEMOS AUTO CLEANING

LEXION 700

Features

- 50-hours demo version
  - 50-hours = 50-hours processor not engine
  - After 10-hours, CEBIS informs operator about the function
  - After 35-hours, CEBIS informs operator about end of license
- Demo version will start as soon as the threshing system has been turned on and will continue counting down as long as the threshing system is engaged
- After 50 hours, the function will no longer be active and cannot be re-activated (only via CLAAS Service & Parts – unlock code)

Note: CEMOS CRUISE PILOT menu will still be visible but not active after 50 hours

CEMOS AUTOMATIC

Demo Version CEMOS AUTO CLEANING

LEXION 600

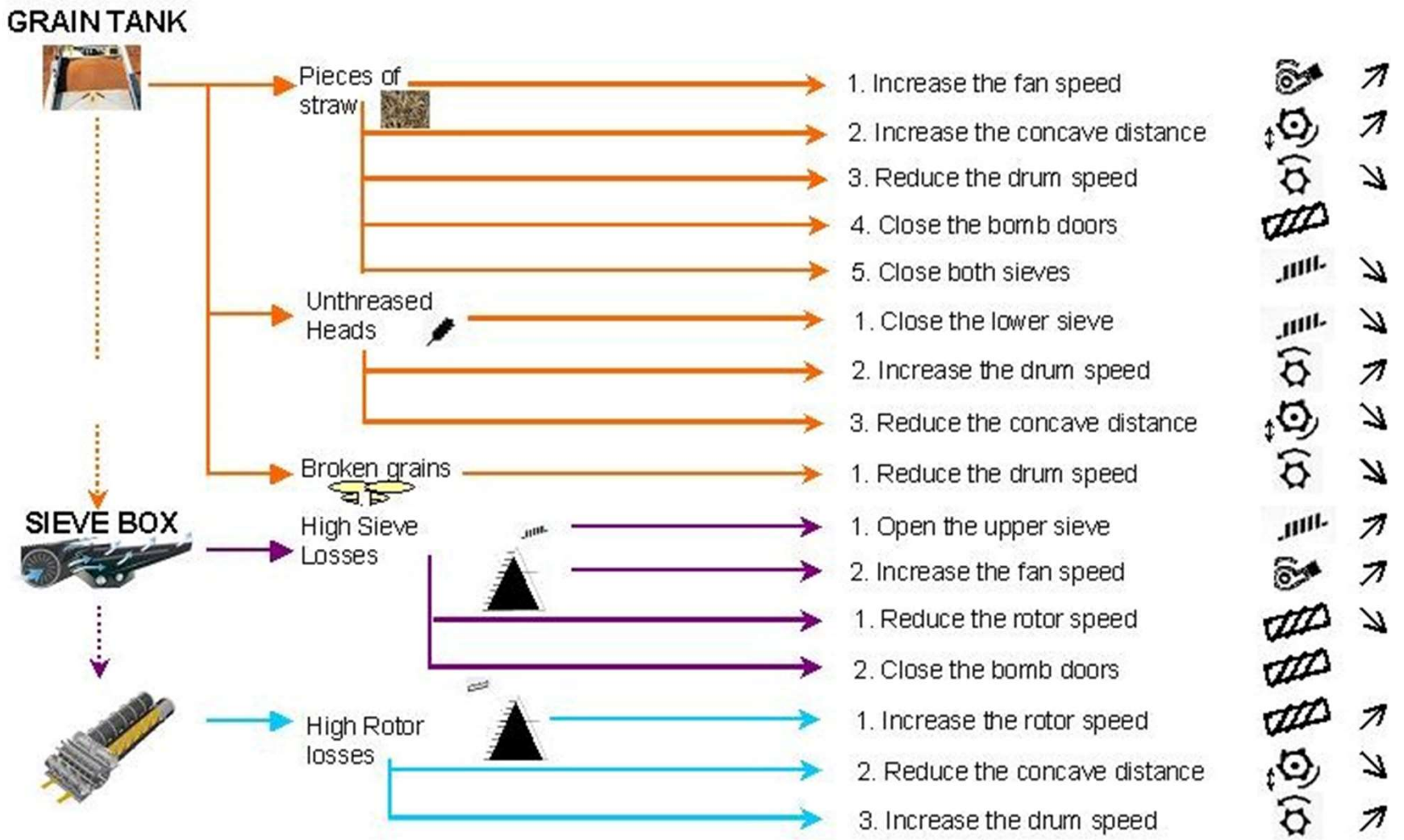
Features

- 50-hours demo version
  - 50-hours = 50-hours processor not engine
  - After 10-hours, CEBIS informs operator about the function
  - After 35-hours, CEBIS informs operator about end of license
- Demo version will start as soon as the threshing system has been turned on and will keep on counting down as long as the threshing system is engaged
- After 50, hours the function will no longer be active and cannot be re-activated (only via CLAAS Service & Parts – unlock code)

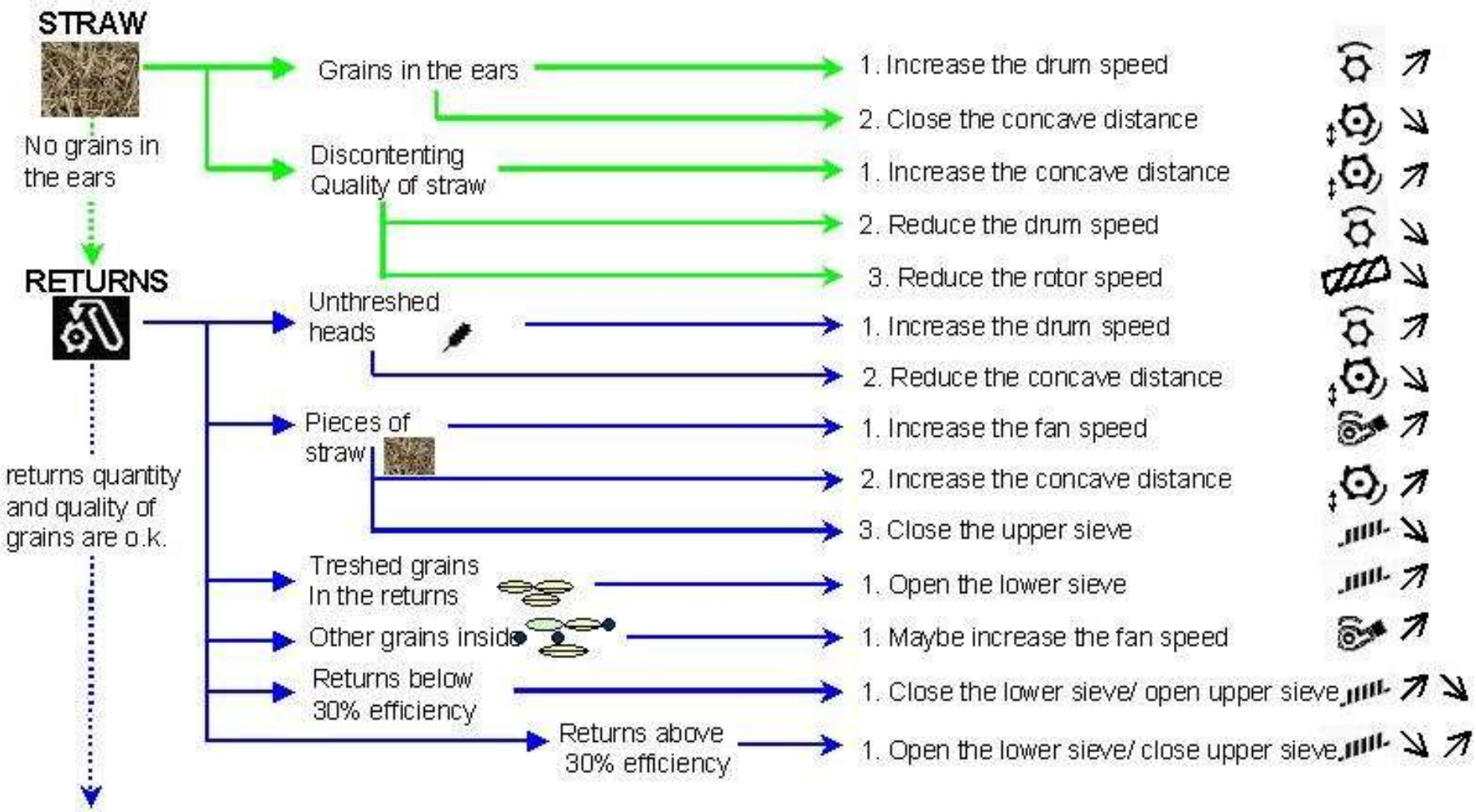
Note: CEMOS CRUISE PILOT menu will still be visible but not active after 50 hours

CEMOS

Settings and adjustments



Settings and adjustments



Recommended starting setting: Canola

V-Plates can be installed for tough stem conditions, as well as the serrated impeller wear strips kit. Close rotor cover plates, one segment at a time, to improve material flow onto the cleaning shoe.

Feederhouse drum position	Down
Feederhouse speed	400 rpm
Pre-concave types	6.5, 10 or 12x40 mm
Pre-concave rear filler plate	As needed only on corn models
Dis-awning plates	Opened
Intensive threshing segments	Not installed, use as needed
Concave gap	25 mm
Threshing cylinder speed range	High
Threshing cylinder speed	600 rpm
Concave filler plates	None installed

Rotor speed	800 rpm
Rotor cover plates	(1-2) closed, more as needed
Cleaning fan speed	1000 rpm
Upper sieve	Standard: 14 TM6: 14
Lower sieve	Standard: 6 TM6: 6
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	As needed

Recommended adjustments: Canola

	Dry	Green
*Threshing (rpm):	550 - 600	600 - 650
Concave (mm):	25 - 30	23 - 25
**Rotor (rpm):	700 - 800	800 - 900
Fan (rpm):	1000 - 1200	1200 - 1300

*Pending plant condition and swath width

**Recommended rotor speed: 100 rpm over threshing speed

Recommended starting setting: Wheat

For high straw quality and very dry conditions, refrain from using the intensive threshing segements.

Feederhouse drum position	Up or Down
Feederhouse speed	400 rpm
Pre-concave types	6.5, 10 or 12x40 mm
Pre-concave rear filler plate	Yes (only on corn models)
Dis-awning plates	Open, close as needed
Intensive threshing segments	Not installed, use as needed
Concave gap	12 mm
Threshing cylinder speed range	High
Threshing cylinder speed	750 rpm
Concave filler plates	(3) installed on N18 large wire concave - beginning at row #2

Rotor speed	850 rpm
Rotor cover plates	Open, close as needed
Cleaning fan speed	1100 rpm
Upper sieve	Deep-tooth: 9 Standard: 15 TM6: 15
Lower sieve	Deep-tooth: 0 - 2 Standard: 9 TM6: 9
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	As needed

Recommended adjustments: Wheat

Moisture:	**</= 7%**	**8-10%**	**11-13%**	**14-16%**	**17-19%**	**20-22%**	**>22%**
***Threshing (rpm):**	**- 610**	**610 - 660**	**660 - 710**	**710 - 760**	**760 - 810**	**810 - 860**	**860 +**
Concave (mm):	**10 - 13+**	**10 - 13**	**9 - 13**	**9 - 13**	**8 - 12**	**8 - 10**	**8 - 10**
****Rotor (rpm):**	**- 710**	**710 - 760**	**760 - 810**	**810 - 860**	**860 - 910**	**910 - 960**	**960 +**

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

Recommended starting setting: Corn (dry)

Set concave gap to the diameter of the cob with the Round bar main concave and 2-3 mm over cob diameter when using an N18 large wire concave. Set corn head deck-plate gap to slightly over stalk diameter. The chopper friction plate can be engaged to help break up cobs.

Feederhouse drum position	Up
Feederhouse speed	350 rpm
Pre-concave types	19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open
Intensive threshing segments	Not installed
Concave gap	28 mm
Threshing cylinder speed range	Low
Threshing cylinder speed	360 rpm
Concave filler plates	None installed

Rotor speed	400 rpm
Rotor cover plates	All open
Cleaning fan speed	1200 rpm
Upper sieve	Deep-tooth: 15 Standard: 18
Lower sieve	Deep-tooth: 14 Standard: 15
Chopper speed	Low
Stationary knives	Disengaged
Friction plate (TC, PC)	As needed

Recommended adjustments: Corn (dry)

Moisture:	**< 15%**	**15 - 18%**	**19 - 22%**	**23 - 26%**	**27 - 30%**	**31 - 34%**	**> 34%**
***Threshing (rpm):**	**- 320**	**320 - 340**	**340 - 360**	**360 - 380**	**380 - 400**	**400 - 420**	**420 +**
Concave (mm):	**Large wire (N18) main concave: 2 -3 mm over cab diameter** **Round bar main concave: cob diameters (+/- 3 mm)**						
****Rotor (rpm):**	**370**	**370**	**370**	**370**	**370 - 400**	**400 – 430**	**430 +**

***Pending plant condition, specialty / food grade varieties may go slower**

****Rotor RPM can be set equal to or below APS speed in corn below 30% moisture**

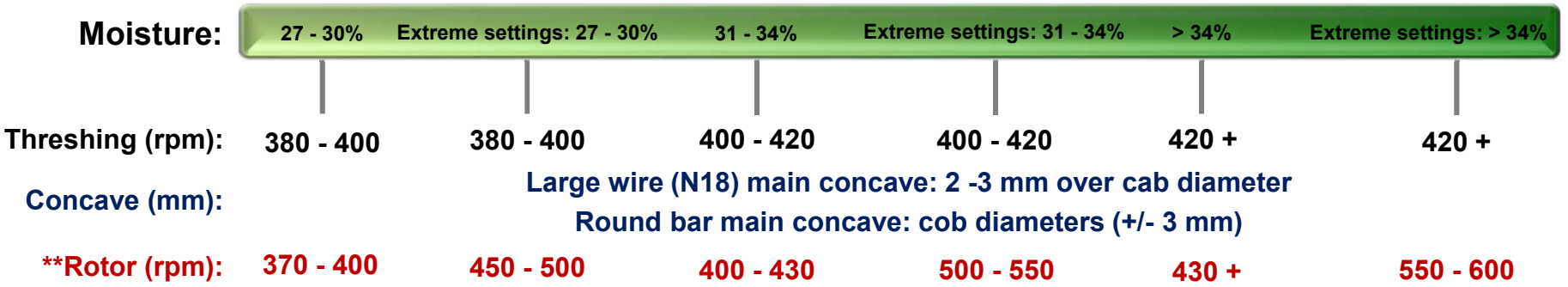
Recommended starting setting: “High moisture” Corn

Set concave gap to the diameter of the cob with the Round bar main concave and 2-3 mm over cob diameter when using an N18 large wire concave. Set corn head deck-plate gap to slightly over stalk diameter. The chopper friction plate can be engaged to help break up cobs.

Feederhouse drum position	Up
Feederhouse speed	420 rpm
Pre-concave types	19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open
Intensive threshing segments	Not installed
Concave gap	28 mm
Threshing cylinder speed range	Low
Threshing cylinder speed	400 rpm
Concave filler plates	None installed

Rotor speed	450 rpm
Rotor cover plates	Open
Cleaning fan speed	1350 rpm
Upper sieve	Deep-tooth: 15 Standard: 18
Lower sieve	Deep-tooth: 14 Standard: 15
Chopper speed	Low
Stationary knives	Disengaged
Friction plate (TC, PC)	Engage as needed

Recommended adjustments: High moisture corn



**Higher moisture corn = greater kernel weight will allow kernels to separate out at higher rotor speeds more efficiently that dry, lighter weight kernels

Recommended starting setting: Soybeans

19 mm smooth corn grates or Round bar grates can be used for easy-to-thresh conditions, but may require the dis-awning plates be closed.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	380 rpm
Pre-concave types	10, 12 or 19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open, close as needed
Intensive threshing segments	Not installed
Concave gap	22 mm
Threshing cylinder speed range	High
Threshing cylinder speed	600 rpm
Concave filler plates	None installed

Rotor speed	700 rpm
Rotor cover plates	As needed
Cleaning fan speed	1150 rpm
Upper sieve	Deep-tooth: 9 Standard: 15 TM6: 15
Lower sieve	Deep-tooth: 0 - 2 Standard: 10 TM6: 10
Chopper speed	High
Stationary knives	Engaged 100%, 50% optional
Friction plate (TC, PC)	As needed

Recommended adjustments: Soybeans

Moisture:	**</= 7%**	**8 - 9%**	**10 - 11%**	**12 - 13%**	**13 - 14%**	**14 - 15%**	**>15%**
***Threshing (rpm):**	**- 450**	**450 - 480**	**480 - 520**	**560 - 600**	**600 - 650**	**650 - 700**	**700 +**
Concave (mm):	**23 +**	**20 - 23**	**17 - 19**	**16 - 18**	**16 - 18**	**13 - 17**	**13 - 17**
****Rotor (rpm):**	**< 550**	**550 - 580**	**580 - 620**	**660 - 700**	**700 - 750**	**750 - 800**	**800 +**

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

Recommended starting setting: “Green-stem” soybeans

V-Plates can be installed for tough stem conditions, as well as the serrated impeller wear strip kit.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	400 rpm
Pre-concave types	10 or 12x40 mm
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open, closed as needed
Intensive threshing segments	Not installed
Concave gap	19 mm
Threshing cylinder speed range	High
Threshing cylinder speed	650 rpm
Concave filler plates	None installed

Rotor speed	750 rpm
Rotor cover plates	Open, close as needed
Cleaning fan speed	1200 rpm
Upper sieve	Deep-tooth: 9 Standard: 15 TM6: 15
Lower sieve	Deep-tooth: 0 - 2 Standard: 10 TM6: 10
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	As needed

Recommended adjustments: “Green-stem” soybeans

Moisture:	-	-	-	-	-	-	-
***Threshing (rpm):**	-	-	-	-	-	-	-
Concave (mm):	-	-	-	-	-	-	-
****Rotor (rpm):**	-	-	-	-	-	-	-

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

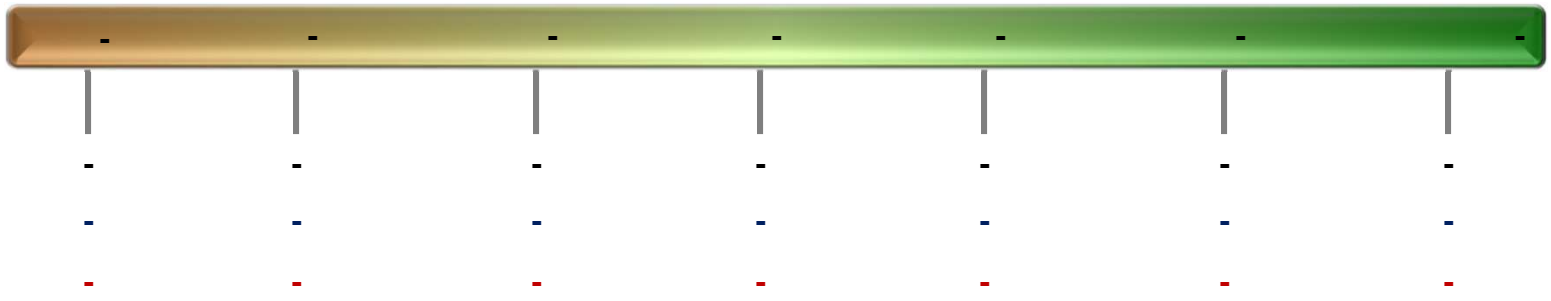
Recommended starting setting: Barley

For high straw quality and very dry conditions, refrain from using the intensive threshing segments.

Feederhouse drum position	Down
Feederhouse speed	400 rpm
Pre-concave types	6.5, 10 or 12x40 mm
Pre-concave rear filler plate	Installed, only in corn models
Dis-awning plates	Closed
Intensive threshing segments	Installed, as needed
Concave gap	12 mm
Threshing cylinder speed range	High
Threshing cylinder speed	750 rpm
Concave filler plates	(3) installed on N18 large wire concave - beginning at row #2

Rotor speed	850 rpm
Rotor cover plates	Open, close as needed
Cleaning fan speed	1100 rpm
Upper sieve	Deep-tooth: 9 Standard: 15 TM6: 15
Lower sieve	Deep-tooth: 0 - 2 Standard: 9 TM6: 9
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Barley



*Pending plant condition

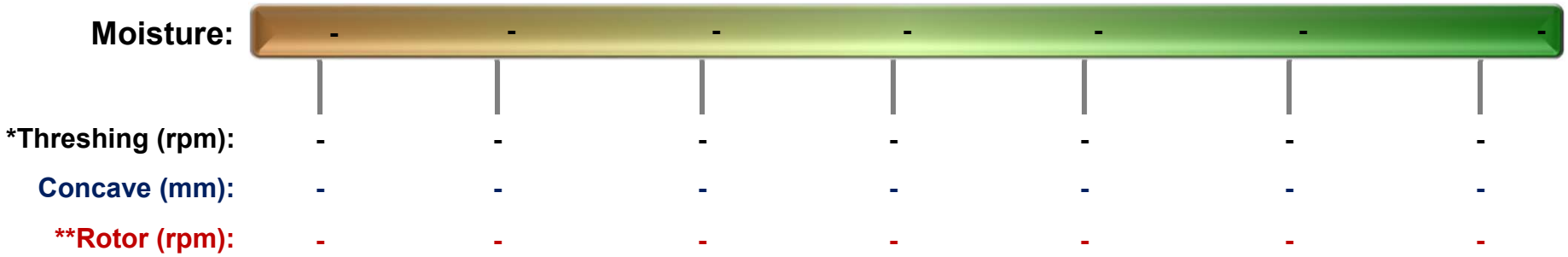
**Recommended rotor speed: 100 rpm over threshing speed

Recommended starting setting: Malting barley

Feederhouse drum position	Down
Feederhouse speed	400 rpm
Pre-concave types	6.5, 10, or 12x40 mm
Pre-concave rear filler plate	Yes, only on corn models
Dis-awning plates	Closed, open as needed
Intensive threshing segments	Not installed
Concave gap	20 mm
Threshing cylinder speed range	High
Threshing cylinder speed	650 rpm
Concave filler plates	(3) installed on N18 large wire concave - beginning at row #2

Rotor speed	750 rpm
Rotor cover plates	Open, close as needed
Cleaning fan speed	1100 rpm
Upper sieve	Standard: 15 TM6: 15
Lower sieve	Standard: 9 TM6: 9
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged as needed

Recommended adjustments: Malting barley



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

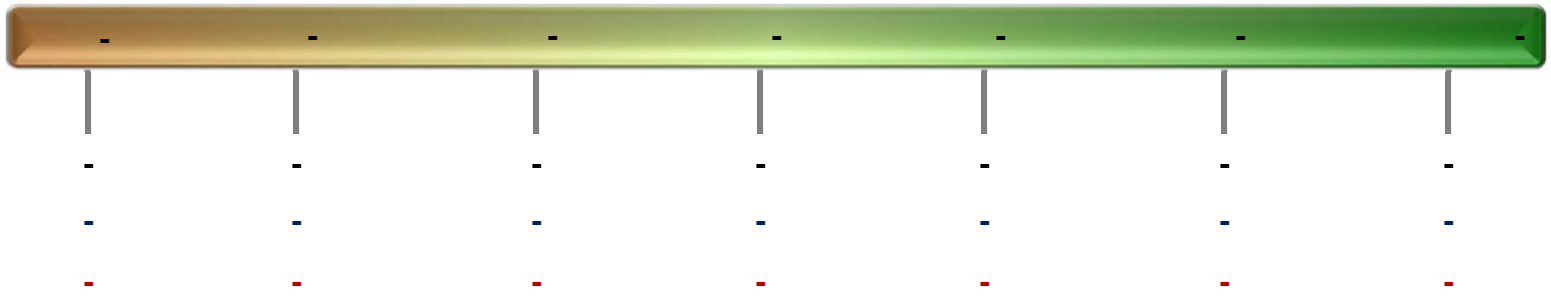
Recommended starting setting: Alfalfa

Cleaning fan reduction pulley required to achieve optimal cleaning fan speed.
A fixed hole lower sieve can be used to further clean grain sample, available from CLAAS spare parts.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	420 rpm
Pre-concave types	6.5 or 6.5x40 mm keystock
Pre-concave rear filler plate	Installed
Dis-awning plates	Closed
Intensive threshing segments	Installed as needed
Concave gap	8 mm
Threshing cylinder speed range	High
Threshing cylinder speed	800 rpm
Concave filler plates	(3-6) installed on N18 large wire concave - beginning at row #2

Rotor speed	900 rpm
Rotor cover plates	2 - 4 closed
Cleaning fan speed	450 rpm
Upper sieve	Standard: 4 TM6: 4
Lower sieve	Standard: 2 TM6: 2
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Alfalfa



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

Recommended starting setting: Edible beans

V-Plates will need to be installed for most conditions when threshing below 400 RPM. Slow threshing cylinder as necessary to achieve desired sample.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	380 rpm
Pre-concave types	6.5, 10, 12 or 19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	As needed
Intensive threshing segments	Not installed
Concave gap	25 mm
Threshing cylinder speed range	Low
Threshing cylinder speed	400 rpm
Concave filler plates	None installed

Rotor speed	500 rpm
Rotor cover plates	As needed
Cleaning fan speed	1200 rpm
Upper sieve	Deep-tooth: 9 Standard: 16 TM6: 16
Lower sieve	Deep-tooth: 2-3 Standard: 12 TM6: 12
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	As needed

Recommended adjustments: Edible beans

Moisture:	**</= 8%**	**10%**	**11%**	**12%**	**14%**	**15%**	**>17%**
***Threshing (rpm):**	**200 - 210**	**210 - 250**	**250 - 260**	**260 - 300**	**300 - 330**	**330 - 350**	**350 - 400**
Concave (mm):	**14 - 18**	**14 - 15**	**12 - 14**	**12 - 14**	**12 - 14**	**12 - 14**	**12 - 14**
****Rotor (rpm):**	**350 - 400**	**350 - 400**	**450 - 500**	**500 - 550**	**550 - 600**	**550 - 600**	**550 - 600**

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

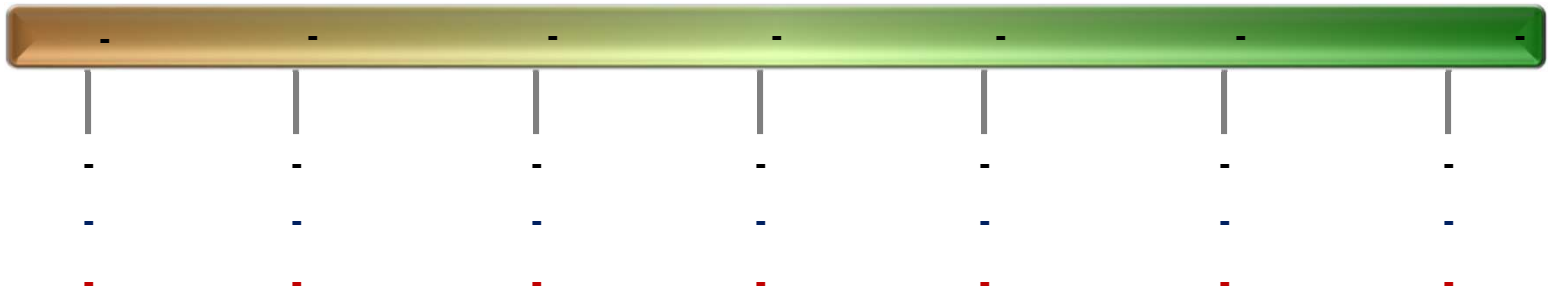
Recommended starting setting: Oats

Rotor cover plates can be closed (one segment at a time) in very dry conditions to improve material flow onto the cleaning shoe.

Feederhouse drum position	Down
Feederhouse speed	400 rpm
Pre-concave types	6.5, 10 or 12x40 mm
Pre-concave rear filler plate	Installed, only in corn models
Dis-awning plates	Open, close as needed
Intensive threshing segments	Not installed
Concave gap	16 mm
Threshing cylinder speed range	High
Threshing cylinder speed	800 rpm
Concave filler plates	(3) installed on N18 large wire concave - beginning at row #2

Rotor speed	900 rpm
Rotor cover plates	Open, close as needed
Cleaning fan speed	1000 rpm
Upper sieve	Standard: 15 TM6: 15
Lower sieve	Standard: 12 TM6: 12
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Oats



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

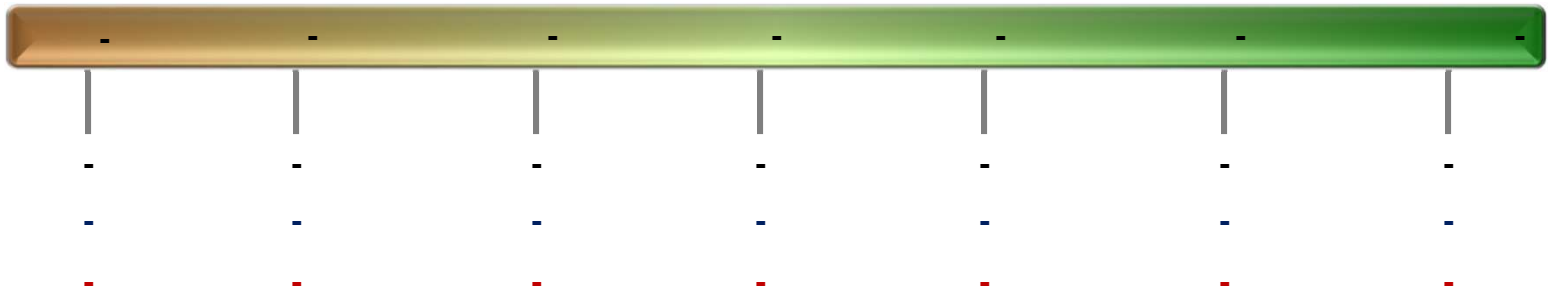
Recommended starting setting: Grass Seed (fescue, rye, …)

Fescue, Rye, etc.
Cleaning fan reduction pulley required to achieve optimal cleaning fan speed.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	420 rpm
Pre-concave types	6.5x40 mm keystock
Pre-concave rear filler plate	Installed
Dis-awning plates	Open, if possible
Intensive threshing segments	Installed as needed
Concave gap	35 mm
Threshing cylinder speed range	High
Threshing cylinder speed	650 rpm
Concave filler plates	(4-6) installed on N18 large wire concave - beginning at row #2

Rotor speed	750 rpm
Rotor cover plates	2 - 4 closed
Cleaning fan speed	650 rpm
Upper sieve	Standard: 15 TM6: 15
Lower sieve	Standard: 10 TM6: 10
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Grass seeds



*Pending plant condition

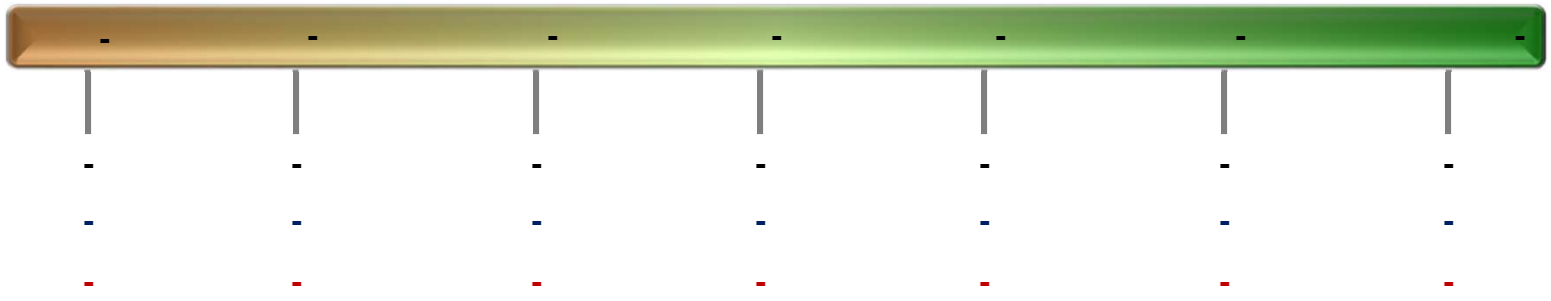
**Recommended rotor speed: 100 rpm over threshing speed

Recommended starting setting: Flax

Feederhouse drum position	Down
Feederhouse speed	420 rpm
Pre-concave types	6.5 or 10x40 mm
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open as needed
Intensive threshing segments	Not installed
Concave gap	10 mm
Threshing cylinder speed range	High
Threshing cylinder speed	550 rpm
Concave filler plates	None installed

Rotor speed	800 rpm
Rotor cover plates	(1-2) closed
Cleaning fan speed	850 rpm
Upper sieve	Standard: 10 TM6: 10
Lower sieve	Standard: 3 TM6: 3
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Flax



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

Recommended starting setting: Lentils

V-Plates will need to be installed for most conditions when threshing below 400 RPM.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	380 rpm
Pre-concave types	10 or 12x40 mm
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open, close as needed
Intensive threshing segments	Not installed
Concave gap	25 mm
Threshing cylinder speed range	Low
Threshing cylinder speed	400 rpm
Concave filler plates	None installed

Rotor speed	500 rpm
Rotor cover plates	Open, close as needed
Cleaning fan speed	1200 rpm
Upper sieve	Standard: 16 TM6: 16
Lower sieve	Standard: 12 TM6: 12
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Lentils

Moisture:	-	-	-	-	-	-	-
***Threshing (rpm):**	-	-	-	-	-	-	-
Concave (mm):	-	-	-	-	-	-	-
****Rotor (rpm):**	-	-	-	-	-	-	-

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

Recommended starting setting: Milo

Feederhouse drum position	Down
Feederhouse speed	380 rpm
Pre-concave types	10, 12, 19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open, closed as needed
Intensive threshing segments	Not installed
Concave gap	15 mm
Threshing cylinder speed range	High
Threshing cylinder speed	550 rpm
Concave filler plates	None installed

Rotor speed	800 rpm
Rotor cover plates	Open
Cleaning fan speed	1100 rpm
Upper sieve	Deep tooth: 9 Standard: 15 TM6: 15
Lower sieve	Deep tooth: 0 - 2 Standard: 8 TM6: 8
Chopper speed	High
Stationary knives	Engaged 50% or 100%
Friction plate (TC, PC)	Engaged as needed

Recommended adjustments: Milo

Moisture:	-	-	-	-	-	-	-
***Threshing (rpm):**	-	-	-	-	-	-	-
Concave (mm):	-	-	-	-	-	-	-
****Rotor (rpm):**	-	-	-	-	-	-	-

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

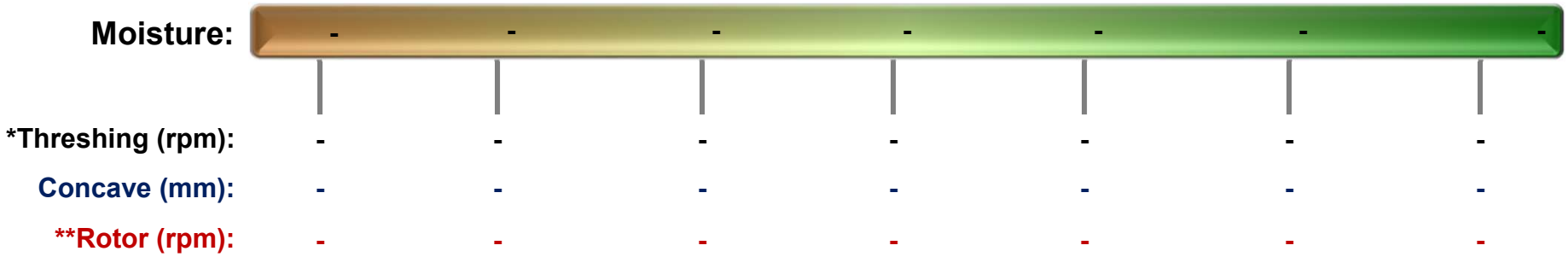
Recommended starting setting: Peas

V-Plates will need to be installed for most conditions when threshing below 400 RPM. Install the serrated impeller wear strips kit. Note: do not install the serrated wear strips without the fixed serrated blade.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	380 rpm
Pre-concave types	10, 12, 19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	Close as needed
Intensive threshing segments	Not installed
Concave gap	25 mm
Threshing cylinder speed range	Low
Threshing cylinder speed	400 rpm
Concave filler plates	None installed

Rotor speed	500 rpm
Rotor cover plates	Open, close as needed
Cleaning fan speed	1200 rpm
Upper sieve	Standard: 16 TM6: 16
Lower sieve	Standard: 12 TM6: 12
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Peas



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

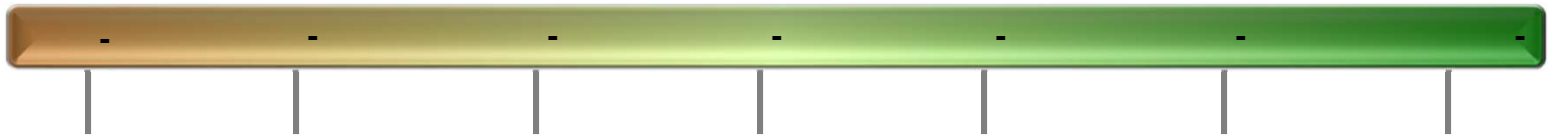
Recommended starting setting: Popcorn

Set concave gap to the diameter of the cob with the Round bar main concave and 2-3 mm over cob diameter when using an N18 large wire concave. The dis-awning plates can be closed in low throughput situations to help improve threshing performance. Set corn head deck-plate gap to slightly over stalk diameter. The chopper friction plate can be engaged to help break up cobs.

Feederhouse drum position	Up
Feederhouse speed	300 rpm
Pre-concave types	19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open
Intensive threshing segments	Not installed
Concave gap	19 mm
Threshing cylinder speed range	Low
Threshing cylinder speed	300 rpm
Concave filler plates	None installed

Rotor speed	400 rpm
Rotor cover plates	Open
Cleaning fan speed	1000 rpm
Upper sieve	Deep-tooth: 11 Standard: 15
Lower sieve	Deep-tooth: 10 Standard: 12
Chopper speed	Low
Stationary knives	Disengaged
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Popcorn



*Threshing (rpm): - - - - - - -

Concave (mm): **Large wire (N18) main concave: 2 -3 mm over cab diameter**
Round bar main concave: cob diameters (+/- 3 mm)

**Rotor (rpm): - - - - - - -

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

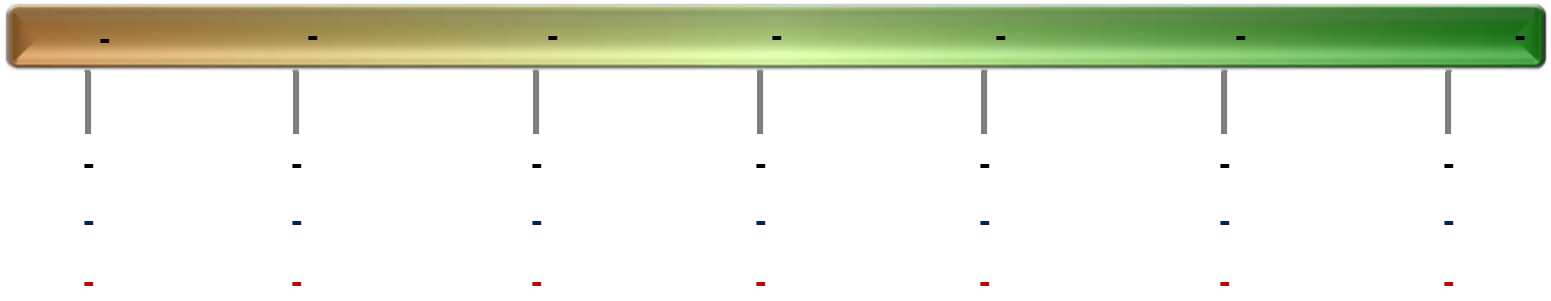
Recommended starting setting: Blue grass

Cleaning fan reduction pulley required to achieve optimal cleaning fan speed.

Feederhouse drum position	Down
Feederhouse speed	420 rpm
Pre-concave types	6.5 or 6.5x40 mm keystock
Pre-concave rear filler plate	Installed
Dis-awning plates	Closed
Intensive threshing segments	Not installed
Concave gap	10 mm
Threshing cylinder speed range	High
Threshing cylinder speed	800 rpm
Concave filler plates	(4-6) installed on N18 large wire concave - beginning at row #2

Rotor speed	900 rpm
Rotor cover plates	(2-3) closed, more as needed
Cleaning fan speed	350 rpm
Upper sieve	Standard: 15 TM6: 15
Lower sieve	Standard: 8 TM6: 8
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Blue grass



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

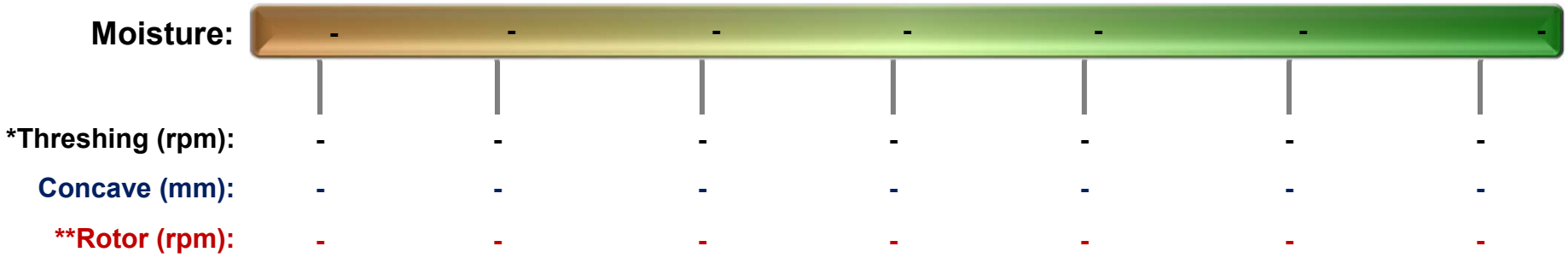
Recommended starting setting: Red & white clover

Cleaning fan reduction pulley required to achieve optimal cleaning fan speed.

Feederhouse drum position	Up, down if in rocks
Feederhouse speed	420 rpm
Pre-concave types	6.5 mm keystock
Pre-concave rear filler plate	Installed
Dis-awning plates	Closed
Intensive threshing segments	Installed, as needed
Concave gap	8 mm
Threshing cylinder speed range	High
Threshing cylinder speed	900 rpm
Clover concave filler plates	(8) installed on N18 large wire concave - beginning at row #2

Rotor speed	1000 rpm
Rotor cover plates	(2-4) closed
Cleaning fan speed	400 rpm
Upper sieve	Standard: 4 TM6: 4
Lower sieve	Standard: 2 TM6: 2
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Red & white clover



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

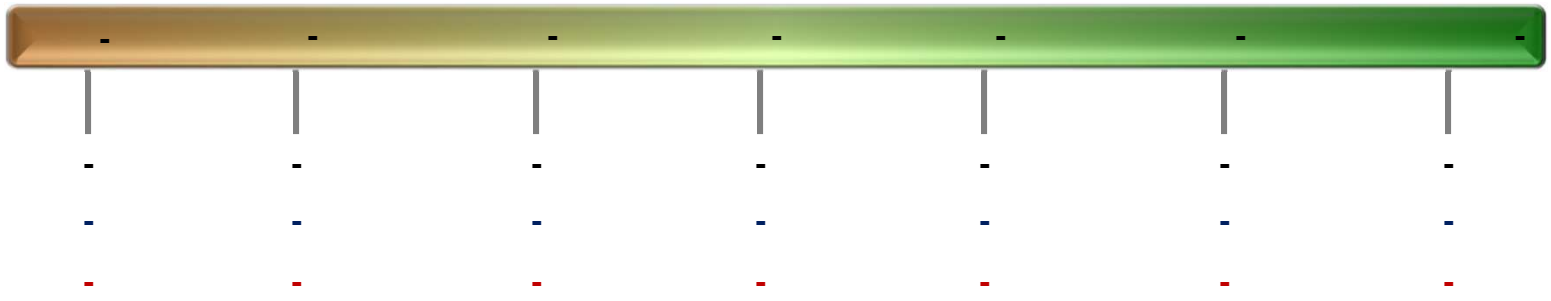
Recommended starting setting: Rice – rasp bar threshing cylinder

Removing every wire from the 10 mm wire grates may improve pre-seaparation performance

Feederhouse drum position	Down
Feederhouse speed	400 rpm
Pre-concave types	10 or 12x40 mm
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open
Intensive threshing segments	Not installed
Concave gap	18 mm
Threshing cylinder speed range	High
Threshing cylinder speed	700 rpm
Concave filler plates	None installed

Rotor speed	960 rpm
Rotor cover plates	None
Cleaning fan speed	1100 rpm
Upper sieve	Deep-tooth: 9 Standard: 15 TM6: 15
Lower sieve	Deep-tooth: 3 Standard: 15 TM6: 15
Chopper speed	High
Stationary knives	Not engaged
Friction plate (TC, PC)	Not engaged

Recommended adjustments: Rice – rasp bar threshing cylinder



*Pending plant condition

**Recommended rotor speed: 100 rpm over threshing speed

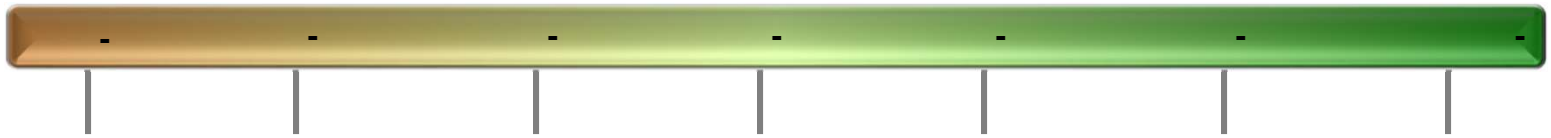
Recommended starting setting: Rice – spike-tooth threshing cylinder

The spike-tooth version pre-concave does not have dis-awning plates or interchangeable pre-concave grates and may require the fixed "rice" pre-concave grate to be covered entirely for soybeans and milo.

Feederhouse drum position	Down
Feederhouse speed	400 rpm
Pre-concave types	Not available
Pre-concave rear filler plate	Not installed
Dis-awning plates	Not available
Intensive threshing segments	Not installed
Concave gap	18 mm
Threshing cylinder speed range	High
Threshing cylinder speed	650 rpm
Concave filler plates	Not available

Rotor speed	960 rpm
Rotor cover plates	None
Cleaning fan speed	1100 rpm
Upper sieve	Deep-tooth: 9 Standard: 18 TM6: 18
Lower sieve	Deep-tooth: 3 Standard: 16 TM6: 16
Chopper speed	High
Stationary knives	Not engaged
Friction plate (TC, PC)	Not engaged

Recommended adjustments: Rice – spike-tooth threshing cylinder



Moisture:	-	-	-	-	-	-	-
***Threshing (rpm):**	-	-	-	-	-	-	-
Concave (mm):	-	-	-	-	-	-	-
****Rotor (rpm):**	-	-	-	-	-	-	-

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

Recommended starting setting: Sunflowers

V-Plates will need to be installed for most conditions, as well as the serrated impeller wear strips and the fixed center serrated blade on the rotor inlet for viney plant conditions.

Feederhouse drum position	Up
Feederhouse speed	350 rpm
Pre-concave types	19x40 mm or Round bar
Pre-concave rear filler plate	Not installed
Dis-awning plates	Open
Intensive threshing segments	Not installed
Concave gap	27 mm
Threshing cylinder speed range	Low
Threshing cylinder speed	400 rpm
Concave filler plates	None installed

Rotor speed	640 rpm
Rotor cover plates	1 - 2 closed
Cleaning fan speed	1000 rpm
Upper sieve	Deep-tooth: 3 Standard: 14 TM6: 14
Lower sieve	Deep-tooth: 0 - 3 Standard: 10 TM6: 10
Chopper speed	High
Stationary knives	Engaged 100%
Friction plate (TC, PC)	Engaged, as needed

Recommended adjustments: Sunflowers

Moisture:	-	-	-	-	-	-	-
***Threshing (rpm):**	-	-	-	-	-	-	-
Concave (mm):	-	-	-	-	-	-	-
****Rotor (rpm):**	-	-	-	-	-	-	-

***Pending plant condition**

****Recommended rotor speed: 100 rpm over threshing speed**

Tips for gentle crop handling

Item	Comment
1. Do not over tighten feederhouse chain	Will cause excess wear on chain and harsh crop handling
2. Place feederhouse drum in the “up” position (p.5)	Less mechanical contact on incoming crop
3. Install feederhouse side shields (p.7)	Prevents crop from entering the area around the ends of the feederhouse drum
4. Use the appropriate APS grates (p.13 - 18)	Ensures adequate pre-separation of dryer, easy-to-thresh crop. Less mechanical contact on loose crop
5. Ensure that the rasp bars and/or concave are not worn out or damaged	Worn out components can result in over threshing. Damaged areas create “hot-spots” that can result in damage to the crop.
6. Ensure that the concave is level (left to right)	Ensures proper threshing performance. Unbalanced concave can cause heavy feeding to one rotor.
7. Ensure impeller wear plates are sharp (p.24)	Improves crop flow performance
8. Maintain a rotor speed 100 rpm or 10% over threshing speed (See crop settings)	Maintains crop flow efficiency
9. Optimize draper belt speed so two parallel swaths enter the feederhouse, oppose to one large concentrated swath (p.11)	Ensures full width consistent feeding into the feederhouse and APS.
10. Ensure that both elevator chains are properly tensioned and not worn (p.50)	Minimizes wear and tear on both crop and chain

Tips for fine-tuning

Item	Comment
1. Rotor speed (soybeans and small grain)	1. Set rotor loss monitor according to actual loss on the ground 2. Increase rotor speed until desired grain loss level on the monitor is reached 3. Optional: continue increasing speed until loss begins to increase then slow down to bring loss back in-check
2. Rotor speed (corn and rice)	1. Set rotor loss monitor according to actual loss on the ground 2. Reduce rotor speed until desired grain loss level on the loss monitor is reached 3. Optional: continue slowing until grain loss begins to increase then speed up to bring loss back in-check
3. Cleaning fan	1. Set sieve loss monitor according to actual loss on the ground 2. Start initial fan setting from settings guide 3. Reduce fan speed until desired grain loss level on the loss monitor is reached 4. Optional: continue slowing until grain loss begins to increase then speed up to bring loss back in-check

Questions?

THANK YOU