

Copperhead Concave Systems, LLC.

Installation Manual

John Deere STS/S Series

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John Deere Checklist

- Concaves Installed
- Concaves Leveled
- Appropriate Cover Plates On/Open
- Feeder House Sprocket Checked/Changed
- Spacer Bars Installed
 - 8 - STS / S660 and S670
 - 6 - S680 and S690 Series
- Disrupters Spaced Correctly
- Disrupters Torqued to Specs

Installing Your Concaves

You can find instructions for installing your concaves in your machine manual, they install just like the factory concaves. Please read the full instructions before completing install. It is useful to leave the #3 concave out of the machine while installing disrupter bars. We recommend installing the #1 and #3 sections, leveling your concaves, then completing the install with the final #2 section.

Leveling Your Concaves

You **MUST** level your concaves when installing any concave system.

We recommend following the instructions in your platform owner's manual.

JOHN DEERE STS/S - FEEDER HOUSE SPROCKET

- We recommend you change your Feeder House Sprocket. In STS and S-Series, combines run the feeder house sprocket too fast and cause further grain damage and cracking before it even gets to the concaves.
- We recommend you change your sprocket to a 15-21 tooth sprocket (John Deere Parts #AXE10874) from the stock 21-26 tooth sprocket
- For corn, run the 15-21 sprocket, we recommend you start on the 15 tooth sprocket
- For soybeans, you might need to run the 21-26 sprocket on either the 21 or the 26 tooth
- For wheat, you might need to run the 21-26 sprocket on either the 21 or the 26 tooth
- Always run the Feeder House Sprocket as slow as you can to get the job done, without starving the combine



15-21 Tooth Drive Sprocket - JD #AXE10874

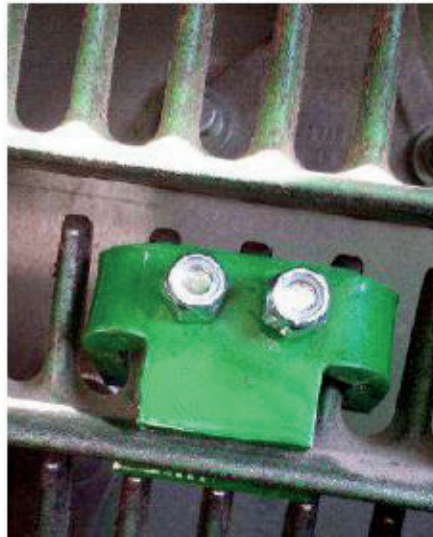
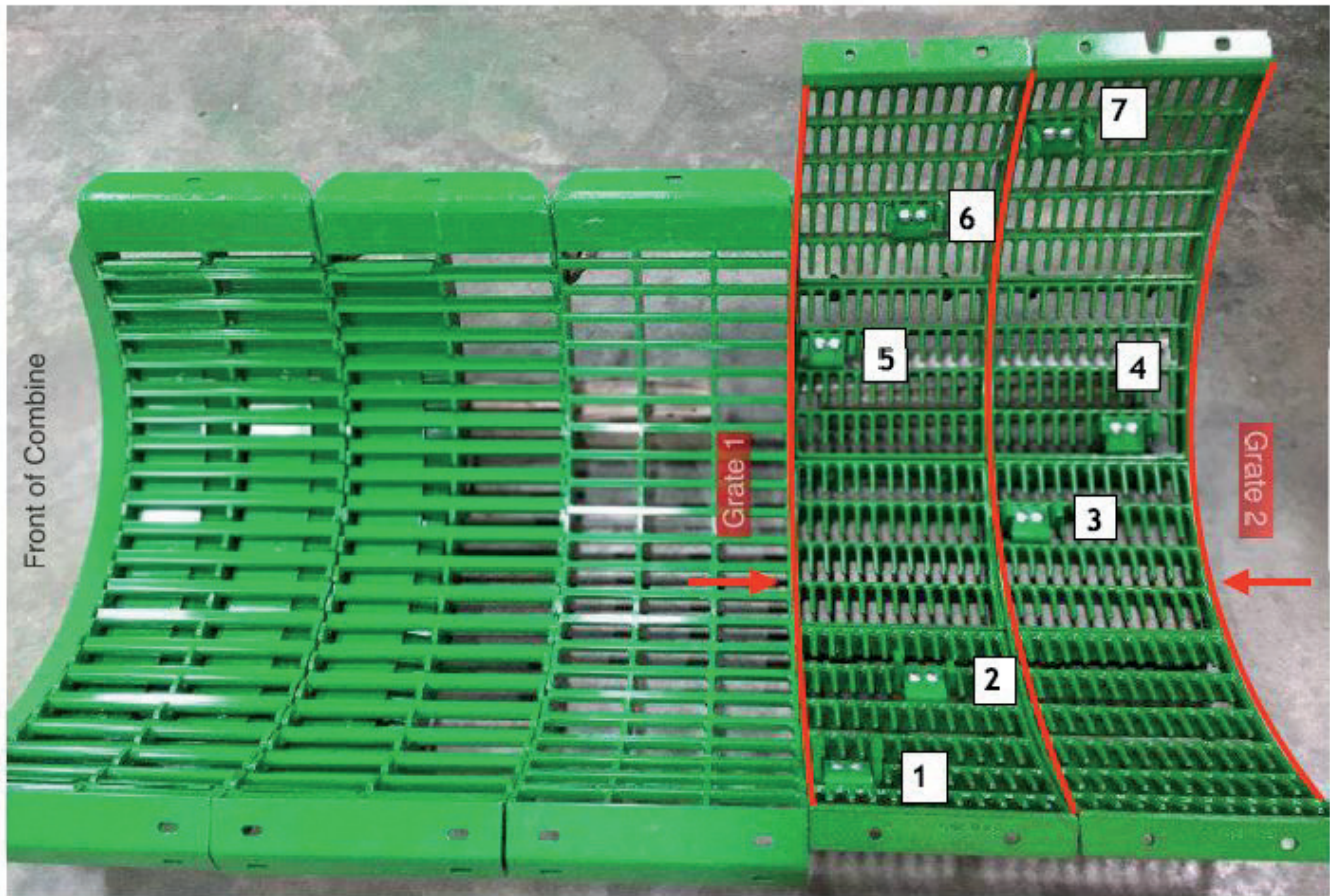
JOHN DEERE STS/S-SERIES DISRUPTORS

***Install Disruptors with the #3 concave removed**

1. First, locate and mark positions for lugs . Do this prior to removing grates. Then drop down grates to install spacer bars
2. The disruptor lugs install up from the bottom of the grate. Top "L" shaped plate with bolts. Install this plate down through the seperator from the inside of the grate. Be sure the small portion of the "L" is down in between the grate frame and the points of the grate fingers. **Torque to 35 Ft. Lbs.**
3. While grates are still installed place Disruptor Lug up through the grate and turn the rotor over by hand to be sure the disruptor clears all tines. The tines can pass by the Disruptor through the middle or on either side. #1 Lug and #5 Lug will be in the same position, #2 and #6 will be in the same position. **#2 and #6 may need a shorter leg on the lug.** Two shortened lugs have been included in your installation kit. #3 and #7 lug will also be the same.
4. Once position of lugs are marked on the seperator grate, remove the two bolts that hold up the second grate to the frame and remove the top section of the grate to give you access. From this position you can install the #1, #2 and #3 lugs.
5. Bolt up the second grate and move to the opposite side of the combine. Remove the two bolts that hold up the second grate and remove the top section for access. From this position you can now install #5 and 6 on the front grate and #4 and 7 on the back of the second grate. Be sure to double check clearance of the tines on the rotor.
6. Re-install all separator grates and hand turn the rotor again to verify clearance of all tines.

***** Make sure the disruptor lugs are slid tight up againsts the seperator bar. The grain travels from right to left in the machine and will force the lugs up against that bar. This ensures they do not come loose while operating. Again, slide the lug up to the "drivers side" of the seperator grate*****

JOHN DEERE STS/S-SERIES DISTRUPTORS



INCORRECTLY INSTALLED



CORRECTLY INSTALLED

JOHN DEERE STS/S-SERIES SPACER BARS

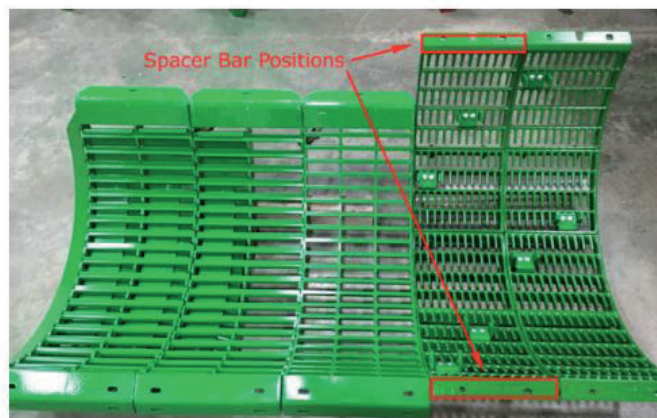
- Spacer Bars are required for the proper clearance of the Disruptor Lugs
- They space your grates down 1/2 inch and they replace your pipe bushings.
- Installing a separator grate spacer kit onto your machine will help reduce rotor loss as it increases the separator surface.

STS / S660 and S670 Series Spacer Bars

- Drop the #1, 3 and 4 grate down and install the spacer bars between the frame and the separator grate.
- The #2 grate spacers can be installed during the disruptor installation, and should be installed the same way.
- Install 8 spacer bars, one on each grate, on each side of the machine.

S680 & S690 Spacer Bars

- Drop the #1 and 3 grate down, install spacer bars between the frame and the separator grate.
- The #2 grate spacers can be installed during the disruptor installation and should be installed the same way
- 6 spacer bars only for this series combine.

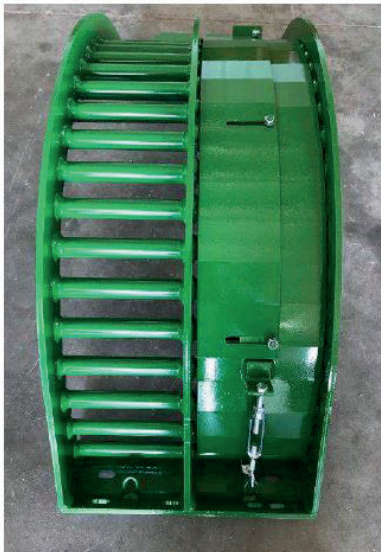


Installing Cover Plates

- Cover plates keep the crop that is being harvested in the threshing area longer
- Cover plates lessen the area that the crop has to fall through.

RULE OF THUMB: The harder the crop is to thresh, the longer the crop needs to be in the threshing section (First two concaves). As soon as it is threshed, then we want to unload the grain. Following is a starter point for several crops. If your crop is not listed, use a similar grain size for a starting point. If the crop is not threshing fully, close or add cover plates as needed.

Cover plate examples:



JD - COVER PLATE CLOSED



JD - COVER PLATE OPEN



CASE IH FLAGSHIP - 2 COVER PLATES OPEN

Combine Settings

Crop	Concave	Rotor Speed	Fan Speed	Chaffer	Sieve
Corn	22-28	230-325	850-1000	18-20	10-12
Wheat	2-10	950-1300	1250-1350	15-19	4-9
Soybeans	8-18	500-750	900-1000	15-18	6-11
Milo	13-25	450-750	1100-1350	13-18	5-8
Rice	10-20	600-850	1050-1200	11-18	4-8
Rye	5-20	650-900	1000-1300	15-19	5-7
Popcorn	15-25	200-325	1100-1400	14-18	5-8
Grass Seed	5-14	450-900	500-850	11-18	2-9
Beans (Edible)	20-30	200-350	1100-1300	13-19	6-10

Cover Plate Settings

Crop	Cover Plate 1	Cover Plate 2	Cover Plate 3
Corn	Removed	Removed	Removed
Soybeans	Open	Open	Removed
Milo/Sorghum/Maise	Open	Open	Removed
Rice	Open	Open	Removed
Beans (Edible)	Open	Open	Removed
Wheat	Open	Open	Open
Rye Grass/Blue Grass	Closed	Closed	Open
Hard Wheat	Closed	Closed	Open



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