

FAST | EFFICIENT | RELIABLE

RAKES



H&S

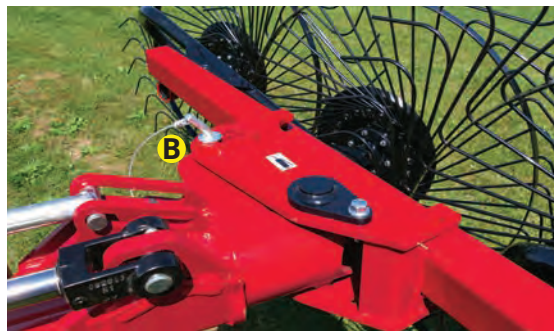


**THE BACKBONE AND WING DESIGN, WHEN RAISED, ALLOWS THE UNIFORM RELEASE OF CROP TO FINISH THE WINDROW**



#### **SPRING PRESSURE**

Adjusting each of the arm rod assembly pressure ring nuts sets the proper spring pressure on each rake arm, allowing for proper rake wheel down pressure (A).



#### **WIDTH ADJUSTMENTS**

There are multiple width adjustments on the wheel rake beam for setting the windrow width (B). Just place the pin in the hole that optimizes windrow size for all 2200 and 3200 series models.



#### **TRANSPORT POSITION**

Rake shown in the transport position with optional center kicker wheel installed.



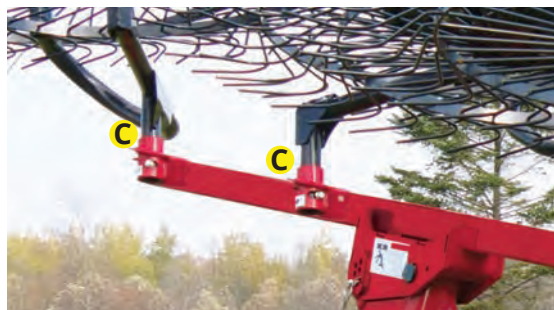
## WINGED-HINGE ENGINEERING

Winged-hinge engineering provides uniform beam pick-up to eliminate tail drag.



## 60" RAKE WHEELS

The larger 60" 7.5 mm rake wheel has fewer revolutions, increasing raking efficiency and longevity while decreasing leaf loss.



## RAKE WHEEL PIVOTS

Rake wheel pivots (C) provide additional ground flexibility on all 2200 series rakes.

MODEL	AR2208	AR2210	AR2212
NUMBER OF RAKE WHEELS	8	10	12
WHEEL DIAMETER	60"	60"	60"
TEETH PER WHEEL	40	40	40
TOOTH DIAMETER	7.5 MM	7.5 MM	7.5 MM
RAKING WHEEL HUBS	TAPERED BEARINGS	TAPERED BEARINGS	TAPERED BEARINGS
TRANSPORT WIDTH	12'	12'	12'
TRANSPORT WIDTH W/RAKE WHEELS REMOVED	8' 6"	8' 6"	8' 6"
TRANSPORT LENGTH	19' 1"	20' 5"	21' 3"
RAKING WIDTH	16' 6" - 17' 8"	18' 5" - 21'	21' - 24' 4"
WINDROW WIDTH ADJUSTMENT	4' 5" - 6' 10"	3' 3" - 7' 3"	2' 10" - 7' 3"
NO. OF RAKING POSITIONS	6	6 NARROW / 6 WIDE	6 NARROW / 6 WIDE
GROUND PRESSURE RAKE WHEEL ADJUSTMENT	ADJUSTABLE NUT ON ROD		
REQUIRED HYDRAULIC PSI	1,875#	1,875#	1,875#
WING CYLINDERS	2"	2"	2"
JACK	STANDARD	STANDARD	STANDARD
WEIGHT	1,437#	1,633#	1,794#
TIRES	(2) - ST205 / 75D15	(2) - ST205 / 75D15	(2) - ST205 / 75D15

## OPTIONS



## ONE-SIDED RAKING KIT

The kit allows you to manually close off a hydraulic valve on either side (D) when the rake is in the transport position.



## TURNBUCKLE KIT

A turnbuckle can be installed on each rake arm to adjust the windrow raking width to one of the two windrow width holes. *Not available on the AR2208 model.*



## HIGHWAY LIGHTING KIT

Available on all models.



## CENTER KICKER WHEEL ASSEMBLY

## OTHER OPTIONS

- 10,100# safety chain



Shown with optional tandem axles

## THE BACKBONE AND WING DESIGN, WHEN RAISED, ALLOWS THE UNIFORM RELEASE OF CROP TO FINISH THE WINDROW



### INDEPENDENT RAKE WHEEL SUSPENSION

The spring suspension on each 60" rake wheel allows it to float independently over the ground. Down pressure for each 60" rake wheel can also be adjusted independently by the rod nuts on each rake arm/spring assembly.



### WIDTH ADJUSTMENTS

There are multiple width adjustments on the wheel rake beam for setting the windrow width. Just place the pin in the hole that optimizes windrow size for all 3200 series models.



### SET DOWN TRAVEL

Adjusting the arm rod assembly ring nuts of each rake arm sets the amount of down travel on each rake beam (A).



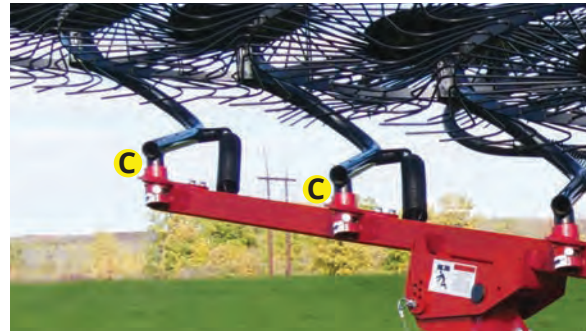
### WINGED-HINGE ENGINEERING

Uniform beam pick-up eliminates tail drag. It's simple and easy to make pressure adjustments to the rake wheels.



### TRANSPORT POSITION

Rake shown in the transport position with optional tandem axle assembly.



### RAKE WHEEL PIVOTS

Rake wheel pivots (C) provide additional ground flexibility on all 3200 series rakes.



### ONE-SIDED RAKING KIT

Manually close off a hydraulic valve on either side when the rake is in the transport position.



### TURNBUCKLE KIT

A turnbuckle on each rake arm adjusts the windrow raking width to one of the two windrow width holes.

MODEL	AR3210	AR3212
NUMBER OF RAKE WHEELS	10	12
WHEEL DIAMETER	60"	60"
TEETH PER WHEEL	40	40
TOOTH DIAMETER	7.5 MM	7.5 MM
RAKING WHEEL HUBS	TAPERED BEARINGS	TAPERED BEARINGS
TRANSPORT WIDTH	12'	12'
TRANSPORT WIDTH W/RAKE WHEELS REMOVED	8' 6"	8' 6"
TRANSPORT LENGTH	20' 5"	21' 3"
RAKING WIDTH	18' 5" – 21'	21' – 24' 4"
WINDROW WIDTH ADJUSTMENT	3' 3" – 7' 3"	2' 10" – 7' 3"
NO. OF RAKING POSITIONS W/TRANSPORT POSITION	6 NARROW / 6 WIDE	
GROUND PRESSURE RAKE WHEEL ADJUSTMENT	ADJUSTABLE NUT ON ROD	
REQUIRED HYDRAULIC PSI	1,875#	1,875#
WING CYLINDERS	2"	2"
JACK	STANDARD	STANDARD
WEIGHT	2,000#	2,250#
TIRES	(2) -ST205 / 75D15	(2) -ST205 / 75D15

## OPTIONS



**HIGHWAY LIGHTING KIT**  
Available on all models.

### OTHER OPTIONS

- Center kicker wheel assembly
- Tandem axle assembly
- 10,100# safety chain



**3 wheel sizes to choose from!  
12, 14, or 16**

## FEATURES

1. Adjustable hitch
2. Rake arms on the 4100 series rakes feature bearings in the hubs of the rake arm for long life, smooth operation, and less wear than rakes with bushings.
3. The 4100 series rakes open and close hydraulically.
4. Rake wheels are raised and lowered hydraulically and float independently.
5. The adjustment for the ground pressure on the rake wheels allows the operator to fine-tune the wheel rakes to fit varying conditions.
6. Independent articulated rake beams have the flexibility to flex 3' up or 3' down through the design of the round backbone.

## NO HANG-UP POINTS OR RESTRICTIONS WHEN RAKING THE HEAVIEST OF HAY CROPS



### ADJUSTABLE BRAKE BAND

An adjustable brake band (A) on top of the front spindle keeps the front gauge wheels from spinning in rough conditions.



MODEL	HC4112	HC4114
NUMBER OF WHEELS	12	14
WHEEL DIAMETER	55"	55"
TEETH PER WHEEL	40	40
TOOTH DIAMETER	7 MM	7 MM
TRANSPORT WIDTH	8' 6"	8' 6"
TRANSPORT LENGTH	24' 6"	27' 3"
WINDROW WIDTH ADJUSTMENT	38" - 58"	38" - 58"
RAKING WIDTH	UP TO 24' HYD. SET.	UP TO 28' HYD. SET.
RAKING WHEEL HUBS	TAPERED BEARINGS	BALL BEARINGS
WING FLEX	3' UP OR DOWN	3' UP OR DOWN
NUMBER OF TRANSPORT WHEELS	4	6
HITCH JACK	STANDARD	STANDARD
GAUGE WHEELS	15"	15"
TRANSPORT WHEELS	15"	15"
WEIGHT	3,500 LBS.	3,800 LBS.

## RAKING/WINDROW WIDTH ADJUSTMENT

Raking widths can be hydraulically adjusted in any position to a pre-determined raking width (B) up to 24' on the 12-wheel model and 28' on the 14-wheel model.

The windrow width adjustment is done with a hand crank and adjusts windrows from 38" to 58" width.



## HANDLE HEAVY CROPS

The H&S **HI-CAPACITY** bi-fold rakes have the raking wheels positioned ahead of the rake arms, main frame beams, and transport wheels.

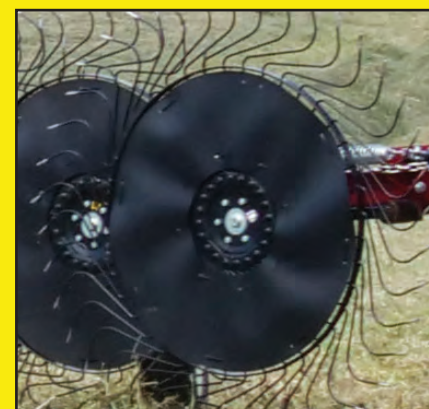
Coupled with a high and wide end of frame, there are no hang-up points or restrictions when raking the heaviest of hay crops.



## SMOOTH, LEVEL RIDE

Limited oscillating offset tandem transport wheels ensure a smooth, level ride, even over irrigation tracks. It is standard on the 14-wheel model and optional on the 12-wheel model.

## OPTIONS



**55" RAKE WHEEL WIND PANELS**



**2-WHEEL CENTER KICKER ASSEMBLY**

### MORE OPTIONS:

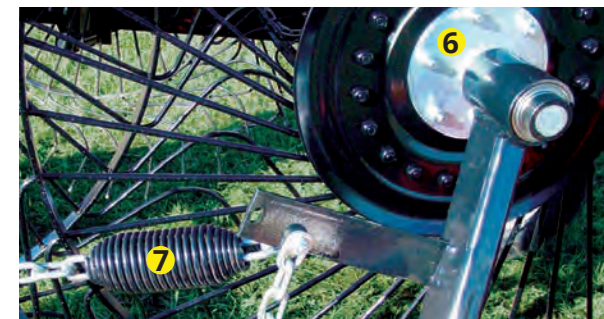
- 2-wheel add-on kit to convert to 16-wheel rake
- Set of 15" front gauge wheels helps improve float over irrigation tracks on rough ground
- Highway lighting
- 10,100# safety chain



## LARGE 60" DIAMETER RAKE WHEELS TURN SLOWER FOR LESS WEAR AND DELIVER MORE CAPACITY

### FEATURES

1. Adjustable height hitch
2. A brake band on the 4 front gauge wheels can be easily adjusted to field conditions.
3. Limited oscillating offset tandem transport wheels ensure a smooth, level ride.
4. The windrow width adjustment is done with a hand crank and adjusts windrows from 38" to 58" in width.
5. Independent articulated rake beams have the flexibility to flex 3' up or 3' down through the design of the round backbone..
6. A large diameter rake wheel hub is used for added strength to the rake wheel dish.
7. Independent rake wheel suspension allows the rake wheels to follow the contour of the ground and low maintenance beehive-style springs support the large 60" rake wheels.



### LONG LIFE AND SMOOTH OPERATION

Rake arms feature two ball bearings on each end of the arm for long life, smooth operation and less wear than rakes with bushings.



# HI-CAPACITY BI-FOLD



**STANDARD WIND PANELS**  
Rake wheel wind panels are standard.



**ADJUST FOR CONDITIONS**  
Adjustment for the ground pressure on the rake wheels (A) allows the operator to fine-tune the HC5114 wheel rake to fit varying conditions.



**HYDRAULICALLY ADJUSTED RAKING WIDTH**  
Setting the spring loaded stop allows you to set a pre-determined raking width (B) up to 28' on the HC5114 and 32' on the 16-wheel. Raking widths can be hydraulically adjusted in any position up to the pre-determined raking width.

- (C) Rake beam support locks
- (D) Storage for transport locks



MODEL	HC5114
WHEEL DIAMETER	60"
TEETH PER WHEEL	40
TOOTH DIAMETER	7.5 MM
TRANSPORT WIDTH	8' 10"
TRANSPORT LENGTH	27' 3"
WINDROW WIDTH ADJUSTMENT	46" - 66"
RAKING WIDTH	HYDRAULICALLY SET UP TO 28'
RAKING WHEEL HUBS	BALL BEARINGS
60" RAKE WHEEL WIND PANELS	STANDARD
WING FLEX	3' UP OR DOWN
NUMBER OF TRANSPORT WHEELS	8
HITCH JACK	STANDARD
GAUGE WHEELS	15"
TRANSPORT WHEELS	15"

## OPTIONS

**2-WHEEL CENTER KICKER ASSEMBLY**

**MORE OPTIONS:**

- 2-wheel add-on kit to convert to 16-wheel rake
- Highway lighting
- Safety chain
- 10,100# safety chain



## FEATURES

1. Adjustable height hitch
2. Adjustable brake bands on the front gauge wheels can be easily adjusted to field conditions or transport.
3. The rake arms feature 2 roller bearings on each end of the arm for long life, smooth operation, and less wear than rakes with bushings.
4. Low maintenance beehive-style springs support the large 60" rake wheels.
5. The U-joint/ball joint design of the rake beam arms allows the **FLEX-FRAME** rakes to be the most versatile on the market.
6. 60" rake wheel wind panels



**Independent rake wheel suspension** allows the rake wheels to follow the contour of the ground.



### SMOOTH, LEVEL RIDE

A limited oscillating offset tandem transport wheels assure a smooth, level ride, even over irrigation tracks.

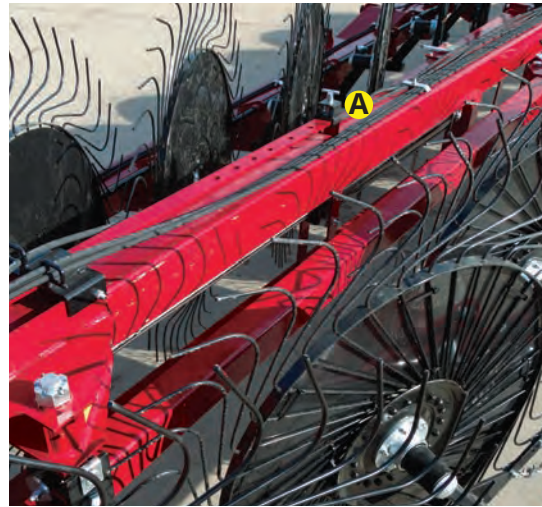
**The FLEX-FRAME rake features the raking wheels positioned ahead of the rake arms, main frame beams, and transport wheels.**

**Coupled with a high and wide end of frame, there are no hang-up points or restrictions when raking the heaviest of hay crops!**



### ADJUSTABLE SCREWS

Adjustable screws on each rake beam allows the operator to fine-tune the rake wheel down pressure to fit varying conditions.

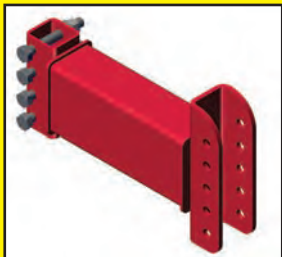


### SET PREDETERMINED RAKING WIDTHS

Moving the spring loaded T-pin (A) allows you to set predetermined raking widths. Raking widths can be hydraulically adjusted up to the predetermined raking width.

MODEL	FF6116	FF6118	FF6120
NUMBER OF WHEELS	16	18	20
WHEEL DIAMETER	60"	60"	60"
TEETH PER WHEEL	40	40	40
TOOTH DIAMETER	7.5 MM	7.5 MM	7.5 MM
RAKING WHEEL HUBS	BALL BEARINGS	BALL BEARINGS	BALL BEARINGS
RAKE WHEEL ANTI-WRAP SHIELDS	STANDARD	STANDARD	STANDARD
TRANSPORT LENGTH - APPROX.	32' 7"	34' 8"	37' 6"
TRANSPORT WIDTH	10' 6"	11' 6"	
TRANSPORT HEIGHT IN TRANSPORT POSITION	80" W/SMV SIGN	N/A	
FRONT GAUGE WHEELS	4 - 9.5L x 15	4 - 11L x 15	
STANDARD TANDEM REAR TRANSPORT WHEEL	4 - 9.5L x 15	4 - 11L x 15	
MAXIMUM RAKE WIDTH - APPROX.	32'	35' 6"	38' 6"
WINDROW WIDTH ADJUSTMENT	3' - 5'	3' - 5'	3' - 5'
NUMBER OF RAKING POSITIONS	6	6	6
RAKE WHEEL WIND PANELS	STANDARD	STANDARD	STANDARD
HITCH JACK	STANDARD	STANDARD	STANDARD
WEIGHT	5, 750 LBS.	7, 894 LBS.	8, 224 LBS.
WHEEL RAKE SUSPENSION	INDEPENDENT BEEHIVE SPRING		
GROUND PRESSURE RAKE WHEEL ADJUST	NUT/THREADED ROD FOR FINE TUNING		
HYDRAULIC REQUIREMENTS	1 DOUBLE ACTING CYLINDER FOR FOLDING - 1 DOUBLE-ACTING CYLINDER FOR RAKE WHEEL LIFT		

## OPTIONS



**CLEVIS HITCH EXTENSION**



**3-WHEEL CENTER KICKER**



**HYDRAULIC REAR WIDTH ADJUSTMENT**

### MORE OPTIONS:

- 2-wheel add-on kit for FF6118/FF6120
- Highway & work lighting
- 10,100# safety chain

Available in  
16 & 18-wheel sizes



**60" RAKE WHEELS WITH 18 SETS OF RUBBER MOUNTED TEETH (HDII-STYLE) FOR HANDLING TOUGHER CROPS SUCH AS CORN STALKS OR HIGH TONNAGE FORAGE.**

## FEATURES

1. Adjustable height clevis hitch
2. Hydraulic hoses with tips
3. 6" x 6" frame
4. Hydraulic raise/lower independent rake wheel torsion-style suspension
5. Single point rake wheel down-pressure adjustment on each rake beam
6. Rear limited oscillating offset tandem transport wheels ensure a smooth, level ride, even over irrigation tracks.
7. Independent articulated rake beams have the flexibility to flex 3' up or 3' down through the design of the round backbone.
8. Rake arms feature two ball bearings on each end of the arm for long life, smooth operation, and less wear than rakes with bushings.

**With a high and wide rear frame, there are no hang-up points or restrictions when raking the heaviest of hay crops.**



### 60" DIAMETER HEAVY-DUTY RAKE WHEELS

The 60" diameter heavy-duty rake wheels w/UV treated poly wind panels turn slower for less tooth wear and deliver more capacity.



**MAXIMUM RAKING WIDTH** from the center of the front left rake wheel to the center of the front right rake wheel is 25' on the standard rake and 27' 3" with a 2-wheel extension. Raking widths can be hydraulically adjusted in any position up to the pre-determined raking width. Setting the spring-loaded stop allows you to set a pre-determined raking width.



**DISC-STYLE BRAKES**

The brakes on each front gauge wheels can be easily adjusted to field conditions and road travel.



**MANUAL TRANSPORT LOCKS**

The locks are standard for each rake beam.

MODEL	HC7116
NUMBER OF WHEELS	16
WHEEL DIAMETER	60"
TEETH PER WHEEL	18 SETS OF 2 = 36
RAKING WHEEL HUBS	TAPERED BEARINGS
RAKE WHEEL SUSPENSION	INDEPENDENT RAKE WHEEL SUSPENSION W/BUFFERED COMPRESSION SPRING SYSTEM
NUMBER OF RAKING POSITIONS	7
GROUND PRESSURE RAKE WHEEL ADJUSTMENT	NUT/THREADED ROD FOR FINE-TUNING
WINDROW WIDTH ADJUSTMENT	HYDRAULIC
RAKE WHEEL WIND PANELS	STANDARD
HITCH JACK	STANDARD
HYDRAULIC REQUIREMENTS	1 DOUBLE ACTING CYLINDER FOR FOLDING 1 DOUBLE ACTING CYLINDER FOR RAKE WHEEL LIFT
FRONT GAUGE WHEELS	2 - IF240/80R15IMP
TANDEM REAR TRANSPORT WHEELS	4 - IF240/80R15IMP



**REAR WINDROW WIDTH ADJUSTMENT**

Rear windrow width is adjusted by a hydraulic cylinder —A 3rd remote is needed.

**OPTIONS**



**3-WHEEL CENTER KICKER**

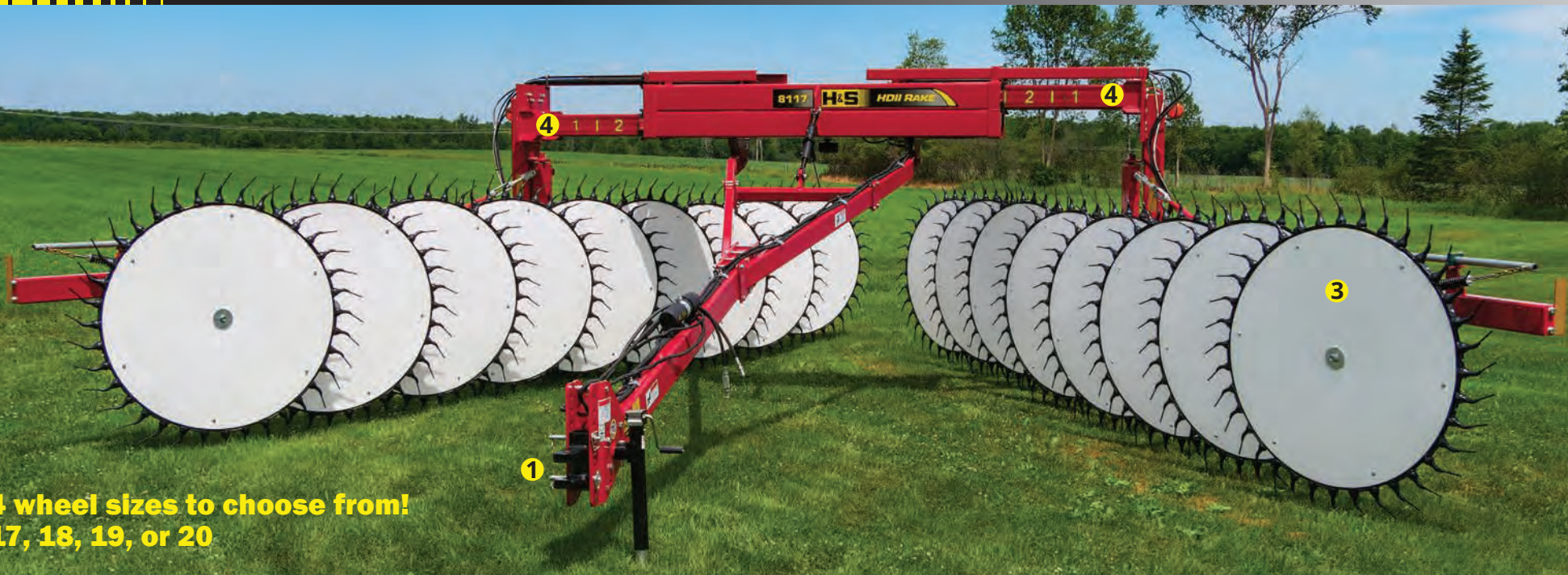


**INTERRUPTER 8000**

Break stalks in the area that the corn stalk windrow is being placed to minimize baler tooth wear and breakage.

**MORE OPTIONS**

- 2-wheel add-on kit
- Highway & work lighting
- Two additional front rake beam caster wheels
- 10,100# safety chain



**4 wheel sizes to choose from!  
17, 18, 19, or 20**

## FEATURES

1. Adjustable height hitch
2. Heavy channel iron outer ring
3. UV treated poly wind panels and an over-center wheel stop
4. 5" x 7" overhead mainframe. Each side opens independently.
5. 6 heavy angle iron gussets on each wheel for superior strength.
6. Adjustable rake wheel ground pressure.
7. Heavy-duty tapered roller bearings are used in each HDII rake arm.
8. Standard anti-wrap hay guards



### TILT RAKE WHEELS UP TO 10°

Rake beams with a variable adjustment to set the rake wheels straight or in a tilted setting up to 10° (patented).



## WINDROW WIDTH ADJUSTMENT

The windrow width can be adjusted hydraulically to a maximum of 72". One hydraulic remote along with the electrical control box controls all functions of the rake. Because of the offset of the rake wheel beams, there is no need for center kicker wheels.

NUMBER OF WHEELS	17	18	19	20
WHEEL DIAMETER	60"	60"	60"	60"
TEETH PER WHEEL	36	36	36	36
TEETH	DOUBLE MOUNTED RAKE TEETH	DOUBLE MOUNTED RAKE TEETH	DOUBLE MOUNTED RAKE TEETH	DOUBLE MOUNTED RAKE TEETH
TRANSPORT WIDTH	12' 3"	13' 3"	12' 3"	13' 3"
TRANSPORT LENGTH	28' 3"	30' 9"	30' 4"	32' 9"
MAXIMUM RAKING WIDTH	30' 3"	31' 3"	33' 3"	34' 3"
RAKE WHEEL HUBS	TAPERED BEARINGS	TAPERED BEARINGS	TAPERED BEARINGS	TAPERED BEARINGS
HITCH JACK	STANDARD	STANDARD	STANDARD	STANDARD
TAIL & WORK LIGHTS	STANDARD	STANDARD	STANDARD	STANDARD
TIRES	IF240/80R15	IF240/80R15	IF240/80R15	IF240/80R15



## TRANSPORT LOCK

The rake wheel lift pipes feature a rake wheel lock for transportation at the back of the rake.



## TRACTOR MOUNTED CONTROL BOX

One hydraulic remote along with the electrical control box controls all the functions of the rake. The rake wheels may be lifted independently left or right, or both at the same time, with the master switch.



## RAKE WHEELS ROLL SMOOTHLY OVER TERRAIN

Compression springs with a rubber dampener on the inside allow each rake wheel to roll smoothly over the terrain.

## OPTIONS

- Single wheel extension kit
- 2-wheel add-on kit
- 10,100# safety chain



**STRONG HERITAGE**

**STRONG PEOPLE**

**STRONGER FUTURE!**



**WARRANTY:** See operator's manual for warranty details and limitations. H&S reserves the right to change its products or the description at any time without notice or obligation.

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