International Axial-Flow Combines







International® Axial-Flow combines harvest more of what you grow.

Once a crop is mature and ready for harvest, nothing good can happen to that crop as long as it's still in the field. Time, wind and rain conspire against it. Your best weapon against these elements is the exceptional efficiency and productivity of an International Axial-Flow combine.

Axial-Flow combines give you the edge you need for success. Their revolutionary threshing/separating concept literally allows you to harvest more of what you grow. What's more, International Harvester builds a full line of these combines. Nine different models to match the way you farm.

- Four self-propelled models, the 1420, 1440, 1460 and 1480 for corn, soybeans and small grain.
- Three self-propelled models, the 1420, 1460 and 1480—especially designed for rice.
- The 1470 Hillside Combine with exclusive hydrostatic four-wheel drive handles steep slopes, soft soil and high yields.
- The big-capacity, grain-saving 1482 pull-type combine has everything it takes to wrap up your harvest quickly.

Get all the benefits now: More bushels per day, more bushels per acre, more bushels per gallon with less grain damage under wide ranges of moisture and field conditions. International Axial-Flow combines... leader of the leaders.

The biggest International Axial-Flow combine, the 1480, equipped with a capacity-matching 30-foot header, allows large-acreage producers and custom operators to take full advantage of the machine's tremendous internal capacity. The 1480 shown has optional lighting equipment.









There's an Axial-Flow combine to meet your needs.

1420

If you've been waiting to go Axial-Flow until a smaller model was available, your wait is over. The 1420 is sized just right for the smaller grower, yet it offers all the advantages and productivity of the larger Axial-Flow models.

Quick Facts: 124 hp, 358 cu. in. diesel engine

125-bushel grain tank

10 to 20-foot rigid cutterbar headers 13 to 17.5-foot flexible cutterbar headers 4-row corn heads for 28 to 40-inch rows 5-row corn heads for 36, 38 and 40-inch rows

6-row corn heads for 28 and 30-inch rows 10 and 13-foot windrow pickup headers

1440

The 1440's smooth, quiet performance and productivity will surprise you. It has virtually the same power and capacity of large conventional combines plus all the advantages of Axial-Flow single rotor design that pays off in more clean grain.

Quick Facts: 135 hp, 436 cu. in diesel engine

145-bushel grain tank

13 to 24-foot rigid cutterbar headers 13 to 22.5-foot flexible cutterbar headers 4-row corn heads for 28 to 40-inch rows 5-row corn heads for 36, 38 and 40-inch rows. 6-row corn heads for 28 to 40-inch rows

6-row corn heads for 28 to 40-inch rows 10 and 13-foot windrow pickup headers

1460

The 1460 Axial-Flow is one of the most popular combines that has ever been on the market. It's sized and powered to take large acreages and short harvest periods in its stride. It's a combine you can rely on to get your crops out of the fields in short order.

Quick Facts: 170 hp, 436 cu. in. turbo diesel engine

180-bushel grain tank

13 to 24-foot rigid cutterbar headers

13 to 22.5-foot flexible cutterbar headers

4 and 6-row corn heads for 28 to 40-inch rows

5-row corn heads for 36, 38 and 40-inch rows

8-row corn heads for 28 and 30-inch rows

10 and 13-foot windrow pickup headers

1480

For pure power and productivity, the 1480 stands alone. This bigcapacity combine is designed for the man who demands maximum capacity...the man with big acreage...the man who is a custom operator. And it offers the ultimate in a comfortable working environment with advanced instrumentation and controls.

Quick Facts: 210 hp, 466 cu. in. turbo diesel engine

208-bushel grain tank

13 to 30-foot rigid cutterbar headers

13 to 22.5-foot flexible cutterbar headers

4 and 5-row corn heads for 36, 38 and 40-inch rows

6 and 8-row corn heads for 28 to 40-inch rows

10 and 13-foot windrow pickup headers

International Axial-Flow Combines

Advanced design concept pays off in being able to harvest more of what you grow. And now, all International combines are Axial-Flow.

In the relatively short time that International Axial-Flow combines have been on the market, they have proven themselves with thousands of farmers on millions of acres all across the country. And in many situations, they have been able to operate at a faster ground speed and to be more adaptable to a wide variety of adverse harvesting conditions than conventional combines.

Totally different and so superior

On conventional combines, the grain passes between the cylinder and concave only once. But with Axial-Flow, grain is threshed several times—repeatedly, but gently—as it spirals around the single, large diameter rotor and threshing cage. Axial-Flow also eliminates the need for straw walkers—the number one source of grain loss with conventional combines. Instead, a simple system of separating grates and centrifugal force recovers grain that straw walkers miss. Consequently, the more grain you grow, the more grain you'll save with the more efficient Axial-Flow system.

Axial-Flow means bonus speed

When your crops are ripe and ready to harvest, Axial-Flow allows you to move and move fast faster than you normally can with a conventional combine—and still save more bushels from every acre. The rotor's large throat means no bottle-necks up front, and the 108 inches of threshing length keep grain moving through evenly and rapidly. You'll be able to operate at top speed for maximum productivity and finish your harvest in the shortest time possible.

Grain quality will be higher

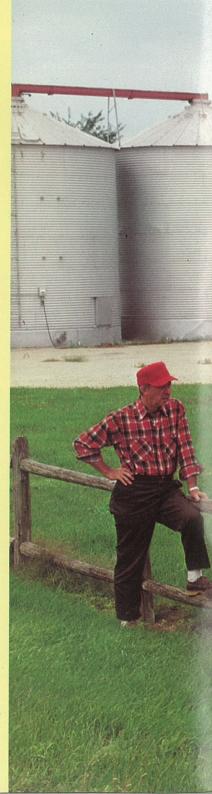
Since conventional combines get but "one shot" at the grain, the contact must be hard and abrasive to thresh an acceptable amount of grain. But with the multiple threshing action of Axial-Flow, the contact can be more gentle. This reduces kernel damage and holds elevator dockage to the minimum.

Simplicity means reliability

Like most good ideas, the Axial-Flow principle is simple. For example, the single rotor replaces 10 moving parts—including the troublesome straw walkers—in conventional combines. Drives are simplified and easy to service. Most belt drives are spring loaded for maximum belt life. And of course, the single rotor design requires but one rotor drive gear box.

Wide choice of types and sizes

The International combine line includes four basic models for small grain, corn, soybeans and many other crops, plus three models that are especially designed for rice. Then there is a big capacity PTO pull-type combine, and the world's most advanced and most productive hillside combine. And they all have one important feature in common—Axial-Flow.





DIFFERENT BY DESIGN

The inside story tells you how Axial-Flow combines are different and why they do a better over-all job of harvesting.

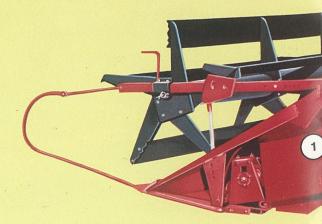
- 1. Proven IH grain headers and corn heads fit interchangeably. (810 header shown.)
- **2.** Stone retarder feeder drum (optional) helps protect against rocks.
- 3. Impeller on front of rotor draws crop and air into rotor...reduces feeder dust.
- 4. Single longitudinal rotor threshes and separates—just one big moving part. Speed of rotation adjusts on the go electrically within each of two ranges by means of fingertip switch control.
- 5. Torque-sensing rotor drive—automatically regulates belt tension in relation to load. Two-speed gear-case along with variable belt drive covers entire harvest range.
- 6. Three-section concave can be removed and reinstalled by one man in less than 30 minutes—saves hours. Small-hole and large-hole concaves available. Clearance is easily adjusted with a ratchet handle.
- 7. Three-section separating grate handles all crops. Separating capacity is capacity-balanced to the entire machine.
- **8.** Augers move grain smoothly, more positively to the cleaning sieves. Grain does not bunch up, even on steep sidehills.
- 9. Opposed action adjustable sieves with total cleaning area of 3,747 sq. in. in the 1420, 4,750 sq. in. in the 1440 and 1460, and 6,420 sq. in. in the 1480.

- **10.** Advanced-design cleaning fan with variable speed drive.
- **11.** Positive discharge beater propels straw rearwards. (Straw chopper optional.)
- 12. No straw walkers.
- 13. Wide spread twin-rotor straw spreaders distribute material uniformly...can be removed in seconds for windrowing material. The 1420 has a single spreader with deflector.
- **14.** Fold-down service ladder—becomes part of overall styling in "up" position.
- **15.** Large fuel tank capacity of 73.5 gallons on the 1420, 92 gallons on the 1440 and 1460, and 123 gallons on the 1480.
- **16.** Forward-mounted grain tank provides good weight distribution full or empty. The 1420 holds 125 bushels; the 1440 holds 145 bushels; the 1460 holds 180 bushels; and the 1480 holds 208 bushels.
- 17. Control Center is roomy 58 inches wide.

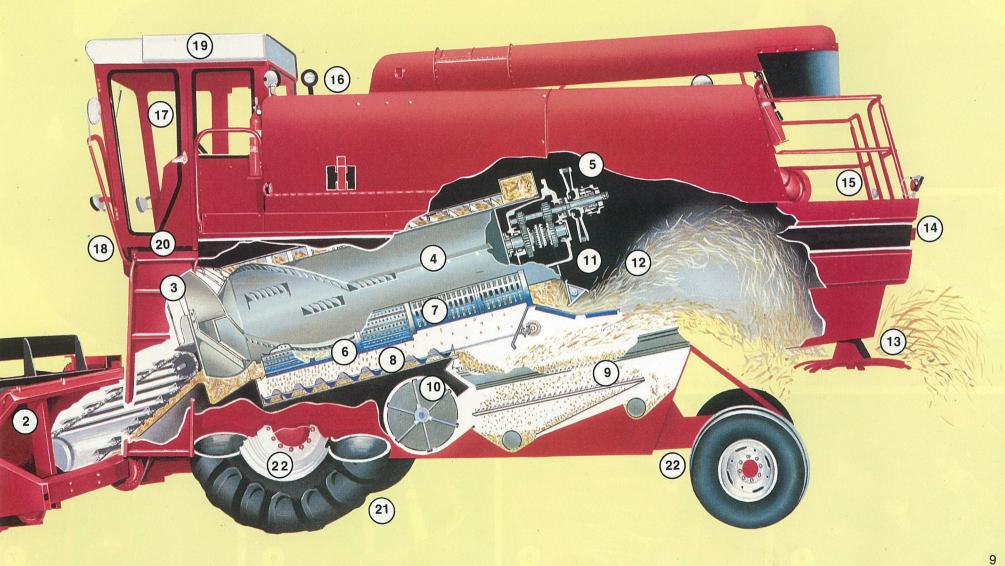
 Mounted on IH ISOMOUNT® isolators, well insulated, extremely comfortable and quiet.

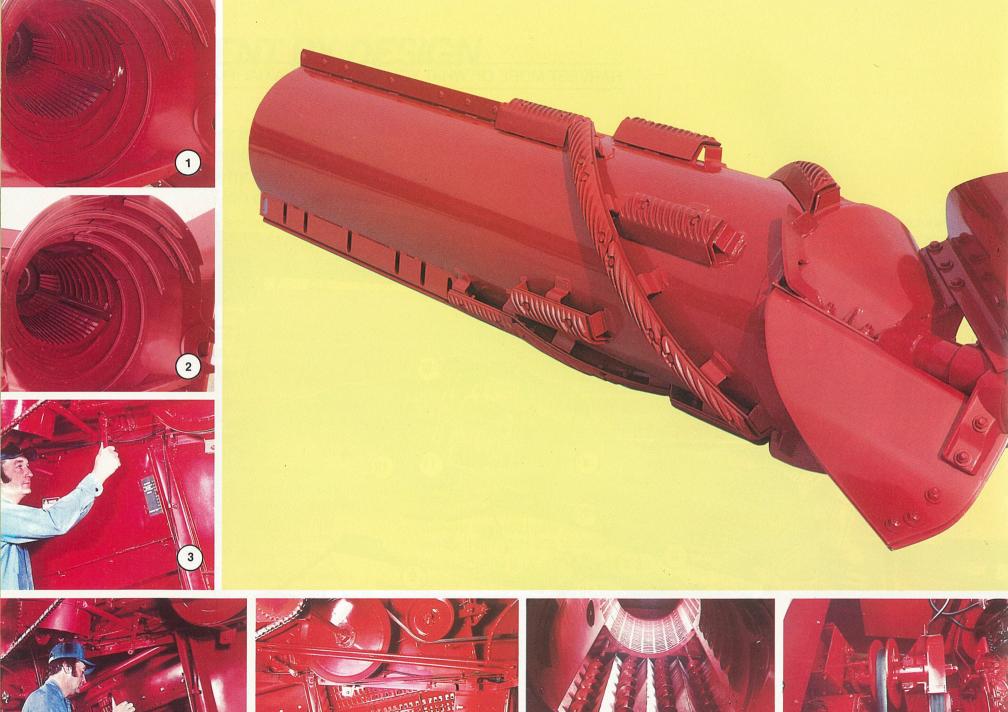
 Handy operating aids include electrohydraulic controls, electronic instrumentation, digital tachometer for the engine, rotor, and fan RPM, and a digital speedometer for ground speed.

- **18.** Excellent all-around visibility, including "deep pocket" windshield that provides an extraclose-in view down front.
- **19.** Externally mounted air pressurizer filter—big capacity, easy to service.
- **20.** Ample deck area outside Control Center door for easy entering, exiting.
- 21. Hydrostatic ground drive, pioneered and perfected by IH on combines, provides infinitely variable ground speed within three speed ranges through a 3-speed transmission and final drive. Hydraulic actuated brakes are standard.
- 22. Final drives and steering axle have high and low positions to provide the desired ground clearance on the 1460 and 1480.



HARVEST MORE OF WHAT YOU GROW WITH AXIAL-FLOW

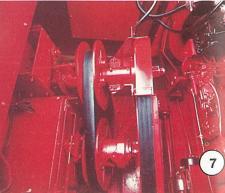














UNEQUALED HARVESTING EFFICIENCY

Lengthwise rotor replaces conventional crosswise cylinder and straw walkers – for greater grain savings, less kernel damage.

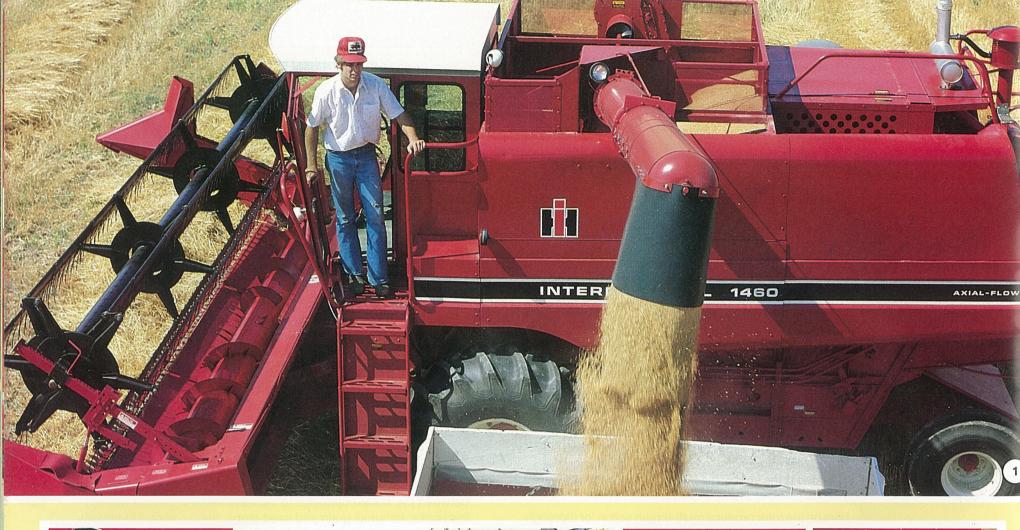
The single, large-diameter rotor is the only moving part in the entire threshing/separating process. The rotor, with its rasp bars, repeatedly threshes the crop as it swirls through the rotor cage. There is no cylinder, no cylinder beater, no beater grate, no straw walkers or racks. Axial-Flow is simplicity itself—and totally different from conventional combines.

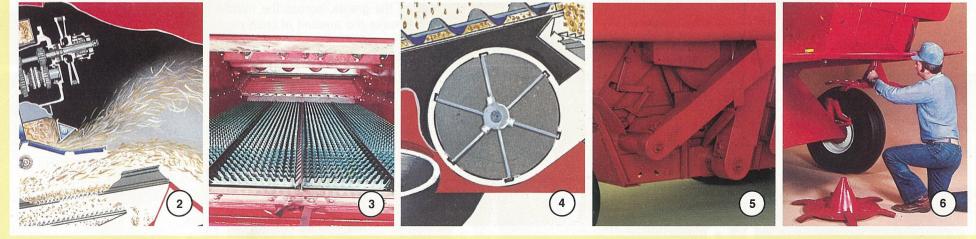
The efficient impeller on the front of the rotor draws crops from the feeder, then starts the crop spiralling rearward around the rotor. The impeller also draws air in through the feeder, greatly minimizing the amount of dust created at the front of the feeder. This provides for much cleaner operation.

Long life rasp bars on the rotor produce multi-thresh action for thorough but gentle threshing. Built in short sections and bolted, not welded, in position, the bars can be reversed for increased life.

- 1. Big rotor and cage. With one large rotor the crop moves through the threshing zone in an even flow, without being divided. This action prevents wrapping of weeds or long straw. Even in heavy going, material moves evenly through the combine. The rotor is 20 inches in diameter in the 1420, 24 inches in diameter in the 1440 and 1460, and 30 inches in diameter in the 1480.
- 2. Spiral vanes in the tunnel-shaped impeller area start crop material spiralling rearward as it is pulled into the rotor. Additional adjustable vanes along the left side of the rotor cage control movement of the revolving crop through the machine.

- **3. Concave clearance** is adjusted easily with ratchet handle. An easy-to-read indicator tells you the clearance setting. A cleanout position opens the concave further for removing a slug.
- 4. Easy to change concaves. It takes one man approximately 30 minutes, not hours, to change from one set of concaves to another. The bar and wire concave is 3-sectioned for easy handling of each section. Remove each section by taking out the bolts on the left side, unhook holders on the right side, then lift the section out. Large-hole concaves handle most crops; small-hole available for optimum performance in hard-to-thresh small grains or seed crops.
- 5. All-crop, three-section separating grates, at the bottom rear of the rotor cage, continue the separation and recovery of the small amount of grain that gets past the concaves with the straw. The same grates are used for all crops. Channel bars are bolted to the grate sections: For corn, they're bolted to the inside of the grates between the slotted openings to increase separation of corn from the husks; for small grain and seed crops, they're bolted to the outside of the grates, across the middle of the slotted openings, to decrease the amount of chaff passing through the slots with the grain.
- **6. Multiple augers** under the concaves, collect threshed grain and move it to the cleaning system in a smooth, uniform flow. Auger troughs prevent grain from bunching when working on sidehills. The 1420, 1440, and 1460 have a 4-auger bed; the 1480 has a 5-auger bed.
- 7. Torque-sensing, variable speed rotor drive automatically adjusts belt tension to the load through a 2-speed gear box. Rotor speed is infinitely variable from very slow for fragile crops to very high for hard-to-thresh crops. Speed is controlled electrically from the Control Center and exact rotor speed is shown on the digital tachometer.







BALANCED DESIGN FOR GREATER PRODUCTIVITY

Axial-Flow cleaning and elevating capacities are matched to threshing and separating capacities to deliver maximum productivity in every crop.

Axial-Flow combines deliver true balanced capacity, and that's the basic reason these combines excel in all-around field performance. Cleaning capacity keeps pace with the big-capacity threshing/ separating system so that you can rely on getting your harvest wrapped up in the shortest possible time—and to have more bushels of clean grain from every acre.

- Fast unloading. Hydraulically controlled by the operator inside the Control Center, the unloading tube empties the grain tank in less than two minutes. When not in use, the tube fits snugly in the support bracket.
- 2. Positive discharge beater propels crop residue from the rear of the rotor and throws it out the back in an arched trajectory. Springloaded beater bottom is adjustable from the side of the combine for corn and grain. It permits slugs to pass on through the combine without plugging. Standard on all models.
- **3. Efficient chaffer and shoe sieves.** Air from the cleaning fan lifts chaff off the chaffer sieves after grain and chaff come off the auger bed. Opposed sieve shaking action provides thorough cleaning.

Adjustable sieve louvers allow the grain to fall through to the grain auger. Total cleaning areas: 3,747 sq. inches in the 1420; 4,750 sq. inches in the 1440 and 1460; and 6,420 sq. inches in the 1480. Grain combines have 1½-inch chaffer sieve; corn combines have 1½-inch chaffer sieve; 1½-inch corn slat sieve available on all models.

- 4. High-capacity cleaning fan has a variable-speed drive so that you can control the air blast to get just what you need to clean crops thoroughly. The electric speed control (except 1420) is located in a handy console at your right. The bottom shield is an integral part of the combine frame. Special shields are available to prevent trash in adverse field conditions from entering the cleaning system during operation.
- 5. Big-capacity clean grain and tailings return elevators. The clean grain elevator in the 1420 has a 7 x 8-in. cross section; the 1440 and 1460 have an 8 x 8-in. cross section; and the 1480 has an 8 x 10-in. cross section to keep grain moving quickly to the grain tank. Flexible rubber flights handle grain and seed gently. Tailings elevator returns unthreshed heads for gentle, but thorough rethreshing. Perforated elevator boot doors, troughs, and extensions are standard on corn combines, optional on grain combines to sift out dirt and foreign material.
- 6. Dual straw spreaders assure uniform spreading of material as it goes out the rear of the combine. Spreader bats are adjustable to adjust the spreading pattern to match the crop and the header size. If you prefer to "windrow" the residue, you can remove the spreaders in just a few seconds. (The 1420 has a single spreader with deflector.)

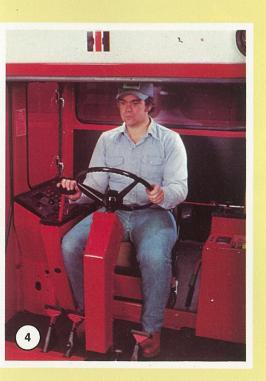












SPACIOUS IH CONTROL CENTER

Long days—blistering hot or freezing cold—are much easier to take when you're inside the comfortable, convenient IH Control Center.

Except for the productive, crop-saving performance of Axial-Flow combines, their outstanding feature has to be considered the IH Control Center.

It abounds with human-engineered features that make it easier and far more pleasant for you or your operator to be comfortable, more alert, and more productive every hour in the field. It's IH designed and manufactured for absolute quality and sound control. You will literally be amazed at its quietness as you experience almost vibrationless operation plus near-effortless control over so much grain-saving productivity.

It's a full 58 inches wide for more "move around" space; controls are easy to see, reach, and use. The slanted windshield extends below the deck level to provide an excellent view of the header or corn head. The seat and steering pedestal adjust to match your height and reach exactly. Other standard features include tinted glass, a handy cleanout door, lighter, ash tray, interior lighting, a storage box, and a heater-defroster. Options include air-conditioning, AM or AM-FM radio and/or an 8-track stereo unit to keep yourself entertained and up to date on the markets, plus a CB radio to

contact your truck drivers, keep in touch with your base station, and visit with all your "good buddies" in the area.

- 1. All-season climate control. The right-hand window opens to let in fresh air; a 3-speed pressurizer keeps out dust and expels excessive heat; and a heater-defroster lets you work in shirt-sleeve comfort on those cold days while the optional air conditioner makes it nice and cool in hot weather.
- 2. Deep-cushion seat adjusts fore and aft and up and down to accommodate your leg length. Deep front-to-back measurement provides exceptional leg support. Flip-up left-hand arm rest and adjustable right-hand arm rest add convenience and comfort. Long-wearing fabric cover is comfortable, durable.
- 3. An exceptionally quiet interior. The IH Control Center is one of the most advanced enclosures to be found on agricultural equipment. It's well padded, with tight-fitting doors and windows, and it has such sound control items as boots, grommets, floor mats, seals and accoustical sound materials. In addition, the Control Center is Isomounted to the chassis to soak up vibration and noise. It all adds up to an exceptionally low noise level—from 79 to 85 dB(A), depending on the crop and equipment.
- **4. Tilt steering wheel pedestal** adjusts to any of five positions to fit your reach and to reduce fatigue. Steering, itself, is almost effortless with hydrostatic power doing the work.



AL-FLOW

SOPHISTICATED CONTROLS SIMPLIFY OPERATION

International advanced instrumentation plus electro-hydraulic controls make it easier for you to be in total command of your Axial-Flow combine at all times.

As with most equipment and jobs around any farming operation, a machine will perform no better than the ability of the operator to control and monitor that machine. And harvesting crops with an International Axial-Flow combine is no exception.

This is why we want to provide you with the best—the best in comfort to reduce fatigue and the best in instrumentation and controls so that you or your combine operator can be in complete command of the harvest and get the highest possible production out of your Axial-Flow combine in a given situation.

Take a close look at the large illustration on the left that pictures the right-hand console. You'll see fewer levers; in their place you see switches and knobs that are connected to hydraulic valves or to electro-hydraulic-powered control actuators. With a simple push of a button or turn of a knob, you can make instant and precise operational changes so that you can get more bushels from every acre.

Your right-hand console contains controls for (1) raising and lowering the reel, (2) controlling reel or belt pickup speed, (3) raising and lowering the grain header or corn head, (4) controlling forward and reverse speeds, (5) adjusting header sensitivity for uneven ground conditions, (6) overriding the header height and header sensitivity

controls, (7) controlling rotor speed, (8) engaging and disengaging the header or corn head and the feeder, (9) engaging and disengaging the separator, and (10) increasing or decreasing the cleaning fan speed (except 1420).

Additional right-hand console features include a combination tachometer/hourmeter. With a simple turn of a knob, you can get an instant, precise digital readout of the rotor RPM, fan RPM, engine RPM, and your ground speed. With this vital information constantly available to you or your operator, changes can be made instantly and on the go to compensate for changing crop conditions so that you can rely on saving more of what you grow.



Another important right-hand control is the handy speed control lever that operates the hydrostatic drive. Nudge the lever forward, and you increase the ground speed; pull it back a bit, and you decrease your speed to get a perfect match of the combine capacity and the yield or heaviness of the crop. Also, an integral part of the speed control lever is the raise/lower control of the header or com head. What could be simpler or more convenient?

Additional console monitors include tellites and gauges to monitor pressures, temperatures, fluid levels, and other vital functions.









LOW

MORE CONTROLS AT YOUR COMMAND

Here are additional controls to help you take command of your harvest so that you can rely on harvesting more of what you grow.

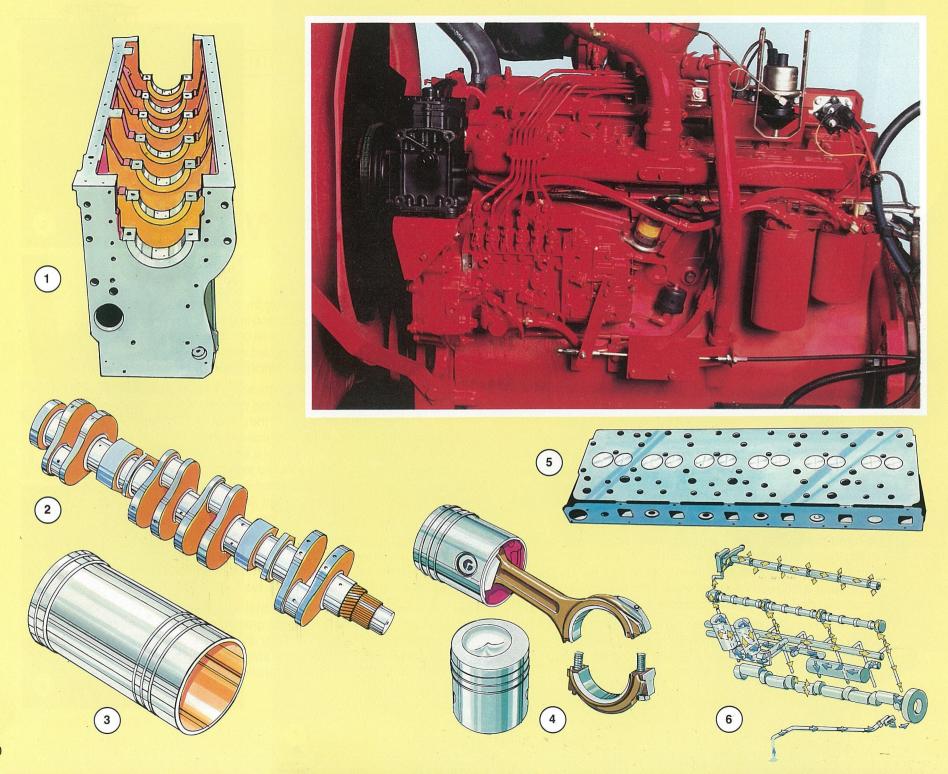
Since the International Control Center is so wide (58 inches), all the operating controls etc., do not have to be cramped into one console or location in order to have ample room left over so the operator can be comfortable. And this is why Axial-Flow combines have the controls located on both sides of the operator—where there's plenty of space between levers, gauges, etc., and yet close enough to actually make it easier and more convenient for the operator. Again, this is a design feature of the IH Control Center that helps reduce fatigue and make it easier for the operator to do a good job.

1. Left-hand console houses the transmission range lever. Simply shift into the speed and power range you want—first, second, or third—and then use the hydrostatic control lever on your right to obtain the exact ground speed you need and want. (The hydrostatic control lever also is used to reverse the combine in all three speed ranges.)

The left-hand console also contains the control for operating the unloading tube. Simply push the control switch forward and the unloading tube swings out under hydraulic power for unloading the big-capacity grain tank; push the switch rearward and the unloading

tube swings back into the saddle on the separator so you can transport safely or get through and into tight places. Additional left-hand console elements consist of the parking brake and the cigar lighter. If your combine is equipped with automatic header height control, the control lever will be positioned beside the console.

- 2. Foot controls consist of the right and left-hand brake pedals, which are on the right side of the steering pedestal and the foot-n-inch pedal, which is on the left side of the pedestal. The brake pedals can be operated individually to help make a sharp turn or to stop one wheel from spinning when you hit a slick spot and one wheel tends to spin-out. They can also be locked together to help bring you to a safer, straight-line stop. The foot-n-inch pedal is used to override the transmission controls so you can "inch" the combine backward or forward in tight, cramped quarters, ideal for header hookups.
- 3. Steering pedestal controls include the position-release so that the steering pedestal can be positioned in any of five different positions. The pedestal also contains the turn signal switch—close where it's handy, yet out of the way at all times.
- **4. Rotating shaft monitors** (optional equipment) monitor the rotor speed, fan, shoe, tailings auger, grain auger, rotary air screen, and the discharge beater. Should any shaft slow down to less than 70 percent of proper speed, an audible alarm sounds and a digital display indicates the affected function.



AL-FLOW

RELIABLE, EFFICIENT DIESEL ENGINES

IH-designed and IH-built diesel engines are long on performance and dependability, but very short on fuel consumption.

We know that harvest time is no time to have engine problems with a combine. And this is why the diesel engines in all four Axial-Flow combines are of proven IH design and dependability. They're engines that have an extra margin of power so that you always can operate at the proper speed in any given set of crop and field conditions. The two smaller models have naturally aspirated engines and the two larger models are turbocharged, but they all have many design features in common... features that contribute to outstanding day-in-day-out performance down through the years... features that contribute to greater reliability and fuel economy.

- 1. Rugged crankcase is made of high-strength alloy iron for maximum strength with minimum weight. Thick block webbing eliminates distortion and provides a solid foundation for the crankshaft and main bearing journals. And for additional strength, bearing caps are made of nodular iron.
- 2. Premium forged steel crankshaft is hardened by a special process (elotherm) that produces superior strength and durability. This same process is used to harden bearing journals and fillets. A vibration dampener extends smooth performance over the entire speed range.

- 3. Plateau-honed wet cylinder sleeves eliminate the sharp peaks that occur with conventional honing—provides for better oil control and improved piston matching. Sleeves are swirl-cooled over their entire length to dissipate heat faster, more uniformly.
- 4. Balanced-pressure piston design allows the top ring to maintain more uniform pressure against the cylinder wall throughout the power stroke. This design has proved to improve oil control and extend engine life. Better oil control is particularly apparent after approximately 1000 hours of use. Piston heads are shaped to produce maximum air turbulence for more complete combustion of fuel.
- **5. Jet-cooled cylinder heads** feature a one-piece, stress relieved, alloy iron casting with helical swirl intake ports for thorough mixing of fuel and air. Built-in water directors jet coolant to the fuel injection nozzle and valve bridge areas for the most effective cooling.
- **6. Full pressure lubrication** is provided at all times by oil pumps that are driven by the crankshaft. The system includes two full-flow, spin-on filters which assure delivery of clean oil to all main and connecting rod bearings, turbocharger, timing gears, camshaft bearings, rocker arm assembly, front gear train and piston jets. An oil cooler—standard—prevents excessive oil temperatures during normal operation and decreases engine warm-up time.

















EASY TO SERVICE AND MAINTAIN

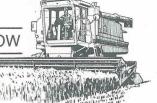
Axial-Flow combines are designed for simple daily servicing...makes it easy to keep your combine "healthy."

The entire Axial-Flow line has been designed for service simplicity with fewer moving parts, and with easier component accessibility. We want to keep your downtime to the absolute minimum, your uptime productivity to levels beyond what conventional machines can deliver. IH engineers designed Axial-Flow combines your way...the easy-service way.

- Entire engine is easily accessible. No need to go through the rear of the grain tank ... or empty the tank to service the front side of the engine. There's ample room, should you have to perform any front-side work.
- 2. Foldaway rear deck ladder folds into the rear of the combine. It becomes part of the over-all styling in the raised position. It quickly lowers for easy access to the rear service deck.
- 3. Fast, easy refueling from the safe footing on the rear deck ladder, or from the service deck itself. Refueling stops are less frequent because of the big capacity tanks—73.5 gallons on the 1420, 92 gallons on the 1440 and 1460, and 123 gallons on the 1480.

- 4. Handy air cleaner positioning. It's located alongside the rear of the engine and down on the service deck where you can reach it for easy servicing.
- 5. Fast, easy-clean radiators. There are two convenient service doors to the radiator. A service door lets you get at clogged fins with an air or water hose. A second clean-out door at the bottom of an air duct in front of the radiator permits dirt or trash to fall directly on the ground. Door latches back into closed position to maintain proper air pressure in the duct. The 1420 features a swing-away rotary screen for easy cleanout of the radiator.
- 6. Easy-to-service drives have a minimum number of elements on each drive, and most belt drives are spring-loaded to extend belt life and reduce adjustments. A right-angle main separator power take-off is mounted directly on the cushion-mounted engine. On the 1420, 1440 and 1460 the electro-hydraulically actuated clutched banded belt drive eliminates need for any hard-to-service internal over-center disk clutch. The 1480 separator clutch is an independent multiple-disk unit running in oil and actuated by electro-hydraulic control. A drive shaft and right-angle gear box provide a simple, reliable drive for the feeder, grain header and corn head.
- 7. Roomy rear service deck offers safe, easy access to the engine, hydraulic fluid reservoir, fuel tank filler cap, and related components. And, there's plenty of move-around room.





BIG CHOICE IN GRAIN HEADERS

810 rigid cutterbar headers are available in nine sizes to match your combine capacity and your acreage of standing or windrowed grain.

Unless you raise a considerable amount of soybeans, the International 810 header with a rigid cutterbar is preferred for harvesting crops like wheat, milo, barley, flax, oats and rice. It's available in nine sizes from 10 to 30 feet and each is completely adjustable to match varying crop conditions. It delivers crops smoothly and evenly with a minimum of shattering.

Handle extra-heavy crops fast. Auger diameter on header sizes from 13 to 17½ feet is 20 inches. The 20 to 30-foot sizes have a 24-inch diameter auger and deeper flights. Just what it takes to handle high volumes of material at the fastest practical ground speed.

Available with belt pickup. If you windrow your crops, you'll want to get the 810 header in a 10- or 13-foot size and equip it with a belt pickup. Pickups are available in a 5-belt, 110-inch width or a 6-belt, 132-inch width. Belts are made of rubber-covered polyester cord for long life with 56 nylon fingers for gentle handling. Standard equipment includes variable-speed control so you can match belt pickup speed to ground speed.

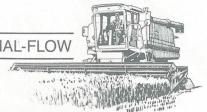
Optional electric header height control can take a lot of work out of combining on uneven ground conditions by automatically keeping the header at a pre-selected cutting height. Highly sensitive, it responds quickly to changing conditions—gets more crop without you having to "ride" the height control lever.

Optional accumulator cushions the header system against shock loads. With valves provided, it can be connected to an optional third hydraulic cylinder to operate independently of the combine's hydraulic system. The third cylinder must be connected to the combine's hydraulic system to raise large corn heads. Fluid flows into and out of the accumulator and compresses gas inside, cushioning the lift system and producing superior performance and a good measure of protection against untimely breakdowns.

Variable-speed drive provides on-the-go changes of reel speed (or belt pickup speed) with start and stop control. Merely dial the reel speed you need to match your travel speed so that your crop is handled as gently as possible and shattering is held to the very minimum.

Header Size	Combine			
	1420	1440	1460	1480
10' through 20'	X	Х	Х	Х
221/2'		X	X	X
24'		X	X	X
30'			_	X





SOYBEAN SAVING HEADER

820 flexible cutterbar headers cut as low as 1½ inches so you can save more of the valuable soybeans you produce.

If a high percentage of your crops is devoted to soybeans, your best header choice is the International 820 with flexible cutterbar. And while the 820 can be used very successfully in other crops, it is designed specifically for harvesting soybeans.

It cuts low; it cuts clean. In soybeans, the 820 header can cut as close as 1½ inches to the ground to save more low-hanging pods. The cutterbar has a 6-inch flex range to maintain a low cutting height across its entire width when working in uneven ground conditions. Tests show an 820 header can hold down cutterbar field losses to approximately three percent—much less than any rigid or add-on flexible cutterbar which can lose anywhere from 5 to 10% of the beans in normal field operation.

Automatic header height control is standard equipment on the 820. You determine the cutting height, and the 820 will maintain that cutting height regardless of the terrain—automatically, without you having to "ride" the control lever.

Full range of crop-saving adjustments. In addition to cutting low to the ground and flexing with changing terrain, the 820 header has a full range of adjustments to further assure saving more beans from every acre. For example, the reel can be adjusted forward and backward without

wrenches...reel pitch is infinitely variable...reel height is adjustable hydraulically ... ground pressure sensitivity is infinitely adjustable...and the divider tips can be adjusted up and down or side to side—or completely removed for harvesting other crops.

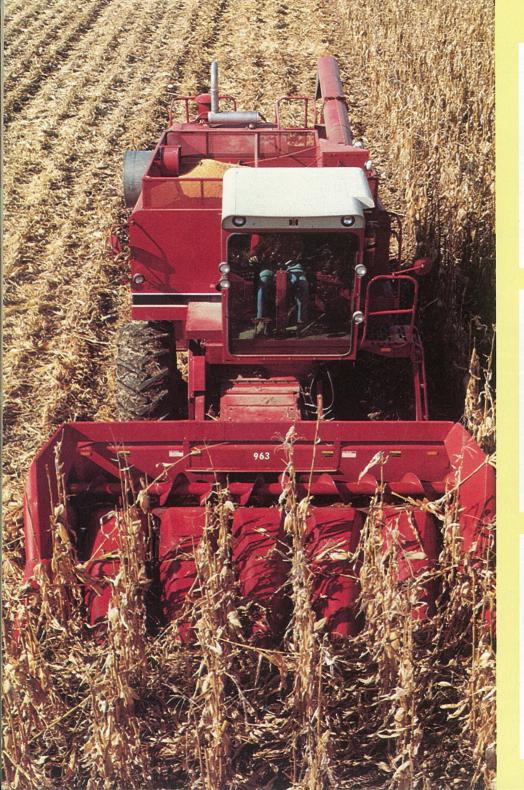
Not limited to soybeans. While the 820 flexible header is a soybean "specialist," it can be locked rigidly for harvesting other crops such as wheat, mile or barley. It takes but a few seconds to insert a pin above and below each runner to lock the cutterbar in position.

Deluxe reel for the 820 header, show in insert on opposite page, is designed for crop-saving efficiency and long life. Tear-drop shaped steel bats are reinforced and have a thin leading edge for smoother crop entry to reduce shattering losses. Curved, 8-inch flexible tines are made of a special material for strength and resistance to breakage.

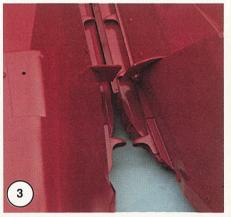
	Combine			
Header Size	1420	1440	1460	1480
13', 15', 161/2', 171/2'	Х	Х	Х	X
20', 221/2'	_	X	X	X

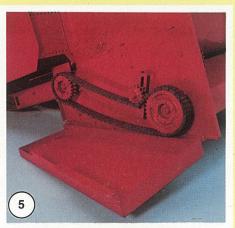


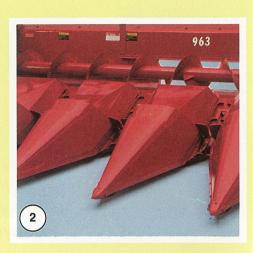
The more uneven the terrain, the more you'll profit from the flexibility of the cutterbar on the IH 820 header. It floats and flexes to maintain a cutting height as low as 1½ inches to put more beans in the bin, more money in your pocket.

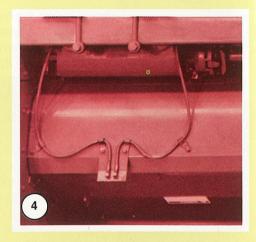














CROP-HUNGRY 4 TO 8-ROW CORN HEADS

900 Series corn heads: there are eight models to match your combine, acreage, and row spacing.

The more corn you raise, the more you'll profit from the outstanding field performance of a 900 Series corn head. That's because these corn heads are just as productive and just as efficient as the Axial-Flow combines they're designed to fit. Check these outstanding features:

- 1. Sleek, low-profile row units slip in and under down or leaning stalks to straighten them up very gently to prevent ears from falling off before the snapping rolls can get at them. Many owners report that because the units handle the stalks so gently, they can often times operate at faster ground speeds without excessive ear loss. Stalk rolls are two inches longer than on previous IH corn heads. Extra length enables the units to work closer to the ground, if necessary, to salvage more ears when the stalks are lodged. The longer rolls also help reduce the wedging of ears at the bottom of the rolls.
- 2. Deep ear pockets make it virtually impossible for an ear to get away once it has been snapped. Even when operating at maximum ground speed in rough, uneven ground conditions, the deep

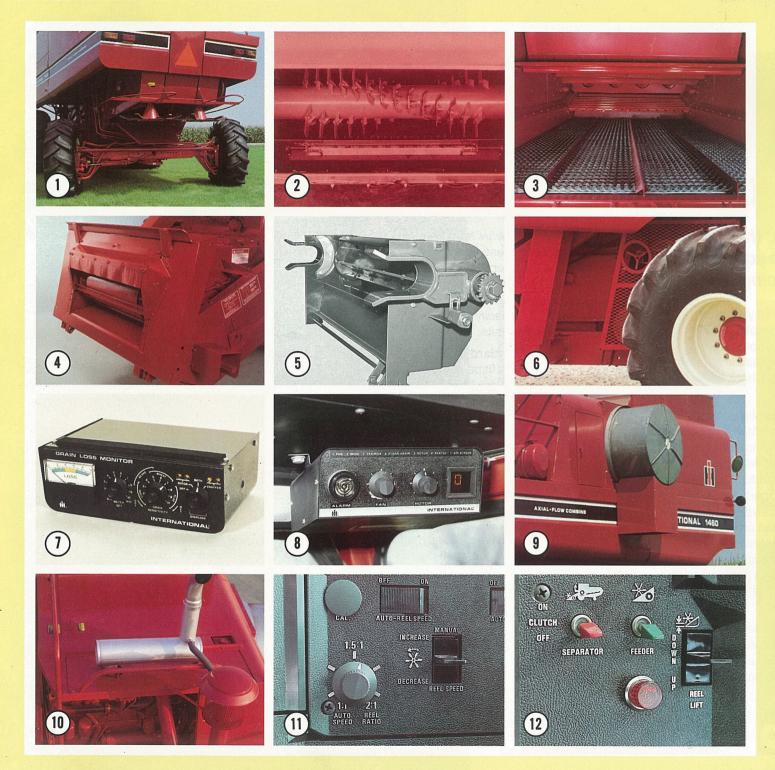
pockets prevent the ears from bouncing out. Another ear saving feature of these productive corn heads is the deep-flighted cross auger that operates at a relatively slow RPM to prevent ears from being kicked out. The deep flights provide the crop-moving capacity to match the snapping capacity of the row units.

- 3. Ear savers are standard equipment. Consisting of a pair of rubber flaps at the bottom of the row units, ear savers are flexible enough to allow easy entry of the stalks into the stalk rolls, yet stiff enough to prevent a snapped ear from rolling forward onto the ground.
- 4. A remote lubrication system makes it fast, easy and convenient to grease the stalk rolls from the rear frame of the head... no need to crawl under the row units as you have to do with some corn heads.
- 5. Convenient main drives. On all models through 6-row narrow, the main drive is located on the left-hand side where it's easy to get at for inspection or service. A hinged shield can be dropped to expose the drive, chain, sprockets and idler. On the 6-row wide and both 8-row models, the main drive consists of two short drives inside the unit.

6. Hinged gatherer shields make it easy to get at the units should you want to make a quick inspection or perform service work. Each shield can be locked in the up position to provide complete safety.

Low weight is combined with high strength. Compared to other corn heads on the market, International 900 Series corn heads are hundreds of pounds lighter in weight. Reduced unit weight allows you to eliminate or reduce the counterweights on the rear of the combine. Less weight also improves the flotation and contributes to fuel economy.

	Head			Com	bine	
Model	Size	Row Spacings	1420	1440	1460	1480
943	4-row	28" or 30"	X	X	X	_
944	4-row	36", 38", 40"	X	X	X	X
954	5-row	36", 38", 40"	X	X	X	X
963	6-row	28" or 30"	X	X	X	X
964	6-row	36", 38", 40"	_	X	X	X
983	8-row	30"	_	_	X	X
984	8-row	36" or 38"	_	_	_	X
984	8-row	38" or 40"	_	_	_	X







Tailor IH combines to fit your needs

Many options and attachments help you tackle any field or crop condition with top performance and real confidence.

- 1. Powered guide wheel assist keeps you going in wet field conditions when optimum traction is imperative. The unit is activated simply by flipping a switch inside the cab.
- 2. Straw chopper attachment effectively shreds material for wider, more even field distribution. Flail knives are dynamically balanced to provide smooth vibration-free operation.
- 3. Variety of optional chaffer and shoe sieves lets you match the right sieve to the crop. Sieves can be changed easily in a matter of minutes.
- 4. Optional stone retarder feeder drum helps prevent rocks and other foreign material from entering the machine, Helps protect combine's internal parts against stone damage.
- 5. Rock trap for Axial-Flow combines permits cutting closer to the ground in rock infested fields. Located between the feeder and the rotor, a powerful beater knocks rocks out of incoming crop material into the trap. Rocks are removed through a door in the bottom of the trap.
- **6. Fan air inlet shield** help prevent foreign material from restricting air flow to the cleaning fan. Helps maintain full air flow in dirty, trashy conditions.

- 7. Electronic grain loss monitor makes top performance and efficiency possible from your combine by monitoring the material leaving the combine. Four sensors monitor loss in relation to ground area covered.
- 8. Rotating shaft monitors keep tabs on rotor speed, fan, shoe, tailings auger, grain auger, rotary air screen and the discharge beater. If a shaft slows to less than 70 percent of proper speed, an alarm sounds and a digital display indicates the malfunction.
- Rotary air discharge screen assures unrestricted air flow to radiator by brushing dirt and chaff off rotary intake screen.
- 10. Aspirated precleaner uses exhaust gas vacuum to suck dust particles out of the precleaner, then expel them through the exhaust system. Keeps air filter element cleaner for longer life in all types of field conditions.
- 11. Automatic reel to ground speed control lets you set the reel speed to match crop conditions. The reel will automatically slow down or speed up proportionally with the combine's ground speed.
- 12. Automatic feeder cutoff control module provides protection for the conveyor chain and drive. If the speed of the feeder pivot shaft falls severely, this device will automatically stop the cutting, gathering, and feeding mechanism.

Specifications

1420

GRAIN HEADS	CONVEYING AND STORAGE
Width of cut w/gather:	Tailings elevator 6" x 8" (152 x 203 mm) top driven,
810 rigid cutterbar	roller chain w/rubber flights
(3.96, 4.57, 5.03, 5.33, 6.10 m)	Clean grain elevator,
820 flexible cutterbar	standard
(3.96, 4.57, 5.03, 5.33 m)	driven, roller chain w/rubber flights
810 pickup header 10' or 13' (3.05 or 3.96 m)	Grain tank capacity
Windrow pickups	Unloading auger Hydraulic swivel control
3353 mm) belt-type	Unloading height:
3333 mm) ben-type	reg. unloader
Cialda arrad evalue non minuto.	Unloading speed 1.6 bu. per second max., depending
Sickle speed, cycles per minute:	upon crop and conditions
810	upon crop and conditions
820	
Cutting range w/std. tires 16" (406 mm) below to	WILEEL O. AND TIDEO
46" (1168 mm) above ground	WHEELS AND TIRES
Reel speeds w/hydraulic drive 0 to 50 RPM std.	Drive wheel tires
Reels, type:	18.4-26 10 PR(R3) opt. grain;
810 IH 5-bat std.; 6-bat pickup reel opt.	18.4-30 101 H(111) opt. grain,
820 6-bat pickup std.	23.1-26 8 PR(R1) std. corn;
Header auger:	23.1-26 8 PR(R2), (R3) opt.;
810 sizes 13'-17.5' & all 820 sizes 20" (508 mm) diam.	23.1-26 10 PR(R1), (R2) opt.;
810 size 20'	23.1-34 8 PR(R2) opt.;
both w/retracting fingers	28L-26 10 PR(R1), (R2) opt.
contact distribution of the residence of	Drive wheel tread
CORN HEADS	89" (2260 mm) wheels in
Sizes available	Drive wheel tread w/axle
40" spacing (914 mm, 965 mm and 1016 mm)	extensions 120" (3048 mm) wheels out,
4 and 6 row for 28" and 30" spacing	108" (2743 mm) wheels in
(711 mm and 762 mm)	Steering tires 10.00-168 PR (F2) std. grain;
	11.00-16 6 PR (F2) std. corn;
THRESHING/SEPARATING	12.4-168PR (R3); 11.2-246PR (R1);
Type system Longitudinally mounted rotor	9.5-24 6 PR (R1) opt.
Rotor diameter	Steering axle tread
Rotor length	67-91" (1702-2311 mm) corn
Rotor speeds Variable w/low and high range	Wheelbase
Low—255 to 650 RPM	**************************************
High—560 to 1410 RPM	
Concave Adjustable 3-section bar and wire	ENGINE
Concave adjustment Acme thread, ratchet operated	Type and horsepower IH D358 6-cyl diesel with
Discharge beater 3-blade	124 hp (92.5 kW) @ 2700 RPM
Auger bed 3-auger	124 TIP (32.3 KVV) @ 2700 TIT W
CLEANING	DIMENSIONS (Standard grain machine)
Chaffer sieve Adjustable slat	Overall width, less header,
Shoe sieve Adjustable slat	
Total cleaning area	less operating ladder 120" (3.05 m) w/std. tires (out)
Cleaning fan	Overall length
Fan speed Variable, 370 to 1164 RPM	w/47" feeder
Tall speed valiable, 670 to 1104 ft W	Transport and storage height 137" (3.48 m) w/std. tires

1440

1440
GRAIN HEADS Width of cut:
810 rigid cutterbar
6.86, and 7.32 m) 820 flexible cutterbar
20', and 22.5' (3.96, 4.57, 5.03, 5.33, 6.10 and 6.86 m)
810 pickup header 10' or 13' (3.05 or 3.96 m)
Windrow pickups
Cutting range w/std. tires 16" (406 mm) below to 46" (1168 mm) above ground
Sickle speed, cycles per minute
810 600 820 600
Reels speeds w/hydraulic drive 0 to 50 RPM std. Reels, type:
810 IH 5-bat std.; 6-bat pickup reel opt. 820 6-bat pickup std.
Header auger:
810 sizes 13'-17.5' & all 820 sizes
810 sizes 20'-24'
CORNHEADS
Sizes available 4-row for 28", 30", 36", 38", 40" (711 mm, 762 mm, 914 mm, 965 mm, 1016 mm) spacing
5-row for 36", 38", 40" (914 mm, 965 mm, 1016 mm) spacing
6-row for 28", 30" (711 mm, 762 mm) spacing
THRESHING/SEPARATING
Type system Longitudinally mounted rotor Rotor diameter 24" (610 mm)
Rotor length
Low—280 to 650 RPM High—530 to 1260 RPM
Concave Adjustable 3-section bar and wire
Concave adjustment Acme thread, ratchet operated Discharge beater
Auger bed 4-auger

Chaffer sieve	Adjustable slat
Shoe sieve	Adjustable slat
Total cleaning area4,750	sq. in. (30,645 cm ²)
Cleaning fan	. 6-blade centrifugal
Fan speed	le. 380 to 1200 RPM

CONVEYING AND STORAGE Tailings elevator 6" x 8" (152 x 203 mm) top driven,

roller chain w/rubber flights

Clean grain elevator, standard 8" x 8" (203 mm x 203 mm) top driven, roller chain w/rubber flights

Unloading auger Hydraulic swivel control

Unloading height: reg. unloader 149" (3782 mm) Unloading speed ... 1.9 bu. per second max., depending

upon crop and conditions

WHEELS AND TIRES

Drive wheel tires 23.1-26 10 PR (R1) std. grain and corn; (R2), (R3) opt.; 23.1-26 12 PR (R1) opt.; 28L-26 10 PR (R1), (R2), (R3) opt.; 23.1-34 (R2) opt.; 24.5-32 (R1), (R2), (R3) opt. Drive wheel tread 108" (2743 mm) wheels out

100" (2540 mm) with 3" spacer

and 28L-26 tires

Drive wheel tread

w/axle extensions..... 124" (3150 mm) wheels out; 110" (2794 mm) wheels in

11.00-166PR (F2); 9.50-246PR (F1);

11.2-246 PR (R1); 12.4-168 PR (R3);

18.4-16.16 PR (R1) opt.

67-91" (1702-2311 mm) corn

ENGINE

Type and horsepower IH D436 6-cyl diesel with 135 hp (100.7 kW) @ 2500 RPM

DIMENSIONS (Standard grain machine)

Overall width, less header,

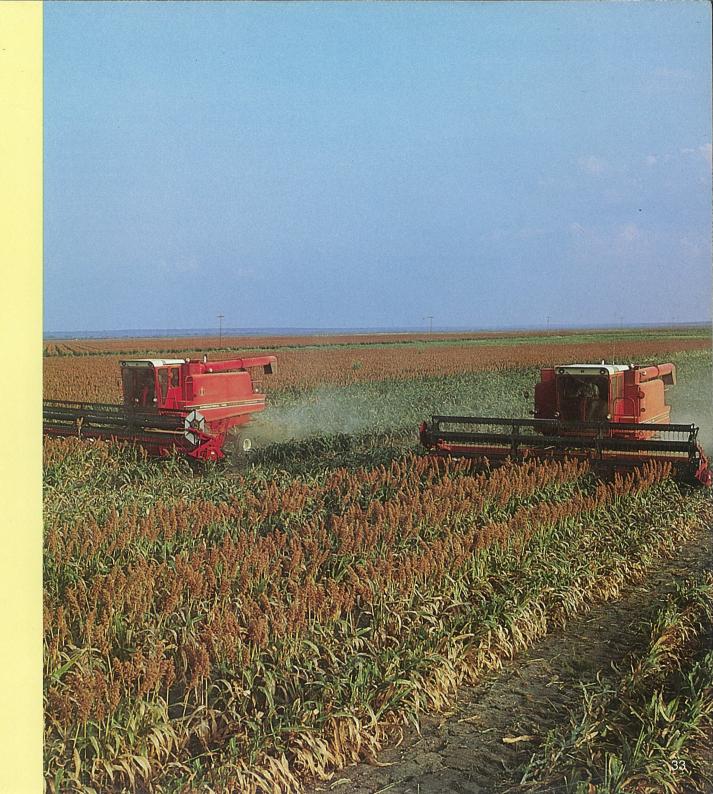
less operating ladder . . . 137" (3.48 m) w/std. tires (out)

Overall length w/reg. unloader

w/47" feeder 344" (8.74 m) w/grain header

Overall length less header

Transport and storage height ... 144" (3.66 m) w/std. tires



Specifications

1460

GRAIN HEADS	S CONTRACTOR OF THE STATE OF TH
Width of cut:	
810 rigid cutte	erbar
	22.5' and 24' (3.96, 4.57, 5.03, 5.33, 6.10,
	6.86, and 7.32 m)
820 flexible o	cutterbar
	20', and 22.5' (3.96, 4.57, 5.03, 5.33,
	6.10 and 6.86 m)
810 pickup he	eader 10' or 13' (3.05 or 3.96 m)
Windrow picku	ps
Cutting range v	v/std. tires 16" (406 mm) below to
	46" (1168 mm) above ground
	ycles per minute:
Reel speeds w	/hydraulic drive 0 to 50 RPM std.
Reels, type:	The state of the s
	IH 5-bat std.; 6-bat pickup reel opt.
820	6-bat pickup std.
Header auger	
	3'-17.5' & all 820 sizes 20" (508 mm) diam.
810 sizes 20	0'-30' 24" (600 mm) diam.
	both w/retracting fingers

CORNHEADS

THRESHING/SEPARATING

Type system	Longitudinally mounted rotor
Rotor diameter	24" (610 mm)
Rotor length	108" (2743 mm)
Rotor speeds	Variable w/low and high range
	Low-280 to 650 RPM
	High—530 to 1260 RPM
Concave	adjustable 3-section bar and wire
Concave adjustment	. Acme thread, ratchet operated
Discharge beater	3-blade
	4-auger

CLEANING

Chaffer sieve	
Shoe sieve	Adjustable slat
Total cleaning area	. 4,750 sq. in. (30,645 cm ²)
Cleaning fan	6-blade centrifugal
Fan speed	. Variable, 380 to 1200 RPM

CONVEYING AND STORAGE

Tailings elevator 6" x	8" (152 x 203 mm) top driven,
	roller chain w/rubber flights
Clean grain elevator, standard	8" x 8" (203 mm x
	n, roller chain w/rubber flights
Grain tank capacity	180 bu. (6.30 m ³)
Unloading auger	Hydraulic swivel control
Unloading height: reg. unloader.	149" (3782 mm)
long unloader	156" (3973 mm)
Unloading speed 1.9 bu.	per second max., depending
	upon crop and conditions

WHEELS AND TIRES

WHEELS AND II	RES
Drive wheel tires .	
	and corn; (R3) opt.;
	23.1-34 (R2), opt.;
	24.5-32 (R1), (R2), (R3) opt.;
	28L-26 (R1), (R2), (R3) opt.;
	30-5L-32 (R1), (R2), (R3);
	67x34-30 10PR (R2) opt.
Drive wheel tread	108" (2743 mm) wheels out
Drive wheel tread	w/axle
extensions	
	106" (2692 mm) wheels in
Steering tires	10.00-168PR (F2) std. grain;
	11.00-168 PR (F2) std. corn;
	9.5-24 6 PR (F1); 11.2-24 6 PR (R1);
	12.4-168 PR (R3); 18.4-16.16 PR (R1) opt.
Steering axle tread	71.1" (1706 mm) grain;
	67-91" (1702-2311 mm) corn
Wheelbase	

ENGINE

Type and horsepower	IH DT436 6-cyl. turbo diesel
	w/170 hp (126.8 kw) @ 2500 RPM

DIMENSIONS (Standard grain machine)

DIVILIASIONS (Standard grain machine)
Overall width, less header,
includes engine,
rotary air screen,
less operating ladder 137" (3.48 m) w/std. tires (out)
Overall length w/reg. unloader
w/47" feeder
Overall length less header
w/reg.unloader
Transport and storage height,
low axle

1480

GRAINHEADS
Width of cut:
810 rigid cutterbar
20', 22.5' 24' and 30', (3.96, 4.57, 5.03,
5.33, 6.10, 6.86, 7.32 and 9.15 m)
820 flexible cutterbar
20', 22.5', (3.96, 4.57, 5.03, 5.33,
6.10 and 6.86 m)
810 pickup header 10 ' or 13' (3.05 or 3.96 m)
Windrow pickups
3353 mm) belt-type
810 draper header
Cutting range w/std. tires 16" (406 mm) below to
46" (1168 mm) above ground
Sickle speed, cycles per minute:
810 600 (500 on 30')
820
Reel speed w/hydraulic drive 0 to 50 RPM std.
Reels, type:
810 IH 5-bat std.; 6-bat pickup reel opt.
820
Header auger:
810 sizes 13'-17.5' &
all 820 sizes 20" (508 mm) diam.
810 sizes 20'-30'
both w/retracting fingers
CORNHEADS
Sizes available 4-row for 36", 38", 40"
(914 mm, 965 mm, 1016 mm) spacing
5-row for 36", 38", 40" (914 mm, 965 mm, 1016 mm) spacing
6-row for 28", 30", 36", 38", 40", (711 mm, 762 mm,
914 mm, 965 mm, 1016 mm) spacing
8-row for 28", 30", 36", 38", 40" (711 mm, 762 mm,

THRESHING/SEPARATING

	. Longitudinally mounted rotor
	30" (762 mm)
Rotor length	108" (2743 mm)
Rotor speeds	Variable w/low and high range
	Low-280 to 650 RPM
	High—420 to 1050 RPM
Concave Ad	justable 3-section bar and wire
Concave adjustment	Acme thread, ratchet operated
Discharge beater	3-blade
Augerbed	5-auger

914 mm, 965 mm, 1016 mm) spacing

CLEANING

Chaffer sieve	Adjustable slat
Shoe sieve	Adjustable slat
Total cleaning area	6,420 sq. in. (41,415 cm ²)
Cleaning fan	6-blade centrifugal
Fanspeed	Variable 380 to 1200 RPM

CONVEYING AND STORAGE

WHEELS AND TIRES

Drive wheel tires 24	.5-32 (R1) std.; (R2), (R3) opt.
	30.5L-32 (R1), (R2), (R3) opt.
	67x34-30 (R2) opt.
Drive wheel tread	132" (3353 mm) wheels out
	118" (2997 mm) wheels in
Drive wheel tread	
w/axle extensions	144" (3658 mm) wheels out
	130" (3302 mm) wheels in
Steering tires	11.00-16 (F2) std.
	12.4-16 (R3); 14.9-24 (R1);
	18.4-16.1 (R1), (R3) opt.
Steering axle tread	. 68-88" (1727-2235 mm) std.
	138" (3505 mm)

ENGINE

Type and horsepower IH DT466 6-cyl. diesel turbo w/210 hp (156.7 kw) @ 2500 RPM

DIMENSIONS (Standard grain machine)

Overall width, less header,

includes engine

rotary air screen,

less operating ladder ... 164" (4.16 m) w/std. tires (out)

Overall length w/ reg. unloader

w/54.5" feeder 348" (8.84 m) w/grain header

Overall length less header

w/reg. unloader 272" (6.90 m)

Transport and storage height ... 144" (3.66 m) w/std. tires



International Product Support Systems: Important factors in your business of farming.

Support from your dealer is extremely important if you are to operate your business with maximum efficiency. Your International Harvester dealer is well aware of this; and he knows that the product support systems are a major consideration in your purchase of farm machinery.

When you buy an International combine, you can be sure of the full support of your IH dealer. It starts before the machine is delivered. Dealer people are trained to see that your combine is checked thoroughly, serviced properly, and ready for the field when it's delivered.

Once harvest is underway, your dealer has a number of programs to keep you going: Stand by 7 to give you 7-day-a-week service during the season; UPtime service to guard against downtime; DOLORIS to immediately locate and order parts through a computer.

So when you're adding equipment, look first to your IH dealer. You can be sure of his full support through the many plans, programs and aids designed to help in your business of farming.

(Programs described above are applicable for U.S.A. dealers only.)

Specifications, descriptions and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories and may not include all standard equipment.



INTERNATIONAL HARVESTER

