40
COMBINES

JOHN DEERE

OPERATORS MANUAL

40
COMBINES

OMH91051 K5 English

OMH91051 K5

LITHO IN THE U.S.A.
ENGLISH

TO THE PURCHASER

The combine you have purchased has been carefully designed and manufactured to provide years of dependable, economical service.

To further insure trouble-free service we recommend that you follow closely all instructions concerning operation, lubrication, adjustments and service. Preventive maintenance has proved to be much more economical than corrective maintenance. Should you require information not covered in this manual, consult your John Deere dealer.

KEEP YOUR COMBINE A JOHN DEERE COMBINE

Genuine John Deere parts fit properly and insure satisfactory service because they are made from the original patterns and from the same materials as used in new machines. Should your combine require replacement parts, go to your John Deere dealer where you can obtain genuine John Deere parts—accept no substitutes.

SPECIAL EQUIPMENT

In addition to the equipment furnished with your combine, there is special equipment available to help you do a better job of combining in a special crop or condition. This special equipment, illustrated and described in the ATTACHMENTS section, is available from your John Deere dealer.

LOCATION REFERENCE

"Right-hand" and "left-hand" sides are determined by facing in the direction the combine will travel when in use.

Radiator end of the engine is referred to as the "front"; flywheel end as the "rear."

SERIAL NUMBERS

Your combine, cutting platform, axle, and engine have serial numbers.

When ordering parts, be prepared to furnish the model and serial numbers as given on the serial number plates. By doing so, you will assist your John Deere dealer in giving you prompt, efficient service.

The combine serial number is on a plate located on the support bracket for the selective ground speed sheaves.

The engine serial number is on a plate located on top of the flywheel housing.

The axle serial number is on the top right-hand end of the axle tube.

The cutting platform serial number is on a plate located on the outside of the right-hand platform divider.

Combine serial no. _____

Engine serial no. _____

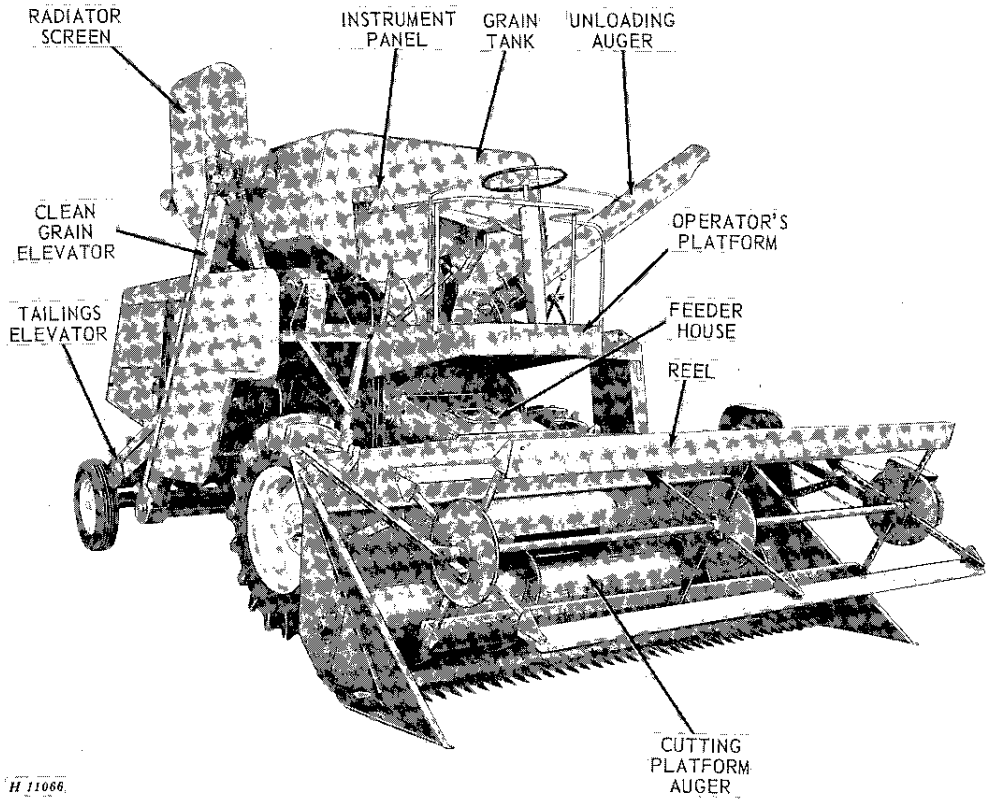
Axle serial no. _____

Cutting platform serial no. _____

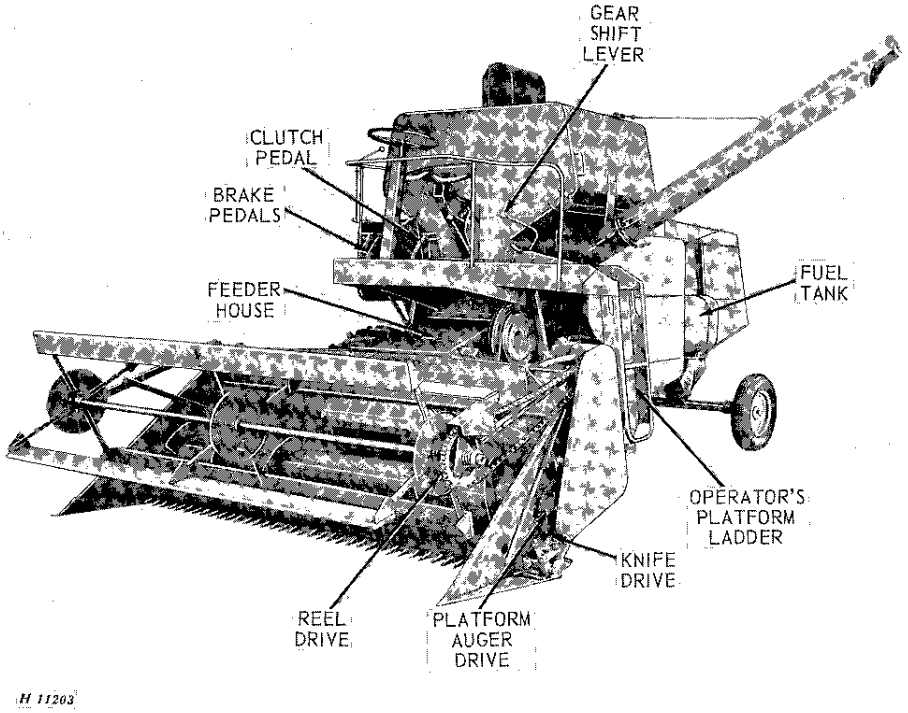
Date purchased _____

CONTENTS

Study this manual carefully and keep it handy in a safe place for future reference.



Right-Hand Front View–John Deere 40 Combine



Left-Hand Front View–John Deere 40 Combine

SPECIFICATIONS

COMBINE

CUTTER BAR
- Width of cut .... 8 ft. or 10 ft.
- Length of cutter bar ..... 7 ft. 6 in. or 9 ft. 6 in.
- Type of knife sections ..... Heavy-duty overserrated

REEL
- Drive ..... Chain
- Number of slats . 4 regular; 3, 6, or 8 special
- Diameter of reel ..... 32 in. or 40 in.
- Speed range ..... 19 rpm to 49 rpm

CUTTING PLATFORM
- Type of feed ..... Auger
- Cutting height range..... 2 in. below wheel level to 31-3/8 in. above
- Height control . . . Hydraulic (2 cylinders)

CUTTING PLATFORM AUGER
- Diameter ..... 18 in.
- Diameter of auger tube ..... 10 in.
- Type of auger fingers . . . Round retracting

CYLINDER
- Type ..... Rasp-bar or spike-tooth
- Width ..... 24-5/8 in.
- Diameter ..... 22 in.
- Number of bars.. 8 rasp-bars or 10 spike-tooth bars (5 bars with 12 teeth and 5 bars with 11 teeth)
- Drive ..... Roller chain
- Speed range ..... 394 rpm to 1075 rpm (3/4-in. pitch cylinder drive chain)

  274 rpm to 1056 rpm (1-in. pitch cylinder drive chain—edible bean)

CONCAVE
- Type ..... 12-bar open type or spike-tooth type
- Width ..... 24-5/8 in.

BEATER (Behind the cylinder)
- Type ..... Wing
- Width ..... 24-5/8 in.
- Diameter ..... 12 in.
- Speed ..... 650 rpm

SEPARATOR
- Type ..... Grain conveyor, straw walker
- Width ..... 24-5/8 in.
- Length of separating surface ..... 120 in.
- Area of separating surface . . . 2955 sq. in.

GRAIN CONVEYOR
- Type ..... Slat
- Drive ..... Chain

CLEANING FAN
- Type ..... Radial flow
- Drive ..... V-belt
- Speed range ..... 540 rpm to 680 rpm

CHAFFER
- Type ..... Adjustable
- Width ..... 23 in.
- Length with extension ..... 46 in.
- Area ..... 1058 sq. in.

SIEVE
- Type ..... Adjustable
- Width ..... 23 in.
- Length ..... 36 in.
- Area ..... 829 sq. in.

STRAW WALKERS
- Number ..... Three
- Width ..... 7-5/16 in.
- *Length with pans extended . . . 102-1/4 in.
- Area ..... 2518 sq. in.
- Number of steps ..... Five
- Drive ..... V-belt
- Bearings ..... Oil-soaked maple

*Straw walker pans are special equipment

GRAIN TANK
- Capacity ..... 42 bushel, approx. (type and condition of crop will determine actual volume)
- Type of unloading ..... Hinged auger

BRAKES
- Type ..... Individual wheel or transmission

TRANSMISSION ..... Automotive—3 speeds forward, 1 reverse

WEIGHTS
- Grain combine with 8-ft. cutting platform .... 5300 lbs. (approx.)

COMBINE DIMENSIONS ..... See page 4

TIRE SIZES AND WHEEL TREAD DIMENSIONS

Wheel	Tire Sizes	Center-to-Center Wheel Tread	
		Regular	Wide
Main	12.4-24 (4-ply) cleat	66 in.	78 in.
	13.6-24 (4-ply) cleat	68-3/8 in.	75-5/8 in.
	14.9-24 (4-ply) cleat	63-3/8 in.	78-5/8 in.
	14.9-24 (6-ply) rice	63-3/8 in.	78-5/8 in.
Guide	5.00-15 (4-ply) rib implement	60 in.	
	6.70-15 (4-ply) rib implement	60 in.	

CAPACITIES (Approx.)

Fuel tank	25 U.S. Gallons
Cooling system	3 U.S. Gallons
Engine crankcase (including oil filter)	7 U.S. Quarts
Hydraulic unit (including oil lines and cylinders)	2-1/2 U.S. Quarts
Transmission	12 U.S. Pints

SELECTIVE GROUND SPEED CONTROL RANGE

12.4-24 Tires—Grain	(Min.)		(Max.)
1st Gear	0.8	to	2.1 mph
2nd Gear	1.7	to	4.5 mph
3rd Gear	4.0	to	10.4 mph
Reverse	2.1	to	5.6 mph

13.6-24 Tires—Grain	(Min.)		(Max.)
1st Gear	0.8	to	2.2 mph
2nd Gear	1.8	to	4.7 mph
3rd Gear	4.1	to	10.8 mph
Reverse	2.2	to	5.9 mph

14.9-24 Tires—Grain	(Min.)		(Max.)
1st Gear	0.9	to	2.2 mph
2nd Gear	1.9	to	4.9 mph
3rd Gear	4.3	to	11.2 mph
Reverse	2.3	to	6.1 mph

14.9-24 Tires—Rice	(Min.)		(Max.)
1st Gear	0.9	to	2.4 mph
2nd Gear	2.0	to	5.2 mph
3rd Gear	4.6	to	11.9 mph
Reverse	2.5	to	6.5 mph

ENGINE

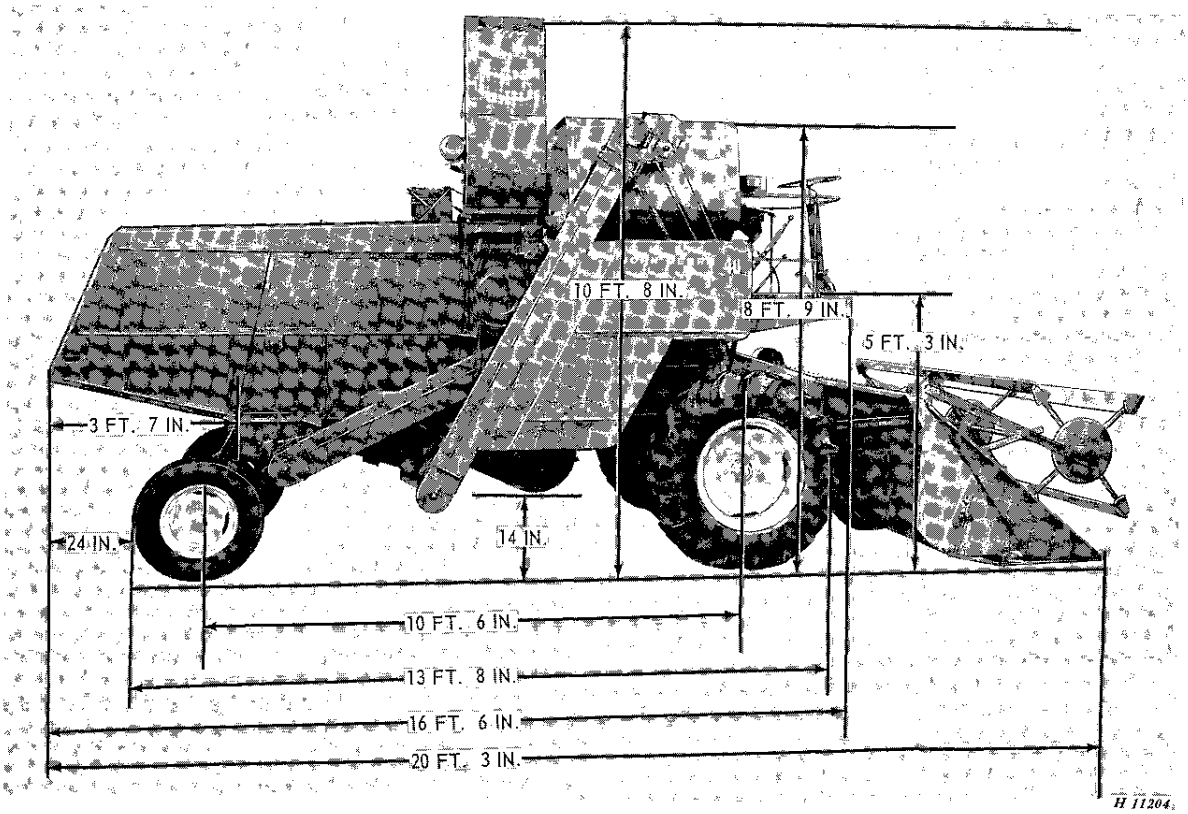
Make of engine	John Deere—HA115G
Bore	3-1/2 in.
Stroke	3 in.
*Brake horsepower	42
Number of cylinders	4
Piston displacement	115.45 cu. in.
Max. load speed	2500 rpm
Firing order	1-3-4-2
Crankcase	Cast integral with block
Type of lubrication	Force feed by gear pump.
Valve arrangement	Valve-in-head
Valve clearance:	
Intake	0.012-in. (when cold)
Exhaust	0.018-in. (when cold)
Make of governor	Pierce
Make of carburetor	Marvel-Schebler
Spark plug	Size 14 mm. Gap - 0.025-in.
Electrical system	12-volt
Cooling system	Water pressure type
Type of fuel	Gasoline (regular grade)
Air cleaner	Dry type

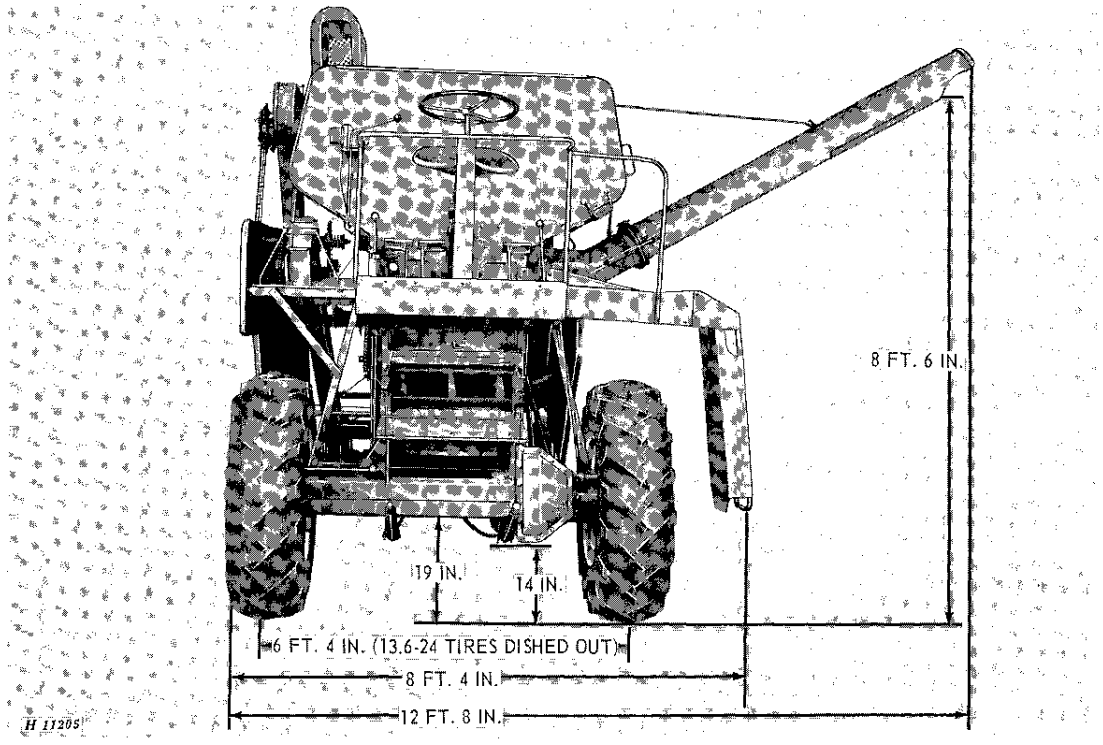
*Calculated at 60° F. and 29.92 inches of Hg. at Sea Level.

(Specifications and design subject to change without notice.)

COMBINE DIMENSIONS—OVER-ALL

NOTE: Combine equipped with 13.6-24 main wheel tires and 5.00 x 15 guide wheel tires for dimensions.

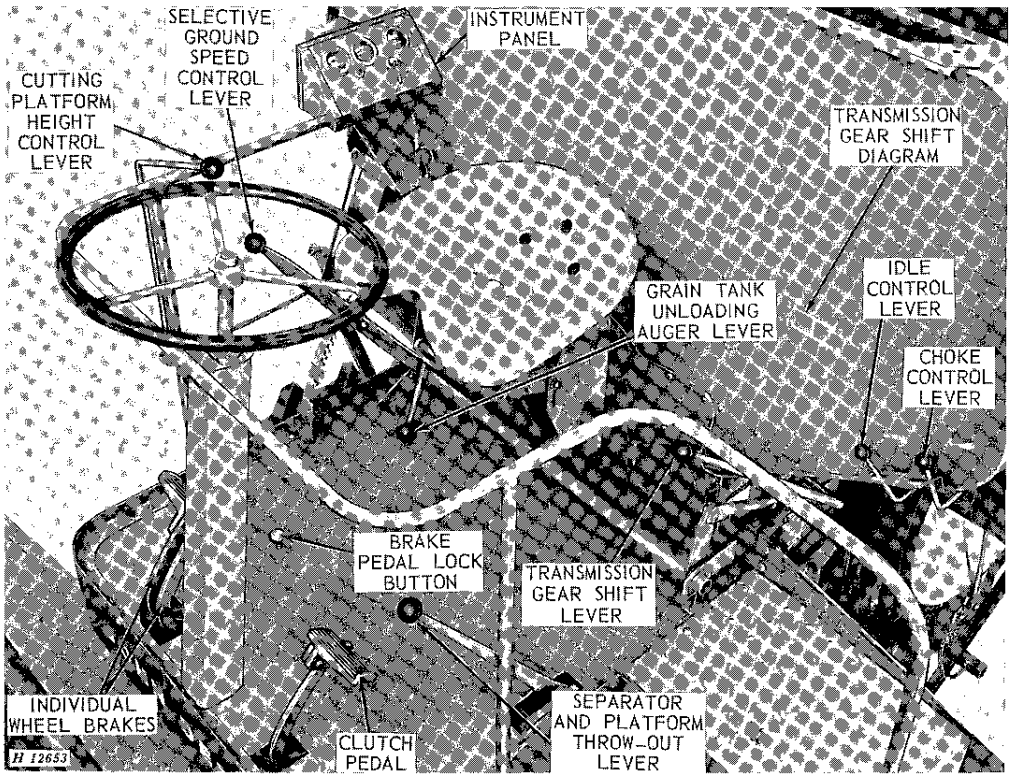




CONTROLS AND INSTRUMENTS

Before attempting to operate your new combine, become familiar with the location and purposes of its controls and instruments. Study these pages carefully, regardless of your previous combine experience.

CONTROLS



The combine controls are located on the operator's platform within easy reach of the operator. Those controls whose purpose and function are obvious will not be explained.

TRANSMISSION GEARSHIFT LEVER

There are three speed ranges forward and one reverse. Positions of gearshift lever for different transmission speed ranges are shown by diagram.

NOTE: When shifting out of a forward gear, it is necessary to push gearshift lever down to change gears.

CAUTION: Be certain the gearshift lever is in neutral position and clutch pedal is depressed before starting engine.

GRAIN TANK UNLOADING AUGER LEVER

Move lever forward to disengage auger, rearward to engage auger. Grain tank unloading drive and separator drive are independent. If engine is running, separator can be stopped without affecting unloading of grain tank.

SEPARATOR AND PLATFORM THROWOUT LEVER

To disengage separator and platform, push lever forward. To engage, pull lever rearward.

SELECTIVE GROUND SPEED CONTROL LEVER

To increase ground travel speed within a selected transmission range, move lever forward.

To decrease ground travel speed, move lever rearward. Ground travel speeds from 0.8 to 10.8 mph (13.6-24 tires) are available at governed engine speed. Separator speed remains constant. (See chart on page 3.)

CUTTING PLATFORM HEIGHT CONTROL LEVER

This lever controls the height of the platform through a hydraulic mechanism. Platform height range is from 2 inches below wheel level to 31-3/8 inches above wheel level. Move lever forward to lower platform, rearward to raise platform. When released, lever automatically returns to neutral position and cutting platform remains at selected position. As a safety measure, cutting platform height cannot be changed unless engine is running.

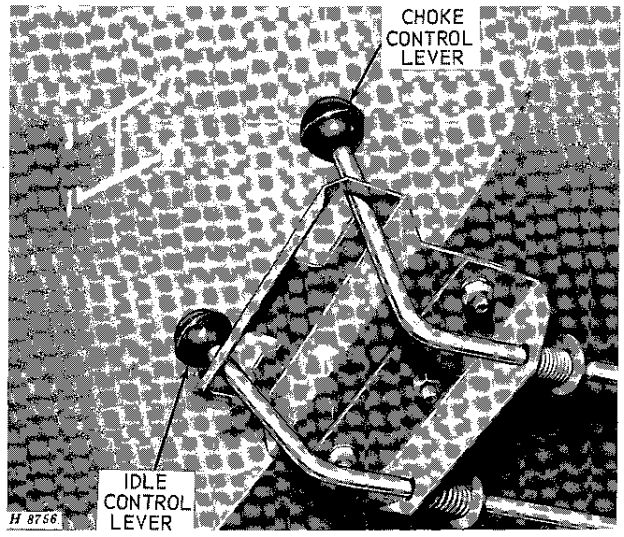
PARKING BRAKE LOCK BUTTON

The parking brake lock button locks the brake so the combine cannot move if left unattended.

To engage, step on brake pedal or pedals (individual wheel brakes) and step on brake lock button.

To disengage, push brake pedal down; parking brake lock releases automatically.

Never attempt to move combine with parking brake lock engaged.



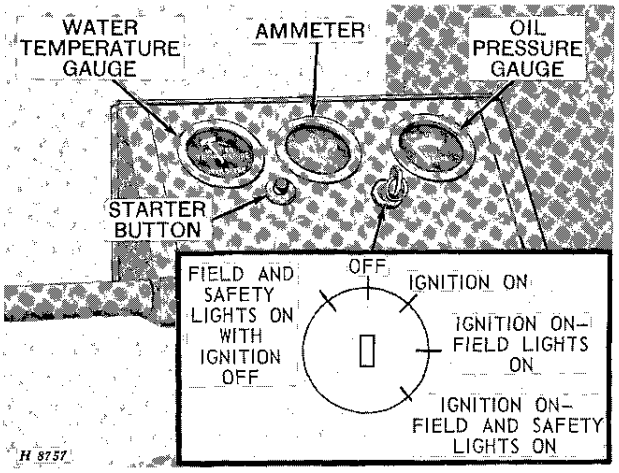
CHOKE CONTROL LEVER

Pull lever out of notch and move to bottom of slot to start engine. After engine is started, and for normal operation, move lever back into notch.

IDLE CONTROL LEVER

Move lever to top (small part) of lower notch to start engine, to top notch for normal operation (fast idle), and to bottom (large part) of lower notch for slow idle.

INSTRUMENTS



WATER TEMPERATURE GAUGE

This gauge indicates the water temperature in the cooling system. Normal operating temperature is 160° to 219° F. (indicated by green band on dial). If 219° F. or above (indicated by red band on dial), stop engine and determine cause.

AMMETER

This gauge indicates the rate of charge or discharge of the battery. If ammeter shows discharge for an extended period during normal operation, check for a ground, short circuit or faulty regulator. If ammeter shows high charge continually, inspect for low battery, faulty connections, low battery water or bad regulator.

OIL PRESSURE GAUGE

This gauge indicates the pressure of engine lubricating oil. Oil pressure will vary slightly, but with recommended oil it should read normal (indicated by green band on dial) at full governed speed. If oil pressure drops (indicated by red band on dial), stop immediately and determine cause.

OPERATION

FUNDAMENTALS OF COMBINE HARVESTING

The most important factor in harvesting is for the operator to have a thorough understanding of the fundamentals of combine operation.

These fundamentals in brief are:

Be sure crop is in condition to thresh—moisture content not too high—straw not too green, etc.

In making the first round of the field, keep the combine forward speed as slow as possible to reduce the volume of material entering the combine. Always run the engine at full throttle to keep the combine mechanism up to full speed, thus guarding against slugging and clogging. Use the selective ground speed drive to obtain slower speed, or shift to a lower gear if necessary—but do not throttle down the engine.

Select a ground speed that will not overload the combine.

Engine should be in good condition; governor should be properly set and responsive enough to accelerate quickly if an overload occurs.

Keep the cylinder speed as low as possible and concave clearance as high as possible to remove the maximum amount of grain from heads without breaking up the straw excessively. Maintain correct beater speed to guard against wrapping of straw on beater.

Cut the crop as high as possible without excessive loss of low grain heads. If the straw is down and tangled, it may be desirable to use lifting guards. Slow travel speed is imperative.

Adjust the reel position and speed for even feeding.

Regulate adjustable chaffer openings to pass the grain or seed to the lower sieve before it has passed over two-thirds the length of chaffer without admitting too much coarse material.

Close adjustable sieve as far as possible without carrying clean grain into the tailings auger.

If material loads up on front of chaffer, adjust upper windboard to throw air blast to front of shoe.

Use as much air as possible without blowing over clean seed. If the grain or seed is unusually light, it may be necessary to reduce the volume of air. In heavy seeds, increase the volume of air.

Keep amount of tailings as low as possible.

OPERATING SUGGESTIONS

Don't start combining until the crop is ripe.

Unless crop drying equipment is available, a crop should not be combined until it is dead ripe. If the threshed grain feels damp or is easily dented with the fingernail, the moisture content is usually too high for safe storage.

Grain crops containing 14 per cent moisture or less are usually considered dry enough for safe storage. A John Deere Moisture Meter for checking moisture content of grain and a portable Grain Dryer may be purchased from your John Deere dealer, or arrangements may usually be made at the local grain elevator for necessary moisture tests and drying if necessary.

OPERATING IN WEEDY CONDITIONS

Combining in fields where weeds are numerous is particularly troublesome as they tend to gum up the sieves. Also, the moisture in the weeds is imparted to the grain.

Weeds should be disposed of quickly and not be broken up any more than necessary.

The following suggestions will help while operating in weedy conditions:

OPERATING IN WEEDY CONDITIONS—Continued

Cut the grain as high as possible to avoid weeds and undergrowth.

Be certain the cylinder is operating at proper speed.

Use as much air blast on the shoe as possible without blowing over grain.

Lower rear of chaffer.

HEIGHT AND WIDTH OF CUT

Note very carefully the condition of the crop and adjust the cutting platform height so just enough of the straw is cut to get all the grain. If the crop is extremely heavy and badly down, it may be necessary to cut less than a full swath or to reduce travel speed.

HOLD DOWN THE GROUND SPEED

Excessive travel speed is one of the greatest causes of trouble in combining. Traveling at too high a ground speed causes overloading, resulting in a loss of grain.

Also, traveling at an excessively high speed over rough ground causes extra wear and damage to parts, not incurred when the combine is operated at a more reasonable speed.

KEEP STEADY, SMOOTH ENGINE SPEED

Any fluctuation in engine speed is reflected in the speed of the separator. Uneven speed results in loss of grain, inferior threshing and, in extreme cases, complete plugging of the combine. Take every precaution to maintain the correct uniform speed.

By rounding the corners in the field, you maintain more uniform speed when turning.

When stopping, wait until material in the combine is cleaned out before disengaging separator throw-out lever.

BEFORE-OPERATION CHECKS AND ADJUSTMENTS

Careful inspection and service of the combine before starting work each day will prevent needless delays and breakdowns in the field. Make the following checks and adjustments:

Fill fuel tank with a good regular grade of gasoline.

CAUTION: Do not fill fuel tank while engine is running or when near an open flame.

Check water level in radiator. Fill with rain water if available. Do not use water containing alkali. If combine is being operated at temperatures below 32° F., refer to "Cold weather operation," page 14.

Add coolant slowly until level is approximately 1 inch below the bottom of the filler neck.

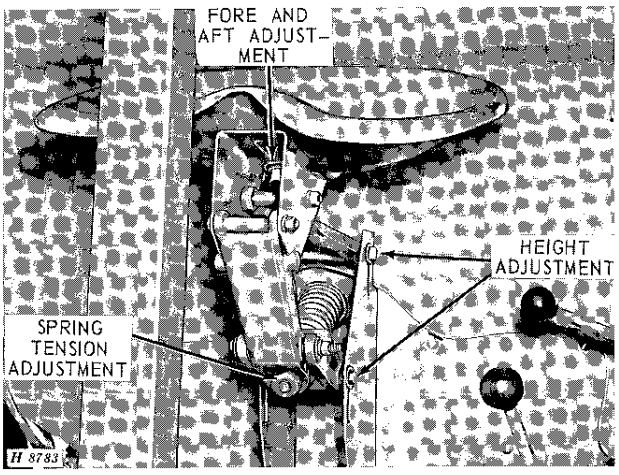
Lubricate the combine completely and check oil level of engine, hydraulic unit and transmission. See LUBRICATION section, page 20.

Check tire inflation. See tire inflation chart, page 56.

Open the doors at bottom of elevators and leave them open until combine is started.

Inspect belts and chains for proper tension and alignment. Be certain there are no loose bolts or missing cotter pins.

OPERATOR'S SEAT



The operator's seat may be moved up and down, forward and rearward and may also be folded back into a vertical position against the grain tank should the operator desire to work in a standing position. Spring tension on the seat may be increased or decreased to suit the requirements of the individual operator.

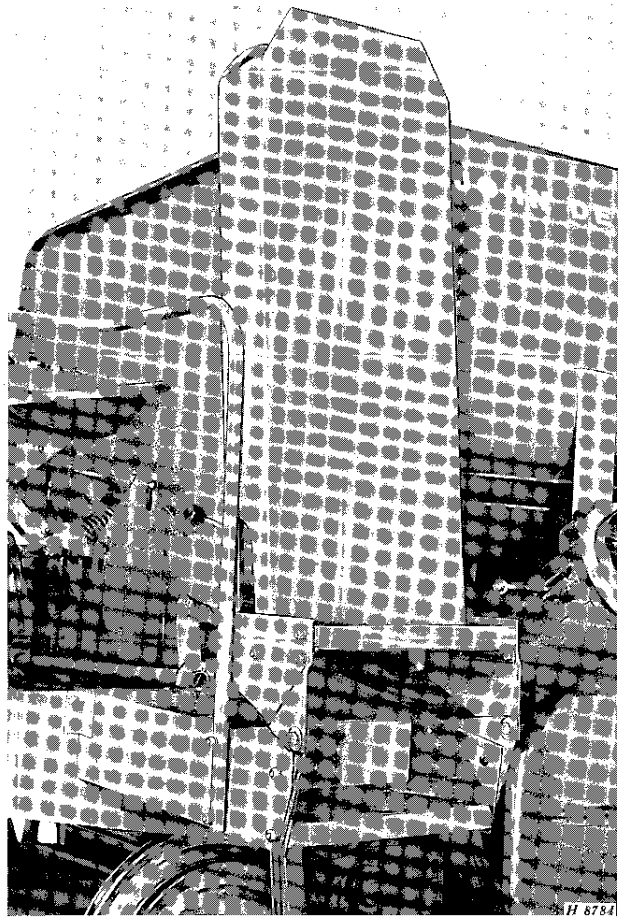
To adjust seat height, loosen the two nuts in the seat mounting bracket, move seat up or down as desired and secure nuts.

To adjust seat fore-and-aft, loosen nut under seat, and move seat forward or rearward as desired and tighten nut.

To increase or decrease spring tension thread adjusting nut in or out.

To fold seat back lift seat up and back at same time; to lower seat, push out and down.

OPERATOR'S PLATFORM HINGED LADDER



Hinged Ladder in Retracted Position

CAUTION: When lowering the hinged ladder, always be certain that no one is standing where he might be struck by the ladder.

COMBINE AND ENGINE BREAK-IN

COMBINE

Check all V-belt drives carefully for proper alignment and tension. Keep belts tight enough to prevent slippage. Belts can be ruined very quickly if allowed to slip in the grooves of a sheave for any length of time. Excessive heating of a sheave is a sign of belt slippage. New belts will stretch slightly after the first run-off. Check tension frequently.

Open the clean-out doors in the bottom of the clean grain and tailings elevators and check tension of elevator chains—see page 49 for adjustments. It is a good plan to check the chain tension every day of operation.

Be certain all shafts turn freely.

After 50 hours of operation, drain the oil from the transmission. Fill with oil as specified in the FUELS AND LUBRICANTS section of this manual.

Follow the lubrication instructions and charts closely.

ENGINE

The engine and hydraulic systems on your new combine were shipped from the factory with Service DS SAE 10W-30 oil in the crankcase.

To promote good ring seating and to prevent cylinder wall glazing, put the engine to work as soon as possible, but do not overload. Second gear will give the best load during early operation. If prolonged transport periods are required, do not use a high gear. Transport in second gear to keep torque level up and induce ring seating.

At the end of the 20-hour break-in period, drain oil from the crankcase and hydraulic system. Replace the engine oil filter and clean the hydraulic reservoir oil filter. Fill with the proper viscosity of oil as specified in the FUELS AND LUBRICANTS section of this manual.

STARTING THE ENGINE

Make certain the separator, cutting platform, and grain tank unloading auger throw-out levers are disengaged and transmission is in neutral.

STARTING THE ENGINE—Continued

If engine has not been operated for a period of time, or if the fuel tank has run dry, move fuel pump lever up and down to force gasoline into carburetor.

NOTE: After priming fuel pump, be sure the priming lever is in the "down" position. If the priming lever is left in the "up" position, the fuel pump is inoperative.

Move idle control lever to small part of lower notch. Pull choke lever out of notch and move to bottom of slot and turn ignition key to start. After engine runs a few revolutions, move choke lever slowly back to notch. Set engine at slow idle by moving idle control lever to bottom (large part) of lower notch.

Be certain oil pressure gauge is registering pressure.

Do not place engine under load until properly warmed up.

STOPPING THE ENGINE

Set engine at slow idle speed and allow engine to run at this speed for a few minutes before stopping, to permit cooling of valves and pistons. Turn off ignition.

STARTING THE COMBINE

CAUTION: Be certain no one is standing near enough to the combine to touch any moving parts. Warn everyone to stand clear.

When engine is properly warmed up, move idle control lever to top notch and pull separator throw-out lever rearward to engage separator.

Check the speed of beater behind the cylinder with a mechanical revolution counter. Beater should operate at 650 rpm at full throttle and no load. If beater speed is not correct, adjust governor setting (see page 67).

Test operation of hydraulic control for adjusting cutting platform height.

Test operation of grain tank unloading auger.

Test operation of manual selective ground speed control.

Check brakes to see if they are in proper working order.

Inspect entire combine again, making certain all units are working properly.

Disengage separator, then close doors at bottom of elevators.

SELECTING PROPER GROUND SPEED

The ground speed of the combine can be very closely controlled by using the selective ground speed drive in conjunction with different transmission speeds. The chart on page 3 shows the range of speeds that can be obtained in each transmission range by means of selective ground speed control. Select the best transmission speed range; then, with the selective ground speed control lever, adjust the ground speed to meet field conditions exactly.

SPEED OF VARIOUS UNITS

(Full Throttle—No Load)

Auger, Platform	180 rpm
Beater Behind Cylinder	650 rpm
Cylinder (Extreme Low) (3/4-In. Pitch Drive Chain)	394 rpm
Cylinder (Extreme High) (3/4-In. Pitch Drive Chain)	1075 rpm
Cylinder (Extreme Low) (1-In. Pitch Drive Chain—with Special 38-Tooth Sprocket)	274 rpm
Cylinder (Extreme High) (1-In. Pitch Drive Chain)	1056 rpm
Elevator, Tailings	375 rpm
Elevator, Clean Grain	375 rpm
Engine	2500 rpm
Fan (Normal Operating Speed)	600 rpm
Fan (Extreme Low)	540 rpm
Fan (Extreme High)	680 rpm
Feeder House Conveyor Drive Shaft	250 rpm
Ground Travel Speeds	(See Page 3)
Reel	19 to 49 rpm
Shoe Crank	296 rpm
Straw Walker	208 rpm

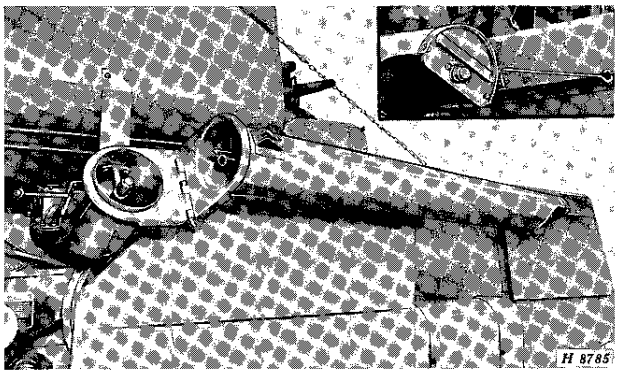
CUTTING PLATFORM HEIGHT

The cutting platform has a cutting height range from 2 inches below wheel level to 31-3/8 inches above wheel level. Cut just low enough to get all grain heads. Watch the height and condition of grain and continually raise and lower the cutting platform to meet conditions.

TRANSPORTING

When transporting, drive combine under its own power or load it on a truck. Combine may be towed with caution. If mired down in soft conditions, run chains under the rear axle, attach to the front axle and pull combine out backward.

This combine is designed for easier and safer transporting. The width of the combine may be reduced by folding the hinged unloading auger back along the separator and removing the cutting platform. The width may be further reduced by folding the hinged ladder.



Grain Tank Unloading Auger Locked in Transport Position

Over-all dimensions are given on page 4.

If the cutting platform is removed, support the hydraulic cylinders by wires or chains, no closer to separator than 14 inches, as damage may result to hoses if carried too close. Special chains are available with Platform Support Stand (see ATTACHMENTS).

When transporting a combine under its own power, be certain to apply equal pressure to both pedals to avoid pulling to one side.

When transporting long distances, remove separator drive belt (flat belt) to prevent burning of belt due to slippage on drive and driven pulleys.

Clean out combine thoroughly before leaving one field and going to the next in order to reduce the spread of noxious weed seeds. Sweep trash and straw from outside of combine, open doors at bottom of elevators and run machine until all straw, trash and grain are removed from inside of combine.

CAUTION: When driving the combine on a road or highway at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. In this regard check local governmental regulations. Lights and devices may be obtained from your John Deere dealer.

See ATTACHMENTS for Field Lighting Attachment and Highway Safety Lighting Attachment.

SUGGESTED SETTINGS FOR COMBINING VARIOUS CROPS

(These suggested settings are for average conditions. Different field conditions may make it necessary to change these settings.)

NOTE: Upper windboard lever should always be set to throw air blast to the front of the shoe.

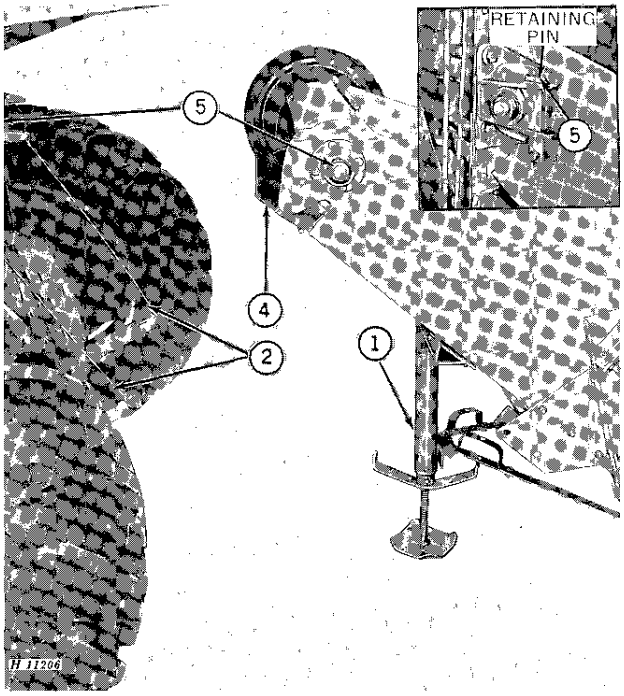
CROP	Cylinder RPM Range†	Rasp-Bar Cylinder to Concave Clearance		Spike-Tooth Concave Arrangement T—Teeth OG—Open Grate			Snap-On Rasp-Bar Concave Covers	Cleaning Sieve	Setting of Adjustable Cleaning Sieve	Setting of Chaffer	Shims Required Between Fan Sheave Halves	Position of Lower Windboard Lever (See Note)	Fan Side Shutter Opening
		Front	Rear	Front	Center	Rear							
Alfalfa	780 to 1075	1/4"	3/16"	T	T	T	4 to 8	Adjustable or Rd. Hole	Slightly Open	About 1/4 Open	None	Rear Position	Closed
Barley—Feed and Malting	780 to 1075	1/2"	1/4"	T	T	OG	As Required	Adjustable	1/3 to 1/2 Open	1/2 to 2/3 Open	6	About Center Position	1/2 Open
Beans—Edible	273 to 386	1/2" to 3/4"	1/4" to 1/2"	T	OG	OG	Not Required	Adjustable (preferred) or Rd. Hole	Slightly Over 1/2 Open	2/3 to Nearly Wide Open	8 to 10	About Center Position	Open
Beans—Soy	473 to 542	1/2"	1/4"	T	T	OG	Not Required	Adjustable or Rd. Hole	About 1/2 Open	About 2/3 Open	6	Center Position	Open
Beans—White Pea	473 to 536	1/2"	1/4"	T	T	OG	Not Required	Adjustable	1/2 Open	2/3 Open	8	About Center Position	Open
Buck Wheat	542 to 780	1/2"	3/16"	T	T	OG	As Required	Adjustable	1/4 to 1/3 Open	About 2/3 Open	6	About Center Position	2/3 Open
Clover—Most Varieties	1075	5/32" to 3/16"	1/16" to 1/8"	T	T	T	4 to 8	Adjustable (preferred) or Rd. Hole	Slightly Open	About 1/4 Open	None	Rear Position	Closed
Corn—Field Shelled	*386 to 542	1"	5/8"	Not Recommended			None	Adjustable or Rd. Hole	About 1/2 Open	About 2/3 Open	10	Center Position	Open
Corncob Mix—Cracked Kernel	780 to 894	3/8"	1/4"	Not Recommended			5	None	None	3/4 Open	10	Center Position	Open
Corncob Mix—Whole Kernel	473	3/8"	1/4"	Not Recommended			5	None	None	3/4 Open	10	Center Position	Open
Flax	780	1/4"	1/8"	T	T	T	4	Adjustable or Rd. Hole	About 1/3 Open	1/3 to 1/2 Open	None	Rear Position	1/3 Open
Grass—Most Varieties	894 to 1075	3/16" to 1/2"	1/8" to 5/8"	T	T	T	None to 8	Adjustable or Rd. Hole	1/4 to 1/3 Open	1/2 to 2/3 Open	None	Rear Position	Closed
Lespedeza	542 to 780	3/16"	1/8"	T	T	T	As Required	Adjustable or Rd. Hole	1/3 Open	1/2 to 2/3 Open	8	Rear Position	1/3 Open
Lettuce	780 to 894	1/4"	3/8"	T	T	OG	4	Adjustable	Slightly Open	1/4 Open	None	Rear Position	Closed
Lupine	473 to 542	3/8"	1/4"	T	T	OG	Not Required	Adjustable	About 1/2 Open	About 2/3 Open	8	Front Position	1/2 Open
Mustard	780 to 894	3/8"	1/4"	T	T	OG	4	Adjustable	1/4 to 1/3 Open	About 2/3 Open	8	Rear Position	Closed
Oats	780 to 1075	5/16"	3/16"	T	T	OG	As Required	Adjustable	1/3 to 1/2 Open	3/4 Open	6	Front Position	1/2 Open
Peas—Field	*325 to 394	5/8"	1/4"	T	OG	OG	Not Required	Adjustable (preferred) or Rd. Hole	About 1/3 Open	About 2/3 Open	10	About Center Position	Open

*With 1" Pitch Chain Drive Only.

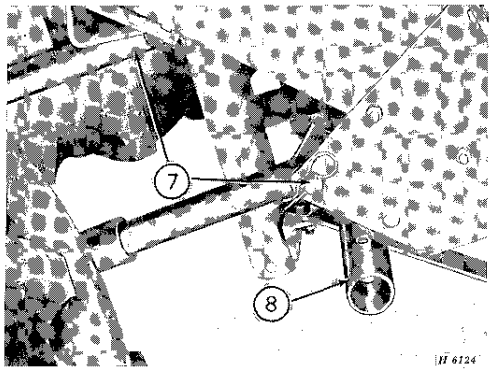
†See Sprockets on Page 40.

CROP	Cylinder RPM Range†	Rasp-Bar Cylinder to Concave Clearance		Spike-Tooth Concave Arrangement T—Teeth OG—Open Grate			Snap-On Rasp-Bar Concave Covers	Cleaning Sieve	Setting of Adjustable Cleaning Sieve	Setting of Chaffer	Shims Required Between Fan Sheave Halves	Position of Lower Windboard Lever (See Note)	Fan Side Shutter Opening
		Front	Rear	Front	Center	Rear							
Proso or Hog Millet	542 to 780	3/16"	1/8"	T	T	OG	4	Adjustable or Rd. Hole	Slightly Open	About 1/2 Open	8	Front Position	1/3 Open
Radish Seed	542 or 780	3/16"	1/8"	T	T	T	4 to 8	Adjustable or Rd. Hole	Closed to 1/4 Open	1/3 to 1/2 Open	None	About Center Position	Closed
Safflower	473 to 542	1/2"	3/16"	T	T	OG	None	Adjustable	1/2 Open	3/4 Open	5	About Center Position	3/4 Open
Rye	780 to 1075	5/16"	1/4"	T	T	OG	As Required	Adjustable	1/3 Open	2/3 Open	6	About Center Position	1/2 Open
Sorghums	542 to 780	1/2"	1/8"	T	T	OG	As Required	Adjustable	1/4 to 1/2 Open	2/3 to 3/4 Open	6	Rear Position	1/2 Open
Timothy	1075	5/32"	1/16"	T	T	T	4 to 8	Adjustable or Rd. Hole	Slightly Open	About 1/2 Open	None	Front Position	Closed
Vetch	542 to 780	3/8"	1/2"	T	T	OG	None	Adjustable	Slightly Open	1/2 Open	8	Rear Position	1/3 Open
Wheat	894 to 1075	5/16"	3/16"	T	T	OG	As Required	Adjustable	1/3 to 1/2 Open	2/3 Open	6	Front Position	2/3 Open

ATTACHING CUTTING PLATFORM TO SEPARATOR

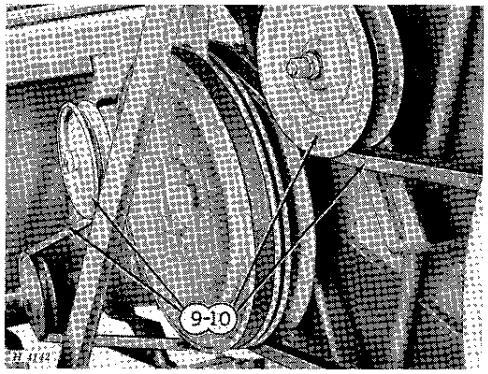


1. Block the cutting platform under hinge brackets or install support stand (special equipment).



2. Wire up hydraulic cylinders or install support chains (special equipment).
3. (Not Illustrated) Remove cylinder front door and grain conveyor front door.
4. Raise feeder house hinged plate.
5. Drive separator forward and attach U-brackets to feeder house.
6. (Not Illustrated) Install cylinder front door and grain conveyor front door.
7. Attach hydraulic cylinders to hinge brackets.
8. Remove blocking or place support stand in transport position.

ATTACHING CUTTING PLATFORM TO SEPARATOR—Continued



9. Install platform drive belts.
10. Adjust belt tension. (See page 39.)

To remove cutting platform, block under hinge brackets, or place support stand in upright position. Remove cylinder front door and grain conveyor front door. Remove platform drive belts, pins from hydraulic cylinders, and pins and retainers from U-brackets on separator. Drive separator rearward slowly until front of separator clears rear of feeder house. Wire up hydraulic cylinders. Install cylinder front door and grain conveyor front door.

LEVELING CUTTING PLATFORM

To insure satisfactory performance, the cutting platform must be parallel with the front axle tube.

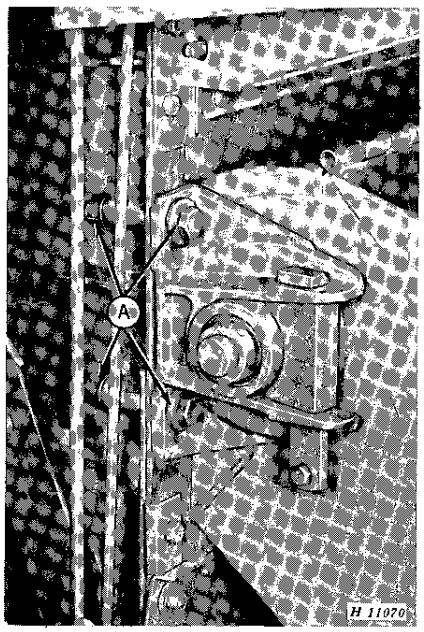
This should be inspected periodically, using the following method:

Raise the cutting platform to maximum height.

Take a position approximately 15 feet directly in front of the cutting platform.

Compare the bottom of the cutting platform with the front axle tube to see if they are parallel.

NOTE: Main wheel tires must be inflated to equal tire pressure, otherwise an accurate platform leveling adjustment cannot be accomplished.



To adjust, loosen the two bolts "A" securing right-hand pivot bracket to separator.

Move right-hand bracket up to raise right-hand side of cutting platform or down to lower right-hand side of cutting platform.

When bottom of cutting platform is parallel with front axle tube, tighten the two bolts "A."

CAUTION: These bolts must be tight.

NOTE: It may also be necessary to adjust the left-hand pivot bracket to obtain proper leveling.

COLD WEATHER OPERATION

Operating a combine in cold weather requires special preparation. If proper precautions are taken, the combine will give just as good service as when operating under normal conditions.

HYDRAULIC UNIT AND ENGINE CRANKCASE

Use the grade of oil recommended in the lubrication chart, pages 18 and 19. Lubricants of the right viscosity are necessary for proper protection.

TRANSMISSION CASE

Be certain that SCL multipurpose-type SAE 90 gear lubricant is being used.

FUEL SYSTEM

Use winter-grade gasoline. Fill the fuel tank at the end of the day's run to prevent moisture from condensing in the fuel tank.

COOLING SYSTEM

To prevent freezing when temperature is 32° F. or lower, either drain the cooling system at the end of each day's run or use an antifreeze solution. The use of antifreeze is recommended.

CAUTION: Never use calcium chloride solution in the radiator. It is harmful to metal.

If necessary, add water or antifreeze slowly until the level is approximately 1 inch below the bottom of the filler neck.

Antifreeze Requirements	
Lowest Expected Temperature	Ethylene Glycol
+15°	3 Quarts
+ 6°	4 Quarts
− 5°	5 Quarts
−18°	6 Quarts
−34°	7 Quarts

BATTERY

When the temperature drops below 32° F., take precautions to avoid damaging the battery cells by freezing. A badly discharged battery freezes quicker than one that is well charged. For example, a battery with a specific gravity reading of 1.175 (discharged) will freeze at 4° F., and a battery with a specific gravity reading of 1.300 (fully charged) will not freeze until the temperature reaches -65° F.

In freezing weather, do not add water to the batteries unless engine is going to be run. Water will readily freeze, as it will not mix with the electrolyte until the generator passes a charging current through the batteries.

If booster battery is needed as a starting aid see page 72.

END OF THE SEASON SERVICE

When the combining season is finished, the combine should be stored until the next season. Follow the suggestions on these pages to be sure your combine is ready to go when the next season starts.

ENGINE

Wash the outside of the engine thoroughly. Use diesel fuel and a stiff brush.

Drain the crankcase, fill with oil of proper viscosity (page 26) to begin next season's operation, and run the engine at idling speed for 15 to 20 minutes. Be certain to leave oil in crankcase while combine is stored.

Drain and fill the hydraulic system (page 27) with clean oil. Do not leave hydraulic system dry while combine is stored.

Clean inside of air cleaner, remove loose dirt from filter and install filter in air cleaner. (page 24.)

Operate engine another 10 to 15 minutes, using WHITE (non-leaded) gasoline.

Drain all gasoline and leave drain valve open.

NOTE: If gasoline is allowed to stand in tank, fuel lines, fuel pump, and carburetor, a gummy substance will form in carburetor jets and passages. This gum is difficult to remove and will cause future trouble.

Drain water by removing drain plugs from radiator and engine block. Leave drain plugs out so water that might condense in cooling system can drain (page 73).

Use a reputable brand of oil to condition the combustion chambers of the engine for storage. Either flood the engine with this oil or introduce the oil through spark plug openings, depending upon the oil manufacturer's recommendations.

Seal exhaust opening, crankcase breather, air inlet in radiator, and hydraulic oil reservoir breather with sealing tape to prevent entrance of moisture or foreign material.

If combine is stored in the open, remove battery and store in a cool, dry place where temperature will stay above freezing. Do not place battery on a concrete floor as cold tends to draw strength from the battery. Check and recharge the battery every 30 days to prevent damage to the plates.

Suggest:

If the above button click is invalid.

Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

Remove radiator screen and duct and clean out any dust or dirt accumulated in the radiator core. Use air or water, under pressure, for this purpose.

COMBINE

If possible, shelter the combine in a dry place.

Clean the combine thoroughly inside and out. Chaff and dirt draw moisture and will rust the steel.

Remove belts. Clean belts, wrap them in burlap, and store in a cool, dark place. Clean chains thoroughly and brush fairly heavy oil on them to prevent corrosion.

Clean out augers and elevators. Leave doors open at bottom end of elevators.

Clean out bottom of grain tank and unloading auger. Leave clean-out door open.

Clean the chaffer and sieve.

Grease feeder house conveyor bottom so it will not rust.

Lubricate combine completely. See Lubrication Charts. Grease the threads on bolts used for adjustments. Apply a coating of grease to slip clutch jaws.

Paint all parts from which paint has worn.

Level cutting platform with blocks.

Block combine, taking load off tires. Do not deflate tires. If combine is stored outside, remove wheels and tires and store in a cool, dark, dry place.

Release clutch lever return spring and block clutch pedal in disengaged position to prevent damaging clutch plates during storage.

Release spring tension on slip clutches.

List the repairs that will be needed before the next season and order them early. Your John Deere dealer can give better service during the off season, and when parts are received, they can be installed in your spare time--no delay at harvest time.

BEGINNING OF THE SEASON SERVICE

The combine must be carefully checked before starting the harvest season.

Replace wheels and remove blocking.

Clean the combine thoroughly inside and out.

Clean and adjust spark plugs. Replace worn or oil-soaked wiring. Install the battery, check electrolyte level and recharge.

Flush radiator, install drain plugs in radiator and engine block, and fill with water; rain water if available. Do not use water containing alkali. It is recommended that Summer Engine Coolant Conditioner be used (see page 74). Pour coolant in slowly until the level is approximately 1 inch below the bottom of the filler neck.

Remove sealing tape from all engine openings.

Clean all fuel lines and fuel strainers. Blow out carburetor jets with air; never use a wire.

Install belts, making certain they have the proper tension. Adjust chains to proper tension. Be certain to check grain conveyor chain (page 44) and chains in clean grain and tailings elevators (page 49).

Remove block from clutch pedal and connect clutch lever return spring.

Clean slip clutches. Be sure to put grease in bore of slip clutches after cleaning. Adjust spring tension on slip clutches (page 32).

Close elevator doors and unloading auger clean-out door.

Fill fuel tank.

Lubricate combine completely (page 20), then run combine at half-speed for about an hour. Check oil level in crankcase and check bearings for overheating or excessive looseness. Be certain slip clutches operate freely.

Check tire inflation (page 56).

Go over complete combine and see that all bolts are tight and cotter pins are in place.

Review your operator's manual.