

John Deere

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MODEL:

6620, 7720 & 8820

Combines

**OPERATOR'S
MANUAL**



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**6620
SideHill 6620**

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**7720,
and 8820
Combines**

MANUAL PREVIEW

OPERATORS MANUAL

**6620 SideHill 6620 7720, and 8820
Combines**

OMH120048 Issue H4 English

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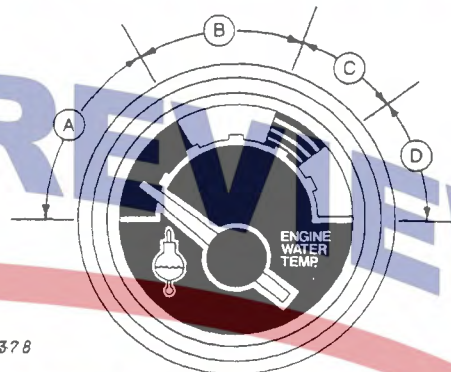
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Engine Break-in

Engine Break-in

The engine is ready for normal operation. Be extra cautious during the first 100 hours.

1. Avoid unnecessary engine idling.
2. Watch coolant temperature gauge closely. If temperature rises to green with white striped warning zone, shift to a lower gear or reduce load. Unless temperature quickly drops, stop engine and determine cause.



A—Black Zone
B—Green Zone
C—Green with White Stripes
D—Red Zone

H35378

H35378

3. Check engine oil and coolant levels frequently. Watch for any signs of leaks.
4. Until you become thoroughly familiar with the sound and feel of your new combine, be extra alert.

After 1 Hour of Operation Check Torque on All Wheel Bolts:

Drive Wheels 400 lb-ft (542 N·m)

Steering Wheels 150 lb-ft (203 N·m)

IMPORTANT: Wheel bolts must be clean and free of lube before installing. Torque value is for clean dry bolt. Lubricating reduces friction and overloads the bolts.



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Engine Oil Dipstick



H35364

Radiator Cap

After 5 Hours of Operation

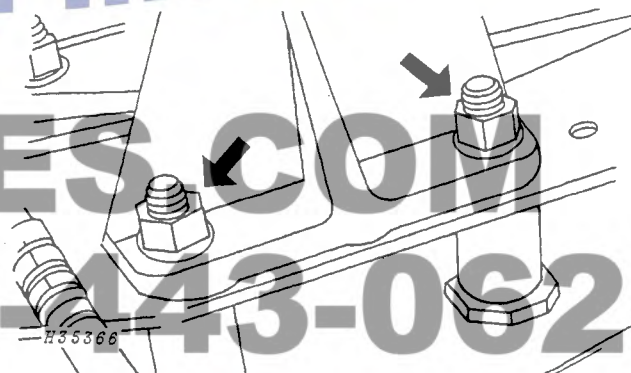
Check all V-belts for initial stretch. Tighten as necessary. Continue to check V-belts every few hours for the first 50 hours. Check alternator belt and adjust if necessary.

Torque the eight 3/4-inch machine bolts attaching separator uprights to drive wheel axle to 300 lb-ft (407 N·m).

After 100 Hours of Operation

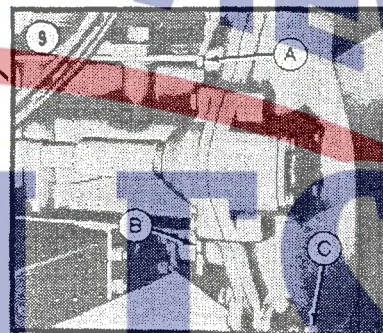
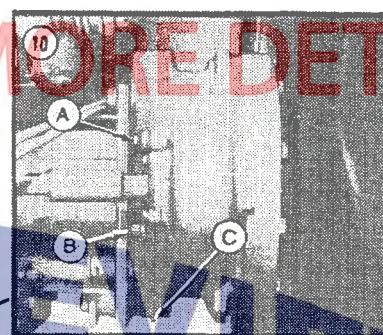
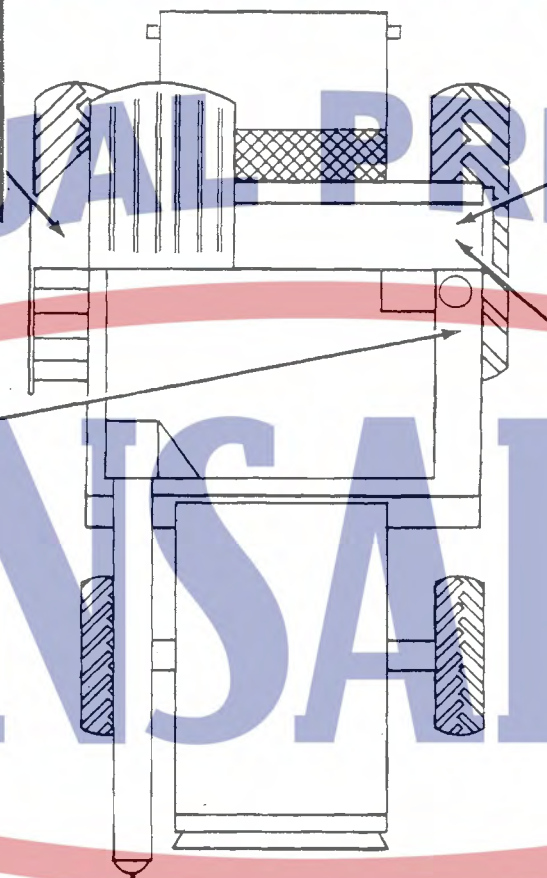
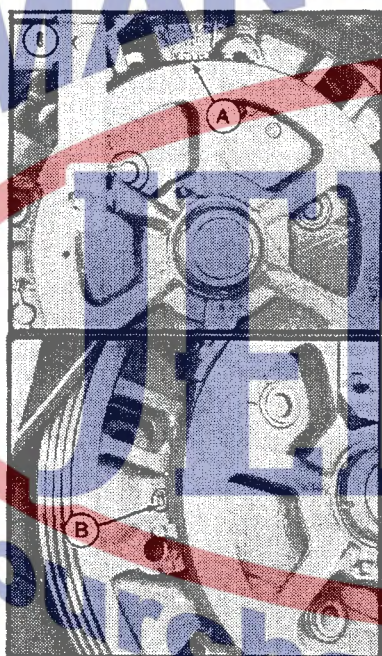
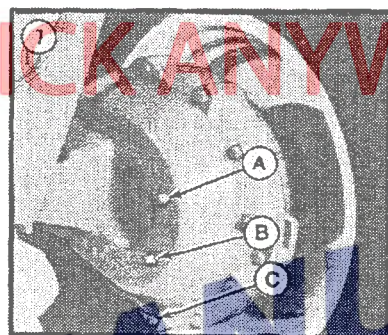
Drain crankcase oil, change filter, and refill. See lubrication section. Repeat this procedure every 200 hours or once a season, whichever occurs first.

IMPORTANT: If diesel fuel sulfur content exceeds 0.7 percent, change oil every 100 hours.



H35366

EVERY 400 HOURS OF OPERATION



7. (SideHill 6620) Check oil to within 1/4-inch (6 mm) of bottom of check plug hole (B).

A—Fill Plug
B—Check Plug
C—Drain Plug

8. Check oil level. Arrow (A) must point straight up to check oil at plug (B). Oil must come to bottom edge of plug hole.

9. (6620-7720 and 8820 with ring and pinion final drives) Check oil to within 1/4-inch (6 mm) of bottom of check plug hole (B).

A—Fill Plug
B—Check Plug
C—Drain Plug

10. (7720 and 8820 with planetary final drives) Check oil to within 1/2-inch (12 mm) of bottom of check plug hole (B).

A—Fill (Breather) Plug
B—Check Plug
C—Drain Plug

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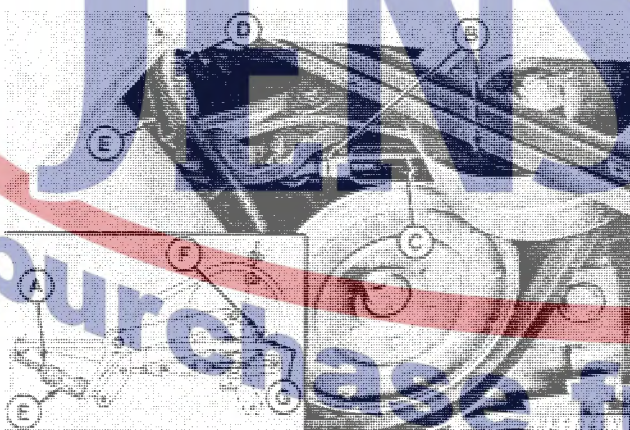
MAJOR SEPARATOR DRIVES



Separator Drive Belt

The engine powershaft (A) supplies power for the complete combine. It drives the separator belt (B) which drives the primary countershaft (C). The primary countershaft (C) drives the feeder house and header belt (D) and reel drive pump belt (E) when the electromagnetic clutch is engaged. The engine powershaft also powers the upper ground drive belts (F) and the unloading auger (not shown).

- A—Powershaft
- B—Separator Belt
- C—Primary Countershaft
- D—Feeder House and Header Drive Belt
- E—Reel Drive Pump Belt
- F—Ground Drive Belts



- A—Eyebolt
- B—Lock Nuts
- C—Turnbuckle
- D—Washer
- E—Gauge
- F—Stop Bolt
- G—Lock Nut

Adjusting Separator Drive Belts

IMPORTANT: The castellated nut and cotter pin on eyebolt (A) are only for holding the spring, spacer, and washer in place. Do not tighten nut to align washer with gauge.



CAUTION: Engine must be off and key removed.

1. With engine off engage separator drive. Loosen lock nuts (B).
2. Rotate turnbuckle (C) until washer (D) is even with the end of gauge (E).
3. Tighten lock nuts (B).

Adjusting Over-Center Stop Bolt

1. Over center stop bolt must be adjusted before adjusting drive belt tension.
2. Adjust stop bolt (F) so the tightener arm is just over-center when the separator drive belts are engaged.
3. Loosen lock nut (G) and screw bolt in or out as necessary. Tighten lock nut (G).

IMPORTANT: When separator drive belts are engaged, the tightener arm must just snap over center. Excessive over-center adjustment will allow belts to loosen.

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7720 COMBINE

Engine

Make John Deere
 Model POSI-TORQ 6466TH-05
 Hydrostatic 6466TH-02
 Type 6-cylinder, in-line,
 valve-in-head,
 diesel, turbocharged
 Brake Horsepower 145 (108 Kw) POSI-TORQ
 165 (123 Kw) Hydrostatic
 Displacement 466 cu. in. (7 640 cm³)
 Bore and Stroke .. 4.56 x 4.75 in. (116 x 121 cm)
 Compression Ratio (clean engine only) .. 15.8 to 1
 Firing Order 1-5-3-6-2-4
 Engine Speeds
 Fast Idle
 (Separator engaged-no load) 2340 rpm
 (Separator engaged-full load) 2200 rpm
 Slow Idle 1200 rpm
 Electrical System 12-volt
 negative ground
 Air Cleaner Dry type with safety element
 Thermostats (2) 180°F (82°C)

Transmission

4 speeds

Brakes

Hydraulic shoe

Operator's Cab

Heater Capacity 18,000 BTU/HR
 (5.3 Kw)
 Air Conditioner capacity 22,000 BTU/HR
 (6.4 Kw)

Feeder House

7720 Grain Regular-length, fixed-speed
 belt drive with reverser
 7720 Corn/Soybean Regular-length, Variable-
 speed belt drive with reverser
 7720 Rice Long-length, fixed-speed belt
 drive with reverser

Cylinder

Type Rasp-Bar Spike-Tooth
 Diameter 22 in. (559 mm)
 Number of bars 8 rasp-bar 10-spike tooth
 Width 55 in. (1 397 mm)

Concave

Type open-type or spike-tooth
 Area 1150 sq. in. (.742 m²)

Beater Grate

Type open bar-type
 Area 502 sq. in. (.324 m²)

Finger Bar

Type adjustable
 Area 534 sq. in. (.344 m²)

Separator

Type Straw walkers
 Width 55 (1 395 mm) in.
 Total Separating Area 9874 sq. in.
 (with Beater Grate) (6.36 m²)
 Total Separating Area 9906 sq. in.
 (with Adjustable Finger Bar) (6.39 m²)
 Chaffer
 Width 53 in. (1 341 mm)
 Length 67 in. (1 702 mm)
 Sieve
 Width 53 in. (1 339 mm)
 Length 53 in. (1 346 mm)
 Total cleaning area
 of chaffer and sieve 6313 sq. in. (4.07 m²)

Straw Walkers

Number of Walkers 5
 Number of steps 6
 Length 150 in. (3 810 mm)
 Total area of walkers 8222 sq. in. (5.3 m²)

Grain Tank

Capacity 190 bu. (6.7 m³)
 Unloading Rate 1.9 bu. per sec. (.07 m³)

Weights (less header)

7720 Grain Combine 17,598 lbs. (7 982 kg)
 7720 Corn-Bean Combine .. 17,921 lbs. (8 152 kg)
 7720 Rice Combine 18,428 lbs. (8 359 kg)

Capacities

Fuel Tank 100 U.S. gals. (379 L)
 Cooling System 33-1/2 U.S. qts. (32.4 L)
 Includes 1-1/2 qt. (1.4 L) for heater
 Engine Crankcase
 (including filter) 21 U.S. qts. (20 L)
 Transmission 11 U.S. qts. (10 L)
 Final Drives - ring and pinion 10 to 95 Ratio-
 11 U.S. pts. (5.2 L)
 Planetary 10 to 95 Ratio-
 10 U.S. pts. each (4.7 L)
 Variable Speed Feeder House or Long Length
 Fixed Speed Feeder House
 Reverser Drive Gear Case .. 2 U.S. pts. (0.95 L)
 Hydraulic System
 (Including Lines and
 Components) 24 U.S. qts. (22 L)
 Hydrostatic Drive System
 (Including Lines and
 Components) 30 U.S. qts. (29 L)
 4-Wheel Drive 5 additional gal. to the
 hydrostatic drive system
 Dual-Range Cylinder Drive
 Gear Case 2 U.S. qts. (1.9 L)

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