

8440 & 8640 TRACTORS (REPAIRS)



JOHN DEERE

TECHNICAL MANUAL 8440 & 8640 TRACTORS (REPAIRS)

TM1199 (01NOV86) English

John Deere Tractor Works
TM1199 (01NOV86)

LITHO IN U.S.A.
ENGLISH



8440 AND 8640 TRACTORS

TECHNICAL MANUAL

TM-1199 (NOV-78)

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Group 00 SPECIFICATIONS AND SPECIAL TOOLS GENERAL TRACTOR SPECIFICATIONS

8440

8640

HORSEPOWER (Factory observed PTO

horsepower at 2100 rpm)

175 hp (130 kW)

225 hp (168 kW)

ENGINE:

Type	6-cylinder, in-line, valve-in-head, diesel, turbocharged, intercooled	6-cylinder, in-line, valve-in-head, diesel, turbocharged, intercooled
Slow idle speed	780 to 820 rpm	780 to 820 rpm
Working speed range	1500 to 2100 rpm	1500 to 2100 rpm
Bore and stroke	4.56 x 4.75 in. (116 x 121 mm)	5.12 x 5.00 in. (130 x 127 mm)
Displacement	466 cu. in. (7640 cm ³)	619 cu. in. (10 143 cm ³)
Compression ratio	15.5 to 1	14.7 to 1
Firing order	1-5-3-6-2-4	1-5-3-6-2-4
Valve clearance		
Intake	0.018 in. (0.46 mm)	0.015 in. (0.38 mm)
Exhaust	0.028 in. (0.71 mm)	0.025 in. (0.64 mm)
Injection pump timing	TDC	TDC
Lubrication system	force-feed, pressurized with full-flow filter	force-feed, pressurized with full-flow filter

	8440	8640
FUEL SYSTEM:		
Type	direct injection	direct injection
Injection pump type	in-line	in-line
Air cleaner	dry type with safety element	dry type with safety element
COOLING SYSTEM:		
Type	dual-pressure with centrifugal pump	dual-pressure with centrifugal pump
Temperature control	two heavy duty thermostats	three heavy duty thermostats
CAPACITIES:		
Fuel tank	156 U.S. gallons (590 L)	200 U.S. gallons (757 L)
Cooling system	40 U.S. quarts (42 L)	48 U.S. quarts (51 L)
Crankcase (with filter change)	20 U.S. quarts (19 L)	24 U.S. quarts (23 L)
Transmission-hydraulic system (wet system)	35 U.S. gallons (132 L)	36 U.S. gallons (136 L)
QUAD-RANGE TRANSMISSION:		
Type	2-speed, power-shifted planetary and 8-speed synchronized.	
	16 forward and 6 reverse	
Gear selections	hydraulically-operated, multiple-disk wet clutch	
Perma-Clutch		
POWER TAKE-OFF:		
Type	fully independent	fully independent
Speed (2100 engine rpm)	1000 rpm	1000 rpm
Size	1-3/4 in. (45 mm)	1-3/4 in. (45 mm)
Clutch	hydraulically-operated, multiple-disk wet clutch	hydraulically-operated, multiple-disk wet clutch
HYDRAULIC SYSTEM:		
Type	closed-center, constant-pressure	closed-center, constant-pressure
Standby pressure	2250 psi (155 bar) (155 kg/cm ²)	2250 psi (155 bar) (155 kg/cm ²)
BRAKES:		
Type	hydraulically-operated wet disk	hydraulically-operated wet disk
ELECTRICAL SYSTEM:		
Type	12-volt, negative ground	12-volt, negative ground
Batteries	two, 6-volt, 5D group, 800 amps cold cranking, 376 minutes reserve capacity	two, 6-volt, 4 group, 975 amps cold cranking, 420 minutes reserve capacity
Alternator	90-amp	90-amp
TIRES AND TREADS:	see page 05-3 in this section	see page 05-3 in this section

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