

JOHN DEERE 862B SCRAPER



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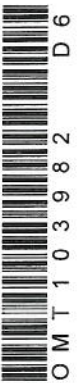
OPERATORS MANUAL JOHN DEERE 862B SCRAPER

OMT103982 D6 English

S/N *xxxxxx - 735855*

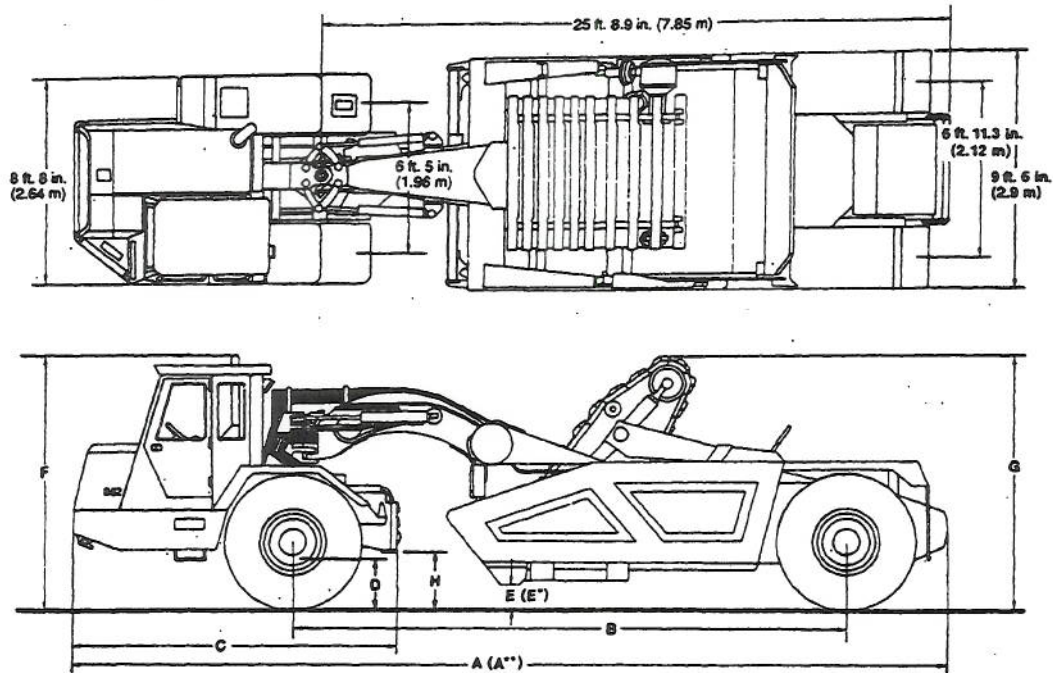
OMT103982 D6

LITHO IN THE U.S.A. (REVISED)
ENGLISH



Specifications

862B SCRAPER



Key:	Bowl At Ground Level	Bowl Up	Bowl Level
A	36 ft 4 in. (11.07 m)	35 ft 9 in. (10.90 m)	36 ft 2 in. (11.02 m)
B	22 ft 11 in. (6.99 m)	22 ft 3 in. (6.78 m)	22 ft 9 in. (6.93 m)
C	14 ft 3 in. (4.34 m)	14 ft 3 in. (4.34 m)	14 ft 3 in. (4.34 m)
D (Axle clearance)	19.5 in. (495 mm)	19.5 in. (495 mm)	19.5 in. (495 mm)
E	---	19 in. (483 mm) w/o teeth 16 in. (406 mm) w/teeth	7 in. (178 mm) w/o teeth 4 in. (102 mm) w/teeth
F	10 ft 1 in. (3.07 m)	9 ft 11 in. (3.02 m)	9 ft 11.5 in. (3.03 m)
G	10 ft 3 in. (3.12 m)	10 ft 11.4 in. (3.34 m)	10 ft 5 in. (3.18 m)
H (Transmission clearance)	20.6 in. (523 mm)	25.4 in. (645 mm)	23.5 in. (597 mm)

A** Add 6.9 in. (175 mm) for optional rear push block clearance.

E* Cut below ground level: 9 in. (229 mm) w/o teeth
11.9 in. (302 mm) w/teeth

Specifications

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with 26.5—25, 24 PR tires, ROPS canopy, full fuel tank, 175 lb (80 kg) operator and standard equipment.

Capacity (SAE heaped):

Volume	16 cu. yd (12.23 m ³)
Total weight of payload (2500 lb/yd ³ (1483 kg/m ³))	40,000 lb (18 144 kg)

Engine:

John Deere turbocharged and intercooled diesel	265 SAE net hp (198 kW)
Bore and stroke	5.12 x 5.00 in. (130 x 127 mm)
No. of cylinders	6
Displacement	619 cu. in. (10.145 L)
Compression ratio	14.7 to 1
Maximum net torque @ 1400 rpm	862 lb-ft (1169 N·m) (117 kg-m)
Lubrication	Pressure system w/full-flow filter
Aspirated air cleaner w/safety element and restriction indicator	Dry
Cooling fan	Suction type
Electrical system	24-volt w/50-amp alternator
Batteries (two 12-volt)	Reserve capacity: 180 minutes

Monitoring System:

Monitoring system alerts operator that any of following conditions exist:

1. Machine function is in operation.
2. A potential but not yet critical problem exists.
3. A critical problem exists and machine must be stopped immediately.

Torque Converter:

Two-phase single-stage with 2.3 to 1 multiplication ratio, free-wheeling stator, and lock-up clutch. Lock-up is operator controlled with direct-acting shift system, or automatic with optional automatic transmission control.

Transmission:

John Deere planetary powershift with torque converter:
6 speeds forward, 1 reverse

Shift control options:

Direct-acting (manual)	Shift lever activates 24-volt solenoids
Fully automatic	Microprocessor actuates 12-volt solenoids
Lubrication and shift-element actuation	32 gpm (2.0 L/s) gear pump

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Specifications

Travel Speeds: (Maximum at 2100 engine rpm)

Forward Gear	mph	(km/h)	Reverse Gear	mph	(km/h)
1	3.0	4.8	1	5.0	8.0
2	4.3	6.9			
3	5.5	8.9			
4	7.8	12.6			
5	15.6	25.1			
6	28.5	45.9			

Differential Lock Foot-operated, hydraulically actuated

Drive Axle (Differential type with inboard planetaries):

Reduction ratio 22.22 to 1
 Lubrication and differential lock actuation 4.4 gpm (0.3 L/s) gear pump

Power Steering (Position-responsive type):

Articulated frame hydraulically actuated by dual cylinders
 Turning circle (180° turn) 32 ft (5.4 in. (9.89 m))
 Frame articulation (total) 180°

Brakes (Hydraulic power actuated. Hydraulic accumulator provides dead engine-braking):

Tractor Adjustment-free inboard wet-disk
 Scraper Self-adjusting wheel-mounted expanding-shoe
 Parking Foot-actuated (mechanical) expanding-shoe

Tractor Oscillation: (total) 40°

Hydraulic Systems:

Main tractor: Closed-center system with 8.0 in.³ (130 cm³) variable-displacement, constant pressure pump for steering, brakes, and all scraper functions except elevator drive.
 System pressure 2350 psi (16 203 kPa) (162 bar)
 Main pump rating 63 gpm (3.97 L/s) at 2100 engine rpm
 Charge pump rating 20.3 gpm (1.28 L/s) at 2100 engine rpm
 Elevator drive: Hydrostatic system with 5.43 in.³ (89 cm³) variable-displacement, axial piston pump, and 4.26 in.³ (69.8 cm³) axial piston motor.
 System pressure 5000 psi (34 475 kPa) (345 bar)
 Pump rating 53.5 gpm (3.38 L/s) at 2100 engine rpm

Filtration (All systems are protected by replaceable filters):

Main hydraulic system 10 micron
 Elevator system 10 micron
 Transmission 10 micron
 Engine: full flow 25 micron
 bypass 2 micron
 Drive axle 10 micron

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Specifications

Elevator:

Number of flights	23
Spacing of flights	12.52 in. (318 mm)
Width of flights	6 ft. 6 in. (1.98 m)
Speed @ 2100 rpm	0 to 240 fpm (73 m/min) (with 4 detented positions)
Length (top to bottom)	12 ft (3.66 m)

Cutting Edge:

8 ft 10 in. (2.69 m) wide; 3 sections, reversible and replaceable, high-carbon steel. Each section is adjustable vertically 2 in. (51 mm).

Center section	1 x 13 x 77.9 in. (25 x 330 x 1979 mm)
End sections	1 x 13 x 14 in. (25 x 330 x 356 mm)

Tires Available:

- 26.5 x 25 x 24 PR E2
- 26.5 R25 x RAT (M) Radials
- 26.5 R25 RL-2F Radials
- 26.5 x 29 26 PR
- 26.5 x 29 XRB Steel Cord Radials
- 26.5 R29 RL-2F Radials
- 29.5 x 25 22 PR E2
- 29.5 R25 x RAT (M) Steel Cord Radials

Weight Distribution:

	lb	kg
Empty: Drive axle	32,050	14 538
Scraper axle	17,139	7 774
Total	49,189	22 312
Loaded: Drive axle	44,400	20 140
Scraper axle	44,789	20 316
Total	89,189	40 456

Drain and Refill Capacities:

	U.S.	Metric
Cooling system	15 gal	(56 L)
Fuel tank	110 gal	(416 L)
Engine lubrication w/filter	36 qt	(34 L)
Transmission w/filter	19 gal	(71 L)
Drive axle case w/filter	8.5 gal	(32 L)
Hydraulic system w/hydraulic filter and elevator filter	24 gal	(90 L)
Elevator gearbox	8 qt	(7 L)