

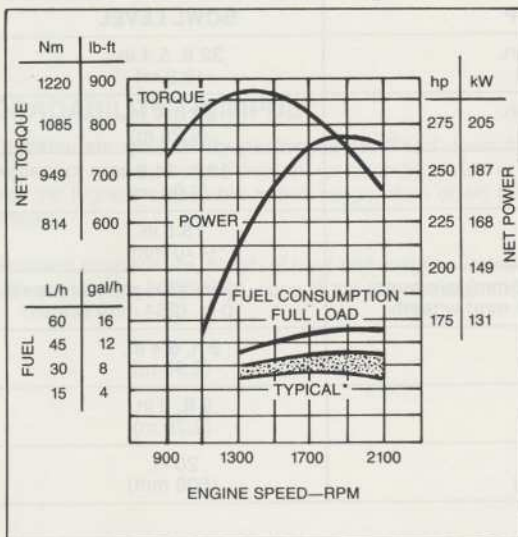


## 862B SCRAPER



Model shown may include options

### ENGINE PERFORMANCE



\*Depending on operating variables

### FEATURES

265 SAE net hp (198 kW) turbocharged and intercooled John Deere diesel engine

16 cu. yd. (12.2 m<sup>3</sup>) heaped capacity self-loading bowl with hydraulic load ejection

Infinitely variable-speed hydrostatic elevator with 23 extra-strong flights fills loads faster

Two transmission control options: direct operator (manual) control of shifting, or fully automatic (microprocessor-based) controls

Closed-center hydraulic system with fuel-saving variable-displacement pump

Hydraulic differential lock improves traction and reduces wheel spin—can be engaged/disengaged on-the-go

Improved position-responsive power steering and heavy-duty power brakes

New direct-acting bowl and elevator controls provide precise cutting depth control

New dual-level monitor system provides improved machine protection

Rollover protective structure (ROPS) and seat belt with cab or canopy

Standard tractor and scraper fenders

Optional axle suspension system improves ride and increases productivity

## 862B SCRAPER SPECIFICATIONS

Specifications and design are 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 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 <sup>3</sup> )
Total weight of payload, 2500 lb/yd <sup>3</sup> (1483 kg/m <sup>3</sup> )	40,000 lb. (18 144 kg)

### Rated Power @ 2100 rpm:

	SAE	DIN 70 020
Net	265 hp (198 kW)	198 kW
Gross	275 hp (205 kW)	

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No.2-D fuel @ 35 API gravity. No derating is required up to 10,000 feet (3050 m) altitude. Gross power is without cooling fan.

### Engine: John Deere 6-619A

Type	4-stroke cycle, turbocharged and intercooled diesel
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 Nm) (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

### 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 actuates 24-volt solenoids
Fully automatic	Microprocessor actuates 12-volt solenoids
Lubrication and shift-element actuation	32 gpm (120 L/min) gear pump

### Travel Speeds (Maximum at 2100 engine rpm)

Forward			Reverse		
Gear	mph	(km/h)	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 deg. turn)	32 ft. 5.4 in. (9.89 m)
Frame articulation (total)	180 deg.

**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 deg.

### Hydraulic Systems:

Main tractor: Closed-center system with 8.0 in<sup>3</sup> (130 cm<sup>3</sup>) variable-displacement, constant-pressure pump for steering, brakes, and all scraper functions except elevator drive.

System pressure	2350 psi (16 203 kPa) (165.2 kg/cm <sup>2</sup> )
Main pump rating	63 gpm (239 L/min) at 2100 engine rpm
Charge pump rating	20.3 gpm (77 L/min) at 2100 engine rpm
Elevator drive: Hydrostatic system with 5.43 in <sup>3</sup> (89 cm <sup>3</sup> ) variable-displacement, axial-piston pump, and 4.26 in <sup>3</sup> (69.8 cm <sup>3</sup> ) axial piston motor.	
System pressure	5000 psi (34 475 kPa) (351 kg/cm <sup>2</sup> )
Pump rating	53.5 gpm (202 L/min) at 2100 engine rpm

### Filtration

All systems are protected by replacement filters.	
Main hydraulic system	10 micron
Elevator system	10 micron
Transmission	10 micron
Engine: full flow	25 micron
bypass	2 micron
Differential	10 micron

### Hydraulic Cylinders:

	Bore	Stroke
Lift (2)	5 in. (127 mm)	20 in. (508 mm)
Sliding floor (1)	5.25 in. (133 mm)	38.8 in. (986 mm)
Ejector gate (2)	3 in. (76 mm)	49.0 in. (1244 mm)
Steering (2)	4 in. (102 mm)	25.9 in. (658 mm)
Piston rods	Ground, heat-treated, chrome-plated, polished	
Lift and steering cylinders	2 in. (51 mm)	
Sliding floor cylinders	2.5 in. (64 mm)	
Ejector gate cylinders	2 in. (51 mm)	

### Elevator

Reversible, hydrostatic-drive with heavy-duty planetary reduction. Non-sealed elevator chain is standard. Sealed chain is optional for extended life.	
Number of flights	23
Spacing of flights	12.52 in. (318 mm)
Width of flights	6 ft. 6 in. (1.98 m)
Speed, infinitely variable, forward	0 to 240 fpm (73 m/min)
reverse	0-120 fpm (0-37 m/min)
Length (top to bottom)	12 ft. (3.66 m)

### Bowl

Heavy-gauge steel with reinforced box construction. Sliding floor rides on heat-treated replaceable rails. Cutting edge retracts with sliding floor. Independent axles are vertically adjustable.

### 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:

26.5-25, 24 PR, E2
29.5-25, 22 PR, E2
29.5-25, XRB steel cord radials

### Capacities:

	U.S.	Liters
Cooling system	15 gal.	56.8
Fuel tank	110 gal.	416.4
Engine lubrication w/filter	31 qt.	29.3
Transmission w/filter	19 gal.	71.9
Differential case	7.5 gal.	28.4
Hyd. system reservoir	24 gal.	90.8
Elevator gear case	8 qt.	7.6

### Additional Standard Equipment:

Deluxe suspension seat	Transmission oil temperature high
Dual-level monitor system	Electric hourmeter
Two-level warning:	Fenders (tractor and scraper)
Engine coolant temperature	Fuel gauge
Single-level warnings:	Horn
Axle filter restricted	Lights (front driving and rear stop)
Brake system pressure low	Lubrication banks (hitch, steering and bowl)
Electrical system voltage low	Manual transmission controls
Elevator charge pressure low	Reverse warning alarm
Engine air filter restricted	ROPS canopy and seat belt
Engine oil pressure low	Tachometer
Hydraulic system filter restricted	Tilt/telescope steering wheel
Parking brake on (in gear)	Turn signals and 4-way flasher
Transmission filter restricted	Windshield and front wiper
Transmission oil pressure low	

### Weight Distribution:

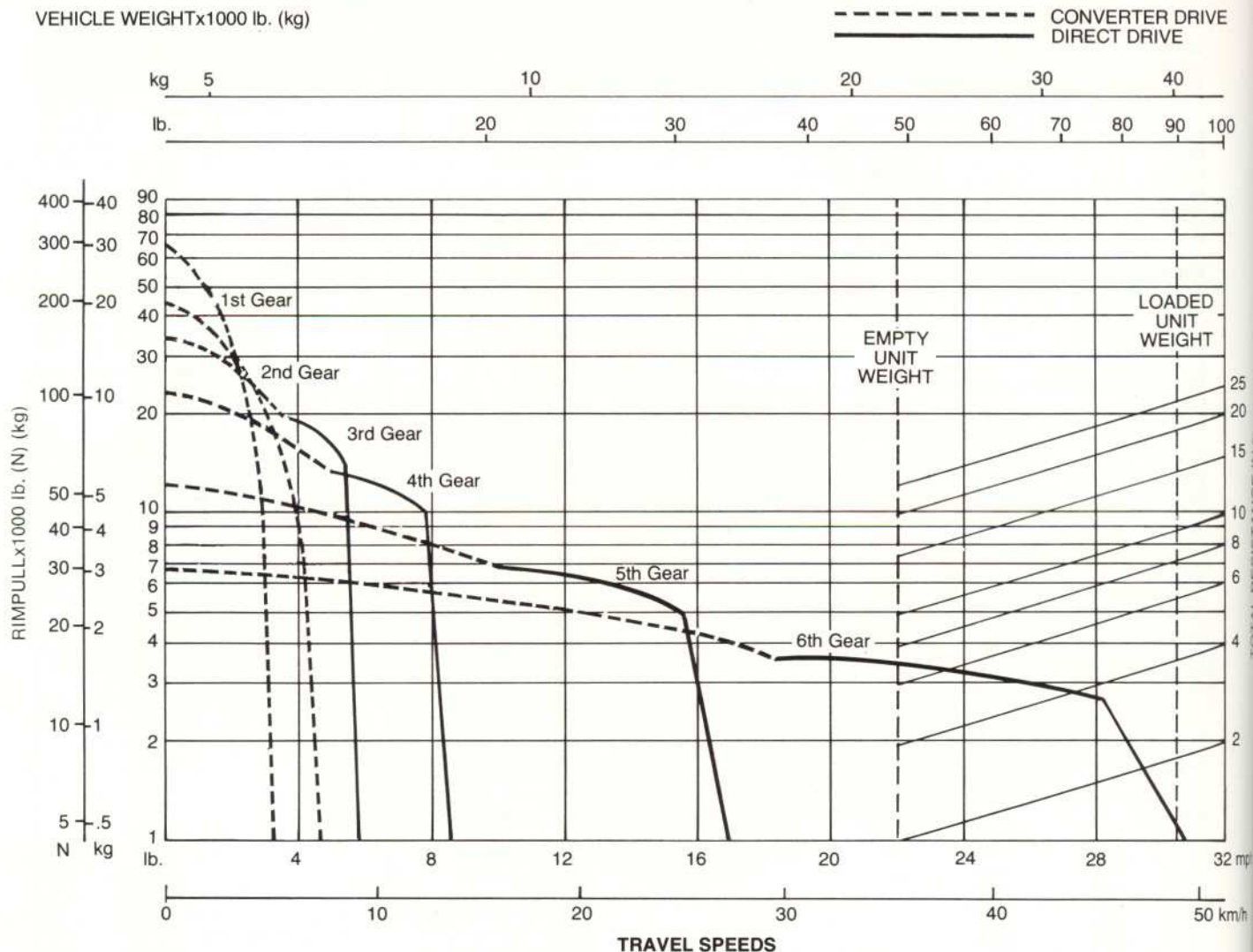
	lb.	kg
Empty:		
Drive axle	32,050	14 538
Scraper axle	17,139	7 774
Total	49,189	22 312
Loaded:		
Drive axle	44,400	20 140
Scraper axle	44,789	20 316
Total	89,189	40 456

### Optional or Special Equipment:

Air conditioner	Heater, (19,000 Btu/hr) (5.6 kW)
Automatic transmission control system	Rear push block
Axle suspension system	Rearview mirrors (left and right)
Cab door and panels	Steps and handrails, rear tractor
Ether starting aid	Teeth for cutting edge
Fender extensions and mud flaps for scraper wheels	Work lights (2 front and 2 loading)

## 862B SCRAPER VEHICLE PERFORMANCE\*

VEHICLE WEIGHTx1000 lb. (kg)

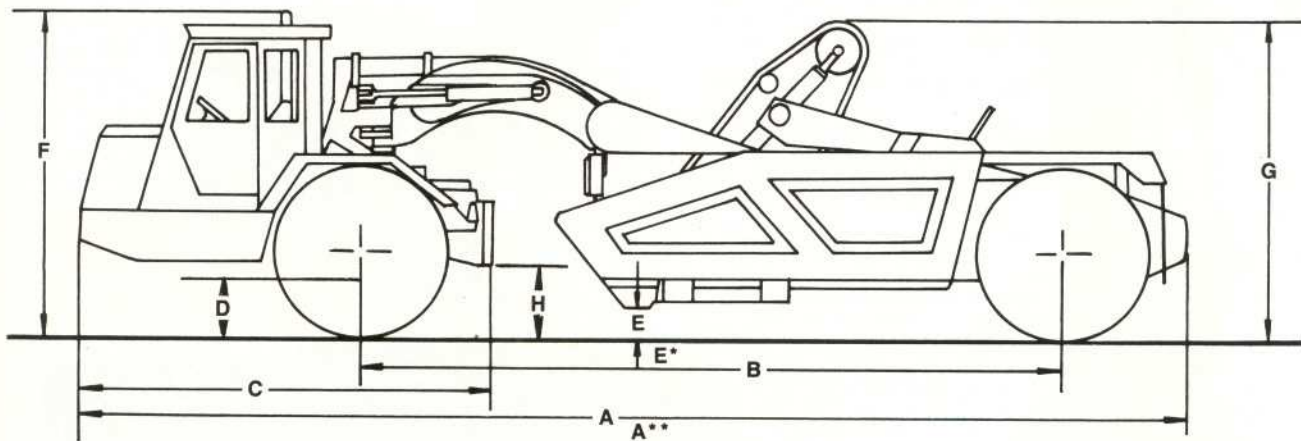
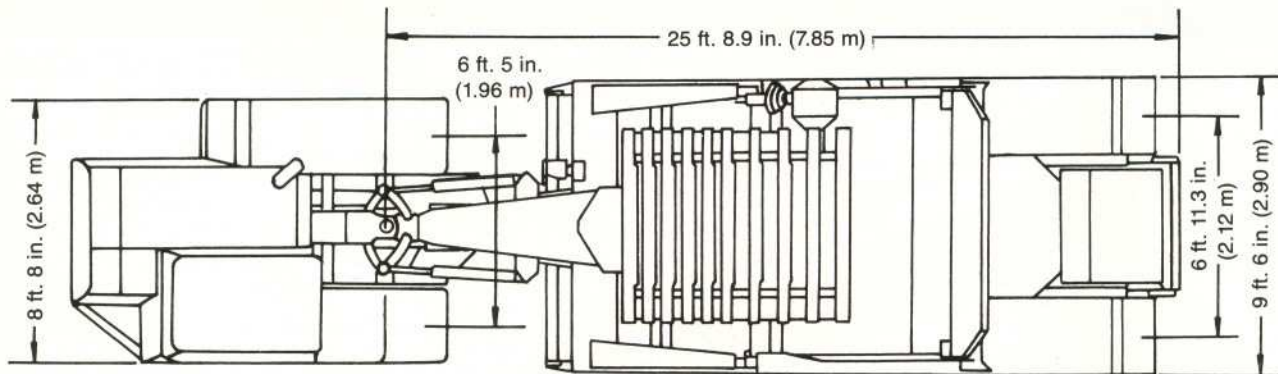


### GRADABILITY—RIMPULL

**To calculate gradability performance:** Read down from vehicle weight to the percent of total resistance. (Total resistance equals actual percent of grade plus one percent for each 20 lb./ton of rolling resistance.) From this weight-resistance point, read straight across to the curve with the highest obtainable speed range, then down to maximum speed. Usable rimpull is affected by traction available and weight on drive wheels.

\*Ambient temperature, length of haul and weight of material moved could affect the tire ton-mph capacity. To prevent premature tire failure under adverse conditions, consult the tire manufacturer.

## 862B SCRAPER DIMENSIONS



	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 (trans. clearance)	20.6 in. (523 mm)	25.4 in. (645 mm)	23.5 in. (597 mm)

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

A\*\*: add 6.9 in. (175 mm) for optional rear push block