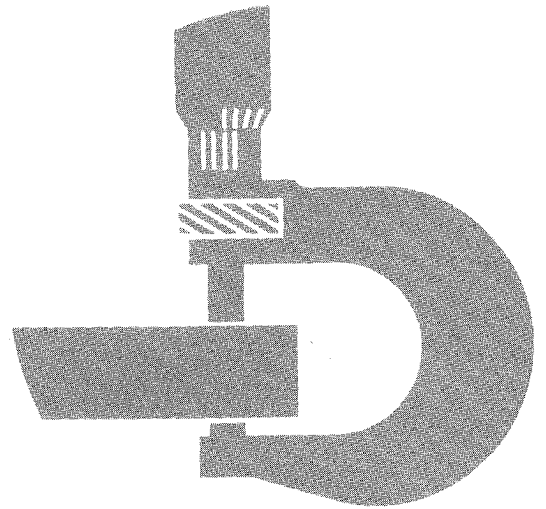


**John Deere
762A
Scraper**



TECHNICAL MANUAL

762A SCRAPER
Technical Manual
TM-1225 (Jul-84)

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The specifications and design information contained in this manual were correct at the time it was printed. It is John Deere's policy to continually improve and update our machines. Therefore, the specifications and design information are subject to change without notice. Whenever applicable, specifications and design information are in accordance with SAE and ICED standards.

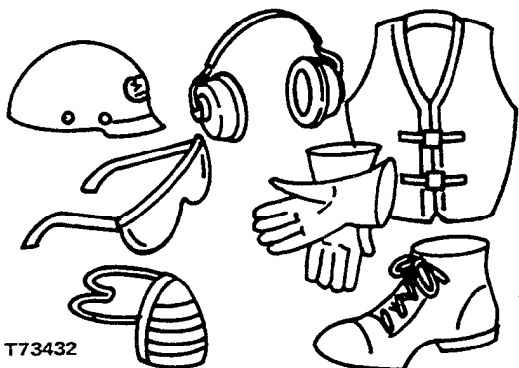
MAINTENANCE WITHOUT ACCIDENT WORK SAFELY



T27999N

 This safety symbol is used for important safety messages. When you see this symbol, follow the safety message to avoid personal injury.

EVERY EMPLOYER HAS A SAFETY PROGRAM. KNOW WHAT IT IS!



T73432

See your shop supervisor for specific instructions on a job, and the safety equipment you may need, such as:

- Hard hat
- Safety shoes
- Safety goggles
- Heavy gloves
- Reflector vest
- Hearing protectors
- Respirator

RIGHT

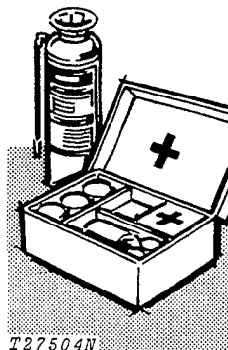


WRONG

T27502N

BE ALERT!

Plan ahead — work safely — know how to use a first aid kit and a fire extinguisher — and where to get assistance.



T27504N

Maintenance Area

Make sure the maintenance area has enough ventilation.

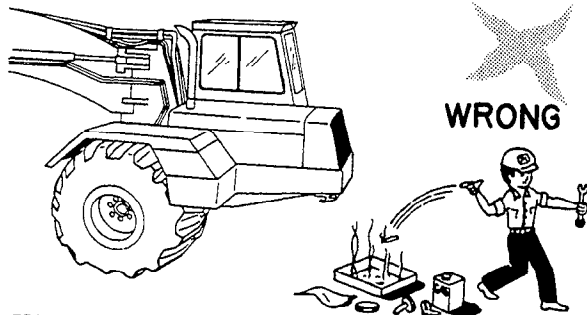
Keep the maintenance area CLEAN AND DRY. Oily and wet floors are slippery. Greasy rags are a fire hazard. When you work with electrical equipment, wet spots are dangerous.

Keep starting aids in a cool, well-ventilated place, out of reach of unauthorized personnel.

MAINTENANCE WITHOUT ACCIDENT

AVOID FIRE HAZARDS

Fuel Is Dangerous!



T71141

Do not smoke while you fill the fuel tank.

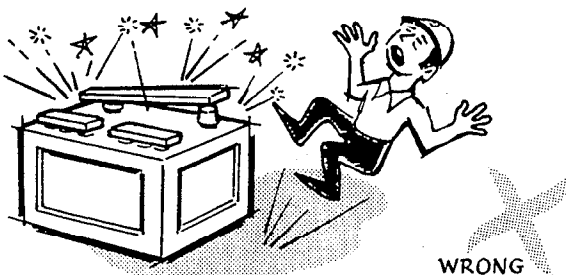
Do not smoke while you work with material that will start on fire easily.

Stop the engine before you fill the fuel tank.

Do not use gasoline or diesel fuel for cleaning parts. Use solvents that will not start on fire.

Battery Gas Is Highly Flammable!

When you charge a battery, be sure there is enough ventilation.



T27506N

Do not put metal objects across terminals to check the battery charge.

Keep sparks and flames away from batteries.

Do not smoke near battery.

Flame Is Not a Flashlight!

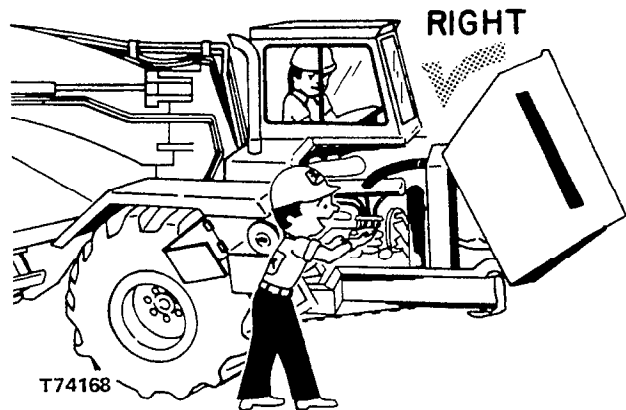
DO NOT USE OPEN FLAME AROUND THE MACHINE.

KNOW WHERE A FIRE EXTINGUISHER IS AND HOW TO USE IT.

UNDER ALL MAINTENANCE CONDITIONS—

Do not work on the equipment unless you are approved to do so. Then be sure you know the correct procedure.

Do not work on equipment while it is being operated.



T74168

When the engine is running, do not work on equipment unless the procedure is approved.

If you must work on the machine with the engine running, **ALWAYS USE TWO** service technicians. One must be at the controls. The other must be within sight of the operator.

Keep hands away from moving parts.

Put a support under all raised equipment.

Do not work under a raised bowl.

Lower the bowl to the ground.

If the machine is on a slope, use blocks to hold it in place.

Do not lift heavy parts by yourself. Use a hoist.

TAKE CARE! WATCH OUT FOR OTHER PEOPLE IN THE AREA.

When you drill, grind, or hammer metal, wear safety glasses.

BE CAREFUL DURING SERVICE AND REPAIR



Keep ALL equipment free of dirt and oil.

Clean oil, grease, mud, ice or snow from the operator's station, steps and hand rail.

When you get a machine ready for storage, remember that inhibitor changes easily into gas and is dangerous. After you add the inhibitor, seal and tape openings. When you are not using the inhibitor, keep the can tightly closed.

Do not remove the radiator cap unless the engine is cool. First, loosen the cap slowly to the stop. Then release all pressure in the cooling system before you remove the cap.

Check the exhaust system regularly for leaks.

Release hydraulic pressure before you work on the hydraulic system:

- Lower the bowl to the ground.
- Stop the engine.
- Move the steering wheel until the bowl does not move.

When you check hydraulic pressure, be sure to use the correct test gauge.

Before you work on the fuel system, close the fuel shutoff valve.

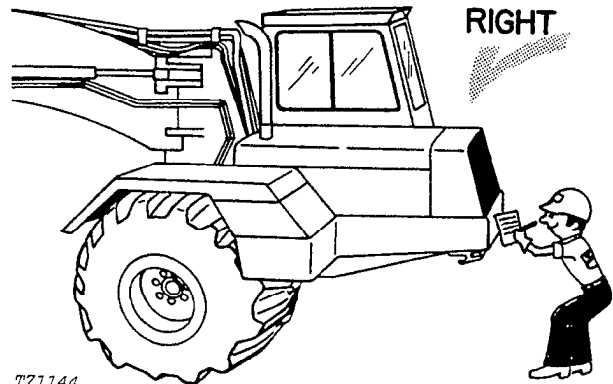
Before you work on the electrical system, or make major repairs, disconnect the battery ground strap.

KNOW EQUIPMENT IS READY!

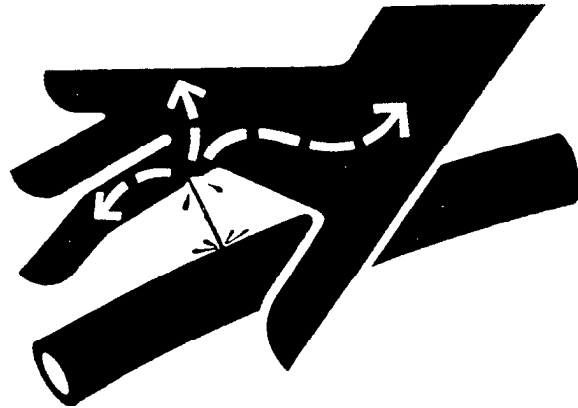
All parts should be in good condition and fastened in place.

CHECK IT OUT!

- ROLL-OVER PROTECTIVE STRUCTURE
- SEAT BELT, ETC.



Carefully inspect all systems for leaks.



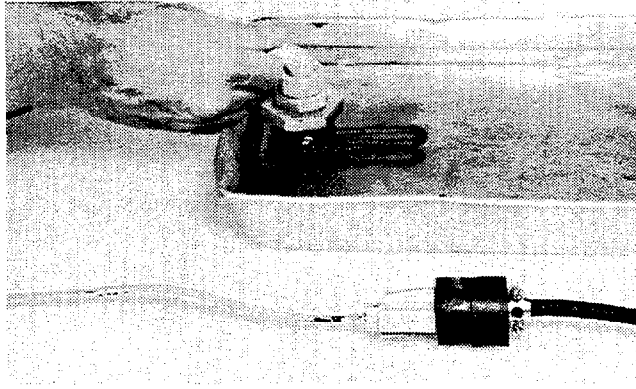
Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

If ANY fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type injury or gangrene may result.

Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear and will move if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral, direction selector lever in neutral, and park brake applied.

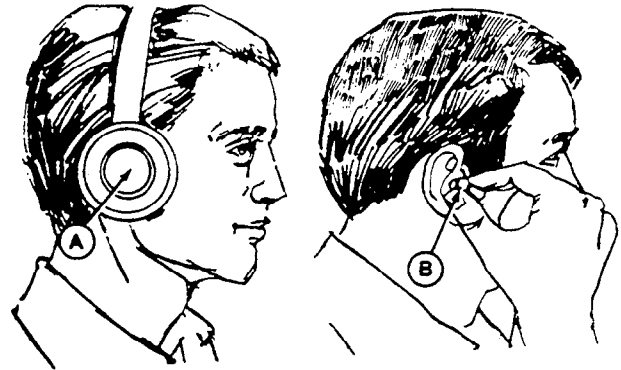


T87098

Test coolant heater in liquid only.

Use a heavy-duty grounded cord to connect coolant heater to electrical power.

Do not plug into electrical power unless heating element is immersed in coolant. Sheath could burst and result in personal injury.



X7662

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs (A) or earplugs (B) to protect against objectionable or uncomfortable loud noise.

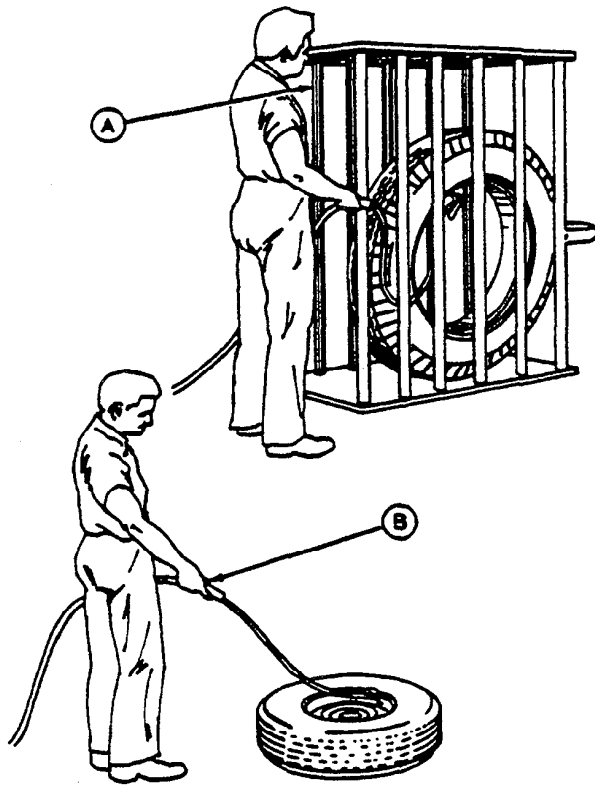
If your machine is equipped with a starting fluid starting aid, remember starting fluid is highly flammable. DO NOT incinerate or puncture a starting fluid container. DO NOT store a starting fluid container in a high-temperature area.



T84925

If your machine has a roll-over protective structure, USE A SEAT BELT.

If your machine does not have a roll-over protective structure, DO NOT USE A SEAT BELT.



Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

Detailed tire mounting instructions, including necessary safety precautions, are contained in John Deere Fundamentals of Service (FOS) Manual 55, Tires and Tracks, available through your John Deere dealer. Such information is also available from the Rubber Manufacturers Association and from tire manufacturers.

A—Use a Safety Cage if Available.
B—DO NOT Stand Over Tire. Use a Clip-On Chuck and Extension Hose.

TS0123

Group III GENERAL SPECIFICATIONS

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with 23.5-25, 16 ply rating tires, ROPS canopy, full fuel tank, 175 lb. (80 kg) operator, and all standard equipment.)

Capacity (SAE heaped):

Volume 11 cu. yd. (8.4 m³)
Total weight of payload
2500 lb./yd.³ (1483 kg/m³) 27,500 lb. (12 474 kg)

Power (@ 2100 engine rpm): **SAE** **DIN**
Gross 190 hp (141.7 kW)
Net 175 hp (130.5 kW) 177.5 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. Gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500 ft. altitude and 85°F temperature and DIN 70 020 standard conditions of 760 mm Hg barometer (sea level) and 20°C temperature. Engine maintains rated horsepower up to 7500 feet (2286 m) altitude.

Engine: John Deere turbocharged and intercooled diesel, 6-cylinder, 4-stroke cycle

Bore and stroke 4.56x4.75 in. (116x121 mm)
Piston displacement 466 cu. in. (7.6 L)
Compression ratio 15.5 to 1
Maximum torque @

1300 rpm 570 lb-ft (773 N·m) (78.8 kg-m)
NACC or AMA (U.S. Tax) horsepower 49.9
Main bearings 7
Lubrication Pressure system w/full-flow filter
Cooling Pressurized w/thermostat and controlled bypass

Fan Suction
Aspirated air cleaner w/safety element and restriction indicator Dry
Electrical system 24 volt w/alternator
Batteries (two 12 volt) Reserve capacity: 180 minutes

Torque Converter:

Two-phase single stage with 2.30 to 1 multiplication ratio, free-wheeling stator lockup clutch and automatic control.

Transmission:

Planetary Power-Shift, 6 forward, 1 reverse speeds. Microprocessor controlled, fully automatic shift with modulation.

Gear pump 24 gpm (1.5 L/s) @ 2100 rpm for transmission lubrication, torque converter charge and transmission shift actuation.

Differential Lock Foot-operated, hydraulically actuated

Drive Axle .. Differential drive; overall ratio 28.94 to 1; planetary final drives with 4.7 gpm (0.30 L/s) @ 2100 engine rpm for axle lubrication and differential lock actuation.

Brakes: Hydraulic, power actuated. An accumulator provides several brake applications after engine is stopped.

Tractor Wet-disk between differential and planetaries. No adjustment needed.

Scraper... Expanding shoe, self-adjusting in wheels.

Parking Manually controlled, mechanical, on axle input shaft.

Power Steering: Position-responsive

Articulated frame hydraulically actuated by dual cylinders.

Turning circle

(180 deg. turn) 30 ft. (9.14 m)

Articulation 180 deg.

Tractor Oscillation (total) 27 deg.

Hydraulic System:

Main tractor system: Closed-center

System pressure 2350 psi (16 203 kPa)
(165.2 kg/cm²)

Operates steering, brakes, and all scraper functions except elevator drive.

Main pump... Variable displacement, constant pressure; delivers 34.6 gpm (2.18 L/s) @ 2100 engine rpm.

Main charge pump delivers 13 gpm (0.82 L/s) @ 2100 engine rpm.

Elevator system... Engine-driven, 4.26 cu. in. (69.8 cm³) variable displacement, reversible hydrostatic pump delivers 36.6 gpm (2.31 L/s) @ 2100 engine rpm.

System pressure 5000 psi (34 475 kPa)
(351 kg/cm²)

Filtration All systems are protected by replaceable filters.
 Main hydraulic system 10 micron filters
 Elevator system 10 micron filters
 Transmission 10 micron filters
 Engine 25 micron filters
 Differential 10 micron filters

Hydraulic Cylinders: Bore Stroke
 Lift (2) 4.5 in. (114 mm) 18 in. (457 mm)
 Sliding floor
 (1) 5.25 in. (133 mm) 30.1 in. (765 mm)
 Ejector gate
 (2) 2.5 in. (64 mm) 34.8 in. (884 mm)
 Steering (2) 3.5 in. (89 mm) 25.89 in. (658 mm)
 Piston rods Ground, heat-treated, chrome plated, polished
 Lift and steering cylinders 2 in. (51 mm)
 Sliding floor cylinder 2.25 in. (57 mm)
 Ejector gate cylinders 1.50 in. (38 mm)

Elevator: . . . Reversible, hydrostatic-drive with triple gear reduction
 Number of flights 18
 Spacing of flights 12.44 in. (316 mm)
 Width of flights 5 ft. 6.9 in. (1.7 m)
 Speed (variable) 50 to 236 fpm (15-72 m/min)
 Length (top to bottom) 9 ft. 6 in. (2.9 m)

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

Cutting Edge: . . . 7 ft. 6 in. (2.29 m) wide; 3 sections, reversible and replaceable, high-carbon steel. Each section is adjustable vertically 2 in. (51 mm).
 Center section . . . 0.75x10x54 in. (19x254x1372 mm)
 End sections 0.75x10x18 in. (19x254x457 mm)

Tires:
 23.5-25, steel-cord radials
 23.5-25, 16 ply rating, E2
 23.5-25, 20 ply rating, E2

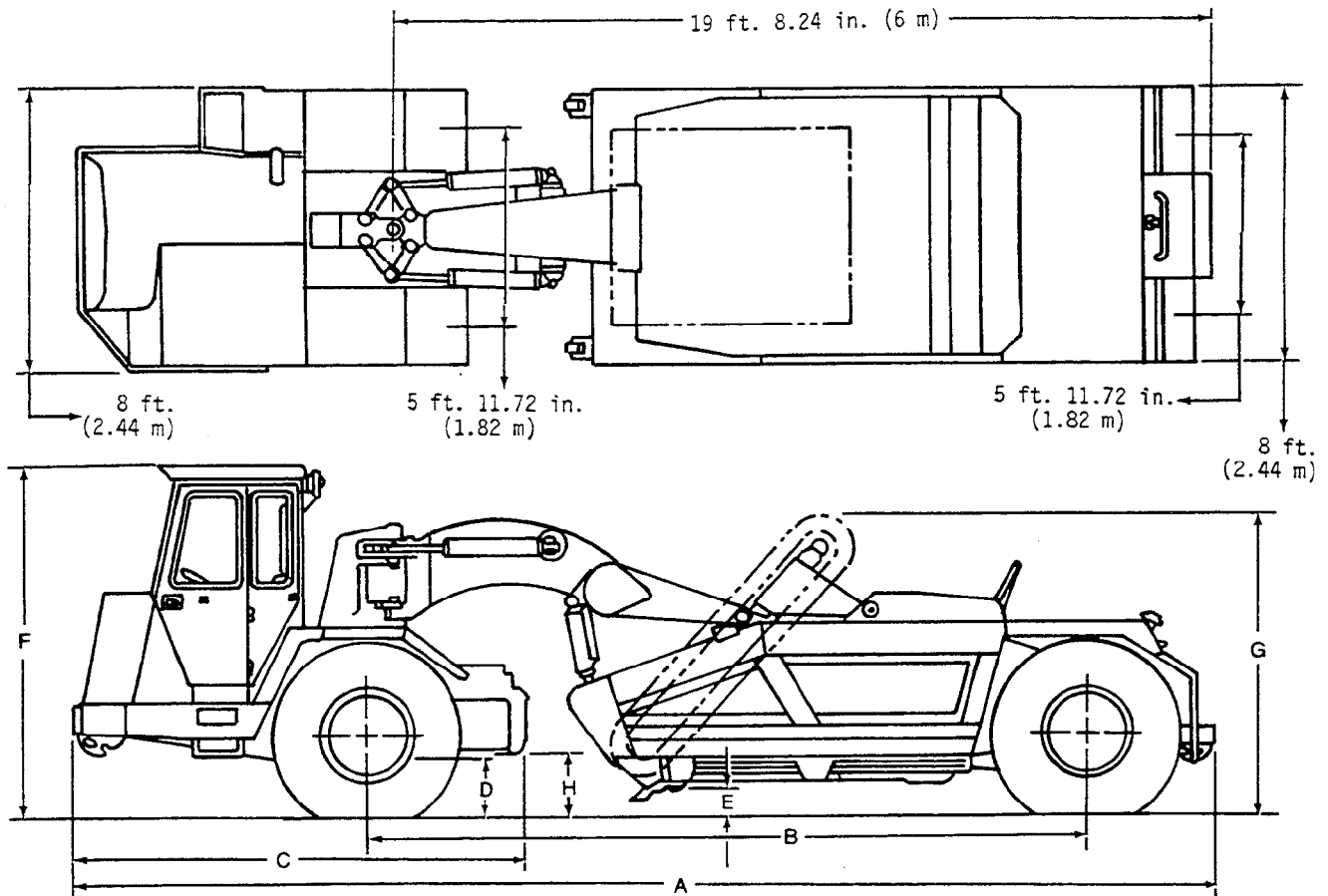
Capacities:	U.S.	Imp.	Liters
Cooling system	9 gal.	7.5 gal.	34.1
Fuel tank	72 gal.	60.0 gal.	272.5
Engine lubrication w/filter	19 qt.	15.8 qt.	18.0
Transmission w/filter . . .	13 gal.	10.8 gal.	49.0
Differential case w/filter and hoses	23 qt.	19.1 qt.	21.8
Hyd. system w/hyd. filter and elevator filter	12 gal.	10.0 gal.	45.4
Elevator gearcase	13 qt.	10.8 qt.	12.6

Additional Standard Equipment:
 Cigar lighter Elevator charge pressure
 Deluxe suspension seat Hitch, steering and rear
 Cold weather starting aid frame central lube
 Fenders (tractor and systems
 scraper) Horn
 Gauges: Horizontal muffler
 Voltmeter Indicator warning lights:
 Engine oil pressure Brake pressure
 Engine water temperature Hydraulic filter
 Fuel Parking brake light
 Hour meter and buzzer
 Hydrostatic charge Transmission filter
 pressure Lights (head and work)
 Speedometer Reverse warning alarm
 Tachometer ROPS canopy and seat
 Transmission lube belt
 pressure
 Transmission oil
 pressure
 Transmission oil
 temperature
 Vandal protection

Weight Distribution:	lb.	kg
Empty: Drive axle	22,790	10 337
Scraper axle	12,710	5 765
Total	35,500	16 102
Loaded: Drive axle	32,083	14 553
Scraper axle	30,917	14 024
Total	63,000	28 577

Special Equipment:
 Air conditioner
 Cab panels
 Fender extensions and mud flaps for scraper wheels
 Heater
 Teeth for cutting edge
 Extended side cutters
 Ejector gate spill screen

762A SCRAPER DIMENSIONS



T74954

	BOWL AT GROUND LEVEL	BOWL UP	BOWL LEVEL
A	32 ft. 9.5 in. (10 m)	32 ft. 2.5 in. (9.81 m)	32 ft. 5.4 in. (9.9 m)
B	21 ft. 0.25 in. (6.40 m)	20 ft. 4.1 in. (6.20 m)	20 ft. 7 in. (6.25 m)
C	12 ft. 11.5 in. (3.95 m)	13 ft. (3.96 m)	12 ft. 11.9 in. (3.96 m)
D (axle clearance)	18.5 in. (470 mm)	18.5 in. (470 mm)	18.5 in. (470 mm)
E	—	17.25 in. (438 mm) w/o teeth 15.50 in. (394 mm) w/teeth	12 in. (305 mm) w/o teeth 10 in. (254 mm) w/teeth
F	9 ft. 10 in. (3 m)	9 ft. 4 in. (2.84 m)	9 ft. 6.4 in. (2.90 m)
G	8 ft. 7 in. (2.62 m)	9 ft. 6 in. (2.89 m)	9 ft. 2 in. (2.79 m)
H (trans. clearance)	17.12 in. (435 mm)	21.9 in. (556 mm)	20 in. (508 mm)



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