

Sweep System - Power

Engine

Make John Deere Diesel Model 4024
Type In-line, 4 cylinder
Displacement 149 CID (2.4 L)
Bore 3.39 in (86 mm)
Stroke 4.13 in (105 mm)
Compression ratio 18:1
Horsepower 49 HP (37 kW) governed @ 2,800 RPM
Torque 127 ft-lbs (172 Nm) @ 1,680 RPM
Fuel tank capacity Common 50 gal (190 L)

Standard Accessories

Full flow oil filter, mechanical governor, heavy-duty dual dry type air cleaner with safety element pre-cleaner, fuel filter, fuel/water separator, coolant recovery, glow plug cold weather start aid

Instrumentation

Gauges for- Tachometer/hour meter, oil pressure, engine water temperature, and charging system
 Control console warning lights for full load, Engine oil system, aux. engine running, hydraulic oil filter restriction, hopper up, machine level, low spray water, air filter, high aux. engine water temperature.

Sweep System - Components

General Specifications

Sweeping path:

- Main broom only**
60 in (1524 mm)
- Main broom and one side broom**
90 in (2286 mm)
- Main broom and two side brooms**
120 in (3048 mm)

Main Broom

Diameter 35 in (889 mm) **Length** 60 in (1524 mm)
Type Prefab. disposable, polypropylene filled
Core diameter 8.5 in (216 mm)
Digging pressure & wear control
 Pneumatic, in-cab
Lift control Pneumatic, in-cab
Drive Hydraulic motor/direct drive
Mounting Full floating, trailing arm, with shocks
Speed Variable with auxiliary engine RPM
Bearings Sealed, self-aligning, re-lube
Pressure gauge In-cab

Gutter Broom

Type 5 segment nylon disposable with wire fill
Diameter 42 in (1067 mm)
Disc construction Steel plate
Speed Variable with auxiliary engine RPM
Flexibility Spring biased sideways oscillation
Drive Direct hydraulic, reversible, from cab
Mounting Free floating, trailing arm
Adjustment Inward, outward/forward, backward
Digging pressure/wear control
 Pneumatic, from cab
Lift control Pneumatic lift with hydraulic extend
Broom material 26 in (660 mm) wire

Conveyor

Type Belt with molded-in rubber cleats
Material (belt) Rubber reinforced fabric
Speed Variable with auxiliary engine RPM
Flexibility 9 in (229 mm) oscillation for large object passage
Drive Reversible, direct drive hydraulic motor
Lift control Pneumatic
Bearings Sealed, self-aligning, re-lube

Debris Hopper—Series F

Capacity volumetric 4.5 cu. yd. (3.5 cu. m)
Material volume 3.3 cu. yd. (2.5 cu. m)
Hopper lift and dump control Hydraulic in-cab
Inspection Door With access step
Maximum dump height
 (bottom of discharge door) 10 ft 2 in (3100 mm)
Minimum dump height
 (bottom of discharge door) 38 in (965mm)
Maximum hopper dump angle 50°
Time to reach maximum dump height 20 sec
Time to tilt hopper 13 sec
Maximum time for full height lift, dump, and lower cycle 70 sec
Design lift capacity 11,000 lbs (5,000 kg)
Lifting method Twin cylinder, two stage scissors
Right side dumping Standard

Electrical System

Sweeper wires color coded and labeled with circuit identification every four inches; connectors plated and polarized. 12V negative ground with minimum 130 amp truck alternator and 120 amp sweeper alternator. All circuits protected by circuit breakers and/or fuses. 1000 CCA auxiliary engine battery.

Pneumatic System

Compressor Chassis engine mounted
Air dryer Heated desiccant type

Hydraulic System

Pump Three section gear drive with dual inlet
Capacity 26 GPM (98 LPM) @ 2500 RPM
Fittings 'O' ring seal type
Reservoir capacity 21 gal (79 L)
Reservoir level Externally readable
Inlet strainer 100 mesh
Filter, return 10 micron, full flow with bypass
Filter restriction indicator In-cab
Breather 10 micron, spin-on

Water Spray System

Tank construction Polyethylene, removable
Tank capacity 280 gal (1060 L)
Fill hose Anti-siphon, 16 ft 8 in (5080 mm) with strainer and 2.5 in (64 mm) NST coupling
Wash down Lower conveyor
Conveyor flusher Built-in cascade-type
Pump Centrifugal, 5 GPM @ 40 psi (19 LPM @2.8 bar)
Spray nozzles 3 per gutter broom, 3 for main broom
Controls On/off, volume in-cab
Filter Non-corrosive housing, 100 mesh screen

Available Enhancements

Extended Warranty on sweeper	Automatic lubrication system
Strobe light	Engine shutdown temperature/pressure
Rotating beacon	Lifeline® Hopper
Light protector for beacon or strobe	Lining
Fire extinguisher	Left side dumping
Rear compartment cover	Silicone hoses on auxiliary engine
Carbide dirt shoes	Left side broom
Front spray bar	Extended side broom reach
Arrowboard	
In-cab side broom tilt	

Paint

Powder Coat:
 Undercarriage in standard Elgin gray
 Body in choice of 99 colors
 Consult factory for color chart

Chassis

Contact your Elgin dealer for detailed specifications.

Warranty

Sweeper	Chassis & Aux. Engine
1 year parts and labor	Consult factory

Your Elgin Dealer is:



Elgin Sweeper Company
 1300 W. Bartlett Rd.
 Elgin, Illinois, U.S.A. 60120-7529
 847-741-5370 Phone
 847-742-3035 Fax
www.elginsweeper.com