

Whirlwind®

SINGLE-ENGINE 4 WHEEL VACUUM SWEEPER

Searching for a solution that eliminates maintaining and servicing an auxiliary engine on a vacuum sweeper? Elgin® Sweeper Company has the answer. The Whirlwind1 eliminates all things associated with a diesel auxiliary engine, providing value to customers that extends beyond having one less engine. Elgin Sweeper single-engine technology has undergone years of customer focused testing and validation; ensuring a design that exceeds expectations!

ELIMINATES:

- Maintaining two engines
- Complex aftertreatment system, and maintenance
- Untimely auxiliary engine regenerations
- Cost exposure resulting from “missed” auxiliary engine regenerations
- Cumbersome belt tensioning systems
- Auxiliary engine noise and vibration

CUSTOMER FEEDBACK:

- Increases productivity
- Easy to use and learn; single push-button on-the-fly operation
- Quiet operation
- Reduces daily checks

EXHAUSTIVELY PROVEN OVER:

Years of testing and validation, with thousands of miles and hours in operation, and customers market driven feedback to ensure a design that exceeds expectations.



ELGIN
Subsidiary of Federal Signal Corporation

SWEEP SYSTEM - SINGLE-ENGINE

VARIABLE SPEED DEVICE (VSD)

Replaces auxiliary engine; installed between the chassis engine and the Allison transmission

"Road Mode" VSD produces 1:1 speed ratio between chassis and transmission

"Work Mode" VSD allows chassis accelerator pedal to control input to transmission and engine speed remains constant - fan speed is adjustable

- Singular in-cab push button control
- No parking brake requirement
- No complex EPA off-highway aftertreatment system

SINGLE-ENGINE SYSTEM

Make Variable Speed Device
Type Planetary Gearbox Design
Horsepower 240 (179 kW) approved input rating
Torque 560 ft-lb approved input rating
Air Cleaner Dual safety element dry type
Alarm For low hyd. oil / high hyd. temp

CHASSIS ENGINE

Make Cummins ISB 6.7 or equivalent
Type in-Line 6 cylinder, turbocharged diesel
Displacement 409 cu. In. (6.7 L)
Horsepower 200 (150 kW) @ 2400 RPM
Torque 520 ft-lbs (708 Nm) @ 1600 RPM
Fuel Tank Capacity 50 gal (189 L)

ELECTRICAL SYSTEM

Chassis Battery Rating 12 volt
Sweeper Battery Rating 1000CCA
Chassis Engine Alternator 160 amperes
Lights Side broom, rear clearance, rear identification
Reversing Safety Electric back-up alarm, sweep components raise automatically
Wiring Harnesses Color coded, function stamped and labeled every 4 in (100 mm)
INSTRUMENTATION / CONTROLS
Rocker switches in central console gauges:
 Blower tachometer, hour meter, fuel, voltmeter, coolant temperature, spray water level gauge, hopper up, hopper rear door open, full load indicator
Memory Sweep Sweep resume feature
VSD Mounted Oil Level Sight Gauge

SWEEP SYSTEM - COMPONENTS

GENERAL SPECIFICATIONS

SWEEPING PATH

(with 36 in side broom):

Suction nozzle only 32 in. (813 mm)

Suction nozzle & one side broom 53 in. (1346 mm)

Suction nozzle & extension broom 85 in. (2159 mm)

Suction nozzle, extension, & one side broom 106 in. (2692 mm)

Dual suction nozzles, side brooms & extension broom 144 in. (3658 mm)

BLOWER

Drive Direct Jaw-type coupling with hydraulic 2.87 cu-in (47 cc displacement bent axis motor)

Blower Construction Hardox brand steel

Blower Housing 10 gauge (3.4 mm) steel, rubber-lined for extended wear

VACUUM NOZZLE AND HOSES

Nozzle Width 32 in (813 mm)

Pickup Area 174 in² (1119 cm²)

Construction Abrasion resistant steel components

Hose Connection Quick disconnect type at lower area near vacuum nozzle

Hose Construction Flexible rubber, steel reinforced

Hose 11 in (280 mm) inside diameter

SIDE BROOM

Diameter

28 in (711 mm) WB Chassis Specific

36 in (914 mm) WB Chassis Specific

Construction Steel plate

Speed Constant

Drive Hydraulic motor, protected by relief valve

Mounting Free floating trailing arm

Motion Pneumatically inward/outward, raised/lowered

Tilt Adjustment Inward/outward, forward/backward

Digging Pressure/Wear Control Pneumatic in cab

Type Segment set disposable

Material Tempered steel wire

EXTENSION BROOM

Diameter 16 in (406 mm)

Length 60 in (1524 mm)

Speed Constant

Drive Hydraulic motor, protected by relief valve

Digging Pressure/Wear Control Pneumatic outside cab

Lift Control Pneumatic from control panel

Type Polypropylene prefab, disposable
 Location Center of sweeper

DEBRIS HOPPER

Volumetric Capacity 8.0 yd³ (6.0 m³)

Floor Angle 10°

Dump Angle 50°

Construction 10 gauge (3.4 mm) steel sides and top, 1/4" gauge (6.4 mm) steel floor

Lifting Double acting hydraulic cylinder

Hopper Dump Door Hydraulic open/close and lock/unlock

Full Load Indicator Weight actuated with in-cab warning light

Hopper Screens Hinged, quick release, steel

Safety Prop Steel bar under body and outside rear door

Hopper Dumping Controls

Push button on right side of unit

In-Cab Dumping Controls Standard

AVAILABLE ENHANCEMENTS

- Front spray bar
- Aux. lighting packages
- In-cab side broom tilt
- Variable broom speed
- Auxiliary hydraulic system
- Wandering hose 8 in (203 mm) diameter
- Auto lubrication system
- LifeLiner® Hopper System
- Stainless steel hopper
- Hopper inspection door(s)
- Hopper drain
- Hopper deluge washout system
- Auto-shutter
- High/low pressure washdown
- Auxiliary water tank capacities
- PM-10 water system
- Quiet Pak™ acoustical insulation on front cowling and access doors
- Extended warranty

PAINT

Powder Coated, Standard Elgin white and gray

CHASSIS

Available on commercial cab-over and conventional, consult factory

WARRANTY

Sweeper
 1 year parts and labor
VSD
 3 year parts and labor

Your Elgin Dealer is:



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