

ELGIN®

Subsidiary of Federal Signal Corporation

Broom Bear®



ELGIN BROOM BEAR[®]

POWERFUL, PROVEN, SINGLE ENGINE MECHANICAL SWEEPER

When contractors and municipalities need a durable sweeper that's easy and comfortable to operate, the Elgin Broom Bear is the sweeper of choice. From heavy duty construction debris, like millings or gravel, as well as light street maintenance, the Broom Bear has proven to be one of the most rugged and efficient sweepers in the industry. And the short wheelbase enhances maneuverability and makes the sweeper ideal for sweeping in tight cul-de-sacs.

Mounted on a commercially available Conventional and Autocar Cab-Over chassis with fully dualized controls and an intelligent single engine design that utilizes the chassis engine to power the sweeper, the Broom Bear features a large hopper and water tank, which means more productive sweeping time and fewer scheduled stops. A variable dumping height and 11 inch (279 mm) of hopper side-shift ensures easy dumping.



APPLICATION SOLUTIONS

Elgin Sweeper doesn't offer just one sweeping technology — we take an application-based approach to solving our customers' sweeping needs. Our team works with each customer to ensure that you get a machine that fits your specifications, with the right truck, engine configuration, fuel requirements, and options.

POWERFUL SUPPORT

Elgin sweepers are built for clean, backed for life. Throughout the life of the sweeper, we offer training to your team on proper use and maintenance. We have a world-wide network of experienced dealers with factory trained technicians and a local stock of OEM parts and accessories to ensure total customer peace of mind.

UNMATCHED QUALITY

The Broom Bear became part of the Elgin lineup 15 years ago and has been continuously improved. Manufactured in an ISO:9001 certified plant, Elgin Sweepers are quality inspected and functionally tested prior to shipment. Paint prior to assembly ensures uniform, durable coverage. Broom Bears are proudly assembled in the U.S.A.



HIGH PRODUCTIVITY SWEEP SYSTEM

- High torque diesel engine is teamed with Freightliner® M2, International® Durastar®, or Autocar® Xpert® chassis to create one of the most powerful and reliable single engine packages in the industry.
- The control console, located between the operator stations, provides quick, easy access. All sweep function switches have tactile-feel surfaces, so operators can work the panel while keeping their eyes focused forward, for increased productivity and safe operation.
- Dual free-floating gutter brooms that adjust to variable road surfaces, a sweep path of 120 inches (3,048 mm) with an additional extension of up to 144 inches (3,657 mm) when both brooms are pinned to outer points, and a powerful free floating direct drive main broom, ensure reliable and complete pickup of debris.
- Superior dust control is maintained with in-cab zone controlled, dual diaphragm water pumps and a 360 gallon (1,363 L) water tank for long sweep times between refills.
- The 4.5 cubic yard (3.4 cu meter) hopper features a double-scissor lifting mechanism that is center mounted for greater stability and trouble free operation. Dumping height is variable up to 11 feet, 2 inches (3,404 mm) and an 11 inch (279 mm) side shift enables a cleaner more efficient unloading of material. Optional 5.4 cubic yard (4.1 cu meter) hopper available.
- The chassis cab is dualized with OEM parts, including full factory controls, steering, and OEM gauge package that is identical for both left and right operator stations.



EASY TO OPERATE. EASY TO MAINTAIN. BUILT TO LAST.



MAIN BROOM

The main broom is attached to a fully floating trailing arm to better conform to road contours. Performance is optimized using mechanical main broom suspension that dynamically adjusts to various road conditions while on-the-go. Lift and lower functions are controlled from the cab. Main broom arm bearings are sealed, can be re-lubricated and are self-aligning for self-adjustment when experiencing an uneven load which decreases wear and increases main broom life.

SIDE BROOMS

46 inch (1,168 mm) trailing arm, free-floating side brooms offer four-way motion and protection against damaging impacts. Pneumatic lift and extension control enhances performance while sweeping within a 10 foot (3,048 mm) wide path. Steel plate disc construction adds durability. Broom speed is controlled by hydraulic motors. Broom speed is constant and matched to the conveyor speed for optimal loading performance. Automatic settings control down-pressure, digging-pressure and wear-control. In-cab side broom pressure gauges and down-pressure control are standard.



SQUEEGEE TYPE CONVEYOR

A steel roller chain drives an 11-flight, squeegee-type conveyor to load debris into the hopper. The chain operates on polyurethane sprockets, which last longer. Conveyor speed is constant and matched to the broom speed for optimal loading performance. Conveyor operating height can be raised from the cab up to 3 inches (76 mm) to avoid larger debris and other obstacles. Conveyor bearings are sealed and self aligning for longer life.

HYDRAULIC SYSTEM

The Broom Bear features a 23 gallon (87 L) reservoir with an external level indicator and thermometer. The system includes twin pumps that are direct driven variable displacement piston type with load sensing to adjust flow based on hydraulic oil demand in sweeping gear to maximize efficiency and reduce heat.

SIMPLE, EASY-ACCESS MAINTENANCE

The Broom Bear was designed so that systems are accessible and easy to service. The hydraulic system with o-ring face seal fittings is designed for long life and leak-free operation. Heavy-duty waterproof electrical connectors and color-coded wires have stamped identification for quick location during troubleshooting. A stainless steel toolbox provides additional storage.

COMMERCIAL CHASSIS/SINGLE ENGINE

A high torque diesel engine is teamed with a Freightliner Business Class, International Durastar, or Autocar Xpert chassis to create one of the most powerful and reliable single engine packages in the industry. The straight forward, single engine layout provides greater fuel efficiency and simple maintenance.

POWER TRAIN

An Allison 3,500 RDS transmission, a 10,000 lb (4,536 kg) front axle and a 23,000 lb (10,433 kg) twin air spring suspension 2-speed rear axle complement the powerful single engine and provide the operator with hours of comfortable ride.

SUPERIOR MECHANICAL SWEEPER DESIGN

LARGE VARIABLE HEIGHT DEBRIS HOPPER

The Broom Bear features a variable-height, right side dump hopper with a capacity of 4.5 cubic yard (3.4 cu meters) volumetric. All hopper lift and dump controls are hydraulic and easily operated from in-cab console mounted controls. A 50 degree dump angle allows material to easily slide out.

A unitized, twin-cylinder, double scissors lift rated at 11,000 lbs (4,990 kg) unloads material at a minimum of 38 inches (965 mm) and a maximum of 11 feet, 2 inches (3,404 mm). Payload capacity is 10,000 lbs (4,536 kg) per load. An 11 inch (279 mm) side shift allows material to be unloaded into the center of a truck or container for cleaner dumping. A full hopper can dump and retract in 20 seconds for short intervals and up to 70 seconds at top height.



SUPERIOR DUST SUPPRESSION

A 360 gallon (1,363 L) removable water tank is made of corrosion resistant polyethylene. A 16 foot, 8 inch long (5.1 m) fill hose and water level indicator light located on the control console are standard. Water flow for the side and main brooms is in-cab zone controlled. The self-priming diaphragm pumps (run dry type, 40 psi) provide effective dust control. Three spray nozzles are positioned on each side broom and three on the main broom. Dual water pumps are standard.

MEMORY SWEEP®

Elgin's exclusive Memory Sweep feature allows the operator to resume all previous sweeper settings, even broom tilt if so equipped, with one touch control. This feature enhances operator productivity and reduces operator fatigue. Memory Sweep incorporates a multiscreen display that indicates engine hours and water tank level as well as system diagnostics. This screen also displays optional features such as broom tilt angle and broom hours.



UNIQUE APPLICATION VERSATILITY

*PATENTED CONVEYOR FLEXIBILITY

The Broom Bear comes standard with a squeegee type conveyor designed to provide versatile and reliable performance in a wide range of applications including aggregate and granular material pick up of gravel and millings, ideal for road construction contractors as well as general municipal sweeping, trash, leaves, and other organics.

The Broom Bear is also available with a belt conveyor for applications such as highway sweeping and general municipal sweeping where large debris is encountered.

THE ELGIN SQUEEGEE CONVEYOR

- Chain side-plate constructed from hardened steel for long life and smooth operation.
- Three-piece design for easy service without removing complete assembly.
- Thick, multi-ply rubber-edged flights provides efficient movement of debris into the hopper.
- Unique, interlocking, wavy-plate joint design prevents excessive wear and “thumping” over plate seams.
- Abrasion-resistant steel floor for durability.
- Direct-drive hydraulic motor for optimal power transfer to the conveyor system.

THE ELGIN BELT CONVEYOR

- Standard Chevron Belt.
- Full-width angled cleats move more material quickly to hopper for maximum productivity.
- Direct-drive hydraulic motor for optimal power transfer to the conveyor system.
- Improved hopper fill by throwing debris towards center of hopper.
- Heavy-duty poly/nylon belt construction resists stretching and requires fewer adjustments.
- Ribs between cleats enhance effectiveness of moving fine debris into the hopper.

The Broom Bear conveyors are designed to be interchangeable should a customer have different applications throughout the sweep season.



LOW EMISSIONS – ALTERNATIVE FUEL OPTION

The Elgin Broom Bear is available in a compressed natural gas (CNG) configuration. The Broom Bear single-engine mechanical sweeper is powered by the Cummins Westport ISL G natural gas engine, making it a fully certified EPA/CARB emission compliant street sweeper. Three 3,600 psi composite fuel tanks are conveniently packaged in the rear compartment minimizing impact to chassis wheelbase. The Broom Bear has a generous 51 diesel gallon equivalent fuel capacity - providing ample sweeping range.



OPTIONAL ENHANCEMENTS



LIFELINER® HOPPER SYSTEM

The LifeLiner® hopper system is a specially designed hopper liner and finish system that greatly improves the life, durability, and functionality of a sweeper hopper.



IN-CAB SIDE BROOM TILT AND EXTENDED REACH

Allows operator to sweep effectively in variably-pitched gutters. On-the-go pitch adjustment with a simple variable rocker switch that displays proper broom angle. Extended reach allows the side broom to follow curbs and tight cul-de-sacs.



LIGHTING PACKAGES

The Broom Bear Sweeper can be equipped with a variety of optional lighting packages. Lighting packages are designed for flexibility based on customer requirements and can include strobes, beacons and arrow sticks.

ADDITIONAL OPTIONS:

- Outside cab, side broom down pressure control
- In-cab, side broom speed control
- 5.4 cubic yard hopper (4.1 cu meter)
- Hydraulic float main broom suspension
- PM10 compliance package
- Functional water control
- Automatic lubrication system
- Front spray bar

SPECIFICATIONS:

SWEEP PATH

Main broom only:
60 in (1,524 mm)

Main broom & one side broom:
90 in (2286 mm)

Main broom and 2 side brooms:
120 in (3,048 mm) up to 144 in (3,657 mm)
with pins in outer points

HOPPER CAPACITY

Volumetric Capacity: 4.5 yd³ (3.4 m³)
Material volume: 3.3 yd³ (2.5 m³)

HOPPER DUMPING

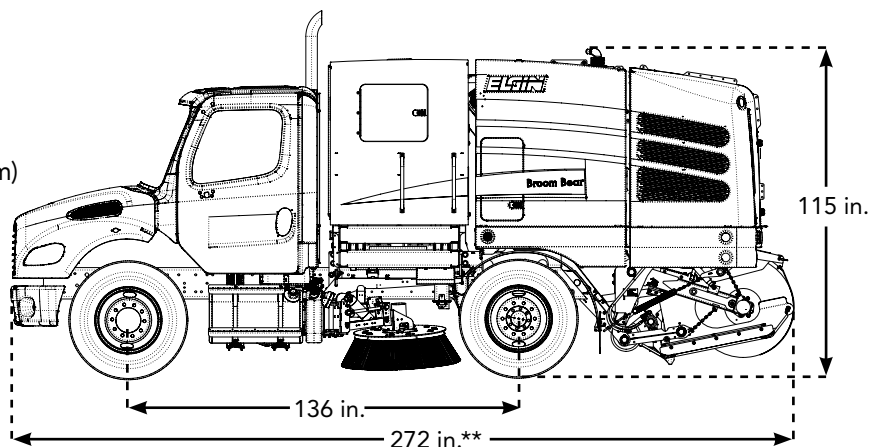
Minimum dump height: 38 in (965 mm)
Maximum dump height: 11 ft 2 in (3,404 mm)

WATER SPRAY SYSTEM

Tank capacity: 360 gal (1362 L)

CHASSIS

Conventional
Cab-Over



*Consult factory for warranty details **Transport mode

ELGIN SWEEPER IS YOUR PARTNER...

IN THE PLANNING

Instead of one-size-fits-all solutions, we'll work with you to select the sweeping technology that fits your specific needs.



IN THE STREETS

We're here to help you maintain your Elgin and train your operators to ensure the job is done right.



INTO THE FUTURE

Our dealers don't just sell you an Elgin; they're available to answer your questions and provide service for the life of the machine.



WARRANTY

Elgin Sweeper Company backs the Broom Bear sweeper with a one-year limited warranty. The Broom Bear is warranted against defects in material or workmanship for a period of 12 months from the date of delivery to the original purchaser. Optional extended warranty packages are available. Consult your Elgin dealer for complete warranty information.

Your Local Elgin Dealer Is:



elginsweeper.com

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