

# ***Broom Bear<sup>®</sup>***



**ELGIN<sup>®</sup>**  
Subsidiary of Federal Signal Corporation



## POWERFUL. PROVEN. SINGLE-ENGINE MECHANICAL SWEEPER.

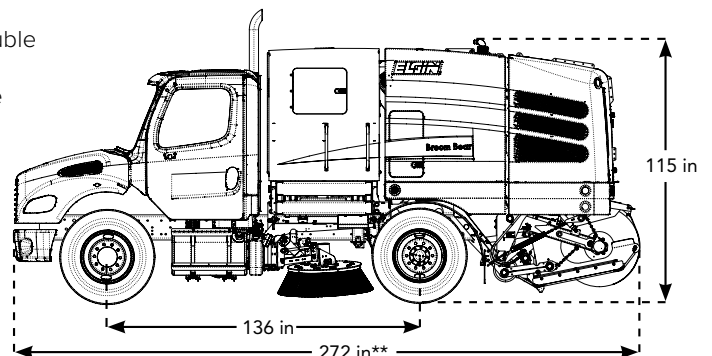
When contractors and municipalities need a durable sweeper that's easy and comfortable to operate, the Elgin Broom Bear is the sweeper of choice. From heavy duty construction debris, like millings or gravel to light street maintenance, the Broom Bear has proven to be one of the most rugged and efficient 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 or 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 sideshift ensures easy dumping.





## SINGLE-ENGINE, 4-WHEEL MECHANICAL SWEEPER

- High torque diesel engine is teamed with Freightliner® M2, International® Durastar®, Peterbilt® 537, 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.



# INNOVATIONS **AT WORK**

A closer look at the Elgin Broom Bear reveals innovative design features, systems, and components that not only simplify operation and improve performance but also make maintenance and servicing faster and easier. The result is the optimal efficiency of your operations, as you reduce maintenance requirements and downtime. The Broom Bear brings you an array of innovative systems including:



## Commercial Chassis Engine

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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.



## Low Emissions - Alternative Fuel Option

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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 ISL G CNG engine, making it a fully certified EPA/CARB emission compliant street sweeper. Two 3,600 psi composite fuel tanks are conveniently packaged in the rear compartment minimizing impact to chassis wheelbase. This unit is also available in a Hybrid electric.



## Memory Sweep

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Elgin's exclusive Memory Sweep feature allows the operator to resume ALL previous sweeper settings with one-touch control to increase productivity. The feature provides a multi-screen display for tilt angle, broom hours, water level, and diagnostic information.



## Pause Sweep

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To further improve both fuel efficiency and sweep component life, the sweep system can automatically pause when the sweeper is not sweeping and re-engages immediately upon vehicle movement without leaving any material behind.

# BUILT TO LAST

## Large, Variable Dump Height Hopper

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The hopper has a capacity of 4.5 cubic yards (3.4 m<sup>3</sup>) and a variable dump height between 38" and 11'-2". The double scissor hoist provides a payload of 11,000 lbs (4,990 kg) and incorporates an 11" (279 mm) side shift and a 50 degree dump angle to deposit material nearer the center of the dump truck. All controls are operated from the in-cab control console.



## Main Broom

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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

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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.



## Simple, Easy-Access Maintenance

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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.



# UNIQUE APPLICATION VERSATILITY

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.



## 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 efficiently moves debris into 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 conveyor system.



## ELGIN CHEVRON BELT CONVEYOR

- Full-width angled cleats moves more material to hopper to maximize productivity.
- Direct-drive hydraulic motor for optimal power transfer to conveyor system.
- Improved hopper fill by throwing debris toward 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 hopper.

## ENHANCEMENTS



Lifeliner® hopper system



In-cab side broom tilt and extended reach



Lighting Packages

### ADDITIONAL ENHANCEMENTS

- Automatic lubrication system
- Broom camera system (rear standard)
- Front spray bar
- Carbide dirt shoes
- Large hopper (5.4 cubic yard)
- PM-10 dust suppression
- Polyurethane elevator flights
- And more



## OUR COMMITMENT TO QUALITY ONLY BEGINS WITH OUR EQUIPMENT

The Elgin Broom Bear is manufactured in an ISO 9001 certified, advanced industrial plant. We employ the latest technology to build the most reliable equipment, including high-precision laser cutters, efficient, accurate computer numerical controls (CNC), and a sophisticated powder coating system..

When you build a quality product you can back it up with a full one-year, unlimited hours warranty. Elgin also backs up your investment with superior local service and support. Our goal is to keep your machine—and your entire operation—up and running.

The Broom Bear can be customized to your unique requirements to meet local standards and regulations by means of a broad selection of configurations, options and accessories.

Through our international dealer network, we maintain a vast inventory of spare parts and offer fast shipment to any region of the world.

Altogether, the rugged, reliable Elgin Broom Bear is easy to operate, easy to maintain, and an easy choice when you are looking for quality equipment that is built to last.



### Broom Bear - Single-Engine, Mechanical Sweeper Specifications

Drive System	Electrical System	Dust Control System	Sweep System	Conveyor
<b>Make</b> M2 Cummins L9 <b>Type</b> 6 cylinder <b>Displacement</b> 8.9 L <b>Horsepower</b> 260 @ 2200 RPM <b>Torque</b> 860 lb. ft. (1,166 Nm) <b>Aspiration</b> Turbo charged <b>*Compressed Natural Gas (CNG)</b> Chassis Available	<b>Voltage</b> 12 VDC / negative ground <b>Alternator</b> 160 amp <b>Battery 2</b> Group 31, 1850 CCA <b>Circuit Protection</b> Automotive style blade fuse <b>Wiring</b> Hot stamp identified with weatherproof connectors	<b>Tank Construction</b> Polyethylene/SS <b>Tank Capacity</b> 360 gallons (1,325 L) <b>Fill Hose</b> 15' 0" (4,572 mm) with 2.5" (64 mm) NST hydrant coupling <b>Pump</b> Electric diaphragm <b>Spray Nozzles</b> 9 total: 3 main, 3 left & 3 right side brooms	<b>Sweep System Pump</b> Variable displacement <b>Capacity</b> 15.4 gpm <b>Fittings</b> O-ring face seal <b>Reservoir Capacity</b> 23 gal <b>Inlet Strainer</b> 100 mesh <b>Return Filter</b> 6 micron	<b>Type</b> Squeegee with replaceable rubber edging <b>Material</b> (elevator bottom) Bolt-in multi section abrasion resistant steel plates <b>Speed</b> Constant, forward and reverse <b>Flexibility</b> Lift independent (for large object passage)

# Broom Bear®

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### WHY BROOM BEAR?

- Single-engine technology
- Twin variable displacement hydraulic pumps for increased sweeper system efficiencies
- 4.5 cubic yard (3.4 cubic meter) hopper standard
- Variable dump height up to 11 feet 2 inch (3404 mm)
- 11 inch (279 mm) hopper side shift for maximizing dump truck/container payload distribution
- Squeegee with patented interchangeability to chevron conveyor belt system



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