



HYBRID Broom Bear[®]



**UNCOMPROMISED
PERFORMANCE
YOU CAN RELY ON**



POWERFUL. PROVEN. 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.

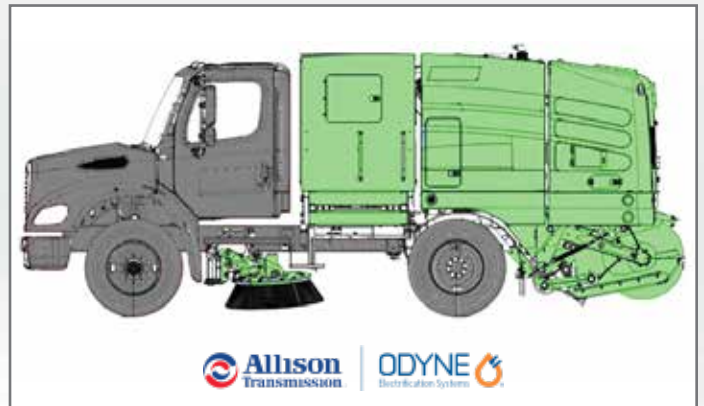


Battery System



FROM CONCEPT TO REALITY

The plug-in hybrid electric Broom Bear is another example of Elgin Sweeper's ongoing commitment to help customers reduce their carbon footprint, improve air quality, and mitigate climate change.



Why Plug-in Hybrid Electric?

- Uncompromised performance
- Always available - no range limitations
- Reduced fuel consumption
- Seamless and automatic transition between hybrid and conventional modes
- 360 Gallon water capacity
- Charge on-the-go or with a Level 2 (240 VOC) SAE J1772 charging receptacle
- Lithium-ion battery for long duty cycle operation
- Available in diesel or Compressed Natural Gas (CNG)

INNOVATIONS AT WORK

A closer look at the Elgin Hybrid 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 Hybrid Broom Bear brings you an array of innovative systems including:



Hybrid System

Elgin employs a high voltage battery hybrid system proven and supported by 10 years of experience. The system provides a meaningful reduction in fuel burn and exhaust emissions without compromising sweep performance or the sweeper's availability to do work. This allows the sweeper to function regardless of the battery's state-of-charge and the system automatically changes modes without operator engagement.



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. Two 3,600 psi composite fuel tanks are conveniently packaged in the rear compartment minimizing impact to chassis wheelbase.



Memory Sweep

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

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

The hopper has a capacity of 4.5 cubic yards (3.4 m³) and a variable dump height between 38" and 11'-2". The double scissor hoist provides a payload of 10,000 lbs (4,436 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

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.



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.



UNIQUE APPLICATION VERSATILITY

The Hybrid 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.

A belt conveyor is also available for applications such as highway sweeping and general municipal sweeping where large debris is encountered or when high-loading rates are needed.



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.



OUR COMMITMENT TO QUALITY ONLY BEGINS WITH OUR EQUIPMENT

The Elgin Hybrid Broom Bear is manufactured in an ISO 9001 certified, advanced industrial plant with over 208,000 sq. ft. (19,350 sq. m.) of space. 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 Hybrid 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 Hybrid 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.



Hybrid Broom Bear Truck Mounted Mechanical Sweeper Specifications

Engine	Hybrid System	Truck Electrical System	Dust Control System	Hydraulic System	Conveyor
Make M2 Cummins L9 Type 6 cylinder Displacement 8.9 L Horsepower 260 @ 2200 RPM Torque 860 lb. ft. (1,166 Nm) Aspiration Turbo charged *Compressed Natural Gas (CNG) Chassis Available	Architecture Parallel - electric or mechanical drive Mode Selection None - fully automated Battery Type Lithium Ion / high voltage Controls Battery Management System Plug-in Charging Standard SAE J1772 Level 2	Voltage 12 VDC / negative ground Alternator 160 amp Battery 2 Group 31, 1850 CCA Circuit Protection Automotive style blade fuse Wiring Hot stamp identified with weatherproof connectors	Tank Construction Polyethylene/SS Tank Capacity 360 gallons (1,325 L) Fill Hose 15' 0" (4,572 mm) with 2.5" (64 mm) NST hydrant coupling Pump Electric diaphragm Spray Nozzles 9 total: 3 main, 3 left & 3 right side brooms	Sweep System Pump Variable displacement Capacity 15.4 gpm Fittings O-ring face seal Reservoir Capacity 23 gal Inlet Strainer 100 mesh Return Filter 6 micron	Type Squeegee with replaceable rubber edging Material (elevator bottom) Bolt-in multi section abrasion resistant steel plates Speed Constant, forward and reverse Flexibility Lift independent (for large object passage)

HYBRID **Broom Bear**[®]

TOUGH ON DEBRIS. EASY ON THE ENVIRONMENT.

The Hybrid Broom Bear mechanical street sweeper is brought to you by Elgin, the company that introduced the first motorized street sweeper more than a century ago. Today, Elgin is part of Federal Signal, an international company. Its broad range of quality equipment is sold all around the world.

The Hybrid Broom Bear is a product of the vast resources of Elgin and Federal Signal. Innovative in design, rugged in construction, Hybrid Broom Bear offers you advanced technology that delivers:

- Unlimited range
- Easy controls for operators at all levels
- Simplified maintenance to maximize uptime
- Greater efficiency in even the most demanding applications
- An industry leading warranty
- Strong, local service and support



ELGIN[®]

Subsidiary of Federal Signal Corporation

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