

Pelican[®] PLUG-IN HYBRID ELECTRIC (PHEV*)

The iconic Elgin Pelican, three wheel mechanical sweeper, can now be configured as a plug-in hybrid electric (PHEV.) Just like all Pelicans, the newest member of the Pelican family features outstanding maneuverability and visibility, a 10 ft. sweeping path, 9 ft 6 in high dump frontal hopper, and the heavy duty No-Jam chevron conveyor belt. The Pelican PHEV utilizes the latest technology in the electrification market utilizing a battery and generator system that meets the demanding duty cycle of municipal street sweeping. The electrified drive system works in conjunction with the ultra-low emissions John Deere[®] 4.5L engine that is certified to the latest U.S. EPA and CARB standards. The Pelican PHEV was designed for uncompromised performance while providing meaningful reductions in emissions.

Please contact your local Elgin dealer or visit us at www.elginsweeper.com to learn how this is the most efficient Pelican ever built.

AVAILABLE ENHANCEMENTS

- Side broom tilt
- Automatic lubrication system
- Lifeliner[®] hopper liner
- Beacon light with protector
- Strobe light with protector
- Broom hours
- Limb guards
- Air suspension seat
- PM10 Dust Suppression



Your Elgin Dealer is:



*Plug-in hybrid electric vehicle, or PHEV, are hybrid vehicles containing battery packs that can be recharged by an external power source via a charging cable in addition to the onboard internal combustion engine.

SWEEP SYSTEM – POWER

ENGINE

Make Deere 4045 Tier 4 Final
Type 4 cylinder
Displacement 276 cu. in. (4.5 L)
Bore 4.19 in (106.43 mm)
Stroke 5.0 in (127 mm)
Compression Ratio 19:1
Horsepower 74 HP (55 kw) @ 2,400 RPM
Torque 224 ft-lb (304 Nm) @ 1,600
Fuel Tank Capacity
 35 U.S. gal (132.5 L)

STANDARD ACCESSORIES

Full flow oil filter, electronic governor, dual safety element dry-type air cleaner with in-cab restriction indicator, fuel cleaner, counterbalanced, wet sleeve

SWEEP SYSTEM – COMPONENTS

GENERAL SPECIFICATIONS

Wheel Base 127.4 in (3236 mm)
Overall Length 16 ft (4877 mm)
Height with Cab 9 ft 10.5 in (3010 mm)
Width Outside Tires 8 ft 6 in (2591 mm)
Curb to Curb Turning Radius 15 ft (4572 mm)
Sweeping Path
One Side Broom 8 ft (2438 mm)
Two Side Brooms 10 ft (3048 mm)

Weight

One Side Broom 16,150 lbs (6170 kg)
Two Side Brooms 16,850 lbs (6482 kg)

Travel Speed Up to 20 mph (32 Km/h)

Electric Drive Dual motors (AC); Front wheel drive; Gear reduction wheel drives; Single, treadle pedal for forward/reverse; Regenerative braking

Hydraulic Service Brakes

Tires

Front 11R22.5 load range H (2)
Rear 215/75R 17.5 load range H (2)

Wheels

Front Steel disk type
Rear Dual steel disk type mounted on alloy steel axle
Guide wheel with rear swing-arm suspension

CAB

Type ISO mounted; Structural steel tube frame; Sealed w/ 100% filtered air intake, sound insulated

Door Full view glass

Opening From rear

Dust protection Rubber gasket sealed; Windows Safety glass with tinted windshield and tinted sun visors, 360° visibility; Tinted upper glass

Dome light

Heater pressurizer with defroster

Multi-vent air disbursement

Windshield wipers intermittent, with washers

Mirrors RH (1) West Coast with convex insert and (1) 10 inch convex; LH (1) 12 inch convex and (1) 8.5 inch convex IN-CAB (1) rear view

Seat 21 in wide deluxe foam cushion with belt

FINISH

UNDERCARRIAGE

Grey powder coat

BODY

High gloss powder coat
 Custom colors available

CHASSIS

Chassis is fully welded; formed channel and boxed tube style with jack points

WARRANTY

SWEEPER– 1 year parts and labor

ENGINE – Consult factory

BATTERY – Consult factory

INSTRUMENTATION

Panel Full vision, illuminated

Gauges Speedometer/odometer, tachometer, engine hour meter, engine temperature, oil pressure, voltmeter, hydraulic oil temperature, water level, hybrid display, and on-board diagnostics

ELECTRICAL SYSTEM

Hot stamped and color coded wiring, alternator/regulator-unitized, 160 Ampere
Battery 12 volt, group 31, 1000 CCA, 180 min. reserve, with disconnect switch

Lights Halogen sealed multiple beam headlights, LED combination stop and tail lights, adjustable LED side broom lights, directional signals with hazard switch.

Steering Tilt and telescoping steering column

In-Cab Air Conditioning

MAIN BROOM

Diameter 35 in (889 mm)

Length 66 in (1676 mm)

Type Prefab. disposable, polypropylene double wrapped at both ends

Core Steel reversible

Dirt Shoes rubber with greaseable pivot

Digging Pressure & Wear Control in-cab hydraulic float

Lift Control In-cab hydraulic raise and lower

Drive Hydraulic motor

Mounting Hydraulic cylinder suspended

Speed Variable with engine RPM

GUTTER BROOM

Type Vertical digger

Diameter 36 in (914 mm)

Disc Construction Steel plate

Speed Variable with engine RPM

Flexibility In-cab positioning hydraulic float

Drive Hydraulic motor

Mounting Free floating

Adjustment In/out (recoil spring), up/down

Digging Pressure/Wear Control

Hydraulic, in-cab, pressure sensing

Broom material Tempered steel wire

CONVEYOR

Type Chevron cleat reinforced rubber belt

Speed Variable with engine RPM

Flexibility 9 in. (229 mm) oscillation for large object passage

Drive Hydraulic motor, chain and sprocket drive

Bearings Sealed self-aligning, re-lube

DEBRIS HOPPER

Capacity Volumetric 3.6 yd³ (2.8 m³)

Material Volume 3.5 yd³ (2.6 m³)

Hopper Lift and Dump Control

Electrohydraulic in-cab

Safety horn, electronic back up alarm, back up camera, and sweep flashers

ELECTRICAL HYBRID COMPONENTS

Architecture Range-extending Series Hybrid, All-electric Drivetrain

Mode Selection Fully automated transition between battery only and on-demand charging

Battery Type High Voltage Lithium-Ion (NMC)

Plug-in Charging Level 2 (J1772)
 4.8 kw or higher recommended

Maximum Dump Height Up to 9 ft 6 in (2895 mm)

Time to Tilt Hopper 17 sec

Time to Retract to Working Position 21 sec

Design Lift Capacity 9,000 lbs (4,080 kg)

Frontal Dumping Standard

HYDRAULIC SYSTEM

Fixed Displacement Pump

Fittings O-ring face seal type

Reservoir Capacity 33 gal (106 L)

Reservoir Level Externally readable with low level & high temp alarm and engine shutdown

Inlet Strainer 100 mesh

Filter Return, 10 micron absolute, full flow

Filter Restriction Indicator In cab

Breather/Fill Cap 10 micron

WATER SPRAY SYSTEM

Tank Construction Polyethylene

Tank Capacity 220 gal (832 L)

Fill Hose 16 ft 8 in (5080 mm) with hydrant coupling and double jacket accessory

Wash Down Integral cascade hopper/conveyor wash and lower roller

Pump Diagram with run dry capability

Spray Nozzles Atomizing, adjacent to each broom

Controls On/off, volume high/low in-cab

Filter Non-corrosive housing,

100 mesh screen

Cleanable anti-siphon fill standard

BRAKE SYSTEM

Service

Multi Caliper Disc type

Hydraulically applied

Power Assisted

Park

Wet Disc multi pack with spring applied

Hydraulically released push/pull activation

Interlock to prevent drive through if applied

ECOINFUSED TECHNOLOGY®

Combining science and innovation to produce more environmentally efficient products



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