

1. CAB & CHASSIS: Engine: 1. 6 cylinder diesel 200 HP minimum a. Transmission: 1. Automatic transmission to meet the correct engine size and GVW of vehicle. Hydrostatic drive is acceptable. b. Engine Equipment: 1. Alternator - 12V / 130 AMP 2. Fuel water separator 3. Fuel tank – 50 gallon c. Cab: 1. Dual operating position type cab to include: Steering, controls, etc for sweeping from either side. 2. Rubber floor mats 3. Air ride seating 4. Pressurized cab with heat and air conditioning 5. Instrumentation for truck - oil pressure, water temperatures, voltmeter gauges 6. Instrumentation for sweeper- tachometer, hour meter, oil pressure, coolant temperature gauges d. Frame: 1. Rail type 80,000 psi 2. Size – 10.9" x 3.5" x .34" 3. Frame overhang 4. Wheelbase 130" minimum 5. Front steel bumper e. Safety: 1. Dual West Coast bright finish heated mirrors with LH & RH remote 2. Intermittent windshield wipers 3. Daytime running lights 4. Backup alarm 5. Auto shutdown f. Axles: 1. Front axle: 11,900 lb. GVW 2. Rear axle: 21,000 lb. GVW 3. Single speed rear axle 4. 22.5 x 8.25 steel wheels - disc type 5. 11R x 22.5 14-ply radial tires g. Brakes: 1. Antilock brakes 2. Front air brakes - 15 x 4 drum 3. Rear air brakes 16.5 x 7 drum 4. Automatic slack adjusters - front and rear 5. Air dryer - frame mounted h. 2. MOUNTED SWEEPER BODY (STANDARD EQUIPMENT): Engine: 1. 4 cylinder diesel - 47 horsepower, governed at 2800 RPM 2. Spin-on oil filter 3. Alternator – 12V / 60AMP a. Side Brooms: 1. Right & left side gutter brooms (tilt control in cab) 2. Hydraulically raised & lowered 3. 42" diameter – segment type 4. Adjustable down pressure (Manual) – optional down pressure pump b. Main Broom: 1. Length - 58" minimum 2. Diameter - 35" minimum 3. Hydraulic motor - direct or chain drive and reversible 4. Full floating trailing arms w/shocks 5. Lift Control – inside cab c. Sweeper Body: 1. Overall height – 10' with strobe 2. Lift capacity – 11,000 lbs minimum 3. 4.5 cubic yard hopper 4. Dump height - 10' minimum 5. Lift design – hydraulic 2-stage scissors 6. Hopper inspection door 7. Work lights – 1 on each gutter broom and one in rear d. Hydraulic System: 1. Hydraulic pump capacity minimum – 24gpm@2600rpm 2. Pump: dual tandem gear 3. Reservoir – 21 gallons 4. Spin-on 10 micron hydraulic pump 5. Externally mounted reservoir level indicator e. Water Spray System: 1. Water tank construction – polyethylene and removable 2. Water tank capacity - 280 gallons minimum 3. Fill hose 2 1/2" x 16' with NST coupler 4. Diaphragm pump type with run dry capability 5. Pump capacity – 3.0 GPM minimum 6. Minimum of 9 spray nozzles – 2 min per gutter broom, 3 min for main broom 7. Water filter – 80 micron mesh cleanable f. Conveyor/Elevator System: 1. Minimum of 9 flights – replaceable 2. Belt material – rubber reinforced fabric 3. Belt speed – variable with auxiliary engine RPM 4. Drive – reversible with direct drive 5. Elevator jam warning light & buzzer in cab 6. Conveyor flush – built in.

Meets or exceeds all requirements of Spec 382

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ES351 Sweeper

SERIES ES351 Mechanical Sweeper

ISSUE NUMBER 08-17

REFERENCE JNA 0817



136" WB

272"



122"

96"

Data & Performance

Sweeping Equipment

Gutter broom	44" dia - leading arm/digger type
Main broom	34.5 x 58"
Drives	Direct coupled hydraulic motor
Gutter brooms	Un-handed design
Speed adjustment	Variable hydraulic, in-cab
Digging pressure	Variable pneumatic, in cab

Engine Data

Model	Cummins 6.7 - 260 HP
Cubic capacity	6.7 liters
No. of Cylinders	6
Gross rated power	260 HP @ 2300 RPM
Maximum torque	660 LB/FT @ 1600 RPM
Aspiration	Turbo-charged
Operational RPM	Variable between 1200-2000 RPM
Transmission	Allison 3500 RDS
Alternator	160 AMP
Electrical system	12 v negative ground system
Battery	(2) Group 31 2250 CCA
Two-speed rear	Ratio: 6.17/8.42

Capacities

Hopper usable volume	4.5 yd ³ , includes 42" debris chute
Hopper construction	9 gauge stainless steel LIFETIME WARRANTY NO PRORATION
Payload capacity	12,000 LB (chassis dependent)
Fuel tank	50 gallon
Water tank	360 gallon
Tank construction	Polyethylene

General Data

Chassis requirement	33,000 gvw - Class 7
Wheelbase	136" (chassis dependent)
Dump height	12.5' (chassis dependent)
Dump angle	54°
Sweep path, main broom	58"
Sweep path, MB & (1) SB	90"
Sweep path, MB & (2) SB	120" (144" extended reach)
Elevator type	Squeegee, 12 flights
Elevator wear plate material	.25" stainless steel
Elevator drive	Hydraulic chain driven, forward/reverse
Hopper lift control	Hydraulic 2 stage scissors
Sweeping speeds	2-15 MPH (chassis dependent)

We are **THE ONLY** sweeper manufacturer to offer an all-inclusive warranty (2 years/2,000 hours) and an "entire debris hopper" constructed of stainless steel as a standard with a **LIFETIME WARRANTY**.

 **Johnston**
NORTH AMERICA

Endless Sweeping Solutions

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Technical Specifications

Commercial Chassis/ Single Engine

The Johnston ES351 mechanical sweeper is mated with a Freightliner M2 Class 7 chassis. Combined they make for one of the best looking, hardest working and most reliable machines in the industry.

Its simple single engine design allows for fuel efficiency and easy maintenance.

Power Train

Utilizing an Allison 3500RDS automatic transmission, a 10,000 lb front axle and a 23,000 lb two-speed (6:17/8:42 ratio) rear axle geared for proper over the road and sweep speeds, the Johnston ES351 is transporting its load quickly and safely.

Gutter Brooms

Large 44" hydraulic-driven, leading arm, digger-type, free floating gutter brooms with in-cab adjustable speed and down pressure to ensure aggressive cleaning of curbs and gutters.

The side brooms feature a heavy duty steel disc, drilled for either four or five segment broom sections. The broom material is tempered steel tines, 26" long.

At the operator's discretion from the cab, the dual brooms can extend out to achieve a 144" total reach to facilitate cul-de-sac and curve sweeping.

Main Broom

Our aggressive 34.5 X 58" polypropylene tube main broom is direct hydraulically driven and attached to two fully floating trailing arms to allow for changing road surfaces.

Optional strip brooms are available on request.

Dirt Shoes

Sweeper is fitted with standard T-Plate steel skid dirt shoes. Optional carbide or new maintenance free strip-brush type dirt shoes are available.

Variable Dump Height Hopper LIFETIME WARRANTY

Choose to unload at ground level or into a dump truck with side boards or anywhere in between. The stainless steel 4.5 yd³ hopper is raised and lowered via a heavy duty, two stage scissors lift with hydraulic cylinders.

All lift and dump controls are hydraulic and located in-cab. Lift capacity is rated at 12,000 lb and hopper dump angle is 54° including 42" chute for better reach and efficient off-loading of debris.

Elevator

Utilizing a chain driven, 12 flight squeegee type elevator over polyurethane sprockets, the Johnston ES351 effectively captures and moves all street debris up its stainless steel floored elevator and into its all stainless steel debris hopper.

Elevator speed is constant and matched to the main broom speed for effective loading. The elevator height can be adjusted from in-cab to accommodate different sweeping requirements. The elevator bearings are sealed and self-aligning.

Hydraulic System

The Johnston ES351 features a 20 gallon hydraulic reservoir supplying oil to a variable displacement hydraulic pump in a load sensing hydraulic system. This system will adjust flow based on hydraulic demand from the sweeping gear so as to maximize efficiency and reduce heat.

All hydraulic valves are equipped with light emitting diodes to signal function and feature manual overrides. All hydraulics are centrally located in their own system locker for ease of access and maintenance.

Wheelbase/Truck

The Johnston ES351 mechanical sweeper delivers a tight 18.6" turning radius from a truck with a 136" wheelbase. This dramatically increases maneuverability on tight streets and cul-de-sacs.

Water System/Dust Control

A 360 gallon baffled, polyethylene water tank provides the necessary water to supply a direct-coupled hydraulic driven twin diaphragm pump delivering water to multiple water spray nozzles, strategically located at each gutter broom and front bumper. An optional rear broom spray bar is available.

Instrumentation/Controls

The Johnston Easy Sweep Mechanical Sweeper features all the necessary warning lamps and buzzers:

- Low hydraulic oil
- Conveyor stall alarm
- Hydraulic oil temperature
- Hydraulic oil filter restriction indicator
- Low water alarm
- Hopper up alarm

All wiring is color coded and numbered. All internal and external wiring conforms to IP65 and IP67 standards - waterproof and dustproof.



MANUFACTURER CERTIFICATION

FSA20-VEL28.0 Pursuit, Administrative & Other Vehicles,

FSA20-VEH18.0 Heavy Vehicles

FSA 20-EQU18.0 Heavy Equipment

This is to certify that

Pat's Pump and Blower

(Vendor/Respondent's Name) or a

manufacturer's authorized dealer of

Bucher/Johnston Sweepers

(Manufacturer/Brand Name)

in the State of Florida.

By:

Manufacturer Name:

Bucher Municipal North America

Address:

105 Motorsports Rd

City, State, Zip:

Mooresville, NC, 28115

Office Phone:

704-658-1333

Mobile Phone:

704-677-1126

E-mail:

Jason.Coover@bucher-municipal.com

Signature:

[Handwritten Signature]

Title:

Region Sales Manager

PLEASE NOTE: This certification form must be executed by an authorized employee of the manufacturer **ONLY**. Dealers/Representatives are not authorized to execute this certification form on behalf of the manufacturer. The manufacturer must execute this certification form even if they are offering their own products. Failure to submit this certification form with your response as required shall result in the disqualification of the response.