

SPECIFICATION, JEA CLASS 143: Truck / 5T VACUUM JET

UPDATED SEPTEMBER 2020

1. SCOPE

It is the intent of the JEA to purchase multiple 5 Ton 6X4 Vacuum Jet Truck. All units must be tested and delivered to the JEA Fleet Facility (5717 New Kings Road Jacksonville, Florida 32209) in complete operational condition, with all required equipment and documentation by the date specified per awarded contract.

2. MODEL

New, current model year production Class-8 Cab / Chassis (Freightliner M2-114, International HX620, Kenworth T880, MACK Granite or Equal) with 15 CU YD to 16 CU YD Industrial Debris Tank and Roots 824 / 3600 CFM / 18" and 80 GPM @ 3000 PSI Water Pump. Reference: JEA Unit # 70723 for general details, general layout and general clarification.

UTILIZE THE STRONGEST, MOST ROBUST, MAINTENANCE FREE FASTENERS/CONNECTIONS WHERE APPLICABLE TO MINIMIZE MAINTENANCE REQUIREMENTS AND MITIGATE POTENTIAL FAILURES. CONFIRM ALL FASTENERS/CONNECTIONS ARE RATED FOR THE CAPACITIES PER OUR APPLICATION.

NOTE: The awarded vendor must provide a weight study and demonstrate vacuum (18" hg) and water system flow & pressure (80 GPM @ 3000 PSI) performance requirements prior to delivering units.



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3. CAB / CHASSIS (CLASS-8). STANDARD CAB

- 3.1 Class-8 Tandem Axle Cab/Chassis (66,000 lbs GVWR)
- 3.2 Cab to Axle: Not to Exceed 187"
- 3.3 Wheel Base: Not to Exceed 270"
- 3.4 Overall Height: From Level Ground to Highest Point on Vehicle not to Exceed 154"
- 3.5 Overall Length: Not to Exceed 492"
- 3.6 Max Speed: 70 MPH

4. ENGINE (REQUIRE DETROIT DD13, MACK MP8, PACCAR MX13, DETROIT DD15 OR CUMMINS X15, DUE TO RELIABILITY / DURABILITY)

- 4.1 Horse Power: Minimum 450 HP @ 1800 RPM
- 4.2 Torque Range: Minimum 1650 lbs. to 1850 lbs
- 4.3 No Automatic Idle Shutdown
- 4.4 Block Heater
- 4.5 Engine warning and shut down system
- 4.6 B20 Biodiesel Capable, if available
- 4.7 IDLE UP / Remote Throttle Option

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5. TRANSMISSION

- 5.1 Allison RDS 4500
- 5.2 PTO Provision

6. REAR AXLES AND TIRES

- 6.1 Air Ride / 46,000 lbs with manual dump valve (Requiring Hendrickson Air Ride Suspension Systems rated for the capacity and application)
- 6.2 Inter Axle Differential Lock
- 6.3 Side-to-Side Differential Locks on both drive axles
- 6.4 Rear: 11R 22.5 to accommodate GVWR, All Terrain Tread
- 6.5 Aluminum Rims: Weight Reduction

7. FRONT AXLE AND TIRES

- 7.1 20,000 lbs with Oil Bathed Bearing/Hubs
- 7.2 Front: Floater 425 / 65 R22.5 to accommodate GVWR
- 7.3 Aluminum Rims: Weight Reduction

8. BRAKES (AIR DISC BRAKES)

- 8.1 Air Disc Brakes with Shields: Front and Rear Axles
- 8.2 Anti-lock braking system
- 8.3 Automatic drain valves
- 8.4 Air Dryer
- 8.5 Low air pressure warning system

9. COOLING SYSTEM

- 9.1 Heavy duty extra cooling capacity, largest available from manufacturer

10. FUEL TANK AND DEF

- 10.1 Capacity: Minimum 100 gallons
- 10.2 Capacity: Minimum 10 gallon diesel exhaust fluid capacity

11. CHASSIS ELECTRICAL AND LIGHTING (NO SCOTCH LOCK CONNECTIONS)

NOTE: WIRE ALL LED STROBE LIGHTS TO ONE OEM UP-FITTER SWITCH IN CAB WITH LABEL. WIRE TOOL BIN LED ROPE LIGHTING TO ONE OEM UP-FITTER SWITCH IN CAB WITH LABEL. WIRE ALL AREA LIGHTS TO ONE UP-FITTER SWITCH.

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- 11.1 Meters: Engine hour meter, PTO hour meter, transmission temperature, engine oil pressure, engine temperature, charging system, fuel level, air pressure and diesel exhaust fluid level (In Cab / Dash Mounted).
- 11.2 OEM Up-Fitter Switches/Upper Console: For wiring strobe lights, area lights & etc.
- 11.3 Auxiliary Accessory Fuse Block: Purpose is to wire GPS, fuel rings, JEA Radio, DC accessory power outlets etc. Wire to waterproof resettable breaker so we can isolate from the vehicle OEM system if needed. An acceptable example is listed below including picture.

Blue Sea Systems ST Blade ATO/ATC Fuse Blocks
Style Name: 12-Circ Split w/Cover & Neg



- 11.4 Master Switch With Lockout/Tagout: In Cab, (Mitigate Dead Batteries Due To GPS & Etc.) Example: TR Series Dual Pole Master Disconnect Switch (500A • DPST • IP67/IP69k • Integrated Lockout Tagout)



- 11.5 All Cab / Chassis Lights: LED only
- 11.6 LED Strobe Lights (6 COUNT): 4 Corner Mounted LED Strobe lights & 2 Recessed Amber LED Strobe Lights (3" or 4" Round) mounted outside/center of Body (1 on DS & 1 on PS)
- 11.7 Auxiliary Battery Jump Ports: Insulated remote posts protected and mounted driver's side underneath cab body / behind steps. (Do not mount over fuel tank!)



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- 11.8 DC Accessory Power Outlets: One additional DC power outlets in cab for accessories with spring loaded cover. See example below: NAPA Part # BK 7821773 or equal. Wire to the Auxiliary Accessory Fuse BLOCK.



- 11.9 LED Post Mounted Spot Light, Driver Side
- 11.10 Power Package: Power Windows, Locks, Mirrors (Heated), Cruise Control & Tilt Wheel
- 11.11 Factory installed air conditioner and heater
- 11.12 Collision mitigation/warning system with active braking (engage service brakes), lane departure warning system, back up sensors and backup alarm. System must not affect the safety or operation of the vehicle while staging or operating attachments.
- 11.13 OEM AM / FM Stereo with auxiliary input, backup camera (7" or 8" color monitor) and Bluetooth hands free
- 11.14 LED Directional Arrow Bar With Replaceable LED Bulbs (Mounted Topside Rear Debris Door). Superior Signal LED or equal.
- 11.15 Mirror mounted LED Strobe Lights (PS & DS)
- 11.16 Boom and Rear Door Mounted LED Flood Lights
- 11.17 LED Area Lights: under Front Hose Reel, under Driver & Passenger Steps and under Rear Debris Tank
- 11.18 LED Hand Held Spot Light

12. ADDITIONAL REQUIRED EQUIPMENT

- 12.1 Front bumper
- 12.2 Air Ride Driver's Seat and Air Ride Passenger's Seat with Collapsible Armrest and Head Rest
- 12.3 Seat Belts: Fluorescent Green



- 12.4 Tow/Recovery Hooks: Front and rear
- 12.5 (2) Two fender/hood mounted mirrors (Passenger & Driver Side for Blind Spots)

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- 12.6 Window Tint: driver, passenger & rear windows (Max Legal in FL)
- 12.7 Cup Holders: Minimum 2
- 12.8 Interior / Forward / Roof Mounted Console with storage compartments
- 12.9 Automatic Lubrication System [Lincoln or Equal], Cab/Chassis and All Attachments
- 12.10 Include Can Bus System. Must be able to track actual Blower Run Time and Pump Run Time
- 12.11 Weatherproof Tool Storage Bin: 24"X24"X24": Mounted driver side
- 12.12 Collapsible Cone Holder (JEA Standard): Mounting Location TBD



- 12.13 Onboard Digital Truck Scale/Weighing System with Alarm: Mount on dash in drivers view

13. DEBRIS TANK & WATER TANKS

- 13.1 15 to 16 Cubic Yard Debris Tank with Hydraulic Actuated Rear Industrial Door with Hydraulic Actuated Wedge Type Locks
- 13.2 Positive Displacement Blower: Roots 824 / 3600 CFM / 18"
- 13.3 Rear Splash Guard
- 13.4 Screen assembly over rear drain port
- 13.5 5" Butterfly Valve with 10' lay flat hose
- 13.6 Power Flush Out System (6 to 8 Jets)
- 13.7 1300 Gallon Water Capacity
- 13.8 10' Telescopic Boom with Industrial Grade Elbow or Equivalent
- 13.9 Pendant Controlled Engine Idle Control
- 13.10 Debris Tank Up Audible Alarm with LED Light
- 13.11 Deflector Plate: Protect rear door
- 13.12 Automatic Continuous Fill System with Filter (Back Flow Prevention)

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- 13.13 Variable Flow Valve
- 13.14 Tool Box Mounted behind cab. Alternate size / location may be accepted if functional per End Users
- 13.15 Lazy Susan Pipe Rack (5-pipe capacity) & 20' of Aluminum Pipe Extension Tubes
- 13.16 Retractable Hand Gun Hose Reel (50' Hose)
- 13.17 Low Water Alarm with Light
- 13.18 Install Juke Rod Holder
- 13.19 Install Grease Release Metering Kit
- 13.20 Wireless Remote Control with Emergency Stop. List all functions operated with wireless remote.
- 13.21 Gallons per Minute Meter and Water Level Indicator: Operator Station
- 13.22 Load Limit Alarm with Light: Activate at 12 cubic yards
- 13.23 Load level indicator

14. HOSE REEL (800' CAPACITY / FRONT MOUNTED) & PUMP

- 14.1 800' X 1" Sewer Hose with 10' Leader Hose, Footage Counter and Dual Roller Guide (3000 PSI BLUE)
- 14.2 Pump: 80 GPM @ 3000 PSI with Pulsation Feature & Air Purge System. Measure/Verify 80 GPM @ 3000 PSI at the Reel.

15. COLOR / GRAPHICS

- 15.1 White exterior
- 15.2 Delete all vendor and manufacturer identification decals except required safety & reference identification tags, decals, data plates & placards
- 15.3 Install Vehicle Height Warning Placard with maximum height (feet/inches) in cab on the dash (driver's view) and on driver's side door (outside of vehicle, close to door handle)

16. MANUALS, VIDEOS, KEYS & OPERATOR ORIENTATION

- 16.1 (1) set of operator manuals per unit (HARD COPY). (1) Electronic copy maintenance, repair & parts manuals
- 16.2 Provide five (5) complete sets of keys per unit (3 FOB keys and 2 standard keys for chassis) including attachments, bins and tool boxes. Key all bins and tool boxes alike. Stamp/engrave JEA provided 5 digit unit number on all keys.
- 16.3 (1) On-Site JEA Operator Orientation Class (complete unit overview: chassis & attachments)
- 16.4 (1) On-Site JEA Maintenance Orientation Class (complete unit: chassis & attachments)
- 16.5 Include a paper copy specification / build sheet / drawings in all units including key codes

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17. DRAWINGS

- 17.1 Scaled drawings will be provided to JEA upon receipt of order. Drawings will include all interior/exterior and equipment layout details & dimensions. Final drawings / layout will be approved by JEA before work is started. Include one electronic copy (flash drive). Drawings may be used at JEA's discretion for solicitations, request for information, reference for repairs, etc.
- 17.2 Provide completed weight study

18. WARRANTY

- 18.1 Minimum (2) one year warranty on chassis & all attachments (include parts, travel & labor). Must include all standard manufacturer warranties.
- 18.2 Warranty period starts when units are received at JEA's fleet facility and are inspected and accepted.

19. OTHER REQUIREMENTS

- 19.1 Purchase and Install Yellow City License Plates
- 19.2 Install JEA Provided Decals (you may use JEA's current vendor at your expense)
- 19.3 Install JEA Provided Safety Equipment: Purple-K fire extinguisher (5 LB), first aid kit and key safe
- 19.4 Current DOT Inspection / Certification with decal installed lower left inside corner of windshield. Include current date, current hours, next service due date and next service due hours.
- 19.5 Include a paper copy specification / build sheet in all units including key codes
- 19.6 Must include/document the VIN number, make, model, description, JEA PO # and JEA provided 5 digit unit # on all invoices
- 19.7 Awarded vendor must complete and submit the JEA provided Vehicle and Equipment Attribute Data Spreadsheet
- 19.8 Reflective roadside triangle warning/hazard kit 

NOTE: All units, attachments, products and services must meet and comply with all applicable regulations and specifications including but not limited to Federal and State Laws, OSHA Regulations, ANSI Standards, DOT Regulations and ASTM Standards. All units must be delivered to the JEA Fleet Facility with a minimum ¾ tank of fuel. Contact Thurman McGlothlin at 904-576-9382 48 hours prior to delivery. Delivery times are Monday through Friday 07:00 AM – 03:00 PM at 5717 New Kings Road Jacksonville Florida, 32209.