

# SPECIFICATION, JEA CLASS 145: ROAD TRACTOR

UPDATED SEPTEMBER 2020

## 1. SCOPE

It is the intent of the JEA to purchase multiple 5 Ton Road Tractor. 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 5 Ton Road Tractor (Freightliner, International or equal) with Hydraulic Wet Kit. Reference: JEA Unit # 50373 for layout and dimensions.

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.



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

3.1 Class-8 Tandem Axle Cab/Chassis (54,000 lbs GVWR)

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- 3.2 Cab to Axle: Not to Exceed 120"
- 3.3 Wheel Base: Not to Exceed 200"
- 3.4 Overall Height: From Level Ground to Highest Point on Vehicle not to Exceed 158"
- 3.5 Overall Length: Not to Exceed 320"
- 3.6 Max Speed: 70 MPH

#### **4. ENGINE (REQUIRE DETROIT, CUMMINS, PACCAR OR MACK DUE TO RELIABILITY / DURABILITY)**

- 4.1 Horse Power: 450 HP
- 4.2 Torque Rating: Minimum 1650
- 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
- 4.8 Tailpipe: Clear Back-of-Cab, Passenger Side

#### **5. TRANSMISSION**

- 5.1 Allison RDS 4500 (6 speed), Mack mDrive Auto Shift (10-13 speed) or equivalent automated transmission (between 10 – 13 speed)
- 5.2 PTO Provision

#### **6. REAR AXLES AND TIRES**

- 6.1 Air Ride / 40,000 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 & TIRES**

- 7.1 14,000 lbs with Oil Bathed Bearing/Hubs
- 7.2 Front: 11R 22.5 to accommodate GVWR, All Terrain Tread

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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 TANK

10.1 Capacity: 100 Gallons, Dual tanks are acceptable

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.

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



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- 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) One on each side of the Body/Centered

- 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!)



- 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 Power Package: Power Windows, Locks, Mirrors (Heated), Cruise Control & Tilt Wheel

- 11.10 Factory installed air conditioner and heater

- 11.11 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.

- 11.12 OEM AM / FM Stereo with auxiliary input, backup camera (7" or 8" color monitor) and Bluetooth hands free

- 11.13 LED Ground Lighting / Area Lights (Driver Side, Passenger Side & Rear of Vehicle)

- 11.14 Mirror mounted LED Strobe Lights (PS & DS)

- 11.15 LED Go Light/Remote Controlled: Hard Mounted to Merritt Headache Rack Light Bar Pad, Passenger Side

- 11.16 (2) Round 4" LED Recessed Lights mounted in Headache Rack Facing Trailer (Approximately 18" from top of Headache Rack & Evenly Spaced).

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- 11.17 Install Combination LED Hybrid Series LED Round Stop/Tail/Rear Turn and Backup Light Model Number: M85415R or Equal



- 11.18 Install roof mounted Whelen Justice JV WeCan Series Super LED (MODEL JV2A) Strobe Light (amber color), mount to headache rack, elevated 6" to 8" above headache rack
- 11.19 Install Rigid LED RDS-Series 54" – Spot on top of headache rack facing trailer/rear. Mount between Whelen Justice JV WeCan Series Super LED and headache rack

## 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)
- 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 Add non-skid coating to all steps & walking surfaces
- 12.10 Hydraulic Wet Line Kit with Hoses and Flat Faced, Dripless Quick Connect Fittings (High Pressure/Low Volume): used for HRG Low Boy Trailers. NOTE: Install Aluminum Deck Plate from headache rack to fifth wheel to walk on & secure hydraulic lines while not in use.
- 12.11 Aluminum Headache Rack with Light Bar Pad (passenger side Mounted): Make/Model: Merritt 317367C-0010 / LSRDL38X70, 367214713291 & 141-1
- 12.12 Box in the rear of the Truck Frame & integrate the tail lights & rear strobe lights
- 12.13 Pogo Stick: Hold Air Lines & Trailer Plugs while not in use

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12.14 Include all required Air lines/Glad Hands, Trailer Plugs & Hardware

12.15 Collapsible Cone Holder (JEA Standard). Front bumper mounted



12.16 Aluminum Steps: Driver Side to access behind cab/fifth wheel area

12.17 Storage Rack: for the Glad Hands & Trailer Plugs mounted on Headache Rack

## 13. FIFTH WHEEL

13.1 Adjustable 36" (Air Actuated / Air Slide)

13.2 Include/install all required hardware & controls

## 14. COLOR / GRAPHICS

14.1 White exterior

14.2 Delete all vendor and manufacturer identification decals except required safety & reference identification tags, decals, data plates & placards

14.3 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)

## 15. MANUALS, VIDEOS, KEYS & OPERATOR ORIENTATION

15.1 (1) Set of operator manuals per unit (HARD COPY). (1) Electronic copy maintenance, repair & parts manuals

15.2 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.

15.3 (1) On-Site JEA Operator Orientation Class (complete unit overview: chassis & attachments)

15.4 (1) On-Site JEA Maintenance Orientation Class (complete unit: chassis & attachments)

15.5 Include a paper copy specification / build sheet / drawings in all units including key codes

## 16. DRAWINGS

16.1 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 maybe used at JEA's discretion for solicitations, request for information, reference for repairs, etc.

16.2 Provide weight study


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## 17. WARRANTY

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

## 18. OTHER REQUIREMENTS

- 18.1 Purchase and Install Yellow City License Plates
- 18.2 Install JEA Provided Decals (you may use JEA's current vendor at your expense)
- 18.3 Install JEA Provided Safety Equipment: Purple-K fire extinguisher (5 LB), first aid kit and key safe
- 18.4 Current DOT Inspection / Certification with decal installed lower left inside corner of windshield.
- 18.5 Include current date, current hours, next service due date and next service due hours.
- 18.6 Include a paper copy specification / build sheet in all units including key codes
- 18.7 Must include/document the VIN number, make, model, description, JEA PO # and JEA provided 5 digit unit # on all invoices
- 18.8 Awarded vendor must complete and submit the JEA provided Vehicle and Equipment Attribute Data Spreadsheet
- 18.9 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  $\frac{3}{4}$  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.