Specifications

Electric 5k - 6k DBP Burden Carrier Tractor

Section 1- Scope:
Conventional Burden Carrier Tractor of 5K - 6K draw bar pull (DBP) OR 50,000 pounds force minimum, to 70,000 pounds force maximum.

Section 2 – Delivery Requirements:
First Article Unit, Quantity one (1) to be delivered 120-160 days after receipt of order (ARO).

Estimated quantity of production units is one hundred and sixteen (116).

Section 3 – Requirements:

- Length without hitches not longer than 120 inches maximum.
- Length with hitches not longer than 150 inches maximum.
- Overall height is not taller than 90 inches maximum, with cab and beacon.
- Overall width is 80 inches maximum without mirrors.
- Tow Tractor gross weight: minimum 7,000 lbs. to 10,000lbs. maximum.
- Draw Bar Pull Force (DBF): minimum 5,000 lbs. to 6,000 lbs. maximum
- Rated capacity both front and rear.

Performance:

- Minimum continuous increase forward speed. Minimum one speed reverse.
- Reverse (R), Neutral (N), Forward (F), or Reverse (R), Neutral (N), D1 (low range), D2 (high range).
- Travel speed - The tractor, without load, shall be capable of attaining and maintaining a travel speed on level, paved roads of not less than 15 mph forward.
- Two- or four-wheel drive.
- Hydrostatic steering.
- Power steering, with emergency steering in the event of power failure, shall be furnished.

Suspension:

- Front: leaf spring or coil spring.
- Rear: leaf springs.

Hydraulic service braking circuit:

- The service braking system shall be the commercially available system provided by the manufacturer.
- The service brakes shall be capable of bringing the tractor to a complete safe stop in accordance ASME B30.5.
- Not more than 80 pounds of force on the brake pedal shall be required to meet the requirements of ASME B30.5.

Parking brake:

- Parking brake(s) shall hold, but not necessarily stop the tractor, without rated load when the tractor is stopped on a 15 percent grade in both the ascending and descending position.
- The parking brakes shall be operated by hand or foot controls and is located within reach of the seated operator. The brake shall have a locking device.
- The force required to pull the hand lever when setting the brake shall not exceed 35 pounds.
- The parking brake shall be independent from the service brakes.

Front and rear inching controls:

- Inching movement: 3 inches minimum when activated within 5 seconds.

Power source:

- Powered by an electric Lithium-Ion battery.
- Minimum capacity of 10kW or higher.
- On board charging system, 208-240V and/or 440-480V input voltage, three phase, 60Hz.
- Optional external charging system, 208-240V and/or 440-480V input voltage, three phase, 60Hz.
- First article will be 208-240VAC.
- An alternate 440-480VAC version will be required.
- If first article passes testing, an alternate 440-480VAC is required for other locations, unless the charger configuration is capable to accept 208-480VAC.

Towing hitch:

- Minimum 2-level front and rear hitches.
- 1.18inch minimum to 2.75inch pin diameter maximum.

Operators cab with doors, windows, and mirrors:

- Operator and passenger cab.

- The tractor shall be equipped with an enclosed cab and shall have doors with at least one window in each, which can be opened for ventilation.
- The doors shall be provided with hinges that can be serviced without door removal. In addition to the door windows, the cab shall be furnished with a front windshield and rear window.
- The windshield and all windows shall be safety glass.
- The cab interior shall be furnished with water-resistant non-absorbent thermal insulation to meet the heating requirements.

Visibility:

- The tractor cab shall allow for a 360-degree sight line around the tractor for a 95th percentile male and a 5th percentile female. The visibility shall conform to the standard visibility available in the industry.
- Mirrors to view front and rear hitch.
- Rearview and side mirrors; standard vehicle configuration.

Cab heating system:

- The heater shall be of sufficient capacity to maintain a temperature of +40° F at cab floor level, in an ambient temperature of -25° F.
- Defrosting windscreens (front and rear).
- Optional Air Conditioning.
- Windshield wipers (front and rear).
- Fan in cab.
- Driver seat suspended with passenger seat.
- Driver's seat safety switch.
- An operator's and passenger's seatbelt conforming to SAE J 386 restraint devices.
- Seatbelts shall be designed to ensure the operator and passenger remain seated and entirely within the protection of the cab in the event of tip over.

Operational lighting:

- Rotating amber beacon on top of cab (not to exceed 90 inches overall height).
- Parking brake light.
- Lighting systems comply with road traffic regulations.
- Head, tail, and side operation lights. Turn & hazard signals. Reverse lights.
- Front and rear hitch work lights.

General requirements:

- Instruments and controls.
- In addition to the instruments supplied on the standard commercial tractor, an hour meter shall be installed in the instrument panel. Except the hour meter, all instruments shall illuminate.
- All vehicle controls shall be located within easy reach of the operator in the operator's cab.
- All controls shall be clearly marked as to their use and function.

Reverse alarm:

- An audible backup alarm shall be furnished. The alarm shall automatically activate when the tractor selector is placed in reverse.

Horn:

- An electric horn shall be provided. The horn may be hand or foot actuated.

Weatherproof:

- Weatherproof dash cam.
- Optional back-up camera (CCTV System):

Fire Extinguisher:

- A commercial fire extinguisher shall be mounted on the exterior of the tractor in an easily accessible location.
- The fire extinguisher shall be a minimum 20-pound capacity ABC type, or equivalent.
- The fire extinguisher shall be UL listed.

Dissimilar metals:

- Unless suitably protected against galvanic corrosion, dissimilar metals shall not be in intimate contact with each other.

Coating:

- The tractor shall be primed and painted using standard commercial practices using commercially available coatings and shall conform to coating manufacturer's guidelines.
- The finish shall show no evidence of uneven application, curtains, runs, snags, orange peel, lack of adhesion, or other defects.

Primer:

- The primer shall consist of a base coat of zinc-rich primer and an intermediate primer coat.

Tropical Rustproofing Package:
This should be considered a premium rust proofing package usually consisting of an additional coating. The tractor shall be treated with a corrosion preventative compound complying with AA-59295. Some of these tractors may be used in tropical/coastal environments and experience high humidity and salt spray. These environments usually cause high levels of corrosion in the areas listed below. At a minimum, these areas shall be coated in the following:

- Cab, interior
- Cab, exterior
- Seams
- Welds
- Hidden recessed areas
- Locations where dissimilar metals come in contact
- Battery box

Topcoat:

- The final top-coat shall be the manufacturer's standard commercially available polyurethane.
- Exterior / Interior Color: Semi-gloss White.
- Chassis / Frame / Suspension Color: Flat Black.

Drain holes:

- Structures shall be designed to eliminate pockets where debris and water might accumulate. All structural configurations shall allow water run-off or shall have adequately sized and placed drain holes.

Walkway / Step coating:

- Floor plates and step surfaces shall be coated with a nonslip coating compound or be furnished with a nonslip metal or tread plate surface.

Markings, data plates, and instruction plates:

- Corrosion resistant identification plate and all warning and instruction plates shall be provided and permanently mounted on the tractor. The identification plate shall contain the following information:
    - Tractor, Aircraft Towing
    - Capacity: (___) DBP
    - Gross Vehicle Weight (GVW):
    - National / Local Stock Number (NSN): (Provided by CG)

- Contract Number:
- Serial Number:
- Model Number:
- Manufactured by:
- Manufacturer Name:
- Manufacturer Address:
- Manufacturer Service Phone Number:
- US Property
- ATA airport markings for Ground Support Equipment.
- Markings must be reflective.

Slinging and tie down provisions:

- Slinging and tie-down devices that enable the tractor to be tied down to the floor of a transportation medium shall be provided. All devices should be easily accessible and minimize the need to crawl under the vehicle when securing it.
- All devices shall be capable of accepting a chain and hook with an outside diameter of 3.00 inches through its opening and shall have a structural safety factor of 2.3 to 1, based on static load.
- The notation “LIFT HERE” or “TIE-DOWN” shall be stenciled in paint near each lifting and tiedown device.

Transportability:

- The tractor shall withstand, without damage, highway, rail and marine transport.

Manuals:

- One (1) complete hardcopy of printed operation manual per delivery.
- One (1) complete electronic (PDF) copy of (operation, maintenance, and parts) manuals.
- Permission to upload electronic copy of manuals to USCG intranet for internal use.