

March 15, 2011

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF PURCHASING AND SUPPLY
SPECIFICATIONS FOR 46,000 GVW ROAD TRACTOR**

PURPOSE:

The purpose of this specification is to establish a purchase requirement for a three axle conventional cab 46,000 lbs. GVW road tractor for use by the Blue Ridge Community College, Agencies, and other Public Bodies of the Commonwealth of Virginia. Vehicles in this specification are for instructional use in the driver training program curriculum at Blue Ridge Community College

The following specifications are intended to define the general level of quality and performance of the requested equipment, and may be exceeded. Vehicles offered by bidder may contain equipment that is in addition to the basic vehicle equipment required in the specifications below, or which exceeds the basic equipment stated in the specifications below. The specifications are not meant to be restrictive as to brand name or manufacturer. All equipment bid may be the brand name and model, or shall be equivalent to brand names and/or any other specification elements using the Use of Brand Names clause (see General Terms and Conditions) in making an equivalence determination.

SCOPE:

The specifications below describe the general requirements for **two (2)** new road tractors, to be used by the Blue Ridge Community College for driver training instructional purposes. The vehicles supplied must comply with all U. S. Department of Transportation, National Highway Traffic Safety Administration, Bureau of Motor Carrier Safety, Federal Motor Vehicle Safety Standards, EPA emissions regulations, and State of Virginia rules and regulations in effect at the time of purchase.

BIDDER REQUIREMENTS:

The equipment offered in answer to this request for bid must be new and unused current production models of the equipment required. No prototype, or demonstrator, or rebuilt product will be accepted, and offering of such a product will be cause for bid rejection.

Bidder must provide with bid a completed specifications form with information of tractors offered filled in at the appropriate places in the specifications form. Bidders may use the lines in the right column across from specifications to provide clarifying information. A blank line in the right column indicates bidder compliance with the specification item. All blank lines in the specifications text in the left column requiring information must be filled out with appropriate data. Bidders/Vendors shall indicate any deviations with appropriate reasons and documentation. The Commonwealth reserves the right to obtain technical data and to request clarification when deemed necessary. **Failure on the part of the bidder/Vendor to provide all requested documentation may be cause to reject the bid/request as non-responsive.**

Delivery of the (2) vehicles must be made by **May 1, 2011**. Deliver vehicles to Blue Ridge Community College, One College Lane, Weyers Cave, VA 24486, Attention: Mike Eller. Vehicles must be put in service by a representative of the contractor at the delivery location. The representative must demonstrate that the vehicles and all installed equipment are operating correctly, with no defects in materials or installation. The representative must operate all the installed equipment on each vehicle, and instruct BRCC personnel in operation, safety requirements, and maintenance of the installed equipment.

Engine must be electronically road speed governed to a maximum speed of 70 MPH.

Manual transmission with (10) or (13) forward speeds:

- Eaton/Fuller or equivalent, with approximately 12:1 low gear, and approximately 0.7:1 overdrive final gear ratio. Mfg./model/ratios: _____
- Pressure lube pump
- Transmission must be rated for engine maximum torque
- Transmission must be mated with heavy duty self adjusting clutch assembly, Eaton Solo or equivalent, rated for maximum engine torque.
- Magnetic drain plug

Radiator with welded or permanently bonded construction, to provide adequate cooling for prolonged engine idling, and full GVW road travel engine operation, at 100°F ambient temperature.

- Ethylene glycol base coolant anti-freeze protection to -20°F or lower
- Coolant hoses to have constant torque clamps

Vertical exhaust pipe(s):

- If single vertical exhaust pipe, preferred location is on curb (right) side.
- If dual vertical exhaust pipes, locate on left and right sides
- Top of pipe(s) preferred to have a 90° turn-out away from truck for exhaust deflection. State top end of exhaust pipe arrangement : _____

(2) Under-cab fuel tanks, 200 gallons minimum total capacity, using both tanks. State fuel capacity: _____

FRONT AXLE AND SUSPENSION:

Provide a 12,000 lbs. GAWR capacity non-driving front axle
 Power steering
 Shock Absorbers
 12,000 lbs. minimum capacity front suspension
 Axle manufacturer standard wheel seals, or oil lubricated front wheel seals with sight lens and synthetic oil lubricant

REAR AXLE AND SUSPENSION:

34,000 pounds GAWR minimum capacity full driving tandem rear axle
 Shall be equipped with driver controlled locking differential.
 ▪ Driver controlled locking differential must have a highly visible driver warning indicator showing that it is engaged. Indicator must be illuminated when lock is engaged, and must be readily visible to the driver in full daylight conditions.
 Rear axle ratio to be matched with final output gear ratio of transmission, to provide a maximum road speed of 75 MPH with

11R 22.5 rear tires per this specification.
 Minimum 34,000 lbs. capacity air suspension
 Rear shock absorbers, 2-axle air ride
 Axle manufacturer standard wheel seals, or oil lubricated wheel seals with sight lens and synthetic oil lubricant
 Rear axle spacers as needed to provide level frame
 Rear wheels fenders to cover all wheels of tandem rear axle
 No-sail mud flaps at rear wheels

BRAKES:

Provide dual air brakes system for truck tractor application.

- Must include full 4-channel antilock ABS system, controlling all wheels braking

State front brakes: _____

State rear brakes: _____

Spring actuated, air release parking brakes, rear wheels

Automatic slack adjusters front and rear

Dust shields, front and rear

Non-asbestos brake lining material

Air compressor, minimum 13.2 CFM, with receiver tank(s)

- System must be sized to meet chassis air requirements

Heated air dryer

Pull cables on all air reservoirs

WHEELS AND TIRES:

Front wheels to be (2) hub piloted steel disk or aluminum, 22.5 x 8.25

Rear wheels to be (8) hub piloted steel disk or aluminum 22.5 x 8.25

Front tires- (2) 11R22.5-14 ply highway tread, or equivalent radial, load rated for full axle GAWR

Rear tires- (8) 11R22.5-14 ply highway tread, or equivalent radial, load rated for full axle GAWR

(1) Spare tire, mounted on a hub piloted steel wheel

FIFTH WHEEL AND TRAILER CONNECTION EQUIPMENT:

Sliding 5th wheel assembly, Holland, Fontaine, or equivalent 24" fifth wheel travel

Left hand fifth wheel release

Rearmost fifth wheel position to be kingpin center at 3" in front of rear axle centerline

36" slide bar with spring type trailer air hose hanger

15' coiled trailer air hoses

Dummy glad hands and light plug holder

SAE J560 7-way trailer cable receptacle, mounted back of cab

15' detachable 7-way primary trailer electrical cable, with SAE J560 connectors

Trailer air brakes connections, to operate trailer air brakes

- Tractor protection valve
- Hand control valve – Trailer brake

- Parking brakes valve – combination valve for tractor and trailer

ELECTRICAL:

12 Volts DC negative ground electrical system
 Lighting package to meet FMVSS 108 requirements, and state of Virginia requirements
 Wiring for chassis lights must be minimum 14 gauge stranded copper, and protected in loom.
 Circuit breaker or equivalent electrical circuit protection
 Provide minimum of (2) group 1231 batteries, or equal, for starting, 2150 CCA minimum, with threaded posts
 Provide a battery charging / jump starting positive stud in vicinity of batteries, easily accessible
 150 amp alternator, minimum, must be heavy duty unit
 Instrument package with non-resetting hour meter, to show total engine hours
 12 volt power port in cab
 Manufacturer standard headlights
 Cab interior dome light with switch
 Intermittent windshield wipers, with windshield washer
 Solid state turn signals flasher
 Solid state electrical back-up alarm

CAB:

Conventional cab
 Sleeper compartment, minimum 48” with all standard equipment
 Air suspension cab mounting
 Aerodynamic fairing on top of cab roof
 Tinted glass, all windows
 Cruise control
 Tilt steering wheel
 Low air pressure light and buzzer
 All standard instrumentation
 Cab access for driver and passenger sides, to include grab handles and steps for safe entrance and exit of cab
 Dual west coast retractable mirrors, rectangular 16”x 7” size, stainless steel, heated, 102” wide
 (2) 8” diameter stainless steel convex mirrors, installed below rectangular mirrors, one each side
 Dual electric horns, or air horn
 Bug shield for radiator
 Standard interior trim, with standard interior color – light
 Heater with defroster
 Cab air conditioning
 Cab sound insulation package for maximum available noise reduction
 Air suspension high back driver seat
 Air suspension high back passenger seat
 Standard AM-FM radio

Driver and passenger interior sun visors
Minimum (2) keys each vehicle

MISCELLANEOUS:

10 lb fire extinguisher, first aid kit, triangular reflectors, flare kit
Back of cab access on street side, with open-grate top of rails
deck plate, from back of cab to front of 5th wheel slider
Provide single color paint, using manufacturer standard paint, as
follows:

- Preferred cab paint is the closest manufacturer standard color to printing industry designation "Reflex Blue".
- Red or yellow cab color is not acceptable.
- If blue is not available, state cab color: _____
- Both road tractors do not have to be the same paint color
- Steel wheels shall be standard black or painted to match cab. Aluminum wheels are natural finish or polished.

Provide color or number coded wiring schematics showing all chassis electrical systems, with each chassis

Provide minimum 25 gallons diesel fuel in fuel tank when delivered to BRCC

Perform pre delivery inspection (PDI) of chassis before shipment

DELIVERY SECTION

DELIVERY TIME ARO FOR (2) ROAD TRACTORS _____
CAN ROAD TRACTORS BID MEET MAY 1, 2011 DELIVERY DATE? _____

TOTAL PRICE SECTION

TOTAL PRICE:

TOTAL PRICE FOR (2) 450 HP ROAD TRACTORS WITH 48" TO 60" SLEEPER, PER SPECIFICATION, INCLUDING DELIVERY AND IN-SERVICE DEMONSTRATION..... \$ _____

State Sleeper size: _____

Specify Wheelbase for vehicle at 102" CA _____