Thruway Authority

POST POUNDER, TRUCK MOUNTED INCLUDING EARTH BORING EQ.

Engine

- Liquid cooled, in-line 6 cylinder, heavy duty diesel type
- The engine shall have a minimum horsepower rating of 245 @ 2,600 rpm
- Minimum 400 cubic inches (6.6 liter)

Exhaust

- Vertical exhaust

Radiator/Cooling

- Manufacturer's heavy duty.
- Each truck shall be equipped with a thermostatically controlled engine block heater with a covered plug in type terminal box mounted in an appropriate location.
- All equipment delivered shall be protected and marked to at least minus 30 degrees Fahrenheit with permanent type antifreeze. Drain cocks shall be furnished in lieu of drain plugs on water drain outlet/s.

Transmission

- Five-speed automatic, Allison model 3500RDS on/off highway or equal

Back up alarm

- Backup alarm with minimum 107db. rating

PTO

- The truck shall include a transmission mounted Chelsea electric over hydraulic hot-shift 277XB PTO or equal with dash mounted switch and indicator light.
- A dash mounted PTO hour meter shall be included. This hour meter shall register any time the PTO is engaged.

Front Axle

- "I" beam type, capacity as required for this application (minimum 12,000 lbs.)
- Front shock absorbers are required

Rear Axle

- Capacity as required for the application (minimum 23,000 lbs.)
- The gear ratio must permit a minimum top speed of 70 mph and shall provide sufficient torque at low speeds to allow a fully loaded vehicle to perform effectively.

Brakes

- Full air system
- Water cooled engine lubricated air compressor
- Compressor air intake shall be through engine air cleaner
- Air dryer with spin on/off filter-assembly shall be installed in brake system. (Bendix AD-SP or approved equal)
- The reservoirs shall have a Schraeder type air charging valve located in the cab, in a convenient, out-of-the-way location (typically in the base of driver's seat).
- Brake shoe assemblies shall be the single anchor pin "S" type with quick change capabilities
- Haldex automatic slack adjusters are required
- Removable dust shields on all wheels
- Rear brake chambers to be combination service/spring parking, entirely epoxy coated sealed type with air exchange tube plug/grommet 8019021 to seal the upper holes. MGM model TRTS or equal.
- Brake component ratings must equal or exceed axle ratings
- Stainless steel clevis pins

Steering

- Manufacturer's recommended power steering

Wheels

- Hub piloted Disc type, 22.5 x 8.25 tubeless single piece
- Nylon spacers between the wheels and between wheels and hubs

Tires

- Steel belted, radial, tubeless type, size 11R22.5 XZY-3 - load range G, 14 ply single front and dual rear
- Front tires shall be Michelin 496 or equal
- Rear tires shall be Michelin 498 or equal
- The front wheels shall be balanced on the truck to within ½ ounce.

Cab

Manufacturer's standard equipment to include but not be limited to the following:

- Conventional closed type
- Tinted glass
- Three occupant seating is required
- A three-point occupant restraint system with retractors shall be furnished on the door sides of all vehicles
- Glove compartment or dual door pockets
- Dual sun visors
- Dual arm rests adequate for use as grab handle
- Dome light
- Factory air conditioning
- Manufacturer's highest output heater with dual defrosters
- Electric intermittent windshield wipers with heavy duty transmission.
- Dual windshield washers with break resistant type reservoir mounted under hood or other approved location
- Two stainless steel exterior Senior West Coast type mirrors. These mirrors are to be factory installed on the right and left hand side of cab and be reinforced at the anchor ends. Mirror heads are to be approximately 7 inches by 16 inches.
- Cab grab handles (both sides of cab) are required
- Adjustable steering column with 18" steering wheel
- Electronic hand control throttle
- Direct reading type gauges (no warning lights), except for low air pressure buzzer and light
- One piece tilt type hood with a prop that will support the hood in an open position
- Cab door locks and ignition lock shall be keyed alike
- AM/FM radio
- Dual electric horns
- Dual air horns roof mounted above driver

Electrical/Wiring

- Each truck shall be equipped with the necessary wiring to accommodate combination stop/turn lighting at the rear of the truck
- Factory wiring to the rear of the truck chassis shall terminate in a waterproof junction box at the rear cross member (Truck-Lite #50400 or approved equal). Junction box and all wiring shall be properly grommetted to prevent moisture from entering the box. Terminals in the specified junction box are identified by color. Color = circuit shall be white = ground, black = (not used in this application) yellow = left turn, green = right turn, brown = taillights/marker lights, red = warning lights, blue = backup lights.
- The truck shall be furnished with two OEM auxiliary rocker switches. Each switch shall be identified with an engraved plastic or metal legend, the first "Rotating", the second "Flashing". Label maker legends are unacceptable. (Should OEM rocker switches not be available, a Federal Signal switch control shall be provided, part #SW300-TWY. Mounting location of switch panel shall be approved by the Authority prior to installation.) Auxiliary switches (whether OEM or switch panel) are to receive power from a minimum 30 amp relay to be energized with the truck key switch in the

run and accessory positions. The load side of both switches shall include circuit protection (15 amps for the “rotating” and 10 amp for the “flashing” switch). The load side of the “warning” switch shall be wired to an under dash mounted solid state flasher, Truck-Lite 97231 or equal, then to the red terminal of the junction box described above. The “rotating” switch will be wired directly to revolving beacon lights described later in this specification.

- All wiring splices shall be done utilizing “UZ Engineered Products” or “Belden Solder Seal” low temp self soldering/adhesive lined shrink tube butt connectors or approved equal. Crimp style connectors are not permitted. Crimp style terminal ends are permitted provided plastic insulation is removed and connection is sealed with adhesive lined heat shrink tubing.
- All exposed wiring shall be enclosed in plastic flexible conduit of the appropriate size and securely fastened to the vehicle along its routed path. Any wiring passing through a plate or panel shall be supplied with a grommet.

Battery

- 12 volt, CCA rating of not less than 1950 at 0° Fahrenheit
- Maintenance free type
- Sealed connectors (dielectric grease)

Electrical Generating System

- Heavy duty 130 ampere alternator with manufacturer’s recommended heavy duty regulator and ammeter or voltmeter.
- The installation shall include splash pans, if necessary, to protect the system components from road splash.

Fuel Tank and Steps

Shall be safety type step tank, approximately 50 gallon capacity. If the first step is 24” or more above the ground, additional steps are to be added. These steps shall be approximately 18” above the ground and formed from grip strut Tread grip. The step shall not protrude beyond the widest part of the truck.

Front Bumper: Manufacturer’s standard

Tow Hooks: Front only, two required

Truck Bed & Turntable Ring: The longitudinal and cross sills up the truck bed shall be made from 4 inch channel, 7.25 lbs per foot. The bed floor 1/8 inch diamond plate steel welded to the cross members and the outer edge bed rails which are to be 4 inch channel 7.25 lbs. per foot. The Turntable Ring is to be made from w5x18.9 steel and welded to the bed cross members. The center pin housing is to be made from 10 inch o.d. x 9 inch 1.d. steel and welded to the appropriate cross members with adequate welded braces to

insure structural integrity. A bulkhead located at the front of the bed shall be made from 3/16 inch x 8 inch steel and extend rearward at the front corners of the bed for a distance of 8 inches. Rear corner outriggers.

Turntable: The 245 degree rotation turntable provides support for the fore and aft frame. The turntable is supported by the one piece turntable ring made from steel.

Main Frame: Heavy duty box beam main frame with 36 inches of in and out travel.

Hammer Lead Assembly: Heavy duty square tube construction w/15' main boom that is constructed from square tubing.

Hammer: 1000 lb. hammer, 12 feet of hammer stoke

Driver Head: Fabricated steel anvil. The driver head is 3"x8" composite material.

Foot Assembly: Heavy duty reversible foot assembly with 42 inch stroke. Foot will handle 10x10 posts and adapt to all smaller sizes.

Anvil: Adapters are to be bolted to the anvil by four bolts. One man must be able to change adapters in minutes.

Cable Sheaves: Shall be heavy duty cable sheaves with ball bearings, ½" wire rope cable.

Post Puller: The post puller shall use a dedicated heavy duty cylinder that develops 18,000 lbs. of pulling force.

Hydraulic System: Hydraulic pump – 30 GPM – 2000 PSI Hydraulic tank minimum 50 gal. capacity with external oil cooler, 100 mesh suction strainer, sight glass oil level indicator for full and low marks, bolt on top inspection cover, breather & fill cap with dirtstrainer screen, and high capacity 10 micron full flow filter. Hydraulic pump runs off of truck PTO.

Hydraulic Cylinders: Shall be heavy duty commercial cylinders with chrome rod.

Machine Base Weight: Approximately 13,500 lbs. less truck without drill attachment.
Approximately 14,500 lbs. less truck with drill attachment.

Machine Positioning: 245 Degree turntable. 3' Main frame in and out travel – 45 degree boom side leveling travel (22.5 Degrees from vertical). Elevating – from rest to 13 degrees over vertical. Positioning cylinders - ± 15 degrees. Foot travel – 42" stroke.

Tool box: Two tool boxes (if room is available) 18" x 18" x 60" shall be mounted under body.

Paint: Shall be same as paint for truck (see above).

Hydraulic Stabilizers: There shall be two hydraulic stabilizers that extend straight down.

They will be mounted on the rear of the truck. These stabilizers shall incorporate double acting cylinders so that they are both raised and lowered by hydraulic power. The hydraulic cylinders shall also incorporate double holding type check valves to lock oil in the cylinders until hydraulic control power is used to raise or lower them. These check valves shall also serve as safety valves, holding the stabilizers in position even when hydraulic power is lost or a connecting hose is cut or disconnected.

Controls

One set of controls, including operator seat, to be located off the rear of the turn-table affording operator full view of driving operation.

Indicators

Dash mounted warning lights to indicate stabilizers are extended and mast not stowed.

Rear Lighting

The vehicle body shall utilize rubber grommet mounted clearance and marker lamps where possible (Truck-Lite or equal). Stop, turn, tail and backup lamps module shall be included (Truck-Lite 40748 L.H. and 40749 R.H. or equal). These modules shall be installed in a framed bracket attached to the underside of the body immediately inboard of the amber flashing warning lights described below. Modules must be minimum 3" forward of the body rear edge. Module wiring shall run to the chassis mounted junction box described earlier.

Special Lighting

Mounted to the body bulkhead shall be two (one each side) amber rotating lamps (Star 400B). This lamp shall be attached to .125" thick rounded steel plate with gussets to reduce vibration and bolted to the bulkhead. These lights are to be wired with 12 gauge wire down through the body and to the truck cab switch labeled "rotating" described earlier. If the truck cab is higher than the bulkhead, vertical extension posts will be required allowing the rotating light mounting plate to be level with the cab roof.

The rear of the stake body shall include two amber warning lamps (Truck-Lite 40001Y with mounting brackets 40720 or equal). These lamps shall be mounted to the underside of the body perimeter rail as wide as practicable. Lights/brackets must be a minimum of 3" forward of the body rear edge. These lights will be wired with 12 gauge wire to terminal 4 of the chassis junction box described earlier.

Wiring shall be covered with flexible plastic conduit and properly secured. No splices are permitted between the switches and lights, other than the required splices at the lights. Any wiring passing through a plate or panel shall be supplied with a grommet.

The rear of the vehicle shall be equipped with under-run protection and mud flaps as required by FMVSS.

REFERENCE OR EQUIVALENT

Standard Cab & Chassis Truck

Manufacturer: Kenworth
Model: T370
Wheelbase: 188”
Cab-Axle: 120”
G.V.W.R.: 35,000
G. A. W. R. Front: 12,000 lbs.
G. A. W. R. Rear: 23,000 lbs.
Single or double rail frame: Single
Section modulus of the frame: 14.80 in.3
RBM of the frame: 1,776,000 in/lbs.

Engine

Cylinder/Liters: six cyl. 6.7 liters
Alternator capacity: 160 amperes
Battery: 2000 CCA @ ºF

Transmission

Make & model: Allison 3500 RDS
No. forward speeds: Five
Final drive ratio (rear axle): 5.25

PTO — Make & model: Chelsea 277XB

Tires — Make & model: Michelin X24-3
Size & Load Range: 11R22.5 14 PL7

Body — Make: GRT
Model: MDSCPDDL1510

Paint — Manufacturer: Dupont
Color code: AXALTA 224 EB Yellow