Checklist for Preparing Basic Specifications for a Light Duty Sign and/or Service Truck

HERPICC

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CHECKLIST FOR PREPARING BASIC SPECIFICATIONS FOR A LIGHT DUTY SIGN AND/OR SERVICE TRUCK

APRIL 1984

PURDUE UNIVERSITY - SCHOOL OF CIVIL ENGINEERING
In cooperation with
INDIANA DEPARTMENT OF HIGHWAYS
INDIANA ASSOCIATION OF COUNTY COMMISSIONERS
INDIANA ASSOCIATION OF CITIES AND TOWNS
FEDERAL HIGHWAY ADMINISTRATION
Attached is a Checklist for Preparing the Basic Specifications for a Light Duty Sign and/or Service Truck.

A sample specification with statements, format and wording is available in the HERPICC publication "A Checklist and Sample Specifications for Single and/or Tandem Axle Dump Trucks", February 1983.

The information in this publication was developed by the HERPICC Task Group on Maintenance Equipment Guidelines composed of the following:

Jim Harper, Street Commissioner, Crawfordsville
Lloyd Jones, Professor, Civil Engineering, Purdue
Sherril Page, Sullivan County Surveyor
Eugene Shurte, LaPorte County Road Supervisor
J. William Strange, Hancock County Highway Engineer
Dick Thompson, Huntington County Engineer
Sean Watt, Director of Division of Transportation, South Bend
Wallace W. West, Indiana Department of Highways

HERPICC is proud to acknowledge the time and effort these men put into developing these items.

Other publications on Maintenance Guidelines are:


If you wish to obtain a copy please contact HERPICC. If you have comments or suggestions, please write to me.

Sincerely,

Charles F. Scholer
Associate Director
HERPICC

HERPICC's Toll Free (In Indiana)
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CFS:ms
CHECKLIST FOR PREPARING BASIC SPECIFICATIONS FOR A LIGHT DUTY SIGN AND/OR SERVICE TRUCK

The following pages contain suggested items to be considered when seeking bids for a service truck to be used for sign maintenance or other general service.

General description of equipment being bid.
Statement of requirement of manufacture of equipment.
Statement of standardization of all component parts of unit.
Statement of parts availability and access.
Statement of location of manufacturer and/or assembly of unit(s).
Statement of bid submitting requirements.
Statement of indemnification of local agency concerning patent devices.
Statement concerning description of term "or equal".
Statement of terms for accepting unit(s), new and used, year hold overs, inspection of unit(s), local, state and federal requirements, disposition of trade-in unit(s).

Vendor shall provide the following engine information:

<table>
<thead>
<tr>
<th>Vehicle Make</th>
<th>Model</th>
<th>Year</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Engine (Gasoline) (Diesel) (Natural Gas) (Propane)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Make</th>
<th>Model</th>
</tr>
</thead>
</table>

Number of Cylinders stroke-cycle.

<table>
<thead>
<tr>
<th>Bore and Stroke</th>
<th>x</th>
</tr>
</thead>
</table>

Displacement cubic inches

Taxable Horse Power

Gross Brake Horse Power @ R.P.M.‘s

Note: Vendor is to complete this Checklist and submit in duplicate with Bid. Failure to complete and submit the Checklist may cause the bid to be rejected.
Continuous (Net) Brake Horse Power @ R.P.M.'s
Governed Speed @ R.P.M.'s
Peak Torque ft. lbs. @ R.P.M.'s
Compression Ratio:
Carburetion (Carburetor) (Naturally Aspirated) (Turbo Charged)
(2 Bbl) (4 Bbl) (Other)
Extended Warranty (Yes) (No)
Cooling System: Radiator Capacity quarts
Overflow recovery system (Yes) (No)
Corrosion Resistor (Yes) (No) Type Location
Silicone Hose System (Yes) (No)
Engine Block Heater(s) (Yes) (No) Number Size Watts
Type Location
Filters: Air-Type Location
Oil - Number Location
Fuel (Yes) (No) Type Location
Water (Yes) (No) Type Location
Starter: Rated Heaviest Duty for this application by manufacturer
Alternator/Generator: amperes (Brush) (Brushless)
Make and Model
Regulator: (Integral) (External)
Ignition: (Compression Ignited) (Spark Ignited)
Batteries: Quantity (Standard) (Maintenance Free)
Voltage
Ampere Hour Capacity Cold Crank Power @ 0 degree F
Dry Weight (each) Group Number
Mounting Location
Electrical System: (Standard) (Weatherproof) (Betts System)
(Or Equal) (Circuit Breakers) (Fuses)

Headlights: Type ________________________________

Tail Lights - Type and Location ________________________________

Working Lights - Type and Location ________________________________

Watts ___________ Candle Power ________________________________

Strobe Lights - Candle Power ______ (Fixed) (Variable)

Separate Power Source (Yes) (No)

Mounting Location(s) ________________________________

Arrowboard (Yes) (No)

Exhaust System: (Left Side) (Right Side) (Rear)

(Single) (Dual)

Muffler - (Standard) (Stainless Steel)

Clutch: Size ________________________________

Transmission: (Manual) (Automatic) Model ________________________________

Number of (Gears) (Speeds) Forward ___________ Reverse ___________

Auxiliary Cooler (Yes) (No) Temperature Gauge (Yes) (No)

Power Take Off for Central Hydraulics (Yes) (No)

Gross Vehicle Weight: __________________ pounds

Front Axles: Load Rate at ground ________________ pounds

Power Steering (Yes) (No)

Stabilizers (Yes) (No)

Shock Absorbers Type ________________________________

NOTE: Notify vendors if a snow plow will be mounted on front of truck and approximate weight of the plow and complete hitch.

Rear Axle(s): Model ________________________________

Load Rate at ground ________________ pounds
No Spin (Yes) (No)

Gear Ratio(s)

Springs: Front Springs - Load capacity at ground (total) ___ lbs.
  Rear Springs - Load capacity at ground (total) ___ lbs.
Auxiliary Springs: Load capacity (total) _______ lbs.

Wheels: Size ______ (5 hole) (3 hole)

Wheels shall conform to American Wheel and Rim Association standards.

Tires: (Radial) (Tubeless) (Tube Type)

  Tread Style - Front ___________ Rear ___________

  Tire Size - Front _______ Ply _______ Quality _______
  Rear _______ Ply _______ Quality _______

Frame

  Yield Strength ___ psi. RBM ______ Section Modulus_______
  Reinforcement (Yes) (No) Description ______ Section Modulus_____
  Frame Extensions (Yes) (No) Length _______________________

Chassis Dimensions and Weights

  Cab to Axle (CA) _____ inches. Overall Length (OAL) ____ inches
  Wheel Base (WB) _____ inches. Weight on Front Axle _____ pounds
  Axle to Rear Frame End (AF) _____ inches. Weight Rear Axle____ pounds.
  Bumper to Behind Cab (BBC) ______ inches
  Turning Radius (dia. of Tire) ______. Total Weight ______ pounds

Brake System: (Hydraulic Assisted) (Disk) (Shoes)
  (Front Disk - Rear Drum)

  Pad Size: Front____ Rear____ Total Area____ Square Inches _____
  Drum Diameter _________ Shoe Width ________________
  Parking Brakes Specifications __________________________________

Fuel Tanks
Size of each tank ___ gallons. Number of tanks ________________

Tank Marking (Diesel #1 or #2) (Gasoline - Regular, Unleaded, etc.)

Cab

Ventilated and Insulated (Standard) (Deluxe)

Tinted Glass (Yes) (No) (Windshield Only) (All Windows)

Inside Dome Light (Manual Operated) (Door Operated)

Cigar Lighter (Yes) (No)

Seats (Bench Type) (Bucket Type)

Heater and Defroster (Standard) (Heavy Duty)

Air Conditioning (Yes) (No) (Standard) (Deluxe)

Sun Visors (One) (Dual)

Arm Rests (One) (Dual)

Radio (Yes) (No) (AM/FM) (AM)

Windshield Wipers & Washers (2 Speed) (Intermittent) (Electric) (Air)

Right Side Door Window Control (Manual) (Electric)

Mirrors - Size _______ Type ________________

Adjustable Convex Mirror on Right Side (Yes) (No) Size _________

Backup Alarm (Yes) (No) Type ________________________

Exterior Grab Handles (Yes) (No)

Locking Hand Throttle (Yes) (No)

Hood (Interior Lock) (Exterior Lock)

Dash Mounted Gauges

Fuel (Switchable to either tank) (Separate gauge each tank)

Tachometer (Yes) (No)

Hourmeter (Yes) (No)

Ammeter/Voltmeter (Light) (Needle Type) (Calibrated)

Oil Pressure (Light) (Needle Type) (Calibrated)
Water Temperature (Light) (Needle Type) (Calibrated)

Paint: Color __________________ Type __________________

Preparation __________________________________________

Rustproofing

Interior (cab) - Type of Material ________________________

Exterior (cab) - Type of Material ________________________

Frame - Type of Material ______________________________

Warranty of Cab and Chassis

Rustproofing warranty equal to cost of rustproofing ______

Rustproofing warranty equal to cost of actual repairs ______

Rustproofing warranty equal to length of warranty of truck ______

Description __________________________________________

Manuels

Operators, parts and service (Number of each required) ______

Delivery Time

List of number of weeks required for delivery of Unit(s) from
date of order __________________ weeks.

Bed/Accessories

Length __________________ Width _________________________

Cab Protector Type ______________________________________

Safety Rails __________________________________________

Cross Members Type __________________________ Number _______

Deck - Wood Thickness __________ Steel Gage ___________

Standard Reinforcement (Yes) (No)

Optional Reinforcement (Yes) (No) Type ________________

Rear Step/Bumper
Hitch Type

Compartments/Racks

 Signs (Yes) (No) Dimensions

 Tools & Equipment (Yes) (No) Dimensions

Parts

Fasteners

Barricades

Special Equipment

Post Drivers (Yes) (No) Description

Post Puller (Yes) (No) Description

Welders/Torches

Power Source(s) (Air) (Electric) (Hydraulic) (Other)

Lifts/Hoists - Description

Swing Out/Sliding Platform (Yes) (No) Description
APPENDIX

The five figures presented in this Appendix were prepared from sketches contributed by Richard Thompson, Huntington County. They are suggestions developed from his experience in fabricating a sign maintenance truck for their county use.

If you have a suggestion for a helpful device or arrangement - please share it with others by sending a sketch/photo and description of it to HERPICC for possible inclusion in future guidelines.
FIGURE 1. SUGGESTED ARRANGEMENT FOR A SIGN MAINTENANCE TRUCK

Note: Expanded Metal Platform above toolbox with Handrail. Huntington County used exhaust pipe to make rails - works very well.
Note: 60 lb. and 100 lb. weights are available on this truck for post driving using a 3/4" rope.

FIGURE 2. A SUGGESTED LAYOUT FOR A SIGN MAINTENANCE TRUCK
FIGURE 3. SUGGESTED ARRANGEMENT FOR THE HYDRAULICALLY OPERATED POST DRIVER
FIGURE 4. SKETCH OF A BARRICADE RACK
FIGURE 5. SKETCH OF A SIGN STORAGE BOX

Note: Make as nearly weather tight (dustproof) as reasonable. Huntington County used metal rods with about 48" x 100" canvas pockets which can be lifted out for easy sign removal. Also used some more shallow for smaller signs.
P.A. Checklist for Preparing Basic Specifications for a Light Duty Sign and/or Service Truck