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:

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Lloyd Jones, Professor, Civil Engineering, Purdue
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Eugene Shurte, LaPorte County Road Supervisor
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Dick Thompson, Huntington County Engineer
Sean Watt, Director of Division of Transportation, South Bend
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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,

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SCHOOL OF CIVIL ENGINEERING AND INDIANA DEPARTMENT OF HIGHWAYS
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 holdovers, inspection of unit(s), local, state and federal requirements, disposition of trade-in unit(s).

Vendor shall provide the following engine information:

Vehicle Make ___________ Model ___________ Year ______

Engine (Gasoline) (Diesel) (Natural Gas) (Propane)

Make ___________ Model ___________

Number of Cylinders ___________ stroke-cycle.

Bore and Stroke ___________ x ___________

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 ____________________________________________

________________________________________________________________________

Manuals

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
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<th>Category</th>
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<td>Post Puller</td>
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<td>Welders/Torches</td>
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<td>Power Source(s)</td>
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<td>Swing Out/Sliding Platform</td>
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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.
Adjustable Support Plate
for Post Pulling

Rear Step Bumper

Post Puller
under Bed

Driver
Holder

Enclosed
Sign Rack
50" Deep

Top
Opening

50"

24"

Toolbox (Front Opening)

Enclosed
Sign Rack

50" Deep

Top
Opening

24"

Toolbox (Front Opening)

Fuel
Tank
under
Bed

Operator

Controls
within Reach

Hydraulic
Reservoir
under Bed

Tool Rack

Oxy.

Acet.

Cab Shield

Expanded Metal Deck above Toolbox for Working Platform w/ Handrail

Note: Expanded Metal Platform above toolbox with Handrail. Huntington County used exhaust pipe to make rails - works very well.

FIGURE 1. SUGGESTED ARRANGEMENT FOR A SIGN MAINTENANCE TRUCK
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
Barricade Rack

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