CRANE, FULLY HYDRAULIC, 5,000-POUND CAPACITY AT FOUR FOOT RADIUS, FOR TRUCK MOUNTING

PART I
GENERAL CLAUSES AND CONDITIONS

1. The equipment furnished under this specification shall be the latest improved model in current production, as offered to commercial trade, and shall be of quality workmanship and material. The bidder represents that all equipment offered under this specification shall be new. USED, SHOPWORN, DEMONSTRATOR, PROTOTYPE, OR DISCONTINUED MODELS ARE NOT ACCEPTABLE.

2. Bidder should submit with the bid, or have on file with the Texas Department of Transportation, Austin, Texas, the latest printed literature and detailed specifications on equipment the bidder proposes to furnish. This literature is for informational purposes only.

3. The unit shall be completely assembled and adjusted, and all equipment including standard and supplemental equipment shall be installed and the unit made ready for continuous operation.

4. All parts not specifically mentioned which are necessary for the unit to be complete and ready for operation or which are normally furnished as standard equipment shall be furnished by the vendor. All parts shall conform in strength, quality, and workmanship to the accepted standards of the industry.

5. The unit provided shall meet or exceed all Federal and State of Texas safety, health, lighting, and noise regulations and standards in effect and applicable to equipment furnished at the time of manufacture.

6. It is the intent of this department to purchase goods, equipment, and services having the least adverse environmental impact, within the constraints of statutory purchasing requirements, departmental need, availability, and sound economical considerations. Suggested changes and environmental enhancements for possible inclusion in future revisions of this specification are encouraged.

7. TxDOT encourages all manufacturers to comply voluntarily with the Society of Automotive Engineers (SAE) Recommended Practice for marking plastics parts per SAE J1344 APR93. All plastic components furnished to this specification should have an imprinted SAE symbol identifying the resin composition of the component so that the item can be recycled after its useful life. Manufacturers are encouraged to use recycled plastics and materials in the manufacture of their products in order to conserve natural resources, energy and landfill space.

8. TxDOT is committed to procuring quality goods and equipment. We encourage manufacturers to adopt the International Organization for Standardization (ISO) 9001-9003 standards, technically equivalent to the American National Standard Institute/American Society for Quality Control (ANSI/ASQC Q91-93 1987) and obtain certification. Adopting and implementing these standards is considered beneficial to the manufacturer, TxDOT, and the environment. It is TxDOT’s position that the total quality management concepts contained in these standards can result in reduced production costs, higher quality products, and more efficient use of energy and natural resources. Manufacturers should note that future revisions to this specification may require ISO certification.

9. TxDOT is in the process of converting to the metric system. During the interim changeover period, measurements will be given in both the English and metric system. Where any conflict between the two stated measurements may occur, the measurements provided in the English system shall supersede those provided in the metric system.
1. This specification describes a fully hydraulic crane with a minimum 5,000-lb. lifting capacity at four foot radius. The cranes bid shall meet or exceed the latest revision of OSHA 1910.180 and ANSI B30.5. On request, the manufacturer shall furnish the State documentation certifying compliance with these standards. Cranes furnished to these specifications shall meet or exceed all requirements herein.

**EXAMPLE:** Auto Crane Model 5005H,
Liftermore Model 2550X-16

**NOTICE TO BIDDERS:** Any example shown is listed to show type and class of equipment desired. Bidders are cautioned to read the requirements herein carefully, as there may be special requirements not commonly offered by the equipment manufacturer. Do not assume your standard equipment meets all requirements merely because it is listed as an example. Bidders are cautioned that units delivered to FOB points which do not meet requirements in every aspect will not be accepted.

2. **LIFTING CAPACITIES:** The unit shall be hydraulic power up and down through a minimum 370-degree and stop, or 360-degree continuous hydraulic rotation.

2.1 The unit shall have the following lifting capacities:

2.1.1 At a four foot (1.2 m) radius, the crane shall have a minimum capacity of 5,000 pounds (2268 kg), double lined, fully retracted.

2.1.2 The unit shall be rated at a minimum of 1,320 pounds (600 kg) with the boom horizontal at a radius of 15 feet (4.6 m).

3. **TRUCK CHASSIS:** The crane shall be suitable, as furnished, for mounting on a truck having a 11,000-pound (4,990 kg) GVWR, and equipped with outriggers.

4. **BOOM:** The unit shall be equipped with a boom support rest and retaining strap(s) to hold and retain the boom assembly for transport.

4.1 Boom shall hydraulically extend, retract, elevate, lower and rotate in either direction.

4.2 Boom shall hydraulically extend to a minimum of 15 feet (4.6 m).

5. **WINCH:** The hoist winch shall meet all applicable ANSI standards and shall lift a minimum of 5,000 pounds (2268 kg) using a double line pull. The hoist winch shall be worm-gear or planetary gear driven with the appropriate reduction. Shall be equipped with a brake that will prevent lowering of the load until the control for lowering the load is activated. Cable drum shall be complete with a minimum of 80 feet (24 m) of 5/16-inch (8 mm) galvanized aircraft cable. Cable shall be minimum 9,600-pound (4,355 kg) breaking strength. A minimum three ton (2722 kg) capacity swivel traveling block assembly with roller thrust bearings, and lifting hook with safety latch shall be furnished.

6. **MOTOR:** The crane shall be powered by a hydraulic pump which supplies a minimum five GPM (19 LPM) at 2,350 PSI (16203 kPa). Hydraulic pump shall be driven by a truck transmission power take-off (PTO). Hydraulic system shall have replaceable filters and a minimum ten gallon capacity reservoir.

7. **CONTROLS:** The unit shall be equipped with a proportional feather type remote control pendant for all hoist, boom and rotation operations. Proportional feather type remote control pendant shall be equipped with a minimum 25 foot (7.6 m) cable.

8. **LOAD SENSOR:** A load sensing device meeting OSHA requirements shall be furnished to prevent overloading. The sensor shall stop winch up, boom extension, and boom down operations, but may allow power rotation. The sensor shall allow power hoist down operation.

9. **ANTI-TWO BLOCK:** The unit shall be equipped with a boom tip mounted anti-two block device which shall prohibit the travelling block or hook assembly from coming into contact with the boom.

10. **OUTRIGGERS:** The unit shall be equipped with the crane-manufacturer's recommended dual hydraulic powered outrigger which meet all applicable ANSI standards. Manually operated outriggers are not acceptable.
11. **LOAD CAPACITY CHART:** A permanent lift capacity chart shall be located near the operator's position, easily visible to the operator. The lift capacity chart shall show rated lifting capacities at various radii resulting from various boom angles and lengths. A gravity activated boom angle indicator shall be permanently mounted to the boom for use with the load capacity chart.

12. **SAFETY PLAQUES OR DECALS:** Safety plaques or decals shall be furnished and shall be affixed at the operator's station and at any hazardous area. The plaques or decals shall include necessary warnings and precautions. Permanent plaques are preferred to decals. Type, size and location of product safety plaques or decals shall be in accordance with ANSI 535.4-1991, or latest revision thereto.

13. **MANUALS:** Two sets of manuals containing an illustrated parts list(s), operating and service instructions for the unit and motor(s) shall be delivered with each unit. The manuals shall be as detailed as possible outlining all necessary service and operating instructions for the unit. Parts list(s) shall cover all components of the unit. Necessary warnings and safety precautions shall be included.

   13.1 The following additional information shall be provided by the vendor at time of delivery if it is not included in the manuals required above.

   13.1.1 Manufacturer's recommended service/preventive maintenance intervals.

   13.1.2 Recommended fluids, lubricants and their SAE equivalents.

14. **PAINTING:** The unit shall be painted an approved manufacturer's lead free white color, except for rubber and those metallic accessories or fixtures constructed of rust-resistant or plated materials not normally painted. Lead paint will not be accepted. Examples of paint meeting this requirement are:

   Du Pont No. 21667
   Ditzler No. DAR 2185
   Sherwin Williams No. F8W230

15. **Warranty:** The unit of equipment shall be warranted against all defects in material and workmanship for a period not less than 12 months and shall cover 100 percent parts and labor for the unit. If manufacturer's standard warranty period exceeds 12 months then the standard warranty period shall be in effect. Vendor shall furnish manufacturer's warranty to the receiving district at time of delivery.

16. **PARTS AND SERVICE:** The manufacturer of the equipment furnished shall have an authorized dealer within the state of Texas. The authorized dealer shall have factory trained personnel available for warranty repairs and the performance of service. The dealer shall also maintain an inventory of high-usage parts and a quick source for low-usage parts.

17. **MOUNTING INSTRUCTIONS:** Crane manufacturer's instructions for mounting of the crane on the vehicle identified on the invitation for bids shall be provided. Crane mounting requirements shall be in compliance with chassis and body manufacturer's recommendations.

18. **DATA SHEETS:** The attached Data Sheet should be completed and submitted in duplicate for informational purposes only.

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**PART III**

**OPTIONAL EQUIPMENT**

Optional Equipment must be specified on the invitation for bids to be required.

1. **OPTION NO. 1:** DRUM TONGS - Drum tongs for use with 55-gallon drums shall be furnished.
### CRANE, FULLY HYDRAULIC, MINIMUM 5,000-POUND CAPACITY AT FOUR FOOT RADIUS, FOR TRUCK MOUNTING

### DATA SHEET

Bidders should insert the requested information and return two copies for informational purposes only.

<table>
<thead>
<tr>
<th>Requisition No.</th>
<th>Opening Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane: Make</td>
<td>Model</td>
</tr>
<tr>
<td>Maximum Lifting Capacity</td>
<td>lbs.</td>
</tr>
<tr>
<td>Motor Horse power</td>
<td></td>
</tr>
<tr>
<td>Extension Cord Length</td>
<td>feet Battery cable length</td>
</tr>
<tr>
<td>Boom length retracted</td>
<td>feet Boom length extended</td>
</tr>
<tr>
<td>Rotation Capability</td>
<td>degrees</td>
</tr>
<tr>
<td>Number of lifting angles</td>
<td></td>
</tr>
<tr>
<td>Winch reduction</td>
<td></td>
</tr>
<tr>
<td>Cable drum diameter</td>
<td>inches</td>
</tr>
<tr>
<td>Cable length, ft. Diameter, inch</td>
<td>Capacity, lbs.</td>
</tr>
<tr>
<td>Warranty Period is</td>
<td>Months</td>
</tr>
</tbody>
</table>

Name and address of firm nearest the FOB point that will provide warranty service and repair parts:

Firm Name

Address

Telephone Number

Individual to Contact
If servicing dealer furnishes parts for minor repairs by Department personnel, will this affect the warranty? __________________. If answer is “yes” please attach explanation.

Name of Firm

Bidder’s Signature

Bidder’s Telephone No.

Print or Type Bidder’s Name

NOTE: THIS ATTACHMENT SHOULD BE RETURNED FOR INFORMATIONAL PURPOSES ONLY.
PREFACE

MES CLASS CODE 2120-00
TEXAS DEPARTMENT OF TRANSPORTATION
GENERAL SERVICES DIVISION

SPECIFICATION NO.
TxDOT 065-94-35
DATED: OCTOBER 1995

CRANE, FULLY HYDRAULIC, MINIMUM 5,000-POUND CAPACITY AT FOUR FOOT RADIUS,
FOR TRUCK MOUNTING

SCOPE: This specification describes a crane, fully hydraulic, minimum 5,000-pound capacity at four foot radius, for truck mounting, used by TxDOT in maintenance of the highway system.

This specification is organized as follows:

- PREFACE
- GENERAL INSTRUCTIONS AND ORDER FORM
- PART I GENERAL CLAUSES AND CONDITIONS
- PART II SPECIFICATIONS
- PART II OPTIONAL EQUIPMENT
- DATA SHEET(S)

GENERAL INSTRUCTIONS: Districts desiring to purchase the equipment described in this specification should thoroughly review all parts contained herein prior to submission of the request. The order form on the following page shall be reproduced, completed by the originator, attached to the request and forwarded to the General Services Division. It is not necessary to attach a copy of the specification to the request. Completion of the order form will provide the General Services Division with the data required for preparation of the requisition.

Districts desiring additional equipment, accessories, or non-standard configurations not contained in this specification must thoroughly define the item, accessory or configuration desired in the additional information section of the order form.

A data sheet completed by the vendor will be provided to the district with a copy of the purchase order for use in checking the equipment for compliance to specifications. If the data sheet is misplaced or not with the purchase order, districts should contact the General Services Division for an additional copy.
DISTRICT __________
MES CLASS CODE 2120-00

ORDER FORM FOR REQUESTING
CRANE, FULLY HYDRAULIC, MINIMUM 5,000-POUND CAPACITY AT FOUR FOOT RADIUS,
FOR TRUCK MOUNTING

This order form shall be reproduced, completed and forwarded with the request by the originating District.

1. Number of Units Requested

2. Optional Equipment: (for each option enter yes or no)
   Option No. 1 - Drum Tongs

3. Additional information, equipment, accessories, configuration, etc. requested:

   __________________________________________________________________________

   __________________________________________________________________________

   __________________________________________________________________________

   __________________________________________________________________________