

TEXAS DEPARTMENT OF TRANSPORTATION  
GENERAL SERVICES DIVISION

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SPECIFICATION NO.  
515-15-005538  
DATED: JANUARY 2000

DIESEL ENGINE

1. The equipment furnished to this attachment 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 these specifications shall be new. USED, SHOPWORN, DEMONSTRATOR, PROTOTYPE, OR DISCONTINUED MODELS ARE NOT ACCEPTABLE.
2. EXAMPLE: Yanmar - Model L100AE-DE-Diesel or TxDOT approved equal  
NOTICE TO BIDDERS: Any example shown is listed to show type and class of equipment desired. Bidders are cautioned to read this specification carefully, as there may be special requirements not commonly offered by the equipment manufacturer. Do not assume your standard equipment meets all detailed specifications merely because it is listed as an example. Bidders are cautioned that units delivered to the F.O.B. points that do not meet specifications in every aspect will not be accepted.
3. Bidders must submit with their bid, or have on file with the Texas Department of Transportation (TxDOT), in Austin, Texas, the latest printed literature and detailed specifications on equipment the bidder proposes to furnish. This literature shall include an engine chart, corrected to standard conditions of air temperature and pressure showing horsepower and other characteristics.
4. The unit shall be completely assembled and adjusted. All equipment, including standard and supplemental equipment, shall be installed, and the unit made ready for continuous operation.
5. 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 successful bidder. All parts shall conform in strength, quality and workmanship to the accepted standards of the industry.
6. The unit provided shall meet or exceed all Federal and State of Texas safety, health, noise, and emission laws, regulations and standards in effect and applicable to equipment furnished at the time of manufacture.
7. Any variation from these specifications shall be indicated on the bid or on a separate attachment to the bid. This sheet shall be labeled such.
8. Engine Description: Air cooled, single cylinder, vertical 4-cycle diesel engine, which shall deliver at least 2.00 Kgm maximum torque running at 3200 rpm (nominal) with at least 9 horsepower capabilities at this range. Shaft rotation shall be counter-clockwise, facing output shaft side when running.
9. Engine Equipment: Engine shall be equipped with the following, plus any additional items necessary for operation.
  - 9.1. 12 Volt, 15 amp electric starter, with a separate keyed switch mounted where easily accessible and furnished with two keys.
  - 9.2. One (1) inch outside diameter straight, horizontal, keyed output shaft, which shall be no less than 2.2 inches long and no more than 4 Inches long.
  - 9.3. Stop (engine kill) lever shall be mounted in conjunction with the governor lever, on the left engine side facing the output shaft. Both levers shall be mounted on and operated by one cable. A common lever is acceptable.
  - 9.4. In-line fuel filter with a replaceable element.
  - 9.5. Minimum 1.4 U.S. gallon fuel tank equipped with a prestrainer and automatic priming feature. Fuel tank capacity shall provide a minimum of 2.5 hours of engine operation.
  - 9.6. Fuel pump: shall be mechanical, or electrical.
  - 9.7. Direct injection combustion system.
  - 9.8. Variable Speed control.

- 9.9. Mounting feet with four holes, each a minimum of 3/8 inches in diameter.
- 9.10. Flywheel guard.
- 9.11. Muffler.
- 9.12. Oil checking dipstick, which shall be accessible from the top or front of the engine and safely located away from the muffler.
- 9.13. **Engine shall be fitted with a 4-1/4 inch, B-style pulley on the 1 inch keyed shaft.**
- 9.14. Wet paper element type air cleaner.
10. Size and Weight Limitations
- 10.1. Maximum Weight: 120 pounds.
- 10.2. Maximum Height: 20 inches.
- 10.3. Maximum Length: 18 inches.
- 10.4. Maximum Width (shaft axis): 20 inches.
11. Manuals: Manual(s) containing illustrated parts list(s), wiring schematics, and operating and service instructions for the engine shall be delivered with each unit.
- 11.1. The manual(s) shall be as detailed as possible outlining, in English, all necessary service and operating instructions for each engine delivered. Parts list(s) shall cover all components of the unit. Each part shall be identified by part number, description and component location. Necessary warnings and safety precautions shall be included. It is requested, but not required, that the manuals be printed on recycled paper.
- 11.2. The following additional information shall be provided by the vendor at time of delivery if it is not included in the manual(s) required above.
- 11.2.1. Manufacturer's recommended service/preventive maintenance intervals.
- 11.2.2. Recommended fluids, lubricants and their SAE/API equivalents.
12. Warranty: The engine shall be warranted against defects in material and workmanship for a period of not less than twelve (12) months. If the manufacturer's standard warranty exceeds the above, then the standard warranty period shall be in effect. The successful bidder shall furnish manufacturer's warranty at the time of delivery.
13. Replacement Filters: A complete set of replacement filters shall be provided for each engine furnished to this specification. This set of filters shall include air, fuel, air/oil separator element (if so equipped), oil, and hydraulic filters used on the equipment. Each filter shall be labeled with the equipment manufacturer's part number as shown in the manufacturer's parts book furnished at the time of delivery. The attached Filter Identification Form should be completed in duplicate for information purposes only.
14. Data Sheet: The attached Data Sheet(s) should be completed and submitted in duplicate as part of the bid. Failure to submit a data sheet may result in bid disqualification.
15. Statement of Intended Use: Engine will be mounted on the bed of a herbicide sprayer truck and will be used to power a maximum 105 g.p.m. water pump, used in herbicide roadway applications.
16. Pilot Model: A pilot model unit may be requested and delivered to a TxDOT F.O.B. point. In the event of a split award, TxDOT reserves the right to request a pilot model from each vendor, delivered to one of the TxDOT F.O.B. points for which the award was made. If a pilot model is required, TxDOT will advise the vendor in writing subsequent to award of the order.
- 16.1. The pilot model unit, if requested, will be inspected and performance tested within ten working days after delivery, weather permitting, and the vendor notified of any discrepancies by phone which will be confirmed by a letter. The pilot model unit, if acceptable, will be received as fulfilling part of the purchase order requirements. All subsequent deliveries of equipment will be required to be the same-as the accepted pilot model unit delivered except for optional equipment

where specified. ACCEPTANCE INSPECTION AND PERFORMANCE TESTING OF THE PILOT MODEL UNIT SHALL IN NO WAY AFFECT THE OVERALL DELIVERY REQUIREMENTS OUTLINED ABOVE.

16.2. Should the pilot model fail, the vendor will be verbally notified within the five working days provided for acceptance inspection described below.

17. Acceptance Inspection: All equipment ordered with this request will be subject to acceptance inspection and performance testing upon receipt. Acceptance inspection and performance testing will not take more than ten working days, weather permitting. The vendor will be notified within this time frame of any units delivered that are not in full compliance with the purchase order specifications. If any units are cancelled for non-acceptance, the needed equipment may be purchased elsewhere and the vendor may be charged full increase, if any, in cost and handling.

<b>I-a-50</b>	<b>④</b>	
Applicable engines		
L40A L60A L75A L48A L70A L90A L100A		
Part No.		
(114252-66060 114252-66252) (114252-66120)		
For remote control		This parts menu code includes above 3 parts. Exclusively for remote control.

DIESEL ENGINE  
DATA SHEET

Bidders should insert the requested information and return two (2) copies with the bid for information only:

Requisition No. \_\_\_\_\_ Opening Date \_\_\_\_\_

Engine Make \_\_\_\_\_ Model \_\_\_\_\_ Fuel Type \_\_\_\_\_

Max Horsepower \_\_\_\_\_ @ \_\_\_\_\_ RPM

Clockwise rotation facing flywheel end: YES \_\_\_\_\_ NO \_\_\_\_\_

12- Volt (Aux.Keyed) Electric starter: YES \_\_\_\_\_ NO \_\_\_\_\_

Throttle and shut off on left side (facing keyed shaft) of engine: YES \_\_\_\_\_ NO \_\_\_\_\_

Fuel Tank Capacity \_\_\_\_\_ U.S. gallons

Dry Weight \_\_\_\_\_ Height \_\_\_\_\_

Length \_\_\_\_\_ Width (shaft axis) \_\_\_\_\_

Warranty period is \_\_\_\_\_ months

Name and address of firm nearest the F.O.B. point that will provide warranty service and repair parts:

Firm Name \_\_\_\_\_

Address \_\_\_\_\_

Telephone No. \_\_\_\_\_ Point of Contact \_\_\_\_\_

If a servicing dealer furnishes parts for minor repairs to be performed by TxDOT personnel will this affect the warranty?  
YES \_\_\_\_\_ NO \_\_\_\_\_ If the answer is yes, then attach an explanation.

Name of Firm \_\_\_\_\_

Bidder's Signature \_\_\_\_\_

Bidder's Telephone No. \_\_\_\_\_

Bidder's Name (please, print) \_\_\_\_\_