

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF PURCHASING AND SUPPLY
SPECIFICATIONS FOR FIRE FIGHTING BULLDOZER**

PURPOSE:

The purpose of this specification is to establish a purchase requirement for a specially equipped John Deere model 550K fire fighting crawler bulldozer and accessory equipment for use by the Virginia Department of Forestry, Agencies, and other Public Bodies of the Commonwealth of Virginia. The machine as specified will be used for emergency wildfire response purposes.

SCOPE:

The specifications below describe the requirements for **FOUR (4)** new fire fighting tracked crawler bulldozers with special equipment and accessory attachments. The machines to be supplied are for off-road use, and must comply with all OSHA requirements, EPA emissions regulations, and all applicable Virginia rules and regulations in effect at the time of purchase.

The following specifications are intended to define the specific proprietary items required. The use of brand names in this specification is meant to be restrictive as to brand name or manufacturer. It is intended to define the specific items of equipment required for bid.

BIDDER REQUIREMENTS:

The machines offered in answer to this request for bid must be new and unused current production models of the equipment required. No prototype, or demonstrator, or rebuilt products will be accepted, and offering of such products will be cause for bid rejection.

Bidder must provide with bid a completed specifications form with information of the fire dozer offered filled in at the appropriate places in the specifications form. Bidders shall use the lines in the right column across from specifications to provide clarifying information for specific items, and indicate conformance to specifications. The Commonwealth reserves the right to obtain technical data and to request clarification when deemed necessary. **Failure on the part of the bidder/Vendor to provide all requested documentation may be cause to reject the bid/request as non-responsive.**

Bidders shall provide delivery for machines offered, FOB destination. Deliver to Virginia Department of Forestry, at locations in Virginia to be decided upon award, between 7:00 AM and 5:30 PM Monday thru Thursday. Each tractor is to be completely assembled, including options and attachments, thoroughly tested and ready for operation upon delivery. Contact Mr. Daniel Fortune at (434) 293-8574 (Office) or (434) 882-0894 (cell) or e-mail danny.fortune@dof.virginia.gov not less than 48 hours prior to delivery. Provide your best delivery lead time after receipt of order (ARO), in the "DELIVERY" section at the end of the specifications.

Each fire Dozer must be put in service by a qualified representative of the contractor at the delivery location. The representative must demonstrate that each fire dozer, all installed equipment, and attachments are operating correctly, with no defects in materials, parts, or installation. The representative must operate each vehicle and all the equipment and instruct user personnel in operation of all items, maintenance/service, and safety requirements. Operator training shall be for not less than four (4) hours at each machine location.

Products provided must include warranty to provide the best practical no-cost protection to the Commonwealth for correction or replacement as needed for defects in manufacturing, assembly, or parts, to cover dozer tractor and all included equipment. Minimum warranty requirement is 12 months full coverage. Provide documentation of your best warranty in the "WARRANTY" section at the end of the specifications. Warranty must commence when the vehicle is put in service as evidenced by purchaser's records, rather than commencing on the date of delivery. Copies of the warranty and a manufacturer's certificate of origin shall be delivered with each invoice.

No Federal tax is to be included with the bid. Tax exemption registration number will be furnished.

- b. left and right steering
 - c. vehicle speed
3. Final drives must be heavy-duty type, triple reduction.

D: UNDERCARRIAGE:

1. Fire dozer undercarriage shall be John Deere 550K heavy duty Maximum Life Undercarriage, with all standard equipment and the following features:
 - a. **Option 1:** 550K LGP, 24" wide grousers, corners of grousers shall be clipped
 - b. **Option 2:** 550K XLT, 18" wide grousers, corners of grousers shall be clipped
2. Track adjusters shall be hydraulic with covers over grease points to prevent inadvertent tightening.
3. Recoil springs shall be heavy-duty versions, with over pressure protection
4. Tracks shall have front and rear guides.
5. Six track shoes, evenly spaced around the track chain, shall be equipped with "key slots," for the insertion and retention of 1/2" chain. Key slots shall accept and retain 3/8" & 1/2" chain for the purpose of self-rescue of a "stuck" tractor.
6. Ground clearance shall be a minimum of 15.0"

E: CHASSIS:

1. Radiator grille must be rated for extreme service in forestry application. A louvered, quick release, extreme-service grille must be provided.
2. Engine side shields shall be hinged and/or quick release mounted, with the following features:
 - a. The engine compartment must be instantly accessible (both sides) without the use of tools.
 - b. The hood and engine compartment side shields shall be perforated to the maximum extent practicable, with diameter of perforations of no greater than 1/8" each.
3. A fuel tank shutoff valve for fuel supply and return lines shall be located within reach of the seated operator and must be operable without the use of tools.
4. A fuel tank drain must be provided and protected from brush damage. It may be accessible with the use of tools, but shall not require removal of any major components.
5. Fuel lines must be metal or stainless steel braided.
 - a. Fuel lines must be covered with fire resistant sheathing, Aeroquip AE102, or equivalent. Fire resistant sleeving shall be secured with stainless steel bands for ties.
 - b. Fuel hose connections shall be threaded with SAE or flat face o-ring connectors. Barbed fittings at fuel return cooler connectors may be used if o-ring connectors can not be fitted.
6. A manual or electric fuel-priming pump must be provided.
7. Fire dozer must be equipped with a full length, extreme service

bottom guard.

- a. Bottom guard must protect all components on the bottom of the tractor.
 - b. Bottom guard thickness shall be no less than 1/2".
 - c. The bottom guard must include a bolt-on access hatch located at the lowest part of the guard for flushing out debris.
8. The tractor must be equipped with a closed eye, front tow hook and two (2) tow hooks (closed eye or D ring) on rear of tractor located on each side of a mount for a fire plow.
9. Tractor must be equipped with a vandalism protection group, with lockable fill points not requiring padlocks.
10. Two (2) tie-down rings shall be furnished on each roller frame. Rings shall be sized to meet federal transportation safety regulations and be located to minimize exposure to damage.
11. Tool storage for small hand tools shall be provided inside the cab. Maximum tool size is 12"L x 6" W.
12. Tractor shall be equipped with the following external attachments:
- a. Provide rear mounted or blade mounted external tool box. Minimum size 36"L x 12"D x 12" H with locking lid.
 - b. Mounts must be provided for drip torch, and chain.
 - c. Provision must be made on the tractor to mount and safely carry an axe, fire rake, pinch bar and shovel.

F: HYDRAULIC SYSTEM:

1. Provide the John Deere 550K hydraulic system with all standard equipment, and the following features:
- a. Blade controls shall be on a single "T-bar" control, to operate lift, angle, tilt, and a "float" position.
2. An auxiliary hydraulic circuit shall be provided for operation of a rear-mounted fire plow, and shall contain all standard equipment and the following features:
- a. A separate lever and valve section shall be included.
 - b. The circuit shall be equipped with a float position (lever forward) and two relief valves.
 - c. The circuit shall connect to the plow via 1/2" breakaway couplers per the latest issue of SAE J1036.
 - d. Couplers and hoses are to be protected so as to withstand highly abusive contact with heavy tree limbs and brush.
 - e. The couplers shall be located and installed according to the latest issue of SAE J716, "Application of Hydraulic Remote Control to Agricultural Tractors and Trailing Type Agricultural Implements".
3. The hydraulic tank shall be steel, with the exterior painted or treated to prevent corrosion.
4. All hydraulic tubing shall be steel, and pre-painted or treated to prevent corrosion.
5. All hydraulic steel tubing shall be securely mounted and protected to prevent damage and chafing.
6. Hydraulic hoses in the engine compartment or belly within 12" of

- 6. A 12-volt power port shall be provided in the operator's compartment, fused for 10 amps minimum load.

J: SAFETY EQUIPMENT:

- 1. The tractor must be equipped with a 24 VDC solid state back up alarm, 112 dB (A) minimum, per the latest issue of SAE J994, type A.
- 2. The tractor must be equipped with a 24 VDC warning horn, 117 dB(A) minimum, per the latest issue of SAE J1105, type J.
- 3. The tractor shall be equipped with self-cleaning, anti-skid surfaces and hand grips as needed for safely mounting and dismounting the tractor and for all maintenance operations normally performed weekly, per the latest issue of SAE J185.
 - a. Grab handles for mounting and dismounting shall be provided at each rear corner of the tractor.
- 4. The tractor must be equipped with a convex mirror, mounted inside the operator's compartment, with a minimum 26 square inch viewing area.
- 5. At least one floor plate in the operator's compartment shall be quick release mounted for instant access without the use of tools for fire suppression in the belly pan, minimum size of 10" x 10".
- 6. Provide one five pound, ABC dry chemical fire extinguisher per the requirements of the latest issue of SAE J1212.
 - a. The fire extinguisher shall be securely mounted in a bracket attached inside the cab, located in a position that will not interfere with operation, visibility or entrance and exit from the cab.
- 7. The cab shall be equipped with the John Deere digital code system to prevent unauthorized starting or movement of the machine.
- 8. The tractor must conform to the latest issue of SAE J1212, Fire Prevention on Forestry Equipment.
- 9. Provide and install safety signs that shall meet the requirements of the latest issue of SAE J115.
- 10. The tractor shall be equipped with a water system for the suppression of "belly pan fires", to include the following:
 - a. The system shall include a minimum of fifteen (15) gallons water capacity stainless steel water tank mounted to the rear of the tractor
 - b. pre-mix foam capability
 - c. an electric pump capable of no less than 3 gpm and 40 psi;
 - d. a hand held, pistol grip nozzle with fifteen (15) feet of 3/8" self-storing hose, hose shall be equipped with non-conductive bend restrictors, metal spring bend restrictors are not allowed

K: FINISHING:

- 1. The exterior of the tractor, dozer blade, winch, and other accessories shall be painted John Deere Construction industrial

DELIVERY SECTION

DELIVERY TIME ARO FOR (4) FIRE DOZER UNITS _____

UNIT PRICE SECTION

PRICE EACH:

**UNIT PRICE FOR (1) LGP 24" GROUSERS WITH 102" BLADE FIRE DOZER
PER SPECIFICATIONS, INCLUDING DELIVERY FOB DESTINATION \$ _____**

**UNIT PRICE FOR (1) XLT 18" GROUSERS WITH 97" BLADE FIRE DOZER
PER SPECIFICATIONS, INCLUDING DELIVERY FOB DESTINATION \$ _____**

TOTAL PRICE SECTION

TOTAL PRICE:

**TOTAL PRICE FOR (4) CRAWLER FIRE DOZERS PER SPECIFICATIONS,
(3) LGP and (1) XLT, INCLUDING DELIVERY FOB DESTINATION..... \$ _____**

Provide details of your best warranty offering for the vehicle and equipment you are supplying for this specification, to meet or exceed the 12 months full coverage minimum requirement. Summarize below:
