US Department of Agriculture (USDA)

Specifications statement:“Purchase of a utility tractor to be used on the Enoree Ranger District, for use on various forest projects; wildlife opening planting, roadside mowing, and storm recovery efforts.”

Specific specifications on pages 2-7

4x4 WHEELED UTILITY TRACTOR REQUIREMENTS. The Contractor shall provide the following new, current year, 4x4 Wheeled Utility Tractor with attachments that meets or exceeds the following specifications:

Item 1 – EN:4088 – 4x4 WHEELED UTILITY TRACTOR MANDATORY SPECIFICATIONS	
Motor	Minimum 75 Engine HP (57 PTO HP) or greater, diesel
Transmission	Minimum 16F/16R speed, Electrohydraulic left-hand direction shifter; synchronized ranges,
Drive	Flange-Type Rear Axle, 4WD Front Axle - Unsuspended. Adjustable Front & Rear Steel Wheels,
Wheels	Rear Wheel Size(16.9-30)8PR, Front Wheel Size (11.2-24)10PR
Safety	Open Operator station- Shall meet OSHA and Federal safety requirements and equipment standards in appendix A. Certified Roll Over Protection Structure (ROPS) shall be in accordance with 29CFR1926 and 30CFR56.14130. The certified ROPS will have a certification label on the unit or in the operator manual.
Hydraulics	Open center hydraullic;Greater than 93 l/min hydraulic pump. Rear remote hydraulic connecters, Hydraulic Pump Pressure (min): Steering/1958 psi, implement/2856 psi
Electrical System	12 volt
PTO Drive	Rear PTO Drive, 540 @ 2100rpm
Hitch	3 Point Hitch; left hand adjustable lift link; Rear left fender hitch control;Draft links with Cat 2 telescopic ball end, category 2 center link, sway control blocks; rear lift capacity 5,150lbs
REQUIRED ADDITIONAL ITEMS	
Hydraullic 2 mechanical stackable rear valves; 2 mid SCV with Joystick controls; Canopy, hood guard; Shipping weight Tractor Min 8700lbs Delivered tractor should have tire track width set to 36" on center	
Installed front end loader NSL with global quick attachment- lift capacity min 3,335lb	
Minimum 72" wide global hook-up heavy duty bucket included with loader	

Delivery to address below: USFS, Enoree Ranger District, 20 Work Center Rd, Whitmire, SC 29178 POC: Jesse Harris, ph: 803-321-2972, mbl:803-944-6784 email: jesse.d.harris@usda.gov

Reference	Content
29CFR1910.266 (f)(3)	1910.266(f)(3)(ii)(B) Each machine manufactured after August 1, 1996, shall have ROPS tested, installed, and maintained in accordance with the Society of Automotive Engineers SAE J1040, April 1988, "Performance Criteria for Rollover Protective Structures (ROPS) for Construction, Earthmoving, Forestry, and Mining Machines", which is incorporated by reference as specified in § 1910.6. 1910.266(f)(3)(ii)(C) This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096. Copies may be inspected at the Docket Office, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Avenue NW., room N2625, Washington, DC 20210, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 1910.266(f)(3)(iii) FOPS shall be installed, tested and maintained in accordance with the Society of Automotive Engineers SAE J231, January 1981, "Minimum Performance Criteria for Falling Object Protective Structures (FOPS)", which is incorporated by reference as specified in § 1910.6. 1910.266(f)(3)(iv) ROPS and FOPS shall meet the requirements of the Society of Automotive Engineers SAE J397, April 1988, "Deflection Limiting Volume-ROPS/FOPS Laboratory Evaluation", which is incorporated by reference as specified in § 1910.6. 1910.266(f)(3)(v) Each protective structure shall be of a size that does not impede the operator's normal movements. 1910.266(f)(3)(vi) The overhead covering of each cab shall be of solid material and shall extend over the entire canopy. 1910.266(f)(3)(vii) Each machine manufactured after August 1, 1996, shall have a cab that is fully enclosed with mesh material with openings no greater than 2 inches (5.08 cm) at its least dimension. The cab may be enclosed with other material(s) where the employer demonstrates such material(s) provides equivalent protection and visibility. Exception: Equivalent visibility is not required for the lower portion of the cab where there are control panels or similar obstructions in the cab, or where visibility is not necessary for safe operation of the machine. 1910.266(f)(3)(viii) Each machine manufactured on or before August 1, 1996 shall have a cab which meets the requirements specified in paragraph (f)(3)(vii) or a protective canopy for the operator which meets the following requirements: 1910.266(f)(3)(viii)(A) The protective canopy shall be constructed to protect the operator from injury due to falling trees, limbs, saplings or branches which might enter the compartment side areas and from snapping winch lines or other objects; 1910.266(f)(3)(viii)(B) The lower portion of the cab shall be fully enclosed with solid material, except at entrances, to prevent the operator from being injured from obstacles entering the cab; 1910.266(f)(3)(viii)(C) The upper rear portion of the cab shall be fully enclosed with open mesh material with openings of such size as to reject the entrance of an object larger than 2 inches in diameter. It shall provide maximum rearward visibility; and

	1910.266(f)(3)(viii)(D) Open mesh shall be extended forward as far as possible from the rear corners of the cab sides so as to give the maximum protection against obstacles, branches, etc., entering the cab area. 1910.266(f)(3)(ix) The enclosure of the upper portion of each cab shall allow maximum visibility. 1910.266(f)(3)(x) When transparent material is used to enclose the upper portion of the cab, it shall be made of safety glass or other material that the employer demonstrates provides equivalent protection and visibility. 1910.266(f)(3)(xi) Transparent material shall be kept clean to assure operator visibility. 1910.266(f)(3)(xii) Transparent material that may create a hazard for the operator, such as but not limited to, cracked, broken or scratched safety glass, shall be replaced. 1910.266(f)(3)(xiii) Deflectors shall be installed in front of each cab to deflect whipping saplings and branches. Deflectors shall be located so as not to impede visibility and access to the cab. 1910.266(f)(3)(xiv) The height of each cab entrance shall be at least 52 inches (1.3 meters) from the floor of the cab. 1910.266(f)(3)(xv) Each machine operated near cable yarding operations shall be equipped with sheds or roofs of sufficient strength to provide protection from breaking lines.
29CFR1926	1926.1001(a) General. This section prescribes minimum performance criteria for roll-over protective structures (ROPS) for rubber-tired self-propelled scrapers; rubber-tired front end loaders and rubber-tired dozers; crawler tractors and crawler-type loaders, motor graders, compactors, and rubber-tired skid steer equipment. 1926.1001(b) Equipment manufactured before July 15, 2019. For equipment listed in paragraph (a) of this section (excluding compactors and rubber-tired skid steer equipment) manufactured before July 15, 2019, the protective frames shall conform to the following Society of Automotive Engineers Recommended Practices as applicable: SAE J320a, Minimum Performance Criteria for Roll-Over Protective Structure for Rubber-Tired, Self-Propelled Scrapers; SAE J394, Minimum Performance Criteria for Roll-Over Protective Structure for Rubber-Tired Front End Loaders and Rubber-Tired Dozers; SAE J395, Minimum Performance Criteria for Roll-Over Protective Structure for Crawler Tractors and Crawler-Type Loaders; SAE J396, Minimum Performance Criteria for Roll-Over Protective Structure for Motor Graders; and SAE J397, Critical Zone Characteristics and Dimensions for Operators of Construction and Industrial Machinery, as applicable (each incorporated by reference, see §1926.6), or comply with the consensus standard (ISO 3471:2008) listed in paragraph (c) of this section. 1926.1001(c) Equipment manufactured on or after July 15, 2019. For equipment listed in paragraph (a) of this section manufactured on or after July 15, 2019, the protective frames shall meet the test and performance requirements of the International Organization for Standardization (ISO) standard ISO 3471:2008 Earth-Moving Machinery—Roll-over protective structures—Laboratory tests and performance requirements (incorporated by reference, see §1926.6).

30CFR56.14130	§ 56.14130 Roll-over protective structures (ROPS) and seat belts. (a) Equipment included. Roll-over protective structures (ROPS) and seat belts shall be installed on— (1) Crawler tractors and crawler loaders; (2) Graders; (3) Wheel loaders and wheel tractors; (4) The tractor portion of semi-mounted scrapers, dumpers, water wagons, bottom-dump wagons, rear-dump wagons, and towed fifth wheel attachments; (5) Skid-steer loaders; and (6) Agricultural tractors. (b) ROPS construction. ROPS shall meet the requirements of the following Society of Automotive Engineers (SAE) publications, as applicable, which are incorporated by reference: (1) SAE J1040, “Performance Criteria for Roll-Over Protective Structures (ROPS) for Construction, Earthmoving, Forestry, and Mining Machines,”, 1986; or (2) SAE J1194, “Roll-Over Protective Structures (ROPS) for Wheeled Agricultural Tractors”, 1983. (c) ROPS labelling. ROPS shall have a label permanently affixed to the structure identifying— (1) The manufacturer's name and address; (2) The ROPS model number; and (3) The make and model number of the equipment for which the ROPS is designed. (d) ROPS installation. ROPS shall be installed on the equipment in accordance with the recommendations of the ROPS manufacturer. (e) ROPS maintenance. (1) ROPS shall be maintained in a condition that meets the performance requirements applicable to the equipment. If the ROPS is subjected to roll-over an abnormal structural loading, the equipment manufacturer or a registered professional engineer with knowledge and experience in ROPS design shall recertify that the ROPS meets the applicable performance requirements before it is returned to service. (2) Alterations or repairs on ROPS shall be performed only with approval from the ROPS manufacturer or under the instructions of a registered professional engineer with knowledge and experience in ROPS design. The manufacturer or engineer shall certify that the ROPS

	meets the applicable performance requirements. (f) Exemptions. (1) This standard does not apply to— (i) Self-propelled mobile equipment manufactured prior to July 1, 1969; (ii) Over-the-road type tractors that pull trailers or vans on highways; (iii) Equipment that is only operated by remote control; and (2) Self-propelled mobile equipment manufactured prior to October 24, 1988, that is equipped with ROPS and seat belts that meet the installation and performance requirements of 30 CFR 56.9088 (1986 edition) shall be considered in compliance with paragraphs (b) and (h) of this section. (g) Wearing seat belts. Seat belts shall be worn by the equipment operator except that when operating graders from a standing position, the grader operator shall wear safety lines and a harness in place of a seat belt. (h) Seat belts construction. Seat belts required under this section shall meet the requirement of SAE J386, “Operator Restraint System for Off-Road Work Machines” (1985, 1993, or 1997), or SAE J1194, “Roll-Over Protective Structures (ROPS) for Wheeled Agricultural Tractors” (1983, 1989, 1994, or 1999), as applicable, which are incorporated by reference. (i) Seat belt maintenance. Seat belts shall be maintained in functional condition, and replaced when necessary to assure proper performance.