

CAMEROON DEVELOPMENT CORPORATION

GROUP BANANA

SPECIFICATIONS OF BRAND NEW AGRICULTURAL TRACTORS

- I. **GENERAL:** The intended tractors are to be used for the transportation of materials and chemicals, loading of bunch waste in development areas and spreading of chemicals in the field. Also carry out the following land preparation operations crushing, disking, leveling, sub-soiling and trenching. They will be covering an average of 150km per day each. Therefore the tractors to be purchased must be brand new, reliable and tailored for tropical weather and bad road condition.

Therefore, the contractor or supplier must be an authorized licensed automobile dealer, reliable and his auto facility readily accessible with adequate stock of spare parts that can be obtained easily for the effective maintenance of the tractors to be purchased.

The following documents are required in order to ascertain legibility:

- 1) The contractor/supplier must be an authorized dealer by the Auto-Manufacturer.
- 2) The contractor/supplier must have a Dealer's license from Cameroon Government.
- 3) The contractor/supplier must have a Dealer's sales and maintenance facilities located within Cameroon.
- 4) The contractor/supplier must provide a servicing and maintenance guarantee period of One (1) year.
- 5) The supplier must provide after service and free service at 50 hours and 250 with (Fuel filters, Oil filters, Air filters and Engine oil).
- 6) The contractor/supplier must have a training program for project drivers and mechanics before the truck head is supplied.
- 7) The contractor/supplier must provide Data Characteristic Sheet containing a pictorial view of the truck, engine data, transmission data, chassis data, suspension data, Brakes system data, weight capacity and truck dimension data from the auto-manufacturer.
- 8) Guarantee from the manufacturer that the spares will be available for at least twenty (20) years.
- 9) Availability of training on the use and maintenance of the equipment, including details materials of the training.
- 10) Quotations should contain the relevant pictures
- 11) Users Manuals in English
- 12) Workshop Manuals in English
- 13) Spare Parts Catalogue in English
- 14) Essential spares to cover one year use.
- 15) Equipment to be supplied should be of European Union origin.

II. TRACTOR MANUFACTURER

- 1) MAKE - (To be specified by the bidder)
- 2) MODEL - (To be specified by the bidder)
- 3) TYPE - (To be specified by the bidder)



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AGRICULTURAL 4X4WD TRACTOR 150hp -160HP

TECHNICAL INFORMATION

- 1) Tractor type – 4 wheel, 2 wheel drive/ wheel drive
- 2) Engine model – to be specified by supplier
- 3) Power rating – range between 150 – 160hp (111.9 – 119.4KW)
- 4) Compression ratio – 15.0:1 to 16.0:1
stroke – range between 125mm to 140mm
- 5) Nominal bore – range 95mm to 105mm
- 6) Induction system – natural aspiration
- 7) Direction of rotation – clock wise from the front.
- 8) Type – 4- stroke direct injection diesel engine, turbo charged with oil cooler.
- 9) No. of cylinders – 6 in – line.
- 10) Rated engine speed – range between – 2000 rmp to 2500 rmp
- 11) Canopy over driver's seat - Steel
- 12) Seat belt
- 13) Speedometer / tachometer – service hour metering
- 14) Warning system for dysfunction in breaking system, alternator, engine cooling system, hydraulic system, transmission and lubricant system
- 15) Lockable battery compartment and fuel
- 16) Halogen headlamps with high/low beam features
- 17) Stop lights, back working lights 2No.
- 18) Turn signal lights: front and rear – tool box
- 19) Tool box kit

The tractors should be further equipped with the following:

- Hitch that can couple to implements for ploughing deep scarifying harrowing, sowing, rotary tillaging as well as pulling a trailer.
- Power take off shaft should be of minimum diameter 35mm.
- Hydraulic power system and ports for connecting hydraulic hose lines to implements such a tipping trailer.
- Electrical sockets for connecting power supply to trailer brake lamps and turn signal lamps.
- Front-mounted counter weights - Electric winch, 20 tons min. capacity.

CLUTCH

- 1) Type - dry single or double - disc/ plate, spring loaded.
- 2) Type of clutch plate - Ceramic

TRANSMISSION

- 1) Type – 4 forward 4 reverse with high and low selection levers.
- 2) Differential lock system – foot operated mechanically

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- 3) Type – rear independent, double – speed with hydromechanical control system
- 4) Rotational speed – independent I, rpm - 540
Independent II, rpm - 1000



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ENGINE

- 1) Type – 4- stroke direct injection diesel engine, turbo charged with oil cooler
- 2) No. of cylinders – 6 in- line

STEERING

- 1) Type - Power steering

TYRES

- 1) Front - 420/8530 -16.9R30
- 2) Rear - 520/85R38 – 20.8R38

DRIVER's SEAT

- 1) TYPE - Adjustable

SERVICE REFILL CAPACITY

- 1) Fuel tank - Steel and range from 200L to 225L

ELECTRICAL

- 1) Battery - 12V ,120 – 140Ah



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MAIN ELIMINATORY CRITERIA

SPECIFICATION	VALUE/REQUIREMENTS
<u>POWER RATING, hp (KW)</u>	- 150 -160hp (111.9 -1119.4kw)
<u>TRANSMISSION</u>	
1. Type	- 4 Forward, 4 Reverse with high and low range selection levers.
2. Differential lock system	- Foot operated mechanically.
Clutch	Dry, single or double – plate/disc , spring loaded
<u>Engine</u>	
1. Type	- 4- stroke Direct Injection Diesel engine, turbo charged with oil cooler.
2. No. of cylinders	- 6 in-line
<u>P.T.O</u>	
1. TYPE	- Rear, Independent, double speed, with hydromechanical control system.
2. Rotational speed	- Independent I, rpm – 540 - Independent II, rpm – 1000
<u>Tyre Size</u>	
1. Front	- 420/85R30 – 16.9R30 - 520/85R38 – 20.8 R38
2. Rear	
Canopy over driver's seat	- Steel
Fuel tank	- Steel



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