

# Republic of the Philippines GENERAL SANTOS CITY WATER DISTRICT

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### **TECHNICAL SPECIFICATION**

#### TITLE:

PURCHASE OF ONE (1) BRAND NEW HEAVY EQUIPMENT VEHICLE BACKHOE LOADER WITH HYDRAULIC BREAKER

#### A. SCOPE OF CONTRACT

The scope of work shall be supply and delivery of One (1) Brand New Heavy Equipment Vehicle Backhoe Loader with hydraulic breaker to General Santos City Water District.

#### **B. TECHNICAL SPECIFICATIONS:**

Engine:	<ul> <li>High power and torque output, water cooled turbocharged diesel engine</li> <li>Diesel Engine, 4 cylinder In-line type</li> </ul>
Arm Type (Excavator)	Telescopic
Hydraulic Lines	With Breaker Lines
Torque Lock Up	THE PROBLEM
Backhoe Control	Joystick
Motion Stabilizer System	00 / 04 0.1
Hydraulic Pump	Gear Type
Emission Class Standard	Stage 111A/Tier 3 (EU/EPA)
Displacement (cc)	4,400
Bore & Stroke (mm)	98 x 120
Maximum Power (Hp/Kw), rpm	100(74.5) @2200 rpm
Maximum Torque (Nm) , rpm	410 @ 1400 rpm
Hydraulic System	<ul> <li>Simple, reliable and high efficiency tandem gear pump</li> <li>Closed type hydraulic system with variable displacement piston type pump, renewable flow sharing and valves with regeneration.</li> </ul>
Main Pump Flow (I/min) @ 2200 rpm	90 @ 2200 rpm
Pressure (bar)	227
Auxiliary Pump Flow (I/min) @ 2200 rpm	57
Pressure (bar)	170
Operating Weight	Operating weight with standard equipment: 9450 kg -Operational weight, complying with the ISO 6016 standards, includes full fuel tank, hydraulic system and other liquids, 75 kg operator weight and standard equipped machine weight.
Cab and Hood	-Widened visual angle, Ergonomic & Aesthetic

Interior Design, High Capacity A/C system, Improved ventilating with 17 air nozzles, Coolbox (with A/C system), ROPS and FOPS certificated cab, 4.3" TFT display on front and on rear side panel, Pool type floor mats, mechanical lever control, seat mounted controls improve operator comfort & ergonomics(with joystick model), seat integrated radio control button(with joysticks model), TIPSHIFT (FNR) function, RTD(return to dig), Multi-purpose bucket with proposal control, Autotilt steering wheel, Loader boom lock, Double brake system, storage boxes, foldable side steps, phone and cup holder, interior LED lights, MP3 radio, Bluetooth radio, USB charging ports, openable cooling package, Smartlink
Electrical controlled 3 different steering modes A – 2-wheel front steering for road drive B – 4-wheel steering for tight turns C – 4-wheel "crab" steering for close – to wall digging and ditch closing.
Autoshift transmission for heavy duty service, Torque converter with 2.38:1 stall ratio, Electrically controlled 2 Wheel drive or 4 Wheel Drive selection, 6 forward, 3 reverse gears, Transmission oil cooler,  -A neutral circuit allows starting only when the control lever is in neutral position for safety.
Heavy duty service type axles, planetary outboard type reduction, total 16 degrees oscillation on the front axle, Torque proportional type front axle differential, locking type rear axle differential, LSD (Limited Slip Differential) type rear axle differential.
1 <sup>st</sup> Gear – 4 km/hr 2 <sup>nd</sup> Gear – 7 km/hr 3 <sup>rd</sup> Gear – 9 km/hr 4 <sup>th</sup> Gear – 15 km/hr 5 <sup>th</sup> Gear – 22 km/hr 6 <sup>th</sup> Gear – 40 km/hr
6 in 1 bucket capacity – 1.1 m <sup>3</sup> Max. bucket breakout force – 6100 kgf Max. loading arm breakout force – 6515 kgf Lifting capacity to max. height – 3170 kg
Bucket Capacity – 0.18 m <sup>3</sup>

#### **Terms and Conditions:**

- I. The winning bidder shall secure One (1) year comprehensive insurance from the Government Service Insurance System (GSIS) with the inclusion of Acts of Nature (AON), theft and on damage.
- II. The winning bidder must be in existence in the Philippine market for at least 20 years at the time of bid opening.
- III. The winning bidder must have at least Two (2) Service Center in Mindanao Area.
- IV. The winning bidder shall have a Certificate of Availability of Spare Parts from the manufacturer.
- V. The winning bidder must be a Philippine Exclusive Distributor or at least Appointed Authorized Dealer.
- VI. The winning bidder shall provide Two (2) years or 4,000 hours warranty whichever comes first on the equipment and its accessories. Warranty period shall commence from the date of final acceptance.
- VII. The winning bidder offering an equipment with electronic components requiring the use of specialized diagnostic tools with dedicated software.
- VIII. Labor and consumables (e.g. oil and filters) shall be shouldered by the winning bidder during the warranty period.
  - IX. Markings on the vehicle body particularly the GSCWD official logo, "General Santos City Water District" and "for official use only" shall be provided by the winning bidder.
  - X. The heavy equipment unit shall be delivered to GSCWD office and shall be within the period of ninety (90) calendar days upon receipt of Purchase Order (PO).

## Prepared by:

TECHNICAL WORKING GROUP FOR VEHICLE AND MECHANICAL WORKS:

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