

الشركة الوطنية لحفر وصيانة ابار النفط

**National Oil Well Drilling & Workover Company**

احدى شركات المؤسسة الوطنية للنفط

**N.O.C Company**

 **CAT D3512B CATERPILLAR GENERATOR SPECIFICATION**

Our Ref: NWD-TC-2021-T-70-04.

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| ITEM # | Quantity | UOI | DESCRIPTION |
| 01 | **04** | UNITS | CAT D3512B CATERPILLAR GENERATOR2022 BUDGET REFERENCE NO: 2022/14-1CATERPILLAR GENERATOR SET 3512B LAND DRILLING GENERATORS, DIESEL OILFIELD GENERATOR SET, OPEN TYPEMADE: USABRAND NEW & UNUSED Power Rating: 1045 ekw Power Rating @ 0.8 pf / 1492KVA  Voltage Output: 600Vac  Phase: 3 Ø (phase) Frequency / RPM: 60Hz / 1200 RPMCOMPOSED OF THE FOLLOWING:FOR ENGINESa). Air Inlet system\*Corrosion- resistant after cooler core\*Air inlet shutoff \*Dual element & heavy duty air cleaners with \*Service Indicator \*With manual shutoff Systemb). Cooling system\*Separate-circuit after cooled\*Outlet controlled jacket water thermostat\*Jacket water pump – gear driven\*Dual outlet\*After cooler water pump – gear driven\*After cooler water thermostat \* Radiator & fan for desert operation with ambient temperature to 140 Degree F /50◦C \* Radiator with guard \* Coolant drain lines with valve and level sight gauge \* Fan & belts guards \* Jacket Water pump\*Coolant level sensor\*Coolant conditioner c). Exhaust system \* Dry exhaust manifold\* Flanged faced outlets\* Dual turbochargers, water cooled bearings\* Stainless steel exhaust flex fittings\* Elbows, flanges, expanders & Y adapters\* Elbow, 305 mm (12 in)\* Muffler, 356 mm (14 in), spark arresting, includes companion\* flanges, clean-out box, and spark box\* Muffler, 305 mm (12 in), spark arresting, includes companion\* flanges, clean-out box, and spark box |

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|  |  |  |  \* Spark arrestors d). Fuel System  \* Fuel transfer pump \* Fuel return line with flexible connection \* Electronic unit injectors \* Primary fuel filter with water separator \* Fuel Pressure Gauge e). Lube System \* Crankcase breather \* Oil cooler \* Shallow oil pan \* Oil drain extension, 2 in NPT female connection \* Crankcase fumes disposal \* Oil level regulator \* Centrifugal Oil Cleaner \* Oil filler  \* Gear type lube oil pump f). Governing \* CATERPILLAR ADEM control systemg). Starting \*Electrical starting System 24 Vdch). Instrument Panel  \* Emergency stop button \* Analog gauges: \* Fuel pressure \* Engine oil pressure \* Engine oil temperature \* Engine coolant temperature \* DC voltage \* Engine percent load \* EMCP 4.4 control panel \* 5.5-inch graphical display \* 16 languages supported \* Engine/generator monitoring and protection \* CAN, RS 485 MODBUS, Ethernet communications supported \* Remote e-stop/start/stop \* Engine start and crank attempt counterFOR GENERATOR (600Vac, 60Hz, 1045 EKW) \* SE Excitation \* 6 Poles \* Class H Insulation RISE (127°C) \* Reactive Droop \* Bus bar Connections. \* Anti Condensate Space Heaters \* Cable Access Boxwithout load sharing Without voltage regulator ELECTRIC MODULAR CONTROL PANEL (EMCP 4.4) WITH THE FOLOWING FEATURES:a). 140 mm (5.5 in) Graphical Display• Generator AC voltage• 3-phase (L-L & L-N)• ± 0.25% accuracy• rpm and battery voltage• Generator AC current (per phase and average) |

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|  |  |  |  • Generator frequency• Power metering (kW, kVA, kVAr, pf)• Hour meters (kW-hour, kVAr-hour)• Engine oil pressure (psi, kPa or bar)• Engine oil temperature (°C or °F)• Engine coolant temperature (°C or °F)• Multiple language support• Engine start and crank attempt counter• Real time clockb). Communication• Accessory CAN data link• RS-485 annunciator data link• RS-485 SCADA (Modbus RTU)• Ethernet SCADA (Modbus TCP)c). Controls• Auto/start/stopEngine cool down timer• Emergency stop• Engine cycle crank• Programmable cycle timerd). Generator Set Protection• Over/under voltage• Over/under frequency• Generator phase sequenceOver current (timed and inverse)• Reverse kW, kVA• Current balance• Low oil pressure• High coolant tempLow coolant level• Fail to start• Overspeede.) Outputs• 16 programmable digital outputs• 3 programmable (4-20mA or ±10V)programmable (PWM) Inputsf.) Emergency stop• Remote start• 12 programmable digital inputs• Oil pressure and water temperature• 3 programmable inputs (±10V, PWM, current,or resistive)• Oil temperature, fuel level mounting.\* INNER BASE FOR MOUNTING ENGINE AND GENERATOR ENGINE AND GENERATOR MOUNTING GROUP COUPLING /ENGINE AND GENERATOR MOUNTING SUPPORT TO ISNTALL AT GENERATOR SCR HOUSE, TOWING POINTS & FORKLIFT POCKETS, SKID BASE WITH DRAGGING POINTS **GENERAL DETAILS**.\* Paint - Caterpillar Yellow except rails & radiators should be gloss black.\* SAE Standard Rotation\* Flywheel teeth 183 & Flywheel Housing - SAE No. 00\* Machine should be Brand New & unused\* Remanufactured or Refurbished Generators not acceptable |
| ITEM # | Quantity | UOI | DESCRIPTION |
|  |  |  |  \* Must be genuine & manufactured in USA.\* Complete with Test Certificate, Certificate of conformance and other standard related documents.\*Warranty.\* Training for 6 persons (3 mechanics & 3 electricians) including accommodation, Food and general expenses.\* Installation and commissioning.\* Inspection and Witnessing by NWD personnel prior to shipment. \* The offer must include Detailed Technical Offer, Data sheet, they can make also checklist based on our requirements for easy evaluation. \* Service Parts Manual should be included with CD ROM, 4sets. \*\*\*\*\*\*\*\*\* **NOTHING FOLLOWS** \*\*\*\*\*\*\*\*\*\*\*\*\* |