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90DB 配套 CAT 3512B/R500 发电机组 技术协议



需方：中曼石油装备集团有限公司

供方：

2025 年 4 月

经供需双方友好协商,就供方向需方提供 6套 CAT 3512B/SR500 柴油发电机组的相关事宜,达成如下协议:

总则

- 1.1 本协议书提出的是最低限度的技术要求,并未对一切技术细节做出规定,也未充分引有关标准规范的条文。供方保证所提供产品满足本协议要求,并符合供方所提供资料规定。
- 1.2 本协议书所使用的标准如与提供给需方的资料标准发生矛盾,按较高的标准执行。
- 1.3 本协议书所使用的温度要求是该设备总体正常作业的最低要求,其各种配套设备及附件的温度性能均不能低于该要求。
- 1.4 在签订合同之后,需方有权提出因规范、标准等发生变化而产生的一些补充要求,具体项目由双方共同协商。
- 若供方所提供设备与本协议书要求不符,需方将有权视情节要求整改或索赔。

供货范围(3512B, 60HZ)

1 3512B LAND ELEC DRILL MOD-CORE* NOT EMISSIONS CERTIFIED *
Electrical rating: Prime-no overload
1045 ekW with/o fan OR 995 ekW with fan and OGN0001 or OGN0002 generator and radiator RAD4656.
Engine rating = 1476 hp (1101 bkW) @ 1200 rpm
REQUIRES: Other Regulated Areas Label OTHREG0 and generator
Including following attachment:
卡特彼勒 3512B DITA 电子控制油田陆用柴油发电机组
额定输出功率 1045ekW (不带风扇) 或者 995eKW (带风扇), 600 伏, 1200 转
发动机额定功率 1476 马力/1200 转, 4 冲程, V12, 缸径 170MM, 冲程 190MM
排量 51.8 升
* 无 EU 排放认证

Includes Following Equipment :

包括下列配置

AIR INLET SYSTEM

Aftercooler Core, Corrosion Resistant
Service Indicators
Air Cleaner- Heavy Duty, Shipped loose

空气进气系统

后冷却器, 防腐
更换指示
沙漠重型空滤, 散装

CONTROL SYSTEM

Caterpillar ADEM A3 ECM
Requires 24V DC, 10Amp Continuous, 20
Amp Intermittent, Clean Electrical Power
Load Sharing Control Provided by SCR or VFD
Supplier

控制系统

CAT ADEM A3 电子控制系统
需要控制系统提供 24 伏, 连续 10 安培,
最大 20 安培直流电源
负荷分配模块由 SCR 或 VFD 提供

Engine Governor Control- For use with
0-200ma External speed and load sharing

发动机调速器转换模块- 用于接收 0-200
mA 外部速度和负荷控制信号

control

COOLING SYSTEM

Thermostats and housing, (Dual Outlet)
Jacket water pump, gear driven,
Aftercooler Fresh Water Pump, SCAC, Gear
Driven
Thermostat
RADIATOR 46/CVS-STACKED 0.627, S/L, Two
Circuit
Includes for Connections, and Fuel Cooler
Blower Fan, Fan pulley
72 inch blower fan and coolant level sensor
shipped loose.
Fan drive, fan pulley (0.627), belt guard,
regulator and fuel cooler installed
RADIATOR MOUNTING SUPPORT

EXHAUST SYSTEM

Exhaust Manifolds , Dry
turbochargers
Exh. Flexible Fittings, S/L
Flange 8 inch
EXPANDER (8 IN TO 12 IN)
Muffler Group- Spark Arresting, 12 inch,
S/L

FLYWHEEL & FLYWHEEL HOUSING

Flywheel, SAE No. 00, 183 Teeth
Flywheel Housing, SAE No. 00
SAE Standard Rotation

FUEL SYSTEM

Fuel Filter, LH
Fuel Transfer Pump
Flexible Fuel Lines
Fuel Priming Pump, LH
Electronic Controlled Unit Injectors
PRIMARY FUEL FILTER

INSTRUMENTATION

Electric Instrument Panel, LH,
Analog gauges with digital display data
for:
Engine oil pressure gauge
Engine oil temperature gauge
Engine coolant temperature gauge
Diesel Fuel pressure gauge

冷却系统

节温器及壳体
缸套水泵, 齿轮驱动
齿轮驱动后冷却水泵, 独立后冷却器水路
后冷却水温
节温器
46/CVS 水箱, 散装, 双水路
包含接头, 燃油冷却器
风扇, 风扇驱动装置
72in 吹风式风扇和液位传感器散供
风扇驱动速比 0.627, 安装燃油冷却器。
水箱支撑)

排气系统

干式排气歧管
涡轮增压器
排气波纹管, 散装
法兰, 8 寸, 散装
排气变径管 8in 变径到 12in
灭星式消音器, 12 寸, 散装

飞轮及飞轮壳

飞轮 SAE 00 183 齿
飞轮壳 SAE 00
SAE 标准转向

燃油系统

燃油滤清器
燃油输送泵
柔性燃油进出管
手油泵
电子控制单体泵
燃油初级滤清器

电子仪表盘包括:

电子仪表盘, 左侧
仪表显示和数字显示
机油压力表,
机油温度表,
水温表,
燃油压力表,
负载率

Engine percent load gauge
Battery voltage meter

直流电压表,

EMCP 4.4 display for engine and generator parameters,
Engine oil pressure.
Engine water temperature.
Fuel pressure.
System DC voltage.
Air inlet restriction.
exhaust temperature.
Fuel filter differential.
Oil filter differential.
Service meter.
Engine speed.
Instantaneous fuel consumption.
Total fuel consumed

EMCP 4.4 显示发动机和发电机参数
系统电压、机油压力、冷却水温度、燃油压力、进气阻力、排气温度、燃油滤器压差、机油滤器压差、运行时间、发动机转速、燃油消耗等

Remote E-Stop / Start / Stop
Emergency Stop
Panel mounting brackets
25' harness Connection between engine and panel
Product Link capability

远控紧急停机/ 启动/ 停机
紧急停机
安装支架
连接线束
数据连接

LUBE SYSTEM

Crankcase Breather
Oil Cooler
Oil Filter, LH
Shallow Sump Oil Pan
Oil Pump, Gear Type
Fumes Disposal
Oil drain extension, 2" NPT female connection

润滑系统

曲轴箱呼吸器
机油冷却器
机油滤清器
浅油底壳
机油泵
曲轴箱通风管
排油口, 2"NPT 柔性连接

MOUNTING SYSTEM

Inner Base for Mounted Engine and Generator
Engine and Generator Mounting Group
Coupling
ENGINE AND GEN MTG SUPPORT

安装系统

发动机、发电机公共小底座
发动机、发电机连接件
弹性联轴节
提供减振器, 与用户提供的大底座连接

PROTECTION SYSTEM

ADEM A3 ECM monitoring system Provides Engine De-ration or Shutdown Strategies to Protect Against Adverse Operating Conditions.

Selected Parameters are Customer Programmable.

Status Available on Engine Mounted Instrument Panel and can be Broadcast Through the Optional Customer Communications Module or Programmable Relay Control Module(s).

Initially Set as Follows:

Safety Shutoff Protection, Electrical :

Oil Pressure, Water Temperature, Overspeed, Crankcase Pressure, Aftercooler Temperature.

Includes Air Inlet Shutoff, Activated on Overspeed or Emergency stop

Alarms, Electrical :

ECM voltage, Oil pressure, Water Temperature (Low and High).Overspeed, Crankcase Pressure, Aftercooler Temperature, Low Water Level (S/L) , air Inlet Restriction, Exhaust Stack

Derate, Electrical :

High Water Temperature, Crankcase Pressure, Aftercooler temperature, Air Inlet Restriction, Altitude, Exhaust Temperature

Emergency Stop Push Button, (Located on Instrument Panel)

EXPLOSION RELIEF VALVES

ALARM CONTACTORS

Oil pressure and water temperature.

STARTING SYSTEM

Air Starting Motor, RH, 620 to 1034 kpa, (90 to 150 psi), LH Control,

Jacket Water Heater, Heater: 480 VAC, three phase, 9 kW. Pump: 208/240 VAC, single

保护系统

ADEM A3 电子监控系统，在发动机运行异常情况下提供发动机自动减功率，报警，停车等保护功能。

特定参数可由用户编程设定。

发动机状态可从发动机仪表盘读出，并能通过用户通讯模块（CCM）或 PRCM 远传

出厂设定：

自动停车保护：

机油压力低，水温高，超速，曲轴箱压力大，后冷却器温度高，带进气关断装置，超速或紧急停车时起作用

报警包括：

ECM 电压，机油压力，水温（过高或过低），超速，曲轴箱压力，后冷却器温度，低水位（传感器散装），进气阻力，排气温度，机油及燃油压差

降功率包括：

高温，曲轴箱压力，后冷却器温度，进气阻力，海拔，排气温度

紧急停车按钮（在发动机仪表盘上）

防爆阀

报警接触器，右侧

提供油压低和水温高报警信号

起动系统

气起动马达 620-1034 千帕
左侧控制

发动机缸套水加热器，加热器 480V，3 相，9KW。泵 208-240V，单相，97W

phase, 10 gpm, 60 Hz, 97W. LH mounted
ENGINE BARRING GROUP - RH ASM

左侧安装
盘车装置

GENERATOR

GEN B5036-2 BRG-SE-600V-0.7
SR500 Generator Ar.: 512-9620, close
coupled
Excitation: Self Excited
Voltage: 600 volt, 6 pole, 60 Hz, form
wound
Temp rise: 80 deg. C @ 40 deg. C ambient
Pitch: 4/5 (0.8)
Power factor: 0.7
TECHNICAL: Electrical rating:
1045 ekW (1493 kVA) w/o fan,
995 ekW (1421 kVA) w fan
RTDs: 6 Platinum (100 ohm), 2 per phase
Space heater
Voltage regulator: not included

发电机

B5036 机架发电机, 双轴承
型号: SR500, 双轴承, 弹性连接

励磁方式: 自励
600V, 60Hz, 6 极, 模绕

温升: 80 deg C @ 40 deg C 环境温度
节距: 0.8
功率因数 0.7
电功率
1045ekW, 不带风扇;
995ekW, 包含风扇
RTD: 6 个, 每相 2 个
防冷凝加热器
不包括电压调节

AIR FILTER - GENERATOR
.Includes generator air filter and
pressure differential switch.

发电机进气空滤器

Voltage Regulator not included, and
provided by SCR or VFD supplier

(不包含电压调节器, 由 SCR 或 VFD 厂家
提供)

GENERAL

Paint, Caterpillar Yellow
Vibration Damper and Guard
Lifting Eyes, Engine Only

综合部分

卡特黄漆
减振器及护罩
吊耳

RATINGS

Engine Rated at 1476 BHP Without Fan , 1200
RPM, 60 HZ
Electric Pumping and Drilling Application

功率标定

发动机为 1476 马力/1200 转(不带风扇),
60 赫兹
应用在油田泵及钻机

OTHER ATTACHMENT

Shrink Wrap Protection
PGS TEST REPORT @ 0.1 PF

其它

热缩膜包装
测试报告

This technical agreement is written
in both English and Chinese.
Should there be any discrepancies between
the Chinese version and the English version,
the English version shall prevail.

本技术协议同时用中文及英文书写。
若中英文之间有任何差异, 应以英文为准。