

PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF HEALTH
PREVENTIVE MAINTENANCE

SCOPE FOR SERVICING OF DIESEL STANDBY GENERATORS

TYPE OF SERVICE : GENERATOR SETS
 SCHEDULE FOR : DIESEL DRIVEN GENSETS
 SCHEDULE FREQUENCY : MAJOR: AS PER SPECIFIED HOUR

DATE :

INSTITUTION NAME : ESTCOURT HOSPITAL

GEN-REF :

ZNQ No.:

SERVICE PROVIDER:

Preventative Maintenance Service

Defects Noted For Further or Urgent Attention:

| ITEM | INSTRUCTION LIST: SERVICE, ADJUST, CLEAN AS REQUIRED: 240 HOUR IF SERVICE WILL BE INTERRUPTED PLEASE OBTAIN PERMISSION BEFORE PROCEEDING | CONDITION (good, bad, to be replaced) | | NATURE OF WORK | QTY REQ. |
|------|--|---------------------------------------|---------------|----------------|----------|
| | | BEFORE SERVICE | AFTER SERVICE | | |
| 1. | Take Oil sample for analysis before drainage and note oil level # Hour meter reading hrs Hours run since last service hrs Type of service carried out hrs | | | | |
| 2. | Fan belt: a) Note down the Condition b) Tension - adjust when required c) Ensure tightness of Pulley | | | | |
| 3. | Clean radiator air passage for clear air flow and ensure that the coolant is at the correct level | | | | |
| 4. | Ensure that oil cooler air passages is clear - clean if required | | | | |
| 5. | Make sure that all radiator hoses and clamps and tighten as required | | | | |
| 6. | Give a report for oil sample analysis | | | | |
| 7. | Change fuel filters, primary fuel filter/water trap and put date on | | | | |

DEFECTS NOTED FOR FURTHER OR URGENT ATTENTION:

| NATURE OF SERVICE | | CONDITION (good, bad, to be replaced) | | NATURE OF WORK | QTY REQ. |
|-------------------|---|---------------------------------------|---------------|----------------|----------|
| ITEM | INSTRUCTION LIST: SERVICE, ADJUST, CLEAN AS REQUIRED: 240 HOUR <u>IF SERVICE WILL BE INTERRUPTED PLEASE OBTAIN PERMISSION BEFORE PROCEEDING</u> | BEFORE SERVICE | AFTER SERVICE | | |
| 8. | Bleed fuel system | | | | |
| 9. | Take note oil level of fuel pump cam box and governor and ensure the correct level | | | | |
| 10. | Remove air filter and Fit new air filter. Note that Washable paper air filters to be washed 3 x before discarding. Fit new air filter at 960 hr service | | | | |
| 11. | Ensure that turbo for free rotation and check bearing wear | | | | |
| 12. | Ensure correctness seal faces of elements, air cleaner hoses and clamps for dust ingress | | | | |
| 13. | Ensure that jacket water heater is operational | | | | |
| 14. | Ensure that all guards are in position and secure | | | | |
| 15. | Note down battery charger V A | | | | |

DEFECTS NOTED FOR FURTHER OR URGENT ATTENTION:

NATURE OF SERVICE

| ITEM | INSTRUCTION LIST: SERVICE, ADJUST, CLEAN AS REQUIRED: 240 HOUR IF SERVICE WILL BE INTERRUPTED PLEASE OBTAIN PERMISSION BEFORE PROCEEDING | CONDITION (good, bad, or replace) | | NATURE OF WORK | QTY REQ. |
|------|---|--------------------------------------|------------------|----------------|-------------|
| | | BEFORE SERVICE | AFTER SERVICE | | |
| 16. | Top up battery water Usage: Normal Excessive | | | | |
| 17. | Ensure that battery cable lugs are clean and tighten as required. | | | | |
| 18. | Start engine and run on load (where possible) for 30 minutes recording V, A, Hz at 15 minute intervals | | | | |
| 19. | Oil pressure (Hot) Water temperature Oil temperature | | | | |
| 20. | Listen for unusual noises: Starting Running Stopping | | | | |
| 21. | If prime power: Change load to other engine | | | | |
| 22. | Let engine run for another 6 minutes on air cooled engines. 10 minutes on water cooled engines. | | | | |
| 23. | Drain oil, change oil filters, refill oil (Deutz - clean centrifugal filter in fan boss and change gaskets). Take oil sample for analysis. Hino, Mitsubishi - clean centrifugal filter | | | | |
| 24. | Restart and check for oil, water etc. leaks, tighten joints etc. as required | | | | |

| NATURE OF SERVICE | | DEFECTS NOTED FOR FURTHER OR URGENT ATTENTION: | | | |
|-------------------|--|--|------------------|----------------|-------------|
| ITEM | INSTRUCTION LIST: SERVICE, ADJUST, CLEAN AS REQUIRED: 240 HOUR IF SERVICE WILL BE INTERRUPTED PLEASE OBTAIN PERMISSION BEFORE PROCEEDING | CONDITION (good, bad, or replace) | | NATURE OF WORK | QTY REQ. |
| | | BEFORE SERVICE | AFTER SERVICE | | |
| 25. | Ensure that the charge alternator/generator is operating | | | | |
| 26. | Ensure operation of safety shut-off and note down a) Low oil pressure b) High water temperature | | | | |
| 27. | When engine has stopped, top up oil to the correct level | | | | |
| 28. | Note alternator coupling and terminals (remove cover) | | | | |
| 29. | Blow dust out of alternator | | | | |
| 30. | Ensure that all air vents on alternator are clear and secure | | | | |
| 31. | Fuel Day tanks: a) Drain off water; b) Ensudre: control switch for correct operation of: - Electric/hand pump - Low fuel level alarm - Low fuel level - Engine cut fuel out and alarm - Covers and breathers - Pipes and fittings c) Change in-line filter element | | | | |

DEFECTS NOTED FOR FURTHER OR URGENT ATTENTION:

| NATURE OF SERVICE | | CONDITION (good, bad, or replaced) | | NATURE OF WORK | QTY REQ. |
|-------------------|--|------------------------------------|---------------|----------------|----------|
| ITEM | INSTRUCTION LIST: SERVICE, ADJUST, CLEAN AS REQUIRED: 240 HOUR <u>IF SERVICE WILL BE INTERRUPTED PLEASE OBTAIN PERMISSION BEFORE PROCEEDING</u> | BEFORE SERVICE | AFTER SERVICE | | |
| 32. | Exhaust : Ensure manifolds, silencer, tail pipe, supports tightness | | | | |
| 33. | Note air ducts | | | | |
| 34. | Ensure generator set base, engine, alternator mountings etc. | | | | |
| 35. | Clean down engine, alternator and mounting base | | | | |
| 36. | Panel: Note down - Circuit breaker - Voltmeter and selector - Ammeters - Hz meter - Hour meter - Spare fuse of each amperage | | | | |
| 37. | Plant room: a) Clean the room b) Check the lighting c) Check and position dust covers | | | | |
| 40. | Complete log book | | | | |

DEFECTS NOTED FOR FURTHER OR URGENT ATTENTION:

| NATURE OF SERVICE | | CONDITION (good, bad, to be replaced) | | NATURE OF WORK | QTY REQ. |
|-------------------|---|---------------------------------------|---------------|----------------|----------|
| ITEM | INSTRUCTION LIST: SERVICE, ADJUST, CLEAN AS REQUIRED : 480 HOUR <u>IF SERVICE WILL BE INTERRUPTED PLEASE OBTAIN PERMISSION BEFORE PROCEEDING</u> | BEFORE SERVICE | AFTER SERVICE | | |
| 1. | Carry out service as for 240 HOUR SERVICE PLUS: a) Adjust tappets correctly b) Replace rocker cover gaskets | | | | |
| | | | | | |
| | 720 HOUR SERVICE | | | | |
| 1. | Carry out service as for 240 HOUR SERVICE | | | | |
| | | | | | |
| | 960 HOUR SERVICE | | | | |
| 1. | AS FOR 240 HOUR SERVICE PLUS: a) Drain and refill radiator b) Add 3 litres inhibitor to every 10 litres water c) Pressure test cooling system to 150kPA d) Pressure test radiator cap - record release pressure e) Check and adjust tappets f) Check rocker faces (smooth and not pocketed) g) Rocker lubrication optional h) Replace rocker cover gaskets | | | | |

| NATURE OF SERVICE | | DEFECTS NOTED FOR FURTHER OR URGENT ATTENTION: | | | |
|-------------------|---|--|---------------|----------------|----------|
| ITEM | INSTRUCTION LIST: SERVICE, ADJUST, CLEAN AS REQUIRED | CONDITION (good, bad, to be replaced) | | NATURE OF WORK | QTY REQ. |
| | | BEFORE SERVICE | AFTER SERVICE | | |
| | NOTE: Every third 906 hour service, fit service exchange. Injectors new nozzles of atomising pressure to engine manufacturer's recommendation | | | | |

| | | | |
|--|-----------|---------------------------------------|-----------|
| I CERTIFY THAT THE SPECIFIED SERVICE WAS CARRIED OUT | | OFFICIAL STAMP: | |
| NAME OF SERVICEMAN (BLOCK LETTERS): | | SIGNATURE: | |
| NAME/S OF ASSISTANT/S: SEMI SKILLED: | | | |
| NAME/S OF ASSISTANT/S: UNSKILLED: | | | |
| COMPANY NAME (BLOCK LETTERS): | | NAME OF RESPONSIBLE OFFICIAL ON SITE: | |
| TIME IN: | TIME OUT: | TIME ON SITE: | DATE: |
| FROM: | TO: | KM: | KM: |
| | | | TOTAL KM: |

PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF HEALTH
ESTCOURT HOSPITAL

SERVICING THREE DIESEL DRIVEN POWER GENERATOR

PART 1

1. GENERAL

1.1 SCOPE OF WORK

- a) The current scope of work entails: see page 1 to 7
- b) Each unit must have its own report.
- c) Remove rubble from site and disposed of accordingly
- d) Notify maintenance before isolating the plant (one plant at a time).
- e) See generator's data on page 13.

The contractor shall allow for appointing relevant professionals, all independent statutory obligations for inspections and certificates.

1.2 SITE AND MODE OF PROCEDURE

The site at KwaZulu Natal: Thukela District: Estcourt Hospital.

- a) Bidders are advised that all the existing premises will be occupied throughout the period of any contract.
- b) Damage to the existing buildings - Bidders to note that any damages done or occurring to any of the buildings will be repaired at the expense of the contractor.
- c) The service must be to the satisfaction of the KwaZulu-Natal Department of Health.

1.3 CONTRACT DRAWINGS

There are no contract drawings issued together with this document.

PART 2

2. GENERAL TECHNICAL SPECIFICATION

- ✓ This Technical Specification is provided as a guideline for bid purposes for Bidders registered on CIDB: ME Level 1
- ✓ Company must have valid CIDB ME
- ✓ Company must attached a letter of good standing
- ✓ Company must attached public liability insurance R3000 000, 00

2.1 STANDARDS

The operation, spares, material and components of serviced equipment specified, must comply with the latest requirements of:

- i) The Occupational Health and Safety Act (Act 85, 1993) as amended.
- ii) SANS 10142: Code of Practice for Wiring of Premises.

2.2 PROGRAMMING OF WORKS

The contractor shall notify the institution two (2) days prior to carrying out any site work. As the Centre is to remain in full operation for the duration of the works, the works are to be planned and executed so as to cause minimum inconvenience to staff. **Contractor shall finish this work within four weeks counting from the date when the order number has been issued.**

unless other strong and valid reason.

2.3 TESTING

The units shall be tested before handing over to Hospital: Chief Artisan / Artisan foreman.

PART 3

3. SCHEDULE OF RATES

3.1 ITEMS AND PRICING

The Hospital reserves the right to place an order for any quantities of items included in the Schedules. The Schedule of Rates must also not be assumed to include and describe every detail of the supply requirement, but must be taken and read in conjunction with the other parts of the document. Thus the supplier shall not have claim for further payment in respect of any order which may be described or implied in the contract, although apparently no corresponding items are given in the Schedule of Rates. ***The supplier shall be deemed to have satisfied himself before quoting as to the correctness and sufficiency of his / her quote for the contract and of the rates and prices stated in the Schedule of Rates.***

3.2 TAX AND DUTIES

Prices, quoted and paid, must include all customs, excise and import duties, and any other tariffs or taxes levied by the government or statutory body having jurisdiction on the goods provided under this contract, **including Value Added Tax (applicable to the current rate).**

3.3 RATES

The rates, prices inserted shall be the full rates and prices for the service delivered described under the respective items; shall cover all labour, transport and profit.

NO PAYMENT WILL BE MADE FOR ABORTIVE WORK AND PURCHASE ORDER WILL BE CANCELLED

SCHEDULE OF RATES: SERVICING THREE DIESEL DRIVEN POWER GENERATOR

| Item | DESCRIPTION | UNIT | QTY | RATE/UNIT | | Total |
|----------|---|------|-----|-----------|---|-------|
| | | | | R | C | |
| 1 | SERVICE REQUIRED FOR 240 HOUR | | | | | |
| 1.1 | Take Oil sample for analysis before drainage and note oil level # | | | | | |
| | Hour meter reading hrs | Item | 3 | | | |
| | Hours run since last service hrs | | | | | |
| | Type of service carried out hrs | | | | | |
| 1.2 | Fan belt: a) Note down the Condition b) Tension - adjust when required c) Ensure tightness of Pulley | Item | 3 | | | |
| 1.3 | Clean radiator air passage for clear air flow and ensure that the coolant is at the correct level | Item | 3 | | | |
| 1.4 | Ensure that oil cooler air passages clear - clean if required | Item | 3 | | | |
| 1.5 | Make sure that all radiator hoses and clamps and tighten as required | Item | 3 | | | |
| 1.6 | Give a report for oil sample analysis | Item | 3 | | | |
| 1.7 | Change fuel filters, primary fuel filter/water trap and put date on | Item | | | | |
| 1.8 | Bleed fuel system | Item | 3 | | | |
| 1.9 | Take note oil level of fuel pump cam box and governor and ensure the correct level | Item | 3 | | | |

| | | | | | | |
|------|--|------|---|--|--|--|
| 1.10 | Remove air filter and Fit new air filter. Note that Washable paper air filters to be washed 3 x before discarding. Fit new air filter at 960 hr service | Item | | | | |
| 1.11 | Ensure that turbo for free rotation and check bearing wear | Item | | | | |
| 1.12 | Ensure correctness seal faces of elements, air cleaner hoses and clamps for dust ingress | Item | 3 | | | |
| 1.13 | Ensure that jacket water heater is operational | Item | 3 | | | |
| 1.14 | Ensure that all guards are in position and secure | Item | | | | |
| 1.15 | Note down battery charger: V A | Item | | | | |
| 1.16 | Batteries Condition | Item | | | | |
| 1.17 | Ensure that battery cable lugs are clean and tighten as required. | Item | | | | |
| 1.18 | Start engine and run on load (where possible) for 30 minutes recording V, A, Hz at 15 minute intervals | Item | 3 | | | |
| 1.19 | Oil pressure (Hot) Water temperature Oil temperature | Item | 3 | | | |
| 1.20 | Listen for unusual noises: Starting Running Stopping | Item | 3 | | | |
| 1.21 | If prime power: Change load to other engine | Item | | | | |
| 1.22 | Let engine run for another 6 minutes on air cooled engines. 10 minutes on water cooled engines. | Item | | | | |
| 1.23 | Drain out old oil, change oil and fuel filters (put dates on), refill oil. Take oil sample for analysis. | Item | 3 | | | |
| 1.24 | Restart and check for oil, water etc. leaks, tighten joints etc. as required | Item | 3 | | | |
| 1.25 | Ensure that the charge alternator/generator is operating | Item | 3 | | | |
| 1.26 | Ensure operation of safety shut-off and note down a) Low oil pressure b) High water temperature | Item | 3 | | | |
| 1.25 | Ensure that the charge alternator/generator is operating | Item | 3 | | | |
| 1.26 | Ensure operation of safety shut-off and note down a) Low oil pressure b) High water temperature | Item | 3 | | | |
| 1.27 | When engine has stopped, top up oil to correct level | Item | | | | |
| 1.28 | Assess alternator coupling and terminals by remove cover | Item | 3 | | | |
| 1.29 | Blow dust out of alternator | Item | 3 | | | |
| 1.30 | Ensure that all air vents on alternator are clear and secure | Item | 3 | | | |
| 1.31 | Fuel Day tanks: a) Drain off water; b) Ensure: control switch for correct operation of: - Electric/hand pump | Item | | | | |

| | | | | | | |
|--------------------------------------|---|------|---|-------------|--|----------|
| | - Low fuel level alarm - Low fuel level - Engine cut fuel out and alarm - Covers and breathers - Pipes and fittings c) Change in-line filter element | | | | | |
| 1.32 | Exhaust : Ensure manifolds, silencer, tail pipe, supports tightness | Item | 3 | | | |
| 1.33 | Note that air ducts are clear. | Item | 3 | | | |
| 1.34 | Ensure generator set base, engine, alternator mountings etc. | Item | 3 | | | |
| 1.35 | Clean down engine, alternator and mounting base | Item | 3 | | | |
| 1.36 | Panel: Note down - Circuit breaker - Voltmeter and selector - Ammeters - Hz meter - Hour meter - Spare fuse of each amperage | Item | 3 | | | |
| 1.37 | Plant room: a) Clean the room | Item | 3 | | | |
| 1.40 | Complete log book | Item | 3 | | | |
| Carried To Collection Summary | | | | PS 1 | | R |

| Item | DESCRIPTION | UNIT | QTY | RATE/ UNIT | |
|--------------------------------------|---|------|-----|-------------|----------|
| 2. | 480 HOUR SERVICE | | | R | c |
| 2.1 | Carry out service as for 240 HOUR SERVICE PLUS: a) Adjust tappets correctly b) Replace rocker cover gaskets | Item | 1 | | |
| Carried To Collection Summary | | | | PS 2 | R |

| Item | DESCRIPTION | UNIT | QTY | RATE/ UNIT | |
|--------------------------------------|---|------|-----|-------------|----------|
| 3. | 720 HOUR SERVICE | | | R | c |
| 3.1 | Carry out service as for 240 HOUR SERVICE | Item | 1 | | |
| Carried To Collection Summary | | | | PS 3 | R |

| Item | DESCRIPTION | UNIT | QTY | RATE/ UNIT | |
|--------------------------------------|---|------|-----|-------------|----------|
| 4. | 960 HOUR SERVICE | | | R | c |
| 4.1 | AS FOR 240 HOUR SERVICE PLUS: a) Drain and refill radiator b) Add 3 litres Inhibitor to every 10 litres water c) Pressure test cooling system to 150kPA d) Pressure test radiator cap - record release pressure e) Check and adjust tappets f) Check rocker faces (smooth and not pocketed) g) Rocker lubrication optional h) Replace rocker cover gaskets | Item | 1 | | |
| Carried To Collection Summary | | | | PS 4 | R |

| Item | DESCRIPTION | UNIT | QTY | RATE/ UNIT | |
|--------------------------------------|---|--------------|-----|------------|----------|
| 5. | Labour, Travelling and Accommodation | | | R | c |
| 5.1 | Labour | | | | |
| 5.2 | Travelling | | | | |
| 5.3 | Accommodation | | | | |
| Carried To Collection Summary | | PS 5R | | | |

COLLECTION SUMMARY

INSTITUTION: MADADENI HOSPITAL

Preventative Maintenance: Servicing Two Diesel Standby Generators

NOTE:

THIS COLLECTION SUMMARY MUST BE COMPLETED IN FULL BY THE CONTRACTOR AND RETURNED TOGETHER WITH THE TENDER/QUOTATION FORM.

| | | | | |
|--|------|----------|--|--|
| Collection Summary | PS 1 | R | | |
| Collection Summary | PS 2 | R | | |
| Collection Summary | PS 3 | R | | |
| Collection Summary | PS 4 | R | | |
| Collection Summary | PS 5 | R | | |
| SUB-TOTAL | | R | | |
| ADD Provision for Value Added Tax of SUB-TOTAL | | R | | |
| <u>TOTAL: CARRIED TO TENDER FORM</u> | | R | | |



KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Enquiries: Ms S.R Shabalala
EXT No.: 7093
Section: Maintenance
Date: 10/03/2023

| CLINIC NAME | GENERATOR SIZE | TANK CAPACITY | ENGINE SERIAL NUMBER | MAKE OF ENGINE | GENERATOR SERIAL NUMBER | MAKE OF GENERATOR |
|------------------------|----------------|---------------|----------------------|----------------|-------------------------|--------------------|
| 1.FORDAVILLE CLINIC | 40 KVA | 600L | BF0321519 | BAUDOUIN | N/A | NEW WAY |
| 2.HAVILAND CLINIC | 100 KVA | 800L | 60597069 | DEUTZ | N/A | SINABO/POWER TECH |
| 3.INJSUTHI CLINIC | 100 KVA | 800L | 60598555 | DEUTZ | N/A | SINABO/ POWER TECH |
| 4.NCIBIDWANE CLINIC | 60 KVA | 600L | 70191233 | DEUTZ | N/A | SINABO |
| 5.WEMBEZI CLINIC | 60 KVA | 600L | 701100362 | DEUTZ | N/A | POWER TECH |
| 6.CONNOR STREET CLINIC | 60KVA | 660L | 60595153 | DEUTZ | 20040265 | DINGOL |
| 7.CORNFIELDS CLINIC | 60KVA | 1000L | 60534894 | DUETZ | 20060996 | POWERTECH |
| 8.MADIBA CLINIC | 60KVA | 1000L | 4719L001317 | BAUDOUIN | LBS3K20B37781-H | LEROY SOMER |
| 9.ZWELISHA CLINIC | 60KVA | 1000L | 4720C000404 | BAUDOUIN | LBS3K20B38313-H | LEROY SOMER |