| Eskom | Specification | Medupi Power Station |
|---|---|---|

Title: **Medupi Power Station Supply and Delivery of Mill Ancillary Spares Scope**

| | |
|---|---|
| Document Identifier: | **241-20221290** |
| Alternative Reference Number: | |
| Area of Applicability: | **Medupi Power Station** |
| Functional Area: | **Maintenance** |
| Revision: | **1** |
| Total Pages: | **17** |
| Next Review Date: | **June 2028** |
| Disclosure Classification: | **Controlled Disclosure** |

| Compiled by | Supported by | Functional Responsibility | Authorized by |
|---|---|---|---|
| **Phuti Mashita** | **Siya Kuzwayo** | **Kgabo Choshi** | pp **Portia Lutumbu** |
| **Senior Supervisor Tech Mechanical Maintenance** | **Engineer Prof Mechanical Engineering** | **Manager Mechanical Maintenance Boiler** | **Middle Manager (Acting) Maintenance** |
| Date: 2025-07-25 | Date: 2025-07-26 | Date: 2025/07/27 | Date: 2025/07/29 |

## Content

**Page**

# 1. Introduction

Medupi Power Station intend to establish long term contract for the supply and delivery of the station critical, strategic and operational spares. For the plant to operate efficiently and effectively, maintenance must be performed as per the plant maintenance strategy. To achieve the objectives as set out in the Power Station maintenance plans, correct Mill Ancillary spares are necessary for proper execution.

The Station has a requirement for the supply and delivery of new Milling Plant spares; for the duration of 5-year period (60 months) as and when required.

# 2. Supporting Clauses

## 2.1 Scope

This scope of work specifies the required Milling Plant Ancillary spares to be supplied by the Supplier on an as and when required basis and conditions for acceptance.

### 2.1.1 Purpose

The purpose of this document is to outline the scope of work, to ensure availability of spares to enable the station to align with the performance objectives. The Supplier is expected to deliver high-quality spares, adhering to strict timelines, and ensure that the supplied spares meet or exceed Original Equipment Manufacturer (OEM) standards to support the station's operational reliability and availability.

### 2.1.2 Applicability

This document is applicable to Medupi Power Station.

### 2.1.3 Effective date

The effective date of this document is the date of authorisation.

## 2.2 Normative/Informative References

The following documents contain provisions that, through reference in the text, constitute requirements of this document. At the time of publication, the editions indicated were valid. These documents are subject to revision and users are responsible to ensure that the most recent editions of the documents listed below are used.

### 2.2.1 Normative

| | | |
|---|---|---|
| [1] | 32-727: | ESKOM SHEQ Policy |
| [2] | 240-97661287: | Life Saving-Rules – 240-62196227 Medupi Power Station - SHE File Evaluation Checklist |
| [3] | ISO 9001: | Quality Management Systems. |
| [4] | 241-2022339: | Medupi Power Station Quality Control and Verification |
| [5] | 32 - 726 Rev 0: | Mandatory S.H.E. Requirements for the Eskom Procurement and Supply Chain Management Process<br>**Note**: See Annexure C: S.H.E. Requirements for Tender Enquiries<br>Annexure D: S.H.E. Tender Evaluation and Scoring Card<br>Annexure E: Supplier Suspension Process |
| [6] | Act No 107 of 1998: | National Environmental Management Act, 1998 |
| [7] | Act No 14 of 2009: | The National Environmental Laws Amendment Act, 2009 |
| [8] | Act No 73 of 1989: | The Environment Conservation Act, 1989 |
| [9] | Act No 102 of 1980: | National Key Points Act, 1980 |

### 2.2.2 Informative

None

## 2.3 Definitions

| Definition | Explanation |
|---|---|
| **Contractor** | Service provider contracted for supplying specific service to Eskom, Medupi Power Station. |
| **Employer** | Eskom Medupi Power Station. |

### 2.3.1 Document:

Non applicable.

## 2.4 Abbreviations

| Abbreviation | Explanation |
|---|---|
| OEM | Original Equipment Manufacturer |
| QC | Quality Control |
| QCP | Quality Control Plan |
| SAP | Systems, Applications, Products (Plant Maintenance, Procurement, Finance and Materials Management) integrated maintenance management system. |
| SHE | Safety Health and Environmental |
| SHEQ | Safety Health Environmental and Quality |
| SOW | Scope of Work |

## 2.5 Roles and Responsibilities

| Activity | Responsible | Accountable | Consult | Inform |
|---|---|---|---|---|
| Compilation | • Senior Technician<br>• Senior Supervisor Tech | • Mechanical Maintenance Manager | • Maintenance Manager | • All |
| Revision and Template update | • Senior Technician<br>• System Engineer<br>• Senior Supervisor Tech | • Mechanical Maintenance Manager | • Maintenance Manager<br>• Documentation Officer | • All |
| Implementation | • Contractor<br>• Technician<br>• Senior Technician<br>• Mechanical Maintenance Manager<br>• Senior Supervisor Tech | • Contractor<br>• Technician<br>• Senior Technician<br>• Mech. Maintenance Manager | • Maintenance Manager<br>• System Engineer | • All |

### 2.6 Process for Monitoring

In case of any additions, subtractions and/or amendments to the contents of the scope of work or any part of this document, prior the revision date, the Mechanical Maintenance Manager or Materials Management Manager shall appoint a technician, senior technician, senior supervisor, or materials planner to effect the necessary changes and to use the most current approved template for new revision.

### 2.7 Related/Supporting Documents

Not applicable

## 3. Supply of Mill Ancillary Spares

The Contractor is expected to manufacture or source the new Mill Ancillary spares that meets the OEM specification and standards or surpasses such quality. In terms of alternative specifications, the Contractor shall consult and involve Eskom in decision making before such spares are delivered to Medupi site. The Contractor shall consult Eskom for clarity of specification or request for samples where necessary to always ensure that, the correct spares are supplied. The Supplier shall involve Eskom on all manufacturing processes for any specified spares.

### 3.1 Spares Description

The spares descriptions and quantities are outlined in the attached spares list. See Appendix A.

The Supplier will not be required to deliver all the spares in the list at once. The request for supply will be made per issue of Purchase Order, which will stipulate the description(s) of the spare(s) and quantities required.

### 3.2 Requirements

#### 3.2.1 Contractor’s Roles and Responsibilities

a) To supply and deliver new Mill Ancillary spares to Medupi power station as and when required, according to the specifications and technical requirements on this document.

b) To only deliver new Mill Ancillary spares to Medupi Power Station when instructed by a Purchase Order.

c) To notify the Employer of any damage to the spares; that would not affect the performance such spare, which occurred during the loading and offloading of the spares.

d) To collect and replace rejected or unaccepted spares that did not pass the Quality Control (QC) Check, within seven (7) days of rejection.

e) All spares delivered, should be accompanied by relevant supporting technical documentations such as, but not limited to material certificates and technical data books.

### 3.2.2 Employer's Roles and Responsibilities

a) Submit scope of work with technical specification to the Supplier.

b) To grant access to potential Supplier who may wish to see samples of the Mill Ancillary spares installed at the plant.

c) To release Purchase Orders from the contract to the Contractor for the required spares.

d) Perform QC of all spares on delivery and/or at the Employer's premises, where applicable.

e) Ensuring that the goods are provided as per the SOW and managing the contract.

### 3.2.3 Delivery Requirements

a) The descriptions and the quantities of the spares which the Employer expects for the duration of the contract (60 months) is indicated in Appendix A. It should be noted that the quantities are based on estimation, and it does not mean that the Employer will consume the exact quantities of spares in the entire duration of the contract. The quantities will vary with the Employer's spares requirements and the Contractor will be instructed by a purchase order to deliver in line with the requirements.

b) Spares that are not included in the list but form part of a kit of the spares shall be supplied as part of the kit. The Supplier shall consult Eskom for any clarity on this.

c) The spares will be supplied to the goods receiving section of the Medupi Power Station main store, where it will be received by the material management section. The data books shall be delivered with the spares and shall include all approved quality control plans (QCPs), material certificates for example, where applicable.

d) Only once the spares have accepted through the QC checks and are booked into the system; will payment be effected.

e) The manufacturing Data Book shall contain as a minimum, QCP, method statement, testing procedure, material certificates, inspection report, contact markings reports and testing reports.

f) The Supplier is expected to deliver the spare according to the specified specification. This means that all aspects such as design, material specifications, manufacturing processes, calibration and testing; should be done according to acceptable engineering standards which should be agreed upon between the Supplier and Eskom.

g) Where there is specifications deviation, the Supplier shall consult and involve Eskom on any suggested or alternative spares available, before making a decision.

h) It is the Contractor's responsibility to ensure that correct spares are delivered. If the incorrect spares are delivered, the spares will have to be replaced with the correct spares within a time no later than normal manufacturing period. The replacement will be at the cost of the Contractor which includes transport.

i) The Delivery and Transport Costs must be included in the quotation.

j) Medupi Stores Working hours: Monday – Thursdays: 07h00 – 16h00

Fridays: 07H00 – 12h00

### 3.2.4 Packaging Requirements

The following shall be adhered to maintain quality of the spares being delivered:

a) The Supplier shall put reasonable measures in place to protect the spares from damage during transportation and storage. This includes protection against moisture ingress, dust ingress, mechanical and environmental impact.

b) Where lifting equipment is utilised to move the spares, the packaging should allow the lifting operation and ensure that the goods are not damaged in any way during the process.

c) It should also not be necessary to open packaging for any lifting or transport operation.

d) Where eyebolts are fitted to move the spares, these eyebolts should be fitted in such a way that they can be easily removed and replaced, ensuring that the packaging stays intact.

e) The different spare types are to be packaged separately in such a way that each type can be stored separately.

f) Packaging and labelling of spares should ensure that the spare can be identified without opening the packaging.

g) Where possible the packaging should ensure that tags can be positively identified through the packaging. Where this is not possible, the packaging should allow opening and closing of the packaging and still maintain the packaging integrity afterwards.

h) Delivered packaging to have the following details on it; as a minimum (removable adhesive sticker if possible):

- Order number,
- A short description of component
- Manufacturing date, where possible

### 3.3 Acceptance of Spares

#### 3.3.1 Spares Identification

Each spare will be identifiable by means of an Eskom SAP Material number, Part description, Model number, and or OEM part number. The Supplier is expected to confirm all spares before delivering to Eskom, Medupi Power Station, to avoid delivery of incorrect spares. Where spares are obsolete, the Supplier should submit proof of such obsolete from the OEM in the form of formal communication, and the Supplier should involve Eskom in selecting the suitable alternative spares.

#### 3.3.2 Quality and Documentation Control

a) No incorrect, damaged, or faulty spares will be accepted.

b) The Contractor shall submit to Eskom a method statement and detailed QCPs for manufacturing of new spares, for review and approval. The Supplier should also provide a time base production schedule to Eskom prior to starting work.

c) All hold points agreed in the QCP shall be adhered to; including those that are carried out at the manufacturer's workshop

d) No manufacturing shall commence until the Supplier has received a copy of the reviewed, approved and fully signed QCP and method statement from Eskom.

a) The following documentation, inspection and tests are required when manufacturing the spares:

- Material certificates for all materials used
- Stamp identification on components.
- Technical data document which will including minimum technical data, all tests/analysis reports as a minimum

e) All hold points agreed in the QCPs shall be adhered to at all times, including where Eskom need to witness, or QC the spares at the manufacturer's premisses.

f) All the spares shall have been inspected and accepted by Eskom before payment could be processed.

g) The Supplier must ensure that the supply of spares is done in compliance with preservation specifications and good engineering practice.

h) The Supplier shall apply preservation methods such as corrosion protection on spare that are susceptible to environmental impacts such as oxidation and rust. This may include but is not limited to painting with oxide, paint, airtight sealing and or oil coating.

i) The Supplier to give advice on storage and effective preservation methods relevant to spares supplied.

j) Quality check will be conducted by Eskom upon delivery of spares at the Medupi Power Station stores, within 72 working hours of delivery.

k) The Supplier will deliver the spare as per the agreed delivery dates. The Supplier should communicate any delivery deviations at least two weeks prior the delivery date.

l) If the Supplier/Manufacturer cannot deliver the spare as specified by Eskom and an alternative specification is agreed between the Supplier and Eskom, a concession shall be submitted to Eskom for approval and record keeping before the alterative spare can be supplied to Eskom.

### 3.4 Communication and Correspondence

a) All correspondence includes

i. Medupi Power Station
ii. Employer's contract number
iii. Contract description

iv. Correspondence subject matter
v. Employer's name and contact details
vi. Contractor contact details
vii. Date

b) Where appropriate the correspondence includes the Employer's reference and is delivered as a single package.

### 3.5 Tender Requirements

A proposal will be submitted by the tenderers for the above-mentioned scope of work.

- Hereafter a contract shall be negotiated with the successful Contractor.
- The appointment of successful Contractor is at Eskom's (The Employer) sole discretion considering the factors which Eskom deems relevant.

## 4. Acceptance

This document has been seen and accepted by:

| Full Name and Surname | Designation |
|---|---|
| Kenneth Ndumo | Engineer Prof Mechanical |
| Tshepho Sethosa | Manager Maintenance Milling Plant (Acting) |

## 5. Revisions

| Date | Rev. | Compiler | Remarks |
|---|---|---|---|
| July 2025 | 1 | PM Mashita | First Issue |

## 6. Development Team

The following people were involved in the development of this document:

- Phuti Mashita – Senir Supervisor Tech, Mechanical Maintenance
- Thabelo Mphaphuli – Snr Technician Mechanical, Mechanical Maintenance

## 7. Acknowledgements

None

## Appendix A – Mill Ancillary Spares List (MPS265 Mill)

| Item Number | QTY per Mill | DESCRIPTION OF SPARES REQUIRED | Total QTY (5 Years) |
|---|---|---|---|
| **1.** | **SEAL AIR FAN SPARES** | | |
| **1.1.** | 1 | Seal air Fan Impeller, | 90 |
| **1.2.** | 1 | Seal air fan suction bellow, round, ID 224 x L 150 mm | 120 |
| **1.3.** | 1 | Seal air fan discharge bellow, square, 243 (W) x 289 (L) x 150 (H) mm | 570 |
| **1.4.** | 1 | Seal air mill supply bellow, round | 120 |
| **1.5.** | 1 | Coupling, Flender, Flexible N-Eupex, Type B 140 with inserts (719777) | 25 |
| **1.6.** | 1 | INSERT CPLG: MLFB:2LC0100-6WA00-0AA0 - Seal air fan (720453) | 250 |
| **1.7.** | 1 | Block Bearing Seal air fan - A-HRZ10C/224/950/5; DRAWING NO: 71079A1-BLK60NS (639708) | 45 |
| **1.8.** | 1 | Seal air fan filter mat, PBS/290 SYNTHETIC AIR FILTER 600 x 800 x 20 mm, weight - 300 g/m2, dust holding capacity - 750 g/m2 | 630 |
| **1.9.** | 2 | Seal air fan bearing 6312.C3, separate, | 180 |
| **1.10.** | 1 | Seal air fan isolating valve, Weld-in butterfly valve, Jasta EDR Type II, D 168,3/d1 | 45 |
| **1.11.** | 3 | Seal air fan line isolating valve, Weld-in butterfly valve, Jasta EDR Type II, D 76,1/d 70 | 135 |
| **1.12.** | 1 | Motor shims, KIT: TYPE: PRE-CUT SHIMSTOCK; APPLICATION: MACHINE ADJUSTMENT; COMPRISING: VARIOUS; MANUF P/N: TMAS 720 (0574960) | 45 |
| **1.13.** | 1 | Klingersil C4400 green gasket 3 mmm sheet | 10 |
| **1.14.** | 4 | M16 x 80 Hexagon Head Bolt, Mat 8.8, galvanised, with nut | 400 |
| **1.15.** | 4 | M16 x 90 Hexagon Head Bolt, Mat 8.8, galvanised, with nut and flat washer | 400 |

| Item Number | QTY per Mill | DESCRIPTION OF SPARES REQUIRED | Total QTY (5 Years) |
|---|---|---|---|
| **1.16.** | 4 | M16 x 80 Allen Hexagon socket Head Bolt, Mat 8.8, galvanised, with washer and flanged nut | 400 |
| **1.17.** | 16 | M8 x 30 Hexagon Head Bolt, Mat 8.8, galvanised, with nut and 2 flat washers | 1600 |
| **1.18.** | 12 | M10 x 35 Hexagon Head Bolt, Mat 8.8, galvanised, wit nut and 2 washers | 1200 |
| **1.19.** | 8 | M10 x 40 Hexagon Head Bolt, Mat 8.8, galvanised, with nut and flat washer | 800 |
| **1.20.** | 12 | M20 x 100 Hexagon Head Bolt, Mat 8.8, galvanised, with nut and spring washer | 1200 |
| **1.21.** | 1 | Seal air fan silencer cartridge set, Outer silencer, OEM number - 71079A1-01-SHD – Material – S235JRG2, Inner silencer, OEM number - 71079A1-02-SHD – Material – S235JRG2, galvanized sheet steel, | 30 |
| **2.** | **MILL REJECT CLEAN-OUT SPARES** | | |
| **2.1.** | 2 | Water injection valves DN80 PN16, VALVE TYPE: VAG ZETA PN80 PN10; KNIFE GATE FOR VAG ZETA VALVE with Hand wheel (719451) | 380 |
| **2.2.** | 2 | Seal - Water Injection valve - SEAL: U-SEALING & HORIZONTAL SEALING (719236) | 200 |
| **2.3.** | 2 | KNIFE GATE FOR VAG ZETA VALVE DN80 PN10. SIZE; 210 (L) X 83 (W) X 4 (T), for water injection valve (719611) | 200 |
| **2.4.** | 16 | M20 x 75 Hexagon Head Bolt, Mat 8.8, galvanised, with nut and flat washer (Reject line Flanges) | 2080 |
| **2.5.** | 16 | M16 x 75 Hexagon Head Bolt, Mat 8.8, galvanised, with nut and flat washer (Reject line Flanges) | 2080 |
| **2.6.** | 8 | M16 x 50 Hexagon Head Bolt, Mat 8.8, galvanised, with flat washer (Water injection valve) | 1040 |
| **2.7.** | 1 | Water injection hand isolation Valve handwheel rev nut (square) | 125 |
| **2.8.** | 1 | Water Injection valve actuator spindle for VALVE TYPE: VAG ZETA PN80 PN10; KNIFE GATE FOR VAG ZETA VALVE with Hand wheel | 125 |
| **2.9.** | 1 | Water Injection valve actuator Stem nut for A drive, Size – F10, 0.1 range for SA 7.5 Actuator | 125 |
| **2.10.** | 1 | Water Injection valve actuator Stem nut for A drive, Size – F10, 0.2 range for SA 7.6 Actuator | 125 |

| Item Number | QTY per Mill | DESCRIPTION OF SPARES REQUIRED | Total QTY (5 Years) |
|---|---|---|---|
| **2.11.** | 1 | DN100 PN25 10 bar General Purpose Italy 202 Hose EPDM, 100 m | 5 |
| **2.12.** | 2 | Hose Clamp, 100 - 4" DIN 2817, SAFELOK, DN100x8 PN25, 114-119 | 300 |
| **2.13.** | 2 | Hose Clamp 80 - 4" DIN 2817, SAFELOK, DN100x8 PN25, 114-120 (fix spec) | 300 |
| **2.14.** | 2 | Hose Flange DN100 PN25, with spigot, 8 x Bolt bores to take M16 bolts | 150 |
| **2.15.** | 1 | DN80 PN16 10 bar General Purpose Italy 202 Hose EPDM, 100 m | 5 |
| **2.16.** | 2 | Hose Flange DN80 PN16, with spigot, 8 x Bolt bores to take M16 bolts | 150 |
| **3.** | **MILL REJECT PUMP SPARES** | | |
| **3.1.** | 1 | Coupling Reject pump - SPACER COUPLING N-EUPEX TYPE H; SIZE: H125, H7 S=140; MATERIAL: CAST IRON, CONNECTION 2: KEYWAY AND GRAP SCREW; CONNECTION 2 SIZE: 55 MM; SPACER COUPLING N-EUPEX TYPE H SIZE H125 BORE 32/55 MM H7 S=140 (719906) | 75 |
| **3.2.** | 1 | INSERT CPLG:2LC0100-5WA00-0AA0;125 - Mill Reject Pump coupling (720379) | 250 |
| **3.3.** | 1 | SEAL MECHANICAL Mill Reject APOLLO Pump - SEAL MECH:0530/780/001 (81777026);55 MM (719247) | 60 |
| **3.4.** | 1 | O-RING Reject Pump - O RING:ID 39.5 MM; WD 2 MM; VITON; BLACK (718982) | 60 |
| **3.5.** | 2 | SEAL OIL SF 42 62 7 Mill reject pump - SEAL OIL: SPRING LOADED; ID 42 MM; OD 62 MM (719447) | 120 |
| **3.6.** | 1 | Reject pump shaft, bush and nuts (for APOLLO KRC SINGLE STAGE VOLUTE CASING PUMP, Type: KRC – 50 B / 250 – 308 / GN) | 60 |
| **3.7.** | 1 | Reject pump back plate (for APOLLO KRC SINGLE STAGE VOLUTE CASING PUMP, Type: KRC – 50 B / 250 – 308 / GN) | 60 |
| **3.8.** | 2 | Zink die-cast Oiler, Adams, Size - 158 ml, Material - plastic, ACL7577A | 60 |
| **3.9.** | 2 | Mill reject pump NRV, VAG Reto Stop, DN65, PN16, JS1030, face to face - 240mm | 60 |
| **3.10.** | 2 | Reject pump discharge pipe link, DN80 | 30 |

| Item Number | QTY per Mill | DESCRIPTION OF SPARES REQUIRED | Total QTY (5 Years) |
|---|---|---|---|
| **4.** | **MILL MAIN GEARBOX REPLACEMENT SPARES** | | |
| **4.1.** | 1 | Main Mill Motor Flexible Claw Coupling: BOKU-N H1600 (FLEXIBLE PIN TYPE) (722319) | 45 |
| **4.2.** | 1 | Main Mill Motor Flexible Claw Coupling DISC set with bolt | 160 |
| **4.3.** | 12 | Main Mill Motor Flexible Claw Coupling buffers inserts with bolts, INSERT - BOKU-N ACC. KWN22014 NG30 (719775) | 1080 |
| **4.4.** | 8 | M8 X 30 Hexagon Head screws + spring washers (Coupling Covers) | 960 |
| **4.5.** | 1 | Main Gearbox output shaft seal kit (V-ring 180 S, Mat- Viton FPM; O-rings (325 x 5; 150 x 4 and 16.3 x 2.4 mm), Mat - Simrit NBR/872 | 140 |
| **4.6.** | 1 | Gearbox Desiccant breather Heavy duty with protection against dropping & splashing water; 2 stainless steel filters; Galvanized; 1.4571 material; G1" threads | 90 |
| **4.7.** | 24 | M48 x 220 Hexagon Head Bolt, Grade 8.8, electro-galvanized, with Flat washers | 6720 |
| **4.8.** | 8 | M64 x 220 Hexagon Head Bolt, Grade 8.8, electro-galvanized | 2240 |
| **4.9.** | 2 | Mill Main Gearbox Motor footing, Front | 120 |
| **4.10.** | 2 | Mill Main Gearbox Motor footing, Rear | 120 |
| **4.11.** | 8 | M30 x 90 Hexagon Allen/Socket Cap Screw with chunk of 42 mm, Grade 8.8, Electro-Galvanised, with Nord lock washer | 480 |
| **4.12.** | 4 | M30 x 90 Hexagon Head Bolt, Grade 8.8, | 240 |
| **5.** | **HYDRAULIC AND LUBRICATION SYSTEMS SPARES** | | |
| **5.1.** | 1 | **Complete Coupling** for Lube oil pump, SUPPL P/N: SPIDEX-GG-A55; SPIDER HARDESS 98 SHORE **(619198)** | 45 |
| **5.2.** | 1 | **Complete Coupling** for MILL GATE VALVE HYDRAULIC OIL PUMP, OEM P/N: SPIDEX 24/28, **(0720451)** | 90 |
| **5.3.** | 1 | **Complete Coupling** for Mill hydraulic Grinding and Counter Pressure pump, OEM P/N: SPIDEX 38/45; COUPLING FOR MILL GRINDING AND COUNTER PRESSURE OIL PUMP, ELASTIC COUPLING SPIDEX 24/28 **(0720452)** | 90 |

| Item Number | QTY per Mill | DESCRIPTION OF SPARES REQUIRED | Total QTY (5 Years) |
|---|---|---|---|
| **5.4.** | 1 | **Rotex Spider Element** for Hydraulic Pump, OEM P/N: 38-PUR-98SHN RED **(697113)** | 90 |
| **5.5.** | 1 | **Spider Coupling Insert** for Mill Gate Valve Hydraulic Oil Pump - 24-PUR-98SH RED; PUR-98SH RED **(719770)** | 90 |
| **5.6.** | 1 | **Spider Coupling Insert** for Lube Oil Pump - SPIDER: ELASTIC COUPLING GEAR RIM PUR 55, MATERIAL: POLYURETHANE; SUPPL P/N: 55-PUR-98SH-RED **(622937)** | 90 |
| **5.7.** | 3 | Hydraulics Boot/Bellow Covers _ Bellow for hydraulic cylinder; FBG-260/200-224,5/824,5 (655538) | 330 |
| **5.8.** | 1 | Heat exchanger/cooler, Shell & Tube type; 88 kW; 219,1 mm shell; 178 tubes; DN80, PN40 oil connection, Type KS20-AEN-421 L1300 | 0 |
| **5.9.** | 1 | Oil Cooler, Heat Exchanger; Type HEXAGON S615-30-00-NI-G1; 30 stainless steel plates vacuum brazed with copper; 82 x 522 x 106 mm; 8 to 40kW cooling; 4 x G1" female thread, OEM number - 3480060 | 0 |
| **5.10.** | 3 | Accumulator, SB330-20A1/112U-330A NG20, 45 bar | 15 |
| **5.11.** | 3 | Accumulator, SB330-20A1/112U-330A NG20, 20 bar | 15 |
| **5.12.** | 4 | Plug in connector for counter and common solenoid valves, Rexroth R901017029 | 2160 |
| **5.13.** | 10 | Test point mini-measuring point ¼ “BSP 1 | 1800 |
| **5.14.** | 12 | Hydraulic Main Cylinder hose clamps | 1080 |
| **6.** | **OTHER ANCILLARY SPARES** | | |
| **6.1.** | 1 | Quick Close Damper Hydraulic Damper Shock Absorber, SUPPL P/N: HB40-800-DD-M; DRAWING NO: B114116-06-08-IG04-00066/67 REV 0 (617131) | 90 |
| **6.2.** | 30 | **Epoxy** -ARCOR EE94; MATERIAL: AMINE CURED 100% SOLIDS EPOXY REBUILDING COMPOUND; OEM P/N: ARCOR EE-94; MAX TEMPERATURE- 237 DEG CEL, VISCOSITY- PASTE, COMPRESSION STRENGTH - 19500 PSI/103 MPA, COLOR - DARK GRAY, | 8100 |
| **6.3.** | 4 | Hot air damper recovery dive shaft | 120 |

| Item Number | QTY per Mill | DESCRIPTION OF SPARES REQUIRED | Total QTY (5 Years) |
|---|---|---|---|
| **6.4.** | 4 | Hot air damper recovery driven shaft | 120 |
| **6.5.** | 4 | Shaft repair sleeves | 120 |
| **6.6.** | 4 | Hot air damper bearing GE60-DO-2RS | 120 |
| **6.7.** | 4 | Hot air damper bearing Hub complete with flange, bolts and circlips | 120 |
| **6.8.** | 4 | Hot air damper Stuffing box 120 x 80 x 62.6 mm stainless steel | 120 |
| **6.9.** | 4 | Hot air damper Stuffing box bush 74 x 61 x 15 mm Stainless steel | 120 |
| **6.10.** | 4 | Hot air damper Stuffing box bush 73 x 63 x 25 mm Stainless steel | 120 |
| **6.11.** | 4 | Hot air damper Stuffing box horseshoe bracket 115 x 3 mm stainless steel | 120 |
| **6.12.** | 1 | Hot air damper Stuffing Box Packing, 10 x 10 mm, graphite, bulk, box | 30 |