# *ANNEX II + III:* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

**Contract title: TENDER FOR THE** **SUPPLY AND DELIVERY OF HEAVY EQUIPMENT SPARES, SERVICE PARTS AND LUBRICANTS USED FOR THE CONSTRUCTION OF WATER FOR LIVESTOCK PRODUCTION FACILITIES**

**p 1 /…**

**Reference:** **MOBIP/SUPLS/2.6/2.6.2/T4SSEM**

**Columns 1-2 should be completed by the contracting authority**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

* Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
* Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words ‘compliant’ or ‘yes’ are not sufficient)
* Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offeredspecifications.

**Locations of Valley Tanks for Construction/Rehabilitation by MOBIP - delivery locations (Provision List)**

1. Luwero (Natyaaba VT. 20,000m3),
2. Mityana (Mpongo VT 20,000m3)
3. Nakasongola (KalungiVT 10,000m3),
4. Kiboga (Kateega VT 10,000m3).
5. Kiruhura (Rwendama VT 20,000m3),
6. Masaka (Kasange VT 20,000m3),
7. Kyotera (Kabano VT 20,000m3)
8. Mbarara (Nombe VT 10,000m3)
9. Kiryandongo (Kente VT 10,000m3)
10. Masindi (Myeeba VT 10,000m3) and
11. Lyantonde (Kanyogoga VT 10,000m3).
12. Butambala (Katabira VT 10,000m3),
13. Isingiro (Ntenga VT 20,000m3)
14. Sembabule (Lwera VT 20,000m3)
15. Kakumiro (Rwamadongo VT 20,000m3)

**Supplies required for a Valley Tank of 20,000m3 and 10,000m3**

Spare and service parts for the maintenance of the heavy machines.

1. **NISSAN PICK UP (DOUBLE CABIN)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FLTER | 03 | 15208-43G0A | 12 |
| 02 | FUEL FILTER | 03 | 16405-02N10 | 12 |
| 03 | FUEL FILTER | 03 | 16405-01T0A | 12 |
| 04 | AIR CLEANER | 03 |  | 09 |

1. **HINO 500**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 04 | 15907-1733 | 16 |
| 02 | FUEL FILTER | 04 | S23401-1580 | 16 |
| 03 | WATER SEPARATOR | 04 | S2340-11730 | 16 |
| 04 | AIR CLEANER | 04 | S1780-13360 | 08 |

1. **HINO 700**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 03 | S1560-7221 | 9 |
| 02 | OIL FILTER | 03 | S1560-72261 | 9 |
| 03 | FUEL FILTER | 03 | S2340-11690 | 9 |
| 04 | FUEL FILTER | 03 | S2340-11730 | 9 |
| 05 | FILTER TRANS | 03 | S34EO-E0060 | 9 |
| 06 | KIT AIR CLEANER | 03 | S1750-13450 | 9 |

1. **CAT D6R**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 01 | 1R-1808 | 3 |
| 02 | FUEL FILTER | 01 | 1R-0762 | 3 |
| 03 | WATER SEPARATOR | 01 | 326-1644 | 3 |
| 04 | AIR CLEANER | 01 | 61-2501 | 2 |
| 05 | AIR CLEANER | 01 | 61-2502 | 2 |

**HARD PENETRATING TOOLS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | CUTTING BLADE | 01 | 364-5490 | 2 |
| 02 | END BIT(RH) | 01 | 9W-8874 | 2 |
| 03 | END BIT(LH) | 01 | 9W-8875 | 2 |
| 04 | BOLT | 01 | 5J-4773 | 100 |
| 05 | NUTS | 01 | 2J-3706 | 100 |
| 06 | WASHERS | 01 | 5P-8248 | 100 |

1. **CASE DOZER**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 02 | 84228488 | 06 |
| 02 | FUEL FILTER | 02 | 84273566 | 06 |
| 03 | FUEL FILTER | 02 | 84412164 | 06 |
| 04 | HYDAULIC | 02 | 47853564 | 06 |
| 05 | AIR CLEANER | 02 | 47850029 | 02 |
| 06 | AIR CLEANER | 02 | 47850030 | 02 |

**HARD PENETRATING TOOL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | CUTTING EDGE | 02 | 76090678 | 04 |
| 02 | CUTTING EDGE | 02 | 76090680 | 04 |
| 03 | BLADE | 02 | 84475988 | 04 |
| 04 | BLADE | 02 | 84475994 | 08 |
| 05 | BOLT | 02 | 8273530 | 50 |
| 06 | WASHER | 02 | 14497131 | 60 |
| 07 | NUT | 02 | 12164321 | 60 |
| 08 | BOLT | 02 | 8282270 | 40 |

1. **KOMATSU D65EX**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | ENGINE OL | 02 | 6742-01-4540 | 6 |
| 02 | FUEL FILTER | 02 | 600-319-3750 | 6 |
| 03 | FUL FILTERE | 02 | 600-319-3610 | 6 |
| 04 | AIR CLEANER | 02 | 600-185-5110 | 6 |
| 05 | SCREEN | 02 | 600-311-9971 | 6 |
| 06 | BREATHER | 02 | 421-60-35170 | 6 |
| 07 | STRAINER | 02 | 07058-00010 | 6 |
| 08 | STRAINER | 02 | 14X-49-12310 | 6 |
| 09 | STRAINER | 02 | 14X-10-11712 | 6 |
| 10 | ELEMENT | 02 | 421-60-35170 | 6 |

**HARD PENETRATING TOOL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | BLADES | 02 | 130-70-41130 | 20 |
| 02 | BLADE | 02 | 130-920-2180 | 20 |
| 02 | EDGES RH | 02 | 175-71-22272 | 20 |
| 03 | EDGES LH | 02 | 175-71-22282 | 20 |
| 04 | BOLT | 02 | 02090-11270 | 200 |
| 05 | NUT | 02 | 02290-11219 | 200 |
| 06 | WASHER | 02 | 02290-11219 | 200 |
| 07 | BOLT | 02 | 02090-11495 | 100 |
| 08 | NUT | 02 | 02090-11422 | 100 |
| 09 | WASHER | 02 | 01643-2224 | 100 |

1. **KOMATSU GRADER GD 663A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 01 | 6136-51-5121 | 3 |
| 02 | FUEL FILTER | 01 | 600-311-8321 | 3 |
| 03 | CORROSION | 01 | 600-411-1151 | 3 |
| 04 | GUIDE | 01 | 232-70-12430 | 12 |
| 05 | GUIDE | 01 | 232-70-12420 | 12 |

1. **KOMATSU GRADE GD555**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | | 02 | 600-51-5142 | 06 |
| 02 | FUEL FILTER | | 02 | 600-311-3620 | 06 |
| 03 | CORROSIN | | 02 | 600-411-1150 | 06 |
| 04 | FUEL FILTER | | 02 | 600-311-3750 | 06 |
| 05 | AIR CLEANER | | 02 |  | 02 |
| 06 | AIR CLEANER | | 02 |  | 02 |
| **HARD PENETRATING TOOL** | | | | | |
| 01 | | CUTTING EDGE | 02 | 234-70-12193 | 04 |
| 02 | | CUTTING EDGE | 02 | 234-70-12143 | 04 |
| 03 | | END BIT | 02 | 232-70-52190 | 10 |
| 04 | | SHEAR PIN | 02 | 234-71-13350 | 20 |
| 05 | | BOLT | 02 | 232-70-12450 | 100 |
| 06 | | NUT | 02 | 232-70-12480 | 100 |
| 07 | | WASHER | 02 | 01643-31645 | 100 |

1. **SAKAI VIBRATOR**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 03 | 4031-96002 | 06 |
| 02 | FUEL FILTER | 03 | 4421-39001 | 06 |
| 03 | FUEL FILTER | 03 | 4031-96001 | 06 |
| 04 | FUEL FILTER | 03 | 26550005 | 06 |
| 05 | AIR CLEANER | 03 |  | 03 |
| 06 | AIR CLEANER | 03 |  | 03 |

1. **KOMATSU EXCAVATOR PC 300**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 01 | OIL FILTER | 01 | 6742—01-4540 | 6 |
| 02 | FUEL FILTER | 01 | 600-311-3150 | 6 |
| 03 | CORROSION | 01 | 600-411-5110 | 6 |
| 04 | AIR CLEANER | 01 | 600-185-4210 | 3 |
| **HARD PENETRATIN TOOL** | | | | |
| 01 | BUCKET TOOTH | 1 | 207-70-34212 | 40 |
| 02 | RUBBER LOCKS | 1 | 207-70-34221 | 40 |
| 03 | LOCK PIN | 1 | 205-70-74291 | 40 |

1. **HITACHI WHEEL LOADER ZW 180**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 02 | 263F1-07101 | 10 |
| 02 | FUEL FILTER | 02 | 263F1-07041 | 10 |
| 03 | FUEL FILTER | 02 | 263F-07031 | 10 |
| 04 | AIR CLEANER | 02 | 26362-37051 | 03 |
| 05 | AIR CLEANER | 02 | 20801-03471 | 03 |
| **HARD PENETRATING** | | | | |
| 01 | BUCKET TIPS | 03 | 56600-51492 | 06 |
| 02 | BUCKET TIP | 03 | 56600-51482 | 06 |
| 03 | BUCKET TOOTH | 03 | 5660051382 | 36 |
| 04 | BOLT | 03 | 56700-50661 | 50 |
| 05 | NUT | 03 | 56600-51351 | 50 |

1. **EXCAVATOR HITACHI 330-3G**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 02 | 4485262 | 20 |
| 02 | FUEL FILTER | 02 | 4226736 | 40 |
| 03 | FUEL FILTER | 02 | 4226736 | 12 |
| 04 | AIR CLEANER | 02 | 4459549 | 6 |
| 05 | AIR CLEANER | 02 | 4459548 | 6 |
| **HARD PENETRATING** | | | | |
| 01 | BUCKET TOOTH | 02 | 4512365 | 45 |
| 02 | PIN LOCKS | 02 | 3512366 | 45 |
| 03 | RUBBER LOCKS | 02 | 4501625 | 45 |
| 04 | SIDE CUTTER | 02 | 2021233 | 06 |
| 05 | SIDE CUTTER | 02 | 2021232 | 06 |
| 06 | BOLT | 02 | J932275 | 36 |
| 07 | WASHER | 02 | A590922 | 36 |
| 08 | NUT | 02 | J951022 | 36 |
| 09 | ROLLER | 02 | 9253782 | 30 |
| 10 | UPPER ROLLER | 02 | 9245169 | 08 |
| 11 | BOLT | 02 | 4648103 | 84 |
| 12 | BOLT | 02 | 4647124 | 32 |
| 13 | IDLER | 02 | 9245615 | 04 |

1. **KOMATSU WHEEL LOADER WA 250**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | BUCKET TIP | 02 | 202-70-12130 | 32 |
| 02 | PIN LOCK | 02 |  | 32 |
| 03 | RING LOCK | 02 |  | 32 |

1. **EXCAVATOR CASE XB 290 AND 300 XB**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N0 | DESCRIPTION | NUMBER OF MACHINES/ VEHICLES | PART NUMBER | QUANTITY (250 AND 750 HRS SERVICE) |
| 01 | OIL FILTER | 02 | 51441635 | 06 |
| 02 | FUEL FILTER | 02 | 47585451 | 06 |
| 03 | FUEL FILTER | 02 | 47518440 | 06 |
| 04 | FUEL FILTER | 02 | 8983129180 | 6 |
| 05 | AIR CLEANER | 02 | 87682984 | 4 |
| **HARD PENETRATING** | | | **BUCKET PO300 SAE 1.8M** |  |
| 01 | BUCKET TOOTH | 02 | 389-5745/7T3402 | 50 |
| 02 | PIN LOCK | 02 | 116-7408 | 50 |
| 03 | RETAINER | 02 | 116-7409 | 50 |

Oils and lubricants for the maintenance of the heavy machines.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Unit** | | **Unit qty for 10,000m3 VT.** | **Unit qty for 20,000m3 VT.** |
| **Bull Dozer – (CASE DOZER and KOMATSU D65EX)** | **Day** |  | **7** | **10** |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | litres/day | litres | 105 | 150 |
| Oils/ Transmission – (SPIRAX 140) and (TELLUS S2 M46 20L) | litres/day | litres | 128 | 183 |
| Hydraulic oils - (TELLUS S2 M46 20L) | litres/day | litres | 128 | 183 |
| Grease (GADUS S2 V220 2) | litres/day | litres | 23 | 33 |
| **Excavator – (EXCAVATOR HITACHI 330-3G and KOMATSU EXCAVATOR PC 300)** | **Day** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | litres/day | litres | 105 | 150 |
| Oils/ Transmission – (SPIRAX 140) and (TELLUS S2 M46 20L) | litres/day | litres | 128 | 183 |
| Hydraulic oils - (TELLUS S2 M46 20L) | litres/day | litres | 128 | 183 |
| Grease (GADUS S2 V220 2) | litres/day | litres | 23 | 33 |
| **Tipper Truck – (HINO 500 and HINO 700)** | **Day** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | litres/day | litres | 56 | 80 |
| **Water Bowser – (HINO 700)** | **Day** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | litres/day | litres | 56 | 80 |
| **Service Truck and Van – (NISSAN PICK UP (DOUBLE CABIN)** | **Day** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | litres/day | litres | 56 | 80 |
| **Motor Grader – (KOMATSU GRADER GD 663A and KOMATSU GRADE GD555)** | **Day** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | liters/day | liters | 105 | 150 |
| Oils/ Transmission – (SPIRAX 140) and (TELLUS S2 M46 20L) | litres/day | litres | 128 | 183 |
| Hydraulic oils - (TELLUS S2 M46 20L) | litres/day | litres | 128 | 183 |
| Grease (GADUS S2 V220 2) | litres/day | litres | 23 | 33 |
| **Low Bed – (HINO 700 and MAN DIESEL)** |  |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | **No.** |  |  |  |
| Oils/ Transmission – (SPIRAX 140) and (TELLUS S2 M46 20L) | litres/day | litres | 8 | 8 |
| Grease (GADUS S2 V220 2) | litres/day | litres | 1 | 1 |
| Fuel – (Diesel) | litres/day | litres | 2,437 | 2,437 |
| General service + body maintenance | item/day | Lumpsum | 1 | 1 |
| **WHEEL LOADER – (HITACHI WHEEL LOADER ZW 180 and KOMATSU WHEEL LOADER WA 250)** | **Day** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) | litres/day | litres | 105 | 150 |
| Oils/ Transmission – (SPIRAX 140) | litres/day | litres | 128 | 183 |
| Hydraulic oils - (TELLUS S2 M46 20L) | litres/day | litres | 128 | 183 |
| Grease (GADUS S2 V220 2) | litres/day | litres | 23 | 33 |
| Electrolyte | litres/day | litres | 47 | 67 |

**Technical Specifications**

| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation committee’s notes** |
| --- | --- | --- | --- | --- |
| **1** | **Spare and service parts** |  |  |  |
| **NISSAN PICK UP (DOUBLE CABIN)** |  |  |  |
| OIL FLTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| AIR CLEANER |  |  |  |
| **HINO 500** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| WATER SEPARATOR |  |  |  |
| AIR CLEANER |  |  |  |
| **HINO 700** |  |  |  |
| OIL FILTER |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FILTER TRANS |  |  |  |
| KIT AIR CLEANER |  |  |  |
| **CAT D6R** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| WATER SEPARATOR |  |  |  |
| AIR CLEANER |  |  |  |
| AIR CLEANER |  |  |  |
| CUTTING BLADE |  |  |  |
| END BIT(RH) |  |  |  |
| END BIT(LH) |  |  |  |
| BOLT |  |  |  |
| NUTS |  |  |  |
| WASHERS |  |  |  |
| **CASE DOZER** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| HYDAULIC |  |  |  |
| AIR CLEANER |  |  |  |
| AIR CLEANER |  |  |  |
| CUTTING EDGE |  |  |  |
| CUTTING EDGE |  |  |  |
| BLADE |  |  |  |
| BLADE |  |  |  |
| BOLT |  |  |  |
| WASHER |  |  |  |
| NUT |  |  |  |
| BOLT |  |  |  |
|  | **KOMATSU D65EX** |  |  |  |
| FUEL FILTER |  |  |  |
| FUL FILTERE |  |  |  |
| AIR CLEANER |  |  |  |
| SCREEN |  |  |  |
| BREATHER |  |  |  |
| STRAINER |  |  |  |
| STRAINER |  |  |  |
| STRAINER |  |  |  |
| ELEMENT |  |  |  |
| ENGINE OL |  |  |  |
| BLADES |  |  |  |
| BLADE |  |  |  |
| EDGES RH |  |  |  |
| EDGES LH |  |  |  |
| BOLT |  |  |  |
| NUT |  |  |  |
| WASHER |  |  |  |
| BOLT |  |  |  |
| NUT |  |  |  |
| WASHER |  |  |  |
| **KOMATSU GRADER GD 663A** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| CORROSION |  |  |  |
| GUIDE |  |  |  |
| GUIDE |  |  |  |
| **KOMATSU GRADE GD555** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| CORROSIN |  |  |  |
| FUEL FILTER |  |  |  |
| AIR CLEANER |  |  |  |
| AIR CLEANER |  |  |  |
| CUTTING EDGE |  |  |  |
| CUTTING EDGE |  |  |  |
| END BIT |  |  |  |
| SHEAR PIN |  |  |  |
| BOLT |  |  |  |
| NUT |  |  |  |
| WASHER |  |  |  |
| **SAKAI VIBRATO** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| AIR CLEANER |  |  |  |
| AIR CLEANER |  |  |  |
| **KOMATSU EXCAVATOR PC 300** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| CORROSION |  |  |  |
| AIR CLEANER |  |  |  |
| BUCKET TOOTH |  |  |  |
| RUBBER LOCKS |  |  |  |
| LOCK PIN |  |  |  |
| **HITACHI WHEEL LOADER ZW 180** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| AIR CLEANER |  |  |  |
| AIR CLEANER |  |  |  |
| BUCKET TIPS |  |  |  |
| BUCKET TIP |  |  |  |
| BUCKET TOOTH |  |  |  |
| BOLT |  |  |  |
| NUT |  |  |  |
| **EXCAVATOR HITACHI 330-3G** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| AIR CLEANER |  |  |  |
| AIR CLEANER |  |  |  |
| BUCKET TOOTH |  |  |  |
| PIN LOCKS |  |  |  |
| RUBBER LOCKS |  |  |  |
| SIDE CUTTER |  |  |  |
| SIDE CUTTER |  |  |  |
| BOLT |  |  |  |
| WASHER |  |  |  |
| NUT |  |  |  |
| ROLLER |  |  |  |
| UPPER ROLLER |  |  |  |
| BOLT |  |  |  |
| BOLT |  |  |  |
| IDLER |  |  |  |
| **KOMATSU WHEEL LOADER WA 25** |  |  |  |
| BUCKET TIP |  |  |  |
| PIN LOCK |  |  |  |
| RING LOCK |  |  |  |
| **EXCAVATOR CASE XB 290 AND 300 X** |  |  |  |
| OIL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| FUEL FILTER |  |  |  |
| AIR CLEANER |  |  |  |
| BUCKET TOOTH |  |  |  |
| PIN LOCK |  |  |  |
| RETAINER |  |  |  |
| 2 | **Oils and lubricants** | | | |
| **Bull Dozer – (CASE DOZER and KOMATSU D65EX)** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| Oils/ Transmission – (SPIRAX 140 |  |  |  |
| Hydraulic oils - (TELLUS S2 M46 20L) |  |  |  |
| Grease (GADUS S2 V220 2) |  |  |  |
| **Excavator – (EXCAVATOR HITACHI 330-3G and KOMATSU EXCAVATOR PC 300)** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| Oils/ Transmission – (SPIRAX 140) |  |  |  |
| Hydraulic oils - (TELLUS S2 M46 20L) |  |  |  |
| Grease (GADUS S2 V220 2) |  |  |  |
| **Tipper Truck – (HINO 500 and HINO 700)** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| **Water Bowser – (HINO 700)** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| **Service Truck and Van – (NISSAN PICK UP (DOUBLE CABIN).** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| **Motor Grader – (KOMATSU GRADER GD 663A and KOMATSU GRADE GD555)** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| Oils/ Transmission – (SPIRAX 140) |  |  |  |
| Hydraulic oils - (TELLUS S2 M46 20L) |  |  |  |
| Grease (GADUS S2 V220 2) |  |  |  |
| **Low Bed – (HINO 700 and MAN DIESEL)** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| Oils/ Transmission – (SPIRAX 140) |  |  |  |
| Grease (GADUS S2 V220 2) |  |  |  |
| Fuel – (Diesel) |  |  |  |
| General service + body maintenance |  |  |  |
| **WHEEL LOADER – (HITACHI WHEEL LOADER ZW 180 and KOMATSU WHEEL LOADER WA 250)** |  |  |  |
| Oils/ Engine – (RIMULLA R4 x 15W 40 APIC1-4) |  |  |  |
| Oils/ Transmission – (SPIRAX 140) |  |  |  |
| Hydraulic oils - (TELLUS S2 M46 20L) |  |  |  |
|  | Grease (GADUS S2 V220 2) |  |  |  |