

Section a: schedule of Recquirements and Technical Specifications Bill of Quantities

Lot 1 Spare Parts

المواصفات و الشروط الفنية

	Model / Type	Specification	Origin	Quantities
1	Relay MM4XP-JKH32	VDC - 110 4 contacts 3 coil	OMRON	24



	Model / Type	Specification	Origin	Quantities
2	Relay MM4XP - JE	VDC 110 4 contacts 1coil	OMRON	30



	Model / Type	Specification	Origin	Quantities
3	Relay MM4XKP - JKH33	VDC 110 4 contacts 2 coil	OMRON	20



	Model / Type	Specification	Origin	Quantities
4	Time - Relay H3M	VDC - 110 Range Seco\ Min\ Hr	OMRON	30



	Model / Type	Specification	Origin	Quantities
5	Time - Relay H3M	AVC 220 5 A Range Seco\ Min\ Hr	OMRON	30



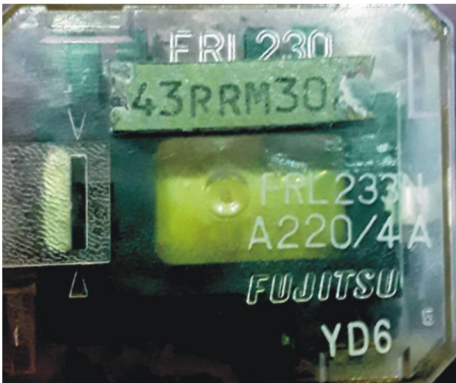
	Model / Type	Specification	Origin	Quantities
6	Change - Over Switch	With 10 Contacts Reverse able V - AC 220	OMRON	6



	Model / Type	Specification	Origin	Quantities
7	Change - Over Switch	With 6 Contacts Reverse able V - AC 220	OMRON	6



	Model / Type	Specification	Origin	Quantities
8	Relay FRL 233N WITH base	AC - 220V 14\A	FUJI	100



	Model / Type	Specification	Origin	Quantities
9	Relay FRL 233N WITH base	VDC 110 14\A	FUJI	300



	Model / Type	Specification	Origin	Quantities
10	Relay 5x25 \ Ly4 With base	AC 220V 4 Contacts	OMRON	125



	Model / Type	Specification	Origin	Quantities
11	Relay 5x51 \ Ly4 With base	VDC 110 4 Contacts	OMRON	250



	Model / Type	Specification	Origin	Quantities
12	Temperature Alarm Unit Mo . VA - 34C	50 HZ Supply AC 100 V input pt 0 - 100 C - 100 OHM	HITACHI	6



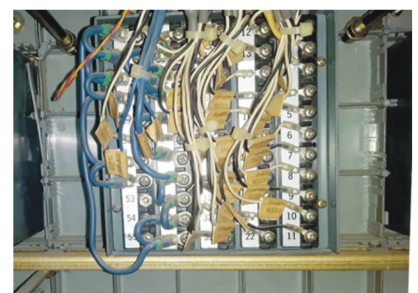
	Model / Type	Specification	Origin	Quantities
13	Temperature Transmitter Mo ETR - 34 C Alarm	Supply AC 100 V Input pt 0 - 100 °C 100 OHM	HITACHI	6



	Model / Type	Specification	Origin	Quantities
14	Ampere Meter With . C.T.R	Dial VAC 400 / 5	HITACHI	10



	Model / Type	Specification	Origin	Quantities
15	Rotary Type Selectors Switch PCV 24 B With 50 Position Contact With Dial	Contact rating DC 50 V 1A 13 W AC 50 1A 30 W	FUJI	6



Pump Room - 2

	Model / Type	Specification	Origin	Quantities
16	Resistance Thermometer Type Innerlend - R - 96 S	Pt 100 OHM 10 m A 0 - 100 c	HITACHI	6



	Model / Type	Specification	Origin	Quantities
17	Oil level gauge and swuth Type FS - 10	DC 110 V Range upper 30 - 150 mm Lower 20 - 100 mm	TOKYO	6



	Model / Type	Specification	Origin	Quantities
18	Flow - Relay Type SP - R	Max 10 kg/cm2 Qh 26.5 Li / min Q min 20 li / min	NIKKI TOKYO	6



Pump Room - 2

	Model / Type	Specification	Origin	Quantities
19	Electronic Pressure Transmitter KH - 31	AC - 220 V Out Put 4 - 20 ma Load 0 - 500 OHM	NIKKI TOKYO	6



	Model / Type	Specification	Origin	Quantities
20	Dial Thermo-meter	0 - 100 C° With Contact Alarm Contact trip	TOKYO	6

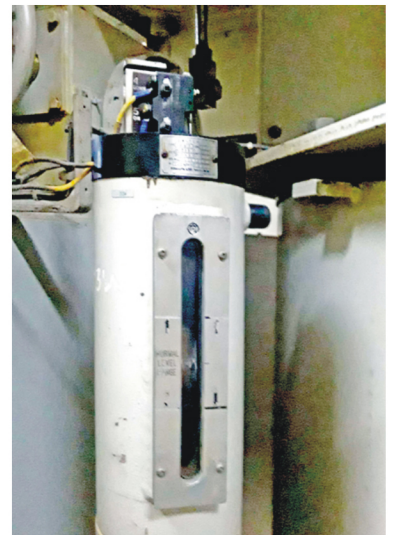


Liquid reohstat

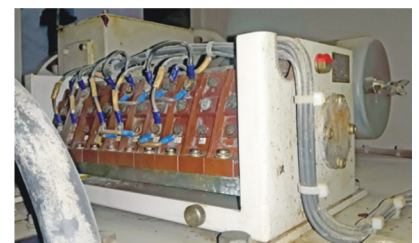
	Model / Type	Specification	Origin	Quantities
21	Oil Level gauge Type Fs - 10	250 V AC 15 A Contact ° 250 VDC 0-0.3A	TOKOY	6



	Model / Type	Specification	Origin	Quantities
22	Level Switch Type . F3 - 1	250 V AC - 3A 250 VDC - 0.2A	TOKOY	6



	Model / Type	Specification	Origin	Quantities
23	Limit Switch Type Zn12	250 V AC - 3A	HITACHI	6



Liquid reohstat

	Model / Type	Specification	Origin	Quantities
24	Control Transformer	400 / 200 VAC VA 300	Siemens or Equivalent	6



Oil pressure unit

	Model / Type	Specification	Origin	Quantities
25	Pressure Switch MO EPS - 25	30 kg / cm2 Range 5 - 130 kg / cm2	TOKOY	8



	Model / Type	Specification	Origin	Quantities
26	Contactator D12	7.5 KW 3Ph 380 V 50 Hz Coil 220 VAC	Siemens or Equivalent	6

Liquid reohstat

	Model / Type	Specification	Origin	Quantities
27	Contactor D9	2.5/KW 3ph 380 V Coil 220 V AC	Siemens or Equivalent	8

Oil pressure unit

	Model / Type	Specification	Origin	Quantities
28	Thermal Relay	4 - 6 A 3 ph	Siemens or Equivalent	8

	Model / Type	Specification	Origin	Quantities
29	Control TR	400 / 200 V AC VA 300	Siemens or Equivalent	8

Liquid reohstat

	Model / Type	Specification	Origin	Quantities
30	Oil Level Switch		TOKYO	2

Oil pressure unit

	Model / Type	Specification	Origin	Quantities
31	Relay Finder	220 V AC - 7A 4 Contact	OMRON Or Equivalent	40

	Model / Type	Specification	Origin	Quantities
32	Relay Finder	110 VDC Contact 7 A	Omron or Equivalent	6

Liquid reohstat

	Model / Type	Specification	Origin	Quantities
33	Valve Position Transmitter Type Vot - 2307	Ph - 220 V AC Output Signal 4 - 10 ma Input R 0 - 1 KOHM	EBARA	6



Oil pressure unit

	Model / Type	Specification	Origin	Quantities
34	4 - WAY solenoid valve	VDC 110 20 ACV / 20 AOV Air Pressure (8 - 9) Kg Oil Pressure (18 - 20) kg	EBARA	12



	Model / Type	Specification	Origin	Quantities
35	Discharge valve RVLM - 900 rotary type oil pressure operation	Normal pressure 8kg cm2 max 13 kg cm2 with electric motor 7.9 Kw 380 V	EBARA	1



Drinage Pump - 3

	Model / Type	Specification	Origin	Quantities
36	Circuit breaker	3ph - 225 A	Siemens or equivalent	4

	Model / Type	Specification	Origin	Quantities
37	Contactor D 95	3 ph - 45 KW Coil 220 V AC	Siemens or equivalent	4

	Model / Type	Specification	Origin	Quantities
38	Thermal Relay	3ph 70 - 100 A	Siemens or equivalent	4

	Model / Type	Specification	Origin	Quantities
39	Pressure gauge	Dial 0 - 15 kg cm ²	Siemens or equivalent	4

Lot 2 Equipments

المواصفات و الشروط الفنية

	Model / Type	Specification	Origin	Quantities
1	Pressure reducing valve BRV - 2012 GQ 7	Low Press 9 kg High Press 18 - 22 kg	SAGINO MIYA	6



	Model / Type	Specification	Origin	Quantities
2	Air Valve selectors for oil pressure unit	110 VDC	EBARA	6



	Model / Type	Specification	Origin	Quantities
3	Pressure Switch FBS - C125	Max Press 30 Range 5 - 25 kg cm2	SAGINO MIYA	1



Lot 2 Equipments

المواصفات و الشروط الفنية

	Model / Type	Specification	Origin	Quantities
4	Motor for lifting brushes Type to - form k with magnet brake	Output 0.4 kw 380 VAC 1350 r.p.m	HITACHI	1



	Model / Type	Specification	Origin	Quantities
5	Level switch NS - 287 for cooling main motors	Contact AC 250 V 5A 110 Dcv 0.4 ma	NAKAKITA	6



	Model / Type	Specification	Origin	Quantities
6	Pressure meter for gas circuit breaker (Sf6) 0 - 15 kg cm2	Dial 0 - 15 kg cm2	HITACHI	6

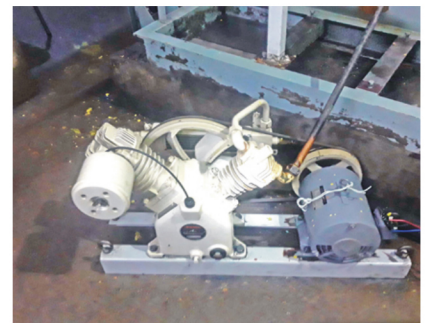
Lot 2 Equipments

المواصفات و الشروط الفنية

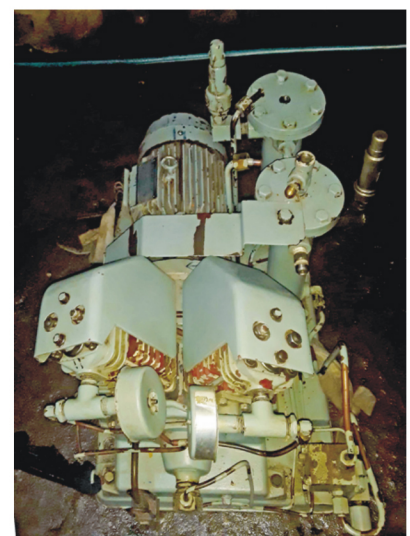
	Model / Type	Specification	Origin	Quantities
7	Thermocouple for mainmotors	1.0 ma pt 100 OHM	SUKEGAMA	3



	Model / Type	Specification	Origin	Quantities
8	Air Compressor for transformer substation with motor and tank	3.7 Kw 400 V 3Ph 1400 r.p.m 16 Kg cm2	HITACHI	2 sets



	Model / Type	Specification	Origin	Quantities
9	Air compressor for oil pressor unit	2.2 kw 380 V 3ph 1500 r.p.m	TOSHIBAI	1 set



Lot 2 Equipments

المواصفات و الشروط الفنية

	Model / Type	Specification	Origin	Quantities
10	Diesel generating unit	200 KVA 400 V 50 Hz 3 ph		1 set

	Model / Type	Specification	Origin	Quantities
11	Service transformer inside use	11 / 0.4 KV 500 KVA Δ / y 50 Hz	HITACHI	1