

A. SPARE PARTS LIST FOR BANIAS POWER PLANT

No.	PART NAME	Part No. / Place of Application	Drawing No.	Qty	Unit			
Instrument and control spare parts For Boiler ,Burner, Bop and TMR Instrument and control spare parts For Boiler ,Burner, Bop and TMR								
1	Limit switch for burner equipment VCX5101 RH/2PA-JEX213L		505-31514	20	PCS			
2	Packing set (K-M10-BC) for solenoid valve (MVS 802F-02-10A) inner gasket		B5-09105	200	SETS			
3	Spark plug Assembly		TD5-30063-00	20	PCS			
4	Spark plug Assembly only Head(p/32,34,35,36)		TD5-30063-00	30	PCS			
5	Detection plug Assembly		TD5-30064-00	20	PCS			
6	Detection plug Assembly only Head(p/32,34,35)		TD5-30064-00	20	PCS			
7	Rear end for (spark and detection) assembly with packing and ceramic insulation		B4-06354-04	50	SETS			
8	Terminal treatment of ignition cable and detection cable (silicon rubber – glass fibre-sleeve-cable fixture spring)		TD5-30063-00	30	SETS			
9	Spare parts for (spark and detection assembly (p/4+5+6+7+8+9+19)		TD5-30063-00	50	SETS			
10	Solenoid valve for fuel oil burner valve Mod (MSV802F-02-10A)KONAN		B5-09105	7	PCS			
11	Limit switch (VCX5001R/2PA-JEX)		B5-09105	20	PCS			
12	Position end Limit switch (VCX5001R/2PA- JEX) with roller lever		B5-09105	200	PCS			
13	All inner gasket for oil gun cylinder		505-31514	30	SETS			
14	Fuel oil burner valve assembly	03/04-CV-206A4	B5-09105	4	SETS			
15	1-ry air damper cylinder	03/04-CD- 284A1Gasket		2	SETS			
16	1-ry air damper cylinder	03/04-CD- 284A2Gasket		2	SETS			
17	1-ry air damper cylinder	03/04-CD- 284A3Gasket		2	SETS			
18	2-ry air damper cylinder	03/04-CD- 284A1Gasket		2	SETS			
19	2-ry air damper cylinder	03/04-CD- 284A2Gasket		2	SETS			
20	2-ry air damper cylinder	03/04-CD- 284A3Gasket		2	SETS			
21	2-ry air damper cylinder	03/04-CD- 284A4Gasket		2	SETS			
22	2-ry air damper cylinder	03/04-CD- 295B1Gasket		2	SETS			
23	2-ry air damper cylinder	03/04-CD- 295B2Gasket		2	SETS			
24	2-ry air damper cylinder	03/04-CD- 295B3Gasket		2	SETS			
25	2-ry air damper cylinder	03/04-CD- 295B4Gasket		2	SETS			
26	Actuator MOD:TA-30D-O for oil burner valve	TypeBA68H-150- 25ABall valve		10	PCS			

27	Solenoid valve (O Ring only)	MOD:MUS80ZF-02-10A-NO13DC48V-G30616		30	PCS			
28	Motor zed ball valve (20A)For IGNITERS	AC 220V/50HZ20A Ball valve	B4-06354-09	4	PCS			
29	Burner purge valve complete	Type single acting 05A piston valve		4	PCS			
30	Fuel oil headerSDBS-140*A/TB	XD 202	P3-07262	3	PCS			
31	Fuel oil heater pressSI ND 100*A/TB	PM202B	P3-07262	3	PCS			
32	SAH-heating steam flowSignal converter	FM 091	P3-07262	2	PCS			
33	Motor temp. recorder	D-TR801 ?R20000x2	JEZ8272	2	PCS			
34	High sensitivity relay unit	FUM I/O Explosion proof.	JEZ82732	2	PCS			
35	Transducer	WTDT-150SW	JEZ82725	2	PCS			
36	Converter	EKX241A	JEZ82725	2	PCS			
37	Complete air cylinder with positoner for burner damper CPY63D-063X 125s		505-3154	24	PCS			
38	Actuator for burner atomize valve double acting 25A		B5-09105	1	SET			
39	Actuator for burner purge valve single action 25A		B5-09105	1	SET			
40	Actuator for fuel oil burner valve double MOD-TA-80D		B5-09105	1	SET			
BOILER PORTION								
ECONOMIZER								
1	COMPLETE ECONOMIZER TUBES		B2-08102	1	SETS			
BOILER STEAM DRUM								
1	CORRUGATED SEPARATORS		B2-09334	88	PCS			
SOOT BLOWERS								
1	VALVE OPERATOR ASS" Y		770-20737	4	PCS			
2	HEAD VALVE ASS" Y		770-20736	12	sets			
3	LANCE TUBE ASS" Y		770-10197-8	12	SETS			
4	WW 575 WORM GEAR SPEED REDUCER	PAGE - 210 - 220	B6- 01750 REV -0	2	PCS			
5	ROTARY BLOWER ASS" Y		770-32005-1-8	2	SETS			
6	TRAVELLING CARRAGE ASS,Y MODEL :STR-8E/13ERIGHT HAND		770-00240	2	SETS			
7	FEED PIPE ACCESSORY ASS ,Y MODEL : STR-8E.13E		770-31947	12	PCS			
8	OIL ROTARY VACUUM PUMP	307	AA98324	2	PC			
9	TURNING BOX (CW& CCW)	100	87-1024A	2	PCS			
10	CAMCAGE FOR TURNING BOX	9	87-1868 ,B6- 01745	10	PCS			
11	SUction VANE		97-10223 B	4	SETS			
12	complete HP n5		B61-40588	1	PC			
13	complete HP n6		B61-40589	1	PCS			
GENERATOR PORTION								
1	DISCREPANCY SWITCH TYPE: SK- C2K R12 SEQUENCE NO. BA 2J2C ORDER AB 8799 - 149		JEZ82728	6	PCS			
2	DISCREPANCY SWITCH TYPE: SK- C2K R16 SEQUENCE NO. BA 2J2C2A ORDER AB 8799 - 150		JEZ82728	1	PCS			

3	LOCKOUT PROTECTION RELAY (86MT1):SERIAL NO. A B8752-X01TYPE: MKW22CONTACT 11A - 11CCHANGE AA		JEZ82725	2	PCS			
4	WTD/ T- 150 SW, or equivalent with all necessary instruction manuals for maintenance,operation, adjusting to become alternative with existing type. ⇒ WTT2-83A-33-M1 with Mounting Adaptor		JEZ82725 (SHEET:G10)	2	PCS			
5	6 kv motor protection relay - Type: CMP2- 10-M3 ,STYLE:098 PMB, RATING 100V 5A - EARTH FAULT (190 V 1.5 mA) - aux. Voltage : DC 220V , or equivalent with all necessary instruction manuals for maintenance,operation, adjusting to become alternative with existing type.		JEZ82728	2	SETS			
5.1	Numerical Protection Relay	CMP1-A01D1		2	PCS			
5.2	Timer	SRTD		2	PCS			
5.3	Aux. Relay	SRD-T5SA 4A1B		2	PCS			
5.4	Knife Switch	UT-T		2	PCS			
5.5	Surge Absorber	MF-RG		2	PCS			
5.6	Zero Sequence Current Transformer (Option)	BZ-0		2	PCS			
6	400 V motor protection relay - Type: CMP3-10-M3 ,STYLE:100 PMB, RATING 100V 5A - EARTH FAULT 5A - aux. Voltage : DC 220V, or equivalent with all necessary instruction manuals for maintenance,operation, adjusting to become alternative with existing type.		JEZ82729	2	SETS			
6.1	Numerical Protection Relay	CMP1-A02D1		2	PCS			
6.2	Timer	SRTD		2	PCS			
6.3	Aux. Relay	SRD-T5SA 4A1B		2	PCS			
6.4	Knife Switch	UT-T		2	PCS			
6.5	Surge Absorber	MF-RG		2	PCS			
7	Synchronizer Type: XT-2-A SERIAL :AB8752- Q020 , POWER:AC 115 V, GEN. IN. AC 100 V 1 PHASE, LINE IN. AC 100 V 1 PHASE, HZ : 50 , DEVISE : P+25, or equivalent with all necessary instruction manuals for maintenance, operation, adjusting to become alternative with existing type.⇒ASY-96-S12(AUTO SYNCHRONIZER) & CSY-96 (SYNCHRO CHECK RELAY) with Mounting Plate and Cover Plate		JEZ82725	1	PC			
8	Synchronizer Type: XT-2-A SERIAL :AB8752- Q010 , POWER: AC 115 V, GEN. IN. AC 100 V 3 PHASE, LINE IN. AC 100 V 1 PHASE, HZ : 50 , DEVISE : P+15+25+60,or equivalent with all necessary instruction manuals for maintenance, operation, adjusting to become alternative with existing type.⇒ Same as above		JEZ82725	1	SET			
9	SYNCHRONISM CHECK RELAY TYPE: SYCA1, STYLE: 086PHA RATING : 100 V . 100/√ V ,		JEZ82725	1	SET			

	50 HZ, DC 220 V, EXTERNAL RESISTANCE 1250 Ω, SETTING, 25 : 10? ~35?, 25T:0.1~ 1 sec, 59B.59L: 70~90%, 27B.27L: 20~30%, or equivalent with all necessary instruction manuals for maintenance, operation, adjusting to become alternative with existing type. ⇒ Same as above						
10	COMPLETE FIELD CIRCUIT BREAKER 4 1 E / F D B - 400 TYPE : FDB 400-S, POLE: 2 , MAIN CIRCUIT: DC 250 V 400A , DISCHARGE CIRCUIT: DC 250 V 800 A , CONTROL CIRCUIT: DC 200 / 220 V 1.5 A		JEZ86770 / SHEET E30	1	SET		
10.1	Field Circuit Breaker	FDS-400		1	PC		
10.2	Contactor for Field Circuit Breaker	DSN400-SW 2P		1	pc		
10.3	Relay	SLD-N220		1	pc		
10.4	Diode Module	RM500HA-H		1	pc		
10.5	Relay	MY4Z		1	pc		
10.6	Contactor for Field Circuit Breaker	SRLD-K100		1	pc		
11	EMC-V1 MULTI-MOTOR CONTROLLER		JEZ82731	15	SET		
11.1	EMC-V1B Multi-Motor Controller			15	PCS		
11.2	Device Panel			15	PCS		
11.3	Connection Cable for EMC-V1B and Device Panel			15	PCS		
12	COOLING FAN WITH ALARM SWITCH FOR EXCITATION SYSTEM - SHB1 TYPE 4506B - 115V AC - 15 WATT		JEZ86770 / SHEET E29	8	PCS		
13	TIMER TYPE : H3Y-2-42 48VDC (0 ~ 10)SEC ⇒ H3Y-2		JEZ82731/ SHEET (25)	10	PCS		
14	TIMER TYPE : H3Y-2-42 48VDC (0 ~ 60) SEC ⇒ H3Y-2		JEZ82728/ SHEET (123)	6	PCS		
15	TIMER TYPE : H3Y-2-42 48VDC (0 ~ 30)SEC ⇒ H3Y-2		JEZ82728/ SHEET (124)	6	PCS		
16	TIMER TYPE : H3Y-2-42 48VDC (0 ~ 180)SEC ⇒ H3Y-2		JEZ82728/ SHEET (125)	6	PCS		
17	TIMER TYPE : DRSF 48VDC (0 ~ 10)SEC ⇒ H3CR-H8L S Series		JEZ82731/ SHEET(25)	4	PCS		
18	TIMER TYPE : DRSF 48VDC (0 ~ 60) SEC ⇒ H3CR-H8L M Series		JEZ82728/ SHEET(123)	4	PCS		
19	TIMER TYPE : H3CA-8 48VDC (60) MIN. ⇒ H3CA-A		JEZ82731/ SHEET(26)	2	PCS		
20	TIMER TYPE : H3CA-8 48VDC (30) MIN. ⇒ H3CA-A		JEZ82731/ SHEET(24)	2	PCS		
21	ILLUMINATED CONTACT BLOCK (PUSHBUTTON- TYPE) FOR T5.5K SOCKETS (2 NO+ 2 NC) TYPE ATL2 ⇒ PB: QXT CONTACT BLOCK ATL2 CONNECTOR BLOCK XA LAMP COLOR RED AND GREEN WITH FASTEN TERMINAL FH2.8		JEZ82731	50	PCS		
22	GENERATOR BEARING		(AK01700GO1+GO2) 2PCS.	2	PCS		
23	Seal ring for generator		Two(2) ring x 2(AJ90915 GO3+GO4) = 4pcs.	6	PCS		
24	Brushes For Rotor Earth Fault Detector		Carbon	4	PCS		

25	Carbon brush for generator rotor		AG81073, Rotor earthing brush	4	PCS			
26	Oil labyrinth			4	SETS			
27	Thermocouple for generator bearing	Bearing	Okazaki	1	PCS			
28	Diode Module and fuse	Brushless Exciter		6	SETS			
29	Bearing	Brushless Exciter		1	SETS			
30	H2 DRYER	Hydrogen Gas Dryer	Complete set	2	SETS			

A. SPARE PARTS LIST FOR AL-ZARA POWER PLANT

GROUP 1

SPARE PARTS FOR MAINTENANCE AND MAJOR OVERHAULING OF STEAM TURBINE

No.	PART NAME	Part No. / Place of Application	Drawing No.	Q-ty	Unit			
SPARE PARTS FOR STEAM TURBINE AND AUXILIARIES								
1	Thrust Bearing Liner		T1-T3466-21	3	sets			
2	E/H Converter For ISV Valve		T1-G5654	1	set			
3	E/H Converter For GV Valve		T1-G5652	1	set			
4	Locke Wire $\phi 1.6 \times 10\text{m}$		T1-D5894-16	3	sets			
5	Spiral Wound Gasket For Main Steam Inlet Piping		T1-S5254-1	6	pcs			
6	Pipe Flange Bolts, Nuts And Washers For Main Steam Inlet Piping + plug		T0-S4215	24	sets			
7	Gasket Roll o,8,1,5 mm (1270 X 3810)		Drawing not available	10	rolls for each			
8	Gasket Roll o,8,1,5, mm (1270 X 3810)		Tombo #1995	10	rolls for each			
SPARE PARTS OF TOOL LISTS FOR STEAM TURBINE AND AUXILIARIES AND MAIN VALVE								
1	Hand Taps (W1 ~ W4) (Westinghouse Thread)		1" ~ 4"	1	set			
2	Angle level			1	pcs			
3	Cast Iron Surface Plate		600 * 600 (mm)	1	pcs			
4	Hydraulic Torque System 550 N.m			1	set			
5	Chisel set			1	set			
6	Cooper hammer		1000 (g)	2	pcs			

7	Cooper hammer		2000 (g)	2	pcs			
8	Chisel			2	pcs			
9	PP Grinder			6	pcs			
10	Air Grinder		2.5G * (3/8)	6	pcs			
11	Air Micro Grinder Rotary Bar		φ3Type φ6Type	10	Set for each			
12	Air Micro Grinder Stone			50	pcs			
13	Garbide Cutting Tool No.1~7		φ3Type φ6Type	25	pcs			
14	Hydraulic Jack		100ton	4	pcs			
15	Set of needle Fils			4	sets			
16	Set of Diamond Fils			4	sets			
17	Three Bond 1215			25	pcs			
18	Three Bond 1212			25	pcs			
19	Bearing Scraber		280 (mm)	2	pcs			
20	Red paint			5	pcs			
21	Valve Compound		40,60,80,200	4	pcs for each			
SPARE PARTS LIST FOR MAIN STEAM TURBINE								
1	HP TURBINE 8th STAGE <u>ROTATING</u> <u>BLADE</u> WITH ALL AUXILIARIES		Regarding the details, refer to attachment No.1	1	SET			
2	HP TURBINE 8th STAGE <u>STATIONARY</u> <u>BLADE</u> WITH ALL AUXILIARIES		Regarding the details, refer to attachment No.1	1	SET			
item of attachment No.1 as below								
I -1	8S BLADE	T1-21B08-01	T1-4B301	54	PCS	}		
I -2	8S BLADE	T1-21B08-02	T1-4B301	15	PCS			

I -3	8S BLADE	T1-21B08-03	T1-4B301	24	PCS			
I -4	8S BLADE	T1-21B08-04	T1-4B301	1	PCS			
I -5	8S Locking Piece	T3-B4793-01	T1-4B301	2	PCS			
I -6	8S Locking Piece	T3-B4793-02	T1-4B301	2	PCS			
I -7	8S Caulking Strip	T1-B9401-49	T1-4B301	1	PC			
I -8	8S Caulking Strip	T1-B9401-52	T1-4B301	1	PC			
I -9	8S Caulking Strip	T1-B9401-53	T1-4B301	1	PC			
I -10	8S Seal Fin Lock Strip	31-01867	T1-4B146-01	4	PCS			
I -11	8S Seal Fin Seal Strip	31-37142-09	T1-4B146-10	4	PCS			
I -12	8S Seal Fin Lock Strip	31-01867	T1-4B146-02	2	PCS			
I -13	8S Seal Fin Seal Strip	31-37142-05	T1-4B146-32	4	PCS			
I -14	8C Blade	T1-21B19-01	T2-B9925-08	128	PCS			
I -15	8C Set Screw	T2-B0129-16	-	2	PCS			
I -16	8C Packing Strip	31-103-28	T1-4B146-58	22	PCS			
I -17	8C Lock Strip	31-01867	T1-B9401-01	4	PCS			
I -18	8C Seal Strip	31-37142-04	T1-B9401-31	4	PCS			
I -19	8C Seal Fin Lock Strip	31-01867	T1-B9401-01	1	PC			
I -20	8C Seal Fin Seal Strip	31-37141-04	T1-B9401-10	1	PC			
3,4,5	HIP-ROTOR SEAL FINS 17, 19,20 LOCKING STRIP		Regarding the details, refer to attachment No.II	1	SET FOR EAC H			
item of attachment No.II as below								
II -1	Seal Fin 17c Lock Strip (Rotor Side)	31-01867	T1-B9401-01	1	PC			
II -2	Seal Fin 17c Seal Strip (Rotor Side)	31-37141-06	T1-B9401-18	1	PC			
II -3	Seal Fin 17c Lock Strip (Stationary Side)	31-01867	T1-B9401-01	4	PCS			
II -4	Seal Fin 17c Seal Strip (Stationary Side)	31-37142-06	T1-B9401-40	4	PCS			
II -5	Seal Fin 19c Lock Strip (Rotor Side)	31-01867	T1-B9401-01	1	PC			
II -6	Seal Fin 19c Seal Strip (Rotor Side)	31-37141-06	T1-B9401-20	1	PC			
II -7	Seal Fin 19c Lock Strip (Stationary Side)	31-01867	T1-B9401-01	4	PCS			
II -8	Seal Fin 19c Seal Strip (Stationary Side)	31-37142-06	T1-B9401-42	4	PCS			
II -9	Seal Fin 20c Lock Strip (Rotor Side)	31-01867	T1-B9401-01	1	PC			
II -10	Seal Fin 20c Seal Strip (Rotor Side)	31-37141-06	T1-B9401-21	1	PC			
II -11	Seal Fin 20c Lock Strip (Stationary Side)	31-01867	T1-B9401-01	4	PCS			
II -12	Seal Fin 20c Seal Strip (Stationary Side)	31-37142-06	T1-B9401-43	4	PCS			
II -13	Seal Fin 17s Lock Strip	31-01867	T1-4B146-01	4	PC			
II -14	Seal Fin 17s Seal Strip	31-37142-10	T1-4B146-19	4	PC			
II -15	Seal Fin 17s Lock Strip	31-01867	T1-4B146-01	2	PCS			
II -16	Seal Fin 17s Seal Strip	31-37142-09	T1-4B146-47	2	PCS			
II -17	Seal Fin 17s Lock Strip	31-01867	T1-4B146-01	4	PCS			
II -18	Seal Fin 17s Seal Strip	31-37142-05	T1-4B146-41	4	PCS			
II -19	Seal Fin 19s Lock Strip	31-01867	T1-4B146-01	6	PC			
II -20	Seal Fin 19s Seal Strip	31-37142-09	T1-4B146-21	6	PC			
II -21	Seal Fin 19s Lock Strip	31-01867	T1-4B146-01	4	PCS			

II -22	Seal Fin 19s Seal Strip	31-37142-05	T1-4B146-43	4	PCS			
II -23	Seal Fin 20s Lock Strip	31-01867	T1-4B146-01	4	PC			
II -24	Seal Fin 20s Seal Strip	31-37142-10	T1-4B146-22	4	PC			
II -25	Seal Fin 20s Lock Strip	31-01867	T1-4B146-01	2	PCS			
II -26	Seal Fin 20s Seal Strip	31-37142-09	T1-4B146-48	2	PCS			
II -27	Seal Fin 20s Lock Strip	31-01867	T1-4B146-01	4	PCS			
II -28	Seal Fin 20s Seal Strip	31-37142-05	T1-4B146-44	4	PCS			
6	HIP-ROTOR SEAL FINS 18 LOCKING STRIP		Regarding the details, NOT AVAILABLE	1	SET			
7	HIP-ROTORSUPPORT FOR B/R&D/R		Regarding the details, refer to attachment No. III	2	SETS FOR EAC H			
item of attachment No. III as below								
III -1	No.1 BR (Gov Side) Upper Support	T2B-5546-02	T2-B5542-02	2	PCS			
III -2	No.1 BR (Gov Side) Lower Support A	T2B-5546-03	T2-B5542-03	1	PC			
III -3	No.1 BR (Gov Side) Lower Support B	T2B-5546-04	T2-B5542-04	1	PC			
III -4	No.1 BR (Gov Side) Hex Bolt	30-58249-03	T2-B5542-05	8	PCS			
III -5	No.1 BR (Gen Side) Upper Support	31-58517-04	T2-B5543-02	2	PCS			
III -6	No.1 BR (Gen Side) Lower Support A	31-58516-04	T2-B5543-03	1	PC			
III -7	No.1 BR (Gen Side) Lower Support B	31-58516-14	T2-B5543-04	1	PC			
III -8	No.1 BR (Gen Side) Hex Bolt	30-58246-03	T2-B5543-05	8	PCS			
III -9	No.2,3 BR Upper Support	31-58517-03	T2-B5544-02	4	PCS			
III -10	No.2,3 BR Lower Support A	31-58516-03	T2-B5544-03	2	PCS			
III -11	No.2,3 BR Lower Support B	31-58516-13	T2-B5544-04	2	PCS			
III -12	No.2,3 BR Hex Bolt	30-58246-03	T2-B5544-06	16	PCS			
III -13	No.1 DR Upper Support	31-58517-03	T2-B4265-03	2	PCS			
III -14	No.1 DR Lower Support A	31-58516-03	T2-B4265-04	1	PC			
III -15	No.1 DR Lower Support B	31-58516-13	T2-B4265-05	1	PC			
III -16	No.1 DR Hex Bolt	30-58246-03	T2-B4265-07	8	PCS			
III -17	No.2 DR Upper Support	31-58517-01	T2-B5547-03	2	PCS			
III -18	No.2 DR Lower Support A	31-58516-01	T2-B5547-04	1	PC			
III -19	No.2 DR Lower Support B	31-58516-11	T2-B5547-05	1	PC			
III -20	No.2 DR Hex Bolt		T2-B5547-06	8	PCS			
III -21	No.3 DR Support		T2-B5548-01	2	PCS			
III -22	No.3 DR Hex Bolt		T2-B5548-02	2	PCS			
III -23	No.3 DR Hex Bolt	30-58246-03	T2-B5548-03	2	PCS			
III -24	No.3 DR Hex Bolt		T2-B5548-04	2	PCS			
8	LP 6-C GEN SEAL FIN LOCKING STRIP		Regarding the details, refer to attachment No.IV	1	PCS FOR EAC H			
item of attachment No.IV as below								
IV -1	LP 6-C SEAL FIN Seal Strip	T1-4B147-22	T1-4B389	16	PCS			
IV -2	LP 6-C SEAL FIN Lock Strip	T1-4B147-02	T1-4B389	8	PCS			
9	SETSCREW FOR SEAL RING		Regarding the details, refer to attachment No.V	1	SET			
item of attachment No.V as below								

V-1	LP STEAM DEFLECTOR Bin	T2-B9639-04		8	PCS			
10	HIP THERMAL SHIELD WASHER & NUT HEX.SOC,BOLT M20 X 65	T1-C5899-03	HP TURBINE HORIZONTAL JOINT TO-C3181	36	PCS			
SPARE PARTS FOR HIP STEAM TURBINE 1INNER CASING.								
1	Dowel Stud Bolt 70 X 447.5 X W 2 1/2	10705BU\TO-C3181	T1-B7771-01	3	PCS			
2	Extension Nut W 2 1/2 x 130	10705AD\TO-C3181	T1-B7771-38	3	PCS			
3	Spherical Washer W 2 1/2	10705BU\TO-C3181	T1-B7771-48,49	3	SET			
4	Stud Bolt 266 X W 1 3/4	M8B\TO-C3181	T1-B7771-03	2	PCS			
5	Extension Nut W 1 3/4 x 90	10705AD\TO-C3181	T1-B7771-41	2	PCS			
6	Spherical Washer W 1 3/4	10705BU\TO-C3181	T1-B7771-54,55	2	SET			
7	Stud Bolt 439.5 X W 2 3/4	10705BU\TO-C3181	T1-B7771-04	2	PCS			
8	Extension Nut W 2 3/4 x 137	10705AD\TO-C3181	T1-B7771-37	2	PCS			
9	Spherical Washer W 2 3/4	10705BU\TO-C3181	T1-B7771-46,47	2	SET			
10	Stud Bolt 434.5 X W 2 3/4	M8B\TO-C3181	T1-B7771-05	2	PCS			
11	Extension Nut W 2 3/4 x 137	10705AD\TO-C3181	T1-B7771-37	2	PCS			
12	Spherical Washer W 2 3/4	10705BU\TO-C3181	T1-B7771-46,47	2	SET			
13	Stud Bolt 382 X W 2	10705BU\TO-C3181	T1-B7771-07	1	PCS			
14	Extension Nut W 2 x 98	10705AD\TO-C3181	T1-B7771-40	1	PCS			
15	Spherical Washer W 2	10705BU\TO-C3181	T1-B7771-52,53	1	SET			
16	Stud Bolt 331 X W 1 3/4	10705BU\TO-C3181	T1-B7771-09	2	PCS			
17	Extension Nut W 1 3/4 x 90	10705AD\TO-C3181	T1-B7771-41	2	PCS			
18	Spherical Washer W 1 3/4	10705BU\TO-C3181	T1-B7771-54,55	2	SET			
19	Dowel Stud Bolt 744 X 347 X W 1 1/2	10705BU\TO-C3181	T1-B7771-10	4	PCS			
20	Extension Nut W 1 1/2 x 76	10705AD\TO-C3181	T1-B7771-42	4	PCS			
21	Spherical Washer W 1 1/2	10705BU\TO-C3181	T1-B7771-56,57	4	SET			
22	Stud Bolt 512 X W 1 1/2	10705BU\TO-C3181	T1-B7771-12	1	PCS			
23	Extension Nut W 1 1/2 x 76	10705AD\TO-C3181	T1-B7771-42	1	PCS			
24	Spherical Washer W 1 1/2	10705BU\TO-C3181	T1-B7771-56,57	1	SET			
25	Stud Bolt 512 X W 1 1/2	10705BU\TO-C3181	T1-B7771-13	2	PCS			
26	Extension Nut W 1 1/2 x 76	10705AD\TO-C3181	T1-B7771-42	2	PCS			
27	Spherical Washer W 1 1/2	10705BU\TO-C3181	T1-B7771-56,57	2	SET			

28	Stud Bolt 317 X W 1 3/4	10305DU\TO-C3181	T1-B7771-16	2	PCS			
29	Extension Nut W 1 3/4 x 90	10705AD\TO-C3181	T1-B7771-41	2	PCS			
30	Plain Washer W 1 3/4	SACM645\TO-C3181	T1-B7771-65	2	SET			
31	Stud Bolt 282 X W 1 3/4	10305DU\TO-C3181	T1-B7771-18	1	PCS			
32	Extension Nut W 1 3/4 x 90	10705AD\TO-C3181	T1-B7771-41	1	PCS			
33	Plain Washer W 1 3/4	SACM645\TO-C3181	T1-B7771-65	1	SET			
34	Stud Bolt 531 X W 1 3/4	10705BU\TO-C3181	T1-B7771-26	1	PCS			
35	Extension Nut W 1 3/4 x 90	10705AD\TO-C3181	T1-B7771-41	1	PCS			
36	Spherical Washer W 1 3/4	10705BU\TO-C3181	T1-B7771-54,55	1	SET			
37	Dowel Stud Bolt 244 X 317 X W 1 1/2	10705BU\TO-C3181	T1-B7771-27	1	PCS			
38	Extension Nut W 1 1/2 x 76	10705AD\TO-C3181	T1-B7771-42	1	PCS			
39	Spherical Washer W 1 1/2	10705BU\TO-C3181	T1-B7771-56,57	1	SET			
40	Stud Bolt 282 X W 1 1/2	10705BU\TO-C3181	T1-B7771-30	3	PCS			
41	Extension Nut W 1 1/2 x 76	10705AD\TO-C3181	T1-B7771-42	3	PCS			
42	Spherical Washer W 1 1/2	10705BU\TO-C3181	T1-B7771-56,57	3	SET			
43	Stud Bolt 244.5 X W 1 3/8	10705BU\TO-C3181	T1-B7771-31	2	PCS			
44	Extension Nut W 1 3/8 x 73	10705AD\TO-C3181	T1-B7771-43	2	PCS			
45	Spherical Washer W 1 3/8	10705BU\TO-C3181	T1-B7771-58,59	2	SET			
46	Stud Bolt 238 X W 1 1/4	10705BU\TO-C3181	T1-B7771-32	2	PCS			
47	Extension Nut W 1 1/4 x 67	10705AD\TO-C3181	T1-B7771-44	2	PCS			
48	Spherical Washer W 1 1/4	10705BU\TO-C3181	T1-B7771-60,61	2	SET			
49	Hex Head Socket Bolt M20 X 40	10705BU\30-58249-03	T2-B5542-05 T2-B5543-05 T2-B5544-06 T2-B4265-07	80	PCS			
50	Hex Head Socket Bolt M12 X 35	10705BU	T2-B5547-06	16	PCS			
51	Hex Head Socket Bolt M12 (Special)	10705BU	T2-B5548-02	8	PCS			
SPARE PARTS FOR HIP STEAM TURBINE (GOV,GEN)1NNER AND OUTER GLAND								
1	Hex Head Socket Bolt M20 X 75	10705BU	T1-W3564-16 T1-W3566-16	4	PCS			
SPARE PARTS FOR HIP STEAM TURBINE .								

1	Thrust Bearing Pad	SF390A+ SNC415+ WL2	T1-T0007	32	pcs			
2	Thrust Bearing Pad With Thermocuple	SF390A+ SNC415+ WL2	T1-T0007	16 (8+8)	pcs (R,L)			
3	shoe support (T1-T0007-04)			8	SET			
4	Linner for thrust bearing	SS400	T1-T3466-21	3	SET			
5	Bearing Oil Seal Ring ?199.6 x 15.85	BC3	T1-T0001 - 08	2	SET			
6	Bearing Oil Seal Ring ?199.6 x 15.85	BC3	T1-T0001 - 09	2	SET			
7	Bearing Oil Seal Ring ?128 x 15.92	BC3	T2-D0055	2	SET			
8	Bearing Oil Seal Ring ?128 x 15.92	BC3	T2-D0056	2	SET			
9	Bearing Oil Seal Ring ?185 x 15.92	BC3	T2-D0053	2	SET			
10	Bearing Oil Seal Ring ?185 x 15.92	BC3	T2-D0054	2	SET			
SPARE PARTS FOR HIP-LP STEAM TURBINE .FLANGE GASKET ,								
1	Gasket (for LP inner casing bolt cover) 1.5t	TOMBO#1995	T2-F4537-01	12	PCS			
2	Gasket (for LP inner casing bolt cover) 1.5t	TOMBO#1995	T2-F4537-02	12	PCS			
3	Gasket (for LP inner casing manhole cover) 1.5t	TOMBO#1995	T2-FOOO4-03	12	PCS			
4	Gasket for end cover	TOMBO#1995	31*63388-22	4	PCS			
5	Gasket for No.3,4Brg oil seal ring 0.8t	TOMBO#1100	T1-F3086-13,14	6	SET			
6	Gasket for No.2 Brg oil seal ring 0.8t	TOMBO#1100	T1-F7394-37	3	SET			
7	Gasket for No.1 Brg oil seal ring 0.8t	TOMBO#1995	T3-D3499-01	3	SET			

GROUP 2 SPARE PARTS FOR STEAM TURBINE MAIN VALVES

#	PART NAME	Part No. / Place of Application	Drawing No. / Description	Qty	Unit			
Main Stop Valve Assembly								
1	Stud Bolt w 31/2*549		T1-R4802-63	6	pcs			
2	Box Nut w 31/2*160		T1-R4802-64	6	pcs			
3	Spherical Washer w 31/2		T1-R4802-66.67	6	sets			

4	Stud Bolt w 1*144		T1-R4802~68	6	pcs			
5	Nut w 1*165		T1-R4802~69	12	pcs			
6	Spherical Washer w 1		T1-R4802~70.71	12	set			
7	PIN $\phi 10 \times 68$		T1-R4802~24	6	pcs			
8	Double Nut Bolt w 7/8*135		T3-S3395~04	24	pcs			
9	Hex Nut w 7/8		T3-S3395~05	48	pcs			
10	Plain Washer w 7/8		T3-S3395~06	24	pcs			
11	Spherical Washer w 7/8		T3-S3395~07.08	24	set			
12	Spiral Wound Gasket		T3-S3395~09	6	pcs			
13	Hex Nut w 5/8		T3-S3391~04	16	pcs			
14	Plain Washer w 5/8		T3-S3391~05	8	pcs			
15	Spherical Washer w5/8		T3-S3391~06.07	8	set			
16	Spiral Wound Gasket		T3-S3391~08	6	pcs			
17	Double Nut Bolt w 5/8*106		T3-S3391~10	8	pcs			
18	Spring Guide		T1-R4802~20	4	pcs			
19	Bushing		T1-R4802~23	2	pcs			
20	Screw		T1-R4802~07	40	pcs			
21	Spiral wound gasket		T1-R4802~08	6	pcs			
22	Valve Steat		T1-R4802~09	2	pcs			
23	Bushing		T1-R4802~10	2	pcs			
24	Bushing		T1-R4802~11	2	pcs			

25	Bushing		T1-R4802~12	2	pcs			
26	Valve Stem		T1-R4802~13	6	Assembled 6 set			
27	Plug:R3/8		T1-R4802~17	6				
28	Pilot Valve		T1-R4802~19	6				
29	Valve Nut		T1-R4802~18	6				
30	Spring Seal		T1-R4802~28	6				
31	Spring Seal		T1-R4802~29	6				
32	Shim		T1-R4802~32	6				
33	Shim		T1-R4802~33	6				
34	Shim		T1-R4802~34	18				
35	Spring		T1-R4802~38	6				
36	Valve		T1-R4802~14	6	Assembled 6 set			
37	Ring		T1-R4802~15	6				
38	Bolt 12*18.5		T1-R4802~16	24				
39	Bushing		T1-R4802~21	2	pcs			
40	HEX SOC HEAD Taper Bolt		T1-R4802~22	12	pcs			
41	Bushing		T1-R4802~23	2	pcs			
42	PIN $\phi 10 \times 68$		T1-R4802~24	6	pcs			
43	PIN $\phi 35 \times 134$		T1-R4802~30	6	pcs			
44	Tongue Gasket 30K-25 X T1.5 For Servo Motor Oil Piping		T1-U6152-24	6	pcs			
45	Tongue Gasket 30K-25 X T1.5 For Servo Motor Oil Piping		T1-U6153-24	6	pcs			

46	Ring Gasket 10K-50 For Servo Motor Oil Piping		T1-U6154-19	6	pcs			
Governing Valve Assembly								
1	Stud Bolt w 1 3/4*314		T1-R4805~06	16	pcs			
2	Box Nut w 1 3/4		T1-R4805~07	16	pcs			
3	Spherical Washer w 1 3/4		T1-R4805~08.09	16	set			
4	Hex.Soc.Head Cup Screw M24*80		T1-R4805~13	24	pcs			
5	Split Pin 8*50		T1-R4805~29	16	pcs			
6	Split Pin 10*80		T1-R4805~60	16	pcs			
7	Double Nut Bolt w 7/8*135		T3-S3395~04	24	pcs			
8	Hex Nut w 7/8		T3-S3395~05	48	pcs			
9	Plain Washer w 7/8		T3-S3395~06	16	pcs			
10	Spherical Washer w 7/8		T3-S3395~07.08	16	set			
11	Spiral Wound Gasket		T3-S3395~09	12	pcs			
12	Double Nut Bolt w 3/4*110		T3-S3410~04	16	pcs			
13	Hex Nut w 3/4		T3-S3410~05	32	pcs			
14	Plain Washer w 3/4		T3-S3410~06	16	pcs			
15	Spherical Washer w 3/4		T3-S3410~07.08	16	set			
16	Spiral wound gasket		T3-S3410~09	12	pcs			
17	Pin ϕ 25*60		T1-R4805~12	8	pcs			
18	Valve Stem		T1-R4805~17	7	Assembled 7 set			
19	Valve		T1-R4805~14	7				

20	Valve Nut		T1-R4805~15	7				
21	Pin $\phi 5$		T1-R4805~11	28				
22	Plug		T1-R4805~65	7				
23	Pin		T1-R4805~24	7				
24	Bushing		T1-R4805~16	2	pcs			
25	Cross Head		T1-R4805~18	4	pcs			
26	Bushing		T1-R4805~19	4	pcs			
27	Pin		T1-R4805~21	4	pcs			
28	Pin		T1-R4805~22	4	pcs			
29	Stud Bolt M24*70		T1-R4805~34	6	pcs			
30	HEX Nut M24		T1-R4805~35	6	pcs			
31	Spiral Wound Gasket		T1-R4805~62	12	pcs			
32	HEX SOC HEAD Taper Bolt		T1-R4805~63	4	pcs			
33	Plug M12		T1-R4805~64	4	pcs			
34	Plug		T1-R4805~67	8	pcs			
35	Tongue Gasket 30K-25 X T1.5 For Servo Motor Oil Piping		T1-U6152-24	12	pcs			
36	Tongue Gasket 30K-25 X T1.5 For Servo Motor Oil Piping		T1-U6153-24	12	pcs			
37	Ring Gasket 10K-50 For Servo Motor Oil Piping		T1-U6154-19	12	pcs			
Intercept Control Valve Assembly								
1	Stud Bolt w 1 1/4*271		T1-M3945~31	24	pcs			
2	Hex Nut w1 1/4		T1-M3945~32	24	pcs			

3	Spherical Washer w 1 1/4		T1-M3945-33.34	24	pcs			
4	Spiral wound gasket		T1-M3945-20	6	pcs			
5	Soc Head Bolt w 7/8*82		T1-M3945-14	16	pcs			
6	Spherical Washer w 7/8		T1-M3945-15.16	16	pcs			
7	Pin $\phi 6 \times 89$		T1-M3945-21	6	pcs			
8	Double Nut Bolt w 5/8*105		T3-S3392-04	16	pcs			
9	Hex Nut w 5/8		T3-S3392-05	32	pcs			
10	Plain Washer w 5/8		T3-S3392-06	16	pcs			
11	Spherical Washer w 5/8		T3-S3392-07.08	16	set			
12	Spiral Wound Gasket		T3-S3392-09	12	pcs			
13	Cross Head		T1-M3945-22	2	pcs			
14	Retainer		T1-M3945-09	2	pcs			
15	Bushing		T1-M3945-10	2	pcs			
16	Pin: $\phi 10 \times 40$		T1-M3945-11	8	pcs			
17	Bushing		T1-M3945-12	2	pcs			
18	Pin		T1-M3945-13	8	pcs			
19	Pin: $\phi 15 \times 30$		T1-M3945-18	16	pcs			
20	Spiral Wound Gasket		T1-M3945-20	6	pcs			
21	Pin		T1-M3945-61	6	pcs			
22	Pin		T1-M3945-62	24	pcs			

23	Tongue Gasket 30K-25 X T1.5 For Servo Motor Oil Piping		T0-U4229-22	6	pcs			
24	Tongue Gasket 30K-25 X T1.5 For Servo Motor Oil Piping		T1-U6150-24	6	pcs			
25	Ring Gasket 10K-50 For Servo Motor Oil Piping		T0-U4231-39	6	pcs			
Reheat Stop Valve Assembly								
1	Stud Bolt w 1 5/8*294		T1-M3943~26	20	pcs			
2	Spherical Washer w 1 5/8		T1-M3943~27.28	20	set			
3	Hex Nut w 1 5/8		T1-M3943~29	20	pcs			
4	Stud Bolt w 1 1/8*174		T1-M3943~30	24	pcs			
5	Spherical Washer w 1 1/8		T1-M3943~31.32	24	set			
6	Hex Nut w 1 1/8		T1-M3943~33	24	pcs			
7	Box Nut w 1 1/8*75		T1-M3943~34	24	pcs			
8	Spiral Wound Gasket		T1-M3943~35	12	pcs			
9	Spiral Wound Gasket		T1-M3943~36	6	pcs			
10	Gasket $\phi 92 \times \phi 73 \times t 0.8$		T2-M4267~06	6	pcs			
11	Taper Bolt W 7/8*171		T2-M4267~07	16	pcs			
12	HEX SOC HEAD Nut W 7/8*55		T2-M4267~08	32	pcs			
13	Plain Washer W 7/8		T2-M4267~09	16	pcs			
14	Spherical Washer W 7/8		T2-M4267~10.11	16	set			
15	Double Nut Bolt W 5/ 8X106	For Leak-off pipe	T3-S3391~10	16	pcs			
16	Hex Nut W 5/8		T3-S3391~04	48	pcs			
17	Plain Washer W 5/8		T3-S3391~05	24	pcs			

18	Spherical Washer W 5/8		T3-S3391~06.07	24	set			
19	Spiral Wound Gasket		T3-S3391~08	12	pcs			
20	Pin		T1-M3943~20	2	pcs			
21	Special Nut		T1-M3943~19	2	pcs			
22	Bushing		T1-M3943~14	2	pcs			
23	Bushing		T1-M3943~13	2	pcs			
24	Bushing		T1-M3943~12	2	pcs			
25	Shoulder Ring		T1-M3943~11	4	pcs			
26	Bushing		T1-M3943~10	4	pcs			
27	Tongue Gasket 30K-25 X T1.5 For Oil pipe		T0-U4229~23	6	pcs			
28	Tongue Gasket 30K-25 X T1.5 For Oil pipe		T1-U6151~28	6	pcs			
29	O.RING G30		T1-U6151-29	6	pcs			
30	O.RING G30		T1-U6151~31	6	pcs			
31	Ring Gasket 10K-65		T0-U4231~38	6	pcs			
32	O.RING G25		T1-U6151~32	6	pcs			
SPARE PARTS FOR STEAM TURBINE AND AUXILIARIES								
1	Sets Of Gaskets, O.Ring,V-Ring for Lube oil Cooler		323387710	6	sets			
2	Sets Of Gaskets, Packing For Manholes For Main Oil Tank		T2-N500002-04	3	sets			
3	Thrust Bearing Liner		T1-T3466-21	3	sets			
4	Exhaust Relief Diaphragms t0.8 Material(ppb)		T3-F3654~01	12	pcs			
SPARE PARTS OF TOOL LISTS FOR STEAM TURBINE AND AUXILIARIES AND MAIN VALVE								

1	Gas Burner			2	sets			
2	Gas Torch			2	sets			
3	Brass Bar(1,2)			2	sets for each			
4	Oil Stone		All type	10	pcs for each			
5	Adhesive Tape			25	pcs			
6	Air Grinder Wheel (Cylindrical Type)		15,30 (cm)	50	pcs for each			
7	Air Grinder Wheel (Conical Type)		15,30 (cm)	50	pcs for each			
8	Wire Brush For Air Grinder(A,B)		A=φ6*30 mm B=φ6*30 mm	50	pcs for each			

STEAM TURBINE MAIN VALVES SPECIAL TOOL.

1	shims for Aligenment (generator) all thicknesses			3	SETS			
2	RSV (special tool) for overhauling			1	SET			
3	MSV (special tool) for overhauling			1	SET			
4	ICV (special tool) for overhauling			1	SET			

GROUP 3 MODIFIDED LIST AFTER OUR REVIEW TO SUPPLY LIST OF MHI FOR DEFERENT EQUIPMENT AND SYSTEM

#	PART NAME	Part No. / Place of Application	Drawing No. / Description	Q-ty	Unit			
Ball Valves (Burner Valves) (HATANAKA CO.LTD)								
1	Valve Body (<u>Complete Valve without actuator</u>)	Ball Valve No.5	H4722B	4	Pcs			
2	Complete Valve without actuator - DN25	Ball Valve No.6	H5206/H5197 GLASS 300LB	25	Sets			
3	Valve Body	Ball Valve No.6	H5206/H5197	10	Pcs			
4	Complete Valve without actuator	Ball Valve No.7	H5206/H5196	25	Sets			
5	Valve Body	Ball Valve No.7	H5206/H5196	10	Pcs			
6	Complete Valve without actuator	Ball Valve No.8	H5201	2	Sets			

C C F BURNER (BURNER MHI NAKASAKI DON'T PROPOSAL FROM MHI)								
1	COMPLETE SET OF GUN FOR FUEL OIL	2,11,12,16,17,18,19,20,22	B4-10911	36	Sets			
1-1	BACK CROSS PLATE	MLBC-1002	B4-10912					
1-2	SPRAY PLATE	MC-067-L36-05DsDm	B4-10912					
2	O-RING(4DP9)	5	B4-10913	36	Pcs			
3	O-RING(4DP85)	12	B4-10911	36	Pcs			
4	COMPLETE SET OF BURNER BODY HOLDER	1,3,4,7,8,13,14,15,21,24	B4-10911	3	Sets			
		2,3,4,5,6,7	B4-10913					
5	FLEXIBLE OIL BURNER BODY	18	B4-10911	48	Pcs			
6	NOZZLE CAP	20	B4-10911	18	Pcs			
7	OIL BURNER GUN GUIDE FLEXIBLE	8	B4-10200	12	Pcs			
8	FUEL OIL BURNER TIP/BACK CROSS PLATE	MLBC-1002	B4-10912	48	Pcs			
9	FUEL OIL BURNER TIP/SPRAY PLATE	MC-067-L36-05DsDm	B4-10912	48	Pcs			
BOILER FIRING SYSTEM (MAIN CONTROL SYSTEM)								
1	BMS OIL BURNER GUN EV SOLENOID VALVE	konanelectric 440-31092E		3	Pcs			
SPARE PARTS FOR FEED WATER PUMP (TORISHIMA PUMP MFG.CO.LTD)								
1	Mechanical Seal for BOILER FEED WATER PUMP MHB 5/5(Type:MT2500NN52DL103)	4330	Pump Dwg No. 091007804 Part Dwg No. 073905395	7	SETS			
2	Balancing Disc for HEATER DRAIN PUMP MML 125/7	6010	Pump Dwg No. 093065604	8	PCS			
3	Balancing Disc Seat for HEATER DRAIN PUMP MML 125/7	6020	Pump Dwg No. 093065604	8	PCS			
SPARE PARTS FOR SAFETY VALVE (FUKUI)								
SPARE PARTS FOR SAFETY VALVE MS-SV-001 S/R#: 7H 3135/3139/3147/3153 Model : SL 963-C3(T) Size 3*M*6								

1	NOZZLE WITH BODY	A182-F22/A217-WA9		3	SETS			
2	DISC	B637-7750		6	PCS			
SPARE PARTS FOR SAFETY VALVE MS-SV-002 S/R# : 7H 3132/40/48 Model : PSH 963-C3(ER) Size 3*L*6								
1	SPRING	B637-7750		6	PCS			
2	SPRING	B637-7750		4	PCS			
3	SPRING	SUS304		4	PCS			
4	NOZZLE	A182-F22/A217-WA9		6	PCS			
5,6	DISC SET CONSIST OF DISC (1PC)AND PISTON RINGS(2PCS)	B637-7750 FOR DISC AND THERMORIC FOR PISTON RINGS		6	SETS			
7	GUIDE	SUS316		6	PCS			
8	GASKET	SUS321		9	PCS			
9	DISC	B637-7750		5	PCS			
10	GASKET	V590		15	PCS			
11	DAMPER	B637-7750		6	PCS			
12	PILOT VALVE ASSY WITHOUT SOLENOID ASSY	-		6	PCS			
13	Manual Globe Valve for Main steam Drain Valve Class 4500 Size DN50 - SW	TAG NO.BD-V-003	VELAN DRW NO. X1-1713-E26	8	PCS			
SPARE PARTS FOR SAFETY VALVE RS-SV-001/002 S/R# : 7H 3133/34/41/42/49/50 Model : SL 533(T) Size 6*R*10								
1	NOZZLE WITH BODY	A105/A216-WCB		2	SETS			
2	DISC	B637-7750		2	PCS			
SPARE PARTS FOR SAFETY VALVE AS-SV-001								

S/R# : 7H 3351/56/61/66 Model : SL 431(T) Size 8*T*12								
1	NOZZLE WITH BODY	A105/A216-WCB		3	SETS			
2	DISC	SUS630		3	PCS			
3	SPINDLE	SUS403		2	PCS			
SPARE PARTS FOR SAFETY VALVE SB-SV-001 S/R# : 7H 3354/59/64 Model : SL 341 C1(T) Size 2*H*3								
1	NOZZLE WITH BODY	SUS316/A217-WC1		2	PCS			
2	DISC & HOLDER	B637-7750		5	PCS			
3	SPINDLE	SUS431		4	PCS			
4	GUIDE	SUS13		2	PCS			
5	LOWER RING	SUS304-TP		3	PCS			
6	UPPER RING	SUS304-TP		3	PCS			
7,8	LOWER SPRING WASHER SET (1PC of LOWER SPRING WASHER AND 1PC of UPPER SPRING WASHER)	S25C		2	SETS			
9	SPRING	SW0CV-V		2	PCS			
SPARE PARTS FOR SAFETY VALVE AS-SV-002 S/R# : 7H 3371/73/74 Model : SL 231(T) Size 4*N*6								
1	NOZZLE	SUS13A		2	PCS			
2	DISC AND HOLEDER	SUS630/403		2	SETS			
3	SPRING	SUP10		2	PCS			
SPARE PARTS FOR SAFETY VALVE BD-SV-001/002/003 S/R# : 7H 3128/3129/3130 Model : SL 933(T) Size 3*M*6								

1	NOZZLE WITH BODY	A182-F22/A217-WA9		4	SETS			
2	DISC	B637-7750		6	PCS			
3	DISC COLLAR	SUS420J2		1	PC			
4	DISC HOLDER	SUS403		1	PC			
5	SPINDLE	CR-NI-SI		1	PC			
6	GUIDE	SCS13		1	PC			
7	LOWER RING	SUS403		1	PC			
8	UPPER RING	SUS403		1	PC			
9	PIN	PURPHASE		6	PCS			

SPARE PARTS LIST FOR MAIN STEAM TURBINE

GROUP 4 REMAINING SPARE PART FOR DEFERENT EQUIPMENT AND SYSTEM

#	PART NAME	Part No. / Place of Application	Drawing No. / Description	Q-ty	Unit			
Excitation cubicle								
1	Rotor temperature converter	Exciter main circuit JEZ 1F620	Model AX7100B-152-1475F 110V, 50Hz, 15VA	1	Pcs			
2	Magnetic contactor	Exciter main circuit JEZ 1F620	Type: SD-N 800 220-240V, 220KW, 800A	1	Pcs			
3	Connection junction between thy, Trays and bars	Exciter main circuit Excitation cubicle	-	56	Pcs			
4	FUSE	PTSA Generator Circuit JEZ1C821	BAL-PT,15KV,40KA,1A	6	Pcs			
5	SURGE CAPACITOR	PTSA Generator Circuit JEZ1C821	KU-2, 18KV 0.13 µf	2	Pcs			
6	BACK UP POWER SOURCE	Exciter main circuit Excitation cubicle	540V/85V/110V DC	2	Pcs			
Seal oil system for generator								

1	Explosion protected rely	Seal Oil Control Panel JEZ 1CC 822	Type : EB3C-R10AN AC 100 ~240 V 50Hz, 60Hz WITH WIRING MATERIAL AND MOUNTING PLATE	2	Pcs			
PARTS RECOMMENDED FOR THE PERIODIC INSPECTION OF GENERATOR								
1	PTFE Powder	Radial Conductor	10g	3	Pcs			
2	Brass Tongued Washer	Radial Conductor	AM07128-2	6	Pcs			
3	Brass Tongued Washer	Radial Conductor	AM07126-9	6	Pcs			
4	Gasket	Radial Conductor	AM07127-2	30	Pcs			
5	Brush	Radial Conductor	16m	12	Pcs			
6	Tongued Washer	Air Seal	8	108	Pcs			
7	Three Hole Washer	Brush Arm	AP09375-1	12	Pcs			
8	Tongued Washer	Brush Arm	12	12	Pcs			
9	Gasket	Housing	Neoprana Rubber 2.5m SA17455-3 AN97713-2	3	Pcs			
10	Gasket	Housing	Neoprana Rubber SA17455-3 t4x100 7m	3	Pcs			
11	Tongued Washer	Enclosure	12	33	Pcs			
12	Tongued Washer	Enclosure	10	63	Pcs			
13	Tongued Washer	Enclosure	10	54	Pcs			
14	Tongued Washer	Enclosure	12	24	Pcs			
15	Tongued Washer	Enclosure	8	33	Pcs			
16	Tongued Washer	Field Load	16	48	Pcs			
17	Tongued Washer	Cleat for Field Load	10	36	Pcs			

18	Tongued Washer	Cleat for Field Load	16	12	Pcs			
19	Tongued Washer	Baffle	10	12	Pcs			
20	Tongued Washer	Fan Cover	8	66	Pcs			
21	Tongued Washer	Baffle for Housing	8	108	Pcs			
22	Two Hole Washer	Baffle for Housing	A949626-6	48	Pcs			
BURNER SYSTEM								
1	GAS BURNER NOZZLE WITH GAS NOZZLE TIP Including part No. (10 ~ 19)		B4-10200 2/2 Gas burner port	72	SET			
2	OIL BURNER NOZZLE WITH ?300 SWIRLER AND ACCESSORY .. Icludind part No. (1 ~ 9)		B4-10200 1/2 oil burner port	12	SET			
3	AUXILIARY AIR NOZZLE WITH SOCKET WITH PIN Icludind part No. (1 ~ 3)		B4-10201 air port assembly(auxiliary)	104	SET			
4	AIR NOZZLE (END)WITH SOCKET WITH PIN Icludind part No. (2 ~ 4)		B4-10202 air port assembly(end)	12	SET			