Appendix XI Detailed Comparison List between
The Request of The Gambia and
The Basic Design

(Rehabilitation Work and
Spare Parts Supply)

1. Comparsion List of Quantity of GUC requirement and Suppply

No.1

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Engine Casing -						
1	Stud for cylinder cover	K11122	8	-	-	-	
2	O-ring for ring K1116	K11126	14	12	6	18	
3	O-ring for nut K1117	K11127	14	12	6	18	
4	Upper bearing half shell for crank shaft bearing	K12001	7	7	1	8	
5	Lower bearing half shell for crank shaft bearing	K12010	7	7	1	8	
	- Oill Sump -						
1	O-ring for flange K11815	K11827	2	2	2	4	
2	O-ring for flange K11815	K11828	2	2	2	4	
	- Crank Shaft Locating Bearing -						
1	Locating bearing	K12051	2	2	1	3	
2	Thrust bearing ring halves	K12061	4	4	1	5	
	- Engine Frame -						
1	Tublar sealing for H16101	H16104	12	12	12	24	
2	Packing for H16102	H16105	-	12	12	24	
3	Sealing	H16113	-	2	2	4	
	- Casing Cover -						
1	Tublar sealing for K16221	H16226	12	1	1	2	
2	Tublar sealing for K16220	H16227	-	11	11	22	
3	Tublar sealing for K11222	H16228	-	2	2	4	
	- End Cover (Engine with built-on pumps) -						
1	Joint for cover K16505	K16507	-	1	1	2	
	- Cylinder Liner -						
1	Clamping piece, complete for cylinder liner	K21001	-	4	-	4	
2	Bolt for clamping piece	K21002	-	8	-	8	
3	Conical disc for clamping piece	K21005	-	8	-	8	
4	Conical cap for clamping piece	K21006	-	8	-	8	
5	Cylinder liner	K21401	-	-	1	1	
6	O-ring for cylinder liner	K21404	24	24	24	48	
7	O-ring for cylinder liner	K21405	36	36	36	72	
8	O-ring for cylinder liner	K21406	24	24	24	48	
9	Sealing ring for cylinder liner	K21407	12	12	12	24	
	- Cylinder Head -						
1	Cooling water guide for cylinder head	K27004	-	-	1	1	
2	Indicator valve, complete	K27016	-	6		6	
3	Nut for stud K11122(ZV) and K21112(ZL)	K27039	8	-	8	8	
4	Sleeve for nut K27038	K27040	-	8	-	8	
5	Nut for stud K27038	K27045	72	8	-	8	
6	Tubular sealing for cover K27007 and bearing casing K28000	K27046	-	24	24	48	
7	O-ring for cylinder head	K27051	24	12	12	24	
8	O-ring for ring K27010	K27055	24	24	-	24	
9	O-ring for nut K27039	K27056	24	8	-	8	

Remarks : "Cord No." shows Parts No. indicated in the instruction manuals prepared by the manufacture of No.4 DEG.

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabi	Spare	Total	Remark
	- Cylinder Head - 続き						
10	Cylinder head complete with insert bush K27107, valve seat K27108 and valve K27109 with O-ring K27122 and valve guide K27112 with O-ring K27113	K27100	-	-	1	1	
11	Insert bush for fuel injector valve	K27107	4	4	8	12	
12	Valve seat for inlet valve	K27108	24	12	12	24	
13	Valve seat for outlet valve	K27109	24	12	12	24	
14	Valve guide	K27112	48	-	48	48	
15	O-ring for valve guide K27112	K27113	96	96	96	192	
16	O-ring for valve seat K27108	K27122	144	192	192	384	
	- Fuel Injection Valve -						
1	Fuel injection valve complete, but without flange	K27200	-	12	-	12	
2	Washer for flange K27026	K27028	6	12	-	12	
3	Cyl. pin for nozzle holder	K27202	12	6	-	6	
4	Spring plate for fuel injection valve	K27205	6	3	-	3	
5	Spring for fuel injection valve	K27210	-	3	-	3	
6	Rubber ring for nozzle holder	K27211	36	36	72	108	
7	Rubber ring for nut K27209	K27212	12	12	24	36	
8	Nozzle with needle and cooling jacket complete, for fuel injection valve	K27240	12	-	12	12	
	- High Pressure Pipe -						
1	High pressure pipe complete	K27250	-	12	-	12	
2	High pressure pipe	K27251	2	-	-	-	
3	Valve body for fuel press. valve	K27254	2	-	-	-	
4	Valve hous. for fuel press valve	K27255	2	-	-	-	
5	Spring for fuel pressure valve	K27257	12	-	-	-	
6	Clamp ring for high press pipe	K27261	12	-	-	-	
7	Sealing for housing K27259	K27262	12	12	-	12	
8	Metal tube for high press pipe	K27264	2	-	-	-	
9	O-ring for hous. K27259 & K27263	K27275	-	24	24	48	
	- Starting Valve -						
1	Staring valve complete	K27400	-	12	-	12	
2	Piston ring for K27404	K27409	24	-	-	-	
3	Piston ring for K27404	K27410	24	-	-	-	
4	O-ring for K27402 and K27403	K27411	36/48	-	-	-	
5	Spring for strating valve	K27414	-	-	-	-	
6	Spring plate for strating valve	K27415	6	-	-	-	
7	Self-loacking nut for K27401	K27417	12	-	-	-	
8	Sealing ring for start. valve	K27419	12	-	-	-	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Inlet and Outlet Valve -						
1	Inlet and outlet valve, complete	K27500	-	24/24		24/24	
2	Conical clamping ring, two-part, for inlet and outlet valve	K27503	24	-	24	24	
3	Outer valve spring for inlet and outlet valve	K27504	-	-	-	-	
4	Inner valve spring for inlet and outlet valve	K27505	-	-	-	-	
5	Valve spindle for inlet valve	K27511	24	-	-	-	
6	Valve spindle for outlet valve	K27512	24	-	24	24	
	- Releif Valve -						
1	Releif valve, complete	K27700	-	12	-	12	
2	Spacer foe releif valve	K27704	12	-	-	-	
3	Spring foe releif valve	K27705	-	-	-	-	
4	Packing ring	H27707	-	12	12	24	
	- Bearing Casing for Cylinder Head -						
1	Bearing casing, complete	K28000	-	-	1	1	
2	Bush for main rocker arm K28005	K28008	20	24	-	24	
3	Spherical headed pin for K28005 and K28015	K28009	10	48	-	48	
4	Bush for auxiliary rocker arm K28015	K28018	20	12	6	18	
5	Pin for auxiliary rocker arm K28015	K28020	24	24	-	24	
6	Special bolt for main rocker arm K28005	K28034	4	24	-	24	
7	Special bolt for main rocker arm K28005	K28035	4	24	-	24	
8	Lock nut for K28034	K28037	4	24	-	24	
9	Ball-shaped cup for rocker arm	K28041	72	36	36	72	
10	Spring cage for K28041	K28042	72	36	36	72	
11	O-ring for flange K28029	K28044	24	24	12	36	
12	O-ring for flange K28030	K28045	24	24	12	36	
	- Crank Shaft -						
1	Vibration damper, complete	K31510	1	-	-	-	
	- Connecting Rod -						
1	Upper bearing half	K33210	12	12	1	13	
2	Lower bearing half	K33220	12	12	1	13	
3	Bolt for bearing half	K33400	-	4	24	28	
4	Bolt for bearing half	K33410	-	4	24	28	
5	Serrated bolt-locking device for bolt K33410	K33420	10	8	48	56	
6	Screw	K33421	20	24	24	48	
7	Locking plate	K33422	48	24	24	48	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Piston -						
1	Operating piston, complete	K34000	-	-	1	1	
2	Ex. bolt for upp. part of piston	K34127	-	60	-	60	
3	Ex. bolt for piston skirt	K34129	-	36	-	36	
4	Stopper plate	K34138	-	12	-	12	
5	Spring for pawl	K34139	-	3	-	3	
6	O-ring for cooling insert	K34144	24	12	24	36	
7	Piston ring, (top)	K34401	12	12	12	24	
8	Piston ring(2nd,3rd)	K34402	24	24	24	48	
9	Grooved piston ring for operating piston	K34410	12	12	12	24	
	- Camshaft -						
1	Fuel cam for camshaft	K42150	-	-	-	-	
2	Valve cam for camshaft	K42160	-	-	-	-	
3	Camshaft bearing shell halves	K42601	-	2	16	18	
4	Lapped bearing ring halves for camshaft lapped bearing	K42611	-	2	4	6	
	- Starting Air Distributor -						
1	Starting air distributor	K43100	-	-	-	-	
2	Thrust washer for starting air distributor K43161	K43162	2	1	1	2	
3	Bush for housing K43161	K43170	2	1	1	2	
4	Thrust washer for distributing disc K43169	K43170	2	1	1	2	
	- Automatic Starting-Air Stop Valve, complete -						
1	Automatic starting-air stop valve, complete	K43500	-	-	-	-	
2	Plunger ring for plunger K43513	K43521	3	3	3	6	
3	Spring for non-return valve K43515	K43510	-	1	-	1	
4	Spring for plunger K43516	K43520	-	1	-	1	
5	Sealing for starting-air stop valve	K43528	-	1	1	2	
	- Valve Actuating Gear -						
1	Valve actuating gear, complete	K44100	-	1	-	1	
2	Guid piston for valve sctuating gear	K44102	-	2		2	
3	Roller for valve actuating gear	K44104	-	2	-	2	
4	Bush for rollers K44103 and K44104	K44107	24	24	-	24	
5	Thrust washer for roller K44104	K44108	48	24	-	24	
6	Spring for valve actuating gear	K44111	-	2	-	2	
7	Spherical pin for valve actuating gear	K44112	4	4	8	12	
8	Valve actuating rod, complete	K44114	-	-	6	6	
9	Sealing for K44115	K44116	24	12	12	24	
10	Sealing for K44117 & K44129	K44125	-	24	-	24	
11	O-ring for K44117 and K44129	K44125	-	48	-	48	
12	O-ring for boushing K44101	K44126	-	12	-	12	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Regulating Linkage -						
1	Bush for levers K45025, K45027 and support K45029	K45026	4	4	4	8	
2	Self-locking nut for lever K45025	K45042	24	24	24	48	
3	Pin for lever K45025	K45073	12	12	12	24	
	- Spring Rod -						
1	Articulat. piece for spring rod	K45103	2	2	2	4	
	- Regulating Shaft -						
1	Articulation piece for rod K45051 and K45052	K45054	4	4	4	8	
2	Treaded pin for K45001, K45051 and K45052	K45063	6	6	6	12	
3	Self-locking nut for stud K45070	K45065	1	6	6	12	
4	Self-locking bolt for threaded ping K45063 and K45064	K45067	6	6	6	12	
5	Bush for lever K45057	K45069	1	2	-	2	
	- Overspeed Safety Cut-out Device Complete -						
1	Cover for housing K46101	K46140	1	1	-	1	
2	Fel ring for cylinder K46159 and cover K46182	K46160	2	2	2	4	
3	Sealing for cover K46161	K46162	1	1	1	2	
4	Piston ring for piston K46163	K46164	2	2	2	4	
5	Sealing for cover K46178	K46179	1	1	1	2	
	- Overspeed Safety Cut-out Device -						
1	Sealing for locking screw K46192	K46206	2	2	-	2	
	- Control Elements -						
1	3/2-way valve, complete	K47209	-	1	-	1	
2	3/2-way valve, complete	K47210	-	2	-	2	
3	Limit switch	K47211	-	1	-	1	
	- Transmitter for Remote Tachometer -						
1	Sensor for remote tachometer	H49601	-	1	1	2	
	- Load Control -						
1	Limiting sensor for load control	H49905	-	1	1	2	
	- Governor Device -						
1	Woodward governor	K51101	-	1	-	1	
2	Bush for housing K51123	K51123	6	6	-	6	
3	Sealing for housing K51138	K51139	1	2	-	2	
	- Fuel Injection Pump -						
1	Fuel injection pump, complete	K55000	-	-	1	1	
2	Pin for fuel injection pump	K55012	6	-	6	6	
3	Bush for roller K55028	K55016	12	6	12	18	
4	Spring forfuel injection pump	K55018	-	1	-	1	
5	Thrust plate for roller K55028	K55030	24	12	12	24	
6	Packing for retain. screw K55033	K55033	-	6	-	6	
7	Grooved packing for screw K55021	K55034	-	6	-	6	
8	O-ring foR housing K55001	K55035	24	12	24	36	
9	O-ring for pump cover K55004	K55036	12	6	24	30	
10	O-ring for K55050	K55037	24	6	24	30	
11	Retaining ring for pin K55015	K55040	12	6	6	12	
12	Piston and cylinder for fuel injection pump	K55050	12	-	6	6	

(4)

(CURRENCY – DALASI)

GAMBIA UTILITIES CORPORATION

CASH FLOW STATEMENT FOR FY 1987/88 - ACTUAL

CASH RECEIPTS:	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	TOTAL
	D	D	D	D	D	D	D	D	D	D	D	D	D
SALES: PRIVATE	2,456	2,514	2,290	2,313	2,988	3,100	2,428	3,205	5,037	1,882	4,466	3,785	36,414
GOVT.	-	-	447	-	-	895	1,049	-	-	-	-	1,061	3,452
SEWERAGE	12	-	-	8	43	5	32	179	-	29	-	41	349
DEPOSITS	98	162	164	230	184	209	810	138	236	266	105	216	2,418
OTHER INCOME	252	54	193	181	65	35	412	241	204	257	30	689	2,613
TOTAL CASH RECEIVED	2,818	2,730	3,094	2,732	3,280	4,244	4,331	3,763	5,477	2,384	4,601	5,792	45,246
CASH PAYMENTS:													
SALARIES/WAGES	410	282	322	293	266	423	357	532	482	553	478	460	4,858
PENSION CONTRIBUTION	-	165	-	112	-	-	7	-	223	-	1	-	508
MATERIALS: GAS/LUB. OIL	768	465	1,390	1,587	2,377	2,157	2,262	2,194	2,245	88	149	4,370	20,052
FOREIGN SUPPLIERS	51	399	6	532	-	-	-	-	136	-	59	47	1,230
LOCAL SUPPLIERS	102	163	160	201	180	104	188	41	197	10	386	168	1,900
STATIONERY	20	4	30	11	4	5	7	4	12	29	7	5	138
EXPENSES: TRAVEL	19	16	20	41	65	51	32	16	19	40	18	19	356
MAINTENANCE	10	27	8	12	27	62	18	12	27	5	44	13	265
ALLOWANCES	10	12	10	14	12	12	10	16	9	12	10	11	138
CABLE/TELEX/TEL.	12	-	56	25	13	25	26	15	26	35	27	36	296
HIRED TRANSPORT	49	83	58	58	21	83	33	32	45	32	60	121	675
INSURANCE	138	-	41	-	-	16	-	-	-	-	56	3	254
AUDIT	-	-	84	-	-	-	-	-	-	-	-	-	84
LEGAL	4	-	-	-	-	4	-	-	-	-	-	1	9
OTHER	807	367	617	474	740	199	158	358	553	560	829	366	6,028
TOTAL CASH PAID OUT	2,400	1,983	2,802	3,360	3,705	3,141	3,098	3,220	3,974	1,364	2,124	5,620	36,791
CASH SURPLUS OVER REVENUE EXP.	418	747	292	(628)	(425)	1,103	1,233	543	1,503	1,020	2,477	172	8,455
FINANCIAL CHARGES	-	-	-	-	-	33	-	-	-	-	-	33	66
CAPITAL EXPENDITURE	43	117	8	1,567	968	1,509	330	576	3,591	1,498	1,105	990	12,302
NET CASH INFLOW(OUTFLOW)	375	630	284	(2,195)	(1,393)	(439)	903	(33)	(2,088)	(498)	1,372	(851)	
OPENING CASH BALANCE	8,866	9,241	9,871	10,155	7,960	6,567	6,128	7,031	6,998	4,910	4,432	5,804	
CLOSING CASH BALANCE	9,241	9,871	10,155	7,960	6,567	6,128	7,031	6,998	4,910	4,432	5,804	4,953	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabi	Spare	Total	Remark
	- Arrangement of Turbocharger -						
1	Compensator	H66128	-	2	2	4	
2	Sealing for H66128	H66129	-	2	2	4	
3	Sealing for H66115	H66130	-	2	2	4	
4	Sealing for K66106	H66131	-	2	2	4	
	- Air Delivery Pipe -						
1	Hose sealing for the air delivery pipe	K67029	12	12	12	24	
2	Spiral-asbestose packing for flange K67004	K67030	24	12	12	24	
3	Spiral-asbestose packing for flange K67004	K67031	-	1	1	2	
4	Sealing for ring K67012	K67032	-	1	1	2	
	- Cylinder Lubricating Pump Device -						
1	Articulation piece for flexible	K72142	2	2	-	2	
	- Cylinder Lubricating Oil Fine Filter -						
1	Fine filter for cylinder lubricating	K72301	-	1	-	1	
	- Exhaust Piping -						
1	Exhaust pipe for cylinder 2L	K81105	-	1	-	1	
2	Spiral-asbestos gasket for flange K81127	K81130	12	12	12	24	
3	Compensator for exhaust pipe	K81137	-	8	4	12	
4	Compensator for exhaust pipe	K81138	-	4	2	6	
	- Instrument Panel -						
1	Instrument panel, complete	H92100	-	1		1	
	- Exhaust Turbocharger -						
1	Rotor complete	20000	-	1	-	1	
2	Nozzle	56000	-	1	-	1	
3	Bearing complete(B/T)	32100/34100	-	1	2	3	
4	Diffuser	79000	-	1	-	1	
	- L.O. Pump -						
1	Driving shaft complete set		-	1		1	
	- Maker's Standard Spare set for -						
1	A/C		-	1	-	1	
2	Exhaust gas turbocharger		-	1	-	1	
3	oil mist detector		-	1	-	1	
4	Exhaust gas temperature		-	1	-	1	
5	Tachometer		-	1	-	1	
6	Thermostat		-	1	-	1	
7	L.O. pump		-	1	-	1	
8	Standard bolts/nuts/washers		-	1	-	1	
9	Standard packings for pipe		-	1	-	1	
10	Woodward governor		-	1	-	1	

PROJECT	TOTAL EXPENDED COST	EXPENDITURE TO DATE	ACTUAL EXPENDED/ PHY. PROGRESS	BUDGET TIME TABLE	FORECAST TOTAL YEAR. EXPEND.	SOURCE	REMAINING FINANCE
B/F	2,052,810.00	525,813.35					
11. OFFICE FURNITURE FOR COMMERCIAL SECT.	38,210.00						
12. AIR CONDITIONER FOR COMMERCIAL SECT.	64,000.00						
13. TYPEWRITER NO.4 AT D6,000	24,000.00						
14. RESTRUCT. OF 1st AND 3rd FLOOR H/Q	132,000.00	295,953.43					
ONE TRANSPORT L/YEAR BUDGET		102,500.00				GUC	
TOTAL	2,311,020.00	924,266.78					

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Purifier Trap(DRG.No.39216B) -						
1	Dirty oil connection pipe	3051017	-	1	-	1	
2	Purified oil connection pipe	3051017	-	1	-	1	
3	Sheet packing	3051002	-	9	9	18	
4	Thermometer	3051013	-	1	1	2	
5	O-ring	3024012	-	3	3	6	
6	O-ring	3024018	-	1	2	3	
7	Flow indicator	4051004	2	1	2	3	
8	Pressure gauge	3051015	2	1	1	2	
9	Sheet packing	3051003	-	4	4	8	
10	O-ring	4011001	4	1	3	4	
11	Diety oil inlet pipe	4051001	2	1	1	2	
12	Purified oil outlet pipe	4051006	2	1	1	2	
13	water outlet pipe	4051003	2	1	1	2	
14	Orifice	4051002	2	1	1	2	
15	Sealing water inlet flange	3024007	2	1	1	2	
16	O-ring	3024016	-	1	1	2	
	- Purifier Frame(DRG.No.302160D) -						
1	Oil gauge glass	521111	-	1	2	3	
2	Sheet packing	521112	-	2	4	6	
3	O-ring 602¢	4011008	2	1	2	3	
4	O-ring	2011026	-	1	2	3	
5	Sheet packing	4011012	-	1	1	2	
6	Sheet packing	4011004	-	1	1	2	
	- Bowl Assembly(DRG.No.392159D) -						
1	O-ring for gravity disc	4081003	5	1	5	6	
2	Top disc	4081022	2	1	-	1	
3	Disc (1)	4081023	2	106	4	110	
4	Disc (2)	4081024	2	6	-	6	
5	O-ring	4081021	5	1	5	6	
6	Socket cap screw(M14 x 25)		48	6	32	38	
7	Main seal ring	4081036	5	1	5	6	
8	O-ring 325¢	4081031	9	1	5	6	
9	O-ring 345¢	4081021	15	3	15	18	
10	O-ring 336¢	4081033	5	1	5	6	
11	O-ring	4081033	-	1	2	3	
12	O-ring	4081019	5	1	5	6	
13	Plug screw with nozzle	2081031	6	2	4	6	
14	Sheet packing	4016011	3	1	5	6	
15	O-ring	4016005	2	1	5	6	
16	O-ring 115¢	4016016	5	1	5	6	
17	Bolt M5 x 8		-	6	12	18	
18	Tongued washer	4016002	-	6	12	18	
	- Vertical Shaft(DRG.No.392163A) -						
1	Sheet packing	4013004	-	1	1	2	
2	O-ring	4013001	-	1	2	3	
3	Washer	4013014	-	1	2	3	
4	Spring for upper bearing	4013010	-	6	12	18	
5	Ball bearing	#6310	-	1	2	3	
6	U-type packing	4013005	-	1	2	3	
7	Sheet packing	4014009	-	1	1	2	
8	Sheet packing	4014010	-	1	1	2	
9	Ball bearing	#6306C3	-	1	2	3	
10	Angulau contact ball bearing	#7306A	-	1	2	3	
11	Spring for lower bearing	4014006	-	1	2	3	
12	Washer	0713016	-	1	2	3	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Horizontal Shaft(DRG.No.392164C) -						
1	Sheet packing	4015006	-	1	1	2	
2	Oil seal	SB254511	4	2	4	6	
3	Sheet packing	2015006	-	1	1	2	
4	Oil seal	SB456812	2	1	2	3	
5	Ball bearing	#6307	2	2	4	6	
6	Washer	0715012	-	2	4	6	
7	50Hz spiral gear	4036002	-	1	1	2	
8	Washer	3013013	-	1	2	3	
9	Friction block	3015002	-	6	12	18	
10	Brack lining	3012004	2	1	2	3	
11	Counter sunk head screw M5 x 12		8	4	8	12	
12	Brake spring	4012001	-	1	2	3	
	- Gear Pump(DRG.No.403817A) -						
1	Bush	3041041	2	2	4	6	
2	Bush	3041042	2	2	4	6	
3	Packing	4041001	-	1	1	2	
4	Sheet packing	3041016	2	2	2	4	
5	Spring for releif vale	3041014	-	1	2	3	
6	Oil seal	SC203508	4	2	4	6	
7	Safety joint	4041018	-	1	2	3	
8	Sheet packing	4052003	-	2	2	4	
9	Sheet packing	3052002	-	2	2	4	
	- Auto. Control Panel -						
1	Bulb for signal lamp	E12.1BV.2W	-	36	36	72	
2	Grobe for signal lamp		-	3	3	6	
3	Aux. relay	SRC50-2F	2	1	1	2	
4	Aux. relay	HH54P	10	7	7	14	
5	Mag. contact	SPC3631-5-1	2	1	1	2	
6	Timing relay	H3BA	6	2	4	6	
7	Timing relay	H2A 12H	1	1	1	2	
	- Electric Heater for L.O.purifier(DRG.No.NH-69551) -						
1	Heater element (2.67kW)	No.5	-	1	-	1	
2	Thermometer	No.12	4	2	4	6	
3	Pressure gauge	No.15	-	1	1	2	
4	Packing	No.16	-	1	1	2	
	- L.O. Strainer - (150-2PU-W30LE-PGW-X/QT)						
1	Packing	A- 9	-	2	2	4	
2	O-ring	A-10	-	2	4	6	
3	Packing	A-24	16	8	40	48	
4	Coil spring	A-29	-	4	4	8	
5	Packing	A-31	-	4	8	12	
6	Packing	A-33	-	12	12	24	
7	Packing	A-36	-	4	4	8	
8	Packing	A-60	-	4	4	8	
9	Packing	A-64	-	2	2	4	
10	Notch wire element's assembly set	B-1～3 C-1～9	4	4	-	4	
11	Packing	B-3	8	4	20	24	
12	Packing	C-9	8	4	20	24	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- F.O. Strainer - (65-PGA/R5-W30LE/1-PG/W-X/PQT)						
1	O-ring	A- 7	-	1	2	3	
2	Packing	A- 8	-	1	1	2	
3	Packing	A-20	8	4	20	24	
4	Spring	A-23	-	2	2	4	
5	O-ring	A-24	-	2	4	6	
6	Packing	A-27	-	2	2	4	
7	Packing	A-29	-	4	4	8	
8	Packing	A-30	-	2	2	4	
9	Packing	A-34	-	1	1	2	
10	Packing	A-37	-	2	2	4	
11	Notch wire element's assembly	B-1～7	2	2	-	2	
12	Packing	B-7	4	4	10	14	
	- Cylinder Oil Strainer - (50-P-6269E/SC-N20L-X/DT)						
1	Packing	A- 2	2	1	5	6	
2	Packing	A- 7	2	1	2	3	
3	Spring	A-13		1	1	2	
4	Notch wire element's assembly set	B-1～4 C-1～6	2	1	1	2	
5	Packing	B-4	2	1	5	6	
6	Packing	C-6	2	1	5	6	
	- SAV-30 Air Compressor(DRG.No. 05-0011) -						
1	Air compressor complete		1	1	-	1	
2	Oil seal	5	-	-	4	4	
3	Low pressure piston ring	11	-	-	12	12	
4	High pressure piston ring	12	-	-	16	16	
5	piston pin metal	14	-	-	2	2	
6	Crank pin metal	16	-	-	2	2	
7	Bolt for connecting rod	17	-	-	4	4	
8	Low pressure valve complete	18	-	-	2	2	
9	Low pressure suction valve	18-1	-	-	2	2	
10	Spring for above	18-2	-	-	24	24	
11	Low pressure delivery valve	18-5	-	-	2	2	
12	Spring for above	18-6	-	-	2	2	
13	High pressure suction valve	19	-	-	2	2	
14	Spring for above	20	-	-	2	2	
15	High pressure delivery valve	23	-	-	2	2	
16	Spring for above	24	-	-	2	2	
17	V-belt for fan drive	29	-	-	2	2	
18	Safety valve for low pressurer	37	-	-	2	2	
19	Safety valve for high pressurer	38	-	-	2	2	
20	Air filter	39	-	4	4	8	
	- Starting Air Receiver -						
1	305x405 Manhole packing	H-23754 5	-	1	3	4	
2	Safety valve spring	SLR-1540 16	-	1	1	2	
	- CYL.C.W.Pump/Air C.W. Pump(DRG.No. DS-1153) -						
1	O-ring	050	2	2	2	4	
2	Gasket	128	-	2	2	4	
3	Flinger	170	-	2	2	4	
4	Ball bearing #6309	201	2	4	8	12	
5	Ball bearing #6409	202	2	2	4	6	
6	Coupling ring	304	-	2	4	6	
7	Grand packing	501	2	2	4	6	
8	Packing ring	510	-	2	2	4	
9	Packing ring	511	-	2	2	4	

No.10

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Fuel vale C.W. Pump (DRG.No. DS-1385) -						
1	O-ring	050	2	1	1	2	
2	Flinger	170	-	1	1	2	
3	Ball bearing #630622	201,202	4	2	4	6	
4	Grand packing	501	2	1	2	3	
5	Coupling ring	304	-	1	2	3	
	- Fresh Water Make-up Pump (DRG.No. DS-1108) -						
1	O-ring	050	2	1	1	2	
2	Flinger	170	-	1	1	2	
3	Ball bearing #630622	201,202	4	2	4	6	
4	Grand packing	501	2	1	2	3	
5	Coupling ring	304	-	1	2	3	
6	Sleeve gasket	128	-	1	1	2	
	- F.O. Supply Pump (DRG.No. DG-10262) -						
1	Bearing metal	201	2	4	8	12	
2	Grand packing	501	-	1	2	3	
3	Side plate	005	2	4	4	8	
4	Coupling ring	304	-	1	2	3	
	- F.O. Drain Pump (DRG.No.) -						
1	O-ring	050	-	2	2	4	
2	Ball bearing #6301	201	2	1	2	3	
3	Ball bearing #6202	202	2	1	2	3	
4	Oil seal	531	2	2	4	6	
5	Packing ring	858	-	1	1	2	
6	Coupling ring	304	-	1	2	3	
	- L.O. Priming Pump (DRG.No. DS-1100) -						
1	Ball bearing #5207	201	4	4	8	12	
2	Grand packing	501	2	1	2	3	
3	Side plate	852	-	4	4	8	
4	Coupling ring	304	-	1	2	3	
	- L.O. Sludge Pump(DRG.No. DS-1342) -						
1	Stator	11	1	1	2	3	
2	Cover sleeve	19	-	2	2	4	
3	Ball bearing #3305	23	2	1	2	3	
4	Ball bearing #6205	24	2	1	2	3	
5	O-ring	31	-	1	1	2	
6	O-ring	32	-	1	1	2	
7	Grand seal	34	2	1	2	3	
8	Oil seal	47	-	1	2	3	
9	Flinger ring	48	-	1	1	2	
10	V-belt	-	4	1	3	4	
	- CRD Radiator Cooler -						
1	CYL/C.AIR cooling panel		-	3	1	4	
2	Oil cooling panel		-	-	1	1	
	- Air Intake Filter -						
1	Filter elements		-	2	-	2	
	- 2FC-1, Fuel Valve C.W. Cooler(DRG.No. OC-3314-3)						
1	O-ring	6	-	1	2	3	
2	Gasket	12	-	1	2	3	
3	Gasket	13	-	1	2	3	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- Air Pressure Reducing Valve -						
1	Spring 84D-329D DF000614	16	-	-	1	1	
2	Diaphram	19	-	-	1	1	
3	Gasket	23	-	-	1	1	
4	Spring	24	-	-	1	1	
5	Gasket	26	-	-	1	1	
6	Valve seat	31	-	-	1	1	
7	Gasket	35	-	-	1	1	
8	Screen for Y-filter KD016790	3	-	-	1	1	
9	Gasket	4	-	-	1	1	
10	Packing for drain valve KD016791	5	-	-	1	1	
11	O-ring for drain valve	6	-	-	1	1	
12	Spring for safety releif valve FTLPZ101	16	-	-	1	1	
	- Float Valves & Joints -						
1	Valve disc BT-GG-03232-S	19,20	-	-	2	2	
2	Gasket	22	-	-	1	1	
3	O-ring ET-GG-05034-S	4	-	-	2	2	
4	Valve disc BT-GG-05034-S	19,20	-	-	2	2	
5	Gasket	22	-	-	1	1	
6	O-ring ET-1467	4	-	-	2	2	
	- Singular Oil Strainers (DRG.No.453251) -						
1	Strainer Cylinder complete MOS-125R	5～10	-	-	1	1	
2	O-ring	14	-	1	1	2	
3	Strainer Cylinder complete MOS-125R	5～10,16	-	-	1	1	
4	O-ring	15	-	1	1	2	
5	Strainer Cylinder complete MOS-40S	5～10,16	-	-	3	3	
6	O-ring	15	-	3	3	6	
7	Strainer Cylinder complete MOS-40R	5～10,16	-	-	1	1	
8	O-ring	15	-	1	1	2	
	- Duplex oil Strainer(DRG.No. MHOS-7208A～(1)) -						
1	Stariner basket complete	14～16,19	-	-	2	2	
2	O-ring	24	-	2	2	4	
3	O-ring	25	-	1	1	2	
4	O-ring	26	-	1	1	2	
5	Gasket	27	-	1	2	3	
6	Gasket	28	-	2	2	4	
7	Gasket	29	-	2	-	2	
	- Scetru Gauge -						
1	O-ring		-	-	-	-	
2	Packing		-	-	-	-	
	- Sight glass(水野strainer) -						
1	80A Sight glass(アクリル)		-	-	-	-	
2	Gasket		-	-	-	-	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabil	Spare	Total	Remark
	- E.I.P. -						
1	Aux. relay (FRL 233 DC110V)		10	-	10	10	
2	Aux. relay (MM 4XP DC110V)		10	-	10	10	
3	Aux. relay (FRL 233 AC110V)		10	-	10	10	
4	Time lag relay (ST3PA-A DC110V)		4	-	4	4	
5	Time lag relay (ST3PA-A DC110V)		4	-	4	4	
6	Pilot lamp (YBN30-AIBR)		4	-	4	4	
7	Lamp (Bulb LPS-800)		4	-	4	4	
8	Lamp (Bulb BA9S 30V 1W)		3	-	3	3	
9	Fuse (Element NC1 3A)		6	-	6	6	
10	Elluminated Lamp (SL48-1002RW)		6	-	6	6	
11	Elluminated Lamp (SL48-1122 18V 2W)		10	-	10	10	
12	Elluminated Lamp(SL48-1002 110V 18V 2W)		10	-	10	10	
13	Printed ciecuit board for temperature monitor(F2E-KR 724MS)		6	-	6	6	
14	Printed circuit board for revolution counter		1	-	1	1	
15	Rectifier for power source panel		1	-	1	1	
16	Printed circuit board for power source panel(U1-0-250°C/W2-0-100°C)		2	-	2	2	
17				-			
	550V 5KA 50A MCB AC		1	-	1	1	
	250V 5KA 10A MCB AC		1	-	1	1	
	250V 5KA 5A MCB AC		1	-	1	1	
	185V 5KA 15A MCB DC		1	-	1	1	
	Thermal Relay (TH-K20 9-13A)		1	-	1	1	
	- Switch Board -						
1	Change-over switch (CSSID3 3-Position)		1	-	1	1	
2	V.meter change-over switch (AB)		1	-	1	1	
3	Anmeter meter change-over switch(AD)		1	-	1	1	
4	Lamp (FML - R11)		5	-	5	5	
5	Lamp (FML - G11)		5	-	5	5	
6	Push buttom switch with lamp (M25 BQ-R)		1	-	1	1	
7	Push buttom switch with lamp (M25 BQ-G)		1	-	1	1	
8	Lamp SL (18V, 2W)		20	-	20	20	
	- Exciter and Control Panel -						
1	Synchronising and switch (AD-H4003)		1	-	1	1	
2	Resistors (40HS 40W, 950)		5	-	5	5	
3	Lamp globe for synchronising(FML-11C)		1	-	1	1	
4	Lamp globe for synchronising(FML-C)		1	-	1	1	
5	Thyristor (80PL25)		2	-	2	2	
6	Silicon diode (51H-31-12)		4	-	4	4	
7	Thyristor exciting contoproller(GECL4LOX)		1	-	1	1	
8	Silicon rectifier diode (A32-07173 G1)		3	-	3	3	
9	Silicon rectifier diode (A32-07173 G2)		3	-	3	3	
10	Thermometer with contact		1	-	1	1	

	ITEM	Cord No.	Q'ty rqu by GUC	Supply Q'ty Rehabi	Spare	Total	Remark
	- Miscellanious -						
1	Fuse element (ELA003 3A)		6	-	6	6	
2	Fuse element (ELA005 5A)		6	-	6	6	
3	Fuse element (ELA010 10A)		6	-	6	6	
4	Fuse element (ELA015 15A)		6	-	6	6	
5	Fuse element (ELA030 30A)		4	-	4	4	
6	Fuse element (ELA045 45A)		2	-	2	2	
7	Over load trip (10-13A) LRI-D12316		2	-	2	2	
8	Over load trip (18-25A) LRI-D25322		2	-	2	2	
9	Over load trip (23-32A) LRI-D40353		2	-	2	2	
	- E.I.P. & Engine mounted Panel -						
1	Pressure gauge		18	9	9	18	
2	Pressure switch		20	10	10	20	
	- Thermometer(100°C /150°C) -		26	13	13	26	
	- Pressure gauge for Auxiliaies -		52	26	26	52	
	- Motors -						
1	L.O. Radiator fan Motor (27.5kW x 975 rpm x 415V x 50Hz)		1	-	1	1	
2	CA/JW Radiator fan Motor (22 kW x 1480rpm x 415V x 50Hz)		1	-	1	1	
3	CA/JW Pump Motor (22 kW x 1480rpm x 415V x 50Hz)		1	-	1	1	
4	F.O. Supply Pump Motor (5.5kW x 950 rpm x 415V x 50Hz)		1	-	1	1	
5	L.O. Priming Pump Motor (11 kW x 950 rpm x 415V x 50Hz)		1	-	1	1	
6	L.O. Purifier Motor (7.5kW x 1450rpm x 415V x 50Hz)		1	-	1	1	
7	Turning Gear Motor (5.5kW x 1450rpm x 415V x 50Hz)		1	-	1	1	
	- Turning Gear Limit Switch (K93251)-		-		2	2	
	-Oil Mist detector-						
1	Exciter bulb 12V 100W (B0391-00020Z)		-	-	4	4	
2	Fuse 2A (B0391-00020Z)		-	-	10	10	
	- Pneumatic System -						
1	Solenoid valve 117 (No.74Y49452-11)		3	-	3	3	
2	GBCH-K 3-way valve (No. 74Y49503-10)		1	-	1	1	
3	GHC-38 3-way valve (No. 74Y49201-10)		1	-	1	1	
4	GFH-35 3-way valve (No. 74Y49017-10)		1	-	1	1	
5	GRAH-314M 3-way valve (No.6547-4Y49331-10)		1	-	1	1	
6	Magnetic coil (24Z5/IP55)		3	-	3	3	
	- Others -						
1	Resistance bulb (PTR-LN7(L-180))		2	-	2	2	
2	Thermo couple (MCA-RN(L-120))		5	-	5	5	
3	Thermo couple (MCA-RN(L-200))		5	-	5	5	
4	Thermo couple (MCA-RN(L-220))		5	-	5	5	
5	Rational non-flow Alarm (Model MLCB)		2	-	2	2	
6	Limit switch (ZE-N-2)		2	-	2	2	
7	Limit switch (ZE-N22-2)		2	-	2	2	
8	Limit switch (ZE-N21-2)		1	-	1	1	

2.Tool list of supply

No.1

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
	- Special Tolls for Engine -					
G202	Peak pressure gauge	2SYG202 4124737	1	-	1	
G204	Feeler gauge	1SYG204 5105804	1	1	-	
G206	Depth gaoge	1SYG206 5158518	1	1	-	
G301	Hydraulic hand pump complete	1SYG302 489962	1	1	-	
G302	Hydraulic cylinder	1SYG302 5100341	2	-	2	
	Hexagon wrench keys set	1SYG420 5323125		-	-	
		1SYG401 5319285	1	-	1	
G401	B = 4, L = 72		2	-	2	
G402	B = 5, L = 80		2	-	2	
G403	B = 6, L = 90		2	-	2	
G404	B = 8, L = 110		2	1	1	
G405	B = 10, L = 112		2	-	2	
G406	B = 14, L = 140		2	-	2	
G407	B = 17, L = 160		2	-	2	
G408	B = 22, L = 200		2	-	2	
	Clip screw	1SYG502 5103403		-	-	
G502-1	M = M 6, L = 170		2	2	-	
G502-2	M = M 8, L = 175		2	2	-	
G502-3	M = M10, L = 185		2	2	-	
	Eye bolt	1SYG501 5319286		-	-	
G501-1	M = M10		5	1	4	
G501-2	M = M12		5	-	5	
G501-3	M = M16		5	-	5	
G501-4	M = M20		5	1	4	
G501-5	M = M24		5	-	5	
G501-6	M = M30		5	-	5	
	Bolt	1SYG503 5319287		-	-	
G503-1	M8 X 80		5	-	5	
G503-2	M10 X 100		5	-	5	
G503-3	M12 X 100		5	-	5	
G503-4	M16 X 130		5	-	5	
G503-5	M20 X 150		5	-	5	
	Double end & open Ended spanner	1SYG601 5319288		-	-	
G601-1	S = 10, S2 = 14, L = 140		2	-	2	
G601-2	S = 13, S2 = 17, L = 165		2	1	1	
G601-3	S = 17, S2 = 19, L = 180		2	-	2	
G601-4	S = 19, S2 = 22, L = 205		2	1	1	
G601-5	S = 24, S2 = 27, L = 245		2	-	2	
G601-6	S = 27, S2 = 30, L = 270		2	2	-	
G601-7	S = 30, S2 = 32, L = 285		2	2	-	
G601-8	S = 36, S2 = 41, L = 360		2	-	2	
G601-9	S = 46, S2 = 50, L = 430		2	-	2	
G601-10	S = 55, S2 = 60, L = 475		2	-	2	
	Open ended spanner	1SYG602 5319289		-	-	
G602-1	S = 12, L = 135		2	1	1	
G602-2	S = 14, L = 165		2	1	1	
G602-3	S = 19, L = 180		2	-	2	
G602-4	S = 24, L = 220		2	1	1	
G602-5	S = 27, L = 245		2	2	-	
G602-6	S = 30, L = 270		2	2	-	
G602-7	S = 32, L = 285		2	-	2	
G602-8	S = 36, L = 320		2	-	2	
G602-9	S = 65, L = 550		2	1	1	

Remarks : "No." indicated above shows the part No. of the instruction manuals prepared by the manufacture of No.4 DEG.

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
	45° Double offset spanner	1SYG603 5319290				
G603-1	S1 = 11, S2 = 13, L = 180		2	-	2	
G603-2	S1 = 13, S2 = 17, L = 200		2	-	2	
G603-3	S1 = 17, S2 = 19, L = 245		2	-	2	
G603-4	S1 = 19, S2 = 22, L = 255		2	-	2	
G603-5	S1 = 24, S2 = 27, L = 310		2	-	2	
G603-6	S1 = 30, S2 = 32, L = 350		2	1	1	
G603-7	S1 = 36, S2 = 41, L = 458		2	-	2	
G603-8	S1 = 46, S2 = 50, L = 536		2	1	1	
G604-1	Box spanner(1=17,S=13,L=150)	1SYG604 5103417	2	-	2	
G604-2	Box spanner(1=22,S=19,L=160)	1SYG604 5103417	2	1	1	
G605	Pin spanner(S = 102, L = 280)	1SYG605 5103418	1	-	1	
G701-1	Torque wrench(12.7□X 400)(2-9Kg.m)	1SYG701 5323126	1	1	-	
G701-2	Torque wrench(19 □X 700)(6-28Kg.m)	1SYG701 5323126	1	1	-	
G701-3	Torque wrench(25.4□X1400)(25-85Kg.m)	1SYG701 5323126	1	1	-	
G702	Ratchet handle (19□)	1SYG7,2 5103405	1	-	1	
G703	Power wrench(12.7□ x 267)	1SYG703 5175014	1	1	-	
G704	Spinner handle(9□ x 230)	1SYG704 5103407	1	-	1	
	Socket	1SYG706 5103408				
G706-1	S = 17,□ = 12.7		1	-	1	
G706-2	S = 19, = 12.7		1	-	1	
G706-3	S = 22, = 12.7		1	1	-	
G706-4	S = 30, = 12.7		1	1	-	
G706-5	S = 24, = 12.7		1	-	1	
G708-1	S = 46, = 25.4	1SYG708 5103409	1	1	-	
G708-2	S = 60, = 25.4	1SYG708 5103409	1	-	1	
	Socket	1SYG709 5103410				
G709-1	S = 6,□ = 25.4		1	-	1	
G709-2	S = 8, = 12.7		1	-	1	
G709-3	S = 10, = 12.7		1	-	1	
G709-4	S = 17, = 12.7		1	-	1	
G701-1	S = 17, = 19	1SYG710 5103411	1	-	1	
G711	Ring spanner(□ =9.5,D=19)	1SYG711 5103412	1	-	1	
G712	Extension bar(NV=19□,L=200)	2SYG712 5210561	2	-	-	
	(NV=12.7□,L=250)	2SYG712 5210561	2	2	-	
G713-1	Socket adapter(□=19, 25.4)	1SYG713 5103414	1	1	-	
G713-2	Socket adapter(= 25.4, 19)	1SYG713 5103414	1	-	1	
G713-3	Socket adapter(=12.7, 19)	1SYG713 5103414	1	-	1	
G715	Stop ring Plier(Hole) (L= 170, 230, 270)	1SYG715 5323123 Each	1	-	1	
	Stop ring Plier(Shaft) (l= 170, 230,)	1SYG715 5323123 Each	1	-	1	
G716	Combination Plier(L=200)	1SYG716 5103415	1	-	1	
G718	Screw driver	1SYG718 5319291	2	-	2	
	B = 4.5, L = 50					
	B = 5.5, L = 70					
	B = 7, L = 125					
	B = 9, L = 200					
	B = 10, L = 250					
0201	Hydraulic tightening jack for main bearing	2SY0201-1 3125872	2	2	-	
	Paraliel pin for Do.	(¢ 8 x C.D = 120)	1	-	1	
0203	Lifting and lowering device for bearing cover	1SY0203 156407	2	-	1	

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
0204	Assembling & dismantling tool for upp. bearing shell	1SY0204 489965	1	-	1	
0205	Assembling & removal tool for lower bearing shell	1SY0205 156408	1	-	1	
0501	Regrinding device for cylinder liner and cover	1SY0501 393261	1	1	-	
0503	Measuring rail	1SY0503 393323	1	1	-	
0503-1	Inside micrometor	2SY0503-1 5222396 1SY0503-4 416223	1	1	-	
0502-1	Removing device for cylinder liner	2SY0502-1 2349848	1	1	-	
502-5	Suspension bracket for cylinder liner	2SY0502-5 2149085	1	1	-	
0601	Suspension bracket and bolt for cylinder cover	2SY0601 3166097	1	-	1	
0602-1	Hydraulic tightening lack for cylinder cover	2SY0602-1 4124711	8	8	-	
	Parallel pin for Do.	(¢8, C.D=120)	1	-	1	
0602-6	Rubber hose with coupler	2SY0602-6 5158561	7	-	7	
0602-7	Handle	1SY0602-7 4124740	1	-	1	
0602-8	D. gauge with magnetic base	1SY0602-8 5234928	8	-	8	
0603	Jack screw for lifting up cylinder cover	1SY0603 393235 (M20, L = 600)	2	-	2	
0604	Pressure testing device for cylinder cover	1SY0604 393236	1	-	1	
0606	Fitting and extracting too; for fuel valve liner	1SY0606 393237	1	-	1	
0607-1	Regrinding tool for fuel valve seat	1SY0607 393238 (¢90, L=750)	1	1	-	
0607-2	Cleaning tool for fuel valve seat	1SY0607 393238 (B=100 ,L=500)	1	1	-	
0608	Extracting tool for fuel valve & stating valve	2SY0608 3125522 (B=243, L=425)	1	1	-	
0610	Fitting and extracting tool for valve seat (¢96)	2SY0610 3125866	1	1	-	
0612	Regrind. tool for valve seat	1SY0612 393242	1	1	-	
0614	Spanner for pre-tightening CYLINDER COVER	1SY0614 4123836	1	1	-	
0615	Socket spanner for safety valve	1SY0615 4123837	1	1	-	
0617	Suspension bracket for bearing casing on cyl. cover	1SY0617 2175501	1	1	-	
0620	Grinding tool for valve seat	(LUDWIG HUNGER) (TYPE VSMR 3)	1	1	-	
0619	Spanner for handle of cover	1SY0619 5319272	1	1	-	
0618	Maintenance stand for cylinder cover	2SY0618 3166095 (B =976, H=900)	1	1	-	
0703-1	Special wrench for coupling bolt	1SY0703-1 393312	1	1	-	
0704	Deflection gauge	1SY0704 5210492	1	1	-	
0702	Hydraric tightening jack for counter weight	1SY0702 397529 (D=¢140, H=95)	2	2	-	
0702-5	Handle(B = 300, H = 330)	1SY0702-5 4124708	1	-	1	
0801-1	Hydraulic cylinder	1SY0801-1489929	2	1	1	
0801-4	Special ring spanner(l=270)	1SY0801-4 489969	2	2	-	
0801-5	Extention sleeve(L=200±1)	1SY0801-5 489970	1	1	-	
0801-6	Tightening gauge(¢3, D= 60)	2SY0801-6 5152560	4	1	3	

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
0802-1	Support with 3 bolts and underlay	1SY0802-1 2149101	1	-	1	
0803	Suspension bracket for connecting rod	1SY0803 4169608 (B=396, H=130)	1	-	1	
1001-50	Suspension bracket for piston	2SY1001-50 234985	1	1	-	
1001-60	Handle for piston	1SY1001-60 412472	1	1	-	
1001-7	Guide shoe for connection rod	2SY1001-7 3125528	1	1	-	
1001-62	GAuide ring(D=550, H=86)	2SY10001-62 234985	1	1	-	
1001-64	Woodenblock	1SY1001-64 312553	1	1	-	
1001-13	Handle for upper part of connecting rod (L=1000)	1SY1001-13 492335	1	1	-	
1002	Clamping bolt(M16, L=240)	1SY1002 489941	4	4	-	
1003	Eye bolt(M12, L=211)	1SY1003 5100316	2	2	-	
1004	Jack bolt(M22, L=480)	1SY1004 489945	4	-	4	
1005	Centerring ring,D=248, t=70	1SY1005 393321	1	2	-	
1007	Lift-off device for upper part of piston	1SY1007 492309	2	-	2	
1008	Hexagon bar(C=22,L=80)	1SY1008 5100306	1	1	-	
1010	Piston ring tentioner	1SY1010 393322	1		1	
1201	Fitting and removal of	3SY1201 2366814	1	1	-	
1202	Ink-marking gauge for valve spindle(D=140,L=220)	1SY1202 492216	1	-	1	
1203	Hand grip for clamping of valve spindle	1SY1203 393354	1	1	-	
1701	Spray resting device	2SY1701 2366816	1	-	1	
1702	Socket wrench for fuel injecting valve nut	1SY1702 489949	1	1	-	
1703	Regringding ring for valve seat	1SY1703 5100313	1	-	1	
1704	Tool set	1SY1704 492240	1	-	1	
	1.Lappind disk					
	1.Steei wire					
	1.Ink-marking disk					
	1,Copper mandrel					
	1.Case with 5 drills and 1 plug gauge					
1705	Lapping plate(40x200x300)	1SY1705 5158516	1	1	-	
1706	Lapping powder	1SY1706 5158560	1	-	1	
1901	Guide for regrinding of spindle (D=65¢,H=60)	3SY1901 4169653	1	-	1	
1902	Socket wrench	1SY1902 5175039	1	-	1	
2501	Socket wrench	1SY2501 489948	1	1	-	
2502	Removing tool for guide piston	2SY2502 3213043	1	1	-	
2502-4	Grip screw for Do.	1SY2502-4 5110516	1	1	-	
2503	Bolt for guide piston	1SY2503 489933	1	1	-	
2901-1	Fiting and removing tool for camshaft (L=923)	1SY2901-1 2149052	2	1	1	
2901-8	Support for DO.	1SY2901-8 2149054	2	1	1	
2903	Gauge for setting of cam	2SY2903 4204505	1	-	1	
2904	Hydraulic punp	1SY2904 5174999	1	1	-	
2904-1	High-pressure hose (L=3m)	1SY2904-1 5174993	1	1	-	
2904-3	Hose joint (L=100)	1SY2904-3 4124724	1	1	-	
3601	Adjusting tool	2SY3601 2366878	1	1	-	
3601-11	Dial gauge for Do.	1SY3601-11 492252	1	1	-	

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
3601-17	Rubber hose with coupler	1SY3601-17 4169600	1	1	-	
3602	Bracket for fitt. of cover	3SY3602 3125875	1	-	1	
3603	Gauge for adjusting	1SY3603 5100303	1	1	-	
3604-1	Distance piece for cut-off	1SY3604-1 5100304	3	-	3	
3701	Fitting tool for fuel delivery valve	1SY3701 489985	1	-	1	
3702	Spanner for unions	2SY3702 5319273	1	1	-	
4602	Device for tension springs	1SY4602 2171194	1	-	1	
6810	Rubber hose for cleaning of turbocharger(L=5000)	SSY6810 5319276	1	-	1	
VTR-1	Rotor fixing tool (With special bolts)	NN317501 90030 (D=120,L=200,t=20)	1	1	-	
VTR-2	Box spanner special	NN317503 90050	1	1	-	
VTR-3	Extractior	NN317504 90070	1	1	-	
VTR-4	Guide plate (biower side)	NN317513 90160	1	1	-	
VTR-5	Guard case	NN317512 90140	1	1	-	
VRT-6	Guide plate(turbine side)	NN317515 90170	1	1	-	
VTR-7	Drawing device	NN317521 90190	1	1	-	
VTR-8	Holding device	NN317520 90180	1	1	-	
VTR-9	Induction pipe	NN317524 90200	1	1	-	
VTR-10	Handle (14 x 160)	NN447693 90220	1	1	-	
VTR-11	Extension pipe	NN317528 90210	1	-	1	
VTR-12	Eyenuts	NN317558 90230	1	1		
VTR-13	Handle (12 X 250)	NN507564 90260	1	-	1	
VTR-14	Hexagon wrench key(4x72)	NN637537 90270	1	1	-	
VTR-15	Locking device (turb. side)	NN317577 93000	1	1	-	
VTR-16	Handle	NN447585 93101	1	-	1	
VTR-17	Bar	NN447585 93102	1	1	-	
VTR-18	Socket	NN317587 93103	1	1	-	
VTR-19	Socket	NN447587 93104	1	-	1	
VTR-20	Wire rope(6 x 1022)	NN317552 90350	1	1	-	
VTR-21	Hexagon head bolt	NN327573 90900	3	-	3	
VTR-22	Box for tools(370x615x330)	NN317596 90010	1	1	-	
SOP-1	Plug(φ17xφ21x30)	-	50	50	-	
SOP-2	Pipe cleaner (L=1300)	-	1	1	-	
SOP-3	Spare parts & tool box	(550x1210x250)	1	1	-	
SOP-4	Spanner (14x140)	-	1	1	-	
D110-1	Shock wrench(M24X36mm)	-	1	1	-	
D110-2	Spanner(M14,M16,19MM,22MM)	A85131922	1	1	-	
D110-3	Tools box	-	1	1	-	
WGST-1	Wrench	PART No, 011968	1	-	1	
WGST-2	Wrench serration	030943	1	-	1	
WGST-3	Driver	030950	1	-	1	
WGST-4	Inserter oil seal	030954	1	-	1	
WGST-5	Driver dial pointer	031727	1	-	1	
WGST-6	Inserter oil seal	031732	1	-	1	
WGST-7	Driver	031734	1	-	1	
WGST-8	Wrench	032042	1	-	1	
WGST-9	Key(.188" Hex short series)	188418	1	-	1	
WGST-10	Wrench 7/16 Socket	189792	1	-	1	
WGST-11	Hook straight scriber	189792	1	-	1	
WGST-12	Pliers snap ring	190497	1	-	1	
WGST-13	Kry(.078" Hex short series)	190522	1	-	1	
WGST-14	Screw driver NO.2 phillips	8995-049	1	-	1	
MSDC-1	Hexagon wrench(B=5,6,8,)	- Each	1	-	1	
MSDC-2	Spanner (B=14,L=141)	-	1	-	1	

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
MSDC-3	Priming handle	-	1	1	-	
MD-9-1	Hex. bar wrench(B=2,4,5)	B0391 00310Z SET	1	-	1	
MD-9-2	Filter ND 0.1(t=4,40 x 40)	B0391 00360Z	1	-	1	
	- Tools for auxiliaries -					
SJ4-1	Spanner for disc nut	PART No. 4071025	1	1	-	
SJ4-2	Sanner for oil outlet co.	4071026	1	1	-	
SJ4-3	Spanner for bowl nut	4071001	1	1	-	
SJ4-4	Spanner for cap nut	3071011	1	1	-	
SJ4-5	Lifting tool for bowl	4071023	1	1	-	
SJ4-6	Dismantling stand	4071020	1	1	-	
SJ4-7	Covering plate	3071037	1	1	-	
SJ4-8	Push bolt	3071025	1	1	-	
SJ4-9	Handle bar(¢16x200)	0771020	1	1	-	
SJ4-10	Jack	3071034	1	1	-	
SJ4-11	Bolt(M10X175)	3071008	2	1	1	
SJ4-12	Bolt(M12X125)	3071009	2	1	1	
SJ4-13	Jack for valve cylinder (Push bolt M14X90 3pcs)	2071035 2071046	1	1	-	
SJ4-14	Push plate for jack	4071029	1	1	-	
SJ4-15	Pin spanner(35 ¢ x50 ¢)	4071024	1	1	-	
SJ4-16	Lift tool fo vertical shaft	4071010	1	1	-	
SJ4-17	Jack for lower bearing	4071006	1	1	-	
SJ4-18	Square head set screw	2071042	1	1	-	
SJ4-19	Box driver (M5)	4071021	1	1	-	
SJ4-20	Hex. key (M14)		1	1	-	
SJ4-21	Hex. key (M10)		1	-	1	
SJ4-22	Hex. key (M8)		1	-	1	
SJ4-23	Hook spanner(HW -105)		1	-	1	
SJ4-24	Push plate	4071017	1	1	-	
SJ4-25	Bolt(M10X100)	0771011	1	-	1	
SJ4-26	Spare box(400x400x300)		1	-	1	
SAV-1	Piston puller		1	1	-	
SAV-2	Driver(-)		1	-	1	
SAV-3	Double ended spanner		1	1	-	
SAV-4	Piston pin puller		1	1	1	
SAV-5	Monkey Wrench(sizu 200mm)		1	-	1	
SAV-6	Tool box		1	1	-	
ZFC-1	Tube expander		1	-	1	
ZFC-2	Tube expander handle		1	-	1	
ZFC-3	Tube cleaning blash		1	-	1	
ZFC-4	Tube drawing ponch		1	-	1	
ZFC-5	Plug		10	-	1	
ZFC-6	Tool box		1	-	1	
AIF-1	Scraper		2	1	1	
SJ4-51	Gravity disc	PART No. 4081009	1	-	1	
SJ4-52	Gravity disc	PART No. 4081008	1	-	1	
SJ4-53	Gravity disc		1	-	1	
	- Tool for generator -					
STAG-1	Temporary shaft	A32-16508	1	-	1	
STAG-2	Washer	A32-16508-9	12	-	12	
STAG-3	Bolts	A32-16508-6	16	-	16	
STAG-4	Nuts(M36)	A32-16508-7	16	-	16	
STAG-5	Jack Bolts(M24X150)	A32-16508-8	2	-	2	
STAG-6	Thickness gauge for air gap	A42-14749 No.14	1	-	1	

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
STAG-7	Thickness gauge for air gap	A42-14749 No.6	1	-	1	
STAG-8	Thickness gauge(No.150)		1	-	1	
STAG-10	Spscer	A42-20461	1	-	1	
STAG-11	Steel rope(33.5¢x12000)	A42-13667 No.20	1	-	1	
STAG-12	Steel rope(25¢x4700)	A42-13667 No.21	2	-	2	
STAG-13	Steel rope(25¢x2500)	A42-13667 No.31	2	-	2	
	- General equipments/tools for maitainance -					
K- 1	High press. cleaninp pump				1	
K- 2	Tool panel				1	
K- 3	Standard thermometer				1	
K- 4	Spare Rack / Palet				1	
K- 5	Examinee for press. gauge				1	
K- 6	Cleaning tank	(3m3)			2	
K- 7	Oil jack	(5ton)			4	
K- 8	Chain block	(5ton)			3	
K- 9	Chain block	(2ton)			2	
K-10	Lever hoist	(3ton)			2	
K-11	Wire rope	(¢12 x 200m)			1	
K-12	Sling wire	(¢20 x 10m)			4	
K-13	Sling wire	(¢12 x 4m)			10	
K-14	Sling wire	(¢ 8 x 4m)			20	
K-15	Shackle	(1 1/2 B)			20	
K-16	Shackle	(1B)			40	
K-17	Wire clip	(20¢)			10	
K-18	Wire clip	(12¢)			25	
K-19	Wire clip	(8¢)			25	
K-20	Wooden block	(300x150x1000)			10	
K-21	Wooden sleeper	(100 x 300 x 2m)			10	
K-22	Cleaning tank	(2600x1500x1000)			1	
K-23	Pipe wrench	(600mm)			1	
K-24	Pipe wrench	(300mm)			1	
K-25	Oster type die stock	(1/4～1 1/4 B)			1	
K-26	Oster type die stock	(1/2～2B)			1	
K-27	Pipe vise				1	
K-28	Disc grinder	(150¢)			1	
K-29	Disc grinder	(100¢)			1	
K-30	Electric handy grinder				1	
K-31	Hammer drill	(25mm)			1	
K-34	High speed cutter				1	
K-35	Pipe bender	(Hydraulic 2B)				
K-36	A.C. Arc welder	(400A)				
K-37	Cabyre cable	(¢38 x 20m)				
K-38	Gas cutter (Torch)	(Incl.regulators)				
K-39	Gas Hose	(20m)				
K-40	Welding mask				2	
K-41	Transformer					
K-42	Transformer	(3KVA 240V-100V)			1	
K-43	Transformer	(60KVA 414V-200V)			1	
K-44	Temporary distribution box	(700mm x 900mm)			1	
K-45	Projector				5	
K-46	Bulb for projector	(300W)			20	
K-47	Pickling Tank					
K-48	Neutralization Tank					
K-49	Hand pump				2	
K-56	Baroment				1	

No.	Item		Std Q'ty	Q'ty stocked	Q'ty supply	Remarks
K-50	Flushing pump unit	SET			1	
K-51	Stainless gauze wire	(10m)			1	
K-52	Vinyl hose	(¢50mm x 100m)			1	
K-53	Rubber hose	(¢20mm x 100m)			1	
K-54	Pressure gauge	(0-20kg/cm2)			10	
K-55	Thermometer	(0～100℃)			10	
K-57	Stop watch				2	
K-58	Inside miccrometer				1	
K-59	Electric touch				5	
K-60	Oiler	(600cc)			3	
K-61	Oil tray	(50 lit)			5	
K-62	Hemper rope	(¢18mm x 100m)			1	
K-63	Flashlight				4	
K-64	Water level				1	
K-65	Driver set				1	
K-66	Driver				1	
K-67	Socket wrench set				1	
K-68	Hexagon wrench				6	
K-69	Monkey wrench				3	
K-70	Flat cold chisel	(10 x 140)			2	
K-71	Flat cold chisel	(16 x 180)			2	
K-72	Flat cold chisel	(22 x 200)			2	
K-73	Water punp pliere				2	
K-74	Tip saw				2	
K-75	Scissor				2	
K-76	Saw set	(20 pcs / set)			2	
K-77	Grease gun				1	
K-78	Copper hammer				1	
K-79	File set	(4 pcs / set)			1	
K-80	Tap	(M6)			1	
K-81	Tap	(M10)			1	
K-82	Tap	(M12)			1	
k-83	Tap	(M16)			1	
K-84	Tap	(M20)			1	
K-85	Steel files	(L = 300mm)			4	
K-86	Vinyl co ver	(10m x 10m)			10	
K-87	Vinyl hose	(200m)			1	
K-88	Drill stand				1	
K-89	Drill edge set	(8 - 25mm)			1	
K-90	Drill edge drill	(2 - 18mm)			1	
K-91	(Concrete drill)	(¢18mm)			1	
K-92	(Concrete drill)	(¢22mm)			1	
K-93	Eye bolt (M10/M12/M16/M20/M24/M30)	Each			6	
K-94	Valve for pressure measurement	(1/2 BXJIS 10k)			20	
K-95	Nipple	(1/2 B x 200L)			40	
K-96	Tee	(1/2 B)			20	
K-97	Elbow	(1/2 B)			20	

Appendix XII References

No.	Title	Remarks
1	Single Line Diagram of Banjul Power System	Drawing
2	11 kV Underground Cable Network & Transformer in Banjol	"
3	Map of The Gambia (1/250,000)	Map
4	Map of Banjul (1/50,000)	"
5	Map of Kombo Peninsula (1/10,000)	"
6	Map of Coastal Strip (1/10,000)	"
7	Map of Banjul Street Plan & Public Building (1/50,000)	"
8	Electoral Constituency Map	"
9	Staff Appraisal Report	Report
	The Gambia, Urban Management and Development Project (WB)	
10	GUC Twelfth Annual Report	"
11	GUC Thirteenth Annual Report	"
12	GUC Fourteenth Annual Report	"
13	GUC Fifteenth Annual Report	"
14	GUC Sixteenth Annual Report	"
15	Population and Housing Census 1983 (MEPID)	"
16	Development Co-operation in The Gambia, 1987 Report (UNDP)	"
17	The Gambia Development Issues and Prospects (WB)	"
18	Second Five Year Plan (MEPID)	"
19	Midterm Review of the Second Five Year Plan (MEPID)	"
20	Report and Recommendation for Structural Adjustment Program, Aug. 1986 (WB)	"
21	The Economic Recovery Program (MEPID)	"
22	Survey of Employment, Earnings and Hours of Work, Dec. 1986 (MEPID)	"
23	A Naturalist's Guide to The Gambia	"
24	DANIDA Project, Vol. 1, General Conditions	"
25	DANIDA Project, Vol. 2, Power Station	"
26	DANIDA Project, Vol. 3, Interconnector	"
27	DANIDA Project, Vol. 4, Fuel Depot	
28	DANIDA Project, Vol. 5, Schedules	"
29	Construction Schedule of DANIDA Project	Drawing
30	Check List of Spare Parts and Tools (in Kotu P/S)	Report