

**ANNEX AGR I - 9**

**Sector:** AGRICULTURE

**Sub-Sector:** IRRIGATION

**Activity:** Rehabilitation of groundwater resources

**Priority within the Sector:** First

**Total requested fund :** \_\_\_\_\_

Code	Item Description and its complementary items ( if applicable )	Intended use (and targeted end user)	Qty. in unit	Requested fund US \$ ( 000 )	Allocation Criteria	Time frame	
						Optimal application	Optimal delivery
05-09-00001	Water Well Drilling Requirements See App. 8	Equipment's, materials and spares are needed for improving groundwater resources use. (In Governorates Kerballa, Najaf, Anbar, Tamem, Diyala , slah aldeen and Basrah)	As stated in App. 8		Resemble requirement for repairs and replacement.	ALL YEAR	AS SOON AS POSSIBLE
05-09-00002	Spare Parts For Machinery And Equipment's. See App. 9C I - XI	Maintenance of Machinery and equipment's to maintain irrigation projects (All irrigation projects in the 15 Governorates projects)	As stated in App. 9C		Resemble requirement for repairs.	ALL YEAR	AS SOON AS POSSIBLE
05-09-00003	Spare Parts For Drilling Rigs and Pumps. See App. 9C XII - XIV and App.9A code 00078-00090	Rehabilitation Saddam Dam grouting processes. (Saddam Dam at Ninava)	As stated in App. 9A & 9C		Resemble requirement for repairs.	ALL YEAR	AS SOON AS POSSIBLE

**PPENDIX 9 A .  
SPARE PARTS FOR PUMPING STATIONS**

<b>CODE</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
05-09-00004	Phase Failer-Protection Device 380 V A.C. 75%	30
05-09-00005	Air Breaker Contecter K-ID 3 220 V A.C.	10
05-09-00006	Air Breaker Contecter K-ID 2 220 V A.C.	10
05-09-00007	Air Breaker Contecter K-ID 1 220 V A.C.	10
05-09-00008	Air Breaker Contecter ESU 250 / 3 220 V A.C.	10
05-09-00009	Current Transformer 6 S12	10
05-09-00010	Circuit Breaker SC1 - 10/630 350 MAA	5
05-09-00011	Circuit Breaker SC1 - 10/630 250 MAA	5
05-09-00012	Circuit Breaker SC14-12/20 800 MAA22	5
	<b>Voltage Transformer GZ 12 as below:</b>	
05-09-00013	- 11000 / 100 V	5
05-09-00014	- 6000 / 100 V	5
05-09-00015	- 3300 / 100 V	5
	<b>Spare Parts for Pump Type 1200 / 20 / 2500</b>	
05-09-00016	- guide casing complete 97942	2
05-09-00017	- diffusor 20699	2
05-09-00018	- intermediate flange 35126	1
05-09-00019	- protection tube with shute 97779	1
05-09-00020	- protection tube 1m 97891	1
05-09-00021	- protection tube 1.5 m 97892	1
05-09-00022	- transition piece 97323	1
05-09-00023	- sealing complete	2 sets
05-09-00024	- guide wheel complete 97271	2
05-09-00025	- main shaft 14434	1
05-09-00026	- bearing NU1036	5
05-09-00027	- bearing NU238	5
05-09-00028	- bearing NU29332	10
05-09-00029	- bearing NU29348	3
05-09-00030	- O-Ring 110*3	5
05-09-00031	- elasting pin coupling	5
05-09-00032	- ball bearing NU309	5
05-09-00033	- ball bearing 6309	3
05-09-00034	- contact segment	10
05-09-00035	- short - circuit boss	2
05-09-00036	- carbon brush	20
05-09-00037	- inclind ball bearing q 320 tj 63	3

CODE	DESCRIPTION	QUANTITY
	<b>Spare Parts for 6 KV &amp; 11 KV Switch Gear from Techono Commerze</b>	
05-09-00038	- circuit breaker SCI 1 - 10 / 630 /350	4
05-09-00039	- current transformer GS 12 30 / 5 /5A	6
05-09-00040	- voltage transformer GZ 12 11 / 0.1 KV	2
05-09-00041	- overcurrent time lag relay	10
05-09-00042	- neutral relay 2 RH 30 100 W A.C.	10
05-09-00043	- neutral relay ZRH30 100 W A.C. with drop indicator	10
05-09-00044	- neutral relay 2 RH 06 24 V D.C.	10
05-09-00045	- coil of under voltage 100 V A.C. 06 - 34	40
05-09-00046	- 3-pole small oil circuit breaker HL4 - 8, Vm = 12 KV, Im 1250 A, Hz = 50, Ith = 39 KA, t = 35, Im = 107 KA type HL4 - 8 - 6 1334	5
	<b>Spare Parts for Main Pump Type KAEA 1000 / 10 / 4 - 29</b>	
05-09-00047	- main pump shaft with sleeves for pump KAEA 1000 / 10 / 4 - 29	1
05-09-00048	- end bearing 712.97303.0 - 77st.	3
05-09-00049	- axial bearing 29348TGL 2996	3
05-09-00050	- shaft protection sleeve 711.13363.0 - 73	3
05-09-00051	- shaft protection sleeve 711.13362.0 - 23	4
05-09-00052	- shaft protection sleeve 711.13364.0 - 33	3
05-09-00053	- wearing ring 711.26166.0 - 23	10
05-09-00054	- seal ring MN 54.1A47 / 20	10
05-09-00055	- rubber bellow form No. 5424	10
	<b>Spare Parts for Pump HAEC 1200 / 5 / 2 - 091</b>	
05-09-00056	- impeller	1
05-09-00057	- wearing ring	3
05-09-00058	- end bearing	1
05-09-00059	- intermediate bearing	1
05-09-00060	- shaft protection sleeve 0 - 83	1
05-09-00061	- shaft protection sleeve 0 - 43	1
05-09-00062	- shaft protection sleeve 0 - 73	1
05-09-00063	- O-ring 230*5	6
05-09-00064	- rubber for coupling 42	6
05-09-00065	- drive shaft	1
05-09-00066	- pump shaft	1
05-09-00067	Impeller for pump KDAEA 600 / 16 / 2 - 21	1
05-09-00068	Bearing 222 C	10
05-09-00069	Bearing 29324 D	10

<b>CODE</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
05-09-00070	Bearing 6324	10
05-09-00071	Bearing 6312	5
05-09-00072	Bearing 6313	10
05-09-00073	Bearing HM 804848	5
05-09-00074	Bearing HM 807049	5
05-09-00075	Grease lubrication pump with motor complete	10
05-09-00076	Slip ring body for electric motor DSAKJ 5627-12	10 sets
05-09-00077	Synchro gear reducer U.S. motor parallel shaft type GSMA Frame : 52 Ratio 3 : 1	10
	<b>Spare Parts for Drilling Rig type B1A</b>	
05-09-00078	- Oil cooler with drive compilation DR. NO.5001605	10
05-09-00079	- Rotary group A1028 ETL NO. 958654	30
05-09-00080	- Pilot valve H ETL NR. 914110	20
05-09-00081	- Pilot valve DFR1-SR10 10ETL NR909066	20
05-09-00082	- Direct-circulation swivel compilation DR. NO. 5000609	10
05-09-00083	- Axial Cyl. roller bearing 81130	20
05-09-00084	- Needle bearing 140/32 RSA3	20
05-09-00085	- Hydraulic motor 6M076	10
05-09-00086	- Power swivel B1A complete + 50% spare parts Dr. No. 5103123	10
05-09-00087	- Retaining Jaws dia 47-73 mm 5200254	200
05-09-00088	- Retaining Jaws dia 70-114.3 mm 5200255	100
05-09-00089	- Gear accessory to DRWG Dr. No. 5400373	20
05-09-00090	- Hub accessory to DRWG DR. No. 5400374	20
	<b>Spare Parts for Submersible Pumps</b> type FLYGHT model CP 3300-180 HT	
05-09-00091	- Inner seal unit 3377704	10 sets
05-09-00092	- Outer seal unit 3377905	10 sets
05-09-00093	- O-ring 803241	10 sets
	<b>Spare Parts for Submersible Pumps</b> type FLYGHT model 3201-180 HT	
05-09-00094	- Upper seal unit 2740003	10 sets
05-09-00095	- Lower seal unit 3840304	10 sets
05-09-00096	- O-ring 803240	10 sets
	<b>Spare Parts for Submersible Pumps</b> type FLYGHT model SC 3350	
05-09-00097	- Mechanical seal 3968000	10
05-09-00098	Penumatic packers for grouting works for bore dia( 75, 95 & 100) mm .	900
05-09-00099	Plastic hose for grouting works dia 1/2" pressure (- 25 bar )	1500 m

CODE	DESCRIPTION	QUANTITY
	spare part for kirkuk irregation project. 1./MAINPUMP	
05-09-00100	- Bearing bush (int.m.b.)1040438	3
05-09-00101	- Bearing sleeve (int.m.b) 1040439	6
05-09-00102	- Impeller wearing 1040675	4
05-09-00103	- Casing wear ring 1040676	4
05-09-00104	- Bearing sleeve 1040372	10
05-09-00105	- Bearing sleeve (int.m.b) 1040368	10
05-09-00106	- Bearing bush (int.m.b) 1040367	7
05-09-00107	- Casing wear ring 1040300	8
05-09-00108	- Impeller wearing 1040299	8
	2./ OIL PRESSURERE DEVICE	
05-09-00109	-Control magnet valve s10 w 01	10
05-09-00110	-Pressure switch Ts 60- do 10.0mpa	10
05-09-00111	-Pressure gauge P (0-16 mpa)	10
05-09-00112	-Non-Return valve RHD 12-S	10
	3./ ELECTRIC PARTS	
05-09-00113	-Three-pole H.V contactor for rated voltage 7.2Kv 50.4s for ratted current 400 Afor auxiliary voltage110 D.C type vc 3ad 400c . made by GEC. 452.58763 stranea RK 132946	10
05-09-00114	-H.V HRC fuse cartridge for 617 .2kv .315 A type 3GA2 122 with striker. 452.58763 stranea RK 132946	40
05-09-00115	-H.V HRC fuse cartridge for 10 kv .type unvc with striker . 452.58763 stranea RK 132946	20
05-09-00116	- Auto - transformer for starting of H.V motor type ABN 6000-12x1 D. RK 132958	10
05-09-00117	- Single - phase capacity of rated voltage6.1k .v of rated capacity150 KVAR for frequency 50 / c/s type M3p6 -150 M24 for indoor mounting . RK44629	10

CODE	DESCRIPTION	QUANTITY
	4/AIR CONDITIONING PARTES	
05-09-00118	-Circulation pump boiler type GHR-401 .N=100W	2
05-09-00119	-Control three way valve heating coil V5015 A - honey well- NO 25. CV=10 G=3.0 m3/n p =12.5 KPA.	2
05-09-00120	- Diverting - three - valve fan coil v 5066 honey well - N 40 KV =25 G=11.4M/H AP=8KPA	4
05-09-00121	- Circulation pump fan coil GHR 651 N = 435W	4
05-09-00122	- Circulation pump-Chiler( T 501-4G=8 M3/h H=13 KPA)	2
05-09-00123	- Double shaft motor for fan coil unite with code code 823478 -411	10
05-09-00124	- Circulation pump for fan coil unite GHN 402A-R/2 G=6KPA , N=0.42 KW	2
05-09-00125	-Circulation pump for boiler GHN 404 C-R/2 G=20 M3/h H=26 kpa N= 0.11/0.19 kw.	2
05-09-00126	- Circulation pump for Chiller type G 65/21 G = 50 m3/h H=60 kpa N = 0.8 kw	2
05-09-00127	-Circulation pump for cooling tower type G65/2 G =5.5 m3/h H=95 kpa N = 1.0 kw	2
	Spare parts for pump type KDEA 800/16 10-31	
05-09-00128	- Protective shaft sleeve	3
05-09-00129	- Protective shaft sleeve	3
05-09-00130	- Protective shaft sleeve	3
05-09-00131	- Impeller	1
05-09-00132	- Impeller cap.	1
05-09-00133	- Copling shell , divided .	2
05-09-00134	- Copling ring , divided .	2
05-09-00135	- End bearing	3
05-09-00136	- Intermediate bearing	3
05-09-00137	- Mechanical seal	3
05-09-00138	- Copling unversal joint	2
05-09-00139	- Shaft	2
05-09-00140	- Crease lubrication pump	2

CODE	DESCRIPTION	QUANTITY
	Spare parts for BADRA- JASSAN project	
05-09-00141	- Impeller . 310-12	4
05-09-00142	- Protctiv ring . 310-12	8
05-09-00143	- Protctiv bushing of shaft. 29648	24
05-09-00144	- Bushing . 29649	24
05-09-00145	- Rotor. 2 -2915 C	4
05-09-00146	- Pump shaft . 2 -29162	4
05-09-00147	- Guard ring . 310-21	8
05-09-00148	- Bushing . 29649	16
05-09-00149	- Shaft . 28663	13
05-09-00150	- Impeller . 28810	13
05-09-00151	- Upper bearing . 28635	24
05-09-00152	- Electric drive . 15 -38072	4
05-09-00153	- Ball beoring 28492 C .	6
05-09-00154	- Guid apparatus . 2841C	4
05-09-00155	- Bearing . B- 28639	24
05-09-00156	- Bush of chalves rubber lined . 34337	40
05-09-00157	- Centrifugal horizontal singale - stage double entry pump impeller - 590 bmm 0.4m3/sec head -93m N1485 rpm .	4
05-09-00158	-Thrust bearing 29440 B.	10
	Spare Parts for type KAEA 800/10/ 6-21	
05-09-00159	-Main pump shaft with sleeves 712-973-00-0-17 st.	1set
05-09-00160	-End bearing 712-973-00-0-17 st.	2
05-09-00161	- Intermediate bearing 712-97523- 0-47 st .	2
05-09-00162	- Seal ring m s4.1a.47120	2
05-09-00163	- Protection tube .	2
05-09-00164	- intermidiate shaft .	2
05-09-00165	-Cricuit beaker el- 630/220 a .c.motor drive bisi - sp-a 200-400	1
05-09-00166	-Cricuit beaker el- 400/220 ov a.c hand drive bisi - sp-a 100-2001800-1600	2

<b>CODE</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
	Spare parts for Genarator sets type(NPG-...)	
05-09-00167	-AVR p46x206020	10
05-09-00168	-Relay stop 64918 - 62800	10
05-09-00169	- Relay synchro device p 38x206020	10
05-09-00170	- Relay set bath barage p 22x206020	10
05-09-00171	- Relay set p 48x206020	10
05-09-00172	-Change over switch p 66x206020	5
05-09-00173	- Magnatic condition p 67x206020	10
05-09-00174	- Turbo charge 49167-00101	10
05-09-00175	- Diod rotor sets P 44x206020	100
05-09-00176	- Solonoid valve 04400x02010	50
05-09-00177	- Contactors EG 315 - 1 418018-N(coil 220v)	20
05-09-00178	- Contactors EG 160 - 1sk 418015-N(coil 220v)	20

**APPENDIX 9 B .**  
**SPARE PARTS FOR AL-JAZIRAH MAIN PUMP STATION**  
**FROM MARLIN - GERIN COMPANY / FRANCE**

<b>Code</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
05-09-00179	PB 400 Input Card ref V08D	5
05-09-00180	PB 400 Output Card 24 / 48 V D.C., 0.5 A ref 6N01	5
05-09-00181	PB 400 Output Card 3A, 250V AC, ref 61100	2
05-09-00182	PB 400 Power Supply CPLEX ref 61032	2
05-09-00183	PB 400 Power Supply ALIM ref 61061	2
05-09-00184	PB 80 Input Card 24V D.C., ref 60730	2
05-09-00185	PB 80 Output Card 3A, 250V, A.C. ref 60740	5
05-09-00186	D.C. Power Supply F 24V, 3A / 1A, ref 71035	1
05-09-00187	D.C. Power supply F 12V, 0.6 A, ref 71031	1
05-09-00188	Instantaneous or definite time over current relay ( I.T.G. 7153)	1
05-09-00189	Motor protective relays medium voltage ( I.T.M. 7060)	1
05-09-00190	Voltage current convertor module HDOXO ( FT 42295 / C )	1
05-09-00191	High level input differential alarm modul ( FT 42 - 166 / D )	1
05-09-00192	Alarm high level input module ( FTU2 - 160/C) P.S.	1
05-09-00193	Voltage frequency ( FT 42 - 164 / D ) multiplier divider module ( FT 42 - 163 / D )	1

## APPENDIX 9 C - I

**SPARE PARTS FOR MACHINERY AND EQUIPMENTS**  
Engine Model D342

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00194	8N5676	LINER	60
05-09-00195	7N1367/4N6815	PISTON	60
05-09-00196	8N5760N4S6867	PISTON RING	60
05-09-00197	4S6867	CONN. ROD.	6
05-09-00198	5N8521	CYL. HEAD	10
05-09-00199	3H6767	PIN	10
05-09-00200	1P7324	PLUG	100
05-09-00201	1W1818	VALVE	18
05-09-00202	1W1819	VALVE	18
05-09-00203	2P0484	CHAMPER	12
05-09-00204	8N1831	NOZZLE	120
05-09-00205	6N0652	WATER PUMP	4
05-09-00206	4N4880/7N4170	OIL PUMP	2
05-09-00207	9J5091	VALVE	2
05-09-00208	8H1993	VALVE	3
05-09-00209	9J5050	HYDRAULIC PUMP	6
05-09-00210	3G7658	GARTRIDGE PUMP 14 G. MP	6
05-09-00211	1U3953	GARTRIDGE PUMP 38 G.MP	10
05-09-00212	4S6581	BEARING S.T.D	10
05-09-00213	4S6582	BEARING S.T.D	2
05-09-00214	4S9396	BEARING 0.25	36
05-09-00215	4S9367	BEARING 0.25	6
05-09-00216	4S9398	BEARING 0.50	24
05-09-00217	4S9399	BEARING 0.50	4
05-09-00218	4S6834	BIG END BEARING S.T.D	24
05-09-00219	4S9276	BIG END BEARING 0.25	36
05-09-00220	4S9277	BIG END BEARING 0.25	36
05-09-00221	6N2823	CRANK SHAFT	2
05-09-00222	9G6778	TRANSMITION	1
05-09-00223	7N6243/6B6224	FERRULE	300
05-09-00224	1S8754	JOINT	5
05-09-00225	7S7400/2P9239	TORQUE PUMP	3
05-09-00226	2W0719	KIT TURBO CHARGER	3
05-09-00227	8H9155	OIL SEAL	12
05-09-00228	1P6400	PLUNGER	50
05-09-00229	8P8072/6T6782	SEGMENTED SPROCKET	18
05-09-00230	9S2727	BOLT	40
05-09-00231	7H3609	NUT	40

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00232	2S5925	GREAS POINT	16
05-09-00233	9J5106	SHAFT HYD, PUMP	2
05-09-00234	1T0595	CARRIER	1
05-09-00235	6V3709	GASKET KIT	10
05-09-00236	5P9218	GASKET	4
05-09-00237	2W2604	FEED PUMP	6
05-09-00238	6N0652	LEED WIRE	6
05-09-00239	6N9653	OIL COOLER	2
05-09-00240	7W0205	OIL COOLER	2
05-09-00241	8N5931	TURBO CHARGER	2
05-09-00242	1T221	WHEEL ASSEM.	2
05-09-00243	1T593	WHEEL ASSEM	2
05-09-00244	1T633	IMPELLER	2
05-09-00245	1T309	RING	16
05-09-00246	1T233	RING	8
05-09-00247	1T0670	HYDRAULIC TORQUE CONVERTER	1
05-09-00248	8N6610	TURBO CHARGER	2
05-09-00249	4N4880	TRANSFER PUMP	2

**APPENDIX 9 C - II**  
**FOR BULLDOZER KOMATSO**  
**MODEL (D65 A , E) (D60 A , P , PL , E)**

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00250	7053031202	HYD. PUMP	6
05-09-00251	1442112372	RING	20
05-09-00252	0743271206	HYD. PUMP	6
05-09-00253	0743072206	HYD. PUMP	6
05-09-00254	6610092000	GASKET KIT	16
05-09-00255	6610092100	GASKET KIT	8
05-09-00256	6631311060	CRANK SHAFT	4
05-09-00257	6620511000	OIL PUMP	6
05-09-00258	6631211023	CYL. BLOCK	3
05-09-00259	6632721000	INJECTION PUMP	4
05-09-00260	66104141210	VALVE	60
05-09-00261	6610414006	VALVE	60
05-09-00262	6610611081	GASKET	20
05-09-00263	6610212212	BUSH	60
05-09-00264	6620312110	PISTON	60
05-09-00265	6620313062	CONN. ARM	12
05-09-00266	6610218060	BEARING	4
05-09-00267	6610298060	BEARING	6
05-09-00268	6610288060	BEARING	6
05-09-00269	6610373041	BIG. END. 0.75	5
05-09-00270	6610363041	BIG. END. 100	2
05-09-00271	6610383041	BIG. END. 0.50	8
05-09-00272	6610393041	BIG. END. 0.25	8
05-09-00273	6610 3041	BIG. END. STD	6
05-09-00274	6620613060	INJECTOR	16
05-09-00275	6620613210	CUP INJECTOR	20
05-09-00276	1441500030	UNIVERSAL JOINT	6
05-09-00277	6675411060	CAM SHAFT	4
05-09-00278	6620312910	PIN CONN. ROD	12
05-09-00279	6620312020	RING PISTON	10
05-09-00279	6620312020	RING PISTON	10
05-09-00280	6672728702	FLOAT VALVE	6
05-09-00281	1447061131	EDGE CUTTING	10
05-09-00282	1351400030	SPIDER ASSY	6
05-09-00283	6006521111	OIL COOLER	2
05-09-00284	1441312111	STATOR FIRST	2
05-09-00285	1441312311	STATOR SECOND	2
05-09-00286	1541512713	LINING	16
05-09-00287	1451412711	DISC	8

Code	Part No.	Description	Quantity
05-09-00288	1441500067	TRANSMISSION ASSY	1
05-09-00289	6610718180	FUEL PIPE	4
05-09-00290	6610611821	GROMMET	250
05-09-00291	6610611850	GROMMET	250

### APPENDIX 9 C - III

#### SPARE PARTS FOR KATO HYDRAULIC EXCAVATOR MODEL HD-700 G MITSUBISHI DIESEL ENGINE MODEL 6D1

Code	Part No.	Description	Quantity
05-09-00292	60937500002	PUMP PLUNGER ASSY	4
05-09-00293	61943300006	MOTOR	8
05-09-00294	61995400006	G REDARTIRON ASSY	1
05-09-00295	61934800002	MOTOR PLUNGER	1
05-09-00296	60937549006	SEAL OIL	8
05-09-00297	60937505006	BEARING R	4
05-09-00298	60937506006	BEARING R	4
05-09-00299	61939415006	BLOCK CLY.	2
05-09-00300	61939416006	PLATE RETAINER	2
05-09-00301	61939418006	PLATE	2
05-09-00302	61939419006	WASHER	4
05-09-00303	61934855006	SPRING	4
05-09-00304	61934856006	PIST	12
05-09-00305	61934857006	SHOE	4
05-09-00306	61939423006	BALL	2
05-09-00307	61937340006	SEAL OIL	3
05-09-00308	00935006307	BEARING BALL	10
05-09-00309	61934891006	OIL SEAL KIT	6
05-09-00310	61939446006	PIN	6
05-09-00311	62956700002	VALVE	1
05-09-00312	62956800061	VALVE	1
05-09-00313	62956713006	VALVE	6
05-09-00314	62944129002	SPRING	8
05-09-00315	62956730006	VALVE	8
05-09-00316	62952631006	SEAT CHECK	8
05-09-00317	62952627006	MACK UP	8
05-09-00318	21711706000	COUPLING	2
05-09-00319	61903606006	MOTOR TRAVELING ASSY	1
05-09-00320	61943304006	BLOCK CYL.	1
05-09-00321	61943305006	PLATE VALVE	1
05-09-00322	61943303006	SHAFT	1
05-09-00323	61943306006	PISTON	6

Code	Part No.	Description	Quantity
05-09-00324	61943307006	PLATE	1
05-09-00325	61943308006	HOLDER	1
05-09-00326	61943309006	PLATE	1
05-09-00327	61943322006	SEAL OIL	2
05-09-00328	61995905006	PIN	1
05-09-00329	30916200004	CYL. ADJUST ASSY	1
05-09-00330	60937509006	BUSH CYL.	6
05-09-00331	60937508006	CYLINDER	1
05-09-00332	60937510006	PISTON	18
05-09-00333	60937511006	SHOE	10
05-09-00334	60937062006	PLATE	1
05-09-00335	60937530006	PLATE VALVE R	1
05-09-00336	60937531006	PLATE VALVE L	1
05-09-00337	61939403006	SHAFT	1
05-09-00338	61995906006	SEAL DRIVE	1
05-09-00339	62956700002	VALVE CONTROL ASSY	1
05-09-00340	ME999441	PISTON AND LINER KIT	2
05-09-00341	ME999458	GASKET KIT	2
05-09-00342	ME0325	BEARUBG 0.25	1
05-09-00343	ME03251	BEARING 0.75	1
05-09-00344	ME032520	BEARING 0.50	1
05-09-00345	ME031916	GASKET HEAD	1
05-09-00346	ME031938	VALVE INLET	12
05-09-00347	ME031940	VALVE EX	12
05-09-00348	ME034664	OIL PUMP	1
05-09-00349	ME031042	BUSH CAN SGAFT	1
05-09-00350	ME31043	BUSH CAM SAFT	1
05-09-00351	ME031044	BUSH CAM SHAFT	1
05-09-00352	ME031096	BUSH CAM SAHFT	1
05-09-00353	ME031543	OIL SEAL	1
05-09-00354	ME999200	MAIN BUSHING US 0.25	1
05-09-00355	ME999206	MAIN BUSHING US 0.50	1
05-09-00356	ME999202	MAIN BUSHING US 0.75	1
05-09-00357	ME999203	MAIN BUSHING US 1.00	1
05-09-00358	ME030856	OIL SEAL	1
05-09-00359	ME031886	GUIDE VALVE	2
05-09-00360	ME031888	GUIDE VALVE	2
05-09-00361	ME036780	NOZZLE ASSY	6

**APPENDIX 9 C - IV**

**FOR KATO HYDRAULIC EXCAVATOR MODEL HD-750 NESSAN  
DIESEL ENGINE MODEL PD604  
KATO WORKS CO. LTD.**

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00362	33411700000	PUMP DRIVING ASSY	12
05-09-00363	13411604000	COUPLING	2
05-09-00364	06420206020	SEAL	2
05-09-00365	61942025006	OIL SEAL	2
05-09-00366	61942106006	ROD CON	3
05-09-00367	61942006006	RING PISTON	12
05-09-00368	63951213002	SPOOL	2
05-09-00369	63951214006	POPPET	2
05-09-00370	63951224006	NOZZLE	2
05-09-00371	63951226006	NOZZLE	2
05-09-00372	63951229006	SEAT VALVE	6
05-09-00373	61937000002	MOTOR PLUNGER	14
05-09-00374	61995029006	BEARING	4
05-09-00375	61995030006	BEARING	2
05-09-00376	61937003002	PLATE SWASH	2
05-09-00377	61937006006	CYLINDER	1
05-09-00378	61937027006	PLATE	4
05-09-00379	61937028006	PLATE	4
05-09-00380	61937039006	BEARING	1
05-09-00381	62938000002	VALVE CONTROL	1
05-09-00382	33460700000	HYD. PIPING ASSY	1
05-09-00383	60921702006	BEARING	5
05-09-00384	60921706006	SEAL RING	2
05-09-00385	60921721006	PLATE	3
05-09-00386	60921627006	SEAL	2
05-09-00387	60921744006	SHAFT	2
05-09-00388	60921645006	SEAL	2
05-09-00389	60921713006	COVER	2
05-09-00390	60921620006	HOUSING	2
05-09-00391	13460800050	HYD. PIPING ASSY	1
05-09-00392	61942000062	MOTOR PISTON ASSY	2
05-09-00393	62938005006	VALVE RELIEF	4
05-09-00394	62938062006	PLATE	12
05-09-00395	62938067006	SPOOL	2
05-09-00396	30911002061	PISTON ROD	2
05-09-00397	30910690000	SEAL KIT	4
05-09-00398	68981005061	WASHER	2
05-09-00399	68981006	RING BACKING	6

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00400	68980806006	SHAFT	1
05-09-00401	1300396025	BUSH	2
05-09-00402	1211796002	SHEALL US 25	2
05-09-00403	1211796003	SHEALL US 50	2
05-09-00404	1211796004	SHEALL US 75	2
05-09-00405	1211796005	SHEALL US 100	2
05-09-00406	1320296025	VALVE INL	18
05-09-00407	1320696000	VALVE EX	18
05-09-00408	1203096000	BUSH	12
05-09-00409	1206196007	PISTON	12
05-09-00410	1204096026	RING PISTON	6
05-09-00411	1506096008	OIL PUMP	2
05-09-00412	2106096004	WATER PUMP	2
05-09-00413	1676099000	PLUNGER	12
05-09-00414	1662096006	NOZZLE	18
05-09-00415	2106696000	DUCK WATER	2
05-09-00416	2106796000	DUCK WATER	2
05-09-00417	1229996000	SLINGEL	3
05-09-00418	1526990006	GASKET	2
05-09-00419	1106296006	LINER	12
05-09-00420	1320797006	SEAL	60
05-09-00421	1320796000	COVER	60
05-09-00422	1104496002	GASKET	8
05-09-00423	1321196006	GUIDE	12
05-09-00424	1321296002	GUIDE	12
05-09-00425	61942106001	ROD CONNECTING	35
05-09-00426	60921600002	PUMP GEAR ASS.	12
05-09-00427	00936932320	BEARING TRANSFER ROLLERS	7
05-09-00428	61942011012	VALVES	7
05-09-00429	1220096004	CRANCK SHAFT ASS.	7

## APPENDIX 9 C - V

### SHOVEL LOADER KAWASAKI MODEL 70 ENGINE ISUZU DA640

Code	Part No.	Description	Quantity
05-09-00430	YZ9122712040	CON. ROD BEARING	18
05-09-00431	YZ9122742040	CON. ROD BEARING	18
05-09-00432	YZ9115106890	BEARING KIT	3
05-09-00433	YZ9115406890	BEARING KIT	3
05-09-00434	YZ9131003460	OIL PUMP	6
05-09-00435	YZ98350066	FEED PUMP	10
05-09-00436	YZ1111100310	CYL. HEAD	3
05-09-00437	YY244214	PAD	24
05-09-00438	YZ9112670600	O RING	60
05-09-00439	YZ1125520630	VALVE	60
05-09-00440	YZ1878106160	LINER KIT	10
05-09-00441	YZ1144000470	TURBO CHARGER	5
05-09-00442	YZ1125520250	EXH. VALVE	60
05-09-00443	YZ1122751770	BEARING CON. ROD	12
05-09-00444	YZ1121810350	PISTON RING KIT	12
05-09-00445	YZ1878102872	GASKET KIT	10
05-09-00446	YZ1123100940	CRANK SHAFT	2
05-09-00447	YK1162060806	TURBIN PUMP	10
05-09-00448	YK1163061806	TURBIN PUMP	6
05-09-00449	YK1161060600	TURBIN PUMP	6
05-09-00450	YK1161071100	GEAR PUMP	10
05-09-00451	YZ9825119940	GEAR PUMP	10
05-09-00452	YT28PL240061	PISTON	2
05-09-00453	25D1230L000	HOSE	10
05-09-00454	19E3390W000	SEAL KIT	10
05-09-00455	JB6308NR	B.B	10
05-09-00456	JB6307NR	B.B	10
05-09-00457	70E0730L006	HOSE	10
05-09-00458	70E0740L006	HOSE	10
05-09-00459	25D1240L000	HOSE	10
05-09-00460	19E3380W000	SEAL KIT	20
05-09-00461	21C0290L000	1ST.P.ROPELLT S	4
05-09-00462	YJ93230303	SEAL KIT	36
05-09-00463	YR4674100000W	RAD. AYY	3

**APPENDIX 9 C - VI****SHOVEL LOADER CAT. PILLER  
MODEL 950**

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00464	7S9891	NOZZLE	12
05-09-00465	6N7527	PLUNGER ASSY	12
05-09-00466	9B1320	DEL. VALVE	12
05-09-00467	4N360	GLOW PLUG	12
05-09-00468	6V2209	GASKET	3
05-09-00469	2P1785	OIL PUMP	1
05-09-00470	7N5908	WATER PUMP	1
05-09-00471	586670	SEAL	36
05-09-00472	9L5854	SEAL	12
05-09-00473	7N165	OIL COOLER	1
05-09-00474	3S9730	BEARING	15
05-09-00475	4N7695	CRANK SHAFT	1
05-09-00476	4N6860	CARTRIDGE	3
05-09-00477	7M7821	BEARING	12
05-09-00478	5P9415	GASKET	3
05-09-00479	8N1188	CHAMBER ASSY	1
05-09-00480	8S3970	SEAL	12
05-09-00481	7S3206	GASKET	24
05-09-00482	9H4066	HEAD ASSY	12
05-09-00483	4N4029	LINER	18
05-09-00484	2P8889	RING GROUP	18
05-09-00485	7S9404	PIN	12
05-09-00486	5P9418	GASKET	4
05-09-00487	6V1550	GASKET	4
05-09-00488	6V2466	GASKET	4
05-09-00489	7N7386	GASKET	5
05-09-00490	4N7253	VALVE EXH.	24
05-09-00491	5S7232	VALVE INT.	12
05-09-00492	5S6452	GASKET	12

## APPENDIX 9 C - VII

### SHOVEL LOADER KAWASAKI MODEL 70B ENGINE ISUZU 6BDIT

Code	Part No.	Description	Quantity
05-09-00493	YZ1156009241	GAS PUMP	1
05-09-00494	YZ1191006060	AIR COMP.	1
05-09-00495	YZ1878102261	BUSH KIT	5
05-09-00496	YZ1878102673	WATER KIT	5
05-09-00497	YZ9122736080	BIGEN	12
05-09-00498	YZ912271680	BIGEN	12
05-09-00499	YZ9825139242	P. GLOW	30
05-09-00500	YZ9122746080	BIGEN	12
05-09-00501	YZ515340200	NOZZLE	18
05-09-00502	YZ5121210050	RINGS	18
05-09-00503	YZ5112610630	BUSH	18
05-09-00504	YZ5136106452	WATER PUMP	1
05-09-00505	YZ5131000913	OIL PUMP	2
05-09-00506	YZ1144000820	TURBO CHARGER	2
05-09-00507	YZ1115300400	BEARING	2
05-09-00508	YZ1123104070	CRANK SHAFT	1
05-09-00509	YZ1121112406	PISTON	18
05-09-00510	YZ1115500610	BEARING KIT	2
05-09-00511	YZ1115100400	BEARING	2
05-09-00512	YZ1111104506	COVER	1
05-09-00513	YZ1111410902	COVER GASKET	2
05-09-00514	YZ1115100310	BEARING KIT	2
05-09-00515	YZ111400400	BEARING	2

## APPENDIX 9 C - VIII

### SHOVLADER KAWASAKI MODEL 80 ENGINE ISUZU E120PK

Code	Part No.	Description	Quantity
05-09-00516	YKPKM882712	REPAIR KIT	6
05-09-00517	YZ1111102561	CYL. HEAD	2
05-09-00518	YT13PL31313PL711	GEAR PUMP	2
05-09-00519	YK1172061000	TURBIN PUMP	10
05-09-00520	YK1171606006	TURBIN PUMP	10
05-09-00521	YT22PL220004	GEAR PUMP	2
05-09-00522	YK1173060800	TURBIN PUMP	10
05-09-00523	YK1208310200	CLUTCH PLATE	140
05-09-00524	YKPKC608511	SEAL KIT	6
05-09-00525	YK1178400300	GEAR	3
05-09-00526	YK1208300510	CLUTCH DISC	120
05-09-00527	YZ1125510540	AIR VALVE	120
05-09-00528	YZ1125510250	VALVE	120
05-09-00529	YZ1217000702	OIL COOLER	4
05-09-00530	YZ1136102210	WATER PUMP	2
05-09-00531	YZ1131006290	OIL PUMP	5
05-09-00532	YZ1123103920	CRANK SHAFT	2
05-09-00533	YS1121111910	PISTON	18
05-09-00534	YZ9112612900	LINER	18
05-09-00535	YZ1121210240	RING KIT	10
05-09-00536	YZ1878103103	GASKET KIT	10
05-09-00537	YZ1122710230	BEARING CON. ROD	12

**APPENDIX 9 C - IX**  
**SPARE PARTS FOR HITACHI HYDRAULIC**  
**EXCAVATOR MODEL EX200**

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00538	9065880	HYDRAULIC PUMP	2
05-09-00539	8041180	CARTRIDGE	3
05-09-00540	2021642	ROTOR	3
05-09-00541	8036381	PISTON	10
05-09-00542	8035127	SHAFT	10*
05-09-00543	4176958	OIL SEAL	5
05-09-00544	3037675	FORK	2
05-09-00545	9070528	CONTROL VALVE	2
05-09-00546	4181700	HYDROLIC PUMP	2
05-09-00547	4187037	GEAR PUMP	10
05-09-00548	0308606	MOTOR PLUNGER	10
05-09-00549	9065944	GEAR PUMP	2
05-09-00550	4176958	OIL SEAL	5
05-09-00551	8036381	PISTON	8
05-09-00552	2021642	ROTOR	2
05-09-00553	9065943	VALVE	2
05-09-00554	4206068	SEAL KIT	5
05-09-00555	0309002	PISTON HEAD	2
05-09-00556	0309006	BODY	2
05-09-00557	4191974	COUPLING	3
05-09-00558	4176480	SEAL KIT	4
05-09-00559	972658	CONE	20
05-09-00560	4206069	SEAL KIT	5
05-09-00561	4206020	SEAL KIT	5

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\* Amended 26 January 2000

**APPENDIX 9 C - X**

FOR LIBGHERR EXCAVATOR  
MODEL RG22LC  
ENGINE MODEL FGL 913 DEUTZ

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00562	5004117	PUMP	10
05-09-00563	5005308	PUMP	10
05-09-00564	5604686	PUMP	4
05-09-00565	5603718	COMPRESSOR	4
05-09-00565	5603718	COMPRESSOR	4
05-09-00566	5502469	FEUL PUMP	10
05-09-00567	2139405	CRANK SHAFT	5
05-09-00568	2919399	BUSH & PISTON	60
05-09-00569	5602335	VALVE	50
05-09-00570	2233036	COVER CYL.	20
05-09-00571	2232104	TURBO CHARGER	10
05-09-00572	2137300	VALVLE	60
05-09-00573	2137306	VALVE	60
05-09-00574	2233086	NOZZLE	100
05-09-00575	2103055	PLANGER	60
05-09-00576	2138223	DILEVERY VALVE	60

**APPENDIX 9 C - XI****FOR HITACHI HYDRAULIC  
MITSUBISHI DIESEL ENGINE MODEL 6BDIT  
EXCAVATOR MODEL UH83**

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
05-09-00577	9047917	HYDRALIC PUMP	5
05-09-00578	4035495	GEAR PUMP	2
05-09-00579	4161414	GEAR PUMP	1
05-09-00580	1006882	BODY	1
05-09-00581	4118705	COUPLING	4
05-09-00582	4128058	GEAR PUMP	1
05-09-00583	2066574	GEAR	1
05-09-00584	4126078	ELECTRIC WIRING BORD	5
05-09-00585	9048413	DOUPLE PUMP	2
05-09-00586	9048414	VALVE	2
05-09-00587	4115810	SPEARCAR	5
05-09-00588	4165697	SEAL	10
05-09-00589	4058971	O RING	10
05-09-00590	972658	JOINT	40
05-09-00591	4148836	OIL SEAL	5
05-09-00592	9038036	CONTROL PUMP	2
05-09-00593	9043056	VALVE	2
05-09-00594	4118498	OIL SEAL	10
05-09-00595	4171410	OIL SEAL	10
05-09-00596	1878104460	RING	6
05-09-00597	1878102300	GASKET KIT	5
05-09-00598	1111410902	GASKET	4
00-09-00599	5112610630	LINER	18
05-09-00600	1121112400	PISTON	18
05-09-00601	5196000650	VACUAM PUMP	5
05-09-00602	114000820	TURBO CHARGER	5
05-09-00603	1144530210	KIT TURBO	4
05-09-00604	5144000040	TURBO CHARGER	2
05-09-00605	1144110650	SHAFT AND WHEEL	4

## APPENDIX 9 C - XII

### DRILLING RIGS B0 / B1A WIRTH

Code	DESCRIPTION	PART NO.	QUANTITY
05-09-00606	VDP22####204	693694	5
05-09-00607	VDP/VDSP22	713789	15
05-09-00608	VDP/VDSP22	714244	5
05-09-00609	Sub. P. L. Pilot Operated Relief Model VDP & VDSP22	646675	5
05-09-00610	VDP 22	694513	10
05-09-00611	VDSP20###237	733554	5
05-09-00612	Sub. P. L. "D" Spool VDSP 20 With 3 Pos. Detent, Doppel Type C	823679	5
05-09-00613	Sub Parts List "D" Spool Spring Central VDSP 20	656534	5
05-09-00614	Sub P.L> "G" Spool Spring Central VDSP 20	683514	5
05-09-00615	Pilot Operated Reief For VDP11 & VDP12	592644	5
05-09-00616	VDSP20##211	713503	5
05-09-00617	VDP22##231	723609	5
05-09-00618	VDP11####211	733678	5
05-09-00619	VDR10 B206	703585	5
05-09-00620	VPR10 B1	592074	5
05-09-00621	Anticipatory - Control Appliance	06068 F1	8
05-09-00621	Anticipatory - Control Appliance	06068 F1	8
05-09-00622	Axial Piston Regulating Pump	A10VS028 FHD/30R - PPA 12K06	7
05-09-00623	Geared Double - Pump	1PF2G2-4X/061RR20MRK+ 1PF2G2-4X/008LN20MDL +	5
05-09-00624	Hydraulic Motor	6M076	10
05-09-00625	Additional Gearing For Power Swivel (Complete Unit)	102181	3
05-09-00626	Gear Motor	GM - 5 -H11 - R23	3
05-09-00627	Power Swivel		3
05-09-00628	Variable Displacement Pump	A10VS028 FHD/30R-PPA12K06	12
05-09-00629	Hydraulic Motor	MAC06-900	10
05-09-00630	Hydraulic Motor	A2 FE 28	10
05-09-00631	Complete Gear Box		6
05-09-00632	Retaining Jaws dia (47 - 73 ) mm.		20
05-09-00633	Retaining Jaws dia ( 70 - 114.3) mm.		20

**APPENDIX 9 C - XIII****MIXING PLANT CIR7 & IM 20/3**

<b>Code</b>	<b>DESCRIPTION</b>	<b>PART NO.</b>	<b>QUANTITY</b>
05-09-00634	Regulator 24 VRL 24 VCA		25
05-09-00635	Tachmeter Digital IV024V		5
05-09-00636	Logging Device R12	3D1417SA2+CFFE 504 - 55	10
05-09-00637	Logging Device R12	R12 / 2 / 12 - 10 Fiber	10
05-09-00638	Stabilizer Voltage 220 V 100VA		5
05-09-00639	Solenoid 24 V 3TY	1223 - OB	15
05-09-00640	Digital Counter 220 V, 4W	PR1557106 PHILIPS	4
05-09-00641	Electronic Print for Weight Amplifier Philips	4069 - 100 - 03404	4
05-09-00642	Digital Set Point Philips	K 56021 / 02	4
05-09-00643	Electronic Balance Philips	PR6206/52W LN (500 Kg)	6
05-09-00644	Penumatic Valve 2"		25
05-09-00645	Penumatic Valve 4"		50
05-09-00646	Ball Valve 1"		200
05-09-00647	Ball Valve 2"		150

**APPENDIX 9 C - XIV****SPARE PARTS FOR NEMO PUMP TYPE (4NE 60 A)**

<b>CODE</b>	<b>DESCRIPTION</b>	<b>PART NO.</b>	<b>QUANTITY</b>
05-09-00648	Rotor	867340	10
05-09-00649	Stator	182435	20
05-09-00650	Drive Shaft	868712	5
05-09-00651	Coupling Rod	866140	5
05-09-00652	Bearing Pedestal	8719	5