

	for TS50			
	Cylinder head gasket	1	4	Replacement
	Piston ring No.1	1	4	"
	Piston ring No.2	1	4	"
	Piston ring No.3	1	4	"
	Oil ring	1		
	Needle valve & case	1 set	4	"
7.	"WAIDA" Cylinder Boring Machine Model: NWA No.0 415V, 50Hz, 3 ϕ Boring capacity Bore - Dia 55.5-90 mm Bore - Depth 245 mm with Standard Accessories <u>Spare Parts</u>	/	/	
	Boring bit	30	10	Replacements
	Boring bit for face cutting	5	2	"
	Diamond wheel	1		
8.	"WAIDA" Cylinder Boring Machine Model: NWA No.2 415V, 50Hz, 3 ϕ Boring capacity Bore-Dia 81-165 mm Bore-Depth 500 mm with Standard Accessories <u>Spare Parts</u>	/	/	
	Boring bit	30		
	Boring bit for face cutting	5		
	Diamond wheel	1		
9.	"TANAKA" Hydraulic Dynamometer Model: PRS-3 with Standard Accessories <u>Special Accessories</u>	/	/	
	Band for auto balance	1 set		
	Oiler	2		
	Balancing weight (20kgs x 20)	20		
(II)	<u>Tools</u>			
	"BANZAI" Brand Tools			
1.	Vice Grip Bending Tool Model: VG-7	2	2	
2.	Slide Hammer Puller Model: G-65	/	/	
3.	Engine Cleaning Gun Model: HG-288	/	/	

10	"FUJI" Vertical Honing Machine	/	/	
	Model: DH-B3			
	415V, 50Hz, 3 ϕ			
	Honing bore: Max. 150 mm			
	Length of spindle stroke: Max. 18 m/min. ^{300 r/min}			
	Number of spindle revolutions:			
	100, 165 & 275 rpa.			
	Vertical travel of body: 350 mm			
	Travel of table: 400mm in both directions with Standard Accessories			
	<u>Special Accessories</u>			
	1) Honing Head ^c	1 Pc.		
	Model: FH-1			
	<u>Stone Holder</u>			
	No.S1-1 67-102 ^b	6 Sets		
	No.S1-2 95-140 ^b	6 "		
	No.S1-3 120-178 ^b	6 "		
	<u>Stone</u>			
	8 x 9 x 100 #150	100 Pcs.	20 pcs	Replacement
	#500	100 "	20 "	"
	#1000	100 "	20 "	"
	2) Honing Head	1 Pc.		
	Model: FC-2			
	<u>Stone Holder</u>			
	No.S2-1 50-57 ^b	6 Sets		
	No.S2-2 54-60 ^b	6 "		
	No.S2-3 60-67 ^b	6 "		
	<u>Stone</u>			
	7 x 9 x 100 #150	100 Pcs.		
	#500	100 "		
	#1000	100 "		
	8 x 9 x 100 #150	100 "	10 pcs	Replacement
	#500	100 "	10 "	"
	#1000	100 "	10 "	"

3) Honing Head			1 Pc.		
Model: FC-3					
<u>Stone Holder</u>					
No.S3-1 33-44 ^b			6 Sets		
No.S3-2 44-50 ^b			6 "		
No.S3-3 50-55 ^b 60			6 "		
<u>Stone</u>					
4.5 x 3 x 75	#150	100	Pcs.	30 pcs	Replacement
	#500	100	"	20 "	"
	#1000	100	"	20 "	"
7.7 x 3 x 75	#150	100	"	35 "	"
	#500	100	"	30 "	"
	#1000	100	"	30 "	"

4	Oiler Model: PO-23		10	10				
5	Tube Cutting Tool Model: T-200		1	1				
6	Socket Wrench Model: No.44S		5	5				
7	-- Do-- Model: HB-290 M		1	1				
8	-- Do -- Model: HD-140 S		1	1				
9	Socket Adaptor 12.7 x 19 mm		2	2				
10	-- Do -- 19 x 12.7 mm		2	2				
11	Open End Wrench 8x9, 10x12, 11x13, 12x14, 14x17, 17x19, 19x21, 22x24, 23x26, 27x30, 29x32, 32x35		10	10				
12	Socket Wrench 26, 29, 32, 35, 38, 41, 46	1 each	5	5				
13	-- Do -- 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 26, 29, 32		5	5				
14	Offset Driver (-)		5	5				
15	-- DO -- (+)		5	5				
16	Torque Wrench		2	2				
17	Outside Caliper	200 mm	10	10				
18	-- Do --	400 mm	10	10				
19	Inside Caliper	200 mm	10	10				
20	-- Do --	400 mm	10	10				
21	Cylinder Gauge with dial gauge		2	2				
22	Vernier Caliper	150 mm	5	5				
23	Scale	500 x 250 mm	1	1				
24	Thickness Gauge 9 pcs./set	100 x 12.7 mm	5	5				

25	Mercury Thermometer 0 - 200°C, 30 cm		2	2
26	Cross Driver	No.2	5	5
27	- Do -	No.3	5	5
28	- Do -	No.4	5	5
29	Screw Driver	No.300	5	5
30	- Do -	No.200	5	5
31	- Do -	No.150	5	5
32	Double Offset Box Wrench Set 45°, 6 pcs./set 10x12, 12x14, 14x17, 17x19, 19x21, 23x26		3	3
33	Double Offset Box wrench Set 45°, 6pcs./set 8x10, 11x13, 12x14, 14x17, 19x21, 24x27		3	3
34	Machinist Hammer	No.1	10	10
35	- Do -	No.3	3	3
36	Pipe Cutter	No.2	1	1
37	Universal Joint	12.7 mm	5	5

Marine Engineering

List ②

'77.

(I)

1. Diesel Engine Model: TS50C	Z	Z	
Standard accessories:			
Fuel tank			
Air cleaner			
Exhaust silencer			
Fan bolt			
Standard tool			
Standard spare parts			
Gasket for cylinder head			
Compression ring (top)		4	Replacement
Compression ring 2nd		4	"
3rd		4	"
Oil scraping ring			
Needle valve & case		4	"
2)			
2. Diesel engine Model: YSM12	4	4	
Standard accessories:			
Fuel oil tank			
Kingston cock with cooling water hose			
Boden wire			
Starting handle			
Foundation bolt			
Propeller shaft half coupling			
Exhaust silencer			
Standard tool			
Standard spare parts			
Nozzle, Assy		2	Replacement
Gasket packing			
Piston ring			
Oil ring			
Compression ring		4	"
V-belt			
Impeller			
Strainer			
3. Diesel engine Model: 2QM20-EC	Z	Z	
Standard accessories:			
F.O. Strainer			
F.O. lift pump			
L.O. drain pipe			
C.W. temperature switch			
Thermostat for C.W.			
Intake silencer			
Exhaust manifold			
Chain starting device with starting handle & chain cover			

Electric starting device	1		
Dash board	1		
Idling adjuster	1		
Bracket for speed remote control cable	1		
Bracket & cable clamp	1		
Tools	1		
4 Diesel engine Model: 2TGE-C		5	5
Standard accessories:			
L.O. pressure gauge	1		
Installation bolts	8		
Installation plate	1		
Shim plate	1		
Kingston cock	1		
Bilge strainer	1		
Fuel tank	1		
Fuel pipe, 15mm x 1200	1		
C.W. inlet pipe	1		
Standard spare parts:			
Compression ring	2		4 ^{ast} Replacement
Oil scraping ring	1		
Split pin	4		
O-ring	1		
Needle valve & case	1		4 ^{ast} "
5 Diesel engine Model: 3ESDGE		1	1
Standard accessories:			
Tachometer	1		
L.O. pressure gauge	1		
Clutch hydraulic oil pressure gauge	1		
Kingston cock	1		
Bilge strainer	1		
Engine installation bolt	10		
Engine installation plate	2		
Shim plate for clutch installation	2		
Starting air pipe	1		
Air charge pipe	1		
Fuel pipe	1		
Cooling water pipe	1		
Bilge pipe	1		
Exhaust silencer	1		
Exhaust pipe	1		
Propeller shaft coupling with bolts & nuts	1		
Remote control device	1		
Tools	1		
Standard spare parts:			
Compression ring (Top)	1		2 Replacement
Compression ring (2nd, 3rd)	2		4 "
Oil scraping ring	2		
Washer for connecting rod bolt	6		
Impeller	1		

Precombustion chamber packing	1		
O-ring for push rod cover Upper side	2		
Lower side	2		
Needle valve & case	1		
Anti-corrosion zinc for cylinder head	3		
for cylinder	3		
for clutch	1		
for oil cooler	1		
O-ring for cooling water joint	6		
Propeller (33 x 19")	1		
6. Diesel engine Model: 4KDGE		Z	Z
Standard Accessories:			
L.O pressure gauge	1		
Clutch hydraulic oil pressure gauge)	1		
Tachometer	1		
Gauge board	1		
L.O. Strainer	1		
L.O. cooler	1		
Cooling water pump	1		
Kingston cock	1		
Fuel oil strainer	1		
Self charging system for starting air	1		
Turning bar	1		
Disassemblable tool	1		
Foundation plate	1		
Installation bolts & nuts	1		
Shim plate for wooden vessel	1		
Joint for piping	1		
Shim plate for clutch installation	1		
Remote control device	1		
Foot liner	1		
Piping materials	1		
Standard spare parts:			
Compression ring (Top)	4		
Oil-Scraping ring	1		
Washer for connecting-rod bolt	3		
Needle valve & case	1		Z Replacement
Pre-combustion chamber packing	1		
Anti-corrosion zinc			
for cylinder head	4		
for cylinder	4		
for L.O. cooler	2		
Impeller	1		
O-ring for cooling water joint	4	Z	
(1) Exhaust manifold			
1. Flexible bellows (3 inch)		/	/
with flange, packing, bolt and nut.			

2	Flexible bellows (2.5 inch) with flange, packing, bolt and nut.	2	2
3	Flexible bellows (1.5 inch) with flange, packing, bolt and nut.	/	/
4	Gas pipe 3" x 5.5m	/	/
5	2.5" x 5.5m	/	/
6	1.5" x 5.5m	/	/
7	Exhaust manifold (3")	/	/
8	Exhaust manifold (2.5")	/	/
9	Exhaust manifold (1.5")	/	/
10	Stop band, Exhaust manifold (3")	/	/
11	Stop band, Exhaust manifold (2.5")	/	/
12	Stop band, Exhaust Manifold (1.5")	/	/
13	Fok 3 inch	/	/
14	2.5 inch	/	/
15	1.5 inch	/	/
	Elbow with flange, packing bolt and nut.		
16	3 inch	/	/
17	2.5 inch	/	/
18	1.5 inch	/	/
	<u>Water cooling</u>		
1	Water pipe 40A, 5.5m	2	2
2	50A, 5.5m	2	2
3	20A, 5.5m <i>115m</i>	2	2
4	20A, 4m	/	/
5	Pipe for compressor, 15x15. T, 3m	/	/
6	Pipe (SGP), 1.5" x 5.5m	2	2
	Screw cheese		
7	20A	18	18
8	50A	12	12
	Screw elbow		
9	20A	16	16
10	40A	16	16
11	50A	12	12
	Special screw cheese		
12	32x30 <i>20</i>	13	13
	Bushing		
13	40x30	2	2
14	40x20	/	/
15	Cock 20A	6	2
16	50A	/	/

17	Rubber hose, 1" x 2m	/	/
18	Copper pipe 25 x 2T, 3m	/	/
19	35x 2.5T, 3m	/	/
20	20x 1.8T, 3m	/	/
21	10x 1.0T, 3m	Z	Z
22	12x 1.T, 3m	Z	Z
23	Vinyl pipe, 24 x 2T 5m	Z	Z
24	Socket, flange, packing, bolt & nut: 12x1.8, 31x24.5	/	/
25	Socket, flange, packing, bolt & nut: 12x1.0, 14x10.4	/	/
<u>Charging & starting</u>			
1.	Copper pipe 12x7m	/	/
2	15x7m	/	/
3	16x18Tx6m	/	/
<u>Fuel oil pipe</u>			
1	Fuel oil pipe, rubber 12mm x 5m	/	/
2	Fuel oil pipe, vinyl 15mm x 5m	Z	Z
3	Gas pipe, 1/2", 5m	Z	Z
4	Elbow, 1/2"	Z	Z
5	T-piece, 1/2"x15x1/2"	Z	Z
6	Rubber hose, 6m	/	/
7	Gas pipe, 15A, 5m	Z	Z
8	Burette, 50x25cc	Z	Z
9	Elbow, 15A	8	8
10	Socket, 15A	Z	Z
11	T-piece, 15A	Z	Z
1	Deflection gauge for 4ESDGE	/	/
2	Deflection gauge for 3ESDGE	/	/
3	Nozzle tester	/	/
4	Compression gauge	/	/
5	Universal Joint	4	4
7	for 3ESDGE, 3TGE, 2TGE, 2SMGE (ea. 1 set)		
8	Test running bed for Model: 3ESDGE	4	4

Test running bed for Model:			
1.	Rail for test running bed (For engine Model: 2TGE, 3TGE 2SMGE & 3ESDGE)		
7.	Fuel oil tank, 2GOL	/	/
10.	Starting air reservoir	2	2
(II)			
"BANZAI"			
1.	Valve refacer Model: MB-145 with Standard Accessories Special Accessories	/	/
	Valve refacer sheel 4 sets		2 sets Replacement
	Cutting oil 1 Can		
	Valve refacer collet Large 1		
	Small 1		
"BANZAI"			
2.	Steam cleaner Model: SW - 400K With Standard Accessories Special, Accessories	/	/
	Nonscale (2L Can) 4 pcs.		
	CLEANER for Steam Cleaner (1.8L Can) 2 pcs.		
"BANZAI"			
3.	Parts washing stand Model: S-50 with Standard Accessories	/	/
"WAIDA"			
4.	pin hole honing machine Model: P-1C.1D with standard accessories Special accessories	/	/
	wheel (for No.1 head) 2-size (6pcs) x2		
	(for No.2 head) 3-size(12pcs) x2		
	(for No.3 head) 3-size(12 pcs) x2		
	Finishig (for No.1 head) 2-size (6pcs)x2 (for No.2 head) 3-size(12pcs)x2 (for No.3 head) 3-size(12pcs)x2		

5.	"BANZAI" Valve seat grinder Model: VSG-600 with Standard Accessories Special Accessories Sheel rough, finishing, each 1 set	/	/
6.	"BANZAI" Battery quickhanger Model: MAX-70D with Standard Accessories	/	/
7.	"BANZAI" Hydraulic press Model: HP-30C with Standard Accessories	/	/
8.	"HITACHI" Power grinder Model: R10-3C with Dust collector & Eye Shield	/	/
9.	"HITACHI" Bench drilling machine Model: BD-360A	/	/
10.	"RICH" Chain block Capacity 2 ton Lift 3m with Gear trolley chain hoist	2	2
11.	"RICH" Chain block Capacity 1 ton Lift 2.5m with Gear trolley chain hoist Chain block Accessories for 2 ton I beam 200 x 100 x 7mm 9m I beam 150 x 75 x 5.5mm 3.5m I beam 150 x 75 x 5.5mm 16m Chain block Accessories for 1 ton) I beam 150 x 75 x 5.5mm 3.5m I beam 150 x 75 x 5.5mm 16m I beam 150 x 75 x 5.5mm 12m	/	/
(IV)	"HITACHI" 1. Portable electric drill Model: NU-DH3	/	/

2	Screw extrac #801, 802, 803, 804, 805, 806		Z	Z
	"BANZAI"			
3	Stud remover		Z	Z
4	Lath wire cutter		/	/
5	Combination plier	200mm	10	10
6	Long nosx plier	160mm	3	3
7	Thin bont nose plier	175mm	Z	Z
8	Test hammer	110g	5	5
9	Test hammer	225g	5	5
10	Copper hammer	250g	5	5
11	Plastic hammer	300g	5	5
12	PLASTIC HAMMER	500g	5	5
13	Plastic Hammer	100g ^{100g}	5	5
14	Torque wernch	12.7mm	Z	Z
15	Torque wernch	19mm	Z	Z
16	Set of outside micrometer 0--150mm 6 pcs. sets		Z	Z
17	Outside micrometer 150--175mm, 175--200mm ea. 2 pcs.		/	/
18	Inside micrometer		/	/
19	Micrometer stand		Z	Z
20	Screw pitch gauge with 28 sheets		Z	Z
21	Screw pitch gauge with 26 sheets		Z	Z
22	Screw pitch gauge ^{Hand tachometer 11.4-92x-7} 400--5,000 rpm.		Z	Z
23	Side cutting plier	200mm	5	5
24	Pipe wrench	300mm	5	5
25	Pipe wrench	600mm	Z	Z
26	Hack saw frame		5	5
27	Hand saw 300 x 12 x 0.64mm		50	
28	Grease gun	100cc	/	/
29	Machinist files Flat (rough, second cut, smooth) each 10 pcs.	250mm	/	/
30	Machinist files half-round (rough, second cut, smooth) each 2 pcs.	250mm	/	/

31	Machinist files 250mm round (rough, second cut) each 1 pc.	1	1	
32	Scraper 250mm Bearing scraper	5	5	
33	Scraper 250mm Flat scraper	5	5	
34	Cast iron V block 150mm	4	4	
35	Torque wrench 19mm	2	2	
36	Pipe cutter with spare blade 1 pc.	1	1	
37	Surface plate	1	1	
38	Box block with V groove 150mm B K type	1	1	
39	Convex rule 2m white	20	20	
40	Parallel bench vise (round type) 150mm	14	14	
41	Iron level 380mm A type	2	2	
42	Dial gauge	2	2	
43	Magnetic base 50 x 48 x 60mm	2	2	
44	Depth gauge 300mm	2	2	
45	Surface gauge 75 x 55 x 25mm	2	2	
46	Thermoelectrometer	1	1	
47	Files handle 145mm "BANZAI"	20	20	
48	Piston heater Model: PS-12S 440x280x200mm "BANZAI"	1	1	
49	Piston ring compressor Model: RC-30	10	0	10 Replacement
50	Valve lifter 50-225mm, pinion rack Type	1	1	
51	Valve lifter 78-250mm 75	1	1	

52	Screw extractor	3	3
53	Piston vice 150mm	2	2
54	Piston ring tool	5	5
55	Valve spring tester	1	1
56	Piston filing tool	1	1
57	Snapping plier	2	2
58	Step ring plier	2	2
59	Volt ampere meter	2	2
60	Battery hydrometer	1	1
61	Straight shank drill set 1.0--13mm 25 pcs. sets	2	2
62	Vice grip wrench	2	2
63	Slide, hammer puller with standard Accessories	1	1
64	Engine cleaner with 1m hose & clamps	1	1
65	Surface plate 600 x 900 x 100mm	1	1
66	Piston feeler gauge	5	5
67	Cylinder liner puller	2	2
68	Hand valve lapper 20mm	5	5
69	Hand valve lapper 45mm	5	5
70	Air valve lapper	1	1
71	Valve seat cutter set	1	1
72	Tap dies set Tap 8 pcs. Dies 8 pcs. #6 tap wrench, DH-38 dies handle	2	2
73	Taps dies set tap 28 pcs. dies 26 pcs. #4, #5 tap wrench tap holder DH-38 dies handle DH-50 dies handle	1	1

NO.	Article & Specification	Quantity		Remarks
		Required	Estimated	
1.	"OTC" No-Gas Arc Welder	4	4	
	Semi-Automatic Arc Welder	1		
	Model: GM-52			
	Welding Torch	1		
	Model: WTC-105			
	A.C Arc Welder	1		
	Model: KR-500			
	with Standard Accessories			
	<u>Spare Parts</u>			
	Welding Torch	4	4	
	Lubricant	4	4	
	Wire for No-Gas Welder 3.2m/m, 10k/pack	6	6	
	- Do - 2.4m/m, 10k/pack	6	6	
	Primary Cable with terminal (10m)	8	8	
	Terminal	16	16	
	<u>Repair Parts</u>	4	4	
	Feed Roll 2.4, 3.2m/m	2 each		
	Pressure Roll " "	2 each		
	Outlet Guide	1		
	Cleaning Brush	1		消耗品
	Contact Tube 2.4, 3.2m/m	20 each		
	Conduit Liner 2.4, 3.2m/m	2 each		
	Insulator Nozzle	1		
	Carbon Brush	1		
	Pilot Lamp	5		
	Fuse Holder	1		
	Printed Circuit Board A, B	1 each		
	Relay	1		
	Fuse	10		"
	Indicator Ass'y	1		
	Flexible Shaft Ass'y	1 set		
	Gear for Indicator L, S	1 each		
	Primary Switch	1		
	Secondary Terminal	1		
	Hand Shield	1		
	Collor Protection Glass	1		
	Glass	2		"
	Groves for welding	1		"
	Chipping Hammer	1		"
	Wire Brush	1		"
2.	"NATIONAL" AC/DC Argon Gas Arc Welder	4	4	
	Model: YC-305 TDK-5			
	415V, 50Hz, 1 φ			
	with 3a earth clamp			

	Torch	1		
	Model: YT-305T			
	Water Tank	1		
	Argon Gas Regulator	1		4 Replacement
	with Standard Accessories			
	<u>Spare Parts</u>			
	Torch Body	4	0	4 Replacement
	Gas Regulator	4		
	Primary Cable 10m with terminal	8		
	Terminal	16		
	Secondary Cable 10m with Holder & Terminal	4		
	Terminal	16		
	<u>Repair Parts</u>	4		
	Pilot Lamp	4		
	Fuse	10		消耗品
	Fuse Element	10		
	Silicon Rectifier	2		
	Relay	2		
	Printed Circuit Board	1		
	Magnetic Switch	1		
	Magnetic Contactor	1		
	Collet 1.6, 2.4, 3.2m/m	2	each	
	Collet Body 1.6, 2.4, 3.2m/m	1	each	
	Nozzle 6, 8, 10m/m	5	each	
	"O" Ring	2		
	Thoriated Tungsten Electrode			
	1.6, 2.4, 3.2m/m	20	each	
3	"TANAKA" Automatic Gas Cutting Machine			
	Model: KT-160	2	2	
	240V, 50Hz, 1 ϕ			
	with Standard Accessories			
	<u>Spare Parts</u>			
	3040 Nozzle #1, 2, 3	5	30 each	
	Hose (6 ϕ x 23 x 15m)	2	4	
	Hose (9 ϕ x 18 x 15m)	2	4	
	Hose Band	10	20	
4	"TANAKA" Automatic Gas Cutting Machine			
	Model: KT-5M	3	3	
	240V, 50Hz, 1 ϕ			
	with Standard Accessories			
	<u>Spare Parts</u>			
	3040 Nozzle #1, 2, 3, 4, 5, 6	5	90 each	
	Y.V.X Bevel Cutting Attachment	1	3	
	Hose (6 ϕ x 23 x 15m)	2	6	
	Hose (9 ϕ x 18 x 15m)	2	6	
	Hose Band	10	30	

5.	"TANAKA" Shape Cutting Machine Model: KT-350 240V, 50Hz, 1 ϕ with Standard Accessories		/	/					
	<u>Spare Parts</u>								
	3040 Nozzle #1,2,3	2 each	6	6					
	Hose (6 ϕ x 2B x 15m)	1	1	1					
	Hose (9 ϕ x 1B x 15m)	1	1	1					
	Hose Band	4	4	4					
6.	"TANAKA" Welding Torch with Standard Accessories		2	2					
	<u>Spare Parts</u>								
	6620 Nozzle	5	10	10					
7.	"MASADA" Welding Joint Die Bending Tester Model: MK-1 Type: Hydraulic operated by hand Capacity: 20 ton with Standard Accessories		/	/					
	<u>Special Accessories</u>								
	T joint Bend Die 6, 12m/a	1 each							
	Roller Bend Die 6, 12, 19m/a	1 each							
	Double Bend Die 3.2, 9m/a	1 each							
	Plata for Roller Bend Die	1							
8.	"ASANO" Cap Shearing Machine Model: G1002 415V, 50Hz, 3 ϕ Capacity: Max 10m/a Length of Cutting: 2,060 m/a with Standard Accessories		/	/					
	<u>Spare Parts</u>								
	Blade upper-side, lower-side	1 each							
	V Belt	4							
	Pilot Lamp	1							
9.	"TORSES" BRINELL Hardness Tester Model: BH No.3-CF Load range: 3,000, 2,500, 2,000, 1,500, 1,000, 750, 500kg with Standard Accessories		/	/					
10.	"RIKEN" Test Pump Model: RP-2 Stroke: 50m/a with Standard Accessories		/	/					

(II)	<u>Tools</u>				
1.	Cast Iron Anvil	100 kg	2	2	
2.	Cast Iron V Block Type:A 100 x 58 x 35 mm		6	6	
3.	- Do - Type:B 50 x 32 x 22 mm		6	6	
4.	Hammer with handle (2 each)	0.9 kg	5	5	
5.	Thinner Scissors Straight Edge, Yanagi Edge, Reaming Edge 1 each/set	300 mm	9	9	
6.	Leather Arm cover		40	0	消耗品

Welding (marine)		Dist ②		'77
1.	"KIWA TEKKO" Upright drilling machine Accessories Straight drill chuck 13mm ϕ 1 pc. Sleeve (3x4, 2x4, 1x4, each 2 pcs.) 1 set Vise 5" 1 pc. Horse taper drill (14--28mm, 2mm interval each 3 pcs.) 1 set	/	/	
2.	"HITACHI" Bench drilling machine MODEL: BD-36CA Accessories Drill chuck 13mm 2 pcs. Chuck handle 2 " Vise 100mm 1 " Straight shank drill 1 set (2, 4, 6, 8, 10, 12, 13mm each 5 pcs.)	/	/	
3.	"HITACHI" Air compressor Model: BU-7TL Accessories Hose joint & cup ring 1 set Hose (10m) 1 pc. Spare belt 1 set	/	/	
4.	"RIKEN" Test pump Model: RP-2 Accessories Manometer 1 pc.	/	/	
5.	"FUJI SEITO" High-speed cutting machines Model: FS-50 Spare belt 1 set	/	/	
6.	"HITACHI" Power grinder Model: ABT-4 Accessories Water cap & eye-shield	3	3	

(II)

1.	"MATSUSHITA" CO2 Welder		4	4	
	Model: YM-35DX				
	YT-351C				
	YX-252C				
	YT-351CC				
2.	"MATSUSHITA" AC Arc welder		35	35	
	Model: YK-305F-3D3				
	<u>Spare Accessories</u>				
	Holder	ea. 1			
	Hand shield with protecting and colored glass	1			消耗品
	Terminal for primary cable	6			
	Terminal for secondary earth clamp	6			
	Leather apron	1			"
	Leather foot cover	1			"
	Leather arm cover	1			"
	Leather glove	1			"
	Chipping hammer	1			"
	Wire brush	1			"
	<u>Spare parts</u>				
	Printed circuit board	1			
	Lamp	2			
	Fuse 1A, 5A	ea. 4			"
	Magnetic contractor	1			
	Terminal for primary side	1			
3.	"MATSUSHITA" DC Arc welder		2	2	
	Model: YD-500SS-2				
	<u>Spare Accessories</u>				
	Primary cable	ea. 30m			
	Secondary cable	20			
	Holder	1			消耗品
	Helmet with protecting and colored glass	1			"
	Terminal for primary side	10			
	Terminal for secondary side	8			
	Earth clamp	1			
	Leather apron	1			"
	Leather foot cover	1			"
	Leather arm cover	1			"
	Glove (3-fingers)	1			"
	Chipping hammer	1			"
	Wire brush	1			"

<u>Spare parts</u>				
	Pilot lamp	ea.5		
	fuse	20		消耗品
	Print circuit board	1		
<u>"MATSUBITA"</u>			/ /	
4.	Arc Air gouging welder Model: YD-605NG-2			
<u>Spare Accessories</u>				
	Gouging torch YT-700G	ea.1		
	Helmet	1		
	Leather apron	1		消耗品
	Leather foot cover		1	"
	Leather arm cover		1	"
	Leather glove (3-fingures)		1	"
	Gouging carbon (6.5, 8.0, 9.5φ) 50/1 case		3	"
	Earth clamp		1	
	Earth cable 5m		1	
<u>Spare parts</u>				
	Fuse	ea.20		"
	Lever		5	
	Torch body		1	
	Spring		10	
	Spring Board		10	
	O ring		20	
	Insulation plate		10	
<u>Welding tool</u>				
5.	Holder for 300A	10	0	10 Replacement
6.	Holder for 500A	10	0	10 "
7.	Hand shield (glassless)	20	20	
8.	Helmet (glassless)	20	20	
9.	Colored glass	40	0	40 "
10.	Chipping hammer	20	20	
11.	Leather glove	60	0	60 "
12.	Leather apron	40	0	40 "
13.	Leather arm cover	40	40	
14.	Leather foot cover	40	40	
15.	Cable Joint (female, male) 300A	10	10	
16.	Clear glass	80	0	80 "
17.	Clamp meter 150-300-600A	10	10	

	"MATSUSHITA"			
18	Wire YM-5CT11020 1.0mmφ 20kg/coil	6	6	
19	Wire 1.2mmφ 20kg/coil	4	4	
20	Spare Accessories (CO2 Welder)	/	/	
	Leather glove (3-fingers)	4		消耗品
	Welding torch	4		
	CO2 gas regulator	4		
	Tip 1.0mmφ	120		
	Tip 1.2mmφ	120		
	Primary cable 10m	12		
	Terminal for Primary side	16		
	Helmet with protecting and colored glass	4		
	Leather apron	4		"
	Leather foot cover	4		"
	Leather arm cover	4		"
	Nozzle (S1 12mm)	20		
	Nozzle (S2 10mm)	20		
21	Spare parts	4	4	
	Relay, SCR, Fuse, Printed Circuit board, Feed roller, Insulation tube, Orifice, Conduit tube.			
	"MATSUSHITA"			
22	Secondary cable for AC arc welder 700m	/	/	
	"MITSUBISHI"			
23	Primary cable for AC arc welder 700m	/	/	

(III)

1.	"KOIKE" Lightweight, Automatic Gas cutting machine Model: MARTEN with (1.5m) Rail & torch No.1,2,3. each 1 Accessories Torch No.1,2,3. each 5 pcs. Hoseband 4 " Cleaner pin 1 set	2	2	
2.	Portable automatic gas cutting machine Model: IK-12MAXII with (1.8m) Rail & torch No.1,2,3 each 1 Accessories Torch No.1,2,3,4,5,6, each 5 pcs. VVA cutting equipment 1 set Hose band 4 pcs. Cleaner pin 1 set	/	/	
3.	Oxygen welding torch Model: No.1, Cock type with torch No.1,2,3,5,7 each 1 pc. Accessories Torch No.1,2,3, 5,7 each 1 pc. Hose band 6 pcs. Gas lighter 1 pc. Hosejoint cock (oxygen) 1 set Hosejoint cock (acetylene) 1 set Cleaner pin 1 set Glasses for welding 1 pc. Glove 1 set	20	20	
4.	Gas cutting torch Model: No.1 Torch No.1,2, 3. each 1 pc. Accessories Torch No.1,2,3. each 3 pcs. Hose band 6 pcs. Gas lighter 1 pc. Hosejoint cock (oxygen) 1 set Hosejoint cock (acetylene) 1 set Cleaner pin 1 set Glasses for welding 1 pc. Glove 1 set Wheel for curve cutting 1 pc.	20	0	20: Replacements sets

5	Gas gouging torch Model Safty 200 with adaptor & torch No. 6, 7, 8, 9 each 1 pc.	5	5	
	Accessories			
	Torch No. 6, 7, 8, 9. each 2 pcs.			
	Hose band 4 pcs.			消耗品
	Glasses for gas cutting 1 pc.			"
	Cleaner pin 1 set			"
	Glove 1 set			"
	Gas lighter 1 pc.			"
6	Oxygen regulator for gathering Model: MK-MO	1	1	
7	Acetylene regulator for gathering Model: MK-MA	1	1	
8	Medium pressure safty device for main pipe	1	1	
9	Oxygen regulator for line with valve & socket 5 pcs. regulator packing	15	15	
10	Acetylene regulator for line with valve & socket 5 pcs. regulator packing	15	15	
11	Medium pressure safty device	15	15	
12	Compass for gas cutting	5	5	
13	Handle for oxygen welding	20	20	
14	Oxygen regulator for gouging 5 pcs. regulator packing	5	5	
15	Acetylene regulator for gouging 5 pcs. regulator packing	5	5	
16	Oxygen regulator for bombe 5 pcs. regulator packing	10	10	
17	Acetylene regulator for bombe 5 pcs. regulator packing	10	10	
18	Oxygen cylinder manifold	1	1	
	oxygen connecting pipe 12 pcs.			
	Oxygen valve 12 "			
	Changing valve 2 "			
	Pipe 1 set			
	Pipe stand 1 "			

19	Acetylene cylinder manifold		1	1
	Pipe	1 set		
	Pipe stand	1 set		
	Acetylene connecting pipe	6 pcs.		
	Acetylene valve	6 "		
	Changing valve	2 "		
20	Oxygen hose	6φ x 2B 15m	51	51
21	Acetylene hose	9 φ x 1B 15m	51	51
22	"KITAHAMA" Wel. drying oven Model: S-2		2	2
	Spare parts			
	Pilot lamp	4 pcs.		
	Heater	7 "		
(IV)				
1.	Surface plate	900x1,200x150mm 420kgs	1	1
2.	Parallel bench vise (round type)	150mm	6	6
3	Screw clamp C Type	100mm	10	10
4.	Machinist hammer	450g	20	20
5.	Black-smith hammer	2.7kg	2	2
6.	Cold chisel	13x60mm	20	20
7	Tongs flat	450mm	40	40
8	Machinist files flat	300mm	30	30
	Secondcut			
9.	Machinist files flat	300mm	30	30
	Rough			
10	Set of needle files	185mm	3	3
	10 pcs. set			
11	Side cutting plier	200mm	2	2
12	Combination plier	150mm	5	5
13	Combination plier	200mm	5	5
14	Thin straight nose plier	175mm	5	5

15	Adjustable angle wrench	150mm	5	5	
16	Adjustable angle wrench	200mm	5	5	
17	Pipe wrench	450mm	2	2	
18	Huck saw flame spare blade (300mm 12 sheet) 1 set	300mm	10	10	
19	Driver	150mm	5	5	
20	Driver	200mm	5	5	
21	Scraper	200mm	40	0	消滅品
22	Center punch	125mm	40	0	
23	Steel compass	250mm	14	14	
24	Squar 150x100mm		10	10	
25	Squar 200x130mm		10	10	
26	Outside caliper	200mm	5	5	
27	INSIDE CALIPER	200MM	5	5	
28	Stainless straight rule	1m	5	5	
29	Stainless straight rule	600mm	5	5	
30	Steel tape measuring	20m	1	1	
31	Convex rule	2m	10	10	
32	Squar rle (steel)	500x250mm	10	10	
33	Vernier caliper	150mm	10	10	
34	Surface gauge	300mm	1	1	
35	Bevel protractor 150mm 300mm, 2pca. (blade)		5	5	
36	Steel beam tryrel	1000mm	2	2	
37	Wire brush		40	0	
38	"MITSUBISHI" Electric drill Model SD-100 with drill chuck		2	2	
39	Dresser with handle		2	2	
40	"HITACHI" Portable cutter Model: NUK-FN with standard tool spare blade 1 set		1	1	
41	"MITSUBISHI" Portable grinder Model: PG-125A 125x12.7x19mm		2	2	
42	"MITSUBISHI" Disc grinder Model: GA-180C 180x22x6mm		4	4	

43	"MITSUBISHI" Disc grinder Model : PA100G 100x15x4mm	2	2	
44	"FUJI SEITO" Grinding wheel 255 x 25 x 19.05mm	20	0	20
45	Grinding wheel 125 x 19 x 12.7mm	20	0	6
46	Grinding wheel 455 x 3.5 x 25.4mm	50	0	6
47	Grinding wheel 180 x 6 x 22mm	100	0	6
48	Grinding wheel 100 x 4 x 15mm	100	0	6

Electro-plating dist. ① '78.

NO.	Article & Specification	Quantity to be Supplied	Quantity to be Existing	Remarks
1.	Direct reading analytical balance SHIMAZU Model : I-200 AC 240V, 50 Hz, Single phase	1	1	
2.	Surface roughness tester TOKYO SEIMITSU Model : SURFCOM 20C AC 240V, 50 Hz, Single phase Serial No. 420830 E-MD-S10A 520254 E-RM-S100B-B 601367 E-RC-06 (Standard accessories) Storing box, Trans ducer, Pick up holder Connecting rod, Recording paper(10 roll) Tool, Spare recording paper (50 roll)	1	1	
3.	Metallurgical polisher UNION OPTICAL CO., LTD Model : GP-102 AC 240V, 50 Hz, Single phase Serial No. 002191 with Standard accessories (Special accessories) Fluid alumina (compounds) 500cc FM No. 1 4 pcs FM No. 2 4 pcs FM No. 3 4 pcs FM No. 4 4 pcs Emery paper # 1M 20 sheets #0 20 " #0/2 20 " #0/3 20 " #0/4 20 " #0/5 20 " #0/6 20 " Polishing cloth 20 "	1	1	
4.	Monobed deionizing equipment JAPAN ORGANO CO., LTD Model : MA-0 AC 240V, 50 Hz, Single phase Serial No. 35016	1	1	
5.	Surface plate 450 x 300 x 65 mm	4	4	
6.	Vice, read type 75 mm	5	5	
7.	File (Flat) 250 mm - bastard, second-cut, smooth - set of 3 pcs	10	10	
8.	Set of needle file (5 pcs set) - second-cut, smooth - each 5 sets	10	10	
9.	Cast iron anvil	2	2	
10.	Straight edge 300 mm	5	5	
11.	Electric soldering iron 240V, 50Hz	5	0	5 Replacement

12	Open end wrench, six set wrench - 8 x 9, 10 x 12, 12 x 14, 14 x 17, 17 x 19, 21 x 23 -	3	3	
13	Adjustable wrench 200 mm	3	3	
14	Combination plier 200 mm	3	3	
15	Plier 200 mm	10	10	
16	Chain nose cutting plier 150 mm	5	5	
17	Diagonal cutting plier 150 mm	5	5	
18	Ball peen hammer 1/2 pond	5	5	
19	" 1 pond	5	5	
20	" 1 1/2 pond	5	5	
21	Wood mallet 54 - 60 mm	20	20	
22	Adjustable hacksaw frame	7	7	
23	Hacksaw blade	10	10	
24	Scraper 250 mm	6	6	
25	Outside caliper, inside caliper, one side caliper 150 mm each 3 pcs	9	9	
26	Center punch 100 mm	20	20	
27	URAKEGAKI	20	20	
28	Wire brush	20	20	
29	Metal rule 150 mm	10	10	
30	" 300 mm	20	20	
31	" 600 mm	1	1	
32	" 1000 mm	1	1	
33	Steel tape measure with case 20 m	1	1	
34	Tape measure 50 m	1	1	
35	Outside micrometer caliper 0-25mm	2	2	
36	" 25-50mm	2	2	
37	" 50-75mm	2	2	
38	Inside micrometer caliper 5-25mm	2	2	
39	Vernier caliper 150 mm	5	5	
40	" 200 mm	2	2	
41	" 300 mm	1	1	
42	Right-angled ruler 100 x 70 mm	5	5	
43	Steel compass 150 mm	10	10	
44	Stop watch	4	4	
45	Vinyl chloride welder with trans Model : NEW SUPER 300 " Welding gun Model : FL with case (Reserve accessories) Hot jet gun 1 pce	1	1	
46	Dryer MINAMOTO Model : G-12 with rack net (5 sheets)	1	1	
47	Heater Model : P-10	3	0	3 Replacement
48	Heater Model : M-10	6	0	6 "
49	Heater Model : SUS-10	3	0	3 "
50	Salt spray tester with trans TOYO SEIKI SEISAKU*SHO Model : No. 474 AC 100V, 50 Hz, Single phase (Standard accessories) Thermometer 4 pcs Salt water bottle 1 pce	1	1	
	Small-sized recipro air compressor Serial No. 13440 UC			

51	Grinder	HITACH Model : R12-SC	/	/	
		415V, 50 Hz, 3 phase			
		Serial No. 285001			
		with Dust collector 1 set			
		water saucer & ey-shield			
52	Electric polisher	HITACH KOKI Model : NUP-SR3	/	/	
		AC 240V, 50 Hz, Single phase			
		Serial No. 380001			
		(Standard accessories)			
		Bonnet 1 pce			
		Spanner 1 pce			
53	Electric drill	HITACH KOKI Model : BUL-SH2	/	/	
		AC 240V, 50 Hz, Single phase			
		Serial No. 387001			
		(Standard accessories)			
		Chuck handle 1 pce			
		Side handle 1 pce			
54	Electric disc grinder	HITACH KOKI Model : PD-125	2	2	
		AC 240V, 50 Hz, Single phase			
		Serial No. 387001 & 387002			
		(Standard accessories)			
		Whetstone 4 pcs			
		Spanner 4 pcs			
55	Whetstone (reserve)		20	20	
56	Electric grinder with standard accessories	HITACH KOKI Model : LDU-4	2	2	
		AC 240V, 50 Hz, Single phase			
		Serial No. 387002 & 387001			
57	Beaker	2000 ml	40	5	消耗品
58	"	1000 ml	40	15	"
59	"	500 ml	40	10	"
60	"	200 ml	40	10	"
61	Erlenmeyer flasks	500 ml	40	40	
62	"	300 ml	40	40	
63	Filtering flask	1 L	5	5	
64	Test tube	180 mm	120	120	
65	Dropping bottles	60 ml	20	20	
66	Reagent bottles, wide mouth	500 ml	20	20	
		Amber, Colourless each 10 pcs			
67	Reagent bottle, narrow mouth	500 ml	20	20	
		Amber, Colourless each 10 pcs			
68	Weighing bottle	40 mm	12	12	
69	Desiccators with tubulation in lid	24cm	2	2	
70	"	18cm	2	2	
71	Funnels	90 mm	40	40	
72	Evaporating dishes (Flat bottom)	45mm	10	10	
73	"	50mm	10	10	
74	"	60mm	10	10	

75	Test tube stand		10	10	
76	Measuring cylinder	1000 ml	5	5	
77	"	500 ml	5	5	
78	"	250 ml	10	10	
79	"	100 ml	10	10	
80	"	50 ml	5	5	
81	"	20 ml	5	5	
82	Measuring pipets	5 ml	10	10	
83	"	2 ml	10	10	
84	"	1 ml	10	10	
85	Hole pipetes	25 ml	20	15	
86	"	10 ml	20	15	
87	"	5 ml	20	15	
88	Burets with stopcock	50 ml (amber)	50	40	
89	"	50 ml (colourless)	50	30	
90	Buret stand		10	10	
91	Funnel support		10	10	
92	Brush for buret		10	10	
93	Brush for flask or bottle		10	0	消耗品
94	Spoon (L,M,S,/ 1 set)		3	0	"
95	Thermometer	0 - 100 C	20	0	"
96	Aspirator		3	3	
97	Wire net		20	10	
98	Pincette, stainless,		15	15	
	- straight	125 - 130 mm			
	"	110 - 115 mm			
	bent	125 - 130 mm -- each 5 pcs			
99	Gas burner		5	5	
100	Tripod	90 x 200 mm	5	5	
101	Analytical balance	100 g	1	1	
102	Dispensing balance	500 g	4	4	
103	PH meter with trans & Standard accessories		1	1	
104	Cyanogen tester		1	1	
105	Thickness meter with Standard accessories		1	1	
	SANKO DENSHI Model : SL-2C				
	Serial No. 2396				
106	Thickness tester		1	1	破壊(電気系統故障)
	ELEC FINE INSTRUMENTS CO., Model : G-7				1 replacement.
	AC 240V, 50 Hz, Single phase				
	Serial No. 1390				
	(Standard accessories)				
	Measuring stand	1 set			
	Cell A & B, Gasket A & B	each 1 pce			
	Thickness standard	1 pce			
	Test solution	250 ml 6 pcs			
	Small bottle with squirt	6 "			
	Dust cover	1 pce			
107	Transformer		10	10	
	YAMAMOTO METKISHIKENKI CO., LTD				
	240V, AC input, 50 Hz				
	100V, AC output, 10A				

108	Selenium rectifier 240V, AC input 0 - 15V, DC, output	4	4						
109	Density current meter 10 A type	4	4						
110	Insulated regulator	1	1						
111	Hull cell test kit	4	4						
	Selenium rectifier 1 pce								
	Thermostatic hull cell 267 ml 1 pce								
	Hull cell miniature heater 100V, 100W (acid and alkaline use, pyrex cover) 1 set								
	Mercury precision thermostat 1 pce (magnetically variable, 0.1 sensitivity)								
	Thermostat relay box 1 pce								
	Thermostat stand 1 "								
	Lead wire 1 set								
	Air pump 100V, 8W 1 pce								
	Hull cell (air agitation) 267 ml 1 pce								
	Cathode current density scale 1 "								
	Thermometer (including stand) 1 "								
	Anode (copper, nickel, lead, zinc) (Cu , Ni , Pb , Zn) each 1 pce								
	Cathode (iron, brass, copper) each 10 pcs (Fe , , Cu)								
	Contaminating additive each 1 pce (copper, iron, zinc, chrome) (Cu , Fe , Zn , Cr)								
	Test reference materials 1 pce								
112	Analyzer of chromic acid	1	1						
	Burette stand (included printed board) 1								
	Direct reading burette 1								
	Conical beaker 2								
	Volumetric flask, 250 ml 1								
	Pipette 5 ml 1								
	" 10 ml 1								
	Syringe 0.5 ml 1								
	" 10 ml 1								
	" 25 ml 1								
	Solution A 500 ml 1								
	Solution B 500 ml 1								
	Solution C 20 ml 1								
	Titration solution 4								
	Tubes 200 ml 1								
	Water deionider 1								
	Syringe 1								
113	Trichrome meter	1	1						
	Standard ampoules, No. 1-6 1								
	Comparator 1								
	Test tubes 30 cc 3								
	Syringe 1								
	Electric lamp 1								
	Analysis table 1								
	Chromic acid hydrometer 1								

//4	Fe Meter		/	/
	Standard ampoules, No. 1-9	1		
	Comparator	1		
	Test tubes	3		
	Solution A 250 ml	1		
	Solution B 250 ml	1		
	Syringe 0.5 ml	1		
	Pipette(Solution A use 5 ml)	1		
	" (Solution B use 5 ml)	1		
	Electric lamp	1		
	Glass cylinder	1		
	Conical flask (stopper included)	1		
//5	Analyzer of Nickel sulfate plating Solution		/	/
	Burette stand(printed board included)	1		
	Direct reading burette boric acid use	1		
	" Nickel chloride use	1		
	" Nickel sulfate use	1		
	Pipette 0.5 & 1.0 ml	1		
	Pipette 2.5 ml	1		
	Cylinder 50 ml	3		
	Conical beaker	3		
	Boric acid solution A 1000 ml	1		
	Boric acid titration solution 500 ml	1		
	Nickel chloride solution A 1000 ml	1		
	" titration solution 500 ml	1		
	Nickel sulfate solution A 1000 ml	1		
	Nickel sulfate powder B 20 bags	1		
	" titration solution 500 ml	1		
	Beaker sponge brush	1		
//6	Analyzer of zinc cyanide plating solution		/	/
	Burette stand(printed board included)	1		
	Direct reading burette,			
	Metallic zinc use	1		
	Sodium cyanide use	1		
	Sodium hydroxide use	1		
	Conical beaker	4		
	Specially constructed pipette 1 ml	1		
	" " 10 ml	1		
	Specially constructed syringe			
	0.5 & 1.0 ml , 25 ml each	1		
	Specially constructed syringe 10 ml	6		
	Metallic zinc solution A 30 ml	1		
	" solution B 250 ml	1		
	" powder C 20 bags	1		
	" solution D 250 ml	1		
	" titration solution 500 ml	1		
	Total sodium cyanide solution A 250 ml	1		
	" solution B 250 ml	1		
	" titration solution <i>500 ml</i>	1		

	Sodium hydroxide solution A	250 ml	1		
	"	solution B	250 ml	1	
	Sodium hydroxide solution C	250 ml	1		
	"	solution (indicator)	30 ml	1	
	"	titration solution	370 ml	1	
	Water deionizer			1	
117	Analyzer of copper cyanide plating solution			/	/
	Burette stand (printed board included)		1		
	Direct reading burette				
	Copper cyanide use		1		
	Free sodium cyanide use		1		
	Sodium carbonate use		1		
	Conical beaker			4	
	Specially constructed pipette	1ml	1		
	"	5ml	1		
	"	10ml	1		
	Syringe	0.5 ml	1		
	"	1.0 ml	1		
	Syringe	5 ml	2		
	"	10 ml	3		
	Measuring cylinder,	50 ml	1		
	Heater (stainless steel stand plate and sand included)		1		
	Copper cyanide solution A	125 ml	1		
	"	solution B, C	250 ml		
		each	1		
	Copper cyanide solution (indicator)		1		
		20 ml			
	"	titration solution	1		
		370 ml			
	Free sodium cyanide solution A		1		
		250 ml			
	"	titration solution	1		
		370 ml			
	Sodium carbonate solution A, B, C, each		1		
		250 ml			
	"	color forming solution	20 ml	1	
	"	titration solution	370 ml	1	
	Sodium carbonate analysis chart			1	
118	Percent hydrometer	H2SO4	1-25%	5	5
119	"	HCL	0-25%	5	5
120	"	NaOH	1-25%	5	5
121	"	CrO3		5	5
122	Stir agitation (for hull cell)			4	4
			90 - 110 V		
123	Haring cell (haring-blum throwing power cell)			4	4
	Haring chamber,	1500 ml	1		
	Small size heater for haring,		1		
		100V, 100W			
	Mercury precision temperature regulator				
	Relay box for temperature regulator		1		

	Stand support for temperature regulator			
	Lead wire	1		
	Air pump, 100V. 8W	1		
	Anode (copper, nickel, zinc) . each	1		
	Cathode (iron, brass) each	10		
	Bushar of copper made for plating test	3		
124	Sulphameter (motorized model)		/	/
	Centrifuge equipment (motorized)	1		
	Graduated centrifuge tubes	6		
	Solution A 300 ml	1		
	" B 300 ml	1		
	Syringe, 20 ml	1		
	Pipette, 5 ml Solution A use	1		
	" , 5 ml Solution B use	1		
	Graduated centrifuge stand	1		
	Filter (glass wool included)	1		
	Centrifuge tube cleaning implements	1		
	Direct reading hydrometer	1		
	(for chromium concentration)			
125	Sulphameter (manual)		/	/
	Centrifuge equipment	1		
	(Handle, tube holders, vises included)			
	Graduated centrifuge tubes	3		
	Solution A 300 ml	1		
	Solution B 300 ml	1		
	Syringe, 20 ml	1		
	Pipette, 5 ml solution A use	1		
	Pipette, 5 ml solution B use	1		
	Sandglass, 3 minutes	1		
	Filter (glass wool included)	1		
	Centrifuge tube cleaning implements	1		
	Direct reading hydrometer	1		
	(for chromium concentration)			
126	Thermometer of electroplating solution	10	0	10 Replacement
	0 - 100 C			
127	JIS Bending tester		/	/
128	Mini barrel		2	2
	r.p.m. 100V, 50Hz			
129	Tension meter		/	/
	Main body	1		
	Platinum ring	1		
	Shallow	2		
	Pincette	1		
	Level	1		
	Thermometer	1		
	Alcohol lamp	1		
	Alcohol	1		
	Pure water	1		
	Reference manual	1		

130	Hardness tester AKASHI SEISAKUSHO LTD Model : MVK-E AC 240V, 50 Hz, Single phase (Standard accessories)	/	/		
	Loading shaft	1			
	Weight	6			
	Measuring stage	1			
	Measuring eyepiece	1			
	Calibration block, HV700	1			
	Base block for specimen	1			
	Vise with screw	1			
	Leveling screw	3			
	Lamp for microscope	3			
	Leg attaching plate	1			
	Supporting screw	2			
	Setting screw	2			
	Screw driver	2			
	Driver	1			
	Hex key	1			
	Accessories box	1			
	Vinyl cover	1			
	Table for vickers hardness number	1			
	(Special accessories)				
	Clamping device for sheet	1			
	Horizontal clamping device for wire with	1			
	Vertical clamping device for wire and ball	1			
	Base block for specimen	1			
	Knoop diamond indenter	1			
	Table for knoop hardness number	1			
	Photographic camera attachment	1			
	Stepdown transformer	1			
131	Cartridge type filter NIHON FILTER CO., LTD Model : O-8S 415V, 50 Hz, 3 phase with cartridge (P-100) 108 pcs Serial No. 84074	/	/	(20)	100 Replacement
132	Cartridge type filter NIHON FILTER CO., LTD Model : O-8S 415V, 50 Hz, 3 phase with cartridge (P-10) 108 pcs Serial No. 84075	/	/	(20)	100 Replacement
133	Cartridge type filter NIHON FILTER CO., LTD Model : O-8S 415V, 50 Hz, 3 phase with cartridge (P-25) 108 pcs Serial No. 84076	/	/	(20)	100 Replacement