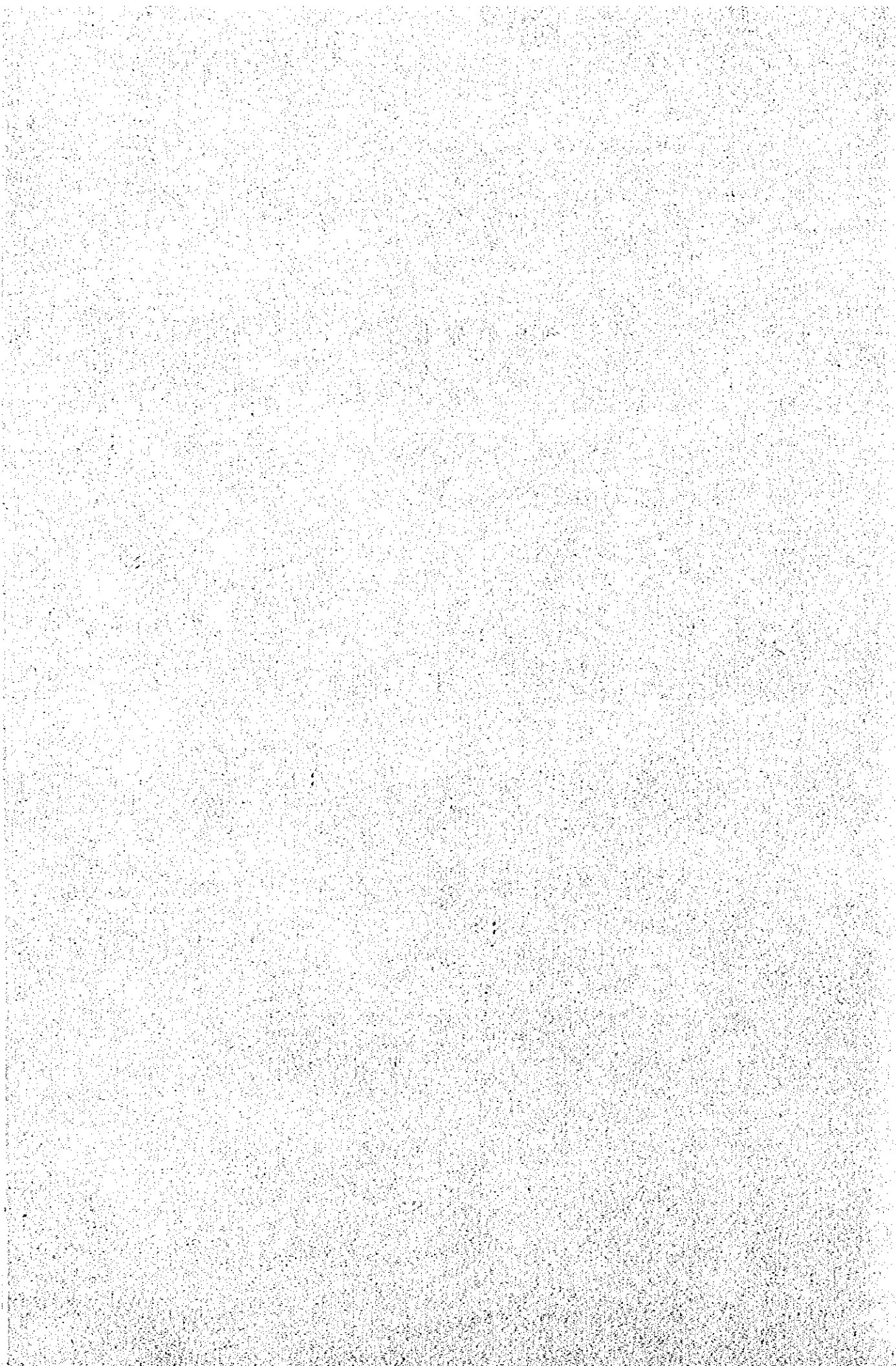


#### 4. 供与済機材リスト



1) 海員訓練センター

JAPAN INTERNATIONAL COOPERATION AGENCY  
P.O.Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
1.	<p><u>MODEL STRUCTURE OF TANKER &amp; ETC.</u></p> <p>MODEL OF CHAIN LIFT PULLEY</p> <p>VARIOUS MODEL ANCHOR.</p> <p>VARIOUS MODEL ANCHOR CHAINS</p> <p>MODEL STRUCTURE OF TANKER</p> <p>MODEL STRUCTURE OF BOW SECTION OF MINERAL TRANSPORT (SHIP)</p> <p>MODEL STRUCTURE OF MID SECTION OF MINERAL TRANSPORT (SHIP)</p> <p>MODEL STRUCTURE OF STERN SECTION OF MINERAL TRANSPORT (SHIP)</p>	<p>1 set</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p>
2.	<p><u>Copy Machine &amp; etc</u></p> <p>TOSHIBA REODRY Model BD-703</p> <p>Kit for Copier</p> <p>Copier paper 2500sheets/pc. Size A4</p> <p>" " " Size B4</p> <p>" " " Size B5</p> <p>Film for O.H.P. 200sheets/pc.</p> <p>Model SLIDAC (Transformer)</p> <p>Se-refresher</p> <p>Cotton</p> <p>Refresher</p>	<p>1 set</p> <p>4 pcs</p> <p>4 pcs</p> <p>2 pcs</p> <p>2 pcs</p> <p>5 pcs</p> <p>1 pc.</p> <p>2 pcs</p> <p>2 pcs</p> <p>1 pc.</p>

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
3-1	<p>Diesel Engine AC Generator Model : 4KDL (Yanmar)</p> <p>Exh, Thermometer 4 pcs Thermometer for Cooling Water 4 pcs Lub. Oil Cooler for Thermometer 2 pcs Expansion Joint for Exh. 1 pc Jack Bolt 4 pcs Anchor Bolt 6 pcs Nut for Bolt 6 pcs Globe Valve 5K-32 1 pc Asbestion (1m x 5m) 1 roll Stand for Nozzle Tester 1 pc Anchor Bolt for Nozzle Tester 4 pcs Pressure Gauge for Air Tank 1 pc Anchor Bolt for Air Tank 4 pcs Spare parts for compressor 1 set Special spare parts 1 set Special Tools 1 set Spare parts for Engine (Rule NK) 1 set Overhaul Tools Turning Bar 1 set</p>	1 unit
3-2	<p>Diesel Engine AC Generator Model : 4KDL (Yanmar)</p> <p>Exh, Thermometer 4 pcs Thermometer for Cooling Water 4 pcs Lub. Oil Cooler for Thermometer 2 pcs Expansion Joint for Exh. 1 pc Jack Bolt 6 pcs Globe Valve 5K-32 1 pc Turning Bar 1 pc</p>	1 unit
3-3	Silencer	1 set
3-4	Silencer	1 set
3-5	Air Reservoir (200L) with Standard Accessories	1 set
3-6	Cooling Tower (SBC-40E) with Standard Parts & Tools	1 set

**JAPAN INTERNATIONAL COOPERATION AGENCY**

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
3-7	Air Compressor	1 unit
	Anchor Bolt	6 pcs
	Glove Valve 5K	2 "
	Glove Valve 40K	1 pc
3-8	Main Switch Board (SHINKO)	1 set
	Accessory : Foundation Bolts	4 sets
3-9	Trans Former (15KVA)	1 pc
	Accessory : Foundation Bolts	4 sets
3-10	Trans Former (3KVA)	1 pc
3-11	Accessory : Foundation Bolts	4 sets
	M-G Control Panel	1 set
	Accessory : Foundation Bolts	4 sets
3-12	D.C. Motor Controller	1 set
3-13	Charge and Discharge Panel	1 set
	Accessory : Foundation Bolts	4 sets
	Battery	4 sets
	Accessory Box	1 pc
3-14	Control Box for Water Load Tester	1 pc
3-15	Spare Parts Box. (For A.C. Generator)	1 pc
	1. Ball Bearing	2 pcs
	2. - do -	2 "
	3. Brush Holder	2 "
	4. Brush Holder Spring	4 "
	5. - do -	4 "
	6. Brush	16 "
3-16	Spare parts Box. (For Main Switchboard and Charging Panel)	1 pc
	1. Moving Contact	6 pcs
	2. Fixed Contact	6 "
	3. Contact Spring	10 "
	4. Operating Spring	8 "
	5. Strip Shaft Spring	2 "
	6. Hook Spring	2 "

JAPAN INTERNATIONAL COOPERATION AGENCY  
P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	7. Inst Spring	10 pcs
	10. Silicon Oil	80 cc
	11. UVT. Spring	4 pcs
	12. UVT. Coil	1 pc
	13. UVT. Control Device	1 "
	15. UVT. Moving Core Spring	2 pcs
	16. UVT. Trip Lever Spring	2 "
	17. UVT. Con Spring	2 "
	18. UVT. Reset Spring	2 "
	19. Aux. Switch	4 "
	21-29. No-Fuse Breaker	9 "
	30-38. Change Over Switch	9 "
	39. Push Button Switch	1 pc
	40. Fuse Case	1 "
	41. Fuse Element	10 pcs
	42. Lamp Lens	5 "
	43. Lamp Bulb	16 "
	44. - do -	2 "
	101. Lamp of Pilot Lamp	1 pc
	102. Glove of Pilot Lamp	1 "
	103. Fuse	2 pcs
	104. Fuse Support	2 "
	105-107. Circuit Breaker	3 "
3-17	Spare Parts Box (Control Equipment for M-G Panel)	1 pc
	1. Stat. Cont. (A)	10 pcs
	2. Mov. Contact	6 "
	3. Cont. Spring	3 "
	4. Aux.St.A-Con	8 "
	5. Aux.St.B-Con	8 "
	6. Aux.Mov.Cont	8 "
	7. Aux.Con.Spring	2 "
	8. Reset Spring	2 "
	9. Coil	1 pc

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	10. Stat. Contact	6 pcs
	11. Mov. Contact	3 "
	12. Cont. Spring	2 "
	13. Aux. Stat. Cont. (A)	6 "
	14. - do - (B)	6 "
	15. Aux. Mov. Contact	6 "
	16. Aux. Mov. Spring	2 "
	17. Cont. Spring	2 "
	18. Coil	1 pc
	19. Aux. Relay	1 "
	20. Timing Relay	1 "
	21. Fuse Element	3 pcs
	22. - do -	5 "
	23. - do -	2 "
	24. Fuse Case	1 pc
	25. Lamp	2 pcs
	26. Globe	1 pc
	27. Push B. Switch	1 pc
	28. - do -	1 "
	29. Mold Cir. Breaker	1 "
	30. - do -	1 "
	31. - do -	1 "
	32. Var. Resistor	1 "
	33. Resistor	1 "
	34. - do -	1 "
	35. Change O. Switch	1 "
	36. Resistor	1 "
3-18	Spare Parts Box. (Exciting Equipment for A.C. Generator)	1 pc
	1. Silicon Rectifier	1 pc
	2. Selenium Rectifier	2 pcs
	3. - do -	1 pc
	4. Resistor	2 pcs
	5. - do -	1 pc

JAPAN INTERNATIONAL COOPERATION AGENCY  
P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	6. Sliding Transformer	1 pc
	Completion Books	4 sets
3-19	Water Load Tester LCPO-150L	1 set
3-20	Group Starter SGAY-5 (380V/50Hz)	1 "
3-21	Operating Mechanism	1 "
3-22	Stand	1 pc
3-23	Parts for Electric Water Load Tester and Group Starter	1 lot
	Coller SCTE9H	1 pc
	Pump Cs-505-CO.75	1 "
	Gauge FC-F0	2 pcs
	Valve	4 "
	Washing Soda	10 " (250 kg)
	Bolt	4 pcs
	Electrode (Mov.)	3 "
	Electrode (Stationary)	3 "
	Globe Milky White	1 pc
	Globe Green	1 "
	Electric Lamp E-12 18V 2W	10 pcs
	Fuse Case NC-1	2 "
	Fuse Element NC-1 3A	1 pc
	Push Button Switch PS-PB1 Black	1 "
	Push Button Switch PS-PR1 Red	1 "
	Control Relay FP-22 100V/50Hz	1 "
	Time Relay SRT-N 100V/50Hz	1 "
	Main Stationary Contact	15 pcs
	Main Contact Spring (0.4φ x 9.5T)	4 "
	Main Moving Contact	8 "
	Aux. Stationary Contact	10 "



JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	Aux. Moving Contact	5 pcs
	Aux. Contact Spring (0.6φ x 24T)	3 "
	Rest Spring (0.4φ x 9.0T)	3 "
	Coil AC380V/50Hz MP-04	1 pc
	Coil - do -	1 "
	Control Relay YP-22 AC 380V/50Hz	1 "
	Change Over Switch T-2001	1 "
	Spare Parts Box Box No.SK-1	1 "
	Compression Terminal R2-4	17 pcs
	- do - R8-8	3 "
	- do - R5.5-4	12 "
3-24	Motor Generator 3 Phase Induction Motor Type : CV-G-1820E 3KW 4P 200V 50Hz Cont	1 set
3-25	D.C. Generator Type : GYK-G-0135 2KW 1500R/M 100V Cont	1 set
3-26	D.C. Motor Type : MVK-G-0135 1KW 1000R/M 100V Cont	1 set
3-27	Spare parts <u>D.C. Motor</u> 1. Ball Bearing 6305ZZ 1 pc 2. Ball Bearing 6306ZZ 1 " 3. Brush 111-88-615013-67 4 pcs 4. Brush Holder 111-88-114001-00 1 pc 5. Brush Holder Spring 1 pc 111-88-114001-22-24 6. Main Coil 111-51-234112-00 1 " 7. Inter Coil 111-51-314046-00 1 " <u>Motor Generator</u>	1 set

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	1. Ball Bearing 6305ZZ	1 pc
	2. Ball Bearing 6306ZZ	1 "
	3. Brush 111-88-615013-67	4 pcs
	4. Brush Holder 111-88-114001-00	1 pc
	5. Brush Holder Spring 111-88-114001-22-24	1 "
	6. Main Coil 111-51-23310500	1 "
	7. Inter Coil 111-51-313003-00	1 "
	8. Ball Bearing 6306ZZ	1 "
	9. Ball Bearing 6206ZZ	1 "
	<u>3 Phase Induction Motor</u>	
	1. Ball Bearing 6307ZZ	1 pc
	2. Ball Bearing 6306ZZ	1 "
	3. Fan Extract T43-17132	1 "
	Spare parts box	1 "
	- Following Blank -	

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
3-28	No.1 Cooling Water Pump	1 pc
3-29	Cooling Tower Circ Water Pump	1 "
	Spare Part Box (No.1 & No.2 Cooling Water Pump & Circ. Water Pump)	1 pc
	Manual Drawing	4 sets
3-30	No.2 Cooling Water Pump	1 pc
3-31	Vertical Centrifugal Pump	1 "
3-32	Horizontal Gear Pump	1 "
3-33	Cold Storage Unit (Nissin Kogyo)	1 unit
3-34	Spare Parts	1 lot
3-35	Refrigeration Machine Oil	1 set
3-36	Refrigeration Machine Oil	1 set
3-37	Oil Purifier	1 set
	Model : SJ-700 (MITSUBISHI KAKOKI)	
	Bowl	1 pc
	Accessories	1 set
	Tool	1 "
	Spare parts for Auto Control Panel	1 "
	Gear Oil	1 can
	Sludge Tank	1 pc
	Spare Parts for Automatic Controlling Valve	1 set
3-38	Cleaning Table	1 pc
3-39	Generator Engine Monitor Panel	1 pc
	Motor Sirene	1 P.
	Alarm Lamp	1 "
	Spare Part Box (Rule NK)	2 pcs

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
3-40	Glove Valve 92-101	1 set
3-41	Bolt Nut 134-160	1 set
	Cooling Water Tank	1 pcs
	Anchor Bolt with Nut	4 pcs
	Sight Glass	1 pc
	Spare Gauge Glass	2 pcs
3-42	Elbow with Flange	1 set
	Antipitch "T" Piece	1 set
	Flange	1 "
3-43	Suction Strainer with Valve	1 set
3-44	Flexible Pipe	
	Copper Tube & Nipple Joint	1 set
	Electric Wire	1 set
	Amp Terminal	1 "
	Earth Rod	1 "
	Expansion Metal	1 "
	Checker Plate	1 "
3-45	Tank Unit	1 unit
	Diesel Oil Service Tank	
	" Settling Tank	
	Aluminum Ladder	1 pc
	Anchor Bolt with Nut	4 pcs
3-46	Air Pipe Unit	1 pc
	Elbow	1 set
	"T" Piece	1 "
3-47	Working Room Tool	1 set
	Joint Box for Earth	1 pc

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
3-48	Electric Wire TPYC-2 535x400	1 drum
3-49	Electric Wire TPYC-3.5 900x500	1 drum
3-50	Electric Wire TPYC-22 780x500	1 drum
3-51	Electric Wire TPYC-80 1255x750	1 drum
3-52	Electric Wire MPYC-27 795x400	1 drum
3-53	Electric Wire MPYC-16 645x405	1 drum
3-54	Electric Wire TPICY-22 925x500	1 drum
3-55	Electric Wire Protect Tube 3660L 400x400 (19A, 25A, 31A, 40A)	1 pc
3-56	Electric Wire Protect Tube 3660L 400x400 (50A, 65A)	1 pc
3-57	Pipe 125A 5500L 350x350	1 pc
3-58	Pipe 100A 5500L 300x300	1 pc
3-59	Pipe 65A 5500L 300x300	1 pc
3-60	Pipe 80A 5500L 300x300	1 pc
3-61	Pipe 25A 5500L 300x300	1 pc

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
3-62	Pipe 40A 5500L 350x350	1 pc
3-63	Pipe 15, 20, 25A (JIS SOP) 5500L 350x350 10A, 15A, 25A (JIS STPG3-40)	1 pc
3-64	Pipe 50A 5500L 350x350	1 pc
3-65	Pipe 50A 5500L 350x350	1 pc
3-66	<p>Induction Motor and Starter and Frame (Circuit Training Apparatus) 0.4KW 4P AC200V 3 Phase 50Hz, Direct on line start : LVP 1 set 0.4KW 4P AC200V 3 Phase 50Hz, Direct on line Start : LVR 1 set 0.4KW 4P AC200V 3 Phase 50Hz, Direct on line start : Reverse 1 set 0.4KW 4P AC200V 3 Phase 50Hz, Star-delta Start 1 set Disconnection Box 1 set Accessories for Disconnection Box 1 lot consisting of :</p> <p>Tester (4 pcs) Fuse Clip (4 " ) Anchor Bolt (28 " ) Drill for anchor bolt (1 pce) Bearing No.6203 Seal (2 pcs) Accessories for Direct on line Starter : LVP 1 lot consisting of :</p> <p>Moving Contact (SRC-3631-5-1) (5 pcs) Fixed Contact (a)(SRC-3631-5-1)(10 " ) Contact Spring (SRC-3631-5-1) (2 " ) Back Spring (SRC-3631-5-1) (1 pce)</p>	1 unit

JAPAN INTERNATIONAL COOPERATION AGENCY


P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	Magnet Coil (SRC-3631-5-1)	(2 pcs)
	Pilot Lamp E-12 18V 2W	(3 pcs)
	Fuse Case 30A	(2 pcs)
	Fuse Element 3A	(4 pcs)
	Aux. Relay AC100V 50Hz SRC50-2F	(2 pcs)
	Keep Relay AC100V 50Hz 612KS	(2 pcs)
	Time Limiting Relay STP-N AC100V 50Hz	(2 pcs)
	Accessory Box	(1 pc)
	Accessories for Direct on Line Starter : Reverse	1 lot
	consisting of :	
	Moving Contact (SRC-3631-5-1)	(8 pcs)
	Fixed Contact(a)(SRC-3631-5-1)	(16 pcs)
	Contact Spring (SRC-3631-5-1)	(8 pcs)
	Back Spring (SRC-3631-5-1)	(2 pcs)
	Magnet Coil (SRC-3631-5-1)	(2 pcs)
	Pilot Lamp E-12 18V 2W	(4 pcs)
	Fuse Case 30A	(2 pcs)
	Fuse Element 3A	(4 pcs)
	Aux. Relay AC100V 50Hz, SRC50-2F	(2 pcs)
	Accessory Box	(1 pc)
	Accessories for Star-Delta Starter	1 lot
	consisting of :	
	Moving Contact (SRC-3631-5-1)	(12 pcs)
	Fixed Contact(a)(SRC-3631-5-1)	(22 pcs)
	Contact Spring (SRC-3631-5-1)	(6 pcs)
	Back Spring (SRC-3631-5-1)	(3 pcs)
	Magnet Coil (SRC-3631-5-1)	(2 pcs)
	Pilot Lamp E-12 18V 2W	(3 pcs)
	Fuse Case 30A	(2 pcs)
	Fuse Element 3A	(4 pcs)
	Aux. Relay SRC50-2F AC100V 50Hz	(2 pcs)
	Time Limiting Relay STP-N AC100V 50Hz	(2 pcs)
	Accessory Box	(1 pc)

<u>Item</u>	<u>Description of Goods</u>	<u>Quantity</u>
4-2	Cargo Winch with Control Panel            2 units Master Controller            2 sets Spare Parts                    2 sets	2 sets
4-3	<u>Equipment for Electric Experiments</u> Thermo-Electricity Measurement Apparatus Type ST-105A Cat.No.100-070	1 set
4-4	Circuit Trainer Type ECT-2 Cat.No.134-850	6 sets
4-5	Direct Current Circuit Practice Apparatus Type ST-101A Cat.No.100-150	6 sets
4-6	Universal Power House Type SPE-5P Cat.No.138-170	6 sets
4-7	Regulated DC Power Supply Type RDS-3 Cat.No.138-380	2 sets
4-8	Current Circuit Model for OHP Type EN-2 Cat.No.181-350	1 set
4-9	Portable Plug Type Wheatstone Bridge Type BD-62A, Cat.No.108-090	1 set
4-10	Slide Rheostats, Type RE-T Cat No.134-010	1 set
4-11	Network Demonstration Apparatus Type ECS-10, Cat No.100-170	6 sets
4-12	Electromagnetic Induction Experiment Kit Type EI-5 Cat.No.134-590	1 set
4-13	Electromagnetic Phenomena Demonstration Outfit Type EF-4 Cat.No.134-490	1 set
4-14	Flemings Law Demonstrator Type FY-2, Cat.No.134-430	1 set
4-15	Primary and Secondary Coil Type SI-T Cat.No.134-430	1 set
4-16	Dual Trace Synchroscope Type SDS-125N Cat.No.108-491	1 set
4-17	Braun Tube Oscilloscope Type GD-130N Cat No.108-441	1 set
4-18	Circuit Tester, Type TC-4 Cat.No.107-830	10 sets
4-19	Insulation Resistance Tester Type <del>IR-1</del> Cat.107-980 TR-2	1 set
4-20	Sensitive Universal Circuit Tester Type MT-200A Cat.No.107-880	1 set





<u>Item</u>	<u>Description of Goods</u>	<u>Quantity</u>
4-21	DC Ammeter Type HQ-5 Cat.No.107-080	3 sets
4-22	 AC <del>DC</del> Ammeter Type HQ-10 Cat.No.107-110	3 sets
4-23	DC Voltmeter A, Type HQ-300 Cat.No.107-010	3 sets
4-24	AC Voltmeter Type HQ-150 Cat.No.107-050	3 sets
4-25	Portable DC Potentiometer Type PD-83A Cat.No.108-171	1 set
4-26	DC Voltmeter B, Type HQ-250 Cat.No.107-020	1 set
4-27	Vacum Tube Volt-Ohm Meter Type BV-2, Cat.No.107-921	2 sets
4-28	Micro-Ammeter Type HQ-100 Cat.No.107-140	1 set
4-29	Galvanometer Type HQ-30 Cat No.107-180	2 sets
4-30	Low Frequency Oscillator Type CR-50N Cat.No.108-330	1 set
4-31	Test Oscillator Type ST-5N Cat.No.108-300	1 set
4-32	Stroboscope Type H. Cat.No.105-260	1 set
4-33	Electrical Machine Tutor Type EMT-180	1 set
4-34	Electrostatic Phenomena Demonstration Appatatus Type SES-30	1 set
4-35	Discharge Phenomena Observation Apparatus, Type DES-20 Cat.No.100-230	1 set
4-36	Semi-Conductor Elements Demonstrator Type KSC-3 Cat.No.100-250	1 set
4-37	Electronic Self-Balancing Examination Appatatus Type ST-118 Cat.No.100-270	1 set
4-38	Portable Kohlraush Bridge Type BF-62 Cat.No.108-140	1 set
4-39	Adapter For Checking Transistor Type TCA-4, Cat.No.107-840	1 set

<u>Item</u>	<u>Description of Goods</u>	<u>Quantity</u>
4-40	Thermistor Probe, Type TCT-4 Cat.No.107-850	1 set
4-41	Strobe Checker Type CR-600 Cat.,.No.105-300	1 set
4-42	Stop Watches, Type A Cat No.105-010	1 set
4-43	DC Recording Timer, Type TI-3 Cat No.121-570	2 sets
4-44	Iron Stand Type FC-A, Cat.No.112-010	2 sets

JAPAN INTERNATIONAL COOPERATION AGENCY  
P.O.Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

<u>Nos.</u>	<u>Description of Goods</u>	<u>Quantity</u>
5.	<p><u>Automatic Control Panels</u></p> <p>Automatic Control Panels for process consisting of :</p> <p>1) Flow Control Panel with 2 Pen recorder Electronic indicating controller Electronic ratio setter Electronic type square root Electromagnetic Flow Extractor DC Power supply unit detector</p> <p>2) Temperature Control Panel with 2 Pen recorder Program setter Electronic controller Electronic indicating controller Magnarator flowrate transmitter DC Power supply unit Temperature indicating controller</p> <p>3) Pressure, Level Control Panel with Pneumatic Recording controller Pressure indicating controller Ribbon - type indicator and Spare parts, tool kit, accessories.</p>	<p>1 unit</p> <p><u>=====</u></p> <p>JAPAN II</p>

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O.Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
6.	Navigation Console Model PR-256-L	
7.	C.O.P.Simulator Stand Various Condition Set.,Unit Accessories Spare Parts	1 pce 1 " 1 set 1 "
8.	Training Ship	1 unit <del>1 unit</del>
9-1	MODEL SHIP U-CA-1000	1 Unit
9-2	MODEL SHIP U-CA-1100 U-CA-1200 U-SH-1000 U-DA-1000 U-DA-1100 U-LY-1000 U-IH-1000	1 " 1 " 1 " 1 " 1 " 1 " 1 "
10.	U BOLT  NUT	103 PCS  206 "

JAPAN INTERNATIONAL COOPERATION AGENCY  
P.O.Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
11.	1. Carbon steel tube 80A-JIS-SGP 5.5 m	2 pcs.
	" 15A-JIS-SGP 5.5 m	3 "
	2. T-piece JIS-STPG 10K 80x80 x 80	1 "
	" 80x80 x 15	2 "
	3. Glove valve JIS FC5K-80A	1 "
	4. Cable TPYCY-8.0 50 m	1 roll
	" TPYCY-3.5 20 m	1 "
	" TPYCY-2.0 40 m	1 "
	" MPYC-7 30 m	1 "
	" MPYCY-1.2 20 m	1 "
12.	I Tab Board YF-MANXAO777	1 Pc.
	O " " YF-MANXAO778	1 Pc.
	D " " YF-MANXAO780	1 Pc.

2) 航海学部 (タンカーオペレーションコース)

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
N-1	<p>1. COC Simulation System</p> <p>Control Console 1 set</p> <p>consisting of :</p> <p>1) Vertical Panel with Followings</p> <p>-1 Pump RPM indicator 5 pcs</p> <p>-2 Pump delivery press gauge 5 "</p> <p>-3 Pump suction press gauge 5 "</p> <p>-4 Tank level gauge (FSM-2) 15 "</p> <p>-5 Tank level gauge (FE-5) 1 pc</p> <p>-6 Alara buzzer 1 "</p> <p>2) Horizontal panel with followings</p> <p>-1 Pump control setting knob 9 pcs</p> <p>-2 Graphic panel 1 pc</p> <p>-3 Pump RPM control knob 5 pcs</p> <p>-4 Valve opening control switch 18 pcs</p> <p>-5 Valve open/shut control switch 8 pcs</p> <p>-6 Valve open indicator 18 "</p> <p>-7 Memory lamp 51 "</p> <p>-8 Main switch and lamp 3 "</p> <p>3) Followings are to be built in the console</p> <p>-1 Power source unit</p> <p>-2 Valve control simulator circuit</p> <p>-3 Pump control simulator circuit</p> <p>-4 Press gauge simulator circuit</p> <p>-5 Level gauge simulator circuit</p> <p>1) Hydraulic power unit 1 set</p> <p>consisting of :</p> <p>-1 Tank 200L</p> <p>-2 Saction strainer 1 pc</p> <p>-3 Vane pump 18L/min 1 "</p> <p>-4 Pump motor 3.7KW 1 "</p> <p>-5 Unload relief valve 1 "</p>	1 set

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	-6 Press switch	1 pc
	-7 Press gauge	2 pcs
	-8 Accumulator	1 pc
	2) Local control unit	1 set
	consisting of :	
	-1 Filter	1 pc
	-2 Thermal relief valve	1 "
	-3 Needle valve	1 "
	-4 Double pilot check valve	1 "
	-5 Manual directional valve	1 "
	-6 Flow meter type valve indicator	1 pc
	3) Hydraulic deck stand with wave proof cover	1 set
	consisting of :	
	-1 Explosion proof solenoid valve	1 pc
	-2 High press line filter	1 "
	4) Gate valve unit	1 set
	consisting of :	
	FG/BC-10K-200A with hydraulic cylinder	1 pc
	5) Cut pipe	1 set
	1) Butterfly valve	1 set
	consisting of :	
	FG/BC-10K-200A valve with Hydraulic cylinder	1 pc
	2) Motor starter	1 set
	size 370x550 Wall mounted type with bolts and units and 3.7KW current motor	
	3) Main switch box with nofuse breaker	1 set

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	<p>4) Spare parts and tool 1 set                      consisting of :</p> <p>Spare parts and tool 1 set                      (Maker's standard)</p> <p>5) Cable 1 set</p> <p>6) COG Sytasa 1 set                      Explanation panel 1 set                      (Color panel and display panel)</p> <p>1) Pneumatic type remote 1 set                      Press indicating system                      consisting of :</p> <p>-1 Steel mounting base 1 pc                      (1300x700) with fitting                      bolts &amp; nuts</p> <p>-2 Pneumatic press transmitter 1 pc                      panel</p> <p>-3 Air supply unit 1 pc                      First step 5-10kg/cm<sup>2</sup>                      Second step 0.35-3.5kg/cm<sup>2</sup></p> <p>-4 Gravity type press generator 1 pc                      Range 0-10kg/cm<sup>2</sup>                      Accuracy 1/500</p> <p>-5 Air signal 0.2-1.0kg/cm<sup>2</sup></p>	
	<p>2) Air compressor for COO system                      with press gauge and relief                      valve out put approx 10kg/cm<sup>2</sup>                      Flow " 5-7m<sup>3</sup>/h</p>	1 set
	<p>3) Emergency hand pump                      Tank capacity 10L                      Delivery 75cc/stroke                      consisting of :</p> <p>Hand pump, Press gauge,                      Directional valve, Handles,                      Self seal coupling, 2ea of                      Rubber hose (4M) and                      portable vehicle to be involved</p>	1 set

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	Water tank for level measuring 1 set steel base (1400x1400) 1 pc height 2000mm capacity 500L pump (pump height 84 " capacity 13L/min) Installation parts	
	Anchor bolt 1 set	
	Bolts and nuts 1 set	
	Float type level gauge 1 set consisting of :	
	Level gauge transmitter 1 pc	
	Fitting base 1 "	
	Float and container 1 "	
	Steel base (1300x1300) with anchor bolts, bolts and nuts 1 set	
	2. SEAMATE-E main unit (11kg/set)	3 sets
	Program magnetic cards 9 boxes (3 boxes/set)	
	Dust cover 3 pcs	
	Power code 3 "	
	Printing paper 15 rolls (5 rolls/set)	
	<u>Accessories</u>	
	(1) Magnetic cards for diagnosis 3 pcs	
	(2) Cleaning card 3 "	
	(3) Spare magnetic card 15 sheets (5 sheets/set)	
	(4) Fuses (8 pcs/set) 3 sets	
N-2	GOC Simulation System N2 Gas Bombe size 2156, x 1220L 6000L standard press 150kg/cm <sup>2</sup>	1 set



JAPAN INTERNATIONAL COOPERATION AGENCY  
 P.O.Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
N-3	<p><b>Tanker Operation Simulator Equipment 1 SET</b></p> <hr/> <p>Cargo Oil Control Console</p> <p>Instructor's Console</p> <p>Graphic Display Panel</p> <p>Computer Cabinet</p> <p>A.V.R. Console</p> <p>Accessories for above</p>	<p>1 set</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p>
N-4	<p><b>ADDITIONAL EQUIPMENT OF TANKER OPERATION SIMULATOR</b></p> <p>1. NOVA-3/12 COMPUTER</p> <p>2. I/O INTERFACE</p> <p>3. MCA</p> <p>4. I/O DEVICE SELECTOR</p> <p>5. DEVICE SELECTOR FUNCTION SWITCH</p> <p>6. MAIN CARGO PUMP SIMULATION FUNCTION</p> <p>7. WATER BALLAST PUMP SIMULATION FUNCTION</p> <p>8. STRIP PUMP SIMULATION FUNCTION</p> <p>9. TANK ULLAGE SIMULATION FUNCTION</p> <p>10. MAIN CARGO LINE SIMULATION FUNCTION</p> <p>11. WATER BALLAST LINE SIMULATION FUNCTION</p> <p>12. SHIP CONDITION SIMULATION FUNCTION</p> <p>13. GRAPHIC DISPLAY PANEL FUNCTION</p> <p>14. CRT DISPLAY AND IN-PUT FUNCTION</p> <p>15. PRESSURE GAUGE (10kg/cm<sup>2</sup>)</p> <p>16. EMER STOP SWITCH</p> <p>17. TANK VALVE INDICATOR LIGHT</p>	<p>1 SET</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p> <p>1 "</p>

3) 機関学部 ( 2 サイクルディーゼルエンジンコース )

JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
E-1	Main diesel engine	1 set
	Dynamometer complete	1 po.
	Intermediate shaft	1 set
	Jacket cooling water pump	1 po.
	Dynamometer cooling pump	1 "
	Lubricator oil pump	1 "
	Nozzle cooling water pump	1 "
	Turbo charger L.O. pump	1 "
	Fuel oil supply pump	1 "
	Aux. blower	1 "
	L.O. cooler	1 "
	T/C L.O. Cooler	1 "
	Nozzle cooling water cooler	1 "
	Fuel oil 1st strainer	1 "
	Fuel oil 2nd strainer	1 "
	Lubricating oil 1st strainer	1 "
	Lubricating oil 2nd strainer	1 "
	T/C L.O. 1st strainer	1 "
	T/C L.O. 2nd strainer	1 "
	Fuel oil flow meter	1 "
	Lubricating oil flow meter	1 "
	Parts for foundation	1 set
	Exhaust gas pipes	1 "
Aux. blower device	1 "	

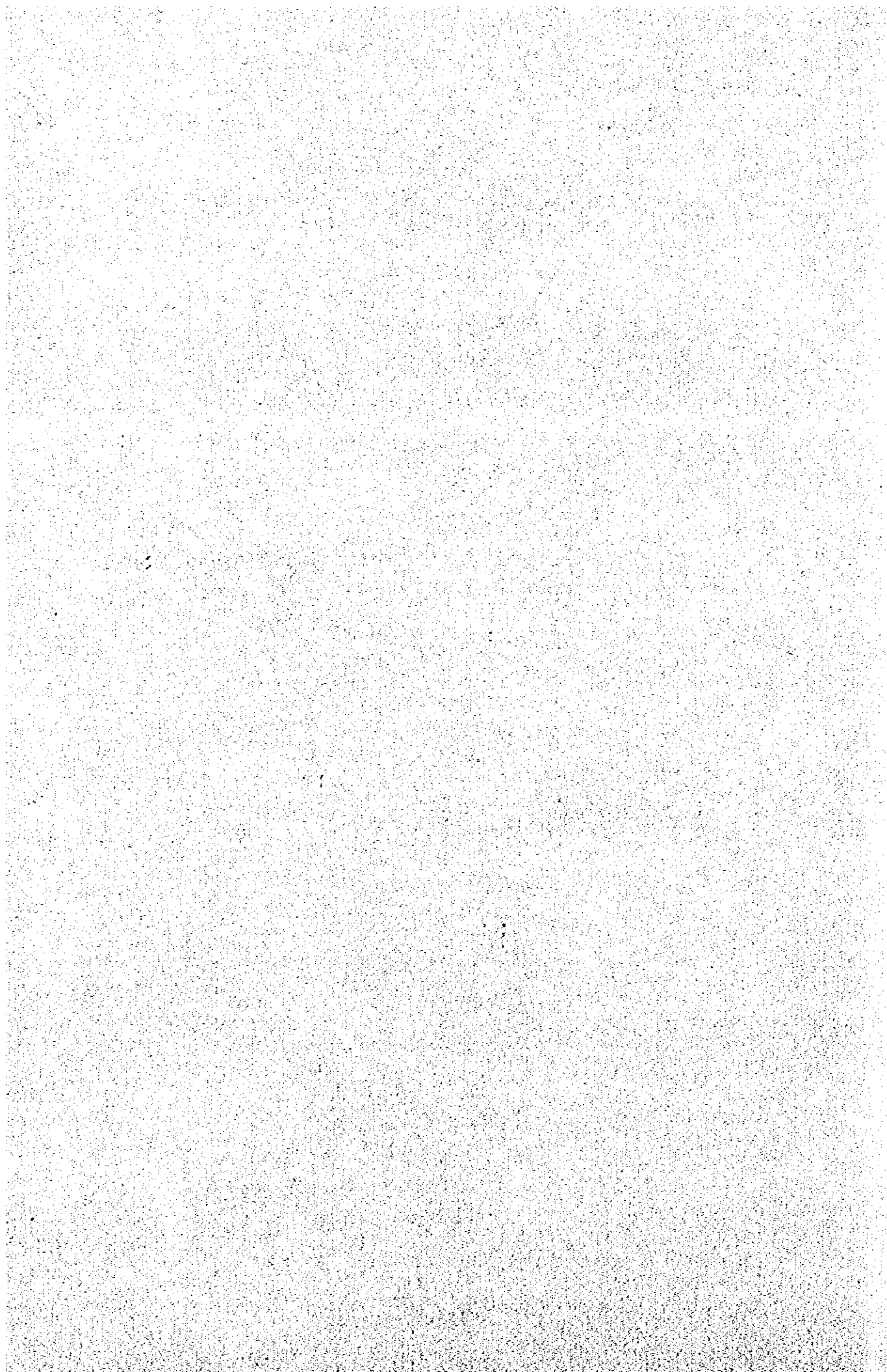
JAPAN INTERNATIONAL COOPERATION AGENCY

P.O. Box 216, Mitsui Bldg., Shinjuku-ku, Tokyo, Japan.

Nos.	Description of Goods	Quantity
	Engine base plate device	1 set
	Overhaul tool device	1 "
	Parts for piping device	1 "
	Tanks	1 "
	Remote controller	1 "
	Remote control panel	1 "
	Aux. machine group starter	1 "
	Electric cable	1 "
	Temperature controls device	1 "
	Cooling tower	1 pc.
	Cooling tower bed	1 set
	Pump for cooling tower	1 pc.
	Piping material	1 set
	Starting air compressor	1 "
	Starting air tank	1 "
	Piping material 40 kg/cm <sup>2</sup> SOP	1 "
	Finished drawing list	1 "
	-- do --	1 "
	-- do --	1 "
	-- do --	1 "



5. アフターケア  
供与予定機材リスト



1) 機関学部 2サイクルディーゼルエンジン用データロガ装置

**SPECIFICATIONS**  
**FOR**  
**SMN-F5 CRT LOGGER SYSTEM**

## SMN-F5 CRT LOGGER SYSTEM

### GENERAL

With advance of ship's automation, a Monitoring System and a Data Logging System have come to essential instrumentations by which all sort of apparatus concerned are secured.

CRT Logger System, SMN-F5 has been developed taking Man-Machine communication into consideration, moreover, it offers "Economy" and "High reliability."

The system consists of CPU (Central Processing Unit), 14"Color CRT (Cathode Ray Tube), Data printer and Operation Panel etc.

The CPU is incorporated into the Control Console and processes the information from various sensors (Temperature, Pressure, Revolution and Pumpmark etc.)

As a Display mode on the CRT, Alara status, Digital and Bar-Graph displays and alterations of alara setpoint are available easily by means of the function key and Ten-key in the Operation Panel.

The Data printer performs a periodical and freechoice printout of the data connected to in black for normal points and Red for abnormal points.

Moreover, a variety of functions is available by adding functionally classified Hardwares and Software.

The system is applicable not merely marine but industrial environments.

### FEATURE

1. By the adoption of the functionally standardized Module :  
Enlargement the scope of the system : is easily available.  
High Reliability : and stable action are secured.

Besides, by using of NVRAM, a data which has been instituted by the user has never disappeared whatever the power source fails.

2. Operateability  
The operation panel is designed taking the function and grouping into consideration on the basis of the operateability.
3. Self-check function  
The system malfunction is displayed on the CRT, easy maintenance and inspection are available.
4. Peripheral equipaent  
14"colour CRT, with freechoice of display by either colour or monochrome.  
Data printer



## SPECIFICATIONS

### 1. SYSTEM COMPONENT

The following equipment and instruments are mounted into the Control Console:

Power source Unit	.....	1
14" Colour CRT	.....	1
Data printer	.....	1
Central Processing Unit	.....	1set
Operation Panel	.....	1

### 2. SENSORS

2.1 Temperature sensors ..... 13 points  
    High Temp ..... 3 points  
    Low Temp .....10 points

2.2 Pressure transmitter ..... 7 points  
    (Assembled in one(1) panel)

2.3 Revolution ..... 2 points  
    M/E Revolution ..... 1 point  
    I/C Revolution ..... 1 point

2.4 Pump Mark ..... 1 point

### 3. FUNCTION

#### 3.1 CRT display

2- Bar-Graph display formats  
    1- Exhaust gas temperature  
    1- Mean deviation of exhaust gas temperature

1- Alarm status display format  
1- M/E Horsepower display format  
2- Character(Digital)display formats

MENU and Initial setting formats are made as maker standard.

### 3.2 Operation Panel:

Flush mount type on the control console.  
It conducts CRT display, Data printer control and MENU selection etc.

### 3.3 Power source Unit:

Mainly consists of switching power supply and makes stabilized voltage.

### 3.4 Data processing device:

Consists of the functionally classified STD-BUS Modules.

### 3.5 Data printer

A periodical and freechoice printout of the data connected to in black for normal points and red for abnormal points.

## 4. GENERAL SPECIFICATIONS

- |                         |   |
|-------------------------|---|
| 4.1 Power requirement   | : 220V AC (+6%, -10%) 1 $\phi$ 50Hz (Max.750VA) |
| 4.2 Ambient temperature | : 0-55°C  |
| 4.3 Relative Humidity   | : Less than 90%                                 |
| 4.4 Vibration           | : According to JIS F 0807-1980                  |
| 4.5 Measuring Accuracy  | : $\pm 1.0\%$ at Full scale (except for sensor) |
| 4.6 Alarming Accuracy   | : $\pm 0.5\%$ at Full scale (except for sensor) |

## 5. ACCESSORIES

- 5.1 Recording paper : 10 copies for Data printer

- 5.2 Spare parts : 1set (maker standard)

Lamp: 100%

Fuse element: 100%

Aux.relays: 1/10

Measur. unit: 1/10 (Type SMN-F2B)

Spares for the Modules used: .

Serial interface module: 1

CPU module: 1

CMOS memory module: 1

NVRAM module: 1

Analog multiplexer: 1

## 6. WIRING AND PIPING MATERIALS

The following wiring and piping materials are delivered:

Copper tube Cut8φ: 2.5m x 7 pcs.

with connecting hardware at both ends, sleeve joint for one side (for pressure transmitter) and 3-way joint for the other side.

Incl. fixing materials

Cables with flexible conduit tube and suitable quantities terminal shoes:

- Between the existing junction box and the Data logger (repair work);

CVY -2mm<sup>2</sup> x 16c: 30m x 2

CVY -2mm<sup>2</sup> x 24c: 30m x 1

- Between the Pump Mark and the Data logger (additional wiring);

CVYS-2mm<sup>2</sup> x 3c: 32m x 1

- Between the Data logger and the Monitor panel (newly wiring);

CVY -2mm<sup>2</sup> x 24c: 10m x 1

CVY -2mm<sup>2</sup> x 5c: 10m x 1

- Between the feeder panel and the Data logger (newly wiring);

CVY-3.5mm<sup>2</sup> x 2c: 3m x 1

- Between the press. transmitter panel and the Data logger (newly wiring);

CVY -2mm<sup>2</sup> x 24c: 25m x 1

Molded case circuit breaker: 1 installed in the feeder panel.  
(30A frame/10A AC)

Anchor bolt: 8 pcs.

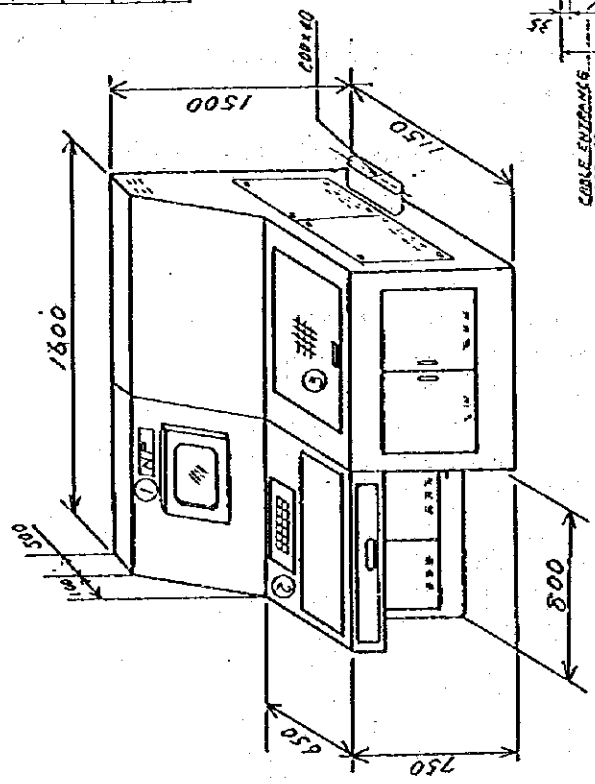
Name plate (White-ground, Black letter engraved): 2 pcs.

"MAIN ENGINE CONTROL STAND" x 1 pc.

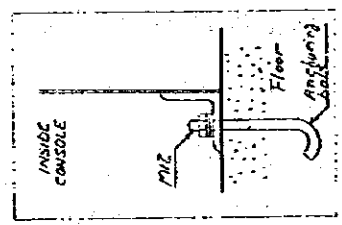
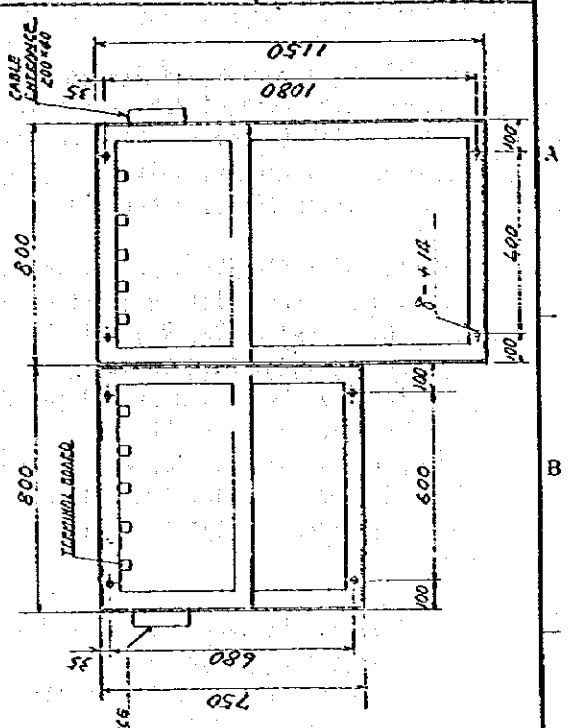
"MONITOR PANEL" x 1 pc.

Stand for pressure transmitter panel

NO.	NAME	SPEC.
1	CRT	14" COLOR
2	OPERATION PANEL	
3	DATA PRINTER	IMPACT DOT PRINTER (RED/BLACK)
<b>HP CONTROL CONSOLE</b> The console is mechanically divided into two(2) cubicles at center. Front and both sides access for cable connection and maintenance. With ventilation fans at both sides with dust-proof filter.		



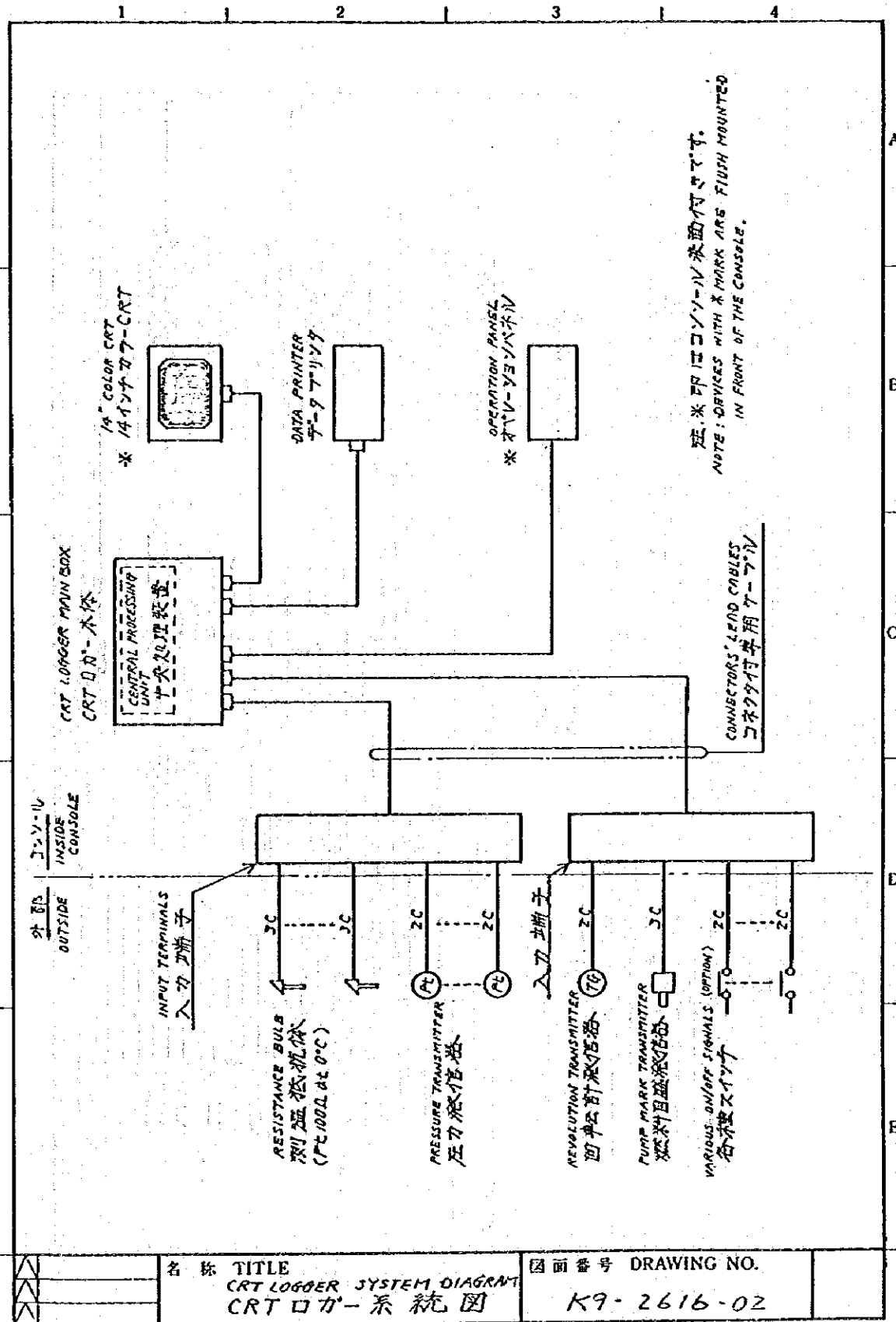
**BOTTOM ARRANGEMENT.**



Anchoring bolts are out of our delivery.

PANEL COLOR : 2.586 9/2 H.F.

	名称 TITLE <b>CONTROL CONSOLE</b> OUTLINE VIEW	图面番号 DRAWING NO. <b>K9-2616-01</b>
--	--	---------------------------------------

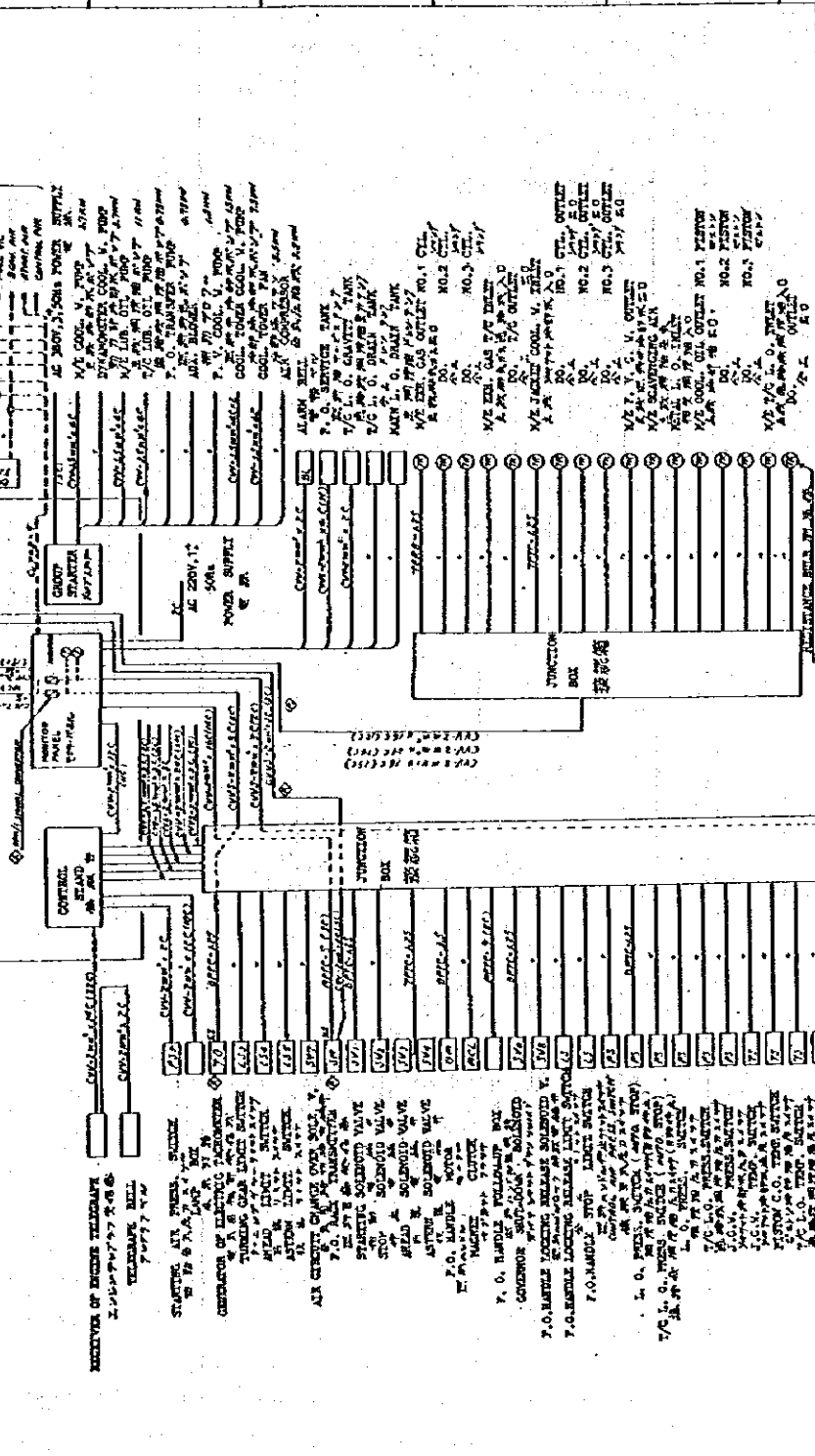




ASME# DRAWING NO.

Note: Transmitter and its related switch, which have been provided in the instrument panel, shall be replaced with new one corresponding to the signal from the Control Console.

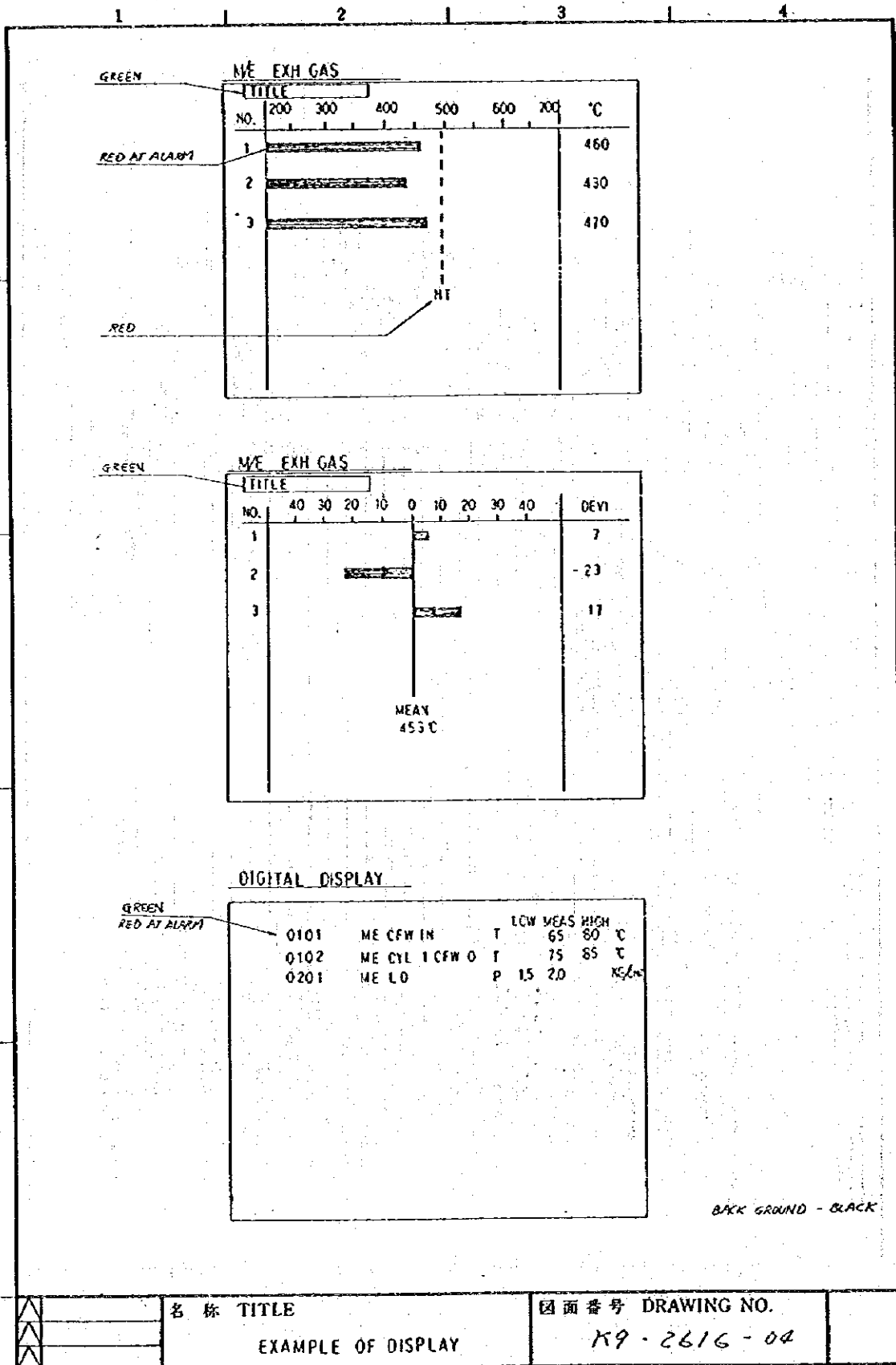
PIPING SYSTEM



NO.	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE	SCALE	PROJECTION	UNIT
1	RECEIVER OF ENGINE TEMPERATURE						
2	STARTING AIR PUMP						
3	GENERATOR OF ELECTRIC POWER						
4	STARTING AIR PUMP						
5	GENERATOR OF ELECTRIC POWER						
6	STARTING AIR PUMP						
7	GENERATOR OF ELECTRIC POWER						
8	STARTING AIR PUMP						
9	GENERATOR OF ELECTRIC POWER						
10	STARTING AIR PUMP						
11	GENERATOR OF ELECTRIC POWER						
12	STARTING AIR PUMP						
13	GENERATOR OF ELECTRIC POWER						
14	STARTING AIR PUMP						
15	GENERATOR OF ELECTRIC POWER						
16	STARTING AIR PUMP						
17	GENERATOR OF ELECTRIC POWER						
18	STARTING AIR PUMP						
19	GENERATOR OF ELECTRIC POWER						
20	STARTING AIR PUMP						
21	GENERATOR OF ELECTRIC POWER						
22	STARTING AIR PUMP						
23	GENERATOR OF ELECTRIC POWER						
24	STARTING AIR PUMP						
25	GENERATOR OF ELECTRIC POWER						
26	STARTING AIR PUMP						
27	GENERATOR OF ELECTRIC POWER						
28	STARTING AIR PUMP						
29	GENERATOR OF ELECTRIC POWER						
30	STARTING AIR PUMP						
31	GENERATOR OF ELECTRIC POWER						
32	STARTING AIR PUMP						
33	GENERATOR OF ELECTRIC POWER						
34	STARTING AIR PUMP						
35	GENERATOR OF ELECTRIC POWER						
36	STARTING AIR PUMP						
37	GENERATOR OF ELECTRIC POWER						
38	STARTING AIR PUMP						
39	GENERATOR OF ELECTRIC POWER						
40	STARTING AIR PUMP						
41	GENERATOR OF ELECTRIC POWER						
42	STARTING AIR PUMP						
43	GENERATOR OF ELECTRIC POWER						
44	STARTING AIR PUMP						
45	GENERATOR OF ELECTRIC POWER						
46	STARTING AIR PUMP						
47	GENERATOR OF ELECTRIC POWER						
48	STARTING AIR PUMP						
49	GENERATOR OF ELECTRIC POWER						
50	STARTING AIR PUMP						
51	GENERATOR OF ELECTRIC POWER						
52	STARTING AIR PUMP						
53	GENERATOR OF ELECTRIC POWER						
54	STARTING AIR PUMP						
55	GENERATOR OF ELECTRIC POWER						
56	STARTING AIR PUMP						
57	GENERATOR OF ELECTRIC POWER						
58	STARTING AIR PUMP						
59	GENERATOR OF ELECTRIC POWER						
60	STARTING AIR PUMP						
61	GENERATOR OF ELECTRIC POWER						
62	STARTING AIR PUMP						
63	GENERATOR OF ELECTRIC POWER						
64	STARTING AIR PUMP						
65	GENERATOR OF ELECTRIC POWER						
66	STARTING AIR PUMP						
67	GENERATOR OF ELECTRIC POWER						
68	STARTING AIR PUMP						
69	GENERATOR OF ELECTRIC POWER						
70	STARTING AIR PUMP						
71	GENERATOR OF ELECTRIC POWER						
72	STARTING AIR PUMP						
73	GENERATOR OF ELECTRIC POWER						
74	STARTING AIR PUMP						
75	GENERATOR OF ELECTRIC POWER						
76	STARTING AIR PUMP						
77	GENERATOR OF ELECTRIC POWER						
78	STARTING AIR PUMP						
79	GENERATOR OF ELECTRIC POWER						
80	STARTING AIR PUMP						
81	GENERATOR OF ELECTRIC POWER						
82	STARTING AIR PUMP						
83	GENERATOR OF ELECTRIC POWER						
84	STARTING AIR PUMP						
85	GENERATOR OF ELECTRIC POWER						
86	STARTING AIR PUMP						
87	GENERATOR OF ELECTRIC POWER						
88	STARTING AIR PUMP						
89	GENERATOR OF ELECTRIC POWER						
90	STARTING AIR PUMP						
91	GENERATOR OF ELECTRIC POWER						
92	STARTING AIR PUMP						
93	GENERATOR OF ELECTRIC POWER						
94	STARTING AIR PUMP						
95	GENERATOR OF ELECTRIC POWER						
96	STARTING AIR PUMP						
97	GENERATOR OF ELECTRIC POWER						
98	STARTING AIR PUMP						
99	GENERATOR OF ELECTRIC POWER						
100	STARTING AIR PUMP						

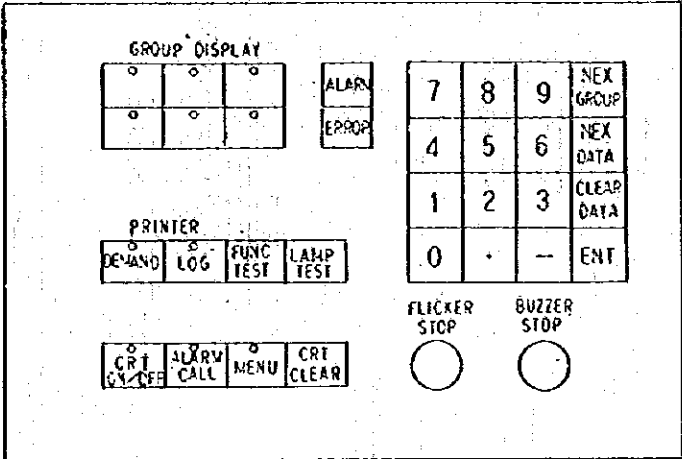
SYSTEM DIAGRAM

UE-80007-01



名称	TITLE	図面番号	DRAWING NO.
	EXAMPLE OF DISPLAY		K9-2616-04



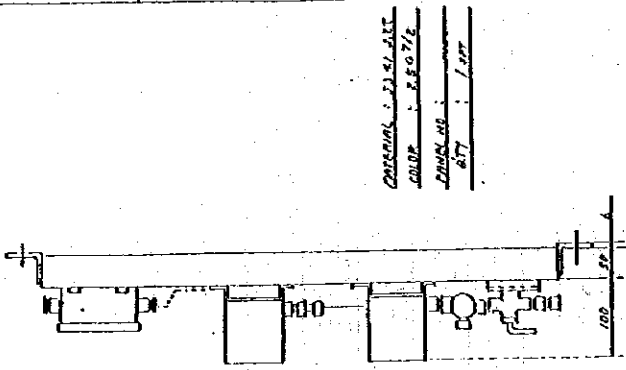
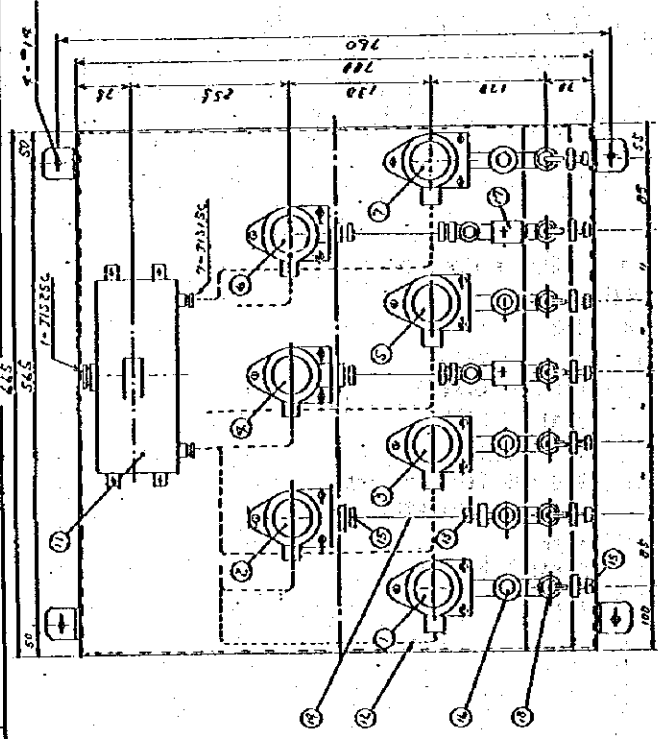


\*\*\*\*\* MENU \*\*\*\*\*

CODE NO.	ITEM
00	SYSTEM TIME SET
01	ALARM LINT SET
02	SET. ALARM LIMIT
03	TIME DELAY LIST
04	SET. TIME DELAY
05	SET. AUTO LOC TIME INTERVAL
06	SET. SCALE PARAMETER
07	SET. GROUP
08	SET. NORMAL DATA AREA
09	MENU LIST

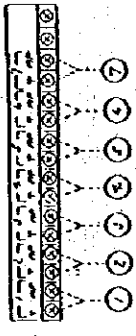
	名称 TITLE	EXAMPLE	図面番号 DRAWING NO.	
		OPERATION PANEL	K9-2616-05	

445 DRAWING NO.



ORIGINAL - J. J. 41-212  
 COLOR - P. 507/2  
 DIMS. - 677  
 1/277

TERMINAL NO. OF JUNCTION BOX



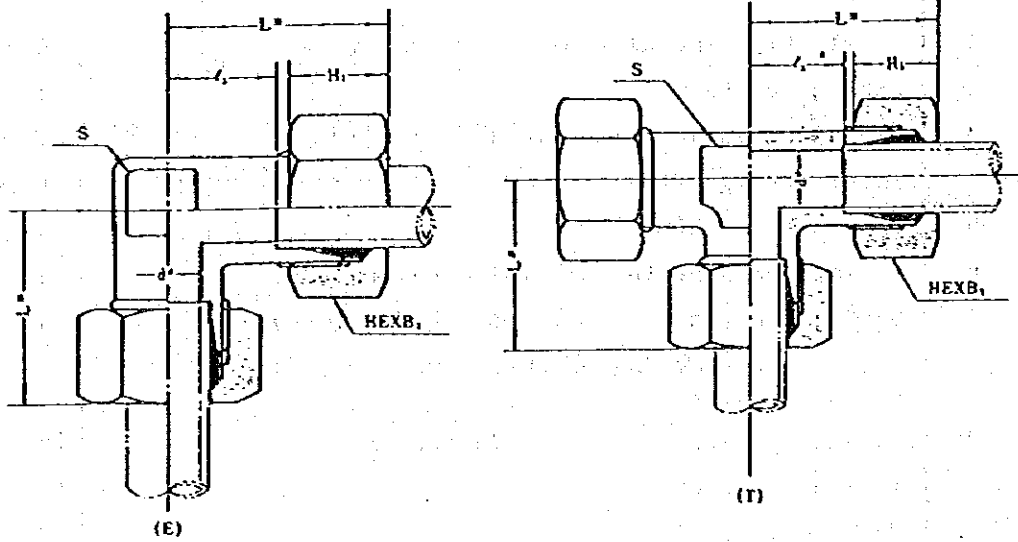
NO.	NAME	TYPE	QTY	REMARKS	NO.	NAME	TYPE	QTY	REMARKS
1	WATER PLATE		1	RESISTOR	11	SECTION BOX	SW-7	1	FOR CIRCUIT BOARD 7
2	WATER PLATE		1	JUNCTION BOX	12	CABLE	WATER	7	
3	WATER PLATE		1	WATER'S NAME	13	WATER'S NAME	WATER	7	
4	WATER PLATE		1	WATER'S NAME	14	WATER'S NAME	WATER	7	
5	WATER PLATE		1	WATER'S NAME	15	WATER'S NAME	WATER	7	
6	WATER PLATE		1	WATER'S NAME	16	WATER'S NAME	WATER	7	
7	WATER PLATE		1	WATER'S NAME	17	WATER'S NAME	WATER	7	
8	WATER PLATE		1	WATER'S NAME	18	WATER'S NAME	WATER	7	
9	WATER PLATE		1	WATER'S NAME	19	WATER'S NAME	WATER	7	
10	WATER PLATE		1	WATER'S NAME	20	WATER'S NAME	WATER	7	
11	WATER PLATE		1	WATER'S NAME	21	WATER'S NAME	WATER	7	
12	WATER PLATE		1	WATER'S NAME	22	WATER'S NAME	WATER	7	
13	WATER PLATE		1	WATER'S NAME	23	WATER'S NAME	WATER	7	
14	WATER PLATE		1	WATER'S NAME	24	WATER'S NAME	WATER	7	
15	WATER PLATE		1	WATER'S NAME	25	WATER'S NAME	WATER	7	
16	WATER PLATE		1	WATER'S NAME	26	WATER'S NAME	WATER	7	
17	WATER PLATE		1	WATER'S NAME	27	WATER'S NAME	WATER	7	
18	WATER PLATE		1	WATER'S NAME	28	WATER'S NAME	WATER	7	
19	WATER PLATE		1	WATER'S NAME	29	WATER'S NAME	WATER	7	
20	WATER PLATE		1	WATER'S NAME	30	WATER'S NAME	WATER	7	

W. 3 M. M. APPROVED AND CHECKED IN M. D. 1958  
 FOR SCALE: 1/2" = 1" (SEE DRAWING)  
 TITLE: TYPE P18-07  
 PRESSURE TRANSDUCER  
 RANGE FOR 7 POINTS  
 ME UNIT: 明陽電機株式会社  
 DRAWING NO.: TP-81055-07



# BITE TYPE PIPE FITTING FOR COPPER PIPE

LLC-E Union Elbow  
 LLC-T Union Tee



※ Average Values

Item No.	Pipe Outside Diameter mm	d	B <sub>1</sub>	H <sub>1</sub>	S	r <sub>1</sub>	L <sub>※</sub>
LLC-□-4	4	2.5	12	10	12	11	25
• 6	6	4	14	12	12	13	27.5
• 8	8	6	17	13	12	13	28
• 10	10	8	19	14	17	13	30
• 12	12	9	22	14	17	14	31
• 14	14	11	24	16	19	17	35
• 15	15	12	27	16	19	18	36
• 16	16	13	27	16	22	19	37
• 18	18	14	30	18	22	21	43
• 20	20	16	32	18	27	21	44
• 22	22	17	36	18	27	22	44
• 25	25	20	36	20	32	24	48.5
• 28	28	22	41	20	32	27	51.5
• 30	30	25	46	20	36	30	54.5

上記諸元は品質の向上により若干変更ことがあります。

SHEET No. C-7001

(12)

2) 機関学部 2 サイクルディーゼルエンジン用スベア-パーツ

Item	品 名 及 び 仕 様	数 量
	Parts for 3UET33/55	
1	Nozzle tip & needle valve for fuel valve	6 sets
2	Exhaust valve	3
3	Expansion joint (T/C inlet)	4
4	Interlocking valve	1 set
5	Thermometer 500°C	3
6	O-ring for starting air valve cover (G70)	4
7	O-ring for starting air valve body (G60)	4
8	O-ring for starting an auto stop valve of cover (G75)	4
9.	Metalic papers for engine indicator M-2	12
10.	Indicator percil	10
11.	Weak spring, piston, scale	2 sets

3) 航海学部 タンカーオペレーションシュミレーター用スベア-パーツ

項 目	品 名 及 び 仕 様	数 量
N1	Turbine sound card YF-MANXA0334	1
N2	Push button type switch light 8L2011 (complete set)	2
N3	Rotary switch MRT-23	2
N4	Draft indicator Red AK-32 1M-41MOD 5AK-40UM-5-M	1
N5	Fuse M-0456FR-11	2
N6	" FRP-0.3A 125V	50
	I.C.	
N7	SHA-1A	10
N8	ADC-1133	4
N9	DG508BP	14
N10	AD561JD	20
N11	AD301AN	20
N12	HD74LS132P	4
N13	HD74LS132	10

4) 海員訓練センター spare parts

1. Deck dept.

- (1) Circuit diagram of the unit control for the steering gear  
[Serial No. 1001, TOKYO KEIKI]

2. Mechanical dept.

SPARE PARTS FOR YAMMAR 4KDL ENGINE  
ENGINE No. 2223DKN, 2224DKN

- (1) Fuel injector nozzles  
(2) Flexible joint for fuel pipe  
(3) Air seal ring for air bottle outlet valve  
(4) Thermostat of cooling water system

3. Electric lab.

- (1) 放電現象観測装置 DES-20 部品  
a. クロス真空計 [TYPE C5-4]  
b. スペクトル管 (ヘリウム, アルゴン, 水銀) 及びラック  
(2) D.C. 電圧計 (TYPE HQ-300-3/15/300V)  
(3) A.C. 電流計 (TYPE HQ-10-100mA/1/10A)



1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial reporting and auditing. The text notes that incomplete or inaccurate records can lead to significant errors and potential legal consequences.

2. The second part of the document outlines the various methods and tools used for data collection and analysis. It mentions the use of spreadsheets, databases, and specialized software to ensure that data is organized and accessible. The importance of data integrity and security is also highlighted, as well as the need for regular backups and updates to the systems used.

3. The third part of the document focuses on the process of data analysis and interpretation. It describes how raw data is processed and analyzed to identify trends, patterns, and anomalies. The text discusses the use of statistical methods and data visualization techniques to present the information in a clear and understandable manner. It also touches upon the importance of context and the need to interpret the results carefully.

4. The fourth part of the document addresses the challenges and limitations of data analysis. It notes that data can be incomplete, inconsistent, or biased, which can affect the accuracy of the results. The text also discusses the potential for overfitting and the importance of validating the models used for analysis. It emphasizes the need for a critical and objective approach to the data.

5. The fifth part of the document discusses the ethical implications of data analysis. It highlights the importance of protecting personal information and ensuring that data is used only for the intended purpose. The text also touches upon the potential for discrimination and bias in data-driven decisions, and the need for transparency and accountability in the process.

6. The sixth part of the document provides a summary of the key points discussed and offers some final thoughts on the importance of data analysis in decision-making. It concludes that while data analysis is a powerful tool, it must be used responsibly and with a clear understanding of its limitations and potential risks.

JICA